Name of work: Civil work for Construction of Hangars, Utility Buildings and Allied facilities for PACKAGE - Civil-III (Overhaul) in factory [Excluding Pre-Engineered Structure(PEB)]

<table>
<thead>
<tr>
<th>S.No</th>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
<th>Rate in figures</th>
<th>Amount</th>
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<tbody>
<tr>
<td></td>
<td><strong>PART-I CIVIL WORKS</strong></td>
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<td></td>
<td><strong>A-LAND DEVELOPMENT AND EARTH WORK :</strong></td>
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<td></td>
<td><strong>Excavation</strong> The Work include leveling the excavated surface to the required</td>
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<td>formation level etc ...bailing out of water from the pit/trenches,</td>
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<td>temporary shoring to prevent falling of mud /soil etc. Removal of slips</td>
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<td></td>
<td>and falls, Observance of all safety precautions as per standard Engineering</td>
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<td>practice and safety rules, Caution to prevent damages to services lines</td>
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<td></td>
<td>cable etc. and making good the same in case of accidental breakage at</td>
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<td>contractors cost, Stacking the soil initially with in a lead of 50 Mtrs. All</td>
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<td>lift and lead as specified in the respective items. Manual excavation at</td>
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<td>areas where cables /pipe lines are likely to intervene. a. Extent and</td>
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<td>depth of replacing virgin soil of swelling nature (&quot;tack Cotton soil&quot;)</td>
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<td></td>
<td>and filling with good quality moorum shall be determined as per the</td>
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<td>recommendation of Geotechnical Investigation Report, and as approved by the</td>
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<td></td>
<td>Consultants and the Owner.</td>
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<td></td>
<td>b.) Place of stacking the excavated earth for reuse in backfilling /</td>
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<td></td>
<td>plinth filling or place of disposal of surplus earth / earth not to be</td>
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<td></td>
<td>used for filling shall be within the Factory premises and shall be as</td>
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<td>decided by the Owner.</td>
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<td>c.) Measurements for excavation shall be in solid measure and same as</td>
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<td></td>
<td>width of base concrete/soling and depth upto bottom level of the same.</td>
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<td></td>
<td>d.) Suitability of backfill / filling material will be decided by the Owner</td>
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<td></td>
<td>&amp; Consultants on the basis of test-results. Tests are to be carried out</td>
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<td></td>
<td>through outside laboratories as approved by the Owner &amp; Consultant. Cost of</td>
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<td>arranging samples and testing shall be borne by the contractor. Rates quoted</td>
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<td>by the Contractor are deemed to be inclusive of the above cost and or other</td>
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<td></td>
<td>incidental expenditure whatsoever required for execution of the item.</td>
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<td>The excavation may be carried out using machinery, however in areas where</td>
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<td>use of machinery is not practical or that may damage the existing structure</td>
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<td>. excavation shall be carried out manually by arranging sufficient labour to</td>
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<td></td>
<td>achieve the desired progress as may be acheived using machinery. The lift</td>
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<td>will be reckoned from the natural ground level (NGL) for the purpose of</td>
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<td></td>
<td>classification of stages of excavation. Before commencement of the work</td>
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<td>the natural ground level (NGL) has to be ascertained after conducting the</td>
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<td></td>
<td>surveying. Subsequent formation levels shall be ascertained by surveying as</td>
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<td>per the requirement as the work proceeds. Bidders shall familiarize with the</td>
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<td></td>
<td>ground condition at their own interest during pre-bid meeting ). The soil</td>
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<td></td>
<td>usefull for filling shall be separated and shall not mix with debris ,</td>
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<td></td>
<td>vegetataion etc.</td>
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<tr>
<td>1</td>
<td><strong>Surface dressing and Clearing</strong> including cutting the heaps and filling in</td>
<td>Sqm</td>
<td>20865.00</td>
<td>21.33</td>
<td>445050.45</td>
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<td></td>
<td>ditches/undulations at an average depth not exceeding 15 cm, to achieve a</td>
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<td></td>
<td>fairly levelled surface including uprooting of vegetation, grass, brush</td>
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<td></td>
<td>wood and saplings of girth upto 30 cm (measured at a height of 1 m above</td>
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<td></td>
<td>ground level), cutting the heaps and filling in ditches, removal and</td>
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<td>disposal of rubbish upto a distance of 1.5 km outside the</td>
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<td></td>
<td>perimeter of the area cleared. ( This item will not be operated in the</td>
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<td></td>
<td>area where excavation under any of the below given items have been</td>
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<td></td>
<td>operated).</td>
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<tr>
<td>S.No</td>
<td>Description</td>
<td>Unit</td>
<td>Quantity</td>
<td>Rate in figures</td>
<td>Amount</td>
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<td>2</td>
<td><strong>Felling of tree</strong> of girths mentioned below including digging out the</td>
<td></td>
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<tr>
<td></td>
<td>roots, levelling of ground, cutting of trunk and branches and initial</td>
<td></td>
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<td></td>
<td>stacking within a lead of 50 mtrs and final disposal of trees including</td>
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<td></td>
<td>unserviceable material upto a distance of 1.50KM outside the periphery of</td>
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<td></td>
<td>the area complete as directed by Engineer In Charge.</td>
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<td></td>
<td>a) Exceeding 30cm and not exceeding 100cm Each</td>
<td>200.00</td>
<td>411.39</td>
<td>82278</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) Exceeding, 100cm and not exceeding 150cm Each</td>
<td>50.00</td>
<td>642.97</td>
<td>32148.5</td>
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</tr>
<tr>
<td></td>
<td>c) Exceeding, 150cm and not exceeding, 200cm Each</td>
<td>25.00</td>
<td>1542.68</td>
<td>38567</td>
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</tr>
<tr>
<td></td>
<td>d) Exceeding, 200cm and not exceeding, 250cm Each</td>
<td>5.00</td>
<td>2571.12</td>
<td>12855.6</td>
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</tr>
<tr>
<td></td>
<td>e) Exceeding, 250cm and not exceeding 300cm Each</td>
<td>5.00</td>
<td>3085.35</td>
<td>15426.75</td>
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<tr>
<td>3</td>
<td>**Earth work in surface excavation in all kinds of soil not exceeding 30cm</td>
<td>Sqm</td>
<td>7437.00</td>
<td>40.5</td>
<td>301198.5</td>
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<td></td>
<td>in depth but exceeding 1.5m in width as well as 10 Sqm on plan including</td>
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<td></td>
<td>disposal of excavated earth upto 50m and lift upto 1.5m, disposed soil to</td>
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<td></td>
<td>be levelled and neatly dressed.</td>
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<td>4</td>
<td><strong>Excavation over areas</strong> by using mechanical excavators/ manually</td>
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<td></td>
<td>including uprooting of vegetation, grass, brush wood and saplings of girth</td>
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<td></td>
<td>upto 30 cm (measured at a height of 1 m above ground level), cutting the</td>
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<td></td>
<td>heaps and filling in ditches including transporting and stacking materials</td>
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<td>suitable for backfilling with in a lead of 50 m within the factory premises</td>
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<td>, complete with all equipment, labour complete as directed by the</td>
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<td></td>
<td>consultant and Engineer In Charge.</td>
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<tr>
<td></td>
<td>i) Depth of excavation not exceeding 1.50 mtrs</td>
<td>Cum</td>
<td>16714.00</td>
<td>89.57</td>
<td>1497072.98</td>
</tr>
<tr>
<td></td>
<td>a) Soft / Loose Soil</td>
<td>Cum</td>
<td>38676.00</td>
<td>102.75</td>
<td>3973959</td>
</tr>
<tr>
<td></td>
<td>b) Hard / Dense Soil</td>
<td>Cum</td>
<td>6142.00</td>
<td>231.39</td>
<td>1421197.38</td>
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<tr>
<td></td>
<td>ii) Depth exceeding 1.50mt but not exceeding 3.00mt</td>
<td>Cum</td>
<td>382.00</td>
<td>125.6</td>
<td>47979.2</td>
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<td></td>
<td>a) Soft / Loose Soil</td>
<td>Cum</td>
<td>15.00</td>
<td>138.53</td>
<td>2077.95</td>
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<td></td>
<td>b) Hard / Dense Soil</td>
<td>Cum</td>
<td>7277.00</td>
<td>251.94</td>
<td>1833367.38</td>
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<tr>
<td></td>
<td>iiI) Depth exceeding 3.00mt but not exceeding 4.50mt</td>
<td>Cum</td>
<td>1318.00</td>
<td>365.92</td>
<td>482282.56</td>
</tr>
<tr>
<td></td>
<td>a) Soft / Disintegrated Rock</td>
<td>Cum</td>
<td>35.00</td>
<td>462.77</td>
<td>16196.95</td>
</tr>
<tr>
<td></td>
<td>b) Depth exceeding 1.50mt but not exceeding 3.00mt</td>
<td>Cum</td>
<td>676.00</td>
<td>565.53</td>
<td>382298.28</td>
</tr>
<tr>
<td></td>
<td>c) Depth exceeding 3.00mt but not exceeding 4.50mt</td>
<td>Cum</td>
<td>172.00</td>
<td>693.41</td>
<td>119266.52</td>
</tr>
<tr>
<td></td>
<td>iii) Depth exceeding 3.00mt but not exceeding 4.50mt</td>
<td>Cum</td>
<td>35.00</td>
<td>539.65</td>
<td>18887.75</td>
</tr>
<tr>
<td></td>
<td>a) Soft / Disintegrated Rock</td>
<td>Cum</td>
<td>15.00</td>
<td>689.61</td>
<td>10344.15</td>
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<tr>
<td>5</td>
<td>Same as item above but excavation in Hard Rock <em>by Chiselling</em> using</td>
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<td></td>
<td>pneumatic breakers or other mechanical means.</td>
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<tr>
<td></td>
<td>a) Depth of excavation not exceeding 1.50 mtrs</td>
<td>Cum</td>
<td>35.00</td>
<td>462.77</td>
<td>16196.95</td>
</tr>
<tr>
<td></td>
<td>b) Depth exceeding 1.50mt but not exceeding 3.00mt</td>
<td>Cum</td>
<td>676.00</td>
<td>565.53</td>
<td>382298.28</td>
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<tr>
<td></td>
<td>c) Depth exceeding 3.00mt but not exceeding 4.50mt</td>
<td>Cum</td>
<td>172.00</td>
<td>693.41</td>
<td>119266.52</td>
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<td>6</td>
<td>Same as item above but excavation in Hard Rock <em>by Control Blasting.</em></td>
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<tr>
<td></td>
<td>a) Depth of excavation not exceeding 1.50 mtrs</td>
<td>Cum</td>
<td>35.00</td>
<td>539.65</td>
<td>18887.75</td>
</tr>
<tr>
<td></td>
<td>b) Depth exceeding 1.50mt but not exceeding 3.00mt</td>
<td>Cum</td>
<td>15.00</td>
<td>689.61</td>
<td>10344.15</td>
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<td></td>
<td>Excavation in trenches width not exceeding 1.50 mtrs or pits not</td>
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<td></td>
<td>exceeding 10sqm in plan , by using mechanical excavators/ manually and</td>
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<td>including transporting and stacking materials suitable for backfilling</td>
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<td>within a lead of 50 m within the factory premises complete with all</td>
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<td>equipment, labour complete as directed by the EIC as per specifications.</td>
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<td></td>
<td>(The item include uprooting of vegetation, grass, brush wood and saplings of</td>
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<td></td>
<td>girth up to 30 cm (measured at a height of 1 m above ground level) where</td>
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<td>trench excavation commence from the NGL and wherever applicable). The</td>
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<td>different stages of depth will be reckoned considering the NGL as datum</td>
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<td>level)</td>
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<td></td>
<td>i) Depth not exceeding 1.50 mt.</td>
<td>Cum</td>
<td>1822.00</td>
<td>87.53</td>
<td>159479.66</td>
</tr>
<tr>
<td></td>
<td>a) Soft / Loose Soil</td>
<td>Cum</td>
<td>886.00</td>
<td>108.08</td>
<td>95758.88</td>
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<tr>
<td></td>
<td>b) Hard / Dense Soil</td>
<td>Cum</td>
<td>75.00</td>
<td>212.07</td>
<td>15905.25</td>
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<td></td>
<td>ii) Depth exceeding 1.50mt but not exceeding 3.00mt</td>
<td>Cum</td>
<td>112.00</td>
<td>110.37</td>
<td>12361.44</td>
</tr>
<tr>
<td></td>
<td>a) For Soft / Loose Soil</td>
<td>Cum</td>
<td>355.00</td>
<td>128.64</td>
<td>45667.2</td>
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<tr>
<td></td>
<td>b) For Hard / Dense Soil</td>
<td>Cum</td>
<td>100.00</td>
<td>354.69</td>
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</tbody>
</table>

(Signature of Contractor with Seal)
### B-PLAIN AND REINFORCED CEMENT CONCRETE:

