

# MAINTENANCE GUIDEBOOK III - PAVEMENT MAINTENANCE

## CHAPTER FIVE - APPURTENANT FACILITIES

### SECTION A DEFINITION

Appurtenant pavement facilities are items such as manholes, inlets, and other drainage features located adjacent to or in the pavement. Other features such as walks, gutters, and drainage ditches are covered elsewhere in the Guidebook.

#### 1. DESCRIPTION OF DEFICIENCY

The deficiencies include, but are not limited to:

- Cracked or broken inlet grates and frames;
- Broken manhole covers and frames;
- Clogged inlets and storm drains.

These facilities are generally considered trouble-free; however, regular maintenance inspections should be conducted in order to identify defects such as broken manhole frames or covers, or nonfunctioning storm inlets. These maintenance inspections should occur more frequently than those previously discussed, and should be conducted up close, not as a drive-by, since it is difficult to detect a clogged inlet or a cracked grate from a distance. Some manholes and sidewalks are owned by utilities or others. If any of these are found to be defective, notify the owners, who should do the repairs.

#### 2. MATERIALS, EQUIPMENT, AND PERSONNEL REQUIRED

##### a. Materials Required

- Cleaning inlets and storm drains—None;
- Replacing grate, covers, and frames—Grate, frame, or cover as required. Note: This rarely needs to be done.
- Asphalt or concrete patching materials for repairing areas adjacent to inlet grates or manhole covers.

##### b. Equipment Required

- Truck, traffic signs, cones;
- Air compressor, air hose, jackhammer;

- Hand shovels, pick, street broom;
- Wheelbarrow or mixing box as needed;
- Hand tamp as needed;
- Heavy hammer or sledge, chisel;
- Heavy string (10 feet of grade line).

**c. Personnel Required**

Personnel required are a truck driver and laborers.

**3. RECOMMENDED REPAIR PROCEDURE**

**a. Cleaning Inlets**

- Set up signs.
- Remove trash from grates.
- Remove grates.
- Remove trash and debris from inlet.
- Check storm drain from both ends to be sure it is open.

**b. Replacing Frames**

- Set up signs.
- Cut around frame. The frame will have a flange which rests on the inlet or manhole. Be sure to cut back far enough to free the flange (about 8 to 10 inches).
- Remove grate or manhole cover.
- Remove frame.
- Remove mortar from top of inlet or manhole.
- Clean off top of inlet.
- Put down a bed of fairly stiff mortar on top of inlet.
- Set new frame to grade by placing string on the pavement surface on both sides of the frame (street side) as close to the frame as possible.
- Set frame. If too high, tap the frame with a pick or sledge. If too low, remove frame and add mortar. Repeat procedure on curb side. Perform both procedures together.
- Allow time for mortar to take an initial set.
- Replace carefully the removed pavement. Careless placement could cause the grate to move. If concrete is used, spray with curing compound.
- Set cones around inlet to protect from traffic.

- If asphalt mix is used, thoroughly tamp into place.
- Clean up area.
- Take down signs.

**END OF CHAPTER FIVE**