

MANGALURU SMART CITY

**1.1 Grand Summary for Under Ground Drainage Zone 4 -Part 2 and Zone 3
Part 1**

Sr. No.	Description	
1	Under Ground Drainage	68,619,965
2	Utility Shifting -Compound wall,Culvert and RCC Drain	1,811,827
3	Electrical Pole Shifting	2,242,472
	Total Cost	72,674,264
	Escalation and Tender Premium at 10 %	7,267,426
	Add Contingency @ 3%	2,180,228
	Taxes as applicable	8,720,912
	Administrative charges,Miscellaneous and rounding off (LS)	4,157,170
	Grand Total	95,000,000

**Executive Engineer
MSCL Mangaluru**

**Managing Director
MSCL Mangaluru**

MANGALURU SMART CITY

1.2 BOQ of UNDERGROUND DRAINAGE for Zone 4 Part 2 and Zone 3 Part 1

BOQ item No.	Specification	Unit	Quantity	Rate	Amount	Remarks
	UNDERGROUND DRAINAGE					
1	KSRRB200-8. Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs, saplings and trees of girth upto 300mm, by manual means, in area of light jungle, removal of stumps, disposal of unserviceable materials, stacking of serviceable materials labour charges complete as per specifications KSRB Pg No.136,SI No.18.11	Sqm	13554.48	6.72	91,086	
2	Cutting asphalt road surface for pipeline trenches and disposing off the excavated stuff with all lead and lift as directed including barricading,danger lighting etc., KUWSDB-15-16 SI No.5.2,Pg No.17	Cum	2440.87	647.36	1,580,123	
3	Cutting Concrete road surface for pipeline trenches and disposing off the excavated stuff with all lead and lift as directed including barricading,danger lighting etc., KUWSDB-15-16 SI No.5.3,Pg No.17	Cum	271.21	1298.08	352,050	
4	Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge. (As per Rate analysis)	Sqm	1908.26	41.25	78,716	
5	Earthwork excavation for pipeline trenches (Except building work) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring,strutting,bailing out water at every 100 meters wherever necessary as directed in the following Strata KUWSDB SR 15-16,SI No 1-i-(a),Pg No 5					
	do in all soils mixed mixed with boulders of 30 cms size upto an exclusive of disintegrated rock D182					
	0 to 2mtr depth	Cum	14413.87	196.00	2,825,118	80%
	2 to 4mtr depth	Cum	723.29	259.84	187,938	30%
	4 to 6mtr depth	Cum	5.62	346.08	1,946	5%
6	Earthwork excavation for pipeline trenches (Except building work) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring,strutting,bailing out water at every 100 meters wherever necessary as directed in the following Strata KUWSDB SR 15-16,SI No 1-ii-(a),Pg No 5					
	In disintegrated rock, soft rock, soft shale, medium hard rock comprising of lime stone, sand stone, hard shale, schiest, fissured rock without resorting to blasting					
	0 to 2mtr depth	Cum	1801.73	442.40	797,087	10%
	2 to 4mtr depth	Cum	482.19	495.04	238,703	20%
	4 to 6mtr depth	Cum	11.25	572.32	6,436	10%
7	Earthwork excavation for pipeline trenches (Except building work) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring,strutting,bailing out water at every 100 meters wherever necessary as directed in the following Strata KUWSDB SR 15-16,SI No 1-iii-(a),Pg No 7					
	In hard laterite rock or hard laterite rock containing iron ore upto 20% by chistelling and trimming to proper slope					
	0 to 2mtr depth	Cum	900.87	674.24	607,400	5%

BOQ item No.	Specification	Unit	Quantity	Rate	Amount	Remarks
	2 to 4mtr depth	Cum	241.10	807.52	194,689	10%
	4 to 6mtr depth	Cum	5.62	874.72	4,919	5%
8	Earthwork excavation for pipeline trenches (Except building work) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring, strutting, bailing out water at every 100 meters wherever necessary as directed in the following Strata KUWSDB SR 15-16, SI No 1-iv-(a), Pg No 7					
	In hard laterite rock containing iron ore above 20% by chistelling and trimming to proper slope					
	0 to 2mtr depth	Cum	360.35	1430.24	515,382	2%
	2 to 4mtr depth	Cum	241.10	1500.80	361,836	10%
	4 to 6mtr depth	Cum	11.25	1571.36	17,672	10%
9	Earthwork excavation for pipeline trenches (Except building work) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring, strutting, bailing out water at every 100 meters wherever necessary as directed in the following Strata KUWSDB SR 15-16, SI No 1-vi-(a), Pg No 9					
	In hard rock by Controlled blasting					
	0 to 2mtr depth	Cum	360.35	1413.44	509,328	2%
	2 to 4mtr depth	Cum	241.10	1565.76	377,497	20%
	4 to 6mtr depth	Cum	44.98	1616.16	72,702	30%

BOQ item No.	Specification	Unit	Quantity	Rate	Amount	Remarks
10	Earthwork excavation for pipeline trenches (Except building work) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring, strutting, bailing out water at every 100 meters wherever necessary as directed in the following Strata KUWSDB SR 15-16, SI No 1-v-(a), Pg No 7					
	In hard rock by chistelling					
	0 to 2mtr depth	Cum	180.17	1780.80	320,853	1%
	2 to 4mtr depth	Cum	241.10	1910.72	460,665	10%
	4 to 6mtr depth	Cum	44.98	1975.68	88,875	40%

BOQ item No.	Specification	Unit	Quantity	Rate	Amount	Remarks
11	Providing course sand bedding for the pipeline trenches including watering and consolidation by punners etc., complete with all lead and lift (In black cotton and rock reaches) KUWSDB 15-16,Pg No 17,SI No.6	Cum	145.08	1809.92	262,575	
12	Providing Muram/Gravel Bedding for the pipeline trenches including watering and consolidation by punners etc., complete with all lead and lift as directed including barricading, danger lighting etc., as directed by the Engineer-in-Charge etc., complete, for all type of soils excluding black cotton soil and rock reaches. KUWSDB Pg No.17,SI No.6.1,6.2	Cum	1015.53	276.64	280,936	
13	Providing and laying in position plain cement concrete of M15 grade with cement at 240kgs, with of 20 mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregates @ 0.45cum for foundation and levelling course, machine mixed, concrete laid, well compacted, including cost and conveyance of all materials,all leads and lifts, loading and unloading, labour, hire charges of machinery, T&P., curing and all other incidental items of work required for successful completion of the work and as directed by the Engineer -in-charge of the work etc complete. PCC Bedding at water logged area and drians KSRB 16-17, Pg No.12,SI No.4.1	Cum	290.15	6093.92	1,768,159	
14	Supplying Unplasticised PVC pipes confirming to IS 15328:2003 with latest amendments ended with integral sockets with ISI mark and conveying to worksite,rolling and lowering into trenches,Laying true to line and level and perfect linking at joints,testing and commissioning,including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing of UPVC Pipes (with cost of elastomeric sealing rings) and specials (excluding cost of specials) with jointing of approved type,with all labour with all lead and lift including encasing the pipe around to a depth of not less than 15cms with soft gravel or selected earth available from the excavation etc.,complete and giving necessary hydraulic test to the required pressure as per ISS (Contractor will make his own arrangements for procuring water for testing) KUWSDB,Pg No 205 and 207,SI No 4.3					
a	Supply and laying of PVC- U Pipes as per IS 15328 SN 4 -Ring tite: 200mm	Rmt	7326.00	804.40	5,893,034	
15	Supplying Unplasticised PVC pipes confirming to IS 15328:2003 with latest amendments ended with integral sockets with ISI mark and conveying to worksite,rolling and lowering into trenches,Laying true to line and level and perfect linking at joints,testing and commissioning,including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing of UPVC Pipes (with cost of elastomeric sealing rings) and specials (excluding cost of specials) with jointing of approved type,with all labour with all lead and lift including encasing the pipe around to a depth of not less than 15cms with soft gravel or selected earth available from the excavation etc.,complete and giving necessary hydraulic test to the required pressure as per ISS (Contractor will make his own arrangements for procuring water for testing) KUWSDB,Pg No 205 and 207,SI No 4.4					
a	Supply and laying of PVC- U Pipes as per IS 15328 SN 4 -Ring tite: 250mm	Rmt	39.00	1246.76	48,624	

BOQ item No.	Specification	Unit	Quantity	Rate	Amount	Remarks
16	Supplying Unplasticised PVC pipes confirming to IS 15328:2003 with latest amendments ended with integral sockets with ISI mark and conveying to worksite, rolling and lowering into trenches, Laying true to line and level and perfect linking at joints, testing and commissioning, including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing of UPVC Pipes (with cost of elastomeric sealing rings) and specials (excluding cost of specials) with jointing of approved type, with all labour with all lead and lift including encasing the pipe around to a depth of not less than 15cms with soft gravel or selected earth available from the excavation etc., complete and giving necessary hydraulic test to the required pressure as per ISS (Contractor will make his own arrangements for procuring water for testing) KUWSDB, Pg No 207 and 207, SI No b1					
	Supply and laying of PVC- U Pipes as per IS 15328 SN 8 -Ring tite: 110mm	Rmt	6300.00	305.96	1,927,548	
17	Construction RCC M25 circular inspection chamber 600 mm dia x 600mm depth (clear inside dimension) for single pipeline, with M15 PCC bed for 100 mm thick using mix with cement @240 kgs granite graded metal of 20 mm and down size and clean sieved river sand , M25 RCC raft & sidewall concrete with 20mm and downsize granite metal, , finish smooth with a floating coat of cement on walls and bed concrete complete , including fixing and grouting of pipes, including conveying to work spot supply and fixing SFRC manhole cover and frame (Heavy Duty) confirming to IS: 12592 with latest amendments as per standard design including cost of reinforcement, all materials, labour charges, curing complete as per specifications. As Per Data Rate	Nos	526.00	6637.00	3,491,062	
18	Making connections of drain or sewer line of size 100mm to 230mm external dia with existing manhole including breaking into and making good the walls, floors with cement concrete M15 with 20mm and downsize granite metal mix cement plastered on both sides with cement mortar 1:3 finished with a floating coat of neat cement and making necessary channels for the drain etc., complete PWD SR 2016-17, SI No.11.47.3, Pg No.73	Nos	25.00	1942.08	48,552	

BOQ item No.	Specification	Unit	Quantity	Rate	Amount	Remarks
19	Constructing RCC Manhole chamber of 1:1.5:3 proportion or approved type pre-cast RCC manhole chambers, constructed using form vibrators of standard type, with barricading, danger lighting and using of sight rails and boning rods wherever necessary, shoring and strutting wherever required using ordinary port land cement, using 1:1.5:3 proportion RCC with 20 mm and down graded jelly, well graded sand and steel of approved quality, 200 mm thick top concrete slab, having wall thickness and raft thickness as in approved drawings and with an offset in raft around the chamber as in approved drawing, benching concrete with 1:6 slope towards the central drain finished smooth, including fixing and grouting of pipes, including conveying to work spot supply and fixing SFRC manhole cover and frame (Heavy Duty) conforming to IS: 12592 with latest amendments, on a bed of CC 1:2:4 supplying and fixing of minimum 3 mm thick encapsulated plastic footsteps (as per IS 10910) on 12 mm dia. Grade Fe-415 steel bar (as per IS 1786) staggered at 300 mm apart as detailed in Technical specifications, including sand bedding wherever required, disposal of surplus earth, watering, curing, engraving manhole number with flow direction on the inner cylindrical surface etc., complete including cost of reinforcement steel and fabrication charges and also cost and conveyance of all materials, labour					
A	1.2 m dia manholes					
a	For 1.0 m depth	Nos	16.00	42516.32	680,261	
b	For 1.1 m depth	Nos	4.00	44077.60	176,310	
c	For 1.2 m depth	Nos	64.00	45641.12	2,921,032	
d	For 1.3 m depth	Nos	31.00	47124.00	1,460,844	
e	For 1.4 m depth	Nos	30.00	48686.40	1,460,592	
f	For 1.5 m depth	Nos	40.00	50248.80	2,009,952	
g	For 1.6 m depth	Nos	20.00	51812.32	1,036,246	
h	For 1.7 m depth	Nos	8.00	53373.60	426,989	
i	For 1.8 m depth	Nos	12.00	54857.60	658,291	
j	For 1.9 m depth	Nos	4.00	56420.00	225,680	
k	For 2.0m depth	Nos	7.00	58387.84	408,715	
l	For 2.1m depth Difference of basic rate for Manhole depth 2m &	Nos	7.00	59988.32	419,918	
m	For 2.2m depth	Nos	13.00	61588.80	800,654	
n	For 2.3m depth	Nos	4.00	63189.28	252,757	
o	For 2.4m depth	Nos	7.00	64789.76	453,528	
p	For 2.5m depth	Nos	2.00	66390.24	132,780	
q	For 2.6m depth	Nos	4.00	67990.72	271,963	
r	For 2.7m depth	Nos	7.00	69591.20	487,138	
s	For 2.8m depth	Nos	5.00	71191.68	355,958	
t	For 2.9m depth	Nos	4.00	72792.16	291,169	
u	For 3.0m depth	Nos	2.00	74392.64	148,785	
	1.5 m dia manholes					
a	For 3.1m depth Difference of basic rate for Manhole depth 3m & 4m (100811-83642)	Nos	5.00	95601.97	478,010	
b	For 3.2m depth	Nos	4.00	97524.90	390,100	
c	For 3.3m depth	Nos	4.00	99447.82	397,791	
d	For 3.4m depth	Nos	3.00	101370.75	304,112	
e	For 3.5m depth	Nos	1.00	103293.68	103,294	
f	For 3.6m depth	Nos	1.00	105216.61	105,217	
g	For 3.7m depth	Nos	1.00	107139.54	107,140	
h	For 3.8m depth	Nos	0.00	109062.46	-	
i	For 3.9m depth	Nos	1.00	110985.39	110,985	
j	For 4.0m depth	Nos	2.00	112908.32	225,817	
k	For 4.1m depth Difference of basic rate for Manhole depth 4m & 5m (125272-100811)	Nos	0.00	115647.95	-	
l	For 4.2m depth	Nos	2.00	118387.58	236,775	

BOQ item No.	Specification	Unit	Quantity	Rate	Amount	Remarks
20	Providing and fixing Drop arrangements ,with following diameter HDPE Garde PE-100 Pipes,confirming to PN 6 as per IS 4984-1995 with latest amendments vertical drop pipe with MS fastenings at 300 mm dia C/C,with suitable expander /reducer HDPE T joint at top with incoming sewer with one end of Tee inside the manhole closed with end cap and 45 degree bend at the bottom with HDPE Specials and encasing the pipe outside manhole with cement concrete of 1:2:4 proportion,150/200 mm thick around the HDPE pipe including vibrating,Compacting,Necessary centering and formwork,curing testing,including cost and conveyance of all materials,labour with all lead and lift etc.,complete as perspecification drawing and as directed by the engineer in charge BWSSB SI No.98,Pg No.91					
	For 150/200 mm dia incoming sewer pipe - Zone 4 Part 2	Rmt	14.51	4792.48	69,539	
21	Refilling Pipeline Trenches and foundation with selected available earth from trench excavation and foundation including watering,consolidation in layers of 15cms.,thick including disposing off the surplus earth with all lead and lift. KUWSDB Pg No 15,SI No 2	Cum	11412.20	66.08	754,118	
22	Removal of Unserviceable Soil with Disposal KSRRB M300-19. Removal of unserviceable soil including excavation, loading and disposal but excluding replacement by suitable soil which shall be paid separately as per clause 300.5 complete as per specifications. MORTH Specification No. 301 KPWD Pg No. ,SI No.19.20	Cum	12183.65	135.52	1,651,128	
23	KSRRB M400-6.1 Construction of granualr sub-base by providing close graded crushed stone aggregates of granite/trap/basalt material, mixing in a mechanical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications, Including environmental and social safe guards, including all taxes, as directed by the Engineer-in-Charge etc. Close graded granular sub-base material as per 400-1, For Grading - I material , by Plant Mix Method KSRB Pg No.155,20.4.1	Cum	4045.75	1812.16	7,331,546	
24	KSRRB M400-Wet Mix macadam KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite/trap/ basalt to wet mix macadam specification including per mixing the material with water at OMC in Mechanical mix plant carriage of mixed material by tipper to site, laying in uniform layers with paver in sub- base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specification. MORTH Specification NO.406 KSRB Pg No 158,20.18	Cum	3371.46	1868.16	6,298,427	
25	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. MORTH Specification No. 502 KSRB Pg No.161,SI No:21.6	Sqm	13485.83	29.12	392,707	

BOQ item No.	Specification	Unit	Quantity	Rate	Amount	Remarks
26	Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E loader, hot mixing of stone aggregates and bitumen in hot mix plant 40/60 TPH capacity, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to achieve the desired density, 50 / 75 mm compacted thickness with 3.4% bitumen but excluding cost of primer/tack coat with all lead and lift including cost of materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5, using 60/70 grade bitumen, Including environmental and social safe guards, including all taxes, as directed by the Engineer-in-Charge etc., complete. 50mm thick KSRRB Pg No.162,SI No. 21.11.6	Cum	674.29	6054.72	4,082,637	
27	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH/Chapter 5	Sqm	13485.83	13.44	181,250	
28	Providing and laying Semi dense bituminous concrete with 40-60 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 4.5 to 5% of mix and filter, transporting the hot mix to work site, laying with a hydrostatic paver finisher with mechanical paver to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause no. 500.8, 25 mm compacted thickness with 5% bitumen 60/70 grade using 40-60 HMP (Grading II) using mechanical paver, with all lead and lift ,Labour, as per specification, Including environmental and social safe guards, including all taxes, as directed by the Engineer-in-Charge etc., complete. 25mm thick KSRRB Pg No.163,SI No. 21.20.6	Cum	337.15	7778.40	2,622,488	
29	Dewatering for Lowering of water table to creat dry conditions at least upto the bed of the excavation including the cost of material, labour T & P articles & machinery laying sewer line & Manholes as per approved drawings accordng. to the requirement of the construction of structure. The cost of this work shall be inclusive of disposal of water pumped out at a safe place away from the structure. The dewatering will work till the completion of the structure as per approved drawings ,with all horizontal leads and lifts etc., complete in all respects as per specification and as directed by engineer.During the execution of work enough precaution should be taken by the contractor to ensure that the clear water flows from the delivery pipe of pumps to avoid any settlement of soil during the process. (Rate analysis attached)	Day	30.00	4218.20	126,546	

BOQ item No.	Specification	Unit	Quantity	Rate	Amount	Remarks
30	Sheet piling: Providing and installing sheet piling for both sides of the trench for following depths with mild steel sheets not less than 6.5 mm thick, stronger knife edge, recessed spreader sockets, 3" single or double wall shields, to be designed by the contractor to withstand all types of soils, maximum depths of as per the approved design drawing, including labour charges for installing and removing the sheet piling at various reaches of sewer line construction, including loading , unloading, transporting to the suitable location etc. complete with all lead and lifts (Measurement shall be taken for one side only eventhough it is provided for both sides) BWSSB 16-17 SI No.93,Pg No.90					
	0-3m depth	Sqm	1729.08	640.64	1,107,718	
	Above 3m upto 10m depth	Sqm	1183.78	850.08	1,006,311	
31	KSRB 14.6-2 :Providing and laying heavy duty cobble stones 75mm thick interlock pavers, 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. PWD (16-17,Pg No.101,SI No.14.7)	Sqm	2582.13	1086.40	2,805,226	
Total					69,379,958	
UTILITY SHIFTING						
A	DISMANTLING					
1	KSRRB M200-13.2. 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. II.By Mechanical Means. MORTH Specification No. 202 KSRRB Pg No.137,SI No.18.21	Cum	82.91	673.12	55,807	
2	KSRRB M200-14.2. 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. ii) Dismantling brick/Tile work B. In cement mortar. MORTH Specification No. 202 KSRRB Pg No.137,SI No.18.23	Cum	35.53	273.28	9,710	
B	COMPOUND WALL					
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 KSRRB Pg No.5,SI No.2.3	Cum	102.60	211.68	21,718	
2	KSRB 4-1.1: Providing and laying in position plain cement concrete of mix 1:2:4 with OPC cement @ 240kgs, with 40mm 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. Specification No. KBS 4.1, 4.2 KSRRB Pg No.12,SI No.4.1	Cum	18.14	5838.56	105,924	

BOQ item No.	Specification	Unit	Quantity	Rate	Amount	Remarks
3	Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6 stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 KSRRB Pg No.254,SI No.34.8.2	Cum	64.80	4689.44	303,876	
4	Providing & constructing laterite size stone masonry in CM 1:6 including cost and conveyance of all materials curing, etc complete as per specification I.S. 3620 / 1979 having compressive strength not less than 3.5 N/mm2 for saturated dry samples. For super structure in CM 1:6 (Cement 45 kgs/M3) (Ground Floor) KSRRB Pg No.267,SI No.37.66.1	Cum	27.93	4939.20	137,946	
5	KSRB15-3.11 : Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry & concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. KSRRB Pg No.114,SI No.15.19	Sqm	336.82	262.08	88,274	
6	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - with primer. KSRRB Pg No.118,SI No.15.53.2	Sqm	336.82	94.08	31,688	
7	KSRB 2.3: Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20cms. In depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5m. including cost of all labour complete as per specifications. Specification No. KBS 2.9 KSRRB Pg No.6,SI No.2.1	Cum	34.20	142.24	4,865	
C	CULVERT					
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 KSRRB Pg No 5,SI No.2.3	Cum	207.03	211.68	43,824	
2	KSRRB M2900- PCC 1:3:6 in Foundation KSRRB M2900-1. Plain cement concrete 1:3:6 mix with crushed stone aggregate 40 m nominal size mechanically mixed, placed in foundation and compacted by vibration including curing complete as per specifications MORTH Specification No. 408 KSRRB Pg No.253,SI No.34.1	Cum	11.30	4966.08	56,092	
3	Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6 stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 KSRRB Pg No.254,SI No.34.8.2	Cum	33.20	4689.44	155,712	
4	Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KSRRB Pg No.254,SI No.34.9	Cum	22.68	5605.60	127,135	

BOQ item No.	Specification	Unit	Quantity	Rate	Amount	Remarks
5	Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. - do - cement mortar 1:4 KSRB Pg No.254,SI No.34.12.1	Sqm	75.60	108.64	8,213	
6	Providing and laying reinforced cement concrete pipe NP3 for culverts including pointing ends, and fixing collars with cement mortar 1:2 including cost of all materials, labour, curing complete as per specifications. Specifications. No. KSRB 1000, 2300 MOST Specification No.1000 / 2300 - - 300mm. dia KSRB Pg No.253,SI No.34.6.1	Rmt	50.00	1772.96	88,648	
7	Providing and laying reinforced cement concrete pipe NP3 for culverts including pointing ends, and fixing collars with cement mortar 1:2 including cost of all materials, labour, curing complete as per specifications. Specifications. No. KSRB 1000, 2300 MOST Specification No.1000 / 2300 - - 450mm. dia KSRB Pg No.253,SI No.34.6.2	Rmt	50.00	3099.04	154,952	
8	KSRB 2.3: Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20cms. In depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5m. including cost of all labour complete as per specifications. Specification No. KBS 2.9 KSRB Pg No.6,SI No.2.10	Cum	69.01	142.24	9,816	
D	RCC DRAINS					
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 including clearing vegetation, shoring, strutting, dewatering if required, and ramming with selected earth for foundation and disposing off excess excavated material as approved by Engineer etc. complete with all lead and lift including danger lighting wherever necessary as directed in the following strata. KSRB Pg No.5,SI No.2.3	Cum	85.19	211.68	18,032	
2	Providing and laying in position plain cement concrete of mix 1:2:4 with OPC cement @ 240kgs, with 40mm 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,plinth and cills, including cost of all materials, labour, HOM of machineries, curing complete as per specifications. KSRB Pg No 12,SI No.4.1	Cum	5.74	5838.56	33,499	
3	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. KSRB Pg No.13,SI NO.4.10	Cum	18.60	6967.52	129,596	

BOQ item No.	Specification	Unit	Quantity	Rate	Amount	Remarks
4	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and direction of Engineer-in-Charge. FE 500 KSRB Pg No.17,SI No.4.46.2 Rev.	MT	1.86	67879.84	126,257	
5	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, labour complete as per specifications. KSRB Pg No.15,SI No.4.28	Sqm	31.50	258.72	8,150	
6	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. KSRB Pg No.15,SI No.4.31	Sqm	216.00	328.16	70,883	
7	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for flat surface such as roofs, landings, balconies and likes, thickness upto 200mm including cost of all materials, labour complete as per specification. (Ground floor) KSRB,Pg No.15,SI No.4.18	Sqm	27.00	350.56	9,465	
8	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with PVC 90mm outer dia pipe 2 kg / Sqcm, extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. KSRB,Pg No.225,SI No.28.10	Rmt	9.00	283.36	2,550	
9	Providing and laying of filter media with granular materials/stone crushed aggregates satisfying the requirement laid down in clause 2500.4.2.2 of morth specification to a thickness not less than 600 mm with smaller size to wards the soil and bigger size towards the wall and provided over the entire surface behind the abutment,wing wall and return wall to full hight compacted to a firm condition complete as per drawing and technical specification KSRB,Pg No.225,SI No.28.13	Cum	2.43	1451.52	3,527	
10	KSRB 2.3: Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20cms. In depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5m. including cost of all labour complete as per specifications. Specification No. KBS 2.9 KSRB Pg No.6,SI No.2.10	Cum	39.85	142.24	5,668	
	Total				1,811,827	
	Electrical Pole shifting cost				2,242,472	
	GRAND TOTAL				73,434,257	
Executive Engineer MSCL Mangaluru				Superintending Engineer MSCL Mangaluru		

MANGALURU SMART CITY

1.30 Measurement Sheet of UNDERGROUND DRAINAGE Zone 4 Part 2 and Zone 3 Part 1

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
1	KSRRB200-8. Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs, saplings and trees of girth upto 300mm, by manual means, in area of light jungle, removal of stumps, disposal of unserviceable materials, stacking of serviceable materials labour charges complete as per specifications KSRB Pg No.136,SI No.18.11						
	Zone 4 Part 2	Sqm	1				11553.96
	Zone 3 Part 1	Sqm	1				2000.52
	Total	Sqm				Total	13554.48
2	Cutting asphalt road surface for pipeline trenches and disposing off the excavated stuff with all lead and lift as directed including barricading,danger lighting etc., KUWSDB-15-16 SI No.5.2,Pg No.17						
	Zone 4 Part 2						
	For Trench line						
	Old Port Road						
	MH 2551 to O92	Cum	1	52.80	1.20	0.20	12.67
	Azizudheen Road						
	MH 2550 to MH 2565	Cum	1	56.50	1.20	0.20	13.56
	Azizudheen Road						
	MH 646 to MH 2565	Cum	1	52.10	1.20	0.20	12.50
	Azizudheen Road						
	MH 315 to MH 2247	Cum	1	37.60	2.10	0.20	15.79
	Azizudheen Road						
	MH 2239 to MH 2565	Cum	1	146.00	1.20	0.20	35.04
	Azizudheen Road						
	MH 435 to MH 2243	Cum	1	34.10	1.20	0.20	8.18
	Azizudheen Road						
	MH 2565 to MH 379	Cum	1	69.00	2.10	0.20	28.98
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Cum	1	390.30	1.20	0.20	93.67
	Azizudheen Road						
	MH 2209 to MH 2521	Cum	1	85.90	1.20	0.20	20.62
	Old Port Road						
	MH 2553 to MH 2558	Cum	1	87.30	1.20	0.20	20.95
	Cross Road						
	MH 930 to MH 2563	Cum	1	79.60	2.20	0.20	35.02
	Bunder Cross Road						
	MH 2520 to MH 2292	Cum	1	107.20	1.20	0.20	25.73
	Cartstreet Road						
	MH 1750 to MH 2525	Cum	1	197.40	1.20	0.20	47.38
	Lower Carstreet Road						
	MH 517 to MH 2508	Cum	1	207.70	2.35	0.20	97.62
	Lower Carstreet Road						
	MH 269 to MH 270	Cum	1	26.60	1.20	0.20	6.38
	Lower Carstreet Road						
	MH 1600 to MH 1624	Cum	1	422.00	2.10	0.20	177.24
	Lower Carstreet Road						
	MH 1763 to MH 2539	Cum	1	48.60	1.20	0.20	11.66
	Basavana Gudi Street and Kandathpalli Road						
	MH 1194 to MH 1610	Cum	1	362.00	2.10	0.20	152.04
	Cross and Mochigali Road						
	MH 715 to MH 1026	Cum	1	151.40	2.30	0.20	69.64
	Bibi Alabi Road						
	MH 2259 to MH 2495	Cum	1	76.80	1.20	0.20	18.43
	Bibi Alabi Road						
	MH 692 to O78	Cum	1	111.04	2.38	0.20	52.74
	Bibi Alabi Road						
	MH 1138 to MH 2495	Cum	1	55.00	2.10	0.20	23.10
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Cum	1	347.30	2.10	0.20	145.87
	Ansari Cross Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	Zone 3 Part 1						
	Bridge Road						
	MH-1264 to O-35	Cum	1	285.3	1.20	0.20	68.47
	Zone 4 Part 2						
	For Manhole Area - 1.2m Dia	Cum	230	2.00	2.00	0.20	184.00
	For Manhole Area - 1.5m Dia	Cum	20	2.30	2.30	0.20	21.16
	Zone 3 Part 1						
	For Manhole Area - 1.2m Dia	Cum	13	2.00	2.00	0.20	10.40
	Household connection						
	Zone 4 Part 2						
	For Household Connection- Zone 4 Part 2 (MH = 206Nos, L=5m X 4 connections in each manhole)-Road width >3m	Cum	206	10.00	0.60	0.20	247.20
	For Household Connection- Zone 4 Part 2 (MH = 44Nos, L=5m X 4 connections in each manhole)-Road width <3m	Cum	44	10.00	0.60	0.20	52.80
	Zone 3 Part 1						
	For Household Connection- Zone 3 Part 1 (MH = 13Nos, L=5m X 4 connections in each manhole) - Road width >3m	Cum	13	10.00	0.60	0.20	15.60
		Cum				Total	2712.08
	Total 90% of Quantity for Asphalt Road	Cum					2440.87
3	Cutting Concrete road surface for pipeline trenches and disposing off the excavated stuff with all lead and lift as directed including barricading,danger lighting etc., KUWSDB-15-16 SI No.5.3,Pg No.17						
	Total quantity for Zone 4 Part 2	Cum					2712.08
	Total 10% of Quantity for Concrete Road	Cum					271.21
4	Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge. (As per Rate analysis)						
	Zone 3 Part 1						
	Trench Line						
	KSR Cross Road						
	MH-904 to O-30	Sqm	1	0.00	1.40		0.00
	KSR Cross Road						
	MH-1891 to O-11	Sqm	1	0.00	1.40		0.00
	KSR Cross Road						
	MH-728 to MH-1891	Sqm	1	0.00	1.40		0.00
	Balmatta Cross Road						
	MH-1027 to MH-1895	Sqm	1	0.00	1.40		0.00
	KSR Cross Road						
	MH-666 to O-40	Sqm	1	0.00	1.40		0.00
	KSR Cross Road						
	MH-369 to O-43	Sqm	1	0.00	1.40		0.00
	KSR Cross Road						
	MH-1205 to O-37	Sqm	1	0.00	1.40		0.00
	KSR Cross Road						
	MH-155 to O-38	Sqm	1	23.80	0.80		19.04
	Court Cross Road						
	MH-1207 to O-39	Sqm	1	200.70	1.40		280.98
	Court Cross Road						
	MH-645 to MH-644	Sqm	1	46.00	1.40		64.40
	St Aloysius College Road						
	MH-1003 to O-22	Sqm	1	0.00	1.40		0.00
	St Aloysius College Road						
	MH-1469 to O-21	Sqm	1	0.00	1.40		0.00
	St Aloysius College Road and Court Road						
	MH-2491 to O-34	Sqm	1	0.00	1.40		0.00

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	Court Road						
	MH-1136 to MH-1537	Sqm	1	0.00	1.40		0.00
	Court Cross Road						
	MH-826 to MH-827	Sqm	1	0.00	1.40		0.00
	Court Road						
	MH-1498 to O-23	Sqm	1	0.00	1.40		0.00
	KRR Cross Road						
	MH-321 to MH-2454	Sqm	1	0.00	1.40		0.00
	KRR Cross Road						
	MH-1065 to O-20	Sqm	1	0.00	1.40		0.00
	KRR Cross Road						
	MH-1096 to O-18	Sqm	1	0.00	1.40		0.00
	KRR Cross Road						
	MH-533 to O-19	Sqm	1	0.00	1.40		0.00
	Bunts Hostel Cross Road						
	MH-353 to O-17	Sqm	1	0.00	1.40		0.00
	Bunts Hostel Cross Road						
	MH- 668 to O-15	Sqm	1	0.00	1.40		0.00
	Bunts Hostel Cross Road						
	MH-588 to O-16	Sqm	1	0.00	1.40		0.00
	Bunts Hostel Cross Road						
	MH-928 to O-14	Sqm	1	99.00	1.40		138.60
	Bridge Road						
	MH-1264 to O-35	Sqm	1	0.00	0.80		0.00
	Arya Samaj Road						
	MH-1462 to O-12	Sqm	1	543.10	0.80		434.48
	Arya Samaj Cross Road						
	MH-2498 to O-45	Sqm	1	76.20	1.40		106.68
	Arya Samaj Cross Road						
	MH-1390 to O-46	Sqm	1	46.00	0.80		36.80
	Kadri Cross Road						
	MH-1107 to O-13	Sqm	1	131.80	1.40		184.52
	KRR Cross Road						
	MH-813 to MH-1416	Sqm	1	84.00	1.40		117.60
	Manhole Portion						
	For Manhole Area - 1.2m Dia	Sqm	48	2.00	2.00		192.00
	For Manhole Area - 1.5m Dia	Sqm	4	2.30	2.30		21.16
	Household connection						
	Zone 3 Part 1						
	For Household Connection- Zone 3 Part 1 (MH = 44Nos, L=5m X 4 connections in each manhole)-Road width >3m,Length 50%	Sqm	44	10.00	0.60		264.00
	For Household Connection- Zone 3 Part 1 (MH = 8Nos, L=5m X 4 connections in each manhole)-Road width<3m,Length 50%	Sqm	8	10.00	0.60		48.00
		Sqm				Total	1908.26
5	Earthwork excavation for pipeline trenches (Except building work) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring, strutting, bailing out water at every 100 meters wherever necessary as directed in the following Strata KUWSDB SR 15-16, SI No 1-i-(a), Pg No 5						
i)	do in all soils mixed mixed with boulders of 30 cms size upto an exclusive of disintegrated rock D182						
A	Zone 4 Part 2						
a	0 to 2 mtr Depth						
	Old Port Road						
	MH 2551 to O92	Cum	1	52.80	0.80	1.21	50.90
	Azizudheen Road						
	MH 2550 to MH 2565	Cum	1	56.50	0.80	1.20	54.13
	Azizudheen Road						
	MH 646 to MH 2565	Cum	1	52.10	0.80	1.54	64.12
	Azizudheen Road						
	MH 315 to MH 2247	Cum	1	37.60	1.40	1.81	95.41
	Azizudheen Road						
	MH 2239 to MH 2565	Cum	1	146.00	0.80	1.56	182.60

