

## Concrete Repair Recommendations

Table 1. General Pre-overlay Repairs on Existing Concrete Pavement – Asphalt Overlay

Existing Pavement Condition/Distress	Repair to Consider
Badly Shattered Slabs	Full-Depth Repair <sup>1)</sup>
Severe Joint Spalling	Clean and/or patch with bituminous mixture
Punchouts <sup>2)</sup> , Corner Cracks or other Severe Damage	Full Depth Repair
Rocking, deflection, or pumping problems	Full-depth repair including possible subbase/subgrade repair
Cracks < .125 in. wide	None
Cracks > 0.125 in. and < 1.5 in. wide	Rout, Clean, and Seal
Joints	Clean and Seal
Transverse Cracks & Longitudinal Wheel Path Cracks	Full-Depth Repair
<p><u>Note</u></p> <ol style="list-style-type: none"> <li>1) Perform full depth repair if badly shattered slabs are broken into more than two pieces.</li> <li>2) A punchout or edge break is a cracked rectangular area usually along the outside pavement edge. A punchout requires formation of longitudinal crack (usually within the outer wheel track) which connects transverse cracks of the CRC pavement. The rectangular punchout area thus is defined by 2 transverse cracks, the longitudinal crack and the outside pavement edge. A punchout results from concrete that is over stressed because of short transverse crack spacing or poor support of the CRC pavement. Punchout areas which have been repaired should be evaluated for patching distress.</li> </ol>	
<p><u>Additional Notes</u></p> <ul style="list-style-type: none"> <li>• Perform joint cleaning and sealing per Section 504 of the 2007 Standard Specifications for Highway Construction.</li> <li>• Perform crack sealing per Section 505 of the 2007 Standard Specification for Highway Construction.</li> <li>• Use a hot poured sealant for both operations.</li> <li>• Perform Concrete Pavement Patching per Section 502 with the exception that the minimum patch length is 8 ft. long.</li> <li>• Replace any patch that develops cracking or deformation within 30 days after opening traffic at no additional cost to the Department.</li> </ul>	

Table 2. General Repairs on Existing Concrete Pavement

Existing Pavement Condition/Distress	Repair to Consider
Badly Shattered Slabs	Full-Depth Repair <sup>1)</sup>
Severe Joint Spalling	Clean and/or patch with bituminous mixture
Punchouts <sup>2)</sup> , Corner Cracks or other Severe Damage	Full Depth Repair
Rocking, deflection, or pumping problems	Full-depth repair including possible subbase/subgrade repair
Cracks < .125 in. wide	None
Cracks > 0.125 in. and < 1.5 in. wide	Rout, Clean, and Seal
Joints	Clean and Seal
Transverse Cracks & Longitudinal Wheel Path Cracks	Full-Depth Repair
<p><b>Note</b></p> <p>1) Perform full depth repair if badly shattered slabs are broken into more than two pieces.</p> <p>2) A punchout or edge break is a cracked rectangular area usually along the outside pavement edge. A punchout requires formation of longitudinal crack (usually within the outer wheel track) which connects transverse cracks of the CRC pavement. The rectangular punchout area thus is defined by 2 transverse cracks, the longitudinal crack and the outside pavement edge. A punchout results from concrete that is over stressed because of short transverse crack spacing or poor support of the CRC pavement. Punchout areas which have been repaired should be evaluated for patching distress.</p>	
<p><b>Additional Notes</b></p> <ul style="list-style-type: none"> <li>• Perform joint cleaning and sealing per Section 504 of the 2007 Standard Specifications for Highway Construction.</li> <li>• Use Silicone sealant for joint sealing operations.</li> <li>• Perform crack sealing per Section 505 of the 2007 Standard Specification for Highway Construction.</li> <li>• Perform Concrete Pavement Patching per Section 502 with the exception that the minimum patch length is 8 ft. long.</li> <li>• Replace any patch that develops cracking or deformation within 30 days after opening traffic at no additional cost to the Department.</li> </ul>	