

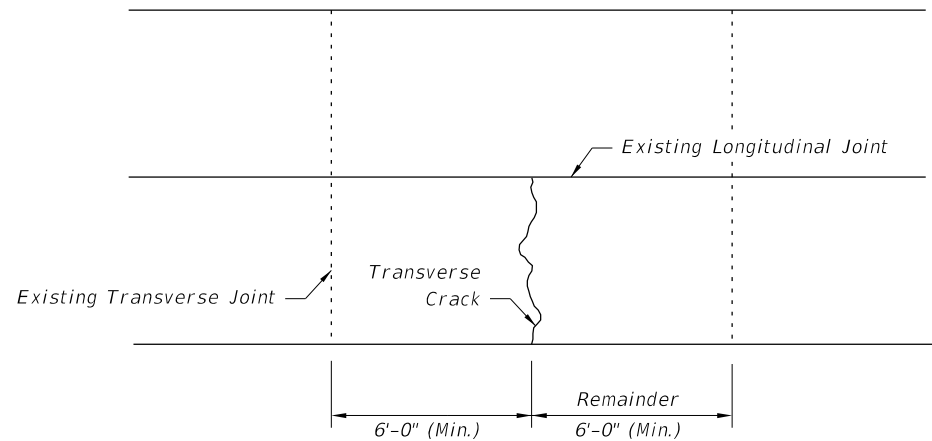


FIGURE 1 - REPAIR METHOD: NONE OR CLEAN AND SEAL

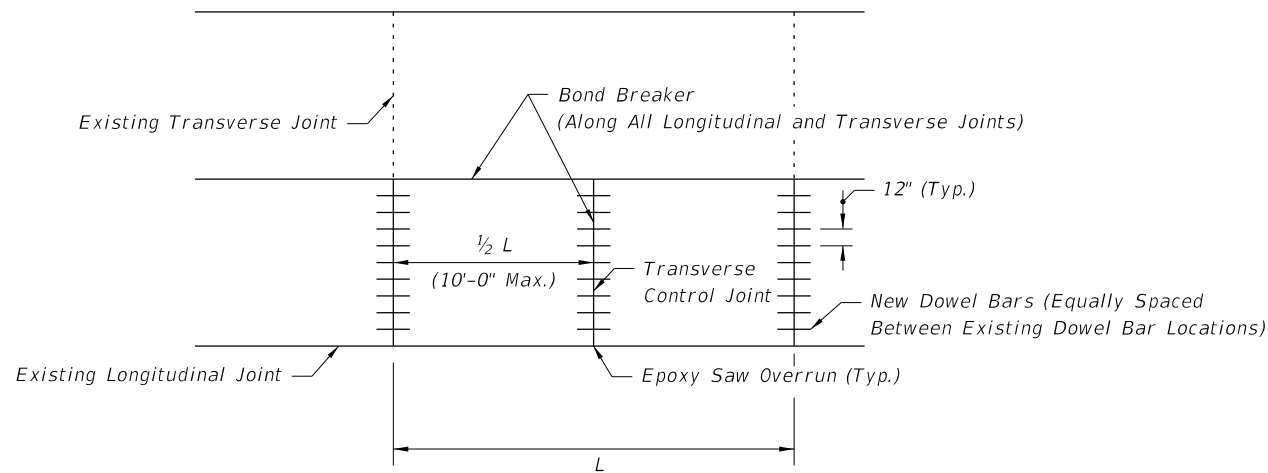


FIGURE 2 - FULL SLAB FULL DEPTH REPLACEMENT

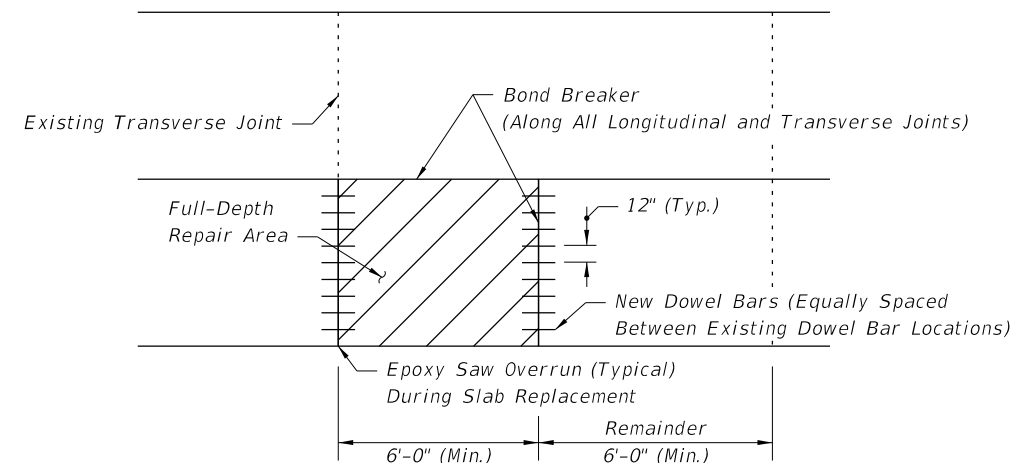


FIGURE 3 - PARTIAL SLAB FULL DEPTH REPLACEMENT

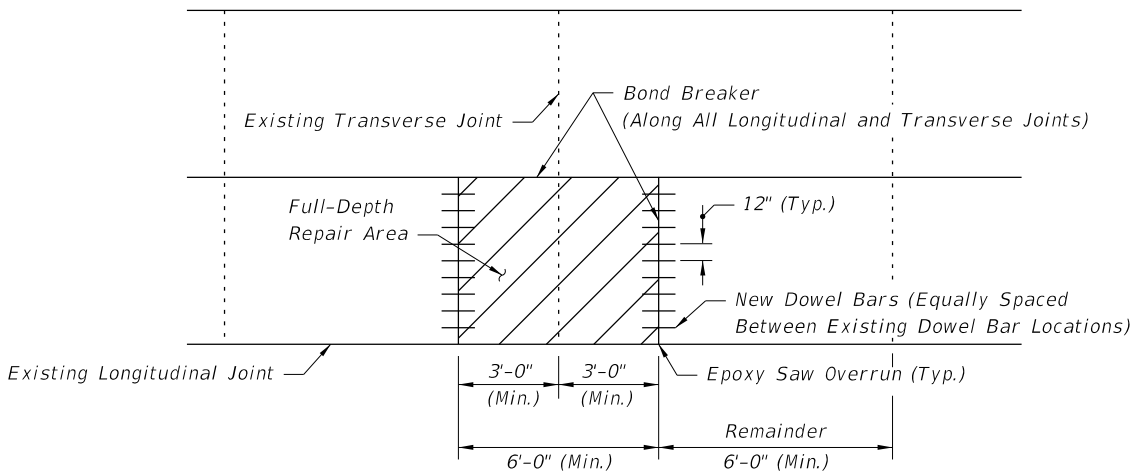


FIGURE 4 - FULL-DEPTH REPAIR ON BOTH SIDES OF THE JOINT

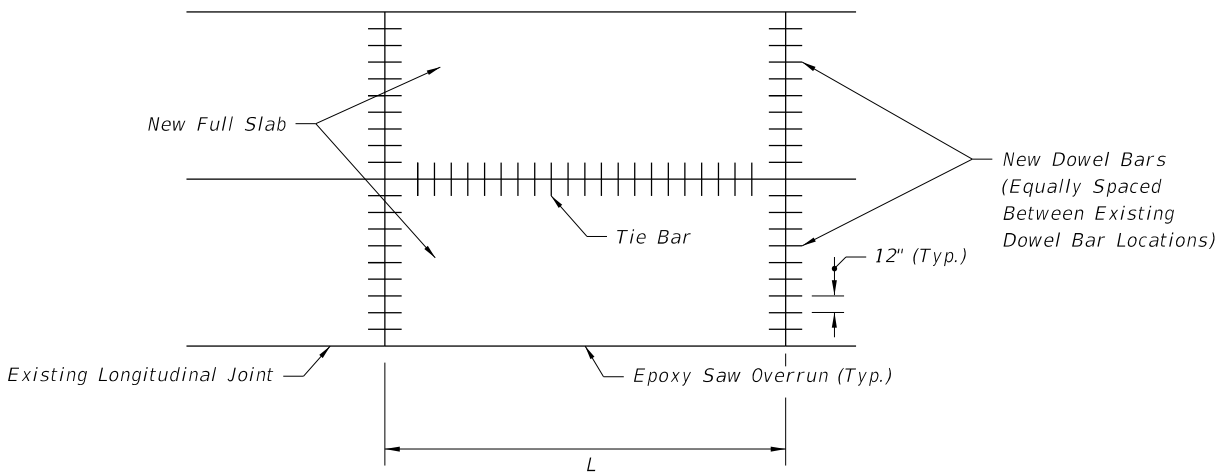


FIGURE 5 - MULTIPLE SLAB FULL DEPTH REPLACEMENT

GENERAL NOTES

1. For Repair and Replacement Criteria see Sheet 2.
2. Full depth repairs consist of removing and replacing at least a portion of the existing slab to the bottom of the concrete.
3. Repair boundaries shall be sawed full-depth with diamond saw blades. On hot days, it may not be possible to make this cut without first making a wide, pressure relief cut within the repair boundaries. A carbide-tipped wheel saw may be used for this purpose, but the wheel saw must not intrude on the adjacent lane, unless the lane is slated for repair. The wheel saw cuts produce a ragged edge that promotes excessive spalling along joints. Hence, if wheel saw cuts are made, diamond saw cuts must be made 18 in. outside the wheel saw cuts. To prevent damage to the base, the wheel saw must not be allowed to penetrate more than 0.5 in. into the base.
4. No additional base or subgrade material shall be added and all loose base or subgrade material shall be removed prior to placement of the new concrete slab. The concrete slab shall be placed to the full depth of the material removed. No additional compensation will be allowed for additional concrete required to bring proposed concrete slab up to finished grade.
