



RANCHO MURIETA COMMUNITY SERVICES DISTRICT

15160 Jackson Road, Rancho Murieta, CA 95683

Office - 916-354-3700 * Fax - 916-354-2082



IMPROVEMENTS COMMITTEE

Regular Meeting

October 10, 2016 at 9:00 a.m.

All persons present at District meetings will place their cellular devices in silent and/or vibrate mode (no ringing of any kind). During meetings, these devices will be used only for emergency purposes and, if used, the party called/calling will exit the meeting room for conversation. Other electronic and internet enabled devices are to be used in the "silent" mode. Under no circumstances will recording devices or problems associated with them be permitted to interrupt or delay District meetings.

AGENDA

1. **Call to Order**
2. **Comments from the Public**
3. **Update on Recycled Water Pre-design Report – Kevin Kennedy, Kennedy/Jenks**
4. **Consider Approval of Additional SMUD Costs for Waste Water Treatment Plant Solar Connection**
5. **Consider Approval of 12" Sewer Force Main Condition Assessment Proposal**
6. **Monthly Updates**
 -  Augmentation Well
 -  Solar Power Update
7. **Directors & Staff Comments/Suggestions [no action]**
8. **Adjournment**

In accordance with California Government Code Section 54957.5, any writing or document that is a public record, relates to an open session agenda item and is distributed less than 72 hours prior to a regular meeting will be made available for public inspection in the District offices during normal business hours. If, however, the document is not distributed until the regular meeting to which it relates, then the document or writing will be made available to the public at the location of the meeting.

Note: This agenda is posted pursuant to the provisions of the Government Code commencing at Section 54950. The date of this posting is October 7, 2016. Posting locations are: 1) District Office; 2) Rancho Murieta Post Office; 3) Rancho Murieta Association; 4) Murieta Village Association.

MEMORANDUM

Date: October 7, 2016
To: Improvements Committee
From: Paul Siebensohn, Director of Field Operations
Subject: Update on Recycled Water Pre-Design Report – Kevin Kennedy, Kennedy/Jenks

RECOMMENDED ACTION

Review - no action needed.

BACKGROUND

Kevin Kennedy, Kennedy Jenks Consultants, will provide a PowerPoint presentation overview of the Preliminary Design Report for the future use of recycled water that is being developed for the District. The presentation will cover the key assumptions, findings, implications, and next steps.

MEMORANDUM

Date: October 7, 2016
To: Improvements Committee
From: Paul Siebensohn, Director of Field Operations
Subject: Consider Approval of Additional SMUD Costs for Waste Water Treatment Plant Solar Connection

RECOMMENDED ACTION

Approve \$25,488.60 to Solar City for Bockman Woody's completion of SMUD service upgrades for the Wastewater Treatment Plant. Funding to come from Sewer Capital Replacement Reserves.

BACKGROUND

Solar City let us know that SMUD is now requiring the District to pay for the SMUD upgrade for the power supply from Jackson Highway to the wastewater plant transformer. Previously the Board approved \$164,000 (\$147,863.60 plus ~10% contingency) to Solar City for cost reimbursement for SMUD upgrades for the wastewater treatment plant. It was conveyed by SMUD that they were going to complete this work per the previous submittal of their Rule 21 estimated costs, now they say that was an error. The current estimate to complete this work by Bockman Woody is \$71,625, with a confirmation that there will be no mark up from Solar City.

The previously Board approved amounts, in June, of \$164,000 covered the then estimated costs for the required upgrades to interconnect the PV system at the WWTP site. It is now been clarified that the \$30,000 estimate for a new transformer, that was included in the \$164,000 funding request, was *part* of the \$40,123.10 for SMUD. Therefore, the actual estimated amount of the previous work should have been \$117,863.60 (see breakout below).

Estimated cost for new utility switchboard - \$22,170.50

Estimated cost for SMUD - \$40,123.10

~~Estimated cost for new SMUD required Transformer - \$30,000 (included in above amount)~~

Estimated cost for EC labor and material to install new gear (see attached) - \$55,570.00

Total estimated cost: ~~\$147,863.60~~ \$117,863.60

With this pending cost of \$71,625, a total of \$189,488.60 is the District's portion of the project. As \$164,000 was previously approved, an additional amount of \$25,488.60 is needed to be approved by the Board. The work done by Bockman Woody is to be managed by Solar City.

The proposed scope of work from Solar City contractor, Bockman Woody (BW), is as follows:

Labor, materials, & equipment to bore approximately 900' with 2 - 4" SMUD approved pipe. After pipe is installed prove pipe with Mandrel and install Mule tape. Provide & Install Traffic Rated SMUD Vault and Precast Transformer pad with Grounding. Provide & Install new Secondary Service from SMUD Transformer to existing 800A Service (2-4" with 500MCM wire in each pipe). Shutdown to be performed on Saturday on OT. Provide patching of Asphalt that is removed. We exclude any required Bollards around T-Pad. If required by SMUD or customer, there will be an additional charge.

I requested that Solar City seek a revised quote from BW in an effort to lower the cost. I have also asked that Solar City request a quote from SMUD to complete this work as a comparison. In the meantime, we are seeking approval at the amount per their proposal to keep the project moving in a timely manner.

Per the District's contract with Solar City, the District is required to pay for these needed upgrades. See below excerpt from contract.

5. System Installation Includes:

Installation of a solar energy system (includes: design, engineering, permitting, performance bonds, installation, monitoring, rebate application and paperwork processing for solar energy system), **prevailing wage construction.**

6. System Installation Excludes:

Additional or extra construction-related work caused by subsurface, latent or unknown physical conditions at the Premises that differ materially from those ordinarily encountered and generally expected as inherent in System installation at this type of site (including, but not limited to, excavation/circumvention of underground obstacles); upgrades or repair to customer or utility electrical infrastructure; payment bonds; tree removal and tree trimming; and Purchaser's evaluation of the project under the California Environmental Quality Act ("CEQA Evaluation") and the mitigation of any significant environmental impacts disclosed by the CEQA Evaluation (the mitigation costs are referred to as the "CEQA Costs").