<table>
<thead>
<tr>
<th>S.No</th>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
<th>Rate in figures</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>9</td>
<td>a) Depth not exceeding 1.50 mt</td>
<td>Cum</td>
<td>15.00</td>
<td>462.77</td>
<td>6941.55</td>
</tr>
<tr>
<td></td>
<td>b) Depth exceeding 1.50mt but not exceeding 3.00mt</td>
<td>Cum</td>
<td>30.00</td>
<td>565.77</td>
<td>16973.1</td>
</tr>
<tr>
<td></td>
<td>c) Depth exceeding 3.00 mtrs but not exceeding 4.50 Mtr.</td>
<td>Cum</td>
<td>30.00</td>
<td>693.41</td>
<td>20802.3</td>
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<tr>
<td>10</td>
<td>Same as item above but excavation in Hard Rock by Control Blasting.</td>
<td>Cum</td>
<td>6.00</td>
<td>487.89</td>
<td>2927.34</td>
</tr>
<tr>
<td></td>
<td>b) Depth exceeding 1.50mt but not exceeding 3.00mt</td>
<td>Cum</td>
<td>24.00</td>
<td>539.65</td>
<td>12951.6</td>
</tr>
<tr>
<td></td>
<td>Removing excavated surplus material to a distance not exceeding exceeding</td>
<td>Cum</td>
<td>1773.00</td>
<td>54.98</td>
<td>975235.24</td>
</tr>
<tr>
<td></td>
<td>1.50 km including spreading and levelling at a level not exceeding 1.50 mtrs above the starting point complete as specified and as directed.</td>
<td>Cum</td>
<td>887.00</td>
<td>159.44</td>
<td>141423.28</td>
</tr>
<tr>
<td></td>
<td>i) Soil/spoil (Excavation quantity measured under hard rock (either by</td>
<td>Cum</td>
<td>3326.00</td>
<td>60.89</td>
<td>2025262.29</td>
</tr>
<tr>
<td></td>
<td>chiselling or blasting) will be paid under this item. Hard rock remain in</td>
<td>Cum</td>
<td>1623.00</td>
<td>95.02</td>
<td>155515.86</td>
</tr>
<tr>
<td></td>
<td>boulders shall be stacked properly at specified location as directed by the consultant and Engineer In Charge.</td>
<td>Cum</td>
<td>500.00</td>
<td>150.99</td>
<td>75495</td>
</tr>
<tr>
<td>11</td>
<td>Removing excavated surplus material to a distance not exceeding exceeding</td>
<td>Cum</td>
<td>23816.00</td>
<td>67.8</td>
<td>1614724.8</td>
</tr>
<tr>
<td></td>
<td>1.50 km including spreading and levelling at a level not exceeding 1.50 mtrs above the starting point complete as specified and as directed.</td>
<td>Cum</td>
<td>500.00</td>
<td>150.99</td>
<td>75495</td>
</tr>
<tr>
<td></td>
<td>ii) With soft disintegrated rock</td>
<td>Cum</td>
<td>1623.00</td>
<td>95.02</td>
<td>155515.86</td>
</tr>
<tr>
<td></td>
<td>Filling in plinth, underfloors and similar situations with approved quality</td>
<td>Cum</td>
<td>23816.00</td>
<td>67.8</td>
<td>1614724.8</td>
</tr>
<tr>
<td></td>
<td>(as approved by the Consultants &amp; Owner) murum brought from outside including excavation and all charges on account of royalty etc., spreading the same in layers not exceeding 15 cm. thickness including watering, consolidating each layer adequately so as to obtain at least 95% of standard proctor density as relative compaction including finishing to the required levels etc. complete as directed. (Work include all testing from outside laboratory as required to ensure the compaction)</td>
<td>Cum</td>
<td>500.00</td>
<td>150.99</td>
<td>75495</td>
</tr>
<tr>
<td></td>
<td>Providing and injecting chemical emulsion for pre-constructional anti-termite treatment and creating a chemical barrier under and around column pfs, wall trenches, basement excavation, top surface of plinth, filling, junction of wall &amp; floor, along external perimeter of building, expansion joints, surrounding of pipes &amp; conduits etc. complete as per IS specifications (IS:6313) (measurement on the basis of plinth area of building only) The treatment shall be guaranteed for a period of 10 years ( defect liability period) from the date of completion of the contract as a whole and required to submit a guarantee bond on stamp paper. In addition 10% of the value of the item will be retained from the final bill for the defect liability period of this item. The contractors may also submit a bank guarantee for an equal amount separately or in combination with other such items having longer defect liability period)</td>
<td>Sqm</td>
<td>23816.00</td>
<td>67.8</td>
<td>1614724.8</td>
</tr>
</tbody>
</table>

### Notes:
- a. ±0.00 M level corresponds to finished ground floor level of respective structures.
- b. Unless stated otherwise, the rates shall include for the works to be carried out at all levels and for all linear shapes and sizes. Rates shall also include for dewatering wherever necessary.
- c. Rates shall include supply of all the required materials by the contractor including inserts, embedments and bolts, etc. and cost of all equipment, Plant, Machineries and labour unless otherwise specifically indicated.
<table>
<thead>
<tr>
<th>S.No</th>
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<th>Rate in figures</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Providing and laying <strong>plain cement concrete</strong> including necessary shuttering in leveling courses under foundations, pipelines, pilts, under floors and all other allied works whatsoever required for completion of the building, at any place, level and locations all as directed by the consultant and Engineer in Charge and as detailed in the drawing.</td>
<td>Cum</td>
<td>97.00</td>
<td>2718.48</td>
<td>263692.56</td>
</tr>
<tr>
<td>2</td>
<td>a) <strong>M 25 RCC for Columns, pillars, piers, posts, struts and the like.</strong></td>
<td>Cum</td>
<td>6675.00</td>
<td>2586.06</td>
<td>17261950.5</td>
</tr>
<tr>
<td>3</td>
<td>b) <strong>M 25 RCC for Beams, cantilevers, bressummers, lintels and the like.</strong></td>
<td>Cum</td>
<td>755.00</td>
<td>3131.32</td>
<td>2364146.6</td>
</tr>
<tr>
<td>4</td>
<td>c) <strong>M 25 RCC for fins, mullions, canopies, chajjas, fascias, drop walls shelves and the like.</strong></td>
<td>Cum</td>
<td>275.00</td>
<td>3131.32</td>
<td>861113</td>
</tr>
<tr>
<td>5</td>
<td>Providing and laying in position <strong>Reinforced cement concrete</strong> machine batched, machine mixed and machine vibrated design mix cement concrete of below specified grade for structural elements excluding the cost of centering, shuttering and reinforcement, including adding admixtures in recommended proportion (as per IS 9103) to accelerate or retard the setting of concrete, improve workability without impairing strength and durability, necessary curing etc., complete as directed and working at all levels and heights. (reinforcement and form work will be paid separately under relevant items) Minimum quantity of cement for M-25 grade concrete shall be 360 kgs/Cum using 43 grade OPC.(Ordinary portland cement).</td>
<td>Cum</td>
<td>1593.00</td>
<td>4051.24</td>
<td>6453625.32</td>
</tr>
<tr>
<td>6</td>
<td>Cement to be used for this item shall be of 43 Grade OPC conforming to IS 8112 and the minimum quantity specified shall be ensured. In case of non availability of cement in the market due to unforeseen reasons, OPC -53 grade cement conforming to IS 12289 will be allowed in place of 43 grade cement on establishment of its suitability supported with testing documents. In both the cases the mix design is to be obtained by the contractor to achieve the desired results. No extra payment will be allowed towards whatsoever the expenditure may incur due to this change and the contractor shall absorb all such cost by himself and shall give the desired results.</td>
<td>Cum</td>
<td>46.00</td>
<td>4051.24</td>
<td>186357.04</td>
</tr>
<tr>
<td>7</td>
<td>a) <strong>M 25 RCC for foundations, including rafts, footings, foundation beams; plinth beams; bases for columns, etc.;</strong></td>
<td>Cum</td>
<td>7959.00</td>
<td>3724.09</td>
<td>29640032.31</td>
</tr>
<tr>
<td>8</td>
<td>b) <strong>M 25 RCC for Walls, retaining walls, basement walls, ballast walls and the like of any thickness; above or below ground level.</strong></td>
<td>Cum</td>
<td>1349.00</td>
<td>3724.09</td>
<td>5023797.41</td>
</tr>
<tr>
<td>9</td>
<td>c) <strong>M 25 RCC for Slabs , roofs, landings, balconies, canopies, deck slabs shelves and the like.</strong></td>
<td>Cum</td>
<td>1593.00</td>
<td>4051.24</td>
<td>6453625.32</td>
</tr>
<tr>
<td>10</td>
<td>d) <strong>M 25 RCC for fins, Mullions, canopies, chajjas, fascias, drop walls (vertical/sloping etc).</strong></td>
<td>Cum</td>
<td>46.00</td>
<td>4051.24</td>
<td>186357.04</td>
</tr>
<tr>
<td>11</td>
<td>e) <strong>M 25 RCC for Beams, cantilevers, bressummers, lintels and the like.</strong></td>
<td>Cum</td>
<td>275.00</td>
<td>4051.24</td>
<td>1114091</td>
</tr>
<tr>
<td>12</td>
<td>f) <strong>M 25 RCC for Columns, pillars, piers, posts, struts and the like.</strong></td>
<td>Cum</td>
<td>264.00</td>
<td>4051.24</td>
<td>1069527.36</td>
</tr>
</tbody>
</table>

(Signature of Contractor with Seal)

4
<table>
<thead>
<tr>
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<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>Providing and mixing integral waterproofing compound in concrete/Plaster as per manufacturer’s specifications (to be operated with prior permission from the EIC and Consultant)</td>
<td>Kgs</td>
<td>19202.00</td>
<td>26.96</td>
<td>517685.92</td>
</tr>
<tr>
<td>17</td>
<td>Providing &amp; laying in position position High Yield strength deformed reinforcement bars TMT bars conforming to IS:1786 (Minimum Fe 415 Grade) or mild steel plain round bars conforming to Grade I (IS:432) of all diameters including cutting, placing, binding with soft binding wires conforming to IS 280 , including all spacers, chairs etc. complete as directed. (authorized laps and chairs will measured and paid)</td>
<td>Kgs</td>
<td>1148351.00</td>
<td>4.05</td>
<td>4650821.55</td>
</tr>
<tr>
<td>18</td>
<td>Cutting holes into or through concrete of any grade at any level and position as required and as directed by the consultant and Engineer in Charge. (This item will be operated only in case the requirement of openings have been ordered openings ordered subsequent to construction of structure and the service lines or the requirement of openings etc. were not shown in the drawings issued till the date of construction of that part of work. Openings required for all the services or any other specified openings as per the drawings supplied shall be made by the contractor as per requirement and this item will not be operated for such items.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a)Holes upto &amp; including 100cm² in area:</td>
<td>Per CM Depth</td>
<td>250.00</td>
<td>253.78</td>
<td>63445</td>
</tr>
<tr>
<td></td>
<td>b)Holes exceeding 100cm² but not exceeding 250cm² in area</td>
<td>Per CM Depth</td>
<td>250.00</td>
<td>355.13</td>
<td>88782.5</td>
</tr>
<tr>
<td></td>
<td>c)Holes exceeding 250cm² in area 500cm² in area</td>
<td>Per CM Depth</td>
<td>250.00</td>
<td>557.84</td>
<td>139460</td>
</tr>
<tr>
<td></td>
<td>d)Holes exceeding 500cm² in area 1000cm² in area</td>
<td>Per CM Depth</td>
<td>250.00</td>
<td>659.19</td>
<td>164797.5</td>
</tr>
<tr>
<td>19</td>
<td>Cutting a holes in masonry as required, for services at any level and position as required complete as directed by the consultant and Engineer in Charge. (This item will be operated only in case of openings ordered subsequent to construction of structure and not originally shown in the drawing. Openings required for normal services as per the drawings supplied shall be made by the contractor as per requirement and this item will not be operated for such items.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a)Holes upto &amp; including 150cm² in area:</td>
<td>Per CM Depth</td>
<td>250.00</td>
<td>177.19</td>
<td>44297.5</td>
</tr>
<tr>
<td></td>
<td>b)Holes exceeding 150cm² but not exceeding 400cm² in area</td>
<td>Per CM Depth</td>
<td>250.00</td>
<td>278.55</td>
<td>69637.5</td>
</tr>
<tr>
<td></td>
<td>c)Holes exceeding 400cm² in area 1000cm² in area</td>
<td>Per CM Depth</td>
<td>250.00</td>
<td>407.44</td>
<td>101860</td>
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</tbody>
</table>

**CENTERING AND FORM WORK.**
<table>
<thead>
<tr>
<th>S.No</th>
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<th>Unit</th>
<th>Quantity</th>
<th>Rate in figures</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>Providing, fabricating and erecting form work at all levels and places wherever needed/specfied as per drawing including striking with 12mm Plastic coated, marine resistant waterproof ply/MDF board with adjustable steel props of acceptable Staging system and with sufficient bracing as approved by consultant. Cost to include designing of proper form work and staging system to suit the requirements, Submission of design calculations and shop drawings for approval, sealing the joints with heavy duty brown self adhesiv tape, aligning to line and levels including M.S. Ties, PVC Spacer, Providing openings/ cutouts/ pockets, applying deshuttering chemical, Deshuttering all as approved by the consultant and Engineer In Charge etc., complete at all levels and heights.</td>
<td>Sqm</td>
<td>11953.00</td>
<td>124.03</td>
<td>1482530.59</td>
</tr>
<tr>
<td></td>
<td>a) Foundations, Footings, rafts, Grade Slab and Pedestals and Plinth Beams / Grade Beams and like</td>
<td>Sqm</td>
<td>13252.00</td>
<td>139.12</td>
<td>1843618.24</td>
</tr>
<tr>
<td></td>
<td>b) Retaining wall, Shear walls and other RCC walls</td>
<td>Sqm</td>
<td>3326.00</td>
<td>172.5</td>
<td>573735.00</td>
</tr>
<tr>
<td></td>
<td>c) Suspended floors / Roofs, deck slab, landing slab, and like</td>
<td>Sqm</td>
<td>4134.00</td>
<td>172.5</td>
<td>713115.00</td>
</tr>
<tr>
<td></td>
<td>d) Columns, pillars, posts, struts and the like.</td>
<td>Sqm</td>
<td>2469.00</td>
<td>177.96</td>
<td>439383.24</td>
</tr>
<tr>
<td></td>
<td>e) Lintels, Beams, Brackets including inclined beams and like</td>
<td>Sqm</td>
<td>138.00</td>
<td>177.96</td>
<td>24558.48</td>
</tr>
<tr>
<td></td>
<td>f) Chajjas, Parapets, Facias and like</td>
<td>Sqm</td>
<td>124.03</td>
<td>177.96</td>
<td>22931.88</td>
</tr>
<tr>
<td></td>
<td>g) Staircases with sloping or stepped soffits including risers and stringers and like but excluding landings.</td>
<td>Sqm</td>
<td>478.00</td>
<td>167.18</td>
<td>79912.04</td>
</tr>
<tr>
<td>21</td>
<td>Providing and laying 70 mm average thick PCC 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) for plinth protection including finishing the top smooth with a floating coat of neat cement finish using extra cement and making provision for 12mm wide grooves at every 2.0mt interval along the length and at wall junctions including filling the joints with sand etc., complete as directed. (Hardcore will be paid separately under respective item.)</td>
<td>Sqm</td>
<td>548.00</td>
<td>215.71</td>
<td>118209.08</td>
</tr>
<tr>
<td>22</td>
<td>Hardcore of gauge not exceeding 63 mm deposited, spread and levelled in layers not exceeding 15 cm thick, watered and consolidated by ramming and blinded with murroon to form a true surface complete as directed by the consultant and Engineer In Charge.</td>
<td>Cum</td>
<td>55.00</td>
<td>4623.95</td>
<td>254317.25</td>
</tr>
<tr>
<td>23</td>
<td>Providing Epoxy resin concrete bonding agent for jointing old concrete and new concrete surfaces including cleaning of old surface and applying the chemical etc as per manufacturers specifications all complete and as directed by EIC. (Products manufactured by Fosroc, Pidilite, BASF, SIKA)</td>
<td>Litre</td>
<td>429.00</td>
<td>187.61</td>
<td>80484.69</td>
</tr>
<tr>
<td>24</td>
<td>Providing and Mixing ordinary portland or portland pozzolana or portland slag Cement in Reinforced Cement Concrete works as per the design requirement and as instructed by the consultant and Engineer In Charge. This item will be ordered for specific structure ordered by the consultant as per technical / design requirement.</td>
<td>Kgs</td>
<td>500.00</td>
<td>7.7</td>
<td>3850.00</td>
</tr>
</tbody>
</table>

