

ABSTRACT OF ESTIMATE SMART ROAD PHASE 2**TOTAL LENGTH 3000 METERS****SUMMARY SHEET**

| Sr No. | Item Description | Amount (In Rs.) |
|---------------|------------------------------|----------------------------|
| 1 | ROAD | ₹ 7,89,29,212.16 |
| 2 | UTILITY DUCT | ₹ 5,91,30,411.04 |
| 3 | STORM WATER DRAIN | ₹ 4,27,02,608.70 |
| 4 | PEDESTRIAN TRACK | ₹ 2,77,58,152.96 |
| 5 | ROAD SIGNAGES | ₹ 23,66,841.60 |
| 6 | LANDSCAPE WORK | ₹ 59,09,390.28 |
| 7 | BOUNDARY WALL | ₹ 58,25,103.84 |
| 8 | SEWER WORKS | ₹ 48,92,371.19 |
| 9 | UNDER GROUND ELECTRICAL WORK | ₹ 13,26,53,429.84 |
| 10 | STREET LIGHT WORK | ₹ 1,14,65,519.00 |
| | TOTAL | ₹ 37,16,33,041 |
| | SAY RS (in Crores) | ₹ 37,16,33,041 |
| | GST @ 12% | ₹ 4,45,95,964.87 |
| | TOTAL including GST | ₹ 41,62,29,005.48 |

ESTIMATE OF ROAD

TOTAL LENGTH 3000 METERS

| S.No. | UADD SOR Vol II & III, ITEM NO | Descriptions of Item | Quantity | Rate | Revised Reduced Rates as per Order | Unit | Amount |
|-------|--------------------------------------|--|----------|--------|---|------|----------------|
| 1 | 2.1 Vol III | Cutting of trees, including cutting of trunks, branches and removal of stumps, roots, stacking of serviceable material with all lifts and up to a lead of 1000 mtrs and earth filling in the depression/pit and as per relevant clauses of section-200 for i | | | | | |
| | i) | Girth from 300 mm to 600 mm each | 25.00 | 136.00 | 122.40 | each | ₹ 3,060.00 |
| | ii) | Girth beyond 600 mm to 900 mm | 15.00 | 224.00 | 201.60 | each | ₹ 3,024.00 |
| | iii) | Girth beyond 900 mm to 1800 mm | 10.00 | 465.00 | 418.50 | each | ₹ 4,185.00 |
| | iv) | Girth above 1800 mm | 7.00 | 906.00 | 815.40 | each | ₹ 5,707.80 |
| 2 | 2.3, (i) Vol III | Dismantling | | | | | |
| | | 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 and lead 1000 meter. | | | | | |
| | | Cement Concrete Grade M-15 & M-20 | 335.55 | 234.00 | 210.60 | cum | ₹ 70,667.73 |
| 3 | 2.40 | Dismantling of flexible pavements and disposal of dismantled materials up to a lead of 1000 meter, stacking serviceable and unserviceable materials separately and as per relevant clauses of section-200. | | | | | |
| | a) | Bituminous courses | 3523.32 | | | | |
| | a) | Bituminous courses | 3523.32 | 358.00 | 322.20 | cum | ₹ 11,35,213.58 |
| | | | | | | | |
| 4 | 2.12 vol III | Removal of telephone / Electric poles including excavation and dismantling of foundation concrete and lines under the supervision of concerned department, disposal with all lifts and up to a lead of 1000 meter and stacking the serviceable and unserviceable material separately. | | | | | |
| | | Total quantity | 30.00 | 90.00 | 81.00 | each | ₹ 2,430.00 |
| 5 | 3.1, Vol III | Excavation | | | | | |
| | | Excavation for roadway in soil including loading in truck for carrying of cut earth to embankment site with all lifts and lead upto 1000 metres and as per relevant clauses of section-300 | | | | | |
| | | | 8400.00 | | | | |
| | | | 7200.00 | | | | |
| | | Total quantity | 15600.00 | 98.00 | 88.20 | cum | ₹ 13,75,920.00 |
| 6 | 3.11, Vol III | Earthwork | | | | | |
| | | Construction of Embankment/Sub grade/ earth shoulders, as per clause 305 & its sub-clauses, Where required but with approved materials/soil like morrum CBR value not less than 7% i/c all lead & lifts i/c excavation, cost of watering, mpaction and maintenance of surface during construction to ensure shedding & preventing ponding of water (clause 305.3.6) shaping & dressing (clause 305.3.7), finishing etc. complete but excluding scarifying existing granular/bituminous road surface vide clause 305.6. | | | | | |
| | | | 2625.00 | | | | |
| | | | 2250.00 | | | | |
| | | Total quantity | 4875.00 | 272.00 | 244.80 | cum | ₹ 11,93,400.00 |

| | | | | | | | |
|----|------------------------------------|---|----------|---------|---------|-----|------------------|
| 7 | MP PWD SOR 4.12/P-23 | Crusher Run Macadam Sub Base/Base Course Providing crushed stone aggregate, depositing on a prepared surface by hauling vehicles, spreading and mixing with a motor grader, watering and compacting with a vibratory roller to clause 410 to form a layer of sub-base/Base in accordance to Table No. 400-14, 400-15 and as per clause of section 407 of specifications. | | | | | |
| | | Widening Part | 1575.00 | | | | |
| | | Widening Part | 1350.00 | | | | |
| | | Existing Road | 3675.00 | | | | |
| | 4.12 i | For 53 mm maximum size | 6600.00 | 1181.00 | 1062.90 | CuM | ₹ 70,15,140.00 |
| | | | 1575.00 | | | | |
| | | | 1350.00 | | | | |
| | 4.12 i | For 37.5 mm maximum size | 2925.00 | 1171.00 | 1053.90 | CuM | ₹ 30,82,657.50 |
| 8 | UADD SOR Vol iii 4.1/P-30 | Construction of granular sub-base by providing coarse graded material, spreading in uniform layers with on prepared surface, mixing by mix in place method at OMC, and compacting with vibratory roller to achieve the desired density, complete in all respect and as per relevant clauses of section-400. | | | | | |
| | | Existing Road | 3675.00 | | | | |
| | | Widening Part | 1350.00 | | | | |
| | | Widening Part | 1575.00 | | | | |
| | (ii) | for grading- II Material | 6600.00 | 614.00 | 552.60 | CuM | ₹ 36,47,160.00 |
| 9 | UADD SOR Vol iii 6.1/P-60 | Construction of dry lean cement concrete Sub-base over a prepared sub-gradewith coarse and fine aggregate conforming to IS: 383, the size of coarse aggregate not exceeding 25mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per table of MORTH Specifications 600-1, cement content not to be less than 200 kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with paver with electronic sensor/mechanical paver, compacting with 8-10 tonnes vibratory roller, finishing and curing and as per relevant clauses of section-603. | | | | | |
| | | | 4900.00 | | | | |
| | | Total quantity | 4900.00 | 2715.00 | 2443.50 | CuM | ₹ 1,19,73,150.00 |
| 11 | UADD SOR Vol iii 6.3/P 60 | Construction of dowel jointed, plain cement concrete pavement in M-40 grade concrete over a prepared sub base with 43 or higher grade cement, maximum size of coarse aggregate not exceeding 25 mm, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver with electronic sensor, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, placing of dowel bar and tie rod, admixtures as approved, curing compound, finishing to lines and grades as per approved drawings as per IRC-15 2002 and as per relevant clauses of section-602 of of MORTH specifications complete but excluding cost of steel in dowel bar & tie rod etc.. | | | | | |
| | | | 10500.00 | | | | |
| | | | 10500.00 | 4792.00 | 4312.80 | CuM | ₹ 4,52,84,400.00 |

| | | | | | | | |
|----|-------------------------------------|---|-------|----------|----------|----|-------------------------|
| 10 | UADD SOR Vol iii 6.12/P 62 | Add extra in Item No.- 6.3 & 6.5 above for the cost of stell in dowel bar and tie rod etc. required as per design. | | | | | |
| | | Mild Steel dowel bars | 82.39 | 47850.00 | 43065.00 | MT | ₹ 35,48,125.35 |
| | | Tor steel tie rod | 12.31 | 52800.00 | 47520.00 | MT | ₹ 5,84,971.20 |
| | | TOTAL | | | | | ₹ 7,89,29,212.16 |
| | | | | | | | |

ESTIMATE FOR UNDERGROUND CABLE DUCT IN DWC HDPE PIPE-SMART ROAD WORKS

TOTAL LENGTH 3000 METERS

| S.NO | UADD SOR 2012 | DESCRIPTION | QTY | RATE | REVISED REDUCED RATES AS PER ORDER | UNIT | AMOUNT |
|---------------------|------------------|---|-----------------|----------------|---|------------|-----------------------|
| EARTH WORK | | | | | | | |
| 1 | 3.1, Vol III | Excavation for roadway in soil including loading in truck for carrying of cut earth to embankment site with all lifts and lead upto 1000 metres and as per relevant clauses of section-300 | | | | | |
| | | | 19140.00 | | | | |
| | | For Manholes electrical | 2880.00 | | | | |
| | | | 6960.00 | | | | |
| | | For Manholes OFC | 345.60 | | | | |
| | | Total quantity | 29325.60 | 127.00 | 114.30 | Cum | ₹ 33,51,916.08 |
| 2 | Vol I 4.1 | Construction of granular sub-base by providing coarse graded material, spreading in uniform layers with on prepared surface, mixing by mix in place method at OMC, and compacting with vibratory roller to achieve the desired density, complete in all respect and as per relevant clauses of section-400. | | | | | |
| | i | for grading- I Material | | | | | |
| | | | 652.50 | | | | |
| | | At Junction | 86.40 | | | | |
| | | | 348.00 | | | | |
| | | | 21.60 | | | | |
| | | Total quantity | 1108.50 | 604.00 | 543.60 | Cum | ₹ 6,02,580.60 |
| 3 | Vol I 4.4 | Deduction for item No.4.1, 4.2 & 4.3 if vibratory roller / mortar grader is not used with prior written approval by the not below the rank of Executive Engineer. | | | | | |
| | i) | If static roller is used in place of vibratory roller. | 1108.50 | -51.00 | -45.90 | Cum | -₹ 50,880.15 |
| | ii) | If mortar grader is not used. | 1108.50 | -51.00 | -45.90 | Cum | -₹ 50,880.15 |
| CARRIAGE | | | | | | | |
| 4 | Vol. I 1.2 | Loading and unloading of stone boulder / stone aggregates / sand / kanker / moorum. (Placing tipper at loading point, loading with front end loader, dumping, turning for return trip, excluding time for haulage and return trip) | | | | | |
| | | Excavated Earth 25% above | | | | | |
| | | For 5 km lead | 7500.00 | 127.50 | 114.75 | Cum | ₹ 8,60,625.00 |
| | | Beyond 5 Kms and upto 10 Kms (add for every Km) | | | | | |
| | | For 6 km lead | 2500.00 | 133.50 | 120.15 | Cum | ₹ 3,00,375.00 |
| | | For 7 km lead | 2300.00 | 139.50 | 125.55 | Cum | ₹ 2,88,765.00 |
| | | For 8 km lead | 3400.00 | 145.50 | 130.95 | Cum | ₹ 4,45,230.00 |
| | | For 9 km lead | 2200.00 | 151.50 | 136.35 | Cum | ₹ 2,99,970.00 |
| | | For 10 km lead | 1300.00 | 157.50 | 141.75 | Cum | ₹ 1,84,275.00 |
| PCC | | | | | | | |
| 5 | 13.6 VOL III | Providing and laying Plain/Reinforced cement concrete (mixed in concrete mixture) in open foundation including form work shuttering etc. complete as per drawing and technical specifications and as per relevant clauses of sections 1500, 1700 & 2100 with . | | | | | |
| | | Cement concrete grade M-15 (Nominal Mix) with 40 mm maximum size of stone aggregate. | | | | | |
| | | PCC at base of manhole place-Electrical | 115.20 | | | Cum | |
| | | PCC at base of manhole place-OFC | 29.44 | | | Cum | |
| | | PCC at the BASE of DWC HDPE pipe-Electrical | 812.00 | | | Cum | |
| | | PCC at the BASE of DWC HDPE pipe-OFC | 464.00 | | | Cum | |
| | | Total quantity | 1420.64 | 3692.00 | 3322.80 | Cum | ₹ 47,20,502.59 |
| SAND FILLING | | | | | | | |

| | | | | | | | |
|----|---------------|--|-----------------|----------------|----------------|------------|-------------------------|
| 6 | 13.10VOL III | Sand filling in wells complete as per drawing and technical specifications as per clause 1209. | | | | | |
| | | Total Sand filling -Electrical Trench | 11310.00 | | | Cum | |
| | | Total Sand filling -OFC Trench | 4640.00 | | | Cum | |
| | | Deduction | | | | | |
| | | For the area of DWC HDPE Pipe-Elctrical Duct | 819.54 | | | Cum | |
| | | For the area of DWC HDPE Pipe-OFC Duct | 165.27 | | | Cum | |
| | | Total quantity | 14965.19 | 1059.00 | 953.10 | Cum | ₹ 1,42,63,318.87 |
| | | DWC HDPE PIPE Providing& Laying | | | | | |
| 7 | Vol iv .17.4 | Supplying and installing Double wall corrugated pipes (DWC) of HDPE (IS 14930 Part-II marked) for cable laid under ground with necessary connecting sockets/ couplings,tees of same material and at required depth upto 90cm. below road/ground surface,including excavation, back filling with excavated material with ramming and making the surface good. | | | | | |
| a | 17.4.9 | 175.00 mm outside dia. | 27000.00 | 432.00 | 388.80 | Meter | ₹ 1,04,97,600.00 |
| b | 17.4.8 | 160.00mm outside dia. | 18000.00 | 407.00 | 366.30 | Meter | ₹ 65,93,400.00 |
| c | 17.4.7 | 145.00mm outside dia. | 900.00 | 376.00 | 338.40 | Meter | ₹ 3,04,560.00 |
| d | 17.4.6 | 120.00mm outside dia. | 450.00 | 333.00 | 299.70 | Meter | ₹ 1,34,865.00 |
| e | 17.4.5 | 110 mm out side dia | 450.00 | 309.00 | 278.10 | Meter | ₹ 1,25,145.00 |
| f | 17.4.4 | 90.00mm outside dia. | 450.00 | 254.00 | 228.60 | Meter | ₹ 1,02,870.00 |
| g | 17.4.3 | 77.00mm outside dia. | 450.00 | 222.00 | 199.80 | Meter | ₹ 89,910.00 |
| h | 17.4.2 | 63 mm out side dia | 1500.00 | 210.00 | 189.00 | Meter | ₹ 2,83,500.00 |
| i | 17.4.1 | 50 mm outside dia | 1500.00 | 207.00 | 186.30 | Meter | ₹ 2,79,450.00 |
| | | RCC | | | | | |
| 8 | 13.6 VOL III | Providing and laying Plain/Reinforced cement concrete (mixed in concrete mixture) in open foundation including form work shuttering etc. complete as per drawing and technical specifications and as per relevant clauses of sections 1500, 1700 & 2100 with. | | | | | |
| | | RCC Grade M25 with 20 mm maximum size of aggregate | | | | | |
| | | Man hole walls | | | | | |
| | | Base of manhole | 206.72 | | | | |
| | | Two walls in manhole | 506.88 | | | | |
| | | | 25.27 | | | | |
| | | | 142.88 | | | | |
| | | Total quantity | 881.75 | 4300.00 | 3870.00 | Cum | ₹ 34,12,372.50 |
| | | Precast Reinforced Cover for manhole | | | | | |
| 9 | 14.5 VOL III | Providing and laying Plain/Reinforced cement concrete (mixed in concrete mixture) in sub-structure or complete RCC Box section as per drawing and technical specifications and as per relevant clauses of sections 1500, 1700 & 2200 in (Height above average ground level) | | | | | |
| | | For man hole cover-Electrical | 122.40 | | | | |
| | | For man hole cover-OFC | 15.84 | | | | |
| | | | 138.24 | 4371.00 | 3933.90 | cum | ₹ 5,43,822.34 |
| | | Reinforcement | | | | | |
| 10 | 13.26 VOL III | Supplying, fitting and placing un-coated HYSD bar reinforcement in foundation complete as per drawing and technical specifications and as per relevant clauses of sections 1600. | | | | | |
| | | | 80.07 | 56994 | 51294.60 | Tonne | ₹ 41,07,118.36 |
| | | Dewatering | | | | | |
| 11 | Vol. III 2.13 | Dewatering of water caused by springs, tides or river seepage, broken water mains or drains or well or the like. | 50000.00 | 51.00 | 45.90 | KL | ₹ 22,95,000.00 |
| 12 | Non SOR | Supply Installation of HDPE DWC Spacer for DWC Pipe (IS 14930 Part II -marked), 18 Pieces of set to connect 9 No. DWC Pipes of required size | 2,000 | each | 1,575.00 | 1,575.00 | ₹ 31,50,000.00 |

