

**Name of Work :-** 3054 R & B Cleaning, Repair and Strengthening of various road and supply of machinery, labour and material to maintain the various road Mansa Section under Gandhinagar District Sub Division, District Gandhinagar

**BILL OF QUANTITIES**  
**MEMORANDUM SHOWING THE ITEM OF WORKS TO BE CARRIED OUT**

| Item No. | Description of Item   | Quantity | Unit    | Rate In figures | Amount    |
|----------|---|----------|---------|-----------------|-----------|
| 1        | <b>Clearing and grubbing road land</b> including uprooting rank vegetation grass bushes,shrubs,sapling and trees girth up to 300 mm removal of stumps of trees cut earlier and disposal of unserviceable materials (C) <b>By mechanical means in area of light jungle</b> | 6.40     | Hecter. | 28455.09        | 182112.58 |
| 2        | <b>Preparing surface by brushing</b> with wire brushes for removing caked mud etc. sweeping with brooms and finally fanning the cleaned surface with gunny bags to remove all loose dirt etc. (ii) <b>Black top Surface</b>   | 4250.00  | Sqm.    | 18.38           | 78115.00  |

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|----------|---|----------|------|-----------------|-----------|
| 3        | <b>Box cutting the road to proper slope and camber</b> for making a base for road work including removing the excavated stuff and (Refilling same) depositing on road in layer wise, side slope as directed up to 50mt. lead etc. complete.   | 1275.00  | Cum. | 109.24          | 139281.00 |
| 4        | <b>Earthwork for embankment</b> including breaking clods, dressing with all lead and lift (excluding watering and consolidation) <b>(E) From Borrow area within 3.0 Km. lead</b>  | 160.00   | Cum. | 169.28          | 27084.80  |
| 5        | Providing & laying <b>surface painting with applying VG-40 grade</b> and spraying asphalt with spray set fitted on mechanical bouzer using bitumen at the rate of 5.0 Kg./10 Sqm. On B.T. surface incl. cleaning the surface and flushing the stone dust at 0.30 cmt/10 smt. and rolling with smooth wheeled and penumatic roller and brushing etc. complete. | 8500.00  | Sqm. | 40.14           | 341190.00 |
| 6        | <b>Engaging Unskilled Labour</b> for all type of work as and when required daily as directed by Engineer in Charge.   | 324.00   | Nos. | 491.87          | 159365.88 |

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|----------|--|----------|------|-----------------|------------|
| 7        | <b>Construction of granular Sub base by providing coarse graded material gravel</b> using size 53mm to 26.5 mm@ 35%, 26.5 mm.to 4.75 mm @ 45% and coarse sand @ 20% spreading in uniform layers with motor grader on prepared surface mixing by mix in place method with rotavator at OMC and compacting with vibratory roller to achieve the desired density complete as per Clause 401.2 Table 400.1 <b>grade-III.</b> | 638.00   | Cum. | 799.98          | 510387.24  |
| 8        | Providing, Laying , spreading and compacting graded stone aggregates to <b>Wet Mix Macadam</b> as per MORT & H specification including premixing the material with water at OMC in mechanical mix plant, carriage of mixed material by tippers to site, laying in uniform layers with paver in sub base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.      | 638.00   | Cum. | 1904.72         | 1215211.36 |

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|----------|---|----------|------|-----------------|-----------|
| 9        | Providing and laying 20mm thick mix seal <b>surfacing</b> using stone chips & Aggregate as per MORT & H specification gradation using asphalt VG-40 grade for mixing @ 50.90kg/MT ie. 5.09% of total weight of the mix including heating the aggregate & Asphalt in continuous batching drum mix plant and spreading the same by paver finishing & consolidation with vibratory roller & flushing stone dust @ 0.30 Cum/ 100 Smt. Including providing all materials tools & plants fire wood, oil, kerosene, labour etc. complete using contractor's own machinery drum mix plant & paver finisher etc. complete. | 196.00   | M.T. | 4080.59         | 799795.64 |

| Item No. | Description of Item   | Quantity | Unit | Rate In figures | Amount   |
|----------|---|----------|------|-----------------|----------|
| 10       | <b>Road marking</b> with hot applied thermoplastic paints with reflectorising glass beads on bitumin surface providing and laying a hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads@ 250gms per sqm area, thickness of 2.5mm is xcluding of surface applied glass beds as per IRC:35-2015. The finished surface to be level, uniform and free from streaks and holes. zebra patta /bump patta lane/center line/ edge line/cut patta. The white color marking should Povide liminance coefficinet on cement road shall be min 130 mcd/m2/lux and Asphalt road shall be min 100 mcd/m2/lux during the service life during the day time. The marking should meet the "performance" criteria for night time reflectivity, wet reflectivity and skid resistance as mentioned in the section-15 of IRC 35-2015 warrenty for retro reflectivity shall be two years. | 227.00   | Sqm. | 367.72          | 83472.44 |