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	Azizudheen Road						
	MH 435 to MH 2243	Cum	1	34.10	0.80	1.43	39.08
	Azizudheen Road						
	MH 2565 to MH 379	Cum	1	69.00	1.40	1.92	185.59
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Cum	1	390.30	0.80	1.68	526.04
	Azizudheen Road						
	MH 2209 to MH 2521	Cum	1	85.90	0.80	1.59	109.21
	Old Port Road						
	MH 2553 to MH 2558	Cum	1	87.30	0.80	1.73	120.85
	Cross Road						
	MH 930 to MH 2563	Cum	1	79.60	0.80	1.62	102.97
	Bunder Cross Road						
	MH 2520 to MH 2292	Cum	1	107.20	0.80	1.51	129.28
	Cartstreet Road						
	MH 1750 to MH 2525	Cum	1	197.40	0.80	1.80	283.82
	Lower Carstreet Road						
	MH 517 to MH 2508	Cum	1	207.70	0.80	1.58	263.30
	Lower Carstreet Road						
	MH 269 to MH 270	Cum	1	26.60	0.80	1.55	32.88
	Lower Carstreet Road						
	MH 1600 to MH 1624	Cum	1	422.00	1.40	1.82	1075.96
	Lower Carstreet Road						
	MH 1763 to MH 2539	Cum	1	48.60	0.80	1.38	53.56
	Basavana Gudi Street and Kandathpalli Road						
	MH 1194 to MH 1610	Cum	1	362.00	1.40	1.83	928.05
	Cross and Mochigali Road						
	MH 715 to MH 1026	Cum	1	151.40	1.40	2.00	423.92
	Bibi Alabi Road						
	MH 2259 to MH 2495	Cum	1	76.80	0.80	1.71	105.01
	Bibi Alabi Road						
	MH 692 to O78	Cum	1	111.04	1.40	2.00	310.58
	Bibi Alabi Road						
	MH 1138 to MH 2495	Cum	1	55.00	1.40	2.00	154.00
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Cum	1	347.30	1.40	2.00	970.70
	Ansari Cross Road						
	MH 709 to MH 710	Cum	1	56.50	1.40	1.71	135.59
	Ansari Road						
	MH 2580 to MH 514	Cum	1	49.40	1.40	2.00	138.32
	Ansari Cross Road						
	MH 2581 to MH 636	Cum	1	51.80	1.40	2.00	145.04
	Ansari Road						
	MH 648 TO MH 649	Cum	1	54.00	1.40	2.00	151.20
	J M 2nd Cross Road						
	MH 2542 TO O 76	Cum	1	172.90	0.80	1.41	195.15
	J M 1st Cross Road						
	MH 2519 TO O 77	Cum	1	88.80	1.40	1.96	243.51
	Bibi Alabi Road						
	MH 2123 TO MH1247	Cum	1	62.40	0.80	1.51	75.17
	Kasa Gaddi Road						
	MH 1030 to MH 2130	Cum	1	98.80	1.40	2.00	276.64
	J M 2nd Cross and GM Road						
	MH 2130 to MH 2567	Cum	1	152.90	1.40	1.87	400.56
	GM Road						
	MH 2589 to MH 2568	Cum	1	27.60	1.40	2.00	77.28
	J M 2nd Cross Road						
	MH 2590 to MH 81	Cum	1	22.00	0.80	1.30	22.88
	J M 2nd Cross Road						
	MH 170 to MH 26	Cum	1	22.20	0.80	1.39	24.69
	Urdu School Road						
	MH 705 to MH 2133	Cum	1	59.00	0.80	1.51	71.19
	MPT Cross Road						
	MH 1074 to MH 2546	Cum	1	115.50	0.80	1.45	134.07
	JM 5th Cross Road						
	MH 2350 to O 73	Cum	1	80.70	0.80	1.51	97.49
	Kasa Gadi Cross Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	MH 50 to MH 2128	Cum	1	16.20	1.40	2.00	45.36
	MPT Cross Road						
	MH 957 to MH 958	Cum	1	86.50	1.40	1.99	241.19
	Azizudheen Road						
	MH 2575 to MH 2543	Cum	1	207.70	0.80	1.66	275.56
	JM 5th Cross and Kandathpalli west Road						
	MH 2544 to MH 2571	Cum	1	169.50	1.40	2.00	474.60
	J M 5th Cross Road						
	MH 398 to MH 399	Cum	1	32.70	1.40	1.86	85.27
	Kandathpalli West Road						
	MH 599 to MH 600	Cum	1	47.70	1.40	1.93	128.55
	Ansari Road						
	MH 402 to MH 2326	Cum	1	36.00	0.80	1.21	34.78
	Kandathpalli West Road						
	MH 1211 to MH 2320	Cum	1	126.90	1.40	1.67	295.83
	Kandathpalli West Cross Road						
	MH 2576 to MH 2466	Cum	1	23.60	0.80	1.52	28.70
	Kandathpalli West Cross Road						
	MH 2569 to MH 917	Cum	1	80.70	1.40	2.00	225.96
	Kandathpalli West Road						
	MH 1624 to MH 917	Cum	1	110.80	1.40	2.00	310.24
	Kandathpalli West Road						
	MH 917 to MH 773	Cum	1	38.60	1.45	2.00	111.94
	Lower Carstreet and Bhatkar Bazar Road						
	MH 2398 to MH 1619	Cum	1	316.90	1.40	1.67	742.58
	Bhatkar Bazar Cross Road						
	MH 287 to MH 288	Cum	1	40.50	0.80	1.64	53.14
	Shree Kalikamba Vinayaka Street						
	MH 2522 to MH 2524	Cum	1	79.10	0.80	1.64	103.88
	Cross Road						
	MH 624 to MH 625	Cum	1	52.20	0.80	1.44	60.06
	Cross Road						
	MH 40 to MH 2408	Cum	1	15.40	0.80	1.43	17.56
	Cross Road						
	MH 277 to MH 278	Cum	1	29.00	0.80	1.35	31.20
B	Zone 3 Part 1						
	KSR Cross Road						
	MH-904 to O-30	Cum	1	0.00	1.40	1.89	0.00
	KSR Cross Road						
	MH-1891 to O-11	Cum	1	0.00	1.40	1.65	0.00
	KSR Cross Road						
	MH-728 to MH-1891	Cum	1	0.00	1.40	1.43	0.00
	Balmatta Cross Road						
	MH-1027 to MH-1895	Cum	1	0.00	1.40	1.67	0.00
	KSR Cross Road						
	MH-666 to O-40	Cum	1	0.00	1.40	1.37	0.00
	KSR Cross Road						
	MH-369 to O-43	Cum	1	0.00	1.40	2.00	0.00
	KSR Cross Road						
	MH-1205 to O-37	Cum	1	0.00	1.40	1.97	0.00
	KSR Cross Road						
	MH-155 to O-38	Cum	1	23.80	0.80	1.55	29.51
	Court Cross Road						
	MH-1207 to O-39	Cum	1	200.70	1.40	1.80	504.63
	Court Cross Road						
	MH-645 to MH-644	Cum	1	46.00	1.40	1.78	114.79
	St Aloysius College Road						
	MH-1003 to O-22	Cum	1	0.00	1.40	1.36	0.00
	St Aloysius College Road						
	MH-1469 to O-21	Cum	1	0.00	1.40	1.33	0.00
	St Aloysius College Road and Court Road						
	MH-2491 to O-34	Cum	1	0.00	1.40	1.92	0.00
	Court Road						
	MH-1136 to MH-1537	Cum	1	0.00	1.40	2.00	0.00
	Court Cross Road						
	MH-826 to MH-827	Cum	1	0.00	1.40	1.76	0.00

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	Court Road						
	MH-1498 to O-23	Cum	1	0.00	1.40	1.94	0.00
	KRR Cross Road						
	MH-321 to MH-2454	Cum	1	0.00	1.40	1.58	0.00
	KRR Cross Road						
	MH-1065 to O-20	Cum	1	0.00	1.40	1.90	0.00
	KRR Cross Road						
	MH-1096 to O-18	Cum	1	0.00	1.40	1.56	0.00
	KRR Cross Road						
	MH-533 to O-19	Cum	1	0.00	1.40	1.33	0.00
	Bunts Hostel Cross Road						
	MH-353 to O-17	Cum	1	0.00	1.40	2.00	0.00
	Bunts Hostel Cross Road						
	MH- 668 to O-15	Cum	1	0.00	1.40	2.00	0.00
	Bunts Hostel Cross Road						
	MH-588 to O-16	Cum	1	0.00	1.40	1.89	0.00
	Bunts Hostel Cross Road						
	MH-928 to O-14	Cum	1	99.00	1.40	1.93	267.50
	Bridge Road						
	MH-1264 to O-35	Cum	1	285.30	0.80	1.62	370.05
	Arya Samaj Road						
	MH-1462 to O-12	Cum	1	543.10	0.80	1.75	760.77
	Arya Samaj Cross Road						
	MH-2498 to O-45	Cum	1	76.20	1.40	1.91	203.76
	Arya Samaj Cross Road						
	MH-1390 to O-46	Cum	1	46.00	0.80	1.67	61.46
	Kadri Cross Road						
	MH-1107 to O-13	Cum	1	131.80	1.40	1.97	364.27
	KRR Cross Road						
	MH-813 to MH-1416	Cum	1	84.00	1.40	1.88	221.48
							14615.34
A	Zone 4 Part 2						
c	0 to 2 mtr Depth (Manhole)						
	Old Port Road						
	MH 2551 to O92	Cum	2	2.00	2.00	1.46	11.64
	Azizudheen Road						
	MH 2550 to MH 2565	Cum	2	2.00	2.00	1.46	11.66
	Azizudheen Road						
	MH 646 to MH 2565	Cum	3	2.00	2.00	1.69	20.26
	Azizudheen Road						
	MH 315 to MH 2247	Cum	2	2.00	2.00	1.94	15.50
	Azizudheen Road						
	MH 2239 to MH 2565	Cum	6	2.00	2.00	1.71	41.02
	Azizudheen Road						
	MH 435 to MH 2243	Cum	2	2.00	2.00	1.68	13.46
	Azizudheen Road						
	MH 2565 to MH 379	Cum	4	2.00	2.00	1.73	27.74
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Cum	16	2.00	2.00	1.77	113.36
	Azizudheen Road						
	MH 2209 to MH 2521	Cum	3	2.00	2.00	1.80	21.62
	Old Port Road						
	MH 2553 to MH 2558	Cum	3	2.00	2.00	1.89	22.62
	Cross Road						
	MH 930 to MH 2563	Cum	5	2.00	2.00	1.72	34.39
	Bunder Cross Road						
	MH 2520 to MH 2292	Cum	3	2.00	2.00	1.66	19.97
	Cartstreet Road						
	MH 1750 to MH 2525	Cum	8	2.00	2.00	1.87	59.74
	Lower Carstreet Road						
	MH 517 to MH 2508	Cum	11	2.00	2.00	1.82	79.88
	Lower Carstreet Road						
	MH 269 to MH 270	Cum	2	2.00	2.00	1.80	14.36
	Lower Carstreet Road						
	MH 1600 to MH 1624	Cum	17	2.00	2.00	1.83	124.42
	Lower Carstreet Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	MH 1763 to MH 2539	Cum	2	2.00	2.00	1.63	13.02
	Basavana Gudi Street and Kandathpalli Road						
	MH 1194 to MH 1610	Cum	14	2.00	2.00	1.78	99.70
	Cross and Mochigali Road						
	MH 715 to MH 1026	Cum	8	2.00	2.00	2.00	64.00
	Bibi Alabi Road						
	MH 2259 to MH 2495	Cum	3	2.00	2.00	1.80	21.58
	Bibi Alabi Road						
	MH 692 to O78	Cum	7	2.00	2.00	2.00	56.00
	Bibi Alabi Road						
	MH 1138 to MH 2495	Cum	3	2.00	2.00	2.00	24.00
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Cum	14	2.10	2.10	2.00	123.48
	Ansari Cross Road						
	MH 709 to MH 710	Cum	3	2.00	2.00	1.92	23.07
	Ansari Road						
	MH 2580 to MH 514	Cum	2	2.30	2.30	2.00	21.16
	Ansari Cross Road						
	MH 2581 to MH 636	Cum	2	2.00	2.00	2.00	16.00
	Ansari Road						
	MH 648 TO MH 649	Cum	2	2.30	2.30	2.00	21.16
	J M 2nd Cross Road						
	MH 2542 TO O 76	Cum	5	2.00	2.00	1.66	33.22
	J M 1st Cross Road						
	MH 2519 TO O 77	Cum	3	2.00	2.00	1.83	22.01
	Bibi Alabi Road						
	MH 2123 TO MH1247	Cum	3	2.00	2.00	1.75	20.94
	Kasa Gaddi Road						
	MH 1030 to MH 2130	Cum	4	2.00	2.00	2.00	32.00
	J M 2nd Cross and GM Road						
	MH 2130 to MH 2567	Cum	7	2.00	2.00	1.97	55.07
	GM Road						
	MH 2589 to MH 2568	Cum	1	2.00	2.00	2.00	8.00
	J M 2nd Cross Road						
	MH 2590 to MH 81	Cum	1	2.00	2.00	1.55	6.20
	J M 2nd Cross Road						
	MH 170 to MH 26	Cum	1	2.00	2.00	1.64	6.56
	Urdu School Road						
	MH 705 to MH 2133	Cum	3	2.00	2.00	1.76	21.10
	MPT Cross Road						
	MH 1074 to MH 2546	Cum	5	2.00	2.00	1.69	33.70
	JM 5th Cross Road						
	MH 2350 to O 73	Cum	2	2.00	2.00	1.76	14.04
	Kasa Gadi Cross Road						
	MH 50 to MH 2128	Cum	1	2.00	2.00	2.00	8.00
	MPT Cross Road						
	MH 957 to MH 958	Cum	3	2.00	2.00	2.00	24.00
	Azizudheen Road						
	MH 2575 to MH 2543	Cum	7	2.00	2.00	1.82	51.07
	JM 5th Cross and Kandathpalli west Road						
	MH 2544 to MH 2571	Cum	6	2.30	2.30	2.00	63.48
	J M 5th Cross Road						
	MH 398 to MH 399	Cum	2	2.00	2.00	1.99	15.90
	Kandathpalli West Road						
	MH 599 to MH 600	Cum	2	2.00	2.00	1.80	14.40
	Ansari Road						
	MH 402 to MH 2326	Cum	2	2.00	2.00	1.47	11.74
	Kandathpalli West Road						
	MH 1211 to MH 2320	Cum	8	2.00	2.00	1.84	58.99
	Kandathpalli West Cross Road						
	MH 2576 to MH 2466	Cum	1	2.00	2.00	1.77	7.08
	Kandathpalli West Cross Road						
	MH 2569 to MH 917	Cum	3	2.10	2.10	2.00	26.46
	Kandathpalli West Road						
	MH 1624 to MH 917	Cum	5	2.15	2.15	2.00	46.23
	Kandathpalli West Road						
	MH 917 to MH 773	Cum	2	2.30	2.30	2.00	21.16

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	Lower Carstreet and Bhatkar Bazar Road						
	MH 2398 to MH 1619	Cum	14	2.00	2.00	1.84	103.28
	Bhatkar Bazar Cross Road						
	MH 287 to MH 288	Cum	2	2.00	2.00	1.89	15.12
	Shree Kalikamba Vinayaka Street						
	MH 2522 to MH 2524	Cum	3	2.00	2.00	1.89	22.70
	Cross Road						
	MH 624 to MH 625	Cum	3	2.00	2.00	1.69	20.26
	Cross Road						
	MH 40 to MH 2408	Cum	1	2.00	2.00	1.68	6.70
	Cross Road						
	MH 277 to MH 278	Cum	1	2.00	2.00	1.60	6.38
B	Zone 3 Part 1						
	KSR Cross Road						
	MH-904 to O-30	Cum	0	2.00	2.00	1.85	0.00
	KSR Cross Road						
	MH-1891 to O-11	Cum	0	2.00	2.00	1.77	0.00
	KSR Cross Road						
	MH-728 to MH-1891	Cum	0	2.00	2.00	1.65	0.00
	Balmatta Cross Road						
	MH-1027 to MH-1895	Cum	0	2.00	2.00	1.83	0.00
	KSR Cross Road						
	MH-666 to O-40	Cum	0	2.00	2.00	1.62	0.00
	KSR Cross Road						
	MH-369 to O-43	Cum	0	2.00	2.00	2.00	0.00
	KSR Cross Road						
	MH-1205 to O-37	Cum	0	2.30	2.30	1.89	0.00
	KSR Cross Road						
	MH-155 to O-38	Cum	1	2.00	2.00	1.80	7.20
	Court Cross Road						
	MH-1207 to O-39	Cum	9	2.00	2.00	1.89	68.18
	Court Cross Road						
	MH-645 to MH-644	Cum	2	2.15	2.15	1.91	17.63
	St Aloysius College Road						
	MH-1003 to O-22	Cum	0	2.00	2.00	1.64	0.00
	St Aloysius College Road						
	MH-1469 to O-21	Cum	0	2.00	2.00	1.58	0.00
	St Aloysius College Road and Court Road						
	MH-2491 to O-34	Cum	0	2.00	2.00	1.92	0.00
	Court Road						
	MH-1136 to MH-1537	Cum	0	2.30	2.30	2.00	0.00
	Court Cross Road						
	MH-826 to MH-827	Cum	0	2.00	2.00	1.93	0.00
	Court Road						
	MH-1498 to O-23	Cum	0	2.00	2.00	1.92	0.00
	KRR Cross Road						
	MH-321 to MH-2454	Cum	0	2.00	2.00	1.75	0.00
	KRR Cross Road						
	MH-1065 to O-20	Cum	0	2.00	2.00	1.98	0.00
	KRR Cross Road						
	MH-1096 to O-18	Cum	0	2.00	2.00	1.72	0.00
	KRR Cross Road						
	MH-533 to O-19	Cum	0	2.00	2.00	1.58	0.00
	Bunts Hostel Cross Road						
	MH-353 to O-17	Cum	0	2.30	2.30	2.00	0.00
	Bunts Hostel Cross Road						
	MH- 668 to O-15	Cum	0	2.30	2.30	2.00	0.00
	Bunts Hostel Cross Road						
	MH-588 to O-16	Cum	0	2.00	2.00	1.80	0.00
	Bunts Hostel Cross Road						
	MH-928 to O-14	Cum	4	2.10	2.10	1.99	35.15
	Bridge Road						
	MH-1264 to O-35	Cum	13	2.00	2.00	1.84	95.52
	Arya Samaj Road						
	MH-1462 to O-12	Cum	22	2.30	2.30	1.91	221.78
	Arya Samaj Cross Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	MH-2498 to O-45	Cum	3	2.30	2.30	1.88	29.76
	Arya Samaj Cross Road						
	MH-1390 to O-46	Cum	2	2.30	2.30	1.79	18.94
	Kadri Cross Road						
	MH-1107 to O-13	Cum	6	2.10	2.10	2.00	52.92
	KRR Cross Road						
	MH-813 to MH-1416	Cum	3	2.00	2.00	1.72	20.60
							2458.25
	Household Connection						
	For Household Connection- Zone 4 Part 2 (MH = 206Nos, L=5m X 4 connections in each manhole)-Road width >3m	Cum	206	20.00	0.60	0.9	2224.80
	For Household Connection- Zone 4 Part 2 (MH = 44Nos, L=5m X 4 connections in each manhole)-Road width <3m	Cum	44	20.00	0.60	0.9	475.20
	For Household Connection- Zone 3 Part 1 (MH = 57Nos, L=5m X 4 connections in each manhole)-Road width >3m	Cum	57	20.00	0.60	0.9	615.60
	For Household Connection- Zone 3 Part 1 (MH = 8Nos, L=5m X 4 connections in each manhole)-Road width <3m	Cum	8	20.00	0.60	0.9	86.40
	Total Qty	Cum					20475.59
	Total trenchline Qty	Cum					18017.34
	80% of Total Qty	Cum					14413.87
5	Earthwork excavation for pipeline trenches (Except building work) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring, strutting, bailing out water at every 100 meters wherever necessary as directed in the following Strata KUWSDB SR 15-16, SI No 1-i-(b), Pg No 5						
i)	do in all soils mixed mixed with boulders of 30 cms size upto an exclusive of disintegrated rock D182						
A	Zone 4 Part 2						
b	2 to 4 mtr Depth						
	Old Port Road						
	MH 2551 to O92	Cum	1	52.80	0.80	0.00	0.00
	Azizudheen Road						
	MH 2550 to MH 2565	Cum	1	56.50	0.80	0.00	0.00
	Azizudheen Road						
	MH 646 to MH 2565	Cum	1	52.10	0.80	0.00	0.00
	Azizudheen Road						
	MH 315 to MH 2247	Cum	1	37.60	0.80	0.37	10.98
	Azizudheen Road						
	MH 2239 to MH 2565	Cum	1	146.00	0.80	0.00	0.00
	Azizudheen Road						
	MH 435 to MH 2243	Cum	1	34.10	0.80	0.00	0.00
	Azizudheen Road						
	MH 2565 to MH 379	Cum	1	69.00	0.80	0.18	9.94
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Cum	1	390.30	0.80	0.00	0.00
	Azizudheen Road						
	MH 2209 to MH 2521	Cum	1	85.90	0.80	0.00	0.00
	Old Port Road						
	MH 2553 to MH 2558	Cum	1	87.30	0.80	0.00	0.00
	Cross Road						
	MH 930 to MH 2563	Cum	1	79.60	0.80	0.00	0.00
	Bunder Cross Road						
	MH 2520 to MH 2292	Cum	1	107.20	0.80	0.00	0.00
	Cartstreet Road						
	MH 1750 to MH 2525	Cum	1	197.40	0.80	0.19	30.00
	Lower Carstreet Road						
	MH 517 to MH 2508	Cum	1	207.70	0.80	0.00	0.00
	Lower Carstreet Road						
	MH 269 to MH 270	Cum	1	26.60	0.80	0.00	0.00
	Lower Carstreet Road						
	MH 1600 to MH 1624	Cum	1	422.00	0.80	0.85	287.44
	Lower Carstreet Road						
	MH 1763 to MH 2539	Cum	1	48.60	0.80	0.00	0.00
	Basavana Gudi Street and Kandathpalli Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	MH 1194 to MH 1610	Cum	1	362.00	0.80	0.52	149.51
	Cross and Mochigali Road						
	MH 715 to MH 1026	Cum	1	151.40	0.80	0.22	26.27
	Bibi Alabi Road						
	MH 2259 to MH 2495	Cum	1	76.80	0.80	0.00	0.00
	Bibi Alabi Road						
	MH 692 to O78	Cum	1	111.04	0.80	0.40	35.61
	Bibi Alabi Road						
	MH 1138 to MH 2495	Cum	1	55.00	0.80	0.85	37.52
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Cum	1	347.30	0.80	0.85	236.91
	Ansari Cross Road						
	MH 709 to MH 710	Cum	1	56.50	0.80	0.69	30.96
	Ansari Road						
	MH 2580 to MH 514	Cum	1	49.40	0.80	1.27	49.99
	Ansari Cross Road						
	MH 2581 to MH 636	Cum	1	51.80	0.80	0.70	28.80
	Ansari Road						
	MH 648 TO MH 649	Cum	1	54.00	0.80	1.59	68.47
	J M 2nd Cross Road						
	MH 2542 TO O 76	Cum	1	172.90	0.80	0.00	0.00
	J M 1st Cross Road						
	MH 2519 TO O 77	Cum	1	88.80	0.80	0.78	55.06
	Bibi Alabi Road						
	MH 2123 TO MH1247	Cum	1	62.40	0.80	0.00	0.00
	Kasa Gaddi Road						
	MH 1030 to MH 2130	Cum	1	98.80	0.80	0.51	40.61
	J M 2nd Cross and GM Road						
	MH 2130 to MH 2567	Cum	1	152.90	0.80	0.31	38.38
	GM Road						
	MH 2589 to MH 2568	Cum	1	27.60	0.80	0.17	3.75
	J M 2nd Cross Road						
	MH 2590 to MH 81	Cum	1	22.00	0.80	0.00	0.00
	J M 2nd Cross Road						
	MH 170 to MH 26	Cum	1	22.20	0.80	0.00	0.00
	Urdu School Road						
	MH 705 to MH 2133	Cum	1	59.00	0.80	0.00	0.00
	MPT Cross Road						
	MH 1074 to MH 2546	Cum	1	115.50	0.80	0.00	0.00
	JM 5th Cross Road						
	MH 2350 to O 73	Cum	1	80.70	0.80	0.00	0.00
	Kasa Gadi Cross Road						
	MH 50 to MH 2128	Cum	1	16.20	0.80	0.54	6.93
	MPT Cross Road						
	MH 957 to MH 958	Cum	1	86.50	0.80	0.05	3.11
	Azizudheen Road						
	MH 2575 to MH 2543	Cum	1	207.70	0.80	0.00	0.00
	JM 5th Cross and Kandathpalli west Road						
	MH 2544 to MH 2571	Cum	1	169.50	0.80	1.94	263.23
	J M 5th Cross Road						
	MH 398 to MH 399	Cum	1	32.70	0.80	1.29	33.75
	Kandathpalli West Road						
	MH 599 to MH 600	Cum	1	47.70	0.80	0.87	33.01
	Ansari Road						
	MH 402 to MH 2326	Cum	1	36.00	0.80	0.00	0.00
	Kandathpalli West Road						
	MH 1211 to MH 2320	Cum	1	126.90	0.80	0.59	59.90
	Kandathpalli West Cross Road						
	MH 2576 to MH 2466	Cum	1	23.60	0.80	0.00	0.00
	Kandathpalli West Cross Road						
	MH 2569 to MH 917	Cum	1	80.70	0.80	0.99	64.02
	Kandathpalli West Road						
	MH 1624 to MH 917	Cum	1	110.80	0.80	1.55	137.13
	Kandathpalli West Road						
	MH 917 to MH 773	Cum	1	38.60	0.85	2.11	69.23
	Lower Carstreet and Bhatkar Bazar Road						
	MH 2524 to MH 1619	Cum	1	316.90	0.80	0.82	207.89

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	Bhatkar Bazar Cross Road						
	MH 287 to MH 288	Cum	1	40.50	0.80	0.00	0.00
	Shree Kalikamba Vinayaka Street						
	MH 2522 to MH 2524	Cum	1	79.10	0.80	0.00	0.00
	Cross Road						
	MH 624 to MH 625	Cum	1	52.20	0.80	0.00	0.00
	Cross Road						
	MH 40 to MH 2408	Cum	1	15.40	0.80	0.00	0.00
	Cross Road						
	MH 277 to MH 278	Cum	1	29.00	0.80	0.00	0.00
B	Zone 3 Part 1						
	KSR Cross Road						
	MH-904 to O-30	Cum	1	0.00	0.80	0.96	0.00
	KSR Cross Road						
	MH-1891 to O-11	Cum	1	0.00	0.80	0.00	0.00
	KSR Cross Road						
	MH-728 to MH-1891	Cum	1	0.00	0.80	0.00	0.00
	Balmatta Cross Road						
	MH-1027 to MH-1895	Cum	1	0.00	0.80	0.00	0.00
	KSR Cross Road						
	MH-666 to O-40	Cum	1	0.00	0.80	0.00	0.00
	KSR Cross Road						
	MH-369 to O-43	Cum	1	0.00	0.80	0.57	0.00
	KSR Cross Road						
	MH-1205 to O-37	Cum	1	0.00	0.80	1.75	0.00
	KSR Cross Road						
	MH-155 to O-38	Cum	1	23.80	0.80	0.00	0.00
	Court Cross Road						
	MH-1207 to O-39	Cum	1	200.70	0.80	0.34	54.59
	Court Cross Road						
	MH-645 to MH-644	Cum	1	46.00	0.80	0.56	20.61
	St Aloysius College Road						
	MH-1003 to O-22	Cum	1	0.00	0.80	0.00	0.00
	St Aloysius College Road						
	MH-1469 to O-21	Cum	1	0.00	0.80	0.00	0.00
	St Aloysius College Road and Court Road						
	MH-2491 to O-34	Cum	1	0.00	0.80	0.89	0.00
	Court Road						
	MH-1136 to MH-1537	Cum	1	0.00	0.80	0.73	0.00
	Court Cross Road						
	MH-826 to MH-827	Cum	1	0.00	0.80	0.81	0.00
	Court Road						
	MH-1498 to O-23	Cum	1	0.00	0.80	0.88	0.00
	KRR Cross Road						
	MH-321 to MH-2454	Cum	1	0.00	0.80	0.00	0.00
	KRR Cross Road						
	MH-1065 to O-20	Cum	1	0.00	0.80	0.26	0.00
	KRR Cross Road						
	MH-1096 to O-18	Cum	1	0.00	0.80	0.00	0.00
	KRR Cross Road						
	MH-533 to O-19	Cum	1	0.00	0.80	0.00	0.00
	Bunts Hostel Cross Road						
	MH-353 to O-17	Cum	1	0.00	0.80	0.79	0.00
	Bunts Hostel Cross Road						
	MH- 668 to O-15	Cum	1	0.00	0.80	1.09	0.00
	Bunts Hostel Cross Road						
	MH-588 to O-16	Cum	1	0.00	0.80	0.00	0.00
	Bunts Hostel Cross Road						
	MH-928 to O-14	Cum	1	99.00	0.80	1.13	89.10
	Bridge Road						
	MH-1264 to O-35	Cum	1	285.30	0.80	0.00	0.00
	Arya Samaj Road						
	MH-1462 to O-12	Cum	1	543.10	0.80	0.25	106.45
	Arya Samaj Cross Road						
	MH-2498 to O-45	Cum	1	76.20	0.80	0.14	8.84
	Arya Samaj Cross Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	MH-1390 to O-46	Cum	1	46.00	0.80	0.00	0.00
	Kadri Cross Road						
	MH-1107 to O-13	Cum	1	131.80	0.80	0.79	83.40
	KRR Cross Road						
	MH-813 to MH-1416	Cum	1	84.00	0.80	0.44	29.57
							2410.95
A	Zone 4 Part 2						
b	2 to 4 mtr Depth (Manhole)						
	Old Port Road						
	MH 2551 to O92	Cum	2	2.00	2.00	0.00	0.00
	Azizudheen Road						
	MH 2550 to MH 2565	Cum	2	2.00	2.00	0.00	0.00
	Azizudheen Road						
	MH 646 to MH 2565	Cum	3	2.00	2.00	0.00	0.00
	Azizudheen Road						
	MH 315 to MH 2247	Cum	2	2.00	2.00	0.62	4.92
	Azizudheen Road						
	MH 2239 to MH 2565	Cum	6	2.00	2.00	0.00	0.00
	Azizudheen Road						
	MH 435 to MH 2243	Cum	2	2.00	2.00	0.00	0.00
	Azizudheen Road						
	MH 2565 to MH 379	Cum	4	2.00	2.00	0.43	6.88
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Cum	16	2.00	2.00	0.07	4.72
	Azizudheen Road						
	MH 2209 to MH 2521	Cum	3	2.00	2.00	0.03	0.36
	Old Port Road						
	MH 2553 to MH 2558	Cum	3	2.00	2.00	0.14	1.62
	Cross Road						
	MH 930 to MH 2563	Cum	5	2.00	2.00	0.00	0.00
	Bunder Cross Road						
	MH 2520 to MH 2292	Cum	3	2.00	2.00	0.00	0.00
	Cartstreet Road						
	MH 1750 to MH 2525	Cum	8	2.00	2.00	0.30	9.49
	Lower Carstreet Road						
	MH 517 to MH 2508	Cum	11	2.00	2.00	0.00	0.00
	Lower Carstreet Road						
	MH 269 to MH 270	Cum	2	2.00	2.00	0.00	0.00
	Lower Carstreet Road						
	MH 1600 to MH 1624	Cum	17	2.00	2.00	1.10	74.90
	Lower Carstreet Road						
	MH 1763 to MH 2539	Cum	2	2.00	2.00	0.00	0.00
	Basavana Gudi Street and Kandathpalli Road						
	MH 1194 to MH 1610	Cum	14	2.00	2.00	0.63	35.06
	Cross and Mochigali Road						
	MH 715 to MH 1026	Cum	8	2.00	2.00	0.47	14.94
	Bibi Alabi Road						
	MH 2259 to MH 2495	Cum	3	2.00	2.00	0.23	2.76
	Bibi Alabi Road						
	MH 692 to O78	Cum	7	2.00	2.00	0.59	16.56
	Bibi Alabi Road						
	MH 1138 to MH 2495	Cum	3	2.00	2.00	1.04	12.46
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Cum	14	2.10	2.10	1.04	64.10
	Ansari Cross Road						
	MH 709 to MH 710	Cum	3	2.00	2.00	0.94	11.22
	Ansari Road						
	MH 2580 to MH 514	Cum	2	2.30	2.30	1.52	16.03
	Ansari Cross Road						
	MH 2581 to MH 636	Cum	2	2.00	2.00	0.95	7.56
	Ansari Road						
	MH 648 TO MH 649	Cum	2	2.30	2.30	1.84	19.41
	J M 2nd Cross Road						
	MH 2542 TO O 76	Cum	5	2.00	2.00	0.00	0.00
	J M 1st Cross Road						
	MH 2519 TO O 77	Cum	3	2.00	2.00	1.03	12.30

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	Bibi Alabi Road						
	MH 2123 TO MH1247	Cum	3	2.00	2.00	0.00	0.00
	Kasa Gaddi Road						
	MH 1030 to MH 2130	Cum	4	2.00	2.00	0.76	12.22
	J M 2nd Cross and GM Road						
	MH 2130 to MH 2567	Cum	7	2.00	2.00	0.42	11.62
	GM Road						
	MH 2589 to MH 2568	Cum	1	2.00	2.00	0.42	1.68
	J M 2nd Cross Road						
	MH 2590 to MH 81	Cum	1	2.00	2.00	0.00	0.00
	J M 2nd Cross Road						
	MH 170 to MH 26	Cum	1	2.00	2.00	0.00	0.00
	Urdu School Road						
	MH 705 to MH 2133	Cum	3	2.00	2.00	0.00	0.00
	MPT Cross Road						
	MH 1074 to MH 2546	Cum	5	2.00	2.00	0.00	0.00
	JM 5th Cross Road						
	MH 2350 to O 73	Cum	2	2.00	2.00	0.00	0.00
	Kasa Gadi Cross Road						
	MH 50 to MH 2128	Cum	1	2.00	2.00	0.79	3.14
	MPT Cross Road						
	MH 957 to MH 958	Cum	3	2.00	2.00	0.27	3.26
	Azizudheen Road						
	MH 2575 to MH 2543	Cum	7	2.00	2.00	0.03	0.75
	JM 5th Cross and Kandathpalli west Road						
	MH 2544 to MH 2571	Cum	6	2.30	2.30	1.96	62.26
	J M 5th Cross Road						
	MH 398 to MH 399	Cum	2	2.00	2.00	0.54	4.32
	Kandathpalli West Road						
	MH 599 to MH 600	Cum	2	2.00	2.00	1.12	8.92
	Ansari Road						
	MH 402 to MH 2326	Cum	2	2.00	2.00	0.00	0.00
	Kandathpalli West Road						
	MH 1211 to MH 2320	Cum	8	2.00	2.00	0.84	26.88
	Kandathpalli West Cross Road						
	MH 2576 to MH 2466	Cum	1	2.00	2.00	0.00	0.00
	Kandathpalli West Cross Road						
	MH 2569 to MH 917	Cum	3	2.10	2.10	1.24	16.43
	Kandathpalli West Road						
	MH 1624 to MH 917	Cum	5	2.15	2.15	1.80	41.53
	Kandathpalli West Road						
	MH 917 to MH 773	Cum	2	2.30	2.30	2.36	24.97
	Lower Carstreet and Bhatkar Bazar Road						
	MH 2398 to MH 1619	Cum	14	2.00	2.00	0.30	16.73
	Bhatkar Bazar Cross Road						
	MH 287 to MH 288	Cum	2	2.00	2.00	0.00	0.00
	Shree Kalikamba Vinayaka Street						
	MH 2522 to MH 2524	Cum	3	2.00	2.00	0.00	0.00
	Cross Road						
	MH 624 to MH 625	Cum	3	2.00	2.00	0.00	0.00
	Cross Road						
	MH 40 to MH 2408	Cum	1	2.00	2.00	0.00	0.00
	Cross Road						
	MH 277 to MH 278	Cum	1	2.00	2.00	0.00	0.00
B	Zone 3 Part 1						
	KSR Cross Road						
	MH-904 to O-30	Cum	0	2.00	2.00	0.69	0.00
	KSR Cross Road						
	MH-1891 to O-11	Cum	0	2.00	2.00	0.09	0.00
	KSR Cross Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	MH-728 to MH-1891	Cum	0	2.00	2.00	0.00	0.00
	Balmatta Cross Road						
	MH-1027 to MH-1895	Cum	0	2.00	2.00	0.07	0.00
	KSR Cross Road						
	MH-666 to O-40	Cum	0	2.00	2.00	0.00	0.00
	KSR Cross Road						
	MH-369 to O-43	Cum	0	2.00	2.00	0.82	0.00
	KSR Cross Road						
	MH-1205 to O-37	Cum	0	2.30	2.30	1.80	0.00
	KSR Cross Road						
	MH-155 to O-38	Cum	1	2.00	2.00	0.00	0.00
	Court Cross Road						
	MH-1207 to O-39	Cum	9	2.00	2.00	0.59	21.24
	Court Cross Road						
	MH-645 to MH-644	Cum	2	2.15	2.15	0.81	7.49
	St Aloysius College Road						
	MH-1003 to O-22	Cum	0	2.00	2.00	0.00	0.00
	St Aloysius College Road						
	MH-1469 to O-21	Cum	0	2.00	2.00	0.00	0.00
	St Aloysius College Road and Court Road						
	MH-2491 to O-34	Cum	0	2.00	2.00	0.91	0.00
	Court Road						
	MH-1136 to MH-1537	Cum	0	2.30	2.30	0.95	0.00
	Court Cross Road						
	MH-826 to MH-827	Cum	0	2.00	2.00	1.06	0.00
	Court Road						
	MH-1498 to O-23	Cum	0	2.00	2.00	1.13	0.00
	KRR Cross Road						
	MH-321 to MH-2454	Cum	0	2.00	2.00	0.00	0.00
	KRR Cross Road						
	MH-1065 to O-20	Cum	0	2.00	2.00	0.41	0.00
	KRR Cross Road						
	MH-1096 to O-18	Cum	0	2.00	2.00	0.00	0.00
	KRR Cross Road						
	MH-533 to O-19	Cum	0	2.00	2.00	0.00	0.00
	Bunts Hostel Cross Road						
	MH-353 to O-17	Cum	0	2.30	2.30	1.04	0.00
	Bunts Hostel Cross Road						
	MH- 668 to O-15	Cum	0	2.30	2.30	1.21	0.00
	Bunts Hostel Cross Road						
	MH-588 to O-16	Cum	0	2.00	2.00	0.22	0.00
	Bunts Hostel Cross Road						
	MH-928 to O-14	Cum	4	2.10	2.10	1.29	22.79
	Bridge Road						
	MH-1264 to O-35	Cum	13	2.00	2.00	0.00	0.00
	Arya Samaj Road						
	MH-1462 to O-12	Cum	22	2.30	2.30	0.23	26.25
	Arya Samaj Cross Road						
	MH-2498 to O-45	Cum	3	2.30	2.30	0.00	0.00
	Arya Samaj Cross Road						
	MH-1390 to O-46	Cum	2	2.30	2.30	0.01	0.05
	Kadri Cross Road						
	MH-1107 to O-13	Cum	6	2.10	2.10	0.88	23.37
	KRR Cross Road						
	MH-813 to MH-1416	Cum	3	2.00	2.00	0.69	8.28
							659.46
		Cum				Total	3070.41
	Total trenchline Qty	Cum					2410.95
	30% of Total Qty	Cum					723.29

