FEASIBILITY STUDY | JUNE 2025

RECHARGE FEASIBILITY STUDY
CALIFORNIA OLIVE RANCH #3

PREPARED FOR

TEHAMA COUNTY FCWCD

AND CORNING SUB-BASIN GSA

PREPARED BY

Luhdorff & Scalmanini
Consulting Engineers

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1. PROJECT BACKGROUND

This feasibility study was conducted as part of the Tehama County GSP Implementation Prop 68 Grant and was part of the grant application. This feasibility study presents information about the project site and operations. Then, it presents and summarizes the analysis carried out thus far on the proposed project. Finally, this study presents recommendations for implementation and the next steps for the project.

1.1. Project Location

California Olive Ranch #3 (property) is located in the Corning Subbasin, just Southeast of the City of Corning. The land is owned by South Avenue Corning, CA, LP and is leased by California Olive Ranch (COR). The site encompasses approximately 2,315 acres, of which 1,900 acres are planted in permanent crops (olives) and are currently irrigated. The Tehama-Colusa Canal runs through the northern portion of the property and alongside or near the property's western boundary in the southern portion of the property. The property varies in elevation from about 215 feet above sea level in the south to about 300 feet above sea level in areas of the north central portion of the property. Various unnamed drainages exist on the property and Brannin Creek flows from West to East through the southern portion of the property. The property is not currently located within the boundaries of an existing irrigation district. The nearest irrigation district with access to available surface water is Kirkwood Water District, located to the southwest of the property. See **Figure 1** for the location and boundaries of the property.

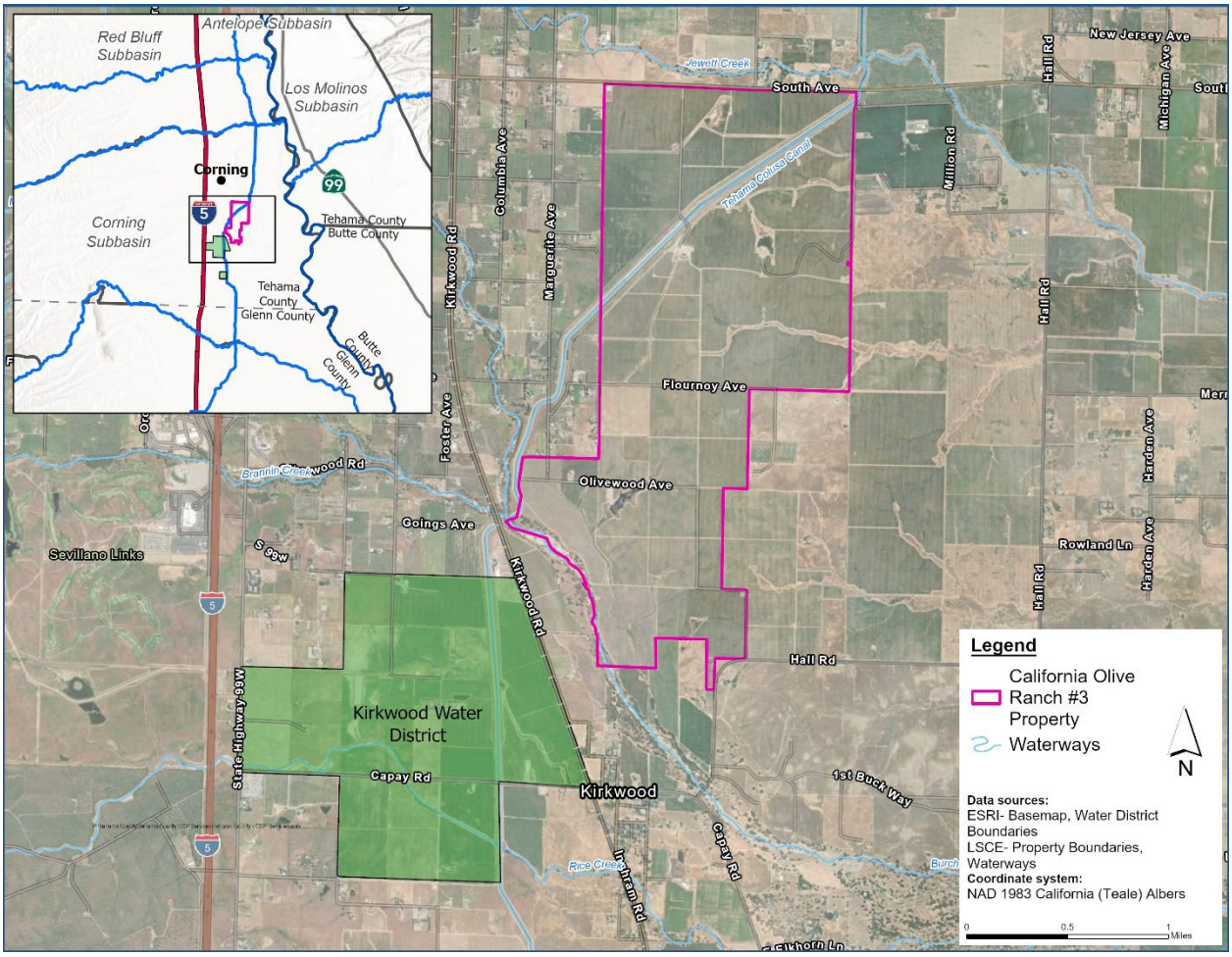


Figure 1-1 Project Location Map

1.2. Current System and Operations

The property is currently irrigated with a pressurized drip irrigation system composed of various interconnected lines running throughout the property. Water is sourced from groundwater wells across the property as well as irrigation basins in various locations. The irrigation basins are utilized for temporary storage and conveyance of pumped groundwater to the irrigation lines running to each orchard block. Generally, between 1.3 and 1.9 acre-feet per acre of water is applied to the 1,900 acres of irrigated land according to communications with COR. Currently, all irrigation needs of the property are met with any water stored in irrigation basins and pumped groundwater as the property does not have a connection to a surface water supply.

1.3. Proposed Project

The proposed project consists of a connection to existing surface water supplies from the Tehama-Colusa Canal. The infrastructure to be constructed would consist of a pump turnout to draw water from the canal and a pipeline to deliver the water into the existing irrigation system in the southern portion of the

property. This portion of the system irrigates approximately 560 acres of the property. Water would be acquired through a Section 215 contract through Kirkwood Water District. The water obtained through the contract would be utilized on the property for groundwater recharge and potentially for in-lieu recharge depending on timing of releases.

2. PROJECT ANALYSIS

2.1. Design Feasibility by Davids Engineering

In July 2024, Davids Engineering (DE) performed a survey of the property to determine the feasibility of installing a turnout on the Tehama-Colusa Canal and an approximately 3,163 ft pipeline to transport the diverted water into the existing irrigation system via the 5.9 acre south irrigation basin (**Figure 2**). Engineers from DE performed analysis based on the physical conditions of the property and the desired flow rate of the system to meet expected irrigation requirements for the 560 acres tied into the south irrigation basin. This analysis determined that a single pump turnout from the canal, connected to an 18-inch pvc pipeline with the capacity to deliver 6.5 cubic feet per second (CFS) would be the most economical option. See **Appendix A- Davids Engineering Feasibility Memorandum**, for more detailed information on the analysis. DE also prepared initial 30% designs of the turnout structure and pipeline for the proposed system, shown in **Attachment 1- Davids Engineering 30% Designs**. Additionally, DE prepared an Engineer's Estimate of Probable Project Cost, which estimated a total project cost of approximately $518,300. Details of the cost estimate are shown in **Attachment 2 - Davids Engineering Cost Estimate**.

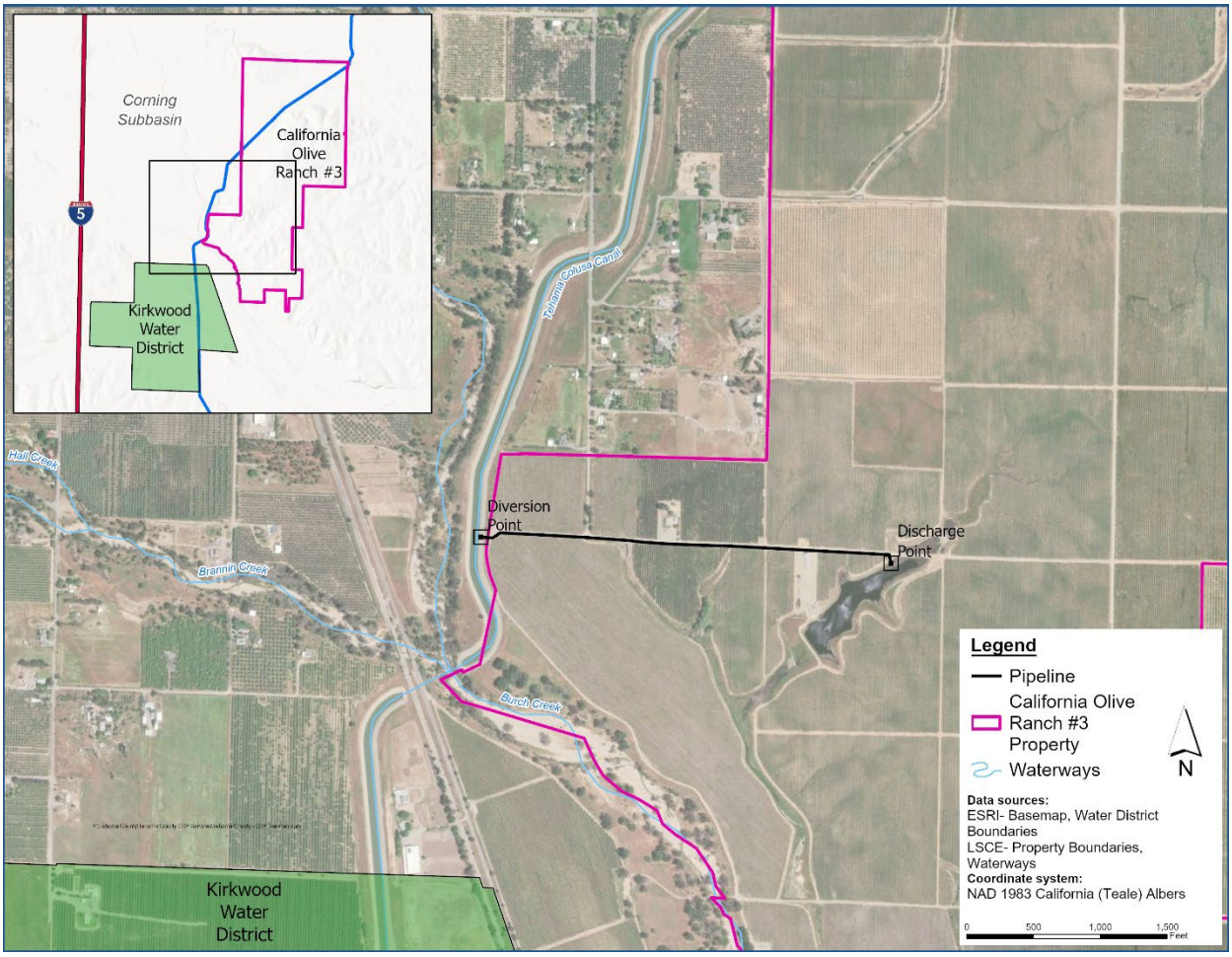


Figure 2-1 System Location

3. RECOMMENDATIONS AND NEXT STEPS

3.1. Implement Proposed DE Design

After reviewing the feasibility, along with the designs and cost estimate for the project. California Olive Ranch and GSA have decided to go forward with the project. DE is currently finalizing designs for the turnout and conveyance system. In addition, a permit application has been submitted through Kirkwood Water District to construct the turnout on the Tehama-Colusa Canal to the US Bureau of Reclamation (USBR) (**Appendix B – US Bureau of Reclamation Permit Application**). Once DE has finalized designs for the project and permits have been issued, the project will be put out for bids from qualified contractors. Currently, the permitting, design, and some construction costs can be covered by currently allocated grant funds. Construction costs in excess of the allocated grant funding may be borne by California Olive Ranch or may be funded through future grant opportunities.

3.2. Implement Recharge with Section 215 Water When Available

Following permitting and construction of the proposed project, California Olive Ranch will begin utilizing available surface water obtained through a Section 215 contract through Kirkwood Water District (**Appendix C – Section 215 Water Contract Request Letter**). This water, when available, should be utilized for groundwater recharge through the existing irrigation system on the property. This can be accomplished by infiltration of water through the existing irrigation basins on the property, or through application of water to the land through the irrigation system while trees are dormant. Additionally, if such water is available during appropriate times, it can be used for irrigation purposes, providing in-lieu recharge benefits. Based on the designed capacity of the system, annual recharge benefits of up to 1,142 acre-feet are expected.

3.3. Investigate Opportunities for Utilization of Surface Water for In-Lieu Recharge

After the project is constructed and deliveries of Section 215 water begin, there is also potential for the system to be utilized for diversions of regularly contracted surface water following appropriate filings through Kirkwood Water District and the USBR. This would be a long-term effort, which would exceed the current grant funding period. However, utilization of surface water for irrigation over the property would provide significant long-term benefits for the Corning Subbasin.

Appendix A – Davids Engineering Feasibility Memorandum

MEMORANDUM

To: Pavan Dhaliwal
Senior Hydrogeologist
Luhdorff and Scalmanini Consulting Engineers

From: Davids Engineering, Inc.

Date: December 6, 2024

Subject: **California Olive Ranch #3 Pipeline Feasibility Memorandum**

1 Introduction

California Olive Ranch #3 (COR #3 or the Ranch) is located south of and adjacent to South Avenue to the southeast of the city of Corning, California and consists of approximately 1,900 acres (see Figure 1). COR #3 is not a customer of the Tehama Colusa Canal Authority, however the Tehama Colusa Canal (TCC) flows through the northern portion of the Ranch and continues along its westerly boundary in the southern portion of the Ranch. COR #3's irrigation network is generally comprised of pressurized drip systems supplied by irrigation basins and groundwater wells throughout the property. COR #3 is interested in utilizing surface water, when available, from the TCC to offset the amount of groundwater pumping required for irrigation. This memorandum assesses the technical feasibility of installing a point of diversion on the TCC and delivering water to COR #3's south irrigation basin (Project). This memorandum does not assess the feasibility of using TCC water from a water rights and/or availability perspective.

2 Design Criteria

Head Differential: COR #3's south irrigation basin is approximately 5.9 acres in area, is currently supplied by several groundwater wells, and is the irrigation source for approximately 560 acres of olive orchards. The water level of this irrigation basin during the time of the topographic survey (July 10, 2024) was 254.7 feet and was confirmed to be near the standard operating level by the landowner's representative. The TCC is operated at a water surface elevation of between 228 feet and 231 feet. Therefore, to divert water from the TCC and deliver it to the irrigation basin, the water must be pressurized and lifted between approximately 23.7 and 26.7 vertical feet.

Pipeline length: The TCC is approximately 0.6 miles west of COR #3's south irrigation basin. Therefore, a pump and buried pipeline system will be required to allow COR #3 to use TCC surface water in-lieu of groundwater. COR #3 has identified a preferred pipeline alignment along an existing farm road that results in a pipeline length of approximately 3,100 feet.

Flowrate: COR #3 typically irrigates from the basin in two (2) sets, each with a design flowrate not to exceed 2,915 gallons per minute (GPM), or approximately 6.5 cubic feet per second (CFS). COR #3 has requested the diversion infrastructure be sized such that the TCC surface water can be used without the need for groundwater, therefore the design flowrate for the point of diversion is 2,915 GPM or 6.5 CFS.

