

VICINITY MAP
NO SCALE



Municipal Water District

LONE JACK PRESSURE REDUCING STATION REPLACEMENT PROJECT

NOVEMBER 2021

OMWD WO NUMBER D120178

OLIVENHAIN MUNICIPAL WATER DISTRICT

1966 OLIVENHAIN ROAD

ENCINITAS, CA 92024

(760) 753-6466

BOARD OF DIRECTORS

LAWRENCE A. WATT, PRESIDENT

KRISTIE BRUCE-LANE, VICE PRESIDENT

CHRISTY GUERIN, TREASURER

NEIL MEYERS, SECRETARY

ROBERT F. TOPOLOVAC, DIRECTOR


JASON HUBBARD, P.E. R.C.E. C60317
ENGINEERING MANAGER

11-18-2021
DATE

OWNER/APPLICANT

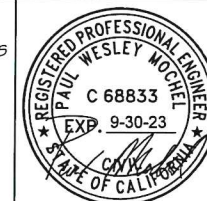
OLIVENHAIN MUNICIPAL WATER DISTRICT
1966 OLIVENHAIN ROAD
ENCINITAS, CA 92024
(760) 753-6466

HORIZONTAL DATUM

THE BASIS OF BEARINGS IS GRID NORTH, CALIFORNIA STATE PLAN COORDINATES
NAVD83, ZONE, VI, DERIVED FROM THE R.T.C.M. G.P.S. STATION "CLBD"


BENCHMARK

ASSUMED ELEVATION FROM THE R.C.T.M. G.P.S. STATION "CLBD"



SHEET INDEX

SHT NO.	DRAWING TITLE	DWG. NO.
1	TITLE SHEET	T-1
2	GENERAL NOTES	G-1
3	PLAN AND PROFILE, STA. 10+00 TO STA. 16+50 AND STA. 20+00 TO STA. 21+94	C-1
4	PRESSURE REDUCING STATION REPLACEMENT	C-2

DESIGN	DRAWN	CHECK	MARK	DATE	BY	REVISIONS
 Municipal Water District 1966 Olivenhain Road Encinitas, CA 92024 (760) 753-6466						
LONG JACK PRESSURE REDUCING STATION REPLACEMENT PROJECT			TITLE SHEET			
SHEET T-1			1/4			
WO D12078						

ORIGINAL SCALE IN INCHES

NOTABLE WATER WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS AND MATERIALS AS SPECIFIED IN THE MOST RECENT EDITION OF THE OLIVENHAIN MUNICIPAL WATER DISTRICT (DISTRICT) STANDARD SPECIFICATIONS AND DRAWINGS FOR THE CONSTRUCTION OF WATER MAINS AND FACILITIES, INCLUDING ALL AMENDMENTS ADOPTED PRIOR TO THE DISTRICT APPROVAL DATE ON THESE PLANS. CONTRACTOR SHALL HAVE A COPY OF THE STANDARD SPECIFICATIONS ON THE JOB SITE AT ALL TIMES.

THE SUBMISSION AND REVIEW OF ALL SUBMITTALS (SHOP DRAWINGS, AS REQUIRED BY THE STANDARD SPECIFICATIONS ARE TO BE ACCOMPLISHED PRIOR TO THE PRE-CONSTRUCTION MEETING WITH THE DISTRICT'S COMMENTS.

UNLESS OTHERWISE NOTED, CONNECTIONS TO EXISTING MAINS SHALL BE MADE DRY. THE TIME AND DURATION OF ANY SHUTDOWNS OF EXISTING MAINS SHALL BE SUBJECT TO APPROVAL BY THE DISTRICT. DISTRICT SHALL BE NOTIFIED TWO WEEKS MINIMUM IN ADVANCE OF ANY SHUTDOWN.

CONTRACTOR SHALL COORDINATE WITH DISTRICT ALL ARRANGEMENTS FOR HIGH-LINING TEMPORARY SERVICES PRIOR TO SHUTDOWNS. NO SHUTDOWNS WILL BE SCHEDULED ON A MONDAY OR FRIDAY.

CONTRACTOR SHALL REVIEW ALL PROPOSED TRENCH WORK WITH CAL/ OSHA A COPY OF THE EXEMPTION LETTER OR TRENCHING PERMIT, IF REQUIRED, SHALL BE SUBMITTED TO THE DISTRICT PRIOR TO CONSTRUCTION.