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
5	Earthwork excavation for pipeline trenches (Except building work) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring, strutting, bailing out water at every 100 meters wherever necessary as directed in the following Strata KUWSDB SR 15-16, SI No 1-i-(c), Pg No 5						
i	do in all soils mixed mixed with boulders of 30 cms size upto an exclusive of disintegrated rock D182						
A	Zone 3 Part 1						
c	4 to 6 mtr Depth						
	KSR Cross Road						
	MH-904 to O-30	Cum	1	0.00	0.80	0.00	0.00
	KSR Cross Road						
	MH-1891 to O-11	Cum	1	0.00	0.80	0.00	0.00
	KSR Cross Road						
	MH-728 to MH-1891	Cum	1	0.00	0.80	0.00	0.00
	Balmatta Cross Road						
	MH-1027 to MH-1895	Cum	1	0.00	0.80	0.00	0.00
	KSR Cross Road						
	MH-666 to O-40	Cum	1	0.00	0.80	0.00	0.00
	KSR Cross Road						
	MH-369 to O-43	Cum	1	0.00	0.80	0.00	0.00
	KSR Cross Road						
	MH-1205 to O-37	Cum	1	0.00	0.80	1.30	0.00
	KSR Cross Road						
	MH-155 to O-38	Cum	1	23.80	0.80	0.00	0.00
	Court Cross Road						
	MH-1207 to O-39	Cum	1	200.70	0.80	0.00	0.00
	Court Cross Road						
	MH-645 to MH-644	Cum	1	46.00	0.80	0.00	0.00
	St Aloysius College Road						
	MH-1003 to O-22	Cum	1	0.00	0.80	0.00	0.00
	St Aloysius College Road						
	MH-1469 to O-21	Cum	1	0.00	0.80	0.00	0.00
	St Aloysius College Road and Court Road						
	MH-2491 to O-34	Cum	1	0.00	0.80	0.21	0.00
	Court Road						
	MH-1136 to MH-1537	Cum	1	0.00	0.80	0.39	0.00
	Court Cross Road						
	MH-826 to MH-827	Cum	1	0.00	0.80	0.00	0.00
	Court Road						
	MH-1498 to O-23	Cum	1	0.00	0.80	0.00	0.00
	KRR Cross Road						
	MH-321 to MH-2454	Cum	1	0.00	0.80	0.00	0.00
	KRR Cross Road						
	MH-1065 to O-20	Cum	1	0.00	0.80	0.00	0.00
	KRR Cross Road						
	MH-1096 to O-18	Cum	1	0.00	0.80	0.00	0.00
	KRR Cross Road						
	MH-533 to O-19	Cum	1	0.00	0.80	0.00	0.00
	Bunts Hostel Cross Road						
	MH-353 to O-17	Cum	1	0.00	0.80	0.00	0.00
	Bunts Hostel Cross Road						
	MH- 668 to O-15	Cum	1	0.00	0.80	0.48	0.00
	Bunts Hostel Cross Road						
	MH-588 to O-16	Cum	1	0.00	0.80	0.00	0.00
	Bunts Hostel Cross Road						
	MH-928 to O-14	Cum	1	99.00	0.80	1.42	112.46
	Bridge Road						
	MH-1264 to O-35	Cum	1	285.30	0.80	0.00	0.00
	Arya Samaj Road						
	MH-1462 to O-12	Cum	1	543.10	0.80	0.00	0.00
	Arya Samaj Cross Road						
	MH-2498 to O-45	Cum	1	76.20	0.80	0.00	0.00
	Arya Samaj Cross Road						
	MH-1390 to O-46	Cum	1	46.00	0.80	0.00	0.00

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	Kadri Cross Road						
	MH-1107 to O-13	Cum	1	131.80	0.80	0.00	0.00
	KRR Cross Road						
	MH-813 to MH-1416	Cum	1	84.00	0.80	0.00	0.00
							112.46
	4 to 6 mtr Depth (for Manhole)						
	KSR Cross Road						
	MH-904 to O-30	Cum	0	2.00	2.00	0.00	0.00
	KSR Cross Road						
	MH-1891 to O-11	Cum	0	2.00	2.00	0.00	0.00
	KSR Cross Road						
	MH-728 to MH-1891	Cum	0	2.00	2.00	0.00	0.00
	Balmatta Cross Road						
	MH-1027 to MH-1895	Cum	0	2.00	2.00	0.00	0.00
	KSR Cross Road						
	MH-666 to O-40	Cum	0	2.00	2.00	0.00	0.00
	KSR Cross Road						
	MH-369 to O-43	Cum	0	2.00	2.00	0.00	0.00
	KSR Cross Road						
	MH-1205 to O-37	Cum	0	2.30	2.30	1.47	0.00
	KSR Cross Road						
	MH-155 to O-38	Cum	1	2.00	2.00	0.00	0.00
	Court Cross Road						
	MH-1207 to O-39	Cum	9	2.00	2.00	0.00	0.00
	Court Cross Road						
	MH-645 to MH-644	Cum	2	2.15	2.15	0.00	0.00
	St Aloysius College Road						
	MH-1003 to O-22	Cum	0	2.00	2.00	0.00	0.00
	St Aloysius College Road						
	MH-1469 to O-21	Cum	0	2.00	2.00	0.00	0.00
	St Aloysius College Road and Court Road						
	MH-2491 to O-34	Cum	0	2.00	2.00	0.34	0.00
	Court Road						
	MH-1136 to MH-1537	Cum	0	2.30	2.30	0.64	0.00
	Court Cross Road						
	MH-826 to MH-827	Cum	0	2.00	2.00	0.00	0.00
	Court Road						
	MH-1498 to O-23	Cum	0	2.00	2.00	0.00	0.00
	KRR Cross Road						
	MH-321 to MH-2454	Cum	0	2.00	2.00	0.00	0.00
	KRR Cross Road						
	MH-1065 to O-20	Cum	0	2.00	2.00	0.00	0.00
	KRR Cross Road						
	MH-1096 to O-18	Cum	0	2.00	2.00	0.00	0.00
	KRR Cross Road						
	MH-533 to O-19	Cum	0	2.00	2.00	0.00	0.00
	Bunts Hostel Cross Road						
	MH-353 to O-17	Cum	0	2.30	2.30	0.00	0.00
	Bunts Hostel Cross Road						
	MH- 668 to O-15	Cum	0	2.30	2.30	0.73	0.00
	Bunts Hostel Cross Road						
	MH-588 to O-16	Cum	0	2.00	2.00	0.00	0.00
	Bunts Hostel Cross Road						
	MH-928 to O-14	Cum	4	2.10	2.10	1.67	29.46
	Bridge Road						
	MH-1264 to O-35	Cum	13	2.00	2.00	0.00	0.00
	Arya Samaj Road						
	MH-1462 to O-12	Cum	22	2.30	2.30	0.00	0.00
	Arya Samaj Cross Road						
	MH-2498 to O-45	Cum	3	2.30	2.30	0.00	0.00
	Arya Samaj Cross Road						
	MH-1390 to O-46	Cum	2	2.30	2.30	0.00	0.00
	Kadri Cross Road						
	MH-1107 to O-13	Cum	6	2.10	2.10	0.00	0.00
	KRR Cross Road						
	MH-813 to MH-1416	Cum	3	2.00	2.00	0.00	0.00

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
7	Earthwork excavation for pipeline trenches (Except building work) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring, strutting, bailing out water at every 100 meters wherever necessary as directed in the following Strata KUWSDB SR 15-16, SI No 1-iii-(a), Pg No 7						
iii	In hard laterite rock or hard laterite rock containing iron ore upto 20% by chistelling and trimming to proper slope						
a	0 to 2 mtr Depth						
	Total Trench line Qty	Cum	1				18017.34
	Total 5% Quantity	Cum					900.87
b	2 to 4 mtr Depth						
	Total Trench line Qty	Cum	1				2410.95
	Total 10% Quantity	Cum					241.10
c	4 to 6 mtr Depth						
	Total Trench line Qty	Cum	1				112.46
	Total 5% Quantity	Cum					5.62
8	Earthwork excavation for pipeline trenches (Except building work) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring, strutting, bailing out water at every 100 meters wherever necessary as directed in the following Strata KUWSDB SR 15-16, SI No 1-iv-(a), Pg No 7						
	In hard laterite rock containing iron ore above 20% by chistelling and trimming to proper slope						
a	0 to 2 mtr Depth						
	Total Trench line Qty	Cum	1				18017.34
	Total 2% Quantity	Cum					360.35
b	2 to 4 mtr Depth						
	Total Trench line Qty	Cum	1				2410.95
	Total 10% Quantity	Cum					241.10
c	4 to 6 mtr Depth						
	Total Trench line Qty	Cum	1				112.46
	Total 10% Quantity	Cum					11.25
9	Earthwork excavation for pipeline trenches (Except building work) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring, strutting, bailing out water at every 100 meters wherever necessary as directed in the following Strata KUWSDB SR 15-16, SI No 1-vi-(a), Pg No 9						
	In hard rock by Controlled blasting						
a	0 to 2 mtr Depth						
	Total Trench line Qty	Cum	1				18017.34
	Total 2% Quantity	Cum					360.35
b	2 to 4 mtr Depth						
	Total Trench line Qty	Cum	1				2410.95
	Total 20% Quantity	Cum					482.19
c	4 to 6 mtr Depth						
	Total Trench line Qty	Cum	1				112.46
	Total 30% Quantity	Cum					33.74

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
10	Earthwork excavation for pipeline trenches (Except building work) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring, strutting, bailing out water at every 100 meters wherever necessary as directed in the following Strata KUWSDB SR 15-16, SI No 1-v-(a), Pg No 7						
	In hard rock by chistelling						
a	0 to 2 mtr Depth						
	Total Trench line Qty	Cum	1				18017.34
	Total 1% Quantity	Cum					180.17
b	2 to 4 mtr Depth						
	Total Trench line Qty	Cum	1				2410.95
	Total 10% Quantity	Cum					241.10
c	4 to 6 mtr Depth						
	Total Trench line Qty	Cum	1				112.46
	Total 40% Quantity	Cum					44.98
11	Providing course sand bedding for the pipeline trenches including watering and consolidation by punners etc., complete with all lead and lift (In black cotton and rock reaches) KUWSDB 15-16, Pg No 17, SI No.6						
A	Zone 4 Part 2						
	Vol of sand Boxing						
	Old Port Road						
	MH 2551 to O92	Cum	1	52.80	0.80	0.15	6.34
	Azizudheen Road						
	MH 2550 to MH 2565	Cum	1	56.50	0.80	0.15	6.78
	Azizudheen Road						
	MH 646 to MH 2565	Cum	1	52.10	0.80	0.15	6.25
	Azizudheen Road						
	MH 315 to MH 2247	Cum	1	37.60	0.80	0.15	4.51
	Azizudheen Road						
	MH 2239 to MH 2565	Cum	1	146.00	0.80	0.15	17.52
	Azizudheen Road						
	MH 435 to MH 2243	Cum	1	34.10	0.80	0.15	4.09
	Azizudheen Road						
	MH 2565 to MH 379	Cum	1	69.00	0.80	0.15	8.28
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Cum	1	390.30	0.80	0.15	46.84
	Azizudheen Road						
	MH 2209 to MH 2521	Cum	1	85.90	0.80	0.15	10.31
	Old Port Road						
	MH 2553 to MH 2558	Cum	1	87.30	0.80	0.15	10.48
	Cross Road						
	MH 930 to MH 2563	Cum	1	79.60	0.80	0.15	9.55
	Bunder Cross Road						
	MH 2520 to MH 2292	Cum	1	107.20	0.80	0.15	12.86
	Cartstreet Road						
	MH 1750 to MH 2525	Cum	1	197.40	0.80	0.15	23.69
	Lower Carstreet Road						
	MH 517 to MH 2508	Cum	1	207.70	0.80	0.15	24.92
	Lower Carstreet Road						
	MH 269 to MH 270	Cum	1	26.60	0.80	0.15	3.19
	Lower Carstreet Road						
	MH 1600 to MH 1624	Cum	1	422.00	0.80	0.15	50.64
	Lower Carstreet Road						
	MH 1763 to MH 2539	Cum	1	48.60	0.80	0.15	5.83
	Basavana Gudi Street and Kandathpalli Road						
	MH 1194 to MH 1610	Cum	1	362.00	0.80	0.15	43.44
	Cross and Mochigali Road						
	MH 715 to MH 1026	Cum	1	151.40	0.80	0.15	18.17
	Bibi Alabi Road						
	MH 2259 to MH 2495	Cum	1	76.80	0.80	0.15	9.22

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	Bibi Alabi Road						
	MH 692 to O78	Cum	1	111.04	0.80	0.15	13.32
	Bibi Alabi Road						
	MH 1138 to MH 2495	Cum	1	55.00	0.80	0.15	6.60
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Cum	1	347.30	0.80	0.15	41.68
	Ansari Cross Road						
	MH 709 to MH 710	Cum	1	56.50	0.80	0.15	6.78
	Ansari Road						
	MH 2580 to MH 514	Cum	1	49.40	0.80	0.15	5.93
	Ansari Cross Road						
	MH 2581 to MH 636	Cum	1	51.80	0.80	0.15	6.22
	Ansari Road						
	MH 648 TO MH 649	Cum	1	54.00	0.80	0.15	6.48
	J M 2nd Cross Road						
	MH 2542 TO O 76	Cum	1	172.90	0.80	0.15	20.75
	J M 1st Cross Road						
	MH 2519 TO O 77	Cum	1	88.80	0.80	0.15	10.66
	Bibi Alabi Road						
	MH 2123 TO MH1247	Cum	1	62.40	0.80	0.15	7.49
	Kasa Gaddi Road						
	MH 1030 to MH 2130	Cum	1	98.80	0.80	0.15	11.86
	J M 2nd Cross and GM Road						
	MH 2130 to MH 2567	Cum	1	152.90	0.80	0.15	18.35
	GM Road						
	MH 2589 to MH 2568	Cum	1	27.60	0.80	0.15	3.31
	J M 2nd Cross Road						
	MH 2590 to MH 81	Cum	1	22.00	0.80	0.15	2.64
	J M 2nd Cross Road						
	MH 170 to MH 26	Cum	1	22.20	0.80	0.15	2.66
	Urdu School Road						
	MH 705 to MH 2133	Cum	1	59.00	0.80	0.15	7.08
	MPT Cross Road						
	MH 1074 to MH 2546	Cum	1	115.50	0.80	0.15	13.86
	JM 5th Cross Road						
	MH 2350 to O 73	Cum	1	80.70	0.80	0.15	9.68
	Kasa Gadi Cross Road						
	MH 50 to MH 2128	Cum	1	16.20	0.80	0.15	1.94
	MPT Cross Road						
	MH 957 to MH 958	Cum	1	86.50	0.80	0.15	10.38
	Azizudheen Road						
	MH 2575 to MH 2543	Cum	1	207.70	0.80	0.15	24.92
	JM 5th Cross and Kandathpalli west Road						
	MH 2544 to MH 2571	Cum	1	169.50	0.80	0.15	20.34
	J M 5th Cross Road						
	MH 398 to MH 399	Cum	1	32.70	0.80	0.15	3.92
	Kandathpalli West Road						
	MH 599 to MH 600	Cum	1	47.70	0.80	0.15	5.72
	Ansari Road						
	MH 402 to MH 2326	Cum	1	36.00	0.80	0.15	4.32
	Kandathpalli West Road						
	MH 1211 to MH 2320	Cum	1	126.90	0.80	0.15	15.23
	Kandathpalli West Cross Road						
	MH 2576 to MH 2466	Cum	1	23.60	0.80	0.15	2.83
	Kandathpalli West Cross Road						
	MH 2569 to MH 917	Cum	1	80.70	0.80	0.15	9.68
	Kandathpalli West Road						
	MH 1624 to MH 917	Cum	1	110.80	0.80	0.15	13.30
	Kandathpalli West Road						
	MH 917 to MH 773	Cum	1	38.60	0.80	0.15	4.63
	Lower Carstreet and Bhatkar Bazar Road						
	MH 2398 to MH 1619	Cum	1	316.90	0.80	0.15	38.03
	Bhatkar Bazar Cross Road						
	MH 287 to MH 288	Cum	1	40.50	0.80	0.15	4.86
	Shree Kalikamba Vinayaka Street						
	MH 2522 to MH 2524	Cum	1	79.10	0.80	0.15	9.49
	Cross Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	MH 624 to MH 625	Cum	1	52.20	0.80	0.15	6.26
	Cross Road						
	MH 40 to MH 2408	Cum	1	15.40	0.80	0.15	1.85
	Cross Road						
	MH 277 to MH 278	Cum	1	29.00	0.80	0.15	3.48
B	Zone 3 Part 1						
	KSR Cross Road						
	MH-904 to O-30	Cum	1	0.00	0.80	0.15	0.00
	KSR Cross Road						
	MH-1891 to O-11	Cum	1	0.00	0.80	0.15	0.00
	KSR Cross Road						
	MH-728 to MH-1891	Cum	1	0.00	0.80	0.15	0.00
	Balmatta Cross Road						
	MH-1027 to MH-1895	Cum	1	0.00	0.80	0.15	0.00
	KSR Cross Road						
	MH-666 to O-40	Cum	1	0.00	0.80	0.15	0.00
	KSR Cross Road						
	MH-369 to O-43	Cum	1	0.00	0.80	0.15	0.00
	KSR Cross Road						
	MH-1205 to O-37	Cum	1	0.00	0.80	0.15	0.00
	KSR Cross Road						
	MH-155 to O-38	Cum	1	23.80	0.80	0.15	2.86
	Court Cross Road						
	MH-1207 to O-39	Cum	1	200.70	0.80	0.15	24.08
	Court Cross Road						
	MH-645 to MH-644	Cum	1	46.00	0.80	0.15	5.52
	St Aloysius College Road						
	MH-1003 to O-22	Cum	1	0.00	0.80	0.15	0.00
	St Aloysius College Road						
	MH-1469 to O-21	Cum	1	0.00	0.80	0.15	0.00
	St Aloysius College Road and Court Road						
	MH-2491 to O-34	Cum	1	0.00	0.80	0.15	0.00
	Court Road						
	MH-1136 to MH-1537	Cum	1	0.00	0.80	0.15	0.00
	Court Cross Road						
	MH-826 to MH-827	Cum	1	0.00	0.80	0.15	0.00
	Court Road						
	MH-1498 to O-23	Cum	1	0.00	0.80	0.15	0.00
	KRR Cross Road						
	MH-321 to MH-2454	Cum	1	0.00	0.80	0.15	0.00
	KRR Cross Road						
	MH-1065 to O-20	Cum	1	0.00	0.80	0.15	0.00
	KRR Cross Road						
	MH-1096 to O-18	Cum	1	0.00	0.80	0.15	0.00
	KRR Cross Road						
	MH-533 to O-19	Cum	1	0.00	0.80	0.15	0.00
	Bunts Hostel Cross Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
14	Supplying Unplasticised PVC pipes confirming to IS 15328:2003 with latest amendments ended with integral sockets with ISI mark and conveying to worksite,rolling and lowering into trenches,Laying true to line and level and perfect linking at joints,testing and commissioning,including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing of UPVC Pipes (with cost of elastomeric sealing rings) and specials (excluding cost of specials) with jointing of approved type,with all labour with all lead and lift including encasing the pipe around to a depth of not less than 15cms with soft gravel or selected earth available from the excavation etc.,complete and giving necessary hydraulic test to the required pressure as per ISS (Contractor will make his own arrangements for procuring water for testing) KUWSDB,Pg No 205 and 207,SI No 4.3						
	Supply and laying of PVC- U Pipes as per IS 15328 SN 4 -Ring tite: 200mm						
A	Zone 4 Part 2						
	Old Port Road						
	MH 2551 to O92	Rmt	1	52.80			52.80
	Azizudheen Road						
	MH 2550 to MH 2565	Rmt	1	56.50			56.50
	Azizudheen Road						
	MH 646 to MH 2565	Rmt	1	52.10			52.10
	Azizudheen Road						
	MH 315 to MH 2247	Rmt	1	37.60			37.60
	Azizudheen Road						
	MH 2239 to MH 2565	Rmt	1	146.00			146.00
	Azizudheen Road						
	MH 435 to MH 2243	Rmt	1	34.10			34.10
	Azizudheen Road						
	MH 2565 to MH 379	Rmt	1	69.00			69.00
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Rmt	1	390.30			390.30
	Azizudheen Road						
	MH 2209 to MH 2521	Rmt	1	85.90			85.90
	Old Port Road						
	MH 2553 to MH 2558	Rmt	1	87.30			87.30
	Cross Road						
	MH 930 to MH 2563	Rmt	1	79.60			79.60
	Bunder Cross Road						
	MH 2520 to MH 2292	Rmt	1	107.20			107.20
	Cartstreet Road						
	MH 1750 to MH 2525	Rmt	1	197.40			197.40
	Lower Carstreet Road						
	MH 517 to MH 2508	Rmt	1	207.70			207.70
	Lower Carstreet Road						
	MH 269 to MH 270	Rmt	1	26.60			26.60
	Lower Carstreet Road						
	MH 1600 to MH 1624	Rmt	1	422.00			422.00
	Lower Carstreet Road						
	MH 1763 to MH 2539	Rmt	1	48.60			48.60
	Basavana Gudi Street and Kandathpalli Road						
	MH 1194 to MH 1610	Rmt	1	362.00			362.00
	Cross and Mochigali Road						
	MH 715 to MH 1026	Rmt	1	151.40			151.40
	Bibi Alabi Road						
	MH 2259 to MH 2495	Rmt	1	76.80			76.80
	Bibi Alabi Road						
	MH 692 to O78	Rmt	1	111.04			111.04
	Bibi Alabi Road						
	MH 1138 to MH 2495	Rmt	1	55.00			55.00
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Rmt	1	347.30			347.30
	Ansari Cross Road						
	MH 709 to MH 710	Rmt	1	56.50			56.50
	Ansari Road						
	MH 2580 to MH 514	Rmt	1	49.40			49.40

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	Ansari Cross Road						
	MH 2581 to MH 636	Rmt	1	51.80			51.80
	Ansari Road						
	MH 648 TO MH 649	Rmt	1	54.00			54.00
	J M 2nd Cross Road						
	MH 2542 TO O 76	Rmt	1	172.90			172.90
	J M 1st Cross Road						
	MH 2519 TO O 77	Rmt	1	88.80			88.80
	Bibi Alabi Road						
	MH 2123 TO MH1247	Rmt	1	62.40			62.40
	Kasa Gaddi Road						
	MH 1030 to MH 2130	Rmt	1	98.80			98.80
	J M 2nd Cross and GM Road						
	MH 2130 to MH 2567	Rmt	1	152.90			152.90
	GM Road						
	MH 2589 to MH 2568	Rmt	1	27.60			27.60
	J M 2nd Cross Road						
	MH 2590 to MH 81	Rmt	1	22.00			22.00
	J M 2nd Cross Road						
	MH 170 to MH 26	Rmt	1	22.20			22.20
	Urdu School Road						
	MH 705 to MH 2133	Rmt	1	59.00			59.00
	MPT Cross Road						
	MH 1074 to MH 2546	Rmt	1	115.50			115.50
	JM 5th Cross Road						
	MH 2350 to O 73	Rmt	1	80.70			80.70
	Kasa Gadi Cross Road						
	MH 50 to MH 2128	Rmt	1	16.20			16.20
	MPT Cross Road						
	MH 957 to MH 958	Rmt	1	86.50			86.50
	Azizudheen Road						
	MH 2575 to MH 2543	Rmt	1	207.70			207.70
	JM 5th Cross and Kandathpalli west Road						
	MH 2544 to MH 2571	Rmt	1	169.50			169.50
	J M 5th Cross Road						
	MH 398 to MH 399	Rmt	1	32.70			32.70
	Kandathpalli West Road						
	MH 599 to MH 600	Rmt	1	47.70			47.70
	Ansari Road						
	MH 402 to MH 2326	Rmt	1	36.00			36.00
	Kandathpalli West Road						
	MH 1211 to MH 2320	Rmt	1	126.90			126.90
	Kandathpalli West Cross Road						
	MH 2576 to MH 2466	Rmt	1	23.60			23.60
	Kandathpalli West Cross Road						
	MH 2569 to MH 917	Rmt	1	80.70			80.70
	Kandathpalli West Road						
	MH 1624 to MH 917	Rmt	1	110.80			110.80
	Lower Carstreet and Bhatkar Bazar Road						
	MH 2398 to MH 1619	Rmt	1	316.90			316.90
	Bhatkar Bazar Cross Road						
	MH 287 to MH 288	Rmt	1	40.50			40.50
	Shree Kalikamba Vinayaka Street						
	MH 2522 to MH 2524	Rmt	1	79.10			79.10
	Cross Road						
	MH 624 to MH 625	Rmt	1	52.20			52.20
	Cross Road						
	MH 40 to MH 2408	Rmt	1	15.40			15.40
	Cross Road						
	MH 277 to MH 278	Rmt	1	29.00			29.00
B	Zone 3 Part 1						
	KSR Cross Road						
	MH-904 to O-30	Rmt	1	0.00			0.00
	KSR Cross Road						
	MH-1891 to O-11	Rmt	1	0.00			0.00
	KSR Cross Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	MH-728 to MH-1891	Rmt	1	0.00			0.00
	Balmatta Cross Road						
	MH-1027 to MH-1895	Rmt	1	0.00			0.00
	KSR Cross Road						
	MH-666 to O-40	Rmt	1	0.00			0.00
	KSR Cross Road						
	MH-369 to O-43	Rmt	1	0.00			0.00
	KSR Cross Road						
	MH-1205 to O-37	Rmt	1	0.00			0.00
	KSR Cross Road						
	MH-155 to O-38	Rmt	1	23.80			23.80
	Court Cross Road						
	MH-1207 to O-39	Rmt	1	200.70			200.70
	Court Cross Road						
	MH-645 to MH-644	Rmt	1	46.00			46.00
	St Aloysius College Road						
	MH-1003 to O-22	Rmt	1	0.00			0.00
	St Aloysius College Road						
	MH-1469 to O-21	Rmt	1	0.00			0.00
	St Aloysius College Road and Court Road						
	MH-2491 to O-34	Rmt	1	0.00			0.00
	Court Road						
	MH-1136 to MH-1537	Rmt	1	0.00			0.00
	Court Cross Road						
	MH-826 to MH-827	Rmt	1	0.00			0.00
	Court Road						
	MH-1498 to O-23	Rmt	1	0.00			0.00
	KRR Cross Road						
	MH-321 to MH-2454	Rmt	1	0.00			0.00
	KRR Cross Road						
	MH-1065 to O-20	Rmt	1	0.00			0.00
	KRR Cross Road						
	MH-1096 to O-18	Rmt	1	0.00			0.00
	KRR Cross Road						
	MH-533 to O-19	Rmt	1	0.00			0.00
	Bunts Hostel Cross Road						
	MH-353 to O-17	Rmt	1	0.00			0.00
	Bunts Hostel Cross Road						
	MH- 668 to O-15	Rmt	1	0.00			0.00
	Bunts Hostel Cross Road						
	MH-588 to O-16	Rmt	1	0.00			0.00
	Bunts Hostel Cross Road						
	MH-928 to O-14	Rmt	1	99.00			99.00
	Bridge Road						
	MH-1264 to O-35	Rmt	1	285.30			285.30
	Arya Samaj Road						
	MH-1462 to O-12	Rmt	1	543.10			543.10
	Arya Samaj Cross Road						
	MH-2498 to O-45	Rmt	1	76.20			76.20
	Arya Samaj Cross Road						
	MH-1390 to O-46	Rmt	1	46.00			46.00
	Kadri Cross Road						
	MH-1107 to O-13	Rmt	1	131.80			131.80
	KRR Cross Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	MH-813 to MH-1416	Rmt	1	84.00			84.00
		Rmt				Total	7326.00
15	Supplying Unplasticised PVC pipes confirming to IS 15328:2003 with latest amendments ended with integral sockets with ISI mark and conveying to worksite,rolling and lowering into trenches,Laying true to line and level and perfect linking at joints,testing and commissioning,including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing of UPVC Pipes (with cost of elastomeric sealing rings) and specials (excluding cost of specials) with jointing of approved type,with all labour with all lead and lift including encasing the pipe around to a depth of not less than 15cms with soft gravel or selected earth available from the excavation etc.,complete and giving necessary hydraulic test to the required pressure as per ISS (Contractor will make his own arrangements for procuring water for testing) KUWSDB,Pg No 205 and 207,SI No 4.4						
	Supply and laying of PVC- U Pipes as per IS 15328 SN 4 -Ring tite: 250mm						
	Kandathpalli West Road						
	MH 917 to MH 773	Rmt	1	38.60			38.60
		Rmt				Total	39.00
16	Supplying Unplasticised PVC pipes confirming to IS 15328:2003 with latest amendments ended with integral sockets with ISI mark and conveying to worksite,rolling and lowering into trenches,Laying true to line and level and perfect linking at joints,testing and commissioning,including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing of UPVC Pipes (with cost of elastomeric sealing rings) and specials (excluding cost of specials) with jointing of approved type,with all labour with all lead and lift including encasing the pipe around to a depth of not less than 15cms with soft gravel or selected earth available from the excavation etc.,complete and giving necessary hydraulic test to the required pressure as per ISS (Contractor will make his own arrangements for procuring water for testing) KUWSDB,Pg No 207 and 207,SI No b1						
	Supply and laying of PVC- U Pipes as per IS 15328 SN 8 -Ring tite: 110mm						
	For Household Connection- Zone 4 Part 2 (MH = 206Nos, L=5m X 4 connections in each manhole)-Road width >3m	Rmt	206	20.00			4120.00
	For Household Connection- Zone 4 Part 2 (MH = 44Nos, L=5m X 4 connections in each manhole)-Road width <3m	Rmt	44	20.00			880.00
	For Household Connection- Zone 3 Part 1 (MH = 57Nos, L=5m X 4 connections in each manhole)-Road width >3m	Rmt	57	20.00			1140.00
	For Household Connection- Zone 3 Part 1 (MH = 8Nos, L=5m X 4 connections in each manhole)-Road width <3m	Rmt	8	20.00			160.00
		Rmt				Total	6300.00

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
17	Construction RCC M25 circular inspection chamber 600 mm dia x 600mm depth (clear inside dimension) for single pipeline, with M15 PCC bed for 100 mm thick using mix with cement @240 kgs granite graded metal of 20 mm and down size and clean sieved river sand , M25 RCC raft & sidewall concrete with 20mm and downsize granite metal , finish smooth with a floating coat of cement on walls and bed concrete complete , including fixing and grouting of pipes, including conveying to work spot supply and fixing SFRC manhole cover and frame (Heavy Duty) confirming to IS: 12592 with latest amendments as per standard design including cost of reinforcement, all materials, labour charges, curing complete as per specifications. As Per Data Rate						
	450x300mm and 450mm depth (clear inside dimension) for single pipeline,using table moulded non modular bricks of class designation 50 in cement mortar 1:5,CI cover with frame (light duty) 450x300mm						
	Zone 4 Part 2						
	Inspection chambers for house service connections (Road width greater than 3m) - MH No= 206 Nos x 2 chambers per Manhole	Nos	412				412.00
	Zone 3 Part 1						
	Inspection chambers for house service connections (Road width greater than 3m) - MH No= 57 Nos x 2 chambers per Manhole	Nos	114				114.00
		Nos				Total	526.00
18	Making connections of drain or sewer line of size 100mm to 230mm external dia with existing manhole including breaking into and making good the walls, floors with cement concrete M15 with 20mm and downsize granite metal mix cement plastered on both sides with cement mortar 1:3 finished with a floating coat of neat cement and making necessary channels for the drain etc., complete PWD SR 2016-17,SI No.11.47.3,Pg No.73						
	Connecting Line to Existing manhole						
	Zone 4 Part 2						
	MH-1605 to MH-1606	No	1				1.00
	MH-2174 to MH-804	No	1				1.00
	MH-2136 to MH-2546	No	1				1.00
	MH-2546 to MH-2350	No	1				1.00
	MH-2129 to MH-2130	No	1				1.00
	MH-2519 to MH-910	No	1				1.00
	MH-2262 to O -78	No	1				1.00
	MH-2261 to MH-2521	No	1				1.00
	MH-191 to O -92	No	1				1.00
	MH-2320 to O -773	No	1				1.00
	MH-600 to O -2571	No	1				1.00
	MH-710 to O -2544	No	1				1.00
	MH-2272 to O - 77	No	1				1.00
	MH-2340 to O - 76	No	1				1.00
	MH-2351 to MH-2352	No	1				1.00
	MH-2352 to O-73	No	1				1.00
	MH-2325 to MH-2326	No	1				1.00
	Zone 3 Part 1						
	MH-1395 to O-12	No	1				1.00
	MH-1420 to O-13	No	1				1.00
	MH-1437 to O-14	No	1				1.00
	MH-929 to O-35	No	1				1.00
	MH-1389 to O-46	No	1				1.00
	MH-1386 to O-45	No	1				1.00
	MH-2442 to O-39	No	1				1.00
	MH-155 to O-38	No	1				1.00
		Nos				Total	25.00