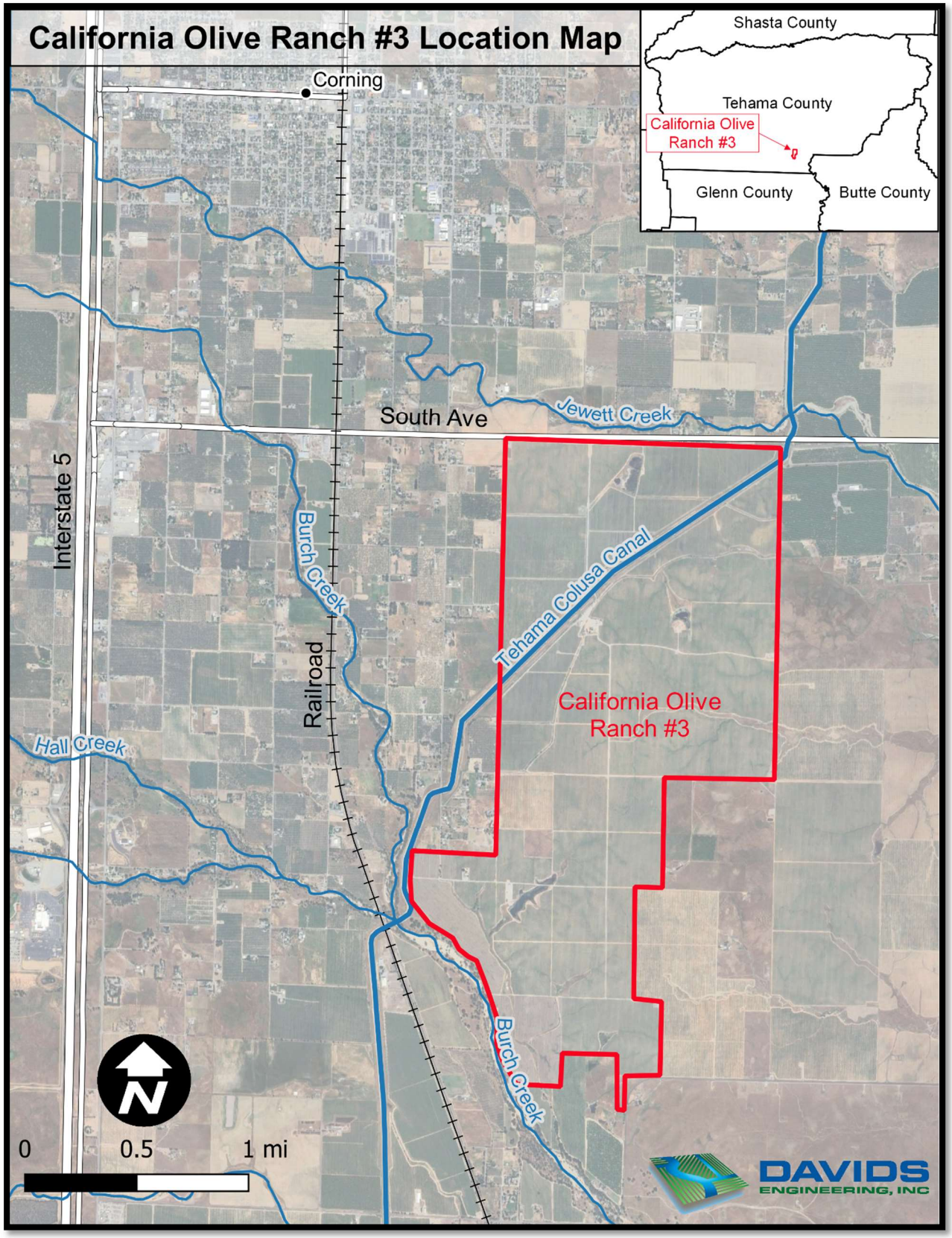


Figure 1. California Olive Ranch #3 Location Map.

Velocity: Typically pipelines in irrigation systems are sized such that the maximum velocity in the pipeline is not more than 5 feet per second. Therefore, 5 feet per second is the maximum threshold for velocity in the pipeline considered for this design.

Table 1 below summarizes the design criteria for the diversion infrastructure.

Table 1. Design Criteria for California Olive Ranch #3 Pipeline.

Criteria	Value
Δ Elevation between TCC and irrigation basin	23.7 – 26.7 feet
Pipeline Length	3,100 feet
Flowrate	2,915 GPM or 6.5 CFS
Velocity	Maximum of 5 feet per second

Note: GPM = gallons per minute. CFS = cubic feet per second. Δ = change or difference.

Pipe Material Characteristics: Plastic Irrigation Pipe (PIP) is a polyvinyl chloride (PVC) pipe that is commonly used for on-farm irrigation systems due to its ability to meet performance requirements economically; therefore, PIP was selected and used for this design. PIP comes in a range of pressure classes and the pressure class selected is unique to a given system. A hydraulic analysis was completed to determine the pressure requirements of the pipeline system, and it was determined a pressure class of 80 psi could be used. Based on a desktop review of anticipated soil types the pipe will be installed in gravelly clays and loams. These types of soils require significant moisture conditioning and mechanical effort to achieve compaction and thus can impose significant stress on pipe during installation, thus it is recommended to use PIP with pressure class of 100 psi for the Project as it is more robust and can withstand the stresses imposed.

3 System Sizing

Pipeline sizing (selecting diameter) becomes a value engineering question in that if the pipeline is sized relatively small, the total dynamic head required by the pump will be larger, resulting in higher power costs during operation of the system and a larger, more costly, pump motor. Similarly, if the pipeline is sized relatively large, the power costs will be less, the pump can be smaller, but it will cost more to furnish and install the pipeline (larger pipe costs more than smaller pipe). Therefore, a life cycle cost analysis has been performed to identify the most cost effective pipe size. This life cycle cost analysis was limited to those Project elements that could vary depending on the pipeline diameter; those Project elements that will remain consistent, or nearly consistent, regardless of pipeline diameter were not included.

3.1 Operation and Maintenance Costs

Operation and maintenance costs were limited to electricity costs. Electricity costs are highly dependent on the frequency and duration of pumping. Due to a lack of pumping and flowrate information provided, a desktop analysis utilizing remote sensing was completed to estimate the amount of water applied to the COR #3 orchard during a typical irrigation season. The applied water requirements were calculated by using geospatial evapotranspiration (ET) information obtained from OpenET to quantify the total consumptive water use. Spatial precipitation estimates extracted from the Parameter-elevation Regressions on Independent Slopes Model (PRISM) were used along with mean rooting depth estimates listed in Appendix B of ASCE 70 to estimate effective precipitation (ETPR) using the National Engineering

Handbook Part 623 method. The evapotranspiration of applied water (ETAW) was then calculated as the difference between ET and ETPR and the total applied water was calculated as ETAW divided by the consumptive use. This method was used for each water year from 2014 to 2024 providing an average water use per year of 2.04 acre-feet per acre or approximately 1,142 acre-feet across the 560 acres of land irrigated from the basin.

To deliver 1,142 AF to the irrigation basin, this requires approximately 2,126 hours of pumping at the design flowrate of 6.5 CFS. Power consumption was determined based on this estimated pumping duration per year and the horsepower of the pump.

3.2 Capital Costs

The life cycle cost analysis includes the following capital costs: pipeline material (plastic irrigation pipe), pipeline construction, and a pump (material cost only as it was assumed construction of the pump would cost similar regardless of pump size) sized according to the total dynamic head at the design flowrate for each pipe size analyzed. The minimum required pump horsepower was calculated using the total dynamic head, a pump efficiency of 70%, and a gear head efficiency of 95%. Costs were determined for the aforementioned capital cost items based on previous quotations and professional engineering judgement.

A lifespan of 50 years at an interest rate of 3.5% was used to amortize the capital costs which were then added to the yearly operating costs to determine an annual cost to be used for comparison between systems based on pipeline diameter. These annual costs are not exhaustive in that they are meant only to compare the difference in cost between systems of various pipeline diameters and do not represent all costs of construction. Therefore, the least expensive option was identified and only the difference in annual cost included in Table 2 below.

Table 2. Summary of life cycle cost analysis for the California Olive Ranch #3 pipeline. The difference in annual costs is relative to the least expensive alternative. Values are based on the design flow rate.

Nominal Pipe Diameter [inches]	Velocity[1], [feet per second]	Total Dynamic Head [feet][2]	Minimum Pump Horsepower [HP]	Difference in Annual Cost [$/yr]
15	5.6	56.3	63	+$2,600
18	3.8	46.0	51	Least expensive
21	2.7	42.3	47	+$1,700

[1]The velocity is calculated based on the actual inside diameter of the pipe, not the nominal pipe size.
[2]The total dynamic head is equal to the sum of friction losses and change in elevation at the design flowrate.

4 Conclusion

Considering the Project objectives, site conditions and design criteria presented herein, it is recommended that an 18-inch diameter pipeline with a 60 horsepower pump be selected as the preferred solution for the Project (See Attachment #1 – 30% Plans for the California Olive Ranch Pipeline). At an estimated velocity of 3.8 feet per second, the velocity in the pipe is below the maximum threshold for velocity of 5 feet per second. A system with an 18-inch diameter pipeline is the most

economical option as it has an estimated annualized cost of at least $1,700 less per year across the lifespan of the Project as compared to the 15-inch and 21-inch systems.

5 Attachments

1. 30% Plans for the California Olive Ranch #3 Pipeline
2. 30% Engineer's Estimate of Probable Construction Cost

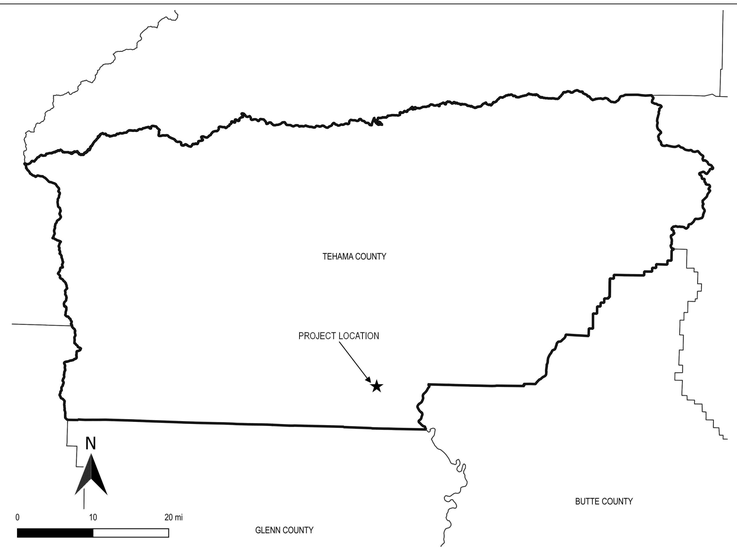
Appendix A
Attachment 1 – 30% Designs

30% DESIGN ISSUED FOR REVIEW
NOT FOR CONSTRUCTION

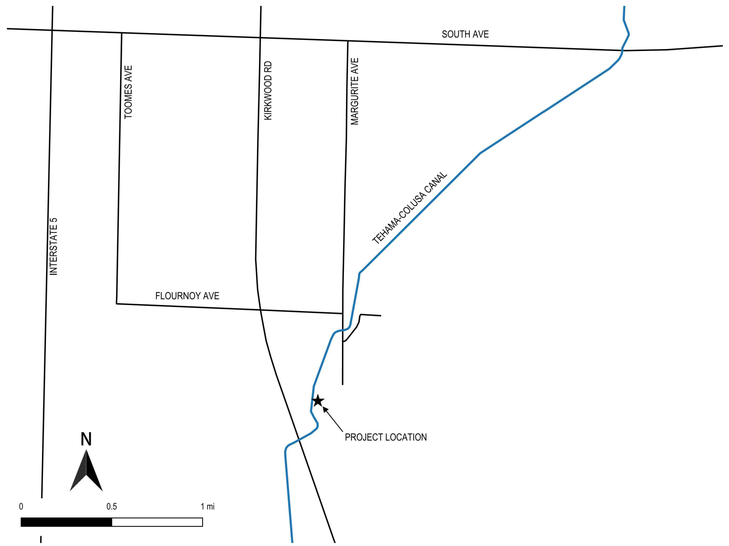
TEHAMA COUNTY FLOOD CONTROL AND WATER CONVSERVATION DISTRICT

Know what's below. Call before you dig.

PLANS FOR THE CALIFORNIA OLIVE RANCH 3 PIPELINE



AREA MAP
SCALE: AS SHOWN



PROJECT LOCATION
SCALE: AS SHOWN

STANDARD ABBREVIATIONS

@	AT
AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
ACP	ASBESTOS CEMENT PIPE
ALT	ALTERNATE STATIONING
BC	BEGINNING OF CURVE
BDRY	BOUNDARY
BSL	BUILDING SET BACK
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
BW	BARBED WIRE
C & G	CURB AND GUTTER
CIP	CAST IRON PIPE
℄ OR CL	CENTERLINE
CLSD	CLOSED
CO	CLEAN OUT
CONC	CONCRETE
CTB	CONTROL BOX
DET	DETAIL
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DND	DO NOT DISTURB
DW	DRIVEWAY
D OR SD	STORM DRAIN
EC	END OF CURVE
EGL	ENERGY GRADE LINE
ELEV	ELEVATION
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
E.W.	EACH WAY
EX OR EXIST OR (E)	EXISTING
FG	FINISH GRADE
FH	FIRE HYDRANT
ℚ OR FL	FLOW LINE
GB	GRADE BREAK
HGL	HYDRAULIC GRADE LINE
HORIZ	HORIZONTAL
INV	INVERT
L.F.	LINEAR FEET
LT	LEFT
MAX	MAXIMUM
MH	MAINTENANCE HOLE
MIN	MINIMUM
N	NORTH
NTS	NOT TO SCALE
OG	ORIGINAL GROUND / GRADE
O.C.	ON CENTER
P	PAVEMENT
PP	POWER POLE
PL	PROPERTY LINE
PRC	POINT OF REVERSE CURVE
PT	POINT
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
RCP	REINFORCED CONCRETE PIPE (SPUN)
RET	RETURN
R.O.W.	RIGHT OF WAY
RT	RIGHT
SBL	SIDE BEND LEFT
SBR	SIDE BEND RIGHT
SCH	SCHEDULE
SHT	SHEET
SNS	STREET NAME SIGN
STA	STATION
STD	STANDARD
S/W	SIDEWALK
SS	SEWER SERVICE
S	SEWER
TBR	TO BE REMOVED
TCB	TOP OF CANAL BANK
TCFCWCD	TEHAMA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
TEMP	TEMPORARY
TG	TOP OF GRATE
THRU	THROUGH
TOW	TOP OF WALL
U/S	UPSTREAM
WS	WATER SURFACE @ DESIGN FLOWRATE
WSP	WELDED STEEL PIPE

SHEET INDEX

PROJECT CONTACTS

OWNER: TEHAMA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT (TCFCWCD)
OWNER REPRESENTATIVE: JUSTIN JENSON

OWNER APPROVAL: _____

ENGINEER: DAVIDS ENGINEERING

CHAD TIENKEN
1772 PICASSO AVENUE, SUITE A
DAVIS, CA. 95618
(530) 757-6107 EXT. 109

0" 1/2" 1"
ACTUAL SCALE

DAVIDS ENGINEERING, INC
Technology Infrastructure Water

REV:	BY:	DATE:	DESCRIPTION
1	GJS	10/11/24	INITIAL DRAFT OF 30% DESIGN

TITLE SHEET

CALIFORNIA OLIVE RANCH 3 PIPELINE
TCFCWCD
CORNING
CALIFORNIA
TEHAMA COUNTY

PRELIMINARY NOT FOR CONSTRUCTION

DATE:	10/11/2024
SCALE:	AS NOTED
JOB NUMBER:	1139.14
DESIGNED:	DRH
DRAWN:	GJS
CHECKED:	CT

T01

SHEET 1 OF 11

30% DESIGN ISSUED FOR REVIEW
NOT FOR CONSTRUCTION

Know what's below. Call before you dig.