**SUB TOTAL (B)**: 75944011

**D- MASONRY, PLASTERING AND PAINTING:**

**Notes**: (the following notes shall be applicable to all relevant items in this Bill of Quantities)

- a. Only flat area of wall shall be considered for measurements of plastering. Jams, sills, heads will not be considered except where the opening size is more than 3.00 Sqm.
- b. The brick shall have a minimum compressive strength of 3kgs/Sqcm.
- c. Hacking of concrete surface and providing and fixing 100 mm wide chicken wire mesh at the joints of dissimilar materials (like masonry and concrete) before plastering shall be included in the rate for all plastering items. Chicken mesh will not be paid separately. The rate shall include all consumables like nails and material required for fixing the chicken mesh.
- d. Only first quality paint of approved manufacturer shall be used. Preparation of surface as per recommendation of the paint manufacturer shall be included in the rate quoted for painting / finishing items

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</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>Providing &amp; constructing UCR Masonry wall at any height and level above or below ground level using best quality quarried stone, bonded, bedded and solidly hearted in Cement Mortar 1:6 including provision of bond stones not less than 2 nos. per Sqm of face and staggered, corner stones 'wherever required, including necessary scaffolding for working at all levels and heights, curing complete as specified and as directed by the Engineer In Charge. Note: a) Instead of stone bond stones Pre-cast concrete bond stones of cross sectional size minimum 150 mm x 150 mm and to full width of wall in cement concrete 1:3: 6 using '20 mm and down graded stone aggregate can be used for the UCR work. The item of UCR wall will be measured inclusive of pre-cast bond stones and no deduction will be made from the UCR wall for the volume occupied by pre-cast bond stones and no separate payment will be made for concrete bond stones. (b) Corner stones shall be used at corners which shall be prepared specifically to use as corner stones is not done satisfactorily.</td>
<td>Cum</td>
<td>629.00</td>
<td>2765.39</td>
<td>1739430.31</td>
</tr>
<tr>
<td>41</td>
<td>Providing flush pointing to stone masonry in cement mortar 1:3 (1 cement :3 fine sand) including raking of joints, watering, proper finishing, curing including necessary scaffolding and working platforms as necessary complete as specified at all locations and levels.</td>
<td>Sqm</td>
<td>450.00</td>
<td>85.32</td>
<td>38394</td>
</tr>
<tr>
<td>42</td>
<td>Providing and constructing one brick thick size or more brick masonry work with sub class B bricks minimum compressive strength of 35kg/sq cm in cement mortar 1:6 (1 cement : 6 coarse sand) in straight or curved in plan at all heights and locations including scaffolding, staging, curing etc., complete.</td>
<td>Cum</td>
<td>2526.00</td>
<td>2544.47</td>
<td>6427331.22</td>
</tr>
<tr>
<td>43</td>
<td>Providing and constructing half brick wall with sub class - B bricks with minimum compressive strength of 35kg/sq cm in cement mortar 1:4 (1 cement : 4 coarse sand ) proportion in straight or curved in plan in walls at all heights and levels including scaffolding, curing and providing RCC band or reinforcement at suitable spacing as directed by the consultant and Engineer In Charge complete at all levels and locations and as directed . (Reinforcement and concrete band shall be provided as directed and the same will be paid separately under respective items)</td>
<td>Sqm</td>
<td>846.00</td>
<td>360.33</td>
<td>304839.18</td>
</tr>
<tr>
<td>44</td>
<td>Providing and rendering 5mm thick sand faced plaster in CM 1:4 on a base coat of cement plaster in CM 1:4 to the bottom of chajja, weather shades etc., surface trowelled to a smooth and even surface incl. preparation of surface, scaffolding, curing and finishing at all levels/heights and locations all as directed</td>
<td>Sqm</td>
<td>2106.00</td>
<td>108.94</td>
<td>229427.64</td>
</tr>
<tr>
<td>45</td>
<td>Providing and rendering 5mm thick cement plaster in CM 1:4 on ceiling including providing neenu finish to a thickness of about 1.5mm, finishing to smooth and even surface, including preparation of surface, necessary scaffolding, cleaning, curing at all levels/height and locations complete as specified and as directed.</td>
<td>Sqm</td>
<td>1652.00</td>
<td>68.56</td>
<td>113261.12</td>
</tr>
<tr>
<td>46</td>
<td>Providing and rendering 15 mm thick cement plaster in cement mortar 1:6 (1 cement :6 fine sand) using screened clean sand on internal surfaces of brick or concrete surfaces including providing steel trowel including preparation of surface, scaffolding, curing etc., at all levels/heights and locations complete as specified and as directed.</td>
<td>Sqm</td>
<td>16745.00</td>
<td>90.66</td>
<td>1518101.7</td>
</tr>
</tbody>
</table>

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<table>
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</thead>
<tbody>
<tr>
<td>47</td>
<td>Providing and rendering 15 mm thick cement plastering on external surfaces of brick or concrete surfaces in two layers consisting of 5 mm thick sand faced plaster in cement mortar 1:4 (1 cement :4 fine sand) top coat mixed with integral water proofing compound and specified fibers over a base coat of 10 mm thick rendering in cement mortar 1:4 (1 cement :4 coarse sand), forming key to receive the finishing coat including necessary scaffolding and curing etc. complete at all heights. (Integral Water proofing Compound and Fibres will be paid separately under respective item.)</td>
<td>Sqm</td>
<td>9120.00</td>
<td>125.7</td>
<td>1146384</td>
</tr>
<tr>
<td>48</td>
<td>Providing and rendering 15 mm thick water proof cement plaster in cement mortar 1:4 (1 cement :4 fine sand) on brick or concrete surfaces using screened clean sand and water proofing compound of approved make (water proofing compound will be paid separately), including finishing with extra cement @ 1.38kgs/Sqm, finished smooth including preparation of surface, scaffolding, curing etc., at all levels/heights and locations complete as specified and as directed.</td>
<td>Sqm</td>
<td>5991.00</td>
<td>131.03</td>
<td>785000.73</td>
</tr>
<tr>
<td>49</td>
<td>Providing and finishing the plastered or concrete surface using extra Cement @ 1.38 Kgs/Sqm to get neat cement finish as per requirement etc., working at any level, height and location complete as directed by the consultant and Engineer - in - Charge</td>
<td>Sqm.</td>
<td>200.00</td>
<td>44.95</td>
<td>8990</td>
</tr>
<tr>
<td>50</td>
<td>Providing and applying approved quality paints in required shade and colour as per colour scheme and technical specifications: -</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Zinc chromate Primer and 2 coats of synthetic enamel paint to steel surface</td>
<td>Sqm</td>
<td>12099.00</td>
<td>57.14</td>
<td>691336.86</td>
<td></td>
</tr>
<tr>
<td>b) Primer and 2 coats of synthetic enamel paint to walls, ceilings etc. (Matt finish paint shall be used for ceiling or other area as directed by the consultant and Engineer In Charge.)</td>
<td>Sqm</td>
<td>564.00</td>
<td>61.63</td>
<td>34759.32</td>
<td></td>
</tr>
<tr>
<td>c) Wood Primer and 2 coats of synthetic enamel paint to wood surface</td>
<td>Sqm</td>
<td>466.00</td>
<td>69.33</td>
<td>32307.78</td>
<td></td>
</tr>
<tr>
<td>d) Two coats of exterior emulsion paint over and including a coat of appropriate primer of same brand/make.</td>
<td>Sqm</td>
<td>7211.00</td>
<td>61.63</td>
<td>444413.93</td>
<td></td>
</tr>
<tr>
<td>e) Two coats of acrylic distemper paint on wall over and including a coat of cement primer of same brand.</td>
<td>Sqm</td>
<td>17309.00</td>
<td>43.91</td>
<td>760038.19</td>
<td></td>
</tr>
</tbody>
</table>

(Note :- This note shall apply to all the relevant items in this BOQ. The surface to be treated with painting are as described under various items/surface finishes specified in this tender or as directed during execution by the consultant and Engineer In Charge. No extra payment will be made for different finishes of plaster. The shade, colour and scheme of painting shall be as directed by the consultant and approved by the Engineer In Charge. The contractor shall make sample colour scheme physically at site as directed by the consultant for approval. No extra payment will be made for making bands, strips, lines or any other architectural features in different shade and colour.)

**SUB TOTAL (D)** | 14274016

**E- FLOORING, TILING AND DADO :**

Notes : (the following notes shall be applicable to all relevant items in this Bill of Quantities)

a. Necessary cut-outs for pockets, openings, trenches, shall be provided without any extra cost.

b. The work and rate shall includes for final preparation of base / sub-floor including minor trimming of the base, cleaning and watering the surface immediately before laying the bedding, rounding off corners / edges / junctions as directed, work in narrow widths and at all heights and locations, cutting, rubbing, polishing where applicable, cement-floating (with matching colours) of joints as required, curing, protection, cleaning with suitable acid / solvent etc. as applicable.

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### S.No Description

<table>
<thead>
<tr>
<th>S.No</th>
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<th>Unit</th>
<th>Quantity</th>
<th>Rate in figures</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>51</td>
<td>Providing and laying granular sub-base consisting of sand, moorum, crushed stone and gravel mixed in proportions as specified below.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>52</td>
<td>Collection of stone/Boulders lying at site or near by area before commencement of work, stacking at suitable location within a lead of 100 mtrs. Breaking the stone to the required size as required for providing soling of specified thickness including laying the stone to required level, gradiant and camber, interstices filled with spalls and moorum, and consolidating with mechanical rammer or rolling with 8%10 Tonne roller wherever practicable including filling voids with approved quality of stone screening and binding material. complete as directed by the EIC.</td>
<td></td>
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</tbody>
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**Sieve designation % by weight passing**

<table>
<thead>
<tr>
<th>Sieve designation</th>
<th>% by weight passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>75mm 100</td>
<td>53mm 80%100</td>
</tr>
<tr>
<td>26.5mm 55%90</td>
<td>9.5mm 35%65</td>
</tr>
<tr>
<td>4.75mm 25%55</td>
<td>2.36mm 20%40</td>
</tr>
<tr>
<td>0.425mm 10%25</td>
<td>0.075mm 3%10</td>
</tr>
</tbody>
</table>

**for sub grade to a compacted specified thickness laid in double layer using good quality graded materials from approved source and mixed in the specified proportion including cost and conveyance of all materials, stacking and mixing in the specified proportion, spreading after mixing to required camber, leveling, watering with all leads to obtain moisture levels of mix between 1% above and 2% below the optimum moisture content at the time of compaction and compacting each layer with suitable vibratory power machine/to obtain the required proctor density including all labour, charges for all tools and plants employed and all their incidental charges etc. complete as per IRC /and MORTH specifications and as directed (NOTE :Granular sub base shall be extended on either side of road/paving minimum 300 mm or as directed by the consultant and Engineer In Charge and the extra width as authorised will be paid under the item as per the actual work carried out. CBR value shall not be less than 20 for sub base )**

(i) 150 mm thickness

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<tr>
<th></th>
<th>Cum.</th>
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<th></th>
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<tbody>
<tr>
<td>907.00</td>
<td>322.79</td>
<td>292770.53</td>
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(ii) 200 mm thickness

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<thead>
<tr>
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<th>Cum.</th>
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<tbody>
<tr>
<td>3580.00</td>
<td>235.74</td>
<td>843949.2</td>
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</table>

**a) 200mm thick**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Sqm</td>
<td>6046.00</td>
<td>149.97</td>
<td>906718.62</td>
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<thead>
<tr>
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<th>Quantity</th>
<th>Rate in figures</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>53</td>
<td>Supplying, stacking and laying of soling under floors and pavements for the following thickness, Using granite or any specified stone boulders, including laying to required level, gradient and camber and consolidating with mechanical rammer or rolling with 8% Tonne roller wherever practicable including filling voids with approved quality of stone screening and binding material complete all as directed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) 200mm thick</td>
<td>Sqm</td>
<td>24183.00</td>
<td>312.78</td>
<td>7563958.74</td>
</tr>
<tr>
<td></td>
<td>b) 150mm thick</td>
<td>Sqm</td>
<td>226.00</td>
<td>265.01</td>
<td>59892.26</td>
</tr>
<tr>
<td></td>
<td>Providing and laying PCC/RCC for flooring on prepared sub grade with/without reinforcement as directed The rates quoted shall be inclusive of lateral formwork. The floor shall be cast in alternate strips and the concrete shall be vibrated and finished smooth by power trowelling and finished as specified and as directed. Required level or slope shall be maintained on the top surface. Care shall be taken to prevent local depressions. Only steel sections such as channels, angles will be allowed to be used as form work. The top level of form work shall be flush with required finished floor level. Under any circumstances form work shall not be allowed to project above FFL. (Reinforcement/steel wire mesh if ordered will be paid separately under respective items). a) Concrete of M 25 grade with Minimum Qty. of cement. 360 kgs/Cum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) 25mm X 30 mm</td>
<td>Rmt</td>
<td>7389.00</td>
<td>64.71</td>
<td>478142.19</td>
</tr>
<tr>
<td></td>
<td>Providing and laying 125 micron thick high density polythene sheet laid below floor concrete as moisture barrier with laps not less than 300mm on the joints and jointed properly it shall be ensured that the sheet is not disturbed or damaged during the process of concreting. (Measurements will be taken flat on the area of concrete laid without any consideration for overlaps on any direction</td>
<td></td>
<td>Sqm</td>
<td>17668.00</td>
<td>48.54</td>
</tr>
<tr>
<td></td>
<td>Providing &amp; rendering Cement plaster skirting of 20mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished even and smooth including setting coat of 3mm thick in cement plaster 1:2 finished even and smooth, making the top edge straight/chamfered and finished on straight line complete as directed.</td>
<td></td>
<td>Sqm</td>
<td>44.00</td>
<td>100.92</td>
</tr>
</tbody>
</table>

