LEE'S SUMMIT
MISSOURI

DEVELOPMENT SERVICES

Date: Monday, August 02, 2021

To: OLSSON ASSOCIATES
Terry Parsons, P.E.
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116

From: Gene Williams, P.E.
Senior Staff Engineer

Application Number:	PL2021227
Application Type:	Engineering Plan Review
Application Name:	LSR7 Middle #4 - Sanitary Sewer Upgrades Downstream Segment #2

The Development Services Department has completed its review and offer the following comments listed below.

- See comments below to determine the required revisions and resubmit to the Development Services Department public portal located at **devservices.cityofls.net**. Digital documents shall follow 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. Railroad concurrence shall be required prior to installation of the railroad crossing. For purposes of approval, the railroad portion is acceptable to the City, and it is recommended this portion of the plans be submitted to the railroad.

   Noted. Olsson has submitted the appropriate design documents to the UPRR for approval and will incorporate railroad comments prior to submitting the final signed, sealed design documents to the City for final approval.

2. Is a USACE permit being acquired for the project? Is it required? If so, a copy of the permit shall be submitted prior to approval.

   Yes, Olsson is submitting a Preconstruction Notification to the USACE. Olsson will include the USACE approval in the final submittal of signed, sealed design documents for City approval.

3. Floodwater Elevation: tops of manholes shall extend a minimum 1'-0" above the calculated 100-year floodwater elevation, provided that such extension shall not exceed 4 feet above final finish grade. Where these requirements result in a manhole with a rim at or below the 100-year floodwater elevation, the manhole shall be equipped with watertight ring and bolt-down cover assembly with neoprene gaskets.

It appears some of the manholes are extended as high as desired by Water Utilities, but are below the 100 year water surface elevation, or do not extend the minimum distance of 1.0 feet. This would include manholes 56-006, 007, 008, 009, 010, and 011.

The rim elevations of manholes 54-006, and 54-007 have also been increased to the maximum 4'-0" above finished grade. Manhole 54-011 has been increased to a minimum of 1 ft above the 100-year flood elevation. Manholes 54-006, 54-007, 54-008, 54-009, and 54-010 will have bolt-down covers installed to meet the requirements of the Lee's Summit Design and Construction Manual.

4. Anywhere ductile iron pipe is specified, it shall conform to the ductile iron specifications contained within the Design and Construction Manual. Currently, the City only allows zinc-coated ductile iron pipe.

   Noted. The project technical specifications include all of the Lee's Summit Standard Specifications. Ductile iron will be zinc coated in accordance with the Lee's Summit Design and Construction Manual.

5. It is unclear whether the stream channel flowline is being altered in terms of elevation. Is rock liner being installed beneath the existing stream flowline? This will have a direct bearing on the location of the sanitary line in order to achieve minimum depth of cover. If the dashed line represents the existing stream flowline, the depth of cover appears sufficient.

   The stream channel flowline will not be altered. The rock liner will be installed such that the final grade equals the existing grade at the stream channel flowline. The dashed line in the profile views represents the existing grade. We also added a note for clarification on detail L on sheet C11.

6. Manhole 47-069 is shown with insufficient drop across the manhole. A minimum of 0.5 feet is required.

   The drop across manhole 47-069 has been increased to 0.5 feet as required.

7. Are there other manhole rims that do not meet the 1.0 feet of freeboard requirement between the calculated 100 year water surface elevation and the top of the rim? If so, please see previous comment for guidance.

   We did another check on the manhole rim elevations. The rim elevation of manhole A-2 has been increased to 1'-0" above the 100 year water surface (approximately 946.00 feet). The rim elevations of manholes 54-004 and 54-005 have been increased to the allowable 4'-0" above finished grade but remain below the 100 year water surface (approximately 946.00 feet); bolt-down manhole covers have been specified.

8. Recommend evaluating the casing carrier pipe requirement prior to submittal to the railroad. A portion is "x'ed" out and might generate additional delays by the railroad. The City is ok with the alignment under the railroad but shall yield to any requirements mandated by them.

   Relevant design documents have already been submitted to the railroad and Olsson is working with the railroad to meet their requirements.

Traffic Review - Not Required

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

All Planning application and developmrnt 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 mulit-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,

/s/ electronically signed Aug. 2, 2021 Gen e Williams

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

cc: Development Engineering Project File