| | | | | | | | |
|--------------|---------|--|-------|------|----------|----------|-------------------------|
| 13 | Non SOR | Supply Installation of HDPE DWC Spacer for DWC Pipe (IS 14930 Part II -marked), 12 Pieces of set to connect 6 No. DWC Pipes of required size | 1,900 | each | 1,050.00 | 1,050.00 | ₹ 19,95,000.00 |
| TOTAL | | | | | | | ₹ 5,91,30,411.04 |

ESTIMATE OF STORM WATER DRAIN

TOTAL LENGTH 3000 METERS

| S No. | UADD SOR ITEM NO | Descriptions of Item | Measurement | | | | | Rate | Revised Reduced Rates | Unit | |
|-------|---------------------|---|-------------|---------|------|------|-----------------|----------------|--------------------------|------------|-------------------------|
| | | | No. | L | B | H | Quantity | | | | |
| 1 | Vol. I 15.1 | Earth work in Excavation for pipe trench in all kinds of soil and WBM in areas including dressing, watering and ramming and disposal of Excavated earth lead upto 50 meters and lift upto 1.5m, disposal earth to be leveled, neatly dressed. | | | | | | | | | |
| | 2.9.1 | All kind of soil | | | | | | | | | |
| | | | 2.00 | 3000.00 | 1.00 | 1.30 | 7800.00 | | | | |
| | | At Junction | 12.00 | 25.00 | 1.00 | 1.30 | 390.00 | | | | |
| | | | 2.00 | 3000.00 | 0.60 | 0.75 | 2700.00 | | | | |
| | | | 12.00 | 25.00 | 0.60 | 0.75 | 135.00 | | | | |
| | | Total quantity | | | | | 11025.00 | 129.10 | 116.19 | cum | ₹ 12,80,994.75 |
| 2 | Vol I 15.9 | Filling with moorum for pipe bedding or over the pipe including supply of moorum | | | | | | | | | |
| | 2.27.1 | Crusher Stone Dust | 2.00 | 3000.00 | 1.00 | 0.10 | 600.00 | | | | |
| | | At Junction | 12.00 | 25.00 | 1.00 | 0.10 | 30.00 | | | | |
| | | | 2.00 | 3000.00 | 0.60 | 0.10 | 360.00 | | | | |
| | | | 12.00 | 25.00 | 0.60 | 0.10 | 18.00 | | | | |
| | | Total quantity | | | | | 1008.00 | 625.00 | 562.50 | cum | ₹ 5,67,000.00 |
| 3 | Vol. I 16.15.2 | Carriage of Material by Mechanical transport including loading unloading & stacking etc. | | | | | | | | | |
| a | | For 1 km lead | | | | | 200.00 | 91.25 | 82.13 | Cum | ₹ 16,425.00 |
| b | | For 2 km lead | | | | | 280.00 | 101.25 | 91.13 | Cum | ₹ 25,515.00 |
| c | | For 3 km lead | | | | | 480.00 | 110.00 | 99.00 | Cum | ₹ 47,520.00 |
| d | | For 4 km lead | | | | | 590.00 | 118.75 | 106.88 | Cum | ₹ 63,056.25 |
| e | | For 5 km lead | | | | | 740.00 | 127.50 | 114.75 | Cum | ₹ 84,915.00 |
| f | | Beyond 5 Kms and upto 10 Kms (add for every Km) | | | | | | | | | |
| | | For 6 km lead | | | | | 1450.00 | 133.50 | 120.15 | Cum | ₹ 1,74,217.50 |
| | | For 7 km lead | | | | | 1580.00 | 139.50 | 125.55 | Cum | ₹ 1,98,369.00 |
| | | For 8 km lead | | | | | 980.00 | 145.50 | 130.95 | Cum | ₹ 1,28,331.00 |
| | | | | | | | | | | | |
| | | Cement Concrete M-20 (Duct) | | | | | | | | | |
| 3 | 15.18 Vol I | Providing & laying mechanically mixed cement concrete 20mm maximum size graded crushed stone including cost of centering & shuttering. | | | | | | | | | |
| | | M 15 with 20mm maximum size of aggregate. | | | | | | | | | |
| | | P.C.C Bed | 2.00 | 3000.00 | 1.00 | 0.10 | 600.00 | | | | |
| | | | 12.00 | 25.00 | 1.00 | 0.10 | 30.00 | | | | |
| | | | 2.00 | 3000.00 | 0.60 | 0.10 | 360.00 | | | | |
| | | | 12.00 | 25.00 | 0.60 | 0.10 | 18.00 | | | | |
| | | Total quantity | | | | | 1008.00 | 4321.00 | 3888.90 | cum | ₹ 39,20,011.20 |
| 4 | 15.19 Vol I | Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work including concrete laying, cost of centering, shuttering, finishing and including Admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-incharge. M-20 grade design mix reinforced cement concrete by using 405 kg. of cement per cum of concrete. All work up to plinth level excluding the cost of reinforcement. | | | | | | | | | |
| | | Along Road | | | | | | | | | |
| | | RCC Base 100 MM Thick | 2.00 | 3000.00 | 0.80 | 0.10 | 480.00 | | | | |
| | | R.C.C. Wall 100 MM Thick | 4.00 | 3000.00 | 0.15 | 1.00 | 1800.00 | | | | |
| | | At Junction | | | | | | | | | |
| | | RCC Base 100 MM Thick | 24.00 | 25.00 | 0.10 | 0.10 | 6.00 | | | | |
| | | R.C.C. Wall 100 MM Thick | 48.00 | 25.00 | 0.10 | 1.00 | 120.00 | | | | |
| | | Along Road | | | | | | | | | |
| | | RCC Base 100 MM Thick | 2.00 | 3000.00 | 0.50 | 0.10 | 300.00 | | | | |
| | | R.C.C. Wall 100 MM Thick | 4.00 | 3000.00 | 0.10 | 0.45 | 540.00 | | | | |
| | | At Junction | | | | | | | | | |
| | | RCC Base 100 MM Thick | 24.00 | 25.00 | 0.50 | 0.10 | 30.00 | | | | |
| | | R.C.C. Wall 100 MM Thick | 48.00 | 25.00 | 0.10 | 0.45 | 54.00 | | | | |
| | | Total quantity | | | | | 3330.00 | 5410.00 | 4869.00 | cum | ₹ 1,62,13,770.00 |

| | | | | | | | | | | | | | | |
|---|-------------|--|--------------------------------------|---------|------|------|-----------|---------|---------|-----|--|------------------|--|--|
| 5 | 15.20 Vol I | Providing and laying Plain/ Reinforcement cement concrete in sub structure or complete section including cost of form work staging/bracing and shuttering complete as per drawing and technical specification and as per relevant I.S. Standard (Height above average ground level). | | | | | | | | | | | | |
| | | Along Road | | | | | | | | | | | | |
| | | Precast Grating Cover for Drains | 2.00 | 3000.00 | 1.10 | 0.10 | 660.00 | | | | | | | |
| | | At Junctions | | | | | | | | | | | | |
| | | Precast Grating Cover for Drains | 24.00 | 25.00 | 1.10 | 0.10 | 66.00 | | | | | | | |
| | | Along Road | | | | | | | | | | | | |
| | | Precast Grating Cover for Drains | 2.00 | 3000.00 | 0.60 | 0.10 | 360.00 | | | | | | | |
| | | At Junctions | | | | | | | | | | | | |
| | | Precast Grating Cover for Drains | 24.00 | 25.00 | 0.60 | 0.10 | 36.00 | | | | | | | |
| | | Total quantity | | | | | 1020.00 | 5698.00 | 5128.20 | cum | | ₹ 52,30,764.00 | | |
| 6 | 15.22 Vol I | Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete. | | | | | | | | | | | | |
| | 5.20.6 | Thermo-Mechanically Treated bars | | | | | | | | | | | | |
| | | Total Weight of steel KG- | Total Quantity of Concrete x 0.8%x | | | | 209124.00 | | | | | | | |
| | | Total Weight of steel KG- | Total Quantity of Precast Cover x 0. | | | | 64056.00 | | | | | | | |
| | | | | | | | 273180.00 | 60.00 | 54.00 | Kg | | ₹ 1,47,51,720.00 | | |
| | | | | | | | | | | | | ₹ 4,27,02,608.70 | | |

ESTIMATE OF PEDESTRIAN PATH

TOTAL LENGTH 3000 METERS

| S No. | UADD SOR ITEM NO | Descriptions of Item | Quantity | Rate | Revised Reduced | Unit | AMOUNT |
|-------|---------------------|---|----------|---------|--------------------|-------|----------------|
| 1 | 3.1, Vol III | Excavation | | | | | |
| | | Excavation for roadway in soil including loading in truck for carrying of cut earth to embankment site with all lifts and lead upto 1000 metres and as per relevant clauses of section-300 | | | | | |
| | | | 9000.00 | | | | |
| | | At Junctions | 450.00 | | | | |
| | | Total | 9450.00 | 98.00 | 88.20 | cum | ₹ 8,33,490.00 |
| 2 | 13.6 VOL III | Cement Concrete M - 15 | | | | | |
| | | Providing and laying Plain/Reinforced cement concrete (mixed in concrete mixture) in open foundation including form work shuttering etc. complete as per drawing and technical specifications and as per relevant clauses of sections 1500, 1700 & 2100 with . | | | | | |
| | | | 900.00 | | | | |
| | | Kerb Along Footpath | 270.00 | | | | |
| | | At junction | 13.50 | | | | |
| | | | 1183.50 | 3692.00 | 3322.80 | Sqm | ₹ 39,32,533.80 |
| 3 | 13.6 VOL III | Providing and laying Plain/Reinforced cement concrete (mixed in concrete mixture) in open foundation including form work shuttering etc. complete as per drawing and technical specifications and as per relevant clauses of sections 1500, 1700 & 2100 with . | | | | | |
| | | Cement concrete grade M-20 (Nominal Mix) with 20 mm maximum size of stone aggregate. | | | | | |
| | | | 180.00 | 4277.00 | 3849.30 | Sqm | ₹ 6,92,874.00 |
| 4 | 13.26 VOL III | Supplying, fitting and placing un-coated HYSD bar reinforcement in foundation complete as per drawing and technical specifications and as per relevant clauses of sections 1600. | | | | | |
| | | Total Weight of steel KG- | 11.30 | 56994 | 51294.60 | Tonne | ₹ 5,79,834.16 |
| 5 | 11.20 Vol II | Chequerred precast cement concrete tiles 18-20mm thick in footpath & courtyard jointed with neat cement slurry mixed with pigment to match the shade of tiles including rubbing and cleaning etc. complete on 20 mm thick bed of cement mortar 1:4 (1 cement: 4 coarse sand). | | | | | |
| | | Along Road | | | | | |
| | 11.20.1 | Medium Shade Using 50% white Cement & 50% grey cement | 4500.00 | 840.00 | 756.00 | SqM | ₹ 34,02,000.00 |
| | | At junction | | | | | |
| | | Medium Shade Using 50% white Cement & 50% grey cement | 225.00 | 840.00 | 756.00 | SqM | ₹ 1,70,100.00 |

| | | | | | | | |
|---|--------------------------|--|----------------|----------------|----------------|--------------|-------------------------|
| 6 | MP PWD-ROAD & BIDGE 6.16 | Providing and laying factory made coloured chamfered edge Cement Concrete paver blocks of required strength, thickness and size/shape, made by table vibratory method using PU mould, laid in required colour and pattern over 50mm thick compacted bed of stone dust, compacting and proper embedding/laying of inter locking paver blocks into the bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand including locking edges with M 15 cement concrete in footpath, light traffic parking etc. complete as per direction of Engineer-in-Charge. | | | | | |
| | | | 21000.00 | | | | |
| | | | 840.00 | | | | |
| | | ii) 80mm thick C.C. paver block of M-35 grade with approved colour, design and pattern. | 21840.00 | 680.00 | 612.00 | SqM | ₹ 1,33,66,080.00 |
| 7 | | Kerb Stone | | | | | |
| | 8.1, Vol III, pg 69 | Providing and laying at or near ground level factory made kerb stone of M- 25 grade cement in position to the required line, level and curvature jointed with cement mortar 1:3 (1 cement: 3 coarse sand) including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm) including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be | | | | | |
| | | towards road side | 6000.00 | | | | |
| | | at Junction | 270.00 | | | | |
| | | Total Quantity | 6270.00 | 187.00 | 168.30 | meter | ₹ 10,55,241.00 |
| 8 | NON SOR | Providing and Laying of PLASTITRAK, Roll-on Surfacing Material :A Solvent Free, High Build, Two pack, Seamless, Tough, skid resistant 1.0-1.5 mm thick red (or as required) based on Gloss and color retaining Acrylic Cross Linking Resin System for Cycle track and similar applications including surface cleaning and cost of all material etc. complete. | | | | | |
| | | Towards road side | 2700.00 | | | | |
| | | at Junction | 540.00 | | | | |
| | | Total Quantity | 3240.00 | 1150.00 | 1150.00 | meter | ₹ 37,26,000.00 |
| | | | | | | TOTAL | ₹ 2,77,58,152.96 |