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<tr>
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<th>Rate in figures</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>Supplying &amp; laying machine cut, machine polished kotah stone for flooring approx. 30 to 35 mm, thick, square or rectangular in shape (as directed by the Owner &amp; consultant), upto 60cm wide , laid in plain/diamond pattern at all levels and all positions to proper line, level and slope, including providing a bedding layer of average 20 mm thick in cement mortar in 1:6, filling of joints, machine polishing, curing, acid cleaning after completion as per Technical Specifications complete as directed by the Consultant and Engineer In Charge.</td>
<td>Sqm</td>
<td>5190.00</td>
<td>530.03</td>
<td>2750855.7</td>
</tr>
<tr>
<td>61</td>
<td>Supplying &amp; laying machine cut, machine polished kotah stone in Risers/skirting and other vertical surface approx 20 to 25 mm thick at all levels and all positions to proper line, level and slope, including 15mm thick plaster in CM 1:4, filling of joints, polishing, curing, acid cleaning after completion as directed by consultant and Engineer In Charge.</td>
<td>Sqm</td>
<td>334.00</td>
<td>626.32</td>
<td>209190.88</td>
</tr>
<tr>
<td>62</td>
<td>Making moulding and chamfering to kotah stone slab, polishing the edges using hand operated machines or grinding stones, finishing complete as directed. Rate also include making minimum 3 grooves longitudinally of size 6mm x 6mm on edges of tread and similar area parallel to edge polishing. (No separate rate for making grooves) complete as directed by the consultant and Engineer In Charge.</td>
<td>Rmt</td>
<td>1506.00</td>
<td>74.73</td>
<td>112543.38</td>
</tr>
<tr>
<td>63</td>
<td>Supplying and laying approved colour and brand anti skid matt finished ceramic tiles of minimum 6.50 mm thick and of size not less than 300 x 300 mm for flooring including a bedding layer of 20 mm average thick in CM 1:6, laid to proper slope, line and level including cement floating of joints, polishing and cleaning , filling the joints with white cement mixed with matching colour pigment complete as directed by the consultant and Engineer In Charge.</td>
<td>Sqm</td>
<td>409.00</td>
<td>495.36</td>
<td>202602.24</td>
</tr>
<tr>
<td>64</td>
<td>Supplying &amp; laying ceramic tile of approved make and shade (light shade ) in dado, on vertical/sloping surface, set in neat cement including 15mm thick cement plaster in CM 1:4, filling the joints with White cement mixed with matching colour pigments as directed, curing, acid cleaning etc. as applicable and complete as directed by the consultant and Engineer In Charge. The tiles shall be of Johnson, Kajaria, Nitco as approved by the Engineer In Charge.</td>
<td>Sqm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65</td>
<td>Coloured ceramic tiles matt finished Size not less than 200 x 300 mm and thickness not less than 6.00 mm.</td>
<td>Sqm</td>
<td>2728.00</td>
<td>543.11</td>
<td>1481604.08</td>
</tr>
<tr>
<td>66</td>
<td>Providing and laying polished vitrified tile of approved brand and shade of thickness minimum 8 mm and size minimum 600 x 600 mm without warpage, laid on screeding of 20 mm thick cement mortar 1:6 including grouting the joints with white cement and matching colour pigment etc., complete as directed by the consultant and Engineer In Charge. The brand of tile to be used are Asian, Marbitto, Kajaria,Nitco as approved by the Engineer In Charge.</td>
<td>Sqm</td>
<td>3448.00</td>
<td>739.57</td>
<td>2550037.36</td>
</tr>
<tr>
<td>67</td>
<td>Providing and fixing approved shade and brand vitrified tiles for skirting 100/150 mm high, over 15mm thick plaster in cement mortar 1:4 (1 cement :4 coarse sand), joints filled with white cement mixed with matching pigment etc., complete as directed by the consultant and Engineer In Charge..The brand of tile to be used are Asian, Marbitto, Kajaria,Nitco.</td>
<td>Sqm</td>
<td>35.00</td>
<td>778.08</td>
<td>273232.8</td>
</tr>
<tr>
<td></td>
<td>Providing and fixing pre polished, machine cut , 17-20 mm thick granite slab of jet black,ruby red or other equivalent and approved shade in approved design and pattern , for flooring, treads and risers of steps etc., including under layer of 20 mm thick, cement mortar 1:6 (1 cement : 6 coarse sand) jointed with white cement slurry mixed with pigment to match the shade of granite stone including rubbing and polishing, making floor free from scratches etc., complete all as directed.</td>
<td>Sqm</td>
<td>34.00</td>
<td>1892.81</td>
<td>64355.54</td>
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</thead>
<tbody>
<tr>
<td>68</td>
<td>Providing and fixing pre polished machine cut , 17-20 mm thick granite slab of jet black,ruby red or other equivalent and approved colour /shade , machine cut, in skirting/dado, laid over 15 mm thick cement plaster in CM 1:4 and jointed with grey cement slurry and pointed with white cement with matching pigment to match the shade of granite stone including cutting and polishing complete as directed.</td>
<td>Sqm</td>
<td>398.00</td>
<td>1941.89</td>
<td>772872.22</td>
</tr>
<tr>
<td>69</td>
<td>Making moulding to granite slab including smoothing,polishing with hand machines or with grinding stone to achieve a smooth finish ,etc. complete as specified and complete as directed by the consultant and Engineer In Charge.</td>
<td>Rmt</td>
<td>138.00</td>
<td>111.71</td>
<td>15415.98</td>
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<td>SUB TOTAL (E )</td>
</tr>
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</table>
| 70   | Providing and fixing pressed steel door frames with 'C' type profile confirming to IS: 4351 manufactured from colled rolled mild steel sheet of 1.25 mm thickness conforming to IS 513, including hinges jamb, lockjamb, bead, angle threshold of mild steel angle of section 50x25mm as per requirement or base tyes of 1.25mm pressed mild steel welded or rigidly fixed together by mechanical means, adjustable lugs with split end tail to each jamb including steelbutt hinges minimum 2.5mm thick with mortar guards, lock strike-plate filling the hollow portion with cement sand slurry in proportion 1:4, all suitable for fixing 32 to 40 mm wooden flush shutters or HIMPS (hollow metal presssed steel shutters) including providing and applying a coat of zinc chromate red oxide primer all over before fixing after pre-treatment of the surface complete as specified and as directed by the consultant and Engineer-in-charge:  
|      | a) 105 mm x 60 mm with single rebate.                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Rmt  | 1040.00  | 262.06         | 272542.4     |
| 71   | Providing and fixing (to steel door frame in above Item ) boiling water proof (BWP) quality phenol-formaldehyde synthetic resin bonded, solid core block board flush shutter conforming to IS 2202, with commercial ply finished (hot pressed) on both side, second class hard wood lipping for full length , complete, as per drawing and as directed. (Hardware, Painting and lamination will be paid separately)                                                                                   | Sqm  | 472.00   | 1190.72        | 562019.84    |
| 72   | Providing & Fixing 0.90 mm thick Laminates to the door shutter, frame etc.of any size, pasted to the plywood, properly pressed to develop proper contact with out air bubbles, using suitable adhesives for pasting on vertical face, cutting to required size complete as directed. (Laminate shall be of green lam, kitlam, sun gloss or feather touch brand and the adhesive shall be of suitable grade and of standard manufacturers viz. fevicoal, unicoal, vamicol etc.as approved by Engineer In charge.)                                                                                     | Sqm  | 944.00   | 714.58         | 674563.52    |
| 73   | Extra over flush shutters of any thickness for making vision panels or peepholes, square or rectangular of size 300 x 300 mm minimum including providing and fixing 5 mm thick plain sheet glass fixed with lead wood beading complete as specified and as directed by the Consultant and Engineer In Charge.                                                                                                                                                                         | Each | 13.00    | 166.84         | 2168.92      |

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<tr>
<td>74</td>
<td>Providing and fixing of Galvanized Steel Flush Fire Doors confirming to IS - 3614(Part 2):1992 BS 476 (Part 20 and 22) and ISO 834 and to be designed for 2 hrs fire rating. The door frame shall be double /Single rebate profile size of 143 x 57 mm made out of 1.6 mm thick galvanized steel. The shutter shall be 46 mm thick fully flush made out of 1.20mm thick skin pass galvanized steel both sides reinforced with internal stiffner , including all hard ware mounting plates, in fill material shall be honey comb resin board or as per manufacturers specification for rigidity. Door frames and shutters shall be finished with epoxy based primer and finished paint shall be in polyurethane aliphatic grade, UV resistant oven dried paint for superior addition, including all hardware's like SS hinges, Tower bolt 150mm long, SS handles 250mm long, Mortise sash lock with lever handle, Mortise dead bolt, mortise Latch, Door Closer, Vision glass of 200x300mm or 360mm dia size etc., all complete as per manufacturers specifications.</td>
<td>Sqm</td>
<td>28.00</td>
<td>5523.17</td>
<td>154648.76</td>
</tr>
<tr>
<td>75</td>
<td>Providing and fixing of Galvanized Steel finish Door Frames and Leaves of approved make conforming to IS - 277. The Door Leaves shall be constructed from 0.80mm thick galvanized steel sheet formed to provide a 42mm thick fully flush, double skin door shell with lock seam joints at stile edges. In-fill shall be with Honeycomb Kraft Paper to give the required rigidity and effective acoustic insulation. The door frame shall be 1.2mm (18G) thick galvanized steel sheet formed to single rebate profile of size of 100 x 58 mm. The Door Frames shall be built into the brick or block walls using corrugated &quot;TEE&quot; anchors not welded to the Frames (First Fix). Rectangular Vision Glass of size 200mm X 300mm with 5 to 6mm thick glass shall be provided. Glass shall be fixed flush to both faces of the door to provide ease of cleaning and maintenance. No crevices / joints / sloped profiles are used for fixing the glass to avoid particle contamination and dust accumulation. The door frames and door shutters shall be pre primed with Zinc-Phosphate Stoving Primer and finished with Thermosetting Polyurethane paint of Aliphatic Grade for scratch resistance and durability which is also of Antistatic quality/Epoxy Polyester powder for powder coating paint thickness 60 – 65 Microns (Dry film Thickness) including all hardware fittings like Stainless Steel Ball Bearing Butt Hinges 3 mm thick fixed flush to the frame and shutter (Profile 102x76x 3.0 mm thick), Mortise Lock with Handle &amp; Dead Cylinder and tubular lock, Heavy Duty Door Closer, Door Stopper, Pull and Push Handle (Back to Back), Vision Panel 200 x 300mm with 5 to 6 mm glass, Flush / Tower Bolt, S.S. Aldorp 300mm etc. I complete in all respect.</td>
<td>Sqm</td>
<td>23.00</td>
<td>4285.22</td>
<td>98560.06</td>
</tr>
<tr>
<td>76</td>
<td>Providing &amp; fixing approved make steel rolling shutter conforming to IS 6248-1979, steel taths fabricated from 1.20mm thick collod rolled steel sheet with convex corrugation with pressed side guides and bottom rail (both made out of 3 mm thick plate) brackets, door suspension shaft, high tension coil type rolling spring, (made out of best spring steel wire), best quality self aligning type double row ball bearing, top housing box / hood made out of 1.00 mm thick sheet, bracket plates fabricated out of minimum 3.00 mm thick sheet, locking arrangement for padlocks on both sides, pulling hold, handles, including grouting, filling around frame, one coat of zinc chromate primer etc. complete, as per drawing and as directed. Above item includes Hand Operated Gear type including complete gear arrangements (operative either from one side or both side) including providing wicket gate of size 0.90 x 1.80mt with safety lever lock, operated by key locakable both from inside and out side complete as specified and as directed b50 mm or any thickness as specified and instructed by the consultant and Engi</td>
<td>Sqm</td>
<td>24.00</td>
<td>1762.08</td>
<td>42289.92</td>
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<tbody>
<tr>
<td>77</td>
<td>Same as above but Rolling grill shutter and the rolling grill portion shall be fabricated with 8mm diameter mild steel round bars. Straight bars and bars bent to the required profile are placed alternatively and held in position with 20 mm wide and 5 mm thick mild steel flat links. Straight bars shall be spaced not exceeding 150 mm centre to centre and the bars bent to required profile shall be placed symmetrically between two consecutive straight bars. Unless otherwise specified or directed by the Engineer-in-charge, bars placed alternatively with straight bars shall be bent to form a corrugated profile such that the pitch of the corroration is 100 to 120 mm and the depth of corroration is 80 to 100 mm. All the bent bars shall have uniform profile. Straight bar along with the adjoining bent bars on it both sides shall be held in position by passing the bars through holes in the links. Each link shall have three holes and the length of the links shall be such that the distance from the centre of the hole to the nearest 50 mm or any thickness as specified and instructed by the consultant and Engineer-in-Charge.</td>
<td>Sqm.</td>
<td>96.00</td>
<td>2285.44</td>
<td>219402.24</td>
</tr>
<tr>
<td>78</td>
<td>Providing and fixing powder Coated aluminium work for doors, windows, ventilators and partitions, glazing and similar, with extruded built up or standard tubular and other sections of approved make conforming to IS:733 and IS:1285, powder coating shall be of minimum 50 microns, fixed with rawl plugs and screws or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/neoprene felt, etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / panelling, C.P. brass / stainless steel screws, complete as per architectural drawings and the directions of the consultant and Engineer-in-charge. All the consumables are included under this item. Cleats or other small pieces required for fabrication of the structure shall be included in the rate and will not be paid separately. (Glazing, Hardware Fittings and panelling, rubber beading, bearing of windows will be paid separately under respective Item of BOQ).</td>
<td>Kgs</td>
<td>52026.00</td>
<td>309.29</td>
<td>16091121.54</td>
</tr>
<tr>
<td>79</td>
<td>Providing and fixing glazing of any size to aluminium door, window, ventilator shutters and partitions etc. fixed with rubber gasket and glazing clips, beadings etc. at any level and location complete as per the architectural drawings and the directions of consultant and Engineer-in-charge. (Cost of aluminium snap beading, gasket shall be paid in respective item).</td>
<td>Sqm</td>
<td>2072.00</td>
<td>514.22</td>
<td>1065463.84</td>
</tr>
<tr>
<td></td>
<td>a) With plain sheet glass panes of 5.5 mm thickness and of any size.</td>
<td>Sqm</td>
<td>36.00</td>
<td>368.69</td>
<td>13272.84</td>
</tr>
<tr>
<td></td>
<td>b) 4 mm thick Pin headed glass for steel windows, louvered ventilators and similar work and of any size.</td>
<td>Sqm</td>
<td>36.00</td>
<td>368.69</td>
<td>13272.84</td>
</tr>
<tr>
<td>80</td>
<td>Providing and fixing rubber gasket or beading for aluminium partitions, doors, windows etc. complete all as per directions of Engineer-in-charge.</td>
<td>Rmt.</td>
<td>18573.00</td>
<td>19.66</td>
<td>365145.18</td>
</tr>
<tr>
<td></td>
<td>a) for fixing of glass, particle board etc. for the partitions, windows, doors and the like.</td>
<td>Rmt.</td>
<td>1089.00</td>
<td>19.66</td>
<td>21409.74</td>
</tr>
<tr>
<td></td>
<td>b) for the vertical members of sliding windows or other similar structures at interlocking sections etc.</td>
<td>Rmt.</td>
<td>282.00</td>
<td>24.37</td>
<td>6872.34</td>
</tr>
<tr>
<td></td>
<td>c) Feathered beading or wool pile on the vertical members of aluminium doors and similar structure.</td>
<td>Rmt.</td>
<td>952.00</td>
<td>71.61</td>
<td>68172.72</td>
</tr>
<tr>
<td></td>
<td>d) Standard lock for aluminium sliding windows.</td>
<td>Each</td>
<td>1904.00</td>
<td>54.23</td>
<td>103253.92</td>
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</tbody>
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<tr>
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<th>Quantity</th>
<th>Rate in figures</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>81</td>
<td>Providing &amp; Fixing MS Windows/ventilators made out of z sections manufatured as per IS: 1038 with horizontal glazing clips with all irin oxidised fittings such as minimum 1.50 mm thick handles mounted on steel steel handle plate which shall engage with steel striking plate and peg stayes (casement adjuster ) of minimum 1.50 mm thick and 300 mm long , steel peg, locking brackets etc. all riveted to the frame glazing with aluminium beading, projected type heavy duty hinges, with one coat of zinc chromate primer etc. Complete as directed. The windows shall be fixed to the coulmn, brick wall, structural members with suitable hod fast/fastening system screwed, encased in concrete blocks or welded as per site requirement The sections shall conform to IS 7452. ( Glazing,Paintingm MS gurad bars 10mm Sq bar @100 mm C/C and aluminium beading will be paid under respective items. )</td>
<td>Sqm</td>
<td>46.00</td>
<td>2333.44</td>
<td>107338.24</td>
</tr>
<tr>
<td>82</td>
<td>Providing and fixing 12mm thick prelaminated two layer medium density (exterior grade) particle board grade I, type II, conforming to IS : 12823 bonded with phenol formal dehyde synthetic resin, of approved brand for aluminium doors/hutters and partitions, wall panelling and like including cutting to required size shape fixing with aluminium extrusions or screwed/bolted to steel/wooden frame work including all consumabls (except rubber beading ) like CP brass / stainless steel screws,bolts etc., complete as per architectural drawings and directions of the Consultant and Engineer In Charge.</td>
<td>Sqm</td>
<td>3947.00</td>
<td>2047.76</td>
<td>8082508.72</td>
</tr>
<tr>
<td>83</td>
<td>Providing and fixing in position Heavy duty brass butt hinges of 125 mm long with necessary brass or stainless steel screws etc. complete and as directed.</td>
<td>Each</td>
<td>1025.00</td>
<td>158</td>
<td>161950</td>
</tr>
<tr>
<td>84</td>
<td>Providing and fixing in position Heavy duty stainless steel hinges of 125 mm long with necessary brass or stainless steel screws etc. complete and as directed.</td>
<td>Each</td>
<td>35.00</td>
<td>61.71</td>
<td>2159.85</td>
</tr>
<tr>
<td>85</td>
<td>Providing and fixing the following stn finished anodised Aluminium Hardware Fittings of approved make as per relavent IS Code: fixed with sheet metal screws or nuts and bolts as required.</td>
<td>Each</td>
<td>810.00</td>
<td>357.29</td>
<td>289404.9</td>
</tr>
<tr>
<td></td>
<td>a)Aluminium anodised Handles. Plate type 150 mm long 10 mm dia of approved make and design.</td>
<td>Each</td>
<td>405.00</td>
<td>147.79</td>
<td>59854.95</td>
</tr>
<tr>
<td></td>
<td>b)Aluminium anodised tower bolts - barrel type of 200mm long , 8-10mm dia shoot</td>
<td>Each</td>
<td>271.00</td>
<td>118.85</td>
<td>32208.35</td>
</tr>
<tr>
<td></td>
<td>c)Aluminium Floor door stopper of standard make approved design.</td>
<td>Each</td>
<td>139.00</td>
<td>143.23</td>
<td>19908.97</td>
</tr>
<tr>
<td></td>
<td>d)Aluminium anodised Aldrop or Sliding door bolt : 300 mm long with hasp, staple and fixing clip, including all fixing arrangement , necessary screws , nuts, bolts, washers,complete</td>
<td>Each</td>
<td>139.00</td>
<td>71.61</td>
<td>9953.79</td>
</tr>
<tr>
<td></td>
<td>e)Aluminium anodised Latch ; 250 mm long latch with 12 mm dia shoot inculding all fixing arrangement , necessary screws , nuts, bolts, washers,complete</td>
<td>Each</td>
<td>206.00</td>
<td>714.58</td>
<td>147203.48</td>
</tr>
</tbody>
</table>