GENERAL NOTES

1. THE PLANS HAVE BEEN PREPARED WITH THE INTENTION THAT THE ENGINEER WILL PERFORM CONSTRUCTION STAKING FOR THE ENTIRE PROJECT INCLUDING SETTING TEMPORARY BENCHMARKS NEAR THE PROPOSED LOCATION OF STRUCTURES TO BE USED BY THE CONTRACTOR FOR LAYOUT AND QUALITY CONTROL. A CONSTRUCTION STAKING SCHEDULE SHALL BE DEFINED AS REQUIRED DURING THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL PROVIDE THE ENGINEER A MINIMUM OF 2 WORKING DAYS ADVANCE NOTICE OF ANY STAKING NEEDS.
2. THE CONTRACTOR SHALL NOT BEGIN ANY WORK SHOWN ON THESE PLANS UNTIL THE SIGNATURE OF APPROVAL OF ENGINEER AND THE OWNER ARE AFFIXED AT THE DESIGNATED LOCATION ON THE TITLE SHEET, ALL APPLICABLE PERMITS HAVE BEEN OBTAINED, AND THE ENGINEER HAS ISSUED A NOTICE TO PROCEED.
3. THE CONTRACTOR SHALL BE REQUIRED TO HAVE A PRE-CONSTRUCTION CONFERENCE WITH THE ENGINEER AND OWNER PRIOR TO STARTING THE WORK. THE CONTRACTOR SHALL BE PREPARED TO DISCUSS THEIR PLANS FOR EXECUTING THE WORK PER THE CONTRACT DOCUMENTS.
4. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE ALL EXISTING AND UNDERGROUND UTILITIES IN AND AROUND THE AREAS OF NEW CONSTRUCTION AND VERIFY THE PROPOSED CONSTRUCTION DOES NOT CONFLICT WITH EXISTING OR PROPOSED UTILITIES OR THAT APPROPRIATE MEANS ARE PROVIDED FOR REROUTING, SUPPORTING, OR PROTECTION, OR OTHERWISE INCORPORATING THE UTILITIES IN THE CONSTRUCTION.
5. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION MEANS AND METHODS. CONTRACTOR SHALL FOLLOW BEST GENERAL PRACTICES IN EXECUTING ALL WORK.
6. THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE TO THE OWNER AND ENGINEER FOR APPROVAL PRIOR TO BEGINNING WORK AND IS TO NOTIFY THE OWNER 2 WORKING DAYS IN ADVANCE OF EACH CONSTRUCTION PHASE SO AS TO FACILITATE CONSTRUCTION INSPECTION SCHEDULING.
7. MATERIAL SUBMITTALS OR SHOP DRAWINGS REQUIRED BY THE CONTRACT DOCUMENTS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL A MINIMUM OF 2 WEEKS PRIOR TO COMMENCING WORK TO WHICH THE SUBMITTED MATERIALS PERTAINS. MATERIALS REQUIRING SUBMITTALS SHALL NOT BE INCORPORATED INTO THE WORK UNTIL SUBMITTAL APPROVAL IS RECEIVED FROM THE ENGINEER.
8. PRODUCTS REFERENCED ON THE DRAWINGS, OR THOSE APPROVED AS EQUAL, SHALL BE CONSTRUCTED, INSTALLED AND/OR APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN RECOMMENDATION UNLESS OTHERWISE SHOWN.
9. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF THE CONSTRUCTION PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR FURTHER AGREES TO INDEMNIFY AND HOLD THE OWNER, ENGINEER, PROJECT MANAGER, AND THEIR OFFICERS, EMPLOYEES, AGENTS AND VOLUNTEERS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK.
10. A SET OF APPROVED PLANS SHALL BE ON THE JOB SITE AT ALL TIMES DURING CONSTRUCTION.
11. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE PLANS DEDICATED TO DOCUMENTING AS-BUILT CONDITIONS. THESE PLANS SHALL BE PROVIDED TO THE ENGINEER AT THE CONCLUSION OF THE PROJECT.
12. DO NOT SCALE DRAWING. CONTACT THE ENGINEER FOR ANY DIMENSIONS OR SPECIFIC DETAIL NOT SHOWN.
13. NOTIFY THE OWNER AND/OR ENGINEER WHERE A CONFLICT OR DISCREPANCY OCCURS BETWEEN THESE DRAWINGS AND ANY OTHER PORTION OF THE CONTRACT DOCUMENTS OR EXISTING FIELD CONDITIONS.
14. THE CONTRACTOR SHALL LIMIT THE TOTAL WORK AREA SO THAT THE MINIMUM REQUIRED FOR CONSTRUCTION. STAGING AREAS AND OTHER DROP ZONES OR EQUIPMENT STORAGE ZONES BEYOND THE SHOWN EXTENTS OF WORK SHALL BE PRE-APPROVED BY THE OWNER.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING, USING, AND DISPOSING OF ADDITIONAL WORK AREAS AND FACILITIES TEMPORARILY REQUIRED FOR CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE OWNER HARMLESS FROM ALL CLAIMS FOR DAMAGES OCCASIONED BY SUCH ACTIONS. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION PRIOR TO UTILIZING ANY AND ALL ADDITIONAL WORK AREAS.
16. VISITS TO THE JOB SITE BY THE ENGINEER OR THE OWNER TO OBSERVE THE CONSTRUCTION DO NOT IN ANY WAY MEAN THAT THEY ARE GUARANTORS OF THE CONTRACTOR'S WORK, NOR RESPONSIBLE FOR COMPREHENSIVE OR SPECIAL INSPECTIONS, COORDINATION, SUPERVISION, NOR SAFETY AT THE JOB SITE.
17. DAVIDS ENGINEERING IS THE ENGINEER FOR THIS PROJECT AND SHALL PERFORM CONSTRUCTION INSPECTION AND SUPERVISION.
18. THE CONTRACTOR SHALL PREPARE AND SUBMIT A TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL BY THE ENGINEER PRIOR TO COMMENCING WORK AFFECTING PUBLIC TRAFFIC. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING MATERIALS AND LABOR REQUIRED FOR TRAFFIC CONTROL WHERE TEMPORARY ROAD CLOSURES ARE REQUIRED, FOR WORK ADJACENT TO THE ROADWAY, AND AT ALL POINTS OF EGRESS OR INGRESS TO THE PUBLIC TRAVELED WAY. PUBLIC SAFETY AND TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH THE CALTRANS TRAFFIC MANUAL AND AS MAY BE DIRECTED BY LOCAL OR REGIONAL ROADS OFFICIALS.
19. THIS PROJECT IS SUBJECT TO REQUIREMENTS OF PERMITS ISSUED BY VARIOUS REGULATORY AGENCIES, AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THESE REQUIREMENTS AS THEY RELATE TO THE WORK AND CONSTRUCTION-RELATED ACTIVITIES AND TO PERFORM ALL WORK IN ACCORDANCE WITH THOSE REQUIREMENTS. .
20. IN THE EVENT THAT ARCHEOLOGICAL ARTIFACTS OR OTHER CULTURAL RESOURCES ARE UNCOVERED DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL STOP ALL WORK IMMEDIATELY IN THE AREA OF THE DISCOVERY AND CONTACT THE PROJECT MANAGER. WORK SHALL NOT CONTINUE UNTIL AUTHORIZED BY THE PROJECT MANAGER
21. UNLESS NOTED OTHERWISE ON THE PLANS, ALL EXISTING ITEMS CALLED OUT TO BE PROTECTED OR LEFT UNDISTURBED SHALL BE PROTECTED BY THE CONTRACTOR. FACILITIES SHOULD NOT BE DISTURBED UNLESS IT IS SHOWN ON THE DRAWINGS THAT THE CONTRACTOR IS TO MAKE IMPROVEMENTS. IF SUCH ITEMS ARE DAMAGED OR MUST BE REMOVED TO FACILITATE CONSTRUCTION, THE CONTRACTOR SHALL REPLACE THE ITEMS AT NO COST TO THE OWNER TO THE SAME OR BETTER CONDITION THAN THEY WERE BEFORE REMOVAL.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THEIR ACTIONS AND COOPERATING TO FACILITATE MATERIALS TESTING BY THE CONSTRUCTION INSPECTORS OR THE OWNER'S APPOINTED MATERIALS TESTING SERVICE.
23. CONTRACTOR TO VERIFY ALL EXISTING INVERT ELEVATIONS SHOWN HEREIN.

SITE ACCESS AND STAGING

1. THE WORK CONTEMPLATED HEREIN REQUIRES CONSTRUCTION AND ACCESS ON PRIVATE LANDS. CONTRACTOR SHALL COORDINATE WITH LANDOWNER(S) TO ENSURE IMPACTS TO CONSTRUCTION AND PRIVATE FARMING OPERATIONS ARE MITIGATED.
2. ALL CONSTRUCTION AND MATERIAL DELIVERY TRAFFIC SHALL USE THE DESIGNATED ACCESS AND HAUL ROUTE(S) TO THE CONSTRUCTION SITE AS DIRECTED BY THE LANDOWNER OR ENGINEER.
3. ACCESS ROADS USED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RETURNED TO PRE-PROJECT CONDITIONS PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. PRE-PROJECT CONDITIONS SHALL BE AS DETERMINED THROUGH SITE INSPECTION AND DOCUMENTATION TO BE COMPLETED BY THE ENGINEER AND THE CONTRACTOR PRIOR TO THE START OF WORK.
4. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE DUST ABATEMENT ON ACCESS ROADS, STAGING AREAS, AND THE PROJECT SITE FOR THE DURATION OF THE PROJECT.

ENVIRONMENTAL PROTECTION AND EROSION CONTROL

1. BEFORE STARTING ANY WORK ON THE PROJECT, THE CONTRACTOR SHALL SUBMIT, FOR THE ACCEPTANCE BY THE ENGINEER, A PROGRAM TO CONTROL WATER POLLUTION EFFECTIVELY DURING, CONSTRUCTION OF THE PROJECT. THE PROGRAM SHALL SHOW THE SCHEDULE FOR THE EROSION CONTROL WORK INCLUDED IN THE CONTRACT AND FOR ALL WATER POLLUTION CONTROL MEASURES WHICH THE CONTRACTOR PROPOSES TO TAKE IN CONNECTION WITH CONSTRUCTION OF THE PROJECT TO MINIMIZE THE EFFECTS OF THE OPERATIONS UPON ADJACENT STREAMS AND OTHER BODIES OF WATER, THE CONTRACTOR SHALL NOT PERFORM ANY CLEARING AND GRUBBING OR EARTHWORK ON THE PROJECT, OTHER THAN THAT SPECIFICALLY AUTHORIZED IN WRITING BY THE ENGINEER, UNTIL THE PROGRAM HAS BEEN ACCEPTED.
2. THE CONTRACTOR SHALL SUBMIT A CLEARING AND GRUBBING PLAN PRIOR TO BEGINNING WORK. THE PLAN SHALL CLEARLY SHOW THE EXTENTS OF THE PROPOSED CLEARING, VEGETATION TO BE CLEARED, AND VEGETATION TO BE PROTECTED IN PLACE. THE PLAN AND IT'S CONTENTS ARE SUBJECT TO THE APPROVAL OF THE OWNER AND OWNER'S REPRESENTATIVE.
3. WATER POLLUTION SHALL COMPLY WITH SECTION 7-1.01G OF THE CURRENT STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL EXERCISE EVERY REASONABLE PRECAUTION TO PROTECT STREAMS, LAKES, RESERVOIRS, BAYS, AND COASTAL WATERS FROM POLLUTION WITH FUELS, OILS, BITUMENS, CALCIUM CHLORIDE AND OTHER HARMFUL MATERIALS AND SHALL CONDUCT AND SCHEDULE OPERATIONS SO AS TO AVOID OR MINIMIZE MUDDYING AND SILTING OF STREAMS, LAKES, RESERVOIRS, BAYS AND COSTAL WATERS. CARE SHALL BE EXERCISED TO PRESERVE ROADSIDE VEGETATION BEYOND THE LIMITS OF CONSTRUCTION.
4. WATER POLLUTION CONTROL WORK IS INTENDED TO PROVIDE PREVENTION, CONTROL AND ABATEMENT OF WATER POLLUTION TO STREAMS, WATERWAYS AND OTHER BODIES OF WATER, AND SHALL CONSIST OF CONSTRUCTING THOSE FACILITIES WHICH MAY BE SHOWN ON THE PLANS, SPECIFIED HEREIN OR IN THE SPECIAL PROVISIONS, OR DIRECTED BY THE ENGINEER.
5. EROSION CONTROL FACILITIES AND MEASURES ARE TO BE INSTALLED AND OPERABLE PRIOR TO CONSTRUCTION, AND SHALL CONTINUE IN EFFECT UNTIL INSTALLATION OF THE PERMANENT PROJECT LANDSCAPING/EROSION CONTROL BMP'S, IF APPLICABLE.
6. ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIALS AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE STORM DRAINAGE SYSTEM, BODIES OF WATER OR ADJACENT PROPERTIES.
7. ALL EROSION CONTROL FACILITIES SHALL BE INSPECTED BY THE CONTRACTOR AND REPAIRED, AS REQUIRED, AT THE CONCLUSION OF EACH WORKING DAY DURING THE RAINY SEASON. THE CONTRACTOR SHALL INSPECT THE EROSION CONTROL FACILITIES AND MAKE NECESSARY REPAIRS THERETO PRIOR TO ANTICIPATED STORMS, AND SHALL PERIODICALLY INSPECT THE SITE AT REASONABLE INTERVALS DURING STORMS OF EXTENDED DURATION. REPAIRS TO DAMAGED FACILITIES SHALL BE REPAIRED IMMEDIATELY.

REVEGETATION

1. ALL DISTURBED AREAS (EXCEPT ROADWAYS) SHALL BE RESEEDED WITH A SEED MIX APPROVED BY THE OWNER.

SURVEY

1. EXISTING TOPOGRAPHIC SURVEY IS BASED ON DATA COLLECTION BY DAVIDS ENGINEERING, INC ON 7/10/2024. HORIZONTAL COORDINATE SYSTEM: NAD83 CALIFORNIA STATE PLANE, ZONE 1. VERTICAL DATUM: NAVD88. THE ENGINEER SHALL PROVIDE CONSTRUCTION STAKING FOR THE PROJECT.
2. NO BOUNDARY SURVEY HAS BEEN COMPLETED AT THIS TIME.

PIPE NOTES

1. UNLESS OTHERWISE NOTED, ALL PIPE SPECIFIED AS POLYVINYL CHLORIDE (PVC) SHALL BE A SDR OF 41.
2. ALL PVC PIPE SHALL CONFORM TO ASTM 2241 AND/OR NRCS 430-DD.
3. UNLESS OTHERWISE NOTED, ALL STEEL PIPE SHALL HAVE A WALL THICKNESS OF NOT LESS THAN 0.25". STEEL PIPE USED FOR FENCING POSTS AND BRACING SHALL BE RECYCLED OIL-FIELD PIPE IN THE DIAMETERS SHOWN IN THESE PLANS.
4. A MINIMUM OF 36" OF COVER OVER ALL PIPE SIZES AND MATERIAL.

DEMOLITION NOTES

1. ALL ITEMS IDENTIFIED FOR DEMOLITION SHALL BE COMPLETELY REMOVED AND DISPOSED OF IN A LAWFUL MANNER.
2. EXCAVATIONS OR VOIDS LEFT FOLLOWING THE DEMOLITION AND REMOVAL OF SUBSURFACE OR BURIED ITEMS SHALL BE BACKFILLED AND COMPACTED IN LIFTS TO A DENSITY EQUAL TO OR GREATER THAN THE SURROUNDING SOILS.
3. CONTRACTOR SHALL RESTORE ALL FENCING AND GATES REMOVED OR DAMAGED DURING CONSTRUCTION WITH NEW AND SIMILAR MATERIALS.
4. CONTRACTOR SHALL RE-GRADE AND RESURFACE THE EXISTING ROADS PROVIDING A SMOOTH TRANSITION TO ACCOMMODATE VEHICLE TRAVEL AND MAINTAIN A MINIMUM OF 36" OF COVER OVER ALL PIPE.

WATER CONTROL AND WATER DIVERSION NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONTROL OR MANAGEMENT OF STORM WATER RUNOFF, WHETHER OVERLAND RUNOFF OR WITHIN EXISTING DITCHES OR CONVEYANCES.

