

September 19, 2023

Bill Gray
City of Colorado Springs
30 S Nevada Ave, Suite 701
Colorado Springs, CO 80903

RE: Wilson Tank DP Major Modification
File No.: DEPN-23-0157

Dear Mr. Gray,

Thank you for the comments on August 22, 2023 for the above-mentioned project. In an effort to address your comments concisely and simplify your review of the Development Plan modification, we have summarized your comments and our responses below.

PLANNING

Bill Gray / 719-385-5090 / William.Gray@coloradosprings.gov

Additional Planning Comments

1. Why and when was this parcel selected as a site for the existing tank, pump station and future water tank? When was the existing water tank constructed?
 - *Response: The City acquired the parcel from DH Wilson in 1960. The existing tank was constructed in 1966 by the City of Colorado Springs, with the pump station being constructed in 1993. The site location was originally selected as it provides an elevation gradient to allow gravity flow of water to the adjacent distribution system as well as other pressure zones within the city.*
2. Did CSU consider alternate locations for the new tank as a part of this project?
 - *Response: The Wilson Tank site was originally sized to accommodate two 5 million gallon (MG) water storage tanks. The finished water master plan has always maintained the current location for the tank and pump station. Alternate locations were not considered based on the site being owned by the City of Colorado Springs for Colorado Springs Utilities (Utilities) water infrastructure to include the second water storage tank. Moving the tank to an alternate location would also require relocation of the pump station, piping and electrical assets which would have required considerable cost investment including but not limited to new land resources, additional infrastructure planning, design, and construction.*
3. Were other design alternatives considered for the tank (i.e., in-ground or partially in-ground tanks or types of tanks?) and why was the above ground tank selected as the preferred option?
 - *Response: To maintain system wide operations and consistent pressures serviced by the water storage tank, the new tank was designed to match the internal hydraulic elevations of the existing tank. A buried tank application would not maintain Utilities operations and would impact the service requirements in multiple pressure zones. Alternative tank construction designs were analyzed during the design phase. The current D110 Type III design was the most suitable and cost-effective design and is uniform with other recent tank installations within Utilities distribution system.*

4. Were visual impacts to neighboring properties a consideration for this project?
 - *Response: The water storage tank is a necessary improvement to the Utilities system to replace the existing tank. Visual impacts are not part of the review criteria but were considered for this project. In an effort to be harmonious and compatible with the neighborhood, tank color and landscaping features were considered to help screen, offset, and blend the visual appearance of the tank.*
5. When did you know the water tank exceeded the max tank height? What steps were taken by CSU to address the situation?
 - *Response: Although the approved Development Plan included a max tank height of 45 feet it also contained a note on sheet 12 of 12 stating that elevations were estimations and would be finalized during structural design phase. The tank site is zoned PF, and there is no height maximum in the PF zone. The final structural designs, with a height of 55 feet with a 5 foot vent (total height of 60 feet), were reviewed and approved by PPRBD and City staff through the building permit issued May 8th, 2023. It was understood by the applicant that an approval of the final structural documents by PPRBD and City staff included approval of the final height of the tank including how it differed from the estimated elevations included in the approved Development Plan. Around June 13th, 2023 the adjacent neighbor questioned Utilities staff about the height of the tank compared to the approved Development Plan. Kimley Horn reached out to city planning to discuss the height difference on June 26th, 2023 and was able to meet with a planning department representative on June 28th, 2023 to understand the possible pathways forward. On July 7th, 2023, Utilities and Kimley Horn were informed by City Planning staff that the Development Plan would require a modification to reconcile the height. The modification was submitted on July 18th, 2023.*
6. Submit a surveyed height certification of the new tank as constructed.
 - *Response: Survey documents submitted as separate attachment*
7. Provide an illustration comparing tank height of the existing tank, approved DP tank height and the new tank under construction. Indicate the 45' maximum height on the exhibit (the exhibit will show the elevations for three (3) water tanks). One (1) thing that is shared between the existing tank, approved tank and new constructed tank is that it appears that tank wall height is similar. The new tank has a more pronounced dome, making it 60' tall. This recommendation and other (rendering/visual simulation) are needed to analyze the degree of difference/impact of the approved tank vs the tank that got constructed.
 - *Response: Sheet 12 of 12, Tank Elevation, of the resubmitted Development Plan Major Modification includes additional elevation drawings of the existing tank, the tank with a maximum height of 45', and the approved building permit tank height of 60'. Tank wall heights are approximately equal across all designs, the difference in height stems from the dome/roof design.*
8. Could the dome of the new tank be modified or replaced to reduce tank height?
 - *Response: The dome of the new tank cannot be modified or replaced to reduce the tank height without incurring significant costs. Modifying the roof structure would require changes to the current approved structural design and additional construction at the site. Changing the roof height will not shorten the height of the walls. The following steps would be required to modify the tank.*
 - Design calculations and drawings sealed by a Professional Engineer registered in the State of Colorado for the removal and replacement of the existing concrete dome roof with a new flat slab concrete roof.

