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From: **Joe Canning, PE/PLS**
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Date: 8 October 2022

Subject: **Quad Six Subdivision
4640 North Adams Street
SUBFY2022-0007
Tax Parcel R2734522861
Land Area = 0.454 Acres**

Pages: 4

Media: Transmitted via E-mail

On behalf of Garden City, as the city engineer, we have completed a review of the application for the subject project. This project is a 7 residential unit subdivision.

Any approval of the project should be conditioned upon successfully addressing items presented in this review.

Street Name

Is the internal road a private road? We expect due to the number of units proposed, Ada County will require the road to be named. Please provide county approved names, if necessary.

Original Parcel

The land is portions of Lots 33 and 34 of Block 21 of FAS #3. Please provide evidence the land is an original parcel per city code (prior to 1988).

Irrigation Facilities

Should any changes or relocation of surface irrigation facilities be proposed, provide an approval of the project from the irrigation entity. The applicant must review the project and determine if an Army Corps of Engineers 404 permit will be necessary to obtain.

Pressure Irrigation System

As the project is a land subdivision, city code requires a pressure irrigation system, unless a waiver of the requirement is requested and approved by the city. City code provides the requirements for the system and the waiver.

The preliminary plat indicates irrigation water will be provided from the irrigation entity. Please provide a design report, plans and an approval for the system from the irrigation water provider for the pressurized irrigation system with submittal of construction plans.

Erosion and Sediment Control

Prior to performing any grading on the site, the applicant must prepare and have approved by the city an erosion and sediment control plan.

Restricted Build Agreement

Will the applicant plan on creating a Restricted Build Agreement (RBA) for the project?

Ada County Highway District

Approval of the project by the Ada County Highway District will be required.

Fire District Approval

Approval of the project by the North Ada County Fire and Rescue District will be required. Should fire flow requirements exceed those available, the land use, improvement of off-site city water lines or other efforts may be necessary to obtain approval of plans.

The review by the District will need to include review of locations of fire hydrants.

Water and Sewer Connections

Water and sewer service must be reviewed and approved by the city's Public Works Department.

The applicant is responsible to verify that adequate water system supply is available to provide any fire suppression water needs.

The applicant is responsible to confirm/verify that adequate sewer capacity is available and that the existing system depth is adequate to serve the site.

Please provide a plan-profile of the water and sewer planned for the project for city review and approval. Please note that water line mains under or within 10 feet of permeable pavers need to be ductile iron pipe when possible. Water lines must be looped where possible. Dead-end lines, if unavoidable, must terminate with a blow-off or fire hydrant.

Are any fire hydrants required? If so, the minimum mainline running by the fire hydrant connection must be 8-inch pipe.

Please add sanitary sewer service line cleanouts to each service line at the property line per Garden City standard notes.

The project proposes to utilize permeable pavers for drainage control. Please note that the city will not replace/repair storm drainage systems placed over city water/sewer lines. Sewer services under pavers must be private. Final plat notes and information within the project C,C&Rs must state this.

QLPE Plan Review

Will the applicant desire the city to perform a QLPE review for sanitary facilities?

Drainage Report

Please provide a storm drainage analysis report for the project with the submittal of the construction plans. Be sure to include a drainage basin map in the report for the project.

Please address how all roof drainage will be handled. Please note that roof drainage cannot discharge below the surface of pavers. All drainage is expected to remain on-site, unless some area is specifically approved to leave the site by the ACHD (to right-of-way).

Please provide text within the report discussing both the depth and elevation of expected seasonal high groundwater. The geotech report notes seasonal high water is expected to be 5 feet. The city requires a minimum of 3 feet of vertical separation to seasonal high groundwater.

The geotech report recommends an infiltration rate of 8 inches per hour. Please add information in the report of system drain times.

The project appears to have the drainage treated with permeable pavers. Please be sure to address the paver design, allowable run-on ratios and drain times.

Be sure pavers are located at least 10 feet from structures unless a closer proximity is allowed via letter from the project's structural engineer or geotechnical engineer.

Please add design sizes of the storm water systems to accommodate at least the 50-year storm design storm event volume (the study includes this volume, but does not fully define the impoundment) and peak Q's created by a 10-minute storm event.

Site Grading and Drainage Plan

A complete site grading and drainage plan will be required with complete construction plans. The plan submitted is not adequate to review. Said plan must be reviewed and approved by the city.

Approval of the preliminary plat does not relieve the applicant from meeting the city's storm water requirements. Should the development require changes due to conflicts with the site layout and storm water requirements, said changes would be required.

Please add perimeter ground elevations to the plan to review to assure site grading/improvements will not impact adjoining lands.

The geotech report contains a recommendation for a pavement section. Please include within the construction plans as the minimum section. The geotech report does not provided a recommendation for a permeable paver section. Please consider having the section design added to the geotech report.

Storm Water Operation and Management Manual

Please provide a system operation and maintenance manual for review and approval.

Storm Water Operation and Management Agreement

The landowner must enter into an agreement with the city that will be recorded addressing mandatory maintenance of the site's storm water system. The agreement must be fully executed, have approved plans attached and be recorded by the city after the final construction plan approval.

Please provide the agreement for review and approval.

Easement to Land to the North

Please provide a copy of the easement to the party to the north. How will this easement be perpetuated and notice provided to the Quad Six HOA? Who will be responsible for its maintenance through the project?

FEMA Flood Maps

The site is currently located in FEMA Zone AE. Compliance with the city's floodplain ordinance will be required. The BFE from the FIRM is approximately 2643. The FIS, not the FIRMs, should be used to assess elevations for Elevation Certificates. The city requires the lowest floor to be elevated at least 2 feet above the current BFE.

Will the applicant be seeking an LOMR as part of the development process?

Additionally, the applicant should also review the original FEMA work maps (not the current adopted maps) as the city has been placed in seclusion. These are available on the city's website. The current maps (June 2020) do not display the possible future risk of the flooding potential of the Boise River. If the lowest floor building elevation is below the draft map BFE, a Flood Risk Acknowledgement form will be required from the landowner/developer. The work maps show this area with a BFE of approximately 2644.

We have no other comments regarding this request at this time.