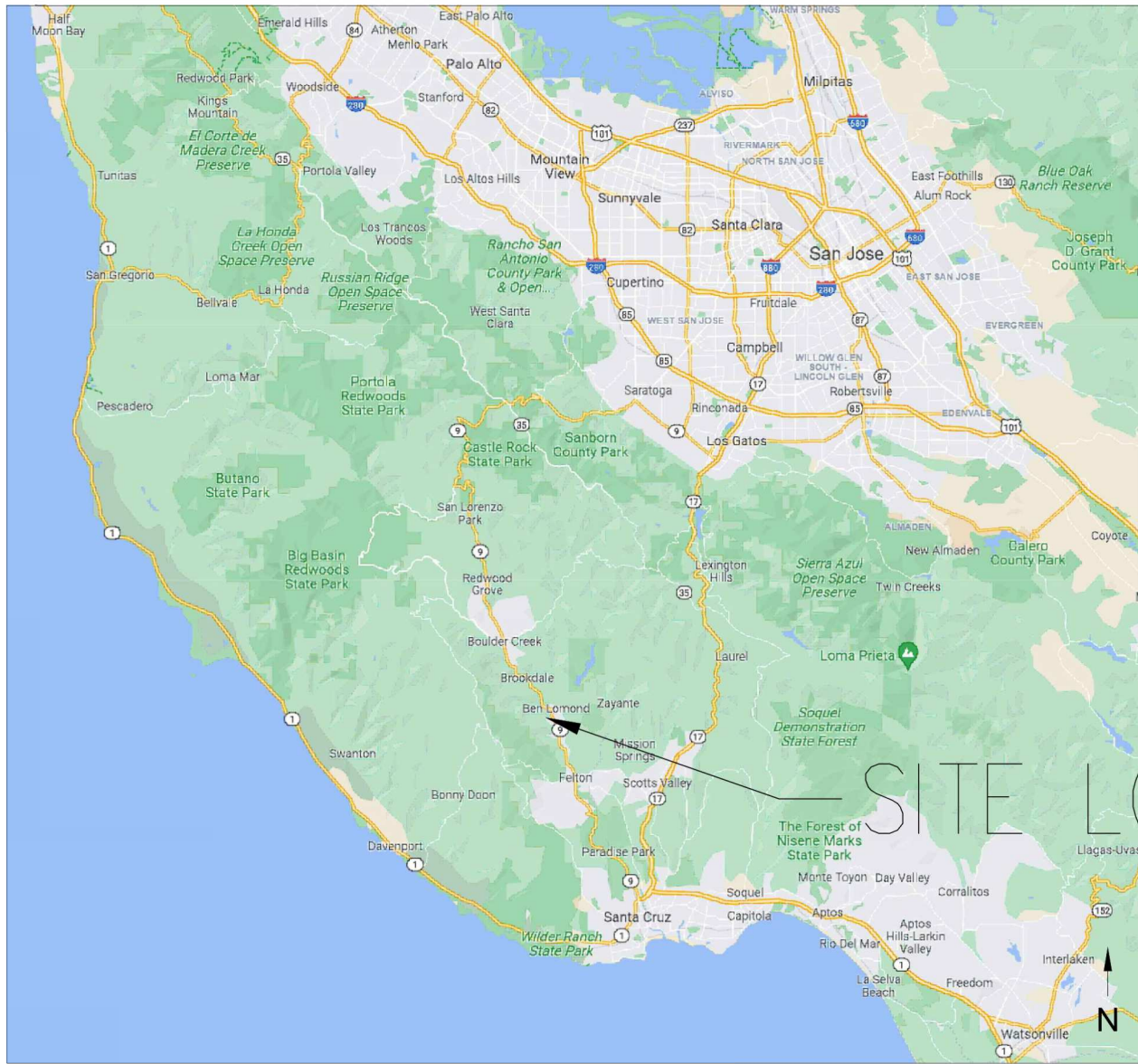
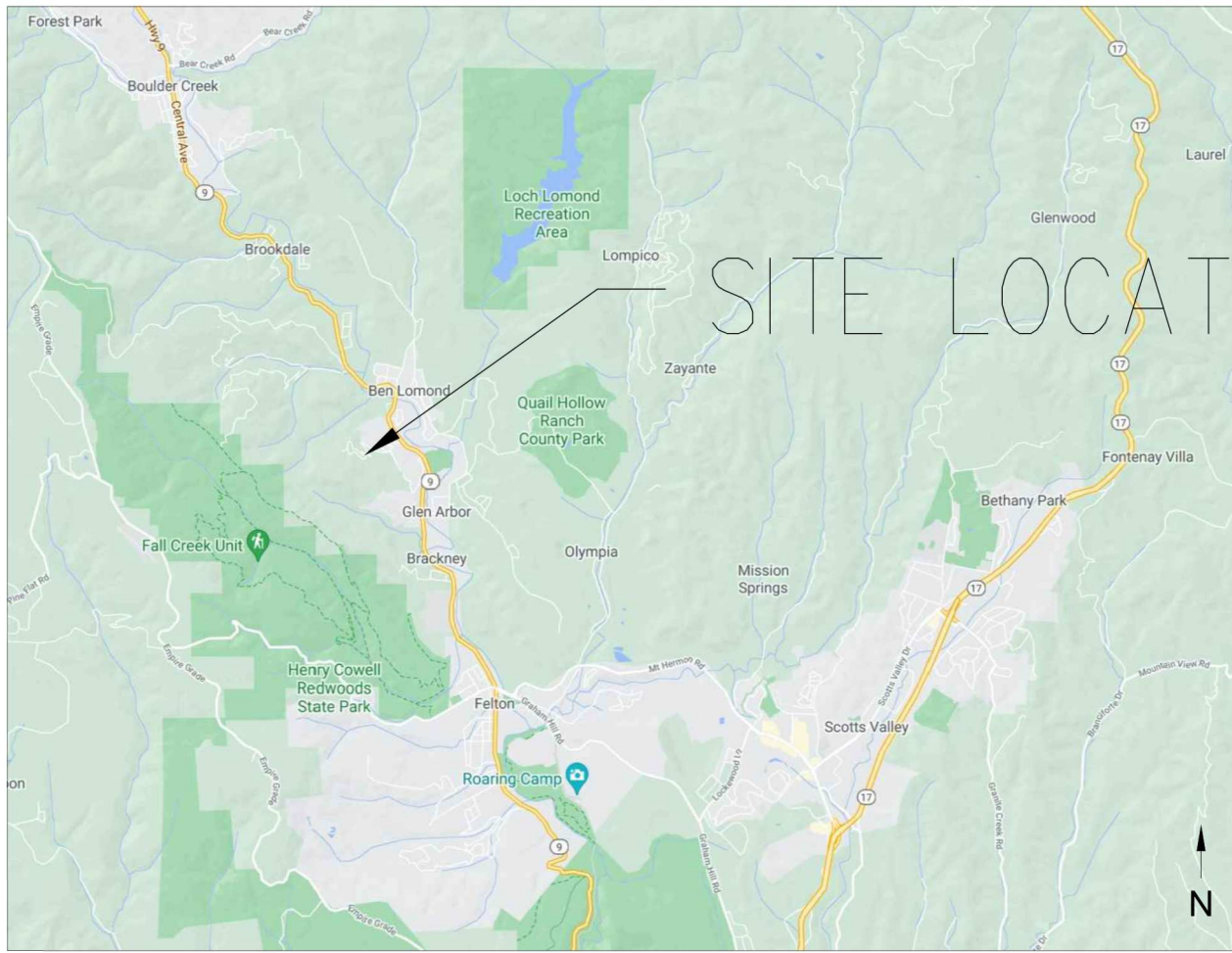


