Kennedy Jenks

October 19, 2023

Memorandum

To: Nathan Travis, District Manager
Castle Pines North Metropolitan District

From: Greg S. Sekera, P.E.

Subject: District Engineer Report for Board of Directors Meeting on October 23, 2023
Castle Pines North Metropolitan District
KJ Job No. 2346002*GENW

Briefly presented below are the items that we have been involved in during the past month as well as on-going engineering related items.

DISTRICT PROJECTS

- Water Treatment Plant Upgrades – There are 6 projects currently in the design and construction phases. We are also developing task orders for engineering services related to several other plant upgrades that staff has requested.
  - HVAC System Upgrades – Glacier Construction Co. is finalizing the installation of the HVAC System upgrades at the plant. Due to longer than expected equipment lead times this project will extend into November . However, main ventilation equipment that will properly exhaust and condition spaces in the treatment plant have been installed and are on-line.
    - Status: Active Construction
    - Contract End Date: October 2023
  - Backwash Reclaim Tank Rehabilitation – Glacier Construction Co. has completed all work and close-out documentation. Notice of Final Settlement has been published and the release of retained earnings will be issued on October 23.
    - Status: Release of retain earnings is set for 10/23. Project is complete and closed.
  - Liquid Ammonia Sulfate (LAS) Storage and Feed System Upgrade – KJ is continuing to work on the final design documents for this project. The project is expected to go to bid in October of 2023. Estimated time of construction is 6 months once notice to proceed is issued.
    - Status: Preparing final bid documents
    - Anticipated Project Bid: Q4 2023
  - Tank Rehabilitation Program – Glacier Construction Co. has initiated work on the above grade backwash tank and the clear well below the WTP. Work on the mixing tank will begin in early November.
    - Status: Active Construction
    - Contract End Date: March 2024
  - Facility Documentation Program – KJ and the District staff have kicked off the Facility Documentation Program. This program goal is to capture, document, and/or develop the

infrastructure, controls programming, and operational procedures related to the Water Treatment Plant.

- Status: *The following phases of the Facility Documentation Program are active:*
  a. Electrical, Instrumentation & Controls Documentation: This program phase is active and is estimated to be completed by Q2 of 2024. KJ has developed draft P&IDs to-date and will begin to coordinate their finalization with the District's integrator Mountain Peaks.
  b. Code Summary Analysis: This project phase is active and is estimated to be completed by Q3 of 2023.
  c. Asset Management Registry Update: This program phase is active. KJ and the District's 3rd party asset registry designer are beginning a data entry pilot that will determine the remainder of this phases scope.
  d. Site Civil Utility As-Builts: This program phase will include generating an updated survey of the WTP site. This survey along with utility location efforts will be used to generate site civil drawings for the WTP.

❖ Filter Rehabilitation Project – KJ and the District have been working together to define the scope of work to upgrade/rehabilitate the 6 media filters at the WTP to operate more efficiently. This will likely include upgrading the media types within the filters and replacing the equipment within each filter with more modern equipment. The first step will be to pilot media options with the District's raw water. A 6-week sampling campaign of the WTP's combined raw water influent will begin when the wells are turned on in March. This data will further inform the pilot plan.

KJ is also actively working on the pilot plan and preparing to start coordinating the pilot and overall project with CDPHE.

- Status: Piloting Phase (Sampling)

❖ Lift Station Upgrades – Final design is in progress. We are performing reviews with the District and agencies and finishing final coordination with the surveyor, geotechnical engineer, and utility locate/pothole company to complete their work. We are currently at the 30% design level.

- Status: Currently in design
- Anticipated Bid: Q2 2024

Notice of Violation / Cease and Desist Order – The District received a notice of violations letter from CDPHE on August 8, 2023, relative to the lift station overflows (8 events) that have occurred since November 2018. CDPHE is requiring a long list of corrective actions that must occur over the next 90 days. We are assisting Nathan and Level Engineering in addressing each action item. Level Engineering is the lead in gathering in responding and submitting the required data, plans, and information for the responses. The work related to these corrective actions will somewhat sidetrack our design efforts for the lift station improvements, but we are hoping we can stay on track, as much of the engineering is interchangeable.

- Yorkshire Water Line Replacement – The Yorkshire Water Line will be replaced ahead of the City's pavement restoration in Yorkshire. Following receipt of bids last month the project was awarded to Diaz Construction. We are coordinating with Diaz for execution of the contract and for their schedule to start the work. Diaz is hopeful that they can start as early as November.
    - Status: Construction contract awarded to Diaz Construction
    - Anticipated Start: November 2023
- Well Vault Rehab Project – Kennedy Jenks is currently designing the rehabilitative upgrades needed for each well vault in the District. We are currently at the 60% design level.
    - Status: Currently in design
    - Anticipated Project Bid: Q1 2024
- Monarch Water Line Replacement – The Monarch Water Line will be replaced ahead of the City's pavement restoration in Monarch that is scheduled for 2024. Potholing of the existing water line in various spots to determine the condition of the existing ductile iron pipe has been completed. Based on the findings from the potholing and the City's proposed Phase 1 limits we have prepared our engineering scope and have initiated the design for replacement of the 14-inch water line from Castle Pines to Glen Oaks Avenue. The approximate length of the replacement is 4,300 feet and it will be replaced with 16-inch PVC pipe. The water line design will be combined with the City's bid package for the road improvements. This is a fast-paced schedule with City planning to bid the project in November and start construction Q1 2024.
    - Status: Currently in final design
    - Anticipated Project Bid: November 2023
    - Anticipated Construction Start: Q1 2024

DEVELOPMENT PROJECTS

- New Service Line Reviews – We have continued observations of new water and sewer taps and services in Lagae and Town Center for conformance to the District standards. We will continue the observations as requests are received by the District.
    - Status: Active on an as needed basis
- Lagae PA-12 Site – We continue coordination with the Developer and their utilities contractor for completion of the final punch work. Acceptance of the project for start of conveyance is pending completion of punch work and documentation.
    - Status: Active construction – punch list and close out phase

- Lagae PA-7 Site – No new updates for this past month. The water and sanitary sewer mains and service line stub-outs to the townhome buildings are complete. The Developer is continuing with townhomes, and we are reviewing the meter and service lines as they request. Acceptance of the project for start of conveyance is pending completion of punch work and documentation.
    - Status: Active construction – punch list and close out phase
- Lagae Family Trust Site – No new updates for this past month. Water and sanitary sewer improvements are complete. We continue to track punch list work. The project has not been accepted for start of conveyance.
    - Status: Active construction – punch list and close out phase
- Charter Oaks Car Wash – New car wash project requires relocating fire hydrant at Castle Pines Pkwy and Carolyn Drive, installing a new water service, and a new sewer service. Construction has been active and is 90% complete.
    - Status: Construction in progress
- Irrigation Tap for City's Gateway Monument Project – New 1.5 inch irrigation tap for the City's gateway monument project.
    - Status: Construction is complete
- Service Street Auto Repair – Lot is within the Lagae Family Parcel at Castle Pines Pkwy and Lagae Road. Project only requires new water and sewer services. Our review of the water service size is complete.
    - Status: Currently in design
    - Start date for construction is unknown.
- McDonalds – Lot is within the Lagae Family Parcel at Castle Pines Pkwy and Lagae Road. Project only requires new water and sewer services. We received plans for review.
    - Status: Currently in design
    - Start date for construction is unknown.