CIVIL LINE LEGEND

- CONCRETE
- EARTH
- PROPERTY LINE
- RIGHT OF WAY
- EASEMENT
- ROAD
- UTIL — UTILITY LINE
- OH — OVER HEAD UTILITY LINE
- 0+00 1+00 2+00 — ALIGNMENT

PROPOSED	EXISTING
x	x — BARBED WIRE FENCE
	CHAIN LINK FENCE
	WOOD FENCE
121	121 — X' CONTOUR MINOR
120	120 — X' CONTOUR MAJOR
	GRADING
SA	SA — SANITARY SEWER PIPE
SD	SD — STORM DRAIN
W	W — WATER PIPELINE
IRR	IRR — IRRIGATION PIPELINE
	GAS — GAS LINE

MECHANICAL LINE LEGEND

- PIPELINE
- PIPELINE CENTERLINE
- EXISTING PIPELINE
- FUTURE PIPELINE

SYMBOL LEGEND

- UTILITY POLE
- GUY WIRE
- BENCH MARK
- CONTROL POINT
- MONUMENT
- REVISION (X)
- PIPE BREAK
- HIGH WATER MARK
- EMBANKMENT ARROW
- 1 — CALLOUT TAG
- A / C01 — PROFILE ARROW
- A / C01 — SECTION ARROW
- 1 VIEW TITLE (SCALE: 1:1) — DRAWING TITLE
- X(E)120.00 — (E) SPOT ELEVATION
- X120.00 — PROPOSED SPOT ELEVATION

0" 1/2" 1" ACTUAL SCALE

DAVIDS ENGINEERING, INC
Technology Infrastructure Water

REV:	BY:	DATE:	DESCRIPTION
1	GJS	10/11/24	INITIAL DRAFT OF 30% DESIGN

GENERAL NOTES

CALIFORNIA OLIVE RANCH 3 PIPELINE
TCFCWCD
CORNING
CALIFORNIA
TEHAMA COUNTY

PRELIMINARY NOT FOR CONSTRUCTION

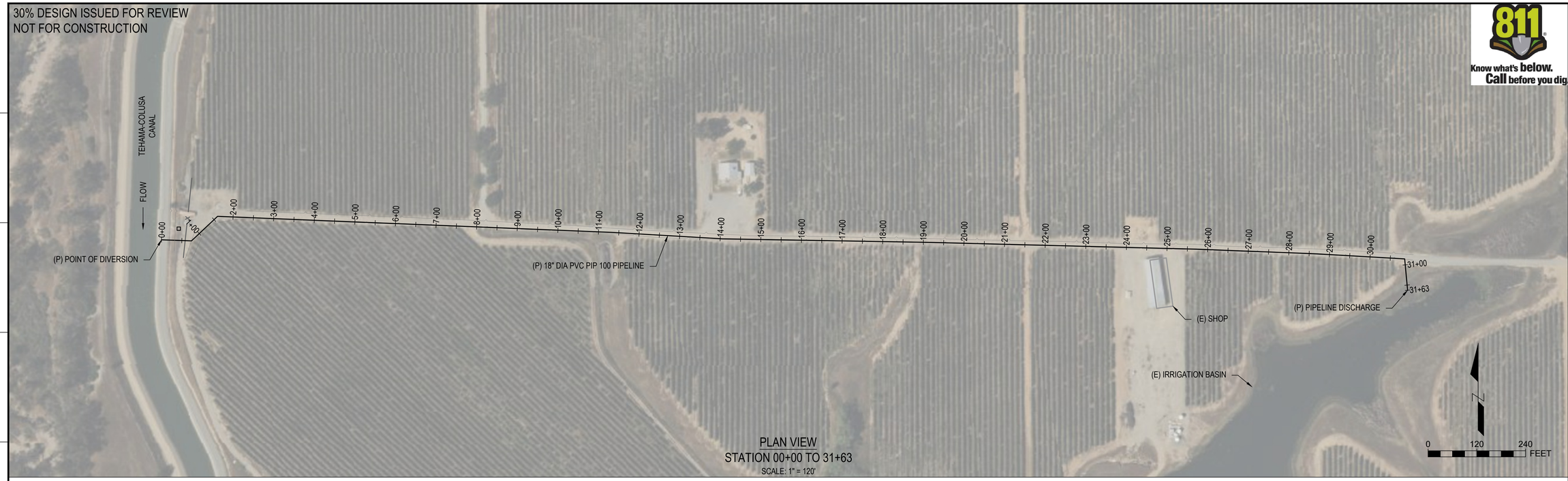
DATE:	10/11/2024
SCALE:	AS NOTED
JOB NUMBER:	1139.14
DESIGNED:	DRH
DRAWN:	GJS
CHECKED:	CT

GN01

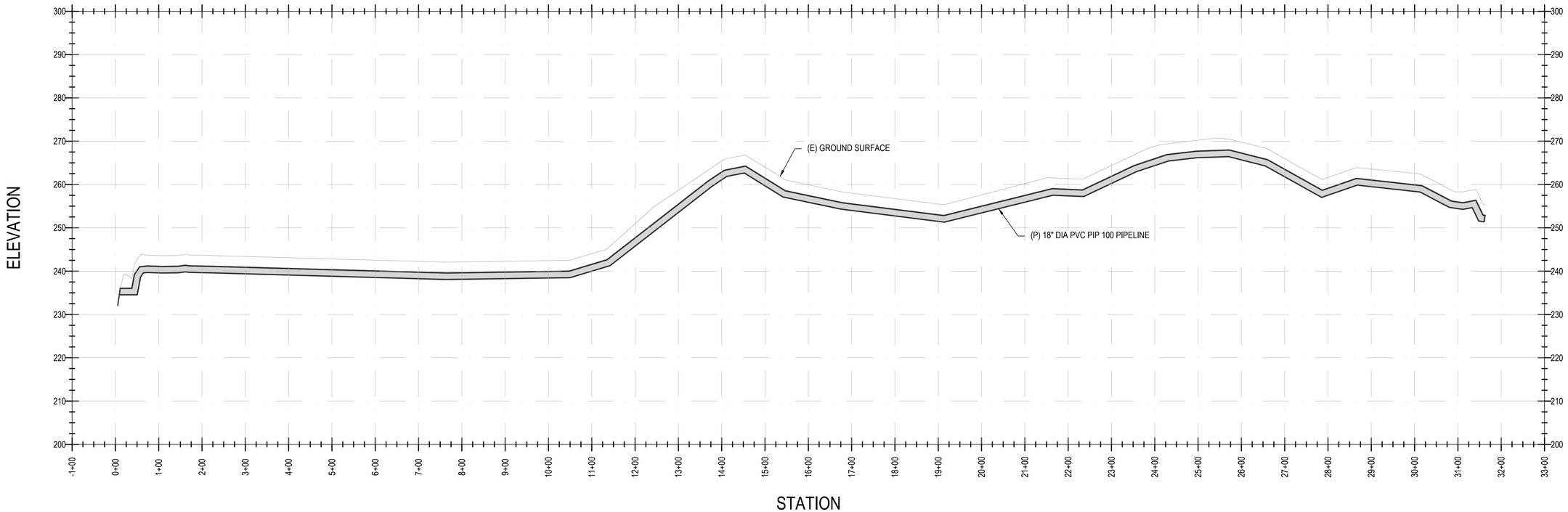
SHEET 2 OF 11

H:_CLIENT_PROJECT\1170_TCFCWCD\1170_1139.14_GSP_IMPLEMENTATION_TASK_WORK\04_PMA_DIRECT_RECHARGE\CALIFORNIA OLIVE RANCH\DRAFTING\02_CAD_PLANSHEETS\01_TITLE_NOTES.DWG 10/28/2024 1:29 PM

30% DESIGN ISSUED FOR REVIEW
NOT FOR CONSTRUCTION



PLAN VIEW
STATION 00+00 TO 31+63
SCALE: 1" = 120'



PROFILE VIEW
STATION 00+00 TO 31+63
VERT. SCALE: 1" = 10' HORIZ. SCALE: 1" = 120'

0" 1/2" 1"
ACTUAL SCALE

Know what's below. Call before you dig. 811

DAVIDS ENGINEERING, INC
Water Infrastructure Technology

REV:	BY:	DATE:	DESCRIPTION
1	GJS	10/11/24	INITIAL DRAFT OF 30% DESIGN

PROJECT OVERVIEW

CALIFORNIA OLIVE RANCH 3 PIPELINE
TCFCWCD
CORNING
TEHAMA COUNTY
CALIFORNIA

PRELIMINARY
NOT
FOR
CONSTRUCTION

DATE:	10/11/2024
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PO01

SHEET 3 OF 11

H:_CLIENT_PROJECT\1170_TCFCWCD\1170_1139.14_GSP_IMPLEMENTATION_TASK_WORK\04_PMA_DIRECT_RECHARGE\CALIFORNIA OLIVE RANCH\DRAFTING\02_CAD_PLANSHEETS\02_PROJECT_OVERVIEW.DWG
10/28/2024 4:55 PM

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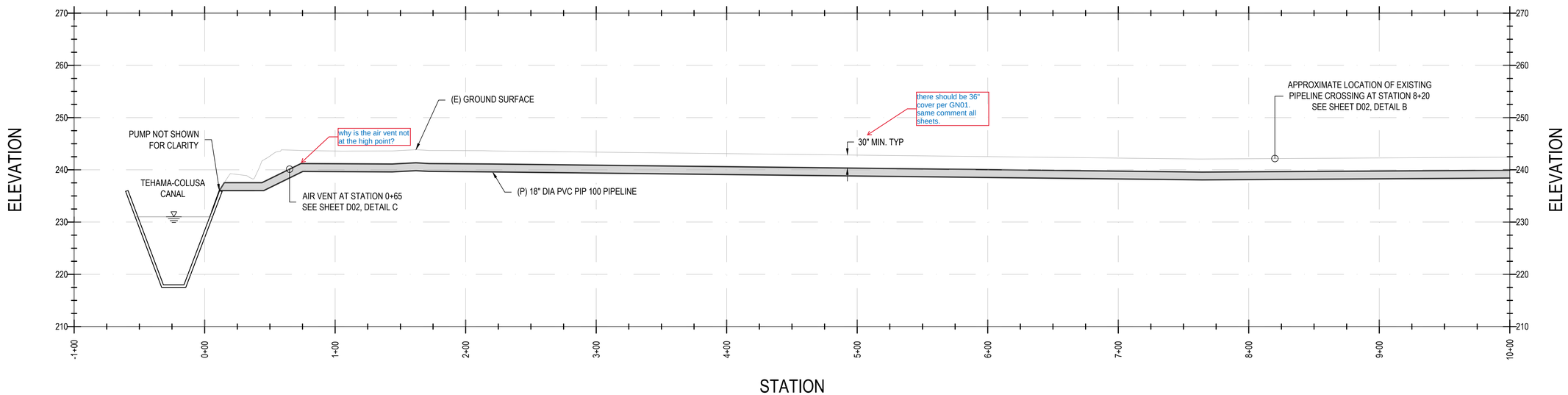
NOTES:
1. EXISTING WELL PIPELINE LOCATION IS APPROXIMATE. CONTRACTOR TO POTHOLE EXISTING WELL PIPELINE PRIOR TO CONSTRUCTION.

Know what's below. Call before you dig.

PLAN VIEW
STATION 00+00 TO 10+00
SCALE: 1" = 40'



PROFILE VIEW
STATION 00+00 TO 10+00
VERT. SCALE: 1" = 10' HORIZ. SCALE: 1" = 40'

0" 1/2" 1"
ACTUAL SCALE

DAVIDS ENGINEERING, INC
Technology Infrastructure Water

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1	GJS	10/11/24	INITIAL DRAFT OF 30% DESIGN

PLAN AND PROFILE
STATION 00+00 TO 10+00

CALIFORNIA OLIVE RANCH 3 PIPELINE
TCFCWCD
CORNING
TEHAMA COUNTY
CALIFORNIA

PRELIMINARY NOT FOR CONSTRUCTION

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PP01

SHEET 4 OF 11

H:_CLIENT_PROJECT\1170_TCFCWCD\1170_1139.14_GSP_IMPLEMENTATION_TASK_WORK\04_PMA_DIRECT_RECHARGE\CALIFORNIA OLIVE RANCH\DRAFTING\02_CAD_PLANSHEETS\03_PLAN_PROFILE.DWG
10/28/2024 4:54 PM

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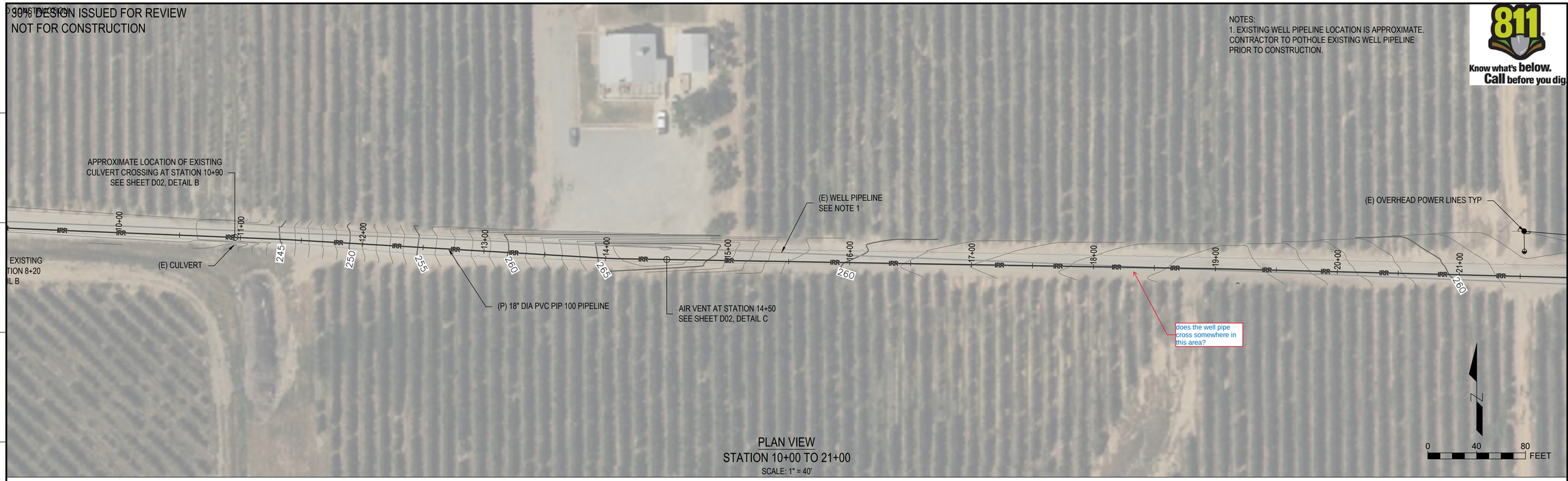
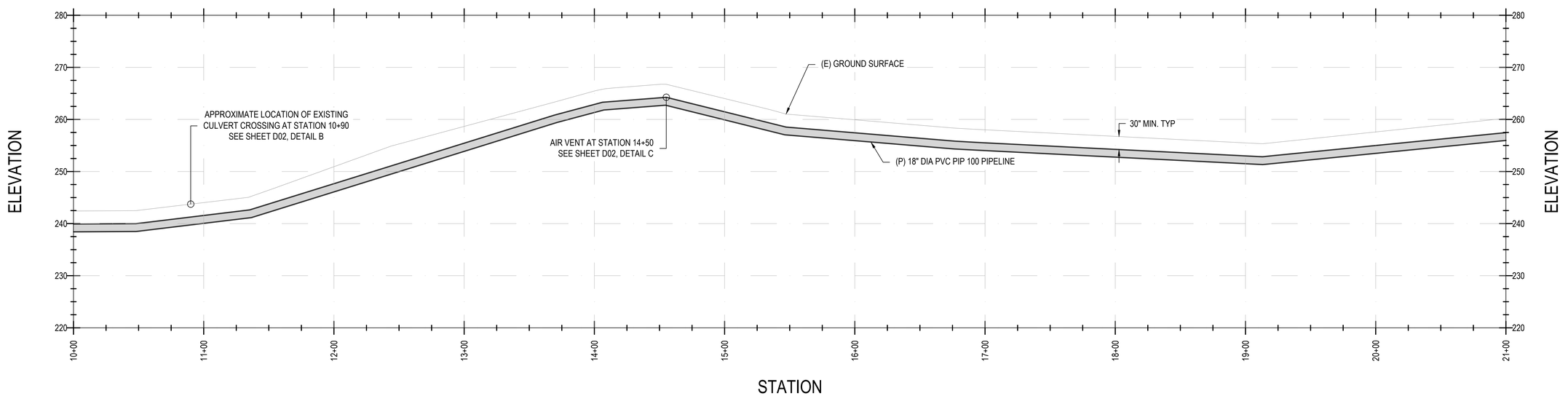
811 Know what's below. Call before you dig.



