



**ENGINEERING/OPERATIONAL COMMITTEE MEETING AGENDA
TRABUCO CANYON WATER DISTRICT
ADMINISTRATION FACILITY
32003 DOVE CANYON DRIVE, TRABUCO CANYON, CA
MARCH 4, 2026 AT 2:00 PM**

COMMITTEE MEMBERS

Mark Anderson, Committee Chair
Edward Mandich, Committee Member
Glenn Acosta, Committee Member Alternate

DISTRICT STAFF

Larry McKenney, General Manager
Michael Perea, Assistant General Manager
Lorrie Lausten, District Engineer
Gary Kessler, Water System Superintendent
Oscar Ulloa, Wastewater Superintendent
Jason Stroud, Maintenance Superintendent

AGENDA NOTE:

Trabuco Canyon Water District (District) will make this Engineering/Operational Committee Meeting available by telephone audio as follows:

Telephone Audio: 1 (669) 900-6833

Access Code: 986-4866-8880

Persons desiring to monitor the Committee meeting agenda items may download the agenda and documents on the internet at www.tcwd.ca.gov. You may submit public comments by email to the Committee at mperea@tcwd.ca.gov. In order to be part of the record, emailed comments on meeting agenda items must be received by the District at the referenced e-mail address not later than 1:00 p.m. (PDT) on the day of the meeting.

CALL MEETING TO ORDER

VISITOR PARTICIPATION

Members of the public wishing to address the Committee regarding a particular item on the agenda are requested to submit public comments at the time of the meeting or by email to the Committee at mperea@tcwd.ca.gov. The Committee Chair will call on the visitor following the Committee's discussion about the matter. Committees do not constitute a quorum of the Board of Directors and Committee Members cannot make decisions on matters. The Committee makes recommendations only to the Board of Directors. Members of the public will be given the opportunity to speak to the Committee prior to making a recommendation on the matter. For persons desiring to make verbal comments and utilizing a translator to present their comments into English reasonable time accommodations, consistent with State law, shall be provided. Please limit comments to three minutes.

ORAL COMMUNICATION

Members of the public who wish to make comment on matters not appearing on the agenda are requested to submit oral communication at the time of the meeting by email to the Committee at mperea@tcwd.ca.gov. Under the requirements of State Law, Directors cannot take action on items not identified on the agenda and will not make decisions on such matters. The Board President may direct District Staff to follow up on issues as may be deemed appropriate. For persons desiring to make verbal comments and utilizing a translator to present their comments into English reasonable time accommodations, consistent with State law, shall be provided. Please limit comments to three minutes.

COMMITTEE MEMBER COMMENTS

REPORT FROM THE GENERAL MANAGER

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING AGENDA | MARCH 4, 2026**

ENGINEERING MATTERS

PRESENTER(S):

Larry McKenney, General Manager
Michael Perea, Assistant General Manager
Lorrie Lausten, District Engineer

ITEM 1: ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP

RECOMMENDED ACTION:

Approve the following Engineering/Operational Committee Meeting Recap(s) and recommend that the Board receive and file same (Consent Calendar).

1. February 4, 2026 Committee Meeting

ITEM 2: DOVE RECYCLED WATER PUMP STATION IMPROVEMENTS – CONSTRUCTION CONTRACT AWARD

RECOMMENDED ACTION:

Receive information at the time of the Committee Meeting and make recommendations as necessary.

ITEM 3: DOVE URBAN WATER RECOVERY PUMP STATION ACCESS ROAD IMPROVEMENTS – CONSTRUCTION CONTRACT AWARD

RECOMMENDED ACTION:

Recommend the Board of Directors authorize the General Manager to award a construction contract for the Dove Pump Station Access Road to JES Engineering Contractors in the amount of \$62,616.82 plus a 10% contingency of \$6,261, for a not-to-exceed amount of \$68,877.82 (Action Calendar).

ITEM 4: OTHER ENGINEERING AND OPERATIONS PROJECT UPDATES

1. Dimension Water Treatment Plant Transmission Main Rehabilitation Project
2. Hamilton Oaks Community Pressure Zone Technical Memorandum Update
3. Saddle Crest Inlet/Outlet Pipeline Project Update
4. Pipeline Condition Assessment Update

RECOMMENDED ACTION:

Committee to receive project status updates at the time of the Committee Meeting.

OPERATIONAL MATTERS

PRESENTER(S):

Gary Kessler, Water System Superintendent
Oscar Ulloa, Wastewater Operations Superintendent
Jason Stroud, Maintenance Department Superintendent

ITEM 5: WATER SYSTEM UPDATES

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.



**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING AGENDA | MARCH 4, 2026**

ITEM 6: WASTEWATER SYSTEM UPDATES

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

ITEM 7: MAINTENANCE DEPARTMENT UPDATES

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

REGULATORY AND OTHER MATTERS

ITEM 8: OTHER MATTERS/REPORTS

RECOMMENDED ACTION:

Hear Other Matters/Reports that may have arisen after the posting of the agenda.

ADJOURNMENT

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 Trabuco Canyon Water District Board of Directors in connection with a matter subject to discussion or consideration at an open meeting of the Board of Directors are available for public inspection at the Trabuco Canyon Water District Administrative Facility, 32003 Dove Canyon Drive, Trabuco Canyon, California (District Administrative Facility) or will be posted online on the District's website located at www.tcwd.ca.gov. If such writings are distributed to members of the Board less than 72 hours prior to the meeting, they will be available online at www.tcwd.ca.gov at the same time as they are distributed to the Board Members, except that, if such writings are distributed immediately prior to or during the meeting, they will be posted online on the District's website located at www.tcwd.ca.gov.

COMPLIANCE WITH THE REQUIREMENTS OF CALIFORNIA GOVERNMENT CODE SECTION 54954.2

In compliance with California law and the Americans with Disabilities Act, if you need special disability-related modifications or accommodations, including auxiliary aids or services in order to participate in the meeting, or if you need the agenda provided in an alternative format, please contact the District Secretary at (949) 858-0277, at least 48 hours in advance of the scheduled Board meeting. Notification at least 48 hours prior to the meeting will assist the District in making reasonable arrangements to accommodate your request. The Board Meeting Room is wheelchair accessible.



**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | MARCH 4, 2026**

ENGINEERING MATTERS

ITEM 1: ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP

RECOMMENDED ACTION:

Approve the following Engineering/Operational Committee Meeting Recap(s) and recommend that the Board receive and file same (Consent Calendar):

- 1. February 4, 2026 Committee Meeting*

CONTACTS (staff responsible): McKENNEY/PEREA



**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | FEBRUARY 4, 2026**

DIRECTORS PRESENT

Mark Anderson, Committee Chair
Edward Mandich, Committee Member

STAFF PRESENT

Larry McKenney, General Manager
Lorrie Lausten, District Engineer
Gary Kessler, Water Superintendent
Oscar Ulloa, Wastewater Superintendent
Jason Stroud, Maintenance Superintendent
Dave Rodriguez, Principal Engineer
Karen Warner, Principal Accountant
Roseann Lejsek, Executive Assistant
Phil Serpas, CMMS/SCADA Administrator

STAFF ABSENT

Michael Perea, Assistant General Manager

DISTRICT CONSULTANTS

Tori Yokoyama, Hazen and Sawyer

PUBLIC PRESENT

None

CALL MEETING TO ORDER

Director Anderson called the February 4, 2026 Engineering/Operational Committee Meeting to order at 2:00 p.m.

VISITOR PARTICIPATION

No comments were received.

ORAL COMMUNICATION

No comments were received.

COMMITTEE MEMBER COMMENTS

Director Mandich commented that he is glad to be back on the committee.

REPORT FROM THE GENERAL MANAGER

Mr. McKenney reported on the following matters:

- The Robinson Ranch Wastewater Treatment Plant (WWTP) experienced an issue during ongoing electrical improvements and will need to be powered down again this week to address the problem. Mr. McKenney noted that Southern California Edison will be available to provide support during this time.

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | FEBRUARY 4, 2026**

- Mr. McKenney provided the Committee with two draft letters addressed to California Assemblymember Phil Ting regarding requests for funding and asked the Committee members to provide their feedback.
- Mr. McKenney commented that as discussions with Santa Margarita Water District (SMWD) and Irvine Ranch Water District (IRWD) move forward, he would like to coordinate opportunities for TCWD staff to provide their expertise and knowledge directly to the Board for their input and consideration.

ITEM 1: ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP

Mr. McKenney presented the Engineering/Operational Committee Meeting Recap for Committee review in accordance with the agenda.

RECOMMENDATION: The Committee recommended forwarding this matter to the Board of Directors (Consent Calendar).

ITEM 2: HERITAGE SEWER LIFT STATION CONSTRUCTION MANAGEMENT CONTRACT AWARD

Ms. Lausten presented this matter for Committee consideration, and she reported that staff solicited proposals for Construction Management and Inspection Services. Ms. Lausten stated that four proposals were received and that staff worked with each firm to reduce costs. Ms. Lausten reviewed the bid comparison summary results and reported that staff recommended awarding a professional services contract to MCM Consulting.

RECOMMENDATION: Recommend the Board of Directors authorize the General Manager to award a professional services contract for the Construction Management of the Heritage Sewer Lift Station Improvements to MCM Consulting in the amount of \$247,464 plus a 10% contingency of \$24,746, for a not-to-exceed amount of \$272,210 (Action Calendar).

ITEM 3: DOVE RECYCLED WATER PUMP STATION IMPROVEMENTS

Ms. Lausten presented this matter for Committee consideration, and she provided an overview of the improvements already completed, as well as those planned for the upcoming phase. Ms. Lausten reported that staff solicited bids from six contractors which are due in early March. Those bid results will be presented at the next Committee meeting.

RECOMMENDATION: None – Informational item only.

ITEM 4: HAMILTON OAKS COMMUNITY PRESSURE ZONE TECHNICAL MEMORANDUM UPDATE

Ms. Lausten presented this matter for Committee consideration, and she reported that District staff requested that Hazen and Sawyer provide a technical memorandum and conceptual estimate for potential system improvements, based on feedback from the Hamilton Oaks community. Ms. Lausten provided an overview of the three conceptual solutions in the memo. Mr. McKenney noted that staff continued to research potential grant funding opportunities to offset project costs.

Discussion occurred concerning each alternative solution in the memo and the community's needs. Mr. Tori Yokoyama, with Hazen and Sawyer, stated that the scope of the project was developed at a conceptual level and could be refined as needed. The Committee directed staff to engage with Orange County Fire Authority (OCFA) to obtain clarification on their fire flow requirements.

RECOMMENDATION: None – Informational item only.

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | FEBRUARY 4, 2026**

ITEM 5: OTHER ENGINEERING AND OPERATIONS PROJECT UPDATES

1. Dimension Water Treatment Plant Transmission Main Rehabilitation Project

Ms. Lausten reported that the last portion of pipe bursting in Phase 2A was close to completion, and that the pipeline was scheduled to be back online at the beginning of March. Mr. McKenney noted staff's concerns that delaying completion of Phase 2B may result in higher long-term costs, as continuing to purchase treated water from Irvine Ranch Water District may ultimately exceed the cost of repairing the pipeline now.

2. Pipeline Condition Assessment – Proposal

Ms. Lausten presented a Pipeline Condition Assessment Proposal completed by Hazen and Sawyer. Discussion occurred concerning the estimated timeline for completion and potential scope modifications to help expedite delivery of the report. Ms. Lausten stated that she will work with Hazen to develop a new scope.

RECOMMENDATION: None

ITEM 6: WATER SYSTEM UPDATES

Mr. Kessler reviewed the projects and repairs for the prior month, and he reported that Water Operations staff had completed the following tasks:

1. Converted 3" meter to a 2" meter on Flanagan.
2. Finished welding repairs to filter #4 and replaced 16" flow valve at DWTP.
3. Rebuilt bypass valve and added 2 isolation valves at Plano Trabuco vault.
4. Finished coating and painting to pumps and piping at Rose Pump Station.
5. Continued to work with contractors on main transmission line replacement.

A brief discussion occurred regarding the Saddle Crest pipeline improvements project and estimated timeline for completion.

RECOMMENDATION: None – Informational item only.

ITEM 7: WASTEWATER SYSTEM UPDATES

Mr. Ulloa reviewed the projects and repairs for the prior month, and he reported that Wastewater Operations staff had completed the following tasks:

1. Assisted in the inspection and maintenance of the reservoir gate at the WWTP with Myers Diving.
2. Installed new 10HP sump pump for EQ basin maintenance cleaning at the WWTP.
3. Assisted in the programming of a new VFD for a 100HP pump at Dove Recycle (NDW) Pump Station.
4. Cleaned the well at Dove Creek Dry Season Recovery.
5. O'Neill Park line cleaning completed.

Mr. Ulloa presented the Recycled Water System Summary for Committee review, and he reported that reservoir level was 1270 feet and Dove Lake was full. Mr. Ulloa also reported that Dove/Tick Dry Season Recovery was offline.

Mr. Ulloa expanded on Mr. McKenney's report regarding the electrical improvements project at the WWTP and the challenges with bringing power back online. Mr. Ulloa reported that the breaker will be replaced on Friday, and that SCE will be on site to assist.

Discussion occurred regarding the pumping frequency at the Oaks at Trabuco and possible alternatives for pumping.

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING RECAP | FEBRUARY 4, 2026**

RECOMMENDATION: None – Informational item only.

ITEM 8: MAINTENANCE DEPARTMENT UPDATES

Mr. Stroud reviewed the projects and repairs for the prior month, and he reported that Maintenance staff completed the following tasks:

Projects and Repairs

Maintenance staff performed and/or completed the following tasks and projects:

Water Operations

1. Prepped and placed 45kw mobile generator at Canyon Creek BPS for planned SCE outage.
2. Worked with OC Petroleum to troubleshoot diesel fuel tank system at Saddle Crest BPS.

Wastewater Operations

1. Job walk with Ferreira Construction at Heritage LS.
2. Job walk with consultants at Dove and Tick Creek dry season stations.

District Fleet Upgrades & Other Projects

1. Purchased new chop saw.
2. Repaired roads to Shadow Rock dry season station and Porter Ranch.
3. Finished upgrades to truck #14 with new 200-gallon potable water system.
4. Repairs on skip loader (new seat installed).

RECOMMENDATION: None – Informational item only.

ITEM 9: OTHER MATTERS/REPORTS

No other matters were reported.

RECOMMENDATION: None

ADJOURNMENT

Director Anderson adjourned the February 4, 2026 Engineering/Operational Committee Meeting at 3:00 p.m.

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | MARCH 4, 2026**

ENGINEERING MATTERS

ITEM 2: DOVE RECYCLED WATER PUMP STATION IMPROVEMENTS – CONSTRUCTION CONTRACT AWARD

The Dove and Robinson Ranch Recycled Water Pump Stations (DCRRPS) (Exhibit 1) provide treated effluent from the Robinson Ranch Wastewater Treatment Plant Reclaimed Water Reservoir to the Dove Canyon, Robinson Ranch, and Trabuco Highlands communities. These areas are isolated pressure zones from each other. The Dove Pump Station is inside a brick-and-mortar building, while the Robinson Ranch Pump Station is adjacent to the building but located outside. Both pump stations are critical to the delivery of non-domestic water, and the planned upgrades to the stations are necessary to continue to provide efficient services to the District customers.

Improvements to the pump station are being implemented in two phases. In Fiscal Year (FY) 2019-20, Phase 1 improvements were made at the station including relocation of the Motor Control Center to the outside of the station, replacement of the exterior suction and discharge piping, installation of one pump and installation of VFD's. The design of Phase 2 improvements is complete, and the project went out to bid in February 2026. The construction is scheduled for FY 2025-26 and FY 2026-27 which include the following components:

- Replacement of the header piping and all valves
- Replacement of the Filters
- Installation of 3-100 HP pumps on concrete pads
- Installation of a chemical metering pump
- Installation of a flow meter

Staff will receive the construction bids on March 2, 2026, and will be bringing their recommended award to the Committee on March 4, 2026

FUNDING SOURCE:

Capital Improvement Program

FISCAL IMPACT (PROJECT BUDGET):

\$1,430,000

ENVIRONMENTAL COMPLIANCE:

Notice of Exemption

RECOMMENDED ACTION:

Receive information at the time of the Committee Meeting and make recommendations as necessary.

EXHIBIT(S):

1. Dove RWPS Construction Plans


CONTACTS (staff responsible): McKENNEY/LAUSTEN

TRABUCO CANYON WATER DISTRICT

DOVE CANYON RECYCLED WATER PUMP STATION IMPROVEMENTS PROJECT NO. RW-13-FY24



FEBRUARY 2026

APPROVED: TRABUCO CANYON WATER DISTRICT	
	2/02/26
LORRAINE S. LAUSTEN R.C.E. 67027 DISTRICT ENGINEER	DATE

JIG
CONSULTANTS
318 W KATELLA AVE, SUITE A
ORANGE, CA 92667
(714) 978-4407
www.jigconsultants.com



DRAWING NO. G-1
SHEET 1 OF 18

GENERAL NOTES

- NOTIFY TRABUCO CANYON WATER DISTRICT (DISTRICT) 714-858-0277 AT LEAST 48 HOURS BUT NOT MORE THAN 72 HOURS BEFORE STARTING WORK, OR AFTER ANY DELAY, BEFORE RESUMING WORK.
- THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (U.S.A.) AT 811 AT LEAST 48 HOURS WORK TO START WORK.
- ALL WORK IS TO BE DONE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK) LATEST EDITION, AND THE DISTRICT'S STANDARD SPECIFICATIONS AND DRAWINGS. THE CONTRACTOR SHALL HAVE A COPY OF THESE PLANS AND THE SPECIFICATIONS AND THE STANDARD SPECIFICATIONS ON THE JOB AT ALL TIMES.
- CONCRETE WORK SHALL BE PER PLANS AND SPECIFICATIONS UNLESS OTHERWISE INDICATED.
- PIPELINES SHALL BE PRESSURE TESTED TO 150 PSIG IN ACCORDANCE WITH SECTION 33 08 11.
- CONTRACTOR SHALL MAINTAIN THE WORK AREA IN A NEAT, SAFE, CLEAN AND SANITARY CONDITION AT ALL TIMES. STREETS SHALL BE KEPT CLEAN OF DEBRIS, WITH DUST AND NUISANCE BEING CONTROLLED AT ALL TIMES. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ANY CLEANUP OF ADJACENT STREETS AFFECTED BY HIS CONSTRUCTION. CONTRACTOR TO CLEAN STREET WITH SWEEPER OR EQUAL PRIOR TO END OF EACH WORK DAY AS A MINIMUM.
- ALL SURPLUS MATERIAL REMOVED, INCLUDING EXCAVATED MATERIALS WHICH ARE NOT SUITABLE FOR USE IN THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AWAY FROM THE JOB SITE IN A MANNER AND AT LOCATION ACCEPTABLE TO ALL AFFECTED AGENCIES.
- THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES INCLUDING SHORING AND BE RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS. NEITHER THE DISTRICT NOR THE DISTRICT'S ENGINEER SHALL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY.
- ALL BOLTS AND NUTS SHALL BE 316 STAINLESS STEEL. AFTER INSTALLATION, ALL BURNED BOLTS, NUTS, ETC., SHALL BE COATED WITH DEV WRAP OR AN APPROVED EQUAL.
- THE SURROUNDING AREA SHALL BE RETURNED TO THE CONDITION ENCOUNTERED AT THE START OF CONSTRUCTION.
- CONTRACTOR SHALL CONTACT THE DISTRICT A MINIMUM OF 48 HOURS IN ADVANCE FOR SCHEDULING OF ACCESS TO THE PROJECT SITE. CONTRACTOR SHALL ADHERE TO ALL DISTRICT REQUIREMENTS FOR SITE ACCESS AND MAINTAIN CONTINUAL COORDINATION WITH DISTRICT FOR THE DURATION OF CONSTRUCTION.
- THE CONTRACTOR SHALL PROTECT IN PLACE EXISTING SEWER, GAS, WATER LATERALS AND OTHER UTILITIES OR REPLACE IN KIND. LOCATIONS OF EXISTING UTILITIES AND SUBSTRUCTURES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY. CONTRACTOR SHALL VERIFY EXACT LOCATIONS, ELEVATIONS AND DIMENSIONS IN THE FIELD PRIOR TO CONSTRUCTION IN THE AREA OF THE SPECIFIC SUB-STRUCTURE.
- CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POINTS OF CONNECTION PRIOR TO COMMENCING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO ALL EXISTING UTILITIES, PAVEMENT, CURB, STRUCTURE, TREES, LANDSCAPING, AND IRRIGATION SYSTEMS AS A RESULT OF HIS OPERATIONS, AND WILL BE REQUIRED TO REPAIR OR REPLACE SAME TO THE SATISFACTORY OF, AND AS DIRECTED BY, THE DISTRICT REPRESENTATIVE OR IMPACTED UTILITY COMPANY.
- THE CONTRACTOR SHALL MAINTAIN AND PROVIDE THE DISTRICT WITH A "RECORD" SET OF AS BUILT DRAWINGS AT THE COMPLETION OF ALL WORK PER THE PLANS AND SPECIFICATIONS.
- LOOSE EXCAVATED MATERIAL SHALL NOT BE PLACED OR STORED IN WATERWAYS OR STORM DRAIN CHANNELS. ALL EXCESS EXCAVATED SOIL AND MATERIALS SHALL BE REMOVED AND DISPOSED OF IN A PROPER AND LEGAL MANNER BY THE CONTRACTOR. ALL DISTURBED SURFACE AREAS SHALL BE SHAPED TO FACILITATE DRAINAGE AND AVOID PONDING AND SHALL BE RESTORED TO NEAR NATURAL OR PRE-CONSTRUCTION CONDITIONS.
- THE CONTRACTOR SHALL CONDUCT HIS CONSTRUCTION OPERATIONS IN SUCH A MANNER THAT STORM OR OTHER WATERS MAY PROCEED UNINTERRUPTED ALONG THE STREET OR DRAINAGE COURSES.
- CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN UNANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. SUCH "DISCHARGES" OF MATERIAL OTHER THAN STORM WATER ARE ALLOWED ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD, CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE, OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302. MATERIALS WHICH MAY HAVE EFFECTS OF POLLUTION INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LINES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; FERTILIZERS, VEHICLE/EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT TEAM CLEANING OR CHEMICAL DEGREASING, AND SUPER CHLORINATED WATER LINE FLUSHINGS. DURING CONSTRUCTION, DISPOSAL OF SUCH MATERIALS SHOULD OCCUR IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON SITE PHYSICALLY SEPARATED FROM POTENTIAL STORM WATER RUN-OFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
- CONSTRUCTION WORK HOURS SHALL BE 8:00 AM TO 4:30 PM EXCLUSIVE OF SATURDAYS, SUNDAYS, OR HOLIDAYS, UNLESS OTHERWISE NOTED.

