



## AGENDA

# EAST ORANGE COUNTY WATER DISTRICT ENGINEERING AND OPERATIONS COMMITTEE MEETING

**Tuesday, May 14, 2024 at 4:30 P.M.  
185 N. McPherson Road, Orange, California**

1. Call meeting to order
2. Public communications to the Committee
3. Additional items arising after posting of agenda

#### Informational Items

4. RZ System Status, Well Levels, and Water Use - Handout
5. WZ System Status and Water Use - Handout
6. Sewer System Status and Permit Reports

#### Action Items

7. Sharon Lane Lift Station Transfer
8. OC43 Vault Improvements Construction Award
9. Adjournment

Members of the public shall be permitted to speak as to both agendized and non-agendized items, as reflected in the agenda. Those wishing to speak may submit a speaker request or by verbally indicating their desire to comment at the time the item is called. Additionally, members of the public may, but are not required to, e-mail comments to Sylvia Prado at [sprado@eocwd.com](mailto:sprado@eocwd.com) up to 30 minutes before the Committee meeting, and such comments shall be provided to the Committee. Members of the public wishing to attend the meeting that require disability-related or other reasonable modifications or accommodation to facilitate such attendance should contact Ms. Prado at (714) 538-5815 or the e-mail provided as soon as feasible before the meeting to make such request.

Availability of agenda materials: Agenda exhibits and other writings that are disclosable public records distributed to all or a majority of the members of the East Orange County Water District Engineering & Operations Committee in connection with a matter subject to discussion or consideration at an open meeting of the Engineering & Operations Committee are available for public inspection in the District's office, 185 McPherson Road, Orange, California ("District Office"). If such writings are distributed to members of the Committee less than 72 hours prior to the meeting, they will be available via phone or email request to Ms. Sylvia Prado at (714) 538-5815 or [sprado@eocwd.com](mailto:sprado@eocwd.com).

# MEMO

**TO: ENGINEERING AND OPERATIONS COMMITTEE**  
**FROM: GENERAL MANAGER**  
**SUBJECT: RETAIL ZONE SYSTEM STATUS, WELL LEVELS, AND WATER USE**  
**DATE: MAY 14, 2024**

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## Background

This memo serves as cover for the water use and well reports. The OCWD Quarterly PFAS Update report is attached. The RZ Water Use Report and the Well Pumping and Static Water Level Report will be handed out at the meeting.

## Recommendation

Informational

Attachment(s) OCWD Quarterly PFAS Update

# Quarterly PFAS Update

Spring 2024



PFAS have been detected in the Orange County Groundwater Basin managed by the Orange County Water District (OCWD), which provides 85% of the water supply to 2.5 million people. PFAS are a family of chemicals that have been used in a multitude of consumer products. Recent state and federal regulations have placed strict limits on the occurrence of these chemicals in the drinking water supply. OCWD and its local water suppliers continue making significant headway in constructing new treatment facilities to remove PFAS from our groundwater. The estimated cost of addressing PFAS in Orange County over the next 30 years is approximately \$1.8 billion.



**30,452,965,133** gallons of water treated to date

\*as of 3/31/24



## PFAS IMPACTS IN ORANGE COUNTY

**102**

wells impacted

**40**

wells back online

**15**

impacted retailers

## Federal Updates

## EPA Sets Drinking Water Standards for Six PFAS Compounds

On April 10, the U.S. Environmental Protection Agency (EPA) officially **set the Maximum Contaminant Level (MCL)** for PFOA and PFOS at 4.0 parts per trillion (ppt), the MCL for PFNA, PFHxS and HFPO-DA at 10 ppt, and established a Hazard Index of 1 for any mixture of PFNA, PFHxS, PFBS, and HFPO-DA.

With these new MCLs in place, approximately 40 more wells within the OCWD service area will be affected, bringing the total number of PFAS-impacted wells to 102. Consistent with the requirements of the new MCLs, water providers have three years to complete initial monitoring and share results with the public, and five years to implement solutions to reduce PFAS levels.

OCWD and its water retailers will work expeditiously to design and construct more PFAS treatment plants to restore impacted groundwater wells within EPA's required five-year compliance period. Going forward, we will also propose that the state regulations and enforcement should mirror the federal five-year compliance period.

## Passive Receiver Protections Receive Overwhelming Support

More than 250 PFAS-impacted entities submitted letters to Congress urging that any legislation addressing PFAS cleanup also include liability protections for passive receivers, such as water and sanitation industries.

The strong support from agencies across the country echoes the sentiments of Orange County water agencies who have pushed for exemption from liability and have taken PFAS polluters to court to hold them accountable.

Among the entities submitting letters were the American Water Works Association, National Water Resources Association, Golden State Water Company, Orange County Sanitation District, and two letters from the Orange County Water District. A complete agency listing with links to their letters may be found on the [\*\*U.S. Senate Committee on Environment and Public Works website\*\*](#).



## PFOA and PFOS Designated Hazardous Substances Under Superfund

The U.S. Environmental Protection Agency (EPA) **designated PFOA and PFOS as hazardous substances** under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund. The April 19 designation seeks to make polluters, not taxpayers, pay for investigations and cleanup. Under CERCLA, entities are required to report PFOA and PFAS releases that meet or exceed one pound within a 24 hour period.

The EPA also issued a **CERCLA enforcement discretion policy** which describes how they will hold manufacturers responsible for releasing PFAS into the environment. Community water systems, such as OCWD and its water retailers, will not be subject to enforcement action by the EPA. However, the policy is nonbinding. In addition, the policy could lead to increased disposal costs for water treatment residuals.

OCWD will continue to pursue legislative solutions that hold polluters accountable for PFAS cleanup costs and protect water and wastewater agencies from liability.

## State Updates

### State Sets Monitoring Orders for DACs

The State Water Resources Control Board Division of Drinking Water enacted a new **general order** requiring PFAS monitoring orders for nearly 3,780 additional wells across 1,190 systems statewide. Of those, six small mutual water systems are located within OCWD's service area.

They are:

- Eastside Water Association, Midway City, Unincorporated
- Hynes Estates Mutual Water Company, Stanton

### OEHHA Adopts Public Health Goals for PFOA and PFOS

The California Office of Environmental Health Hazard Assessment (OEHHA) adopted and published **Public Health Goals** (PHGs) for two PFAS compounds: PFOA and PFOS.

#### Cancer-causing PHGs

- PFOA: 0.007 parts per trillion (ppt)
- PFOS: 1 ppt

#### Noncancer health effects PHGs

- PFOA: 3 ppt
- PFOS: 2 ppt

- Liberty Park Water Association, Huntington Beach
- Midway City Mutual Water Company, Midway City, Unincorporated
- Page Avenue Mutual Water Company, Fullerton
- South Midway City Mutual Water Company, Midway City, Unincorporated

Per the Budget Act of 2022, water systems serving disadvantaged communities (DACs) are eligible for free initial sampling and testing.

A PHG is the level of contaminant where adverse health effects are not expected to occur. Cancer causing PHGs are based at a risk level of one additional cancer case per one million people. Noncancer causing PHGs are based on adverse health effect thresholds. PHGs set by OEHHA are used by the State Water Resources Control Board in establishing drinking water standards.

## Local Updates

### UC Irvine Study Results Are In

Results from the University of California, Irvine's (UCI) PFAS study have been sent to participants. In total, 585 adults and 71 children participated. They were among 5,495 adults and 683 children who participated nationwide.

Study data showed PFAS levels of UCI participants were low compared to other sites and were similar to results from the 2020 US and SoCal CARE-3 student.

Moving forward, UCI will compare participant demographics, measured and modelled PFAS based on residential history, and will evaluate the amount of water people drink. They are working with other sites to provide comparison data and hope to have a community meeting later this year to present results.

**Make Your Voice Heard!**

Orange County Water District has created a platform – through its **PFAS Education Center** – to help you take action in reaching out to the Orange County federal legislators about the importance of upholding the polluter pays principle and protecting ratepayers from the costs of treating PFAS in our water supplies. You can quickly and easily **fill out this form** to make your voice heard.



Uphold the polluter pays principle & protect ratepayers!

Have Your Voice Heard!

Title

Full Name

Address

City and state (not required)

Phone

Email

Subject: Please contact legislators to address PFAS and other contaminants of emerging concern.

Orange County Water District and its contractors are committed to providing safe drinking water to our customers. We are committed to protecting our ratepayers from the costs of treating PFAS in our water supplies. We are committed to protecting our ratepayers from the costs of treating PFAS in our water supplies.

Thank you!

## In the News

PFAS are not exclusive to Orange County or even California. States across the country are in the midst of tackling PFAS in consumer products, groundwater supplies and other forms of contact. Here's what's happening around the country:

- [New PFAS lawsuit cites EPA's 'forever chemicals' drinking water rules](#)
- ['Forever chemicals': Water supplies throughout California will exceed new national limits](#)
- [Federal EPA limits toxic 'forever chemicals' in drinking water](#)
- [Mark Ruffalo on the 'evil' company that poisoned every person on the planet – then kept it secret](#)
- [From polar bears to groundwater, nature is riddled with 'forever chemicals'](#)
- [Terrifying map shows nearly half of all US tap water contaminated with dangerous chemicals](#)
- [Forever chemicals no longer used in food packaging](#)
- [PFAS As Hazardous Waste: Should Water And Wastewater Utilities Be Worried?](#)
- [Producers of "Forever Chemicals" Knew They Were Toxic, Say UN Experts](#)
- [California bill would ban 'forever chemicals' by 2030](#)
- [Processed foods linked to forever chemicals in human blood](#)
- [New Zealand Becomes First Country To Ban PFAS](#)

- [REVEALED: Tea, pork chops and peanut butter - the surprising foods that are teeming with cancer-causing 'forever chemicals', study suggests](#)
- [New analysis suggests PFAS "forever chemicals" could be banned in more uses than ever in 2024](#)
- [EPA and developing PFAS science: impacts on litigation](#)
- [Scientists may have finally found a way to destroy the toxic 'forever chemicals' found in our drinking water](#)
- [Cancer causing PFAS cleanup continues for the Navy around MCAS Tustin](#)

## Resources

[SWRCB PFAS Updates](#)

[UCI PFAS Health Study](#)

[OCWD PFAS Fact Sheet](#)

[EPA PFAS Updates](#)

[AWWA PFAS Briefing](#)

[National Academies](#)

The Orange County Water District (OCWD; the District) supplies clean, reliable drinking water to 2.5 million customers every day. OCWD and the local water suppliers in its service area are committed to operating in compliance with all state and federal guidelines and regulatory requirements.

