

# OFFICE OF THE DRAIN COMMISSIONER

Ken Yonker, Drain Commissioner  
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Telephone: (616) 632-7910 Fax: (616) 632-7915



## STANDARDS FOR CROSSING, CONNECTION, OR ENCROACHMENT

All persons intending to cross, connect, discharge to, modify, or encroach upon a drain or within a drain easement must apply for and obtain a permit from the Kent County Drain Commissioner prior to commencement of any proposed work. Crossing permits are required to cross over or under a drain, or to install a culvert in a drain. Connection permits are required to connect to or tap into an open or enclosed drain or any of its structures for purposes of discharging stormwater. Any use of a drain easement or right of way that will interfere with the operation of the drain or will increase the cost to the Drainage District of performing any maintenance or improvement to the drain is deemed to be inconsistent with the easement. In such a case, an Encroachment Agreement may be issued at the discretion of the Drain Commissioner upon such conditions as the Drain Commissioner considers appropriate to protect the District's ability to maintain and improve the drain.

Applicants are expected to contact the Drain Commissioner's engineer prior to submitting a permit to verify available as-built or construction drawings and submission expectations.

### Work types that require a permit:

- Connection, Open Drain
- Connection, Enclosed Drain (tap-in)
- Culvert Installation
- Bridge Crossing
- Bored Crossing
- Open Cut Crossing
- Drain Clean Out
- Construction Easement
- Encroachment (sheds, fences, hard landscaping, etc.)

Some work may require consultation with an attorney, engineer, or inspector. The applicant will be responsible for any costs associated with outside consultation.

### Submission Requirements:

Permit submittals shall include all the following information:

1. A fully completed permit application including appropriate signatures
2. A site plan drawing or sketch including the following information at a minimum:
  - a. Location of county drain or drain easements on the property.
  - b. Descriptions of all construction activity within the easement.
  - c. Dimensions and elevations of all facilities being proposed for construction within the drain easement.
  - d. Type of material used for construction within the drain easement.
3. A copy of all other relevant permits and approvals (including, but not limited to: EGLE, SESC, municipal permits or approvals, etc.)
4. Parcel information can be found here: [Kent County Public Viewer\(kentcountymi.gov\)](http://kentcountymi.gov)

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## **Culvert or Bridge Crossings**

Crossing means going through, under, or over the right of way of an established county drain. All crossings must comply with the requirements in these Rules.

1. In addition to the Submission Requirements above, the drawing shall include the crossing in both plan and profile perspective showing the vertical separation distance and the width of the drain easements, upstream and downstream elevations, measures to reestablish the stream bank, erosion control on culvert ends. Flared end sections may be required along with additional information including, but not limited to elevations, size of upstream and downstream culverts, and confirmation of elevation of the established drains. Additional information may be required based on site specific conditions.
2. Culvert or bridge crossings will require hydraulic calculations to demonstrate that the crossing will be hydraulically sufficient and not cause harmful interference up or downstream.
3. All culverts and privately owned and installed at the owner's expense. Applicants shall use a pre-approved contractor.
4. The Drain Commissioner or delegated staff may be present to witness construction. The Drain Commissioner's engineer shall receive notice three (3) business days before work is to commence.
5. All pipe or bridges shall be installed according to manufacturer's specifications.
6. Upon completion of work, permit holder must provide as-built documentation of the work, including verification of invert or low chord elevations.

## **Utility Crossings (Bored or Open Cut Crossings)**

1. All crossings over a drain will be reviewed and requirements determined on a case-by-case basis.
2. All crossings under open drains must be bored or directional drilled unless special permission is obtained from the Drain Commissioner. Additional standards will be required if open cutting is proposed.
3. Utilities, including but not limited to gas, electric, and communications, must be at least 48 inches below the elevation of an open drain as it was established (the invert elevation for enclosed drains must be used) for the entire width of the easement.
  - a. In some cases, installation 48 inches below the drain may not be feasible within available right-of-way. The applicant shall document and obtain prior written authorization for a variance in vertical separation. In no case shall less than 18 inches of separation be used. All variances will require installation of an accessible handhole and minimum 100 feet of slack loop to relocate the utility.
4. Sanitary sewer must be ductile iron pipe for the full width of the drain crossing.
5. The Drain Commissioner or delegated staff may be present to witness construction. The Drain Commissioner's engineer shall receive notice three (3) business days before work is to commence.
6. Upon completion of the work, the permit holder shall submit as-built documentation of utility depth throughout the drain easement.

## **Connections**

1. Requirements for connection shall be made on a case-by-case basis. It is desired that all connections to enclosed drains be made at a manhole or catchbasin.

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2. Plastic (PVC, HDPE, etc) stormwater leads connected into manholes, catchbasins, or pipes must be cored and lined with a rubber boot. Connections made for concrete pipe may be cored and the joint sealed with a concrete collar and geotextile fabric. Connections to plastic pipe shall be made with pre-manufactured fittings.
3. Outlets to ditches will be placed at the average low water elevation of the watercourse and pointed downstream. Outlet velocities will be non-erosive.
4. In addition to the submission requirements above, the drawings shall show the diameter of the connection pipe, the diameter of the hole to be cored, the type of boot for stormwater leads, the method of connecting to the boot, the location of any other pipes in the structure, and backfill material 6-inches around the pipe for two feet from the structure.
5. The Drain Commissioner or delegated staff may be present to witness construction. The Drain Commissioner's engineer shall receive notice three (3) business days before work is to commence.

### **Encroachments**

All encroachments in drain maintenance easements for structures or land use changes that impair or impede the maintenance of the drain must be reviewed and approved by the Drain Commissioner. The Drain Commissioner maintains multiple types of easements and allowable encroachments will differ based on type of easement. The Drain Commissioner reserves the right to deny any application for encroachment into an easement.