



DATE: November 4, 2024

TO: Honorable Mayor and Members of the City Council through City Manager

FROM: Mary White – Assistant Engineer II, Public Works & Utilities (PW&U)
Steve Worrell, PE – Senior Civil Engineer, PW&U
Jonathan Sanglerat, PE – Engineering Manager, PW&U
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SUBJECT: Resolution Ratifying Award of Contract, Accepting Completion of, and Authorizing Release of the 10% Retention for the Emergency Repair for the Water and Sewer Main Replacement – 1st & F Street Projects (C67502434, C66402451) for K.J. Woods Construction, Inc.

RECOMMENDATION

It is recommended that the City Council adopt the attached Resolution ratifying award of contract, accepting completion of, and authorizing release of the 10% retention for the emergency repair for the Water and Sewer Main Replacement – 1st & F Street Projects (C67502434, C66402451) for K.J. Woods Construction, Inc.

BACKGROUND

In order to maintain and improve the condition of the City's wastewater systems, the City replaces or rehabilitates deteriorating or undersized sanitary sewer lines annually. After a thorough review of the City's aging sewer main infrastructure, staff identified critical sections of the sewer main in need of replacement.

The sewer mains identified are along 1st Street from F Street to H Street and along G and H Street from 1st Street to 2nd Street. These sewer mains are vitrified clay pipe and asbestos cement which were installed in 1967. This replacement work was necessary because the existing vitrified clay pipe (VCP) was beginning to fail due to aging. Routine maintenance of the affected sewer mains in the area has increased, causing operations staff to be called out more frequently to assist with flushing and cleaning sewer lines in the project area. In addition, VCP is known to have issues with offset joints and is frequently a source of inflow and infiltration into the sewer. The new sewer pipes will also help to reduce the amount of water that infiltrates into the sewer system.

This project was originally planned to receive bids on May 23, 2024 at 2 pm. On Monday, May 6, 2024, during routine cleaning, water operations crews were having trouble extracting their sewer jetting hose from the sewer pipe. Due to the inability to insert the hose further into the sewer pipe but not being able to extract it, crews believed that there was a break in the pipe. The break in the sewer line was confirmed when crews excavated in the area to remove the hose. Due to the type of pipe, and the extent of the damage found, staff believed that the sewer pipe was structurally deficient and had begun to deteriorate.

Operations crews worked quickly to implement a spot repair on the broken section of pipe to prevent further sewage leaks. While this solution addressed the break in the line and allowed for flow within the main, it was only a temporary fix. The spot repair cannot tolerate line cleanings, which was previously performed twice a week and required to prevent sewer backups into the 425 First Street building. In addition, due to the known structural damage, staff was concerned that further cleaning would likely result in additional pipe damage and breaks. Without the ability to clean the line, the risk for overflow/backups was imminent unless a permanent solution could be implemented quickly.

An emergency contract, to include the entire scope of sewer and water main replacement included in the construction documents, was prepared to address the current failure of the sewer main. In alignment with Public Contract Code Section 1102, the observed pipe failure was a “sudden, unexpected occurrence that poses a clear and imminent danger, requiring immediate action to prevent or mitigate the loss or impairment of life, health, property, or essential public services.” Failure to urgently respond to this pipe failure would have likely resulted in sewage backup in the adjacent properties, specifically 425 First Street, which would have constituted an impairment of public health, damage to property, and a disruption of essential public services (namely a functioning sewer). In addition, the break location was within 1,000 feet of the Petaluma River, further increasing the risk to public health as well as environmental issues related to a sewage backup or prolonged leak.

Therefore, staff recommended issuance of an emergency purchase in accordance with Section 4.04.050 of the Petaluma Municipal Code to include the scope of services outlined in the construction documents included in the notice inviting bids, to address this repair and replacement. The City Attorney’s Office was consulted on this emergency and concurred with this approach for emergency repair.