(Signature of Contractor with Seal)
Providing & fixing teak wood beading of cross section area not exceeding 3 sqcm, machine made, chamfered/half round or with other decorative ribs and grooves complete as per requirement and as approved to suit the interior of the room/area including fixing in position with nails to required shape and pattern and treating with 3 coats of french polishing complete as specified and as directed.

<table>
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<tr>
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<th>Rate in figures</th>
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</tr>
</thead>
<tbody>
<tr>
<td>87</td>
<td></td>
<td>Rmt</td>
<td>1553.00</td>
<td>80.76</td>
<td>125420.28</td>
</tr>
</tbody>
</table>

G. WATER PROOFING WORKS:

Notes:
( the following notes shall be applicable to all relevant items in this Bill of Quantities)

a. The water proofing treatment shall be guaranteed for a period of 10 years (defect liability period) from the date of completion of the contract as a whole and required to submit a guarantee bond on stamp paper. In addition 10% of the value of the item will be retained from the final bill for the defect liability period of this item. The contractors may also submit a bank guarantee for an equal amount separately or in combination with other such items having longer defect liability period)

b. Unless otherwise stated, measurements will be taken on plan area basis. (Nothing extra shall be paid for the coving/sloping portions at junctions of walls & Floor / Roof slabs.)

Providing Cement base waterproofing treatment over RCC, terrace, roof, etc. comprising of preparing the surface free from all protrusions, dead mortars and all other loose materials, properly watering and application of cement slurry with 2.75Kgs of cement /Sqm, laying of base coat of 25 mm average thickness in Cement mortar 1:4 using blended with waterproofing compound, palacing well soaked brick bats of 40 to 75 mm thick over the screed bed leaving minimum 15 mm thick below the brick bats, application of another layer of slurry using cement @ 2.75 kg/Sqm, leaving the surface wet for minimum 24 hours and filling the gaps with cement mortar 1:4 and making a top layer of joint less screed of average 15 mm thick and forming a fair surface to the required slope, gradient, surface finished using cement slurry and making string marks a in grid pattern of about 300 x 300 mm complete as specified as and directed by the consultant and Engineer In Charge. The junction between parapet and other walls with slab shall 50 mm or any thickness as specified and instructed by the consultant and Engineer.

<table>
<thead>
<tr>
<th>S.No</th>
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<th>Rate in figures</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>88</td>
<td></td>
<td>Sqm</td>
<td>5018.00</td>
<td>537.89</td>
<td>2699132.02</td>
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</tbody>
</table>

Cement based Waterproofing treatment in toilets, bath, wash areas, etc. comprising of surface preparation, application of cement slurry @ 2.75Kgs/Sqm of cement, brick bat coba using 30 to 50 mm thick brick bat, mixed with water proof cement mortar, application of waterproof cement plaster of 40 mm thick in CM 1:4 on floor and 20 mm thick on walls, surface finished to required slope, level and finished using extra cement not less than 1.38 Kgs/Sqm complete as directed by the consultant and Engineer In Charge. The junction between the horizontal and vertical shall be neatly filled with cement mortar and formed coving and the vertical surface shall be treated plastered up to the floor level. The cement used for slurry and screed shall be blended with approved water proofing compound @ 3% by weight. (only horizontal surface inside the vertical wall will be measured. In case no parapet and waterproofing is done up to edge, measurements will be taken up to the edge. Only horizontal surface will be measured rubber beading, bearing of windows will be paid separately under respective item of BOQ). Liability deposit held by HAL either in cash or in the

<table>
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<tr>
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<tr>
<td>89</td>
<td></td>
<td>Sqm</td>
<td>295.00</td>
<td>700.62</td>
<td>206682.9</td>
</tr>
<tr>
<td>S.No</td>
<td>Description</td>
<td>Unit</td>
<td>Quantity</td>
<td>Rate in figures</td>
<td>Amount</td>
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<tr>
<td>90</td>
<td>Injection type water proofing treatment using expansive plasticizing agent</td>
<td>Sqm</td>
<td>9370.00</td>
<td>447.49</td>
<td>4192981.3</td>
</tr>
<tr>
<td></td>
<td>(non shrinkage grouting compound) to water tanks, equipment pits, trenches,</td>
<td></td>
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<td></td>
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<td></td>
<td>basement, etc with pressure grouting of waterproof and damp proofing compound</td>
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<td></td>
<td>at regular interval, drilling of holes, inserting nozzles, pressure</td>
<td></td>
<td></td>
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<td></td>
<td>grouting using polymer modified waterproof cement plaster (1:4) smooth</td>
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<td></td>
<td>finished, 40mm thick on floor and 20 mm thick on both sides of walls, etc.</td>
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<tr>
<td></td>
<td>complete as directed. The cement used for slurry and screed shall be</td>
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<tr>
<td></td>
<td>blended with approved water proofing compound @ 3% by weight...(Measurement</td>
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<tr>
<td></td>
<td>shall be taken for one side of treated surface)</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>Sqm</td>
<td>2697.00</td>
<td>645.25</td>
<td>1740239.25</td>
</tr>
<tr>
<td>91</td>
<td>Providing suspended type false ceiling system with mineral fiber ceiling</td>
<td>Sqm</td>
<td>1294.00</td>
<td>697.5</td>
<td>902565</td>
</tr>
<tr>
<td></td>
<td>tiles with hot dipped galvanised steel grid frame work, surface</td>
<td></td>
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<tr>
<td></td>
<td>chemically cleaned, capping pre-finished by powder coating baked polyester</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>paint, main tees of size 33 (H) x 24 mm at every 1.2 mt. centre to centre,</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>rotary stitched cross tee at 0.6 m centre to centre to form a grid of size</td>
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<td></td>
<td>600 x 600 mm and suspending the grid from RCC/ Structural steel roof using</td>
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<tr>
<td></td>
<td>4 mm dia GI wire and 6 mm nylon rawl plug at every 1200 mm intervals,</td>
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<td></td>
<td>supplying and laying mineral fibre ceiling tiles as per the pattern/type</td>
<td></td>
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<tr>
<td></td>
<td>approved by the consultant and Engineer In Charge. The insulation material</td>
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<tr>
<td></td>
<td>shall be made from non-combustible rock wool fibres and bonded together by</td>
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<td></td>
<td>thermosetting resins, the material shall be factory laminated with</td>
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<td></td>
<td>reinforced aluminium foil on one side, and other side provided with</td>
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<td></td>
<td>glass tissue lamination. Insulation shall have properties like to withstand</td>
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</tr>
<tr>
<td></td>
<td>temperature up to 750 degree Centigrade, water repellent, no effect of</td>
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<tr>
<td></td>
<td>moisture, shall not absorb water by capillary action, and has low</td>
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<td></td>
<td>thermal conductivity values of 0.038 W/mk, at 40°C for and tested in</td>
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<td></td>
<td>accordance with BS 874:1986 etc., complete as per Manufacturers Specification</td>
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<tr>
<td></td>
<td>and EIC. The insulation shall be fixed in straight panels with all</td>
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<tr>
<td></td>
<td>supporting structures, which shall be paid under respective items.</td>
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</tr>
<tr>
<td>92</td>
<td></td>
<td>Sqm</td>
<td>200.00</td>
<td>832.5</td>
<td>166500</td>
</tr>
<tr>
<td>93</td>
<td>Same as above item for sound insulation taking density 96 kg/Cum</td>
<td>Sqm</td>
<td>7.00</td>
<td>37215.54</td>
<td>260508.78</td>
</tr>
</tbody>
</table>

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<table>
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<tbody>
<tr>
<td>95</td>
<td>Supplying and fixing 12 mm thick compressible bitumen impregnated board in any number of layers at expansion joints of dissimilar surfaces in contact (masonry/concrete etc.) wherever required as directed by the consultant and Engineer In Charge. (Each layer will be measured and paid)</td>
<td>Sqm</td>
<td>640.00</td>
<td>550.82</td>
<td>352524.8</td>
</tr>
<tr>
<td></td>
<td>a) 12 mm thick</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) 25 mm thick</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>96</td>
<td>Supplying and filling of Polysulphide sealant in expansion/Contraction joints including mixing, pouring in position, cleaning the contact surfaces neatly to make it free from dust and dirt at all levels and locations including providing breaker rod between the compressible bitumen impregnated board and the sealant etc., complete as directed by the consultant and Engineer In Charge for following size of grooves.</td>
<td>Sqm</td>
<td>137.00</td>
<td>720.3</td>
<td>98681.1</td>
</tr>
<tr>
<td></td>
<td>a) 12mm x 20mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) 5mm x 20mm</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>c) 25mm x 25mm</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>97</td>
<td>Providing, fabricating, laying and embedding (in Concrete / Brick wall) Puddle flanged (screwed/welded) MS Pipe of C class, as per IS 1239 in wall 750mm minimum length, including cutting, drilling and welding anchor plate in square or circular size 8mm thick and end flanged of 10mm thick MS plate of table &quot;E&quot; type, MS Plate provided with 75mm extra width all sides of the pipe, outer dia welded to MS pipe and providing holes to flange to match the connecting GI Pipe line. The welded assembly of puddle flanges shall be galvanized, i.e., the zinc coating shall be done as per IS 4736:1986</td>
<td>Rmt</td>
<td>1713.00</td>
<td>296.6</td>
<td>508075.8</td>
</tr>
<tr>
<td></td>
<td>a) 200mm dia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) 150mm dia</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>c) 100mm dia</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>98</td>
<td>Supply &amp; Fixing of 'CI' manhole Cover &amp; frame ISI marked of any size and type as specified in the drawing and as directed by the consultant and Engineer In Charge.</td>
<td>Kgs.</td>
<td>10290.00</td>
<td>54.53</td>
<td>561113.7</td>
</tr>
<tr>
<td></td>
<td>a) MS angles, Flats, Bars etc</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>Supplying, Fabricating and fixing in position MS Grills, guard bars, Grating and similar structure made out of standard MS angles, flats, round/square bars, angles or any structural steel sections, Hollow pipes or any other Mild steel sections etc including cutting, welding to different shapes and sizes, as per approved pattern for windows, openings in drains, service pits etc., including a coat of zinc chromate primer and two coats of synthetic enamal paint of required colour and shades, including fixing /grouting in walls with cement concrete 1:2:4 proportion etc or welded to the steel members complete as per the drawings and specifications</td>
<td>Kgs.</td>
<td>3490.00</td>
<td>60.49</td>
<td>211110.1</td>
</tr>
<tr>
<td>100</td>
<td>Providing and mixing Plasticizers conforming to IS 9103-1999 &amp; 2645-1975 in concrete works, of approved make like FOSROC, BASF, PIDILITE, SIKAX etc as per manufactures specifications and as directed by the Engineer In Charge.</td>
<td>Ltrs</td>
<td>35869.00</td>
<td>101.7</td>
<td>3647877.3</td>
</tr>
<tr>
<td>101</td>
<td>Surveying and drilling vertical bore wells within the premises including mechanical drilling in all types of soil and rock below ground level to the desired level etc. all as per standard borewell drilling practice, measuring and recording the discharge yield for following dia and length:-</td>
<td>Rmt</td>
<td>100.00</td>
<td>450.67</td>
<td>45067</td>
</tr>
<tr>
<td></td>
<td>a) 150mm drilling - upto 25 Meters</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>b) 150mm drilling - above 25 Meters</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>102</td>
<td>Supply and erection of PVC casing pipe of size 175 mm dia suitable for working at 6 kg/Sq cm pressure including necessary joining accessories, capping the pipe complete as directed by the consultant and Engineer-in-charge.</td>
<td>Rmt</td>
<td>160.00</td>
<td>450.67</td>
<td>72107.2</td>
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(Signature of Contractor with Seal)
### PACKAGE-CIVIL-III

