

**MAINTENANCE PLANNING GUIDELINES**

2006

**ACTIVITY:** Patching Roads (R311)  
**MAJOR & MINOR**

**ACTION:** Pothole Patching (Permanent partial depth repair on asphaltic or concrete pavements)

**DEFINITION:** The time and expenses incurred for permanent repairs of potholes by hand or machine.

**PURPOSE:** To restore the safety, rideability, appearance and durability through the repair of roadway or bridge surfaces.

**SCHEDULING:** Repairs should be made as soon as priorities allow. Major Routes will take priority over Minor Routes. Reference the Incident Response Plan for priorities.

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

**RECOMMENDED EQUIPMENT:**

- Dump Trucks or Thermolay Truck
  - Air Compressor w/Jack Hammers or Roto-mill
  - Pavement Saw
  - Compaction device; Vibratory Compactor or Small Power Roller
  - Asphalt Distributor
  - Traffic Control Equipment
- Reference the (See EPG [616.23 Traffic Control for Field Operations](#))

**RECOMMENDED PROCEDURE:**

1. Place traffic control devices as required.
2. Square up area.
3. Remove fractured/temporary material.
4. Prime with appropriate material.
5. Fill hole with material and compact in 2 inch layers. (Asphalt)
6. Level patch with rake to 1/2 inch above pavement surface. (Asphalt)
7. Finish patch to existing surface. (Concrete)
8. Seal edges.
9. Remove traffic control devices.

**RECOMMENDED MATERIAL:**

- Priming Material
- Hot Mix
- Concrete

**SAFETY:** Clean up and remove excess material. Wear all appropriate PPE. Refer to [Safety Policies, Rules & Regulations – Employee Handbook](#).

**OTHER CONSIDERATIONS:** Recommend the use of Skid-steer w/milling attachment for removal of area. Recommend the use of air compressor to blow out and clean repair just prior to placing material.

**REFERENCES:** Missouri Standard Specifications for Highway Construction Section [613.20](#) and [613.30](#) for permanent repairs.

**R311 – Patching Roads (Pothole Patching Permanent Partial Depth)**



(1) Permanent Partial Depth Patch



(2) Permanent Partial Depth Patch



(3) Sweeping a section of partial depth milled asphalt



(4) Laying Asphalt on prepped area



(5) Finishing Partial Depth Asphalt Patch



(6) Finished Product



(7) Deteriorated Concrete Joint/Spall



(8) Preping Pothole with Milling Attachment



(9) Prepped Pothole Prior to Patching



(10) Newly Poured Pothole with High Type Patching Material



(11) Finished Product



(12) Milling Pothole with Attachment



(13) Milled Concrete Pavement Pothole



(14) Sweeping Concrete Pavement Pothole



(15) Prepped Pothole



(16) Raking Hot-Mix into Pothole



(17) Compacting Hot Mix Patch



(18) Finished Product