If any CEQA Costs should arise, then the Parties will attempt in good faith to negotiate the pricing to address such costs. If: (1) resolution of the CEQA costs cannot be reached; or (2) the CEQA Evaluation discloses any significant environmental impacts that cannot be feasibly mitigated or avoided, then either Party may terminate this Agreement prior to commencement of installation of the System without liability or triggering a default under this Agreement. Either Party's rights under this paragraph shall, unless previously exercised, terminate on the date that is the earlier of (i) 180 days after the Effective Date or (ii) the date on which the conditions to Seller's obligations set forth in Section 6(a) of Exhibit 3 are satisfied.

Bockmon & Woody

ELECTRIC CO., INC.

1528 El Pinal Drive • P.O. Box 1018 • Stockton, CA 95201-1018
PHONE: (209) 464-4878 • FAX: (209) 464-2615
CA Lic. No. C10-588308 • DIR No. 1000002789

Date: October 6, 2016
Attention: Danny Valdez
Company: Solar City
Project: Rancho Muerita WWTP Solar Project - Additional SMUD work

Ladies and Gentlemen:

Bockmon & Woody Electric Co., Proposes to bid on the references project as a subcontractor for the electrical portion of the work required under the general contract and any modifications.

Our Proposal is according to the provisions and terms of the contract documents. Our bid price will be per the Scope of work below, sales tax included.

The specification sections for the scope of work quoted by Bockmon & Woody Electric Co., Inc., are as follows:
Electrical

Bockmon & Woody Electric Co., Inc., recognizes Addendums: NONE

**This bid proposal is good for 30 days.

**Work to be completed on a reasonable schedule.

**Subcontractor shall not be responsible for safety violations by others.

<u>Description</u>	<u>Qty</u>	<u>Unit Price</u>		<u>Extended Total</u>
Labor	1	\$ 43,125.00	\$	43,125.00
Materials	1	\$ 21,000.00	\$	21,000.00
Equipment	1	\$ 7,500.00	\$	7,500.00
		Total	\$	71,625.00

Scope of Work: Labor, Materials, & Equipment to to Bore approx. 900' with 2-4" SMUD Approved pipe. After pipe is installed prove pipe with Mandrel and install Mule tape. Provide & Install Traffic Rated SMUD Vault and Precast Transformer pad with Grounding. Provide & Install new Secondary Service from SMUD Transformer to existing 800A Service (2-4" with 500MCM in each pipe.) Shutdown to be performed on Saturday on OT. we Required a 8 hour shutdown period. We exclude any Temp power or Generator to power existing services. Provide patching of Asphalt that is removed. We Exclude any required Bollards around T-Pad. If required by SMUD or customer there will be an additional charge.

Exclusions:

1. Cost of permits, fees, & bonds
2. All Primary Utility Conductors
3. Rock Excavation, and using any others means than a Backhoe to Excavate trenches
4. Off haul of Directional Drilling Bore Mud
5. Any additional work that is not listed in this proposal

6. Bollards
7. Utility Fees & Coordination
8. Traffic Control
9. Surveying
10. Off Haul of Spoils
11. Site Water
12. Repairing any Damages done by others
13. Temporary Power and Maintenance of Temp power
14. Temporary Fencing & Toilet
15. All Overtime and/or Premium Time

We appreciate the opportunity of offering our scope and proposal for your consideration.
Should there be any questions, please feel free to contact us at your convenience.

Sincerely,

Bockmon & Woody Electric Co., Inc.

Gary M. Woody

Gary M. Woody

Vice President / Chief Estimator

APPROVED BY: _____ DATE: _____

MEMORANDUM

Date: October 3, 2016
To: Improvements Committee
From: Paul Siebensohn, Director of Field Operations
Subject: Consider Approval of 12" Sewer Force Main Condition Assessment Proposal

RECOMMENDED ACTION

Approve proposal from Kennedy Jenks Consultants to provide professional services for the 12 inch Sewer Force Main Condition Assessment, in an amount not to exceed \$23,208. Funding to come from Water Supply Augmentation Reserves.

BACKGROUND

As a component of the overall Recycled Water Predesign Report, we must determine if the old twelve inch (12") sewer force main pipeline is going to be usable for supplying recycled water up to Stonehouse and Escuela Park sites and future developments of Murieta Hills. This currently abandoned line runs from behind the District's Main Lift North sewer pumping station on Murieta Drive up to Rancho Murieta Association's (RMA) maintenance yard on Stonehouse Road.

It is a critical backbone pipeline to supply recycled water that is approximately 5,300 feet long, which is a costly potential asset if it needs to be replaced. The proposal provides detailed engineering review of the pipeline's viability to supply recycled water at sufficient pressure, as well as providing options if the pipeline is not viable, now and into the future. The detailed proposal is attached. Only those task items authorized by staff will be initiated as not all will necessarily be needed. District staff is in the process of conducting a pressure test of this line with contractor JD Pasquetti to test its integrity and will supply a piece of the pipeline to Kennedy Jenks Consultants for material analysis.

Kennedy/Jenks Consultants

Engineers & Scientists

10850 Gold Center Drive, Suite 350
Rancho Cordova, CA 95670
916.852.2700
FAX 916.858.2754

2 September 2016

Darlene T. Gillum, General Manager
Rancho Murieta Community Services District
15160 Jackson Road
P.O. Box 1050
Rancho Murieta, CA 95683

Subject: 12-inch Sewer Force Main Condition Assessment
Rancho Murieta Community Services District

Dear Darlene:

Kennedy/Jenks Consultants (K/J) is pleased to provide the Rancho Murieta Community Services District (District) with this proposal for providing condition assessment support for the existing 12-inch asbestos cement (AC) sewer force main. As described below, our approach for the proposed 12-inch diameter sewer force main condition assessment is a 4-task process consisting of data gathering, field work, evaluation and rehabilitation. Each of these assessment process tasks is discussed in more detail below followed by our proposed schedule, deliverables, exclusions and budget.

