



CENTURION ENGINEERS, INC.

Consulting Engineers and Land Surveyors
2323 S. Vista Ave, Ste 206, Boise, ID 83705
Telephone 208.343.3381 | www.centengr.com

To: **Garden City Planning**

Copy: **Jenah Thornborrow
Betty Gumm
Hanna Veal
Colin Schmidt
James Pavelek
Troy Vaughn
Chad Vaughn
Olesya Durfey
Kena Champion
Building**

From: **Joe Canning, PE/PLS**
Telephone: 208.343.3381
E-Mail: jdcanning@centengr.com

Date: 27 January 2024

Subject: **Coffey Townhomes Subdivision
8373 West Chinden Boulevard
PUDFY2022-0001 / SUBFY2022-0005
Tax Parcels RR8191500522, R8191500605,
R8191500598 & R8191500577
Land Area = 7.17 Acres
Final Plat Application**

Pages: 7

Media: Transmitted via E-mail

Status: **Comments Pending**

We had performed a review of the construction plans and final plat of the subject project on 4 November 2023. It appears that no new information of note (other than a site geotechnical report and a draft of project C,C&Rs) has been provided with this specific application for the final plat application. With that, we are providing the review we completed on 4 November 2023 as the remainder of this review.

On behalf of Garden City, as the city engineer, we have completed our first pre-review of the application for the subject project. This project is a seventy-six unit townhouse subdivision. We had previously reviewed this project on 20 August 2022.

This is a pre-review as information that could impact our review has not been provided as part of the submittal. We note the following items are missing:

- Site geotechnical report
- Stormwater agreement
- Stormwater O&M manual
- Pressure irrigation plan
- Pressure irrigation report
- Flood risk analysis
- Street name reservations, if necessary

Additional comments may occur when all information needed for a full review is provided. Additionally, comments have not been received from Public Works staff at this time. In an effort to assist the applicant to move the project ahead, we have made this pre-review without Public Works comments. Public Works is expected to have comments, however the missing information may impact the project design.

The information that our office received that is applicable to our review is comprised of the following:

1. Sanitary sewer line camera log dated 5 September 2023
2. Final Hydrology Report stamped by Mary B. Wall, PE and dated 2 October 2023
3. Topographic Mapping Survey stamped by Clinton W. Hansen, PLS and dated 5 July 2022
4. Construction plan sheets C1.0, C1.2, C1.3, C2.0, C2.1, C2.2, C2.3, C2.4, C2.5, C2.6, C2.7, C2.8, C2.9, C2.10, C3.0, C3.1, C3.2, C3.3, C3.4, C3.5, C3.6, C3.7, C3.8, C3.9, C3.10, C4.0, C4.1, C4.2, C4.3, C4.4, C4.5 and C4.6 stamped by Mary B. Wall, PE and dated 29 September 2023
5. Construction plan sheet L1.1 stamped by Jon Fritz Breckon, LA and dated 29 September 2023
6. Final plat (3 sheets) stamped by Michael S. Byrns, PLS and dated 29 September 2023

Comments within this review are specific to infrastructure or engineering content and should not be considered all encompassing. Other reviews within the city and by other review agencies will occur.

Professional of Record

Any suggestions for design modifications are not made to replace the position of the professional of record. We are simply making an observation that may impact the project or its review by city staff. The design professional may not necessarily be obligated to use the suggestion unless conformance to city requirements is an issue.

Our preliminary comments, primarily from our review of 20 August 2022, are as follows:

Street Names

The application letter notes the internal roads will be private. However, we expect due to the number of units proposed, Ada County will require the roads to be named. Please provide county approval for the street names. We note some of the sheets list street names.

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. Final plat note 6 states a system will be provided. Please provide an irrigation design report and construction plans for the system.

Irrigation Facilities

If any irrigation or surface waters will be impacted by the project, approval of the project from the irrigation entity will be required, including depiction/creation of easements. The applicant must review the project and determine if an Army Corps of Engineers 404 permit will be necessary to obtain.

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 and its narrative. We note the plan has been provided in the plat set. Review will be by Public Works staff.

Restricted Build Agreement

Will the applicant plan on creating a Restricted Build Agreement (RBA)? We reference final plat note 15 stating there is or will be one.

Ada County Highway District

Please provide an approval of the project by the Ada County Highway District.

Idaho Transportation Department

Please provide an approval of the project by the Idaho Transportation Department.

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 and access routes.

QLPE Plan Review

Will the applicant desire the city to perform a QLPE review? In this case, said review may or may not be available depending on the sanitary sewer service to the project. See later comments of water and sewer connections. If a QLPE review is requested, the cost of the review will be borne by the applicant. Please provide the three completed DEQ checklists and stamped/signed/dated with the submittal.

Water and Sewer Connections

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

New water mainline extensions and water service connections will be necessary to serve the land. Water lines are expected to extend through the site, cross Chinden Boulevard and connect to an existing water line near 8540 West Chinden Boulevard. Said improvements and their plans must be coordinated, reviewed and approved by the city prior to installation. Design and installation is the responsibility of the applicant.

An existing sanitary sewer line is located near the west side of the land. Said line discharges to the South Boise Interceptor via a crossing of West Chinden Boulevard. Some review of proposed land uses by Boise City may be required. Said line appears to be a private line and may not be suitable for development of the land, depending on the development proposal. Any project proposed for the site may require a public main line. The condition of the existing line will need to be tested and reviewed by the city before the city would consider the line to be public. Any sanitary sewer improvements must be coordinated, reviewed and approved by the city prior to installation.