NO WORK MAY BEGIN OR PROCEED WITHOUT DIRECTION OF DISTRICT'S INSPECTOR CONTRACTOR SHALL NOTIFY THE DISTRICT ENGINEERS DEPARTMENT 48 HRS. PRIOR TO THE BEGINNING OF WORK TO ARRANGE FOR INSPECTION OF THE PROJECT.

THE CONTRACTOR MUST CALL "DIG ALERT" TO HAVE UNDERGROUND SERVICE UTILITIES LOCATED PRIOR TO CONSTRUCTION. THIS CALL WILL BE MADE AT LEAST 48 HOURS IN ADVANCE PRIOR TO ANY WORK BEING PERFORMED IN PUBLIC RIGHT-OF-WAY. (DIG ALERT PHONE: 811)

ALL EXISTING FACILITIES WHICH MAY AFFECT PROJECT CONSTRUCTION, I.E., LINE CROSSINGS, LINE PARALLELING, OR PROPOSED CONNECTIONS SHALL BE FIELD VERIFIED BEFORE ANY CONSTRUCTION BEGINS.

THE CONTRACTOR SHALL FURNISH AND INSTALL PER THE STANDARD SPECIFICATIONS THE APPROPRIATE BURIED UTILITY WARNING AND IDENTIFICATION TAPE ABOVE ALL PUBLIC WATER LINES INCLUDING WATER LATERALS LOCATED IN PUBLIC RIGHT-OF-WAY.

WHERE ELEVATIONS AND GRADES ARE NOT SHOWN ON THE WATER MAIN PROFILE, TOP OF PIPE PROFILE IS 48-INCHES BELOW CENTERLINE OR AS SHOWN ACCORDING TO THE PROFILE COVER BELOW CENTERLINE OF FINISH GRADE OF STREET. NOT USED

ALL DEFLECTIONS (HORIZONTAL AND VERTICAL) SHALL BE MADE USING JOINT COUPLINGS WITH 4" MAXIMUM DEFLECTION PER COUPLING (2" PER JOINT). NO BENDING (CURVING) OF PIPE SHALL BE PERMITTED.

MANUAL AIR RELEASES SHALL BE INSTALLED AT ALL HIGH POINTS AND BLOW-OFFS AT ALL LOW POINTS IN THE WATER MAIN PROFILE. PLACE MANUAL AIR RELEASES AND BLOW-OFFS WITHIN METER BOX AND LOCATE BEHIND CURB UNLESS OTHERWISE APPROVED BY DISTRICT'S REPRESENTATIVE. FIRE HYDRANTS MAY BE USED IN LIEU OF A MANUAL AIR RELEASE OR BLOW-OFF WHEN LOCATED AT OR NEAR HIGH OR LOW POINTS, AS APPROVED BY THE DISTRICT'S REPRESENTATIVE.

INSTALL A MINIMUM 1-INCH WATER SERVICE TO EACH LOT. METER TO BE LOCATED 5-FEET FROM A SIDE LOT LINE. A 3/4 INCH HIGH LETTER "W" SHALL BE CHISELED IN TOP OF EXISTING CURB OR IMPRINTED IN NEW CURB AT ALL WATER SERVICE CROSSINGS. NOT USED

METER BOXES SHALL NOT BE PLACED WITHIN DRIVEWAYS OR SIDEWALKS WITHOUT THE DISTRICT'S PRIOR WRITTEN CONSENT.

