## MAINTENANCE PLANNING GUIDELINES

2006

**ACTIVITY:** Roadway Shoulders (R225)

MAJOR & MINOR

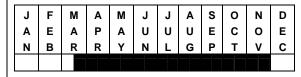
ACTION: Repair Concrete Shoulders &

Approaches

**DEFINITION:** The time and expenses incurred to expand installation and maintenance of asphalt concrete and aggregate roadway shoulder, approaches and clear zones.

**PURPOSE:** Eliminate potholes and shoulder drop-off to adjacent shoulder or pavement.

**SCHEDULING:** As needed, or 50°F and above.



## **RECOMMENDED EQUIPMENT:**

- Trucks
- Dowell Drill
- Concrete Saw
- Wheel Saw
- Backhoe or Loader
- Traffic Control Equipment; (See EPG 616.23 Traffic Control for Field Operations)

## **RECOMMENDED MATERIAL:**

- 8-1/2 Bag Ready Mix
- Calcium Chloride
- 1" Epoxy Coated Dowel Bars Spaced
  5 Per Wheel Path on 12" ctrs
- Liquid Emulsified Asphalt
- Curing Compound

## **RECOMMENDED PROCEDURE:**

- 1. Place traffic control devices as needed.
- 2. Use wheel saw in middle of repair to relieve stress or make the piece smaller to aid removal.
- 3. Saw patch perimeter with diamond blade concrete saw.
- 4. Remove concrete.
- 5. Prepare subgrade.
- 6. Place forms.
- 7. Align, drill, and install greased dowels.
- 8. Dampen subgrade and forms.
- 9. Place and vibrate concrete.
- 10. Screed and finish surface.
- 11. Edge, texture and date patch.
- 12. Spray with curing compound.
- 13. Cure to strength.
- 14. Remove forms and repair inslope.
- 15. Remove loose material.
- 16. Pour liquid asphalt around edges.
- 17. Remove traffic control devices.

**SAFETY:** Extreme care should be exercised when working adjacent to traffic. Wear all appropriate PPE. Refer to Safety Policies, Rules & Regulations – Employee Handbook.

**OTHER CONSIDERATIONS:** Concrete should be from a calibrated ready-mix plant.

**REFERENCES:** Missouri Standard Specifications for Highway Construction; Section 613.10. Missouri Standard Plan 613.00.