# SAN LORENZO VALLEY WATER DISTRICT

## CONSTRUCTION PLANS FOR REDWOOD PARK PIPELINE COUNTRY CLUB DRIVE AND DUNDEE AVENUE



VICINITY MAP  
NO SCALE



LOCATION MAP  
NO SCALE

### BOARD OF DIRECTORS:

GAIL MAHOOD	PRESIDENT
JEFF HILL	DIRECTOR
BOB FULTZ	DIRECTOR
JAYME ACKEMANN	DIRECTOR
MARK SMOLLEY	DIRECTOR

### SHEET INDEX:

1.	C 1.0	TITLE, LOCATION MAP, AND SHEET INDEX
2.	C 1.1	NOTES AND ABBREVIATIONS
3.	C 2.0	TOPOGRAPHIC MAP
4.	C 3.0	PROPOSED SITE PLAN
5.	C 3.1	PROPOSED DETAILS
6.	C 4.0	UTILITY DETAILS

### UNDERGROUND SERVICE ALERT



DATE: 11/28/2022  
SCALE: N/A  
DRAWN BY: JWS  
APPROVED BY: JLW

### TITLE SHEET

No.	REVISION/ISSUE	DATE	BY

### REDWOOD PARK PIPELINE



13060 Hwy 9  
Boulder Creek, CA 95006  
(831) 338-2153

SHEET  
C-1.0



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## ENGINEER'S NOTES:

### GENERAL CONSTRUCTION:

- ALL WORK SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS; COUNTY SPECIFICATIONS AND STANDARD DRAWINGS; AND SAN LORENZO VALLEY WATER DISTRICT'S (DISTRICT) STANDARD SPECIFICATIONS AND DRAWINGS.
- ALL SPECIFICATIONS, DRAWINGS, AND DETAILS INCLUDED IN THE CONTRACT DOCUMENTS SHALL FULLY APPLY TO THE WORK WHETHER OR NOT SPECIFICALLY REFERENCED. IF CONFLICTS ARISE, THE MORE STRINGENT REQUIREMENTS APPLY.
- UNLESS NOTED OTHERWISE, ALL WORK SHOWN IN THESE DOCUMENTS IS NEW AND TO BE PERFORMED UNDER THIS CONTRACT.
- CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THE PUBLIC RIGHT-OF-WAY, PERMANENT AND TEMPORARY EASEMENTS AND DISTRICT OWNED PROPERTY.
- THE CONTRACTOR IS ALLOWED TO USE THE FUTURE TANK SITE FOR STAGING FOR THIS PROJECT. IF ADDITIONAL STAGING AREAS ARE DESIRED, THE CONTRACTOR WILL BE RESPONSIBLE FOR SECURING THEM AT THEIR OWN EXPENSE.
- SANTA CRUZ COUNTY SHALL BE NOTIFIED IN CONFORMANCE WITH ANY RELEVANT ENCROACHMENT PERMIT REQUIREMENTS PRIOR TO START OF CONSTRUCTION. CONSTRUCTION WILL NOT TAKE PLACE ON WEEKENDS OR HOLIDAYS UNLESS SPECIFICALLY APPROVED BY THE DISTRICT AND ALLOWED BY THE ENCROACHMENT PERMITS.
- THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUALLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL HOLD THE DISTRICT AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.
- DIMENSIONED DISTANCES SHALL GOVERN OVER SCALED DISTANCES.
- MAINTAIN ON-SITE THE LATEST SIGNED CONSTRUCTION DRAWINGS AT ALL TIMES. MAINTAIN A COMPLETE AND ACCURATE RECORD OF ALL CHANGES IN CONSTRUCTION FROM THAT SHOWN ON THE PLANS AND SPECIFICATIONS FOR THE PURPOSE OF PROVIDING A BASIS FOR RECORD DRAWINGS. NO CHANGES SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL FROM THE DISTRICT'S REPRESENTATIVE.
- WORK SHALL BE DONE IN ACCORDANCE WITH THE APPROPRIATE ENCROACHMENT PERMITS.
- CONTRACTOR SHALL PROVIDE VIDEO DOCUMENTATION OF THE PRE-PROJECT CONDITION OF THE JOBSITE AND ALL ADJACENT PROPERTIES TO THE DISTRICT PRIOR TO START OF CONSTRUCTION. VIDEO OF ADJACENT PROPERTIES SHALL BE LIMITED TO WHAT CAN BE RECORDED WITHOUT LEAVING THE JOBSITE OR ROW. CONTRACTOR SHALL PROTECT EXISTING JOBSITE CONDITIONS AND ADJACENT PROPERTIES DURING THE WORK AND REPAIR DAMAGE TO LANDSCAPING, PAVING, IRRIGATION, STRUCTURES, ETC., CAUSED BY THE WORK.
- CONTRACTOR SHALL MAINTAIN SAFE AND CONTINUOUS ACCESS TO ALL BUSINESSES, RESIDENCES, AND PUBLIC FACILITIES IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION. ACCESS INTERRUPTIONS SHALL BE PUBLICIZED A MINIMUM OF 48 HOURS IN ADVANCE; ALL AFFECTED BUSINESSES, RESIDENTS, AND/OR PUBLIC FACILITIES SHALL BE NOTIFIED. CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN CONFORMING TO THE MUTCD TO THE DISTRICT A MINIMUM OF 5 BUSINESS DAYS PRIOR TO MOBILIZATION.
- DUST SHALL BE CONTROLLED AT ALL TIMES BY APPROVED METHODS.
- IN ACCORDANCE WITH CALIFORNIA HEALTH AND SAFETY CODE SECTION 7050.5, THE CONTRACTOR SHALL NOTIFY THE COUNTY CORONER IF HUMAN REMAINS ARE DISCOVERED DURING THE COURSE OF THE WORK.
- CONTRACTOR SHALL CONTROL ALL RUNOFF FROM CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PLACEMENT AND MAINTENANCE OF ALL BMPS PRIOR TO ANY CONSTRUCTION ACTIVITIES OCCURRING AND THROUGHOUT THE DURATION OF THE PROJECT.
- ALL DEBRIS, BRUSH, AND RUBBISH WITHIN THE WORK AREA SHALL BE REMOVED AND DISPOSED OF DAILY, EXCEPT AS OTHERWISE REQUIRED. SAID MATERIALS SHALL BE LEGALLY DISPOSED OF IN AN APPROVED OFFSITE LOCATION. WHERE REMOVAL OF SUBSURFACE OBSTRUCTIONS IS NECESSARY, CAVITIES CREATED BY THE REMOVAL SHALL BE CLEARED OF ALL LOOSE DEBRIS AND SOIL AND SHAPED TO PROVIDE ACCESS FOR BACKFILLING AND COMPACTION EQUIPMENT.