For more information about PFAS, please visit OCWD's [PFAS Education Center](#).

# MEMO

**TO: ENGINEERING AND OPERATIONS COMMITTEE**  
**FROM: GENERAL MANAGER**  
**SUBJECT: WHOLESALE ZONE WATER USE REPORT**  
**DATE: MAY 14, 2024**

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## Background

This memo serves as cover for the Wholesale Zone water demand and imported water report. The Wholesale Zone Water Demand and Imported Water Delivery Balance Report will be handed out at the meeting.

## Recommendation

Informational

Attachment(s) None

# MEMO

**TO: ENGINEERING AND OPERATIONS COMMITTEE**  
**FROM: GENERAL MANAGER**  
**SUBJECT: SEWER SYSTEM STATUS AND PERMIT REPORT**  
**DATE: MAY 14, 2024**

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## Background

There were no sewer spills in March or April. The monthly Permit Reports for March and April are attached.

## Recommendation

Informational

Attachment(s) Permit Reports

March 2024 - Permits

Connection Address	Type of Development	Permit No	APN	Date Issued	Sewer				Wholesale Zone	Retail Zone	Total
					Regional CFCC (OCSD) Fees	Local Sewer Capacity Fees	Inspection	Total Sewer			
12932 Rosalind Dr. Santa Ana, CA 92705	ADU (N)	23-067	094-344-22	3/5/2024	\$ 1,188.00	\$ 7,576.76	\$ -	\$ 8,764.76	\$ 771.40	\$ -	\$ 9,536.16
140 & 142 N. Hewes Ave. Orange, CA	SFR (N)	23-107	093-114-31	3/27/2024	\$ 9,266.00	\$ 21,196.00	\$ 1,600.00	\$ 32,062.00	\$ -	\$ -	\$ 32,062.00
18921 Dodge Ave. Santa Ana, CA 92705	SFR (R)	24-004	395-511-26	3/27/2024	\$ 2,230.00	\$ -	\$ -	\$ 2,230.00	\$ -	\$ -	\$ 2,230.00
7 La Rama Dr. Santa Ana, CA 92705	ADU (N)	24-008	502-432-05	3/6/2024	\$ 1,112.27	\$ 1,598.81	\$ -	\$ 2,711.08	\$ 269.72	\$ -	\$ 2,980.80
19451 Doris Way, Santa Ana, CA 92705	SFR (R)	24-013	393-261-28	3/5/2024	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10722 Brighton Dr. Santa Ana, CA 92705	SFR (R)	24-015	503-423-03	3/1/2024	\$ 2,230.00	\$ -	\$ -	\$ 2,230.00	\$ -	\$ -	\$ 2,230.00
17536 Sherbrook Dr. Tustin, CA 92780	ADU (N)	24-017	401-024-12	3/5/2024	\$ 1,143.00	\$ -	\$ -	\$ 1,143.00	\$ -	\$ -	\$ 1,143.00
13471 Falmouth Pl. Tustin, CA 92705	ADU (N)	24-018	103-252-11	3/11/2024	\$ 1,188.00	\$ 3,483.32	\$ 800.00	\$ 5,471.32	\$ 252.71	\$ -	\$ 5,724.03
320 W. Main St. Tustin, CA 92780	SFR (R)	24-021	401-372-10	3/20/2024	\$ 1,143.00	\$ -	\$ -	\$ 1,143.00	\$ -	\$ -	\$ 1,143.00
1412 Kenneth Dr. Tustin, CA 92780	SFR (R)	24-022	103-341-15	3/25/2024	\$ 1,087.00	\$ -	\$ -	\$ 1,087.00	\$ -	\$ -	\$ 1,087.00
10876 Coronel Rd. Santa Ana, CA 92705	SFR (R)	24-025	503-371-09	3/29/2024	\$ 1,087.00	\$ -	\$ -	\$ 1,087.00	\$ -	\$ -	\$ 1,087.00
1241 Edgeview Dr. Santa Ana, CA 92705	SFR (R)	24-026	503-332-27	3/21/2024	\$ 1,143.00	\$ -	\$ -	\$ 1,143.00	\$ -	\$ -	\$ 1,143.00
18071 Bigelow Park, Tustin, CA 92705	SFR (R)	24-027	401-452-03	3/25/2024	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Totals</b>					<b>\$ 22,817.27</b>	<b>\$ 33,854.89</b>	<b>\$ 2,400.00</b>	<b>\$ 59,072.16</b>	<b>\$ 1,293.83</b>	<b>\$ -</b>	<b>\$ 60,365.99</b>

R - Remodel  
N - New  
E - Existing

**April 2024 - Permits**

Connection Address	Type of Development	Permit No	APN	Date Issued	Sewer				Wholesale Zone	Retail Zone	Total
					Regional CFCC (OCSD) Fees	Local Sewer Capacity Fees	Inspection	Total Sewer			
11751 Highview Dr. Santa Ana, CA 92780	ADU (N)	24-011	104-611-24	4/10/2024	\$ 371.25	\$ 570.77	\$ -	\$ 942.02	\$ 96.83	\$ -	\$ 1,038.85
13002 Marshall Ln., Tustin, CA 92780	ADU (N)	24-014	395-191-54	4/23/2024	\$ 1,782.00	\$ 6,647.99	\$ -	\$ 8,429.99	\$ 676.84	\$ -	\$ 9,106.83
1292 Banbury Cross Rd. Santa Ana, CA	SFR (R)	24-031	502-153-02	4/16/2024	\$ 1,143.00	\$ -	\$ -	\$ 1,143.00	\$ -	\$ -	\$ 1,143.00
14031 Utt Dr. Tustin, CA 92705	ADU (N)	24-035	432-053-15	4/26/2024	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
18071 Bigelow Park, Tustin, CA 92705	SFR (R)	WZ2024-027A	401-452-03	3/25/2024	\$ -	\$ -	\$ -	\$ -	\$ 719.00	\$ -	\$ 719.00
14091 & 14093 Stratton Way. Santa Ana	New Meter	WZ2024-033	401-073-06	4/18/2024	\$ -	\$ -	\$ -	\$ -	\$ 3,079.69	\$ -	\$ 3,079.69
<b>Totals</b>					<b>\$ 3,296.25</b>	<b>\$ 7,218.76</b>	<b>\$ -</b>	<b>\$ 10,515.01</b>	<b>\$ 4,572.36</b>	<b>\$ -</b>	<b>\$ 15,087.37</b>

**April 2024 - In the Pipeline**

Connection Address	Type of Development	Permit No	APN	Permit Status
1362 Tiki Cir. Tustin, CA 92780	ADU (N)	23-057	500-122-24	Pending customer payment and signature
4725 E. Chapman Ave. Orange, CA 92869	Commercial (N)	23-061	383-272-04	Pending customer payment and signature
12221 Circula Panorma, Santa Ana, CA	ADU (N) JADU (N)	23-077	094-212-06	Pending customer payment and signature
17742 Linda Ln. Santa Ana, CA 92705	SFR (R)	23-082	395-283-03	Pending customer payment and signature
13371 Diamond Head Dr, Tustin, CA 92780	ADU (N)	23-088	103-523-08	Pending customer response
12558 La Bella Dr. Santa Ana, CA 92705	ADU (N)	23-096	103-177-03	Pending submittal of plans
1202 Lucinda Way, Tustin, CA 92780	ADU (N)	23-098	502-042-04	Pending submittal of plans
10392 Shadyridge Dr. Santa Ana, CA	SFR (R)	23-104	503-101-01	Pending customer payment and signature
1665 Garland Ave. Tustin, CA 92780	SFR (R)	24-001	395-191-19	Pending customer response
12062 Woodlawn Ave. Santa Ana, CA 92705	SFR (R)	24-005	502-122-10	Pending customer payment and signature
11751 Highview Dr. Santa Ana, CA 92780	ADU (N)	24-011	104-611-24	Pending revised plans
14192 Yorba St. Tustin, CA 92780	SFR (N)	24-012	401-231-38	Pending customer response
18921 Fairhaven Ext. Santa Ana, CA 92705	SFR (N)	24-019	393-011-33	Pending customer payment and signature
1462 Kenneth Dr. Tustin, CA 92780	ADU (N)	24-023	103-341-18	Pending customer response
1892 Lemon Heights Dr. Santa Ana, CA	S2S & ADU (N)	24-024	502-362-15	Pending revised plans
1662 & 1665 Garland Ave. Tustin, CA	ADU (N)	24-028	103-223-10	Pending revised plans
11762 S. Esplanade St. Orange, CA 92869	ADU (N)	24-029	093-101-33	Pending customer response
12621 Singing Wood Dr. Santa Ana, CA	SFR (N)	24-030	103-352-14	Pending customer payment and signature
10102 Cowan Heights Dr. Santa Ana, CA	Septic to Sewer	24-032	503-302-03	Pending customer payment and signature
10591 Newport Blvd. Santa Ana, CA 92705	SFR (R) ADU (N)	24-033	503-682-11	Pending customer response
14231 del Amo Ave. Tustin, CA 92780	SFR (R)	24-034	432-061-01	Pending grease interceptor review

R - Remodel  
N - New  
E - Existing

# MEMO

**TO: ENGINEERING AND OPERATIONS COMMITTEE**  
**FROM: GENERAL MANAGER**  
**SUBJECT: SHARON LANE LIFT STATION TRANSFER**  
**DATE: MAY 14, 2024**

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## Background

The privately owned and operated Sharon Lane gravity sewer system, lift station, and forcemain, was installed in the early 2000's. The District owns and operates gravity sewer mains that convey wastewater to the Sharon Lane lift station that ultimately flows back into the District's sewer system. A location map is attached. The reliance of the District on proper maintenance and operation of a privately owned lift station and forcemain to convey wastewater by a private homeowner association for the District was identified as a potential liability. Failure of the lift station results in sanitary sewer overflow from an upstream District sewer manhole.