5. Removal of the damaged concrete pavement shall be by lifting. Any good concrete pavement which is damaged during removal of damaged areas shall be removed and replaced by the contractor at his expense.
6. If the roadway contract includes grinding, then the slab replacement shall be performed first.
7. During slab replacement operations, fill any saw cut over runs into adjacent slabs with epoxy.
8. Install tie bars at longitudinal joints when two full adjacent or multiple replaced slabs.

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LAST REVISION	DESCRIPTION:	FY 2027-28 STANDARD PLANS	CONCRETE SLAB REPLACEMENT	INDEX	SHEET
11/01/26				353-001	1 of 2

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SLAB REPAIR AND REPLACEMENT CRITERIA

DISTRESS PATTERN	SEVERITY/DESCRIPTION		REPAIR METHOD	REFERENCE
CRACKING				
Longitudinal	Light	<1⁄8", no faulting, spalling <1⁄2" wide	None	Figure 1
	Moderate	1⁄8" <width <1⁄2", spalling <3" wide	Clean and Seal	Figure 1
	Severe	width >1⁄2", spalling >3" faulting >1⁄2"	Replace	Figure 2
Transverse	Light	<1⁄8", no faulting, spalling <1⁄2" wide	None	Figure 1
	Moderate	1⁄8" <width <1⁄2", spalling <3" wide	Clean and Seal	
	Severe	width >1⁄2", spalling >3" faulting >1⁄2"	Replace	Figure 2, 3 and 4
Corner Breaks	A corner of the slab is separated by a crack that intersects the adjacent longitudinal and transverse joint, describing an approximate 45° angle with the direction of traffic.		Full Depth	Figure 3 and 4
Intersecting Random Cracks (Shattered Slab)	Cracking patterns that divide the slab into three or more segments.		Full Depth	Figure 2 and 3