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</thead>
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<tr>
<td>103</td>
<td>Providing and fixing <strong>Reinforcement Bars in concrete with chemical adhesive</strong> of approved make like HILTI, FISHER or any other equivalent with nut and washer of following dia complete at any level and locations and as per manufacturer’s specification. (Reinforcement Rod shall be measured and paid seperately)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) 10mm dia rebar, Drilling of 14mm Dia and 120mm deep</td>
<td>Each</td>
<td>15.00</td>
<td>635.56</td>
<td>9533.4</td>
</tr>
<tr>
<td></td>
<td>b) 12mm dia rebar, Drilling of 16mm Dia and 150mm deep</td>
<td>Each</td>
<td>15.00</td>
<td>677.93</td>
<td>10168.95</td>
</tr>
<tr>
<td></td>
<td>c) 16mm dia rebar, Drilling of 22mm Dia and 200mm deep</td>
<td>Each</td>
<td>15.00</td>
<td>805.04</td>
<td>12075.6</td>
</tr>
<tr>
<td></td>
<td>d) 20mm dia rebar, Drilling of 28mm Dia and 250mm deep</td>
<td>Each</td>
<td>15.00</td>
<td>1059.26</td>
<td>15888.9</td>
</tr>
<tr>
<td></td>
<td>e) 25mm dia rebar, Drilling of 32mm Dia and 300mm deep</td>
<td>Each</td>
<td>15.00</td>
<td>1228.75</td>
<td>18431.25</td>
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<tr>
<td>104</td>
<td>Providing and fixing medium duty <strong>stud anchors</strong> of the following Diameters of approved make like HILTI, FISHER or any equivalent make with cold formed carbon steel, galvanised / stainless steel externally threaded consisting of 3 part expansion sleeve including installation as per manufacturer Specifications, drilling holes of suitable diameter to required depth and fixing in position including scaffolding, cost and conveyance of all material, all taxes, labour charges for all operations, all incidental and operational charges, etc. complete.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>a) 8 mm dia / 75 mm long / 10 mm fastenable thickness</td>
<td>Each</td>
<td>15.00</td>
<td>1821.94</td>
<td>27329.1</td>
</tr>
<tr>
<td></td>
<td>b) 10 mm dia / 90 mm long / 10 mm fastenable thickness</td>
<td>Each</td>
<td>15.00</td>
<td>1991.42</td>
<td>29871.3</td>
</tr>
<tr>
<td></td>
<td>c) 12 mm dia / 115 mm long / 20 mm fastenable thickness</td>
<td>Each</td>
<td>15.00</td>
<td>2330.39</td>
<td>34955.85</td>
</tr>
<tr>
<td></td>
<td>d) 16 mm dia / 140 mm long / 25 mm fastenable thickness</td>
<td>Each</td>
<td>15.00</td>
<td>3770.99</td>
<td>56564.85</td>
</tr>
<tr>
<td></td>
<td>e) 20 mm dia / 170 mm long / 30 mm fastenable thickness</td>
<td>Each</td>
<td>15.00</td>
<td>4025.21</td>
<td>60378.15</td>
</tr>
<tr>
<td></td>
<td>f) 24 mm dia / 200 mm long / 30 mm fastenable thickness</td>
<td>Each</td>
<td>15.00</td>
<td>4448.92</td>
<td>66733.8</td>
</tr>
<tr>
<td>105</td>
<td>Supplying, stacking, laying and spreading of 60 to 40 mm size stone aggregates in 100mm thickness at switch yards and transformer yards etc. complete as per drawing and directions of the consultant and Engineer In Charge.</td>
<td>Sqm</td>
<td>25.00</td>
<td>106.32</td>
<td>2658</td>
</tr>
<tr>
<td>106</td>
<td>Fixing of <strong>chain link fencing</strong> including line wires, any mesh size and type to any type of standards, rails, straining bolts, etc. including provision of binding wire inserting &amp; fixing of 12 mm dia MS rods stiffeners alternatively inserted at 1mt. c/c in to chain link fencing fixed through out the entire length etc. complete all as shown in the drawing and as directed, (MS rods and turn buckles will be measured and paid seperately under steel item)</td>
<td>Sqm</td>
<td>90.00</td>
<td>466.07</td>
<td>41946.3</td>
</tr>
<tr>
<td>107</td>
<td>Supplying only standard galvanized chain link fencing with 125 gsm zinc coating, having mesh size and line wire as per standard supplying in required size as per drawing complete as directed</td>
<td>Kgs</td>
<td>359.00</td>
<td>67.8</td>
<td>24340.2</td>
</tr>
</tbody>
</table>

**SUB TOTAL (I)**

| J-ROADS PAVEMENTS AND STORM WATER DRAIN | 9565291.6 |

- **a.** Contractor shall erect central concrete batching and mixing plant with computerised controls of required/specified capacity at site. The land required for installation of the plant will be provided by HAL free of cost and the contractor shall make all arrangements for developing the area and all the required access and path for the same at his cost.

- **Consolidation of road sub-grade** with power road roller 8 to 12 tonne capacity including making good the undulations with approved earth and rolling the sub grade as per the profile of road and pavement and to required slope etc. complete as directed. (soil received from excavation shall be used for filling the undulations.)

<table>
<thead>
<tr>
<th>S.No</th>
<th>Description</th>
<th>Unit</th>
<th>Quantity</th>
<th>Rate in figures</th>
<th>Amount</th>
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<tr>
<td></td>
<td></td>
<td></td>
<td>30229.00</td>
<td>57.78</td>
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**(Signature of Contractor with Seal)**
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<tr>
<th>S.No</th>
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<th>Unit</th>
<th>Quantity</th>
<th>Rate in figures</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>109</td>
<td>Providing and laying pavement quality concrete (as per the design mix) of M40 grade in proper line and level, with concrete(line) pump, and using fixed form paver, providing MS dowel bars for expansion joint as per design, providing contraction/construction/expansion/longitudinal joints all as per drawings filled with Grade 'A' sealant, ensuring proper curing making bunds and ponding complete as per drawing, specification and direction. (steel dowel bars will be paid separately.) However making slots in form work, sleeves and allied works whatsoever required is covered in this item. Curing with curing compound may be resorted as per requirement. (Curing compound will be paid separately.) Minimum quantity of cement 438 kgs/Cum including the cost all cementeous materials as per design requirement. (cutting of joints and filling with the sealants will be paid separately)</td>
<td>Cum</td>
<td>7267.00</td>
<td>3790.24</td>
<td>27543674.08</td>
</tr>
<tr>
<td></td>
<td>Cement to be used for this item shall be of 43 Grade OPC conforming to IS 8112 and the minimum quantity specified shall be ensured. In case of non availability of cement in the market due to unforeseen reasons, OPC-53 grade cement conforming to IS 12269 will be allowed in place of 43 grade cement on establishment of its suitability supported with testing documents. In both the cases the mix design is to be obtained by the contractor to achieve the desired results. No extra payment will be allowed towards whatsoever the expenditure may incur due to this change and the contractor shall absorb all such cost by himself and shall give the desired results.</td>
<td></td>
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</tr>
<tr>
<td>110</td>
<td>Providing and placing in position plain MS round bars for expansion joints between adjoining concrete bays including cutting to the required length with Hack-saw or bar cutting machine and placing in position by using double bulk head type form work, covering the required length with PVC pipe 40-50 mm Dia and providing grease seal at the end, covering the said end complete as directed by the consultant and Engineer In Charge.</td>
<td>MT</td>
<td>41.00</td>
<td>40829.88</td>
<td>1674025.08</td>
</tr>
<tr>
<td>111</td>
<td>Cutting of grooves of size 10mm X40mm (dummy construction joints) after completing the concreting work in specified time as above using apower driven cutting machine and filling the groove with Grade 'A' sealant as per IS 1834 etc. complete as directed by the Consultant and Engineer In Charge.</td>
<td>Rmt</td>
<td>14294.00</td>
<td>97.83</td>
<td>1398382.02</td>
</tr>
<tr>
<td>112</td>
<td>Filling the groove of size 25mm X25mm at expansion joint of concrete pavement or Road with Grade 'A' bituminous sealing compound conforming to IS 1834 etc. complete as directed by the consultant and Engineer In Charge.</td>
<td>Rmt</td>
<td>1257.00</td>
<td>100.92</td>
<td>126856.44</td>
</tr>
<tr>
<td>113</td>
<td>Supplying and spreading of curing compound conforming to BS 7542, application to the concrete surface within the specified time limit complete as per manufacturers specifications, as directed by the consultant and Engineer In Charge.</td>
<td>Litre</td>
<td>6046.00</td>
<td>131.73</td>
<td>796439.58</td>
</tr>
<tr>
<td>114</td>
<td>Providing and laying paver blocks of 75mm thk of M25 grade, from approved manufacturer, laid over prepared well compacted sub grade with classic type blocks of approved colour in the pattern specified by consultant over 50mm thick sand cushion laid to the required levels and slopes including vibro compaction, all leads and lifts etc. complete. (Samples of paved blocks shall be tested for compressive strength before using in the works)</td>
<td>Sqm</td>
<td>1446.00</td>
<td>481.49</td>
<td>696234.54</td>
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</thead>
<tbody>
<tr>
<td>115</td>
<td>Providing, Precasting and fixing in position M20 grade Precast kerbs in straight road or in curvature as per drawings and architectural details. Rate to including supply and mixing of polypropylene fibres @ 0.9 Kg per cum of concrete or as per manufacturers specifications, all leads and lifts, necessary excavation, backfilling, shuttering, moulds, minimum 75mm thick and 50 mm projected PCC 1:3:6 concrete (1 cement : 3 sand : 6 coarse aggregate) for fixing as per drawing, fixing to line, level and plumb, raking and flush pointing the joints with cement mortar 1:3 (1 cement : 3 sand), curing, making provision for pipe sleeves etc., as directed complete as per drawing and as directed by the contractor and Engineer In Charge (The reinforcement will be measured and paid separately under regular reinforcement item). Polypropylene fibres will not be paid separately. The surface should have smooth finish. 1) size of kerbstone approx. 125mm thick x 450mm depth.</td>
<td>Rmt</td>
<td>1024.00</td>
<td>254.99</td>
<td>261109.76</td>
</tr>
<tr>
<td>116</td>
<td>Providing and rendering 15 mm thick cement plastering on internal surfaces of brick or concrete surfaces in cement mortar 1:4 (1 cement : 4 fine sand) finished to a an even surface using extra cement @ 1.38Kgs/Sqm complete as directed, including necessary scaffolding and curing etc., complete at all heights and levels.</td>
<td>Sqm</td>
<td>1623.00</td>
<td>100.92</td>
<td>163793.16</td>
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<tr>
<td>117</td>
<td>Providing &amp; fixing precast reinforced concrete covers in any shape (with or without perforations) for openings, trenches etc., in CC 1:2:4 grade concrete using 20 mm or downgraded stone aggregate, including shuttering/moulding complete as specified and as directed. (Reinforcement will be measured and paid separately under relevant item).</td>
<td>Cum</td>
<td>82.00</td>
<td>3755.57</td>
<td>307956.74</td>
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<tr>
<td>118</td>
<td>Providing and laying NP-2 class RCC Hume Pipes with collars joined with stiff mixture of cement mortar 1:2 (1 cement : 2 fine sand) and hemp including testing of joints complete as directed by the consultant and Engineer In Charge, (excavation, PCC, refilling etc will be paid separately under respective items)</td>
<td>Rmt</td>
<td>100.00</td>
<td>300.45</td>
<td>30045</td>
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<tr>
<td></td>
<td>a) 150 mm dia</td>
<td>Rmt</td>
<td>236.00</td>
<td>374.4</td>
<td>88358.4</td>
</tr>
<tr>
<td></td>
<td>b) 300 mm dia</td>
<td>Rmt</td>
<td>624.00</td>
<td>577.79</td>
<td>360540.96</td>
</tr>
<tr>
<td></td>
<td>c) 450 mm dia</td>
<td>Rmt</td>
<td>507.00</td>
<td>785.78</td>
<td>398390.46</td>
</tr>
<tr>
<td></td>
<td>d) 500 mm dia</td>
<td>Rmt</td>
<td>154.00</td>
<td>148.68</td>
<td>22896.72</td>
</tr>
<tr>
<td></td>
<td>e) 75 mm dia</td>
<td>Rmt</td>
<td>8.00</td>
<td>211.85</td>
<td>1694.8</td>
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<tr>
<td></td>
<td>Providing and fixing medium quality PVC pipes of Class 2, conforming to IS 4985:2000, of following dia for weep holes (excluding encasing with plain cement concrete 1:2:4), filling loose gravels at the mouth opening towards the filled up soil etc., complete as shown in the drawing and as directed by the consultant and Engineer In Charge (PCC will be paid separately under respective item))</td>
<td>Rmt</td>
<td>22.00</td>
<td>233.42</td>
<td>5135.24</td>
</tr>
<tr>
<td></td>
<td>a) 25mm dia</td>
<td>Rmt</td>
<td>84.00</td>
<td>245.75</td>
<td>20643</td>
</tr>
<tr>
<td></td>
<td>b) 32mm dia</td>
<td>Rmt</td>
<td>504.00</td>
<td>258.85</td>
<td>130460.4</td>
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<td></td>
<td>SUB TOTAL (J)</td>
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<td></td>
<td></td>
<td>35773268</td>
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<tr>
<td>120</td>
<td>Supplying and Filling with Red earth over areas, brought from outside the complex including all leads and lifts, cost of earth, royalty, excavation, transportation, loading, unloading &amp; filling in layer not exceeding 25 mm in depth or as directed, breaking clods and consolidating each deposited layer, watering etc, complete (Truck measurement will be taken with out any reduction for bulkage)</td>
<td>Cum</td>
<td>7636.00</td>
<td>220.46</td>
<td>1683432.56</td>
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</tbody>
</table>