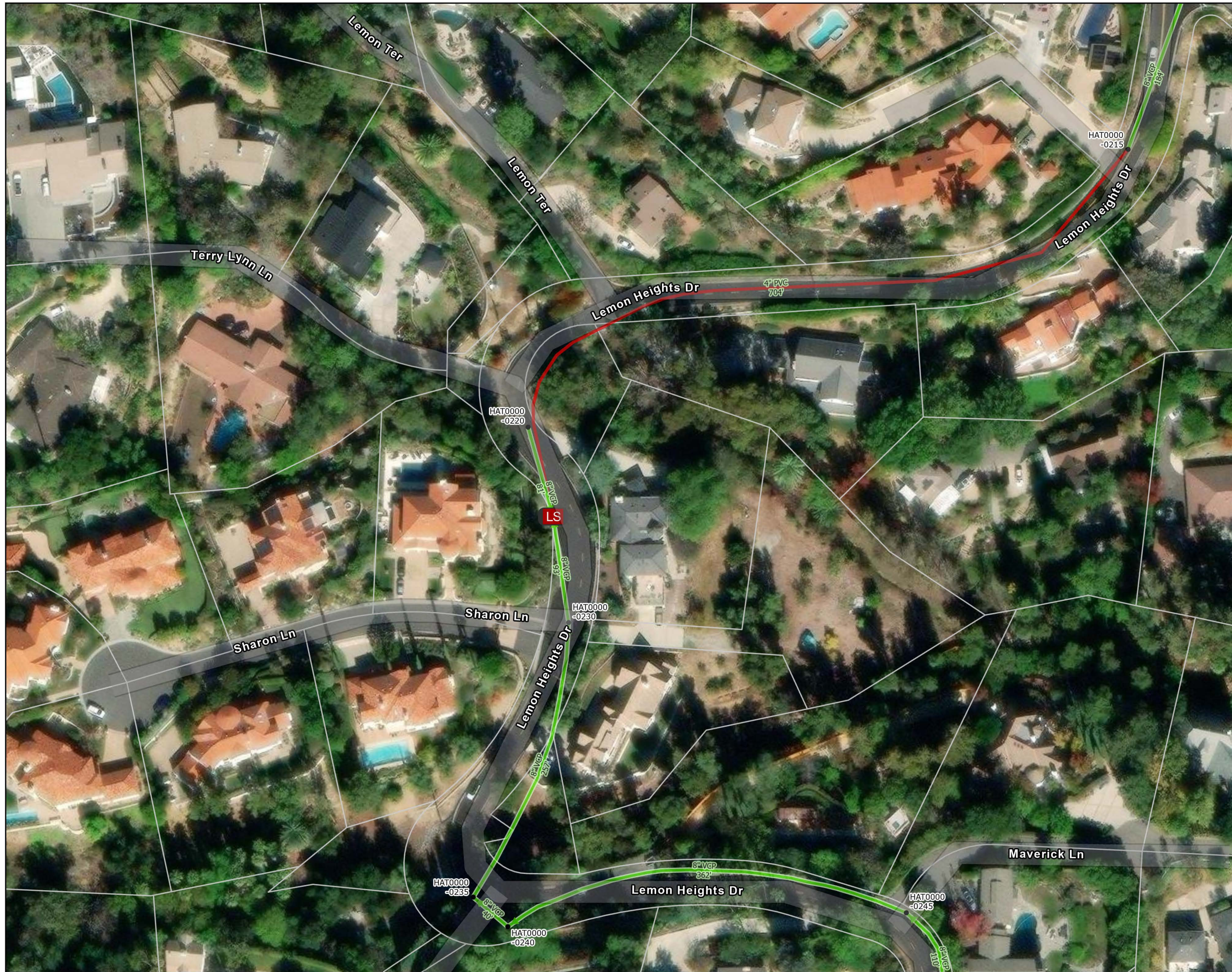
Staff reviewed a potential transfer of the lift station and forcemain from the Sharon Lane Sewer System Association (Association) to the District with the Engineering and Operations Committee (Committee). At the Committee's request, a comprehensive condition assessment of the lift station wetwell, drywell, pumps, piping and electrical and a short section of the forcemain was performed and the attached report was presented to the Committee at the meeting on November 16, 2023. Repairs are estimated at approximately \$60k. The Association has agreed to reimburse \$30,000 of the lift station rehabilitation costs if transfer is approved.

Staff is recommending the District accept the transfer of the lift station and forcemain from the Association to the District, the rehabilitation reimbursement, and the attached Bill of Sale and sewer Easement.

## Recommendation

That the Committee recommend the Board accept transfer of the lift station and rehabilitation reimbursement, and authorize the General Manger to execute the Bill of Sale and sewer Easement.

Attachment(s) Location Map  
Inspection Report  
Bill of Sale  
Easement



- LS** Lift Stations (1)
- Standard Manhole (6)
- Gravity Main (7)
- Force Main (1) Approx 350 ft  
 LS and FM installed circa 2000

**Strictly for use by EOCWD staff.**

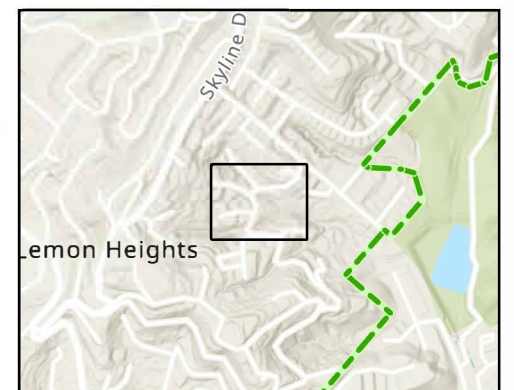
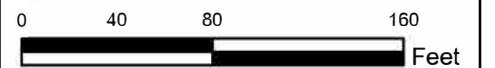
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9/8/2023



1 inch equals 80 feet



**Location Map**

## INSPECTION REPORT

### SHARON LANE PRIVATE LIFT STATION

An inspection of the Sharon Lane lift station was performed on October 16, 2023, by EOCWD staff as well as Morrow Meadows and Sancon Engineering representatives. The inspection included looking at the control panel, pumps, dry well, wet well and a small portion of the 4" inch force main.

EOCWD staff recommends the following corrections.

#### DRY WELL:

1. Replacement of one 4" gate valve.
2. Replacement of one 3" bypass valve.
3. Paint piping with an epoxy paint to prevent corrosion.
4. Replace flange bolts with stainless steel bolts.
5. Paint drywell with an epoxy paint.

Check valves appear to be recently replaced and in good working condition.

Dry well corrections to be performed by EOCWD staff.

Estimated cost - \$2,500

#### WETWELL:

Sancon Engineering performed an evaluation of the wet well and provided a proposal (attached). Recommendations include:

1. Remove old float systems that are no longer in use.
2. Determine if gate valve is still necessary or active (by EOCWD). If gate valve is no longer needed, Sancon will cut flush to the wall and remove valve.
3. Resurface and epoxy coat wet well walls only.
4. Replace discharge elbows and paint discharge pipe that leads to drywell (work to be done by EOCWD staff).
5. EOCWD will also need to relocate the transducer wire that transmits water level to smart control (AQUAV scout telemetry system)

Sancon Estimate: \$43,014.00

#### PANEL:

The pump controls, water level, alarm system and, stainless steel housing were installed less than 1 year ago and appear to be in good working condition. Staff was able to run the pumps manually and in auto.

Morrow Meadows did recommend purchasing an extra variable frequency drive in case one of the existing units failed. Approximate cost for a spare drive is \$2,500.

#### FORCE MAIN:

The force main was installed 2001. Staff videoed approximately 15 feet using a push camera and confirmed the pipe is 4" pvc.

Conclusion: The lift station overall is in good working condition. The wet well needs to be coated to prevent degradation and requires the largest investment.





# SANCON TECHNOLOGIES, INC. \_ \_ \_

GENERAL ENGINEERING CONTRACTOR Tel: (714) 891-2323  
STATE CONTRACTORS LICENSE #774055 Fax: (714) 891-2524  
DIR REGISTRATION # 1000008879  
5841 Engineer Drive  
Huntington Beach, CA 92649

## **BID # BT24012**

**Date:** October 17, 2023

**To:** East Orange County Water District

**Attention:** Justin Davis **Phone:** 714-538-5815 **Email:** jdavis@eocwd.com

**Project: Sharon Lane Lift Station Rehabilitation Project**

**Scope of work:** Rehabilitation of (1) existing 8' diameter concrete lift station, 20' deep with Sancon 100

polyurethane per the following:

### **This bid includes the following:**

- Confined Space Entry Procedures & Equipment
- Prevailing wage / certified payroll if required, In-Place insurance coverage
- Scaffolding for our work; Step Removal
- Surface preparation, Mortar Repair as required
- Application of 125 mils of Sancon 100 Polyurethane
- High voltage spark test while on-site, at the completion of our work

### **Assumptions:**

- Sancon will not be signatory to any PLA
- GC to coordinate inspection so as not to delay our work
- Water meter or on-site water is provided
- Regular working hours M – F 7AM to 5PM
- Initial Pumping/Dewatering to be done by EOCWD
- Floor coating is not recommended, nor is it included in this proposal
- Proposal is subject to mutually acceptable contract language and must be incorporated in any subsequent contract/purchase order

### **This bid excludes the following:**

- Bypassing, flow control or working in surcharged structures
- Replacement of frame & cover; Removal and replacement of piping and/or mechanical equipment
- 3<sup>rd</sup> party testing or testing other than spark testing
- Stoppage of water infiltration, heavy concrete repair exceeding .5in
- Preparing As-builts, Traffic control, Access notification or arrangements
- Removal of water or debris from structure prior to commencing work
- BMP's, NPDES Permits, SWWP's, Survey & Staking, Revegetation or biological monitoring

**Lift Station Rehabilitation \$43,014.00 Lump Sum**

STAND BY RATE / ADDITIONAL WORK NOT LISTED ABOVE @ \$ 255.00 / MAN Hr. PRICE IS BASED ON ONE MOBILIZATION.  
ADDITIONAL  
MOBILIZATIONS BILLED AT: \$3,950.00 EACH. SANCON SHALL NOT BE RESPONSIBLE FOR LIQUIDATED DAMAGES OR  
PENALTY DUE TO DELAY BY  
OTHERS. BOND, IF REQUIRED, WOULD ADD 1% TO TOTAL BID PRICE. PRICE IS BASED ON RETENTION BEING WITHHELD A  
MAXIMUM OF 90 DAYS  
AFTER COMPLETION OF OUR WORK. PRICE IS FIRM FOR A PERIOD OF THIRTY DAYS FROM RECEIPT. PAYMENT TERMS NET 30  
DAYS OR PER  
CONTRACT.