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
19	Constructing RCC Manhole chamber of 1:1.5:3 proportion or approved type pre-cast RCC manhole chambers,constructed using form vibrators of standard type, with barricading, danger lighting and using of sight rails and boning rods wherever necessary , shoring and strutting wherever required using ordinary port land cement, using 1:1.5:3 proportion RCC with 20 mm and down graded jelly, well graded sand and steel of approved quality , 200 mm thick top concrete slab, having wall thickness and raft thickness as in approved drawings and with an offset in raft around the chamber as in approved drawing, benching concrete with 1:6 slope towards the central drain finished smooth, including fixing and grouting of pipes, including conveying to work spot supply and fixing SFRC manhole cover and frame (Heavy Duty) confirming to IS: 12592 with latest amendments, on a bed of CC 1:2:4 supplying and fixing of minimum 3 mm thick encapsulated plastic footsteps (as per IS 10910) on 12 mm dia. Grade Fe-415 steel bar (as per IS 1786) staggered at 300 mm apart as detailed in Technical specifications, including sand bedding wherever required, disposal of surplus earth, watering, curing, engraving manhole number with flow direction on the inner cylindrical surface etc., complete including cost of reinforcement steel and fabrication charges and also cost and conveyance of all materials, labour with all lead and lifts for various diameters and depths noted below as per specification, drawing and as						
A	Zone 4 Part 2						
	1.2m Dia Manholes						
	For 1.0m Depth	Nos	15				15.00
	For 1.1m Depth	Nos	3				3.00
	For 1.2m Depth	Nos	51				51.00
	For 1.3m Depth	Nos	30				30.00
	For 1.4m Depth	Nos	23				23.00
	For 1.5m Depth	Nos	22				22.00
	For 1.6m Depth	Nos	15				15.00
	For 1.7m Depth	Nos	7				7.00
	For 1.8m Depth	Nos	9				9.00
	For 1.9m Depth	Nos	4				4.00
	For 2.0m Depth	Nos	6				6.00
	For 2.1m Depth	Nos	7				7.00
	For 2.2m Depth	Nos	10				10.00
	For 2.3m Depth	Nos	3				3.00
	For 2.4m Depth	Nos	5				5.00
	For 2.5m Depth	Nos	2				2.00
	For 2.6m Depth	Nos	4				4.00
	For 2.7m Depth	Nos	6				6.00
	For 2.8m Depth	Nos	3				3.00
	For 2.9m Depth	Nos	3				3.00
	For 3.0m Depth	Nos	2				2.00
		Nos				Total	230.00
	1.5m Dia Manholes						
	For 3.1m Depth	Nos	4				4.00
	For 3.2m Depth	Nos	4				4.00
	For 3.3m Depth	Nos	3				3.00
	For 3.4m Depth	Nos	2				2.00
	For 3.5m Depth	Nos	1				1.00
	For 3.7m Depth	Nos	1				1.00
	For 3.9m Depth	Nos	1				1.00
	For 4.0m Depth	Nos	2				2.00
	For 4.2m Depth	Nos	2				2.00
		Nos				Total	20.00
B	Zone 3 Part 1						
	1.2m Dia Manholes						
	For 1.0m Depth	Nos	1				1.00
	For 1.1m Depth	Nos	1				1.00
	For 1.2m Depth	Nos	13				13.00
	For 1.3m Depth	Nos	1				1.00
	For 1.4m Depth	Nos	7				7.00
	For 1.5m Depth	Nos	18				18.00
	For 1.6m Depth	Nos	5				5.00
	For 1.7m Depth	Nos	1				1.00
	For 1.8m Depth	Nos	3				3.00

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	For 2.0m Depth	Nos	1				1.00
	For 2.2m Depth	Nos	3				3.00
	For 2.3m Depth	Nos	1				1.00
	For 2.4m Depth	Nos	2				2.00
	For 2.7m Depth	Nos	1				1.00
	For 2.8m Depth	Nos	2				2.00
	For 2.9m Depth	Nos	1				1.00
		Nos					61.00
	1.5m Dia Manholes						
	For 3.1m Depth	Nos	1				1.00
	For 3.3m Depth	Nos	1				1.00
	For 3.4m Depth	Nos	1				1.00
	For 3.6m Depth	Nos	1				1.00
		Nos					4.00
						Total	315.00
20	Providing and fixing Drop arrangements ,with following diameter HDPE Garde PE-100 Pipes,confirming to PN 6 as per IS 4984-1995 with latest amendments vertical drop pipe with MS fastenings at 300 mm dia C/C,with suitable expander /reducer HDPE T joint at top with incoming sewer with one end of Tee inside the manhole closed with end cap and 45 degree bend at the bottom with HDPE Specials and encasing the pipe outside manhole with cement concrete of 1:2:4 proportion,150/200 mm thick around the HDPE pipe including vibrating,Compacting,Necessary centering and formwork,curing testing,including cost and conveyance of all materials,labour with all lead and lift etc.,complete as perspecification drawing and as directed by the engineer in charge BWSSB SI No.98,Pg No.91						
	For 150/200 mm dia incoming sewer pipe - Zone 4 Part 2	Rmt	1	11.79			11.79
	For 150/200 mm dia incoming sewer pipe - Zone 3 Part 1	Rmt	1	2.72			2.72
		Rmt				Total	14.51
21	Refilling Pipeline Trenches and foundation with selected available earth from trench excavation and foundation including watering,consolidation in layers of 15cms.,thick including disposing off the surplus earth with all lead and lift. KUWSDB Pg No 15,SI No 2						
A	Zone 4 Part 2 and Zone 3 Part 1						
a	Excavation Qty (Pipe Line trench and manhole) -SI No 5	Cum	1				23687.92
b	Deduction						
	Sand Bed Qty (Only for Pipe line trench,Household and manhole side)-SI No 11	Cum	-1				-1450.76
	Pipe Qty - SI No 11	Cum	-1				-357.60
	PCC and Raft Qty for manhole - SI No 11	Cum	-1				-508.25
	Manhole Ded - SI No 11	Cum	-1				-1530.46
	Road Restoration Qty (SI No.23,24,26 and 28)	Cum	-1				-8428.65
						Total Refilled Qty	11412.20
22	Removal of Unserviceable Soil with Disposal KSRRB M300-19. Removal of unserviceable soil including excavation, loading and disposal but excluding replacement by suitable soil which shall be paid separately as per clause 300.5 complete as per specifications. MORTH Specification No. 301 KPWD Pg No. ,SI No.19.20						
A	Zone 4 Part 2 and Zone 3 Part 1						
a	Excavation Qty (SI No 5)	Cum	1				23687.92
b	Deduction						
	Refilled Excavated Soil Qty (SI No. 21)	Cum	-1				-11412.20
	Total Qty	Cum					12275.72
	Deduct 0.75% Wastage during loading	Cum	-1				-92.07
	Net Qty	Cum					12183.65

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
23	KSRRB M400-6.1 Construction of granualr sub-base by providing close graded crushed stone aggregates of granite/trap/basalt material, mixing in a mechanical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications, Including environmental and social safe guards, including all taxes, as directed by the Engineer-in-Charge etc. Close graded granular sub-base material as per 400-1, For Grading - I material , by Plant Mix Method KSRRB Pg No.155,20.4.1						
A	Zone 4 Part 2						
	Only for Pipe portion trench						
	Old Port Road						
	MH 2551 to O92	Cum	1	52.80	1.20	0.30	19.01
	Azizudheen Road						
	MH 2550 to MH 2565	Cum	1	56.50	1.20	0.30	20.34
	Azizudheen Road						
	MH 646 to MH 2565	Cum	1	52.10	1.20	0.30	18.76
	Azizudheen Road						
	MH 315 to MH 2247	Cum	1	37.60	2.10	0.30	23.69
	Azizudheen Road						
	MH 2239 to MH 2565	Cum	1	146.00	1.20	0.30	52.56
	Azizudheen Road						
	MH 435 to MH 2243	Cum	1	34.10	1.20	0.30	12.28
	Azizudheen Road						
	MH 2565 to MH 379	Cum	1	69.00	2.10	0.30	43.47
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Cum	1	390.30	1.20	0.30	140.51
	Azizudheen Road						
	MH 2209 to MH 2521	Cum	1	85.90	1.20	0.30	30.92
	Old Port Road						
	MH 2553 to MH 2558	Cum	1	87.30	1.20	0.30	31.43
	Cross Road						
	MH 930 to MH 2563	Cum	1	79.60	2.20	0.30	52.54
	Bunder Cross Road						
	MH 2520 to MH 2292	Cum	1	107.20	1.20	0.30	38.59
	Cartstreet Road						
	MH 1750 to MH 2525	Cum	1	197.40	1.20	0.30	71.06
	Lower Carstreet Road						
	MH 517 to MH 2508	Cum	1	207.70	2.35	0.30	146.43
	Lower Carstreet Road						
	MH 269 to MH 270	Cum	1	26.60	1.20	0.30	9.58
	Lower Carstreet Road						
	MH 1600 to MH 1624	Cum	1	422.00	2.10	0.30	265.86
	Lower Carstreet Road						
	MH 1763 to MH 2539	Cum	1	48.60	1.20	0.30	17.50
	Basavana Gudi Street and Kandathpalli Road						
	MH 1194 to MH 1610	Cum	1	362.00	2.10	0.30	228.06
	Cross and Mochigali Road						
	MH 715 to MH 1026	Cum	1	151.40	2.30	0.30	104.47
	Bibi Alabi Road						
	MH 2259 to MH 2495	Cum	1	76.80	1.20	0.30	27.65
	Bibi Alabi Road						
	MH 692 to O78	Cum	1	111.04	2.38	0.30	79.12
	Bibi Alabi Road						
	MH 1138 to MH 2495	Cum	1	55.00	2.10	0.30	34.65
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Cum	1	347.30	2.10	0.30	218.80
	Ansari Cross Road						
	MH 709 to MH 710	Cum	1	56.50	2.30	0.30	38.99
	Ansari Road						
	MH 2580 to MH 514	Cum	1	49.40	2.75	0.30	40.76
	Ansari Cross Road						
	MH 2581 to MH 636	Cum	1	51.80	2.10	0.30	32.63
	Ansari Road						
	MH 648 TO MH 649	Cum	1	54.00	2.10	0.30	34.02
	J M 2nd Cross Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	MH 2542 TO O 76	Cum	1	172.90	1.20	0.30	62.24
	J M 1st Cross Road						
	MH 2519 TO O 77	Cum	1	88.80	2.10	0.30	55.94
	Bibi Alabi Road						
	MH 2123 TO MH1247	Cum	1	62.40	1.20	0.30	22.46
	Kasa Gaddi Road						
	MH 1030 to MH 2130	Cum	1	98.80	2.10	0.30	62.24
	J M 2nd Cross and GM Road						
	MH 2130 to MH 2567	Cum	1	152.90	2.10	0.30	96.33
	GM Road						
	MH 2589 to MH 2568	Cum	1	27.60	1.50	0.30	12.42
	J M 2nd Cross Road						
	MH 2590 to MH 81	Cum	1	22.00	2.00	0.30	13.20
	J M 2nd Cross Road						
	MH 170 to MH 26	Cum	1	22.20	2.00	0.30	13.32
	Urdu School Road						
	MH 705 to MH 2133	Cum	1	59.00	1.20	0.30	21.24
	MPT Cross Road						
	MH 1074 to MH 2546	Cum	1	115.50	1.20	0.30	41.58
	JM 5th Cross Road						
	MH 2350 to O 73	Cum	1	80.70	1.20	0.30	29.05
	Kasa Gadi Cross Road						
	MH 50 to MH 2128	Cum	1	16.20	2.50	0.30	12.15
	MPT Cross Road						
	MH 957 to MH 958	Cum	1	86.50	2.10	0.30	54.50
	Azizudheen Road						
	MH 2575 to MH 2543	Cum	1	207.70	1.20	0.30	74.77
	JM 5th Cross and Kandathpalli west Road						
	MH 2544 to MH 2571	Cum	1	169.50	2.10	0.30	106.79
	J M 5th Cross Road						
	MH 398 to MH 399	Cum	1	32.70	2.10	0.30	20.60
	Kandathpalli West Road						
	MH 599 to MH 600	Cum	1	47.70	2.10	0.30	30.05
	Ansari Road						
	MH 402 to MH 2326	Cum	1	36.00	3.00	0.30	32.40
	Kandathpalli West Road						
	MH 1211 to MH 2320	Cum	1	126.90	2.80	0.30	106.60
	Kandathpalli West Cross Road						
	MH 2576 to MH 2466	Cum	1	23.60	1.20	0.30	8.50
	Kandathpalli West Cross Road						
	MH 2569 to MH 917	Cum	1	80.70	2.10	0.30	50.84
	Kandathpalli West Road						
	MH 1624 to MH 917	Cum	1	110.80	2.10	0.30	69.80
	Kandathpalli West Road						
	MH 917 to MH 773	Cum	1	38.60	2.18	0.30	25.19
	Lower Carstreet and Bhatkar Bazar Road						
	MH 2398 to MH 1619	Cum	1	316.90	2.10	0.30	199.65
	Bhatkar Bazar Cross Road						
	MH 287 to MH 288	Cum	1	40.50	2.20	0.30	26.73
	Shree Kalikamba Vinayaka Street						
	MH 2522 to MH 2524	Cum	1	79.10	1.20	0.30	28.48
	Cross Road						
	MH 624 to MH 625	Cum	1	52.20	2.00	0.30	31.32
	Cross Road						
	MH 40 to MH 2408	Cum	1	15.40	2.00	0.30	9.24
	Cross Road						
	MH 277 to MH 278	Cum	1	29.00	2.00	0.30	17.40
B	Zone 3 Part 1						
	Bridge Road						
	MH-1264 to O-35	Cum	1	285.30	1.20	0.30	102.71
		Cum				Total	3271.38
A	Zone 4 Part 2						
	Only for Manhole portion						
	Old Port Road						
	MH 2551 to O92	Cum	2	2.00	2.00	0.30	2.40
	Azizudheen Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	MH 2550 to MH 2565	Cum	2	2.00	2.00	0.30	2.40
	Azizudheen Road						
	MH 646 to MH 2565	Cum	3	2.00	2.00	0.30	3.60
	Azizudheen Road						
	MH 315 to MH 2247	Cum	2	2.00	2.00	0.30	2.40
	Azizudheen Road						
	MH 2239 to MH 2565	Cum	6	2.00	2.00	0.30	7.20
	Azizudheen Road						
	MH 435 to MH 2243	Cum	2	2.00	2.00	0.30	2.40
	Azizudheen Road						
	MH 2565 to MH 379	Cum	4	2.00	2.00	0.30	4.80
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Cum	16	2.00	2.00	0.30	19.20
	Azizudheen Road						
	MH 2209 to MH 2521	Cum	3	2.00	2.00	0.30	3.60
	Old Port Road						
	MH 2553 to MH 2558	Cum	3	2.00	2.00	0.30	3.60
	Cross Road						
	MH 930 to MH 2563	Cum	5	2.00	2.00	0.30	6.00
	Bunder Cross Road						
	MH 2520 to MH 2292	Cum	3	2.00	2.00	0.30	3.60
	Cartstreet Road						
	MH 1750 to MH 2525	Cum	8	2.00	2.00	0.30	9.60
	Lower Carstreet Road						
	MH 517 to MH 2508	Cum	11	2.00	2.00	0.30	13.20
	Lower Carstreet Road						
	MH 269 to MH 270	Cum	2	2.00	2.00	0.30	2.40
	Lower Carstreet Road						
	MH 1600 to MH 1624	Cum	17	2.00	2.00	0.30	20.40
	Lower Carstreet Road						
	MH 1763 to MH 2539	Cum	2	2.00	2.00	0.30	2.40
	Basavana Gudi Street and Kandathpalli Road						
	MH 1194 to MH 1610	Cum	14	2.00	2.00	0.30	16.80
	Cross and Mochigali Road						
	MH 715 to MH 1026	Cum	8	2.00	2.00	0.30	9.60
	Bibi Alabi Road						
	MH 2259 to MH 2495	Cum	3	2.00	2.00	0.30	3.60
	Bibi Alabi Road						
	MH 692 to O78	Cum	7	2.00	2.00	0.30	8.40
	Bibi Alabi Road						
	MH 1138 to MH 2495	Cum	3	2.00	2.00	0.30	3.60
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Cum	14	2.10	2.10	0.30	18.52
	Ansari Cross Road						
	MH 709 to MH 710	Cum	3	2.00	2.00	0.30	3.60
	Ansari Road						
	MH 2580 to MH 514	Cum	2	2.30	2.30	0.30	3.17
	Ansari Cross Road						
	MH 2581 to MH 636	Cum	2	2.00	2.00	0.30	2.40
	Ansari Road						
	MH 648 TO MH 649	Cum	2	2.30	2.30	0.30	3.17
	J M 2nd Cross Road						
	MH 2542 TO O 76	Cum	5	2.00	2.00	0.30	6.00
	J M 1st Cross Road						
	MH 2519 TO O 77	Cum	3	2.00	2.00	0.30	3.60
	Bibi Alabi Road						
	MH 2123 TO MH1247	Cum	3	2.00	2.00	0.30	3.60
	Kasa Gaddi Road						
	MH 1030 to MH 2130	Cum	4	2.00	2.00	0.30	4.80
	J M 2nd Cross and GM Road						
	MH 2130 to MH 2567	Cum	7	2.00	2.00	0.30	8.40
	GM Road						
	MH 2589 to MH 2568	Cum	1	2.00	2.00	0.30	1.20
	J M 2nd Cross Road						
	MH 2590 to MH 81	Cum	1	2.00	2.00	0.30	1.20
	J M 2nd Cross Road						
	MH 170 to MH 26	Cum	1	2.00	2.00	0.30	1.20

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
24	KSRRB M400- Wet Mix macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite/trap/basalt to wet mix macadam specification including per mixing the material with water at OMC in Mechanical mix plant carriage of mixed material by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specification. MORTH Specification NO.406 KSRB Pg No 158,20.18						
A	Zone 4 Part 2						
	Only for Pipe portion trench						
	Old Port Road						
	MH 2551 to O92	Cum	1	52.80	1.20	0.25	15.84
	Azizudheen Road						
	MH 2550 to MH 2565	Cum	1	56.50	1.20	0.25	16.95
	Azizudheen Road						
	MH 646 to MH 2565	Cum	1	52.10	1.20	0.25	15.63
	Azizudheen Road						
	MH 315 to MH 2247	Cum	1	37.60	2.10	0.25	19.74
	Azizudheen Road						
	MH 2239 to MH 2565	Cum	1	146.00	1.20	0.25	43.80
	Azizudheen Road						
	MH 435 to MH 2243	Cum	1	34.10	1.20	0.25	10.23
	Azizudheen Road						
	MH 2565 to MH 379	Cum	1	69.00	2.10	0.25	36.23
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Cum	1	390.30	1.20	0.25	117.09
	Azizudheen Road						
	MH 2209 to MH 2521	Cum	1	85.90	1.20	0.25	25.77
	Old Port Road						
	MH 2553 to MH 2558	Cum	1	87.30	1.20	0.25	26.19
	Cross Road						
	MH 930 to MH 2563	Cum	1	79.60	2.20	0.25	43.78
	Bunder Cross Road						
	MH 2520 to MH 2292	Cum	1	107.20	1.20	0.25	32.16
	Cartstreet Road						
	MH 1750 to MH 2525	Cum	1	197.40	1.20	0.25	59.22
	Lower Carstreet Road						
	MH 517 to MH 2508	Cum	1	207.70	2.35	0.25	122.02
	Lower Carstreet Road						
	MH 269 to MH 270	Cum	1	26.60	1.20	0.25	7.98
	Lower Carstreet Road						
	MH 1600 to MH 1624	Cum	1	422.00	2.10	0.25	221.55
	Lower Carstreet Road						
	MH 1763 to MH 2539	Cum	1	48.60	1.20	0.25	14.58
	Basavana Gudi Street and Kandathpalli Road						
	MH 1194 to MH 1610	Cum	1	362.00	2.10	0.25	190.05
	Cross and Mochigali Road						
	MH 715 to MH 1026	Cum	1	151.40	2.30	0.25	87.06
	Bibi Alabi Road						
	MH 2259 to MH 2495	Cum	1	76.80	1.20	0.25	23.04
	Bibi Alabi Road						
	MH 692 to O78	Cum	1	111.04	2.38	0.25	65.93
	Bibi Alabi Road						
	MH 1138 to MH 2495	Cum	1	55.00	2.10	0.25	28.88
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Cum	1	347.30	2.10	0.25	182.33
	Ansari Cross Road						
	MH 709 to MH 710	Cum	1	56.50	2.30	0.25	32.49
	Ansari Road						
	MH 2580 to MH 514	Cum	1	49.40	2.75	0.25	33.96
	Ansari Cross Road						
	MH 2581 to MH 636	Cum	1	51.80	2.10	0.25	27.20
	Ansari Road						
	MH 648 TO MH 649	Cum	1	54.00	2.10	0.25	28.35
	J M 2nd Cross Road						
	MH 2542 TO O 76	Cum	1	172.90	1.20	0.25	51.87

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	J M 1st Cross Road						
	MH 2519 TO O 77	Cum	1	88.80	2.10	0.25	46.62
	Bibi Alabi Road						
	MH 2123 TO MH1247	Cum	1	62.40	1.20	0.25	18.72
	Kasa Gaddi Road						
	MH 1030 to MH 2130	Cum	1	98.80	2.10	0.25	51.87
	J M 2nd Cross and GM Road						
	MH 2130 to MH 2567	Cum	1	152.90	2.10	0.25	80.27
	GM Road						
	MH 2589 to MH 2568	Cum	1	27.60	1.50	0.25	10.35
	J M 2nd Cross Road						
	MH 2590 to MH 81	Cum	1	22.00	2.00	0.25	11.00
	J M 2nd Cross Road						
	MH 170 to MH 26	Cum	1	22.20	2.00	0.25	11.10
	Urdu School Road						
	MH 705 to MH 2133	Cum	1	59.00	1.20	0.25	17.70
	MPT Cross Road						
	MH 1074 to MH 2546	Cum	1	115.50	1.20	0.25	34.65
	JM 5th Cross Road						
	MH 2350 to O 73	Cum	1	80.70	1.20	0.25	24.21
	Kasa Gadi Cross Road						
	MH 50 to MH 2128	Cum	1	16.20	2.50	0.25	10.13
	MPT Cross Road						
	MH 957 to MH 958	Cum	1	86.50	2.10	0.25	45.41
	Azizudheen Road						
	MH 2575 to MH 2543	Cum	1	207.70	1.20	0.25	62.31
	JM 5th Cross and Kandathpalli west Road						
	MH 2544 to MH 2571	Cum	1	169.50	2.10	0.25	88.99
	J M 5th Cross Road						
	MH 398 to MH 399	Cum	1	32.70	2.10	0.25	17.17
	Kandathpalli West Road						
	MH 599 to MH 600	Cum	1	47.70	2.10	0.25	25.04
	Ansari Road						
	MH 402 to MH 2326	Cum	1	36.00	3.00	0.25	27.00
	Kandathpalli West Road						
	MH 1211 to MH 2320	Cum	1	126.90	2.80	0.25	88.83
	Kandathpalli West Cross Road						
	MH 2576 to MH 2466	Cum	1	23.60	1.20	0.25	7.08
	Kandathpalli West Cross Road						
	MH 2569 to MH 917	Cum	1	80.70	2.10	0.25	42.37
	Kandathpalli West Road						
	MH 1624 to MH 917	Cum	1	110.80	2.10	0.25	58.17
	Kandathpalli West Road						
	MH 917 to MH 773	Cum	1	38.60	2.18	0.25	20.99
	Lower Carstreet and Bhatkar Bazar Road						
	MH 2398 to MH 1619	Cum	1	316.90	2.10	0.25	166.37
	Bhatkar Bazar Cross Road						
	MH 287 to MH 288	Cum	1	40.50	2.20	0.25	22.28
	Shree Kalikamba Vinayaka Street						
	MH 2522 to MH 2524	Cum	1	79.10	1.20	0.25	23.73
	Cross Road						
	MH 624 to MH 625	Cum	1	52.20	2.00	0.25	26.10
	Cross Road						
	MH 40 to MH 2408	Cum	1	15.40	2.00	0.25	7.70
	Cross Road						
	MH 277 to MH 278	Cum	1	29.00	2.00	0.25	14.50
B	Zone 3 Part 1						
	Bridge Road						
	MH-1264 to O-35	Cum	1	285.30	1.20	0.25	85.59
		Cum				Total	2726.15
A	Zone 4 Part 2						
	Only for Manhole portion						
	Old Port Road						
	MH 2551 to O92	Cum	2	2.00	2.00	0.25	2.00
	Azizudheen Road						
	MH 2550 to MH 2565	Cum	2	2.00	2.00	0.25	2.00

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	Azizudheen Road						
	MH 646 to MH 2565	Cum	3	2.00	2.00	0.25	3.00
	Azizudheen Road						
	MH 315 to MH 2247	Cum	2	2.00	2.00	0.25	2.00
	Azizudheen Road						
	MH 2239 to MH 2565	Cum	6	2.00	2.00	0.25	6.00
	Azizudheen Road						
	MH 435 to MH 2243	Cum	2	2.00	2.00	0.25	2.00
	Azizudheen Road						
	MH 2565 to MH 379	Cum	4	2.00	2.00	0.25	4.00
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Cum	16	2.00	2.00	0.25	16.00
	Azizudheen Road						
	MH 2209 to MH 2521	Cum	3	2.00	2.00	0.25	3.00
	Old Port Road						
	MH 2553 to MH 2558	Cum	3	2.00	2.00	0.25	3.00
	Cross Road						
	MH 930 to MH 2563	Cum	5	2.00	2.00	0.25	5.00
	Bunder Cross Road						
	MH 2520 to MH 2292	Cum	3	2.00	2.00	0.25	3.00
	Cartstreet Road						
	MH 1750 to MH 2525	Cum	8	2.00	2.00	0.25	8.00
	Lower Carstreet Road						
	MH 517 to MH 2508	Cum	11	2.00	2.00	0.25	11.00
	Lower Carstreet Road						
	MH 269 to MH 270	Cum	2	2.00	2.00	0.25	2.00
	Lower Carstreet Road						
	MH 1600 to MH 1624	Cum	17	2.00	2.00	0.25	17.00
	Lower Carstreet Road						
	MH 1763 to MH 2539	Cum	2	2.00	2.00	0.25	2.00
	Basavana Gudi Street and Kandathpalli Road						
	MH 1194 to MH 1610	Cum	14	2.00	2.00	0.25	14.00
	Cross and Mochigali Road						
	MH 715 to MH 1026	Cum	8	2.00	2.00	0.25	8.00
	Bibi Alabi Road						
	MH 2259 to MH 2495	Cum	3	2.00	2.00	0.25	3.00
	Bibi Alabi Road						
	MH 692 to O78	Cum	7	2.00	2.00	0.25	7.00
	Bibi Alabi Road						
	MH 1138 to MH 2495	Cum	3	2.00	2.00	0.25	3.00
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Cum	14	2.10	2.10	0.25	15.44
	Ansari Cross Road						
	MH 709 to MH 710	Cum	3	2.00	2.00	0.25	3.00
	Ansari Road						
	MH 2580 to MH 514	Cum	2	2.30	2.30	0.25	2.65
	Ansari Cross Road						
	MH 2581 to MH 636	Cum	2	2.00	2.00	0.25	2.00
	Ansari Road						
	MH 648 TO MH 649	Cum	2	2.30	2.30	0.25	2.65
	J M 2nd Cross Road						
	MH 2542 TO O 76	Cum	5	2.00	2.00	0.25	5.00
	J M 1st Cross Road						
	MH 2519 TO O 77	Cum	3	2.00	2.00	0.25	3.00
	Bibi Alabi Road						
	MH 2123 TO MH1247	Cum	3	2.00	2.00	0.25	3.00
	Kasa Gaddi Road						
	MH 1030 to MH 2130	Cum	4	2.00	2.00	0.25	4.00
	J M 2nd Cross and GM Road						
	MH 2130 to MH 2567	Cum	7	2.00	2.00	0.25	7.00
	GM Road						
	MH 2589 to MH 2568	Cum	1	2.00	2.00	0.25	1.00
	J M 2nd Cross Road						
	MH 2590 to MH 81	Cum	1	2.00	2.00	0.25	1.00
	J M 2nd Cross Road						
	MH 170 to MH 26	Cum	1	2.00	2.00	0.25	1.00
	Urdu School Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
25	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. MORTH Specification No. 502 KSRB Pg No.161,SI No:21.6						
A	Zone 4 Part 2						
	Only for Pipe portion trench						
	Old Port Road						
	MH 2551 to O92	Sqm	1	52.80	1.20		63.36
	Azizudheen Road						
	MH 2550 to MH 2565	Sqm	1	56.50	1.20		67.80
	Azizudheen Road						
	MH 646 to MH 2565	Sqm	1	52.10	1.20		62.52
	Azizudheen Road						
	MH 315 to MH 2247	Sqm	1	37.60	2.10		78.96
	Azizudheen Road						
	MH 2239 to MH 2565	Sqm	1	146.00	1.20		175.20
	Azizudheen Road						
	MH 435 to MH 2243	Sqm	1	34.10	1.20		40.92
	Azizudheen Road						
	MH 2565 to MH 379	Sqm	1	69.00	2.10		144.90
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Sqm	1	390.30	1.20		468.36
	Azizudheen Road						
	MH 2209 to MH 2521	Sqm	1	85.90	1.20		103.08
	Old Port Road						
	MH 2553 to MH 2558	Sqm	1	87.30	1.20		104.76
	Cross Road						
	MH 930 to MH 2563	Sqm	1	79.60	2.20		175.12
	Bunder Cross Road						
	MH 2520 to MH 2292	Sqm	1	107.20	1.20		128.64
	Cartstreet Road						
	MH 1750 to MH 2525	Sqm	1	197.40	1.20		236.88
	Lower Carstreet Road						
	MH 517 to MH 2508	Sqm	1	207.70	2.35		488.10
	Lower Carstreet Road						
	MH 269 to MH 270	Sqm	1	26.60	1.20		31.92
	Lower Carstreet Road						
	MH 1600 to MH 1624	Sqm	1	422.00	2.10		886.20
	Lower Carstreet Road						
	MH 1763 to MH 2539	Sqm	1	48.60	1.20		58.32
	Basavana Gudi Street and Kandathpalli Road						
	MH 1194 to MH 1610	Sqm	1	362.00	2.10		760.20
	Cross and Mochigali Road						
	MH 715 to MH 1026	Sqm	1	151.40	2.30		348.22
	Bibi Alabi Road						
	MH 2259 to MH 2495	Sqm	1	76.80	1.20		92.16
	Bibi Alabi Road						
	MH 692 to O78	Sqm	1	111.04	2.38		263.72
	Bibi Alabi Road						
	MH 1138 to MH 2495	Sqm	1	55.00	2.10		115.50
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Sqm	1	347.30	2.10		729.33
	Ansari Cross Road						
	MH 709 to MH 710	Sqm	1	56.50	2.30		129.95
	Ansari Road						
	MH 2580 to MH 514	Sqm	1	49.40	2.75		135.85
	Ansari Cross Road						
	MH 2581 to MH 636	Sqm	1	51.80	2.10		108.78
	Ansari Road						
	MH 648 TO MH 649	Sqm	1	54.00	2.10		113.40
	J M 2nd Cross Road						
	MH 2542 TO O 76	Sqm	1	172.90	1.20		207.48
	J M 1st Cross Road						
	MH 2519 TO O 77	Sqm	1	88.80	2.10		186.48
	Bibi Alabi Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
B	Zone 3 Part 1						
	Bridge Road						
	MH-1264 to O-35	Sqm	1	285.30	1.20		342.36
A	Zone 4 Part 2						
	Only for Manhole portion						
	Old Port Road						
	MH 2551 to O92	Sqm	2	2.00	2.00		8.00
	Azizudheen Road						
	MH 2550 to MH 2565	Sqm	2	2.00	2.00		8.00
	Azizudheen Road						
	MH 646 to MH 2565	Sqm	3	2.00	2.00		12.00
	Azizudheen Road						
	MH 315 to MH 2247	Sqm	2	2.00	2.00		8.00
	Azizudheen Road						
	MH 2239 to MH 2565	Sqm	6	2.00	2.00		24.00
	Azizudheen Road						
	MH 435 to MH 2243	Sqm	2	2.00	2.00		8.00
	Azizudheen Road						
	MH 2565 to MH 379	Sqm	4	2.00	2.00		16.00
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Sqm	16	2.00	2.00		64.00
	Azizudheen Road						
	MH 2209 to MH 2521	Sqm	3	2.00	2.00		12.00
	Old Port Road						
	MH 2553 to MH 2558	Sqm	3	2.00	2.00		12.00
	Cross Road						
	MH 930 to MH 2563	Sqm	5	2.00	2.00		20.00
	Bunder Cross Road						
	MH 2520 to MH 2292	Sqm	3	2.00	2.00		12.00
	Cartstreet Road						
	MH 1750 to MH 2525	Sqm	8	2.00	2.00		32.00
	Lower Carstreet Road						
	MH 517 to MH 2508	Sqm	11	2.00	2.00		44.00
	Lower Carstreet Road						
	MH 269 to MH 270	Sqm	2	2.00	2.00		8.00
	Lower Carstreet Road						
	MH 1600 to MH 1624	Sqm	17	2.00	2.00		68.00
	Lower Carstreet Road						
	MH 1763 to MH 2539	Sqm	2	2.00	2.00		8.00
	Basavana Gudi Street and Kandathpalli Road						
	MH 1194 to MH 1610	Sqm	14	2.00	2.00		56.00
	Cross and Mochigali Road						
	MH 715 to MH 1026	Sqm	8	2.00	2.00		32.00
	Bibi Alabi Road						
	MH 2259 to MH 2495	Sqm	3	2.00	2.00		12.00
	Bibi Alabi Road						
	MH 692 to O78	Sqm	7	2.00	2.00		28.00
	Bibi Alabi Road						
	MH 1138 to MH 2495	Sqm	3	2.00	2.00		12.00
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Sqm	14	2.10	2.10		61.74
	Ansari Cross Road						
	MH 709 to MH 710	Sqm	3	2.00	2.00		12.00
	Ansari Road						
	MH 2580 to MH 514	Sqm	2	2.30	2.30		10.58
	Ansari Cross Road						
	MH 2581 to MH 636	Sqm	2	2.00	2.00		8.00
	Ansari Road						
	MH 648 TO MH 649	Sqm	2	2.30	2.30		10.58
	J M 2nd Cross Road						
	MH 2542 TO O 76	Sqm	5	2.00	2.00		20.00
	J M 1st Cross Road						
	MH 2519 TO O 77	Sqm	3	2.00	2.00		12.00
	Bibi Alabi Road						
	MH 2123 TO MH1247	Sqm	3	2.00	2.00		12.00
	Kasa Gaddi Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	MH 1030 to MH 2130	Sqm	4	2.00	2.00		16.00
	J M 2nd Cross and GM Road						
	MH 2130 to MH 2567	Sqm	7	2.00	2.00		28.00
	GM Road						
	MH 2589 to MH 2568	Sqm	1	2.00	2.00		4.00
	J M 2nd Cross Road						
	MH 2590 to MH 81	Sqm	1	2.00	2.00		4.00
	J M 2nd Cross Road						
	MH 170 to MH 26	Sqm	1	2.00	2.00		4.00
	Urdu School Road						
	MH 705 to MH 2133	Sqm	3	2.00	2.00		12.00
	MPT Cross Road						
	MH 1074 to MH 2546	Sqm	5	2.00	2.00		20.00
	JM 5th Cross Road						
	MH 2350 to O 73	Sqm	2	2.00	2.00		8.00
	Kasa Gadi Cross Road						
	MH 50 to MH 2128	Sqm	1	2.00	2.00		4.00
	MPT Cross Road						
	MH 957 to MH 958	Sqm	3	2.00	2.00		12.00
	Azizudheen Road						
	MH 2575 to MH 2543	Sqm	7	2.00	2.00		28.00
	JM 5th Cross and Kandathpalli west Road						
	MH 2544 to MH 2571	Sqm	6	2.30	2.30		31.74
	J M 5th Cross Road						
	MH 398 to MH 399	Sqm	2	2.00	2.00		8.00
	Kandathpalli West Road						
	MH 599 to MH 600	Sqm	2	2.00	2.00		8.00
	Ansari Road						
	MH 402 to MH 2326	Sqm	2	2.00	2.00		8.00
	Kandathpalli West Road						
	MH 1211 to MH 2320	Sqm	8	2.00	2.00		32.00
	Kandathpalli West Cross Road						
	MH 2576 to MH 2466	Sqm	1	2.00	2.00		4.00
	Kandathpalli West Cross Road						
	MH 2569 to MH 917	Sqm	3	2.10	2.10		13.23
	Kandathpalli West Road						
	MH 1624 to MH 917	Sqm	5	2.15	2.15		23.11
	Kandathpalli West Road						
	MH 917 to MH 773	Sqm	2	2.30	2.30		10.58
	Lower Carstreet and Bhatkar Bazar Road						
	MH 2398 to MH 1619	Sqm	14	2.00	2.00		56.00
	Bhatkar Bazar Cross Road						
	MH 287 to MH 288	Sqm	2	2.00	2.00		8.00
	Shree Kalikamba Vinayaka Street						
	MH 2522 to MH 2524	Sqm	3	2.00	2.00		12.00
	Cross Road						
	MH 624 to MH 625	Sqm	3	2.00	2.00		12.00
	Cross Road						
	MH 40 to MH 2408	Sqm	1	2.00	2.00		4.00
	Cross Road						
	MH 277 to MH 278	Sqm	1	2.00	2.00		4.00
B	Zone 3 Part 1						
	Bridge Road						
	MH-1264 to O-35	Sqm	13	2.00	2.00		52.00
	For Household Connection- Zone 4 Part 2 (MH = 206Nos, L=5m X 4 connections in each manhole)-Road width >3m	Sqm	206	10.00	0.60		1236.00
	For Household Connection- Zone 4 Part 2 (MH = 44Nos, L=5m X 4 connections in each manhole)-Road width <3m	Sqm	44	10.00	0.60		264.00
	For Household Connection- Zone 3 Part 1 (MH = 13Nos, L=5m X 4 connections in each manhole)-Road width >3m	Sqm	13	10.00	0.60		78.00
				Area (Pi*r*r)			

