



**VILLAGE OF PARMA-SANDSTONE LDFA
Special Meeting**

**Wednesday, March 29, 2023 at 5:30 p.m.
Parma Village Office**

AGENDA

Call to Order

Pledge of Allegiance

Public Comment

Parma-Sandstone LDFA Activity

Other Business

*Discuss Western Schools & MACI Lift Station and Equalization Basin Proposal sent in from Chuck Olsen at Holland Engineering

Adjourn

**indicates attachment*

Dearing Road Corridor Sanitary Sewer Capacity Analysis Proposed Improvements.

The Dearing Road Corridor was analyzed for sewer capacity in the existing 10" forcemain from the MACI Blvd Lift Station to the Spring Arbor Township equalization lagoons. With increased sewer demands planned on MACI Blvd as well as a new elementary school under design along Dearing Road, a combination of increased pumping capacity and equalization were analyzed to make use of the existing 10" forcemain while meeting anticipated wastewater demands. As a result of this analysis, improvements are proposed at the MACI Blvd lift station and at the Western Schools site on Dearing Road. These proposed improvements are outlined as follows with associated estimated costs.

MACI Blvd. Lift Station Improvements:

Proposed improvements at the MACI Blvd lift station include replacing the existing pumps to increase the lift station capacity from 600 gpm to 800 gpm. The increased pumping capacity would eliminate the need for an equalization basin on MACI Blvd and allow the equalization required for the MACI lift station flow to be equalized further downstream in a common EQ basin at the Western Schools site on Dearing Road. The project would also include new piping, valves, and fittings throughout the wet well and valve chamber, replacing the original infrastructure. A new concrete base will also be poured in the wet well to correct a failing floor.

The pump size is based on the following existing and projected flow coming to the MACI Blvd lift station.

MACI Blvd LS Estimated Flow				
	(gpd)	Avg. Flow (gpm)	Peak Flow (gpm)	
Industrial Pretreatment	130000	200	200	controlled release rate from pretreatment
"Domestic" flow	195840	136	408	Peaking Factor of 3 based on historic flow monitoring
Existing industrial facility	14400	10	40	Peaking Factor of 4
Vacant industrial land	51840	36	144	Peaking Factor of 4
	392080	382	792	
Proposed Pump capacity:	800	gpm		

Estimated cost for the proposed the proposed improvements at the MACI Blvd Lift Station are as follows:

MACI Blvd LS Improvements Estimated Cost	
Replacement pumps, pump rails, discharge piping from pumps through valve chamber, valves, check valves, fittings, and new concrete wet well floor	\$170,000
Bypass pumping, fencing, monitoring of bypass & service of alarms	\$40,000
Engineering and Contingencies	\$42,500
Estimated Project Cost	\$252,500

Western Schools Lift Station and Equalization Basin:

A bond issue was passed that allows Western Schools to construct a new elementary school along Dearing Road across from the existing high school and middle school campus. With the increased wastewater flows from MACI Blvd lift station and the new elementary school, equalization of wastewater flows is necessary to provide the necessary capacity through the existing 10" forcemain. A 4,000 cubic foot capacity underground equalization basin is proposed on the Western Schools high school campus adjacent to the existing Western Schools lift station. The existing western schools lift station will collect flow from the existing high school and middle school campus, as well as the proposed elementary school campus and pump it up into the equalization basin. The flow coming from the MACI Blvd lift station will be diverted into the new equalization basin directly. A new lift station will be constructed to pump the equalized flow to the Spring Arbor Township lagoons. Improvements to the existing Western Schools lift station are necessary, including new pumps, piping and valves.

Estimated cost for the proposed the proposed improvements at the Western Schools site are as follows:

Western Schools Lift Station and Equalization Basin Improvements Estimated Cost	
Existing lift station replacement of pumps, pump rails, discharge piping from pumps through valve chamber, valves, check valves, fittings, and control panel.	\$140,000
Bypass pumping, fencing, monitoring of bypass & service of alarms	\$20,000
Engineering and Contingencies	\$35,000
Subtotal: Estimated Project Cost for Existing Western Schools LS	\$195,000
New equalization basin, effluent lift station, controls, generator, and site piping	\$670,000
Engineering and Contingencies	\$170,000
Subtotal: Estimated Project Cost for new EQ Basin and Lift Station	\$840,000
Estimated Project Cost	\$1,035,000