ESTIMATE OF ROAD MARKING, STREET FURNITURES & PLANTATION

TOTAL LENGTH 3000 METERS

| S No. | UADD SOR ITEM NO | Descriptions of Item | Quantity | Rate | Revised Reduced Rates as per Order | Unit | Amount |
|-------|------------------------|---|----------------|---------------|---|------------|-----------------------|
| 1 | Item 8.10 Vol III | Road Marking | | | | | |
| | | Solid Lines in White Colour | | | | | |
| | | Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes and as per relevant clauses of section-800. | | | | | |
| | | Solid Lines in White Colour | 900.00 | | | | |
| | | Broken Lines in White Colour | 450.00 | | | | |
| | | Stop Lines in White Colour | 180.00 | | | | |
| | | Applying Zebra Crossing | 480.00 | | | | |
| | | Total Quantity | 2010.00 | 900.00 | 810.00 | Sqm | ₹ 16,28,100.00 |
| 2 | Item 8.8 Vol III | Painting lines, dashes, arrows etc | | | | | |
| | | Painting lines, dashes, arrows etc on roads in two coats on new work with ready mixed road marking paint conforming to IS:164 on bituminous surface, including cleaning the surface of all dirt, dust and other foreign matter, demarcation at site and traffic control as per relevant clauses of section-800 & I.R.C.-67 including cost of paint etc. complete. | 2250.00 | 70.00 | 63.00 | Sqm | ₹ 1,41,750.00 |
| 3 | Item No 8.3 Vol III | Signages | | | | | |
| | | Providing and fixing of retro- reflectorised cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm (height from crown level of the road and bottom of the sign board shall not be less than 1.5 m.) firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing including painting of vertical post as per specification. | | | | | |
| | | 90 cm equilateral triangle | 16.00 | 3715.00 | 3343.50 | Nos | ₹ 53,496.00 |
| | | 80 cm x 60 cm rectangular | 32.00 | 4537.00 | 4083.30 | Nos | ₹ 1,30,665.60 |
| 4 | 8.12 Vol III | Road Delineators (Supplying and installation of delineators (road way indicators, hazard markers, object markers), 80-100 cm high above ground level, painted black and white in 15 cm wide stripes, fitted with 80 x 100 mm rectangular or 75mm dia circular reflectorised panels at the top, buried or pressed into the ground and confirming to IRC-79 and the drawings as per relevant clauses of section-800 of specifications. | | | | | |

| | | | | | | | |
|--------------|--------------|--|--------|--------|--------|------|-----------------------|
| | | | 350.00 | 292.00 | 262.80 | each | ₹ 91,980.00 |
| 5 | 8.20 Vol III | Road Markers/Road Stud with Lense Reflector (Providing and fixing of road stud 100x 100 mm, dia cast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphaltic surface by drilling hole 30 mm upto a depth of 60 mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS 873 part 4:1973) | | | | | |
| | | | 500.00 | 713.00 | 641.70 | each | ₹ 3,20,850.00 |
| TOTAL | | | | | | | ₹ 23,66,841.60 |

Landscape Development along Proposed Smart Road, Jabalpur

TOTAL LENGTH 3000 METERS

| S.No. | SOR Ref | Particular of item | Qty | Unit | Rate | Revised Reduced Rates as per Order | Total Amount |
|-------|----------------------|--|---------|---------|--------|------------------------------------|--------------|
| 1 | UADD SOR VOL II 19.1 | Trenching in ordinary Soil upto a depth of 60 Cm including removal & Stacking of serviceable Material and then disposing of by speading and neatly leveling with in lead of 50m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or/and manure before and after flooding trench with water(excluding cost of imported earth,sludge or manure) | 5760.00 | CUM | 129.00 | 116.10 | 668736.00 |
| 2 | UADD SOR VOL II 19.2 | Supplying & Stacking of good earth at site including royalty & carriage up to 1km(earth measured in stacks will be reduced by 20% for Payment) | 2880.00 | CUM | 184.00 | 165.60 | 476928.00 |
| 3 | UADD SOR VOL II 19.3 | Supplying & Stacking Sludge at Site including royalty Carriage up to 1 km(sludge measured in stack will be reduced by 8% for payment) | 2880.00 | CUM | 162.00 | 145.80 | 419904.00 |
| 4 | 19.4.1 | Supplying & stacking at site dump manure From Approved Source including carriage up to 1 km(manure Measured in stacks will be reduced by 8% for payment) screened through sieve of I.S.designation 20mm | 2880.00 | CUM | 105.00 | 94.50 | 272160.00 |
| 5 | 19.5 | Rough dressing the trenched ground including breaking clods. | 5760.00 | 100 SQM | 42.00 | 37.80 | 2177.28 |
| 6 | UADD SOR VOL II 19.6 | Uprooting Weeds From the trenched Area after 10 to 15 Days of its Flooding with water including Disposal of Uprooted Vegetation. | 5760.00 | 100 CUM | 137.50 | 123.75 | 7128.00 |
| 7 | UADD SOR VOL II 19.8 | Spreading of Sludge ,Dump manure & good earth in required thickness (cost of sludge, dump manure or And good earth to be paid separately) | 5760.00 | CUM | 15.00 | 13.50 | 77760.00 |
| 8 | UADD SOR VOL II 19.9 | Mixing earth & sludge or manure in proportion Specified or directed. | | | | | |
| | | Adding the quantity of earth, sludge and manure | 8640.00 | CUM | 102.00 | 91.80 | 793152.00 |
| 9 | MP PWD 23.10 | Total Cast of Selection-one Grass (Carpet Grass)including Leveling shaping compaction work soil treatment, grass fixing charges cost of irrigation deweeding ,Hoeing & maintenance up to 90 Days | 1440.00 | SQM | 197.00 | 177.30 | 255312.00 |

| | | | | | | | |
|----|--------------------------|--|---------|-------|---------|---------|-----------|
| 10 | 19.13 | Preparation of beds for hedging and shrubbery by excavating 60cm deep and trenching the excavated base to a further depth of 30cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1(8 parts of stacked volume of earth after reduction by 20% : one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50m lift up to 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately). | 5760.00 | CUM | 62.00 | 55.80 | 321408.00 |
| 11 | UADD SOR VOL II 19.14 | Digging holes in ordinary Soil & refilling the same with the Excavated Earth mixed with Manure or sludge in the ratio of 2:1 by volume(2 Part of Stacked, Volume of earth after reduction by 20% 1 Part of Stacked Volume of manure after reduction by 8%) flooding with Water dressing including removal of rubbish & Surplus earth. If any with all leads & Lifts(Cost of manure / Sludge/ Soil if needed to be paid for separately) | | | | | |
| | | Holes 60 cm dia and 60 cm deep | 1400.00 | EACH | 24.00 | 21.60 | 30240.00 |
| | | Holes 45 cm dia and 45 cm deep | 3500.00 | EACH | 21.00 | 18.90 | 66150.00 |
| | | Holes 30 cm dia 30 cm deep | 3500.00 | EACH | 10.00 | 9.00 | 31500.00 |
| | | Hedge & other Cluster Ground Cover Plantation & Digging Charges | | | | | |
| 12 | UADD SOR VOL II 19.16 | Providing and fixing M.S. flat iron tree guard 60cm dia. and 2m height above ground level formed of 4 nos. 25x6mm and 8 nos. 25x3mm vertical M.S. flats rivetted to 3 nos. 25x6mm M.S. flat iron rings in two halves, bolted together with 8mm dia. and 30mm long bolts including painting two coats with paint of approved brand and manufacture over a coat of priming, complete in all respects. | 350.00 | EACH | 2037.00 | 1833.30 | 641655.00 |
| 13 | UADD SOR VOL II 19.19 | Edging with bricks laid dry length wise including excavation, refilling, consolidating with hand packing and spreading neatly surplus earth within a lead of 50 m : | | | | | |
| | 19.19.2 | 50 class designation. | | | | | |
| | 19.19.2.1 | chimney. Bricks | 1750.00 | METER | 34.00 | 30.60 | 53550.00 |
| | | | | | | | |

| | | | | | | | |
|--|-----------------------|---|---------|------|---------|---------|-------------------|
| 14 | MP PWD SOR 23.24 | Preparation of mounds of various size and shape by available excavated /supplied earth in layers not exceeding 20 cm in depth, breaking clods, watering of each layer, dressing etc lead upto 50 meter and lift upto 1.5 m complete as per direction Of Officer-in-charge . | 300.00 | cum | 153.00 | 137.70 | 41310.00 |
| 15 | MP PWD SOR 23.15 | Providing and Planting different Variety of Plants of approved quality and Size as mentioned | | | | | |
| 16 | MP PWD SOR 23.15.1 | Any of one from Plumeria alba, Ficua benjamina, Michelia champaca, Begonia, Plumria Pudica plants or equivalent (1.80 m to 2 m height) or equivalent | 250.00 | EACH | 645.00 | 580.50 | 145125.00 |
| 17 | MP PWD SOR 23.15.2 | Any of one from Lantana Variagated/red, Lantana blue white, Hamelia Patens, dwarf, Langtana variagated, Tecoma radicans, Duranta plumieri (golden) (Height 0.3 m to 0.45 m) or equivalent | 7500.00 | EACH | 33.00 | 29.70 | 222750.00 |
| 18 | MP PWD SOR 23.15.3 | Any of one from Hibiscus, Galphimia, Bamboo variagated, TMC spp., Hamelia patens, Bougainvillea, Canna red/yellow, Jaquemontia (height 0.3 m to 0.45 m) or equivalent | 5000.00 | EACH | 54.00 | 48.60 | 243000.00 |
| 19 | MP PWD SOR 23.15.4 | Any of one from spathodia, Silver oak, Thuja, Bottle brush, Ixora coccinea, (height 0.45 m to 0.60 m)or equivalent | 500.00 | EACH | 319.00 | 287.10 | 143550.00 |
| 20 | MP PWD SOR 23.15.5 | Any of one from Clerodendron inermi, Allamanda nerifolia, Allamanda cathartica, Bougainvillea or equivalent | 7500.00 | EACH | 96.00 | 86.40 | 648000.00 |
| 21 | MP PWD SOR 23.15.7 | Foxtail palm or equivalent (1.80 m to 2.10 m height) or equivalent | 75.00 | EACH | 1784.00 | 1605.60 | 120420.00 |
| 22 | MP PWD SOR 23.15.8 | Cycus (1.80 m to 2.10 m height) or equivalent | 50.00 | EACH | 3067.00 | 2760.30 | 138015.00 |
| 23 | MP PWD SOR 23.15.9 | Ficus spp. (1.80 m to 2.10m height) or equivalent | 100.00 | EACH | 994.00 | 894.60 | 89460.00 |
| Total for landscape development along proposed Smart Road | | | | | | | 5909390.28 |

ESTIMATE OF BOUNDARY WALL

TOTAL LENGTH 3000 METERS

| S. No | SOR Item No. | Item of Work | Quantity | Unit | Rate | 10% Reduced Rate as per UADD Orders | Reduced Amount in Rs. |
|-------|-------------------------|---|----------|------|---------|---|--------------------------|
| 1 | Excavation | | | | | | |
| | 2.8.1, Vol. 2, Pg 16 | Earth work in excavation by mechanical means (Hydraulic avator) / manual means in foundation enches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus xcavated soil as directed, within a lead of 50 m2.8.1 All kinds of soil | | | | | |
| | | For pile cap, (.65 x .65 x .25 m) | 72.25 | | | | |
| | | | 72.25 | CuM | 129.00 | 116.10 | ₹ 8,388.23 |
| 2 | Concrete | | | | | | |
| | 4.1.2, Vol. 2, Pg 34 | Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering All work up to plinth level | | | | | |
| | | 4.1.2 Cement concrete grade M-15 with 20 mm max.size of stone agg. | | | | | |
| | | Total | 14.45 | CuM | 4154.00 | 3738.60 | ₹ 54,022.77 |
| | 16.9, Vol. 2, Pg 187 | Boring, providing and installing bored cast-in-situ reinforced cement concrete pile of specified diameter and length below the pile cap M 20 in cement concrete, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with, bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. all complete, including removal of excavated earth with all lifts and leads (Length of pile for payment shall be measured upto bottom of pile cap). | | | | | |
| | 16.9.1 | 300 mm dia piles | 1000.00 | Rm | 1165.00 | 1048.50 | ₹ 10,48,500.00 |
| | 5.1, Vol. 2, Pg 46 | Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level : 5.1.1 Cement concrete grade M-20 (Nominal Mix) with 20 mm maximum size of stone aggregate. | | | | | |
| | | Total | 26.85 | Cum | 4728.00 | 4255.20 | ₹ 1,14,252.12 |
| | 5.2.1, Vol. 2, Pg 46 | Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up to floor two level excluding cost of centering, shuttering, finishing and reinfor cement 5.2.1 Cement concrete grade M-20 (Nominal Mix) with 20 mm maximum size of stone aggregate | | | | | |
| | | Total | 85.50 | Cum | 5050.00 | 4545.00 | ₹ 3,88,597.50 |
| 3 | Reinforcement | | | | | | |

| | | | | | | | |
|---|--|---|----------|------------------|---------|---------|---------------|
| | 5.20.6, Vol. 2, Pg 49 | Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding wire upto floor two level including all wastage etc. complete. | | | | | |
| | | 5.20.6 Thermo-Mechanically Treated bars. | | | | | |
| | | Total | 16253.25 | Kg | 60.00 | 54.00 | ₹ 8,77,675.50 |
| 4 | Back Filling & Water Proofing | | | | | | |
| | 2.25, Vol. 2, Pg 19 | Filling by available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m. | | | | | |
| | | Total | 30.95 | CuM | 59.00 | 53.10 | ₹ 1,643.45 |
| | 4.10. Vol. 2, Pg 36 | Providing and laying damp-proof course 50mm thick with cement concrete grade M-15 (Nominal Mix) with 20 mm maximum size of stone aggregate | | | | | |
| | | Total | 127.42 | Sqm | 226.00 | 203.40 | ₹ 25,917.23 |
| | 4.11. Vol. 2, Pg 36 | Extra for providing and mixing water proofing material in cement concrete work @ 1 kg per 50kg of cement. | | | | | |
| | | Nos of Bag@410 kg or 8.2bags per cum | 8811.89 | Per 50 kg cement | 61.00 | 54.90 | ₹ 4,83,772.88 |
| 5 | Centering & Shuttering | | | | | | |
| | 20.1.1, Vol. 2, Pg 209 | Centering & shuttering propping and removal of form for | | | | | |
| | 20.1.1 | Foundations, footings, bases of columns, etc. For mass concrete. | | | | | |
| | | Total | 179.20 | Sqm | 138.00 | 124.20 | ₹ 22,256.64 |
| | 20.1.6, Vol. 2, Pg 209 | Centering & shuttering propping and removal of form for Columns, Pillars, Piers, Abutments, Posts, Struts. | | | | | |
| | | Total | 546.00 | Sqm | 282.00 | 253.80 | ₹ 1,38,574.80 |
| | 20.1.5, Vol. 2, Pg 209 | Centering & shuttering propping and removal of form for | | | | | |
| | | 20.1.5 Lintels, beams, plinth beams, girders, bressumers and cantilevers. | | | | | |
| | | Total | 498.00 | Sqm | 203.00 | 182.70 | ₹ 90,984.60 |
| 6 | Brick Work | | | | | | |
| | 6.35, Vol. 2, Pg 62 | Brick work with mechanized autoclaved flyash lime bricks conforming to IS: 12894 :2002 of class designation 100 in superstructure above plinth level up to floor 2 level in. | | | | | |
| | 6.35.1 | Cement mortar 1:4 (1 cement :4 coarse sand) | 211.80 | CuM | 3234.00 | 2910.60 | ₹ 6,16,456.26 |
| 7 | Cement Plaster | | | | | | |
| | 13.11, Vol. 2, Pg 157 | 18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement: 5 coarse sand) finished with a top layer 6 mm thick cement plaster 1:6 (1 cement: 6 fine sand). | | | | | |
| | | Total | 2997.76 | Sqm | 149.00 | 134.10 | ₹ 4,01,999.62 |
| 8 | Stone Work | | | | | | |
| | 11.29 Vol.2, Pg 130 | 40 mm thick fine dressed stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement : 5 coarse sand) including pointing with cement mortar 1:2 (1 cement : 2 stone dust) with an admixture of pigment to match the shade of stone. (minimum size of kota stone 0.25 m) | | | | | |