JOINT DEFICIENCIES				
Spall Nonwheel Path	Light	spall width <1½", < 1⁄3 slab depth, <12" in length	None	Figure 3 and 4
	Moderate	1½" <spall width <3", < 1⁄3 slab depth, <12" in length	None	Figure 3 and 4
	Severe	spall width >3" or length >12"	Full Depth	Figure 3 and 4
Spall Wheel Path	Light	spall width <1½", <than 1⁄3 slab depth, <12" in length	None	Figure 3 and 4
	Moderate	1½" <spall width <3", < 1⁄3 slab depth, <12" in length	Full Depth	Figure 3 and 4
	Severe	spall width >3" or length >12"	Full Depth	Figure 3 and 4
SURFACE DETERIORATION				
Pop Outs Nonwheel Path	Small pieces of surface pavement broken loose, normally ranging from 1 to 4 in. diameter and 1⁄2 to 2 in. in depth.			
	Light	Not deemed to be a traffic hazard	Keep under observation	
	Severe	Flying debris deemed a traffic hazard	Full Depth	Figure 3
Pop Outs Wheel Path	Small pieces of surface pavement broken loose, normally >3" diameter and 2" in depth.			
	Light	Deemed to be a traffic hazard	Full Depth	Figure 3
	Severe	Flying debris deemed a traffic hazard	Full Depth	Figure 3
MISCELLANEOUS DISTRESS				
Faulting	Elevation differences across joints or cracks.			
	Light	Faulting < 1⁄8"	None	
	Moderate	1⁄8" <Faulting < 1⁄2"	Grind	
	Severe	Faulting > 1⁄2"	Grind	
Lane To Shoulder Drop-Off	Light	0 <drop-off <1"	None	N/A
	Moderate	1" <drop-off <3"	Build Up	
	Severe	drop-off >3 "	Build Up	
Water Bleeding Or Pumping	Seeping or ejection of water through joints or cracks.		Install appropriate drainage, edge drain, permeable subbase, reseal joints, etc.	N/A
Blowups	Upward movement at transverse joints or cracks often accompanied by shattering of the concrete.		Full Depth	Figure 2 and 3