



Council Agenda Report

From: Ditas Esperanza, Capital Projects Engineer

Subject: Contracting with Cannon Engineering to prepare bid documents for the Sherwood Tract Sewer Main Repairs and Rehabilitation

Date: October 18, 2016

Facts

1. The sewer rates include funding for repairing or replacing old or problem sewer lines in the system. The adopted budget includes funding for this sewer work.
2. The Sherwood Tract homes are located east of Creston Road, between Scott Street and Sherwood.
3. These homes were built in the 1950's.
4. The sewer mains, including manholes that serve these properties are generally located in their backyards (see attached location map), within a City easement.
5. These sewer mains are quite old and through the years tree roots and debris have hampered the flow. Wastewater maintenance staff have identified these sewer mains as "high maintenance", and provide quarterly and even monthly cleaning to keep the flow moving. In addition, the City does not have any engineering record drawings of these pipelines.
6. In 2010, the City performed maintenance of sewer mains on the west side of town, using a pipe reaming method (Beverly/Bonita Streets between 30th and 32nd). The sewer mains in these homes were also located in the backyards. Basically, a leader pipe is inserted at the downstream end of the main, and pulled upstream to the other end. This pipe then becomes a new pipe inside the old pipe that remains in place. This allows a new pipe to be installed without needing to open cut trench. In 2010, prior to the work, staff met with the neighborhood to explain the need for the project and the need to accommodate the construction, by removing items in their backyard that are within the sewer easements. Once the line is inserted, the contractor will open cut in spot locations to reconnect the sewer laterals to the new pipe.
7. Cannon Engineering assisted staff in developing the bid documents for the work done in 2010. To that end, staff requested their assistance for the work in the Sherwood Tract. Their fee is \$65,400. This fee includes preparation of the bid documents and exhibits, as well as education materials to be used for a neighborhood meeting with the residents. An extensive neighborhood outreach is proposed as part of the project.

Options

1. Do nothing; or
2. Authorize the City Manager to engage the services of Cannon Engineering to assist staff in preparing education materials, convene a neighborhood meeting, and prepare bid documents to repair and rehabilitate sewer mains in the Sherwood Tract homes.

Analysis and Conclusions

1. If we do nothing, the sewer mains will continue to deteriorate, resulting in sewer backups and likely claims. Currently, staff is performing cleaning of these sewer mains monthly and quarterly to ensure flow. Eventually this maintenance schedule may have to increase to prevent blockage.
2. By performing the pipe reaming of the old sewer mains, the residents will have the value of new pipes to service their homes, and maintenance of the mains would be on an annual basis rather than monthly or quarterly. Finally, the contract for Cannon will include gathering of field data that will become the City's engineering record drawings of these pipelines.

Fiscal Impact

None, as the required funds have been budgeted. The City Council adopted a budget of \$844,100 for this fiscal year to rehabilitate and replace old sewer mains.

Recommendation

Authorize the City Manager to engage the services of Cannon Engineering to assist staff in the repairs and rehabilitation of the Sherwood Tract sewer mains, in the amount of \$71,940 (\$65,400 plus 10% contingency).

Attachments

1. Sherwood Tract Sewer Main Repairs - Line Locations
2. Bid documents



SHERWOOD NEIGHBORHOOD HIGH MAINTENANCE SEWER LINES
(MONTHLY/QUARTERLY CLEANING)



NOT TO SCALE



September 27, 2016

Ms. Merceditas Esperanza, P.E.
Capital Projects Engineer
City of Paso Robles
1000 Spring Street
Paso Robles CA 93446

PROJECT: SHERWOOD ACRES – SEWER REPLACEMENT PROJECT

Dear Ditas:

Thank you for the opportunity to assist the City with the sewer main replacements associated with the backyard sewers within Tracts 67 and 172 bounded by San Carlos Dr., Santa Ynez Ave., Via Ramona, San Rafael Dr., and Santa Fe Ave. Our understanding of the project and proposal are based on our recent meeting with you and our previous work on City of Paso Robles Project No. 10-08, Bonita and Beverly Alleyways Sewer Upgrades.

Enclosed is our proposal to provide professional engineering services to design approximately 5,000 linear feet of replacement sewer within the backyard easements of Tracts 67 and 172, which serve approximately 124 lots along the streets listed above. Also included in our scope of services is a task to assist the City with a community outreach campaign to inform affected property owners of the sewer replacement process and to discuss roles and activities for completing the project.