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
A	Zone -4 (Part 2) and Zone -3 (Part 1)						
	Ded Manhole top cover Dia 0.60m and base dia 1.2m	Sqm	-243	0.283			-68.67
	Ded Manhole top cover Dia 0.60m and base dia 1.5m	Sqm	-20	0.283			-5.65
		Sqm				Total	13485.83
26	Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E loader, hot mixing of stone aggregates and bitumen in hot mix plant 40/60 TPH capacity, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to achieve the desired density, 50 / 75 mm compacted thickness with 3.4% bitumen but excluding cost of primer/tack coat with all lead and lift including cost of materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5, using 60/70 grade bitumen, Including environmental and social safe guards, including all taxes, as directed by the Engineer-in-Charge etc., complete. 50mm thick KSRRB Pg No.162,SI No. 21.11.6						
	Only for Pipe portion trench						
A	Zone 4 Part 2						
	Old Port Road						
	MH 2551 to O92	Cum	1	52.80	1.20	0.05	3.17
	Azizudheen Road						
	MH 2550 to MH 2565	Cum	1	56.50	1.20	0.05	3.39
	Azizudheen Road						
	MH 646 to MH 2565	Cum	1	52.10	1.20	0.05	3.13
	Azizudheen Road						
	MH 315 to MH 2247	Cum	1	37.60	2.10	0.05	3.95
	Azizudheen Road						
	MH 2239 to MH 2565	Cum	1	146.00	1.20	0.05	8.76
	Azizudheen Road						
	MH 435 to MH 2243	Cum	1	34.10	1.20	0.05	2.05
	Azizudheen Road						
	MH 2565 to MH 379	Cum	1	69.00	2.10	0.05	7.25
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Cum	1	390.30	1.20	0.05	23.42
	Azizudheen Road						
	MH 2209 to MH 2521	Cum	1	85.90	1.20	0.05	5.15
	Old Port Road						
	MH 2553 to MH 2558	Cum	1	87.30	1.20	0.05	5.24
	Cross Road						
	MH 930 to MH 2563	Cum	1	79.60	2.20	0.05	8.76
	Bunder Cross Road						
	MH 2520 to MH 2292	Cum	1	107.20	1.20	0.05	6.43
	Cartstreet Road						
	MH 1750 to MH 2525	Cum	1	197.40	1.20	0.05	11.84
	Lower Carstreet Road						
	MH 517 to MH 2508	Cum	1	207.70	2.35	0.05	24.40
	Lower Carstreet Road						
	MH 269 to MH 270	Cum	1	26.60	1.20	0.05	1.60
	Lower Carstreet Road						
	MH 1600 to MH 1624	Cum	1	422.00	2.10	0.05	44.31
	Lower Carstreet Road						
	MH 1763 to MH 2539	Cum	1	48.60	1.20	0.05	2.92
	Basavana Gudi Street and Kandathpalli Road						
	MH 1194 to MH 1610	Cum	1	362.00	2.10	0.05	38.01
	Cross and Mochigali Road						
	MH 715 to MH 1026	Cum	1	151.40	2.30	0.05	17.41
	Bibi Alabi Road						
	MH 2259 to MH 2495	Cum	1	76.80	1.20	0.05	4.61
	Bibi Alabi Road						
	MH 692 to O78	Cum	1	111.04	2.38	0.05	13.19
	Bibi Alabi Road						
	MH 1138 to MH 2495	Cum	1	55.00	2.10	0.05	5.78
	Bunder and Ansari Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	MH 2296 to MH 2544	Cum	1	347.30	2.10	0.05	36.47
	Ansari Cross Road						
	MH 709 to MH 710	Cum	1	56.50	2.30	0.05	6.50
	Ansari Road						
	MH 2580 to MH 514	Cum	1	49.40	2.75	0.05	6.79
	Ansari Cross Road						
	MH 2581 to MH 636	Cum	1	51.80	2.10	0.05	5.44
	Ansari Road						
	MH 648 TO MH 649	Cum	1	54.00	2.10	0.05	5.67
	J M 2nd Cross Road						
	MH 2542 TO O 76	Cum	1	172.90	1.20	0.05	10.37
	J M 1st Cross Road						
	MH 2519 TO O 77	Cum	1	88.80	2.10	0.05	9.32
	Bibi Alabi Road						
	MH 2123 TO MH1247	Cum	1	62.40	1.20	0.05	3.74
	Kasa Gaddi Road						
	MH 1030 to MH 2130	Cum	1	98.80	2.10	0.05	10.37
	J M 2nd Cross and GM Road						
	MH 2130 to MH 2567	Cum	1	152.90	2.10	0.05	16.05
	GM Road						
	MH 2589 to MH 2568	Cum	1	27.60	1.50	0.05	2.07
	J M 2nd Cross Road						
	MH 2590 to MH 81	Cum	1	22.00	2.00	0.05	2.20
	J M 2nd Cross Road						
	MH 170 to MH 26	Cum	1	22.20	2.00	0.05	2.22
	Urdu School Road						
	MH 705 to MH 2133	Cum	1	59.00	1.20	0.05	3.54
	MPT Cross Road						
	MH 1074 to MH 2546	Cum	1	115.50	1.20	0.05	6.93
	JM 5th Cross Road						
	MH 2350 to O 73	Cum	1	80.70	1.20	0.05	4.84
	Kasa Gadi Cross Road						
	MH 50 to MH 2128	Cum	1	16.20	2.50	0.05	2.03
	MPT Cross Road						
	MH 957 to MH 958	Cum	1	86.50	2.10	0.05	9.08
	Azizudheen Road						
	MH 2575 to MH 2543	Cum	1	207.70	1.20	0.05	12.46
	JM 5th Cross and Kandathpalli west Road						
	MH 2544 to MH 2571	Cum	1	169.50	2.10	0.05	17.80
	J M 5th Cross Road						
	MH 398 to MH 399	Cum	1	32.70	2.10	0.05	3.43
	Kandathpalli West Road						
	MH 599 to MH 600	Cum	1	47.70	2.10	0.05	5.01
	Ansari Road						
	MH 402 to MH 2326	Cum	1	36.00	3.00	0.05	5.40
	Kandathpalli West Road						
	MH 1211 to MH 2320	Cum	1	126.90	2.80	0.05	17.77
	Kandathpalli West Cross Road						
	MH 2576 to MH 2466	Cum	1	23.60	1.20	0.05	1.42
	Kandathpalli West Cross Road						
	MH 2569 to MH 917	Cum	1	80.70	2.10	0.05	8.47
	Kandathpalli West Road						
	MH 1624 to MH 917	Cum	1	110.80	2.10	0.05	11.63
	Kandathpalli West Road						
	MH 917 to MH 773	Cum	1	38.60	2.18	0.05	4.20
	Lower Carstreet and Bhatkar Bazar Road						
	MH 2398 to MH 1619	Cum	1	316.90	2.10	0.05	33.27
	Bhatkar Bazar Cross Road						
	MH 287 to MH 288	Cum	1	40.50	2.20	0.05	4.46
	Shree Kalikamba Vinayaka Street						
	MH 2522 to MH 2524	Cum	1	79.10	1.20	0.05	4.75
	Cross Road						
	MH 624 to MH 625	Cum	1	52.20	2.00	0.05	5.22
	Cross Road						
	MH 40 to MH 2408	Cum	1	15.40	2.00	0.05	1.54
	Cross Road						
	MH 277 to MH 278	Cum	1	29.00	2.00	0.05	2.90

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
B	Zone 3 Part 1						
	Bridge Road						
	MH-1264 to O-35	Cum	1	285.30	1.20	0.05	17.12
	Only for Manhole portion						
A	Zone 4 Part 2						
	Old Port Road						
	MH 2551 to O92	Cum	2	2.00	2.00	0.05	0.40
	Azizudheen Road						
	MH 2550 to MH 2565	Cum	2	2.00	2.00	0.05	0.40
	Azizudheen Road						
	MH 646 to MH 2565	Cum	3	2.00	2.00	0.05	0.60
	Azizudheen Road						
	MH 315 to MH 2247	Cum	2	2.00	2.00	0.05	0.40
	Azizudheen Road						
	MH 2239 to MH 2565	Cum	6	2.00	2.00	0.05	1.20
	Azizudheen Road						
	MH 435 to MH 2243	Cum	2	2.00	2.00	0.05	0.40
	Azizudheen Road						
	MH 2565 to MH 379	Cum	4	2.00	2.00	0.05	0.80
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Cum	16	2.00	2.00	0.05	3.20
	Azizudheen Road						
	MH 2209 to MH 2521	Cum	3	2.00	2.00	0.05	0.60
	Old Port Road						
	MH 2553 to MH 2558	Cum	3	2.00	2.00	0.05	0.60
	Cross Road						
	MH 930 to MH 2563	Cum	5	2.00	2.00	0.05	1.00
	Bunder Cross Road						
	MH 2520 to MH 2292	Cum	3	2.00	2.00	0.05	0.60
	Cartstreet Road						
	MH 1750 to MH 2525	Cum	8	2.00	2.00	0.05	1.60
	Lower Carstreet Road						
	MH 517 to MH 2508	Cum	11	2.00	2.00	0.05	2.20
	Lower Carstreet Road						
	MH 269 to MH 270	Cum	2	2.00	2.00	0.05	0.40
	Lower Carstreet Road						
	MH 1600 to MH 1624	Cum	17	2.00	2.00	0.05	3.40
	Lower Carstreet Road						
	MH 1763 to MH 2539	Cum	2	2.00	2.00	0.05	0.40
	Basavana Gudi Street and Kandathpalli Road						
	MH 1194 to MH 1610	Cum	14	2.00	2.00	0.05	2.80
	Cross and Mochigali Road						
	MH 715 to MH 1026	Cum	8	2.00	2.00	0.05	1.60
	Bibi Alabi Road						
	MH 2259 to MH 2495	Cum	3	2.00	2.00	0.05	0.60
	Bibi Alabi Road						
	MH 692 to O78	Cum	7	2.00	2.00	0.05	1.40
	Bibi Alabi Road						
	MH 1138 to MH 2495	Cum	3	2.00	2.00	0.05	0.60
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Cum	14	2.10	2.10	0.05	3.09
	Ansari Cross Road						
	MH 709 to MH 710	Cum	3	2.00	2.00	0.05	0.60
	Ansari Road						
	MH 2580 to MH 514	Cum	2	2.30	2.30	0.05	0.53
	Ansari Cross Road						
	MH 2581 to MH 636	Cum	2	2.00	2.00	0.05	0.40
	Ansari Road						
	MH 648 TO MH 649	Cum	2	2.30	2.30	0.05	0.53
	J M 2nd Cross Road						
	MH 2542 TO O 76	Cum	5	2.00	2.00	0.05	1.00
	J M 1st Cross Road						
	MH 2519 TO O 77	Cum	3	2.00	2.00	0.05	0.60
	Bibi Alabi Road						
	MH 2123 TO MH1247	Cum	3	2.00	2.00	0.05	0.60

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	Kasa Gaddi Road						
	MH 1030 to MH 2130	Cum	4	2.00	2.00	0.05	0.80
	J M 2nd Cross and GM Road						
	MH 2130 to MH 2567	Cum	7	2.00	2.00	0.05	1.40
	GM Road						
	MH 2589 to MH 2568	Cum	1	2.00	2.00	0.05	0.20
	J M 2nd Cross Road						
	MH 2590 to MH 81	Cum	1	2.00	2.00	0.05	0.20
	J M 2nd Cross Road						
	MH 170 to MH 26	Cum	1	2.00	2.00	0.05	0.20
	Urdu School Road						
	MH 705 to MH 2133	Cum	3	2.00	2.00	0.05	0.60
	MPT Cross Road						
	MH 1074 to MH 2546	Cum	5	2.00	2.00	0.05	1.00
	JM 5th Cross Road						
	MH 2350 to O 73	Cum	2	2.00	2.00	0.05	0.40
	Kasa Gadi Cross Road						
	MH 50 to MH 2128	Cum	1	2.00	2.00	0.05	0.20
	MPT Cross Road						
	MH 957 to MH 958	Cum	3	2.00	2.00	0.05	0.60
	Azizudheen Road						
	MH 2575 to MH 2543	Cum	7	2.00	2.00	0.05	1.40
	JM 5th Cross and Kandathpalli west Road						
	MH 2544 to MH 2571	Cum	6	2.30	2.30	0.05	1.59
	J M 5th Cross Road						
	MH 398 to MH 399	Cum	2	2.00	2.00	0.05	0.40
	Kandathpalli West Road						
	MH 599 to MH 600	Cum	2	2.00	2.00	0.05	0.40
	Ansari Road						
	MH 402 to MH 2326	Cum	2	2.00	2.00	0.05	0.40
	Kandathpalli West Road						
	MH 1211 to MH 2320	Cum	8	2.00	2.00	0.05	1.60
	Kandathpalli West Cross Road						
	MH 2576 to MH 2466	Cum	1	2.00	2.00	0.05	0.20
	Kandathpalli West Cross Road						
	MH 2569 to MH 917	Cum	3	2.10	2.10	0.05	0.66
	Kandathpalli West Road						
	MH 1624 to MH 917	Cum	5	2.15	2.15	0.05	1.16
	Kandathpalli West Road						
	MH 917 to MH 773	Cum	2	2.30	2.30	0.05	0.53
	Lower Carstreet and Bhatkar Bazar Road						
	MH 2398 to MH 1619	Cum	14	2.00	2.00	0.05	2.80
	Bhatkar Bazar Cross Road						
	MH 287 to MH 288	Cum	2	2.00	2.00	0.05	0.40
	Shree Kalikamba Vinayaka Street						
	MH 2522 to MH 2524	Cum	3	2.00	2.00	0.05	0.60
	Cross Road						
	MH 624 to MH 625	Cum	3	2.00	2.00	0.05	0.60
	Cross Road						
	MH 40 to MH 2408	Cum	1	2.00	2.00	0.05	0.20
	Cross Road						
	MH 277 to MH 278	Cum	1	2.00	2.00	0.05	0.20
B	Zone 3 Part 1						
	Bridge Road						
	MH-1264 to O-35	Cum	13	2.00	2.00	0.05	2.60
	For Household Connection- Zone 4 Part 2 (MH = 206Nos, L=5m X 4 connections in each manhole)-Road width >3m	Cum	206	10.00	0.60	0.05	61.80
	For Household Connection- Zone 4 Part 2 (MH = 44Nos, L=5m X 4 connections in each manhole)-Road width <3m	Cum	44	10.00	0.60	0.05	13.20
	For Household Connection- Zone 3 Part 1 (MH = 13Nos, L=5m X 4 connections in each manhole)-Road width >3m	Cum	13	10.00	0.60	0.05	3.90
				Area (Pi*r*r)			
A	Zone -4 (Part 2) and Zone -3 (Part 1)						
	Ded Manhole top cover Dia 0.60m and base dia 1.2m	Cum	-243	0.283		0.05	-3.43

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	Ded Manhole top cover Dia 0.60m and base dia 1.5m	Cum	-20	0.283		0.05	-0.28
		Cum				Total	674.29
27	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH/Chapter 5 KSRB Pg No.160,SI No:21.7 Rev Rate-18.12.2017						
A	Zone 4 Part 2						
	Only for Pipe portion trench						
	Old Port Road						
	MH 2551 to O92	Sqm	1	52.80	1.20		63.36
	Azizudheen Road						
	MH 2550 to MH 2565	Sqm	1	56.50	1.20		67.80
	Azizudheen Road						
	MH 646 to MH 2565	Sqm	1	52.10	1.20		62.52
	Azizudheen Road						
	MH 315 to MH 2247	Sqm	1	37.60	2.10		78.96
	Azizudheen Road						
	MH 2239 to MH 2565	Sqm	1	146.00	1.20		175.20
	Azizudheen Road						
	MH 435 to MH 2243	Sqm	1	34.10	1.20		40.92
	Azizudheen Road						
	MH 2565 to MH 379	Sqm	1	69.00	2.10		144.90
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Sqm	1	390.30	1.20		468.36
	Azizudheen Road						
	MH 2209 to MH 2521	Sqm	1	85.90	1.20		103.08
	Old Port Road						
	MH 2553 to MH 2558	Sqm	1	87.30	1.20		104.76
	Cross Road						
	MH 930 to MH 2563	Sqm	1	79.60	2.20		175.12
	Bunder Cross Road						
	MH 2520 to MH 2292	Sqm	1	107.20	1.20		128.64
	Cartstreet Road						
	MH 1750 to MH 2525	Sqm	1	197.40	1.20		236.88
	Lower Carstreet Road						
	MH 517 to MH 2508	Sqm	1	207.70	2.35		488.10
	Lower Carstreet Road						
	MH 269 to MH 270	Sqm	1	26.60	1.20		31.92
	Lower Carstreet Road						
	MH 1600 to MH 1624	Sqm	1	422.00	2.10		886.20
	Lower Carstreet Road						
	MH 1763 to MH 2539	Sqm	1	48.60	1.20		58.32
	Basavana Gudi Street and Kandathpalli Road						
	MH 1194 to MH 1610	Sqm	1	362.00	2.10		760.20
	Cross and Mochigali Road						
	MH 715 to MH 1026	Sqm	1	151.40	2.30		348.22
	Bibi Alabi Road						
	MH 2259 to MH 2495	Sqm	1	76.80	1.20		92.16
	Bibi Alabi Road						
	MH 692 to O78	Sqm	1	111.04	2.38		263.72
	Bibi Alabi Road						
	MH 1138 to MH 2495	Sqm	1	55.00	2.10		115.50
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Sqm	1	347.30	2.10		729.33
	Ansari Cross Road						
	MH 709 to MH 710	Sqm	1	56.50	2.30		129.95
	Ansari Road						
	MH 2580 to MH 514	Sqm	1	49.40	2.75		135.85
	Ansari Cross Road						
	MH 2581 to MH 636	Sqm	1	51.80	2.10		108.78
	Ansari Road						
	MH 648 TO MH 649	Sqm	1	54.00	2.10		113.40
	J M 2nd Cross Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	MH 2542 TO O 76	Sqm	1	172.90	1.20		207.48
	J M 1st Cross Road						
	MH 2519 TO O 77	Sqm	1	88.80	2.10		186.48
	Bibi Alabi Road						
	MH 2123 TO MH1247	Sqm	1	62.40	1.20		74.88
	Kasa Gaddi Road						
	MH 1030 to MH 2130	Sqm	1	98.80	2.10		207.48
	J M 2nd Cross and GM Road						
	MH 2130 to MH 2567	Sqm	1	152.90	2.10		321.09
	GM Road						
	MH 2589 to MH 2568	Sqm	1	27.60	1.50		41.40
	J M 2nd Cross Road						
	MH 2590 to MH 81	Sqm	1	22.00	2.00		44.00
	J M 2nd Cross Road						
	MH 170 to MH 26	Sqm	1	22.20	2.00		44.40
	Urdu School Road						
	MH 705 to MH 2133	Sqm	1	59.00	1.20		70.80
	MPT Cross Road						
	MH 1074 to MH 2546	Sqm	1	115.50	1.20		138.60
	JM 5th Cross Road						
	MH 2350 to O 73	Sqm	1	80.70	1.20		96.84
	Kasa Gadi Cross Road						
	MH 50 to MH 2128	Sqm	1	16.20	2.50		40.50
	MPT Cross Road						
	MH 957 to MH 958	Sqm	1	86.50	2.10		181.65
	Azizudheen Road						
	MH 2575 to MH 2543	Sqm	1	207.70	1.20		249.24
	JM 5th Cross and Kandathpalli west Road						
	MH 2544 to MH 2571	Sqm	1	169.50	2.10		355.95
	J M 5th Cross Road						
	MH 398 to MH 399	Sqm	1	32.70	2.10		68.67
	Kandathpalli West Road						
	MH 599 to MH 600	Sqm	1	47.70	2.10		100.17
	Ansari Road						
	MH 402 to MH 2326	Sqm	1	36.00	3.00		108.00
	Kandathpalli West Road						
	MH 1211 to MH 2320	Sqm	1	126.90	2.80		355.32
	Kandathpalli West Cross Road						
	MH 2576 to MH 2466	Sqm	1	23.60	1.20		28.32
	Kandathpalli West Cross Road						
	MH 2569 to MH 917	Sqm	1	80.70	2.10		169.47
	Kandathpalli West Road						
	MH 1624 to MH 917	Sqm	1	110.80	2.10		232.68
	Kandathpalli West Road						
	MH 917 to MH 773	Sqm	1	38.60	2.18		83.96
	Lower Carstreet and Bhatkar Bazar Road						
	MH 2398 to MH 1619	Sqm	1	316.90	2.10		665.49
	Bhatkar Bazar Cross Road						
	MH 287 to MH 288	Sqm	1	40.50	2.20		89.10
	Shree Kalikamba Vinayaka Street						
	MH 2522 to MH 2524	Sqm	1	79.10	1.20		94.92
	Cross Road						
	MH 624 to MH 625	Sqm	1	52.20	2.00		104.40
	Cross Road						
	MH 40 to MH 2408	Sqm	1	15.40	2.00		30.80
	Cross Road						
	MH 277 to MH 278	Sqm	1	29.00	2.00		58.00
B	Zone 3 Part 1						
	Bridge Road						
	MH-1264 to O-35	Sqm	1	285.30	1.20		342.36
A	Zone 4 Part 2						
	Only for Manhole portion						
	Old Port Road						
	MH 2551 to O92	Sqm	2	2.00	2.00		8.00
	Azizudheen Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	MH 2550 to MH 2565	Sqm	2	2.00	2.00		8.00
	Azizudheen Road						
	MH 646 to MH 2565	Sqm	3	2.00	2.00		12.00
	Azizudheen Road						
	MH 315 to MH 2247	Sqm	2	2.00	2.00		8.00
	Azizudheen Road						
	MH 2239 to MH 2565	Sqm	6	2.00	2.00		24.00
	Azizudheen Road						
	MH 435 to MH 2243	Sqm	2	2.00	2.00		8.00
	Azizudheen Road						
	MH 2565 to MH 379	Sqm	4	2.00	2.00		16.00
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Sqm	16	2.00	2.00		64.00
	Azizudheen Road						
	MH 2209 to MH 2521	Sqm	3	2.00	2.00		12.00
	Old Port Road						
	MH 2553 to MH 2558	Sqm	3	2.00	2.00		12.00
	Cross Road						
	MH 930 to MH 2563	Sqm	5	2.00	2.00		20.00
	Bunder Cross Road						
	MH 2520 to MH 2292	Sqm	3	2.00	2.00		12.00
	Cartstreet Road				0.00		
	MH 1750 to MH 2525	Sqm	8	2.00	2.00		32.00
	Lower Carstreet Road						
	MH 517 to MH 2508	Sqm	11	2.00	2.00		44.00
	Lower Carstreet Road						
	MH 269 to MH 270	Sqm	2	2.00	2.00		8.00
	Lower Carstreet Road						
	MH 1600 to MH 1624	Sqm	17	2.00	2.00		68.00
	Lower Carstreet Road						
	MH 1763 to MH 2539	Sqm	2	2.00	2.00		8.00
	Basavana Gudi Street and Kandathpalli Road						
	MH 1194 to MH 1610	Sqm	14	2.00	2.00		56.00
	Cross and Mochigali Road						
	MH 715 to MH 1026	Sqm	8	2.00	2.00		32.00
	Bibi Alabi Road						
	MH 2259 to MH 2495	Sqm	3	2.00	2.00		12.00
	Bibi Alabi Road						
	MH 692 to O78	Sqm	7	2.00	2.00		28.00
	Bibi Alabi Road						
	MH 1138 to MH 2495	Sqm	3	2.00	2.00		12.00
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Sqm	14	2.10	2.10		61.74
	Ansari Cross Road						
	MH 709 to MH 710	Sqm	3	2.00	2.00		12.00
	Ansari Road						
	MH 2580 to MH 514	Sqm	2	2.30	2.30		10.58
	Ansari Cross Road						
	MH 2581 to MH 636	Sqm	2	2.00	2.00		8.00
	Ansari Road						
	MH 648 TO MH 649	Sqm	2	2.30	2.30		10.58
	J M 2nd Cross Road						
	MH 2542 TO O 76	Sqm	5	2.00	2.00		20.00
	J M 1st Cross Road						
	MH 2519 TO O 77	Sqm	3	2.00	2.00		12.00
	Bibi Alabi Road						
	MH 2123 TO MH1247	Sqm	3	2.00	2.00		12.00
	Kasa Gaddi Road						
	MH 1030 to MH 2130	Sqm	4	2.00	2.00		16.00
	J M 2nd Cross and GM Road						
	MH 2130 to MH 2567	Sqm	7	2.00	2.00		28.00
	GM Road						
	MH 2589 to MH 2568	Sqm	1	2.00	2.00		4.00
	J M 2nd Cross Road						
	MH 2590 to MH 81	Sqm	1	2.00	2.00		4.00
	J M 2nd Cross Road						
	MH 170 to MH 26	Sqm	1	2.00	2.00		4.00

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	Urdu School Road						
	MH 705 to MH 2133	Sqm	3	2.00	2.00		12.00
	MPT Cross Road						
	MH 1074 to MH 2546	Sqm	5	2.00	2.00		20.00
	JM 5th Cross Road						
	MH 2350 to O 73	Sqm	2	2.00	2.00		8.00
	Kasa Gadi Cross Road						
	MH 50 to MH 2128	Sqm	1	2.00	2.00		4.00
	MPT Cross Road						
	MH 957 to MH 958	Sqm	3	2.00	2.00		12.00
	Azizudheen Road						
	MH 2575 to MH 2543	Sqm	7	2.00	2.00		28.00
	JM 5th Cross and Kandathpalli west Road						
	MH 2544 to MH 2571	Sqm	6	2.30	2.30		31.74
	J M 5th Cross Road						
	MH 398 to MH 399	Sqm	2	2.00	2.00		8.00
	Kandathpalli West Road						
	MH 599 to MH 600	Sqm	2	2.00	2.00		8.00
	Ansari Road						
	MH 402 to MH 2326	Sqm	2	2.00	2.00		8.00
	Kandathpalli West Road						
	MH 1211 to MH 2320	Sqm	8	2.00	2.00		32.00
	Kandathpalli West Cross Road						
	MH 2576 to MH 2466	Sqm	1	2.00	2.00		4.00
	Kandathpalli West Cross Road						
	MH 2569 to MH 917	Sqm	3	2.10	2.10		13.23
	Kandathpalli West Road						
	MH 1624 to MH 917	Sqm	5	2.15	2.15		23.11
	Kandathpalli West Road						
	MH 917 to MH 773	Sqm	2	2.30	2.30		10.58
	Lower Carstreet and Bhatkar Bazar Road						
	MH 2398 to MH 1619	Sqm	14	2.00	2.00		56.00
	Bhatkar Bazar Cross Road						
	MH 287 to MH 288	Sqm	2	2.00	2.00		8.00
	Shree Kalikamba Vinayaka Street						
	MH 2522 to MH 2524	Sqm	3	2.00	2.00		12.00
	Cross Road						
	MH 624 to MH 625	Sqm	3	2.00	2.00		12.00
	Cross Road						
	MH 40 to MH 2408	Sqm	1	2.00	2.00		4.00
	Cross Road						
	MH 277 to MH 278	Sqm	1	2.00	2.00		4.00
B	Zone 3 Part 1						
	Bridge Road						
	MH-1264 to O-35	Sqm	13	2.00	2.00		52.00
	For Household Connection- Zone 4 Part 2 (MH = 206Nos, L=5m X 4 connections in each manhole)-Road width >3m	Sqm	206	10.00	0.60		1236.00
	For Household Connection- Zone 4 Part 2 (MH = 44Nos, L=5m X 4 connections in each manhole)-Road width <3m	Sqm	44	10.00	0.60		264.00
	For Household Connection- Zone 3 Part 1 (MH = 13Nos, L=5m X 4 connections in each manhole)-Road width >3m	Sqm	13	10.00	0.60		78.00
				Area (Pi*r*r)			
A	Zone -4 (Part 2) and Zone -3 (Part 1)						
	Ded Manhole top cover Dia 0.60m and base dia 1.2m	Sqm	-243	0.283			-68.67
	Ded Manhole top cover Dia 0.60m and base dia 1.5m	Sqm	-20	0.283			-5.65
		Sqm				Total	13485.83

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
28	Providing and laying Semi dense bituminous concrete with 40-60 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 4.5 to 5% of mix and filter, transporting the hot mix to work site, laying with a hydrostatic paver finisher with mechanical paver to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause no. 500.8, 25 mm compacted thickness with 5% bitumen 60/70 grade using 40-60 HMP (Grading II) using mechanical paver, with all lead and lift ,Labour, as per specification, Including environmental and social safe guards, including all taxes, as directed by the Engineer-in-Charge etc., complete. 25mm thick KSRRB Pg No.163,SI No. 21.20.6						
	Only for Pipe portion trench						
A	Zone 4 Part 2						
	Old Port Road						
	MH 2551 to O92	Cum	1	52.80	1.20	0.025	1.58
	Azizudheen Road						
	MH 2550 to MH 2565	Cum	1	56.50	1.20	0.025	1.70
	Azizudheen Road						
	MH 646 to MH 2565	Cum	1	52.10	1.20	0.025	1.56
	Azizudheen Road						
	MH 315 to MH 2247	Cum	1	37.60	2.10	0.025	1.97
	Azizudheen Road						
	MH 2239 to MH 2565	Cum	1	146.00	1.20	0.025	4.38
	Azizudheen Road						
	MH 435 to MH 2243	Cum	1	34.10	1.20	0.025	1.02
	Azizudheen Road						
	MH 2565 to MH 379	Cum	1	69.00	2.10	0.025	3.62
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Cum	1	390.30	1.20	0.025	11.71
	Azizudheen Road						
	MH 2209 to MH 2521	Cum	1	85.90	1.20	0.025	2.58
	Old Port Road						
	MH 2553 to MH 2558	Cum	1	87.30	1.20	0.025	2.62
	Cross Road						
	MH 930 to MH 2563	Cum	1	79.60	2.20	0.025	4.38
	Bunder Cross Road						
	MH 2520 to MH 2292	Cum	1	107.20	1.20	0.025	3.22
	Cartstreet Road						
	MH 1750 to MH 2525	Cum	1	197.40	1.20	0.025	5.92
	Lower Carstreet Road						
	MH 517 to MH 2508	Cum	1	207.70	2.35	0.025	12.20
	Lower Carstreet Road						
	MH 269 to MH 270	Cum	1	26.60	1.20	0.025	0.80
	Lower Carstreet Road						
	MH 1600 to MH 1624	Cum	1	422.00	2.10	0.025	22.16
	Lower Carstreet Road						
	MH 1763 to MH 2539	Cum	1	48.60	1.20	0.025	1.46
	Basavana Gudi Street and Kandathpalli Road						
	MH 1194 to MH 1610	Cum	1	362.00	2.10	0.025	19.01
	Cross and Mochigali Road						
	MH 715 to MH 1026	Cum	1	151.40	2.30	0.025	8.71
	Bibi Alabi Road						
	MH 2259 to MH 2495	Cum	1	76.80	1.20	0.025	2.30
	Bibi Alabi Road						
	MH 692 to O78	Cum	1	111.04	2.38	0.025	6.59
	Bibi Alabi Road						
	MH 1138 to MH 2495	Cum	1	55.00	2.10	0.025	2.89
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Cum	1	347.30	2.10	0.025	18.23
	Ansari Cross Road						
	MH 709 to MH 710	Cum	1	56.50	2.30	0.025	3.25
	Ansari Road						
	MH 2580 to MH 514	Cum	1	49.40	2.75	0.025	3.40
	Ansari Cross Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	MH 2581 to MH 636	Cum	1	51.80	2.10	0.025	2.72
	Ansari Road						
	MH 648 TO MH 649	Cum	1	54.00	2.10	0.025	2.84
	J M 2nd Cross Road						
	MH 2542 TO O 76	Cum	1	172.90	1.20	0.025	5.19
	J M 1st Cross Road						
	MH 2519 TO O 77	Cum	1	88.80	2.10	0.025	4.66
	Bibi Alabi Road						
	MH 2123 TO MH1247	Cum	1	62.40	1.20	0.025	1.87
	Kasa Gaddi Road						
	MH 1030 to MH 2130	Cum	1	98.80	2.10	0.025	5.19
	J M 2nd Cross and GM Road						
	MH 2130 to MH 2567	Cum	1	152.90	2.10	0.025	8.03
	GM Road						
	MH 2589 to MH 2568	Cum	1	27.60	1.50	0.025	1.04
	J M 2nd Cross Road						
	MH 2590 to MH 81	Cum	1	22.00	2.00	0.025	1.10
	J M 2nd Cross Road						
	MH 170 to MH 26	Cum	1	22.20	2.00	0.025	1.11
	Urdu School Road						
	MH 705 to MH 2133	Cum	1	59.00	1.20	0.025	1.77
	MPT Cross Road						
	MH 1074 to MH 2546	Cum	1	115.50	1.20	0.025	3.47
	JM 5th Cross Road						
	MH 2350 to O 73	Cum	1	80.70	1.20	0.025	2.42
	Kasa Gadi Cross Road						
	MH 50 to MH 2128	Cum	1	16.20	2.50	0.025	1.01
	MPT Cross Road						
	MH 957 to MH 958	Cum	1	86.50	2.10	0.025	4.54
	Azizudheen Road						
	MH 2575 to MH 2543	Cum	1	207.70	1.20	0.025	6.23
	JM 5th Cross and Kandathpalli west Road						
	MH 2544 to MH 2571	Cum	1	169.50	2.10	0.025	8.90
	J M 5th Cross Road						
	MH 398 to MH 399	Cum	1	32.70	2.10	0.025	1.72
	Kandathpalli West Road						
	MH 599 to MH 600	Cum	1	47.70	2.10	0.025	2.50
	Ansari Road						
	MH 402 to MH 2326	Cum	1	36.00	3.00	0.025	2.70
	Kandathpalli West Road						
	MH 1211 to MH 2320	Cum	1	126.90	2.80	0.025	8.88
	Kandathpalli West Cross Road						
	MH 2576 to MH 2466	Cum	1	23.60	1.20	0.025	0.71
	Kandathpalli West Cross Road						
	MH 2569 to MH 917	Cum	1	80.70	2.10	0.025	4.24
	Kandathpalli West Road						
	MH 1624 to MH 917	Cum	1	110.80	2.10	0.025	5.82
	Kandathpalli West Road						
	MH 917 to MH 773	Cum	1	38.60	2.18	0.025	2.10
	Lower Carstreet and Bhatkar Bazar Road						
	MH 2398 to MH 1619	Cum	1	316.90	2.10	0.025	16.64
	Bhatkar Bazar Cross Road						
	MH 287 to MH 288	Cum	1	40.50	2.20	0.025	2.23
	Shree Kalikamba Vinayaka Street						
	MH 2522 to MH 2524	Cum	1	79.10	1.20	0.025	2.37
	Cross Road						
	MH 624 to MH 625	Cum	1	52.20	2.00	0.025	2.61
	Cross Road						
	MH 40 to MH 2408	Cum	1	15.40	2.00	0.025	0.77
	Cross Road						
	MH 277 to MH 278	Cum	1	29.00	2.00	0.025	1.45
B	Zone 3 Part 1						
	Bridge Road						
	MH-1264 to O-35	Cum	1	285.30	1.20	0.025	8.56
	Only for Manhole portion						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
A	Zone 4 Part 2						
	Old Port Road						
	MH 2551 to O92	Cum	2	2.00	2.00	0.025	0.20
	Azizudheen Road						
	MH 2550 to MH 2565	Cum	2	2.00	2.00	0.025	0.20
	Azizudheen Road						
	MH 646 to MH 2565	Cum	3	2.00	2.00	0.025	0.30
	Azizudheen Road						
	MH 315 to MH 2247	Cum	2	2.00	2.00	0.025	0.20
	Azizudheen Road						
	MH 2239 to MH 2565	Cum	6	2.00	2.00	0.025	0.60
	Azizudheen Road						
	MH 435 to MH 2243	Cum	2	2.00	2.00	0.025	0.20
	Azizudheen Road						
	MH 2565 to MH 379	Cum	4	2.00	2.00	0.025	0.40
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Cum	16	2.00	2.00	0.025	1.60
	Azizudheen Road						
	MH 2209 to MH 2521	Cum	3	2.00	2.00	0.025	0.30
	Old Port Road						
	MH 2553 to MH 2558	Cum	3	2.00	2.00	0.025	0.30
	Cross Road						
	MH 930 to MH 2563	Cum	5	2.00	2.00	0.025	0.50
	Bunder Cross Road						
	MH 2520 to MH 2292	Cum	3	2.00	2.00	0.025	0.30
	Cartstreet Road						
	MH 1750 to MH 2525	Cum	8	2.00	2.00	0.025	0.80
	Lower Carstreet Road						
	MH 517 to MH 2508	Cum	11	2.00	2.00	0.025	1.10
	Lower Carstreet Road						
	MH 269 to MH 270	Cum	2	2.00	2.00	0.025	0.20
	Lower Carstreet Road						
	MH 1600 to MH 1624	Cum	17	2.00	2.00	0.025	1.70
	Lower Carstreet Road						
	MH 1763 to MH 2539	Cum	2	2.00	2.00	0.025	0.20
	Basavana Gudi Street and Kandathpalli Road						
	MH 1194 to MH 1610	Cum	14	2.00	2.00	0.025	1.40
	Cross and Mochigali Road						
	MH 715 to MH 1026	Cum	8	2.00	2.00	0.025	0.80
	Bibi Alabi Road						
	MH 2259 to MH 2495	Cum	3	2.00	2.00	0.025	0.30
	Bibi Alabi Road						
	MH 692 to O78	Cum	7	2.00	2.00	0.025	0.70
	Bibi Alabi Road						
	MH 1138 to MH 2495	Cum	3	2.00	2.00	0.025	0.30
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Cum	14	2.10	2.10	0.025	1.54
	Ansari Cross Road						
	MH 709 to MH 710	Cum	3	2.00	2.00	0.025	0.30
	Ansari Road						
	MH 2580 to MH 514	Cum	2	2.30	2.30	0.025	0.26
	Ansari Cross Road						
	MH 2581 to MH 636	Cum	2	2.00	2.00	0.025	0.20
	Ansari Road						
	MH 648 TO MH 649	Cum	2	2.30	2.30	0.025	0.26
	J M 2nd Cross Road						
	MH 2542 TO O 76	Cum	5	2.00	2.00	0.025	0.50
	J M 1st Cross Road						
	MH 2519 TO O 77	Cum	3	2.00	2.00	0.025	0.30
	Bibi Alabi Road						
	MH 2123 TO MH1247	Cum	3	2.00	2.00	0.025	0.30
	Kasa Gaddi Road						
	MH 1030 to MH 2130	Cum	4	2.00	2.00	0.025	0.40
	J M 2nd Cross and GM Road						
	MH 2130 to MH 2567	Cum	7	2.00	2.00	0.025	0.70
	GM Road						
	MH 2589 to MH 2568	Cum	1	2.00	2.00	0.025	0.10

