

**PUBLIC WORKS ENGINEERING DIVISION**

**Date:** Friday, February 09, 2018

**To:**

Anderson Engineering

Patrick Joyce, P.E.

Email: PJoyce@andersonengineering.com

Fax #: none

**From:** Gene Williams, P.E.

Senior Staff Engineer

**Application Number:** PL2017110

**Application Type:** Engineering Plan Review

**Application Name:** The Grove - Mass Grading and Stormwater

---

The Development Services Department received plans for this project on Feb. 2, 2018. We have completed our review and offer the following comments:

**Engineering Review**

1. Please refer to comment #6 of the applicant letter dated Sept. 28, 2017. The City does not desire a pedestrian guardrail since it does not appear a pedestrian guardrail is warranted. If you are not in agreement with this, please submit justification for a guardrail. According to our review, it is not necessary and therefore, undesired.
2. The rip rap section shown at the end of the storm line crossing at 16th St. shows what appears to be a 1.5 foot increase in height at the end of the rip rap in relation to the flow line elevation of the pipes at the discharge point. This will likely lead to silting-in of the pipes. What is the justification for this design?
3. As of this date, we do not appear to have a final stormwater detention study in our possession. The latest version in our possession is dated April 21, 2017. This version contains contradictions in the design of the outlet structure. In particular, a 13.5 inch opening is shown at the permanent pool elevation, but the plans show a 10 inch opening at the permanent pool elevation. Other issues with the report include the following: 1) discussion of a 7' by 5' rectangular concrete box culvert to handle anticipated flows for the retention basin, 2) no discussion of the fact that this 84 acre site exceeds the allowable peak flow rate using simple multiplication of the area times the allowable release rate per acre (are there off-site contributions to stormwater flow that need to be discussed?), 3) an appendix with no definition of the various nodes, either graphically or by text, rendering the review of the appendix difficult. Please submit a final stormwater detention study which addresses these issues.
4. It appears the Engineer's Estimate of Probable Construction Costs was missing the following items: 1)

street repair at 16th St., 2) water valves, 3) water main encasement, and 4) thrust blocks.

### **Electronic Plans for Resubmittal**

---

Beginning Monday, May 23, 2016, all Planning application and development engineering plan resubmittals shall include an electronic copy of the documents as well as the required number of paper copies.

Electronic copies shall be provided on CD in the following formats

- Plats – All plats shall be provided in Tagged Image Format File (TIFF) Group 4 compression.
- Engineered Civil Plans – All engineered civil plans shall be provided in Tagged Image Format File (TIFF) Group 4 compression. All sheets shall be individually saved and titled with the sheet title.
- Architectural and other plan drawings – Architectural and other plan drawings, such as site electrical and landscaping, shall be provided in Portable Document Format (PDF).
- Studies – Studies, such as stormwater and traffic, shall be provided in Portable Document Format (PDF).
- It is requested that each plan sheet be a maximum of 2MB.

Please contact me if you have any questions or comments.

Sincerely,

*Original Signed*

Gene Williams, P.E.  
Senior Staff Engineer  
(816) 969-1223  
Gene.Williams@cityofls.net

cc: Development Engineering Project File