Our approach and specific scope of work are described on the following pages. If this proposal meets with your approval, please sign and return our Acceptance of Proposal page, which will serve as our Notice to Proceed. The fees quoted in this proposal are valid for 60 days from this date. If you have any questions, please do not hesitate to call.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael J. Kielborn", is written over a horizontal line.

Michael J. Kielborn, PE, LEED AP
Principal Engineer
C 70112



PROJECT UNDERSTANDING AND APPROACH

Due to aging infrastructure and increased frequency of high maintenance activity to keep the sewer system of Tract 67 (circa 1952) and Tract 172 (circa 1959) clear and functional, the City has decided to proceed with a sewer replacement project to restore integrity to the system and to significantly reduce the potential for sewer system overflows (SSOs), public health concerns, and costly fines. The scope of the project generally consists of:

- Replacement of approximately 5,000 linear feet of 6-inch diameter vitrified clay (VCP) gravity sewer pipe using trenchless construction methods within the backyard easements and alleyways of the 124 lots fronting the following streets: Santa Fe Ave., Santa Cruz Ave., Santa Ysabel Ave., Santa Ynez Ave., San Carlos Dr., San Augustin Dr. San Fernando Dr., Via Ramona Dr., and San Rafael Dr.
- Restoration of approximately 124 lateral connections to the new sewer lines.
- Repair/replacement of approximately 20 sewer manholes and cleanouts.



Our approach to successful completion of the design of this project consists of providing professional services in two progressive phases: (I) Preliminary Engineering and (II) Design and Construction Document Services.



SCOPE OF WORK

Phase 1. Preliminary Engineering

Task 1 – Community Outreach

We will assist the City in developing its community outreach program to inform those property owners and residents impacted by the project. Our proposed involvement will consist of preparing exhibits and attending meetings to assist with explaining the construction project and defining roles and responsibilities. We will prepare three 24" x 36" foam board exhibits: (1) Project Layout – aerial view showing sewer components, property lines, and easement limits; (2) Construction Methods – graphical representation of trenchless technology methods; and (3) a Step-by-Step Process/Schedule. Each of these exhibits will be available in 8½" x 11" format for mailing to each of the property owners/residents prior to the meeting. In addition to the exhibits, we have budgeted for three meetings, two with the City for planning purposes, and one with the community prior to field survey. We recommend another meeting with the community just prior to construction to remind them and prepare them for the implementation phase of the work.

Task 2 – Supplemental Topographic Survey, Record Data Boundary, and Utility Research

To facilitate the vertical and horizontal layout of the new sewer lines, we will supplement the City's aerial topographic survey along the alignment in sufficient detail to prepare the plans. We will also determine the street, parcel and easement boundaries within the project area using record data as defined below.

We will supplement the aerial survey showing the following information within the project area. Final deliverables will include scaled plot and electronic file in AutoCAD format.

- Elevations and coordinates are based on City of Paso Robles published GPS station coordinates and published vertical benchmark datum.
- Right-of-way information based on record data.
- Spot elevations at approximate 50 feet intervals on centerline and gutter lip of flow line.
- Location and rim elevations of all water valves, meter boxes, and fire hydrants.
- Location and rim elevations of all sewer manholes and cleanouts.
- Location and flow line elevations of all storm drain manholes and inlets.
- Location of all miscellaneous utilities marked by above ground structures or USA markings.
- Limits of the project area (which will be right-of-way sidelines and 75' beyond intersections).

We will continue to coordinate with the public and private utility providers with existing facilities within the proposed alignments and obtain record drawings and as-built information. Potential utility conflicts and/or relocation requirements will be identified and evaluated as needed to minimize unexpected design modifications or construction delays.

Task 3 – Soils Report

We have not included a new soils evaluation as part of this project due to the difficulty of getting exploratory boring equipment within the backyard easements. We suggest the City research its archives for possible soils information related to approval documents for Tract 67. In the event no relevant information is discovered, we will discuss the option of performing additional soils investigation within the street right-of-ways at the edges of the project limits.



Task 4 – Preliminary Design Drawings (30% Submittal)

With the topographic survey, record data boundary information, and utility research from the previous tasks, we will prepare a preliminary design package for your review and comment. The purpose of the preliminary design package will be to resolve critical issues along each run of pipe prior to proceeding with final design. The Preliminary Design Drawings will include sufficient information to verify that the overall design concept will meet both the needs of the City and other agencies. Three sets of the conceptual drawings will be provided in full size (24" x 36") sheets.