Background and Project Need

Recycled water conveyance to and irrigation use at Stonehouse and Escuela Parks and, in the future, Residences of Murieta Hills are required to accommodate projected growth within Rancho Murieta. Recent developer submitted sewers studies for Murieta Gardens, The Retreats and Rancho Murieta North coupled with growth projections described in the District's Water Supply Assessment Technical Memorandum indicate that the District's recycled water disposal capacity is projected to be exceeded about 2020.

The key objective of this assignment is to conduct the sufficient level of condition assessment of the existing 12-inch force main needed to identify the most cost effective method for conveying recycled water to Stonehouse and Escuela Parks and, in the future, Residences of Murieta Hills. Preliminary cost estimates indicated that construction and program costs associated with the installation of a new 12-inch diameter, 5,300 lineal foot recycled water pipeline from the proposed new recycled water booster pumping station located adjacent to North Main Lift Station, across Highway 16, along Stonehouse Road to Stonehouse and Escuela Parks could be about \$1.0 million and 1.4 million, respectively. These costs could be greatly reduced if the 12-inch force main is found to be in good condition. Results and recommendations derived from this assignment are to be incorporated into the District's draft Preliminary Design Report

Darlene T. Gillum
Rancho Murieta Community Services District
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currently under development and anticipated to be submitted for District review by the end of this year.

Scope of Work

The following is our proposed scope of work for this assignment.

Task 1. Data Gathering

The following information will be used to define the existing force main material and identify potential issues associated with its current condition and operational capabilities. The following information has previously been transmitted from the District to K/J and will serve as the basis for data gathering for this assignment:

1. Murieta Drive Sewer Lift Station and Force Main Plan Set
2. North Golf Course Irrigation System Map
3. EID plans for sewer force main along Stonehouse Road
4. District Service Area Map
5. RMCSD Service Area Buildout Map

The force main attributes will be summarized and tabulated in Table 1. Additional information and data will be added to Table 1 in subsequent steps as work progresses.

1. **Material and Pressure Class.** Year of construction (estimated to be approximately 1973 based on preliminary review) and installed from design drawings and/or shop drawings, if available. Pipe pressure class (appears to be Class 150, Asbestos Cement Pipe conforming to ASTM C-296 based on preliminary review), fittings, and alignment from record or best available drawings.
2. **Operating Requirements.** Determine necessary force main capacity and pressure class needed for functional use (see Task 2, Item 5).
3. **Maintenance History.** Establish known repair locations and type along the pipeline. This can also include identification and discussions with personnel with useful historical information.
4. **Hydraulic Gradeline.** Establish hydraulic grades (both working and surge pressures; phases) along entire force main using pressure gages (if available), hydraulic modeling, etc.

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Table 1. 12-inch Sewer Force Main Characteristics (To Be Developed)

Factor	Contribution to deterioration or pipe loading			Weight	Weighted score	
	Low (0.2)	Moderate (0.5)	High (0.8)			
Type I AC pipe?	No		Yes	0.5		
Pipe age	< 40	≥40, < 60	≥ 60	0.8		
Soil pH or wetlands or contaminated soil	pH > 6.3	5.5 < pH ≤ 6.3	pH ≤ 5.5	0.8		
	No		Yes			
Soil sulfate (in mg/L) with soil pH ≥ 7	< 1000	≥ 1000, < 5000	≥ 5000	0.4		
Conveyed water quality	CaCO ₃ concentration*	LI > 0	-2.0 ≤ LI ≤ 0	LI < -2.0	1	
		Al > 12	10 ≤ Al < 12	Al < 10		
	Hardness* (mg/L)		< 100			
	Alkalinity* (mg/L)		< 60			
Traffic loading	DoB** < 1.5 m	Light traffic	Heavy trucks	High volumes	0.2	
	DoB** ≥ 1.5 m	Light traffic	High volumes	High volume, heavy trucks	0.2	
Frost penetration	Frost depth/DoB < 0.5	0.5 ≤ frost depth/DoB < 1	History of frozen pipes	0.2		
Working pressures*	Balanced	Moderate differences	Large differences	0.5		
Pressure fluctuations*	Few, slight	Some, moderate	Many, severe	1		
Softening of external pipe wall in any AC pipe	No		Yes	0.8		
Network failure rate Breaks/100 km/Year	< 4	4 ≤ rate < 10	≥ 10	1		
Total score						

The information described above will be added to Table 1 and used to help define the suitability of the existing force main, material, operating conditions, etc. to serve as a recycled water conduit for Stonehouse and Escuela Parks in the near-term, and Residences of Murieta Hills in the future.

Task 2. Field Work

This step involves gathering information directly from the force main and surrounding soils through physical inspection and/or cutting a segment out of the existing force main. Information and data derived from the following items of work are required to perform remaining useful force main life calculations. It has been assumed for this proposal that all field work will be performed by District staff except as described in the following sentence and listed in the Task 2 deliverables. Work conducted by K/J staff for this particular step will be limited to

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Rancho Murieta Community Services District
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the development of a field work protocol, a single site visit to observe the force main (to coincide with pressure testing), and obtain, compile and apply data and results from the following District provided activities:

1. **Hydrostatic Pressure Testing.** Pressure test the existing force main to help define pressure capacity of the force main and potential leak locations along the force main (if any). Leak testing to include cutting into the existing force main (near its northern end along Stonehouse Road) and obtaining a segment (sample), capping the existing pipe and installing fill and drain ports at the ends of the force main. Air release valves located along the force main will need to be located and checked to verify their operational condition. All air release valves must be functional to be able to vent the air from the pipe. If there are high points without air release valves, these high points need to be tapped and air bled off manually prior to testing.

Deliverables: Brief (2 to 3 pages) field testing protocol (draft and final) in pdf and MSWord format describing K/J recommended standard hydrostatic pressure testing and analysis methods.

2. **Pipe Material Testing.** This analysis will be used to estimate how much of the force main wall remains as sound usable pipe, and to define other pipe material properties with Hardness and Phenolphthalein stain testing. The segment (or sample) obtained from Item 1 above would be used for these tests. The resulting physical property data will be used to define force main strength and for calculating remaining estimated useful force main life. All testing will be performed by the District/Owner.

Deliverables: A list of recommended pipe material analyses test to be performed by the District. Incorporate data and results in updated Table 1.