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</thead>
<tbody>
<tr>
<td>121</td>
<td>Planting doob grass (hariyali) or hyderabadi lawn, including rolling, gap filling and watering after planting and maintaining the lawn for a period of 3 months from the date of completion of the lawn, all necessary weeding complete as directed by the consultant and EIC (Payment of this item will be made only in the final bill.) The maintenance period of three months will not be considered for the purpose of issuing the completion certificate and the maintenance of lawn can be continued during the defect liability period. The contractor shall maintain the lawn for the specified period even if it fall after the completion date. If the maintenance is not done satisfactorily, 25% of the value of the item will be recovered from the defect liability deposit held by HAL either in cash or in the form of Bank guarantee.</td>
<td>Sqm</td>
<td>75905.00</td>
<td>21.83</td>
<td>1657006.15</td>
</tr>
<tr>
<td>122</td>
<td>Supplying, Planting below specified botanical plants of specified height (in feet, inches) The work also include making the pits of minimum size 300 x 300 x 450 mm, planting and the tree holes shall be manured with powdered Neem/castor oil cake at the specified rate (20%) of mixing along with farm yard manure over sludge shall be uniformly mixed with the red soil after the manure has been broken down to powder, (size of particle not to exceeded 6 mm in any direction) in the specified proportion, the mixture shall be filled in to the hole up to the level of adjoining ground and then profusely watered and enable the soil to subside the refilled soil shall then be dressed evenly with its surface about 50 to 75 mm below the adjoining ground level or as directed by the Engineer-in-charge. The contractor shall maintain theplants for a period of 3 months from the date completion of planting of all the plants as per actual requirement and even the specified period falls after the completion date. If the maintenance is not done satisfactorily, 25% of the value of the item will be recovered from the defect liability deposit held by HAL either in cash or in the form of Bank guarantee.</td>
<td>Each</td>
<td>Acalypa (1’ - 1’6”)</td>
<td>114.00</td>
<td>9.46</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Each</td>
<td>Alstonia (5’-6”)</td>
<td>18.00</td>
<td>140.42</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Each</td>
<td>Verbina (6”)</td>
<td>219.00</td>
<td>6.55</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Each</td>
<td>Thuja (2’-3')</td>
<td>18.00</td>
<td>140.42</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Each</td>
<td>Ficus benjamina (4’-5')</td>
<td>675.00</td>
<td>72.03</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Each</td>
<td>Ficus benjamina king bush (4’-5’)</td>
<td>725.00</td>
<td>127.33</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Each</td>
<td>lantana camera red (9’-1’)</td>
<td>184.00</td>
<td>6.55</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Each</td>
<td>lantana camera yellow (9’-1’)</td>
<td>184.00</td>
<td>6.55</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Each</td>
<td>Nerium oleander dwarf (2’)</td>
<td>360.00</td>
<td>28.38</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Each</td>
<td>Pisonia alba (2’-3’)</td>
<td>19.00</td>
<td>76.39</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Each</td>
<td>Rose with 365 days (diff. colours) ( 1’)</td>
<td>465.00</td>
<td>36.38</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Each</td>
<td>Royal palm (5’ - 6')</td>
<td>23.00</td>
<td>200.08</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Each</td>
<td>Spathodia campanulata (5’ - 6’)</td>
<td>7.00</td>
<td>144.91</td>
</tr>
<tr>
<td></td>
<td>SUB TOTAL ( K )</td>
<td></td>
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</tbody>
</table>

**M- SANITARY FIXTURES**

- All the works are to be carried out as per relevant IS specifications & code of practices.
- The quoted rate shall include for providing brackets, clamps etc., in ducts and under ceiling for supporting the pipes etc., two coats of enamel painting including primer on brackets, colour coding the exposed pipes, identification labels, making holes in masonry/RCC, chasing the surfaces for concealed plumbing, making good the same in CM 1:4/PCC 1:2:4 curing etc., complete.
- Groove cutting/cutting chases shall be done only by using electric groove cutting machines or similar equipments and manual cutting using chisels etc. will not be permitted.

- Floor mounted, standard, wash down European WCs with "P" or "S" trap, PVC seat cover, low level vitreous china low level flushing cistern, 10Lit capacity, CP flush pipe 32mm dia, PVC supply connections, 15mm CP brass angle cock with CP wall cap, connecting to drainage and water supply system complete as detailed below :

- Supply of approved brand, Vitreous China wash down water closet pan, white, pedestal pattern, standard size.

**(Signature of Contractor with Seal)**

22
<table>
<thead>
<tr>
<th>S.No</th>
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</tr>
</thead>
<tbody>
<tr>
<td>b)</td>
<td>Supply of approved brand, 10 Lit. capacity, white, vitreous china, low level flushing cistern, including brackets, handle, float valve.</td>
<td>Each</td>
<td>10.00</td>
<td>1444.45</td>
<td>14444.5</td>
</tr>
<tr>
<td>c)</td>
<td>Supply of approved brand, 32mm dia, CP brass flush pipe for low level flush tank.</td>
<td>Each</td>
<td>10.00</td>
<td>530.03</td>
<td>5300.3</td>
</tr>
<tr>
<td>d)</td>
<td>Supply of approved brand, PVC water closet seat and cover, black, with flat bottom, MS, CP or aluminised hinge.</td>
<td>Each</td>
<td>10.00</td>
<td>722.61</td>
<td>7226.1</td>
</tr>
<tr>
<td>e)</td>
<td>Supply of approved brand, 10 Lit. capacity, white, vitreous china, coupling, basin, syphonic Valves, water each</td>
<td>Each</td>
<td>10.00</td>
<td>486.11</td>
<td>4861.1</td>
</tr>
<tr>
<td>f)</td>
<td>Supply of approved brand, 10 Lit. capacity, white, flat back, vitreous china, urinal pot, semi stall type, white.</td>
<td>Each</td>
<td>10.00</td>
<td>553.91</td>
<td>5539.1</td>
</tr>
<tr>
<td>g)</td>
<td>Fixing of European water closet, seat cover, flush tank, flush pipe and connecting to drain pipe complete as per MES SSR part-I</td>
<td>Each</td>
<td>10.00</td>
<td>722.61</td>
<td>7226.1</td>
</tr>
<tr>
<td>a)</td>
<td>Supply of approved brand, Vitreous China, 'Orissa' pattern with integral foot rest, size 580mm, white, with 'P' or 'S' trap, front or back inlet.</td>
<td>Each</td>
<td>45.00</td>
<td>1396.69</td>
<td>62851.05</td>
</tr>
<tr>
<td>b)</td>
<td>Supply of approved brand, 10 Lit. capacity, PVC, syphonic action type, low level flushing cistern, white, Cera or equivalent including brackets, float valve and flush pipe.</td>
<td>Each</td>
<td>45.00</td>
<td>1444.45</td>
<td>65000.25</td>
</tr>
<tr>
<td>c)</td>
<td>Fixing of Water closet Squatting type complete including provision of lime concrete bedding all as per MES SSR part-I</td>
<td>Each</td>
<td>45.00</td>
<td>770.37</td>
<td>34666.65</td>
</tr>
<tr>
<td>124</td>
<td>Oval shaped vitreous china under counter wash basin with suitable brackets, pillar cock, brass bottle trap, waste coupling, PVC inlet connection, angle cock and CP wall cap complete as detailed below.</td>
<td>Each</td>
<td>57.00</td>
<td>1685.58</td>
<td>96078.06</td>
</tr>
<tr>
<td>j)</td>
<td>Supply of approved brand, Cera or equivalent, Oval shaped vitreous china, under counter, wash basin, white, size 550x460mm with manufacturers brackets.</td>
<td>Each</td>
<td>57.00</td>
<td>777.90</td>
<td>32934.03</td>
</tr>
<tr>
<td>k)</td>
<td>Supplying and fixing of approved brand, heavy duty CP brass bottle traps for wash basins with inlet and outlet including necessary packing union and cap complete.</td>
<td>Each</td>
<td>71.00</td>
<td>695.59</td>
<td>49386.89</td>
</tr>
<tr>
<td>l)</td>
<td>Fixing of oval wash basins, 550x460mm, including cutting and pinning ends of brackets, fixing of taps and waste coupling complete.</td>
<td>Each</td>
<td>57.00</td>
<td>577.79</td>
<td>32934.03</td>
</tr>
<tr>
<td>125</td>
<td>All same as item No.125 above but 550 mmx400 mm white glazed ceramic lavatory basin with concealed brackets complete (for drinking and wash areas at shops)</td>
<td>Each</td>
<td>14.00</td>
<td>722.61</td>
<td>10116.54</td>
</tr>
<tr>
<td>a)</td>
<td>Supply of approved brand vitreous china wash basin, white, flat back size 550x460mm including suitable brackets complete.</td>
<td>Each</td>
<td>14.00</td>
<td>722.61</td>
<td>10116.54</td>
</tr>
<tr>
<td>b)</td>
<td>Fixing of ceramic wash basins size 550x460mm, including cutting and pinning ends of brackets, fixing of taps and waste coupling complete.</td>
<td>Each</td>
<td>14.00</td>
<td>530.03</td>
<td>7420.42</td>
</tr>
<tr>
<td>127</td>
<td>SHOWER UNIT</td>
<td></td>
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</tr>
<tr>
<td>a)</td>
<td>Supply of approved brand, CP brass shower rose of approved not exceeding 125mm.</td>
<td>Each</td>
<td>7.00</td>
<td>546.93</td>
<td>3828.51</td>
</tr>
<tr>
<td>b)</td>
<td>Fixing of CP shower rose complete.</td>
<td>Each</td>
<td>7.00</td>
<td>248.82</td>
<td>1741.74</td>
</tr>
<tr>
<td>c)</td>
<td>Supply and fixing of approved brand, 15mm dia Stop Valves, CP, screwed down, high pressure, with crutch or butterfly handle, screwed both ends for iron pipe including cutting and making good the walls, wherever required.</td>
<td>Each</td>
<td>7.00</td>
<td>741.67</td>
<td>5192.69</td>
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<tr>
<td>128</td>
<td>Supply and fixing of approved brand CP brass towel rail 600mm long fixed on to wall by using CP brass counter sunk screws.</td>
<td>Each</td>
<td>7.00</td>
<td>915.21</td>
<td>6406.47</td>
</tr>
<tr>
<td>129</td>
<td>URINAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>Supply of approved brand, vitreous china, urinal pot, semi stall type, white.</td>
<td>Each</td>
<td>37.00</td>
<td>1512.24</td>
<td>55952.88</td>
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<tr>
<td>S.No</td>
<td>Description</td>
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<td>Quantity</td>
<td>Rate in figures</td>
<td>Amount</td>
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</tr>
<tr>
<td>a)</td>
<td>Supply and fixing of approved brand, CP brass bottle traps suitable for half stall urinal with inlet and outlet screwed for pipe including necessary packing union and cap complete.</td>
<td>Each</td>
<td>37.00</td>
<td>722.61</td>
<td>26736.57</td>
</tr>
<tr>
<td>c)</td>
<td>Supply of approved brand, CP brass waste coupling suitable for semi stall type urinals with screwed shanks and fly nuts.</td>
<td>Each</td>
<td>37.00</td>
<td>248.82</td>
<td>9206.34</td>
</tr>
<tr>
<td>d)</td>
<td>Supply of auto flushing system for urinal stalls, operated by power with tamper proof parts, concealed with stainless steel visible plate including CP copper flush pipe, CP brass spreader, CP flanged cup complete.</td>
<td>Each</td>
<td>37.00</td>
<td>4093.01</td>
<td>151441.37</td>
</tr>
<tr>
<td>e)</td>
<td>Fixing of vitreous china urinals, semi stall type including providing and fixing plugs, bedding urinal against wall, providing and fixing 60mm long brass screws, pointing around urinal back in white cement; fixing auto flushing unit, flush pipe, grating and Union complete.</td>
<td>Each</td>
<td>37.00</td>
<td>722.61</td>
<td>26736.57</td>
</tr>
<tr>
<td>f)</td>
<td>Providing and fixing approved white marble urinal partition, 1200x500x20mm, polished on both sides and machine cut edges, exposed corners rounded and polished including fixing in walls, cutting grooves and making good the walls complete.</td>
<td>S m</td>
<td>37.00</td>
<td>2118.54</td>
<td>78385.98</td>
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<tr>
<td>130</td>
<td>Supply and fixing in position approved brand, 15mm CP brass concussive push button taps, screwed for iron pipe with CP wall flange complete.</td>
<td>Each</td>
<td>6.00</td>
<td>770.37</td>
<td>4622.22</td>
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<tr>
<td>131</td>
<td>Supply and fixing of approved brand, Jaquar or equivalent CP brass double robe hook fixed to door by using CP brass counter sunk screws.</td>
<td>Each</td>
<td>55.00</td>
<td>149.45</td>
<td>8219.75</td>
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<tr>
<td>132</td>
<td>Supply and fixing of approved brand Liquid Soap Container of PTMT fixed with and including Chromium plated brass screws and wooden/plastic cleats (minimum weight 105gms) complete.</td>
<td>Each</td>
<td>28.00</td>
<td>1204.1</td>
<td>33714.8</td>
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<tr>
<td>133</td>
<td>Supply &amp; Fixing of approved make, 600mm x 450mm bevelled edge mirror of selected quality glass, mounted on 6mm thick AC building board or commercial plywood and fixed to wooden plugs with chromium plated brass screws and cup washers.</td>
<td>Each</td>
<td>57.00</td>
<td>1444.45</td>
<td>82333.65</td>
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<tr>
<td>134</td>
<td>Supply and fixing of approved brand, 15mm CP brass angle valves with CP wall cap.</td>
<td>Each</td>
<td>140.00</td>
<td>433.72</td>
<td>60720.8</td>
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<td>135</td>
<td>Supply and fixing of approved brand, 15mm dia, 600 mm long, PVC service connection.</td>
<td>Each</td>
<td>140.00</td>
<td>248.82</td>
<td>34834.8</td>
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<tr>
<td>136</td>
<td>Supply of approved brand Pillar cocks, CP brass, with long screwed shanks and fly nuts, screwed for iron pipe.</td>
<td>Each</td>
<td>85.00</td>
<td>433.72</td>
<td>36866.2</td>
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<tr>
<td>137</td>
<td>Supply of 32mm dia approved brand, CP brass waste coupling, heavy duty for glazed ware basins, with long screwed shanks and fly nuts</td>
<td>Each</td>
<td>71.00</td>
<td>149.45</td>
<td>10610.95</td>
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<tr>
<td>138</td>
<td>Supply and fixing of approved brand, 15mm CP brass bib cock with wall flange complete.</td>
<td>Each</td>
<td>45.00</td>
<td>265.01</td>
<td>11925.45</td>
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<tr>
<td>139</td>
<td>Supply and fixing of approved brand, tested, medium 'B' class G.I pipes with screwed ends including all necessary fittings such as bend, tees, elbows, coupling, reducers, union, check nuts, short peaces, four ways, nipples etc. suitable for concealed work, including cutting and threading, short peaces jointing with teflon tapes, fixed complete in walls and ceilings or laid in floors including all calmps, nails etc. testing the pipe line for leakage and functioning, before concealing connecting to the source complete as directed by the consultant and Engineer In Charge.</td>
<td>Rmt</td>
<td>280.00</td>
<td>177.96</td>
<td>49828.8</td>
</tr>
<tr>
<td>140</td>
<td>Making chases upto 6.5x6.5 cm in walls (masonry or concrete) including making good with cement mortar not Linear than 1:3 and finishing with matching surface after housing G.I pipe etc.</td>
<td>Rmt</td>
<td>310.00</td>
<td>322.75</td>
<td>100052.5</td>
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Sub Total (M) 1063987.3

N - WATER SUPPLY

<table>
<thead>
<tr>
<th>S.No</th>
<th>Description</th>
<th>Unit</th>
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<tr>
<td>a)</td>
<td>15mm NB</td>
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<td>280.00</td>
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(Signature of Contractor with Seal)
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<thead>
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<th>S.No</th>
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<th>Quantity</th>
<th>Rate in figures</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>141</td>
<td>Supplying, hoisting and fixing in position approved make, Syntex or equivalent HDPE tank including all necessary flanged welded on connections for inlet, outlet, drain, over flow, vent level indicator etc including necessary pedastal complete as per drawing and as directed by the Engineer In Charge.</td>
<td></td>
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<tr>
<td>142</td>
<td>Supply and fixing of approved brand, tested, medium ‘B’ class G.I pipes with screwed ends including all necessary fittings such as bend, tees, elbows, coupling, reducers, union, check nuts, short pieces, four ways, nipples etc., jointing with teflon tapes, fixed complete laid in trenches including cutting and threading, all consumables, testing the pipe line for leakage and functioning, before filling the trenches connecting to the source, complete as directed by the consultant and Engineer In Charge.</td>
<td></td>
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<tr>
<td>143</td>
<td>Supply &amp; Fixing of approved brand, Gun-metal, globe or gate valve, with iron wheel head, screwed both ends for iron pipe complete as directed.</td>
<td></td>
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<tr>
<td>144</td>
<td>Supply &amp; fixing of approved brand, brass float valves, high pressure with polythene float and flynut complete, screwed for iron pipe or brass ferrule and fixed</td>
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<tr>
<td>145</td>
<td>Providing, fixing, testing &amp; commissioning of approved brand, SSF or equivalent, heavy duty float valve with copper ball etc. The quoted rate shall include the cost of the specials required for completion of the item.</td>
<td></td>
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<tr>
<td>146</td>
<td>Supply &amp; Fixing of approved brand, PVC (SWR) floor trap with grating and 50mm water seal including jointing with solvent cement complete.</td>
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<tr>
<td>147</td>
<td>Supply &amp; Fixing of approved brand, PVC (SWR) pipes single socketed, in any length with solvent cement / rubber ring joints, laid in trenches or in floors complete.</td>
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<td>148</td>
<td>Supply &amp; fixing of approved brand PVC (SWR) bends any radius.</td>
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Sub Total (N)

O - SEWERAGE INTERNAL

Supply & fixing of approved brand PVC (SWR) ends any radius.

