# City Pavement Characteristics

<table>
<thead>
<tr>
<th>Street Classification</th>
<th>Lane Miles</th>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Very Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local</td>
<td>1157.14</td>
<td>0.51%</td>
<td>3.98%</td>
<td>25.57%</td>
<td>42.35%</td>
<td>27.59%</td>
</tr>
<tr>
<td>Collector</td>
<td>171.55</td>
<td>12.93%</td>
<td>15.55%</td>
<td>17.60%</td>
<td>34.97%</td>
<td>18.95%</td>
</tr>
<tr>
<td>Arterial</td>
<td>506.60</td>
<td>14.46%</td>
<td>37.31%</td>
<td>23.36%</td>
<td>15.39%</td>
<td>9.48%</td>
</tr>
<tr>
<td><strong>Total Lane Miles</strong></td>
<td><strong>1835.29</strong></td>
<td><strong>6.44%</strong></td>
<td><strong>16.76%</strong></td>
<td><strong>24.18%</strong></td>
<td><strong>32.17%</strong></td>
<td><strong>20.47%</strong></td>
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<tbody>
<tr>
<td></td>
<td>118.19</td>
<td>307.59</td>
<td>443.77</td>
<td>590.41</td>
<td>375.68</td>
<td></td>
</tr>
</tbody>
</table>
The City of Richmond performs a Road Condition Assessment every 3 to 4 years. The City maintains 1836 Moving Lane Miles and 564 Parking lane Miles.
Once the City Road Condition Assessment is performed the City loads the information into the Micro Paver Program developed by US Army Corp of Engineers.
This is a segment of City Streets that is a candidate for Heat Scarification and Slurry Seal.
The City has the contractor fill pot holes prior to Heat Scarification Process.
The contractor has completed ½ the street with the Heat Scarification process.
Heat Scarification process reheats the existing asphalt to 300 degrees, scarifies the existing surface and levels the asphalt mat.
Once the Scarification process is complete the contractor still has to compact the mat to 95%.
Heat Scarification and slurry saves the City approximately $1.00 per square yard over thin lift and slurry application and $6.00 per square yard over Mill and Overlay.
Once the prep work has been completed with either Heat Scarification or thin lift asphalt install the mat receives a layer of slurry seal.

- **Slurry Seal** is a mixture of slow setting asphalt, fine aggregate, mineral filler and water. It is used to fill cracks and seal areas of old pavements, to restore a uniform surface texture, to seal the surface to prevent moisture intrusion into the pavement, and to provide skid resistance. The life expectancy is 5-6 years.
The City of Richmond preforms a Spring and a Fall Slurry Program
This segment of road that has had the final restoration performed with slurry seal after prep.
The City mills and overlays our Arterial and Major Collector Streets
The City uses SM-12.5D or SM12.5E mixes on the majority of our streets.
The City has to be diligent with MOT and utility adjustments to maintain safety for the traveling public.
When existing City streets are concrete the City installs paving fabric over concrete to help prevent longitudinal and transversal cracking. Tack material is 70-22 liquid and installed at .12 to .13 gallons per square yard over milled surface.
The City will cut out bad concrete joints, patch and install 50 kilo newton fabric over the entire road surface.
Department of Public Utilities repaved multiple utility cuts per new standards
When Department of Public Utilities or any Utility contractor cuts City streets typical repair per new standards
Department of Public Utilities perform trench repair on major paving rehab prior to Department of Public works repaves street.
Department of Public Works paved 56 Moving Lane miles for Department of Public Utilities in 2018 where utility upgrades were performed.
Future Paving Projections

Paving Completed 2015 – 170 miles at an estimated $11 million

Paving Completed 2016 – 157 lane miles at an estimated $8.5 million

Paving scheduled 2017 – 80.44 lane miles at an estimated $3.6 million

Paving scheduled 2018 – 80.22 lane miles at an estimated $5.4 Million

Paving completed between 2015 and 2018
487.66 MLM at a Cost of $28.5 Million

Projected Future Years - $3-5 million dollars annually
City Funding Source

- City Budget
- Repaving for Department of Public Utilities
- VDOT State of Good Repair
- VDOT Revenue Sharing