- Provide re-shoring of the existing prestressed concrete dome, demolition of the concrete dome, and disposal of materials as required.
 - Modify shoring as required in preparation of the installation of a new flat slab concrete roof.
 - Prepare existing tank floor and wall for the installation of a new flat slab concrete roof.
 - Furnish and install new concrete columns and column footings atop the existing concrete floor.
 - Furnish and install a new flat slab concrete roof.
 - Work above includes the removal and re-installation of the tank appurtenances (hatches, ladders, vents, stairs) as required to facilitate the work.
9. Provide renderings/visual simulations showing both the approved tank and new tank. The rendering should be finished condition with landscaping. The renderings shall be provided from the rear yards of the three (3) lots east of the tank, the main ranch building at Flying W Ranch, Wilson Road/Rossmere Street intersections, and Wilson Road and Brogan's Bluff Dr intersection.
- *Response: Renderings have been provided as part of the Development Plan Major Modification resubmittal. Access to Flying W Ranch was not granted on site to capture photos to use in the renderings. We were unable to secure photos that can be used in support of this application from one of the three lots east of the tank. Photos of the requested intersections are also included and show the view of the tank site from these locations; however the proposed tank is not visible from these intersections therefore renderings have not been produced. Additional locations along Brogan's Bluff Rd. and the intersection of Sandray Ct./Wilson Rd have been included to show renderings of the constructed tank from visually impacted locations within the adjacent neighborhood. The original photos that were utilized in the renderings are included for reference. Renderings were developed using a 3-D model of the site which included the tank (both heights), the proposed topography, and the proposed trees. Snapshots of the 3-D model were taken from angles and locations matching the original photos. The proposed conditions from the model were then overlaid onto the original photos. Larger trees in the rendering are shown at varying heights of 28'-35' tall, while smaller trees in the rendering are shown at varying heights of 18'-22' tall.*
10. Why was adobe selected as the tank color? How was this decision reached?
- *Response: The adobe color selected is consistent with the color schemes chosen for other tanks within the city. Examples: Cedar Heights Tanks 1 and 2, Bailey WTP Raw Water Tank, Little Mesa Tank, Research Tank, Briargate Tanks 1 and 2. Utilities owns and operates the tanks as part of the distribution system. The color decision is one of many criteria used by Utilities when a new tank is built.*
11. Tank color is an important design measure to reduce visual contrast. The tank color needs to be one that blends well with the dominant color of the landscape. Submit a visual/digital simulation of tank colors to determine the best environmental color that blends the tank with the landscape. The dominant landscape for this site is the foothills to the west of project. See example below.
- *Response: Visual representations submitted as separate attachment. See question 12 response for additional information.*

12. Color of tank needs changed. It is recommended that the tank color be BLM Juniper Green based on City Staff assessment of the landscape. However, other options can be considered once a visual simulation is completed. This is important in addressing the visual impact of a 5 MG water tank.
 - *Response: Utilities continues to be open to deviating from the previously approved “Adobe” color. The colors “Adobe”, “Juniper Green”, and “Pewter” were represented in renderings provided for public input during a community outreach event conducted on August 10th, 2023. Feedback from adjacent neighbors is a preference of a darker color. Utilities preference is to utilize the color “Pewter” as the color of the tank with the following considerations.*
 - *Pewter is a darker color that closely resembles the look of the fresh shotcrete. It was conveyed by some neighbors they liked the look of the fresh shotcrete.*
 - *Pewter is a standard color from the Euclid Tammscoat material a “specialized concrete coating system”. Utilities preference is to utilize a standard color from the manufacturer for future maintenance needs.*
13. Add a fence detail on the final landscape plan. The detail should include height, material, color. The fence should be a high quality, durable, opaque and blend with the landscape.
 - *Response: Fence detail has been included within the landscape details on sheet 7 of 12 within the major modification resubmittal documents.*
14. Provide a response to the public comment. It is not required that you respond to each individual comment. The response should be comprehensive in that it addresses the many themes/subjects/sentiments of the public comment.
 - *Response: Public comment response included below*
15. What is the schedule for removing the existing tank?
 - *Response: The original plan to demolish the existing tank is scheduled to occur after the new tank is tested and placed into service. Previously Utilities preference has been to observe the new tank in service for 2 weeks; If no issues are present with the new tank, direction is provided to commence the demolition of the old tank. It is Utilities intent to pause the plan to demolish the existing tank until the process with the DP Modification has been finalized.*
16. The applicant should be aware the City Staff is considering referring the item directly to Planning Commission for their review and recommendation as it allowed by the UDC due to the significant public involvement. – *Comment Noted.*

Public Comment Comprehensive Response

The Wilson Tank Replacement project is a project that replaces an existing water storage tank that is at the end of its useful life. The capacity of the new tank will be approximately the same at 5 million gallons. The design and hydraulic elevation associated with the replacement tank have been designed to be consistent with the existing water storage tank. This hydraulic elevation is critical to maintain the same system operational requirements, such as meeting domestic demands, meeting fire flow storage, and maintaining the same pressure within the Utilities' system and pressure zone that is served by the existing Wilson Tank.

The height of the tank is the item that has received the majority of the public concern. The originally submitted development plan was submitted with a max height of 45 feet and included a note on the tank section view (sheet 12 of 12 in the approved development plan submittal) that the final tank height would be based on the structural drawings for the tank. The tank structural drawings were completed by the tank manufacturer and submitted to the PPRBD for review and approval. PPRBD and the reviewing agencies, which included the City of Colorado Springs Planning department, approved the submitted structural drawings with the total height, including the domed roof and vent, of 60 feet. The new tank on site that has been under construction has been constructed in conformance with the approved structural drawings.

A comment was submitted referencing a height of 32.5 feet. This height is the water height ("hydraulic elevation" not wall height). The hydraulic elevation does not change in reference to the height of the domed roof.

During the development review process the City Planning department notified surrounding residents in a similar manner to what was done for the Development Plan modification, including a sign posting at the site. Utilities has recently conducted public outreach meetings to discuss the tank construction and has been in coordination with the surrounding residents related to their concerns. The tank color has been discussed and evaluated to select a color that will help the structure to better blend with the natural landscape. In addition to the tank color, the landscaping at the site has been modified to include more mature trees and landscaping to help further screen the tank for the surrounding residences.

This water tank is a critical piece of infrastructure that will maintain Utilities' service of potable water, including fire flow, to the surrounding customers and residences.