Respectfully Submitted, Accepted By: \_\_\_\_\_

Date: \_\_\_\_\_

Mark Weber

Sancon Technologies, Inc. PO: \_\_\_\_\_

## Field electrical inspection and assessment of the EOCWD Sharon Lane Lift station:

### Initial observations:

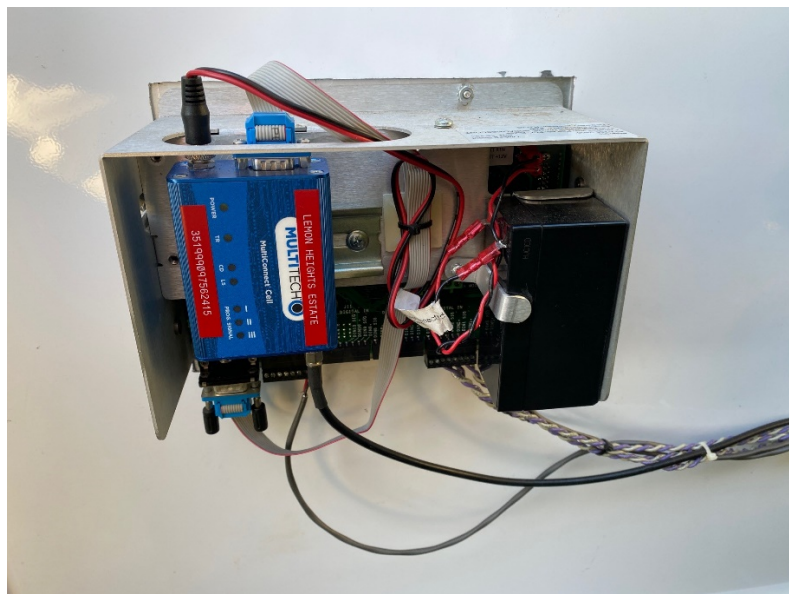
1. The lift station control panel appeared to be in good working condition. There were no obvious missing or defective components, and wiring seemed to be in its original condition. Drawings were present and legible that reflected the components installed.



- The controller operating the pump station is a Mercoid MPCJR. It appeared to be in good working condition. The local pilot devices appeared to be in good working order.



- The SCADA monitoring controller is a Aquavx Scout with an OMNI antenna on an 8 Ft mast. It appeared to be in good working condition. I was informed by the representative from Jimini Systems Inc. that reception in the area is very poor.



4. The variable frequency drives operating the submersible pumps are ABB ACS-550. They are a reputable VFD and appeared to be in good condition.

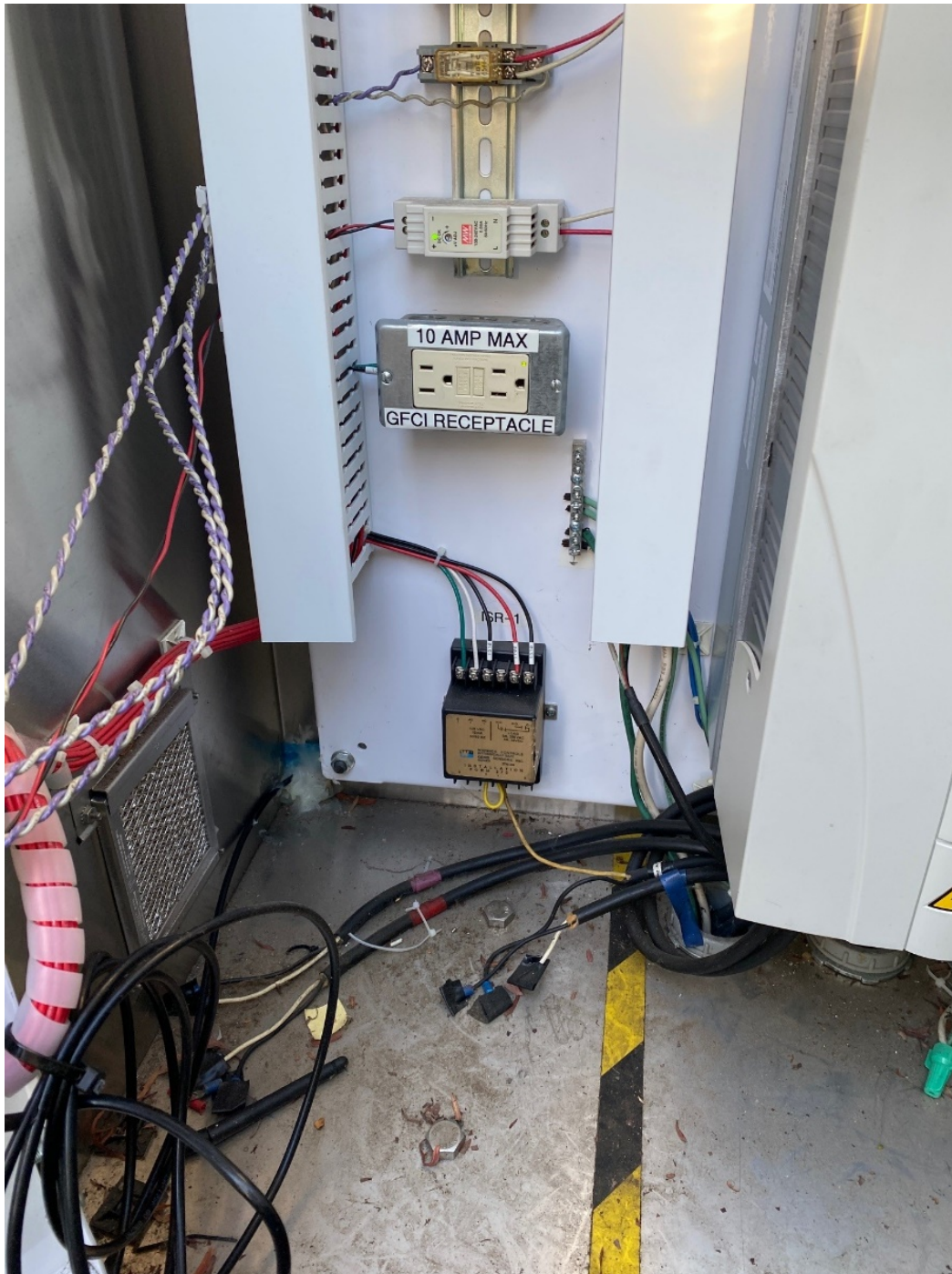


5. Wiring in the wet well appeared to be in good condition and free from abrasions and damage.

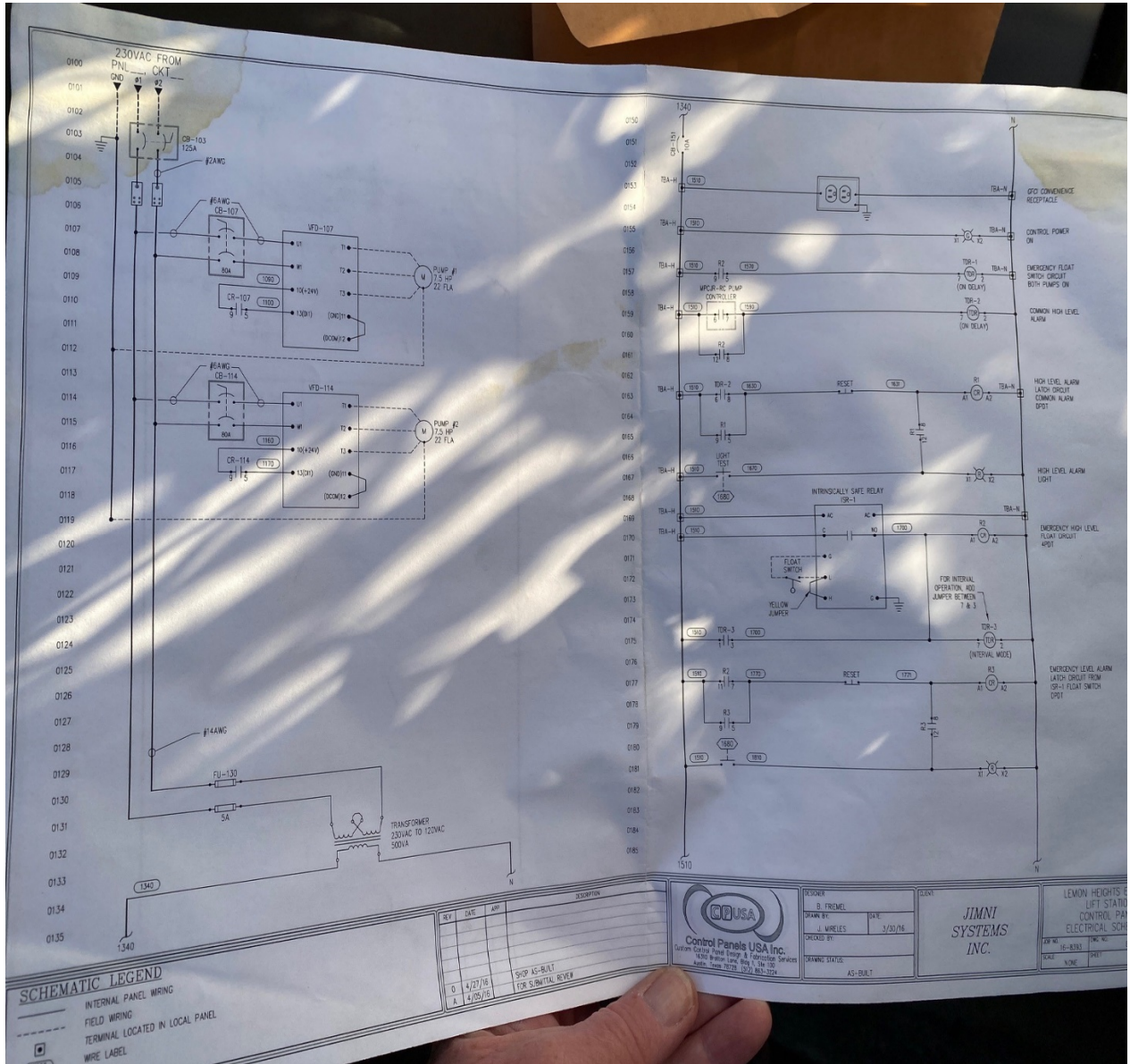


**Items of Concern:**

1. The floats in the wet well appeared to be installed at reasonable elevations, however, the leads from the floats appear to be disconnected from the intrinsically safe relay at the control panel. The representative from Jimini Systems told me that those leads were from old floats, and that new ones were wired directly to the controller. Functionally this is OK, but to meet Class 1, Division 1 requirements, an intrinsically safe relay should be utilized.



- The drawings indicate the submersible pumps are 20 H.P. 3-phase units with an FLA of 22 amps. This is very unlikely. The wires feeding the panel appear to be only rated for 20 amps. The actual submersible pumps that are installed need to be verified to make sure the overcurrent protection devices upstream of the panel are sized properly.