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
C	Zone -4 (Part 2) and Zone -3 (Part 1)						
	Ded Manhole top cover Dia 0.60m and base dia 1.2m	Cum	-243	0.283		0.025	-1.72
	Ded Manhole top cover Dia 0.60m and base dia 1.5m	Cum	-20	0.283		0.025	-0.14
		Cum				Total	337.15
29	Dewatering for Lowering of water table to creat dry conditions at least upto the bed of the excavation including the cost of material, labour T & P articles & machinery laying sewer line & Manholes as per approved drawings accordng. to the requirement of the construction of structure. The cost of this work shall be inclusive of disposal of water pumped out at a safe place away from the structure. The dewatering will work till the completion of the structure as per approved drawings ,with all horizontal leads and lifts etc., complete in all respects as per specification and as directed by engineer.During the execution of work enough precaution should be taken by the contractor to ensure that the clear water flows from the delivery pipe of pumps to avoid any settlement of soil during the process. (Rate analysis attached)						
A	Zone 4 Part 2 1 months x 30 days	Day s of 8 hours	30.00				30.00
						Total	30.00
30	Sheet piling: Providing and installing sheet piling for both sides of the trench for following depths with mild steel sheets not less than 6.5 mm thick, stronger knife edge, recessed spreader sockets, 3" single or double wall shields, to be designed by the contractor to withstand all types of soils, maximum depths of as per the approved design drawing, including labour charges for installing and removing the sheet piling at various reaches of sewer line construction, including loading , unloading, transporting to the suitable location etc. complete with all lead and lifts (Measurement shall be taken for one side only eventhough it is provided for both sides) BWSSB 16-17 SI No.93,Pg No.90						
	Trench Line (Zone 4 Part 2)						
	0 - 3.0m depth						
	Old Port Road						
	MH 2551 to O92	Sqm	1	52.8		1.21	63.62
	Bunder Road and old Port Road						
	MH 2548 to MH 2296	Sqm	1	390.3		1.54	600.94
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Sqm	1	211.5		2.33	492.66
	Ansari Cross Road						
	MH 709 to MH 710	Sqm	1	56.5		1.84	104.05
	Ansari Cross Road						
	MH 2581 to MH 636	Sqm	1	51.8		2.70	139.60
	JM 5th Cross and Kandathpalli west Road						
	MH 2544 to MH 2571	Sqm	1	169.5		0.00	0.00
	J M 5th Cross Road						
	MH 398 to MH 399	Sqm	1	32.7		1.76	57.47
	Kandathpalli West Road						
	MH 599 to MH 600	Sqm	1	47.7		2.11	100.53
	Manhole						
	Zone 4 Part 2 and Zone 3 Part 1						
	Ded Manhole portion for 1.2m Dia	Sqm	37	2.00		2.30	170.20
	Ded Manhole portion for 1.5m Dia	Sqm	10	2.30		3.76	86.48
	Above 3.0m upto 10 mtrs. Depth (Zone 4 Part 2)						
	Trench Line						
	Bunder and Ansari Road						
	MH 2296 to MH 2544	Sqm	1	135.20		3.40	459.68
	JM 5th Cross and Kandathpalli west Road						
	MH 2544 to MH 2571	Sqm	1	171.80		3.71	637.62
	Total Qty	Sqm				Total	2912.86
	0 - 3.0m depth	Sqm				Total	1729.08
	Above 3.0m upto 10 mtrs. Depth	Sqm				Total	1183.78

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
31	KSRB 14.6-2 :Providing and laying heavy duty cobble stones 75mm thick interlock pavers, 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. PWD (16-17,Pg No.101,SI No.14.7)						
	Zone 3 Part 1						
	Trench Line						
	KSR Cross Road						
	MH-904 to O-30	Sqm	1	0.00	1.40		0.00
	KSR Cross Road						
	MH-1891 to O-11	Sqm	1	0.00	1.40		0.00
	KSR Cross Road						
	MH-728 to MH-1891	Sqm	1	0.00	1.40		0.00
	Balmatta Cross Road						
	MH-1027 to MH-1895	Sqm	1	0.00	1.40		0.00
	KSR Cross Road						
	MH-666 to O-40	Sqm	1	0.00	1.40		0.00
	KSR Cross Road						
	MH-369 to O-43	Sqm	1	0.00	1.40		0.00
	KSR Cross Road						
	MH-1205 to O-37	Sqm	1	0.00	1.40		0.00
	KSR Cross Road						
	MH-155 to O-38	Sqm	1	23.80	1.20		28.56
	Court Cross Road						
	MH-1207 to O-39	Sqm	1	200.70	2.10		421.47
	Court Cross Road						
	MH-645 to MH-644	Sqm	1	46.00	2.10		96.60
	St Aloysius College Road						
	MH-1003 to O-22	Sqm	1	0.00	1.40		0.00
	St Aloysius College Road						
	MH-1469 to O-21	Sqm	1	0.00	1.40		0.00
	St Aloysius College Road and Court Road						
	MH-2491 to O-34	Sqm	1	0.00	1.40		0.00
	Court Road						
	MH-1136 to MH-1537	Sqm	1	0.00	1.40		0.00
	Court Cross Road						
	MH-826 to MH-827	Sqm	1	0.00	1.40		0.00
	Court Road						
	MH-1498 to O-23	Sqm	1	0.00	1.40		0.00
	KRR Cross Road						
	MH-321 to MH-2454	Sqm	1	0.00	1.40		0.00
	KRR Cross Road						
	MH-1065 to O-20	Sqm	1	0.00	1.40		0.00
	KRR Cross Road						
	MH-1096 to O-18	Sqm	1	0.00	1.40		0.00
	KRR Cross Road						
	MH-533 to O-19	Sqm	1	0.00	1.40		0.00
	Bunts Hostel Cross Road						
	MH-353 to O-17	Sqm	1	0.00	1.40		0.00
	Bunts Hostel Cross Road						
	MH- 668 to O-15	Sqm	1	0.00	1.40		0.00
	Bunts Hostel Cross Road						
	MH-588 to O-16	Sqm	1	0.00	1.40		0.00
	Bunts Hostel Cross Road						
	MH-928 to O-14	Sqm	1	99.00	2.10		207.90
	Bridge Road						
	MH-1264 to O-35	Sqm	1	0.00	1.20		0.00
	Arya Samaj Road						
	MH-1462 to O-12	Sqm	1	543.10	1.20		651.72
	Arya Samaj Cross Road						
	MH-2498 to O-45	Sqm	1	76.20	3.00		228.60
	Arya Samaj Cross Road						

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
	MH-1390 to O-46	Sqm	1	46.00	3.00		138.00
	Kadri Cross Road						
	MH-1107 to O-13	Sqm	1	131.80	2.10		276.78
	KRR Cross Road						
	MH-813 to MH-1416	Sqm	1	84.00	2.80		235.20
	Manhole Cover Deduction			Area = pi *r*r			
	For Manhole Area - 1.2m Dia	Sqm	-48	0.28			-13.57
	For Manhole Area - 1.5m Dia	Sqm	-4	0.28			-1.13
	Household connection						
	Zone 3 Part 1						
	For Household Connection- Zone 3 Part 1 (MH = 44Nos, L=5m X 4 connections in each manhole)-Road width >3m,Length 50%	Sqm	44	10.00	0.60		264.00
	For Household Connection- Zone 3 Part 1 (MH = 8Nos, L=5m X 4 connections in each manhole)-Road width<3m,Length 50%	Sqm	8	10.00	0.60		48.00
		Sqm				Total	2582.13
	UTILITY SHIFTING						
A	Dismantling						
1	KSRRB M200-13.2. 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. II.By Mechanical Means. MORTH Specification No. 202 KSRRB Pg No.137,SI No.18.21						
	Compound wall - S S Masonry Foundation	Cum	1	90.00	0.6	0.6	32.40
		Cum	1	90.00	0.45	0.6	24.30
		Cum	1	90.00	0.3	0.3	8.10
	Super structure	Cum	1	90.00	0.23	1.2	24.84
	Culvert - Foundataion	Cum	20	1.50	0.60	1.00	18.00
		Cum	20	1.50	0.60	0.60	10.80
	Total	Cum					118.44
	Total 70% of Qty						82.91
2	KSRRB M200-14.2. 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. ii) Dismantling brick/Tile work B. In cement mortar. MORTH Specification No. 202 KSRRB Pg No.137,SI No.18.23						
	Compound wall - S S Masonry Foundation	Cum	1	90.00	0.6	0.6	32.40
		Cum	1	90.00	0.45	0.6	24.30
		Cum	1	90.00	0.3	0.3	8.10
	Super structure	Cum	1	90.00	0.23	1.2	24.84
	Culvert - Foundataion	Cum	20	1.50	0.60	1.00	18.00
		Cum	20	1.50	0.60	0.60	10.80
	Total	Cum					118.44
	Total 30% of Qty						35.53
B	Compound wall						
1	KSRRB 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 KSRRB Pg No.5,SI No.2.3						
	Excavation for compound wall in ordinary soil	Cum	1	90.00	0.95	1.20	102.60
	Total	Cum					102.60

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
2	KSRB 4-1.1: Providing and laying in position plain cement concrete of mix 1:2:4 with OPC cement @ 240kgs, with 40mm 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. Specification No. KBS 4.1, 4.2 KSRRB Pg No.12,SI No.4.1						
	PCC	Cum	1	90.00	0.95	0.15	12.83
	DPC	Cum	1	90.00	0.45	0.08	3.24
	Copping	Cum	1	90.00	0.23	0.08	1.66
	Extra at Pillar top	Cum	26	0.45	0.45	0.08	0.42
	Total	Cum					18.14
3	Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6 stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 KSRRB Pg No.254,SI No.34.8.2						
	Size stone masonry at Foundation						
	1st Course	Cum	1	90.00	0.60	0.60	32.40
	2nd Course	Cum	1	90.00	0.45	0.60	24.30
	Plinth	Cum	1	90.00	0.30	0.30	8.10
	Total	Cum					64.80
4	Providing & constructing laterite size stone masonry in CM 1:6 including cost and conveyance of all materials curing, etc complete as per specification I.S. 3620 / 1979 having compressive strength not less than 3.5 N/mm2 for saturated dry samples. For super structure in CM 1:6 (Cement 45 kgs/M3) (Ground Floor) KSRRB Pg No.267,SI No.37.66.1						
	For Superstrucure wall	Cum	1	90.00	0.23	1.20	24.84
	For Pillars	Cum	26	0.45	0.45	1.20	6.32
	Deduct Pillars at wall	Cum	-26	0.45	0.23	1.20	-3.23
	Total	Cum					27.93
5	KSRB15-3.11 : Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry & concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. KSRRB Pg No.114,SI No.15.19						
	For supper structure Plastering on both sides	Sqm	1	90.00		3.08	277.20
	For Pillars projections	Sqm	51	0.22		3.08	34.56
	For DPC horizontal portion	Sqm	1	90.00	0.22		19.80
	Pillar top	Sqm	26	0.45		0.45	5.27
	Total	Sqm					336.82
6	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - with primer. KSRRB Pg No.118,SI No.15.53.2						
	Total Qty same as above SI No 5	Sqm	1				336.82

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
7	KSRB 2.3: Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20cms. In depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5m. including cost of all labour complete as per specifications. Specification No. KBS 2.9 KSRRB Pg No.6,SI No.2.1						
	Refilling Qty 1/3rd of Excavated Qty	Cum	1				34.20
C	CULVERT						
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 KSRB Pg No 5,SI No.2.3						
	For pipe culverts - 300mm dia.						
	excavation for pipe	Cum	10	5.00	0.90	1.45	65.25
	excavation for masonry structure	Cum	20	1.50	0.60	1.45	26.10
	For pipe culverts - 450mm dia.						
	excavation for pipe	Cum	10	5.00	1.05	1.60	84.00
	excavation for masonry structure	Cum	20	1.65	0.6	1.60	31.68
	Total	Cum					207.03
2	KSRRB M2900- PCC 1:3:6 in Foundation KSRRB M2900-1. Plain cement concrete 1:3:6 mix with crushed stone aggregate 40 m nominal size mechanically mixed, placed in foundation and compacted by vibration including curing complete as per specifications MORTH Specification No. 408 KSRB Pg No.253,SI No.34.1						
	For pipe culverts - 300mm dia.						
	PCC for pipe	Cum	10	5.00	0.30	0.15	2.25
	excavation for masonry structure	Cum	20	1.50	0.60	0.15	2.70
	For pipe culverts - 450mm dia.						
	PCC for pipe	Cum	10	5.00	0.45	0.15	3.38
	excavation for masonry structure	Cum	20	1.65	0.60	0.15	2.97
	Total	Cum					11.30
3	Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6 stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 KSRB Pg No.254,SI No.34.8.2						
	For pipe culvert 300mm dia	Cum	20	1.50	0.60	1.00	18.00
	Deduct pipe	Cum	-20	0.07			-1.41
	For pipe culvert 450mm dia	Cum	20	1.65	0.60	1.00	19.80
	Deduct pipe	Cum	-20	0.16			-3.18
	Total	Cum					33.20
4	Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KSRB Pg No.254,SI No.34.9						
	For pipe culvert 300mm dia	Cum	20	1.50	0.60	0.60	10.80
	For pipe culvert 450mm dia	Cum	20	1.65	0.60	0.60	11.88
	Total	Cum					22.68

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
5	Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. – do – cement mortar 1:4 KSRB Pg No.254,SI No.34.12.1						
	For pipe culvert 300mm dia	Sqm	40	1.50		0.60	36.00
	For pipe culvert 450mm dia	Sqm	40	1.65		0.60	39.60
	Total	Sqm					75.60
6	Providing and laying reinforced cement concrete pipe NP3 for culverts including pointing ends, and fixing collars with cement mortar 1:2 including cost of all materials, labour, curing complete as per specifications. Specifications. No. KSRB 1000, 2300 MOST Specification No.1000 / 2300 - - 300mm. dia KSRB Pg No.253,SI No.34.6.1						
	for 300mm dia	Rmt	10	5.00			50.00
	Total	Rmt					50.00
7	Providing and laying reinforced cement concrete pipe NP3 for culverts including pointing ends, and fixing collars with cement mortar 1:2 including cost of all materials, labour, curing complete as per specifications. Specifications. No. KSRB 1000, 2300 MOST Specification No.1000 / 2300 - - 450mm. dia KSRB Pg No.253,SI No.34.6.2						
	for 450mm dia	Rmt	10	5.00			50.00
	Total	Rmt					50.00
8	KSRB 2.3: Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20cms. In depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5m. including cost of all labour complete as per specifications. Specification No. KBS 2.9 KSRB Pg No.6,SI No.2.10						
	1/3 of total excavation	Cum	1				69.01
D	RCC DRAINS						
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 including clearing vegetation, shoring, strutting, dewatering if required, and ramming with selected earth for foundation and disposing off excess excavated material as approved by Engineer etc. complete with all lead and lift including danger lighting wherever necessary as directed in the following strata. KSRB Pg No.5,SI No.2.3						
	In ordinary soil	Cum	1	180.00	0.85	0.53	80.33
	Extra for filter media	Cum	180	0.30	0.30	0.30	4.86
	Total	Cum					85.19
2	Providing and laying in position plain cement concrete of mix 1:2:4 with OPC cement @ 240kgs, with 40mm 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,plinth and cills, including cost of all materials, labour, HOM of machineries, curing complete as per specifications. KSRB Pg No 12,SI No.4.1						
	PCC For raft	Cum	1	90.00	0.85	0.08	5.74
	Total	Cum					5.74

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
3	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reafirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. KSRB Pg No.13,SI NO.4.10						
	For raft	Cum	1	90.00	0.70	0.10	6.30
	For side wall	Cum	2	90.00	0.10	0.60	10.80
	For Precast cover slabs	Cum	60	0.50	0.50	0.10	1.50
	Total	Cum					18.60
4	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and directinon of Engineer-in-Charge. FE 500 KSRB Pg No.17,SI No.4.46.2 Rev.						
	Total concrete	Cum	1				18.60
	Reinforcement TMT 100kg/ cum	Kg	1				1860.00
	Total	MT					1.86
5	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, labour complete as per specifications. KSRB Pg No.15,SI No.4.28						
	For PCC sides	Sqm	2	90.00		0.08	13.50
	For raft sides	Sqm	2	90.00		0.10	18.00
	Total	Sqm					31.50
6	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. KSRB Pg No.15,SI No.4.31						
	For side wall	Sqm	4	90.00		0.60	216.00
	Total	Sqm					216.00
7	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for flat surface such as roofs, landings, balconies and likes, thickness upto 200mm including cost of all materials, labour complete as per specification. (Ground floor) KSRB,Pg No.15,SI No.4.18						
	For Cover slab	Sqm	1	0.50	0.50		0.25
	Slab side	Sqm	2	0.50		0.10	0.10
		Sqm	2	0.50		0.10	0.10
	Sub Total						0.45
	No. of cover slabs = 45/1.5	Sqm	60				27.00
	Total	Sqm					27.00

Sr.No.	Description of Work	UNIT	No	LENGTH	BREADTH	DEPTH	QUANTITY
8	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with PVC 90mm outer dia pipe 2 kg / Sqcm, extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. KSRB,Pg No.225,SI No.28.10						
		Rmt	90	0.10			9.00
	Total	Rmt					9.00
9	Providing and laying of filter media with granular materials/stone crushed aggregates satisfying the requirement laid down in clause 2500.4.2.2 of morth specification to a thickness not less than 600 mm with smaller size to wards the soil and bigger size towards the wall and provided over the entire surface behind the abutment,wing wall and return wall to full hight compacted to a firm condition complete as per drawing and technical specification KSRB,Pg No.225,SI No.28.13						
	For filter media.	Cum	90	0.30	0.30	0.30	2.43
	Total	Cum					2.43
10	KSRRB 2.3: Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20cms. In depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5m. including cost of all labour complete as per specifications. Specification No. KBS 2.9 KSRB Pg No.6,SI No.2.10						
	Total excavation	Cum	1				85.19
	Deduct PCC	Cum	-1				-5.74
	Raft	Cum	-1				-17.10
	Drain Volume	Cum	-1	90.00	0.50	0.50	-22.50
	Total	Cum					39.85

Assistant Engineer
MSCL Mangaluru

Executive Engineer
MSCL Mangaluru

MANGALURU SMART CITY										
1.40 Measurement Sheet of UNDERGROUND DRAINAGE Zone 4 Part 2 and Zone 3 Part 1										
Electrical Estimates for Pole Shifting in Zone-4 and Zone 3 Under ground drainage system at Mangaluru										
Item No	Particulars	Unit	No	L(m)	B(m)	D(m)	Qty	Rate (Rs)	Amount (Rs)	Remarks
11.2.1	Releasing and removal of 9 Mtr RCC pole and shifting to new location & re-erection of released 9 metre RCC pole in the location specified, including transportation to work site, digging a pit to a depth of 1.8 mtr, aligning it, refilling the old and new pits using soil removed up to ground level, compacting, complete for each pole, at an average span of maximum 40 metres including all lead and lifts, as per KPTCL/MESCOM/ IE rule & specifications	Nos					39	2920.30	113891.70	RA-1
11.2.2	Supply and erection of 9 metre RCC poles(using Tor50 12mm dia steel), including transportation to work site with all lead from factory and head load from the nearest road; digging a pit to a depth up to of 1.8 mtr, aligning it, refilling the soil removed up to ground level, compacting, complete for each pole, at a average span of 40 metres (max.) as per KPTCL/MESCOM/ IE rules including all lead and Lift.	Nos					28	7478.00	209384.00	RA-2
11.2.3	Releasing and removal of deteriorated / damaged 9 mtr RCC poles in 11 kV HT line , refilling of the pit up to ground level compacting etc., and handing over the unused damaged / deteriorated poles to MESCOM including all lead and lift.as per KPTCL/MESCOM/ IE rules.	Nos					28	1555.59	43556.49	RA-3
11.2.4	Releasing and removal of 11Mtr rail pole / ISMB poles, and shifting to new location & re-erection of released 11Mtr rail pole /ISMB poles including transportation to work site with all lead from factory and head load from the nearest road, in a pit of depth 1.8 mtrs, insertion of released pole in the new pit after coating with anti corrosive paint of black colour to a length of depth of insertion, aligning it, refilling the pit with soil removed, complete for each pole, at a average span of maximum 50metres Including all lead and lift, as per KPTCL/MESCOM/ IE rules and specifications.	Nos					2	2997.44	5994.88	RA-4
11.2.5	Supply and erection of 11 metre long Rail pole / ISMB -200 x 100mm size, transportation to work site with all lead from factory and head load from the nearest road; digging 1.8 Mtr pit, applying two coats of anti-corrosive paint to the root to a length of depth of insetion of black colour, aligning it, refilling the pit with soil removed up to ground level, compacting, complete for each pole, for a average span of maximum 50mtres as per KPTCL rules.(Including all lead and Lift).as per KPTCL/MESCOM/ IE rules.	Nos					1	17234.60	17234.60	RA-5
11.2.6	Pole base concreting : supplying and providing pole base concrete of size 500 x 650 x 150 mm using 1:4:8 ratio cement concrete for 9mtr RCC pole including shuttering & all other materials and labour all lead and lift as per KPTCL/MESCOM/ IE rules.	Each					33.5	229.00	7671.50	RA-6
11.2.7	Pole base concreting : supplying and providing pole base concrete of size 650 x 500 x 150 mm using 1:4:8 ratio cement concrete for 11 mtr ISMC / ISMB pole including shuttering & all other materials and labour all lead and lift as per KPTCL/MESCOM/ IE rules.	Each					3.5	704.00	2464.00	RA-7
11.2.8	Pole concreting : supplying and providing 1:2:4 ratio concrete mix of size 500 x 650 x 1700 mm cement concreting for 9 mtr RCC pole including all materials and labour, shuttering including all lead and lift as per KPTCL/MESCOM/ IE rules.	Each					33.5	2566.00	85961.00	RA-8
11.2.9	Pole concreting : supplying and providing 1:2:4 ratio concrete mix of size 500 x 650 x 2000 mm cement concreting for 11mtr ISMB pole concreting including all materials and labour , shuttering including all lead and lift as per KPTCL/MESCOM/ IE rules.	Each					3.5	2721.00	9523.50	RA-9
11.2.10	Releasing and refixing of 11kV Horizontal cross arm with HT Single top support , clamps, bolts, nuts and washers including all lead and lift as per KPTCL/MESCOM/ IE rules.	Set					39	272.75	10637.06	RA-10
11.2.11	Supplying and fixing of 11kV Horizontal cross arm with HT Single top support, including clamps, bolts, nuts and washers including all lead and lift and MESCOM specifications.	Set					28	525.55	14715.40	RA-11
11.2.12	Releasing and removal of deteriorated damaged HT cross arms and handing over the released materials to MESCOM including all lead and lift as per KPTCL/MESCOM/ IE rules.	Set					28	140.27	3927.64	RA-12
11.2.13	Releasing and refixing of released 4 pin LT Horizontal cross arms, fabricated out of mild steel structure steel as per KPTCL standards complete set with all fixing accessories like bolt, nuts, washers, pole clamps etc., including all necessary lead and lift as per KPTCL/MESCOM/ IE rules.	Set					39	264.48	10314.72	RA-13
11.2.14	Supply and fixing of 4 pin LT horizontal cross arms, fabricated out of mild steel structure steel as per KPTCL standards complete set with all fixing accessories like bolt, nuts, washers, pole clamps etc., including all necessary lead and lift as per KPTCL/MESCOM/ IE rules.	Set					28	402.20	11261.60	RA-14
11.2.15	Releasing ans removal of deteriorated / damaged 4 pin cross arms and handing over released cross arm to MESCOM including all lead and lift as per KPTCL/MESCOM/ IE rules.	Set					28	118.55	3319.46	RA-15
11.2.16	Releasing and refixing of released Guy sets with break insulators, 7 / 10 SWG GI wire, turn buckle and anchoring arrangements with necessary earth work excavation, providing and laying of concrete including curing etc. complete as per KPTCL specification and rules including all lead and lifts as per KPTCL/MESCOM/ IE rules.	Set					6.5	1030.37	6697.41	RA-16

11.2.17	Supply and fixing of Guy sets with No. 15 break insulator, 7 / 10 SWG G I rope, turn buckle and anchoring arrangements with necessary earth work excavation, providing and laying of concrete including curing etc. complete as per KPTCL specification and rules including all lead and lift as per KPTCL/MESCOM/ IE rules.	Set					5.5	1317.30	7245.15	RA-17
11.2.18	Releasing and restringing of released ACSR conductor and handing over the unused released materials to MESCOM including all lead and lift as per KPTCL/MESCOM/ IE rules.	Km					13.5	7185.04	96998.04	RA-18
11.2.19	Supplying and stringing of Rabbit ACSR conductor, inclusive of length for jumps, binding to the Pin Insulators, with minimum sag of 5% with necessary lead and lifts as per IE Rules/ KPTCL /ESCOM specification.	Km					0.5	37457.60	18728.80	RA-19
11.2.20	Releasing and restringing using released conductor for LT distribution line and returning the excess / unused materials to MESCOM including all lead and lift as per KPTCL/MESCOM/ IE Specifications.	Km					18	5270.32	94865.67	RA-20
11.2.21	Supplying and stringing of Weasel ACSR conductor for LT distribution as per MESCOM / KPTCL specifications and standards including all lead and lift.	Km					1	22873.85	22873.85	RA-21
11.2.22	Supplying and fixing of 11 KV Pin insulators with porcelien shell & GI pin including fixing hardwares like nut, plate and spring washers as per KPTCL/MESCOM standards and specifications including all lead and lift.	Nos					117	94.00	10998.00	RA-22
11.2.23	Supplying and fixing of 1.1 KV class pin insulator shell with GI pin including fixing hardwares like nut, plate and spring washers as per KPTCL standards and specifications including all lead and lift.	Nos					156	38.00	5928.00	RA-23
11.2.24	Supplying and fixing of No 8 strain/ LT Shackle insulators at the dead end / cut points of LT distribution line as per KPTCL /ESCOM specifications & standards including all lead and lift.	Nos					71.5	14.00	1001.00	RA-24
11.2.25	Supplying and fixing of 11 kv, 45 kN Disc insulator at the dead end / cut points of HT line including fixing hardwares like nut, plate and spring washers as per KPTCL standards and specifications including all lead and lift.	Nos					80.5	290.00	23345.00	RA-25
11.2.26	Releasing and Refixing of released 11kv Pin insulator with GI pin and fixing hardwares like nut, plate and spring washers as per KPTCL standards and specifications including all lead and lift.	Nos					134	40.60	5440.40	RA-26
11.2.27	Releasing and Refixing of released 11kv, 45 kN Disc insulators at the dead end or cut point with necessary fixing hardwares like nut & bolts, plate and spring washers as per KPTCL / ESCOM specifications & standards including all lead and lift.	Nos					80.5	49.30	3968.65	RA-27
11.2.28	Releasing and re-erection after transportation to the site of 11 kv DP structure kit, for the 11 kv DP made of 9mtr long, 145 kg WL RCC poles as per Drg No. SIC/DL/WSO 18/29-7-85 with accessories like clamps, bolt & Nuts plate and spring washers etc., including erectoin of poles after digging suitable pits & all lead and lift as per KPTCL/MESCOMspecifications.	Set					5.5	8959.26	49275.93	RA-28
11.2.29	Supply & erection, transportation to the site of 11 kv DP structure kit and 9 Mtr 145 kG WL RCC poles for making 11 kv DP as per Drg No. SIC/DL/WSO 18/29-7-85 with accessories like clamps, bolt & Nuts plate and spring washers etc., including erectoin of poles after digging suitable pits & all lead and lift as per KPTCL/MESCOMspecifications.	Set					3.5	20625.40	72188.90	RA-29
11.2.30	Releasing and removal of DP structure for mounting Transformer and handing over the released materials to MESCOM including all lead and lift.	Set					9	5928.93	53360.41	RA-30
11.2.31	Releasing and Re-erection of released 63 kVA Transformer along with associated equipment of the transfomer centre as per Dgr No..KEB/SIC/WS/022/date :12.9.86 and handing over the unused released materials to MESCOM including all lead and lift.	Per unit					2	28977.09	57954.18	RA-31.1
11.2.32	Releasing and Re-erection of released 63 kVA transformer in temperary location and shifting the same back to original loacation after completion of pipe line work along with associated equipment of the transfomer centre as per Dgr No..KEB/SIC / WS/022/date :12.9.86 and handing over the unused released materials to MESCOM including all lead and lift.	Per unit					1	57954.18	57954.18	RA-31.2
11.2.33	Releasing and Re-erection of released 100 kVA Transformer along with associated equipment of the transfomer centre as per Dgr No..KEB/SIC/WS/022/date :12.9.86 and handing over the unused materials to MESCOM including all lead and lift.	Per unit					1	32175.65	32175.65	RA-32.1
11.2.34	Releasing and Re-erection of released 100 kVA transformer in temperary location and shifting the same back to original loacation after completion of pipe line work along with associated equipment of the transfomer centre as per Dgr No..KEB/SIC / WS/022/date :12.9.86 and handing over the unused released materials to MESCOM including all lead and lift.	Per unit					1	64351.29	64351.29	RA-32.2
11.2.35	Releasing and Re-erection of released 250 kVA Transformer along with associated equipment of the transfomer centre as per Dgr No..KEB/SIC/WS/022/date :12.9.86 and handing over the unused materials to MESCOM including all lead and lift.	Per unit					1	30225.11	30225.11	RA-33.1
11.2.36	Releasing and Re-erection of released 250 kVA transformer in temperary location and shifting the same back to original loacation after completion of pipe line work along with associated equipment of the transfomer centre as per Dgr No..KEB/SIC / WS/022/date :12.9.86 and handing over the unused released materials to MESCOM including all lead and lift.	Per unit					1	60450.21	60450.21	RA-33.2
11.2.37	Releasing and Refixing of released 200A Single Break GOS with operating handle, tandom pipe etc., and returning the unused released materials to MESCOM including all lead and lift as per KPTCL/MESCOM specifications.	Set					6.5	1752.18	11389.17	RA-34

11.2.38	Releasing and Refixing of released HG Fuse Unit and handing over the unused released materials to MESCOM including all lead and lift as per KPTCL/MESCOM specifications.	Set					3.5	1165.37	4078.78	RA-35
11.2.39	Releasing and Refixing of released Lightning Arrestors and handing over the unused released materials to MESCOM including all lead and lift as per KPTCL/MESCOM specifications.	Set					3.5	195.61	684.62	RA-36
11.2.40	Releasing and Refixing of released LT Protection Kit and handing over the unused released materials to MESCOM including all lead and lift as per KPTCL/MESCOM specifications.	Set					3.5	1129.55	3953.43	RA-37
11.2.41	Releasing and Refixing of released L T Distribution Box and handing over the unused released materials to MESCOM including all lead and lift as per KPTCL/MESCOM specifications.	Set					2	1253.53	2507.05	RA-38
11.2.42	Releasing and refixing of released street light fitting on to shifted pole including wiring and testing the connection and proper function of the fitting including all lead and lift as per MESCOM /MCC specifications.	Set					44.5	484.88	21577.16	RA-39
11.2.43	Releasing and reconnection of released House Service Connection, fixing PVC pipe for taking the leads from the conductor to the pole fuse board or line conductor (including taking the lead wire inside the pvc pipe & giving connection to the overhead line & pole fuse box/ fuse board including all lead and lift as per MESCOM specifications.	Set					67	360.91	24180.64	RA-40
11.2.44	Supplying and fixing 2.5m long 2.9 mm thick 40mm dia GI pipe earth electrode for DP structures, including excavation of pit, necessary salt and charcoal, construction of masonry chamber with cover complete as specified in IS 3043 and drawing including running of 7/10SWG GI wire for connection with all lead and lift as per KPTCL/MESCOM specifications.	Set					22.5	2057.85	46301.63	RA-41
11.2.45	Releasing and restringing of released 1.1kv grade aerial bunched 5 core (3 x 95 sq mm for phase and 1 x 70 sq mm neutral and 1 x 16 sq mm street light cable, XLPE insulated stranded aluminium conductor, layed around a weather resistant black XLPE insulated AAA Messenger wire on shifted poles including all lead and lift as MESCOM/MCC specifications.	Km					1	56273.63	56273.63	RA-42
11.2.46	Releasing and refixing of released guarding materials for HT & LT and P & T lines and Road Crossings etc., on shifted line complete with all necessary accessories including all lead and lifts as per IE/KPTCL Rules & Specifications.	Set					5.5	2917.55	16046.50	RA-43
11.2.47	Supplying and fixing of guarding for HT & LT lines, P & T lines and Road Crossings etc., complete with all necessary accessories including all lead and lift as per IE/KPTCL Rules & Specifications.	Set					3.5	4935.55	17274.43	RA-44
11.2.48	Releasing and relaying of released 2.5 to 25sqmm size L T Under ground cable for house service connection including termination and testing for proper function including all lead and lift as per KPTCL/MESCOM/ IE rules.	Km					1	35192.37	35192.37	RA-45
11.2.49	Supplying and fixing straight through jointing kit suitable for 1.1kv class LT UG cable of size 4C x 10 sq mm and 4C x 16 sq mm including all lead and lift as per MESCOM Norms.	Kit					44.5	1327.00	59051.50	RA-46.1
11.2.50	Supplying and fixing straight through jointing kit suitable for 1.1kv class LT UG cable of size 3.5C x 25 sq mm & 3.5 C x 35 sq mm including all lead and lift as per MESCOM Norms.	Kit					22.50	1604.00	36090.00	RA-46.2
11.2.51	Providing at site, inclusive of all lead and lift, brand new approved make alluminium conductor PVC insulated, sheathed, steel wire armoured UG cable with PVC outer sheathing 1.1 KV class UG cable confirming to IS: 1554(P-1) - 2C X 10 SQ MM Aluminium cable	Km					0	72856.30	0.00	RA-47.1
11.2.52	Providing at site, inclusive of all lead and lift, brand new approved make alluminium conductor PVC insulated, sheathed, steel wire armoured UG cable with PVC outer sheathing of 1.1 KV class UG cable confirming to IS: 1554(P-1)- 4C X 10 SQ MM Aluminium cable.	Km					0	90073.30	0.00	RA-47.2
11.2.53	Providing at site, inclusive of all lead and lift, brand new approved make alluminium conductor PVC insulated, sheathed, steel wire armoured UG cable with PVC outer sheathing 1.1 KV class UG cable confirming to IS: 1554(P-1) - 2C X 16 SQ MM Aluminium cable	Km					0.5	75478.30	37739.15	RA-47.3
11.2.54	Providing at site, inclusive of all lead and lift, brand new approved make alluminium conductor PVC insulated, sheathed, steel wire armoured UG cable with PVC outer sheathing of 1.1 KV class UG cable confirming to IS: 1554(P-1)- 4C X 16 SQ MM Aluminium cable.	Km					0.5	109051.30	54525.65	RA-47.4
11.2.55	Providing at site, inclusive of all lead and lift, brand new approved make alluminium conductor PVC insulated, sheathed, steel wire armoured UG cable with PVC outer sheathing of 1.1 KV class UG cable confirming to IS: 1554(P-1)- 4C X 25 SQ MM Aluminium cable.	Km					0	128300.30	0.00	RA-47.5
11.2.56	Releasing and relaying the existing GI/PVC pipe for house service connection including all lead and lift as per MESCOM Norms.	Mtr					886	123.98	109841.85	RA-48
11.2.57	Supplying and laying of Class A, 40mm dia., GI pipe on pole /wall/drain crossing with necessary clamping arrangements for UG cable of 1.1KV class.	Mtr					53	345.00	18285.00	RA-49.1
11.2.58	Digging of trench of 0.6m deep x 0.5 m wide trench and refilling the same to the required ground level and consolidating etc., including all lead and lift, as per ESCOM specifications.	Mtr					443	78.00	34554.00	RA-50
11.2.59	Providing and filling of river sand all around UG cable to a depth of 150 mm all around, laid in excavated trench as per ESCOM / KPTCL specifications	Mtr					443	103.00	45629.00	RA-51
11.2.60	Temporary Shifting of HT/LT lines: Shifting of electrical poles along with HT/LT cross arms to temporary location and resifting to original position after completion of work including all lead and lift as per the instructions of KPTCL /MESCOM Authority.	Set					9	10774.63	96971.68	RA-52