| | | | | | | | | | |
|--------------|------------------------|---|----------|-----|--------|--------|---|-------------|--------------|
| | | Total | 218.82 | SqM | 477.00 | 429.30 | ₹ | 93,939.43 | |
| | | | | | | | | | |
| | 10.25 Vol. 2, Pg 116 | Steel work welded in built up sections/ framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required. | | | | | | | |
| | | Total (A+B) | 14325.48 | Kg | 67.00 | 60.30 | ₹ | 8,63,826.44 | |
| | | | | | | | | | |
| 9 | Painting | | | | | | | | |
| | 13.48.3 Vol. 2, Pg 162 | Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @0.90 ltr/10 sqm over an under coat of primer applied @ 0.80 ltr/ 10 sqm of approved brand or manufacture | | | | | | | |
| | | Total | 612.20 | sqm | 65.00 | 58.50 | ₹ | 35,813.70 | |
| | | | | | | | | | |
| | 13.26 Vol. 2, Pg 159 | Providing and applying 1.5 mm thick (in two coat) white cement based wall putty of best quality, over plastered surface to prepare the surface even and smooth complete. | | | | | | | |
| | | Quantity as above in Plaster (External) | 2997.76 | SqM | 82.00 | 73.80 | ₹ | 2,21,234.69 | |
| | 13.45. Vol. 2, Pg 161 | Finishing walls with textured exterior paint of required shade : | | | | | | | |
| | | New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including base coat of water proofing cement paint applied @ 2.20kg/10 sqm. | | | | | | | |
| | | Quantity as above in External Plaster | 2997.76 | SqM | 125.00 | 112.50 | ₹ | 3,37,248.00 | |
| TOTAL | | | | | | | | ₹ | 58,25,103.84 |

ESTIMATE OF SEWERLINE FROM PROPERTY TO TRUNK LINE SMART ROAD WORKS

| S. No | UADD SOR | Description | Quantity | Unit | Rate | Revised Reduced Rates | Amount (INR) |
|-------|----------------------|--|----------|--------|--------|-----------------------|--------------|
| 1 | UADD SOR VOL I 15.1 | Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. | | | | | |
| a | | Depth upto 1.5m | 1895.72 | Cum | 129.1 | 116.2 | 220263.71 |
| 2 | UADD SOR VOL I 15.8 | Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m. | 1745.50 | Cum | 29.00 | 26.1 | 45557.55 |
| 5 | UADD SOR Vol I 15.18 | Class Ab bedding: Providing and laying mechanically mixed cement concrete 20 mm maximum size graded crushed stone including cost of centering & shuttering.- M15 | 164.24 | cum | 4321 | 3888.9 | 638712.94 |
| 9 | 12.2 Vol I | Providing and supply of DWC HDPE Pipes of renowned duly tested inclusive of all taxes related to central, state and municipal, inclusive of excise duty, inspection charges, transportation charges, transit insurance, loading/ unloading and stacking at site/ store etc. complete. | | | | | |
| | 12.2.1 Vol I | Internal dia /Outer dia | | | | | |
| | 12.2.1.3 Vol I | 135 mm / 160 mm | 600.00 | Meter | 191.00 | 171.90 | 103140.00 |
| a | 12.2.1.4 Vol I | 170 mm / 200 mm | 2000.00 | Meter | 298.00 | 268.20 | 536400.00 |
| 10 | 12.1 Vol I | Providing, laying and jointing following P.V.C. - U pipes with solvent cement joint for Non-pressure gravity drain and sewer applications including testing of joints, cost of jointing materials etc. complete in all respect. [Conform to IS 15328:2003, solvent cement shall conform to IS 14182]. | | | | | |
| | | 110 mm dia. | 560.00 | 185.00 | 166.50 | Meter | 93240.00 |
| | | 125 mm dia | 200.00 | 249.00 | 224.10 | Meter | 44820.00 |
| | | 160 mm dia | 800.00 | 343.00 | 308.70 | Meter | 246960.00 |
| | | 200 mm dia | 280.00 | 606.00 | 545.40 | Meter | 152712.00 |
| 11 | 14.7 Vol I | Making connection of drain or sewer line with existing service lines manhole including breaking into and making good the walls, floors etc. with cement concrete grade M-15 (Nominal Mix) with stone aggregate 20mm nominal size plastered with Cement Mortar 1:3 (1 Cement : 3 coarse sand) finished with a floating coat of neat cement and making necessary channels etc. complete. | | | | | |
| | 14.7.1 Vol I | For 100 to 150 mm dia pipes | 600.00 | 321.00 | 288.90 | Each | 173340.00 |
| | 14.7.2 Vol I | For 250 to 300 mm dia pipes | 300.00 | 362.00 | 325.80 | Each | 97740.00 |

| | | | | | | | |
|----|--|--|---------|--------|---------|---------|------------|
| 12 | 15.8 Vol I | Filling available excavated earth in trenches, plinth sides of foundation in layers not exceeding 20cm. in depth including consolidation of each layer by ramming watering, lead up to 50m and lift up to 1.5m in all kinds of soils | | | | | |
| | | Filling | 1080.00 | 29.00 | 26.10 | Cum | 28188.00 |
| | | | | | | | |
| | 15.9 Vol I | Filling with moorum for pipe bedding or over the pipe including supply of moorum | 3456.00 | 625.00 | 562.50 | Cum | 1944000.00 |
| | | | | | | | |
| | UADD SOR Vol (i) 14.2.5.1 | Man hole with above specifications having inside size 900x450mm and 900mm deep including Pre Cast RCC Man hole Cover (Heavy Duty) 500mm dia having 100mm thickness conforming to IS : 12592 - 2002 complete. | | | | | |
| | | | 30.00 | Nos. | 6557.00 | 5901.30 | 177039.00 |
| | | | | | | | |
| 3 | UADD SOR Vol (i) 14.2.5.2 | Man hole with above specifications having inside size 600x450mm and 900mm deep including Pre Cast RCC Man hole Cover (Heavy Duty) 500mm dia having 100mm thickness conforming to IS : 12592 - 2002 complete. | | | | | |
| | | | 90.00 | Nos. | 4818.00 | 4336.20 | 390258.00 |
| | | Total | | | | | 4892371.19 |

UNDER GROUND ELECTRIFICATION WORK FOR SMART ROAD
TOTAL LENGTH 3000 METERS

| Sr. No. | Item Code | Description of Items | Qty | Unit | Rate | Revised Reduced Rates | Amount |
|---------|----------------------|---|-------|------|--------------|-----------------------|----------------|
| | | HT Cable specification, Laying and Termination | | | | | |
| 1 | MP PWD SOR 41.3 | Supply of approved High-Tension XLPE cable (conforming IS-7098/II/85) as per ISI standard 3 core Armoured with Alu. Solid/stranded conductor ISI MARKED as required | | | | | |
| | | 3 CORE XLPE CABLE 11 KV GRADE | | | | | |
| | MP PWD SOR 41.3.1.1 | 50 Sq.mm. | 200 | Mtrs | 841.00 | 756.90 | 1,51,380.00 |
| | MP PWD SOR 41.3.1.2 | 70 Sq.mm. | 300 | Mtrs | 999.00 | 899.10 | 2,69,730.00 |
| | MP PWD SOR 41.3.1.3 | 95 Sq.mm. | 250 | Mtrs | 1,193.00 | 1,073.70 | 2,68,425.00 |
| | MP PWD SOR 41.3.1.4 | 120 Sq.mm. | 500 | Mtrs | 1,377.00 | 1,239.30 | 6,19,650.00 |
| | MP PWD SOR 41.3.1.5 | 150 Sq.mm. | 500 | Mtrs | 1,537.00 | 1,383.30 | 6,91,650.00 |
| | MPPKVVNL I-1202001 | 11 KV - 3X300 Sq mm XLPE Cable | 7 | KM | 16,87,729.00 | 16,87,729.00 | 1,18,14,103.00 |
| 2 | MP PWD SOR 41.10 | Providing & Making cable end termination with HEAT SHRINKABLE jointing kit complete with all accessories including lugs suitable for 33 kV/11 kV 3 core XLPE alum. conductor cable as required as per specification and as per accepted standard including connection testing complete. | | | | | |
| | MP PWD SOR 41.10.1 | Heat shrinkable joint,kit 11 kV XLPE, 3 Core | | | | | |
| | MP PWD SOR 41.10.1.1 | Heat shr.jointg. kit 11 kV XLPE cable O.D. termination | | | | | |
| | | b.3 x 50-95 sq.mm. | 15 | Each | 11,768.00 | 10,591.20 | 1,58,868.00 |
| | | c. 3 x 120-185 sq.mm. | 15 | Each | 13,078.00 | 11,770.20 | 1,76,553.00 |
| | MP PWD SOR 41.10.1.2 | Heat shr.jointg. kit 11 kV XLPE cable I.D. termination | | | | | |
| | | b.3 x 50-95 sq.mm. | 15 | Each | 14,906.00 | 13,415.40 | 2,01,231.00 |
| | | c. 3 x 120-185 sq.mm. | 15 | Each | 15,691.00 | 14,121.90 | 2,11,828.50 |
| | MP PWD SOR 41.10.1.3 | Heat shr.jointg. kit 11 kV XLPE cable Straight Joint | | | | | |
| | | b.3 x 50-95 sq.mm. | 12 | Each | 22,009.00 | 19,808.10 | 2,37,697.20 |
| | | c. 3 x 120-185 sq.mm. | 12 | Each | 26,902.00 | 24,211.80 | 2,90,541.60 |
| | MPPKVVNL I-1301022 | Supply and Installation straight through Heat shrinkable cable jointing kit with lugs for 11 kV grade XLPE cable for 3Cx300 sq mm | 40 | Each | 23,335.00 | 23,335.00 | 9,33,400.00 |
| 3 | MP PWD SOR 41.39 | Laying of one number 3 core H.T armoured / unarmoured power cable of grade exceeding 1.1kV but not exceeding 11kV of size not exceeding 150 Sq.mm in the existing RCC / Hume / Stoneware / G.I. Pipe / surface in existing trench as required. | 3,500 | Mtrs | 108.00 | 97.20 | 3,40,200.00 |
| 4 | MP PWD SOR 41.5 | Supplying and fixing heavy duty cable gland for P.V.C. insulated armoured cable with brass washer, Rubber ring complete erected with cable and lead connection etc. as per specification complete. | | | | | |
| | MP PWD SOR 41.5.6 | Gland Size 45mm 3/3½ x 120 Sq.mm, 3½ x 95 Sq.mm 3 x 150 Sq.mm. | 40 | Each | 137.00 | 123.30 | 4,932.00 |
| | MP PWD SOR 41.5.7 | Gland Size 50 mm 3½ x 150 Sq.mm, 3 x 185 Sq.mm | 45 | Each | 177.00 | 159.30 | 7,168.50 |
| | | Pipes Specification and Laying | | | | | |
| 5 | UADD SOR 17 | Supplying & installing G.I. Pipe for protection of underground cable fixed on wall/ support / in trench/fixed between two rigid existing support of wall/beam for erection of ceiling Fan/down rod for stiff pendent for light luminaries /fan/protective for earthing, lightening conductor down strip/everhead service line/for submer cable or centrifugal pump for water supply with necessary iron clamp coupler, bend, te, elbow, nuts and bolts etc. complete in an approved manner as required to complete the job excluding cost of excavation/dismateling & other finished masonry Item complete. | | | | | |
| | UADD SOR 17.1 | For 'B' Class G.I.pipe ISI Marked (IS-1161-68) | | | | | |