- ALL WATER SERVICES FOR IRRIGATION, MULTIPLE RESIDENTIAL COMPLEXES, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL HAVE APPROVED BACKFLOW PREVENTION DEVICE ON CUSTOMER'S SIDE OF WATER METER. [NOT USED]
16. CONTRACTOR SHALL TIE OFF ALL VALVE LOCATIONS AND PROVIDE WRITTEN DIMENSIONS TO INSPECTOR IMMEDIATELY UPON INSTALLATION OF VALVES.
17. LINE VALVES, WHERE REQUIRED AT STREET INTERSECTIONS SHALL BE LOCATED AT THE TEE WHENEVER POSSIBLE. [NOT USED]
18. FIRE HYDRANTS, AS APPROVED BY THE APPROPRIATE FIRE DISTRICT AND MEETING THE DISTRICT'S STANDARD SPECIFICATIONS, ARE TO BE INSTALLED AT LOCATIONS SPECIFIED BY THE FIRE DISTRICT. [NOT USED]
19. ALL DESIGN CHANGES TO THE WATER SYSTEM SHALL BE APPROVED BY THE DISTRICT REPRESENTATIVE IN WRITING PRIOR TO CONSTRUCTION AND ACCEPTANCE OF THE CHANGE.
20. THE WATER SYSTEM SHALL BE PRESSURE TESTED IN ACCORDANCE WITH THE PROCEDURES IN THE OMWD STANDARD SPECIFICATIONS. THE CLASS OF PIPE SHALL BE USED AS THE DESIGNATED WORKING PRESSURE FOR TESTING ALL PIPE, VALVES (CLOSED) AND APPURTENANCES.
21. PIPELINES AND APPURTENANCES SHALL BE DISINFECTED IN ACCORDANCE WITH SECTION 15041 OF THE OMWD STANDARD SPECIFICATIONS PRIOR TO TIE-IN OR CONNECTION TO EXISTING SYSTEM FACILITIES. BACTERIOLOGIC QUALITY TEST RESULTS SHALL CONFORM TO THE CRITERIA SPECIFIED IN SPECIFICATION.
22. CONTRACT RECORD DRAWINGS MUST BE SUBMITTED PRIOR TO FINAL ACCEPTANCE OF WORK. THE PLANS MUST PROVIDE POST CONSTRUCTION VERIFICATION OF THE LOCATION AND ELEVATION OF PIPES AND APPURTENANCES.
23. CONTRACTOR SHALL GUARANTEE ALL WORK FOR A PERIOD OF TWO (2) YEARS AFTER THE DATE OF ACCEPTANCE FOR THE PROJECT. CONTRACTOR SHALL REPAIR OR REPLACE ANY OR ALL SUCH WORK, TOGETHER WITH ANY OTHER WORK WHICH MAY BE DISPLACED IN SO DOING THAT MAY PROVE DEFECTIVE IN WORKMANSHIP AND/ OR MATERIALS WITHIN THE ONE-YEAR PERIOD FROM THE DATE OF ACCEPTANCE WITHOUT EXPENSE WHATSOEVER TO THE DISTRICT, ORDINARY WEAR AND TEAR, UNUSUAL ABUSE OR NEGLIGENCE EXCEPTED.
24. ALL IRRIGATION METERS SHALL BE SERVED WITH RECYCLED WATER UNLESS PREVIOUSLY APPROVED IN WRITING BY THE DISTRICT.
25. ALL BURIED METAL FITTINGS AND VALVES SHALL BE WAX TAPE WRAPPED IN ACCORDANCE WITH OMWD STANDARD SPECIFICATIONS.
26. ALL CONSTRUCTION TO CONFORM WITH (STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, SECTION 306), SPECIAL PROVISIONS FOR WORK DONE UNDER ALL EXCAVATION PERMIT (1922), AND CURRENT SAN DIEGO DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS.
27. EXISTING HYDRAULIC GRADE LINE FOR PRESSURE TESTING SHALL BE EQUAL TO ELEVATION = 550'
28. ALL EXISTING ACP SHALL BE RESTRAINED FROM MOVEMENT DURING PROPOSED CONNECTIONS.

PIPELINE

TEMPORARY HIGHLINE

EX. WATER LINE (SIZE NOTED)

EX. SEWER LINE (SIZE NOTED)