### UNDERGROUND FACILITIES:

- ENGINEER HAS SEARCHED AVAILABLE KNOWN RECORDS FOR INFORMATION ABOUT UNDERGROUND FACILITIES INCLUDING FACILITIES PRESENTLY BEING DESIGNED IN THE VICINITY OF THE PROJECT. TO THE BEST OF THE ENGINEER'S ABILITY THOSE UNDERGROUND FACILITIES WHICH MAY AFFECT THE WORK ARE SHOWN ON THESE DRAWINGS. NOTE THAT PG&E HAS DECLARED NO UNDERGROUND GAS LINES WITHIN THIS PROJECT AREA. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE PRESENCE AND LOCATION OF ALL EXISTING FACILITIES BY POTHOLING OR OTHER POSITIVE METHODOLOGY, AND SHALL MAINTAIN 5' CLEARANCE AROUND ANY UNDERGROUND GAS UTILITIES.
- AT LEAST 48 HOURS BEFORE COMMENCING ANY EXCAVATION, CONTRACTOR SHALL REQUEST UNDERGROUND SERVICE ALERT AND NON-MEMBER COMPANIES OR UTILITIES TO MARK OR OTHERWISE INDICATE THE LOCATION(S) OF THEIR SUBSURFACE FACILITIES.
- PRIOR TO PIPELINE EXCAVATION CONTRACTOR SHALL EXCAVATE AND EXPOSE EXISTING FACILITIES (POTHOLE) IN LOCATIONS WHERE NEW FACILITIES ARE PROPOSED TO ESTABLISH THE EXACT LOCATION SIZE, AND DEPTH, AND DETERMINE IF THERE WILL BE AN INTERFERENCE WITH PROPOSED FACILITIES. CHANGES OR DELAYS CAUSED BY CONTRACTOR'S FAILURE TO PERFORM "POTHOLING" AND INTERFERENCE LOCATION WORK SHALL NOT BE ELIGIBLE FOR EXTRA WORK COMPENSATION OR TIME EXTENSION. UPON LEARNING OF THE EXISTENCE OR LOCATION OF ANY UNDERGROUND FACILITY OMITTED OR SHOWN INCORRECTLY ON THESE DRAWINGS, OR IMPROPERLY MARKED OR OTHERWISE INDICATED, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DISTRICT, PROVIDING FULL DETAILS AS DEPTH, LOCATION, SIZE, AND FUNCTION.
- CONTRACTOR SHALL PRESERVE ALL SURVEY MARKERS AND MONUMENTATION IN PLACE. IF ANY EXISTING MONUMENTS REQUIRE REMOVAL TO PERFORM THE WORK, CONTRACTOR SHALL NOTIFY THE DISTRICT A LEAST 5 DAYS IN ADVANCE OF CONSTRUCTION.
- USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD POWER OR OTHER UTILITIES SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT. PROTECT FROM DAMAGE INCURRED DURING CONSTRUCTION ALL OVERHEAD UTILITY LINES WHETHER SHOWN OR NOT SHOWN ON THESE PLANS. NOTIFY UTILITY COMPANIES PRIOR TO ANY WORK IN OVERHEAD LOCATION. CONTRACTOR SHALL BE RESPONSIBLE FOR COST INCURRED.

