



MEMORANDUM

DATE: September 6, 2023
FROM: Kevin J. Siedlecki, PE
Chelsie K. Smith, EI
RE: Design Meeting Minutes
Gumwood Road Basin Improvements
Department of Infrastructure, Planning & Growth
St. Joseph County, Indiana

Meeting Date: August 15, 2023
Meeting Time: 2:00 p.m. (EST)
Meeting Location: County-City Building, 7th Floor

ATTENDEES:

Sky K. Medors, P.E. St. Joseph County – Infrastructure, Planning & Growth – County Engineer 574-235-7800
John T. Law St. Joseph County – Office of the Surveyor – Construction Supervisor 574-235-5072
Robert Kruszynski St. Joseph County – Office of the Surveyor – County Surveyor 574-235-9631
Kevin J. Siedlecki, PE Lawson-Fisher Associates P.C. (LFA) 574-234-3167
Cheslie K. Smith, EI LFA 574-234-3167

DISCUSSION:

- 1. Welcome and Introductions
2. Project Information –
A. Project Area History –
I. 2007 and 2020 Studies – LFA reviewed the historical plans and geotechnical studies, and how they compare to the current basin and most recent geotechnical report.
II. Design and Construction of the Existing Basin – LFA provided a description of the current site and the flooding issues that are being addressed by the project.
III. Desire to Improve Drainage Characteristics – LFA detailed plans to allow the basin to completely drain after storm events.



B. Design Items –

- I. **Geotechnical Report/Groundwater** – LFA reviewed the geotechnical report. A layer of silty sand is present that could be used to allow drywells to drain. Currently there is a layer of fines on the surface of the basin floor that is preventing drainage, which must be addressed before any solution is implemented. If the fines continue to be an issue, the design will need to include a method to allow them to drop out of the flow to prevent clogging of any drywells.
- II. **Drywells** – The City team suggested purchasing the Fox property to the east of the project and using the land to expand the basin. The drywells would be constructed in the new area, as opposed to within the existing basin. It was discussed expanding within the current property lines to the northwest; however, the slope of the land would require additional construction of a wall to prevent slope collapse.
- III. **Riprap Overflow from Knollwood Villas Basin** – The landowners to the north of the project have requested that the project allow them to continue to utilize a walkway around the edge of the pond to the north of the basin. To mitigate future erosion, options will be reviewed for the overflow that passes into the basin. Examples given were geoweb, a culvert, and riprap. A culvert would be least desirable due to the potential for backwater from the Gumwood Basin to impact the Knollwood Villas Basin.
- IV. **Dewatering Alternatives** – Caisson style construction was discussed as an alternative to dewatering, though it may be cost-prohibitive. Acquiring property, expanding the basin to the east, and installing drywells would likely eliminate the need for extensive dewatering.

3. Next Steps –

A. Final Plans and Specifications –

- I. LFA will provide an exhibit that identifies the area to be acquired in order to expand the basin per the recommendation from the 2020 report.
- II. LFA will design a typical section of the area north of the basin to serve as an emergency overflow from Knollwood Villas. Considerations for it being traversable by pedestrians will be incorporated.
- III. LFA will gather pricing estimates for different construction alternatives in order to compare them to the cost of acquiring the Fox property to the east.
- IV. The City will investigate the cost and feasibility of purchasing the Fox property.

B. Bidding and Construction Schedule – A bidding and construction schedule will be determined after the design is finalized.

KJS/CAS/maf
Encls.