

**Little Calumet River Basin
DEVELOPMENT COMMISSION**



Stormwater Detention/ Infiltration Basin

Hammond Sanitary
District

175th and Columbia
Hammond, Indiana

May 11, 2016



Background

- ▶ HSD has a combined sewer system
- ▶ Stormwater and sanitary sewage mix during wet weather
- ▶ When capacity of combined sewer interceptor is exceeded → Combined Sewer Overflows (CSO) Result
- ▶ CSOs contribute to violations of water quality standards
- ▶ EPA requires communities to submit a Long Term Control Plan (LTCP) to combat CSOs



HSD's LTCP

Projects outside WWTP	\$165 million
Projects at WWTP	\$32 million
Total	\$197 million

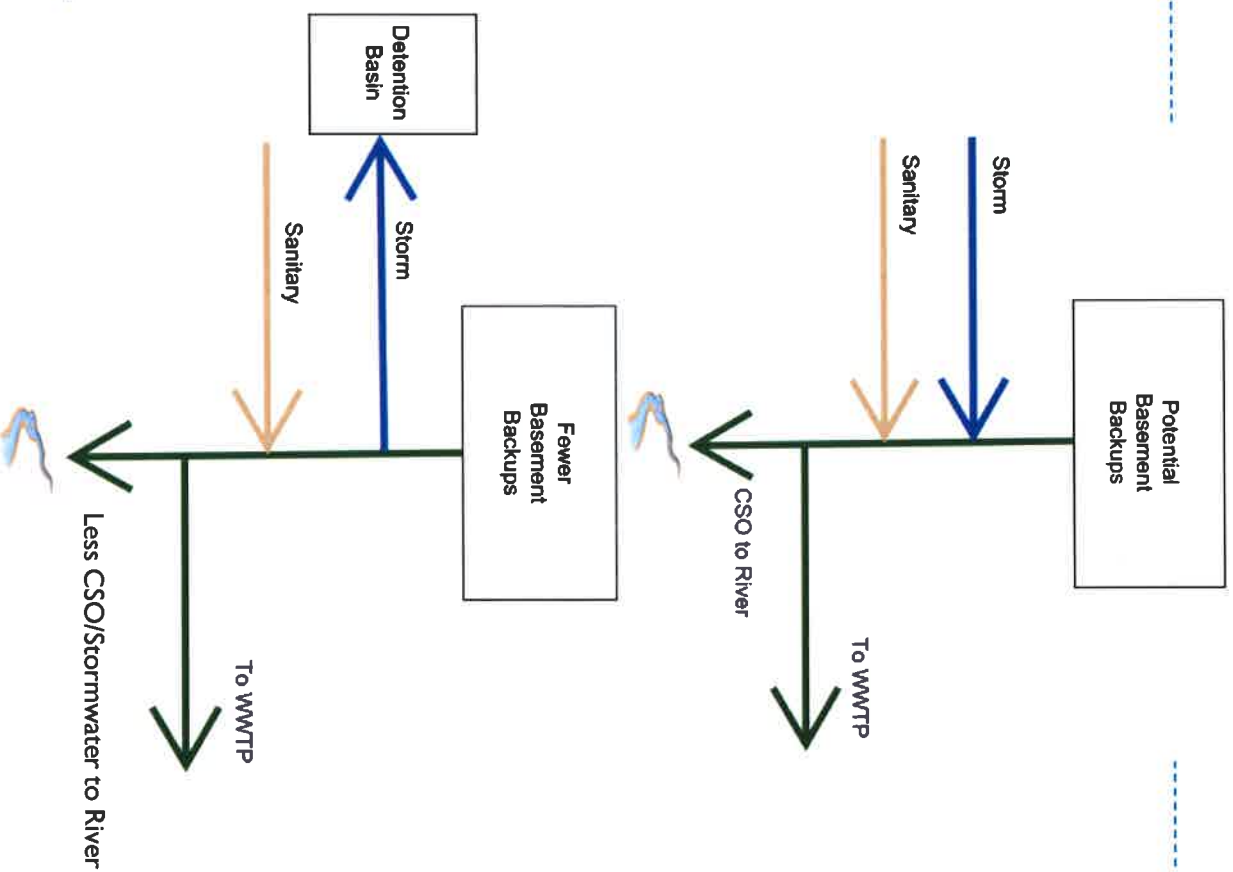
- ▶ EPA encourages Green Infrastructure (GI) Projects
 - ▶ Proposed Project is a Green Infrastructure Project
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Flow Chart