11.2.61	Releasing and re-erection of released 8 mtr long strut pole including calmps digging pit, concreting with all accessories at the new alignment of O H line.	Nos					9	2336.24	21026.16	RA-53
11.2.62	Realeasing and re-erection of three pole structure using 9 mtr long, 145 kg WL, RCC poles and structural materials in proposed location complete set including all stanadrd accessories & including all lead and lift as per MESCOM specifications /estimate.	Set					1	13414.68	13414.68	RA-54
	Total								2092472.00	
	KPTCL/ESCOM registration cum processing fee, Issue of NOC, Initial security deposits, Meter security deposits, supervision, inspection charges, etc Including liaison with power supply authorities , electrical inspectorate, transmission of relevant documents, arranging for power supply, pollution control board acceptances for Genset installation and other charges including generator installation also.	Job					1	150000.00	150000.00	
	Grand Total								2242472.00	

AE
MSCL Mangaluru

Executive Engineer
MSCL Mangaluru

Superintending Engineer
MSCL Mangaluru

MANGALURU SMART CITY

1.5 Rate Analysis of Underground Drainage Zone 4 Part 2 and Zone 3 Part 1

RATE ANALYSIS - UnderGround Drainage Zone 4 Part 2 and Zone 3 Part 1

1	KSRRB200-8. Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs, saplings and trees of girth upto 300mm, by manual means, in area of light jungle, removal of stumps, disposal of unserviceable materials, stacking of serviceable materials labour charges complete as per specifications KSRB Pg No.136,SI No.18.11			
	Basic rate		6.00	
	Add 12% For area weightage		0.72	
		Rate	6.72	Sqm
2	Cutting asphalt road surface for pipeline trenches and disposing off the excavated stuff with all lead and lift as directed including barricading,danger lighting etc., KUWSDB-15-16 SI No.5.2,Pg No.17			
	Basic rate		578	
	Add 12% For area weightage		69.36	
		Rate	647.36	Cum
3	Cutting Concrete road surface for pipeline trenches and disposing off the excavated stuff with all lead and lift as directed including barricading,danger lighting etc., KUWSDB-15-16 SI No.5.3,Pg No.17			
	Basic rate		1159	
	Add 12% For area weightage		139.08	
		Rate	1298.08	Cum
4	Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge. (As per Rate analysis)			
	Basic rate		36.83	
	Add 12% For area weightage		4.42	
		Rate	41.25	Sqm
5	Earthwork excavation for pipeline trenches (Except building work) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring,strutting,bailing out water at every 100 meters wherever necessary as directed in the following Strata KUWSDB SR 15-16,SI No 1-i-(a),Pg No 5			
i	do in all soils mixed mixed with boulders of 30 cms size upto an exclusive of disintegrated rock D182			
a	0 to 2mtr depth			
	Basic rate		175.00	
	Add 12% For area weightage		21.00	
		Rate	196.00	Cum
b	2 to 4mtr depth			
	Basic rate		232.00	
	Add 12% For area weightage		27.84	
		Rate	259.84	Cum
c	4 to 6mtr depth			
	Basic rate		309.00	
	Add 12% For area weightage		37.08	
		Rate	346.08	Cum

6	Earthwork excavation for pipeline trenches (Except building work) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring, strutting, bailing out water at every 100 meters wherever necessary as directed in the following Strata KUWSDB SR 15-16, SI No 1-ii-(a), Pg No 5			
	In disintegrated rock, soft rock, soft shale, medium hard rock comprising of lime stone, sand stone, hard shale, schiest, fissured rock without resorting to blasting			
a	0 to 2mtr depth			
	Basic rate		395.00	
	Add 12% For area weightage		47.4	
		Rate	442.40	Cum
b	2 to 4mtr depth			
	Basic rate		442.00	
	Add 12% For area weightage		53.04	
		Rate	495.04	Cum
c	4 to 6mtr depth			
	Basic rate		511.00	
	Add 12% For area weightage		61.32	
		Rate	572.32	Cum
7	Earthwork excavation for pipeline trenches (Except building work) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring, strutting, bailing out water at every 100 meters wherever necessary as directed in the following Strata KUWSDB SR 15-16, SI No 1-iii-(a), Pg No 7			
	In hard laterite rock or hard laterite rock containing iron ore upto 20% by chistelling and trimming to proper slope			
a	0 to 2mtr depth			
	Basic rate		602.00	
	Add 12% For area weightage		72.24	
		Rate	674.24	Cum
b	2 to 4mtr depth			
	Basic rate		721.00	
	Add 12% For area weightage		86.52	
		Rate	807.52	Cum
c	4 to 6mtr depth			
	Basic rate		781.00	
	Add 12% For area weightage		93.72	
		Rate	874.72	Cum
8	Earthwork excavation for pipeline trenches (Except building work) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring, strutting, bailing out water at every 100 meters wherever necessary as directed in the following Strata KUWSDB SR 15-16, SI No 1-iv-(a), Pg No 7			
	In hard laterite rock containing iron ore above 20% by chistelling and trimming to proper slope			
a	0 to 2mtr depth			
	Basic rate		1277.00	
	Add 12% For area weightage		153.24	
		Rate	1430.24	Cum
b	2 to 4mtr depth			
	Basic rate		1340.00	
	Add 12% For area weightage		160.8	
		Rate	1500.80	Cum
c	4 to 6mtr depth			
	Basic rate		1403.00	
	Add 12% For area weightage		168.36	
		Rate	1571.36	Cum

9	Earthwork excavation for pipeline trenches (Except building work) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring, strutting, bailing out water at every 100 meters wherever necessary as directed in the following Strata KUWSDB SR 15-16, SI No 1-vi-(a), Pg No 9			
	In hard rock by Controlled blasting			
a	0 to 2mtr depth			
	Basic rate		884.00	
	Add		378.00	
	Add 12% For area weightage		151.44	
		Rate	1413.44	Cum
b	2 to 4mtr depth			
	Basic rate		1020.00	
	Add		378.00	
	Add 12% For area weightage		167.76	
		Rate	1565.76	Cum
c	4 to 6mtr depth			
	Basic rate		1065.00	
	Add		378.00	
	Add 12% For area weightage		173.16	
		Rate	1616.16	Cum
10	Earthwork excavation for pipeline trenches (Except building work) including barricading depositing on bank with all lead including danger lighting and using sight rails and boning rods including shoring, strutting, bailing out water at every 100 meters wherever necessary as directed in the following Strata KUWSDB SR 15-16, SI No 1-v-(a), Pg No 7			
	In hard rock by chistelling			
a	0 to 2mtr depth			
	Basic rate		1590.00	
	Add 12% For area weightage		190.8	
		Rate	1780.80	Cum
b	2 to 4mtr depth			
	Basic rate		1706.00	
	Add 12% For area weightage		204.72	
		Rate	1910.72	Cum
c	4 to 6mtr depth			
	Basic rate		1764.00	
	Add 12% For area weightage		211.68	
		Rate	1975.68	Cum
11	Providing course sand bedding for the pipeline trenches including watering and consolidation by punners etc., complete with all lead and lift (In black cotton and rock reaches) KUWSDB 15-16, Pg No 17, SI No.6			
	Basic rate		1616.00	
	Add 12% For area weightage		193.92	
		Rate	1809.92	Cum
12	Providing Muram/Gravel Bedding for the pipeline trenches including watering and consolidation by punners etc., complete with all lead and lift as directed including barricading, danger lighting etc., as directed by the Engineer-in-Charge etc., complete, for all type of soils excluding black cotton soil and rock reaches. KUWSDB Pg No.17, SI No.6.1,6.2			
	Basic rate		247.00	
	Add 12% For area weightage		29.64	
		Rate	276.64	Cum

13	Providing and laying in position plain cement concrete of M15 grade with cement at 240kgs, with of 20 mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregates @ 0.45cum for foundation and levelling course, machine mixed, concrete laid, well compacted, including cost and conveyance of all materials,all leads and lifts, loading and unloading, labour, hire charges of machinery, T&P., curing and all other incidental items of work required for successful completion of the work and as directed by the Engineer -in-charge of the work etc complete. PCC Bedding at water logged area and drians KSRB 16-17, Pg No.12,SI No.4.1			
	Basic rate		5441.00	
	Add 12% For area weightage		652.92	
		Rate	6093.92	Cum
14	Supplying Unplasticised PVC pipes confirming to IS 15328:2003 with latest amendments ended with integral sockets with ISI mark and conveying to worksite,rolling and lowering into trenches,Laying true to line and level and perfect linking at joints,testing and commissioning,including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing of UPVC Pipes (with cost of elastomeric sealing rings) and specials (excluding cost of specials) with jointing of approved type,with all labour with all lead and lift including encasing the pipe alround to a depth of not less than 15cms with soft gravel or selected earth available from the excavation etc.,complete and giving neccessary hydraulic test to the required pressure as per ISS (Contractor will make his own arrangements for procuring water for testing) KUWSDB,Pg No 205 and 207,SI No 4.3			
	Supply and laying of PVC- U Pipes as per IS 15328 SN 4 -Ring tite: 200mm			
	Basic Material Rate		754.00	
	Labour Rate		45	
	Add 12% For area weightage For labour		5.4	
		Rate	804.40	Rmt
15	Supplying Unplasticised PVC pipes confirming to IS 15328:2003 with latest amendments ended with integral sockets with ISI mark and conveying to worksite,rolling and lowering into trenches,Laying true to line and level and perfect linking at joints,testing and commissioning,including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing of UPVC Pipes (with cost of elastomeric sealing rings) and specials (excluding cost of specials) with jointing of approved type,with all labour with all lead and lift including encasing the pipe alround to a depth of not less than 15cms with soft gravel or selected earth available from the excavation etc.,complete and giving neccessary hydraulic test to the required pressure as per ISS (Contractor will make his own arrangements for procuring water for testing) KUWSDB,Pg No 205 and 207,SI No 4.4			
	Supply and laying of PVC- U Pipes as per IS 15328 SN 4 -Ring tite: 250mm			
	Basic Material Rate		1193.00	
	Labour Rate		48	
	Add 12% For area weightage For labour		5.76	
		Rate	1246.76	Rmt

16	Supplying Unplasticised PVC pipes confirming to IS 15328:2003 with latest amendments ended with integral sockets with ISI mark and conveying to worksite,rolling and lowering into trenches,Laying true to line and level and perfect linking at joints,testing and commissioning,including loading and unloading at both destinations and cuts of pipes wherever necessary including jointing of UPVC Pipes (with cost of elastomeric sealing rings) and specials (excluding cost of specials) with jointing of approved type,with all labour with all lead and lift including encasing the pipe alround to a depth of not less than 15cms with soft gravel or selected earth available from the excavation etc.,complete and giving necessary hydraulic test to the required pressure as per ISS (Contractor will make his own arrangements for procuring water for testing) KUWSDB,Pg No 207 and 207,SI No b1			
	Supply and laying of PVC- U Pipes as per IS 15328 SN 8 -Ring tite: 110mm			
	Basic rate Material Rate		269.00	
	Labour Rate		33	
	Add 12% For area weightage For labour		3.96	
		Rate	305.96	Rmt
17	Construction RCC M25 circular inspection chamber 600 mm dia x 600mm depth (clear inside dimension) for single pipeline, with M15 PCC bed for 100 mm thick using mix with cement @240 kgs granite graded metal of 20 mm and down size and clean sieved river sand , M25 RCC raft & sidewall concrete with 20mm and downsize granite metal, , finish smooth with a floating coat of cement on walls and bed concrete complete , including fixing and grouting of pipes, including conveying to work spot supply and fixing SFRC manhole cover and frame (Heavy Duty) confirming to IS: 12592 with latest amendments as per standard design including cost of reinforcement, all materials, labour charges, curing complete as per specifications. As Per Data Rate			
	Basic rate		6637.00	
		Rate	6637.00	Nos
18	Making connections of drain or sewer line of size 100mm to 230mm external dia with existing manhole including breaking into and making good the walls, floors with cement concrete M15 with 20mm and downsize granite metal mix cement plastered on both sides with cement mortar 1:3 finished with a floating coat of neat cement and making necessary channels for the drain etc., complete PWD SR 2016-17,SI No.11.47.3,Pg No.73			
	Basic rate		1734.00	
	Add 12% For area weightage		208.08	
		Rate	1942.08	Nos

19	<p>Constructing RCC Manhole chamber of 1:1.5:3 proportion or approved type pre-cast RCC manhole chambers, constructed using form vibrators of standard type, with barricading, danger lighting and using of sight rails and boning rods wherever necessary, shoring and strutting wherever required using ordinary port land cement, using 1:1.5:3 proportion RCC with 20 mm and down graded jelly, well graded sand and steel of approved quality, 200 mm thick top concrete slab, having wall thickness and raft thickness as in approved drawings and with an offset in raft around the chamber as in approved drawing, benching concrete with 1:6 slope towards the central drain finished smooth, including fixing and grouting of pipes, including conveying to work spot supply and fixing SFRC manhole cover and frame (Heavy Duty) conforming to IS: 12592 with latest amendments, on a bed of CC 1:2:4 supplying and fixing of minimum 3 mm thick encapsulated plastic footsteps (as per IS 10910) on 12 mm dia. Grade Fe-415 steel bar (as per IS 1786) staggered at 300 mm apart as detailed in Technical specifications, including sand bedding wherever required, disposal of surplus earth, watering, curing, engraving manhole number with flow direction on the inner cylindrical surface etc., complete including cost of reinforcement steel and fabrication charges and also cost and conveyance of all materials, labour with all lead and lifts for various diameters and depths noted below as per specification, drawing and as directed by the Engineer inclusive of earth work excavation in all type of soil.</p> <p>BWSSB 16-17,SI No 84,Pg No 81-82</p>		
A	1.2 m dia manholes		
a	For 1.0 m depth		
	Basic rate		37961.00
	Add 12% For Area weightage		4555.32
		Rate	42516.32 Nos
b	For 1.1 m depth		
	Basic rate		39355.00
	Add 12% For Area weightage		4722.60
		Rate	44077.60 Nos
c	For 1.2 m depth		
	Basic rate		40751.00
	Add 12% For Area weightage		4890.12
		Rate	45641.12 Nos
d	For 1.3 m depth		
	Basic rate		42075.00
	Add 12% For Area weightage		5049.00
		Rate	47124.00 Nos
e	For 1.4 m depth		
	Basic rate		43470.00
	Add 12% For Area weightage		5216.40
		Rate	48686.40 Nos
f	For 1.5 m depth		
	Basic rate		44865.00
	Add 12% For Area weightage		5383.80
		Rate	50248.80 Nos
g	For 1.6 m depth		
	Basic rate		46261.00
	Add 12% For Area weightage		5551.32
		Rate	51812.32 Nos
h	For 1.7 m depth		
	Basic rate		47655.00
	Add 12% For Area weightage		5718.60
		Rate	53373.60 Nos
i	For 1.8 m depth		
	Basic rate		48980.00
	Add 12% For Area weightage		5877.60
		Rate	54857.60 Nos
j	For 1.9 m depth		
	Basic rate		50375.00
	Add 12% For Area weightage		6045.00
		Rate	56420.00 Nos

k	For 2.0m depth			
	Basic rate		52132.00	
	Add 12% For Area weightage		6255.84	
		Rate	58387.84	Nos
l	For 2.1m depth Difference of basic rate for Manhole depth 2m & 3m (66422-52132)			14290
	for every 0.1m depth of manhole (Difference/10)			1429
	Basic rate		53561.00	
	Add 12% For Area weightage		6427.32	
		Rate	59988.32	Nos
m	For 2.2m depth			
	Basic rate		54990.00	
	Add 12% For Area weightage		6598.80	
		Rate	61588.80	Nos
n	For 2.3m depth			
	Basic rate		56419.00	
	Add 12% For Area weightage		6770.28	
		Rate	63189.28	Nos
o	For 2.4m depth			
	Basic rate		57848.00	
	Add 12% For Area weightage		6941.76	
		Rate	64789.76	Nos
p	For 2.5m depth			
	Basic rate		59277.00	
	Add 12% For Area weightage		7113.24	
		Rate	66390.24	Nos
q	For 2.6m depth			
	Basic rate		60706.00	
	Add 12% For Area weightage		7284.72	
		Rate	67990.72	Nos
r	For 2.7m depth			
	Basic rate		62135.00	
	Add 12% For Area weightage		7456.20	
		Rate	69591.20	Nos
s	For 2.8m depth			
	Basic rate		63564.00	
	Add 12% For Area weightage		7627.68	
		Rate	71191.68	Nos
t	For 2.9m depth			
	Basic rate		64993.00	
	Add 12% For Area weightage		7799.16	
		Rate	72792.16	Nos
l	For 3.0m depth			
	Basic rate		66422.00	
	Add 12% For Area weightage		7970.64	
		Rate	74392.64	Nos
B	1.5 m dia manholes			
a	For 3.1m depth Difference of basic rate for Manhole depth 3m & 4m (100811-83642)			17169
	for every 0.1m depth of manhole (Difference/10)			1716.9
	Basic rate		85358.90	
	Add 12% For Area weightage		10243.07	
		Rate	95601.97	Nos
b	For 3.2m depth			
	Basic rate		87075.80	
	Add 12% For Area weightage		10449.10	
		Rate	97524.90	Nos
c	For 3.3m depth			
	Basic rate		88792.70	
	Add 12% For Area weightage		10655.12	
		Rate	99447.82	Nos
d	For 3.4m depth			

	Basic rate		90509.60	
	Add 12% For Area weightage		10861.15	
		Rate	101370.75	Nos
e	For 3.5m depth			
	Basic rate		92226.50	
	Add 12% For Area weightage		11067.18	
		Rate	103293.68	Nos
f	For 3.6m depth			
	Basic rate		93943.40	
	Add 12% For Area weightage		11273.21	
		Rate	105216.61	Nos
g	For 3.7m depth			
	Basic rate		95660.30	
	Add 12% For Area weightage		11479.24	
		Rate	107139.54	Nos
h	For 3.8m depth			
	Basic rate		97377.20	
	Add 12% For Area weightage		11685.26	
		Rate	109062.46	Nos
i	For 3.9m depth			
	Basic rate		99094.10	
	Add 12% For Area weightage		11891.29	
		Rate	110985.39	Nos
j	For 4.0m depth			
	Basic rate		100811.00	
	Add 12% For Area weightage		12097.32	
		Rate	112908.32	Nos
k	For 4.1m depth Difference of basic rate for Manhole depth 4m & 5m (125272-100811)		24461	
	for every 0.1m depth of manhole (Difference/10)		2446.1	
	Basic rate		103257.10	
	Add 12% For Area weightage		12390.85	
		Rate	115647.95	Nos
l	For 4.2m depth			
	Basic rate		105703.20	
	Add 12% For Area weightage		12684.38	
		Rate	118387.58	Nos
20	<p>Providing and fixing Drop arrangements ,with following diameter HDPE Garde PE-100 Pipes,confirming to PN 6 as per IS 4984-1995 with latest amendments vertical drop pipe with MS fastenings at 300 mm dia C/C,with suitable expander /reducer HDPE T joint at top with incoming sewer with one end of Tee inside the manhole closed with end cap and 45 degree bend at the bottom with HDPE Specials and encasing the pipe outside manhole with cement concrete of 1:2:4 proportion,150/200 mm thick alround the HDPE pipe including vibrating,Compacting,Necessary centering and formwork,curing testing,including cost and conveyance of all materials,labour with all lead and lift etc.,complete as perspecification drawing and as directed by the engineer in charge BWSSB SI No.98,Pg No.91</p>			
	For 150/200 mm dia incoming sewer pipe - Zone 4 Part 2			
	Basic Rate		4279.00	
	Add 12% For Area weightage		513.48	
		Rate	4792.48	Rmt
21	<p>Refilling Pipeline Trenches and foundation with selected available earth from trench excavation and foundation including watering,consolidation in layers of 15cms.,thick including disposing off the surplus earth with all lead and lift. KUWSDB Pg No 15,SI No 2</p>			
	Basic Rate		59.00	
	Add 12% For Area weightage		7.08	
		Rate	66.08	Cum

22	Removal of Unserviceable Soil with Disposal KSRRB M300-19. Removal of unserviceable soil including excavation, loading and disposal but excluding replacement by suitable soil which shall be paid separately as per clause 300.5 complete as per specifications. MORTH Specification No. 301 KPWD Pg No. ,SI No.19.20			
	Basic Rate			37.00
	Lead & Lift Charges - 5Km ,KPWD-16-17,SI No.17.4 (Earth=1.28),Pg No 140			16.00
	Loading & Unloading -KPWD-16-17,SI No.17.1,Pg No 134			68.00
	Sub Total			121.00
	Add 12% For Area weightage			14.52
		Rate		135.52 Cum
23	KSRRB M400-6.1 Construction of granualr sub-base by providing close graded crushed stone aggregates of granite/trap/basalt material, mixing in a mechanical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications, Including environmental and social safe guards, including all taxes, as directed by the Engineer-in-Charge etc. Close graded granular sub-base material as per 400-1, For Grading - I material , by Plant Mix Method KSRB Pg No.155,20.4.1			
	Basic Rate			1618
	Sub Total			1618.00
	Add 12% For Area weightage			194.16
		Rate		1812.16 Cum
24	KSRRB M400-Wet Mix macadam KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite/trap/ basalt to wet mix macadam specification including per mixing the material with water at OMC in Mechanical mix plant carriage of mixed material by tipper to site, laying in uniform layers with paver in sub- base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specification. MORTH Specification NO.406 KSRB Pg No 158,20.18			
	Basic Rate			1668
	Sub Total			1668.00
	Add 12% For Area weightage			200.16
		Rate		1868.16 Cum
25	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. MORTH Specification No. 502 KSRB Pg No.161,SI No:21.6			
	Basic Rate			26.00
	Sub Total			26.00
	Add 12% For Area weightage			3.12
		Rate		29.12 Sqm
26	Providing and laying bituminous macadam on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E loader, hot mixing of stone aggregates and bitumen in hot mix plant 40/60 TPH capacity, transporting the mixed material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to achieve the desired density, 50 / 75 mm compacted thickness with 3.4% bitumen but excluding cost of primer/tack coat with all lead and lift including cost of materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5, using 60/70 grade bitumen, Including environmental and social safe guards, including all taxes, as directed by the Engineer-in-Charge etc., complete. 50mm thick KSRRB Pg No.162,SI No. 21.11.6			
	Basic Rate			5406.00
	Sub Total			5406.00
	Add 12% For Area weightage			648.72
		Rate		6054.72 Cum

27	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH/Chapter 5 KSRRB Pg No.160,SI No:21.7 Rev Rate-18.12.2017		
	Basic Rate		12.00
	Sub Total		12.00
	Add 12% For Area weightage		1.44
		Rate	13.44 Sqm
28	Providing and laying Semi dense bituminous concrete with 40-60 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder at 4.5 to 5% of mix and filter, transporting the hot mix to work site, laying with a hydrostatic paver finisher with mechanical paver to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause no. 500.8, 25 mm compacted thickness with 5% bitumen 60/70 grade using 40-60 HMP (Grading II) using mechanical paver, with all lead and lift ,Labour, as per specification, Including environmental and social safe guards, including all taxes, as directed by the Engineer-in-Charge etc., complete. 25mm thick KSRRB Pg No.163,SI No. 21.20.6		
	Basic Rate		6945.00
	Sub Total		6945.00
	Add 12% For Area weightage		833.40
		Rate	7778.40 Cum
29	Dewatering for Lowering of water table to creat dry conditions at least upto the bed of the excavation including the cost of material, labour T & P articles & machinery laying sewer line & Manholes as per approved drawings according. to the requirement of the construction of structure. The cost of this work shall be inclusive of disposal of water pumped out at a safe place away from the structure. The dewatering will work till the completion of the structure as per approved drawings ,with all horizontal leads and lifts etc., complete in all respects as per specification and as directed by engineer.During the execution of work enough precaution should be taken by the contractor to ensure that the clear water flows from the delivery pipe of pumps to avoid any settlement of soil during the process. (Rate analysis attached)		
	Basic Rate		4218.20
	Sub Total		4218.20
		Rate	4218.20 Day
30	Sheet piling: Providing and installing sheet piling for both sides of the trench for following depths with mild steel sheets not less than 6.5 mm thick, stronger knife edge, recessed spreader sockets, 3" single or double wall shields, to be designed by the contractor to withstand all types of soils, maximum depths of as per the approved design drawing, including labour charges for installing and removing the sheet piling at various reaches of sewer line construction, including loading , unloading, transporting to the suitable location etc. complete with all lead and lifts (Measurement shall be taken for one side only eventhough it is provided for both sides) BWSSB 16-17 SI No.93,Pg No.90		
a	0-3m depth		
	Basic Rate		572.00
	Sub Total		572.00
	Add 12% For Area weightage		68.64
		Rate	640.64 Sqm
b	Above 3m upto 10m depth		
	Basic Rate		759.00
	Sub Total		759.00
	Add 12% For Area weightage		91.08
		Rate	850.08 Sqm

31	KSRB 14.6-2 :Providing and laying heavy duty cobble stones 75mm thick interlock pavers, 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. PWD (16-17,Pg No.101,SI No.14.7)			
	Basic Rate			970.00
	Sub Total			970.00
	Add 12% For Area weightage			116.40
		Rate		1086.40 Sqm

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1.6 Rate Analysis of Underground Drainage Zone 4 Part 2 and Zone 3 Part 1

RATE ANALYSIS - UnderGround Drainage Zone 4 Part 2 and Zone 3 Part 1- UTILITY SHIFTING

DISMANTLING			
1	KSRRB M200-13.2. 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. II.By Mechanical Means. MORTH Specification No. 202 KSRRB Pg No.137,SI No.18.21		
	Basic rate		601
	Add 12% For area weightage		72.12
		Rate	673.12 Cum
2	KSRRB M200-14.2. 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. ii) Dismantling brick/Tile work B. In cement mortar. MORTH Specification No. 202 KSRRB Pg No.137,SI No.18.23		
	Basic rate		244
	Add 12% For area weightage		29.28
		Rate	273.28 Cum
COMPOUND WALL			
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 KSRRB Pg No.5,SI No.2.3		
	Basic rate		189
	Add 12% For area weightage		22.68
		Rate	211.68 Cum
2	KSRB 4-1.1: Providing and laying in position plain cement concrete of mix 1:2:4 with OPC cement @ 240kgs, with 40mm 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. Specification No. KBS 4.1, 4.2 KSRRB Pg No.12,SI No.4.1		
	Basic rate		5213
	Add 12% For area weightage		625.56
		Rate	5838.56 Cum
3	Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6 stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 KSRRB Pg No.254,SI No.34.8.2		
	Basic rate		4187.00
	Add 12% For area weightage		502.44
		Rate	4689.44 Cum

4	Providing & constructing laterite size stone masonry in CM 1:6 including cost and conveyance of all materials curing, etc complete as per specification I.S. 3620 / 1979 having compressive strength not less than 3.5 N/mm ² for saturated dry samples. For super structure in CM 1:6 (Cement 45 kgs/M ³) (Ground Floor) KSRRB Pg No.267,SI No.37.66.1			4410.00	
	Basic rate				
	Add 12% For area weightage			529.2	
			Rate	4939.20	Cum
5	KSRB15-3.11 : Providing 20mm thick cement plaster in single coat with cement mortar 1:4, to stone masonry & concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. KSRRB Pg No.114,SI No.15.19			234.00	
	Basic rate				
	Add 12% For area weightage			28.08	
			Rate	262.08	Sqm
6	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - with primer. KSRRB Pg No.118,SI No.15.53.2			84.00	
	Basic rate				
	Add 12% For area weightage			10.08	
			Rate	94.08	Sqm
7	KSRB 2.3: Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20cms. In depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5m. including cost of all labour complete as per specifications. Specification No. KBS 2.9 KSRRB Pg No.6,SI No.2.1			127.00	
	Basic Material Rate				
	Add 12% For area weightage			15.24	
			Rate	142.24	Cum
CULVERT					
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 KSRRB Pg No 5,SI No.2.3			189.00	
	Basic rate				
	Add 12% For area weightage			22.68	
			Rate	211.68	Cum

2	KSRRB M2900- PCC 1:3:6 in Foundation KSRRB M2900-1. Plain cement concrete 1:3:6 mix with crushed stone aggregate 40 m nominal size mechanically mixed, placed in foundation and compacted by vibration including curing complete as per specifications MORTH Specification No. 408 KSRB Pg No.253,SI No.34.1		
	Basic rate		4434.00
	Add 12% For area weightage		532.08
		Rate	4966.08 Cum
3	Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6 stone hammerdressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 KSRB Pg No.254,SI No.34.8.2		
	Basic Rate		4187.00
	Add 12% For Area weightage		502.44
		Rate	4689.44 Cum
4	Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KSRB Pg No.254,SI No.34.9		
	Basic Rate		5005.00
	Add 12% For Area weightage		600.6
		Rate	5605.60 Cum
5	Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. – do – cement mortar 1:4 KSRB Pg No.254,SI No.34.12.1		
	Basic Rate		97.00
	Sub Total		97.00
	Add 12% For Area weightage		11.64
		Rate	108.64 Sqm
6	Providing and laying reinforced cement concrete pipe NP3 for culverts including pointing ends, and fixing collars with cement mortar 1:2 including cost of all materials, labour, curing complete as per specifications. Specifications. No. KSRB 1000, 2300 MOST Specification No.1000 / 2300 - - 300mm. dia KSRB Pg No.253,SI No.34.6.1		
	Basic Rate		1583
	Sub Total		1583.00
	Add 12% For Area weightage		189.96
		Rate	1772.96 Rmt
7	Providing and laying reinforced cement concrete pipe NP3 for culverts including pointing ends, and fixing collars with cement mortar 1:2 including cost of all materials, labour, curing complete as per specifications. Specifications. No. KSRB 1000, 2300 MOST Specification No.1000 / 2300 - - 450mm. dia KSRB Pg No.253,SI No.34.6.2		
	Basic Rate		2767
	Sub Total		2767.00
	Add 12% For Area weightage		332.04
		Rate	3099.04 Rmt

8	KSRB 2.3: Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20cms. In depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5m. including cost of all labour complete as per specifications. Specification No. KBS 2.9 KSRB Pg No.6,SI No.2.10			
	Basic Rate			127.00
	Sub Total			127.00
	Add 12% For Area weightage			15.24
		Rate		142.24
				Cum
	RCC DRAINS			
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 including clearing vegetation, shoring, strutting, dewatering if required, and ramming with selected earth for foundation and disposing off excess excavated material as approved by Engineer etc. complete with all lead and lift including danger lighting wherever necessary as directed in the following strata. KSRB Pg No.5,SI No.2.3			
	Basic Rate			189.00
	Sub Total			189.00
	Add 12% For Area weightage			22.68
		Rate		211.68
				Cum

2	Providing and laying in position plain cement concrete of mix 1:2:4 with OPC cement @ 240kgs, with 40mm 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,plinth and cills, including cost of all materials, labour, HOM of machineries, curing complete as per specifications. KSRB Pg No 12,SI No.4.1			
	Basic Rate			5213.00
	Sub Total			5213.00
	Add 12% For Area weightage			625.56
			Rate	5838.56 Cum
3	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. KSRB Pg No.13,SI NO.4.10			
	Basic Rate			6221.00
	Sub Total			6221.00
	Add 12% For Area weightage			746.52
			Rate	6967.52 Cum
4	Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete with all lead lifts and as per specifications and directinon of Engineer-in-Charge. FE 500 KSRB Pg No.17,SI No.4.46.2 Rev.			
	Basic Rate			60607.00
	Sub Total			60607.00
	Add 12% For Area weightage			7272.84
			Rate	67879.84 MT
5	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, labour complete as per specifications. KSRB Pg No.15,SI No.4.28			
	Basic Rate			231.00
	Sub Total			231.00
	Add 12% For Area weightage			27.72
			Rate	258.72 Sqm
6	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses plinth cills and string courses cost of all materials, labour complete as per specifications. KSRB Pg No.15,SI No.4.31			
	Basic Rate			293.00
	Sub Total			293.00
	Add 12% For Area weightage			35.16
			Rate	328.16 Sqm

7	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for flat surface such as roofs, landings, balconies and likes, thickness upto 200mm including cost of all materials, labour complete as per specification. (Ground floor) KSRB,Pg No.15,SI No.4.18			
	Basic Rate			313.00
	Sub Total			313.00
	Add 12% For Area weightage			37.56
		Rate		350.56 Sqm
8	KSRRB M2200 - Providing Weep holes Providing weep holes in Brick masonry / Plain / Reinforced concrete abutment, wing wall / return wall with PVC 90mm outer dia pipe 2 kg / Sqcm, extending through the full width of the structure with slope of 1V:20H towards drawing force complete as per drawing and Technical specifications complete as per specifications. KSRB,Pg No.225,SI No.28.10			
	Basic Rate			168.00
	Less cost of Material (AC Pipe)			-50.00
	Sub Total			118.00
	Add Cost of PVC 90mm outer dia pipe 2 kg / Sqcm			135.00
				253.00
	Add 12% For Area weightage			30.36
		Rate		283.36 Rmt
9	Providing and laying of filter media with granular materials/stone crushed aggregates satisfying the requirement laid down in clause 2500.4.2.2 of morth specification to a thickness not less than 600 mm with smaller size to wards the soil and bigger size towards the wall and provided over the entire surface behind the abutment,wing wall and return wall to full hight compacted to a firm condition complete as per drawing and technical specification KSRB,Pg No.225,SI No.28.13			
	Basic Rate			1296.00
	Sub Total			1296.00
	Add 12% For Area weightage			155.52
		Rate		1451.52 Cum
10	KSRB 2.3: Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20cms. In depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5m. including cost of all labour complete as per specifications. Specification No. KBS 2.9 KSRB Pg No.6,SI No.2.10			
	Basic Rate			127.00
	Sub Total			127.00
	Add 12% For Area weightage			15.24
		Rate		142.24 Cum

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1.7 Measurement Sheet of UNDERGROUND DRAINAGE Zone 4 Part 2 and Zone 3 Part 1

RCC inspection chamber (sewer line)