3. **Surrounding Soils Parameters.** Testing of the soils adjacent to the force main will be conducted by the District. Data obtained from testing of the soils that surround the force main pertaining to pH, sulfates, sulfides, etc. will be used to establish the risk of chemical attack and leaching of free lime from the outer pipe walls.

Deliverables: A list of recommended soil analysis test to be performed by the District. Incorporate data and results in updated Table 1.

4. **Recycled Water Quality Analyses.** Testing of the force main conveyed recycled water will conducted by the District to estimate its pH, Langelier Index (LI) and Aggressiveness Index (AI). These parameters will help to identify the aggressiveness of the conveyed recycled water to be used to form the basis for K/J's opinion of useful life expectancy estimation.

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Rancho Murieta Community Services District
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***Deliverables:** A list of recommended recycled water analysis test to be performed by the District. Incorporate data and results in updated Table 1.*

5. **Operational Parameters.** K/J will evaluate risk assessment associated with traffic loading, water surge and pressure fluctuations, and break history. This evaluation will be used to define the potential degradative conditions that may affect the useful structural life of the force main and help define the potential rehabilitation methods should those be needed.

***Deliverables:** Incorporate data and results in updated Table 1.*

Task 3. Evaluation

Evaluation of the force main risk assessment is a function of comparing the un-degraded force main wall thickness and other pipe risk indicators such as pipe age, type, pressure fluctuations and water aggressiveness. Each of these parameters will be defined mathematically and have a total risk score established in the evaluation. K/J will use the following criteria set by governing agencies for Asbestos Cement pipe:

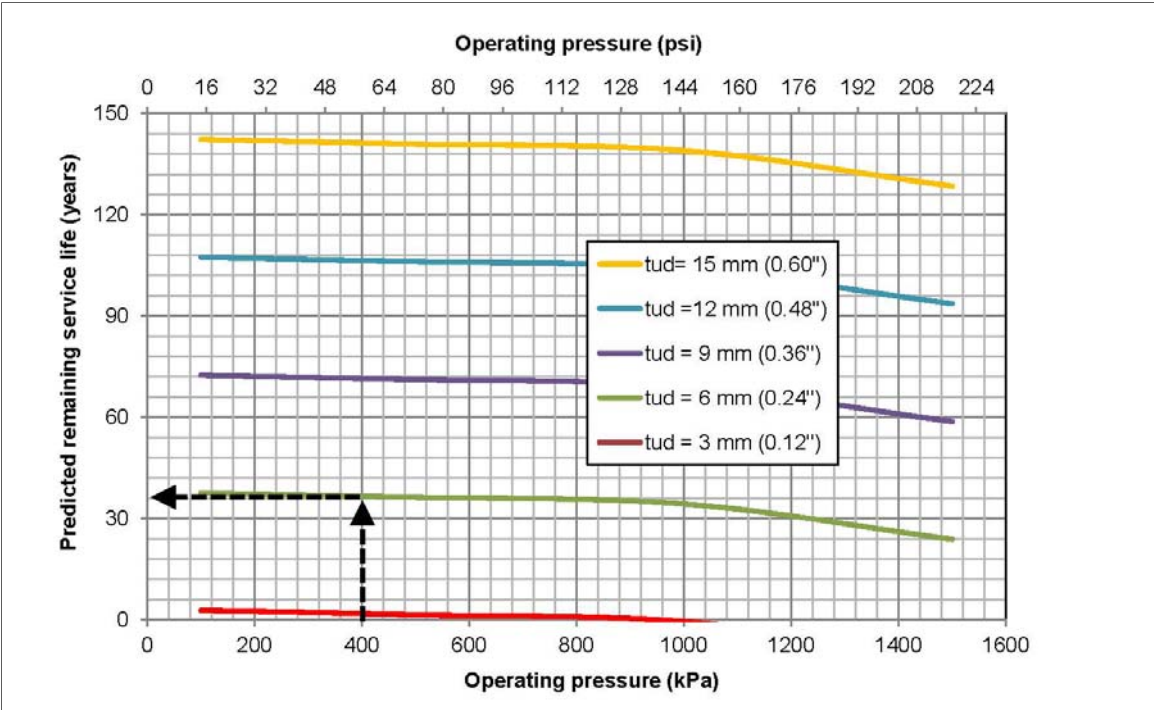
- AWWA C400, Asbestos Cement Water Pipe – 6 in. (150 mm) and Larger
- AWWA WRF Guidance Manual for managing Long Term Performance of Asbestos Cement Pipe Steel Pipe - A Guide for Design and Installation

The un-degraded force main wall thickness will be used to estimate remaining useful force main life. An example of this is shown in the figure below. This example is for a pipe with an un-degraded pipe wall thickness of 6 mm, operating at 56 psi and showing a remaining useful life of 35 years. A similar process can be used to define the remaining useful for the 12-inch sewer force main.

Once all the available information is obtained and evaluated, K/J will begin identifying the appropriate rehabilitation methods for the force main described in the next step.

***Deliverables:** Evaluation summary for the existing force main, including a determination of predicted remaining service life of the tested pipe. Document expected to be 3 pages or less in length or less.*