20. BY ACCEPTING THIS CONTRACT, CONTRACTOR HEREBY RELEASES AND AGREES TO INDEMNIFY, DEFEND, HOLD HARMLESS THE OWNER, TRABUCO CANYON WATER DISTRICT AND ITS REPRESENTATIVES, ENGINEER (HEREINAFTER JIG CONSULTANTS) THEIR PARENT AND SUBSIDIARY COMPANIES, AGENTS, EMPLOYEES, CONSULTANTS AND REPRESENTATIVES FOR ANY AND ALL DAMAGE TO PERSONS OR PROPERTY OR WRONGFUL DEATH REGARDLESS OF WHETHER OR NOT SUCH CLAIM, DAMAGE LOSS OR EXPENSE IS CAUSED IN WHOLE OR IN PART BY THE NEGLIGENCE, ACTIVE OR PASSIVE, OF OWNER, ENGINEER, THEIR PARENT AND SUBSIDIARY COMPANIES, AS WELL AS THEIR AGENTS AND EMPLOYEES, EXCEPTING ONLY THE SOLE NEGLIGENCE OF OWNER, ENGINEER THEIR PARENT OR SUBSIDIARY COMPANIES AND THEIR AGENTS AND EMPLOYEES TO THE FULLEST EXTENT PERMITTED BY LAW. SUCH INDEMNIFICATION SHALL EXTEND TO ALL CLAIMS, DEMANDS, ACTIONS, OR LIABILITY FOR INJURIES, DEATH OR DAMAGES OCCURRING AFTER COMPLETION OF THE PROJECT, AS WELL AS DURING THE WORK'S PROGRESS. CONTRACTOR FURTHER AGREES THAT IT SHALL ACCOMPLISH THE ABOVE AT ITS OWN COST, EXPENSE AND RISK EXCLUSIVE OF AND REGARDLESS OF ANY APPLICABLE INSURANCE COMPANY REGARDING COVERAGE.

SHEET INDEX

DWG. NO.	SHT. NO.	SHEET TITLE
G-01	1	TITLE SHEET
G-02	2	GENERAL NOTES, SHEET INDEX, VICINITY AND LOCATION MAPS
D-01	3	MECHANICAL AND STRUCTURAL DEMOLITION PLAN AND DETAILS
C-01	4	CONCEPTUAL RECYCLED WATER BYPASS PLAN
M-01	5	PUMP ROOM MECHANICAL PLAN AND SECTIONS
M-02	6	FILTER ROOM MECHANICAL PLAN AND SECTIONS
M-03	7	CHEMICAL TANK AND PUMP PLAN AND SECTION
M-04	8	MISCELLANEOUS MECHANICAL DETAILS
M-05	9	MISCELLANEOUS MECHANICAL DETAILS
S-01	10	BUILDING IMPROVEMENT PLAN AND SECTIONS
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E-01	12	STANDARD ELECTRICAL SYMBOLS AND ABBREVIATIONS
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E-03	14	CONDUIT AND PANEL SCHEDULES
E-04	15	ELECTRICAL DEMOLITION PLAN
E-05	16	EXISTING PHOTOS
E-06	17	POWER AND CONTROLS PLAN
E-07	18	INSTRUMENTATION DIAGRAM AND I/O SUMMARY



DIALERT CALL TOLL FREE 811 UNDERGROUND SERVICE ALERT

CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT A MINIMUM OF 48 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION WORK. SEE GENERAL NOTES FOR FURTHER INFORMATION.

JIG CONSULTANTS 318 W KATELLA AVE, SUITE A ORANGE, CA 92867 (714) 978-4407 www.jigconsultants.com



NO.	DATE	REVISIONS

DESIGN: MM	DATE: 2/02/26
DRAWN: KS	ENGINEER: [Signature] RCE 55604
CHECKED: JG	DISTRICT ENGINEER: [Signature] RCE 67027

TRABUCO CANYON WATER DISTRICT
DOVE CANYON RECYCLED WATER PUMP STATION IMPROVEMENTS
PROJECT NO. RW-13-FY24

GENERAL NOTES, SHEET INDEX, VICINITY AND LOCATION MAPS

G-02
SHEET 2 OF 18

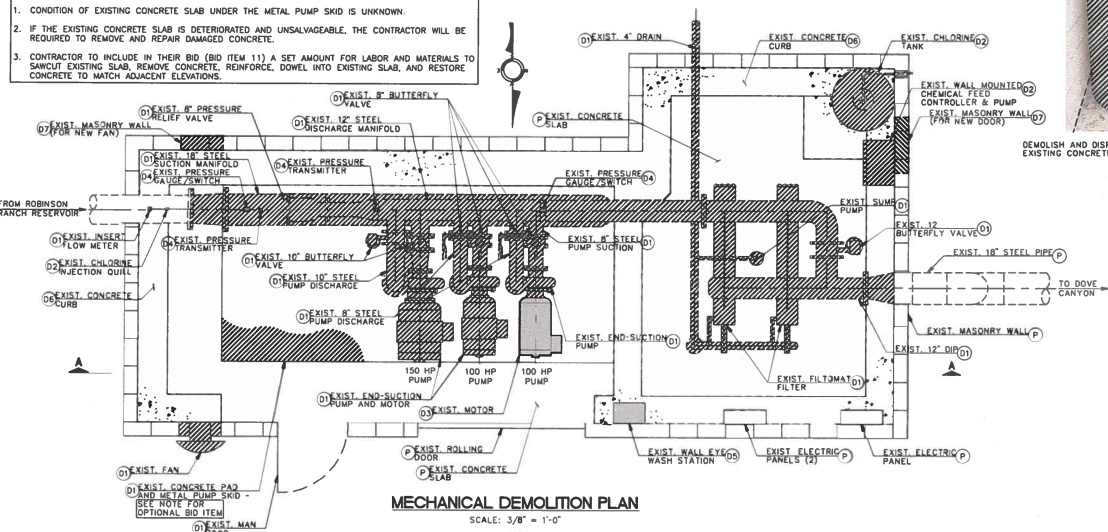
DEMOLITION NOTES

- (D1) DEMOLISH AND DISPOSE OF EXISTING PIPING, VALVES, PUMPS, AND APPURTENANCES PER (1) & (2)
- (D2) DEMOLISH AND DISPOSE OF EXISTING CHLORINE TANK, PUMP, PIPING, AND APPURTENANCES PER (1)
- (S3) SALVAGE EXISTING MOTOR AND DELIVER TO OWNER PER (1)
- (S4) SALVAGE, RECALIBRATE, AND DELIVER EXISTING PRESSURE GAUGES, SWITCHES, AND TRANSMITTERS TO OWNER PER (1)
- (S5) SALVAGE AND REUSE EXISTING WALL EYEWASH STATION PER (1)
- (S6) SAWCUT, JACKHAMMER, AND REMOVE EXISTING CONCRETE CURB PER (1)
- (C7) CUT AND REMOVE EXISTING MASONRY WALL
- (P) PROTECT IN PLACE

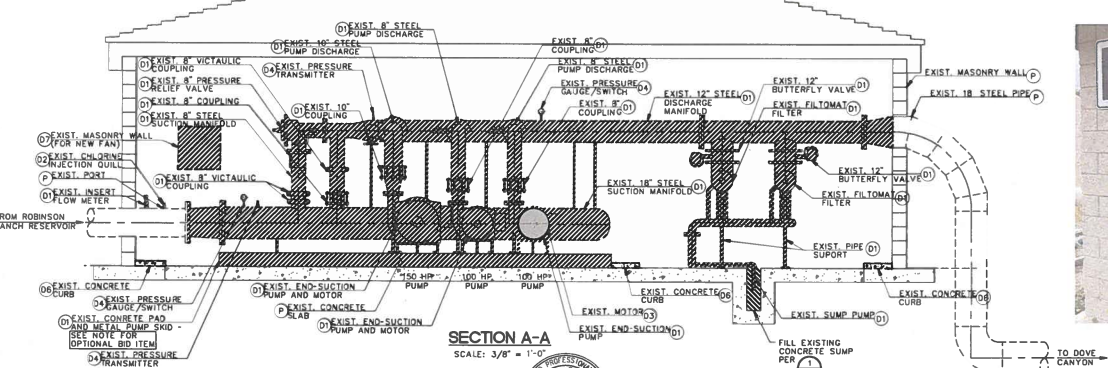
- OPTIONAL BID ITEM:**
- CONDITION OF EXISTING CONCRETE SLAB UNDER THE METAL PUMP SKID IS UNKNOWN.
 - IF THE EXISTING CONCRETE SLAB IS DETERIORATED AND UNSALVAGEABLE, THE CONTRACTOR WILL BE REQUIRED TO REMOVE AND REPAIR DAMAGED CONCRETE.
 - CONTRACTOR TO INCLUDE IN THEIR BID (BID ITEM 11) A SET AMOUNT FOR LABOR AND MATERIALS TO SAWCUT EXISTING SLAB, REMOVE CONCRETE, REINFORCE, DOWEL INTO EXISTING SLAB, AND RESTORE CONCRETE TO MATCH ADJACENT ELEVATIONS.

LEGEND

- DEMOLISH AND DISPOSE OF EXISTING PUMPS, MOTORS, PIPING, VALVES, AND APPURTENANCES
- SAWCUT AND REMOVE EXISTING CONCRETE SLAB
- SALVAGE EXISTING MOTOR, PRESSURE TRANSMITTERS, PRESSURE GAUGES, AND EYEWASH STATION
- LIMITS OF CONCRETE REMOVAL



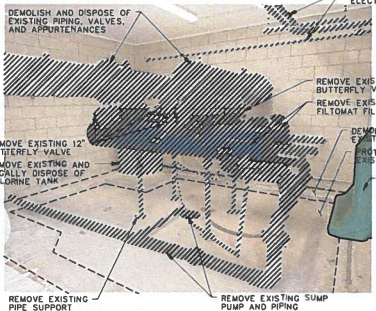
MECHANICAL DEMOLITION PLAN
SCALE: 3/8" = 1'-0"



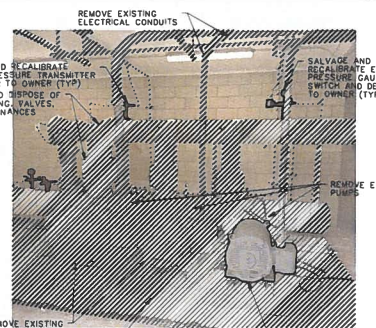
SECTION A-A
SCALE: 3/8" = 1'-0"



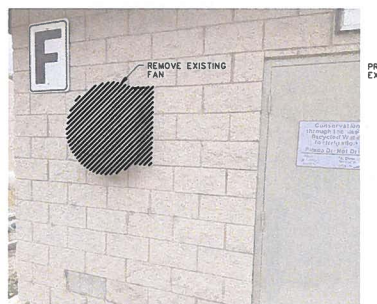
DEMOLISH AND DISPOSE OF EXISTING PIPING, VALVES, AND APPURTENANCES
REMOVE EXISTING CHLORINE PUMP AND SKID
REMOVE EXISTING CONCRETE CURB
DEMOLISH AND DISPOSE OF EXISTING CONCRETE CURB



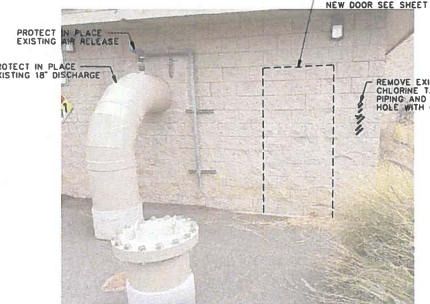
REMOVE EXISTING FILOMAT FILTERS
PROTECT IN PLACE EXISTING CONCRETE SLAB
REMOVE EXISTING CONCRETE CURB
REMOVE EXISTING ELECTRICAL CONDUITS
REMOVE EXISTING MOTORS
DEMOLISH EXISTING CONCRETE AND DELIVER TO OWNER (TYP)
REMOVE EXISTING 12\"/>



REMOVE EXISTING ELECTRICAL CONDUITS
SALVAGE AND RECALIBRATE EXISTING PRESSURE TRANSMITTER AND DELIVER TO OWNER (TYP)
SALVAGE AND RECALIBRATE EXISTING PRESSURE GAUGE AND SWITCH AND DELIVER TO OWNER (TYP)



REMOVE EXISTING FAN
PROTECT IN PLACE EXISTING 18\"/>



SAWCUT MASONRY WALL FOR ROUGH OPENING OF NEW DOOR SEE SHEET S-01
PROTECT IN PLACE EXISTING 18\"/>

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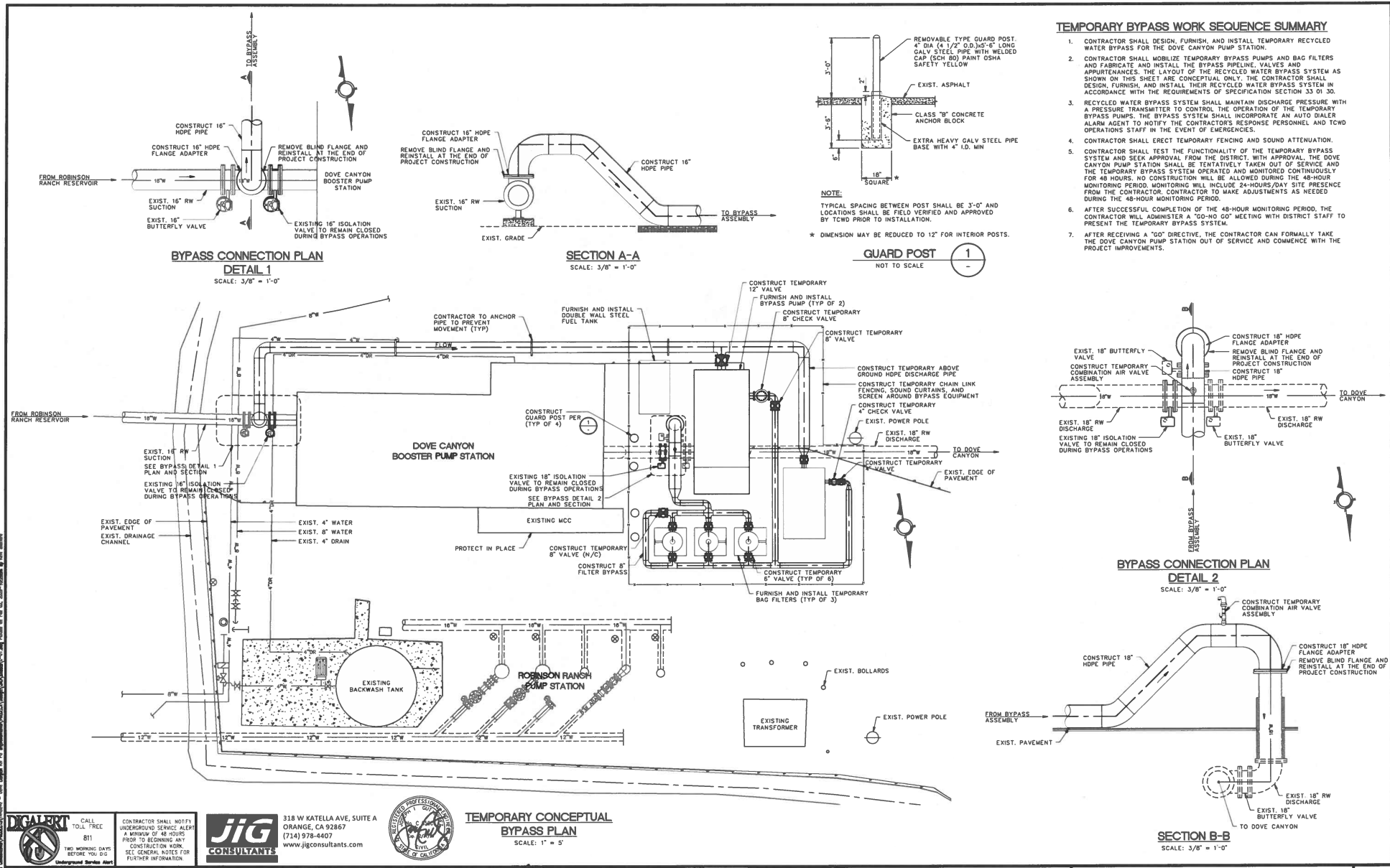


NO.	DATE	REVISIONS	DESIGN:	DATE
			MM	2/02/26
			KS	
			JC	2/02/26

TRABUCO CANYON WATER DISTRICT
DOVE CANYON RECYCLED WATER PUMP STATION IMPROVEMENTS
PROJECT NO. RW-13-FY24

MECHANICAL AND STRUCTURAL DEMOLITION PLAN AND DETAILS

D-01
SHEET 3 OF 18



DIGALERT CALL TOLL FREE 811
CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT A MINIMUM OF 48 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION WORK. SEE GENERAL NOTES FOR FURTHER INFORMATION.