Item No	RA Ref. No	Descriptions	Unit	No	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate (Rs)	Amount (Rs)	Remarks
1.0	1	Earthwork excavation for foundation of buildings, culverts, water supply, sanitary lines and electrical conduits either in pits or in trenches in ordinary soil including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with all lead and lift after breaking of clods complete as per specifications, as per direction of Engineer etc., complete by manual means	Cum								
				1	0.79		0.79	0.62			
			Cum				Total	0.62			
			Cum				Say	0.70	211.68	148.18	
2	2	Providing and laying in position plain cement concrete M15 grade with granite graded metal of 20 mm and down size and clean sieved river sand for foundation and levelling course, machine mixed, concrete laid, well compacted, including cost and conveyance	Cum								
			Cum	1	0.79		0.10	0.08			
							Total	0.08			
			Cum				Say	0.10	6,093.92	609.39	
3	3	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reaffirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnspillers, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications.	Cum								
	1	Foundation Raft	Cum	1	0.50		0.15	0.08			
	2	Walls		1	2.20	0.10	0.60	0.13			
				1	2.51	0.10	0.10	0.03			
			Cum				Total	0.23			
			Cum				Say	0.25	6,967.52	1,741.88	
4	4	Providing and fabricating TMT Steel reinforcement bars of Fe-500 grade including straightening the bars, cutting, bending, hooking and placing in position, lapping and or welding wherever required, tying with binding wire, anchoring to the adjoining members wherever necessary as per approved design and drawings including cost and conveyance of all materials with all leads and lifts, loading and unloading, all labour, hire charges of machineries, T&P, etc. complete and all other incidental items of works required for successful completion of the work as per approved drawings, specifications and as directed by the Engineer-in-charge. (Laps, hooks, chairs and wastages will not be measured and will not be paid for separately.)	MT								
			MT	1	0.23			0.015			
			MT				Say	0.015	67,879.84	1,018.20	
5	5	Providing and removing,centering, shuttering, strutting, propping etc and removal of form work for foundations, bases of columns for mass concrete including cost of all materials, labour complete as per specifications	Sqm								
		For raft		1	2.51		0.15	0.38		-	
			Sqm				Total	0.38		-	
			Sqm				Say	0.40	258.72	103.49	

6	6	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surfaces such as walls of any thickness including cost of all materials, labour complete as per specification.	Sqm								
		Outer wall	Sqm	1	2.51		0.60	1.51		-	
		Inner wall	Sqm	1	1.89		0.60	1.13		-	
		top edge outer	Sqm	1	2.83		0.10	0.28		-	
		top edge inner	Sqm	1	2.20		0.10	0.22			
			Sqm				Total	3.14		-	
			Sqm				Say	3.20	328.16	1,050.11	
7	7	Refilling pipeline trenches and foundation with selected available earth from trench excavation and foundation including watering, consolidation in layers of 15 cms., thickness including disposing off the surplus earth with all lead and lift, including environmental and social safe guards, including all taxes, as directed by the Engineer-in-Charge etc., complete.									
		Total Excavation	Cum					0.62			
		Deduct PCC	Cum					-0.08			
		Deduct Raft						-0.08			
		Deduct Chamber	Cum	-1	0.50		0.70	-0.35			
			Cum				Total	0.11			
			Cum				Say	0.20	66.08	13.22	
8	8	Supply and fixing SFRC manhole cover and frame (heavy duty) confirming to IS :12592 with latest ammendments	Nos	1				1.00	1,952.50	1,952.50	
									Total	6,636.96	
									Say	6,637.00	

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1.8 Rate Analysis of Underground Drainage Zone 4 Part 2 and Zone 3 Part 1

Rate Analysis For RCC Inspection Chamber					
Sl. No	Descriptions	Unit	SR Rate (Rs)	SR Ref.	Remarks
1	Earthwork excavation for foundation of buildings, culverts, water supply, sanitary lines and electrical conduits either in pits or in trenches in ordinary soil including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with all lead and lift after breaking of clods complete as per specifications, as per direction of Engineer etc., complete by manual means-	Cum		PWD SR 16-17 Page 5 Item No 2.3	
	Basic Rate		189.00		
	A.W. 12%		22.68		
	Total	Cum	211.68		
2	Providing and laying in position plain cement concrete M15 grade with granite graded metal of 20 mm and down size and clean sieved river sand for foundation and levelling course, machine mixed, concrete laid, well compacted, including cost and conveyance of all materials, all leads and lifts, loading and unloading, labour, hire charges of machinery, T&P., curing and all other incidental items of work required for successful completion of the work and as directed by the Engineer -in-charge of the work etc complete.	Cum		PWD SR 16-17 Page 12 Item No 4.6	
	Basic Rate		5441.00		
	A.W. 12%		652.92		
	Total	Cum	6093.92		
3	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement @ 340kgs, with 20mm and down size graded granite metal coarse aggregates @0.70 cum and fine aggregates @ 0.47cum, with super plasticisers @ 3 liters conforming to IS 9103-1999 reafirmed-2008 at machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedestals, retaining walls, returnwalls, walls (any thickness) including attached pilasters, columnpillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications.	Cum		PWD SR 16-17 Page 13 Item No 4.10	
	Basic Rate		6221.00		
	A.W. 12%		746.52		
	Total	Cum	6967.52		

4	Providing and fabricating TMT Steel reinforcement bars of Fe-500 grade including straightening the bars, cutting, bending, hooking and placing in position, lapping and or welding wherever required, tying with binding wire, anchoring to the adjoining members wherever necessary as per approved design and drawings including cost and conveyance of all materials with all leads and lifts, loading and unloading, all labour, hire charges of machineries, T&P, etc. complete and all other incidental items of works required for successful completion of the work as per approved drawings, specifications and as directed by the Engineer-in-charge. (Laps, hooks, chairs and wastages will not be measured and will not be paid for separately)	MT		PWD SR 16-17 Page No 17 SI No 4.46.2	ISSUE Rate
	Basi Rate		60607.00		
	A.W. 12%		7272.84		
	Total rate	MT	67879.84		
5	Providing and removing, centering, shuttering, strutting, propping etc and removal of form work for foundations, bases of columns/raft, including cost of all materials, labour complete as per specifications	Sqm		PWD SR 16-17 Page No 15 SI no 4.28	
	Basic Rate		231.00		
	A.W. 12%		27.72		
	Total	Sqm	258.72		
6	Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surfaces such as walls of any thickness, slabs, including cost of all materials, labour complete as per specification.	Sqm		PWD SR 16-17 Page No 15 SI No 4.31	
	Basic rate		293.00		
	A.W. 12%		35.16		
	Total	Sqm	328.16		
7	Refilling pipeline trenches and foundation with selected available earth from trench excavation and foundation including watering, consolidation in layers of 15 cms., thickness including disposing off the surplus earth with all lead and lift, Including environmental and social safe guards, including all taxes, as directed by the Engineer-in-Charge etc., complete.	Cum		KUWS&DB SR 2015-16. P-15, I-2	
	Basic rate		59.00		
	A.W. 12%		7.08		
	Total Rate	Cum	66.08		
8	Supply and fixing SFRC manhole cover and frame (Heavy duty) conforming to IS :12592 with latest ammendments	Nos		KUWS&DB SR 2015-16. P-221,	
	Basic rate		1775.00		
	Fixing charges 10%		177.50		
	Total Rate		1952.50		

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1.9 Rate Analysis of Underground Drainage Zone 4 Part 2 and Zone 3 Part 1

Electrical Rate Analysis for pole shifting work in Under Ground Drainage System

RA No.	Description	SR	Ref	Unit	Basic	Labour/lead /lift/dewatering/MISC etc.,	Locality Allowance @ 45% on labour	Total	Remarks
1	Releasing and erection of 9 metre RCC poles including transportation to work site with all lead from factory and head load from the nearest road; digging a pit to a depth up to of 1.8 mtr giving coating of colour, aligning it, refilling the soil removed, complete for each pole, for a average span of maximum 50mtres as per KPTCL rules.(Including all lead and Lift)	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.1,(b)	Nos					
	Releasing of 9 mtr RCC pole is 90%of erection ie 1060*90%					954.00			
	Erection of 9 mtr RCC pole is 1060					1060.00			
	Grand Total					2014.00	906.3	2,920.30	
2	Supply and erection of 9 metre RCC poles(using Tor50 12mm dia steel), including transportation to work site with all lead from factory and head load from the nearest road; digging a pit to a depth up to of 1.8 mtr giving coating of colour, aligning it, refilling the soil removed, complete for each pole, for a average span of maximum 50mtres as per KPTCL rules.(Including all lead and Lift)	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.1,(b)	Nos	5,941.00	1060.00	477	7,478.00	
	Grand Total							7,478.00	
3	Releasing of deteriorated 9mtr RCC poles and handing over the unused materials to MESCOM including all lead and lift.	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.1,(b)	Nos					
	Releasing of 9 mtr RCC pole is 90%of erection ie 1060* 90%					954.00			
	Transpotation 2% on material ie 5941*2%					118.82			
	Grand Total					1072.82	482.769	1,555.59	
4	Releasing and erection of 11 Mtr ISMB poles including transportation to work site with all lead from factory and head load from the nearest road; digging a pit to a depth up to of 1.8 mtr giving coating of colour, aligning it, refilling the soil removed, complete for each pole, for a average span of maximum 50mtres as per KPTCL rules.(Including all lead and Lift)	MESCOM -SR 2016-17	11kv labour cost SI .No.55 item No.2.6	Nos					
	Releasing of 9 mtr RCC pole is 90%of erection ie 1088*90%					979.20			

RA No.	Description	SR	Ref	Unit	Basic	Labour/lead/lift/dewatering/MISC etc.,	Locality Allowance @ 45% on labour	Total	Remarks
	Erection of 9 mtr RCC pole is 1088					1088.00			
						2067.20	930.24	2,997.44	
	Grand Total							2,997.44	
5	Supply and erection of 11 metre ISMB,200X100mm Size including transportation to work site with all lead from factory and head load from the nearest road; digging a pit to a depth up to of 1.8 mtr giving coating of colour, aligning it, refilling the soil removed, complete for each pole, for a average span of maximum 50mtres as per KPTCL rules.(Including all lead and Lift)	MESCOM -SR 2016-17	stock material SI No.14 item No.1.14,11kv labour cost SI .No.55 item No.2.6	Nos	15,657.00	1088.00	489.6	17,234.60	
	Grand Total							17,234.60	
6	Pole base concreting : supplying and construction 9mtr RCC pole concreting including all materials and labour , shuttering including all lead and lift size:500*650*150mm 1:4:8	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.XXIX,(a)	Each	229.00			229.00	
	Grand Total							229.00	
7	Pole base concreting : supplying and construction 11mtr ISMB pole concreting including all materials and labour , shuttering including all lead and lift size:500*650*150mm	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.XXIX,(c)	Each	704.00			704.00	
	Grand Total							704.00	
8	Pole concreting : supplying and construction 9mtr RCC pole concreting including all materials and labour , shuttering including all lead and lift size:650*500*1700mm 1:2:4	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.XXIX,(a)	Each	2,566.00			2,566.00	
	Grand Total							2,566.00	
9	Pole concreting : supplying and construction 11mtr ISMB pole concreting including all materials and labour , shuttering including all lead and lift size:650*500*2000mm 1:2:4	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.XXIX,(c)	Each	2,721.00			2,721.00	
	Grand Total							2,721.00	
	Releasing and refixing of 11kv Horizontal cross arm with HT Single top support , clamps, bolts, nuts and washers including all lead and lift and MESCOM Norms.	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.VIII,(a)	set					

RA No.	Description	SR	Ref	Unit	Basic	Labour/lead/lift/dewatering/MISC etc.,	Locality Allowance @ 45% on labour	Total	Remarks
10	Releasing 90% of erection ie is 99*90%					89.10			
	Erection is 88					99.00			
						188.10	84.645	272.75	
	Grand Total							272.75	
11	Supplying and fixing of 11kv Horizontal cross arm with HT Single top support , clamps, bolts, nuts and washers including all lead and lift and MESCOM Norms.	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.VIII,(a)	set	382.00	99.00	44.55	525.55	
	Grand Total							525.55	
12	'Releasing of deteriorated HT cross arms and handing over the unused materials to MESCOM including all lead and lift.	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.VIII,(a)	set					
	Releasing 90% of erection ie is 99*90%					89.10			
	Transpotation 2% on material ie 382*2%					7.64			
						96.74	43.533	140.27	
Grand Total								140.27	
13	Releasing and fixing of 4 pin LT Horizontal cross arms, fabricated out of mild steel structure steel as per KPTCL standards complete set with all fixing accessories like bolt, nuts, washers, pole clamps etc., including all necessary lead and lift.	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.X(a)	set					
	Releasing 90% of erection ie is 96*90%					86.40			
	erection-85					96.00			
						182.40	82.08	264.48	
Grand Total								264.48	
14	Supply and fixing of 4 pin LT horizontal cross arms, fabricated out of mild steel structure steel as per KPTCL standards complete set with all fixing accessories like bolt, nuts, washers, pole clamps etc., including all necessary lead and lift.	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.X(a)	set	263.00	96.00	43.2	402.20	
	Grand Total							402.20	

RA No.	Description	SR	Ref	Unit	Basic	Labour/lead/lift/dewatering/MISC etc.,	Locality Allowance @ 45% on labour	Total	Remarks
15	'Releasing of deteriorated 4 pin cross arms and handing over the unused materials to MESCOM including all lead and lift.	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.X(a)	set					
	Releasing 90% of erection ie is 96*90%					76.50			
	Transpotation 2% on material ie 263*2%					5.26			
	Total					81.76	36.79	118.55	
	Grand Total							118.55	
16	Releasing and fixing of Guy sets with break insulators, steel rope, turn buckle and anchoring arrangements with necessary earth work excavation, providing and laying of concrete including curing etc. complete as per KPTCL specification and rules.(including all lead and lift)	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.XVIII,(b)	set					
	Releasing 90% of erection ie is 374*90%					336.60			
	erection ie is 374					374.00			
						710.60	319.77	1,030.37	
	Grand Total							1,030.37	
17	Supply and fixing of Guy sets with break insulators, steel rope, turn buckle and anchoring arrangements with necessary earth work excavation, providing and laying of concrete including curing etc. complete as per KPTCL specification and rules.(including all lead and lift)	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.XVIII,(b)	set	775.00	374.00	168.3	1,317.30	
	Grand Total							1,317.30	
18	Releasing and restringing of HT conductor and handing over the unused materials to MESCOM including all lead and lift	MESCOM -SR 2016-176	11kv Materials and labour cost S.No.XVI,(b)	KM					
	Releasing 90% of stringing ie is 2608* 90%					2347.20			
	stringing ie is 2608					2608.00			
						4955.20	2229.84	7,185.04	
	Grand Total							7,185.04	
19	Supplying and stringing of ACSR (Rabbit) conductor for Jumps, including all necessary binding to the insulator (Cost to include all materials for accessories) including necessary lead and lifts as per KPTCL specification .(including all lead and lift)	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.XVI,(b)	KM	33,676.00	2608.00	1173.6	37,457.60	

RA No.	Description	SR	Ref	Unit	Basic	Labour/lead/lift/dewatering/MISC etc.,	Locality Allowance @ 45% on labour	Total	Remarks
	Grand Total							37,457.60	
20	Releasing and restringing of LT conductor and handing over the unused materials to MESCOM including all lead and lift	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.XVI,(a)	KM					
	Releasing 90% of stringing ie is 1913* 90%					1721.70			
	stringing ie is 1913					1913.00			
	Grand Total					3634.70	1635.615	5,270.32	
	Grand Total							5,270.32	
21	Supplying and restringing of LT conductor and handing over the unused materials to MESCOM including all lead and lift	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.XVI,(a)	KM	20,100.00	1913.00	860.85	22,873.85	
	Grand Total							22,873.85	
22	Supplying and fixing of 11 KV class pin insulators and GI pin and nut as per KPTCL rules and specifications(including all lead and lift)	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.XV,(a)	Nos	94.00			94.00	
	Grand Total							94.00	
23	Supplying and fixing of 1.1 KV class pin insulators and GI pin and nut as per KPTCL rules and specifications(including all lead and lift)	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.XV,(d)	Nos	38.00			38.00	
	Grand Total							38.00	
24	Supplying and fixing of No 8 strain insulators as per KPTCL rules and specifications. (Including all lead and lift)	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.XV,(c)	Nos	14.00			14.00	
	Grand Total							14.00	
25	Supplying and fixing of 11 KV Disc insulator (45KN) including fixing accessories such as clamps,bolts and nuts etc as per KPTCL specifications(including all lead and lift)	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.XV,(e)	Nos	290.00			290.00	
	Grand Total							290.00	

RA No.	Description	SR	Ref	Unit	Basic	Labour/lead/lift/dewatering/MISC etc.,	Locality Allowance @ 45% on labour	Total	Remarks
26	Releasing and Replacing 11kv Pin insulator	MESCOM -SR 2016-17	11kv Labour portion S.No.58 item No.2.9	Nos		28.00	12.6	40.60	
	Grand Total							40.60	
27	Releasing and Replacing dead end disc 45kn insulator	MESCOM -SR 2016-17	11kv Labour portion S.No.58 item No.2.10	Nos		34.00	15.3	49.30	
	Grand Total							49.30	
28	Releasing , erection , transportation upto site of DP structure using 9mtr long RCC pole and accessories such as cross arms, brace arms(Horizontal & cross member), strain plates, civil works, channels, Angles, bolts, nuts etc including all lead and lift.	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.V,(a)	set					
	Releasing of 9 mtr RCC DP is 90%of erection ie 3252*90%					2926.80			
	Erection of 9 mtr RCC DP is 3252					3252.00			
						6178.80	2780.46	8,959.26	
	Grand Total							8,959.26	
29	Supply, erection , transportation upto site of DP structure using 9mtr RCC pole and accessories such as cross arms, brace arms(Horizontal & cross member), strain plates, civil works, channels, Angles, bolts, nuts etc including all lead and lift.	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.V,(a)	set	15,910.00	3252.00	1463.4	20,625.40	
	Grand Total							20,625.40	
30	Releasing of Transformer DP structure and handing over the unused materials to MESCOM including all lead and lift.	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.VII,1(a)	set					
	Releasing is 90% of erection ie 4115*90%					3703.50			
	Transpotation 2% on material ie 19271*2%					385.42			
						4088.92	1840.014	5,928.93	
	Grand Total							5,928.93	

RA No.	Description	SR	Ref	Unit	Basic	Labour/lead/lift/dewatering/MISC etc.,	Locality Allowance @ 45% on labour	Total	Remarks
31.1	'Releasing and Re-erection of 63KVA Transformer along with Distribution box ,associated equipment of the transfomer centre and handing over the unused materials to MESCOM including all lead and lift.	MESCOM SR2016-17 COST DATA SHEETS	11kv Materials and labour cost S.No.25a	per unit					
	Releasing is 90% of erection ie 11078* 90%					9970.20			
	Erection-10014					10014.00			
	Grand Total					19984.20	8992.89	28,977.09	
31.2	Releasing and Re-erection of released 63 kVA transformer in temperary location and shifting the same back to original loacation after completion of pipe line work along with associated equipment of the transfomer centre as per Dgr No..KEB/SIC / WS/022/date :12.9.86 and handing over the unused	MESCOM SR2016-17 COST DATA SHEETS	11kv Materials and labour cost S.No.25a	per unit					
	Releasing is 90% of erection ie 11078* 90%x2					19940.40			
	Erection-10014*2					20028.00			
	Grand Total					39968.40	17985.78	57,954.18	
32.1	'Releasing and Re-erection of 100KVA Transformer along with Distribution box ,associated equipment of the transfomer centre and handing over the unused materials to MESCOM including all lead and lift.	MESCOM SR20164-17 COST DATA SHEETS	11kv Materials and labour cost S.No.26a(iii)	per unit					
	Releasing is 90% of erection ie 11679* 90%					10511.10			
	Erection-11679					11679.00			
	Grand Total					22190.10	9985.545	32,175.65	
32.2	Releasing and Re-erection of released 100 kVA transformer in temperary location and shifting the same back to original loacation after completion of pipe line work along with associated equipment of the transfomer centre as per Dgr No..KEB/SIC / WS/022/date :12.9.86 and handing over the unused	MESCOM SR20164-17 COST DATA SHEETS	11kv Materials and labour cost S.No.26a(iii)	per unit					
	Releasing is 90% of erection ie 11679* 90%*2					21022.20			
	Erection-11679*2					23358.00			
	Grand Total					44380.20	19971.09	64,351.29	

RA No.	Description	SR	Ref	Unit	Basic	Labour/lead/lift/dewatering/MISC etc.,	Locality Allowance @ 45% on labour	Total	Remarks
	Grand Total							64,351.29	
33.1	Releasing and Re-erection of 250KVA Transformer along with Distribution box ,associated equipment of the transfoer centre and handing over the unused materials to MESCOM including all lead and lift.	MESCOM SR2016-17 COST DATA SHEETS	11kv Materials and labour cost S.No.27a	per unit					
	Releasing is 90% of erection ie 10971* 90%					9873.90			
	Erection-10971					10971.00			
						20844.90	9380.205	30,225.11	
33.2	Releasing and Re-erection of released 250 kVA transformer in temporary location and shifting the same back to original loacation after completion of pipe line work along with associated equipment of the transfoer centre as per Dgr No..KEB/SIC / WS/022/date :12.9.86 and handing over the unused released materials to MESCOM including all lead and lift.	MESCOM SR2016-17 COST DATA SHEETS	11kv Materials and labour cost S.No.27a	per unit					
	Releasing is 90% of erection ie 10971* 90%*2					19747.80			
	Erection-10971*2					21942.00			
						41689.80	18760.41	60,450.21	
	Grand Total							60,450.21	
34	Releasing and Refixing of 200A Single Break GOS and handing over the unused materials to MESCOM including all lead and lift.	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.XXIV(a)	set					
	Releasing is 90% of erection ie 636* 90%					572.40			
	Erection-563					636.00			
						1208.40	543.78	1,752.18	
	Grand Total							1,752.18	
35	Releasing and Refixing of HG Fuse Unit and handing over the unused materials to MESCOM including all lead and lift.	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.XXV	set					
	Releasing is 90% of erection ie 423*90%					380.70			
	Erection-375					423.00			
						803.70	361.665	1,165.37	

RA No.	Description	SR	Ref	Unit	Basic	Labour/lead /lift/dewatering/MISC etc.,	Locality Allowance @ 45% on labour	Total	Remarks
	Grand Total							1,165.37	
36	Releasing and Refixing of Lightning Arrestors and handing over the unused materials to MESCOM including all lead and lift.	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.XXVIII (ii)	set					
	Releasing is 90% of erection ie 71*90%					63.90			
	Erection-71					71.00			
						134.90	60.705	195.61	
	Grand Total							195.61	
37	Releasing and Refixing of LT Protection Kit and handing over the unused materials to MESCOM including all lead and lift.	MESCOM -SR 2016-17	Cost data sheet 26 S.No.17(a)	set					
	Releasing is 90% of erection ie 410*90%					369.00			
	Erection-410					410.00			
						779.00	350.55	1,129.55	
	Grand Total							1,129.55	
38	Releasing and Refixing of Distribution Box and handing over the unused materials to MESCOM including all lead and lift.	MESCOM -SR 2016-17	Cost data sheet 26 S.No.17(b)	set					
	Releasing is 90% of erection ie 455*90%					409.50			
	Erection-455					455.00			
						864.50	389.025	1,253.53	
	Grand Total							1,253.53	
39	Releasing and refixing street light fitting including wiring and testing the connection and proper function of the fitting including all lead and lift as per MESCOM /MCC norms	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.163-16.2	sset					
	Releasing is 90% of fixing ie 176*90%					158.40			
	Fixing-176					176.00			
						334.40	150.48	484.88	
	Grand Total							484.88	

RA No.	Description	SR	Ref	Unit	Basic	Labour/lead/lift/dewatering/MISC etc.,	Locality Allowance @ 45% on labour	Total	Remarks
40	Releasing and reconnection of House service connection ,fixing PVC pipe for taking the leads from the conductor to the pole fuse board or line conductor (including taking the lead wire inside the pvc pipe & giving connection to the overhead line & pole fuse box/ fuse board including all lead and lift as per MESCOM Norms	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.152-14.11	set					
	Releasing is 90% of fixing ie 131*90%					117.90			
	Fixing-131					131.00			
	Grand Total					248.90	112.005	360.91	
41	Supplying and fixing 2.5m long 40mm dia GI earth electrode for DP structures, with necessary salt and charcoal, excavation for the pits, masonry chamber with cover all as specified in IS 3043 and drawing including 10SWG GI wire with all lead and lift.	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.XXVIII(a)	per electrode	1,227.00	573.00	257.85	2,057.85	
	Grand Total								
42	Releasing and stringing of 1.1kv grade aerial bunched 3/2 core cable of XLPE insulation stranded aluminium conductor stranded around a weather resistant black XLPE insulated AAA Messenger wire 3*95 for phase conductor and 1*70 is neutral and 1*16 street light including all lead and lift as mescom/MCC norms	MESCOM -SR 2016-17	11kv Labour portion S.No.308 item No.46.3	Km					
	Releasing is 90% of fixing ie 20426*90%					18383.40			
	Stringing-20426					20426.00			
	Grand Total					38809.40	17464.23	56,273.63	
43	Supplying and fixing of guarding materials for HT & LT and P & T cum road guard etc., complete as per IE/KPTCL Rules & Specifications complete with all necessary accessories. (including all lead and lift)	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.XVIII(c)	set					
	Releasing 90% of erection-1059*90%					953.10			
	erection-1059					1059.00			
	Grand Total					2012.10	905.445	2,917.55	
							2,917.55		

RA No.	Description	SR	Ref	Unit	Basic	Labour/lead/lift/dewatering/MISC etc.,	Locality Allowance @ 45% on labour	Total	Remarks
44	Supplying and fixing of guarding materials for HT & LT and P & T cum road guard etc., complete as per IE/KPTCL Rules & Specifications complete with all necessary accessories. (including all lead and lift)	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.XVIII(c)	Mtr	3,400.00	1059.00	476.55	4,935.55	
	Grand Total							4,935.55	
45	Releasing and relaying following size of Under ground cable of house service connection including termination and testing of proper function including all lead and lift	MESCOM -SR 2016-17	11kv Labour portion S.No.262 item No.35.1	km					
	2.5 to 25sqmm 2C/4C Aluminium cable								
	Releasing is 90% laying=12774*90%					11496.60			
	laying=11304					12774.00			
						24270.60	10921.77	35,192.37	
	Grand Total							35,192.37	
46	Supplying and fixing straight through jointing kit suitable for 1.1kv class LT UG cable including all lead and lift as per MESCOM Norms including all lead and lift								
46.1	10/16sqmm	PWD SR 2014-15	Page No 63 item No.7.15.2	kit	1,327.00			1,327.00	
	Grand Total							1,327.00	
46.2	25/35sqmm	PWD SR 2014-15	Page No 63 item No.7.15.3	kit	1,604.00			1,604.00	
	Grand Total							1,604.00	
47	Providing at site inclusive of all lead and lift of brand new approved make copper/aluminium conductor PVC insulated, sheathed steel/wire steel armoured UG cable with PVC outer sheathing 1.1 KV class UG cable (confirming to ISS 1554.)(including all lead and lift)	MESCOM -SR 2016-17							
47.1	2CX10SQMM Aluminium cable	MESCOM -SR 2016-17	Stock material SLNo.250 item No.36.02 and 11kv Labour portion S.No.262 item No.35.1	KM	54,334.00	12774.00	5748.3	72,856.30	
	Grand Total							72,856.30	

RA No.	Description	SR	Ref	Unit	Basic	Labour/lead /lift/dewatering/MISC etc.,	Locality Allowance @ 45% on labour	Total	Remarks
47.2	4CX10SQMM Aluminiumn cable	MESCOM -SR 2016-17	Stock material SLNo.251 item No.36.03 and 11kv Labour portion	KM	71,551.00	12774.00	5748.3	90,073.30	
	Grand Total							90,073.30	
47.3	2CX16SQMM Aluminiumn cable	MESCOM -SR 2016-17	Stock material SLNo.252 item No.36.04 and 11kv Labour portion	KM	56,956.00	12774.00	5748.3	75,478.30	
	Grand Total							75,478.30	
47.4	4CX16SQMM Aluminiumn cable	MESCOM -SR 2016-17	Stock material SLNo.253 item No.36.05 and 11kv Labour portion	KM	90,529.00	12774.00	5748.3	109,051.30	
	Grand Total							109,051.30	
47.5	4CX25SQMM Aluminiumn cable	MESCOM -SR 2016-17	Stock material SLNo.255 item No.36.07 and 11kv Labour portion S.No.262 item No.35.1	KM	109,778.00	12774.00	5748.3	128,300.30	
	Grand Total							128,300.30	
48	Releasing and relaying the existing GI/PVC pipe for house service connection including all lead and lift as per MESCOM Norms including all lead and lift	MESCOM -SR 2016-17	11kv Labour portion S.No.245 item No.32.16	mtr					
	Releasing is 90% of laying ie 45*90%					40.50			
	laying=45					45.00			
	Grand Total					85.50	38.475	123.98	
49	Supplying and laying of Class A GI pipe on pole /wall/drain crossing with nexessary clamoing arrangements for UG cable of 1.1KV class.							-	
49.1	40mm dia size	PWD-Ele SR 2014-15	Page No 62 item no7.12.1	Mtr	345.00			345.00	
	Grand Total							345.00	

RA No.	Description	SR	Ref	Unit	Basic	Labour/lead/lift/dewatering/MISC etc.,	Locality Allowance @ 45% on labour	Total	Remarks
50	Digging of trench of 0.6m deep x 0.5 m wide refilling the trench to the required ground level and consolidating etc., (including all lead and lift)	PWD-Electrical SR 2014-15	Page No 62 item no 7.9.1	Mtr	78.00			78.00	
	Grand Total							78.00	
51	Providing and filling sand in excavated trench to cover already laid UG cable to a depth of 150mm all around the Cable	PWD-Electrical SR 2014-15	Page No 62 No 7.10	Mtr	103.00			103.00	
	Grand Total							103.00	
52	Shifting of poles with HT/LT lines: Shifting of electrical poles along with HT/LT cross arms to temporary location and reshifting to original position after completion of work including all lead and lift as per MESCOM /MESCOM Authority	MESCOM -SR 2016-17	11kv Materials and labour cost S.No.1,(b)	set					
	Dismantling of 9mtr RCC poles =1060*90%=1060*90% (90% of erection cost) x2 times	11kv Materials and labour cost	S.No.1,(b)			1908			
	Erection of 9Mtr RCC poles-2times(1060x2)	11kv Materials and labour cost	S.No.1,(b)			2120			
	Dismantling of HT cross arm(90% of erection)x 2times-99*90%	11kv Materials and labour cost	S.No.X,(a)			178.2			
	erection cross arms x2 times=99*2	11kv Materials and labour cost	S.No.X,(a)			198			
	Releasing of conductor(90% of stringing)=50*3=150mtr-(2608/1000*90%*150)*2	11kv Materials and labour cost	S.No.XVIII,(b)			704.16			
	stringing of Conductor=50*3=150 x2 times (2608/1000)50*3)	11kv Materials and labour cost	S.No.XVIII,(b)			782.4			
	Dismantling of guy sets(90% of erection) x2 times(374*90%*2)	11kv Materials and labour cost	S.No.XVIII,(b)			673.2			
	Erection of guy sets x2 times(374*2)	11kv Materials and labour cost	S.No.XVIII,(b)			748			
	Transpotation 2% on material cost-5941*2%	11kv Materials and labour cost	S.No.1(b)			118.82			
						7430.78	3343.851	10,774.63	

RA No.	Description	SR	Ref	Unit	Basic	Labour/lead /lift/dewatering/MISC etc.,	Locality Allowance @ 45% on labour	Total	Remarks
	Grand Total							10,774.63	
53	Releasing and erection 8 mtr strut pole including calmps digging pit, concreting withh all accessories of 8mtr PSC poles	11kv Materials and labour cost	S.No.I(c)	set					
	Releasing 90% of erection-848*90%					763.20			
	Erection					848.00			
						1611.20	725.04	2,336.24	
	Grand Total							2,336.24	
54	Realeasing and erection of 9 mtr RCC three pole structure complete set including all stanadrd accessories as per MESCOM norms /estimate including all lead and lift	Rates for various line materials and labour charges used in cost data sheets for general works	SL.No.VII(1a)	set					
	Releasing 90% of erection-4115*90%					3703.5			
	Erection					5548			
						9251.5	4163.175	13,414.68	
	Grand Total							13,414.68	

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MSCL Mangaluru

Superintending Engineer
MSCL Mangaluru

MANGALURU SMART CITY

2.0 Rate Analysis of Underground Drainage Zone 4 Part 2 and Zone 3 Part 1

Rate analysis for Dewatering charges									
S.No.	Description	Unit	Nos.	Length	Width	Depth	Quantity	Rate (Rs.)	Amount (Rs.)
1	Dewatering for Lowering of water table to creat dry conditions at least upto the bed of the excavation including the cost of material, labour T & P articles & machinery laying sewer line & Manholes as per approved drawings according. to the requirement of the construction of structure. The cost of this work shall be inclusive of disposal of water pumped out at a safe place away from the structure. The dewatering will work till the completion of the structure as per approved drawings ,with all horizontal leads and lifts etc., complete in all respects as per specification and as directed by engineer.During the execution of work enough precaution should be taken by the contractor to ensure that the clear water flows from the delivery pipe of pumps to avoid any settlement of soil during the process.								
	Rate analysis for Dewatering charges.								
	HOM of Pump 23 KW - KPWD,SI No.58,Code No 1079 Pg No.XXXXVIII	Day	1				1	800	800.00
	Generator 33 KVAHire charges -KPWD,SI No.93,Code No 1322 Pg No.XXXXIX	Hr	8				8	296	2368.00
	Add Operator charges	Nos	2				2	250	500.00
							Cost for One day		3668.00
	Add 15 % cost for idling period on sub-total								550.20
							Cost for One day		8 hr
									4218.20

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Name of the Work :- Mangaluru Smart City
2.1 Rate Analysis of Taking out existing CC interlocking Paver Blocks

1	Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, upto 1 Km and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.(As per Rate analysis)					
Details of cost for 10 sqm.						
Sr.No.	Description	Unit	Quantity	Rate	Amount	Reference
	Labour					
a	Beldar	Day	0.25	258.88	64.72	KSRB Pg No.LIV SI No.5
b	Coolie	Day	1.00	258.88	258.88	KSRB Pg No.LIV,SI No.6
c	Sundries	LS	2.70	1.73	4.67	CPWD Pg No 29,Code No 9999
d	Lead and Lift Charges					
	Up to 1 Km (Debris=1.30 kg/m3)	Cum	1.30	2.5	3.25	KPWD-16-17,SI No.17.4 Pg No 140
	Total				331.52	
d	Add 1% Water Charges				3.32	
	Total				334.84	
e	Add 10 % Contractor's profit and overheads				33.48	
	Cost of 10 sqm				368.32	
	Cost of 1 sqm				36.83	

Assistant Engineer
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COST COMPARISION BETWEEN DEWATERING DATA RATES AND KUWSDB SOR

Sr No	Road Name	Descriptions	Unit	Qty	Rate	Amount	Remarks
1	Old port and Kandathpalli west Road	Excavation 0 to 2m	Cum	3288.72	62.00	203,901	KUWSDB Pg No.15,SI No.4
2		Excavation 2 to 4m	Cum	969.61	89.00	86,295	KUWSDB Pg No.15,SI No.5
						290,196	
1	Old port and Kandathpalli west Road	Dewatering Cost	Day	30.00	4218.20	126,546	As per Data Rate
						126,546	
		DIFFERENCE IN COST				163,650	

Earthwork Excavation by Mechanical Means Earthwork in excavation for pipeline trenches beyond 600mm and 1500mm trench width as per drawing and technical specification,including setting out,construction of shoring,strutting,barricading,danger lighting,bracing,using sight rails and boning rods at every 100 meters wherever necessary as directed,removal of slumps and other deleterious matter,dressing of sides and levelling the bottom of trench to the extent required,utilising the available excavated earth locally for the work etc.,complete in the following strata. KUWSDB SR 15-16,SI No Vii 3,Pg No 11								
a) - do - In ordinary/All soils/Hard soil (upto 3 m)	Cum	4542.83	107.52	488,446				
b) -do- In Ordinary Rock (not requiring blasting)	Cum	688.551	146.72	101,024				
c) -do- In Hard Rock (requiring blasting)	Cum	193.929	847.84	164,421				
Manual Excavation		15142.78	10599.95	70%	95.2%	10089.71	196	1977583
			4542.834	30%	4.8%	506.303	259	131132.5
					0.0%	3.934	346	1361.164
		2295.17	1606.619	70%	78.5%	1261.211	442.4	557959.7
			688.551	30%	21.0%	337.533	495.04	167092.3
					0.5%	7.875	572.32	4507.02
		646.43	452.501	70%	55.7%	252.245	1413.44	356533.2
			193.929	30%	37.3%	168.77	1565.76	264253.3
				7.0%	31.486	1616.16	50886.41	