PLAN VIEW
STATION 10+00 TO 21+00
SCALE: 1" = 40'



PROFILE VIEW
STATION 10+00 TO 21+00
VERT. SCALE: 1" = 10' HORIZ. SCALE: 1" = 40'

0" 1/2" 1"
ACTUAL SCALE

DAVIDS ENGINEERING, INC
Technology Infrastructure Water

REV:	BY:	DATE:	DESCRIPTION
1	GJS	10/11/24	INITIAL DRAFT OF 30% DESIGN

PLAN AND PROFILE
STATION 10+00 TO 21+00

CALIFORNIA OLIVE RANCH 3 PIPELINE
TCFCWCD
CORNING
TEHAMA COUNTY
CALIFORNIA

PRELIMINARY NOT FOR CONSTRUCTION

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PP02

SHEET 5 OF 11

H:_CLIENT_PROJECT\1170_TCFCWCD\1170_1139.14_GSP_IMPLEMENTATION_TASK_WORK\04_PMA_DIRECT_RECHARGE\CALIFORNIA OLIVE RANCH\DRAFTING\02_CAD_PLANSHEETS\03_PLAN_PROFILE.DWG
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NOTES:
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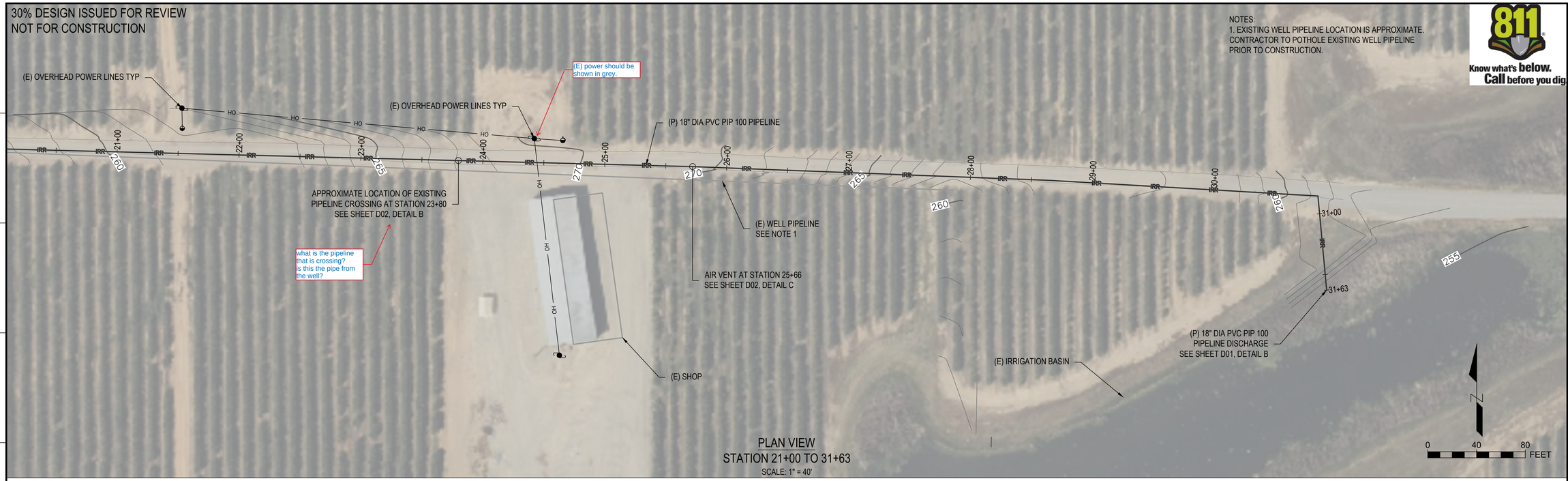
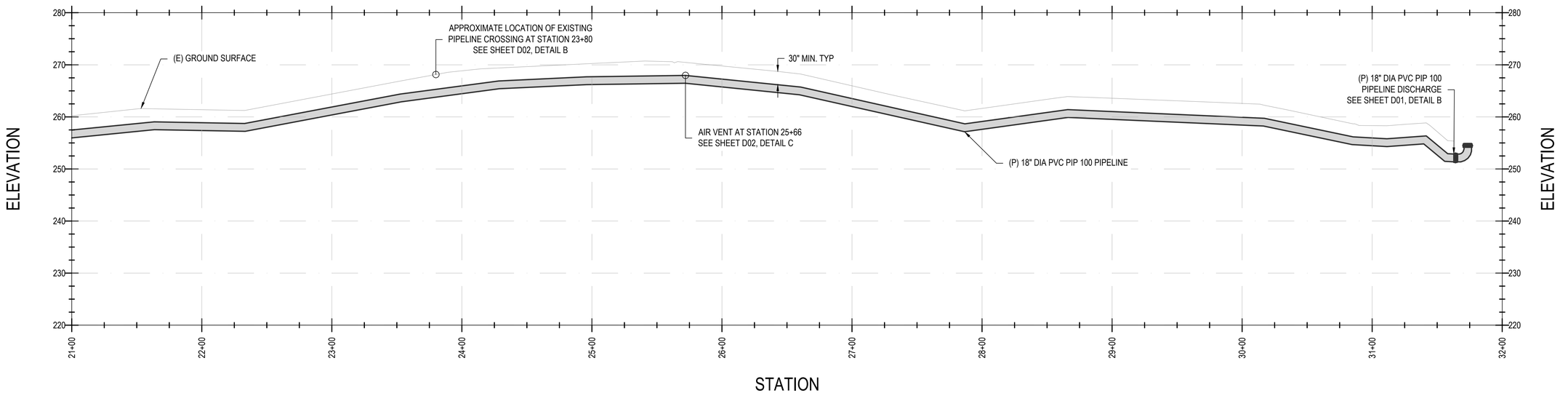
811 Know what's below. Call before you dig.



PLAN VIEW
STATION 21+00 TO 31+63
SCALE: 1" = 40'



PROFILE VIEW
STATION 21+00 TO 31+63
VERT. SCALE: 1" = 10' HORIZ. SCALE: 1" = 40'

0" 1/2" 1"
ACTUAL SCALE

DAVIDS ENGINEERING, INC
Technology Infrastructure Water

REV:	BY:	DATE:	DESCRIPTION
1	GJS	10/11/24	INITIAL DRAFT OF 30% DESIGN

PLAN AND PROFILE
STATION 21+00 TO 31+63

CALIFORNIA OLIVE RANCH 3 PIPELINE
TCFCWCD
CORNING
CALIFORNIA
TEHAMA COUNTY

PRELIMINARY
NOT
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PP03

SHEET 6 OF 11

H:_CLIENT_PROJECT\1170_TCFCWCD\1170_1139.14_GSP_IMPLEMENTATION_TASK_WORK\04_PMA_DIRECT_RECHARGE\CALIFORNIA OLIVE RANCH\DRAFTING\02_CAD_PLANSHEETS\03_PLAN_PROFILE.DWG
10/28/2024 4:54 PM

30% DESIGN ISSUED FOR REVIEW
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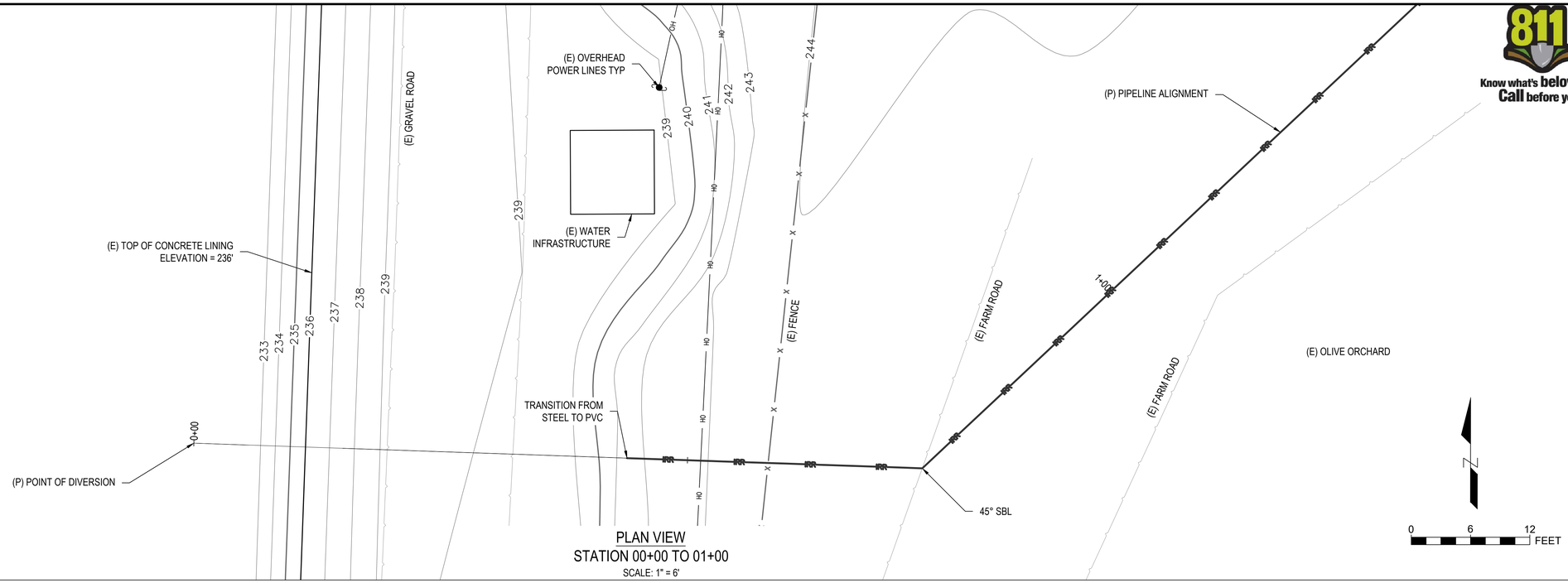
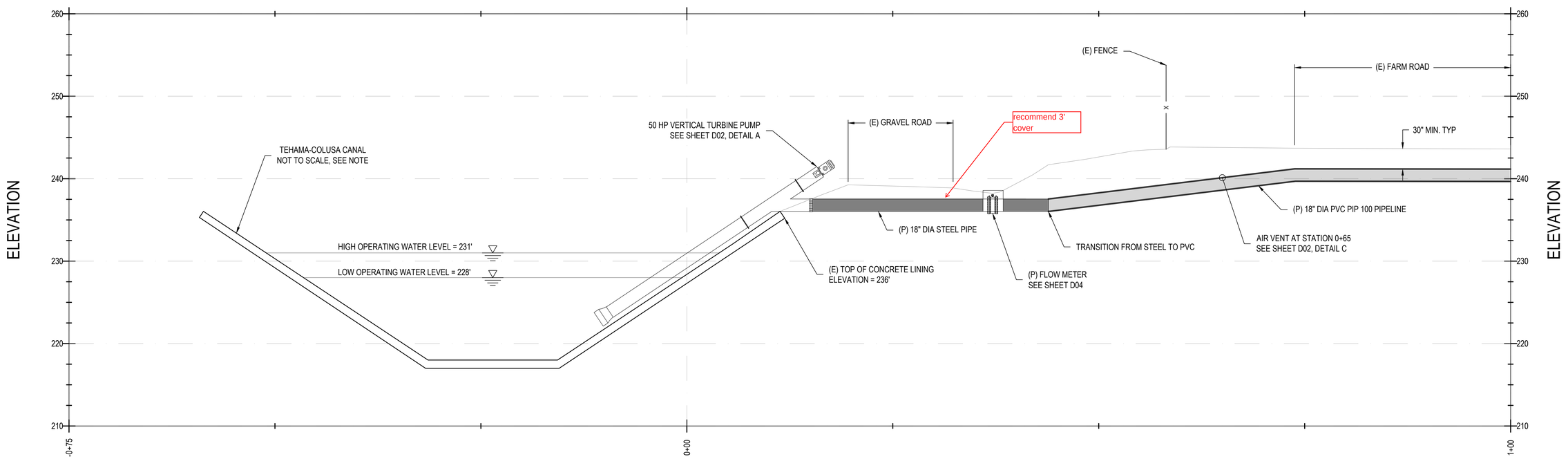
NOTE: THE TEHAMA-COLUSA CANAL WAS NOT SURVEYED AS PART OF THIS DESIGN PHASE. THE DEPICTED TEHAMA-COLUSA CANAL MAY OR MAY NOT REFLECT ACTUAL CONDITIONS.



PLAN VIEW
STATION 00+00 TO 01+00
SCALE: 1" = 6'



PROFILE VIEW
STATION 00+00 TO 01+00
VERT. SCALE: 1" = 6' HORIZ. SCALE: 1" = 6'

0" 1/2" 1"
ACTUAL SCALE

DAVIDS ENGINEERING, INC
Technology
Infrastructure
Water

REV:	BY:	DATE:	DESCRIPTION
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POINT OF DIVERSION PLAN AND PROFILE

CALIFORNIA OLIVE RANCH 3 PIPELINE
TCFCWCD
CORNING
TEHAMA COUNTY
CALIFORNIA

PRELIMINARY
NOT
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PP04

SHEET 7 OF 11

H:_CLIENT_PROJECT\1170_TCFCWCD\1170_1139.14_GSP_IMPLEMENTATION_TASK_WORK\04_PMA_DIRECT_RECHARGE\CALIFORNIA OLIVE RANCH\DRAFTING\02_CAD_PLANSHEETS\04_PUMP_PLAN_PROFILE.DWG
10/28/2024 4:54 PM

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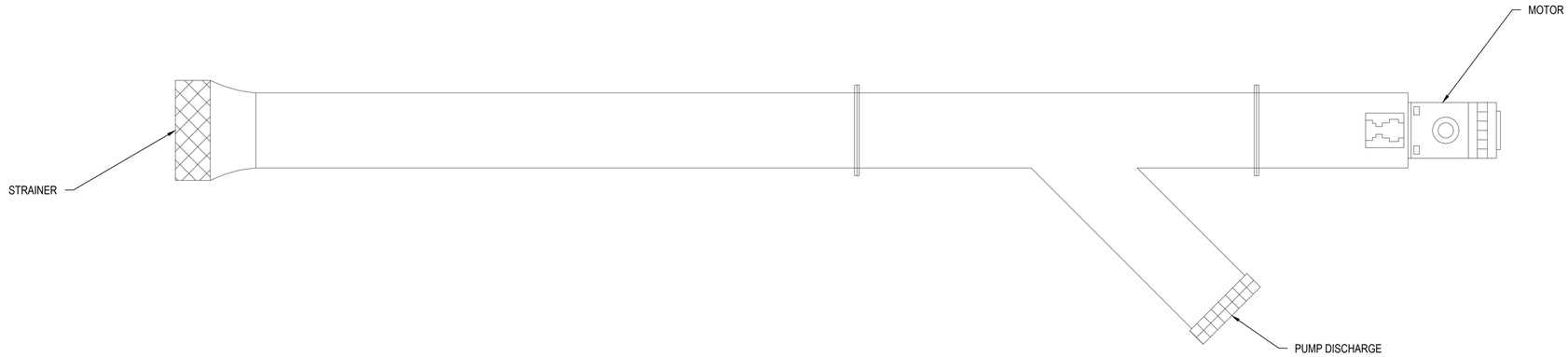
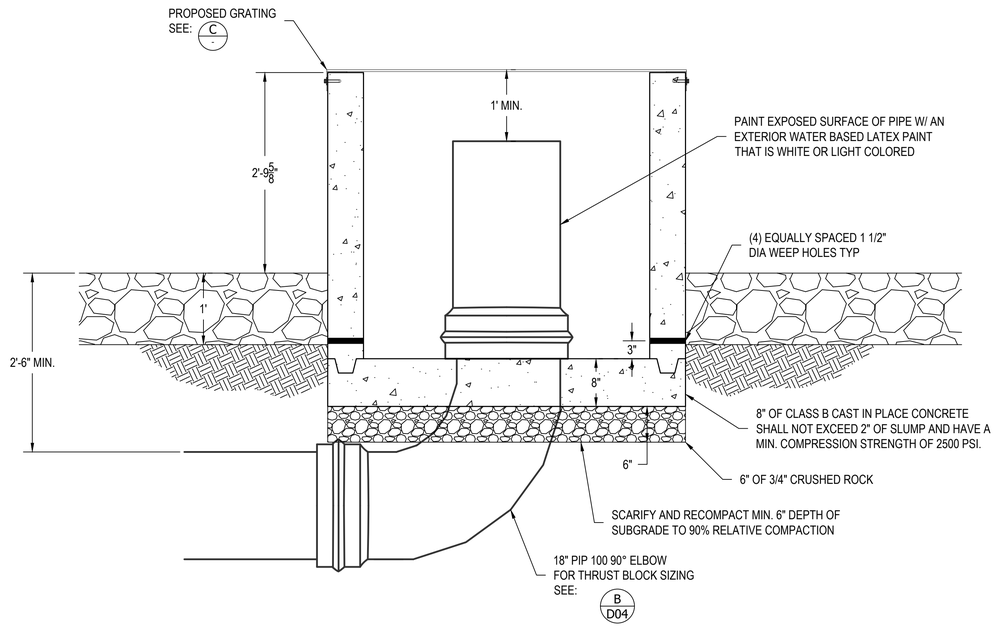
Know what's below. Call before you dig.