**Recommendations:**

Although the control system at this lift station appears to be in working order, a complete and thorough test of all systems should be performed. This would include the following:

1. Verification and documentation of the actual installed submersible pumps.
2. Verification of all VFD settings match the submersible pump specifications.
3. Re-installation of the intrinsically safe relay(s) or replacement if not operational.
4. Verification of the float elevations, and their functionality.
5. Perform test on all manual and automatic operations.
6. Perform voltage and current test on each pump.
7. Verification of all SCADA and alarming notifications.
8. Make a list of corrective actions for any equipment that does not pass functionality.

This panel is fed by a single-phase source, but the submersible pumps are 3-phase. If one of the VFDs were to fail, there would not be a simple way to make the failed pump operational. I recommend the district should procure a spare replacement VFD.

## **BILL OF SALE**

For good and valuable consideration, including the assumption of on-going and continuing future maintenance and repair obligations, receipt of which is hereby acknowledged,

**LEMON HEIGHTS ESTATES HOMEOWNERS ASSOCIATION, a California Non-Profit Corporation** (“OWNER”), do, by way of this Bill of Sale (“BILL OF SALE”), hereby transfer and convey to the

**EAST ORANGE COUNTY WATER DISTRICT** (the “DISTRICT”), a County Water District organized and operating pursuant to Water Code Section 30000 *et al.*, and its successors and assigns, all right, title, and interest in and to the sewer lift station and force main, including all equipment and appurtenances thereto, to said sewer lift station and downstream force main whose approximate locations are depicted on Exhibit A, but excluding any privately owned gravity sewer mains upstream of the lift station (hereinafter “FACILITIES”) depicted in Exhibit A-1, located at or near 1881 Sharon Lane in the County of Orange (Orange County Assessor Parcel No. 503-491-69) and the adjacent public right-of-way (“Property”), constructed and installed within accepted and recorded easements and/or public right-of-way over and across such Property, with any such easements assigned to the DISTRICT.

OWNER represents and warrants that: (1) to its knowledge, OWNER has title to and the legal right to transfer and dispose of the FACILITIES, and that OWNER is the sole and exclusive legal owner of the FACILITIES; (2) the FACILITIES are free and clear from all liens and encumbrances; and (3) OWNER has full right and authority to transfer and convey the FACILITIES to the DISTRICT.

DISTRICT represents and warrants (1) that it has the authority to enter into this BILL OF SALE; and (2) that it has the authority to assume, and does assume, all continuing maintenance and repair obligations for the FACILITIES.

The transfer evidenced by this BILL OF SALE is subject to the following conditions:

1. This BILL OF SALE shall be governed by and construed in accordance with the laws of the State of California without regard to its choice of law or conflict of law principles;
2. If any provision of this BILL OF SALE to any extent is found by a court of competent jurisdiction to be invalid or unenforceable, the remainder of this BILL OF SALE shall not be affected thereby;
3. This BILL OF SALE shall be binding upon the successors and assigns of the parties hereto. Any and all disclaimers made by OWNER in this BILL OF SALE, and all provisions of this BILL OF SALE shall survive the execution and delivery of this BILL OF SALE;
4. OWNER warrants that it is duly authorized to execute this BILL OF SALE, and that such execution is binding upon it and its respective members with respect to their interest in the FACILITIES without further action or ratification;

5. DISTRICT has been provided an opportunity to inspect the FACILITIES, or have the FACILITIES inspected, and that the DISTRICT has accepted the FACILITIES in their existing condition, subject to the provisions herein, with an acknowledged receipt by EOCWD of payment in the amount of Thirty Thousand (\$30,000) as reimbursement for costs for deferred maintenance on the FACILITIES, which shall become the responsibility of EOCWD.
6. The facilities are transferred by OWNER to District in “As Is, Where Is Condition With All Faults” without any warranties, express or implied. DISTRICT assumes all responsibility for maintenance, repair and replacement of the FACILITIES following the Effective Date.
7. Consideration for this transfer for this BILL OF SALE is the maintenance, repair and replacement of the FACILITIES by DISTRICT for the benefit of the OWNER. OWNER shall have the continuing use of the FACILITIES, and a perpetual right to utilize EOCWD’s sewer system, as such system may be updated from time-to-time, subject to EOCWD’s Rules and Regulations and conditions for sanitary sewer use.
8. DISTRICT shall indemnify and hold OWNER, its officers, shareholders, directors and members (“INDEMNIFIED PARTIES”) harmless from and against all claims, liabilities, demands, costs, losses, damages, recoveries, settlement, expenses including, without limitation, claims based in tort or for personal injuries or property damages, also including interest, penalties, attorney's fees and expert witness fees incurred or claimed against INDEMNIFIED PARTIES in connection with the operation and maintenance of the FACILITIES.

The parties acknowledge their intent that this BILL OF SALE and any related signature or record shall be binding whether created, transmitted or effected by traditional or electronic means. This BILL OF SALE may be executed in one or more identical counterparts, each of which when taken together will constitute one and the same instrument.

This BILL OF SALE has been duly executed by OWNERS as of the \_\_\_ day of \_\_\_\_, 2024.

**LEMON HEIGHTS ESTATES  
HOMEOWNERS ASSOCIATION**

By: \_\_\_\_\_  
 Name: \_\_\_\_\_  
 Title: \_\_\_\_\_

By: \_\_\_\_\_  
 Name: \_\_\_\_\_  
 Title: \_\_\_\_\_



CERTIFICATE OF ACCEPTANCE

As per Resolution No. \_\_\_\_\_ as set forth in the minutes of the meeting of the Board of Directors of East Orange County Water District held on \_\_\_\_\_, 20\_\_, the above Bill of Sale of Water System Facilities dated \_\_\_\_\_, is hereby accepted by order of the Board of Directors of the East Orange County Water District, a County Water District organized and operating pursuant to Water Code Section 30000 *et. al.*

Date of Acceptance: \_\_\_\_\_ (“EFFECTIVE DATE”)

By: \_\_\_\_\_  
David Youngblood, General Manager  
EAST ORANGE COUNTY WATER DISTRICT

Recording Requested by and

Return to:

East Orange County Water District  
Attn: General Manager  
185 North McPherson Road  
Orange, California 92869

APN: 503-491-69

Space above this line for Recorder's Use  
No recording fee per Gov't Code § 6103

**GRANT OF SEWER EASEMENT TO THE  
EAST ORANGE COUNTY WATER DISTRICT**

**FOR VALUABLE CONSIDERATION**, receipt of which is hereby acknowledged,

**STEPHEN M. MATTESSICH and KATHERINE L MATTESSICH**, as husband and wife as joint tenants (hereinafter, collectively "Owner")

hereby grants and conveys to the

**EAST ORANGE COUNTY WATER DISTRICT**, a County Water District organized and existing pursuant to Section 30000 *et seq.* of the California Water Code (hereinafter, "EOCWD")

a perpetual, non-exclusive easement and right of ingress and egress for sewer lift station, appurtenances, and pipeline purposes (hereinafter, "Easement"). This Easement shall include, the right to construct, reconstruct, remove and replace, renew, inspect, maintain, repair, improve, access, and otherwise use a sewer lift station, pipelines, and related facilities, together with incidental appurtenances and connections (hereinafter, "Facilities"), in, under, upon, along, through, and across the real property located in the an unincorporated area of the County of Orange, State of California, as described in Exhibit "A" and depicted in Exhibit "B," which exhibits are attached hereto and incorporated herein by this reference (hereinafter, the "Easement Area"). This Easement shall include a reasonable right of ingress and egress for purposes of performing the activities set forth herein, which shall generally be from the East Lemon Heights Drive rights-of-way. The terms and conditions set forth herein shall apply to the Easement.

Subject to any covenants, conditions, restrictions, easements, rights, rights-of-way, and encumbrances of record.

A. Right of Owners to Use Easement Area

1. Right of Use. Subject to the provisions of Paragraph A-2 and A-3 below, it is understood and agreed that the Easement and right ingress and egress acquired herein is also acquired subject to the right of the Owner to use the Easement Area otherwise owned and controlled by them for any purpose whatsoever to the extent that such use does not interfere with EOCWD's use of its Easement. Owner

retains those rights that are not inconsistent with the Easement. Such use by the Owner may include, but not be limited to, the compatible use for pipelines, fences, minor cuts, minor fills or other compatible non-structural improvements under, upon, over, and across the Easement Area. Such use shall not include any buildings or similar structures, unless expressly approved by EOCWD as provided herein.

2. Requirements for EOCWD Concurrence.

(a) Landscaping Uses. Use by Owner of the Easement Area for landscaping purposes that do not involve the erection of structures or other improvements upon the Easement Area and which are consistent with EOCWD's use of the easement may be made without notification to or concurrence of EOCWD. Owner may replace any trees or additional landscaping with either trees with shallow root systems only or low-lying shrubs or turf within the Easement Area without the prior written consent of EOCWD. In the event any of Owner's trees have root systems that penetrate the Facilities, however, Owner shall upon request cut down or remove such trees. Owner, either directly or indirectly through agreements with its homeowners association or other entities, shall remain responsible for landscaping and otherwise maintaining the surface of the Easement Area, excluding the Facilities themselves.

(b) Other Uses. No other use of the Easement Area for any other purpose shall be made until plans for such proposed use by an Owner have been reviewed with or submitted to EOCWD, and EOCWD has concurred that such proposed use will be consistent with EOCWD's use of the Facilities. EOCWD shall endeavor to provide either its concurrence, basis for disapproval, or reasonable request for additional information, within ten (10) business days after plans for the proposed use have been submitted to EOCWD. EOCWD agrees that it shall not unreasonably withhold its concurrence.

3. Obligations To Repair Damage. EOCWD shall be responsible at its sole expense for restoring the ground surface to a condition reasonably consistent with its existing condition following the installation or future reconstruction of the Facilities, and following any repairs or rehabilitation work on such Facilities after installation. Such obligations, however, shall be limited to the current conditions on the property at the time of the granting of this easement, along with any improvements approved by EOCWD in the manner set forth in Section 2 above. Owner shall be solely responsible for repairing or replacing at their sole expense any unapproved improvements, and EOCWD shall have no responsibility for repairing or replacing any such unapproved improvements which are in any manner whatsoever damaged or removed in connection with the exercise by EOCWD of the rights herein granted. Notwithstanding the foregoing, EOCWD will return the ground to grade in connection with any repair performed.