| Item No. | Description of Item  | Quantity | Unit | Rate In figures | Amount   |
|----------|--|----------|------|-----------------|----------|
| 11       | <b>Cat Eye / Road Stud/RPM:</b> Supplying Raised Pavement Markers made of polycarbonate and ABS moulded body and reflective panels with Micro prismatic lens (No Glass bead lens) capable of providing total internal reflection of the light entering the lens face and shall support a load of 13635 Kgs. tested in accordance to ASTM D4280 Type H and complying to Specifications of Category A of MORTH Circular No RW/NH/33023/10-97-DO iii 11061997 The height, width and length shall not exceed 20 mm, 130 mm and 130 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 +/- 5 degree. The body of the marker should having finger grip for easy and accurate placement and application with epoxy / bituminous Adhesive as recommended by the manufacturer of the marker. The color of the marker should be as per the IRC 35-2015 and as directed by Engineer-In-charge. | 256.00   | Nos. | 326.23          | 83514.88 |

| Item No. | Description of Item   | Quantity | Unit | Rate In figures | Amount   |
|----------|---|----------|------|-----------------|----------|
| 12       | <b>Cautionary Warning Sign :-</b> Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel); size 90 x 90 x 90 cms. equilateral triangle as per design of IRC-67-2012. Pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ; reflectorised with High Intensity Prismatic Grade retro reflectivesheeting of Type-4 as per ASTM D-4956 and latest M.O.S.T.Specifications; 3.6mtr long stand post of Iron Angle 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 35 x 35 x 3mm; painted with bestquality epoxy coatings in black and white bends. The details of symbol for each board shall be as per the instruction of engineer in charge. | 5.00     | Nos. | 3906.19         | 19530.95 |

| Item No. | Description of Item  | Quantity | Unit | Rate In figures | Amount |
|----------|--|----------|------|-----------------|--------|
|          | The fixing at site shall be in 1:2:4 CC block of size 45 x 45 x 60 Cms. for each leg including excavation, curing etc. complete under the supervision of engineer in charge. A warranty for 7 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. <b>(B) Class-B Type-4 Retro Reflective sheeting</b> |          |      |                 |        |



| Item No. | Description of Item   | Quantity | Unit | Rate In figures | Amount   |
|----------|---|----------|------|-----------------|----------|
| 13       | <b>Regulatory / Mandatory Sign :-</b> Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel); size 60 cms. Dia Circle as per design of IRC-67-2012. Pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ; reflectorised with High Intensity Prismatic Grade retro reflectivesheeting of Type-4 as per ASTM D-4956 and latest M.O.S.T.Specifications; 3.6mtr long stand post of Iron Angle 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 35 x 35 x 3mm; painted with bestquality epoxy coatings in black and white bends. The details of symbol for each board shall be as per the instruction of engineer in charge. | 4.00     | Nos. | 3540.12         | 14160.48 |

| Item No. | Description of Item   | Quantity | Unit | Rate In figures | Amount |
|----------|---|----------|------|-----------------|--------|
|          | The fixing at site shall be in 1:2:4 CC block of size 45 x 45 x 60 Cms. for each leg including excavation, curing etc. complete under the supervision of engineer in charge. A warranty for 7 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. <b>(B) Class-B Type-4 Retro Reflective sheeting.</b> |          |      |                 |        |

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|----------|---|----------|------|-----------------|----------|
| 14       | <b>Hazard Marker Sign</b> :-Providing and fixing sign boards made out of 2.0 mm aluminium sheet / 4 mm ACP (Aluminum composite Panel); size 90x30 cms. rectangular as per design of IRC-67-2012. Pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ;reflectorised with Micro Prismatic Grade retro efiectivesheeting of Type-11 as per ASTM D-4956 and latest M.O.S.T.Specifications; 1.8mtr long stand post of 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 35 x 35 x 3mm; painted with bestquality epoxy coatings in black and white bends. The details of symbol "for each" board shall be as per theinstruction of engineer in charge. | 4.00     | Nos. | 3518.69         | 14074.76 |

| Item No. | Description of Item   | Quantity | Unit | Rate In figures | Amount |
|----------|---|----------|------|-----------------|--------|
|          | <p>The fixing at site shall be in 1:2:4 CC block of size 45 x 45 x 60 Cms. for each leg including excavation, curing etc. complete under the supervision of engineer in charge. A warranty for 10 years for the Retro reflective sheeting from original manufacturer &amp; a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (A) <b>Class-C Type-11 Retro Reflective sheeting</b></p> |          |      |                 |        |