It appears from the sewer line camera log that was provided with the submittal that the existing line may have sags. However, we note that it appears the line was not flushed and cleaned prior to the camera work. The work may need to be redone as currently the line appears to be unacceptable for ownership by the city.

The existing Boise City sludge line along Chinden Boulevard and the Garden City sanitary sewer monitoring station at the west corner of Chinden Boulevard the Coffey Street does not appear to be shown on the plans. Please verify their location and add them to the plans. Chinden and Coffey improvements might impact the city's monitoring station.

We note dead-end sewer lines are graded at 0.40%. The slope must be at least 0.60%. Slopes less than the minimum would require DEQ review of plans (not via a QLPE) and the city would probably not support a flatter slope.

Please provide a sewer cleanout at the end of all sewer services per GC note 14 on sheet C1.2.

Please note that the city will not own or maintain sewer service lines that run under permeable pavers. Project plans (sheet C1.2, notes 34-41), the final plat and the project C,C&Rs must note this.

We note one sewer run over 400 feet long. It appears that MH#1 may be moved upstream to shorten the run to 400 feet or less.

The connection to the existing manhole needs to specify a core and then use of a Kor-N-Seal connection.

As some of the manholes are not 90° for pipes, please add the pipe angles on the plan.

Sewer callout note 4 on sheet C4.3, for example, the separation must apply to mains and services.

On the water sheets, please specify the gate valves as flange by mechanical joint (probably with a MJ by FLG adaptor).

On sheet C4.4, the water crossing under the sewer is ±9 feet deep. This conflicts with General Utility Note 7 on sheet C1.2. Please review to see if the water line may be raised.

Site Grading and Drainage Plan

A site geotechnical report will be required for the design of the on-site storm water system prepared by a qualified license professional. Said report must identify the depth to seasonal high groundwater; provide a profile of encountered soils and their infiltration rates. The report also must provide a design infiltration rate recommendation for the storm water system. The storm water design must provide for at least three feet of vertical separation between the bottom of the storm water facility and the seasonal high groundwater. Permeable pavers require a minimum of two feet of vertical separation.

We note the drainage basin map provided does not include the entire site. All lands must be accounted for, particularly all roof drainage.

The recovery time for Paver Section #2 seems to be missing.

The drain times for all the infiltration swales seem to be missing.

It is not clear how storm water will enter the swales. Are there curb cuts?

Where are the dimensions (size) of the pavers on the plans?

Please determine a way to dimension or size the swales on the plans.

Please provide existing ground elevations along the perimeter of the project on the grading plans. The proposed grading must match existing ground.

There are some slopes on the 10 foot concrete sidewalk along Chinden that slope toward Chinden. Please slope the sidewalks toward the private property.

Sheets C3.1 through C3.6 need to have more grade elevations for both sides of the sidewalks. It is difficult to tell if they are sloping back into the property and away from the drain, for example.

Sheet C3.10 – Detail 3: Is the intent to cover the entire swale bottom with sand? We suspect this is not necessary.

Sheet C3.10 – Detail 3: Please specify the minimum sand depth is 18-inches.

Sheet C3.10 – Detail 3: We note the top of the sand is covered with fabric. We suggest that this not occur.

Sheet C3.10 – Detail 3: Please cover the sand window with a shallow layer of cobble instead of the sand.

Sheet C3.10 – Detail 6: As the design storm water depth is over 6-inches, please add a sand window to the swale bottom. The city has seen numerous issues with the soil placed in swales, despite the best calls to the type of soil to be placed. The city prefers this to occur when the depth of water is even an inch deep.

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 conditionally approved plans attached and be recorded by the city after the final plan approval.

FEMA Flood Maps

The applicant should 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.

Miscellaneous

The plan cover sheet indicates there is a sheet C1.1, but the sheet is not titled sheet C1.1 on the sheet.

Sheet C2.1 is listed as "Overall Layout & Materials Plan", but we don't see materials called out. It seems materials are called out on sheets C2.2 through C2.5. Please advise.

Final Plat

Please create a specific easement naming Garden City as the beneficiary for water, sewer and appurtenances to cover all private streets, fire hydrants, water meters, sewer manholes and sewer service cleanouts. We note the 16th legend entry for a GC easement, but it is not clear how the limits of the easement meet the location of the water/sewer improvements. Please provide an exhibit showing the improvements within the easement.

The sanitary sewer line serving the site at the west end will need to be included in a Garden City sewer easement.

Additionally, the sewage monitoring station at Chinden and Coffey may also need an easement. It appears the easement shown on the west side of Coffey Street may cover the station?

There is a triangular parcel of land at the corner of Chinden and Coffey. We presume this is new public right-of-way? Please identify the parcel.

Plat notes 11 and 12 reference easements that will be an issue for issuance of building permits. We presume these easements will be released and replaced with joint trench easements?

Will the sidewalk along Chinden be placed in an easement? Is there at least 10 feet from the northwest corner of Lot 1 to the Chinden right-of-way?

Please add the approved street names to the plat.

We have no other comments regarding this request at this time. This is a pre-review. When all information is available for a full review, a new review will occur. Please note that new comments may result from a full review and using the information that is missing at this time.