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Task 4. Rehabilitation

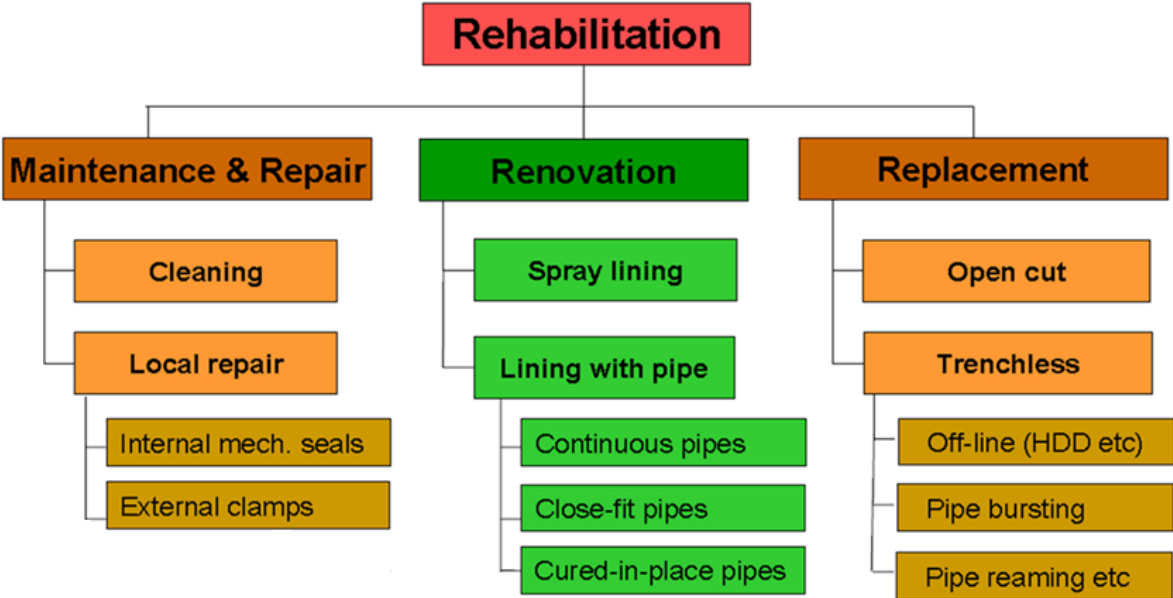
The final condition assessment task is developing a force main rehabilitation plan. There are many methods that can be used to add additional useful life to the force main depending on its condition as shown in the graphic below.

The identification of the appropriate rehabilitation method is a somewhat complicated process. A preliminary and simplified discussion of the repair methods suitable for 12-inch force main to be considered is provided below. Rehabilitation methods have been listed by the level of impact and cost from least to most:

1. **Spot and/or Local Repairs.** Repairs to specific local areas along the force main where damage is identified, with the assumption that the evaluation has found that the force main has a low risk of failure and is structurally sound. A general approach to the rehabilitation process is shown in the figure below.

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CLASSIFICATION OF TECHNIQUES



2. **Sliplining.** Method involves pulling a new thin wall HDPE or fusible PVC pipeline into and through the existing 12-inch force main. The type and thickness of new pipe liner depends on the pressure requirements. This technique can be expensive, but possibly less expensive than a new pipeline assuming a non-structural or semi-structural lining solution can be used.
3. **Installation of New Pipe.** Method would only be used if the force main is found to be not structurally suitable or other methods are not economically feasible.
4. **CIPP Pressure Lining.** Method of repair can range from a simple lining to a full structural replacement. This technique tends to be expensive and may not be considered economically viable for this application.
5. **Pipe Bursting.** Method involves splitting the asbestos cement force main and pulling another pipe into the space (hole) of the old force main. This technique tends to be an expensive pipe and may not be considered economically viable for this application.

Deliverables: Rehabilitation Plan, listing recommended rehabilitation methods and an implementation plan. Preliminary draft Rehabilitation Plan will be presented to the District in a workshop.

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Rancho Murieta Community Services District
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Task 5. Project Management and Quality Assurance / Quality Control (QA/QC)

K/J will provide project management services consisting of project setup, billing, communications, and QA/QC reviews for this assignment. To maintain professional quality, K/J established and implements an in-house review system. This system begins with a concepts and criteria review early which provides the project team with an early opportunity to review the project concepts with other senior staff. Throughout the project, work-products will be internally reviewed prior to District submission.

***Deliverables:** Monthly progress reports describing up to date project status, budget and schedule in quantifiable and measurable terms.*

Schedule

K/J is prepared to initiate work on this assignment immediately following Notice to Proceed. We have received the information described in Task 1 and plan to prepare the draft Task 2 deliverables within 2 weeks of Notice to Proceed so that the District can complete the field work before Sacramento County's Stonehouse Road Improvement Project begins in September 2016.

This assignment is estimated to be a maximum of three months in duration. This timeline assumes two weeks for District review and one week to address District comments.

Exclusions

K/J's scope of work excludes performing any field work and analyses such as pressure testing, operation of any District facilities, exposing the force main, obtaining a segment of the pipe for testing, or the associated analyses/testing costs.

Budget

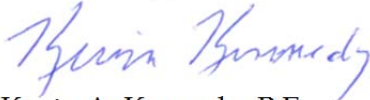
Because the exact level of effort to complete the proposed scope of services presented herein cannot be estimated at this time, we propose that compensation for consulting services be on a time and expense reimbursement basis in accordance with the our Master Services Agreement dated May 20, 2106. We propose a budget of \$23,208. A breakdown of our proposed project budget and line item descriptions of the project deliverables is provided in Attachment B. It is acknowledged that the individual task budget breakdowns are an estimate and may be transferred among each work element depending on specific interim work needs, as long as the total budget is not exceeded. This proposal is based on current projections of staff availability and costs and, therefore, is valid for 90 days following the date of this letter.

Thank you and the District for allowing K/J the opportunity to provide you with this proposal to support the District. If you should have any questions or desire any additional information, please feel free to contact Kevin Kennedy at (916) 858-2740 (office) or (530) 363-8800 (cell).

Darlene T. Gillum
Rancho Murieta Community Services District
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Very truly yours,

KENNEDY/JENKS CONSULTANTS, INC.



Kevin A. Kennedy, P.E.
Senior Project Manager

Attachments:

- A. Master Services Agreement
- B. Proposal Fee Estimate

AUTHORIZATION:

RANCHO MURIETA COMMUNITY
SERVICES DISTRICT

By: _____
(Signature)

Darlene T. Gillum
(Print Name)

Title: General Manager

Date: _____

Master Services Agreement

**RANCHO MURIETA COMMUNITY SERVICES DISTRICT
SERVICES AGREEMENT**

THIS AGREEMENT is entered into this May 20, 2016, by and between Rancho Murieta Community Services District, a local government agency ("District"), and Kennedy Jenks Consultants ("Consultant"), who agree as follows:

1. Scope of Work. Consultant shall perform the work and render the services described in the attached Exhibit A (the "Work") by authorization under future Work Orders. Consultant shall provide all labor, services, equipment, tools, material and supplies required or necessary to properly, competently and completely perform the Work. Consultant shall determine the method, details and means of doing the Work.