| Item No. | Description of Item  | Quantity | Unit | Rate In figures | Amount   |
|----------|--|----------|------|-----------------|----------|
| 15       | <b>Sign board per Square Meter</b> :-Providing and fixing sign boards made out of 2mm aluminium sheet / 4mm ACP (Aluminum composite Panel); size 1 meter x 1meter as per design of IRC-67- 2012. Pre treated with phospheting process & acid etching; coated with one coat of epoxy primer and two coats of best quality epoxy paint ; reflectorised with High Intensity Prismatic Grade retro reflective sheeting of Type-4 as per ASTM D-4956 and latest M.O.S.T. Specifications; 4 mtr long stand post (2 Nos.) of Iron Angle 75 x 75 x 6mm / 65NB Circular MS Pipe as required and frame fabricated from suitable size iron angle of 50x50x5mm; painted with best quality epoxy coatings in black and white bends. the details of symbol or inscription / numerals for each board shall be as per the instruction of engineer in charge. | 11.00    | Sqm. | 7894.02         | 86834.22 |

| Item No. | Description of Item  | Quantity | Unit | Rate In figures | Amount    |
|----------|--|----------|------|-----------------|-----------|
|          | The fixing at site shall be in 1:2:4 CC block of size 45 x 45 x 60 Cms. for each leg including excavation, curing etc. complete under the supervision of engineer in charge. A warranty for 7 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. <b>(B) Class-B Type-4 Retro Reflective sheeting</b> |          |      |                 |           |
| 16       | <b>Painting two coats</b> (excluding priming coat) on previously painted steel and other metal surface with enamel paint, brushing to give an even shade including cleaning the surface of all dirt, dust and other foreign matter.  | 600.00   | Sqm. | 111.09          | 66654.00  |
| 17       | <b>Finishing wall with weather proof exterior emulsion paint</b> on wall surface (two coats) to give an required shape even shade after thoroughly brushing the surface to remove all dirt, and remains of loose powdered materials.etc complete   | 1200.00  | Sqm. | 120.26          | 144312.00 |

| Item No. | Description of Item   | Quantity | Unit | Rate In figures | Amount   |
|----------|---|----------|------|-----------------|----------|
| 18       | <b>Providing Sona Geru and Lime on Tree</b> of road side as directed by engineer in charge. <b>(A) Girth Upto 300 mm</b>  | 400.00   | Nos. | 40.40           | 16160.00 |
| 19       | <b>Providing Sona Geru and Lime on Tree</b> of road side as directed by engineer in charge. <b>(A) Girth Above 300 mm</b> | 200.00   | Nos. | 60.60           | 12120.00 |

| Item No.  | Description of Item  | Quantity | Unit | Rate In figures | Amount            |
|---|--|----------|------|-----------------|-------------------|
| 20  | <b>Type - A, "W" : Metal Beam Crash Barrier</b><br>(Providing and erecting a "W" metal beam crash barrier comprising of 3 mm thick corrugated sheet metal beam rail, 70 cm above road/ground level, fixed on ISMC series channel vertical post, 150 x 75 x 5 mm spaced 2 m centre to centre, 1.8 m high, 1.1 m below ground/road level, all steel parts and fitments to be galvanised by hot dip process, all fittings to conform to IS:1367 and IS:1364, metal beam rail to be fixed on the vertical post with a spacer of channel section 150 x 75 x 5 mm, 330 mm long complete as per clause 810) | 60.00    | Rmt. | 3468.34         | 208100.40         |
| Rupees Forty two lakhs one thousand four hundred seventy seven and paise Total Rs.<br>sixty three only. |  |          |      |                 | <b>4201477.63</b> |

Executive Engineer,  
Capital Project Division No.3  
Gandhinagar



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|----------|---------------------|----------|------|-----------------|--------|
|----------|---------------------|----------|------|-----------------|--------|

I/We am/are willing to carry out the above work @ \_\_\_\_\_ % below/above percent (should be written in figures and words) of the estimated rates mentioned above Amount of my/our tender works out as under.

Estimated cost put to tender **Rs. 42,01,477=63**

Estimated cost put to tender **Rs. 42,01,477=63**

Deduct \_\_\_\_\_% below

Add \_\_\_\_\_% above

Net

Net

In words

In Words

Note 1 The Contractor shall exhibit a board with detailed specification and details of work as directed by the Engineer-In-Charge for which no extra payment shall be made.

Note 2 The labour cess will be deducted as per prevailing rules i.e. 1% of the work done.

Note 3 GST and Income tax TDS will be deducted at a source while making payments of bills

Note 4 In all R.C.C. Items in Rate Analysis Standard Cement Consumption has been taken as per Govt. G.R.: PRC-10/2017 Cement Consumption/16/C Date: 11/05/2017 as stated in S.O.R. therefore in R.C.C. items where there is a change as per actual mix design the cost of difference of cement consumption have been deducted from the rate of original item at the rate of input rate mentioned in all the tender.

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