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TEMPORARY CONCEPTUAL BYPASS PLAN
SCALE: 1" = 5'

NO.	DATE	REVISIONS	DESIGN:	DATE
			MM	2/02/26
			DRAWN: KS	
			CHECKED: JG	

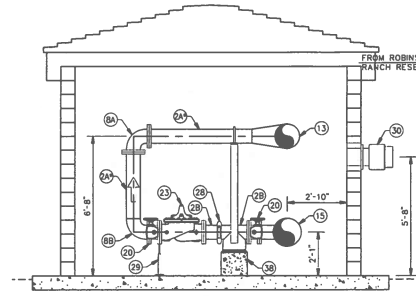
	TRAVIS LAUEN RCE 63027 DISTRICT ENGINEER	TRABUCO CANYON WATER DISTRICT DOVE CANYON RECYCLED WATER PUMP STATION IMPROVEMENTS PROJECT NO. RW-13-FY24
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TRABUCO CANYON WATER DISTRICT DOVE CANYON RECYCLED WATER PUMP STATION IMPROVEMENTS PROJECT NO. RW-13-FY24	C-01 SHEET 4 OF 18
--	------------------------------

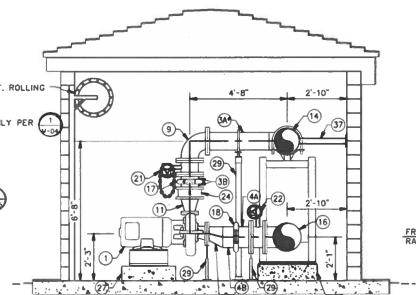
CONSTRUCTION NOTES

- 1 CONSTRUCT END SUCTION CENTRIFUGAL PUMP, CORNELL MODEL 58B-CC, OR APPROVED EQUAL
- 2A CONSTRUCT 8" CML&EC WELDED STEEL SPOOL
- 2B CONSTRUCT 8" CML&EC STEEL PIPE SPOOL (FE&GE)
- 3A CONSTRUCT 10" CML&EC WELDED STEEL SPOOL
- 3B CONSTRUCT 10" CML&EC STEEL SPOOL (FE&GE)
- 4A CONSTRUCT 12" CML&EC STEEL SPOOL (GE&WE)
- 4B CONSTRUCT 12" CML&EC STEEL SPOOL (GE&WELD)
- 5A CONSTRUCT 14" CML&EC WELDED STEEL SPOOL
- 5B CONSTRUCT 14" CML&EC STEEL SPOOL (GE&WELD)
- 6 CONSTRUCT 16" CML&EC WELDED STEEL SPOOL
- 7 CONSTRUCT 16" CML&C WELDED STEEL BULKHEAD
- 8A CONSTRUCT 8" CML&EC 90° STEEL BEND (FE&FE)
- 8B CONSTRUCT 8" CML&EC 90° STEEL BEND (FE&WELD)
- 9 CONSTRUCT 10" CML&EC 90° STEEL BEND (FE&FE)
- 10 CONSTRUCT 14" CML&EC WELDED STEEL BEND (30°)
- 11 CONSTRUCT 10"x5" CML&EC CONCENTRIC STEEL REDUCER (FE&FE)
- 12 CONSTRUCT 12"x8" CML&EC ECCENTRIC STEEL REDUCER (FE&WELD)
- 13 CONSTRUCT 14"x8" CML&EC WELDED REDUCING STEEL BEND
- 14 CONSTRUCT 14"x10" CML&EC WELDED STEEL TEE
- 15 CONSTRUCT 16"x8" CML&EC STEEL TEE (WELD&FE)
- 16 CONSTRUCT 16"x12" CML&EC STEEL TEE (WELD&FE)
- 17 CONSTRUCT 10" VICTAULIC COUPLING
- 18 CONSTRUCT 12" VICTAULIC COUPLING
- 19 CONSTRUCT 14" VICTAULIC COUPLING
- 20 CONSTRUCT 8" FLGD BUTTERFLY VALVE
- 21 CONSTRUCT 10" FLGD BUTTERFLY VALVE WITH CHAINWHEEL
- 22 CONSTRUCT 12" FLGD BUTTERFLY VALVE
- 23 CONSTRUCT 8" FLGD PRESSURE RELIEF VALVE
- 24 CONSTRUCT 10" WAFER SWING CHECK VALVE
- 25 CONSTRUCT 16" FLGD MAGNETIC FLOW METER
- 26 CONSTRUCT PRESSURE GAUGE, SWITCH, AND TRANSDUCER ASSEMBLY PER 1/4" NPT
- 27 CONSTRUCT CONCRETE PUMP PAD PER 1/4" NPT
- 28 CONSTRUCT 8" VICTAULIC COUPLING
- 29 CONSTRUCT PIPE OR FLANGE SUPPORT PER 1/4" NPT
- 30 CONSTRUCT WALL MOUNTED ALUMINUM VENTILATION FAN PER 1/4" NPT
- 31 CONSTRUCT 16" WELDED SLIP ON FLANGE
- 32 JOIN EXISTING 16" FLANGE
- 33 JOIN FILTRATION ASSEMBLY WITH 14" WELDED SLIP ON FLANGE
- 34 CONSTRUCT 2" COMBINATION AIR VALVE ASSEMBLY PER 1/4" NPT
- 35 CONSTRUCT 3/4" 316 SST HOSE BIB PER 1/4" NPT
- 36 CONSTRUCT 3/4" 316 SST TUBE FOR RECYCLED WATER- SECURE TO WALL PER 1/4" NPT
- 37 CONSTRUCT WALL THRUST SUPPORT PER 1/4" NPT
- 38 CONSTRUCT THRUST RESTRAINING PIPE SUPPORT PER 1/4" NPT

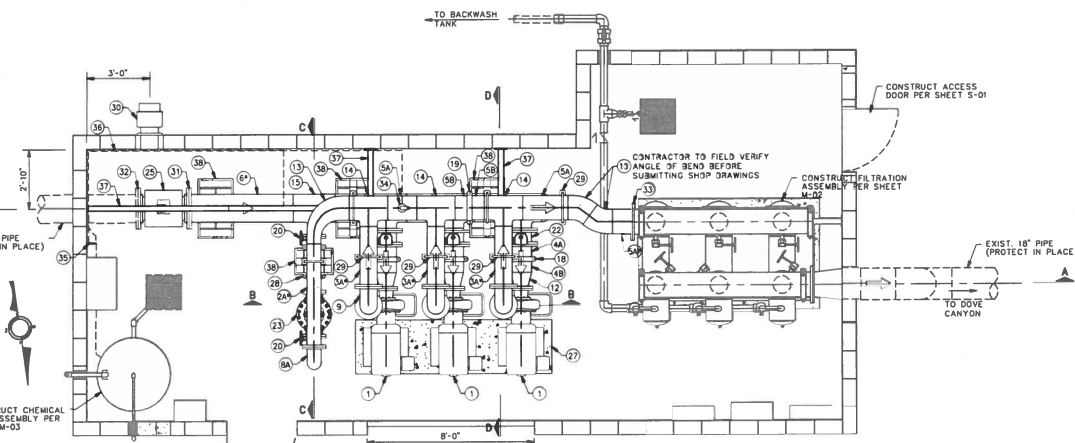
NOTE:
CONTRACTOR TO CUT STEEL PIPE TO LENGTH
AND WELD SLIP ON FLANGE TO FIT ACTUAL
FIELD CONDITIONS.



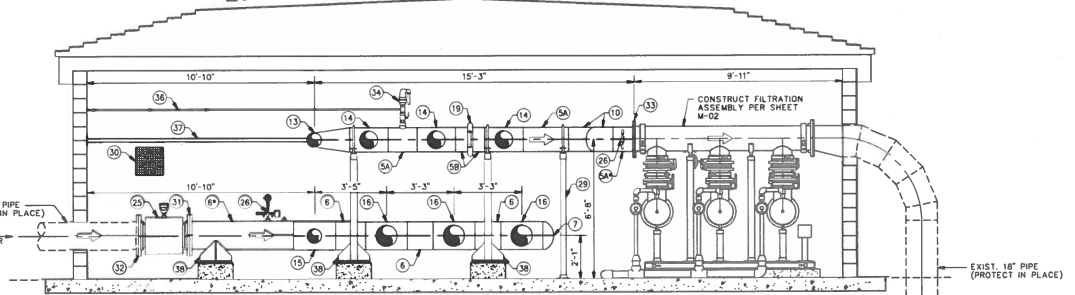
SECTION C-C
SCALE: 3/8" = 1'-0"



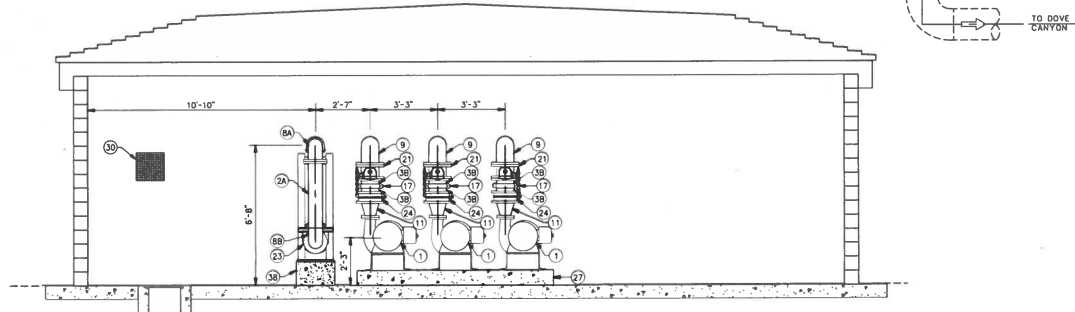
SECTION D-D
SCALE: 3/8" = 1'-0"



MECHANICAL PLAN VIEW
SCALE: 3/8" = 1'-0"



SECTION A-A
SCALE: 3/8" = 1'-0"



SECTION B-B
SCALE: 3/8" = 1'-0"

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			MM	
			KS	
			JG	

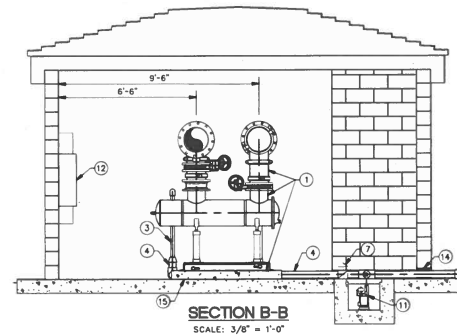
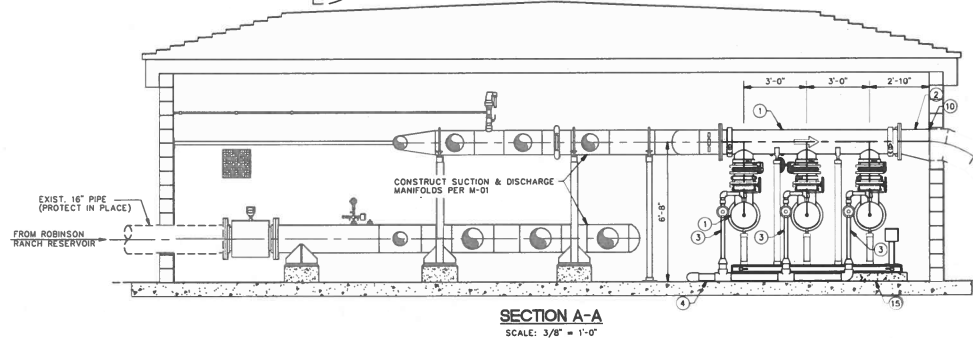
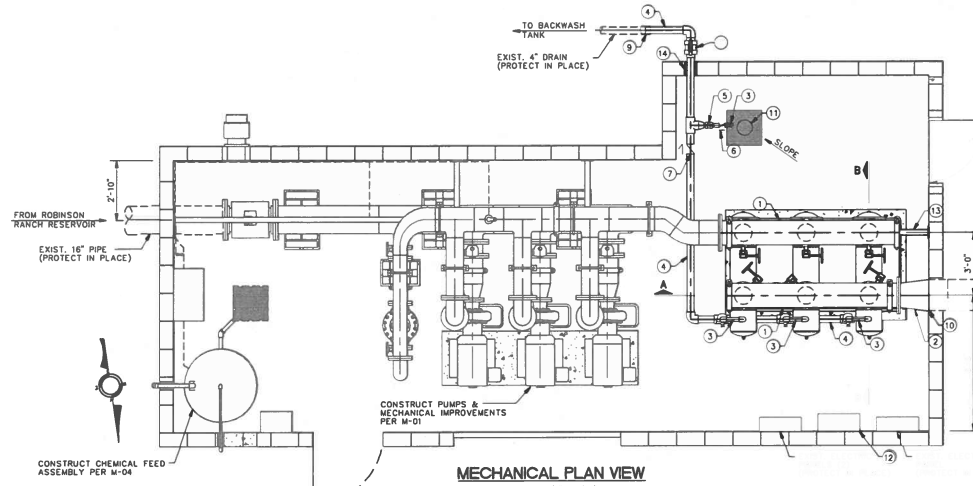
TRABUCO CANYON
ENGINEER: RCE 5564
DISTRICT ENGINEER: RCE 6707
DATE: 2/02/26

TRABUCO CANYON WATER DISTRICT
DOVE CANYON RECYCLED WATER PUMP STATION IMPROVEMENTS
PROJECT NO. RW-13-FY24

M-01
SHEET 5 OF 18

CONSTRUCTION NOTES

- 1 CONSTRUCT PREFABRICATED SHD MOUNTED AUTOMATIC SCREEN FILTER ASSEMBLY, EVOGUA MODEL V-1500-10 WITH 200 MICRON SCREEN, OR APPROVED EQUAL
- 2 CONSTRUCT 18"x14" CML&EC ECCENTRIC STEEL REDUCER (FEWELD)
- 3 CONSTRUCT 2" SCH 80 PVC PIPE AND FITTINGS
- 4 CONSTRUCT 4" SCH 80 PVC PIPE AND FITTINGS
- 5 CONSTRUCT 2" SCH 80 PVC BALL VALVE
- 6 CONSTRUCT 2" PVC CHECK VALVE
- 7 CONSTRUCT 4" PVC CHECK VALVE
- 8 CONSTRUCT 4" SCH 80 PVC BALL VALVE
- 9 JOIN EXISTING 4" DRAIN PIPE WITH SCH 80 PVC COUPLING
- 10 WELD TO EXISTING 18" STEEL PIPE
- 11 CONSTRUCT SUMP PUMP WITH INTEGRAL FLOAT PER 
- 12 CONSTRUCT FILTER CONTROLLER
- 13 CONSTRUCT WALL THRUST SUPPORT PER 
- 14 CORE DRILL THROUGH MASONRY WALL
- 15 CONSTRUCT 4" THICK FILTER SKID HOUSEKEEPING PAD PER 





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NO.	DATE	REVISIONS	DESIGN:	DATE
			MM	
			DRAWN: KS	
			CHECKED: JG	

	RCE 55604	ENGINEER	2/02/26
	RCE 67027	DISTRICT ENGINEER	2/02/26

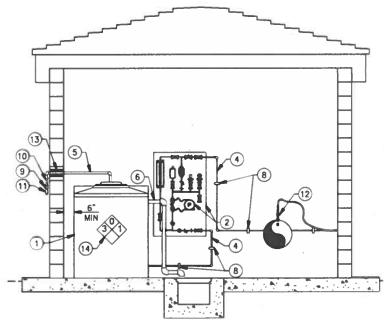
TRABUCO CANYON WATER DISTRICT
DOVE CANYON RECYCLED WATER PUMP STATION IMPROVEMENTS
PROJECT NO. RW-13-FY24

FILTER ROOM MECHANICAL PLAN AND SECTIONS

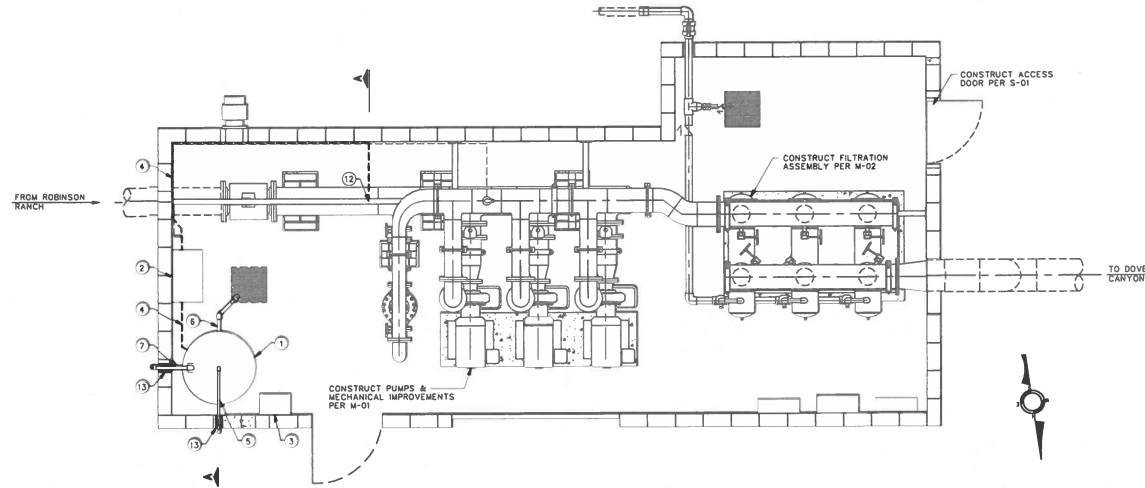
M-02
SHEET 6 OF 18

CONSTRUCTION NOTES

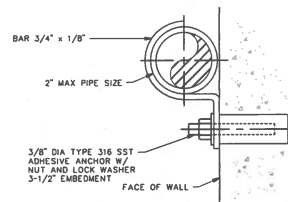
- ① CONSTRUCT 200 GALLON DOUBLE WALL POLYETHYLENE CHEMICAL STORAGE TANK, CHEM-TAINER MODEL TC415ZDC, OR APPROVED EQUAL
- ② CONSTRUCT WALL MOUNTED SKID, BLUE-WHITE CFWS-1, WITH MULTI-DIAPHRAGM METERING PUMP, MD1, OR APPROVED EQUAL
- ③ INSTALL SALVAGED WALL EYEWASH STATION
- ④ CONSTRUCT 1/2" SCH 80 CPVC PIPE AND FITTINGS (CHEMICAL FEED LINE)
- ⑤ CONSTRUCT 1" SCH 80 CPVC PIPE AND FITTINGS (FILL LINE)
- ⑥ CONSTRUCT 2" SCH 80 CPVC PIPE AND FITTINGS (OVERFLOW)- EXTEND TO SUMP
- ⑦ CONSTRUCT 2" SCH 80 CPVC PIPE AND FITTINGS (VENT) WITH INSECT SCREEN
- ⑧ CONSTRUCT PIPE WALL SUPPORT WHERE REQUIRED PER ①
- ⑨ CONSTRUCT 1" SCH 80 PVC BALL VALVE
- ⑩ CONSTRUCT 1" SCH 80 PVC CHECK VALVE
- ⑪ CONSTRUCT 1" SCH 80 PVC QUICK CONNECT
- ⑫ CONSTRUCT CHLORINE INJECTION QUILL PER ②
- ⑬ CORE DRILL THROUGH MASONRY WALL
- ⑭ APPLY OSHA SIGNAGE TO CHEMICAL TANK



SECTION A-A
SCALE: 3/8" = 1'-0"



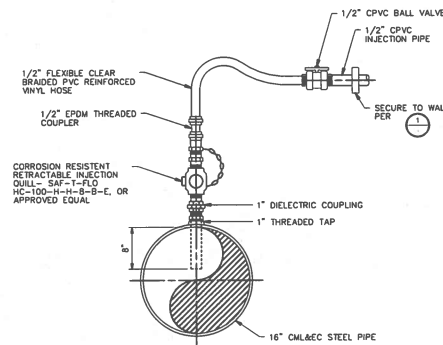
MECHANICAL PLAN VIEW
SCALE: 3/8" = 1'-0"



NOTES

1. PIPE CLAMP, WASHER, SHIELD, AND ANCHOR TO BE TYPE 316 STAINLESS STEEL.
2. WRAP CPVC OR SST PIPE WITH 2" WIDE STRIP OF NEOPRENE.