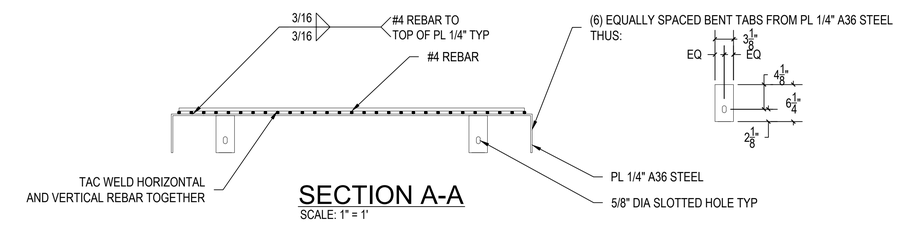
A SLANT PUMP

SCALE: NTS



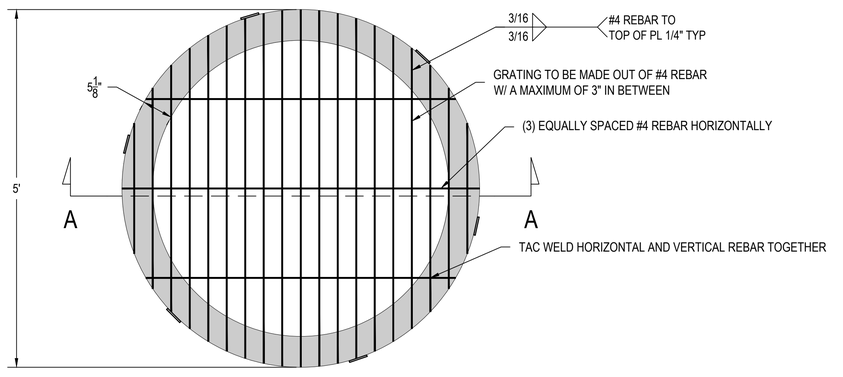
B TYPICAL PIPE DISCHARGE

SCALE: 1" = 1'



SECTION A-A

SCALE: 1" = 1'



C TYPICAL PIPE DISCHARGE COVER

SCALE: 1" = 1'

0" 1/2" 1"
ACTUAL SCALE

DAVIDS ENGINEERING, INC
Water Infrastructure Technology

REV:	BY:	DATE:	DESCRIPTION
1	GJS	10/11/24	INITIAL DRAFT OF 30% DESIGN

DETAILS

CALIFORNIA OLIVE RANCH 3 PIPELINE
TCFCWCD
CORNING
TEHAMA COUNTY
CALIFORNIA

PRELIMINARY NOT FOR CONSTRUCTION

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D01

30% DESIGN ISSUED FOR REVIEW
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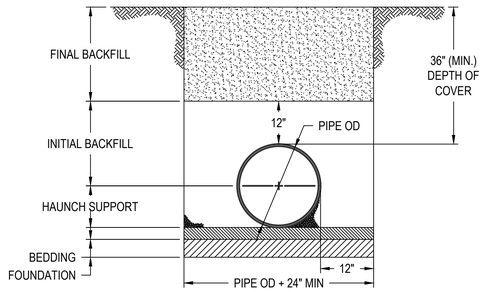
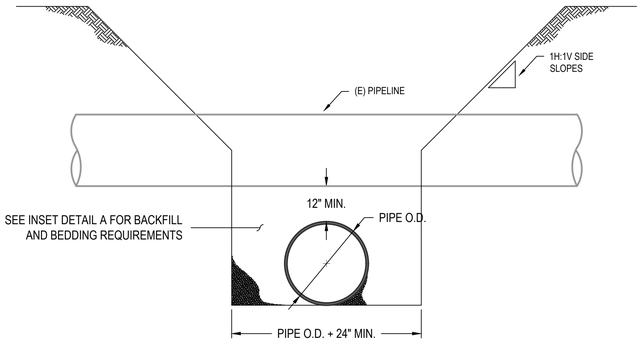


A TYPICAL TRENCH
SCALE: NTS

TYPICAL PIPELINE NOTES:

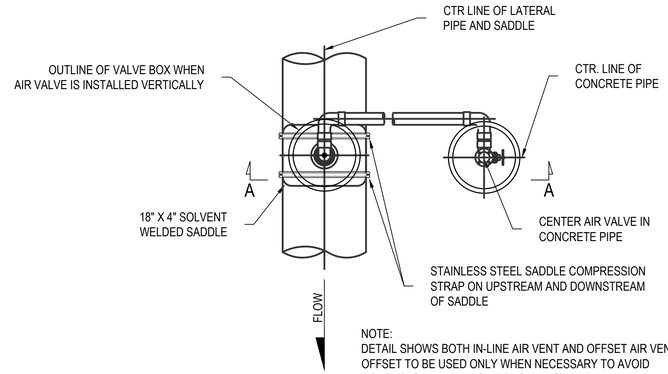
1. PIPELINE SHALL BE INSTALLED ACCORDING TO MANUFACTURERS INSTRUCTIONS AND SPECIFICATIONS.
2. OVEREXCAVATION ZONE: THE BOTTOM OF TRENCH SHALL BE FIRM, UNIFORM-BEARING SOIL SURFACE. WHEN UNSUITABLE OR DISTURBED THE CONTRACTOR SHALL REMOVE, REPLACE, AND COMPACT MATERIAL AS DIRECTED BY THE BY THE ENGINEER. SUBGRADE SHALL MEET 90% MAXIMUM DENSITY (ASTM D-1557).
3. PIPE BEDDING ZONE: PIPE BEDDING SHALL BE UNCOMPACTED GRANULAR SOIL CONTAINING NO MORE THAN 5% MATERIAL PASSING THE NUMBER 200 SIEVE, AND SHALL HAVE A MAXIMUM PARTICLE SIZE OF $\frac{3}{4}$ INCH. BEDDING SHALL CONFORM TO SPECIFICATIONS BELOW. SOIL TYPES SHALL BE AS DETERMINED BY THE ENGINEER.
   - 3.1. ON SANDY SOIL (BEDDING): NATIVE MATERIAL, SUITABLE, OR SAND AS APPROVED BY THE ENGINEER.
   - 3.2. ON CLAY SOIL (BEDDING): 4" MINIMUM SAND OR ENGINEER APPROVED NATIVE MATERIAL ONLY.
4. HAUNCH SUPPORT BACKFILL ZONE: HAUNCH SUPPORT BACKFILL SHALL BE COHESIVE SOIL OR GRANULAR MATERIAL CONTAINING MORE THAN 5% MATERIAL PASSING THE NUMBER 200 SIEVE, SHALL HAVE A MAXIMUM PARTICLE SIZE OF $\frac{3}{4}$", PLACED IN LOOSE LIFTS NOT TO EXCEED 8" THICKNESS, OR 2-SACK CEMENT-SAND SLURRY. TRENCH WIDTH MAY BE REDUCED BY 6" ON EACH SIDE OF PIPE IF CEMENT-SAND SLURRY IS USED. COMPACTED EARTHFILL SHALL MEET 90% MAXIMUM DENSITY (ASTM D-1557) AND BE ACCOMPLISHED BY MANUALLY DIRECTED HAND COMPACTORS TO A MINIMUM DEPTH OF 12 INCHES OVER THE TOP OF THE PIPE. THE MAXIMUM LAYER THICKNESS SHALL BE 12 INCHES BEFORE COMPACTION.
5. INITIAL BACKFILL ZONE: BACKFILL SHALL BE SOUND EARTHEN MATERIAL FREE OF ROCKS, HARDPAN, ORGANICS, AND DELETERIOUS MATERIAL, SHALL HAVE MAXIMUM PARTICLE SIZE OF $\frac{3}{4}$ INCH, PLACED IN LOOSE LIFTS NOT TO EXCEED 8" IN THICKNESS, AND HAND COMPACTED USING AIR TAMPERS OR PAD FOOT WHACKER TO 90% RELATIVE COMPACTION.
6. FINAL BACKFILL ZONE: SHALL BE MINIMUM 90% RELATIVE COMPACTION (ASTM D-1557), UNLESS OTHER LOCAL AGENCY STANDARDS DICTATE HIGHER COMPACTION.



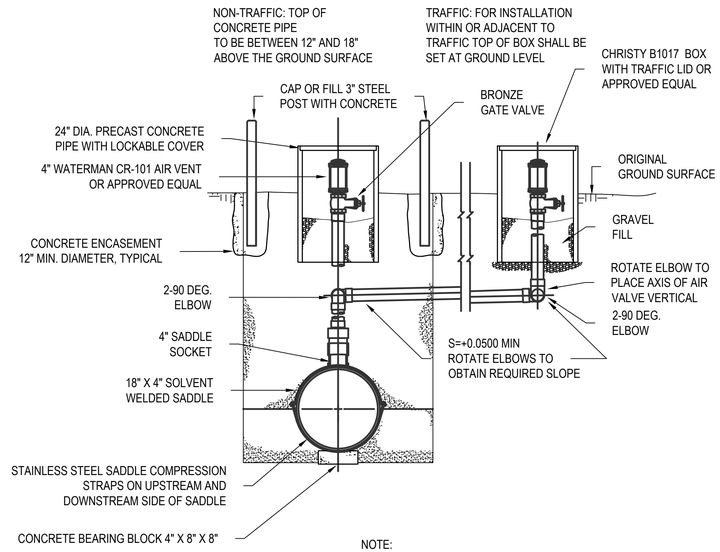
B PIPELINE CROSSING UNDER (E) PIPELINE
SCALE: NTS

PIPELINE CROSSING UNDER (E) PIPELINE NOTES:

1. TRENCH WORK SHALL COMPLY WITH CAL/OSHA CONSTRUCTION SAFETY REQUIREMENTS.
2. WHERE DEPTH OF AN (E) PIPELINE IS UNKNOWN, IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE PIPELINE. ONLY HAND AUGURING SHALL BE PERMITTED.
3. IF LEAKAGE BECOMES APPARENT AFTER THE THE CROSSING WORK IS PERFORMED AND IT IS DETERMINED, SOLELY BY THE ENGINEER, THAT THE LEAKAGE IS A RESULT OF DAMAGE TO THE FACILITY IN CONNECTION WITH THE CROSSING PROJECT, THEN REPAIR OF THE FACILITY SHALL BE PERFORMED SOLELY AT THE EXPENSE OF THE CONTRACTOR.
4. CONTRACTOR SHALL INSTALL A CONTINUOUS FULL SECTION OF PIPE, CENTERED BELOW THE (E) PIPELINE BEING CROSSED TO ENSURE JOINTS WILL NOT AFFECT (E) PIPELINE.
5. MAXIMUM 6' CROSSING CUT UNLESS PRE-APPROVED BY ENGINEER.



C TYPICAL PIPELINE AIR VENT - PLAN
SCALE: NTS



TYPICAL PIPELINE AIR VENT - SECTION A-A
SCALE: NTS

Know what's below. Call before you dig.

DAVIDS ENGINEERING, INC
Technology Infrastructure Water

REV:	BY:	DATE:	DESCRIPTION
1	GJS	10/11/24	INITIAL DRAFT OF 30% DESIGN

DETAILS

CALIFORNIA OLIVE RANCH 3 PIPELINE
TCFCWCD
CORNING
TEHAMA COUNTY
CALIFORNIA

PRELIMINARY NOT FOR CONSTRUCTION

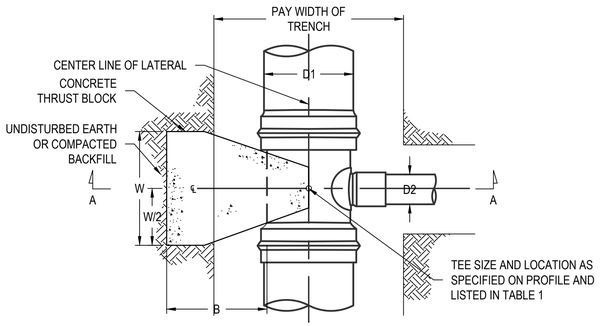
DATE:	10/11/2024
SCALE:	AS NOTED
JOB NUMBER:	1139.14
DESIGNED:	DRH
DRAWN:	GJS
CHECKED:	CT