### PIPELINE NOTES:

- CONTRACTOR TO POTHOLE EXISTING WATER LINES TO VERIFY EXACT DEPTH, MATERIAL, SIZE, AND LOCATION.
- CONTRACTOR TO VERIFY ALL MATERIAL QUANTITIES.
- MINIMUM PIPE COVER SHALL BE 36" MEASURED FROM THE TOP OF THE BELL .
- PIPELINES SHALL SLOPE UNIFORMLY BETWEEN INVERT ELEVATIONS. CONTRACTOR SHALL PROVIDE ALL SHORTS, SPOOLS, AND FITTINGS NECESSARY TO MEET DEPTHS REQUIRED (SEE C-4.0).
- ALL VERTICAL CHANGES IN PIPE ALIGNMENT DELINEATED ON THE PLANS AS SHOWN WITHOUT BENDS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- CONNECTIONS MADE BETWEEN DIFFERENT CLASSES OF PIPE SHALL BE MADE WITH MATERIALS RATED FOR THE HIGHER PRESSURE CLASS.
- ALL NEW VALVES SHALL BE FLANGED DIRECTLY TO A TEE, CROSS OR OTHER FITTING. VALVES SHALL BE ACCESSIBLE FOR OPERATION WITH COMPLETE VALVE BOX PRIOR TO CONNECTION TO EXISTING WATER SYSTEM.
- THE WATER SYSTEM SHALL BE HYDROSTATICALLY TESTED PRIOR TO CONNECTION TO EXISTING SYSTEM.
- A DISTRICT REPRESENTATIVE MUST BE PRESENT ON SITE TO WITNESS TIE-INS.
- WATER PIPELINE CROSSINGS OVER UTILITIES MUST HAVE A 1-FOOT VERTICAL CLEARANCE BETWEEN WATER PIPE AND UTILITY, UNLESS APPROVED BY A DISTRICT REPRESENTATIVE. PIPELINES CROSSING OVER SEWER OR STORM LINES MUST MEET MINIMUM CLEARANCE REQUIREMENTS AND ANGLE OF APPROACH AS REQUIRED BY THE STATE WATER RESOURCE CONTROL BOARD DIVISION OF DRINKING WATER.
- CONTRACTOR SHALL ADJUST ALL VALVE BOXES, FIRE HYDRANTS, BLOW OFFS, AIR VACS, ETC. TO FINISHED GRADE UNLESS OTHERWISE SHOWN OR DIRECTED.
- FIRE HYDRANTS, METER BOXES, AIR VACS AND BLOW OFFS SHALL BE LOCATED NO CLOSER THAN 5 FEET FROM BEGINNING OF CURB RETURN, DRIVEWAY, OR ANY OTHER UTILITY. FINAL APPURTENANCE PLACEMENT TO BE DETERMINED IN THE FIELD BY A DISTRICT REPRESENTATIVE.
- THE CONTRACTOR IS ALERTED THAT THERE IS ASBESTOS CEMENT PIPE (ACP) IN THE SYSTEM. WHILE ACP SHOULD NOT BE ENCOUNTERED IN THIS PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ANCILLARY WORK REQUIRED, INCLUDING THE HANDLING AND DISPOSAL OF HAZARDOUS MATERIALS. ALL HANDLING, REMOVAL AND DISPOSAL SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL LAWS AND STANDARDS.
- CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM SAMPLING, DISINFECTION, AND DECHLORINATION TO THE SATISFACTION OF THE DISTRICT PRIOR TO MAKING CONNECTIONS BETWEEN NEW AND EXISTING FACILITIES.
- ALL PIPELINE TO BE CONSTRUCTED USING PRESSURE CLASS 350 DUCTILE IRON PIPE (DIP) WRAPPED WITH PLASTIC PER CALTRANS STANDARD.
- ALL FITTING TO PIPE CONNECTIONS TO BE FULLY RESTRAINED UTILIZING MECHANICAL JOINT FITTINGS, AND ALL FITTING TO FITTING CONNECTIONS TO BE FLANGED. ALL PUSH-ON JOINTS TO USE FIELD LOK GASKETS, OR EQUAL APPROVED BY ENGINEER.
- PROVIDE CONCRETE THRUST BLOCKS PER SD-8 FOR ANY CONNECTION NOT FULLY RESTRAINED.
- CONTRACTOR TO CUT OVER EXISTING SERVICES TO NEW MAIN. CONTRACTOR TO PROVIDE AND SET ALL REQUIRED METER BOXES IN CONFORMANCE WITH SLVWD STANDARD DETAILS (SD-4).
- MAINTAIN 3' CLEAR FROM OUTBOARD EDGE OF PIPE TO EDGE OF EXISTING PAVEMENT, UNLESS OTHERWISE SPECIFIED.
- ALL MAINS LABELED AS ABANDON IN PLACE TO BE CUT & CAPPED IN ACCORDANCE WITH ALL SLVWD SPECIFICATIONS.
- TRENCH BACKFILL TO BE 2-SACK SLURRY IN CONFORMANCE WITH SLVWD SPECIFICATION 7.2.1 TO 4-INCHES BELOW GRADE. PLACE HOT MIX ASPHALT IN TWO LIFTS OF 2-INCHES EACH TO FINISH GRADE. FINISH GRADE TO MATCH EXISTING GRADE.
- DISTRICT PERSONNEL SHALL OPERATE ALL VALVES WITHIN THE ACTIVE WATER SYSTEM. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH DISTRICT AS REQUIRED.

## ABBREVIATIONS:

APPROX.	APPROXIMATELY
AC	ASPHALTIC CEMENT
ACP	ASBESTOS CEMENT PIPE
DIP	DUCTILE IRON PIPE
DWG	DRAWING
EX	EXISTING
FLG	FLANGED
FH	FIRE HYDRANT
G.V.	GATE VALVE
HDPE	HIGH-DENSITY POLYETHYLENE PIPE
MJ	MECHANICAL JOINT
PP	POWER POLE
ROW	RIGHT OF WAY
SD	STORM DRAIN
SLVWD	SAN LORENZO VALLEY WATER DISTRICT
TEMP	TEMPORARY
WM	WATER METER



