Authority over Roadside Drainage

Drainage Responsibility

Roadside ditches, swales, storm sewers, culverts, or other similar drainage features are installed to convey storm water from the road surface and roadbed to an outlet, such as a pond, county drain, creek, infiltration area, or other waterway.

These roadside drainage systems are typically located in the county road right-of-way and maintained by the Road Commission or, in some instances, the Water Resources Commissioner.

Importantly, the primary role of roadside drainage is to drain the road, not adjacent private property, unless the roadside drainage system has been established as a County Drain.

Michigan Drain Code

The Michigan Drain Code (Public Act 40 of 1956, as amended) defines and governs the responsibilities of the Water Resources Commissioner.

Establishing a County Drain

County Drains are established in one of two ways:

1. Through a petition process whereby property owners or a local unit of government asks the Water Resources Commissioner to establish a County Drain.

2. A property owner may construct a drainage system at the owner’s expense and transfer authority for the operation and maintenance of the system to the Water Resources Commissioner through a Dedication Deed and Agreement (also known as a 433 Agreement).

Roadside Drainage Overview

Maintaining Proper Drainage

A proper roadside drainage system helps reduce damage from water to both the road surface and the underlying layers of the roadbed.

Flooding, washouts, and potholes coincide with poor drainage, which typically results in costly repairs.

Throughout the year, the Road Commission and Water Resources Commissioner are committed to maintaining their respective roadside drainage systems to improve poor drainage within and alongside roadways.

Typical Responsibility of Drainage Systems

Roadside Drainage = Road Commission
Established County Drains = Water Resources Commissioner
Private Property and Driveway Culverts = Property Owner
Maintenance Funding
Who pays for maintenance?

The cost to maintain roadside drainage systems that are not County Drains is typically the responsibility of the Road Commission.

County Drain maintenance is typically paid by all of the “owners” within the drainage district. These owners include all the parcels of land that receives a drainage area benefit, the Township and City/Village for public health benefits, and MDOT, the Road Commission, and County for road drainage benefits.

In some cases, the Road Commission, County, Water Resources Commissioner, Townships, and Cities explore cost sharing for “at large” drainage projects.

Design Techniques
Overview

A roadside drainage system is typically designed based on upstream drainage area, historic drainage patterns, available right-of-way or easement, desired conveyance, and water table levels to ensure adequate drainage, ease of maintenance, protection of water quality, and public safety.

A roadside drainage system must satisfy two main criteria if it is to be effective throughout its design life:

1. Minimize disturbance of natural drainage patterns.
2. Provide an outlet for surface and subsurface water.

Water Quality

The Road Commission, Drain Commissioner, Townships, and Cities/Villages are active participants in local watershed groups, such as the Macatawa River and Lower Grand River. New drainage projects typically include water quality features.

Roadside Safety

Ditches or swales are an integral feature of roadside drainage systems critical for controlling road storm water runoff. Where the right-of-way is limited, ditches with deeper and sharper slopes are used.

These features can be of concern if a motorist leaves the roadway. Solutions, such as storm sewer enclosures or guardrail, are considered to protect the traveling public.

Help Maintain Roadside Drainage

Understanding the purpose of the Roadside Drainage system for providing effective, environmentally friendly drainage is a first step.

Adjacent property owners should not do the following activities:

- Place any materials in or alongside roadside ditches, including: yard debris such as grass clippings or leaves (burning also compromises drainage), landscaping such as trees or shrubs, or any other items that may impede drainage.
- Scrape, excessively mow, or expose bare soil near or within a roadside drainage system, since such actions can contribute to erosion and sediment pollution.
- Fertilize or apply herbicides near a roadside drainage system, since this may pollute the water.

Property owners adjacent to public roads are encouraged to proactively maintain their driveway culverts or other private drainage system to be clear of debris and obstructions.