▶ Current Situation

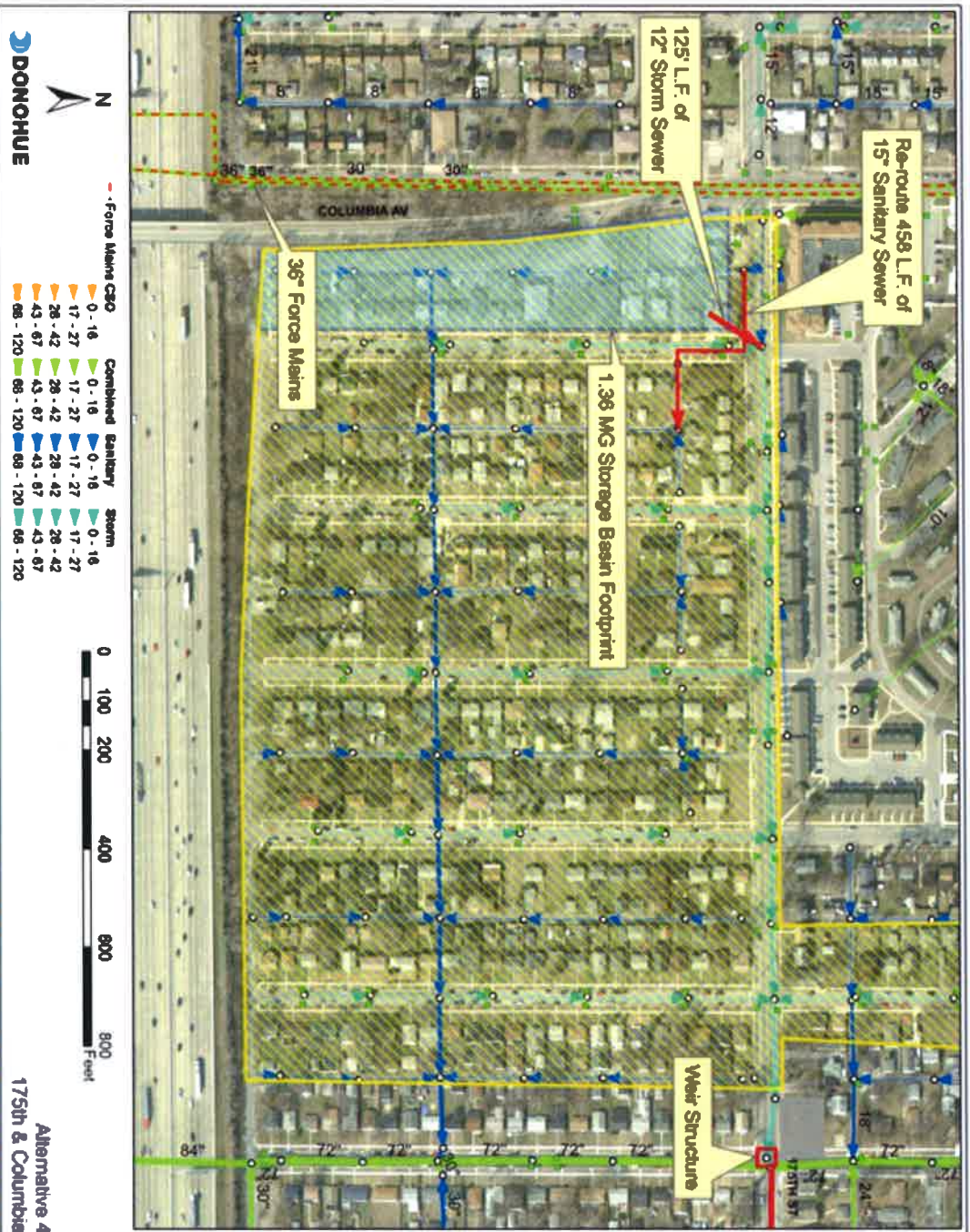
▶ Proposed



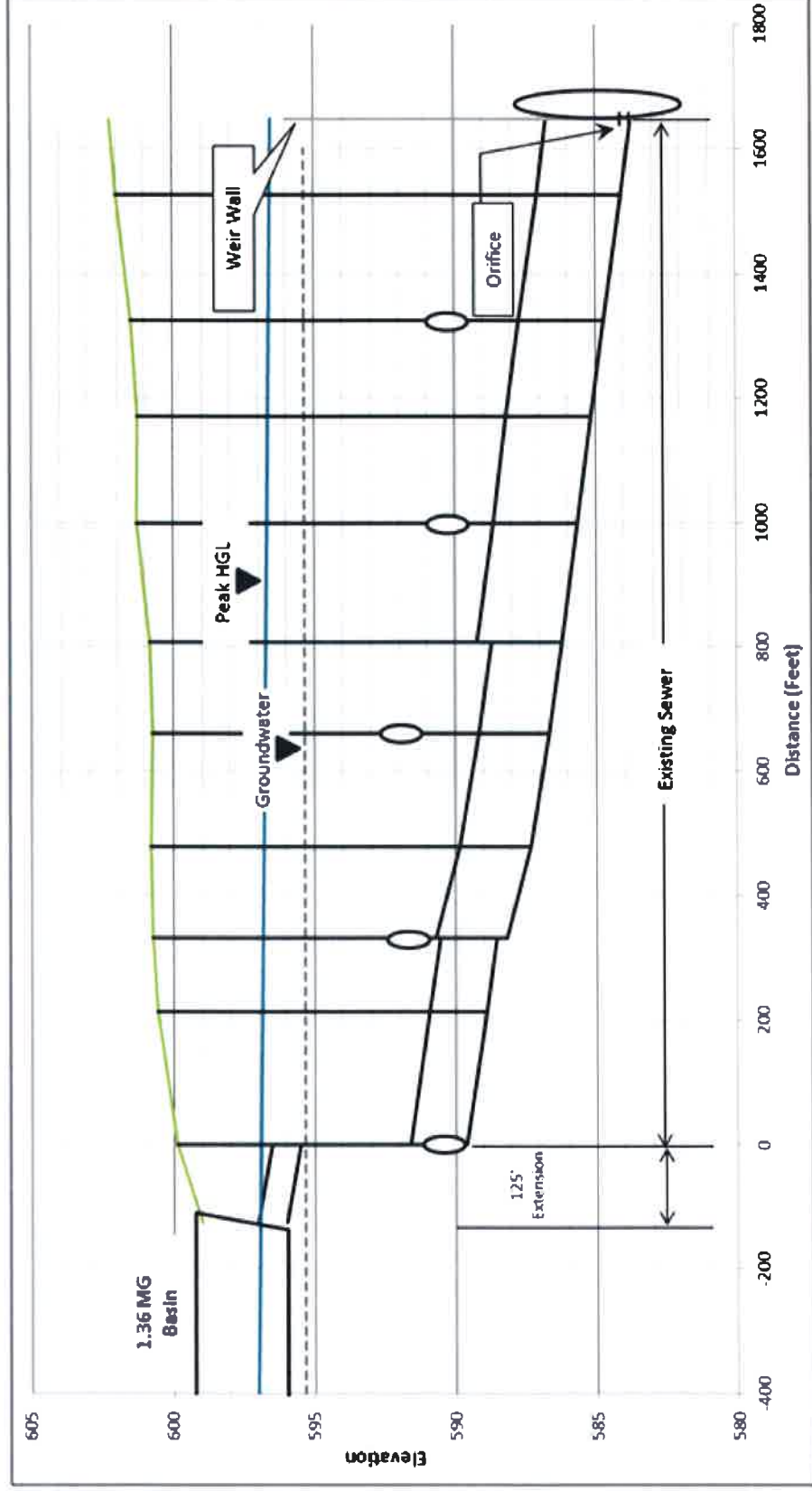
Project Location



Project Plan

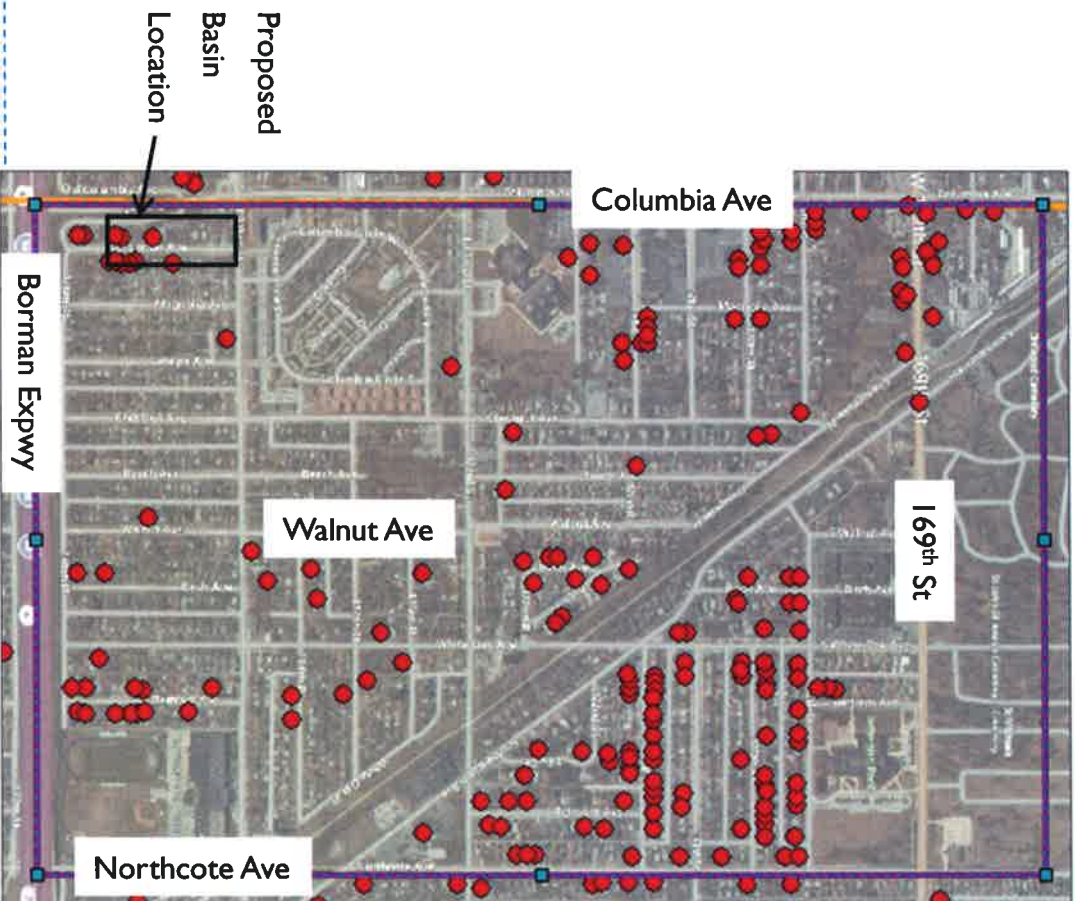


Project Profile



- ▶ Note: The elevation of the weir crest is approximate and will be finalized during design.

Historical Basement Backups



Hammond Sanitary District
 Alternative Analysis
 175th & Columbia
 Opinion of Probable Construction Costs

Alternative 4 OFPC

General Description

Divert storm runoff from the 4.5-acre area east of the site into a stormwater rain garden / bioswale.

ITEM	Units	Quantity	Unit Cost (\$)	Initial Cost (\$)
Sitework & Yard Piping				
