

Technical Memorandum

DATE: June 28, 2023

TO: Jeff Bateman, Manager

FROM: David Watkins, P.E.
Colt Shelton, P.E.

SUBJECT: IR-23-04 (MDS Parcel B)



General Note: The following language assumes the interim pump improvements have been completed and only approved Development Requests have been added to the model. The request uses the Master Plan model design storm and unit flows to determine the specific improvements described below, and the size of the improvements are sized for Buildout conditions.

I. Engineer's Notes

This model run request is the southern part of the model run request IR-22-06. The total IR-22-06 request was 9.3 acres. The McCall-Donnelly School District has attempted to auction the southern parcel (4.88 acres) and was unsuccessful and determined this was due to uncertainty of allowable sewer service. The request seeks to modify the southern 4.88 acres of the parcel from R8 (8 units/acre) to R16 (16 units/ acre). This model request is based on a zoning/density of R16, but we make no claims to the likelihood of it being approved through the District or planning and zoning processes. The model run was completed to analyze the downstream impacts of development of multi-family units. The model run includes Parcel A (northern parcel, RPM00000163190) 4.42 acres of R8 density and Parcel B (southern parcel, RPM00000163195) 4.88 acres of R16 density. Based on density and area, Parcel A includes 35 units and Parcel B includes 78 units. Parcel A was assumed to be routed through the MH9AT02.010 and the Parcel B was assumed to be routed through MH9AC35.020.

The original IR-22-06 model run at R8 density had a total of 74 units. The new run increases the total to 113 units.

The development is currently in a Category B basin as it is upstream of LS50 lift station (prior to pump improvements). The Category B designation means some surcharging is present in the manholes but does not reach to within 3 feet of the manhole rim.

II. Results

Model results indicate the additional flow does not cause new surcharging of the downstream lines and the Category B designation will be dropped after the LS50 pump improvements are completed. The District's goals are to improve reliability and capacity in the system and ultimately remove surcharge in the manholes during a design storm event. Based on the development's location and submitted flow generation, additional improvements are not required.

The project location is shown on **Figure 1**.

Figure 1 - Project Location