| | | | | | | | |
|----|-----------------------|--|--------|------|-----------|----------|----------------|
| | UADD SOR 17.1.11 | 150.00mm | 500 | Mtrs | 1,201.00 | 1,080.90 | 5,40,450.00 |
| 6 | UADD SOR 17.4 | Supplying and installing Double wall corrugated pipes (DWC) of HDPE (IS 14930 Part II -marked) for cable laid under ground with necessary connecting sockets / couplings, tees of same material and at required depth upto 90cm. below road / ground surface, including excavation, back filling with excavated material with ramming and making the surface good. | | | | | |
| | UADD SOR 17.4.2 | 63.00mm outside dia. | 2,800 | Mtrs | 210.00 | 189.00 | 5,29,200.00 |
| | UADD SOR 17.4.6 | 120.00mm outside dia. | 300 | Mtrs | 333.00 | 299.70 | 89,910.00 |
| | UADD SOR 17.4.10 | 200.00mm outside dia. | 2,000 | Mtrs | 481.00 | 432.90 | 8,65,800.00 |
| 7 | Non SOR | Supply Installation of HDPE DWC Spacer for 200 mm DWC Pipe (IS 14930 Part II -marked), 18 Pieces of set to connect 9 No. DWC Pipes of size 200mm OD | 1,500 | each | 1,450.00 | 1,450.00 | 21,75,000.00 |
| | | LT Cable Specification, Laying and Termination | | | | | |
| 8 | UADD SOR 14.1 | Supply of XLPE Insulated power cable (conforming IS-7098) 1100 Volt grade/Heavy duty power cable conforming to IS 1554-1100 Volts grade, 2 core /3½ core/4 core ISI MARKED with Alu. Stranded / Solid conductor | | | | | |
| | UADD SOR 14.1.2 | ARMOURED 2 Core | | | | | |
| | UADD SOR 14.1.2.3 | 6 Sq.mm.(XLPE) | 2,000 | Mtrs | 138.00 | 124.20 | 2,48,400.00 |
| | UADD SOR 14.1.2.4 | 10 Sq.mm.(XLPE) | 1,500 | Mtrs | 154.00 | 138.60 | 2,07,900.00 |
| | UADD SOR 14.1.2.5 | 16 Sq.mm.(XLPE) | 800 | Mtrs | 180.00 | 162.00 | 1,29,600.00 |
| | UADD SOR 14.1.6 | ARMOURED 3½ CORE | | | | | |
| | UADD SOR 14.1.6.3 | 50 Sq.mm(XLPE) | 100 | Mtrs | 452.00 | 406.80 | 40,680.00 |
| | UADD SOR 14.1.6.4 | 70 Sq.mm(XLPE) | 100 | Mtrs | 597.00 | 537.30 | 53,730.00 |
| | UADD SOR 14.1.6.5 | 95 Sq.mm.(XLPE) | 700 | Mtrs | 740.00 | 666.00 | 4,66,200.00 |
| | UADD SOR 14.1.6.7 | 150 Sq.mm.(XLPE) | 11,200 | Mtrs | 1,084.00 | 975.60 | 1,09,26,720.00 |
| | UADD SOR 14.1.6.8 | 185 Sq.mm.(XLPE) | 400 | Mtrs | 1,350.00 | 1,215.00 | 4,86,000.00 |
| | UADD SOR 14.1.6.10 | 300 Sq.mm.(XLPE) | 100 | Mtrs | 2,097.00 | 1,887.30 | 1,88,730.00 |
| | UADD SOR 14.1.8 | ARMOURED 4 CORE | | | | | |
| | UADD SOR 14.1.8.2 | 10 Sq.mm.(XLPE) | 1,000 | Mtrs | 183.00 | 164.70 | 1,64,700.00 |
| | UADD SOR 14.1.8.3 | 16 Sq.mm.(XLPE) | 2,000 | Mtrs | 229.00 | 206.10 | 4,12,200.00 |
| | UADD SOR 14.1.8.4 | 25 Sq.mm(XLPE) | 1,000 | Mtrs | 281.00 | 252.90 | 2,52,900.00 |
| | UADD SOR 14.1.8.5 | 35 Sq.mm(XLPE) | 500 | Mtrs | 358.00 | 322.20 | 1,61,100.00 |
| 9 | UADD SOR 14.5.2 | Supply and making cable end termination with all necessary materials including lugs etc.Heat shr.jointg. kit 1.1 kV XLPE/HD cable O.D. termination | | | | | |
| | UADD SOR 14.5.2.a | 10-50 sqmm 2 / 3 / 3½ / 4core | 40 | Each | 7,439.00 | 6,695.10 | 2,67,804.00 |
| | UADD SOR 14.5.2.b | 70-150 sqmm 2 / 3 / 3½ / 4core | 50 | Each | 8,665.00 | 7,798.50 | 3,89,925.00 |
| | UADD SOR 14.5.2.c | 150-300 sqmm 2 / 3 / 3½ / 4core | 80 | Each | 10,466.00 | 9,419.40 | 7,53,552.00 |
| 10 | UADD SOR 14.5(B) | Cable Jointing | | | | | |

| | | | | | | | |
|----|----------------------|---|----|------|-----------|-----------|-------------|
| | UADD SOR 14.5.1 | Straight through cable jointing kit including compound, hardener, plastic mould with other accessories for the following aluminium conductor PVC insulated and PVC sheathed cable//XLPE of 1.1 kV grade:(I.D./O.D.) | | | | | |
| | UADD SOR 14.5.1.a | 6-16 sqmm 2 / 3 / 3½ / 4core | 50 | Each | 1,062.00 | 955.80 | 47,790.00 |
| | UADD SOR 14.5.1.b | 25-35 sqmm 2 / 3 / 3½ / 4core | 50 | Each | 1,421.00 | 1,278.90 | 63,945.00 |
| | UADD SOR 14.5.1.c | 50-95 sqmm 2 / 3 / 3½ / 4core | 20 | Each | 1,802.00 | 1,621.80 | 32,436.00 |
| | UADD SOR 14.5.1.d | 120-240 sqmm 2 / 3 / 3½ / 4core | 25 | Each | 2,991.00 | 2,691.90 | 67,297.50 |
| | UADD SOR 14.5.1.e | 300-350 sqmm 2 / 3 / 3½ / 4core | 25 | Each | 3,806.00 | 3,425.40 | 85,635.00 |
| | UADD SOR 14.5.2 | Supply and making Heat shr. jointg. kit 1.1 kV XLPE/HD cable straight through jointing kit complete with all accessories including lugs etc. (I.D./O.D.) | | | | | |
| | UADD SOR 14.5.2.a | 6-16 sqmm 2 / 3 / 3½ / 4core | 10 | Each | 2,789.00 | 2,510.10 | 25,101.00 |
| | UADD SOR 14.5.2.b | 25-35 sqmm 2 / 3 / 3½ / 4core | 10 | Each | 3,768.00 | 3,391.20 | 33,912.00 |
| | UADD SOR 14.5.2.c | 50-95 sqmm 2 / 3 / 3½ / 4core | 10 | Each | 4,725.00 | 4,252.50 | 42,525.00 |
| | UADD SOR 14.5.2.d | 120-240 sqmm 2 / 3 / 3½ / 4core | 10 | Each | 7,177.00 | 6,459.30 | 64,593.00 |
| | UADD SOR 14.5.2.e | 300-350 sqmm 2 / 3 / 3½ / 4core | 10 | Each | 13,580.00 | 12,222.00 | 1,22,220.00 |
| 11 | UADD SOR 14.6 | BRASS COMPRESSION GLAND | | | | | |
| | UADD SOR 14.6.1 | Supplying and fixing heavy duty cable gland for P.V.C. insulated armoured cable with brass washer, Rubber ring complete erected with cable and lead connection etc. as per specification complete. | | | | | |
| | UADD SOR 14.6.1.1 | Gland Size 22mm suitable for cable 2,3,3½ & 4 x upto 6 Sq.mm | 15 | Each | 38.00 | 34.20 | 513.00 |
| | UADD SOR 14.6.1.2 | Gland Size 22mm suitable for cable 2,3, 3½, 4 x 10 Sq.mm or 2x 16 Sq.mm | 10 | Each | 44.00 | 39.60 | 396.00 |
| | UADD SOR 14.6.1.3 | Gland size 28mm for 3,4 x 16 Sq.mm | 10 | Each | 66.00 | 59.40 | 594.00 |
| | UADD SOR 14.6.1.4 | Gland size 32mm for 2,3, 3½, 4 x 25 Sq.mm OR 2,3, 3½ x 35 Sq.mm OR 2,3 x 50 Sq.mm. | 15 | Each | 76.00 | 68.40 | 1,026.00 |
| | UADD SOR 14.6.1.5 | Gland size 38mm 3½ x 70 Sq.mm, 3x95 Sq.mm | 10 | Each | 119.00 | 107.10 | 1,071.00 |
| | UADD SOR 14.6.1.6 | Gland Size 45mm 3/3½ x 120 Sq.mm, 3½ x 95 Sq.mm, 3 x 150 Sq.mm. | 12 | Each | 149.00 | 134.10 | 1,609.20 |
| | UADD SOR 14.6.1.7 | Gland Size 50 mm 3½ x 150 Sq.mm, 3 x 185 Sq.mm | 10 | Each | 191.00 | 171.90 | 1,719.00 |
| | UADD SOR 14.6.1.8 | Gland Size 57mm 3 x 225 Sq.mm, 3 ½ x 185 Sq.mm | 12 | Each | 248.00 | 223.20 | 2,678.40 |
| | UADD SOR 14.6.1.9 | Gland Size 70mm 3 x 240 Sq.mm, 3½ x 300 Sq.mm | 15 | Each | 353.00 | 317.70 | 4,765.50 |
| 12 | UADD SOR 14.7 | Supplying and fixing ferrules. (Aluminium in Line connector) As per IS - specification suitable for following size of cable with Aluminium stranded/ solid conductor evenly cramped with high pressure tool including connection as required complete | | | | | |
| | UADD SOR 14.7.1 | For Conductor Size- | | | | | |
| | UADD SOR 14.7.1.1 | 2.5 to 6.00 Sq.mm | 50 | Each | 2.00 | 1.80 | 90.00 |
| | UADD SOR 14.7.1.2 | 10.00 Sq.mm | 30 | Each | 2.00 | 1.80 | 54.00 |
| | UADD SOR 14.7.1.3 | 16.00 Sq.mm | 30 | Each | 4.00 | 3.60 | 108.00 |
| | UADD SOR 14.7.1.4 | 25.00 Sq.mm | 60 | Each | 5.00 | 4.50 | 270.00 |
| | UADD SOR 14.7.1.5 | 35.00 Sq.mm | 30 | Each | 5.00 | 4.50 | 135.00 |

| | | | | | | | |
|----|-----------------------|---|-------|------|--------|----------|-------------|
| | UADD SOR 14.7.1.6 | 50.00 Sq.mm | 50 | Each | 8.00 | 7.20 | 360.00 |
| | UADD SOR 14.7.1.7 | 70.00 Sq.mm | 12 | Each | 14.00 | 12.60 | 151.20 |
| | UADD SOR 14.7.1.8 | 95.00 Sq.mm | 25 | Each | 15.00 | 13.50 | 337.50 |
| | UADD SOR 14.7.1.9 | 120.00 Sq.mm | 15 | Each | 22.00 | 19.80 | 297.00 |
| | UADD SOR 14.7.1.10 | 150.00 Sq.mm | 25 | Each | 31.00 | 27.90 | 697.50 |
| | UADD SOR 14.7.1.11 | 185.00 Sq.mm | 15 | Each | 38.00 | 34.20 | 513.00 |
| | UADD SOR 14.7.1.12 | 240.00 Sq.mm | 25 | Each | 62.00 | 55.80 | 1,395.00 |
| | UADD SOR 14.7.1.13 | 300.00 Sq.mm | 50 | Each | 89.00 | 80.10 | 4,005.00 |
| | | LT Cable Laying | | | | | |
| 13 | UADD SOR 14.1.7 | Laying of one number PVC insulated and PVC sheathed power cable of 1:1 kV grade of size not exceeding 25 Sq.mm in the existing RCC Hume/ Stone/Ware/G.I. pipe as required | 8,000 | Mtrs | 20.00 | 18.00 | 1,44,000.00 |
| | UADD SOR 14.1.8 | Laying of one number PVC insulated and PVC sheathed power cable of 1.1 kV grade of size exceeding 25 Sq.mm but not exceeding 400 Sq mm in the existing RCC / Hume Stoneware / G.I. Pipe as required. | 6,000 | Mtrs | 28.00 | 25.20 | 1,51,200.00 |
| | UADD SOR 14.1.15 | Laying of one number PILC/PVC insulated and PVC sheathed power cable of grade exceeding 1.1kV but not exceeding 11kV of size not exceeding 400 Sq.mm in the existing RCC / Hume / Stoneware / G.I. Pipe as required. | 50 | Mtrs | 40.00 | 36.00 | 1,800.00 |
| 14 | UADD SOR 14.13 | Laying of cement concrete or approved type of cable cover / flag stone over L.T. cover trench as per specification. | 40 | Mtrs | 25.00 | 22.50 | 900.00 |
| | UADD SOR 14.14 | Supplying of approved type precast R.C.C. cable cover class EHV / HVP at site inclusive of transport required. | | | | | |
| | UADD SOR 14.14.1 | Cable cover class EHV-type-I with peak size 450 x 230 x 50mm. | 20 | Each | 59.00 | 53.10 | 1,062.00 |
| | UADD SOR 14.14.2 | Cable cover class EHV-type-I with peak size 600 x 230 x 50mm. | 20 | Each | 80.00 | 72.00 | 1,440.00 |
| | UADD SOR 14.14.3 | Cable cover class HVP-type-I with peak size 300 x 180 x 40mm. | 15 | Each | 31.00 | 27.90 | 418.50 |
| | UADD SOR 14.14.4 | Cable cover class HVP-type-II with peak size 450 x 180 x 40mm. | 20 | Each | 45.00 | 40.50 | 810.00 |
| 15 | UADD SOR 14.15 | Fixing Route Marker with cement concrete 1:2:4 (1cement and 2 coarse sand :4graded stone aggregate 20mm nominal size) of size 60cm x 60cm at the bottom and 50cm x 50cm at the top with a thickness of 10cm including inspection duly engraved as required. | 120 | Each | 193.00 | 173.70 | 20,844.00 |
| 16 | UADD SOR 14.16 | Supplying Route Marker with 10cm x 10cm G.I. Plate 5mm. Thick with Inspection thereon bolted/welded to 35mm x 35mmx 6mm angle iron 60cm long and fixing the same in ground as required. | 100 | Each | 211.00 | 189.90 | 18,990.00 |
| | | Earthing | | | | | |
| 17 | UADD SOR 11.40 | Supplying and erecting earth pit of minnum bore dia 150 mm size, approved make safe earthing electrode consisting pipe in pipe technologie as per IS 3043-1987 made of corrosion free GI pipes having outer pipe dia of 50 mm having 80-200 micron galvanising, inner pipe dia of 25 mm having 20-250 micron galavinsing, connection terminal dia of 12 mm with constant OHMIC value surrounded by highly conductiv compund with high charge disipation sutible for effective and maintence free earthing | | | | | |
| | UADD SOR 11.40.1 | with 2 mtr. Pipe in normal soil with 25 kg (one bag) back filling compound | 12 | Each | 7200 | 6,480.00 | 77,760.00 |
| | UADD SOR 11.40.2 | with 3 mtr. Pipe in normal soil with 50 kg (two bag) back filling compound | 90 | Each | 10800 | 9,720.00 | 8,74,800.00 |