WALL SUPPORT FOR PIPING ①
NOT TO SCALE



1' CHEMICAL INJECTION QUILL ②
NOT TO SCALE

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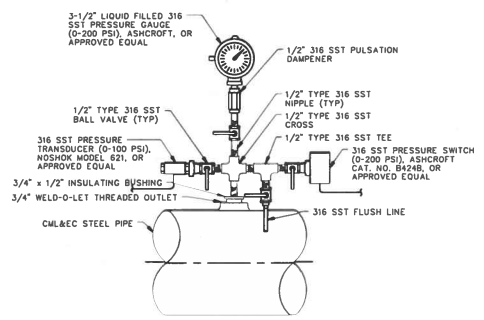


NO.	DATE	REVISIONS

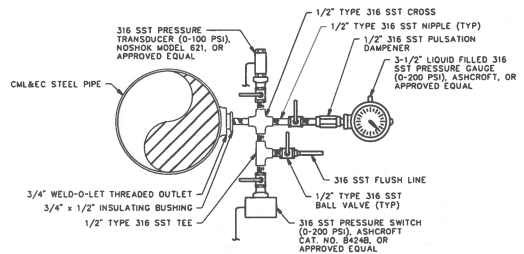
DESIGN: MM	DATE: 2/02/26
DRAWN: KS	ENGINEER: REE 55804
CHECKED: JG	DISTRICT ENGINEER: 2/02/26

TRABUCO CANYON WATER DISTRICT
DOVE CANYON RECYCLED WATER PUMP STATION IMPROVEMENTS
PROJECT NO. RW-13-FY24

M-03
SHEET 7 OF 18

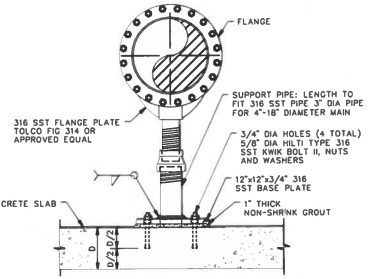
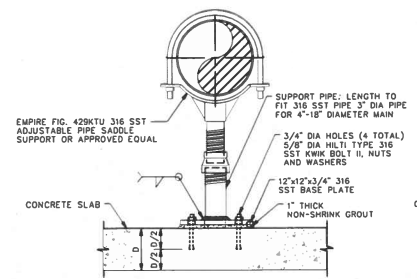


CONFIGURATION 1
TOP MOUNTED

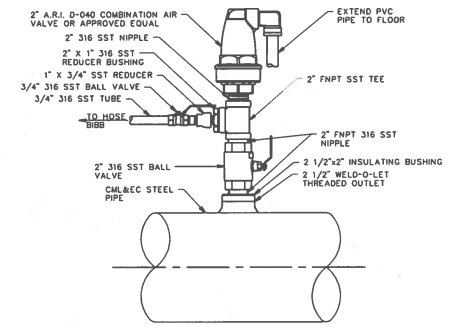


CONFIGURATION 2
SIDE MOUNTED

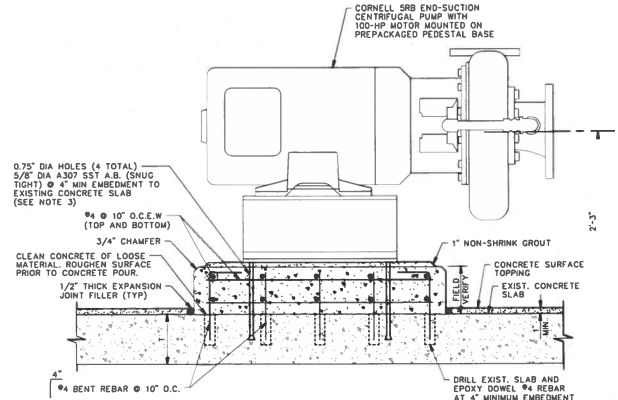
PRESSURE GAUGE/SWITCH/TRANSDUCER ASSEMBLY 1
NOT TO SCALE



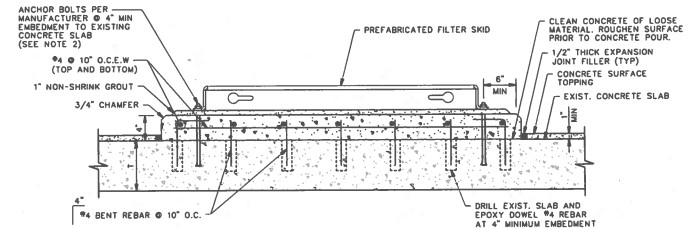
PIPE OR FLANGE SUPPORT 2
NOT TO SCALE



COMBINATION AIR VALVE ASSEMBLY 3
NOT TO SCALE



CONCRETE PUMP PAD 4
NOT TO SCALE



CONCRETE FILTER PAD 5
NOT TO SCALE

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NO.	DATE	REVISIONS

DESIGN: MM	DATE: 2/02/26
DRAWN: KS	ENGINEER: [Signature]
CHECKED: JG	DISTRICT ENGINEER: [Signature]

TRABUCO CANYON WATER DISTRICT
DOVE CANYON RECYCLED WATER PUMP STATION IMPROVEMENTS
PROJECT NO. RW-13-FY24

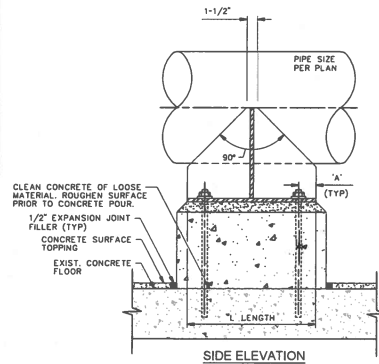
MISCELLANEOUS MECHANICAL DETAILS

M-04
SHEET 8 OF 18

NOTES:

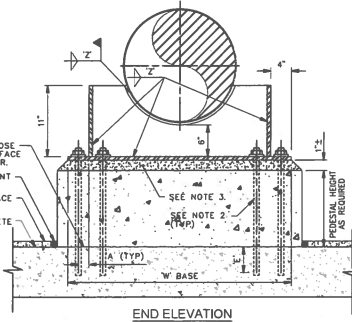
1. PLATES AND STRUCTURAL MEMBERS SHALL BE FACTORY COATED WITH ZINC BASED PRIMER. AFTER FIELD WELDING AND ASSEMBLY, CONTRACTOR TO PAINT THE SUPPORTS PER SECTION 09 90 00.
2. USE 316 STAINLESS STEEL ADHESIVE ANCHOR BOLTS, NUTS & WASHERS.
3. NON-SHRINK GROUT.
4. PIPE OD SIZE IS THE OD OF THE WELD NECK.

PIPE DIA	PLATE THK	BOLT QUAN	BOLT SIZE	'E' ANCHOR BOLT EMBED	'A' BOLT WIDTH	'L' BASE LENGTH	'W' BASE WIDTH	'Z' WELD
8"	1/2"	4	1/2"	4" MIN	1-1/2"	1'-4"	1'-3"	3/8"
16"	11/16"	8	5/8"	4" MIN	1-1/2"	1'-6"	2'-8"	5/8"



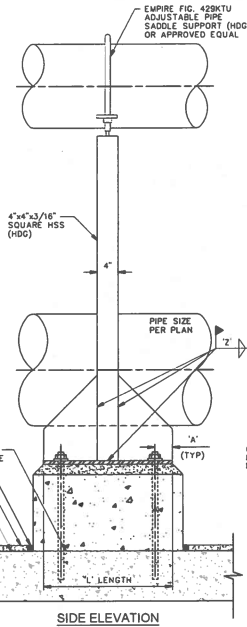
SINGLE PIPE SUPPORT

NOT TO SCALE



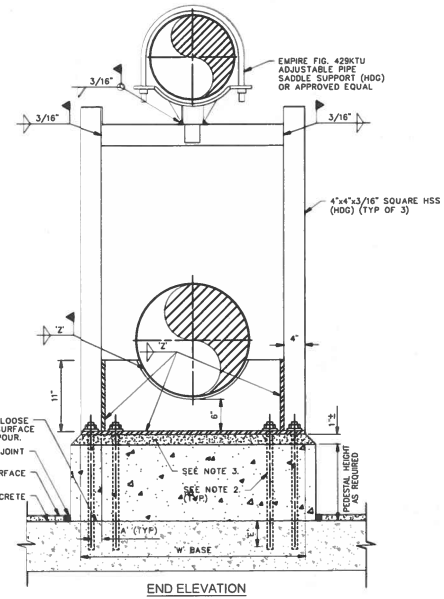
END ELEVATION

NOT TO SCALE



DOUBLE PIPE SUPPORT

NOT TO SCALE

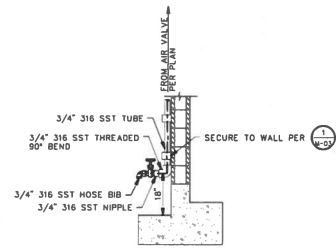


END ELEVATION

NOT TO SCALE

THRUST RESTRAINING PIPE SUPPORT 1

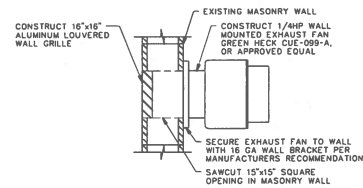
NOT TO SCALE



NOTE:
1. SECURE SIGN TO HOSE BIB "RECYCLED WATER DO NOT DRINK"

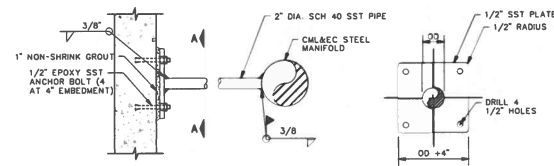
HOSE BIB CONNECTION 3

NOT TO SCALE



EXHAUST FAN 4

NOT TO SCALE



WALL THRUST SUPPORT 5

NOT TO SCALE

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NO.	DATE	REVISIONS

DESIGN: MM	DATE: 2/02/26
DRAWN: KS	ENGINEER: RCE 5564
CHECKED: JG	DISTRICT ENGINEER: 2/02/26

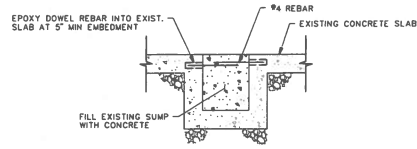
**TRABUCO CANYON WATER DISTRICT
DOVE CANYON RECYCLED WATER
PUMP STATION IMPROVEMENTS
PROJECT NO. RW-13-FY24**

MISCELLANEOUS MECHANICAL DETAILS

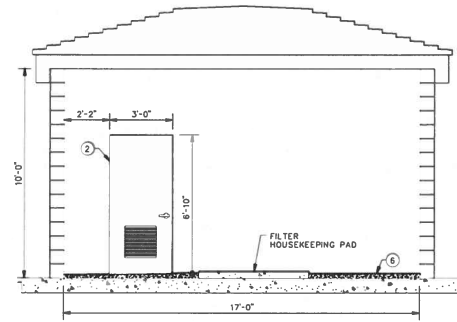
M-05
SHEET 9 OF 18

CONSTRUCTION NOTES

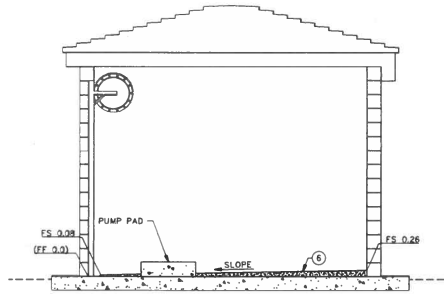
- 1 CONSTRUCT 18"x18" CONCRETE SUMP DRAIN WITH GRATE PER (1)
- 2 CONSTRUCT 36"x82" EXTERIOR HOLLOW METAL DOOR WITH FRAME PER (2)
- 3 REPAIR LARGE OPENING ON MASONRY WALL PER (3)
- 4 SAWCUT 15"x15" OPENING ON MASONRY WALL (FOR WALL MOUNTED FAN)
- 5 REPAIR SMALL OPENING ON MASONRY WALL PER (5)
- 6 APPLY INDUSTRIAL GRADE METALLIC FLOOR TOPPING (SIKAFLOOR METAL TOP-300, OR APPROVED EQUAL) OVER EXISTING CONCRETE SLAB TO ELEVATIONS SHOWN ACCORDING TO MANUFACTURER'S APPLICATION INSTRUCTIONS (SURFACE CLEANING, PREPARATION, ROUGHENING, FILLING CRACKS, LIQUID EPOXY BONDING AGENT, APPLICATION, AND CURING)
- 7 FILL EXISTING CONCRETE SUMP PER (7)



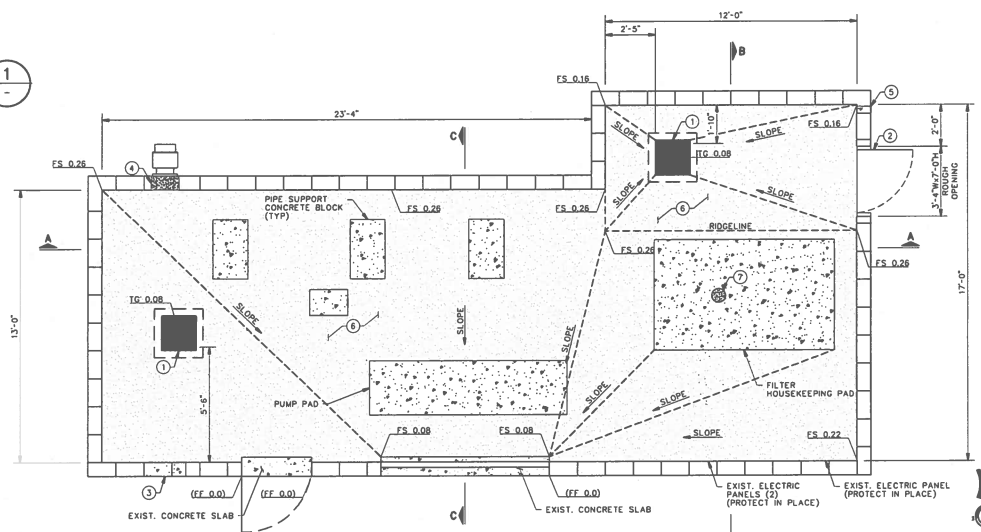
FILL CONCRETE SUMP 1
NOT TO SCALE



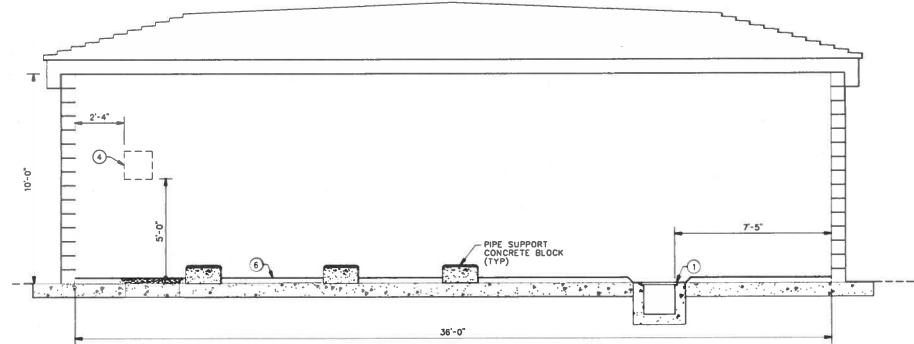
SECTION B-B
SCALE: 3/8" = 1'-0"



SECTION C-C
SCALE: 3/8" = 1'-0"



MECHANICAL PLAN VIEW
SCALE: 3/8" = 1'-0"



SECTION A-A
SCALE: 3/8" = 1'-0"

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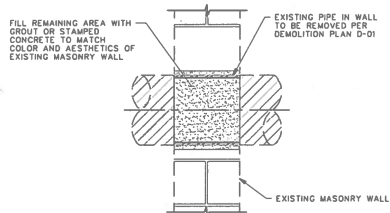
NO.	DATE	REVISIONS	DESIGN	DATE
			MM	2/02/24
			DRAWN: KS	
			CHECKED: JC	

TRABUCO CANYON WATER DISTRICT
CORRE LAUSTER REE 55884
ENGINEER 2/02/24

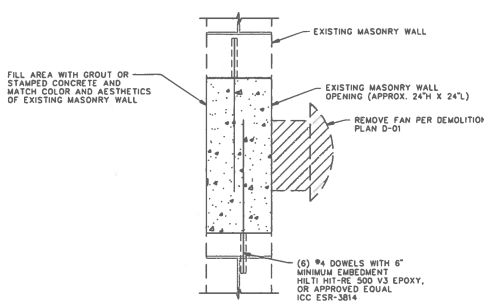
TRABUCO CANYON WATER DISTRICT
DOVE CANYON RECYCLED WATER PUMP STATION IMPROVEMENTS
PROJECT NO. RW-13-FY24

BUILDING IMPROVEMENT PLAN AND SECTIONS

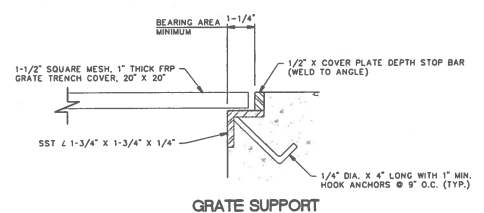
S-01
SHEET 10 OF 18



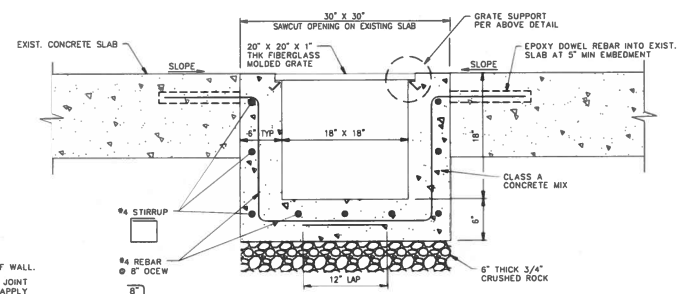
MASONRY WALL SMALL OPENING REPAIR 1
NOT TO SCALE



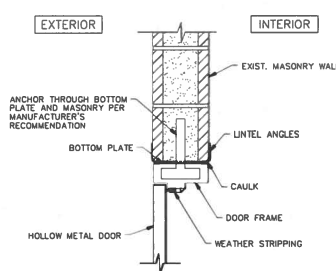
MASONRY WALL LARGE OPENING REPAIR 2
NOT TO SCALE



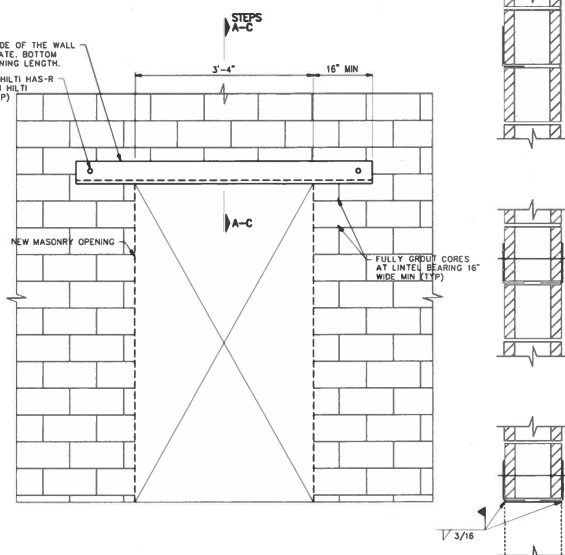
GRATE SUPPORT



BOTTOM SLAB AND SUMP 3
NOT TO SCALE



DOOR HEAD 4
NOT TO SCALE

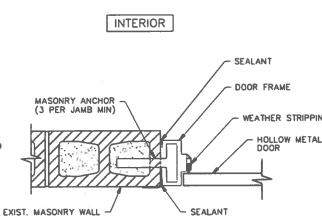


REINFORCING OF MASONRY WALL AT DOOR LOCATION 5
NOT TO SCALE

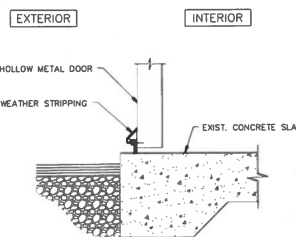
- STEP A:**
- FULLY GROUT CMU LINTEL IF HOLLOW.
 - SAWCUT MORTAR JOINT ON ONE SIDE OF WALL.
 - CONSTRUCT ONE LINTEL ANGLE IN CUT JOINT TIGHT TO BOTTOM OF CMU TO REMAIN. APPLY NON-SHRINK GROUT FOR FULL BEARING AT ENDS.

- STEP B:**
- AFTER MINIMUM OF 24 HOURS, CUT OUT MORTAR JOINT ON OPPOSITE SIDE OF WALL.
 - CONSTRUCT ONE LINTEL ANGLE IN CUT JOINT TIGHT TO BOTTOM OF CMU TO REMAIN. APPLY NON-SHRINK GROUT FOR FULL BEARING AT ENDS.
 - SECURE LINTEL ANGLES WITH 3/4" ASTM A36 ROD OR HILTI HAS-R 304 SS ANCHOR ROD WITH HILTI HIT-HY 270 ADHESIVE.

- STEP C:**
- AFTER MINIMUM OF 48 HOURS, REMOVE MASONRY TO CREATE NEW OPENING. SAWCUT JAMBS.
 - TROWEL EXPOSED MASONRY BETWEEN ANGLES FLUSH WITH MORTAR.
 - WELD BOTTOM PLATE TO LINTEL ANGLES ACROSS WALL OPENING.
 - PAINT LINTEL ANGLES AND BOTTOM PLATE.