The permanent emergency solution provides longevity and durability to the sewer main system, improves City services, reduces future maintenance costs, and prevents sewer overflows/backups. The project replaced the VCP with the City Standard SDR 26 PVC pipes at new depths. Installing the pipes at new depths eliminates the need for the sewer main between F Street and G Street to be cleaned twice a week. Installing SDR 26 PVC pipes also decreases the risk of potential cracks and breaks in the line that are typical of VCP.

DISCUSSION

The Sewer Main Replacement – 1st and F Street (C66402451) and Water Main Replacement – 1st and F Street (C67502434) projects were combined due to their close proximity, resulting in cost and time efficiencies while minimizing disruption to nearby businesses and residences.

The project improvements included fifteen (15) new connections to the sanitary sewer main, five (5) new sanitary sewer manholes, one (1) cleanout, and 1,100 LF of new PVC SDR 26 sanitary sewer pipeline with new grades to improve flow. Additional work included installing 230 LF of new C900 water main, upgrading two (2) water services, and installing two (2) new water services to parcels that did not currently have water connections.

The original contract with KJ Woods Construction, Inc. was \$758,000. During the course of construction, the City was able to reduce costs by shortening the length of sewer main and eliminating inactive sewer laterals, bringing the total for the work completed at contract unit prices to \$740,000. Due to the nature of the emergency work, several scope additions required change orders.

The change order work consisted of 13 distinct work items. The work involved temporary water storage tank set up and ground water testing, utility conflicts, excavation around railroad tracks for new sewer main and sewer laterals, removal of railroad tracks and rail ties, potholing to verify sewer main grades and to locate sewer laterals, potholing to verify clearance between railroad tracks, storm drain conflict, relocation of sewer laterals, asbestos cement pipe disposal, new water service, and water main offset. The additional scope of work totaled \$75,256.65, bringing the overall emergency contract value for KJ Woods Construction, Inc. to \$815,256.65.

To complete the projects, the City also retained professional services from RGH Consultants, Inc. for soil compaction testing. This testing was necessary to ensure that the soil was compacted to standards to provide a stable foundation. The cost for this work was \$3,175.

Additionally, the City also reached out to the Federated Indians of Graton Rancheria (FIGR) via email with an AB-52 notification form to inform them of the work and to provide an invitation for consultation if the Tribe determines that tribal cultural resources may be impacted as a result of the project. The Tribe requested to monitor the construction via email on May 15, 2024. During the course of construction, no tribal cultural resources were found or impacted. The total invoice for tribal monitoring was \$3,745.28.

PUBLIC OUTREACH

This agenda item appeared on the City's tentative agenda document on October 21, 2024, which was a publicly noticed meeting.

As a result of this project impacting residential and business properties, Staff applied a thorough outreach plan. This included the following:

- direct mailers and door notices to all stakeholders within the project area prior to construction;
- door to door direct outreach by city staff to properties that may experience impacts to water or sewer service;

- four (4) 24"x36" A-frame signs that provided project information, a QR code to the project webpage, and the project manager's contact information; and
- (4) updates posted to the city's website for current project information.

COUNCIL GOAL ALIGNMENT

The Capital Improvement Program serves as comprehensive catalog of community needs. The full five-year program is reviewed and approved each year by Council. The Sewer Main Replacement – 1st and F Street (C66402451) and Water Main Replacement – 1st and F Street (C67502434) projects are included in the Capital Improvement Program on CIP-129 and CIP-161, respectively. The full FY2024-2025 Adopted Operating and Capital Improvement Program Budget can be found here: <https://cityofpetaluma.org/documents/fiscal-year-2025-adopted-budget/>.

CLIMATE ACTION/SUSTAINABILITY EFFORTS

The maintenance of the City's sewer collection system supports the City's climate action and sustainability goals by reducing inflow and infiltration, which directly decreases the energy and materials required for water treatment at the Ellis Creek Water Recycled Facility. Additionally, with less inflow and infiltration, the need for regular maintenance flushing by operations crews is reduced, resulting in fewer vehicle trips. This decrease in maintenance-related travel helps to lower fuel consumption and reduce greenhouse gas emissions from City operations, contributing to the City's overall efforts to minimize its environmental impact.

