

Section 69 Overside Drains

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4-6901 General

Overside drains consist of various types of pipes, flumes, and lined ditches installed to remove surface water from highways or from benches in cut or fill slopes.

4-6901 General

4-6902 Before Work Begins

During this preliminary inspection, take the following steps:

4-6902 Before Work Begins

- Review the project with the maintenance superintendent to assess any problem drainage areas.
- Review sheets D78, D87A, D87B, D87C, and D87D in the *Standard Plans* for information on downdrains and overside drains.
- Verify the receipt and proper distribution of Form CEM-3101, “Notice of Materials to Be Used,” which covers all fabricated materials. See Section 6-2, “Acceptance of Manufactured Material and Sampling Methods,” and Section 6-3, “Field Tests,” of the *Construction Manual* (manual) for details.
- Upon delivery of the materials, note whether they are identified by marks or inspection tags, using Form TL-0624, “Inspection Release Tag.”
- Check the condition of the materials to discover any damage possibly sustained during handling after the source inspection. Require the repair of minor damage to coatings or galvanizing. (See Section 66-1.03, “Protective Coatings, Linings, and Pavings,” and Section 75-1.05, “Galvanizing,” of the *Standard Specifications*). If satisfactory repair cannot be achieved, require unacceptable materials to be removed from the project.
- Inspectors from the Office of Materials Engineering and Testing Services (METS) will inspect and test any joint materials.
- Normally, the METS inspector will have obtained certificates of compliance and mill test reports. Project personnel do not need these documents if materials are properly identified as previously inspected.
- Review any planned installations of metal beam guard railing. If overside drains are in a metal beam guard railing area, consider using long span nested guard rail. (See the *Traffic Manual*, Chapter 7-03.5, “Design Considerations” and Figure 7.5, “Long Span Nested Guard Rail”.)
- Review plans and planned overside drain locations by verifying design with the actual field surveys. Make any necessary changes and give the contractor a revised list of lengths.

4-6903 **4-6903 During the Course of Work**
During the Course of Work

During work, take the following steps:

- Determine that pipe sections have watertight joints and are properly installed.
- As specified in Section 19 of the *Standard Specifications*, ensure the contractor disposes of the surplus material resulting from excavation and performs the backfill.
- Ensure entrance areas are watertight.
- Require fog sealing of all asphalt concrete spillways and downdrain entrance areas.
- You can determine the exact location of overside drains, in an area where the grade is flat, by having a water truck dump part of its load in the gutter and then by cutting the dike where the water ponds.

4-6904 **4-6904 Measurement and Payment**
Measurement and Payment

Count entrance tapers, tapered inlets, reducers, slip joints, and anchor assemblies. The length of downdrain pipe and flume to be paid for is the length ordered by the engineer with an adjustment when downdrain pipe is cut to fit a structure or slope. The length ordered by the engineer is the length shown on the plans or any revised lengths the resident engineer deem necessary to meet field conditions. In the lengths of pipe and flume downdrains to be paid for, do not include lengths of tapered inlets and entrance tapers (including tail pipe and slip joints).

For additional information, see the discussion on measuring pipe in Section 4-65, "Reinforced Concrete Pipe," of this manual.