

# Stormwater Management Master Plan

## Appendix L: Storm Sewers Under Private Property

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Reference #: 66636  
June 2021  
Final Report



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**Project:** Guelph Stormwater Management Master Plan

**Subject:** Storm Sewers Under Private Property

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As part of the Stormwater Management Master Plan (SWMMP) for the City of Guelph, Aquafor Beech has been seeking input from the residents of Guelph. One resident brought to light the storm sewer or underground creek that runs beneath private properties in a north-south direction between Yorkshire St N and Glasgow St N. As a result, Aquafor Beech completed a GIS analysis of the City's storm sewer network to identify where pipes pass beneath private property throughout the City. Recommendations from this investigation will be included in the final Implementation Plan of the SWMMP, providing direction to the City for priority projects and programs.

Aquafor's analysis distinguished between storm sewers located beneath City Property or the road right of way (ROW) and classified the remainder as those beneath private property. These pipes were further classified as being in an easement or within open spaces, parks or natural areas. The City's land use mapping was used to identify the open spaces, parks and natural areas, although some pipes were moved into this category based on inspection of the aerial imagery.

This analysis shows that there are numerous storm sewers throughout the City which are located beneath private property. Although most of these storm sewers are located within older areas of the City, many are still located within newer developments. Five locations have been highlighted either due to the age of the storm sewer, the length of the storm sewer, and whether the pipe appears to pass beneath buildings. These locations are indicated on **Figure 1** and described below:

1. The storm sewer that triggered this investigation seems to extend from the Speed River to the north side of Speedvale Avenue. Although some sections of the pipe are in the ROW, much of it is below private property. The City's GIS identifies most of the pipe as being constructed in 1929 of non-reinforced concrete (1050x1050mm rectangular) but the northern extents were constructed later, between 1952 and 1959, and range from 450mm to 900mm in diameter.
2. The storm sewer located between William Street and Stevenson Street is partly in an easement for part of the way, but not for its entire length. The City's GIS identifies some of the pipes as being corrugated steel installed from 1952-1956, but does not contain information for its entire length from Cassino Avenue to the railway yard. The extents of this storm sewer south of Elizabeth Street were investigated during the Ward One EA in 2007 which proposed retrofits to the west and east of the rail yard. Figures for Alternative C in this report show an existing 600mm HDP pipe crossing the southern extents of the rail yard. Although the City's GIS indicates an easement here (shown in **Figure 1**), it does not include this storm sewer.

3. The storm sewer leading from Maple Street to James Street and then the Speed River is partially in an easement, but not entirely. The City's GIS indicates the pipe material is unknown, does state it was installed in 1958 and is 600mm in diameter.
4. A very large diameter (3500mm) corrugated steel pipe runs largely through backyards parallel to Flanders Road from College Avenue to the Hanlon Expressway. On the east side of the Hanlon Expressway, it continues across several townhouse developments to Scottsdale Drive. These pipes were installed in 1969-1970.
5. This storm sewer connects Oak Street to Stone Road and is a 1200-1500mm diameter concrete pipe installed in 1973.

It is recommended that the City undertake a subsequent investigation into these storm sewers, consisting, at a minimum, of the following next steps:

- Ensure that all City-owned property is correctly identified within the GIS layers to confirm the identification of storm sewers beneath privately-owned property;
- Review easement records to determine whether additional easements have been put in place beyond those identified in **Figure 1**. It is expected that more easements should be in place in many of the newer subdivisions;
- Complete a review of all available as-built drawings for pipes identified as beneath private property;
- Complete a conditions assessment of these storm sewers, especially the five highlighted above. This should include CCTV of each storm sewer, where feasible;
- Update the GIS storm sewer network with the results found through the background search; and
- Provide recommendations for reducing the risks associated with each storm sewer.



**PrivProp,Easement,LandUse**

## LOCATOR MAP

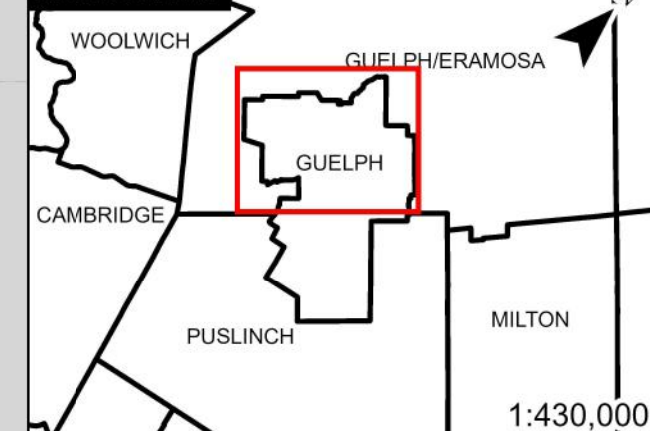
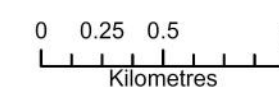