2. Payment.

a. In exchange for the Work, District shall pay to Consultant a fee based on the fee arrangement described on the attached Exhibit B.

b. The total fee for the Work shall be as identified by Work Order in accordance with the fee arrangement described on the attached Exhibit B. There shall be no compensation for extra or additional work or services by Consultant unless approved in advance in writing by District. Consultant's fee includes all of Consultant's costs and expenses related to the Work.

c. At the end of each month, Consultant shall submit to District an invoice for the Work performed during the preceding month. The invoice shall include a brief description of the Work performed, the dates of Work, number of hours worked and by whom (if payment is based on time), payment due, and an itemization of any reimbursable expenditures. If the Work is satisfactorily completed and the invoice is accurately computed, District shall pay the invoice within 30 days of its receipt.

3. Term.

a. This Agreement shall take effect on the above date and continue in effect for three (3) years, unless sooner terminated as provided below. Time is of the essence in this Agreement. Consultant shall perform the Work diligently and as expeditiously as possible, consistent with the professional skill and care appropriate for the orderly progress of the Work.

b. This Agreement may be terminated at any time by District upon 10 days advance written notice to Consultant. In the event of such termination, Consultant shall be fairly compensated for all work performed to the date of termination as calculated by District based on the above fee and payment provisions. Compensation under this subsection shall not include any termination-related expenses, cancellation or demobilization charges, or

lost profit associated with the expected completion of the Work or other such similar payments relating to Consultant's claimed benefit of the bargain.

4. Professional Ability of Consultant. Consultant represents that it is specially trained and experienced, and possesses the skill, ability, knowledge and certification, to competently perform the Work provided by this Agreement. District has relied upon Consultant's training, experience, skill, ability, knowledge and certification as a material inducement to enter into this Agreement. All Work performed by Consultant shall be in accordance with applicable legal requirements and meet the standard of care and quality ordinarily to be expected of competent professionals in Consultant's field.

5. Conflict of Interest. Consultant (including principals, associates and professional employees) represents and acknowledges that (a) it does not now have and shall not acquire any direct or indirect investment, interest in real property or source of income that would be affected in any manner or degree by the performance of Consultant's services under this agreement, and (b) no person having any such interest shall perform any portion of the Work. The parties agree that Consultant is not a designated employee within the meaning of the Political Reform Act and District's conflict of interest code because Consultant will perform the Work independent of the control and direction of the District or of any District official, other than normal contract monitoring, and Consultant possesses no authority with respect to any District decision beyond the rendition of information, advice, recommendation or counsel.

6. Consultant Records.

a. Consultant shall keep and maintain all ledgers, books of account, invoices, vouchers, canceled checks, and other records and documents evidencing or relating to the Work and invoice preparation and support for a minimum period of three years (or for any longer period required by law) from the date of final payment to Consultant under this Agreement. District may inspect and audit such books and records, including source documents, to verify all charges, payments and reimbursable costs under this Agreement.

b. In accordance with California Government Code section 8546.7, the parties acknowledge that this Agreement, and performance and payments under it, are subject to examination and audit by the California State Auditor for three years following final payment under the Agreement.

7. Ownership of Documents. All works of authorship and every report, study, spreadsheet, worksheet, plan, design, blueprint, specification, drawing, map, photograph, computer model, computer disk, magnetic tape, CAD data file, computer software and any other document or thing prepared, developed or created by Consultant under this Agreement and provided to District ("Work Product") shall be the property of District, and District shall have the right to use, modify, reuse, reproduce, publish, display, broadcast and distribute the Work Product and to prepare derivative and additional documents or works based on the Work Product without further compensation to Consultant or any other party. Consultant may retain a copy of any Work Product and use, reproduce, publish, display, broadcast and distribute any Work Product and prepare derivative and additional documents or works based on any Work Product; provided, however, that Consultant shall not provide any Work Product to any third party without District's prior written approval,

unless compelled to do so by legal process. If any Work Product is copyrightable, Consultant may copyright the same, except that, as to any Work Product that is copyrighted by Consultant, District reserves a royalty-free, nonexclusive and irrevocable license to use, reuse, reproduce, publish, display, broadcast and distribute the Work Product and to prepare derivative and additional documents or works based on the Work Product. If District reuses or modifies any Work Product for a use or purpose other than that intended by the scope of work under this Agreement, then District shall hold Consultant harmless against all claims, damages, losses and expenses arising from such reuse or modification. For any Work Product provided to District in paper format, upon request by District at any time (including, but not limited to, expiration or termination of this Agreement), Consultant agrees to provide the Work Product to District in a readable, transferable and usable electronic format generally acknowledged as being an industry-standard format for information exchange between computers (e.g., Word file, Excel spreadsheet, AutoCAD file).

8. Compliance with Laws. Consultant shall perform the Work in compliance with all applicable federal, state and local laws and regulations. Consultant shall possess, maintain and comply with all federal, state and local permits, licenses and certificates that may be required for it to perform the Work. Consultant shall comply with all federal, state and local air pollution control laws and regulations applicable to the Consultant and its Work (as required by California Code of Regulations title 13, section 2022.1).

9. Indemnification. Consultant shall indemnify, defend, protect, and hold harmless District, and its officers, employees and agents from and against any and all liability, losses, claims, damages, expenses, demands, and costs (including, but not limited to, attorney, expert witness and consultant fees, and litigation costs) of every nature arising out of Consultant’s or its employee’s, agent’s or subcontractor’s negligence, recklessness or willful misconduct.. If it is finally adjudicated that the liability, loss, claim, damage, expense, demand or cost was caused partially by the comparative negligence of Agency, or its officer, employee or agent, then Consultant’s indemnification and defense obligation shall be reduced in proportion to the adjudicated comparative negligence of the Agency. Consultant’s obligations under this provision shall survive the termination of or completion of Work under, this Agreement.