D02

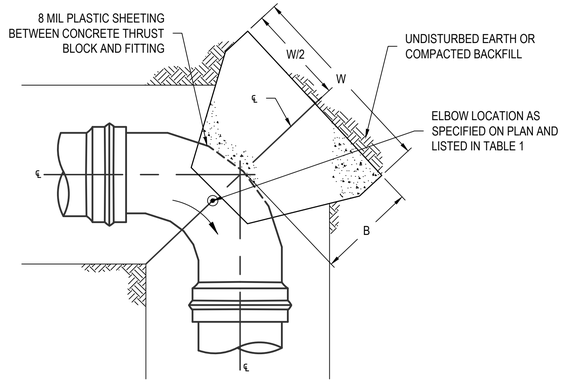
SHEET 9 OF 11

0" 1/2" 1"
ACTUAL SCALE

30% DESIGN ISSUED FOR REVIEW
NOT FOR CONSTRUCTION

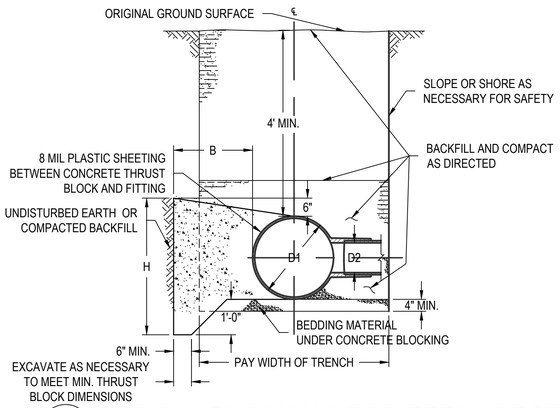


A TYPICAL BLOCKING FOR TEES - PLAN
SCALE: NTS

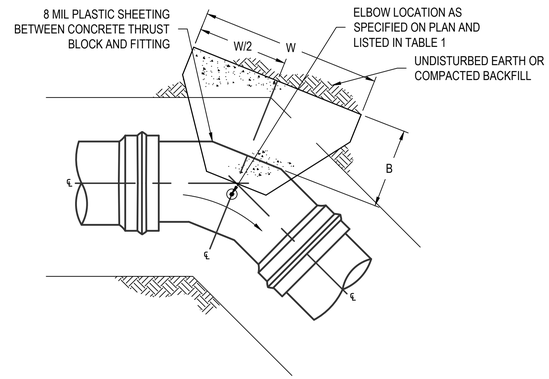


B TYPICAL BLOCKING FOR 90° BENDS
SCALE: NTS

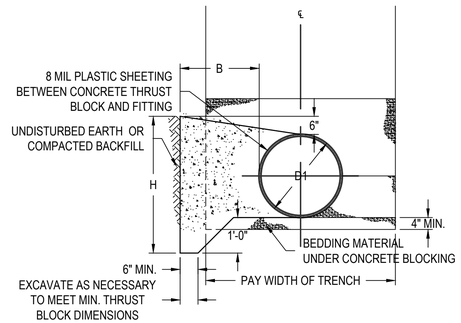
NOTES:
1. TEE SIZE DESIGNATED ON PROFILE AS D1xD1xD2
2. THRUST BLOCK MAY EXTEND BEYOND TRENCH WALL
3. THRUST BLOCKS SHALL BE CONSTRUCTED TO A MINIMUM OF THE DIMENSIONS SHOWN IN TABLE 1 AND AS SHOWN ON THIS SHEET.
4. OD = OUTSIDE DIAMETER OF PIPE IN INCHES.
5. FOR PIPE COLLARS, SEE 113-05A
6. THRUST BLOCKS TO BE CONSTRUCTED TO AVOID ALL PIPE AND FITTING JOINTS.
7. THE WIDTH OF THE CONTACT AREA OF EACH THRUST BLOCK WITH THE FITTING RESTRAINED SHALL BE EQUAL TO THE DISTANCE BETWEEN THE BELLS OR WHICHEVER IS LESS.
8. ONLY USE THOSE DETAILS WHICH REFER TO PIPE, TRENCH, OR OTHER PIPELINE CONSTRUCTION OPTIONS AS ALLOWED AND REQUIRED IN THIS CONTRACT OR AS SHOWN ON THE PLAN AND PROFILE
9. CONTRACTOR SHALL ROUGH FORM THRUST BLOCK TO AVOID EXCESSIVE ENCASEMENT OF FITTINGS.



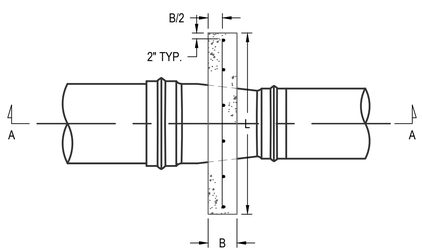
C TYPICAL BLOCKING FOR TEES - SECTION A-A
SCALE: NTS



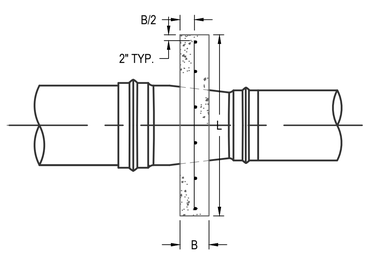
D TYPICAL BLOCKING FOR 45° BENDS
SCALE: NTS



E TYPICAL BLOCKING FOR BENDS - SECTION
SCALE: NTS



F TYPICAL BLOCKING FOR REDUCERS
SCALE: NTS



SECTION A-A
SCALE: NTS

0" 1/2" 1"
ACTUAL SCALE

Know what's below. Call before you dig.

DAVIDS ENGINEERING, INC
Water Infrastructure Technology

REV:	DATE:	DESCRIPTION
1	10/11/24	INITIAL DRAFT OF 30% DESIGN

THRUST BLOCK DETAILS

CALIFORNIA OLIVE RANCH 3 PIPELINE
TCFCWCD
CORNING
TEHAMA COUNTY
CALIFORNIA

PRELIMINARY NOT FOR CONSTRUCTION

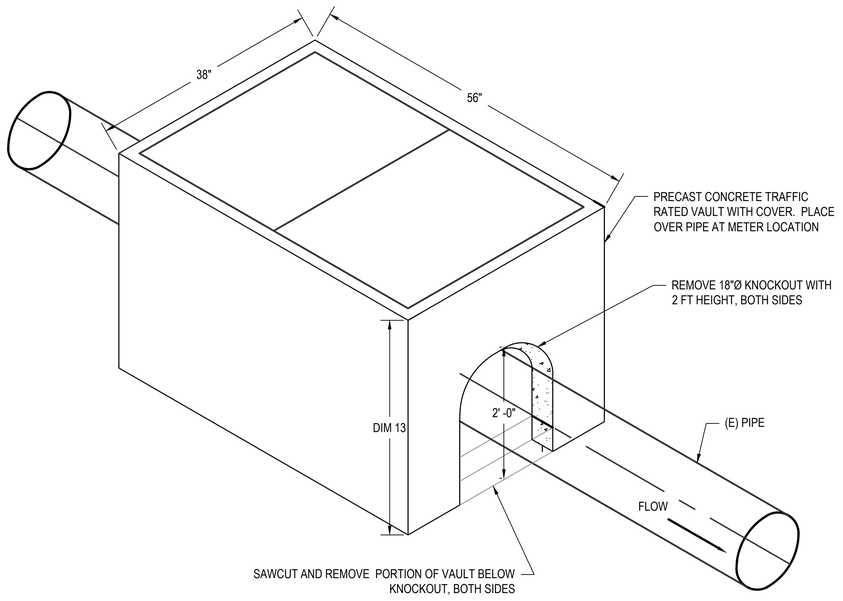
DATE:	10/11/2024
SCALE:	AS NOTED
JOB NUMBER:	1139.14
DESIGNED:	DRH
DRAWN:	GJS
CHECKED:	CT

D03

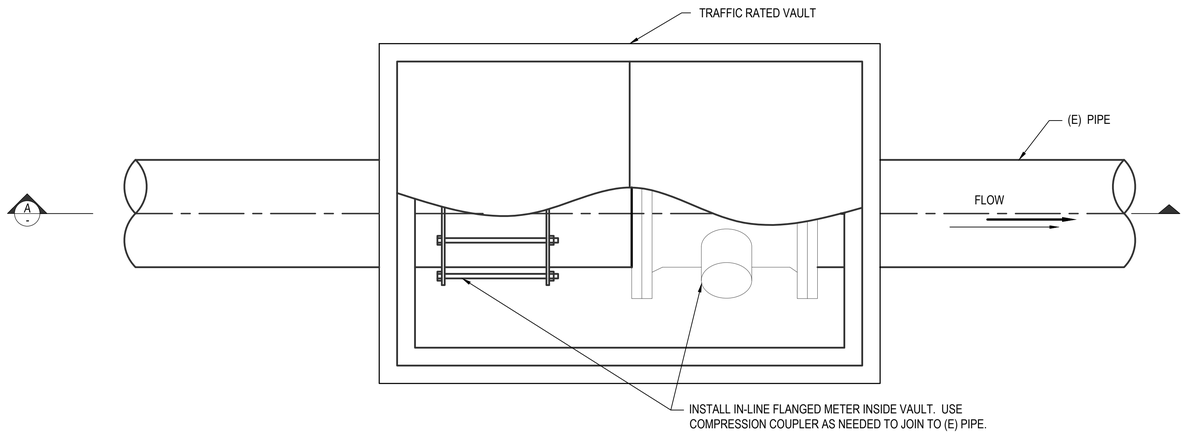
SHEET 10 OF 11

H:_CLIENT_PROJECT\1170_TCFCWCD\1170_1139.14_GSP_IMPLEMENTATION_TASK_WORK\04_PMA_DIRECT_RECHARGE\CALIFORNIA OLIVE RANCH\DRAFTING\02_CAD_PLANSHEETS\05_DETAIL.DWG 10/28/2024 4:53 PM

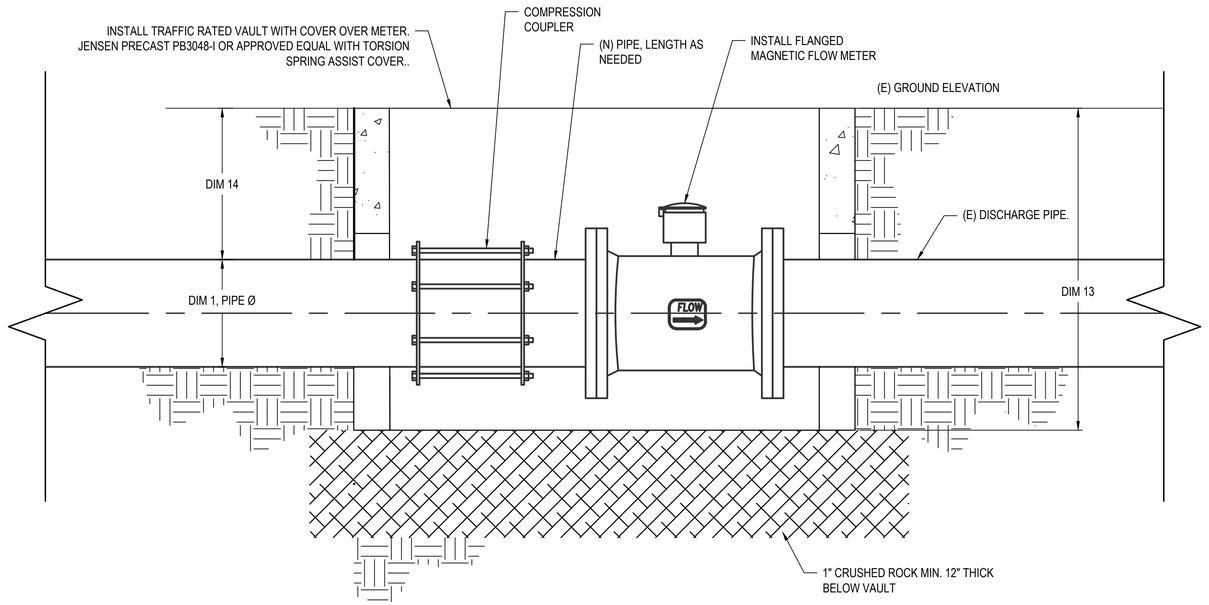
30% DESIGN ISSUED FOR REVIEW
NOT FOR CONSTRUCTION



1 TRAFFIC RATED METER VAULT - ISOMETRIC VIEW
SCALE: 1"=1'



2 TRAFFIC RATED METER VAULT - PLAN VIEW
SCALE: 1"=1'



A TRAFFIC RATED METER VAULT - SECTION VIEW
SCALE: 1"=1'

Know what's below. Call before you dig.

DAVIDS ENGINEERING, INC
Technology Infrastructure Water

REV:	BY:	DATE:	DESCRIPTION
1	GJS	10/11/24	INITIAL DRAFT OF 30% DESIGN

THRUST BLOCK DETAILS

CALIFORNIA OLIVE RANCH 3 PIPELINE
TCFCWCD
CORNING
TEHAMA COUNTY
CALIFORNIA

PRELIMINARY NOT FOR CONSTRUCTION

DATE:	10/11/2024
SCALE:	AS NOTED
JOB NUMBER:	1139.14
DESIGNED:	DRH
DRAWN:	GJS
CHECKED:	CT

D04

SHEET 11 OF 11

0" 1/2" 1"
ACTUAL SCALE

H:_CLIENT_PROJECT\1170_TCFCWCD\1170_1139.14_GSP_IMPLEMENTATION_TASK_WORK\04_PMA_DIRECT_RECHARGE\CALIFORNIA OLIVE RANCH\DRAFTING\02_CAD_PLANSHEETS\05_DETAIL.DWG 10/28/2024 4:53 PM

Appendix A
Attachment 2 – Cost Estimate

DE Project # 1139.14.04.00.06.CO
Estimator: DRH

ENGINEER'S ESTIMATE OF PROBABLE PROJECT COST

California Olive Ranch #3 Pipeline 30% Design
12/6/2024

Item No.	Item Description	Quantity	Unit	Unit Cost	Extended Cost
1	**Pipeline System**				
	18" PVC PIP 100 Pipe	3,150	LF	$ 72	$ 226,103
	18" PVC PIP 100 45 Degree Pipe Bend	2	EA	$ 1,873	$ 3,747
	18" PVC PIP 100 90 Degree Pipe Bend	2	EA	$ 2,761	$ 5,522
	F&I Air Vent/Vacuum Relief	3	EA	$ 1,800	$ 5,400
	Construct Thrust Blocks	4	EA	$ 600	$ 2,400
				Subtotal =	$ 243,172
2	**Diversion Pump**				
	F&I 60 HP Vertical Turbine Pump, Check Valve & 50' of 18" Steel Pipe Discharge	1	EA	$ 77,614	$ 77,614
	F&I Pump Electrical Service and Panel	1	EA	$ 22,935	$ 22,935
				Subtotal =	$ 100,549
3	**Discharge Structure**				
	Manhole	1	EA	$ 4,000	$ 4,000
	F&I Erosion Protection at Discharge	45	TON	$ 72	$ 3,240
				Subtotal =	$ 7,240
4	**Flow Meter & Vault**				
	Traffic Rated Vault	1	EA	$ 5,032	$ 5,032
	18" Flanged Flow Meter	1	EA	$ 11,320	$ 11,320
	18" Compression Coupler	1	EA	$ 2,489	$ 2,489
	18" x 18.7" Vanstone Flange x Gasket PIP	1	EA	$ 2,038	$ 2,038
	Construction Labor Costs	1	LS	$ 7,301	$ 7,301
	Clearing and Grubbing	1	EA	$ 842	$ 842
				Subtotal =	$ 29,022
				Subtotal of Line Items=	**$ 379,982**
	Mobilization/Demobilization			5%	$ 18,999
	Bonding and Insurance			3.0%	$ 11,399
	Design Contingency/Minor Item Allowance			10%	$ 37,998
	Contractor Profit/Markup			6%	$ 22,799
				Contract Cost =	**$ 471,178**
	Construction Contingencies			10%	$ 47,117.82
				Field Cost =	**$ 518,296**

DISCLAIMER Davids Engineering has no control over costs of labor, materials, competitive bidding environments and procedures, unidentified field conditions, financial and/or market conditions, or any other factors likely to affect this estimate of probable project cost. All these factors are unavoidably dynamic due to Acts of God and other market events beyond the control of DE. This estimate is a "snapshot in time" and the reliability of the estimate will degrade over time. DE cannot and does not make any warranty, promise, guarantee or representation, either express or implied, that proposals, bids, construction costs, or costs of O&M functions will not vary from this estimate.

Appendix B – US Bureau of Reclamation Permit Application

APPLICATION FOR TRANSPORTATION, UTILITY SYSTEMS, TELECOMMUNICATIONS AND FACILITIES ON FEDERAL LANDS AND PROPERTY

FORM APPROVED
OMB Control Number: 0596-0249
Expiration Date: 1/31/2027

FOR AGENCY USE ONLY

NOTE: Before completing and filing the application for an authorization (easement, right-of-way, lease, license or permit), the applicant should completely review this package, including instructions, and schedule a pre-application meeting with representatives of the agency responsible for processing the application. Each agency may have specific and unique requirements to be met in preparing and processing the application. Many times, with the help of the agency representative, the application can be completed at the pre-application meeting.