DOOR JAMB 6
NOT TO SCALE



DOOR THRESHOLD 7
NOT TO SCALE

DOOR SCHEDULE						
SIZE	WH	THK	FACE	CORE	CLOSER	THRESH
36"	48"	1-3/4"	METAL	MINERAL	OVERHEAD	NO
						LOCKSET
						YES
						LOUVER
						18"x18"

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Underground Service Alert

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NO.	DATE	REVISIONS

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DRAWN: KS	ENGINEER: RCE 55604
CHECKED: JG	DISTRICT ENGINEER: 2/02/26

TRABUCO CANYON WATER DISTRICT
DOVE CANYON RECYCLED WATER PUMP STATION IMPROVEMENTS
PROJECT NO. RW-13-FY24

MISCELLANEOUS STRUCTURAL DETAILS

S-02
SHEET 11 OF 18

CONDUIT PLANT	SINGLE LINE DIAGRAM	SCHEMATIC DIAGRAM	DESCRIPTION
			CIRCUIT BREAKER. UPPER NUMBER IS TRIP RATING LOWER NUMBER IS NUMBER OF POLES
			THREE POSITION SWITCH. MAINTAINED CONTACT FUNCTION MAY VARY AS NOTED ON DIAGRAMS. CENTER POSITION IS OFF
			TWO POSITION SWITCH. MAINTAINED CONTACT FUNCTION MAY VARY AS NOTED ON DIAGRAMS
			MOMENTARY CONTACT PUSHBUTTON. FUNCTION MAY VARY AS NOTED ON DIAGRAMS
			MOMENTARY CONTACT PUSHBUTTON WITH PROVISION FOR LOCKOUT
			LOCKABLE DISCONNECT SWITCH. RATING AND DETAILS AS NOTED ON DRAWINGS
			LIMIT SWITCH. NORMALLY OPEN
			LIMIT SWITCH. NORMALLY CLOSED
			TIME DELAY RELAY CONTACT OFF DELAY. NORMALLY OPEN. TIME OPEN
			TIME DELAY RELAY CONTACT ON DELAY. NORMALLY CLOSED. TIME CLOSED
			TIME DELAY RELAY CONTACT ON DELAY. NORMALLY OPEN. TIME CLOSED
			TIME DELAY RELAY CONTACT ON DELAY. NORMALLY CLOSED. TIME OPEN
			SOLENOID OPERATED VALVE
			MOTOR CONTROL CENTER DRAWOUT STABS
			MOTOR STARTER WITH THERMAL OVERLOADS. NUMBER INDICATES NOMA SIZE
			MOTOR OVERLOAD CONTACT
			MOTOR. NUMBER INDICATES HORSEPOWER
			INDICATING LIGHT. PUSH-TO-TEST. LETTER INDICATES COLOR. R=RED B=BLUE G=GREEN A=AMBER W=WHITE
			CONTRACTOR OR RELAY COIL. LETTER OR NUMBER IS DESIGNATION
			NORMALLY CLOSED CONTACT. LETTER OR NUMBER IS DESIGNATION
			NORMALLY OPEN CONTACT. LETTER OR NUMBER IS DESIGNATION
			RUNNING TIME METER. NON-RESETTABLE
			FUSE. NUMBER INDICATES RATING
			CONTROL TRANSFORMER. RATING AS NOTED ON DRAWINGS OR AS REQUIRED BASED ON LOAD SERVED
			KILOWATT METER
			PRESSURE SWITCH. CONTACT ACTION AS NOTED ON DRAWINGS

CONDUIT PLANT	SINGLE LINE DIAGRAM	SCHEMATIC DIAGRAM	DESCRIPTION
			POWER TRANSFORMER. RATINGS AS NOTED ON DRAWINGS
			DUPLEX RECEPTACLE. 20A. SPEC GRADE. GROUNDING TYPE. UNLESS OTHERWISE NOTED ON DRAWINGS.
			TELEPHONE OUTLET
			JUNCTION BOX OR CONDUIT FITTING AS NOTED OR REQUIRED. (SHOWN WITH CONDUIT TURNING UP)
			LEVEL SWITCH. CONTACT ACTION AS NOTED ON DRAWINGS
			CONTROL PANEL OR EQUIPMENT AS NOTED
			FLOW SWITCH. CONTACT ACTION AS NOTED ON DRAWINGS
			FLUSH TOGGLE SWITCH. SINGLE POLE. SINGLE THROW
			FLUSH TOGGLE SWITCH. THREE WAY
			FLUORESCENT FIXTURE. SEE LIGHTING SCHEDULE.
			LIGHTING FIXTURE. WALL MOUNTED. SEE LIGHTING SCHEDULE.
			HH-MANHOLE PB-PULLBOX HH-HANDHOLE OR AS NOTED ON DRAWINGS
			TELEPHONE CONDUIT. SIZE AS NOTED
			GROUNDING GRID OR GROUNDING CONDUCTOR. SIZE AS REQUIRED OR AS NOTED ON DRAWINGS
			GROUND PIT/AL. SIZE AS NOTED ON DRAWINGS
			EXOTHERMIC GROUND CONNECTION
			BOLTED GROUND CONNECTION
			CONDUIT BENDING UP
			CONDUIT BENDING DOWN
			UNDERGROUND OR CONCEALED CONDUIT. 1" MINIMUM
			EXPOSED CONDUIT. 3/4" MINIMUM
			NONRUN CONDUIT WITH 3 CONDUCTORS, NEUTRAL AND GROUND. CIRCUITS 1, 2, 3. PANEL PB1. NO HASHMARKS INDICATE 2 CONDUCTORS AND GROUND
			DRIVEN GROUND ROD/TEST WELL 3/4" X 10' C _u CLAD STEEL
			PANELBOARD OR AS NOTED ON DRAWING
			LIQUIDTIGHT FLEXIBLE CONDUIT
			CONDUIT NUMBER 'XXX'. REFER TO CONDUIT SCHEDULE FOR DESCRIPTION

CONDUIT PLANT	SINGLE LINE DIAGRAM	SCHEMATIC DIAGRAM	DESCRIPTION
			MANUAL MOTOR STARTER
			GROUND
			HEATER. RATINGS AS NOTED ON DRAWING
			HORN OR AUDIBLE SIGNAL
			PHASE
			TERMINAL. INTERNAL WIRING
			TERMINAL. FIELD WIRING
			DOOR SWITCH
			CONDUIT STUB OUT
			DISCONNECT SWITCH. F = FUSED NF = NON-FUSED XX = AMP RATING
			TELEMETRY INPUT POINT
			PLC INPUT POINT AT RTU

STANDARD ABBREVIATIONS

A	AMPERES	MM	MANHOLE
AC	ALTERNATING CURRENT	MMH	MINIMUM OR MINUTE
AF	AMPERE FRAME	MLO	MAIN LUGS ONLY
AFB	ABOVE FINISHED CONCRETE	MOV	MOTOR OPERATED VALVE ACTUATOR
AFD	ABOVE FINISHED FLOOR	MWB	MAIN SWITCHBOARD
AT	ABOVE FINISHED GRADE	MTR	MOUNTING
AT	AMPERE TRIP	MTR	MOTOR
ATS	AUTOMATIC TRANSFER SWITCH	N	NEUTRAL
AUX	AUXILIARY	NA	NON-AUTOMATIC
AUTO	AUTOMATIC	NC	NORMALLY CLOSED
AWG	AMERICAN WIRE GAUGE	NC/O	NORMALLY CLOSED INSTANTANEOUS OPEN
BC	BRASS COPPER	NCTC	NORMALLY CLOSED. TIME CLOSE
BD	BOARD	NCTO	NORMALLY CLOSED. TIME OPEN
BR	BREAKER	NEC	NATIONAL ELECTRIC CODE
C	CONDUIT	NIC	NOT IN CONTRACT
CAB	CABINET	N#	NUMBER
CB	CIRCUIT BREAKER	NO	NORMALLY OPEN
C.O.	CONDUIT ONLY	NOIC	NORMALLY OPEN. INSTANTANEOUS CLOSE
COMP	COMPARTMENT	NOIC	NORMALLY OPEN. TIME CLOSE
COND	CONDUCTOR	NOTC	NORMALLY OPEN. TIME OPEN
CONTR	CONTROL	NTS	NOT TO SCALE
CONTD	CONTINUED	OL	OVERLOAD
CPT	CONTROL POWER TRANSFORMER	OTI	OVERTEMP SWITCH
CP	CONTROL PANEL	PB	PUSHBUTTON
CU	CURRENT TRANSFORMER	PB	PULLBOX
CU	COPPER	PC	PHOTOCELL
CR	CONTROL RELAY	PCV	POTENTIAL CONTROL VALVE
DC	DIRECT CURRENT	PR	PANEL
DISC	DISCONNECT SWITCH	POS	POSITION
DPT	DOUBLE POLE DOUBLE THROW	PR	PAIR
DPT	DOUBLE POLE SINGLE THROW	PR1	PRIMARY
DWG	DRAWING	PS	PRESSURE SWITCH
DS	DOOR SWITCH	PT	POTENTIAL TRANSFORMER
DE	DEELEVATION	PVC	POLYVINYL CHLORIDE
ELEV	ELEVATION	PVC/RIS	PVC JACKETED RIGID GALVANIZED STEEL CONDUIT
EOT	ELECTRICALLY OPERATED	PW	PART WINDING
EXIST	EXISTING	RECEP	RECEPTACLE
FSD	FURNISHED BY OWNER	RCP	RIGID GALVANIZED STEEL CONDUIT
FDR	FEEDER	RTU	REMOTE TERMINAL UNIT
FIN	FINISHED	RVAT	REDUCED VOLTAGE AUTO TRANSFORMER
FLA	FULL LOAD AMPS	RVVD	REDUCED VOLTAGE WYE DELTA
FLEX	FLEXIBLE	SEC	SECONDARY
FM	FLOW METER	SEL	SELECTION
FS	FLOW SWITCH	SP	SPARE
FS OR	FEET OR FOOT	SPEC	SPECIFICATION
FT	FULL TRANSMITTER	SPOT	SINGLE POLE DOUBLE THROW
FUTURE	FUTURE	SPST	SINGLE POLE SINGLE THROW
FVNR	FULL VOLTAGE NON REVERSING	SS	STAINLESS STEEL
GD	GAS DETECTORS	SSRV	SOLID STATE REDUCED VOLTAGE STARTER
GFI	GROUND FAULT INTERRUPTER	STA	START TRIP
GFP	GROUND FAULT PROTECTION	ST	STATION
GND OR G	GROUND	STL	SHIELDED TWISTED PAIR
HH	HANDHOLE	STR	STARTER
HOA	HAND/OFF/AUTO	STT	SHIELDED TWISTED TRIPLET
HTR	HEATER	SW	SWITCH
IC	INTERRUPTING CURRENT	SWB	SWITCHBOARD
IN OR "	INCHES OR INCH	TB	TERMINAL BOX
IND	INDICATING	TEL	TELEPHONE
INST	INSTANTANEOUS	TEMP	TEMPERATURE
INSTR	INSTRUMENT	TERM	TERMINAL
INTLK	INTERLOCK	TM	TELEMETRY
JB OR J	JUNCTION BOX, CONDULET OR FITTING AS REQUIRED BY NEC UNLESS OTHERWISE NOTED	TS	TEMPERATURE SWITCH
KW	KILOWATTS	TSW	TWO SPEED TWO WINDING
LCL	LONG CONTINUOUS LOAD	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
LCP	LOCAL CONTROL PANEL	TVSW	TWISTED SHIELDED
LEV	LEVEL	TYP	TYPICAL
LIM	LIMIT	UG	UNDERGROUND
LR	LOCAL/REMOTE	UN	UNLESS OTHERWISE NOTED
LOS	LOCKOUT STOP STATION	V	VOLTS
LS	LEVEL OR LIMIT SWITCH	W	WATTS
LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS AND GROUND FAULT ADJUSTMENTS	W/F	WITH FLOOR
LT	LIGHT	W/O	WITHOUT
LTG	LIGHTING	WP	WEATHERPROOF
LV	LOW VOLTAGE	XFR	TRANSFORMER
MB	MILLS AMPERE	XP	EXPLOSION PROOF
MAINT	MAINTAINED	ZS	POSITION SWITCH OR LIMIT SWITCH
MN	MINIMUM	3W	THREE WIRE
MAX	MAXIMUM	4W	FOUR WIRE
MC	MAINTAINED CONTACT		
MCC	MOTOR CONTROL CENTER		
MCM	THOUSAND CIRCULAR MILS		
MCP	MOTOR CIRCUIT PROTECTOR		

DIGALERT CALL TOLL FREE 811 NO WORKING DAYS BEFORE YOU DIG Underground Service Alert

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2734 Larkspur Ave West, Suite 101, Colton, CA 92320 Tel: (951) 980-2336



DATE: 02/02/26

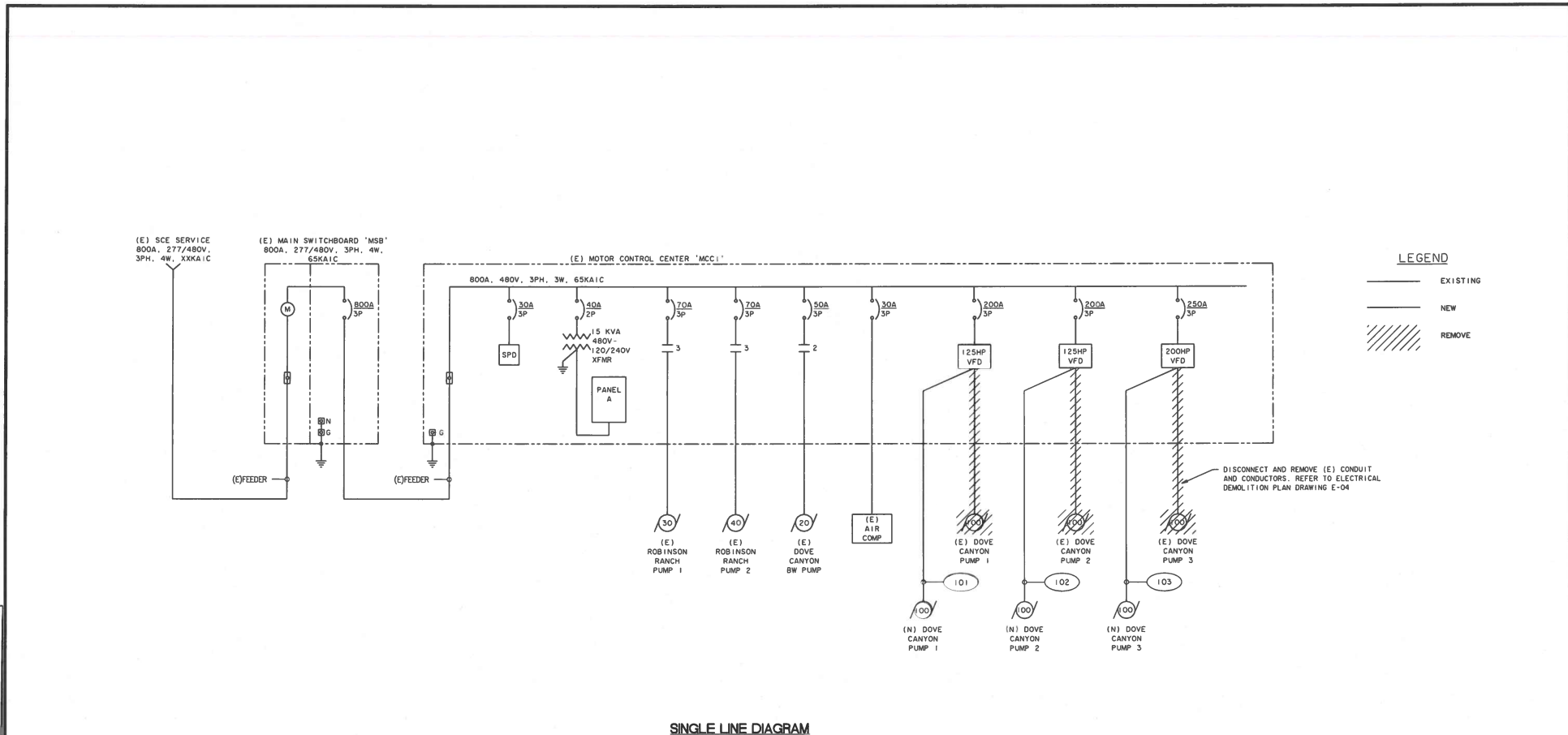
NO.	DATE	REVISIONS

DESIGN: GG	DATE: 2/02/26
DRAWN: AH	ENGINEER: [Signature] REC 55624
CHECKED: GG	DISTRICT ENGINEER: [Signature] REC 47027

TRABUCO CANYON WATER DISTRICT
DOVE CANYON RECYCLED WATER PUMP STATION IMPROVEMENTS
PROJECT NO. RW-13-FY24

STANDARD ELECTRICAL SYMBOLS AND ABBREVIATIONS

E-01
SHEET
12
OF
18



LEGEND

— EXISTING

- - - NEW

/// REMOVE

SINGLE LINE DIAGRAM

DIALERT CALL TOLL FREE 811
 TWO WORKING DAYS BEFORE YOU DIG
 Underground Service Alert

CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT A MINIMUM OF 48 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION WORK. SEE GENERAL NOTES FOR FURTHER INFORMATION.

GERRY GREEN INC. Consulting Electrical Engineers
 2734 Lake Ave West, Suite M, Carlsbad, CA 92010 Tel: (619) 963-2356



DATE: 02/02/26

NO.	DATE	REVISIONS

DESIGN: GG
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 CHECKED: GG



ENGINEER: REE 5564
 DISTRICT ENGINEER: REE 6702

TRABUCO CANYON WATER DISTRICT
DOVE CANYON RECYCLED WATER PUMP STATION IMPROVEMENTS
PROJECT NO. RW-13-FY24

EXISTING SINGLE LINE DIAGRAM AND MODIFICATIONS

E-02
 SHEET
 13
 OF
 18

PANEL: A		MOUNTED IN MCC1										EXISTING FLUSH MOUNTED 10 KVA RATING NEMA 1 ENCLOSURE	
VOLT: 120/240V 1 PHASE, 3 WIRE												BUS: 100 AMP	
MAIN: LUGS ONLY												KEY: N - NON-COINCIDENT LOADS	
FED FROM: TRANSFORMER 15KVA, 480V-120/240V, 1 PHASE													
DESCRIPTION	C K T	LOAD	Q T Y	BREAKER AMP	VOLT AMPERES PER PHASE	A Ø	B Ø	P AMP	K E Y	Q LOAD	C K T	DESCRIPTION	
MAIN BREAKER	1			80	300			1	20	300	2	SWITCHBOARD LIGHT & RECEPTACLE	
	3			-	300			1	20	300	4	MCC LIGHT & RECEPTACLE	
CONTROL PANEL LIGHT & RECEPTACLE	5	300		20	800			1	20	500	6	CONTROL PANEL	
METERING PUMP	7	500		20	1000			1	20	500	8	PUMP HOUSE LIGHTING	
EXH FAN	9	500		20	1000			1	20	500	10	PUMP HOUSE RECEPTACLES	
SUMP PUMP	11	1600		20	2100			1	20	500	12	SUMP PUMP	
FILTER CONTROL PANEL	13	500		20	1000			1	20	500	14	DOVE LAKE FLOW METER	
SPARE	15			20	0			1	20		16	SPARE	
SPARE	17			20	0			1	20		18	SPARE	
THROUGH FEED OR DOUBLE LUG TOTAL VA PER PHASE		0										PANEL:	
TOTAL VOLT AMPERES PER PHASE		3100										TOTALS	
KEY		DEMAND		DESIGN		CONNECTED							
L-GENERAL LIGHTING LOAD	125%	0	VA	0	VA	0	VA	7		7		TOTAL CONNECTED KVA	
R-RECEPTACLES (NEC ART. 220-13)		0	VA	0	VA	0	VA	7		7		TOTAL DESIGN KVA	
M-MOTOR LOADS		0	VA	0	VA	0	VA	27		27		TOTAL CONNECTED AMPS	
K-KITCHEN RECEPTACLES	0 AT 100% =	0	VA	0	VA	0	VA	0		0		25% OF LARGEST MOTOR AMPS	
ALL OTHER LOADS		6500	VA	6500	VA	6500	VA	27		27		TOTAL DESIGN AMPS	