DATE:	11/28/2022
SCALE:	N/A
DRAWN BY:	JWS
APPROVED BY:	JLW

## NOTES SHEET

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## REDWOOD PARK PIPELINE



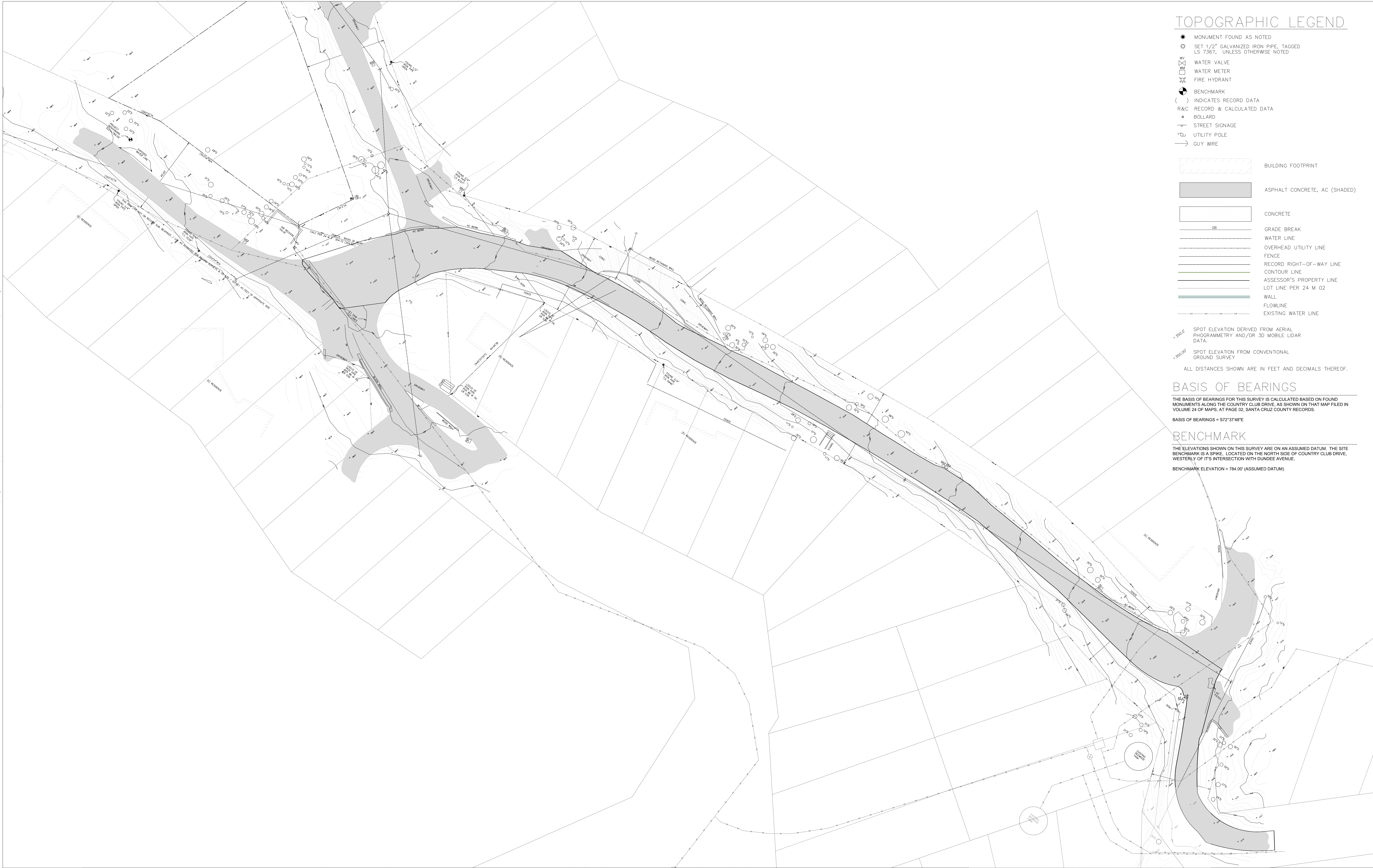
13060 Hwy 9  
Boulder Creek, CA 95006  
(831) 338-2153

SHEET

C-1.1



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TOPOGRAPHIC LEGEND

- MONUMENT FOUND AS NOTED
- SET 1/2" GALVANIZED IRON PIPE, TAGGED LS 7367, UNLESS OTHERWISE NOTED
- WV WATER VALVE
- WM WATER METER
- Y/F FIRE HYDRANT
- ⊕ BENCHMARK
- ( ) INDICATES RECORD DATA
- R&C RECORD & CALCULATED DATA
- BOLLARD
- STREET SIGNAGE
- UTILITY POLE
- GUY WIRE
- [Hatched Box] BUILDING FOOTPRINT
- [Shaded Box] ASPHALT CONCRETE, AC (SHADED)
- [Dotted Box] CONCRETE
- GB GRADE BREAK
- WATER LINE
- OVERHEAD UTILITY LINE
- FENCE
- RECORD RIGHT-OF-WAY LINE
- CONTOUR LINE
- ASSESSOR'S PROPERTY LINE
- LOT LINE PER 24 M 02
- WALL
- FLOWLINE
- EXISTING WATER LINE
- +550.0 SPOT ELEVATION DERIVED FROM AERIAL PHOTGRAMMETRY AND/OR 3D MOBILE LIDAR DATA
- +550.000 SPOT ELEVATION FROM CONVENTIONAL GROUND SURVEY

ALL DISTANCES SHOWN ARE IN FEET AND DECIMALS THEREOF.

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS CALCULATED BASED ON FOUND MONUMENTS ALONG THE COUNTRY CLUB DRIVE, AS SHOWN ON THAT MAP FILED IN VOLUME 24 OF MAPS, AT PAGE 02, SANTA CRUZ COUNTY RECORDS.

BASIS OF BEARINGS = S72°37'48"E

BENCHMARK

THE ELEVATIONS SHOWN ON THIS SURVEY ARE ON AN ASSUMED DATUM. THE SITE BENCHMARK IS A SPIKE, LOCATED ON THE NORTH SIDE OF COUNTRY CLUB DRIVE, WESTERLY OF ITS INTERSECTION WITH DUNDEE AVENUE.

BENCHMARK ELEVATION = 784.00' (ASSUMED DATUM)



DATE: 11/28/2022  
SCALE: 1"=20'  
DRAWN BY: JWS  
APPROVED BY: JLW

TOPOGRAPHIC MAP

No.	REVISION/ISSUE	DATE	BY

REDWOOD PARK PIPELINE



13060 Hwy 9  
Boulder Creek, CA 95006  
(831) 338-2153

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C-2.0



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DATE: 11/28/2022  
SCALE: 1"=20'  
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## PROPOSED SITE PLAN

