

# City of Madison Heights Residential Road Improvement Program

## Restricted Storm Sewer Systems

The City of Madison Heights has a comprehensive neighborhood road improvement program that is a top priority in the City's infrastructure planning process. During the development of this program, existing roadways are evaluated along with other infrastructure components such as storm sewers, water main, and sanitary sewers throughout the city. With each passing year new roads and utility infrastructure upgrades/replacements are constructed.

As a part of this program, restricted storm water drainage covers are installed on the street drains (catch basins). As a result, after large rain events, there may be standing water in the new roadway.

This handout will explain why the City uses Restricted Drainage Covers for our residential road project.

New Restricted Drainage Structure Cover:



Previous Regular Drainage Structure Cover:



### Reason for Use:

Restricted drainage structure covers are utilized primarily in combined sewer area(s). These are areas of the City where one pipe carries both sanitary waste and storm water runoff to the local wastewater treatment plant where it is treated and released back into the environment. During large rain events, the amount of water entering these underground pipes can exceed capacity. Restricted covers reduce or slow the volume of storm water entering the underground piping. This delay reduces the chance that the capacity of the pipes will be exceeded, so that sanitary leads are less likely to back up and flood basements.

On all new residential street projects, the City intentionally separates "combined sewer" areas by installing new storm sewer systems. Sometimes these sewer separation projects are phased and even though new sewers are built on one street, it may not be connected downstream until another street is reconstructed. This phasing sometimes takes several years to complete. Therefore, the new storm sewers are temporarily re-connected to the sanitary sewers until the final construction is completed. Through the use of restricted drainage structure covers, storm water is restricted from entering the system and is temporarily stored on the pavement surface until such time as the water is slowly drained into the system.

In older developed communities such as Madison Heights the age, condition, and size of the existing storm sewers necessitates restricted covers as part of road projects. During large rain events you can anticipate storm water (rain water) backing up into the street. The roadway has been designed with this protective feature in mind. The storm water will temporarily be stored in the road near the existing catch basins or low points and will slowly drain as the system can handle the additional storm water (after the storm passes). The alternative would be a higher likelihood of flooded basements.

If you notice that the restricted covers are blocked by leaves or debris, please feel free to sweep the blockage away so water can drain appropriately. If storm water is still on the surface of the pavement twenty-four (24) hours after a rain, kindly contact the City of Madison Heights Department of Public Services (248) 589-2294 so they can determine if there is a clogged outlet in the system.