CONDUIT/CABLE SCHEDULE										
TAG I.D.	CONDUIT QTY.	CONDUIT SIZE	CABLE (EA CONDUIT) QTY.	CABLE (EA CONDUIT) SIZE	GND	FROM	TO	REMARKS		
101	1	2	3	2/0	2	MOTOR CONTROL CENTER MCC1	PUMP P1			
102	1	2	3	2/0	2	MOTOR CONTROL CENTER MCC1	PUMP P2			
103	1	2	3	2/0	2	MOTOR CONTROL CENTER MCC1	PUMP P3			
104	1	1	12	14	14	MOTOR CONTROL CENTER MCC1	PUMP P1 (J-BOX)	P1, P2, AND P3 LOS SWITCHES AND OVERTEMP. EXTEND WIRING TO P1		
104A	1	1	8	14	14	PUMP P1 (J-BOX)	PUMP P2 (J-BOX)	P2, AND P3 LOS SWITCHES AND OVERTEMP. EXTEND WIRING TO P2		
104B	1	1	4	14	14	PUMP P2 (J-BOX)	PUMP P3 (J-BOX)	P3 LOS SWITCH AND OVERTEMP. EXTEND WIRING TO P3		
105	1	1	6	12	12	PANEL A (MCC1)	POWER J-BOX PJB1	LTG, CHEM PUMP, AND EXH FAN. EXTEND WIRING TO LIGHTS		
105A	1	1	4	12	12	POWER J-BOX PJB1	POWER J-BOX PJB2	CHEM PUMP AND EXH FAN. EXTEND WIRING TO CHEM PUMP RECEPT		
105B	1	1	2	12	12	POWER J-BOX PJB2	EXH FAN			
105C	1	1	3	12	12	3-WAY LIGHT SWITCH AT EXISTING DOOR	3-WAY LIGHT SWITCH AT NEW DOOR	WIRE NEW 3-WAY SWITCHES TO CONTROL ALL INTERIOR LIGHTS		
106	1	1-1/4	6	TSP		PLC CONTROL PANEL (MCC1)	PT-01 (J-BOX)	PT-01, PT-02, FIT-01, AND CMP-01. EXTEND (1) TSP TO PT-01.		
106A	1	1	5	TSP		PT-01 (J-BOX)	PT-02 (J-BOX)	PT-02, FIT-01, AND CMP-01. EXTEND (1) TSP TO PT-02.		
106B	1	1	4	TSP		PT-02 (J-BOX)	FIT-01 (J-BOX)	FIT-01 AND CMP-01. EXTEND (2) TSP TO FIT-01.		
106C	1	1	2	TSP		FIT-01 (J-BOX)	CMP-01 (J-BOX)	CMP-01. EXTEND (2) TSP TO CMP-01.		
107	1	1	6	14	14	PLC CONTROL PANEL (MCC1)	PSH-01 (J-BOX)	PSH-01, PSL-01, AND CMP-01. EXTEND 2#14 TO PSH-01.		
107A	1	1	4	14	14	PSH-01 (J-BOX)	PSL-02 (J-BOX)	PSL-02 AND CMP-01. EXTEND 2#14 TO PSL-02.		
107B	1	1	2	14	14	PSL-02 (J-BOX)	CMP-01 (J-BOX)	CMP-01. EXTEND 2#14 TO CMP-01.		
108	1	3/4	2	12	12	PANEL A (MCC1)	SUMP PUMP RECEPTACLE			
109	1	3/4	2	12	12	PANEL A (MCC1)	FILTER CONTROL PANEL			
110	1	1-1/4	6	TSP	14	FILTER CONTROL PANEL	FILTER SKID CONTROL BOX	WIRING REQUIREMENTS FOR FILTER SKID SHALL BE VERIFIED		
111	1	1	6	14	14	FILTER CONTROL PANEL	FILTER SKID CONTROL BOX	WIRING REQUIREMENTS FOR FILTER SKID SHALL BE VERIFIED		

DIGALERT CALL TOLL FREE 811
 NO WORKING DAYS BEFORE YOU DIG
 UNDERGROUND SERVICE ALERT

GERRY GREEN INC. Consulting Electrical Engineers
 2734 Lido Ave West, Suite M, Carlsbad, CA 92008 Tel: (760) 933-3356



DATE: 02/02/26

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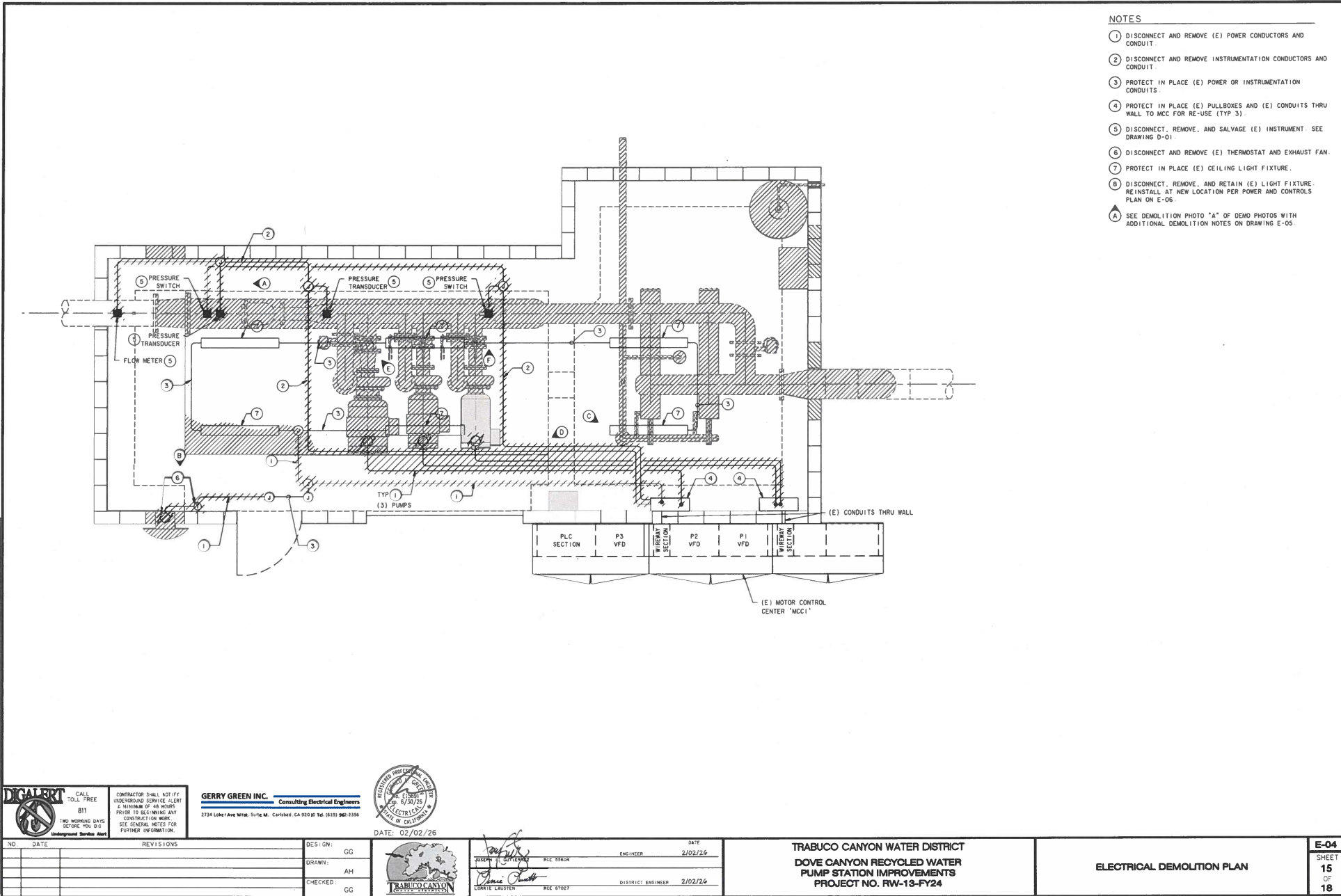
DESIGN: GG
 DRAWN: AH
 CHECKED: GG

DATE: 2/02/26
 ENGINEER: JOSEPH J. GUTTERO, REC 57604
 DATE: 2/02/26
 DISTRICT ENGINEER: JAMES C. LARSEN, REC 57027

TRABUCO CANYON WATER DISTRICT
 DOVE CANYON RECYCLED WATER PUMP STATION IMPROVEMENTS
 PROJECT NO. RW-13-FY24

CONDUIT AND PANEL SCHEDULES

E-03
 SHEET 14 OF 18



- NOTES**
- ① DISCONNECT AND REMOVE (E) POWER CONDUCTORS AND CONDUIT.
 - ② DISCONNECT AND REMOVE INSTRUMENTATION CONDUCTORS AND CONDUIT.
 - ③ PROTECT IN PLACE (E) POWER OR INSTRUMENTATION CONDUITS.
 - ④ PROTECT IN PLACE (E) PULLBOXES AND (E) CONDUITS THRU WALL TO MCC FOR RE-USE (TYP 3).
 - ⑤ DISCONNECT, REMOVE, AND SALVAGE (E) INSTRUMENT SEE DRAWING D-01.
 - ⑥ DISCONNECT AND REMOVE (E) THERMOSTAT AND EXHAUST FAN.
 - ⑦ PROTECT IN PLACE (E) CEILING LIGHT FIXTURE.
 - ⑧ DISCONNECT, REMOVE, AND RETAIN (E) LIGHT FIXTURE. REINSTALL AT NEW LOCATION PER POWER AND CONTROLS PLAN ON E-06.
 - ▲ SEE DEMOLITION PHOTO "A" OF DEMO PHOTOS WITH ADDITIONAL DEMOLITION NOTES ON DRAWING E-05.

DIAL 811 CALL TOLL FREE 811
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 Underground Service Alert

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 2734 LORAIN AVE WEST, SUITE M, CARLSBAD, CA 92008 TEL: (619) 940-3350



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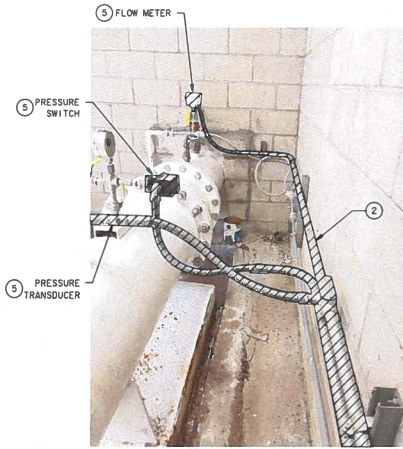


DATE: 2/02/26
 ENGINEER: WILE 5560A
 DISTRICT ENGINEER: 2/02/26
 CURTIS LAUSTEN RFE 67027

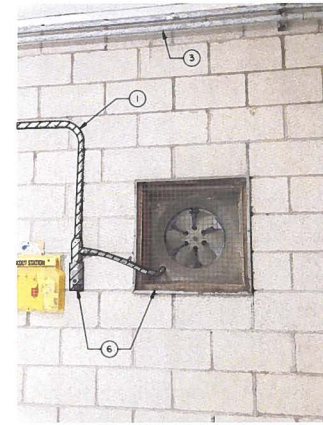
TRABUCO CANYON WATER DISTRICT
DOVE CANYON RECYCLED WATER PUMP STATION IMPROVEMENTS
PROJECT NO. RW-13-FY24

ELECTRICAL DEMOLITION PLAN

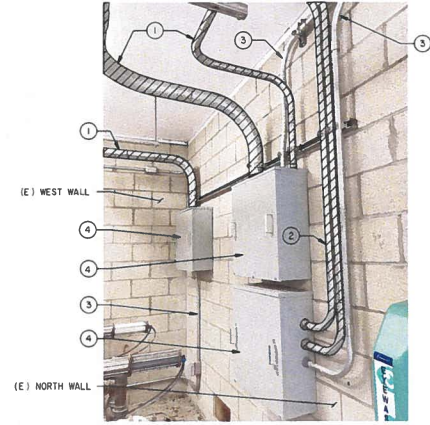
E-04
 SHEET
15
 OF
18



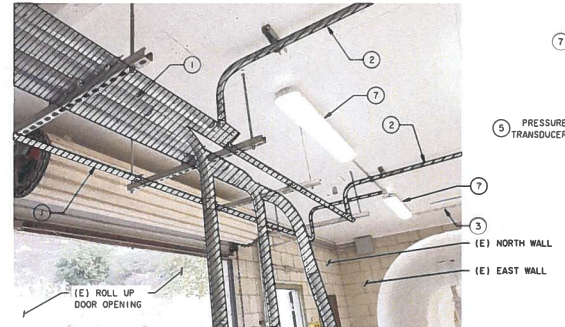
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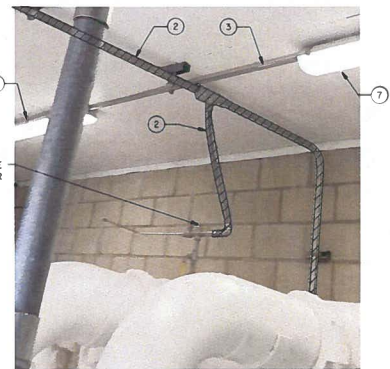
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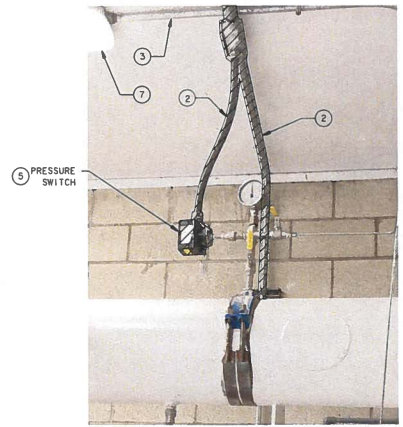
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- NOTES**
- 1 DISCONNECT AND REMOVE (E) POWER CONDUCTORS AND CONDUIT.
 - 2 DISCONNECT AND REMOVE INSTRUMENTATION CONDUCTORS AND CONDUIT.
 - 3 PROTECT IN PLACE (E) POWER OR INSTRUMENTATION CONDUITS.
 - 4 PROTECT IN PLACE (E) PULLBOXES AND (E) CONDUITS THRU WALL TO MCC FOR RE-USE (TYP 3).
 - 5 DISCONNECT, REMOVE, AND SALVAGE (E) INSTRUMENT SEE DRAWING D-01.
 - 6 DISCONNECT AND REMOVE (E) THERMOSTAT AND EXHAUST FAN.
 - 7 PROTECT IN PLACE (E) CEILING LIGHT FIXTURE.
 - 8 DISCONNECT, REMOVE, AND RETAIN (E) LIGHT FIXTURE REINSTALL AT NEW LOCATION PER POWER AND CONTROLS PLAN ON E-06.

DIGALERT
CALL TOLL FREE 811
TWO WORKING DAYS BEFORE YOU DIG
Underground Service Alert

GERRY GREEN INC. Consulting Electrical Engineers
2734 Laurel Ave West, Suite M, Carlsbad, CA 92010 Tel: (619) 940-3356



DATE: 02/02/26

NO.	DATE	REVISIONS

DESIGN: GG
DRAWN: AH
CHECKED: GG

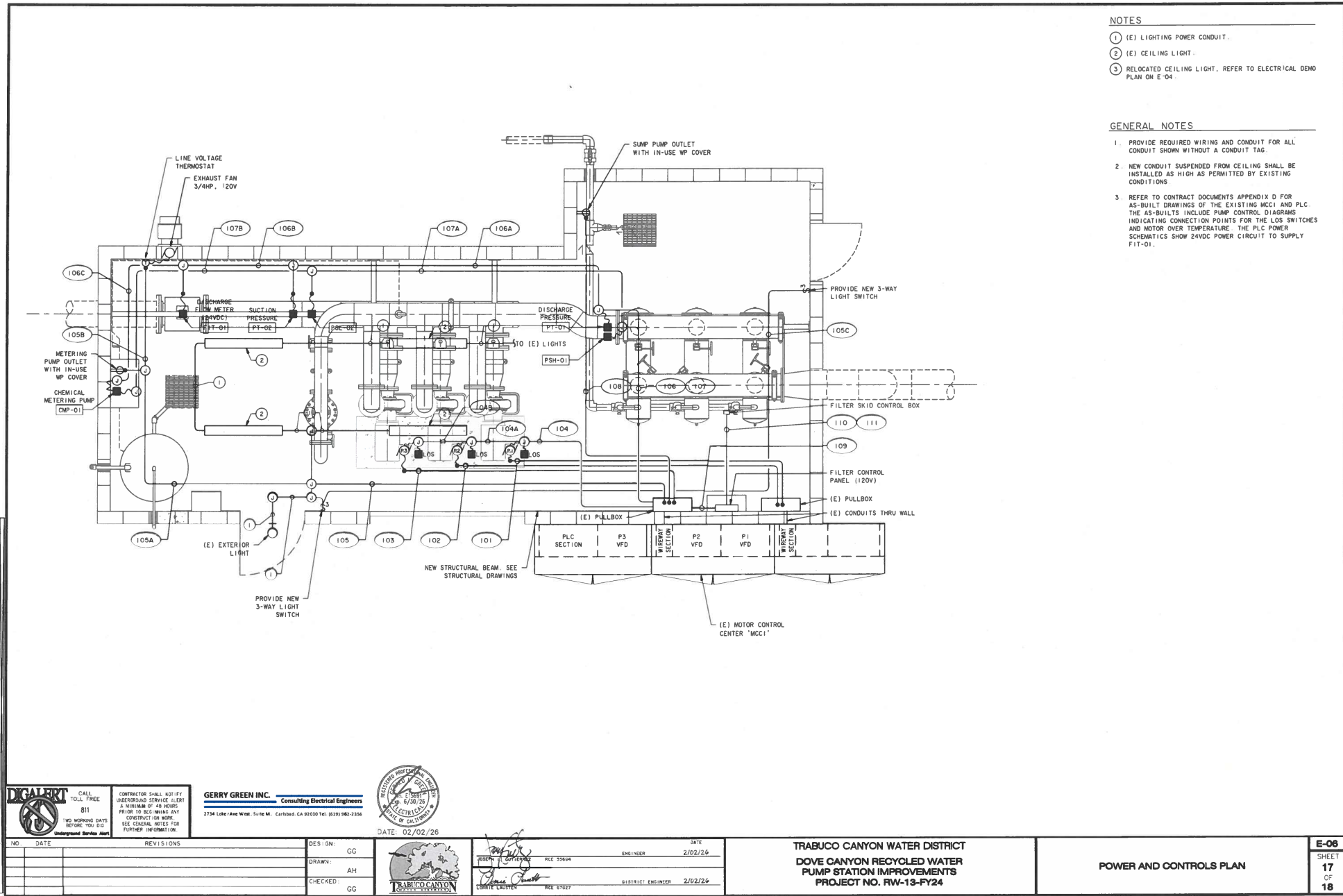


ENGINEER: RILEY 55604
DISTRICT ENGINEER: LAUSTEN 67027
DATE: 2/02/26

TRABUCO CANYON WATER DISTRICT
DOVE CANYON RECYCLED WATER PUMP STATION IMPROVEMENTS
PROJECT NO. RW-13-FY24

EXISTING PHOTOS

E-05
SHEET 16 OF 18



- NOTES**
- ① (E) LIGHTING POWER CONDUIT.
 - ② (E) CEILING LIGHT.
 - ③ RELOCATED CEILING LIGHT. REFER TO ELECTRICAL DEMO PLAN ON E-04.

- GENERAL NOTES**
1. PROVIDE REQUIRED WIRING AND CONDUIT FOR ALL CONDUIT SHOWN WITHOUT A CONDUIT TAG.
 2. NEW CONDUIT SUSPENDED FROM CEILING SHALL BE INSTALLED AS HIGH AS PERMITTED BY EXISTING CONDITIONS.
 3. REFER TO CONTRACT DOCUMENTS APPENDIX D FOR AS-BUILT DRAWINGS OF THE EXISTING MCC1 AND PLC. THE AS-BUILTS INCLUDE PUMP CONTROL DIAGRAMS INDICATING CONNECTION POINTS FOR THE LOS SWITCHES AND MOTOR OVER TEMPERATURE. THE PLC POWER SCHEMATICS SHOW 24VDC POWER CIRCUIT TO SUPPLY FIT-01.

