



STAFF REPORT

To: Honorable Mayor and Members of Town Council

Through: David L. Corliss, Town Manager

From: Mark Marlowe, P.E., Director of Castle Rock Water
Roy Gallea, P.E., Engineering Manager
Matthew Hayes, P.E., Project Manager

Title: **A Resolution Approving a Variance Pursuant to Chapter 9.16.070.E of the Castle Rock Municipal Code for Nighttime Construction Activities Related to the Tank 18 Blue Zone Main Project** *[Located at the intersection of Castle Oaks Drive and Pleasant View Drive]*

Executive Summary

CR Water staff requests Town Council approval of a variance to allow construction work to be performed between 7:00 pm and 7:00 am in late March/early April for one night. The Town's municipal code for noise control prohibits construction noise between the hours of 7:00 pm and 7:00 am on weeknights and between 6:00 pm and 8:00 am on weekends (Chapter 9.16). A variance can be granted under 9.16.070 if no reasonable alternative is available. Reynolds Construction is under contract for the Tank 18 Blue Zone Main Project. The new main will be connected to the existing water main located in Castle Oaks Drive. The contractor is working on determining the exact location of the existing main within Castle Oaks, but the concern is that due to its potential location a single lane may not be safely maintained during the construction activities. The night work will allow the contractor to install the connection with minimal impact on traffic in Castle Oaks. Given the short duration of the planned night work (no more than one night), and the limited affected area (the intersection of Pleasant View and Castle Oaks), staff requests Town Council approval for night work on one evening between late March and early April. A time range for authorization is requested to accommodate any potential weather delays and approval of the road closure.

Notification and Outreach Efforts

Preliminary project information is currently published on the Town's website and will be updated periodically throughout construction. Project information letters were mailed to adjacent neighborhood residents in unincorporated Douglas County in December 2021. Staff has corresponded directly with some residents of unincorporated Douglas County regarding project inquiries.

The new water main is located within Douglas County Right of Way. The project was reviewed by the County as part of their Location and Extent (L&E) process. Part of that process includes notifying adjacent property owners about the project and allowing them to comment on the project.

Notification will be sent to the residents of Cobblestone Ranch and the local County residents notifying them of the upcoming work and road closures.

History of Past Town Council, Boards & Commissions, or Other Discussions

On December 1, 2021 Castle Rock Water Commission was briefed on Water Tank 18 history and the anticipated schedule for rebidding construction.

On February 23, 2022 Castle Rock Water Commission voted unanimously to recommend the award of a construction contract in the amount of \$4,386,765 with DN Tanks along with authorization of \$438,700 in staff-managed contingency to complete construction of Cobblestone Ranch 2 MG Water Storage Tank 18.

On March 15, 2022 Castle Rock Town Council voted unanimously to approve a construction contract in the amount of \$4,386,765 with DN Tanks along with authorization of \$438,700 in staff-managed contingency to complete construction of Cobblestone Ranch 2 MG Water Storage Tank 18.

On April 4, 2022 Douglas County Planning Commission voted unanimously to approve the Location and Extent application for the Tank 18 Blue Zone Transmission Project.

On July 27, 2022 Castle Rock Water Commission voted unanimously to recommend award of a construction contract in the amount of \$4,081,473 with Reynolds along with authorization of \$408,147 in staff-managed contingency to complete construction of Tank 18 Blue Zone Transmission Project.

On August 16, 2022 Castle Rock Town Council voted unanimously to approve a construction contract in the amount of \$4,081,473 with Reynolds along with authorization of \$408,147 in staff-managed contingency to complete the construction of Tank 18 Blue Zone Transmission Project.

Discussion

The Cobblestone Ranch Development on the far northeastern edge of Town is zoned for 1,245 single-family equivalents (SFEs). In accordance with the Development Agreement (DA), the Town, "in order to fully integrate the water system constructed by the Owner with the Town's municipal water system," intended to construct a storage tank and related infrastructure to serve the property at full buildout. The tank project was to be financed and constructed by the Town by reliance on the Owner to purchase water system development fees. The DA further stipulated that should the Town determine that equivalent water services may be provided in lieu of development of the Water Tank the Town could apply revenues received to construct such alternate infrastructure.

Water system development fees are currently \$5,700 per SFE. The development is rapidly approaching construction build-out of the 1,245 zoned SFE's which means water system tap fees collected have fully funded the new tank. The area is currently served by a single 16-inch pipeline from the Castle Oaks area (See **Attachment B**), with stored water from two existing red zone tanks. The water is fed down into the area through a series of pressure-reducing valves (PRVs) that reduce the red zone supply pressure down to blue zone pressure and then to yellow zone pressure to service the area. The two red zone tanks have a combined operational storage volume of 5.1 million gallons and have sufficient existing storage capacity to meet the operational storage needs of Cobblestone Ranch. However, the storage from these tanks is delivered to the development by a single 16-inch pipeline. The single feed connection through multiple pressure zones is the primary reason a storage tank is needed.

In 2007, one of the PRVs serving the area failed and the resultant high pressure caused a rupture in the pipeline. This resulted in a temporary loss of water service for the entire development. Subsequently, Castle Rock Water installed pressure relief devices on the PRVs so that in the case of a high-pressure event, the PRVs would divert water to relieve downstream pressure. Staff also completed an emergency interconnect waterline to the Pinery Water and Wastewater District system. This provided an immediate interim solution for a second source of water in an emergency.

The long-term solution to a secondary supply of water is a storage tank serving the development. An advantage of a storage tank in the area is that the tank can act as a "damper" in high-pressure events to mitigate pipeline rupture risks and provide an immediate supply for fire protection. Shortly after the high-pressure pipeline event, staff started planning the Tank 18 project.

The Tank 18 Blue Zone Transmission pipeline was identified in the Water Master Plan 2017 Update. This project will supply blue zone water up to the new Tank 18, which is a yellow zone tank. The flow of water into the tank will be controlled with an automated altitude valve. This will allow the flow of water through the tank, minimizing the water age within the tank. One of the Colorado Department of Public Health and Environment's questions about the tank project was how the Town planned on minimizing the water age in the tank.

Castle Oaks Drive at Pleasant View Drive may need to be closed to safely complete the tie-in to the existing water main. This is a result of the existing water main's location in the center of the road. The contractor would like to complete the work in the early hours to minimize the potential impact on the local residents that use this road. The alternate routes to Castle Rock would be Highway 86 or Crowfoot Valley Road during the closure. The work is anticipated to take 4 to 6 hours to complete.

Budget Impact

There is no additional impact on the project cost for this work.

Staff Recommendation

Staff requests Town Council approval of a resolution permitting relief from the Town Noise ordinance, allowing work overnight for the water main tie-in at Castle Oaks Drive and Pleasant View Drive as part of the Tank 18 Blue Zone Transmission Project for one night in late March or early April.

Proposed Motion

“I move to approve the Resolution as introduced by title.”

Alternative Motions

“I move to approve the resolution as introduced by title, with the following conditions: (list conditions).”

“I move to continue this item to the Town Council meeting on _____ date to allow additional time to (list information needed).”

Attachments

Attachment A: Resolution
Attachment B: Location Map