12" DI Piping (Open Cut)	lf	125	135	16,875
18" DI Sanitary Sewer (Open Cut)	lf	458	128	58,624
Manhole Installation	Each	2	6,000	12,000
Manhole Modification	Each	3	3,000	9,000
Wear Structure	Each	1	15,000	15,000
Asphalt	sf	50	25,000	25,000
Traffic Control	Lump Sum	1	50,000	50,000
1.30 MG Bioswale				
Excavation	cy	11,223	6.5	72,947
Topsoil	sf	13,467	10	134,671
Filter Fabric	sf	13,467	4	53,868
Plants	sf	121,204	3	363,612
Mulch	sf	121,204	0.5	60,602
Demolition				
Single Family Residential	Each	16	10,000	160,000
Commercial	Each	2	50,000	100,000
Apartments	Each	4	25,000	100,000
Mobilization	Lump Sum	1	100,000	100,000
Subtotal				1,332,200
Contingency			30%	399,660
Subtotal				1,731,859
Contractor Overhead & Profit			25%	432,965
Total Construction Cost				2,164,824
Engineering, Legal, Administrative			10%	216,482
Property Acquisition	Each	26	81,308	2,114,000
Total Initial Cost				4,500,000
LCRBDC Grant			65%	-2,925,000
Total Net Cost				1,575,000

Project Benefits

- ▶ Reduced CSO/Stormwater Volume to River
 - ▶ Improved Water Quality
 - ▶ Improved Wildlife Habitat
- ▶ Reduced Stormwater to Combined System
 - ▶ Fewer Basement Backups
- ▶ Benefits multiple communities
 - ▶ Hammond, Munster, Lansing, and Calumet City
- ▶ Enhanced Recreation
 - ▶ Dog Park/Walking Path
 - ▶ Youth Soccer Field

