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**DEVELOPMENT SERVICES**

**Date:** Tuesday, August 17, 2021

**To:** ENGINEERING SOLUTIONS  
50 SE 30TH ST  
LEES SUMMIT, MO 64082

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

**Application Number:** PL2021295

**Application Type:** Engineering Plan Review

**Application Name:** NAPA VALLEY 5TH PLAT - Street, Stormwater, and Master Drainage Plan

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The Development Services Department received plans for this project on August 02, 2021. We have completed our 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](https://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 - Corrections**

1. It appears at least one (1) of the lots is located partially within the 100 year floodplain. Please show the location of the floodplain, including the extent shown on plan view, and numeric callouts of the base flood elevation along key points. It may be necessary to obtain a CLOMR-F if filling within the floodplain to remove lot(s) from the floodplain.
2. Stop signs are shown after the unmarked crosswalk. Stop signs shall be a minimum of 4 feet before any unmarked crosswalk, and the stop sign shall be no more than the PC of the radius. This shall require a re-design of the ADA-accessible ramps.
3. Sheet C.200: A large portion of the grading plan does not include elevation callouts for the proposed contours, especially near the floodplain in the northeast portion of the project. Please show key elevation callouts for the contours.
4. Sheet C.200: Grading is shown off-site to the southwest and northwest portions of the project. This will require a temporary construction easement from the adjacent property owners.
5. What is the plan for managing stormwater on the east side of Lot 183 and Lot 181? It would appear an auxiliary swale would be warranted?

6. Two north/south swales are depicted on Sheet C.200 without typical section views and a start and stop point. These swales are shown on the east and west side of Lot 185. It would appear section views, along with the start and stop point, should be shown.
7. Lots 184, 185, and 186 do not appear to drain in the rear. There is a lack of definition on swales in these areas. Please clearly show how the rear of these lots will drain.
8. What is the plan to drain Lot 193 at the southeast corner? Are you planning on utilizing the existing field inlet on the off-site lot?
9. Sheet C.200: Extensive off-site grading is shown on a lot which has already been built upon (to the northwest of Napa Valley 5th). Is this even possible given the existing structure exists at this location? Are there other homes already built in this area? If so, how will this be accomplished?
10. Basement type did not appear to be shown on the Master Drainage Plan. This shall be required for all lots. Location of the 100 year floodplain shall also be shown on the Master Drainage Plan.
11. Are there any lots that require an MBOE? It did not appear any were shown on the Master Drainage Plan.
12. Please show the 100 year (100% clogged, zero available storage) water surface elevation on the Master Drainage Plan in graphical and numeric format.
13. Street profile shown on Sheet C.203 shows a cross-slope for the ADA route in excess of the maximum 1.5% design slope at the west end of Flintrock. ADA-accessible ramps at stop controlled intersections shall be designed with a minimum 5 foot wide ADA-route across the stop controlled intersection with no more than a 1.5% cross-slope.
14. Sheet C.205: Stop signs shall be no further than the PC of the radius. As such, the geometry of these ramps cannot work as shown. Please see previous comments concerning placement of the stop sign in relation to the crosswalk. This will determine the location of the ADA-accessible ramps.
15. HGL for the design storm were missing from the storm profile views. Please shown the design HGL on the profile views.
16. It is recommended the underground storm system be designed to contain the 100 year event a minimum of 6 inches below the throat of any inlet. The HGL for the 10 year event should be at or below the crown of the pipe.
17. A stormwater memorandum was missing. The memorandum should discuss the existing detention basin

in relation to Napa Valley 5th Plat, and whether this basin will serve the stormwater detention requirements for this phase of the development.

18. A Floodplain Development Permit may be required for work within the floodplain.
19. Please remove the erosion and sediment control plan from the plan set. These plans shall be reviewed separately from the Street, Stormwater, and Master Drainage Plan.

### **Traffic Review - Corrections**

1. Sheet C. 101 - "Named Street Name Sign Detail" needs to be updated. (ie. "SW Longview Blvd")
2. Sheet C. 101 - Stop signs shall be in front of crosswalks. None of the stop signs are placed in their correct location.
3. Sheet C. 203 - Min. horizontal radii is 200'. There was an instance where this standard was not met.

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,

/s/ Gene Williams electronically signed Aug. 17, 2021

Gene Williams, P.E.  
Senior Staff Engineer  
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cc: Development Engineering Project File