

<b>MAINTENANCE PLANNING GUIDELINES</b>		01/2014																																																
<b>ACTIVITY:</b> Roadway Shoulders (R225) <b>MAJOR &amp; MINOR</b>	<b>ACTION:</b> Repair Concrete Shoulders & Approaches																																																	
<b>DEFINITION:</b> The time and expenses incurred to expand installation and maintenance of asphalt concrete and aggregate roadway shoulder, approaches and clear zones.																																																		
<b>PURPOSE:</b> Eliminate potholes and shoulder drop-off to adjacent shoulder or pavement.																																																		
<b>SCHEDULING:</b> As needed, or 50°F and above.	<table border="1" style="width: 100%; text-align: center;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> <tr> <td>A</td><td>E</td><td>A</td><td>P</td><td>A</td><td>U</td><td>U</td><td>U</td><td>E</td><td>C</td><td>O</td><td>E</td> </tr> <tr> <td>N</td><td>B</td><td>R</td><td>R</td><td>Y</td><td>N</td><td>L</td><td>G</td><td>P</td><td>T</td><td>V</td><td>C</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>		J	F	M	A	M	J	J	A	S	O	N	D	A	E	A	P	A	U	U	U	E	C	O	E	N	B	R	R	Y	N	L	G	P	T	V	C												
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<b>RECOMMENDED EQUIPMENT:</b>	<b>RECOMMENDED PROCEDURE:</b>																																																	
<ul style="list-style-type: none"> <li>• Trucks</li> <li>• Dowell Drill</li> <li>• Concrete Saw</li> <li>• Wheel Saw</li> <li>• Backhoe or Loader</li> <li>• Traffic Control Equipment; (See EPG <a href="#">616.23 Traffic Control for Field Operations</a>)</li> </ul>	<ol style="list-style-type: none"> <li>1. Contact Dig Rite and others to mark utilities.</li> <li>2. Place traffic control devices as needed.</li> <li>3. Use wheel saw in middle of repair to relieve stress or make the piece smaller to aid removal.</li> <li>4. Saw patch perimeter with diamond blade concrete saw.</li> <li>5. Remove concrete, Prepare subgrade, Place forms.</li> <li>6. Align, drill, and install greased dowels.</li> <li>7. Dampen subgrade and forms.</li> <li>8. Place and vibrate concrete.</li> <li>9. Screed and finish surface.</li> <li>10. Edge, texture and date patch.</li> <li>11. Spray with curing compound.</li> <li>12. Cure to strength.</li> <li>13. Remove forms and repair inslope.</li> <li>14. Remove loose material.</li> <li>16. Pour liquid asphalt around edges.</li> <li>17. Maintain Rumble Strips in accordance with <a href="#">EPG 626</a>.</li> <li>18. Remove traffic control devices.</li> </ol>																																																	
<b>RECOMMENDED MATERIAL:</b>																																																		
<ul style="list-style-type: none"> <li>• 8-½ Bag Ready Mix</li> <li>• Calcium Chloride</li> <li>• 1” Epoxy Coated Dowel Bars Spaced 5 Per Wheel Path on 12” ctrs</li> <li>• Liquid Emulsified Asphalt</li> <li>• Curing Compound</li> </ul>																																																		
<b>SAFETY:</b> Extreme care should be exercised when working adjacent to traffic. Wear all appropriate PPE. Refer to the <a href="#">Comprehensive Safety Program sharepoint portal</a> . Wear all appropriate PPE. Refer to the <a href="#">Risk Based Assessment</a> for additional information.																																																		
<b>OTHER CONSIDERATIONS:</b> Concrete should be from a calibrated ready-mix plant.																																																		
<b>REFERENCES:</b> Missouri Standard Specifications for Highway Construction; Section <a href="#">613.10</a> , Missouri Standard Plan <a href="#">613.00</a> .																																																		