APPENDIX B

DESIGNS FOR VIRGINIA DEPARTMENT OF TRANSPORTATION ASPHALT MIXTURES SM-2AL AND BM-2
Selected sections from Virginia Department of Transportation, "Road and Bridge Specifications", Section 211 - Asphalt Concrete

Types of Mixtures

Type SM-2A asphalt concrete shall consist of crushed stone, crushed slag, or crushed gravel and fine aggregate, slag, or stone screenings, or a combination thereof combined with asphalt cement. Not more than 5 percent of the aggregate retained on the No. 4 sieve and not more than 20 percent of the total aggregate may be polish susceptible.

Type BM-2 asphalt concrete shall consist of coarse aggregate (crushed stone, crushed slag, or crushed gravel) and fine aggregate (slag, stone screenings, gravel screenings, or a combination thereof) combined with at least 4.4 percent asphalt cement.

Table-B.1: Aggregate Retention Specification for Asphalt Concrete Mixtures

<table>
<thead>
<tr>
<th>Type</th>
<th>2 in</th>
<th>1 1/2 in</th>
<th>1 in</th>
<th>3/4 in</th>
<th>1/2 in</th>
<th>3/8 in</th>
<th>No. 4</th>
<th>No. 8</th>
<th>No. 30</th>
<th>No. 50</th>
<th>No. 200</th>
</tr>
</thead>
<tbody>
<tr>
<td>SM-2A</td>
<td>100</td>
<td>97-100</td>
<td>82-94</td>
<td>48-62</td>
<td>18-24</td>
<td>4-7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BM-2</td>
<td>100</td>
<td>97-100</td>
<td>75-90</td>
<td>54-74</td>
<td>30-38</td>
<td>3-6</td>
<td></td>
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<td></td>
<td></td>
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</tbody>
</table>

Table-B.2: Mixture Design Criteria for Asphalt Concrete Mixtures

<table>
<thead>
<tr>
<th>Mixture</th>
<th>VTM</th>
<th>VFA</th>
<th>Min. VFA</th>
<th>Min. Stability (lb)</th>
<th>Flow (0.01 in)</th>
<th>AC Viscosity Grade</th>
<th>Marshall Blow</th>
</tr>
</thead>
<tbody>
<tr>
<td>SM-2A</td>
<td>3-6</td>
<td>65-80</td>
<td>15</td>
<td>1,200</td>
<td>8-16</td>
<td>AC-20</td>
<td>50</td>
</tr>
<tr>
<td>BM-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>AC-20</td>
</tr>
</tbody>
</table>

Notes: The maximum F/A shall be 1.2:1 for surface mixtures; The maximum F/A shall be 1.4:1 for base mixtures; The minimum F/A shall be 0.6:1 for surface mixtures; The asphalt content shall be selected at the midpoint of the VTM range.