4. Limitations on Use. This Easement shall only be used by EOCWD in connection with the sewer-related purposes set forth herein, and shall not be used for any other purpose.
5. Indemnification. EOCWD shall indemnify and hold Owner, its agents, servants and successors (“Indemnified Parties”) harmless from and against all claims, liabilities, demands, costs, losses, damages, recoveries, settlement, expenses including, without limitation, claims based in tort or for personal injuries or property damages, also including interest, penalties, attorney's fees and expert witness fees incurred or claimed against Indemnified Parties in connection with the operation and maintenance of the Facilities, and covenants to timely repair, operate and maintain the Facilities, in a manner consistent with industry standards and practice, to the extent necessary to provide sanitary sewer service to those served by the Facilities.
6. Insurance. EOCWD shall require its contractor and subcontractors entering or performing work in the Easement Area to procure and maintain for the duration of their work general liability insurance as to any potential claims that may arise and such policy shall (1) have a limit of not less than \$2,000,000 per occurrence and (2) name Owner as an additional insurer. Upon request by Owner, before any repair or maintenance work being undertaken in the Easement Area, EOCWD shall provide Owner with Certificates of Insurance and/or endorsements for any such contractor or contractor entering onto the Easement Area, reflecting the insurance requirements of this paragraph.

B. Successors and Assigns

This Grant of Easement shall be binding upon and inure to the benefit of the successors and assigns of Owners and EOCWD.

C. Acceptance and Recordation

EOCWD agrees, by acceptance and recordation of this Grant of Easement from Owner, that the terms and conditions herein set forth shall be binding upon and inure to the benefit of EOCWD.

IN WITNESS WHEREOF, this Grant of Easement has been executed this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

OWNERS

By: \_\_\_\_\_

Stephen M. Mattessich

By: \_\_\_\_\_

Katherine L. Mattessich

---

A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA                    )  
                                                          ) ss.  
COUNTY OF \_\_\_\_\_                    )

On \_\_\_\_\_, 2024, before me, \_\_\_\_\_, Notary Public, personally appeared \_\_\_\_\_ who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature \_\_\_\_\_ (Seal)

---

A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE OF CALIFORNIA                    )  
                                                          ) ss.  
COUNTY OF \_\_\_\_\_                    )

On \_\_\_\_\_, 2024, before me, \_\_\_\_\_, Notary Public, personally appeared \_\_\_\_\_ who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature \_\_\_\_\_ (Seal)

**EXHIBIT "A"**  
**Legal Description for Sewer Easement**

THAT CERTAIN REAL PROPERTY LOCATED IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF ORANGE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEING A PORTION OF PARCEL 1 OF LOT LINE ADJUSTMENT NO. LL82-7 RECORDED MARCH 5, 1982 AS INSTRUMENT NO. 82-76968 OF OFFICIAL RECORDS, IN THE OFFICE OF THE ORANGE COUNTY RECORDER, STATE OF CALIFORNIA, AS SHOWN ON RECORD OF SURVEY NO. 82-1111 PER MAP FILED IN BOOK 103, PAGE 30 OF RECORD OF SURVEYS IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, PREVIOUSLY BEING A PORTION OF LOT 7 OF TRACT NO. 8622, IN THE COUNTY OF ORANGE, STATE OF CALIFORNIA, AS SHOWN ON A MAP RECORDED IN BOOK 426, PAGES 3 AND 4 OF MISCELLANEOUS MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

**BEGINNING** AT A POINT ON THE EAST LINE OF SAID LOT 7 OF TRACT NO. 8622, SAID POINT BEING THE SOUTHERLY TERMINUS OF THAT CERTAIN COURSE DESCRIBED AS NORTH 00°21'53" WEST, A DISTANCE OF 18.89 FEET AS SHOWN ON SAID TRACT MAP, SAID POINT BEING ON THE WESTERLY RIGHT OF WAY LINE OF LEMON HEIGHTS DRIVE 20.00 FEET HALF WIDTH;

THENCE NORTH 00°21'53" WEST ALONG SAID EAST LINE OF LOT 7 AND RIGHT OF WAY, A DISTANCE OF 18.89 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE WESTERLY AND HAVING A RADIUS OF 60.00 FEET;

THENCE NORTHWESTERLY ALONG SAID CURVE AND EAST LINE OF SAID LOT 7, THROUGH A CENTRAL ANGLE OF 53°15'02", AN ARC LENGTH OF 55.76 FEET TO THE BEGINNING OF A TANGENT LINE;

THENCE NORTH 53°36'55" WEST ALONG SAID TANGENT LINE AND EAST LINE OF SAID LOT 7, A DISTANCE OF 4.29 FEET;

THENCE SOUTH 08°07'00" EAST LEAVING SAID EAST LINE OF SAID LOT 7, A DISTANCE OF 30.84 FEET;

THENCE SOUTH 81°40'36" WEST, A DISTANCE OF 1.75 FEET;

THENCE SOUTH 08°26'40" EAST, A DISTANCE OF 11.82 FEET;

THENCE NORTH 81°40'36" EAST, A DISTANCE OF 1.72 FEET;

THENCE SOUTH 08°19'24" EAST, A DISTANCE OF 36.15 FEET;

THENCE SOUTH 02°23'17" EAST, A DISTANCE OF 35.91 FEET TO A POINT ON THE NORTHERLY RIGHT OF WAY LINE OF SHARON LANE (PRIVATE STREET), SAID POINT BEING ON A NON-TANGENT CURVE CONCAVE NORTHWESTERLY AND HAVING A RADIUS OF 25.00 FEET, A RADIAL LINE TO SAID POINT BEARS SOUTH 25°05'01" EAST

THENCE NORTHEASTERLY AND NORTHERLY ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 60°24'01", AN ARC LENGTH OF 26.35 FEET TO A COMPOUND CURVE, CONCAVE WESTERLY AND HAVING A RADIUS OF 280.00 FEET, A RADIAL LINE TO SAID POINT BEARS SOUTH 85°29'01" EAST;

THENCE NORTHERLY ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 4°52'52", AN ARC LENGTH OF 23.85 FEET TO THE **TRUE POINT OF BEGINNING**.

THE ABOVE-DESCRIBED PARCEL CONTAINS 1,794 SQUARE FEET, MORE OR LESS

This description was prepared by me or under my direction in conformance with the requirements of the Land Surveyors Act.

Stefan C. Lanthier 04-30-24  
Stefan C. Lanthier, P.L.S. 7259 Date

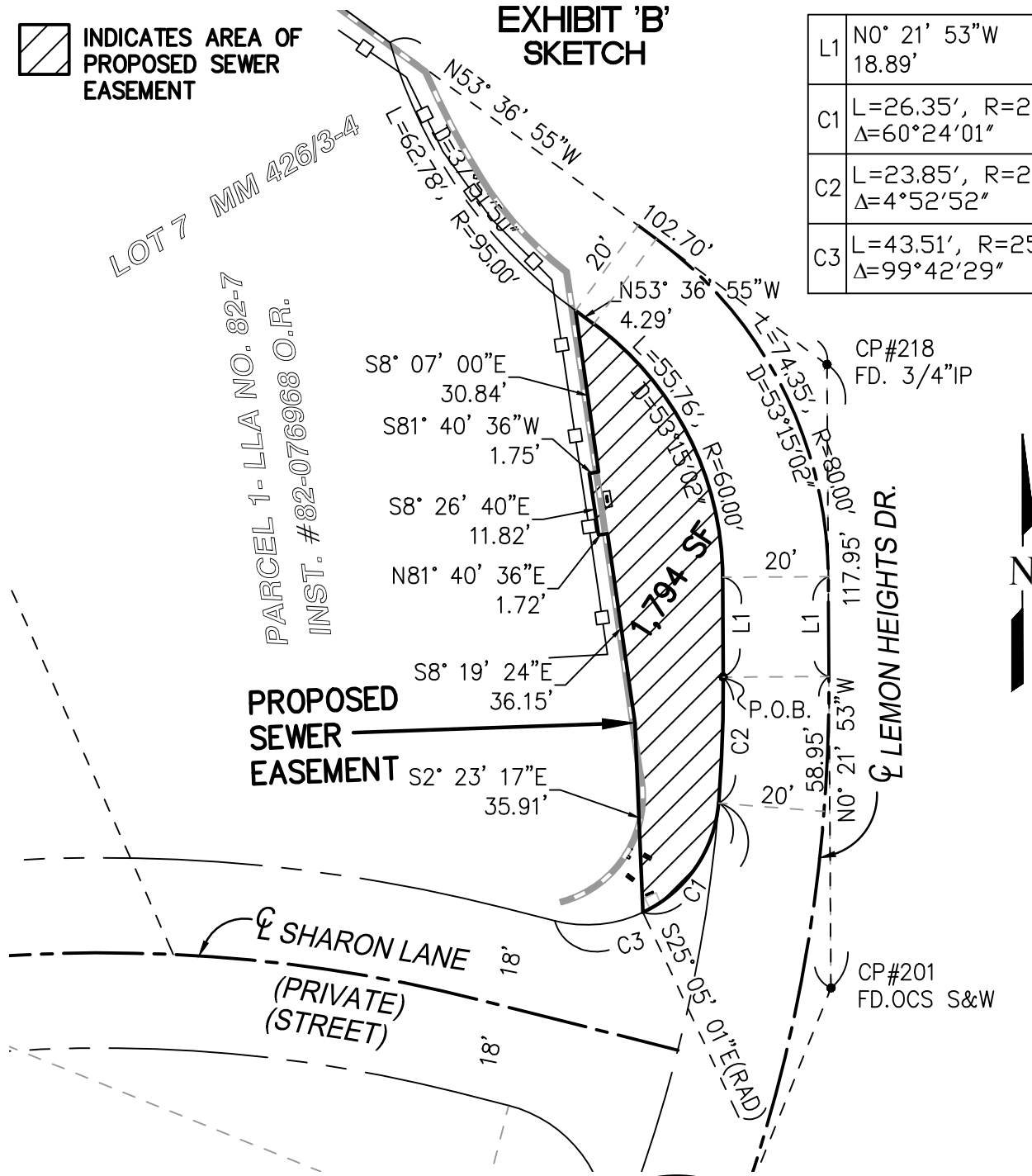




INDICATES AREA OF  
PROPOSED SEWER  
EASEMENT

### EXHIBIT 'B' SKETCH

L1	N0° 21' 53"W 18.89'
C1	L=26.35', R=25.00' Δ=60°24'01"
C2	L=23.85', R=280.00' Δ=4°52'52"
C3	L=43.51', R=25.00' Δ=99°42'29"



PORTION OF LOT 7  
TRACT NO. 8622  
M.M. 426/3-4  
APN POR. 503-491-69  
LEGAL DESCRIPTION:  
SEE EXHIBIT A  
SCALE 1"=30'



PREPARED BY:  
Cornerstone Land Surveying Inc.  
Civil • Surveying • Planning  
20730 Knob Place  
Perris, CA 92570  
PH 951-736-0200

SHEET 1 OF 1

UNINCORPORATED AREA OF  
COUNTY OF ORANGE, CALIFORNIA

*Stefan Lanthier*  
STEFAN C. LANTHIER, PLS 7259

04-30-24  
DATE

EAST ORANGE COUNTY WATER DISTRICT

CERTIFICATE OF ACCEPTANCE

This is to certify that the interest in real property conveyed by deed or grant dated \_\_\_\_\_, 202\_\_ from STEPHEN M. MATTESSICH and KATHERINE L MATTESSICH, as husband and wife as joint tenants (hereinafter, "Owners") to the EAST ORANGE COUNTY WATER DISTRICT, a County Water District (hereinafter, "EOCWD"), is hereby accepted by the undersigned officer on behalf of the Board of Directors pursuant to authority conferred by Resolution \_\_\_\_\_ of the Board of Directors, adopted on \_\_\_\_\_, 20\_\_ , and EOCWD consents to recordation thereof by its duly authorized officer.