| | | | | | | | |
|----|-----------------------|---|----------|--------|----------|-----------|--------------|
| | UADD SOR 11.40.3 | with 2 mtr. Pipe of 80 mm outer dia, 40 mm inner dia and 14 mm terminal dia, in soft rock/marshy soil with 25 kg (one bag) back filling compound | 6 | Each | 8800 | 7,920.00 | 47,520.00 |
| | UADD SOR 11.40.4 | with 3 mtr. Pipe of 80 mm outer dia, 40 mm inner dia and 14 mm terminal dia, in soft rock/marshy soil with 25 kg (two bag) back filling compound | 90 | Each | 13300 | 11,970.00 | 10,77,300.00 |
| 18 | UADD SOR 11.8 | Supplying and laying 25mm X 5mm G.I. strip at 0.5 meter below ground level as strip earth electrode including soldering etc. as required. | 500 | Mtrs | 65 | 58.50 | 29,250.00 |
| 19 | UADD SOR 11.9 | Supplying and laying 25mm X 6mm G.I. strip at 0.5 meter below ground level as strip earth electrode including soldering etc. as required. | 3,500 | Mtrs | 77 | 69.30 | 2,42,550.00 |
| 20 | UADD SOR 11.16 | Providing and fixing 4.00mm G.I. wire on surface or in recessed /concealed for loop earthing as required. | 2,000 | Mtrs | 35 | 31.50 | 63,000.00 |
| 21 | UADD SOR 11.20 | Providing and fixing of lightning conductor finial made of 25mm dia 300mm long G.I. tube having single prong at top with 85 mm dia 6 mm thick G.I. base plate including holes complete as required. | 50 | Each | 502 | 451.80 | 22,590.00 |
| 22 | UADD SOR 11.26 | Providing and fixing G.I. tape 20mm X 3mm thick on parapet and surface of wall of lightening conductor as required (for Vertical runs) | 600 | Mtrs | 62 | 55.80 | 33,480.00 |
| 23 | UADD SOR 11.37 | Providing and laying earth continuity conductor including fixing with | | | | | |
| | UADD SOR 11.37(B) | G.I. Or Steel Earth Continuity Conductor :- | | | | | |
| | UADD SOR 11.37.1 | 6 Sq mm. | 1,000 | Mtrs | 7.00 | 6.30 | 6,300.00 |
| | | Cable Tray | | | | | |
| 24 | MP PWD SOR 41.54 | Supply and erection of hot dip G.I. cable tray perforation not more than 17.5% for specific dimensions along with tees, bends.. The cable tray shall be hang from ceiling / fixed to wall with necessary angle/flat iron / hanging rod, for ceiling suspensions, clamps, anchor fastner, nuts, bolts, washers, not mor than 1.5 mtr. apart complete as per specification to complete the job. The tray shall be as follows :- | | | | | |
| | MP PWD SOR 41.54.3 | 300 x 50 mm x 1.6mm thick | 300 | Mtrs | 844.00 | 759.60 | 2,27,880.00 |
| | MP PWD SOR 41.54.4 | 450 x 50 mm x 2 mm thick | 200 | Mtrs | 1296.00 | 1,166.40 | 2,33,280.00 |
| | MP PWD SOR 41.54.5 | 600 x 50 mm 2 mm thick | 200 | Mtrs | 1603.00 | 1,442.70 | 2,88,540.00 |
| | | MISCELLANEOUS Items (Dismantling / Shifting work) | | | | | |
| 25 | UADD SOR 13.2 | Supply of support for overhead line RS joist / H-beam of I.S. standard including welding, drilling of required hole etc. complete as required. | | | | | |
| | UADD SOR 13.2.2 | R.S. Joist 175 x 90 - 19.3 kg per meter | 1,300.00 | Meters | 1,029.00 | 926.10 | 12,03,930.00 |
| | UADD SOR 13.2.6 | H-Beam 152x152mm , Std weight 37.1 kg per meter | 930.00 | Meters | 1,977.00 | 1,779.30 | 16,54,749.00 |
| 26 | UADD SOR 13.13 | Erection of steel tubular or steel rail pole or H-Beam of length exceeding 8 meters but not exceeding 10 meters in cement concrete 1:3:6 (1 cement : 3 coarse sand: 6 graded stone aggregate 40mm nominal size) foundation, base padding & muffing including excavation and refilling etc. as required.(4.55 bags of cement/cmt.) | 100.00 | Each | 2,163.00 | 1,946.70 | 1,94,670.00 |
| 27 | UADD SOR 13.14 | Erection of steel tubular or steel rail pole or H-Beam of length exceeding 10 meters but not exceeding 13 meters in cement concrete 1:3:6 (1 cement :3 coarse sand: 6 graded stone aggregate 40mm nominal size) foundation, base padding & muffing including excavation and refilling etc. as required.(4.55 bags of cement/cmt.) | 100.00 | Each | 2,563.00 | 2,306.70 | 2,30,670.00 |
| 28 | UADD SOR 13.58 | Supplying of angle/channel flat iron fitting for overhead lines such as cross arms, clamps, brackets, welding and other necessary materials as per specifications. | 8,500.00 | Kg | 54.00 | 48.60 | 4,13,100.00 |
| 29 | UADD SOR 13.79 | Supplying and erection of 11kV pin insulator complete with large steel head G.I. pin, nut, washer etc. as required. | 60.00 | Set | 375.00 | 337.50 | 20,250.00 |

| | | | | | | | |
|----|---------------------|--|----------|--------|-----------|-----------|--------------|
| 30 | UADD SOR 13.80 | Supplying and erection of 11kV disc insulator for 11kV overhead lines with galvanized insulator fittings, ball and socket type, and complete with galvanized strain clamp, bolts, nuts washer etc. as required. | 45.00 | Set | 1,089.00 | 980.10 | 44,104.50 |
| 31 | UADD SOR 13.81 | Supplying and erection of 33kV pin insulator complete with large steel head G.I. pin, nut, washer etc. as required. | 45.00 | Set | 1,012.00 | 910.80 | 40,986.00 |
| 32 | UADD SOR 13.82 | Supplying and erection of 11kV disc insulator for 33kV overhead lines with galvanized insulator fittings, ball and socket type, and complete with galvanized strain clamp, bolts, nuts washer etc. as required. | 30.00 | Set | 3,067.00 | 2,760.30 | 82,809.00 |
| 33 | UADD SOR 13.86 | Painting of Pole Bracket cable Protecting Pipe and its clamps in two coatings of All enamel based Primer as directed by Engineer-Charge. | | | | | |
| | UADD SOR 13.86.2 | Primer Cost over new Steel and other metallic surface with red oxide / zinc chromide paint complete with supply of material labour etc. Including preparation of Surface. | 300.00 | Sqm | 21.00 | 18.90 | 5,670.00 |
| | UADD SOR 13.86.3 | Primer cost with aluminum paint, brushing complete with material and labour including preparation of surface. | 300.00 | Sqm | 28.00 | 25.20 | 7,560.00 |
| 34 | UADD SOR 15.13 | Supplying, installing, testing of earth Coil (coil of 115 turns of 50mm dia, and 2.5 Mtrs. Lead of 4 mm G.I wire. | 240.00 | Each | 219.00 | 197.10 | 47,304.00 |
| 35 | UADD SOR 19.183 | Cable connector 35mm | 240.00 | Each | 90.00 | 81.00 | 19,440.00 |
| 36 | MP PWD 42.85 | Supplying & drawing / laying of PVC insulated XLPE Aerial bunch power cable conductor H2/H4 grade Aluminium Solid/stranded confirming to IS-14255- 1995, Alu. Alloy insulated messenger 1100 volts grade cable of approved make in Air with necessary material as per specification of required size as mentioned below – | | | | | |
| | MP PWD 42.85.2 | (ii) Single Core cable(Insulated neutral messenger) | | | | | |
| | MP PWD 42.85.2.3 | (c) 3x50 Sq.mm , 1x16(St.Light), 1x35(Insulated neutral messenger) | 400.00 | Meters | 288.00 | 259.20 | 1,03,680.00 |
| | MP PWD 42.85.2.4 | (d) 3x70 Sq.mm , 1x16(St.Light), 1x35(Insulated neutral messenger) | 400.00 | Meters | 390.00 | 351.00 | 1,40,400.00 |
| | MP PWD 42.85.2.5 | (e) 3x95 Sq.mm , 1x16(St.Light), 1x50(Insulated neutral messenger) | 3,800.00 | Meters | 584.00 | 525.60 | 19,97,280.00 |
| 37 | MP PWD 42.86 | Supplying & fixing of Aerial bunch cable accessories suspension clamps i/c required attachment for single core cable of approved make on pole with clamp, necessary material as per specification for required size. | 75.00 | Each | 343.00 | 308.70 | 23,152.50 |
| 38 | MP PWD 42.87 | Supplying & fixing of Aerial bunch cable accessories Tension clamps(Dead end) i/c required attachment for single core cable of approved make in Air with clamp, necessary material as per specification for required size. | 150.00 | Each | 371.00 | 333.90 | 50,085.00 |
| 39 | UADD SOR 15.3 | Supplying installing and testing of AB isolating switch assembly set gang operated suitable for 11/0.4 KV, DP structure with brass part contacts, operating rod with required GI pipe, handle locking arrangement on On-Off position conforming to IS complete with required material and installing on existing structure to complete the job as required as per specification. | | | | | |
| | 1 | 11 kV | 22.00 | Set | 7,099.00 | 6,389.10 | 1,40,560.20 |
| | 2 | 33 kV | 30.00 | Set | 15,416.00 | 13,874.40 | 4,16,232.00 |
| 40 | UADD SOR 15.4 | Supplying, installing ,testing of 11 KV D.O. fuse assembly with brass part contact for 11/0.4 KV DP Structure set of 3 with fuse with barrel with required fuse element & other materials as per specification on existing D.P. structure as required.(set of 3nos.) | | | | | |
| | 1 | 11kV | 15.00 | Set | 4,700.00 | 4,230.00 | 63,450.00 |
| | 2 | 33kV | 20.00 | Set | 11,531.00 | 10,377.90 | 2,07,558.00 |

| | | | | | | | |
|----|--------------------|--|-------|------|-----------|-----------|--------------|
| 41 | UADD SOR 13.84 | Supplying and erection of three piece nonlinear resistor type lighting arrestor suitable for 3 wire, 11kV overhead lines with rated voltage of 9kV (rms) with a nominal discharge current rating of 5 KA and complete with galvanized clamping arrangement, G.I. bolts, nuts, washer etc. as required. | 25.00 | set | 4,284.00 | 3,855.60 | 96,390.00 |
| 42 | UADD SOR 13.85 | Supplying and erection of single piece non-linear resistor type lightning arrestor for 3 wire, 33kV overhead lines with rated voltage of 30kV (rms) with a nominal discharge current rating of 5 KA and complete with galvanised clamping arrangement, G.I. bolts, nuts, washer etc. as required. | 30.00 | Set | 39,170.00 | 35,253.00 | 10,57,590.00 |
| 43 | UADD SOR 15.7 | Supplying, installing, testing and commissioning of LT Distribution Box with TPN isolator 200 amper on incoming, bus bar and 66 S.P.M.C.C.B.of 60 A" .on outgoing side for 63 KVA transformer | | | | | |
| | | (i)Supplying, installing, testing and commissioning of LT Distribution Box with TPN isolator 200 amper on incoming, bus bar and 6 S.P.M.C.C.B.of 90 A" .on outgoing side for 100 KVA transformer | 1.00 | Each | 17,036.00 | 15,332.40 | 15,332.40 |
| | | (i)Supplying, installing, testing and commissioning of LT Distribution Box with TPN isolator of 600 amper on incoming, bus bar and 6 S.P.M.C.C.B.of 120 A" .on outgoing side for 200 KVA transformer | 1.00 | Each | 28,393.00 | 25,553.70 | 25,553.70 |
| 44 | UADD SOR 13.5 | Supplying and drawing All Aluminum Alloy conductor (AAAC) of approved make confirming to IS 398-1979 Pt. IV, including binding at existing insulator, jointing, jumpering, tearing off, connecting etc. as required including clearing of obstacles (if any) | | | | | |
| | UADD SOR 13.5.4 | 0.075 sq.inch / 48 sq.mm Alloy Aluminum Conductor | 6.00 | KM | 59,138.00 | 53,224.20 | 3,19,345.20 |
| 45 | MP PWD 42.5 | Supplying and drawing All Aluminum Alloy conductor (AAAC) of approved make confirming to IS 398-1979 Pt. IV, including binding at existing insulator, jointing, jumpering, tearing off, connecting etc. as required including clearing of obstacles (if any) | | | | | |
| 46 | MP PWD 42.5.4 | AAAC 0.1 sq inch (100 Sq.mm Al. EQ.) - (Dog) | 1.00 | KM | 77,891.00 | 70,101.90 | 70,101.90 |
| 47 | UADD SOR 13.65 | Supplying of 50mmx 8mm M.S. Flat iron pole top bracket/cross arm for single 11/22/33kV overhead line conductor complete with fixing bolts, nuts and washers drilling holes for insulator pins, painting with primer and finish paint as required. | 45.00 | Each | 280.00 | 252.00 | 11,340.00 |
| 48 | UADD SOR 13.8 | Supplying and drawing guard wire/earth wire/bearer wire 13mm2 (4mm. Dia) G.I. including stringing, binding at existing insulators or brackets, jointing, jumpering, connecting etc. as required and clearing of obstacles (if any) | 0.10 | KM | 9,176.00 | 8,258.40 | 825.84 |
| 49 | UADD SOR 13.24 | Supplying and erection of stay set complete (Galvanized) with 19mm.dia 1.8 meter long stay rod, anchor plate of size 300mm x 300 mm x 6.4mm thimble stay clamps,bowtightener, 7/3.15 dia G.I. stay wire and strain insulator etc. in cement concrete 1:3:6 (1 Cement : 3 Coarse and : 6 graded stone aggregate 40mm nominal size) foundation including excavation and refilling etc. as required. | 40.00 | Each | 2,634.00 | 2,370.60 | 94,824.00 |
| 50 | UADD SOR 13.62 | Supplying and erection of galvanized stay set for 33kV overhead line complete with 19/20mm dia x 1.8 meters long stay rod, anchor plate of size 45cm x 45cm x 7.5mm thick, thimble, stay clamps, turn buckle (20mmx 600mm), 7/4.00mm dia G.I. stay wire and 33kV strain insulator etc. in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm. nominal size) foundation including excavation and refilling etc. as required. | 45.00 | Each | 2,906.00 | 2,615.40 | 1,17,693.00 |

| | | | | | | | |
|----|-------------------------|---|----------|---------|-------------|-------------|--------------|
| 51 | MP PWD 42.68 | Supplying and fixing Limit switch with accessories & arrangement on existing HT/LT structure / poles AB switch handle for inter locking between distribution panel main incoming LT switch gear/ system as required to complete the job. (Disturbtion Box for house connection) | 100.00 | Each | 1,778.00 | 1,600.20 | 1,60,020.00 |
| 52 | UADD SOR 13.57 | Dismantling poles / street light standards / struts embedded in cement concrete foundation etc. as required. | 200.00 | Each | 609.00 | 548.10 | 1,09,620.00 |
| 53 | MP PWD 35.10 | Dismantling of existing overhead ACSR, AAAC, GI , conductor and making the site clear i/c transportation to required destination within township. | 6,500.00 | Meters | 4.00 | 3.60 | 23,400.00 |
| 54 | MP PWD 42.63 | Shifting, erection, & commissioning of of 100/ 200 / 315 / 500 KVA (11/0.433 KV) distribution transformer on existing structure including Bi-metallic clamp, ACSR/AAAC Conductor i/c colour code sleeve, for connection from H.T. Line to transformer as required as per specification. | 15.00 | Each | 8,191.00 | 7,371.90 | 1,10,578.50 |
| 55 | UADD SOR 14.11 | Excavation of the trenches in Hard Rock not exceeding 1.5 meter in width and lift upto 1.5 meter including getting out the excavated soil and disposal of surplus excavated soil as directed within the lead of 50 meter (without blasting) | 50.00 | Cu.Mtrs | 348.00 | 313.20 | 15,660.00 |
| 56 | UADD SOR 6.2 (V-2) | Brick work with well burnt chimney bricks in bulls patent trench kiln, crushing strength not less than 25kg/sqcm and water absorption not more than 20% in foundation and plinth | | | | | |
| | UADD SOR 6.2.1 (V-2) | Cement mortar 1:4 (1 cement : 4 coarse sand) | 150.00 | Cum | 4,152.00 | 3,736.80 | 5,60,520.00 |
| 57 | UADD SOR 10.33.15 | Cement concrete grade M-20 (Nominal Mix) with 20mm maximum size of stone aggregate (rate from Building ISSR) | 120 | Cum | 4594.00 | 4,134.60 | 4,96,152.00 |
| 58 | | Ring Main Unit (RMU) | | | | | |
| | | Supply, Installation, Testing and Commissioning of Out Door RMU (Ring Main Unit), 12KV, Non- Extensible type, Motorised, 3 way Type (2 LBS + 1 VCB) , 630A, 21KA for 3 Sec STC, SF6 insulated Ring Main unit with structure required for erection for supplying ring feeders for 11KV, with o/c, s/c and e/f protection. The RMU shall meet the criteria for compact, metal-enclosed indoor switchgear in accordance with IEC 62271-1 and IEC 62271-200. SF6 gas used for the filling of the RMU shall be in accordance with IEC 60376. (Make: Siemens /ABB / Schnieder / C&S/Voltmp) | | | | | |
| | Non SOR | RMU manufacturer should have NABL accredited lab for routine tests and IP67 degrees of protection in accordance with recommendation IEC 60529. RMU should include FPI and FRTU as per the Specification; 1. FRTU shall have adequate cyber security features as per IEEE P1686, IEC62351. 2. IEC 60870-5-101/104 protocol to communicate with the Master station(s) & Modbus over RS 485 for communication with MFTs. 3. The FRTU shall support IEC 61131-3 PLC programming for incorporation of automation logics. 4. - The FRTU shall support remote firmware updates. 24V DC battery & Charger 12Ah Capacity - 1 No. Digital Inputs 32 Nos. , DI card 16 Channels - 2 Nos. - 1 Set Digital Outputs 13 Nos. , DO card 8 Channels - 2 Nos. - 1 Set Datapoints - 15 Nos. approx. - 1 Set Dual SIM Modem - 1 No. | 4 | Nos. | 6,83,000.00 | 6,83,000.00 | 27,32,000.00 |