10. Insurance.

a. Types & Limits. Consultant at its sole cost and expense shall procure and maintain for the duration of this Agreement the following types and limits of insurance:

<i>Type</i>	<i>Limits</i>	<i>Scope</i>
Commercial general liability	\$1,000,000 per occurrence & \$2,000,000 aggregate	at least as broad as ISO CG 0001
Automobile liability	\$1,000,000 per accident	at least as broad as ISO CA 0001, code 1 (any auto)
Workers’ compensation	statutory limits	
Employers’ liability	\$1,000,000 per accident	

b. **Other Requirements.** The general and automobile liability policy(ies) shall be endorsed to name District, its officers, employees, volunteers and agents as additional insureds regarding liability arising out of the Work. Consultant's coverage shall be primary and apply separately to each insurer against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability. District's insurance or self-insurance, if any, shall be excess and shall not contribute with Consultant's insurance. Each insurance policy shall be endorsed to state that coverage shall not be canceled, except after 30 days (10 days for non-payment of premium) prior written notice to District. Insurance is to be placed with authorized insurers with a current A.M. Best's rating of A-VII or better unless otherwise acceptable to District. Workers' compensation insurance issued by the State Compensation Insurance Fund is acceptable. Consultant agrees to waive subrogation that any insurer may acquire from Consultant by virtue of the payment of any loss relating to the Work. Consultant agrees to obtain any endorsement that may be necessary to implement this subrogation waiver.

c. **Proof of Insurance.** Upon request, Consultant shall provide to District the following proof of insurance: (a) certificate(s) of insurance evidencing this insurance; and (b) endorsement(s) on ISO Form CG 2010 (or insurer's equivalent), signed by a person authorized to bind coverage on behalf of the insurer(s), and certifying the additional insured coverage.

11. Entire Agreement; Amendment. The parties intend this writing to be the sole, final, complete, exclusive and integrated expression and statement of the terms of their contract concerning the Work. This Agreement supersedes all prior oral or written negotiations, representations, contracts or other documents that may be related to the Work, except those other documents (if any) that are expressly referenced in this Agreement. This Agreement may be amended only by a subsequent written contract approved and executed by both parties.

12. Independent Contractor. Consultant's relationship to District is that of an independent contractor. All persons hired by Consultant and performing the Work shall be Consultant's employees or agents. Consultant and its officers, employees and agents are not District employees, and they are not entitled to District employment salary, wages or benefits. Consultant shall pay, and District shall not be responsible in any way for, the salary, wages, workers' compensation, unemployment insurance, disability insurance, tax withholding, and benefits to and on behalf of Consultant's employees. Consultant shall, to the fullest extent permitted by law, indemnify District, and its officers, employees, volunteers and agents from and against any and all liability, penalties, expenses and costs resulting from any adverse determination by the federal Internal Revenue Service, California Franchise Tax Board, other federal or state agency, or court concerning Consultant's independent contractor status or employment-related liability.

13. Assignment. Consultant may not assign, delegate, transfer or subcontract any of its rights, duties, obligations or other interests in this Agreement without District's prior written consent. Any assignment, delegation, transfer or subcontract in violation of this provision is null and void.

14. No Waiver of Rights. Any waiver at any time by either party of its rights as to a breach or default of this Agreement shall not be deemed to be a waiver as to any other

breach or default. No payment by District to Consultant shall be considered or construed to be an approval or acceptance of any Work or a waiver of any breach or default.

15. Severability. If any part of this Agreement is held to be void, invalid, illegal or unenforceable, then the remaining parts will continue in full force and effect and be fully binding, provided that each party still receives the benefits of this Agreement.

16. Governing Law and Venue. This Agreement will be governed by and construed in accordance with the laws of the State of California. The county and federal district court where District's office is located shall be venue for any state and federal court litigation concerning the enforcement or construction of this Agreement.

17. No Third Party Rights. This Agreement shall not create any rights or benefits to parties other than Consultant and the District.

18. Consultant Limitations. Consultant shall, in the performance of the Work, have the right to reasonably rely upon information provided by District or prepared by any third party on behalf of District without independent verification of its accuracy and completeness.

19. Notice. Any notice, invoice or other communication that is required or permitted to be given under this Agreement shall be in writing and either served personally or sent by prepaid, first class U.S. mail addressed as follows:

District: General Manager Rancho Murieta Community Services District P.O. Box 1050 15160 Jackson Road Rancho Murieta, CA 95683	Consultant: Kennedy/Jenks Consultants 10850 Gold Center Drive, Suite 350 Rancho Cordova, CA 95670
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Any party may change its address by notifying the other party of the change in the manner provided above.

RANCHO MURIETA COMMUNITY

CONSULTANT

SERVICES DISTRICT

By:  By: _____
Darlene Gillum
General Manager



He

Senior Kevin Kennedy [name]

Senior Project Manager [title]

By: _____

_____ [name]

_____ [title]

ATTACHMENT B - Proposal Fee Estimate

CLIENT Name: Rancho Murieta Community Services District
 PROJECT Description: Condition Assessment - Existing 12-inch Sewer Force Main
 Proposal/Job Number: _____ Date: 9/2/2016

