MEMO

To:	Mike Staal and Carrie Rivette, City of Grand Rapids
Cc:	
From:	Dan Christian, Tetra Tech
Date:	November 12, 2019
Subject:	Green Infrastructure Opportunities GIS Analysis

One of the Stormwater Control Measures Design and Benefits Tools developed as part of the Stormwater, Wastewater (SAW) Grant Program was a Green Infrastructure Opportunities GIS Analysis. The purpose of this analysis is to identify potential opportunities to construct green infrastructure practices on publicly owned land, particularly within the road rights-of-way.

The analysis was performed using GIS and accounts for setback requirements from existing infrastructure. Table 1 lists the infrastructure considered in the analysis and the offset distances applied. This evaluation focuses on vegetated practice opportunities on existing permeable surfaces. Very small resulting polygons and very narrow polygons were disregarded as potential GI opportunities.

The analysis was conducted citywide. The resultant information is too large and detailed to print. A GIS shapefile was provided as a deliverable. Examples for a residential neighborhood and commercial area are shown below in Figure 1 and Figure 2.

Table 1 Infrastructure Offsets

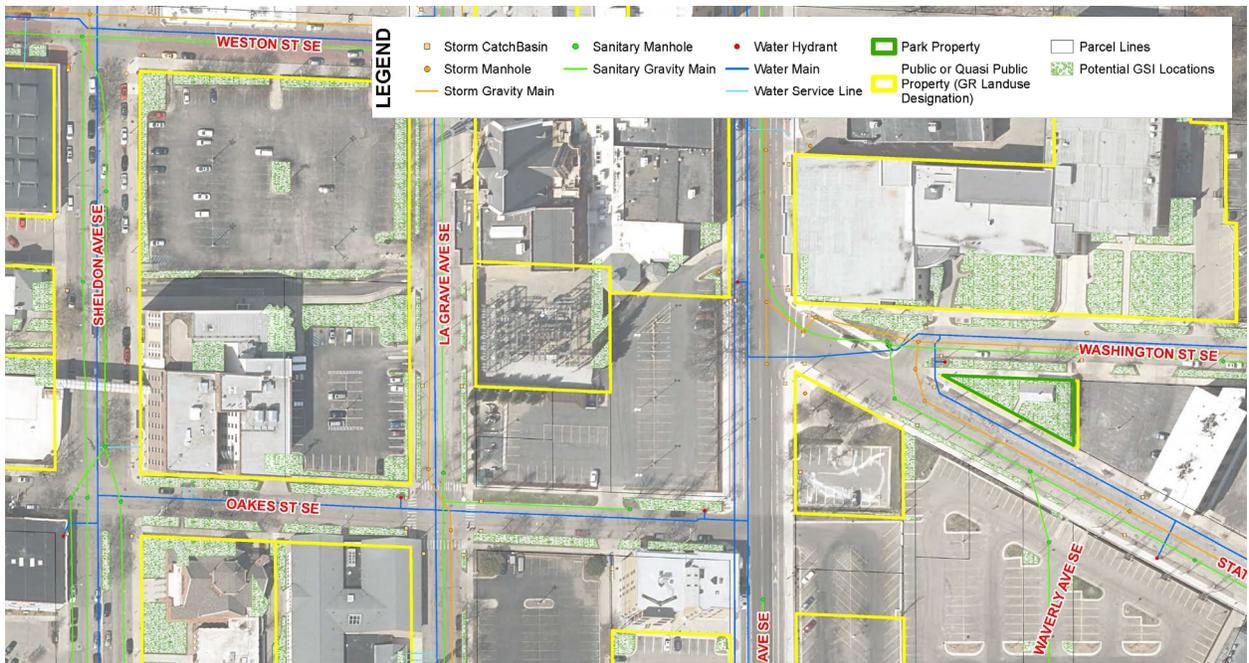| Description	Offset Distance (ft)
All Other Impervious	0
Driveways	3
Railroads	50
Sanitary Gravity Main	10
Sanitary Lift Station	10
Sanitary Manhole	10
Sanitary Pressure Main	10
Sanitary Sewer Laterals	5
Sidewalks	1
Storm Gravity Main	5
Storm Lift Station	5
Storm Manhole	5
Storm Pressure Main	5
Water Hydrant	10
Water Mains	5
Water Service Lines	5

Figure 1 Example Residential Neighborhood

Figure 2 Example Commercial Neighborhood

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