Date: \_\_\_\_\_

EAST ORANGE COUNTY WATER DISTRICT

By: \_\_\_\_\_

Jeffrey A. Hoskinson  
Secretary to Board of Directors

# MEMO

**TO: ENGINEERING AND OPERATIONS COMMITTEE**  
**FROM: GENERAL MANAGER**  
**SUBJECT: OC43 WALNUT VAULT IMPROVEMENTS CONSTRUCTION AWARD**  
**DATE: MAY 14, 2024**

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## Background

Construction of the OC43 Vault Improvements project was completed in July 2023. Following completion of the vault, it was subject to heavy rains last winter resulting in water intrusion and excessive humidity. A combination of factors contributed to the water intrusion and humidity including street repaving, unsealed hatch/manhole covers, and no vents.

Staff, with the assistance of the design engineer, Black and Veatch (B&V), evaluated the problem, formulated a solution, and B&V revised the design. Staff recommends installing sealed manhole covers, a sump pump, and vents, shown on the attached. Staff requested an estimate from T.E. Roberts, the vault replacement contractor, to complete the work to maintain continuity. Staff recommends awarding T.E. Roberts a contract in the amount of \$137,900 to construct the improvements.

Staff received a reimbursement from Southern California Edison (SCE) in the amount of \$215,278 for additional shoring required for worker safety during the vault construction to support SCEs transmission pole near the excavation. The funds received from SCE would be utilized to fund the vault improvements including construction, management, and engineering.

## Recommendation

That the Committee award a contract in the amount of \$137,900 to T.E. Roberts to construct the vault improvements.

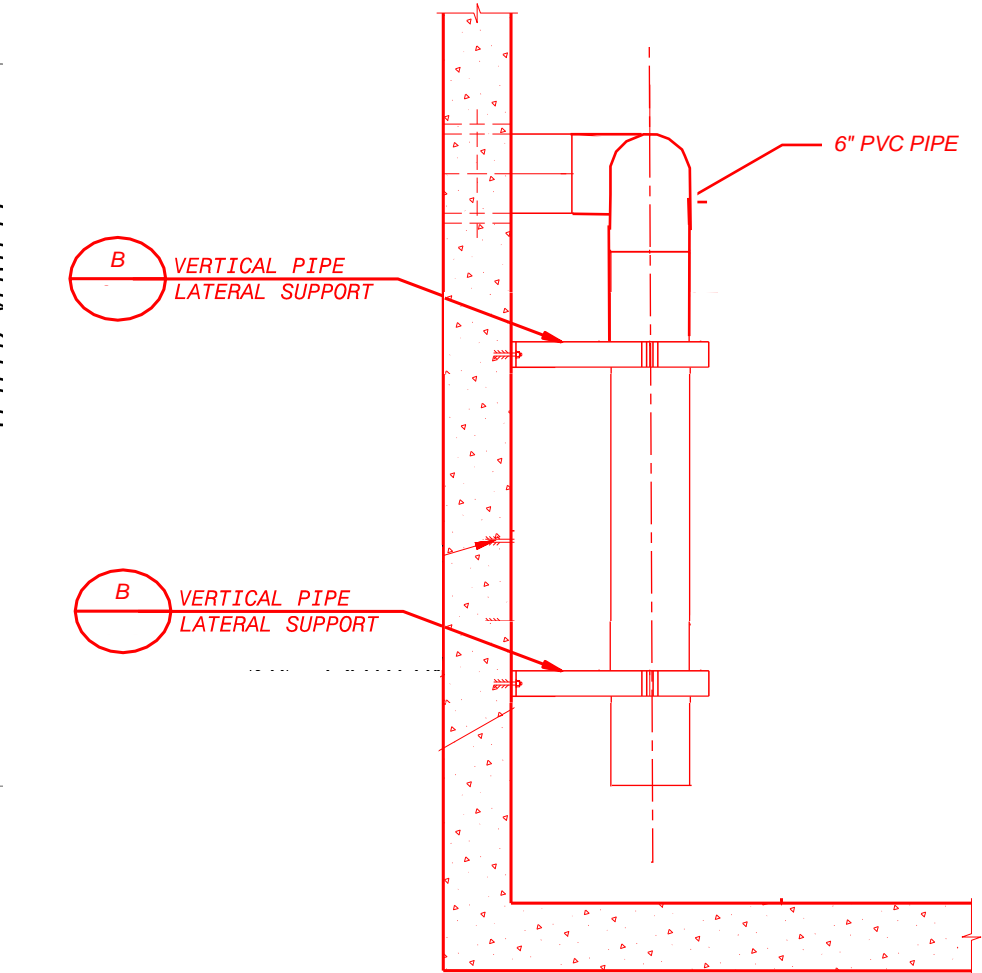
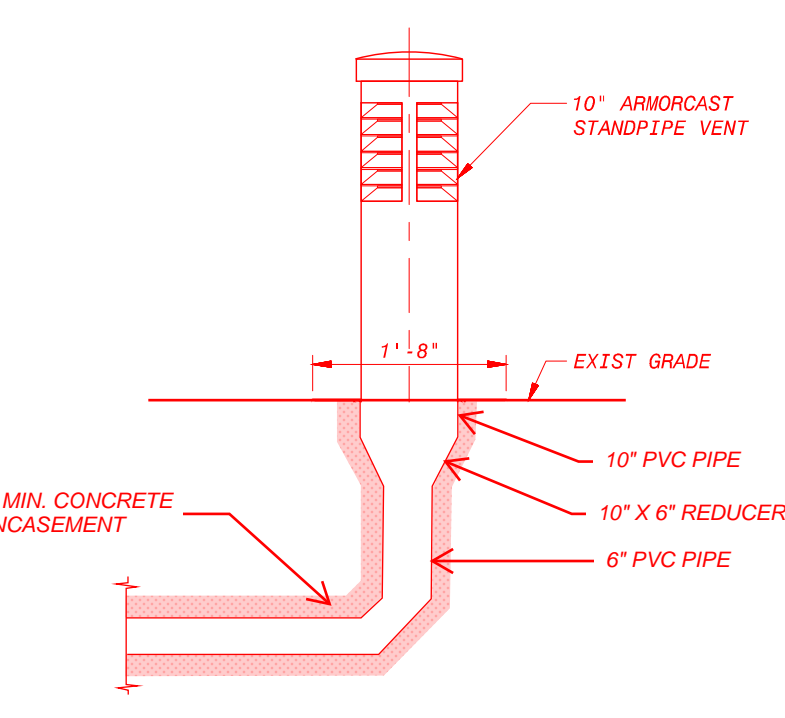
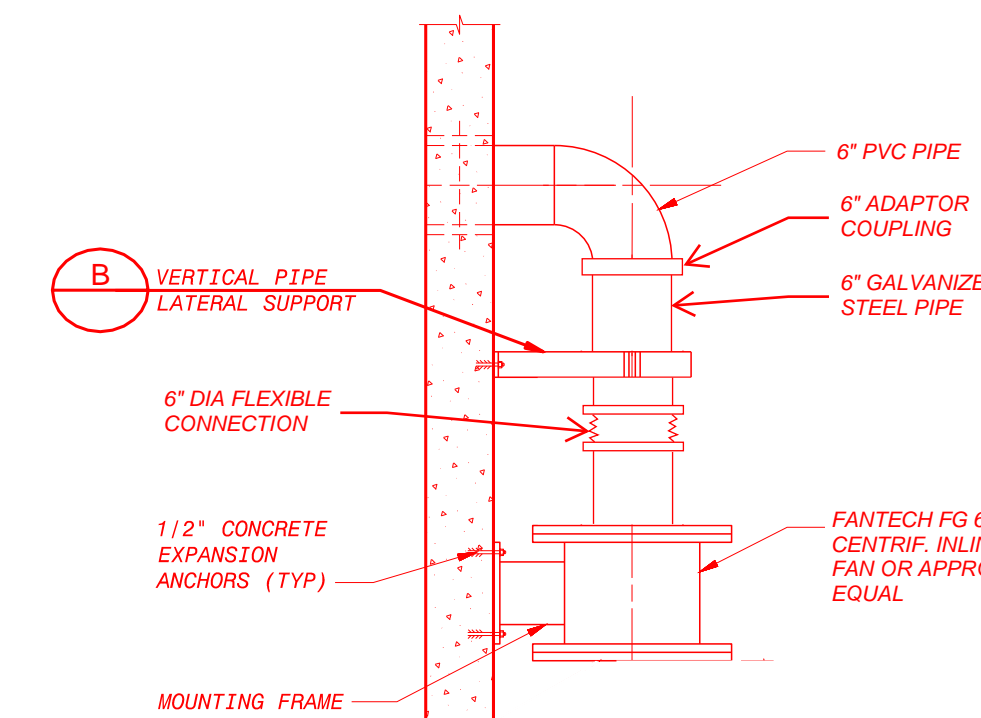
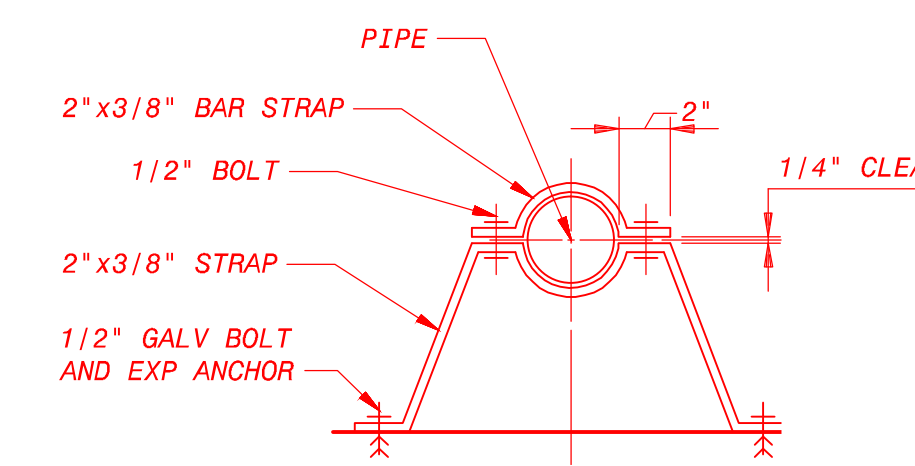
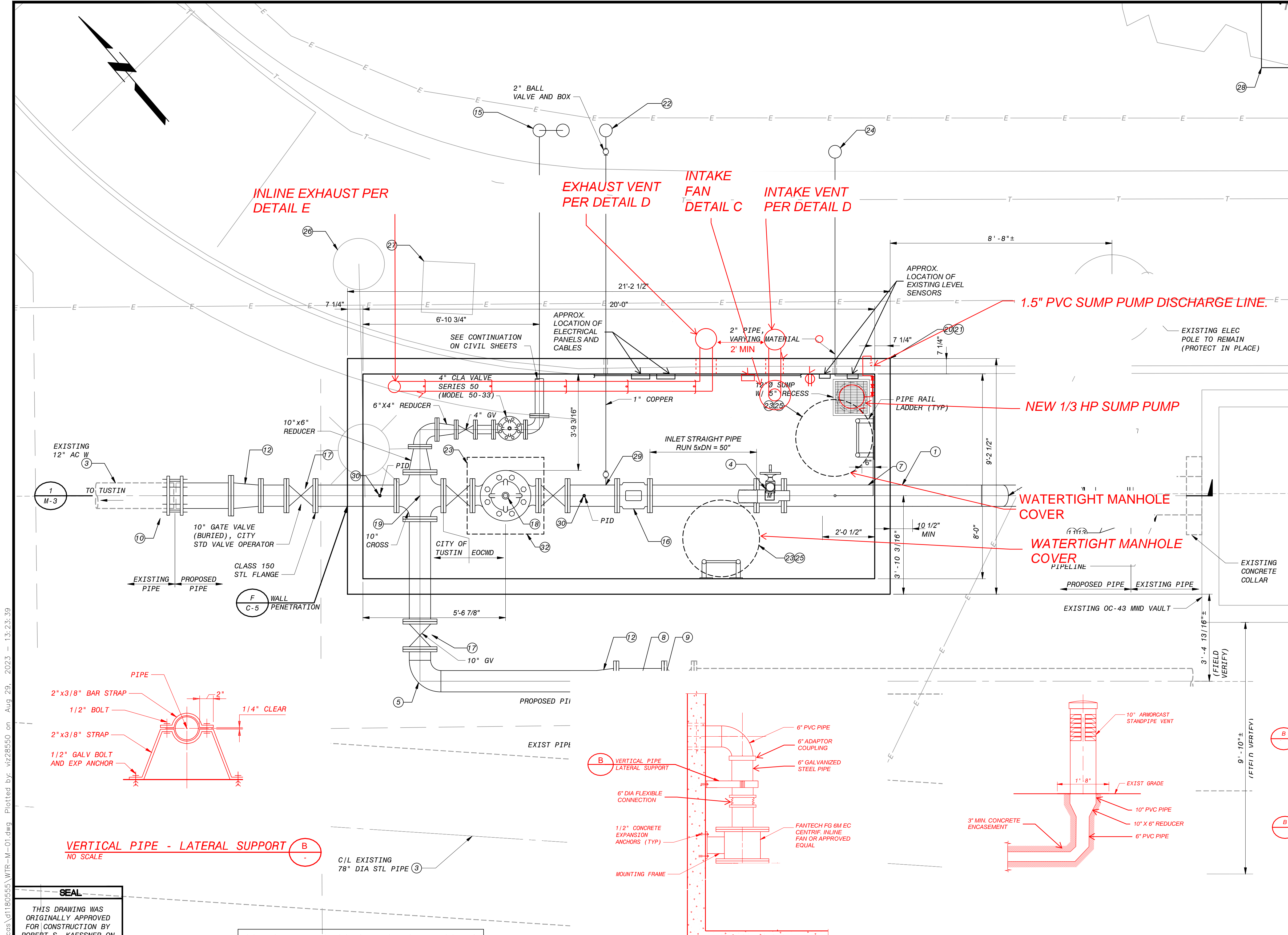
Attachment(s): Improvement Plan