CALL FREE
811
NO WORKING DAYS BEFORE YOU DIG
Underground Service Alert

GERRY GREEN INC. Consulting Electrical Engineers
2734 Lake Ave West, Suite M, Carlsbad, CA 92008 Tel: (619) 963-2334



DATE: 02/02/26

NO.	DATE	REVISIONS

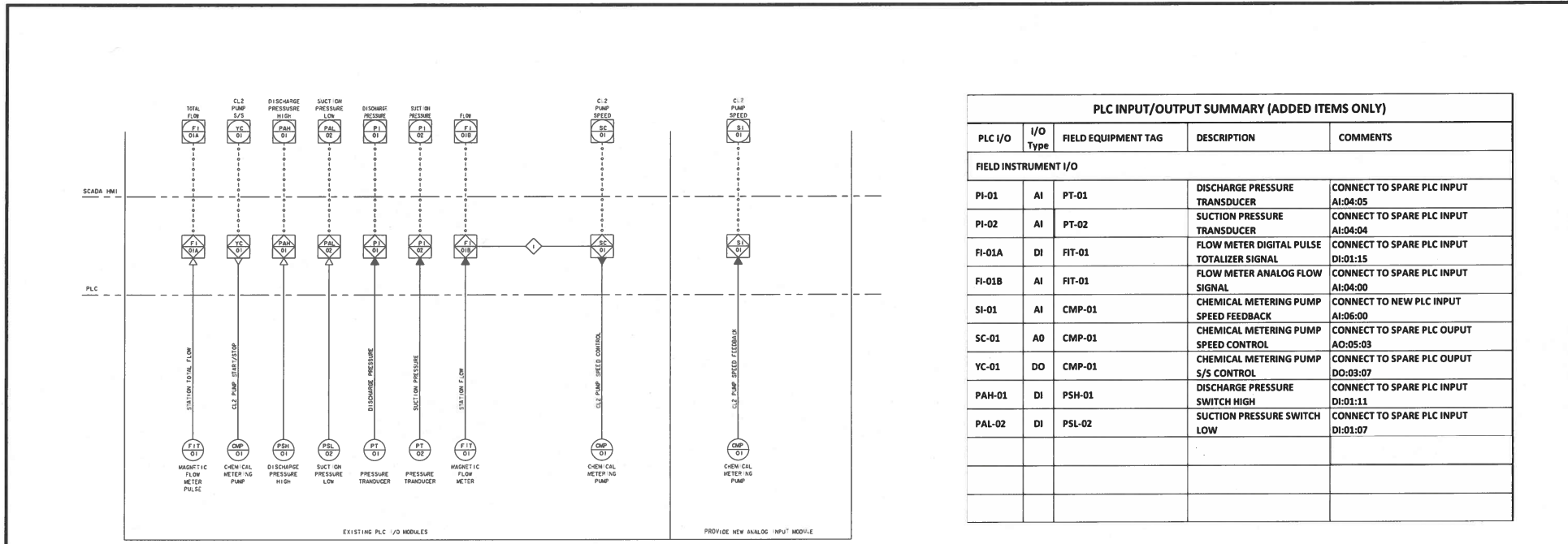
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DATE: 2/02/26
ENGINEER: [Signature]
DATE: 2/02/26
DISTRICT ENGINEER: [Signature]

TRABUCO CANYON WATER DISTRICT
DOVE CANYON RECYCLED WATER PUMP STATION IMPROVEMENTS
PROJECT NO. RW-13-FY24

POWER AND CONTROLS PLAN

E-06
SHEET
17
OF
18



PLC INPUT/OUTPUT SUMMARY (ADDED ITEMS ONLY)				
PLC I/O	I/O Type	FIELD EQUIPMENT TAG	DESCRIPTION	COMMENTS
FIELD INSTRUMENT I/O				
PI-01	AI	PT-01	DISCHARGE PRESSURE TRANSDUCER	CONNECT TO SPARE PLC INPUT AI:04:05
PI-02	AI	PT-02	SUCTION PRESSURE TRANSDUCER	CONNECT TO SPARE PLC INPUT AI:04:04
FI-01A	DI	FIT-01	FLOW METER DIGITAL PULSE TOTALIZER SIGNAL	CONNECT TO SPARE PLC INPUT DI:01:15
FI-01B	AI	FIT-01	FLOW METER ANALOG FLOW SIGNAL	CONNECT TO SPARE PLC INPUT AI:04:00
SI-01	AI	CMP-01	CHEMICAL METERING PUMP SPEED FEEDBACK	CONNECT TO NEW PLC INPUT AI:06:00
SC-01	AO	CMP-01	CHEMICAL METERING PUMP SPEED CONTROL	CONNECT TO SPARE PLC OUPUT AO:05:03
YC-01	DO	CMP-01	CHEMICAL METERING PUMP S/S CONTROL	CONNECT TO SPARE PLC OUPUT DO:03:07
PAH-01	DI	PSH-01	DISCHARGE PRESSURE SWITCH HIGH	CONNECT TO SPARE PLC INPUT DI:01:11
PAL-02	DI	PSL-02	SUCTION PRESSURE SWITCH LOW	CONNECT TO SPARE PLC INPUT DI:01:07

INSTRUMENTATION DIAGRAM

DIALERT CALL TOLL FREE 811
 TWO WORKING DAYS BEFORE YOU DIG
 Underground Service Alert

GERRY GREEN INC. Consulting Electrical Engineers
 2734 Lomb Ave West, Suite M, Colton, CA 92307
 (951) 962-3356



DATE: 02/02/26

NO.	DATE	REVISIONS

DESIGN: GG
 DRAWN: AH
 CHECKED: GG



DATE: 2/02/26
 ENGINEER: RICE 25604
 DATE: 2/02/26
 DISTRICT ENGINEER: LOHTE LAUSTEN RCE 67027

TRABUCO CANYON WATER DISTRICT
 DOVE CANYON RECYCLED WATER PUMP STATION IMPROVEMENTS
 PROJECT NO. RW-13-FY24

INSTRUMENTATION DIAGRAM AND I/O SUMMARY

E-07
 SHEET 18 OF 18

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | MARCH 4, 2026**

ENGINEERING MATTERS

ITEM 3: DOVE URBAN WATER RECOVERY PUMP STATION ACCESS ROAD IMPROVEMENTS – CONSTRUCTION CONTRACT AWARD

Dove and Tick Creek Pump Stations are important components of Trabuco Canyon Water District’s (District) Dry Season Water Recovery Program (Exhibit 1). These pump stations, located at the south end of Dove Canyon Development, capture urban runoff and convey it to Dove Lake, where it is blended with tertiary water for use in the District’s recycled water system to offset reliance on potable water for irrigation purposes.

The planned Dove and Tick Creek Pump Station Improvements will upgrade the Dove and Tick Creek Pump Stations to increase capture of both dry weather runoff and stormwater (wet weather flows) to produce 200 Acre-Feet per Year (AFY) of new non-potable water.

These improvements will double the current amount of captured runoff by upgrading the pump stations with larger pumps capable of handling debris and moving a greater volume of water. Additionally, the project improvements will result in expanding the area of captured flow, improving debris capture, and improving the storm drain overflow to prevent flooding and damage to equipment. These improvements will increase the volume of water that can be conveyed through the system above current capacities. The project also includes a new desilting basin to improve water quality prior to blending. By reducing dry weather flows, the project will also provide ecosystem benefits to downstream native habitat, as urban runoff carries nitrates and other pollutants downstream and disperses nonnative seeds and vegetation, which negatively impacts Audubon Society’s 4,000-acre Starr Ranch Sanctuary.

The District has received the following grants for the project:

- South OC-Prop 1 IRWM - \$389,500 – 50% match required
- USBR WaterSMART Drought Resiliency Program – \$577,584 – 50% match required from a Non-Federal Source

At the January 7, 2026 Special Board Meeting, the design and environmental work was awarded to AKM Consulting Engineering in the amount of \$511,412. Staff proposes completing a smaller portion of the work that was removed from the design with an outside contractor. This work includes re-grading and paving of the access road and this will be completed after the rainy season. Staff received the following three proposals:

Dove Pump Station Access Road & Channel Improvements-Construction Bids	
JES Engineering Contractors	\$62,616.82
Champion Paving Co.	\$70,327.00
Ferreira Construction	\$77,270.00

FUNDING SOURCE:

Capital improvement Program

FISCAL IMPACT (PROJECT BUDGET):

FY 2025-26 Project Budget:	\$1,119,400
Revised Mid-Year Project Budget:	\$2,500,000
Engineering Design & Environmental Contract:	\$562,553
FY 2025-26 Remaining Budget:	\$1,937,447
Total Project Grants Awarded:	\$967,084

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | MARCH 4, 2026**

ENVIRONMENTAL COMPLIANCE:

Notice of Exemption

RECOMMENDED ACTION:

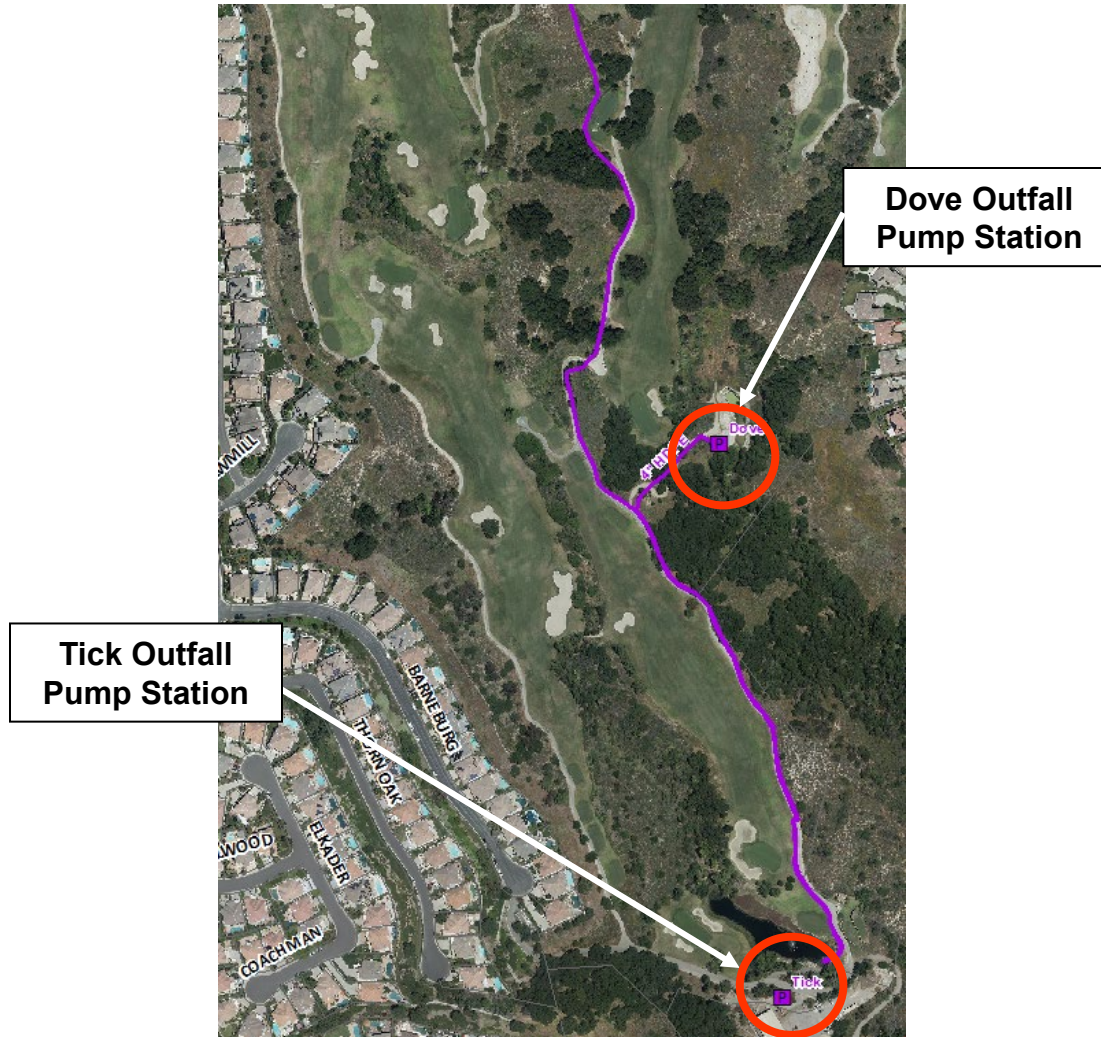
Recommend the Board of Directors authorize the General Manager to award a construction contract for the Dove Pump Station Access Road to JES Engineering Contractors in the amount of \$62,616.82 plus a 10% contingency of \$6,261, for a not-to-exceed amount of \$68,877.82 (Action Calendar).

EXHIBIT(S):

1. Project Location, Description and Bid Comparison

CONTACTS (staff responsible): McKENNEY/LAUSTEN

Dove and Tick Creek Pump Stations Access & Channel Improvements Project Location



Dove Creek Pump Station Access Road Improvements Project Location



Dove and Tick Creek Pump Stations Access & Channel Improvements Bid Comparison

Access Maintenance Road Improvements Costs Comparison Spreadsheet

Item	Champion Paving Company	Cost	Ferreria Construction Company	Cost	JES Engineering Contractors	Cost
1	Access Maintenance Road Improvements	\$70,327	Access Maintenance Road Improvements	\$77,270	Access Maintenance Road Improvements	\$62,616.82
Total Cost		\$70,327		\$77,270		\$62,616.82

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | MARCH 4, 2026**

ENGINEERING MATTERS

ITEM 4: OTHER ENGINEERING AND OPERATIONS PROJECT UPDATES

1. Dimension Water Treatment Plant Transmission Main Rehabilitation Project
2. Hamilton Oaks Community Pressure Zone Technical Memorandum Update
3. Saddle Crest Inlet/Outlet Pipeline Project Update
4. Pipeline Condition Assessment Update

RECOMMENDED ACTION:

Committee to receive project status updates at the time of the Committee Meeting.

EXHIBIT(S):

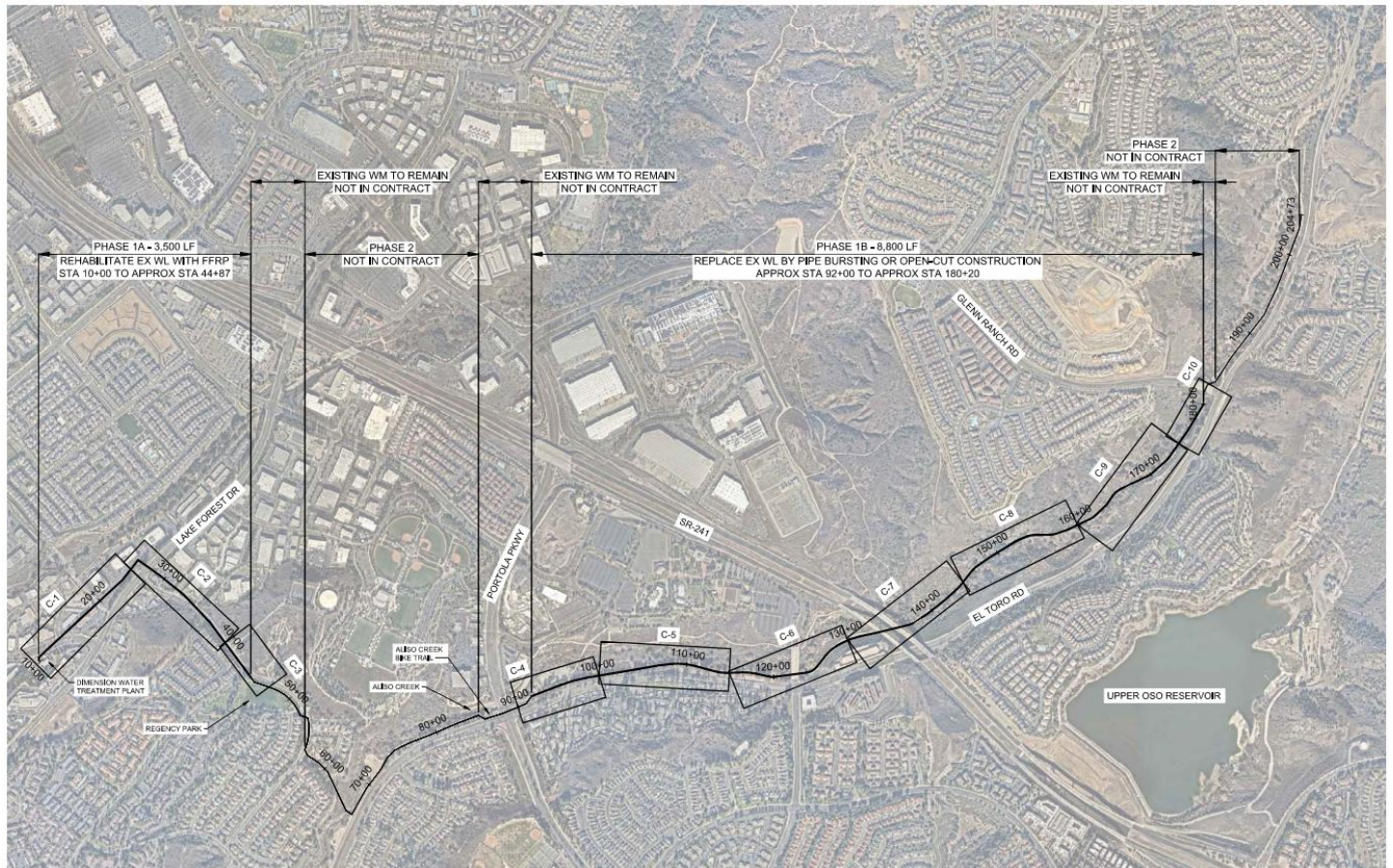
1. DWTP Transmission Main Monthly Construction Report

CONTACTS (staff responsible): McKENNEY/LAUSTEN



Phase 1A/1B/1C - DWTP Transmission Main Rehabilitation and Replacement Project

Construction Report February 2026



I. GENERAL PROJECT INFORMATION

Contractor

TE Roberts, Inc.

Contract Time

Original Calendar Days:	153 Days
Notice to Proceed:	June 23, 2025
Material Delivery:	August 5, 2025
Original Contract Completion Date:	Jan 5, 2026
Revised Contract Completion Date:	Mar 13, 2026

Contract Price

Phase 1A Original Contract Amount:	\$1,793,012.00
Phase 1B Original Contract Amount:	\$3,721,445.00
Total Original Contract Amount:	\$5,514,457.00
Approved Change Order [Unexecuted]: Close Out #1 [Phase 1A]	-\$31,748.95
Approved Change Order [Unexecuted]: Creek Crossing #1 [Phase 1B]	\$186,500.00
Approved Change Order [Unexecuted]: Creek Crossing #2 [Phase 1B]	\$186,500.00
Credit Contract Line Item 09 [Unexecuted] [Phase 1B]	-\$126,200.00
Credit Contract Line Item 19 [Unexecuted] [Phase 1B]	-\$200,000.00
Approved Change Order [Unexecuted]: [Phase 1C]	\$747,077.00
Total Change Order Amount:	\$762,508.05
Revised Contract Amount [Phase 1A, 1B, 1C]:	\$6,291,636.10

II. CONSTRUCTION MANAGER SUMMARY

This report summarizes construction activities for February 2026 for the Phase 1B and Phase 1C – DWTP Transmission Main Rehabilitation and Replacement Project, including continued Phase 1B rehabilitation work, Phase 1C tie-in activities, and Phase 2 investigative efforts supporting upcoming rehabilitation operations.

During February, construction focused on completion of pipe bursting tie-ins, overhead creek crossing installation, open cut pipeline installation, and preparation for Primus liner work. Phase 1C activities advanced in coordination with previously completed bursting segments, while investigative work began for Phase 2 near Pembroke Lane and Regency Lane.

TE Roberts, Inc., progressed work at multiple stations. Early-month activities included completion of pipe bursting between pits, removal of bursting equipment, installation of C900 pipe, 16-inch butterfly valves, flange adapters, ductile iron fittings, and placement of concrete thrust blocks and tie-ins. Backfill operations followed installation, including sand bedding, warning tape, native backfill, and compaction verification.

Overhead pipeline work at the creek crossings #1 and #2 included completion of epoxy-coated piping, welded flange connections, air vac installation, reinforced concrete pipe support foundations, and final backfill, demolition of existing overhead piping was completed, vertical reinforcement and formwork were installed, concrete was placed for pipe supports, and backfill operations were finalized with testing verification.

Open cut installation progressed at multiple locations, including installation of 16-inch C900 pipe, joint restraints, fittings, blind flanges, and hydrant/blowoff assemblies. A siphon crossing beneath a 48-inch storm drain was completed with reinforced thrust blocks and slurry placement in accordance with TCWD standards. Phase 1C tie-in pits were completed, including valve and fitting installation and final backfill with compaction verification. Asphalt paving restoration was performed at several stations, with coordination conducted to confirm restoration limits within City and County jurisdiction.

Phase 2 preparatory work included potholing to verify pipe depth and alignment, removal of existing CMLC sections and valves on a time-and-materials basis, and CCTV investigations to confirm pipeline conditions prior to liner installation.

Daily traffic control was maintained in accordance with approved plans. Despite minor weather delays and localized subsurface conflicts, February reflected continued advancement of Phase 1B and Phase 1C construction, completion of key tie-ins and crossings, paving restoration progress, and initiation of Phase 2 liner preparation activities.

III. ANTICIPATED CONSTRUCTION ACTIVITIES – NEXT REPORTING PERIOD

Based on progress achieved during February, construction activities in March are anticipated to continue at an active pace, with focus on completing Phase 2 Primus liner installation, finalizing Phase 1C tie-ins, advancing remaining open cut segments, and progressing toward pressure testing, disinfection, and system commissioning.