Application Number

Date Filed

1. Name and address of applicant
Kirkwood Water District

2. Name and address of authorized agent if different from item 1

3. Applicant telephone number and email:

Authorized agent telephone number and email:

4. As applicant are you? *(check one)*

a. ☐ Individual
b. ☐ Corporation*
c. ☐ Partnership/Association*
d. ☐ State Government/State Agency
e. ☑ Local Government
f. ☐ Federal Agency

** If checked, complete supplemental page*

5. Specify what application is for: *(check one)*

a. ☑ New authorization
b. ☐ Renewing existing authorization number
c. ☐ Amend existing authorization number
d. ☐ Assign existing authorization number
e. ☐ Existing use for which no authorization has been received *
f. ☐ Other*

** If checked, provide details under item 7*

6. If an individual, or partnership, are you a citizen(s) of the United States? ☐ Yes ☐ No

7. Project description *(describe in detail)*: (a) Type of use or occupancy, *(e.g., canal, pipeline, road, telecommunications);* (b) related structures and facilities; (c) physical specifications *(Length, width, grading, etc.*); (d) term of days/years needed; (e) time of year of use or operation; (f) Volume or amount of product to be transported; (g) duration and timing of construction; and (h) temporary work areas needed for activity/construction *(Attach additional sheets, if additional space is needed.)*

The project consists of the installation of an irrigation turnout structure on the Tehama Colusa Canal along with associated systems to deliver irrigation water from the canal to California Olive Ranch #3. The system will consist of a slant pump installed on the concrete lining of the canal itself. Additionally, a 18" diameter steel pipe will be installed below the gravel road on the east bank of the canal. A flow meter installed in a vault and a one-way check valve will be installed between the steel pipe and the 18" diameter PVC pipeline which will tie in to existing irrigation infrastructure on the property. The project is intended as a permanent installation which will be utilized for irrigation throughout the year as needed. The system is designed for a flow rate of 2,915 GPM or 6.5 CFS. The total estimated annual volume of water to be diverted is 1,142 AFY. Timing and duration of construction are subject to permitting timelines, however construction is expected to take place during 2025 or early 2026. For additional information on the design of the turnout structure and associated systems, see the attached preliminary designs and feasibility memo attached to this application.

8. Attach a map covering area and show location of project proposal.

9. State or Local government approval: ☐ Attached ☐ Applied for ☐ Not Required

10. Nonrefundable application fee: ☑ Attached ☐ Not required ☐ To be determined by agency

11. Does project cross international boundary or affect international waterways? ☐ Yes ☑ No *(if "yes," indicate on map)*

12. Give statement of your technical and financial capability to construct, operate, maintain, and terminate system for which authorization is being requested.

Kirkwood Water District currently operates and maintains irrigation turnouts similar to the proposed project along the Tehama Colusa Canal. The proposed turnout will provide irrigation for lands cultivated by California Olive Ranch #3. The proposed project will be constructed by a company with prior experience tying into USBR infrastructure and installing projects of similar size. The project will be funded by a combination of Prop 68 Grant funding, potential future Prop 4 Grant funding, and/or California Olive Ranch capital improvement funding. The project will be operated and maintained as part of California Olive Ranch's existing irrigation system. The project is intended to operate indefinitely and as such will not incur termination costs.

13a. Describe other alternative locations considered.
Alternative locations were not considered as the project requires a turnout on the Tehama Colusa Canal.

b. Why were these alternatives not selected?
No other surface water facilities are available which can serve the needs of the project. Additionally, the location selected for the turnout structure on the canal was selected as it is the shortest distance to tie into existing irrigation infrastructure on the property.

c. Give explanation as to why it is necessary to use or occupy Federal assets (lands or buildings).
The project intends to utilize available Central Valley Project (CVP) surface water supplies. The only reasonable location to access these supplies are from the Tehama Colusa Canal which runs through and adjacent to the subject property.

14. List authorizations and pending applications filed for similar projects which may provide information to the authorizing agency. *(Specify number, date, code, or name)*
N/A

15. Provide statement of need for project, including the economic feasibility and items such as: (a) cost of proposal (construction, operation, and maintenance); (b) estimated cost of next best alternative; and (c) expected public benefits.
The project is needed to reduce the demands on groundwater resources in the area. The cost of construction is detailed in the attached Engineers Estimate of Probable Project Cost. The next best alternative is the continued use of groundwater on the property which will incur not additional cost. The project will help ensure sustainable groundwater supplies.

16. Describe probable effects on the population in the area, including the social and economic aspects, and the rural lifestyles.
The project will reduce reliance by California Olive Ranch on groundwater for irrigation. The reduction of groundwater use will help to ensure the sustainability of agriculture in the area and help to ensure access to groundwater for domestic purposes by nearby rural communities.

17. Describe likely environmental effects that the proposed project will have on: (a) air quality; (b) visual impact; (c) surface and ground water quality and quantity; (d) the control or structural change on any stream or other body of water; (e) existing noise levels; and (f) the surface of the land, including vegetation, permafrost, soil, and soil stability; and, (g) historic or archaeological resources or properties.
Effects of the project on air quality, visual impact, existing noise levels, the surface of the land and historic or archaeological resources will be negligible, as the project has a small footprint and will mostly be on previously disturbed areas. Groundwater quality and quantity will likely be improved by the project utilizing surface water in place of some groundwater.

18. Describe the probable effects that the proposed project will have on (a) populations of fish, plant life, wildlife, and marine life, including threatened and endangered species; and (b) marine mammals, including hunting, capturing, collecting, or killing these animals.
Effects on fish, plant life, wildlife and marine life will be negligible as the proposed project footprint is small and in an area of prior disturbance from construction and operations of the Tehama Colusa Canal.

19. State whether any hazardous material, as defined in this paragraph, would be used, produced, transported or stored on or in a federal building or federal lands or would be used in connection with the proposed use or occupancy. "Hazardous material" shall mean (a) any hazardous substance under section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9601(14); (b) any pollutant or contaminant under section 101(33) of CERCLA, 42 U.S.C. § 9601(33); (c) any petroleum product or its derivative, including fuel oil, and waste oils; and (d) any hazardous substance, extremely hazardous substance, toxic substance, hazardous waste, ignitable, reactive or corrosive materials, pollutant, contaminant, element, compound, mixture, solution or substance that may pose a present or potential hazard to human health or the environment under any applicable environmental laws. The holder shall not store any hazardous materials at the site without prior written approval from the authorized officer. This approval shall not be unreasonably withheld. If the authorized officer provides approval, this permit shall include (or in the case of approval provided after this permit is issued, shall be amended to include) specific terms addressing the storage of hazardous materials, including the specific type of materials to be stored, the volume, the type of storage, and a spill plan. Such terms shall be proposed by the holder and are subject to approval by the authorized officer.

Any hazardous materials on the site will be incidental to construction and operation of the project. Hazardous materials that may be present during construction may include petroleum products used for the operation of construction equipment. During operation of the project, petroleum products may be used for lubrication of the proposed turbine pump. Any hazardous materials used during construction and operations will be handled and used according to appropriate procedures.

20. Name all the Federal Department(s)/Agency(ies) where this application is being filed.
US Bureau of Reclamation

I HEREBY CERTIFY, That I am of legal age and authorized to do business in the State and that I have personally examined the information contained in the application and believe that the information submitted is correct to the best of my knowledge.

Signature of Applicant | Date

Title 18, U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

GENERAL INFORMATION
ALASKA NATIONAL INTEREST LANDS

This application will be used when applying for a right-of-way, permit, license, lease, or certificate for the use of Federal lands which lie within conservation system units and National Recreation or Conservation Areas as defined in the Alaska National Interest lands Conservation Act. Conservation system units include the National Park System, National Wildlife Refuge System, National Wild and Scenic Rivers System, National Trails System, National Wilderness Preservation System, and National Forest Monuments.

Transportation utility systems telecommunication installations facility uses for which the application may be used are:

1. Canals, ditches, flumes, laterals, pipes, pipelines, tunnels, and other systems for the transportation of water.

2. Pipelines and other systems for the transportation of liquids other than water, including oil, natural gas, synthetic liquid and gaseous fuels, and any refined product produced therefrom.

3. Pipelines, slurry and emulsion systems, and conveyor belts for transportation of solid materials.

4. Systems for the transmission and distribution of electric energy.

5. Wired and wireless systems for transmission or reception of radio, television, telephone, telegraph, and other electronic signals, and other means of communications.

6. Improved right-of-way for snow machines, air cushion vehicles, and all-terrain vehicles.

7. Roads, highways, railroads, tunnels, tramways, airports, landing strips, docks, and other systems of general transportation.

This application must be filed simultaneously with each Federal department or agency requiring authorization to establish and operate your proposal.

In Alaska, the following agencies will help the applicant file an application and identify the other agencies the applicant should contact and possibly file with:

Department of Agriculture
Regional Forester, Forest Service (USFS)
P.O. Box 21628
Juneau, Alaska 99802-1628
Telephone: (907) 586-7847
(or a local Forest Service Office)

Department of the Interior
Bureau of Indian Affairs (BIA)
Alaska Regional Office
709 West 9th Street
Juneau, Alaska 99802
Telephone: (907) 586-7177

Department of the Interior
Alaska State Office
Bureau of Land Management
222 West 7th Avenue #13
Anchorage, Alaska 99513
Public Room: 907-271-5960
FAX: 907-271-3684
(or a local BLM Office)

U.S. Fish & Wildlife Service (FWS)
Office of the Regional Director
1011 East Tudor Road
Anchorage, Alaska 99503
Telephone: (907) 786-3440

National Park Service (NPS)
Alaska Regional Office
240 West 5th Avenue
Anchorage, Alaska 99501
Telephone: (907) 644-3510

Note - Filings with any Interior agency may be filed with any office noted above or with the Office of the Secretary of the Interior, Regional Environmental Officer, P.O. Box 120, 1675 C Street, Anchorage, Alaska 99513.

Department of Transportation
Federal Aviation Administration
Alaska Region AAL-4, 222 West 7th Ave., Box 14
Anchorage, Alaska 99513-7587
Telephone: (907) 271-5285

NOTE - The Department of Transportation has established the above central filing point for agencies within that Department. Affected agencies are: Federal Aviation Administration (FAA), Coast Guard (USCG), Federal Highway Administration (FHWA), Federal Railroad Administration (FRA).

OTHER THAN ALASKA NATIONAL INTEREST LANDS

Use of this form is not limited to National Interest Conservation Lands of Alaska.

Individual department/agencies may authorize the use of this form by applicants for transportation, utility systems, telecommunication installations and facilities on other Federal lands outside those areas described above.

For proposals located outside of Alaska, applications will be filed at the local agency office or at a location specified by the responsible Federal agency.

SPECIFIC INSTRUCTIONS
(Items not listed are self-explanatory)

7 Attach preliminary site and facility construction plans. The responsible agency will provide instructions whenever specific plans are required.

8 Generally, the map must show the section(s), township(s), and range(s) within which the project is to be located. Show the proposed location of the project on the map as accurately as possible. Some agencies require detailed survey maps. The responsible agency will provide additional instructions.

9, 10, and 12 The responsible agency will provide additional instructions.

13 Providing information on alternate locations in as much detail as possible, discussing why certain locations were rejected and why it is necessary to use Federal assets will assist the agency(ies) in processing your application and reaching a final decision. Include only reasonable alternate locations as related to current technology and economics.

14 The responsible agency will provide instructions.

15 Generally, a simple statement of the purpose of the proposal will be sufficient. However, major proposals located in critical or sensitive areas may require a full analysis with additional specific information. The responsible agency will provide additional instructions.

16 through 19 Providing this information with as much detail as possible will assist the Federal agency(ies) in processing the application and reaching a decision. When completing these items, you should use a sound judgment in furnishing relevant information. For example, if the project is not near a stream or other body of water, do not address this subject. The responsible agency will provide additional instructions.

Application must be signed by the applicant or applicant's authorized representative.

PUBLIC BURDEN STATEMENT

The Federal agencies collect this information from proponents and applicants requesting a right-of-way, permit, license, lease, or certification for use of Federal assets. The Federal agencies use this information to evaluate a proponent's or applicant's proposal to use Federal assets. A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with an information collection subject to the requirements of the Paperwork Reduction Act of 1995 unless the information collection has a currently valid Office of Management and Budget (OMB) Control Number. The approved OMB Control Number for this information collection is 0596-0249. Without this approval, we could not conduct this information collection. Public reporting for this information collection is estimated to be approximately 8 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. All responses to this information collection are voluntary. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden, to the USDA Forest Service email address SM.FS.InfoCollect@usda.gov and include the OMB Control Number in the subject line. Disclosure of the information is voluntary. If all the information is not provided, the proposal or application may be rejected. Concerns about this form can be sent to Director, Lands, Minerals, and Geology Management Staff, 1st Floor Southeast, 201 14th Street, SW, Washington, DC 20250-1124

USDA NONDISCRIMINATION STATEMENT

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident. Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible agency or USDA's TARGET Center at (202) 720-2600 (voice and TYY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English. To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at How to File a Program Discrimination Complaint and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov. The Privacy Act of 1974 (5 U.S.C. 552a) and the Freedom of Information Act (5 U.S.C. 552) govern the confidentiality to be provided for information received by the Forest Service.

SUPPLEMENTAL

NOTE: The responsible agency(ies) will provide instructions	CHECK APPROPRIATE BLOCK	
I - PRIVATE CORPORATIONS	ATTACHED	FILED *
a. Articles of Incorporation	☐	☐
b. Corporation Bylaws	☐	☐
c. A certification from the State showing the corporation is in good standing and is entitled to operate within the State	☐	☐
d. Copy of resolution authorizing filing	☐	☐
e. The name and address of each shareholder owning 3 percent or more of the shares, together with the number and percentage of any class of voting shares of the entity which such shareholder is authorized to vote and the name and address of each affiliate of the entity together with, in the case of an affiliate controlled by the entity, the number of shares and the percentage of any class of voting stock of that affiliate owned, directly or indirectly, by that entity, and in the case of an affiliate which controls that entity, the number of shares and the percentage of any class of voting stock of that entity owned, directly or indirectly, by the affiliate.	☐	☐
f. If application is for an oil or gas pipeline, describe any related right-of-way or temporary use permit applications, and identify previous applications.	☐	☐
g. If application is for an oil and gas pipeline, identify all Federal lands by agency impacted by proposal.	☐	☐
II - PUBLIC CORPORATIONS		
a. Copy of law forming corporation	☐	☐
b. Proof of organization	☐	☐
c. Copy of Bylaws	☐	☐
d. Copy of resolution authorizing filing	☐	☐
e. If application is for an oil or gas pipeline, provide information required by item "I - f" and "I - g" above.	☐	☐
III - PARTNERSHIP OR OTHER UNINCORPORATED ENTITY		
a. Articles of association, if any	☐	☐
b. If one partner is authorized to sign, resolution authorizing action is	☐	☐
c. Name and address of each participant, partner, association, or other	☐	☐
d. If application is for an oil or gas pipeline, provide information required by item "I - f" and "I - g" above.	☐	☐

***** If the required information is already filed with the agency processing this application and is current, check block entitled "Filed." Provide the file identification information *(e.g., number, date, code, name)*. If not on file or current, attach the requested information.

Appendix C – Section 215 Water Contract Request Letter

CALIFORNIA OLIVE RANCH

April 8, 2025

Darin Titus
Kirkwood Water District
PO Box 2657
Lost Banos, CA 93635

Re: Section 215 CVP Contract for Water Year 2025-2026

Dear Kirkwood Water District:

This letter provides authorization for you to request a Section 215 Contract on our behalf as the lessee of property located outside the District boundaries. The property is owned by South Avenue Corning, CA, LP, and leased by us, California Olive Ranch (COR).

We are pleased our landowner has a pending application with the Bureau of Reclamation for a pump license on the Tehama-Colusa Canal to deliver water to the property.

We look forward to diverting about 600 acre-feet of Section 215 water into the existing irrigation basin under your oversight when the pump license is approved, the Section 215 contract is in place, and the water becomes available, hopefully this fall or winter.

We kindly request that you work to have the Bureau of Reclamation begin to process this Section 215 request now.

We deeply appreciate your assistance in this matter. If you have any questions or need additional information, please do not hesitate to contact Toni Longley at (530) 513-7048 or tlongley@cal-olive.com.

Sincerely,

Jim Lipman
Chief Operating Officer