**GENERAL NOTES:**

- STREET IMPROVEMENTS ARE NOT SHOWN ON THIS SHEET. CONTRACTOR SHALL REFER TO DWG C-3 FOR STREET IMPROVEMENTS.
- CONTRACTOR SHALL POT-HOLE TO LOCATE PIPE AND CONFIRM OD OF PIPE. FLANGE & BOLT PATTERN. ALL JOINTS SHALL BE FLANGED UNLESS BURIED PIPE OR VALVES REQUIRE OTHER JOINT TYPES.
- CONTRACTOR SHALL POT-HOLE TO LOCATE AC PIPE AND CONFIRM OD OF EXISTING PIPE. CONTRACTOR TO FIELD LOCATE TO NEAREST EXISTING ACP COLLAR CONNECTION. CONTRACTOR TO PROPERLY HANDLE AND BAG EXISTING ACP SEGMENT. CITY TO DISPOSE OF AC PIPE ON DWG C-3. ALL MECHANICAL COUPLINGS SHALL BE ASSEMBLED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS AND APPROVED BY THE CITY ENGINEER.
- FOR ALL WALL PENETRATIONS FILL ANNULAR SPACE WITH NON-SHRINK GROUT.
- THE VAULT AND ENTRANCE SHAFT SHALL BE PRE-CAST CONCRETE. ALL CONCRETE JOINTS SHALL BE WATER TIGHT, INCLUDING AT THE JOINT BETWEEN THE ENTRANCE SHAFT AND VAULT. THE WATERSTOP AT THE JOINT BETWEEN ENTRANCE SHAFT AND VAULT SHALL BE FLEXIBLE AS SHOWN TO ACCOUNT FOR ANY RELATIVE SETTLEMENTS BETWEEN THE PRE-CAST UNITS AND SHALL BE DETAILED TO STRETCH 1". BOTH THE UNITS SHALL BE CONNECTED TOGETHER, USING PINS AS SHOWN AND SHALL NOT SEPARATE DURING SEISMIC EVENTS AT THE BASE SLAB. THE CONTRACTOR HAS THE OPTION TO CAST THE ENTRANCE SHAFT WITH THE MAIN VAULT, AS ONE UNIT. ALL PRE-CAST CONCRETE ACCESSORIES SHALL BE SS 304 AND SHALL BE DESIGNED BY THE CONTRACTOR.
- ALL DESIGN SHALL CONFORM TO CBC 2013. THE DESIGNER SHALL USE FOLLOWING SEISMIC DESIGN PARAMETERS.  
 $S_s = 1.486g$ ,  $S_1 = 0.547g$ ,  $I = 1.25$  &  $I_s = 1.0$ , SITE CLASS: E

**ANTICIPATED EQUIPMENT LIST**

- INTAKE VENT, 10" ARMORCAST STANDPIPE VENT OR APPROVED EQUAL
- 6" GALVANIZED STEEL VENT PIPE
- 6" PVC VENT PIPE
- 6" X 10" PVC REDUCER
- 10" PVC VENT PIPE
- INLINE INTAKE FAN, FANTECH FG 6M EC CENTRIF, OR APPROVED EQUAL
- TJERNLUND DH10 DEHUMIDISTAT, OR APPROVED EQUAL
- MOUNTING FRAME FOR EXHAUST FAN, INCLUDING 1/2" CONCRETE EXPANSION ANCHORS
- THREE VERTICAL PIPE LATERAL SUPPORTS, INCLUDING SIX 1/2" GALVANIZED BOLT AND EXP ANCHORS, SIX 2" X 3/8" STRAPS, SIX 1/2" BOLTS AND SIX 1" X 3/8" BAR STRAPS
- 6" DIA FLEXIBLE CONNECTION
- TWO 120 V DUPLEX RECEPTACLES
- WATERTIGHT MANHOLE COVER AND FRAME
- 1.5" PVC SUMP DISCHARGE LINE
- 1/3 HP SUMP PUMP WITH FLOAT, LITTLE GIANT 6EC SERIES OR APPROVED EQUAL
- TWO 1.5" BALL VALVES
- 1.5" CHECK VALVE
- 6" ADAPTOR COUPLING
- TWO GUARD POSTS PER CITY OF TUSTIN STANDARDS



**SEAL**  
 THIS DRAWING WAS ORIGINALLY APPROVED FOR CONSTRUCTION BY ROBERT S. KAESSNER ON 10/11/2022 AND SEALED BY ROBERT S. KAESSNER, A LICENSED PROFESSIONAL ENGINEER, IN THE STATE OF CALIFORNIA, C068418  
**811**  
 Know what's below. Call before you dig.

**CONFORMED TO CONSTRUCTION RECORDS**  
 THESE DRAWINGS HAVE BEEN PREPARED BASED ON INFORMATION PROVIDED BY OTHERS. THE ENGINEER AND OWNER HAVE NOT VERIFIED THE ACCURACY OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN AS A RESULT

REVISIONS		MADE BY	DATE	APPROVED BY	DATE	REFERENCES
▲						
▲						
▲						
▲						
▲	CONFORMED TO CONSTRUCTION RECORD DRAWINGS	JGV	8/10/23	RSK	8/10/23	

ENGINEER'S STAFF	BY	DATE
DRAWN:	RV	
DESIGNED:	RV	
CHECKED:	CM	
RECOMMENDED:		

DWG Name: C:\pwworking\bwv\_america\d1180555\WTR-M-01.dwg Plotted by: viz28550 on Aug 29, 2023 - 13:23:39