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|----|--------------------------|---|-----|------|-------------|-------------|---------------------|
| | Non SOR | <p>SITC of Ring Main Unit (04 Way) having 01 no. vacuum circuit breaker 630 amp rating and 03 nos. load break isolators with Earth switch suitable for termination of 11KV cable on each isolator. The RMU shall meet the criteria for compact, metal-enclosed indoor switchgear in accordance with IEC 62271-1 and IEC 62271-200. RMU manufacturer should have NABL accredited lab for routine tests and IP67 degrees of protection in accordance with recommendation IEC 60529.</p> <p>RMU should include FPI and FRTU as per the Specification;</p> <p>1. FRTU shall have adequate cyber security features as per IEEE P1686, IEC62351.</p> <p>2. IEC 60870-5-101/104 protocol to communicate with the Master station(s) & Modbus over RS 485 for communication with MFTs.</p> <p>3. The FRTU shall support IEC 61131-3 PLC programming for incorporation of automation logics.</p> <p>4. - The FRTU shall support remote firmware updates.</p> <p>24V DC battery & Charger 12Ah Capacity - 1 No.</p> <p>Digital Inputs 32 Nos. , DI card 16 Channels - 2 Nos. - 1 Set</p> <p>Digital Outputs 13 Nos. , DO card 8 Channels - 2 Nos. - 1 Set</p> <p>Datapoints - 15 Nos. approx. - 1 Set</p> | 8 | Nos. | 8,27,600.00 | 8,27,600.00 | 66,20,800.00 |
| | Non SOR | <p>SITC of Ring Main Unit (5 Way) having 02 nos. vacuum circuit breaker 630 amp rating and 03 nos. load break isolators with Earth switch suitable for termination of 11KV cable on each isolator. The RMU shall meet the criteria for compact, metal-enclosed indoor switchgear in accordance with IEC 62271-1 and IEC 62271-200. RMU manufacturer should have NABL accredited lab for routine tests and IP67 degrees of protection in accordance with recommendation IEC 60529.</p> <p>RMU should include FPI and FRTU as per the Specification;</p> <p>1. FRTU shall have adequate cyber security features as per IEEE P1686, IEC62351.</p> <p>2. IEC 60870-5-101/104 protocol to communicate with the Master station(s) & Modbus over RS 485 for communication with MFTs.</p> <p>3. The FRTU shall support IEC 61131-3 PLC programming for incorporation of automation logics.</p> <p>4. - The FRTU shall support remote firmware updates.</p> <p>24V DC battery & Charger 12Ah Capacity - 1 No.</p> <p>Digital Inputs 32 Nos. , DI card 16 Channels - 2 Nos. - 1 Set</p> <p>Digital Outputs 13 Nos. , DO card 8 Channels - 2 Nos. - 1 Set</p> <p>Datapoints - 15 Nos. approx. - 1 Set</p> | 10 | Nos. | 9,38,700.00 | 9,38,700.00 | 93,87,000.00 |
| 59 | UADD SOR 9.11 | Supplying and fixing as per specification Caution / Danger Board as required of approved make & design with necessary material complete. | | | | | |
| | UADD SOR 9.11.1 | Small Size | 100 | Each | 106.00 | 95.40 | 9,540.00 |
| | UADD SOR 9.11.2 | Large Size | 100 | Each | 211.00 | 189.90 | 18,990.00 |
| | UADD SOR 9.11.287 | Sand | 80 | CUM | 525.00 | 472.50 | 37,800.00 |
| | UADD SOR 9.11.289 | Excavation including refilling as required | 100 | CUM | 165.00 | 148.50 | 14,850.00 |

| | | | | | | | |
|----|---------------------|---|-----|---------|--------------|--------------|----------------|
| 60 | MP PWD SOR 42.69 | Supply & fixing fencing of chain link mesh 100 x 100 mm, 12 SWG GI wire for for D.P. structure electric sub-station including single post of angle iron size 50x50x5mm, 2.5 mt long should be provided up to 2.00 mt. apart or as required. The panel frame with required angle iron/ flat iron members /cross members including mesh welded in frame panel, shall be erected between the post. The angle iron post shall be erected in cement concrete 1:2:4 (20 mm graded metal) foundation, including excavation of pit and refilling the same . The fencing shall be provided with one entrance gate including locking arrangement as required as per specification. The height of fencing shall be 2 mt. above ground level. Fencing shall be painted with required shade. | 250 | Sq.Mtrs | 1,110.00 | 1,110.00 | 2,77,500.00 |
| | | Package Sub-station | | | | | |
| | | SITC 11kV, 630KVA, Outdoor Package / compact Sub-Station (in compliance IEC 62271-202) shall be consisting of following (Make: Siemens /ABB / Schnieder / C&S/Voltmp) | 16 | Each | 33,55,000.00 | 33,55,000.00 | 5,36,80,000.00 |
| | | HT SWITCHGEAR - 1 Nos. | | | | | |
| | | 11kV 630Amps 21KA/3 sec. Non-Extensible Ring Main Unit Compact switchgear with Copper busbar (Type CCCV) consisting of Three Nos. Fixed Motorized Load Break switches and One No. Fixed Motorized Vacuum Circuit Breaker in robotically welded having IP67 in SF6 encapsulated stainless steel enclosure of thickness 2.5mm . with series trip, self powered microprocessor based numerical over current and earth fault relay protection. Make: ABB / SIEMENS /SCHNEIDER | | | | | |
| | | Relay shall be of Ashida make of Model No: ADR241S - 1 No. Protection CT shall be 40/1A 2.5VA 5P10. - 3 Nos. Fault Passage Indicator for LBS with Short Circuit and Earth Fault Indication - 2 No. Manometer and signal (1NO) from pressure indicator - 1 No. Voltage Presence Indicator (L1, L2, L3) for each Module 3 Nos. Operating Handle - 1 No. Pls refer the attached BOM of FRTU - 1 No. Space Heater in HT compartment - 1 No. | | | | | |
| | | TRANSFORMER - 01 Nos. | | | | | |
| | | 630 KVA 11KV/433V DYN11 Oil filled BIS level-3 Transformer as per 1108 Part-I:2014 and IS 2026. Class of Insulation: Class-A, Winding: Copper, Type of Cooling: ONAN Range: +5% to - 5% @ 2.5%, No. of Steps: 4, On HV: Yes, Tap Changer type: OCTC Temp rise of Oil / Winding over design ambient temp. of 50(° C): 40 / 45(° C) Bushing Standard: IS 2099 & IS 3347 Make: Schneider/ABB/Siemens/Raychem/Voltamp | | | | | |
| | | LVS PANEL - 1000AMPS ALUMINUM BUSBAR (100% FOR PHASE & 50% FOR NEUTRAL, CURRENT DENSITY- 0.8AMP/SQMM) | | | | | |
| | | INCOMER FROM TRANSFORMER - 01 No. | | | | | |
| | | 1000Amps 433V 50KA 4P Electrical Draw Out (EDO) Air Circuit breaker(ACB) with microprocessor based release for over current, short circuit and earth fault protection.- PR 121 . | | | | | |
| | | Digital Multifunction Meter with Class 1.0 Accuracy with RS 485 port (Make: Rishabh/Secure/Elmeasure) - 01 Set | | | | | |
| | | R,Y,B,ON/OFF/TRIP Indications. 1 Set | | | | | |
| | | OUT GOING | | | | | |

| | | | | | | | | | |
|--|----------------|--|--|--|--|--|--|--|--|
| | Non SOR | 400Amps 36 kA, 433V, 3P+ N Fixed manual Molded Case Circuit breaker (MCCB) with microprocessor based release for over current ,short circuit and earth fault protection.Digital Multifunction Meter with Class 1.0 Accuracy with RS 485 port (Make: Rishabh/Secure/Elmeasure) - 02 Nos. | | | | | | | |
| | | 250 Amps 433V 36KA 3P+ N Fixed manual Molded Case Circuit breaker (MCCB) with thermal Magnetic based release for over current & short circuit fault protection.Digital Multifunction Meter with Class 1.0 Accuracy with RS 485 port (Make: Rishabh/Secure/Elmeasure). - 06 Nos. | | | | | | | |
| | | OUTDOOR ENCLOSURE - 01 Set | | | | | | | |
| | | Outdoor type enclosure having construction of Galvanised Sheet Steel with combination of 2mm thickness for load bearing member and 1.5mm with Non Load bearing member with 4mm HRCA base frame. The Enclosure shall have IP54 degree of protection for HT & LT switchgear compartment & IP23 degree of protection for Transformer compartment. The enclosure shall be Powder Coated (Colour Light Gray & D.A.Gray). Each compartment will be provided with the door and pad locking arrangement. The Compartment illumination lamp with door operated switch shall be provided for MV & LV compartment. | | | | | | | |
| | | INTERCONNECTION AND EARTHING - 01 Set | | | | | | | |
| | | Interconnection Between HT switchgear & Transformer using 1Cx3x95 Sq.mm XLPE Single core Aluminium cable & Interconnection between Transformer & LT switchgear using AL. Busbars. Internal earthing connections by using 50 x 6mm GI strips including Transformer neutral. | | | | | | | |
| | | FRTU for SCADA | | | | | | | |
| | | <p>RMU should include FPI and FRTU as per the Specification;</p> <ol style="list-style-type: none"> 1. FRTU shall have adequate cyber security features as per IEEE P1686, IEC62351. 2. IEC 60870-5-101/104 protocol to communicate with the Master station(s) & Modbus over RS 485 to communicate with MFTs. 3. The FRTU shall support IEC 61131-3 PLC programming for incorporation of automation logics. 4. - The FRTU shall support remote firmware updates. <p>24V DC battery & Charger 12Ah Capacity - 1 No. Digital Inputs 32 Nos. , DI card 16 Channels - 2 Nos. - 1 Set Digital Outputs 16 Nos. , DO card 8 Channels - 2 Nos. - 1 Set Datapoints - 15 Nos. approx. - 1 Set Dual SIM Modem - 1 No.</p> | | | | | | | |
| | | Feeder Pillar Panel | | | | | | | |

| | | | | | | | |
|-----------|-----------------------|---|-------|------|-----------|-----------|---------------------|
| | | Supply, installation, testing and commissioning of feeder pillar panels suitable for AC 440 V , 50 HZ supply, fabricated with 14 gauge galvanised steel sheet duly pre-treated and pure polyester thick powder coated 80 micron thickness using Siemens grey colour shade no. RAL-7032 / any other colour if required by client. The feeder pillar shall be double door in cubical formation, compartmentalized in form with front open able doors. The door shall be provided with concealed hinges and with brazing wherever required to avoid deformation and shall be earthed. All the door shall have heavy duty door locks, and shall be sealed with neoprene gaskets. The feeder pillar shall be IP 55, outdoor type weather , dust and vermin proof having canopy type tapered roof self-standing type as per approved GA diagram. Panels shall have lifting hooks and base channel of size 50 x 40 x 6 mm | 96 | Each | 95,000.00 | 95,000.00 | 91,20,000.00 |
| | Non SOR | The feeder pillar shall be complete with bus bars, wiring, cabling of proper ratings (not less than 1.5 times the rating of respective switchgears, control gear etc.) for inter connection between switch gear, control gear, metering , safety relays, indicators etc. as per the approved single line diagram. The feeder pillar shall have proper arrangement for termination of all incoming and out goings cables. All the bus bars shall be supported on epoxy supports and shall be insulated with colour coded heat shrinkable sleeves. Feeder pillar shall be as per the space available at site. It shall have earthing bolts at both sides inter connected with 50x5 mm Al earthing bus along the width of feeder pillar. Note:-The GA drawing for panel should be approved by consultant / engineer in charge before fabrication. The feeder pillar shall have space and proper arrangements for installation of incoming and outgoing MCCBs with R,Y,B LED type indicating lamps. | | | | | |
| | | MCCBs etc. complete with interconnection provisions with providing wiring and bus bars with required hardware, sleeves, ferrules, supporters, locks etc. Panel shall have proper space and arrangements for termination of incomer loop in loop out cables, outgoing service cables, with proper offsets in bus bars for cable terminations. Feeder Pillar shall be comprising of following items: | | | | | |
| | | Rating of incomer MCCB TPN 250 A, 35KA (Adjustable | | | | | |
| | | thermal O/L with Ics = 100% Icu).-02 Nos | | | | | |
| | | Outgoing MCB 10KA of 40A SP -75 nos, 10A TPN-2 Nos. , 100A SP-6 Nos, | | | | | |
| | | The feeder pillar should have anti-theft tamper proof feature to automatically send SMS alert if door opening is attempted by unauthorised person. | | | | | |
| 61 | UADD SOR 4.3 | Supplying and drawing single core PVC insulated cable FR with copper multi strand conductor ISI marked in existing rigid conduit in surface or concealed as per specification. | | | | | |
| 62 | UADD SOR 4.3.2 | 2.5 Sq mm cable | | | | | |
| | 8 | 8 X 2.5 sq mm | 1,000 | Mtrs | 255.00 | 229.50 | 2,29,500.00 |
| | 10 | 10 X 2.5 sq mm | 500 | Mtrs | 319.00 | 287.10 | 1,43,550.00 |

| | | | | | | | |
|--------------|---------|--|-----|----|--------|--------|------------------------|
| 63 | Non SOR | <p>Supply, fill and seal expanding spray foam sealant, foam shall designed to fill large areas / Holes quickly and permanently. Uses include filling holes, cracks or gaps that require a complete airtight and waterproof seal but are too large to be filled with ordinary caulk. product shall be free from CFC and environment friendly.</p> <p>Technical Data: Type:Polyurethane, Tack Free:After ± 10 min (at +23°C, 50% RH), Can be cut:After ± 20 min (at +23°C, 50% RH), Tensile Strength:9-10 N/cm², Stability load bearing: After ± 12 hours (at +23°C, 50% RH), Fire rating:B3, Temperature resistance:-40 °C till +90 °C (cured), Box Yield:750 ml yields ca. 35 L of foam</p> | 250 | cc | 350.00 | 350.00 | 87,500.00 |
| Total | | | | | | | 13,26,53,429.84 |