Anticipated construction activities include:

- Continued installation of the Primus liner, including preparation of insertion and receiving pits, removal of existing CMLC sections, and coordination of liner pull and termination connections.
- Completion of final tie-ins between newly installed C900 pipe, previously burst segments, and existing system components, including installation of valves, couplings, flange adapters, and mechanical joint restraints.
- Ongoing open cut pipeline installation at remaining Phase 1B locations, including placement of 16-inch C900 pipe, fittings, thrust blocks, and concrete kickers as required.
- Pressure testing and chlorination of completed pipeline segments, including installation of temporary test assemblies, blind flanges, and blowoff configurations.
- Finalization of overhead and creek crossing appurtenances, including air vac assemblies, structural supports..
- Continued potholing and CCTV investigations in support of Phase 2 alignment verification and sequencing of upcoming rehabilitation work.
- Completion of backfill operations, including pipe-zone sand, warning tape, native backfill, and mechanical compaction with third-party verification as required.
- Asphalt paving restoration and bike trail surface repairs at completed work areas, in coordination with City representatives to confirm restoration limits and inspection requirements.
- Ongoing traffic control implementation, utility coordination, and environmental compliance in accordance with approved plans and permit conditions.

With Phase 1B installation substantially advanced and Phase 1C tie-ins nearing completion, March is anticipated to focus on system integration, testing, and restoration, positioning the project for final commissioning and closeout activities.

IV. CHANGE ORDERS

The approved amount of change orders to date is **\$762,508.05**; and Contract Completion Date was extended to March 13, 2026 [from January 5, 2026] due to delay in permitting, miscellaneous procurement items, and the added scope of work for Phase 1C.

V. SCHEDULE

See Appendix A.

VI. PHOTOS

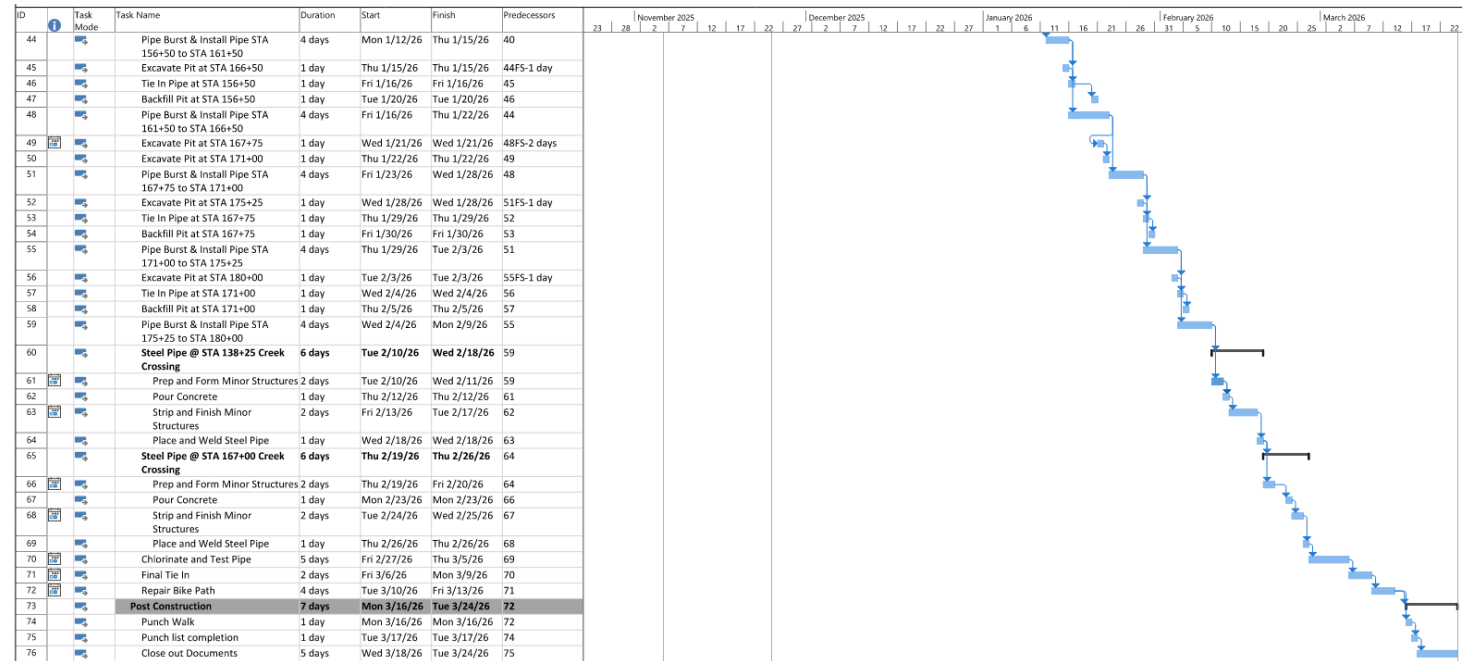
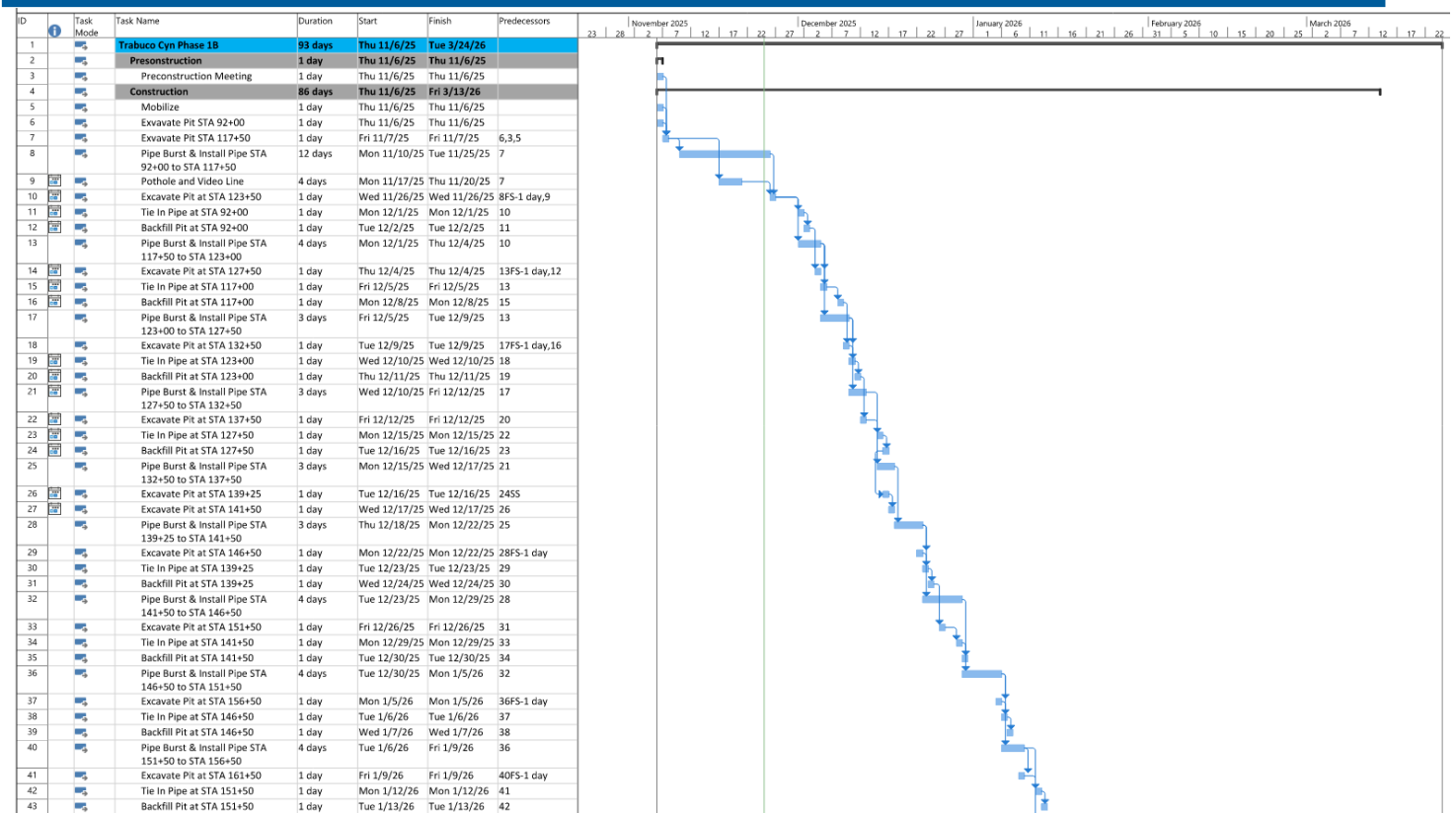
Construction photos documenting TE Roberts' activities and progress during this reporting period are provided in Appendix B.

APPENDIX A

Schedule

Phase 1A/1B - DWTP Transmission Main Rehabilitation and Replacement Project

Construction Report
February 2026



APPENDIX B

Construction Photos



Placement of Thrust Block



Installation of Joint Restraint



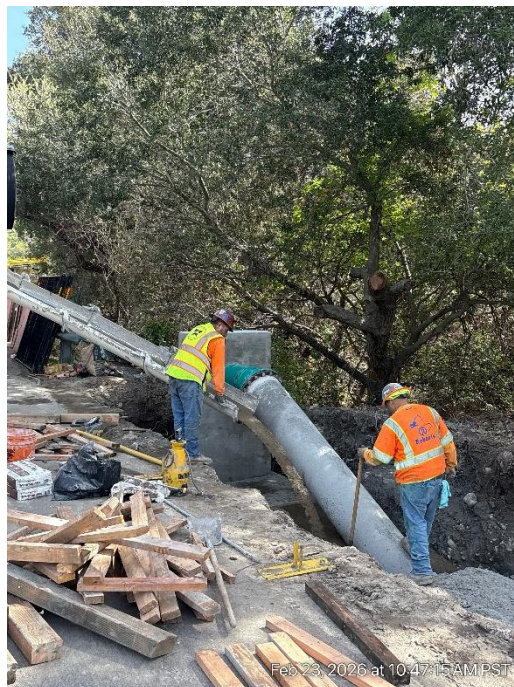
Creek Crossing Pipeline Installation



Open Cut Pipeline Installation



Open Cut Pipeline Installation



Slurry Backfill at Bridge Crossing

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | MARCH 4, 2026**

OPERATIONAL MATTERS

ITEM 5: WATER SYSTEM UPDATES

The following is a brief report of the water system through **February 2026**.

Projects and Repairs

Water Operations staff performed and/or completed the following tasks and projects:

1. Installed new 4” butterfly valve on high pressure blowoff at DWTP.
2. Replaced all old dielectric couplings with stainless steel couplings at Ridgeline PS.
3. Added vent fan to Rose PRV to prevent condensation build up in vault.
4. Drained and flushed 2,000 gallon chlorine tank and replaced all chemical feed lines at DWTP.
5. Worked with contractor at Saddle Crest to separate inlet/outlet piping to reservoir.
6. Continued to work with T.E. Roberts on 16” MTL replacement.

Monthly Water System Operations Summary

The Monthly Water System Operations Summary is attached for the Committee’s review. Any anomalies will be presented at the time of the Engineering/Operational Committee Meeting.

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

EXHIBITS

1. Monthly Water System Operations Summary

CONTACTS (staff responsible): PEREA/KESSLER

TRABUCO CANYON WATER DISTRICT
MONTHLY WATER SYSTEM OPERATIONS SUMMARY - 2026

SYSTEM PRODUCTION/SUPPLIES	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL
Number of Days	31	28	31	30	31	30	31	31	30	31	30	31	365
Dimension WTP	8%	17%	25%	33%	42%	50%	58%	67%	75%	83%	92%	100%	
SAC Pipeline Meter	0.0												0.0
Backwash, AF	0.0												0.0
Flushwater, AF	0.0												0.0
DWTP Effluent (1)	0.0												0.0
Groundwater, AF													
Trabuco Creek GWTF	0.0												0.0
U.S. Well AF	0.0												0.0
Total Groundwater (2)	0.0												0.0
Water Purchases, AF													
SMWD Treated Interconnection	0.0												0.0
IRWD Treated Interconnections	109.3												109.3
IRWD Irvine Lake	0.0												0.0
Total Purchases (3)	109.3												109.3
Total Supply													
Total Supply AF (1,2,3)	109.3												109.3
% Year - Peak Prod. - 2,449 AF (2018)	4%												4%
AF/Day	3.5												3.5
CFS/Day, Avg.	1.8												1.8
Reservoir Storage													
Monthly Average, MG	9.0												9.0
Monthly Average, AF	27.0												27.0
Days of Storage	3.0												3.0
SYSTEM DEMANDS													
District Operations, AF (1)													
Dimension WTP	0.00												0.00
Robinson Ranch WWTP	0.040												0.040
Supplemental Domestic to RW Res.	0.0												0.00
Subtotal	0.040												0.04
System Losses, AF (2)													
Flushing	2.30												2.30
Sewer Cleaning	0.02												0.02
Line Breaks	0.00												0.00
Subtotal	2.32												2.32
Zone Demands, AF (3)													
Topanga Canyon	2.9												2.90
Falcon Estates	0.07												0.07
Rose PRV/The Oaks	0.9												0.90
Canyon Creek	0.2												0.20
Rose Pump Station	0.6												0.60
Robinson Ranch	23.3												23.3
Dove Canyon	48.4												48.4
Subtotal	76.4												76.4
Total System Demand (1,2,3)	78.7												78.7

**TRABUCO CANYON WATER DISTRICT
MONTHLY WATER SYSTEM OPERATIONS SUMMARY - 2026**

System Demands**													
AF/Day	3.5												3.5
Daily Average, CFS	18.0												18.0
Other Water Deliveries/Purchases													
Ridgeline (DWTP Delivery)	0.0												0.0
El Toro (Interconnection Purchase)	0.0												0.0
Baker WTP (CSC Delivery)	103.0												103.0
Portola Hills (Wholesale Purchase)	8.0												8.0
Skyridge (Wholesale Purchase)	2.0												2.0
<i>* Usage estimated</i>		<i>** Excludes Operational use, losses, and supplement to Recycled Water Reservoir (RW)</i>											

**TRABUCO CANYON WATER DISTRICT
ENGINEERING/OPERATIONAL COMMITTEE MEETING | MARCH 4, 2026**

OPERATIONAL MATTERS

ITEM 6: WASTEWATER SYSTEM UPDATES

The following is a brief report of the wastewater system through **February 2026**.

Projects and Repairs

Wastewater Operations staff performed and/or completed the following tasks and projects:

1. Managed shutdown of the WWTP to replace new main feeders and breakers to the blower room (Hydrotech performed electrical work).
2. Installed and calibrated new level indicators for East and West SBR at the WWTP.
3. Repaired and flushed water line for the West SBR at the WWTP.
4. Repaired the submersible pump and cleaned the wet well at Dove Creek.
5. Set up a new sludge hauling solution and landfill for biosolids removal.

Sewer System Management Plan (SSMP) Report

The purpose of the program is to communicate on a regular basis with the public on the development, implementation, and performance of TCWD’s SSMP. Status updates on the work and type of work performed on the sewer system will be provided, including sewer line and manhole cleaning, system repairs, lift station cleaning, and updates from satellite facilities:

Sewer System Management Plan (SSMP) Monthly Update	
Total Sewer Line, Feet*	212,045
Total Sewer Line Cleaned (Ft) – Month	10,000
Total Sewer Line Cleaned (Ft) – Cleaning Cycle	22,000
Cleaning Cycle Period (Mos.) [Start date: 1/1/25]	2
Total Sewer Line Cleaned, %	10%
The Oaks at Trabuco – Pumping Frequency for the Month	12
O’Neill Park Sewer System Status	Ok
O’Neill Park Sewer System Repairs	None
SSMP Quarterly Report – <i>Next Quarterly Report</i>	1Q 2026
SSMP Program Audit – <i>Next Audit Report**</i>	March 2026

**This amount includes the OC Parks-owned O’Neill Park sewer system the District is contracted to clean.*

***Periodic internal audits shall be conducted, at a minimum every two years, with reports kept on file. The audit shall focus on evaluating the effectiveness of the SSMP and TCWD’s compliance with the mandatory elements of TCWD’s SSMP:*

Monthly Recycled Water System Operations Summary

The Monthly Recycled Water System Operations Summary is attached for the Committee’s review. Any anomalies will be presented at the time of the Engineering/Operational Committee Meeting.

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

EXHIBITS

1. Monthly Recycled Water System Operations Summary

CONTACTS (staff responsible): PEREA/ULLOA

TRABUCO CANYON WATER DISTRICT | RECYCLED WATER SYSTEM SUMMARY - 2026

RECYCLED WATER SUPPLY															
	MAX	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	FIVE YEAR AVG
WWTP Reclaimed Water Production, AF	78.3	42.9												42.9	495.0
Reclaimed Reservoir Level, FT	1274.5	1,270.0												-	-
Reclaimed Reservoir Free Board, FT	25.5	4.5												-	-
Reclaimed Reservoir Storage, AF	145.5	118.8												-	-
Supplemental Domestic Water Added, AF	N/A	0.0												0.0	5.2
RECYCLED WATER SYSTEM DEMAND															
NON DOMESTIC WATER USER	ALLOC. AF	8% JAN	17% FEB	25% MAR	33% APR	42% MAY	50% JUN	58% JUL	67% AUG	75% SEP	83% OCT	92% NOV	100% DEC	TOTAL	ALLOC. %
Dahlia Court	8.2	0.28												0.3	3.4%
Dove Canyon Golf Course	106.7	4.16												4.2	3.9%
Dove Canyon Master Association	279.3	4.65												4.7	1.7%
Robinson Ranch	80.2	1.31												1.3	1.6%
Trabuco Highlands	159.7	1.12												1.1	0.7%
City of RSM	0.1	0.01												0.01	5.4%
Construction Water	N/A	0.00												0.00	N/A
Sakaida Nursery	1.1	0.00												0.00	0.0%
SMWD	N/A	1.76												1.8	N/A
TY Nursery	17.9	0.00												0.0	0.0%
TOTAL, AF	653.2	13.3												13.3	2.0%
PERCENTAGE OF NDW ALLOCATION/YEAR		2.0%													
TOTAL ANNUAL AVG. NDW AVAILABLE**	774.36														
URBAN RUNOFF CAPTURE AND REUSE															
DISTRICT FACILITY		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	FIVE YEAR AVG
Shadow Rock Detention Basin Production		0.00												0.00	6.2
Dove Tick Creek Production*	<i>Dry Season</i>	0.0												0.0	45.0
	TCWD Portion	0.0												0.0	-
	SMWD Portion	0.0												0.0	-
Dove Lake Water Pumped		0.0												0.0	190.1
Dove Lake Free Board, Ft		0.0												-	-
Dove Lake Storage, AF		331.0												-	-
Total Rainfall, In.		3.3												3.3	17.6

** Based on 5-Year Average Reclaimed Water Reservoir Base Supply & Recycled Water Production

**TRABUCO CANYON WATER DISTRICT
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OPERATIONAL MATTERS

ITEM 7: MAINTENANCE DEPARTMENT UPDATES

The following is a brief report of work completed by Maintenance staff through **February 2026**.

Projects and Repairs

Maintenance staff performed and/or completed the following tasks and projects:

Water Operations

1. Working with Tekdraulics on Robinson Ranch Booster Pump Station for pump #1 replacement.

Wastewater Operations

1. Assisted contractor with Robinson Ranch Wastewater Treatment Plant (WWTP) electrical shut down for the replacement of main electrical breaker and power supply cables.
2. Met with Southern California Edison (SCE) for power shut down at transformer for new main power supply breaker to be replaced with rebuilt unit.
3. Robinson Ranch recycled booster pump and motor sent off to Evans Hydro for inspection, cleaning, and mechanical seal upgrade.
4. Assisted with Dove Creek dry season station wet well cleaning, pump inspection and new discharge plate install, replace failed soft start and tested for correct operation.
5. Assisted with offload of new headworks equipment.

District Fleet Upgrades & Other Projects

1. Helped prep for asphalt work done at WWTP.

RECOMMENDED ACTION:

Committee to receive system status updates. No action required.

EXHIBITS

None

CONTACTS (staff responsible): PEREA/STROUD

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REGULATORY AND OTHER MATTERS

ITEM 8: OTHER MATTERS/REPORTS

Other Matters/Reports from the General Manager and/or District staff may be provided at the time of the Engineering/Operational Committee Meeting.

RECOMMENDED ACTION:

Hear Other Matters/Reports that may have arisen after the posting of the agenda.

EXHIBITS

None

CONTACTS (staff responsible): MCKENNEY/PEREA