

**DEVELOPMENT SERVICES**

**Date:** Wednesday, December 04, 2019

**To:** MCCLURE ENGINEERING COMPANY  
MATTHEW EBLEN, P.E  
705 1ST AVE NORTH  
FORT DODGE, IA 50501

**From:** Loic Nguingiri, E.I., Staff Engineer

**Application Number:** PL2019390

**Application Type:** Engineering Plan Review

**Application Name:** Saint Luke's East - Flex Facility Pre Utility Work

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The Development Services Department received plans for this project on November 18, 2019. We have completed our review and offer the following comments listed below.

- Resubmit three (3) full size sets of plans (no larger than 24"x36") folded to 8-½"x11", one (1) comment response letter, and one (1) digital copy following the electronic plan submittal guides as stated below.
- Revised plans will be reviewed within ten (10) business days of the date received.

**Engineering Review**

1. General: Please combine water, sanitary and storm plans.
2. General: Please add direct phone number or email address to the Design Engineer's contact information.
3. General: Please include a legend that best defines the abbreviations used in the (plan view) plans.
4. Water: Please include a note regarding the disconnect and removal of the existing water pipe running directly from STA 0+00 to STA 2+62.82. The City will not allow abandonment in place of this line.
5. Water: Please specify PVC C900 rather than DIP.
6. Water: Please label footprint of existing easement to be vacated.
7. Water: Immediately north of curb inlet 103, minimum distance requirement for separation between public water main and edge of building (expansion) must be 15 feet. It appears major re-design is

required on the geometry.

8. Water: There appears to be a (private) private fire hydrant line that is aligned generally north-south. Is this line expected to be removed or relocated ? Details are missing on what is required at this location.
9. Water: The two (2) private water lines, next to STA 2+62.82, do not appear to have backflow vaults. Are the backflow vaults located within the building ? What is the plan for these water lines in regard to modifications ? Proposed building expansion appears to encroach to these water lines, and it is unclear what is being proposed to manage these issues.
10. Water: Please provide standard details for backflow vault and backflow assembly; and for standard water meter and vault.
11. Water: Please explain why the four (4) public fire hydrants are shown in the middle of pavement and/or driveways. We need to know the final layout and final plan before reviewing. We recommend a separate sheet for future plan.
12. Water: Please add the note "public", in profile view headline, when referring to public infrastructure.
13. Sanitary: Flowline elevations at existing manhole (STA 0+00) appear to be incorrect. Flowline in vs Flowline out must be at least 0.2 foot.
14. Sanitary: Please add the note "private", in profile view headline, when referring to private infrastructure.
15. Storm: Please include hydraulic grade line of design storm, in profile view.
16. Storm: Please include utility crossing of existing water main located next to new curb inlet 103, in profile view.
17. Storm: Top of junction box 102 is shown below finish grade. Please reconcile.
18. Storm: Please provide standard details for junction box.
19. Storm: Please provide appropriate call-outs for storm sewer structures. (e.g. replace 1.05 by 105 or vice versa, please be consistent with naming convention).
20. Storm: Please cite "Lines 1,2 and 3" instead of "Line 1" in profile view headline on sheet C303.

21. Storm: Please provide in-flow elevations for adjacent connected storm sewer pipes, in profile view, for structures 102, 106 and 108.
22. Storm: Flowline elevations at existing storm inlet 108 appear to be incorrect. Flowline IN vs Flowline OUT must be at least 0.2 foot.
23. Storm: Flowline elevations at new curb inlet 106 appear to be incorrect. Flowline IN vs Flowline OUT must be at least 0.5 foot.
24. Storm: Please add the note "private", in profile view headline, when referring to private infrastructure.

In order to calculate the Engineering Plan Review and Inspection Fee, a sealed Engineer's Opinion of Probable Construction Costs shall accompany your final submittal copies. The itemized estimate (material and installation) shall be sufficiently broken down and shall include the following items, as applicable.

- Public infrastructure, both onsite and offsite.
- Private street construction, including parking lots and driveways.
- Sidewalks located within the right-of-way.
- ADA accessible ramps.
- Sanitary sewer manholes and piping between manholes, including private mains.
- Connection of the building sanitary sewer stub to the public main.
- Waterlines larger than 2 inches in diameter, valves, hydrants, and backflow preventer with vault, if outside the building.
- Stormwater piping greater than 6 inches in diameter, structures, and detention / retention facilities - public or private.
- Water quality features installed to meet the 40-hour extended duration detention requirements.
- Grading for detention / retention ponds.
- Grading to establish proper site drainage.
- Utility infrastructure adjustments to finished grade (i.e. manhole lids, water valves, etc.).
- Erosion and sediment control devices required for construction.
- Re-vegetation and other post-construction erosion and sediment control activities.

### **Electronic Plans for Resubmittal**

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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 in the following formats

- Plats – All plats shall be provided in multi-page Portable Document Format (PDF).
- Engineered Civil Plans – All engineered civil plans shall be provided in multi-page Portable Document Format (PDF).
- Studies – Studies, such as stormwater and traffic, shall be provided in Portable Document Format (PDF).

Please contact me if you have any questions or comments.

Sincerely,

*Original Signed*

Loic Nguingiri, E.I. , Staff Engineer

Loic.Nguingiri@cityofls.net

cc: Development Engineering Project File