(Signature of Contractor with Seal)
<table>
<thead>
<tr>
<th>S.No</th>
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<th>Unit</th>
<th>Quantity</th>
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<tbody>
<tr>
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<td>Supply &amp; fixing of approved brand, PVC (SWR) branch piece, single (single Y) equal or unequal.</td>
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<td>Supply &amp; fixing of approved brand, PVC (SWR) bends any radius with access door.</td>
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<tr>
<td>a)</td>
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<td>b)</td>
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<td>Each</td>
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<td>Supply &amp; fixing of approved brand, PVC (SWR) junction single (Single T) equal or unequal with access door.</td>
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<tr>
<td>a)</td>
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<td>Each</td>
<td>10.00</td>
<td>174.1</td>
<td>1741</td>
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<tr>
<td>b)</td>
<td>75mm</td>
<td>Each</td>
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<td>154.22</td>
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<td>Supply &amp; fixing of approved brand, PVC (SWR) branch piece, single (single Y) equal or unequal with access door.</td>
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<td>174.1</td>
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<td>b)</td>
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<td>Supply &amp; fixing of approved brand, PVC (SWR) branch piece, double (double Y) equal or unequal with access door.</td>
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<tr>
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<td>10.00</td>
<td>198.74</td>
<td>1987.4</td>
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<tr>
<td>b)</td>
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<td>Each</td>
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<td>143.89</td>
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<td>Supply &amp; fixing of approved brand, PVC (SWR) couplers</td>
<td>b)</td>
<td>10.00</td>
<td>174.1</td>
<td>1741</td>
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<tr>
<td>c)</td>
<td>75mm</td>
<td>Each</td>
<td>30.00</td>
<td>143.89</td>
<td>4316.7</td>
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<tr>
<td></td>
<td>Providing, fixing, testing and commissioning of approved brand, PVC (SWR) pipes single socketed in any length with rubber ring joints fixed to walls complete for Rain water down takes.</td>
<td>a)</td>
<td>110mm SWR PVC</td>
<td>480.00</td>
<td>223.38</td>
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<tr>
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<td>Supplying and fixing of approved brand, PVC vent cowl.</td>
<td>a)</td>
<td>75mm dia.</td>
<td>10.00</td>
<td>154.22</td>
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<td>Supply &amp; fixing of approved brand, 110mm PVC (SWR) WC connector with lip ring.</td>
<td>b)</td>
<td>110mm dia.</td>
<td>12.00</td>
<td>198.74</td>
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<tr>
<td></td>
<td>Supply &amp; fixing of stack clamps out of 50mm by 5mm flat iron and 16mm dia round iron stays, including bolts and nuts and securing ends of stays to wall or roof.</td>
<td>b)</td>
<td>75mm</td>
<td>90.00</td>
<td>50.09</td>
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<tr>
<td></td>
<td>Supply, Fixing of approved brand, 125 x 100mm PVC SWR gully trap with cement concrete bedding complete.</td>
<td>b)</td>
<td>110mm</td>
<td>210.00</td>
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<tr>
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<td>Each</td>
<td>10.00</td>
<td>248.82</td>
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(Signature of Contractor with Seal)
<table>
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<th>S.No</th>
<th>Description</th>
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<th>Quantity</th>
<th>Rate in figures</th>
<th>Amount</th>
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<tbody>
<tr>
<td>162</td>
<td>Supplying and fixing, testing and commissioning of approved brand, 160mm dia., PVC (SWR) pipes single socketed in any length using solvent cement/with rubber ring joints laid in trenches or in floors complete.</td>
<td>Rmt</td>
<td>150.00</td>
<td>273.47</td>
<td>41020.5</td>
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<tr>
<td>163</td>
<td>Providing, Laying, Testing &amp; Commissioning of approved brand, RCC pipes of NP2 class with suitable collars filling the recess at joints of pipes with hemp dipped in hot bitumen or other suitable compound for chaulking of joint by jack, setting up of loose space over the collar joints chaulked with CM 1:2, finished both ends to a slope of 1:1 including curing, testing of pipes, etc., complete.</td>
<td>Rmt</td>
<td>150.00</td>
<td>577.79</td>
<td>323562.4</td>
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<tr>
<td></td>
<td>a) 450 mm dia</td>
<td>Rmt</td>
<td>560.00</td>
<td>577.79</td>
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<td>b) 300mm dia.</td>
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<td>c) 200 mm dia</td>
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<td>348.19</td>
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<td>d) 150mm dia</td>
<td>Rmt</td>
<td>100.00</td>
<td>300.45</td>
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<tr>
<td>164</td>
<td>Providing Concrete bed to PVC drain pipes including packing under and completely surrounding pipes, 100mm thick with concrete after they are laid and tested as directed. With Cement concrete 1:3:6 type C-2</td>
<td>Rmt</td>
<td>150.00</td>
<td>161.78</td>
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<tr>
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<td>a) 150mm dia</td>
<td>Rmt</td>
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<td>b) 75mm dia</td>
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<td>165</td>
<td>Providing Concrete bed to RCC drain pipes including forming craddles, 150mm thick and width 30cms plus outer dia. Of pipe with concrete after they are laid and tested as directed. With Cement concrete 1:3:6 type C-2</td>
<td>Rmt</td>
<td>550.00</td>
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<td>b) 300mm dia</td>
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<tr>
<td></td>
<td>c) 200mm dia</td>
<td></td>
<td></td>
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<tr>
<td>166</td>
<td>Cutting the existing manholes for connecting 450mm dia. drain pipe, making good, cutting out existing benching and forming branch channel (1/2 round or 3/4 section) in cement concrete 1:2:4 type B-1 smooth finished, and re-forming benching as required.</td>
<td>Each</td>
<td>1.00</td>
<td>9936.96</td>
<td>9936.96</td>
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<tr>
<td>168</td>
<td>Supply, erection, testing and commissioning of CRI or equivalent make water transfer sytem comprising of 1working transfer pump, self priming type, fitted with standard motor impeller and other vital parts, high quality control panel comprising of change over dry run protection, DOL starter, suction and discharge manifolds, pressure gauges and pressure switches, inclusive of wiring from panel to pump etc., complete.</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>a) Capacity: 5cum/Hr @ 40m head not less than 7.5HP</td>
<td>Each</td>
<td>1.00</td>
<td>18296.41</td>
<td>18296.41</td>
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<tr>
<td>169</td>
<td>Supplying, installing, testing and commissioning of approved brand, C.I. Non- return valves (PN 16) as per IS:5312, swing check type with required flanges, nuts, bolts and gaskets etc. complete.</td>
<td>Each</td>
<td>1.00</td>
<td>731.86</td>
<td>731.86</td>
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<tr>
<td>170</td>
<td>Supplying, installing, testing and commissioning of approved brand, C.I. Foot valve Ball type, Flanged end, nuts, bolts and gaskets etc. complete.</td>
<td>Each</td>
<td>1.00</td>
<td>1097.78</td>
<td>1097.78</td>
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<tr>
<td>174</td>
<td>Supplying,Lowering, testing and commissioning of KSB or equivalent make submersible pump suitable for 150mm dia borewells with starter panels inclusive of water proof wiring from panel to pumps,NRV etc.complete.</td>
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<tr>
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<td>Capacity : 15-18cum/Hr @ 136-130m head not less than 15HP</td>
<td>Each</td>
<td>3.00</td>
<td>18296.41</td>
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<td>175</td>
<td>Supply, erection, testing and commissioning of KSB or equivalent make dewatering pump,submersible type,with starter panel inclusive of water proof wiring from panel to pump complete.</td>
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<td>Capacity : 10-15cum/hr @ 9-7m head not less than 1 HP</td>
<td>Each</td>
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<td>mlh</td>
<td>150mm dia</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>a) 50 mm nominal dia</td>
<td>Each</td>
<td>1.00</td>
<td>1097.78</td>
<td>1097.78</td>
</tr>
<tr>
<td></td>
<td>b) 50 mm nominal dia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.No</td>
<td>Description</td>
<td>Unit</td>
<td>Quantity</td>
<td>Rate in figures</td>
<td>Amount</td>
</tr>
<tr>
<td>------</td>
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<td>----------------</td>
<td>--------</td>
</tr>
<tr>
<td>167</td>
<td>Supply &amp; Fixing of 17 feet radius Sprinklers (Spray head) Jain or equivalent, adjustable from 1 to 360 degrees having trajectory 28 degrees. Operating radius 19 feet, 5.3 gpm. 15mm inlet complete as directed.</td>
<td>Each</td>
<td>220.00</td>
<td>228.95</td>
<td>50369</td>
</tr>
<tr>
<td>177</td>
<td>Supply &amp; Fixing of 1/2” x30 Cm long swing joint with two swing elbows &amp; male connection complete. (only where the sprinkler coming on header pipe).</td>
<td>Each</td>
<td>50.00</td>
<td>218.61</td>
<td>10930.5</td>
</tr>
<tr>
<td>178</td>
<td>Supply &amp; Fixing of approved brand, 10kg/cm² rating UPVC pipes single socketed, conforming the IS:4985-2000, in any length with solvent cement / rubber ring joints, including short lengths, with all pipe fittings such as ends, elbows, unions, tees, reducing tees, adaptors, sockets, plugs, hose clips etc. and fixing to walls etc. complete with saddles (snap clips), wall clips, hooks, protective mild steel tube sleeves and cutting through walls, floors and their making good or laying in trenches and also cutting, screwing and waste complete.</td>
<td>Each</td>
<td>65mm Rmt</td>
<td>400.00</td>
<td>149.45</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>50mm Rmt</td>
<td>96.00</td>
<td>69.95</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>40mm Rmt</td>
<td>175.00</td>
<td>44.51</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>32mm Rmt</td>
<td>130.00</td>
<td>30.21</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>25mm Rmt</td>
<td>250.00</td>
<td>19.88</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20mm Rmt</td>
<td>180.00</td>
<td>15.11</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>15mm Rmt</td>
<td>560.00</td>
<td>62.41</td>
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<tr>
<td>179</td>
<td>Supply &amp; Fixing of approved brand, Gun-metal, globe or gate valve, with iron wheel head, screwed both ends for iron pipe</td>
<td>Each</td>
<td>50mm dia</td>
<td>5.00</td>
<td>462.23</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>65mm dia</td>
<td>6.00</td>
<td>553.91</td>
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<tr>
<td>180</td>
<td>Supply &amp; Fixing of approved brand, ball brass valves, high pressure with polythene float and flynut complete, screwed for iron pipe or brass ferrule and fixed</td>
<td>Each</td>
<td>32mm dia</td>
<td>2.00</td>
<td>645.57</td>
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<td></td>
<td></td>
<td>40mm dia</td>
<td>4.00</td>
<td>828.15</td>
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<td>181</td>
<td>Painting to G.I. pipes and fittings with two coats of approved quality and shade synthetic enamel paint over a coat of primer from same manufacturer complete including material and labour, necessary supports, scaffolding etc. painting at any level and height all as directed by the Engineer in Charge</td>
<td>Each</td>
<td>100mm dia</td>
<td>Rmt</td>
<td>160.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>80mm dia</td>
<td>Rmt</td>
<td>180.00</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>50mm dia</td>
<td>Rmt</td>
<td>180.00</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>40mm dia</td>
<td>Rmt</td>
<td>430.00</td>
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<td></td>
<td></td>
<td></td>
<td>32mm dia</td>
<td>Rmt</td>
<td>120.00</td>
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<td></td>
<td></td>
<td></td>
<td>25mm dia</td>
<td>Rmt</td>
<td>460.00</td>
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<td></td>
<td>20mm dia</td>
<td>Rmt</td>
<td>680.00</td>
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(Sub Total (O)) 1670665.5
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<th>Rate in figures</th>
<th>Amount</th>
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<tr>
<td>172</td>
<td>15mm dia</td>
<td>Rmt</td>
<td>280.00</td>
<td>10.02</td>
<td>2805.6</td>
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<tr>
<td>182</td>
<td>Excavating trenches in all types of soil to required width for pipes, cables etc. including dewatering, shoring, strutting, trimming and leveling the bed, refilling, watering and consolidating carting and spreading the surplus earth within the site or disposing off where directed. Excavation may be done by using mechanical excavators. However excavation shall be done only manually where service lines are running or use of machinery may affect the stability or damage the nearby structure as directed by the Engineer In Charge.</td>
<td></td>
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<tr>
<td></td>
<td>Lift up to 1.50 mt</td>
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<tr>
<td>176</td>
<td>Ordinary soil/Hard soil</td>
<td>Cum</td>
<td>1000.00</td>
<td>71.55</td>
<td>71550</td>
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<tr>
<td>177</td>
<td>Soft rock</td>
<td>Cum</td>
<td>600.00</td>
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<tr>
<td>178</td>
<td>Hard rock</td>
<td>Cum</td>
<td>400.00</td>
<td>457.61</td>
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<td>Sub Total (P)</td>
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<td>TOTAL (PART-I) CIVIL WORKS</td>
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Quoted Percentage below (-) / above (+) on above item rates

Final Value of Package after application of Percentage rates as above on estimated cost

Final Value of Package as above in Words