January 1, 2016 Rates	Ed Barnhurst Eng-Sci-8	Kevin Kennedy Eng-Sci-7	Vance Cave Eng-Sci-6	Eng-Sci-5	Eng-Sci-4	Ryan Young Eng-Sci-3	Eng-Sci-1	Designer/ GIS	CAD	Project Administrator	Admin. Assist.	Aide	Total	KJ Labor	KJ Escalation	KJ ODCs	KJ ODCs Markup	Total Labor	Total Subs	Total Expenses	Total Labor + Subs + Expenses
Classification:	\$240	\$220	\$180	\$165	\$155	\$145	\$130	\$135	\$120	\$115	\$95	\$75	Hours	Fees	0%	Fees	10%				Fees
Task 1. Data Gathering																					
Data compilation and Table 1 development		1	1			1							3	\$545	\$0	\$50	\$5	\$545	\$0	\$55	\$600
hydraulic gradeline modeling	1	1	1			8							11	\$1,800	\$0		\$0	\$1,800	\$0	\$0	\$1,800
Task 1 - Subtotal	1	2	2	0	0	9	0	0	0	0	0	0	14	\$2,345	\$0	\$50	\$5	\$2,345	\$0	\$55	\$2,400
Task 2. Field Work																					
Hydrostatic Pressure Testing of FM		1	2			4							7	\$1,160	\$0	\$75	\$8	\$1,160	\$0	\$83	\$1,243
Pipe Material analysis	1		2			4							7	\$1,180	\$0		\$0	\$1,180	\$0	\$0	\$1,180
Adjacent soils parameters	1		2			4							7	\$1,180	\$0		\$0	\$1,180	\$0	\$0	\$1,180
Recycled Water Calcium Carbonate	1	1	2			4							8	\$1,400	\$0		\$0	\$1,400	\$0	\$0	\$1,400
Pipeline operational parameters	1		2			4							7	\$1,180	\$0		\$0	\$1,180	\$0	\$0	\$1,180
Task 2 - Subtotal	4	2	10	0	0	20	0	0	0	0	0	0	36	\$6,100	\$0	\$75	\$8	\$6,100	\$0	\$83	\$6,183
Task 3. Evaluation																					
Material Evaluations	6		2			2					1		11	\$2,185	\$0	\$75	\$8	\$2,185	\$0	\$83	\$2,268
Risk evaluation worksheet	2	2	4			4							12	\$2,220	\$0		\$0	\$2,220	\$0	\$0	\$2,220
Risk Score Evaluation	1		4			4							9	\$1,540	\$0		\$0	\$1,540	\$0	\$0	\$1,540
Evaluation Results and Recommendations Meeting		1	4										5	\$940	\$0		\$0	\$940	\$0	\$0	\$940
Task 3 - Subtotal	9	3	14	0	0	10	0	0	0	0	1	0	37	\$6,885	\$0	\$75	\$8	\$6,885	\$0	\$83	\$6,968
Task 4. Rehabilitation																					
Rehabilitation Options	2	2	2			4					1		11	\$1,955	\$0	\$75	\$8	\$1,955	\$0	\$83	\$2,038
Rehabilitation Plan	1	1	2			6							10	\$1,690	\$0		\$0	\$1,690	\$0	\$0	\$1,690
Task 4 - Subtotal	3	3	4	0	0	10	0	0	0	0	1	0	21	\$3,645	\$0	\$75	\$8	\$3,645	\$0	\$83	\$3,728
Task 5. Project Management and QA/QC																					
Project setup, billing, communications, etc.		2								2			4	\$670	\$0		\$0	\$670	\$0	\$0	\$670
Kickoff meeting preparation and attendance		2	2										4	\$800	\$0		\$0	\$800	\$0	\$0	\$800
Concepts and criteria review (C&CR)	1	1	2			2							6	\$1,110	\$0		\$0	\$1,110	\$0	\$0	\$1,110
Project (QA/QC)	2	1	2			2							7	\$1,350	\$0		\$0	\$1,350	\$0	\$0	\$1,350
Task 5 - Subtotal	3	6	6	0	0	4	0	0	0	2	0	0	21	\$3,930	\$0	\$0	\$0	\$3,930	\$0	\$0	\$3,930
All Phases Total	20	16	36	0	0	53	0	0	0	2	2	0	129	\$22,905	\$0	\$275	\$28	\$22,905	\$0	\$303	\$23,208

MEMORANDUM

Date: October 7, 2016
To: Improvements Committee
From: Paul Siebensohn, Director of Field Operations
Subject: Project Updates

SOLAR PROJECTS

Water Plant Site

Construction has yet to begin as Solar City is still waiting for approval from Sacramento County Permit Office before proceeding. The earlier submittal to the County did not have any concerns brought up and was not forwarded to their fire department for review. The second submittal, due to the late revision required by SMUD's line department to stay away from being under their power lines, was forwarded to their fire department as a *new* requirement of them. We just heard back today that the fire department now wants a 20 foot through access from the front gate to the back gate for a fire lane. Solar City let them know that I had reviewed the site with the local fire department that was ok with it but the reviewing department responded that the local fire department has no jurisdiction to approve anything. I currently have an email in to them asking for clarifications, particularly as to why they are reviewing a solar installation with no structures or designated roads. Solar City, in the meantime, is going to look at revising the site yet again to accommodate the fire department reviewer's concerns. The site has been fenced off and some materials staged in preparation for the project to begin.

Wastewater Plant Site

Now that the solar field is constructed at the Wastewater Treatment Plant site, the Power Purchase Agreement (PPA) will be updated to reflect the "as-built" production of power. Solar City has commented that *"We normally see small changes in the field that affect the as-built system and therefore the expected production of the solar array. In this case, the change is very small, just under 1% difference."*

Summary of changes are as follows:

Original Contract Size: 769.420 kW
~~Original Contract Expected Production: 1,207,000 kWh~~
Installed/Current Size: 769.420 kW
Installed/Current Expected Production: 1,195,349 kWh
As-built Percent of Original: 99.03%

As far as the actual installation goes, ATT has installed phone and 56k service lines to the wastewater control building for SMUD to allow SMUD to remotely monitor the power in/out of the solar farm.



Photo of showing excavation for a future pad for an upgraded SMUD transformer and conduit installations to new electrical switchgear panels.

12 Inch Force Main Assessment

After extensive searching based on old engineering plans, District staff located the old 12 inch sewer force main. This currently abandoned line runs from behind the District's Main Lift North sewer pumping station on Murieta Drive up to Rancho Murieta Association's (RMA) maintenance yard on Stonehouse Road. District staff conducted the bulk of the work, excavating the pipeline on the top and bottom ends, procuring the necessary endcaps and fittings, installing them and test ports on each end, and poured concrete restraints to allow the pipeline to be pressure tested. Contractor JD Pasquetti conducted the pressure test per AWWA Standards and it passed the test. Kennedy Jenks was onsite during the pressure test as well.



Photo of 12 inch force main pipeline to possibly be used for future conveyance of recycled water.



Photo of pressurization of line for integrity test.

WELL PROJECT

No new update.