#### MAINTENANCE PLANNING GUIDELINES

2/2014

**ACTIVITY:** Pipe Culvert Repairs (R319)

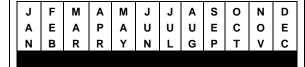
**ACTION:** Install Pipe Liners (LF)

# **MAJOR & MINOR**

**DEFINITION:** The time and expenses incurred from removing and replacing pipe culverts. Includes time and expenses incurred for installing a new lining in an existing culvert and cleaning and repairing culverts.

**PURPOSE:** To install new pipe liners in existing pipe culverts.

**SCHEDULING:** As needed.



# **RECOMMENDED EQUIPMENT:**

- Trucks
- Backhoe
- Loader
- Mudjack or Concrete Mixer
- Traffic Control Equipment; reference the (See EPG 616.23 Traffic Control for Field Operations)

### **RECOMMENDED MATERIAL:**

- Pipe Liner
- Slurry Mix
- Portland Cement
- Agricultural Lime
- Water

#### RECOMMENDED PROCEDURE:

- 1. Consult district Design on size and placement of pipe liner.
- 2. Contact Dig Rite and others to mark utilities.
- 3. Place traffic control devices as needed.
- 4. Clean out ditch, if necessary, to make room for liner.
- 5. Insert liner.
- 6. Form upstream and downstream ends and mudjack between liner and existing pipe.
- 7. Grade and reshape shoulder, as necessary.
- 8. Seed, mulch and place erosion control items as necessary
- 9. Clean work area.
- 10. Remove traffic control devices.

**SAFETY:** Refer to the *Comprehensive Safety Program sharepoint portal*. Wear all appropriate PPE. Refer to the Risk Based Assessment for additional information.

**OTHER CONSIDERATIONS:** Use appropriate size liner for application. Follow manufacturer's instructions on installation.

**REFERENCES:** Missouri Standard Specifications for Highway Construction Section 735.