Figure 1

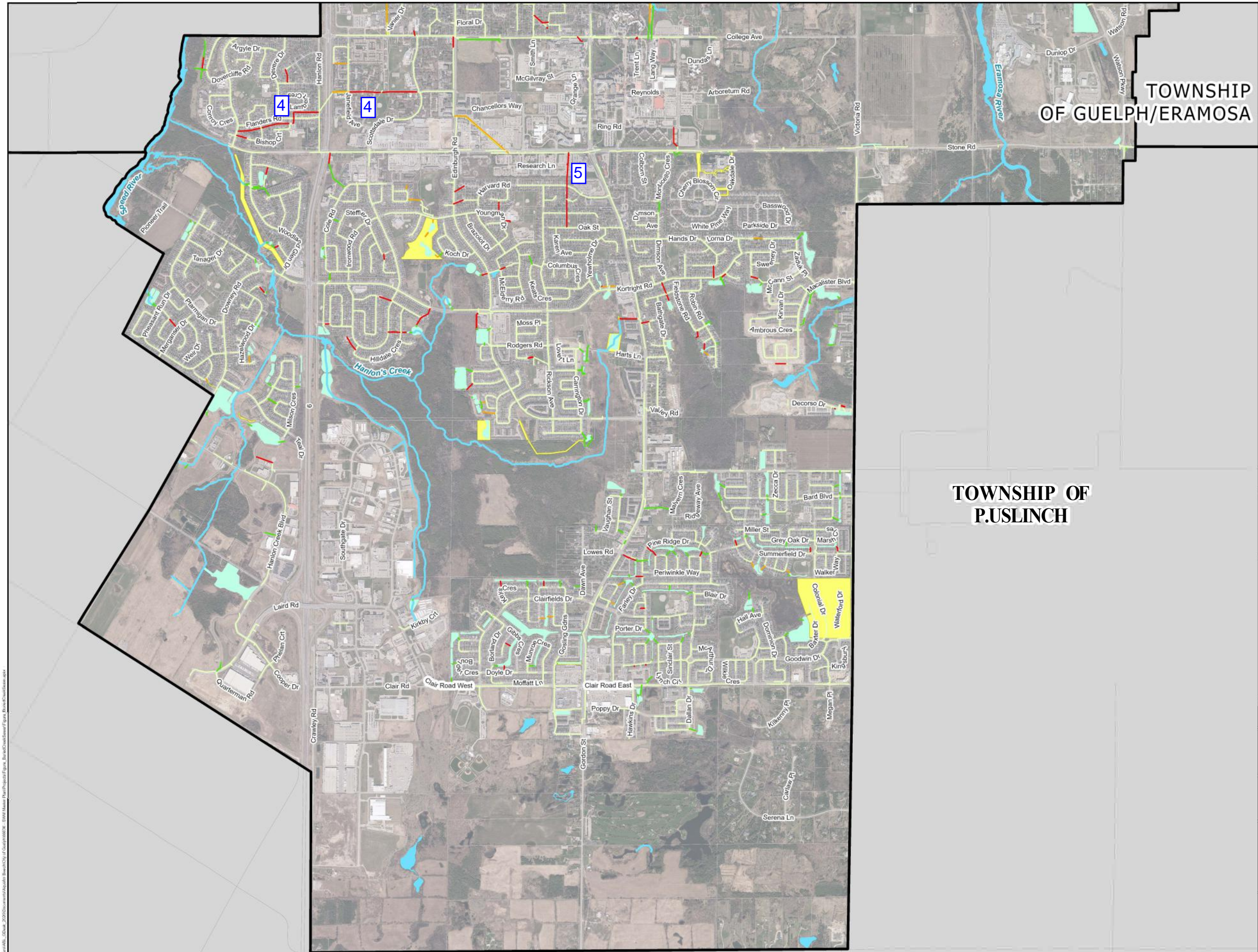
Storm Sewers Under Private Property (1 of 2)

Date: 2021-01-19  
Projection: NAD83\_UTM\_Zone\_17N  
Data Source: City of Guelph, GRCA  
Created by: A.V.





Document Path: C:\Users\AEC\Desktop\2020\Documents\Projects\StormSewer\Map\StormSewerMap.aprx



**Legend**

- c::J Municipal Boundary
  - Property
  - Rivers
  - Watercourse
  - Easement
  - SWM Pond
- PrivProp, Easement, Land Use**
- City Property or ROW
  - Private Property
  - Easement
  - Open Spaces, Parks and Natural Areas

**LOCATOR MAP**

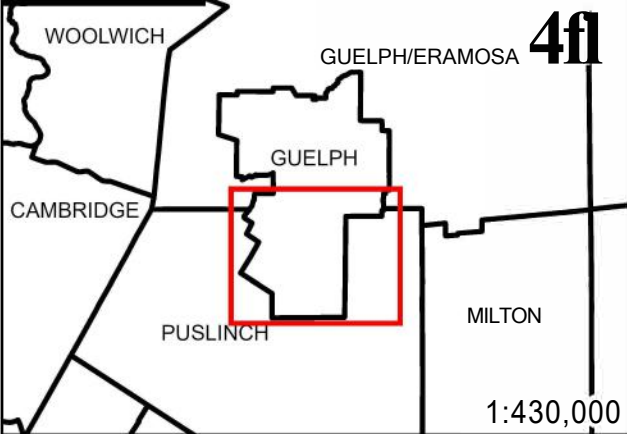


Figure 1

**Storm Sewers Under Private Property (2 of 2)**

Date: 2021-01-19  
 Projection: NAD83 UTM Zone 17N  
 Data Source: City of Guelph, GRCA  
 Created by: A.V.