Street Lighting work at Smart Road Phase - 2
TOTAL LENGTH 3000 METERS

| Sr. No. | SOR | Code | Description | Quantity | Rate | Revised Reduced Rates | Unit | Amount |
|---------|----------|----------|--|----------|----------|-----------------------|------|-------------|
| 1 | UADD SOR | 4.3 | CIRCUIT WIRING IN EXISTING CONDUIT / PVC CASING CAPPING: Supplying and drawing single core PVC insulated cable FR with copper multi strand conductor ISI marked in existing rigid conduit in surface or concealed as per specification | | | | | |
| | | 4.3.1 | 1.5 Sq mm cable | | | | | |
| | | 4.3.1.1 | 1 X 1.5 sq mm | 2,000 | 24.00 | 21.60 | Mtrs | 43,200.00 |
| | | 4.3.2 | 2.5 Sq mm cable | | | | | |
| | | 4.3.2.1 | 1 X 2.5 sq mm | 1,000 | 32.00 | 28.80 | Mtrs | 28,800.00 |
| 2 | UADD SOR | 8.5 | Supplying of ISI Marked and accepted standard of Miniature Circuit Breaker (MCB) of 'C' series suitable for 240/415 Volts, 50 Cycle, 10 kA Value AC supply confirming to IS : 8828 : 1996, IEC : 60898 :2002 but without enclosures : | | | | | |
| | | 8.5.1 | SINGLE POLE (SP) | | | | | |
| | | 8.5.1.2 | 6 Amp to 32 Amp Rating | 120 | 166.00 | 149.40 | Each | 17,928.00 |
| | | 8.5.4 | FOR TRIPLE POLE (TP) | | | | | |
| | | 8.5.4.3 | For 40 Amps. Rating only. | 50 | 1,145.00 | 1,030.50 | Each | 51,525.00 |
| 2 | UADD SOR | 8.14 | Fixing of metal clad enclosure on 25X 25 X 5 mm angle iron clamps including supplying and fixing of clamps as required duly embedded in masonry including cable connection and other required material as per specification :- | | | | | |
| | | 8.14.1 | Fixing of 63 Amps TP or TPN main switches/ DB 63 Amps. 240/415 Volt 4 to 8 way or 63 Amps change over switch /63 Amps 415 Volt Isolator /30 Amps 415V TPN DB upto 6 way per pole and busbar 4 way | 50 | 170.00 | 153.00 | Each | 7,650.00 |
| 3 | UADD SOR | 8.16 | Fixing of MCB /MCCB/ Isolator | | | | | |
| | | 8.16.1 | Fixing of MCB / Isolator SP/DP in sheet steel enclosure as required as per accepted practice, including mounting on busbar and cable connection etc. complete (Labour only) | 50 | 10.00 | 9.00 | Each | 450.00 |
| | | 8.16.2 | Fixing of MCB /MCCB Isolator TP /TPN/FP in sheet steel enclosure as required as per accepted practice, including mounting on busbar and cable connection etc. complete. | 50 | 20.00 | 18.00 | Each | 900.00 |
| 4 | UADD SOR | 10.23 | Labour rate for point wiring a Light / Fan / Twin control light / Socket out let on seperate board / Call bell Point in (open) surface rigid PVC conduit system. | 500 | 93.00 | 83.70 | Each | 41,850.00 |
| 6 | UADD SOR | 10.33.15 | Cement concrete grade M-20 (Nominal Mix) with 20mm maximum size of stone aggregate (rate from Building ISSR) | 45 | 4,594.00 | 4,134.60 | Cum | 1,86,057.00 |
| | | 10.33.16 | Cement concrete grade M-15 (Nominal Mix) with 20mm maximum size of stone aggregate (rate from Building ISSR) | 45 | 4,154.00 | 3,738.60 | Cum | 1,68,237.00 |
| 7 | UADD SOR | 11.7 | Supplying and laying 6 SWG G.I. wire at 0.5Meter below ground level as conductor earth electrode including soldering etc. as required. | 500 | 15.00 | 13.50 | Mtrs | 6,750.00 |
| 8 | UADD SOR | 11.34 | Providing and fixing earthing arrangement with 16mm dia 2.5 meter long galvanized iron or steel rod electrode including packing of charcoal powder and salt as per specification watering pipe 19mm dia G.I. Connection etc. complete with refilling the pit as required, but excluding the excavation of earth pit. | 150 | 667.00 | 600.30 | Each | 90,045.00 |
| 9 | UADD SOR | 11.38 | Providing and laying earth Continuity Conductor of 4 Sq mm Aluminium along the run of final sub circuit in PVC conduit in an approved manner. | 3,500 | 8.00 | 7.20 | Mtrs | 25,200.00 |

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|----|-------------|----------|---|-------|-----------|-----------|------|--------------|
| 10 | UADD SOR | 13.10 | Supplying and erection of water tight terminal box of 14 SWG M.S. Sheet 4mm thick box of required size to erect the suitable kit kat / MCB / Switch with Top & bottom folded fitted with rubber ring to make it water tight with pole clamp made from 40x3mm M.S. flat iron with 2 Nos. Nut and Bolts duly painted with 2 coat of Red Oxide paint and 2 coat of Aluminium silver paint erected with cable gland but excluding the cost of the Kit Kat / MCB / Switch complete as per specification: | | | | | |
| | | 13.10.1 | 20x15x15Cms. | 50 | 286.00 | 257.40 | Each | 12,870.00 |
| | | 13.10.2 | 30x20x15 Cms. | 25 | 390.00 | 351.00 | Each | 8,775.00 |
| 11 | UADD SOR | 14.1 | Supply of XLPE Insulated power cable (conforming IS-7098) 1100 Volt grade / Heavy duty power cable conforming to IS 1554-1100 Volts grade, 2 core /3½ core/4 core/ISI MARKED with Alu. Stranded /solid conductor | | | | | |
| | | 14.1.8 | ARMOURED 4 CORE | | | | | |
| | | 14.1.8.1 | 6 Sq.mm.(XLPE) | 500 | 168.00 | 151.20 | Mtrs | 75,600.00 |
| | | 14.1.8.2 | 10 Sq.mm.(XLPE) | 2,000 | 183.00 | 164.70 | Mtrs | 3,29,400.00 |
| | | 14.1.8.3 | 16 Sq.mm.(XLPE) | 3,000 | 229.00 | 206.10 | Mtrs | 6,18,300.00 |
| 12 | UADD SOR | 14.6 | BRASS COMPRESSION GLAND | | | | | |
| | | 14.6.1 | Supplying and fixing heavy duty cable gland for P.V.C. insulated armoured cable with brass washer, Rubber ring complete erected with cable and lead connection etc. as per specification complete. | | | | | |
| | | 14.6.1.1 | Gland Size 22mm suitable for cable 2, 3, 3½ & 4 x upto 6 Sq.mm | 10 | 38.00 | 34.20 | Each | 342.00 |
| | | 14.6.1.2 | Gland Size 22mm suitable for cable 2, 3, 3½, 4 x 10 Sq.mm or 2x 16 Sq.mm | 50 | 44.00 | 39.60 | Each | 1,980.00 |
| 13 | UADD SOR | 14.8 | Supplying and fixing cramping type Alum. lugs as per I.S.S. Specification suitable for following size of cable with Alu. / Copper solid / stranded conductor evenly cramped with high/pressure tool and connected to switch gear / Bus / M.C.C.B./ M.C.B. etc. as required complete. For Conductor Size | | | | | |
| | | 14.8.1 | 6mm to 16 Sq.mm | 500 | 5.00 | 4.50 | Each | 2,250.00 |
| | UADD SOR | 14.10 | CABLE LAYING | | | | | |
| 14 | | 14.10.7 | Laying of one number PVC insulated and PVC sheathed power cable of 1:1 kV grade of size not exceeding 25 Sq.mm in the existing RCC Hume / Stone / Ware / G.I. pipe as required. | 3,000 | 20.00 | 18.00 | Mtrs | 54,000.00 |
| 15 | UADD SOR | 16.7 | Designing & casting with M-20 cement concrete foundation suitable for 9 mtrs. Octagonal poles considering the safe soil bearing capacity at site as 10 T/sqm at 2 mtrs. Depth including excavation, foundation nut bolts in an approved manner. | 120 | 13,500.00 | 12,150.00 | Each | 14,58,000.00 |

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| 16 | UADD SOR | 16.11 | Providing and erecting 25 mt high mast lighting system with 12 nos metal halide flood light fittings of 2x400 watt each complete with control gear and lamps with integral power tool, weight 1000 kg having 3 section hot dip galvanized material as per BSEN ISO 1461 thick of 3 mm & 4 mm dia / 5 mm 150 top and 460 bottom respectively. The mast shall be stress fitted at site as per IS overlap dyanamic loading to with standard maximum wind pressure as per IS 875 part III and parmeters of structures and foundation desingn should be taken form wind tunnel test. The mast shall have lighting protection of GI single spike of 1200 mm length at top. The base inside compartment with double internal lock with adequate size of MCB mounted on PVC board complete with base palte of 30 mm thick 670 mm diameter and foundation bots having 8 nos bots of 30 mm / 850 MM daimeter (TS 600) anchor plate 590 PCD including accessories Viz | 4 | 4,75,000.00 | 4,27,500.00 | Each | 17,10,000.00 |
| | UADD SOR | 16.11 | (1) Lantern carriage of 50 NB ERW calss B pipe covered with PVC sleeves suitable to carry 750 KG load and upto 16 fitting symmmetrically (2) Trailing copper cable of 8x2.5 sqmm EPR insulaed PVC shetehed (3) Double drum winch having gear ration 531 oil bath (SAE/90/140) arrangement to be Type tested from NIT or IIT for (4) 2 nos stainless wire ropes 6 mm diameter (7/19) oreaging load capacity 2400 kg x2 (5) integral power tool 3 phase 1.5 HP 2 m/min single speed Tourque limited 750 Kg (6) Feeder pillar out of 14 SWG CRCA sheet and comparaise of incoming 63 A TPN MCB single dial timer, sutiable size of contractotrs for lighting and power tool, 2 nos. outgoing and reversing switch of motor.Twin doam avation light 2 no.s 100 watt lamp. | | | | | |
| 17 | UADD SOR | 17.4 | Supplying and installing Double wall corrugated pipes (DWC) of HDPE (IS 14930 Part II -marked) for cable laid under ground with necessary connecting sockets / couplings, tees of same material and at required depth upto 90cm. below road / ground surface, including excavation, back filling with excavated material with ramming and making the surface good. | | | | | |
| | | 17.4.1 | 50.00mm outside dia. | 500 | 207.00 | 186.30 | Mtrs | 93,150.00 |
| | | 17.4.2 | 63.00mm outside dia. | 3,000 | 210.00 | 189.00 | Mtrs | 5,67,000.00 |
| 18 | UADD SOR | 289 | Excavation including refilling as required | 100 | 165.00 | 148.50 | Cum | 14,850.00 |
| 19 | PWD SOR 2014 | 42.93 | Providing and erecting hot dipped galvanized octagonal poles in single section made from 3mm thick sheet having lockable weather proof flush door junction box complete erected in an approved manner on provided foundation. Suitable size & type of foundation bolts 4 nos. 'J' type (EN8 grade) | | | | | |
| 20 | PWD SOR 2014 | 42.93.7 | 9 mtrs. Height, 155 X 70mm A/F, 260x260x16mm base plate, 4 nos. X 24 x 750mm bolt | 120 | 24,908.00 | 24,908.00 | Each | 29,88,960.00 |
| 21 | PWD SOR 2014 | 42.94 | Providing and fixing of sword canopy type single arm GI bracket upto 2 Mtr. Long for 70mm A/F top octagonal pole | 80 | 3,478.00 | 3,478.00 | Each | 2,78,240.00 |
| 22 | PWD SOR 2014 | 42.95 | Providing and fixing of sword canopy type double arm GI bracket upto 2 Mtr. Long for 70mm A/F top octagonal pole | 40 | 5,645.00 | 5,645.00 | Each | 2,25,800.00 |

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|----|--------------------|-----------|--|-----|-----------|-----------|------|-----------------------|
| 23 | PWD SOR 2014 | 31.29 | Supplying and fixing street light with high power LED of 1 to 3 W each assembled on single MCPCB, system lumens output with efficacy > 90 lm/W. luminaire having color temp 6500K & 50000 burning hrs life with minimum @ L 70, The colour rendering index of LED light should be more than 70. Luminaire comprises of driver, PF 0.95 & surge protection 3KV. Housing made of pressure die cast aluminium with heat resistant flat glass / Lens type, IP65 protection. Submission LM 80-08 Form LED Source Manufacturer & LM 79-08 / IS16106 from NABL approved lab. Manufacturer mandatory i/c 50mm.dia G.I. Pipe bracket upto 2 mtr. long in required angle / shape, connection lead, testing etc to complete the job. 2 Yrs Guarantee certificate from manufacturer. | | | | | |
| | | 31.29.5 | 120 Watt | 120 | 17,888.00 | 17,888.00 | Each | 21,46,560.00 |
| | | 16.15.4 | Change of timer renowned make | 50 | 3,680.00 | 3,680.00 | Each | 1,84,000.00 |
| 24 | PWD SOR 2014 | 27.16 | Supply & fixing of approved make accepted standard sheet steel enclosure (dust protected) duly powder coated paint Neutral bar suitable for MCB / RCBOs / MCCB of capacity as required etc. complete as per specification (exclusive of M.C.B./ MCCB / RCBOs) | | | | | |
| | | 27.16.1 | For MCB | | | | | |
| | | 27.16.1.1 | DP/TP/FP Enclosure | 50 | 537.00 | 537.00 | Each | 26,850.00 |
| | | | Total | | | | | 1,14,65,519.00 |