No.	REVISION /ISSUE	DATE	BY

## REDWOOD PARK PIPELINE



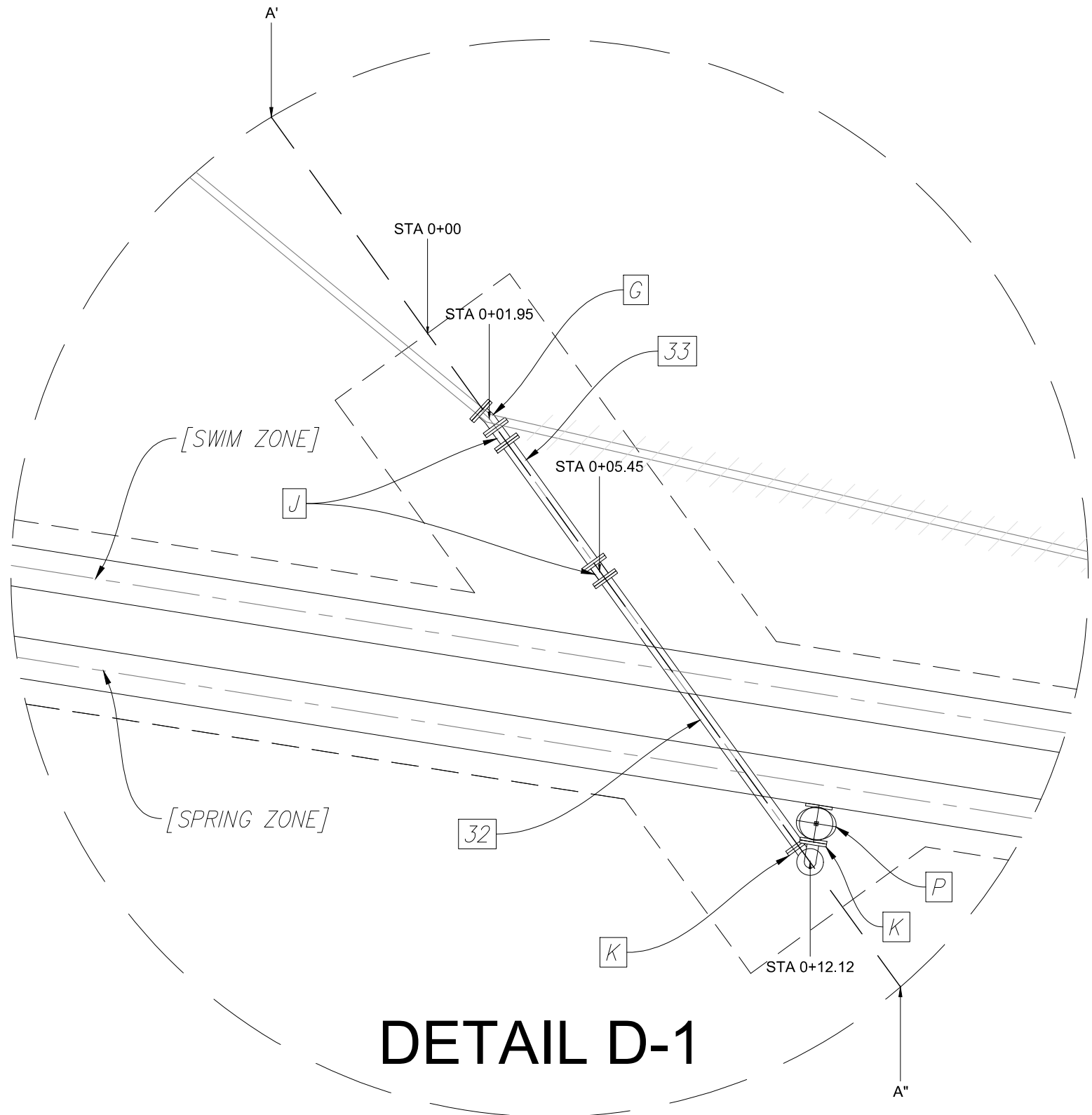
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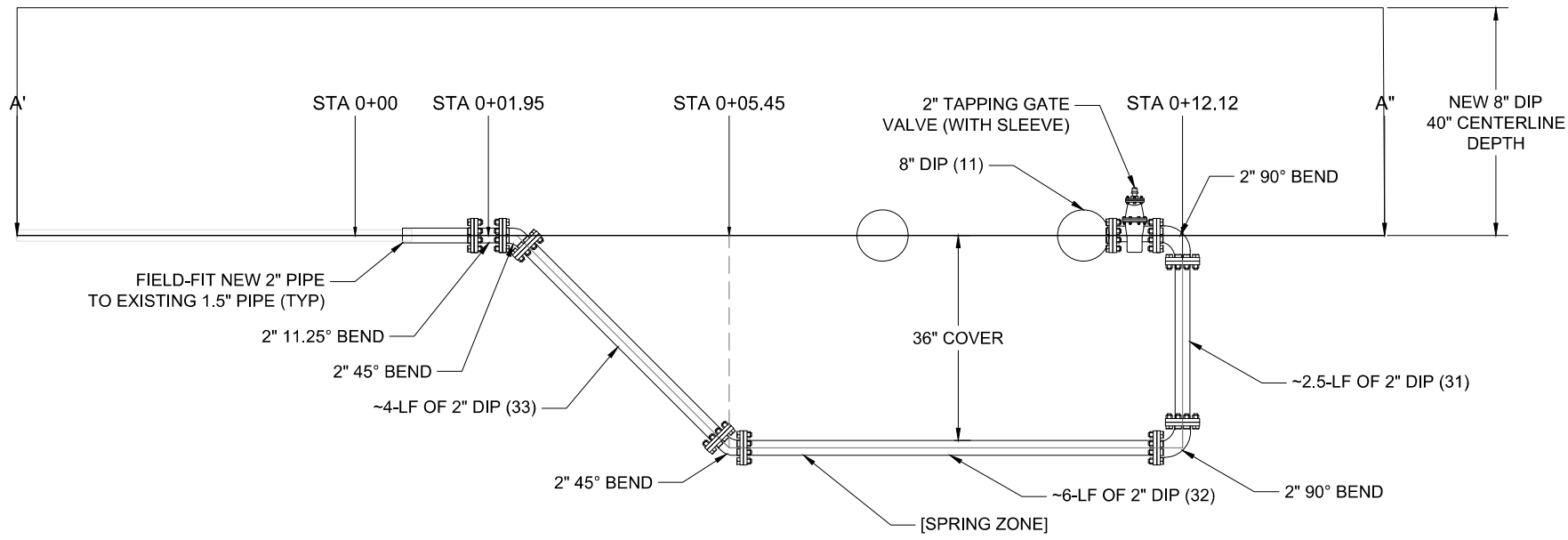
C-3.0