EX. ELECTRICAL LINE

EX. COMMUNICATION LINE

PAVEMENT EDGE

PROPERTY LINE

EASEMENT LINE

FENCE

WATER METER

FIRE HYDRANT

PROPOSED COMBINATION AIR VALVE

PROPOSED WATER VALVE

PROPOSED BLOW-OFF

PROPOSED MANUAL AIR RELEASE VALVE

EX. WATER VALVE

EX. SEWER MANHOLE

EX. BLOW-OFF

EX. MANUAL AIR RELEASE VALVE

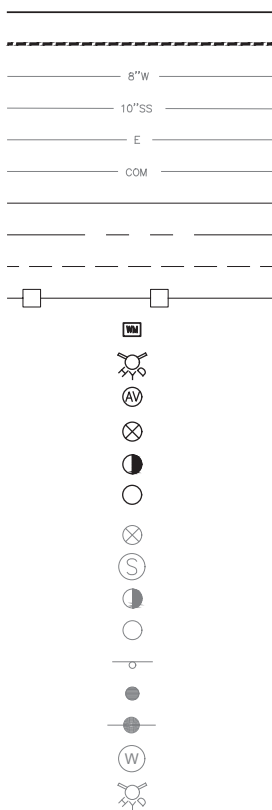
EX. POST

EX. POST GUARD

EX. POWER POLE

EX. WATER VAULT

EX. FIRE HYDRANT



AC	ASPHALT CEMENT	NAVD88	NORTH AMERICA VERTICAL DATUM OF 1988
AP	ASBESTOS CEMENT PIPE	NGVD29	NATIONAL GEODETIC VERTICAL DATUM OF 1929
AV	AIR-VACUUM VALVE	NC	NOT IN CONTRACT
BFV	BUTTERFLY VALVE	NO.	NUMBER
BO	BLOW-OFF ASSEMBLY	OC	ON CENTER
CATV	CABLE TELEVISION	OE	OVERHEAD ELECTRIC WIRE
C	CENTER LINE	OMWD	OLIVENHAIN MUNICIPAL WATER DISTRICT
CLMC	CEMENT MORTAR LINED AND COATED	PVC	POLYVINYL CHLORIDE
COMM.	COMMUNICATION	PE	PLAIN END
DI	DUCTILE IRON	PRS	PRESSURE REDUCING STATION
DIA.	DIAMETER	PZ	PRESSURE ZONE
DOC.	DOCUMENT	REC	RECORD
DWG	DRAWING	R/W, ROW	RIGHT OF WAY
EA	EACH	RSGV	RESILIENT SEAT GATE VALVE
EL. OR ELEV.	ELEVATION	SD	STORMDRAIN
EX. OR EXIST.	EXISTING	STA.	STATION
FIN	FINISH	STD.	STANDARD
FLG	FLANGE	SS	STAINLESS STEEL
FM	FORCE MAIN	STL	STEEL
FO	FIBER OPTIC CABLE (BURIED)	T	TELEPHONE LINE
GV	GATE VALVE	T.O.P.	TOP OF PIPE
H.P.I.	HORIZONTAL POINT OF INTERSECTION	TYP.	TYPICAL
INV.	INVERT	V.P.I.	VERTICAL POINT OF INTERSECTION
LF	LINEAR FOOT OR LINEAR FEET	W	WATER
LB	POUND	W/	WITH
MAR	MANUAL AIR RELEASE ASSEMBLY		
MJ	MECHANICAL JOINT		



THE BASIS OF BEARINGS IS GRID NORTH, CALIFORNIA STATE PLAN COORDINATES NAVD83, ZONE, VI, DERIVED FROM THE R.T.C.M. G.P.S STATION "CLBD"

ASSUMED ELEVATION FROM THE R.C.T.M. G.P.S. STATION "CLBD"