Task 5 - Preliminary Design Submittal Review Meeting

Upon your review of the Preliminary Design Drawings, we will attend a meeting with the City staff to review and discuss the submittal. This meeting will allow opportunity for detailed discussion on project issues at the 30% design level. We will receive direction from staff on requested revisions to incorporate prior to the next phase of review.

Phase 2. Design and Construction Document Services

Task 6 – Design Plans, Bid Specifications and Cost Estimates (75% Submittal)

Based on the findings and results of the previous tasks, we will prepare and submit three design plan packages at the 75% approximate completion level. The design plan package will include the title sheet, notes sheet, plan and profile sheets, detail sheets, technical specifications, and cost estimate necessary to construct the project. Plans will be prepared in accordance with City standards. Technical specifications shall be prepared using City standard boilerplate specifications. We will attend a meeting with the City staff to review and discuss the design submittal for the 75% submittal.

Task 7 – Design Documents, Bid Specifications and Cost Estimates (Final Submittal)

Based on the finalized project design issues resolved during the preceding tasks, we will prepare and submit a Final Construction Documents Bid package. This submittal package will contain complete construction plans, technical specifications, known permit conditions, and an opinion of probable construction costs. The final plans will incorporate comments from the City reviews of the 75% design plan package. Bid documents will be prepared in the City's standard format. We will provide electronic copies and one master copy set of the complete bid package on permanent media to the City.

ASSUMPTIONS AND EXCLUSIONS

The following assumptions and exclusions apply to this proposal:

- City will provide timely delivery of all pertinent record information relative to the project including: sewer maintenance logs, sewer-video inspections, lateral locations, easement descriptions, tract maps, improvement drawings, soils reports, etc.
- Cannon is not responsible and cannot be held accountable for the accuracy of As-Builts or Record Drawings provided by the Agencies or utility providers. Cannon has no means of determining whether subsurface features were constructed per the construction / improvement drawings and does not claim to do so. Pot holing of utilities is recommended to be performed by others. Utility pothole information provided will be shown on the project plans and identified as such.
- This proposal assumes that all data prepared by others and provided to Cannon will be made available in a digital format, compatible with our systems. It is also understood that the information and technical data provided and prepared by others, on the City's behalf,



may be used by Cannon in performing its services and is entitled to rely upon the accuracy and completeness thereof.

- As this proposal has been prepared without the benefit of a current title report, it is assumed that there is a sufficient amount of available record information to adequately determine the location of the boundaries and encumbrances of the subject property. Additional work resulting from patent or latent boundary ambiguities or a lack of available records may constitute an additional work effort that is not covered within this scope of services.
- Assumes Cannon surveyors can readily access the backyard easements when mobilized to conduct the field survey.
- Items not specifically identified in the scope of service sections of this proposal are to be excluded from this work effort and would be considered additional services. Such services would include, but are not limited to, the following:
 - Construction Engineering Support Services
 - Agency Submittal Fees
 - Traffic Control Plans
 - Construction Staking Services
 - Boundary Monumentation
 - Record of Survey / Corner Record
 - Legal Descriptions and Exhibits
 - Soils Engineering
- Additional work will be billed on a Time and Materials basis or as an addendum to this proposal with prior written authorization from City.

SCHEDULE

We anticipate the entire work program taking approximately four months to complete depending on the community outreach effort; however, we will work with City staff at the kick-off meeting to develop a detailed schedule to accommodate the City's critical milestone dates.

Proposal: Sherwood Acres – Sewer Replacement Project**FEES**

Fees are based on the rates per the enclosed fee schedule and do not include Agency checking or recording fees, or title company fees. It is our understanding that this project qualifies for California Prevailing Wages.

Phase 1: Preliminary Engineering

<i>Task 1. Community Outreach</i>	<i>\$ 9,100</i>
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<i>Task 2. Supplemental Topo, Record Data Boundary, & Utility Research</i>	<i>\$ 15,900</i>
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<i>Task 3. Soils Report</i>	<i>N/A</i>
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<i>Task 4. Preliminary Design Drawings (30%)</i>	<i>\$ 17,100</i>
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<i>Task 5. Preliminary Design Review Meeting</i>	<i>\$ 1,200</i>
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Phase 2: Design and Construction Document Services

<i>Task 6. Design Documents, Bid Specifications, & Cost Estimates (75%)</i>	<i>\$ 16,500</i>
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<i>Task 7. Design Documents, Bid Specifications, & Cost Estimates (Final)</i>	<i>\$ 5,600</i>
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T&M Not to Exceed:	\$ 65,400.00
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