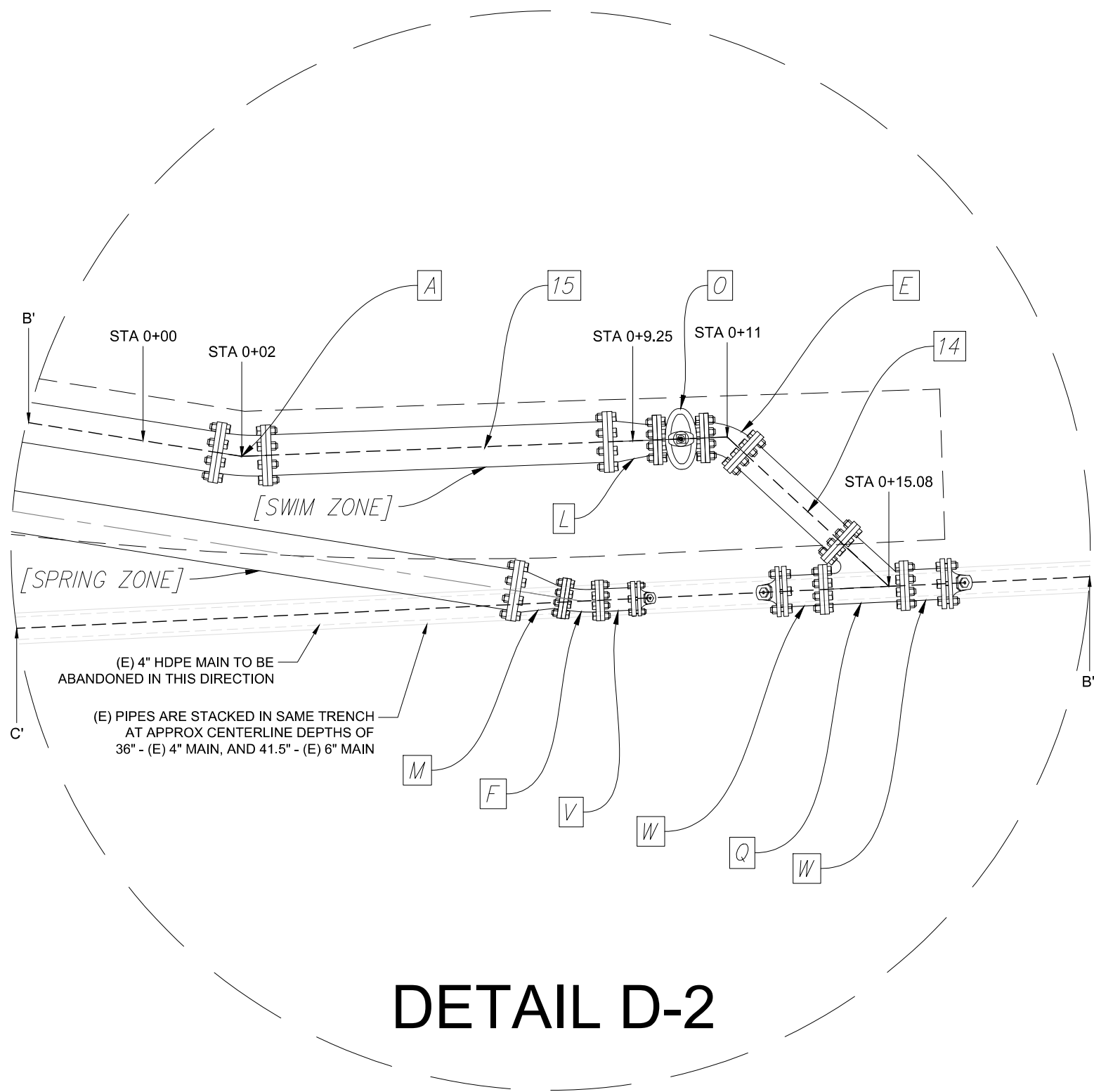
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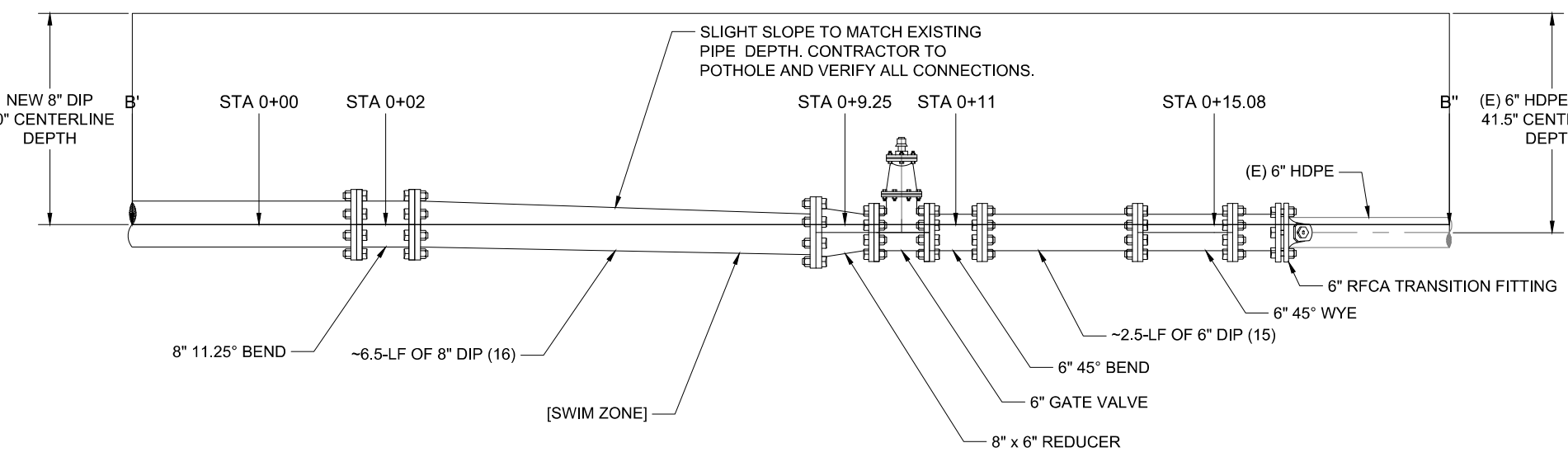
DETAIL D-1