ENVIRONMENTAL REVIEW

The project was limited to the replacement of existing sanitary sewer and water main utility infrastructure with new sanitary sewer and water main infrastructure that will continue to support existing development. The project represents negligible expansion of existing capacity and serves the same purpose as the existing sewer main. Construction consisted of trenching pipeline installation within the public right-of-way where existing facilities are located. The area of disturbance was not within an environmentally sensitive area nor were there any unusual circumstances or cumulative impacts that would preclude the project from using an exemption. Due to the necessity of the emergency work, the project was statutorily exempt pursuant to Section 15269(b) Emergency Project (and Public Resources Code Section 21080(b)(2)). The project was also categorically exempt pursuant to CEQA guidelines Sections 15301, Existing Facilities, Replacement or Reconstruction, and 15303 New Construction or Conservation of Small Structure because the project involved relocation and replacement of existing sanitary sewer mains, and the installation of a new water main to provide service to four (4) users and for fire flows. The replacement and reconstruction of existing utility infrastructure and the new water main extension supports existing development in the area and there is negligible or no expansion of use beyond what currently exists. There are no cumulative impacts, unusual circumstances or other factors that would make the exemption inapplicable. Therefore, this project is categorically exempt under CEQA sections 15301(b), Existing Facilities, and 15302(c), Replacement or Reconstruction, and 15303 New Construction (d). A Notice of Exemption (NOE) was filed in May 2024 with the County of Sonoma and the statute of limitations for challenging the City's CEQA determination has lapsed. Additionally, the emergency work performed is exempt pursuant to CEQA Guidelines

Section 15269(b), which exempts emergency repairs to service facilities necessary to maintain service essential to the public.

FINANCIAL IMPACTS

The total approved project budget for the Sewer Main Replacement – 1st & F Street (C66402451) project is \$380,000. The total estimated actual costs for this project are \$699,000. This is an overall total budget increase of \$319,000. The breakdown of costs is shown below. This project is funded with wastewater funds. The reconciliation for this project will be brought to Council with the mid-year budget adjustment process.

Sewer Main Replacement - 1st & F Street (C66402451)		
USES	Total Project Approved Budget	Total Project Estimated Actuals
Design/Planning/Environ/Land	\$ 25,000	\$ 32,000
Admin/Legal	\$ 5,000	\$ 2,000
Construction Contracts	\$ 250,000	\$ 636,000
Construction Management	\$ 40,000	\$ 24,000
Contingency	\$ 55,000	-
CIP Overhead	\$ 5,000	\$ 5,000
TOTAL USES	\$ 380,000	\$ 699,000
SOURCES		
Waste Water Capital	\$ 380,000	\$ 699,000
TOTAL FUNDS	\$ 380,000	\$ 699,000

The total approved project budget for the Water Main Replacement—1st & F Street (C67502434) project is \$110,000. The total estimated actual costs for this project are \$200,100. This is an overall budget increase of \$90,100. This project is funded with water funds. The breakdown of costs is shown below. The cost for this project will be brought to Council with the mid-year budget adjustment.

Water Main Replacement - 1st & F Street (C67502434)		
USES	Total Project Approved Budget	Total Project Estimated Actuals
Design/Planning/Environ/Land	\$ 5,000	\$ 3,000
Admin/Legal	\$ 2,000	\$ 1,500
Construction Contracts	\$ 60,000	\$ 180,000
Construction Management	\$ 15,000	\$ 15,000
Contingency	\$ 20,000	-
CIP Overhead	\$ 8,000	\$ 600
TOTAL USES	\$ 110,000	\$ 200,100
SOURCES		
Waster Capital	\$ 110,000	\$ 200,100
TOTAL FUNDS	\$ 110,000	\$ 200,100

ATTACHMENTS

1. Resolution
2. Location Map