

**Project Description**

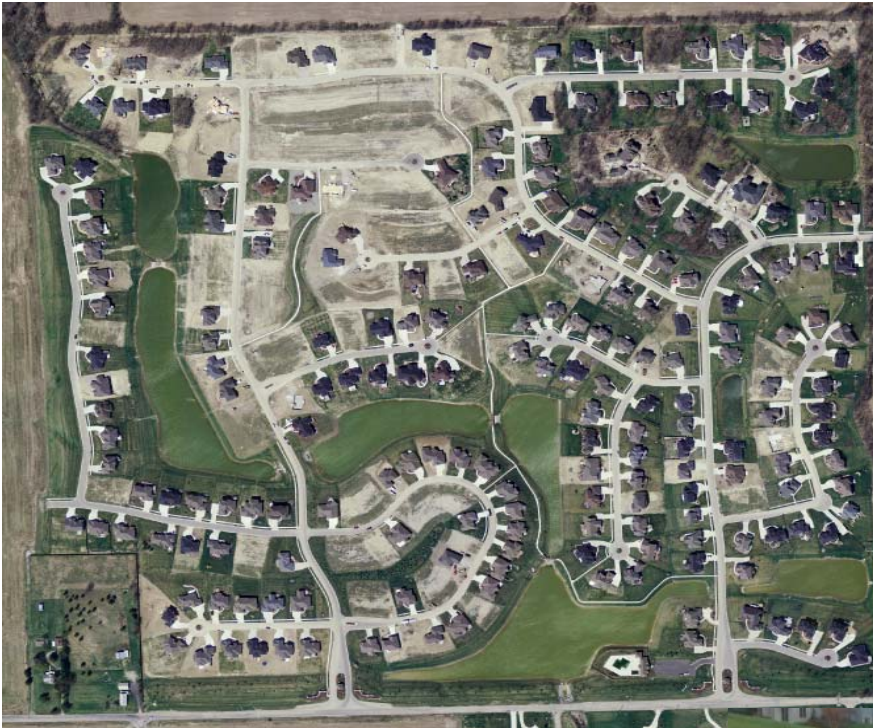
**Project Overview**

These two projects are located in Northwest Allen County. The project site straddles the Janus Ditch, a tributary to the St. Joseph River. The project site contains about 300 acres and was planned for residential use (single family.) Prior to design and permitting, much of this area was prone to flooding, including overtopping of Union Chapel Road on the south boundary of the project site.

**Site Design and Permitting**

The first segment of the design process involved determining the permitting requirements. Since the Janus Ditch had less than 1 square mile of watershed upstream of Union Chapel Road, Floodway permitting was not required.

In order to take advantage of the natural terrain and improve drainage for the watershed as much as possible, a series of in-stream detention ponds were designed with cascading waterfall structures at their downstream discharges. Five cascading ponds were constructed on the Janus Ditch, with an additional seven ponds scattered throughout the project site for aesthetics and storm detention/water quality.



**Estimated Project and Design Cost**

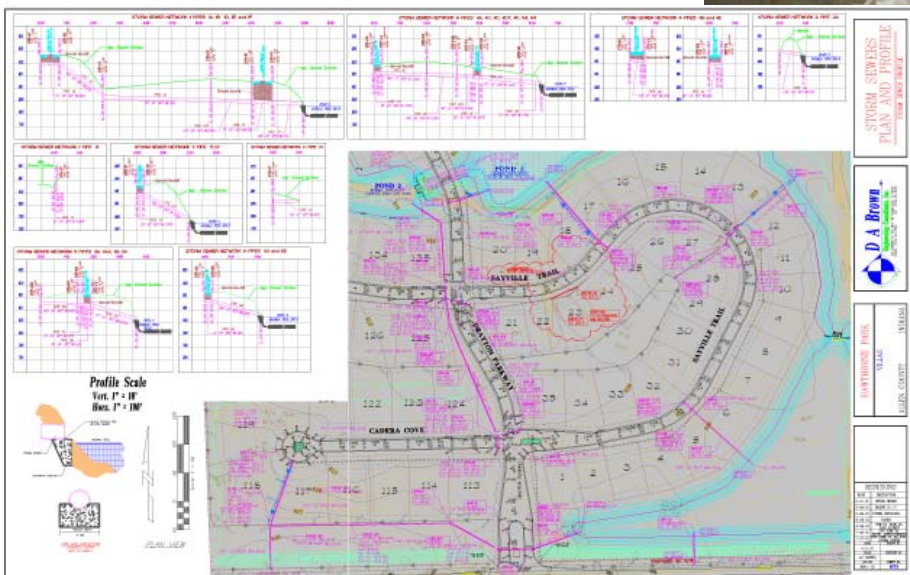
The estimated construction cost of the storm improvements to the site was approximately \$750,000, while the design and surveying cost for those improvements was approximately \$45,000.

**Major Design Items**

DABEC design for this project included: Storm modeling for the Janus Ditch, On-site detention modeling for the project, Off-site storm modeling for the pass-through quantities, Overflow weir design, and Cascading (series) pond discharge design.



The Second Cascading Weir during a flooding event



Typical Grading and Storm Pipe sheet from Plan Set

**Client Reference**

**Orrin Sessions**  
**The Northeastern Group**

10808 LaCabreah Lane  
 Fort Wayne, IN 46898  
 260-489-7095 (phone)  
 260-489-7950 (fax)