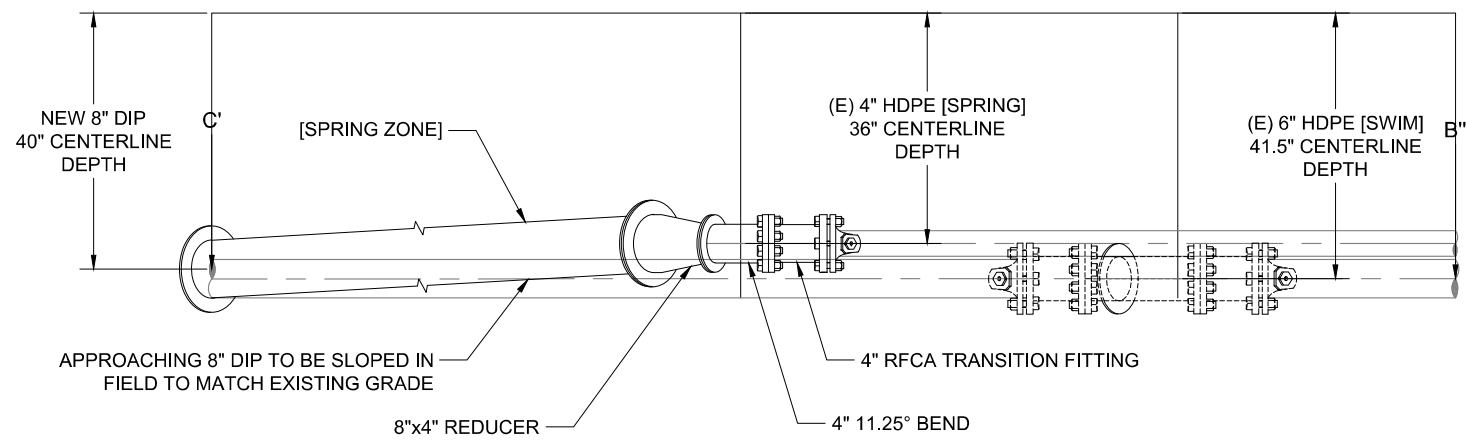
PROFILE A'-A"



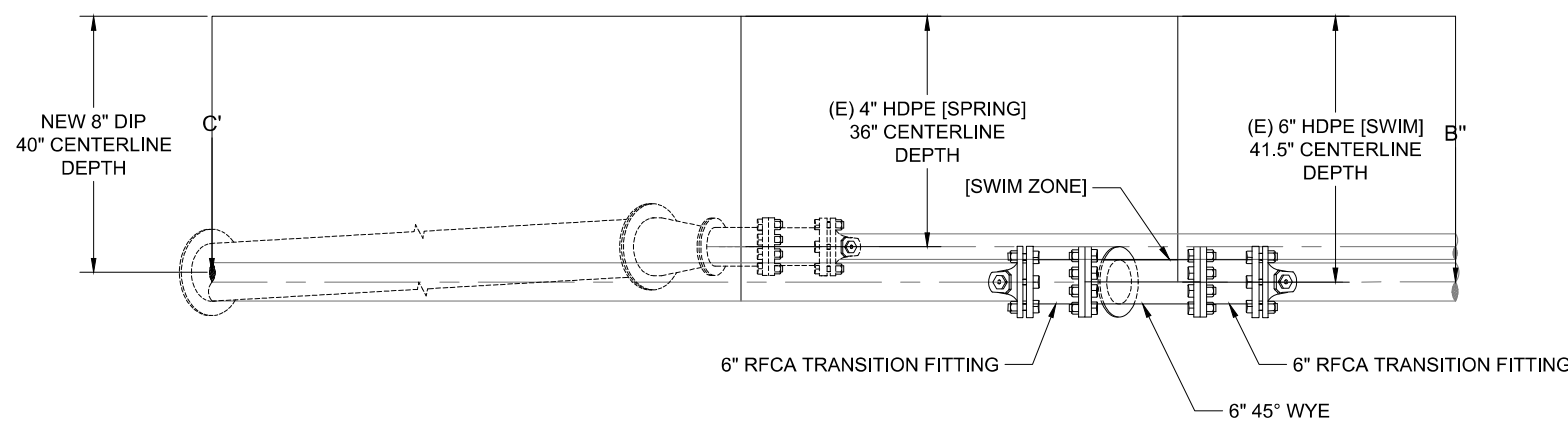
DETAIL D-2



PROFILE B'-B"



PROFILE C'-B" [SPRING ZONE]



PROFILE C'-B" [SWIM ZONE]

FITTING SCHEDULE		
CALLOUT LETTER	FITTING TYPE	DIAMETER(S) (INCHES)
A	11.25° BEND	8"
B	22.5° BEND	8"
C	45° BEND	8"
D	90° BEND	8"
E	45° BEND	6"
F	11.25° BEND	4"
G	11.25° BEND	2"
H	22.5° BEND	2"
J	45° BEND	2"
K	90° BEND	2"
L	REDUCER	8" TO 6"
M	REDUCER	8" TO 4"
N	GATE VALVE	8"
O	GATE VALVE	6"
P	TAPPING SLEEVE WITH GATE VALVE	2"
Q	45° WYE	6"
R	TEE	8"x8"x8"
S	REDUCING TEE	8"x6"x8"
T	AIR RELIEF VALVE	2"
U	BLIND FLANGED CAP	8"
V	RFCA TRANSITION FITTING TO HOPE	4"
W	RFCA TRANSITION FITTING TO HOPE	6"

NOTE: ALL FITTING TO PIPE CONNECTIONS WILL BE MECHANICAL JOINT, AND ALL FITTING TO FITTING CONNECTIONS WILL BE FLANGE X FLANGE.

PIPE SCHEDULE		
PIPE NUMBER	LENGTH (FEET)	DIAMETER (INCHES)
1	~22	8
2	25	8
3	10	8
4	~46.5	8
5	5	8
6	39.5	8
7	90	8
8	140	8
9	30	8
10	75	8
11	~84.5	8
12	23.5	8
13	19.5	8
14	4	8
15	9	6
16	15	8
17	24	8
18	9.5	8
19	46.5	8
20	6	8
21	3.5	8
22	38	8
23	90	8
24	~140.5	8
25	30	8
26	~75	8
27	~85	8
28	18	8
29	25	8
30	25	8
31	2.5	2
32	6	2
33	4	2
34	~4.5	2
35	~9	2
36	4	2

NOTE: DIMENSIONS ARE PLAN VIEW DISTANCES BETWEEN NODES, AND DO NOT INCLUDE CHANGES DUE TO ELEVATION OR FIXTURES.



DATE: 11/28/2022  
SCALE: 1"=2.5'  
DRAWN BY: JWS  
APPROVED BY: JLW

PROPOSED  
DETAILS

No.	REVISION/ISSUE	DATE	BY

REDWOOD PARK PIPELINE



13060 Hwy 9  
Boulder Creek, CA 95006  
(831) 338-2153

SHEET  
C-3.1





No.	REVISION/ISSUE	DATE	BY

# REDWOOD PARK PIPELINE



13060 Hwy 9  
Boulder Creek, CA 95006  
(831) 338-2153

SHEET

C-4.0