LONG JACK PRESSURE REDUCING STATION REPLACEMENT PROJECT

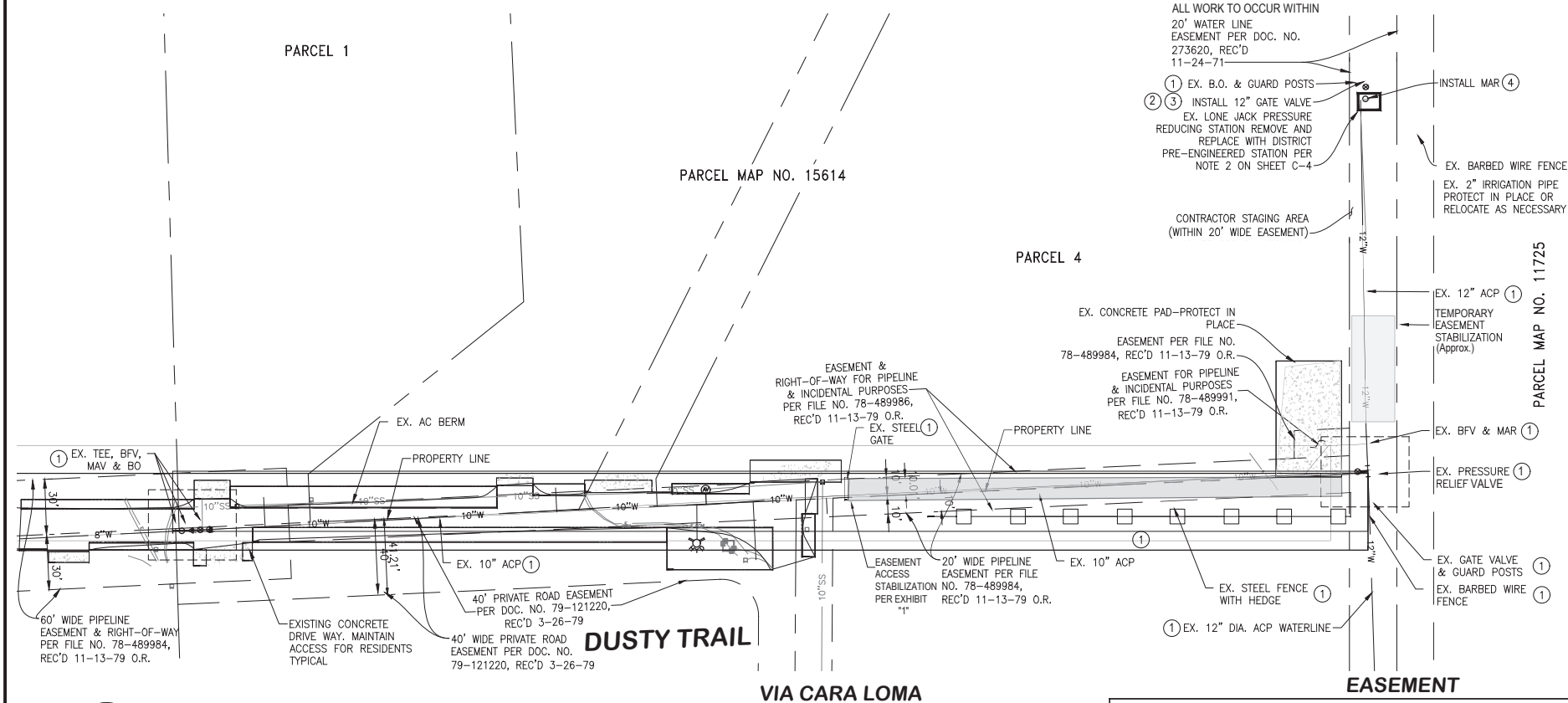
GENERAL NOTES

SHEET
G-1

2/4

WO D12078

ORIGINAL SCALE IN INCHES



PROFILE

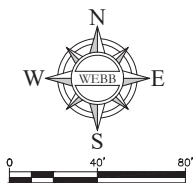
SCALE: $H \frac{1"}{1"} = 40'$
 $V \frac{1"}{1"} = 4'$

CONSTRUCTION NOTES:

- 1 PROTECT IN PLACE.
- 2 REMOVE AND DISPOSE OF EX. PRESSURE REDUCING STATION, VAULT, VALVES, ANCHOR BLOCKS AND PIPING. REPLACE WITH OWNER FURNISHED PRE-ENGINEERED ABOVE GRADE STATION PER DETAILS ON SHEET C-4.
- 3 INSTALL 12-INCH GATE VALVE (250 PSI) PER OMWD STD. DWG. NO. D-2.4. WITH CONCRETE ANCHOR BLOCK PER DETAIL 8 ON SHEET C-2.
- 4 INSTALL 2-INCH MANUAL AIR RELEASE ASSEMBLY PER OMWD STD. DWG. NO. A-2.2. WORKING PRESSURE (201-300 PSI).



PLAN
SCALE: 1" = 40'

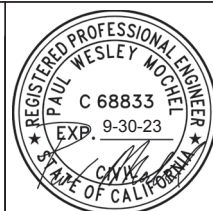


HORIZONTAL DATUM

THE BASIS OF BEARINGS IS GRID NORTH, CALIFORNIA STATE PLAN COORDINATES NAVD83, ZONE, VI, DERIVED FROM THE R.T.C.M. G.P.S STATION "CLBD"

BENCHMARK

ASSUMED ELEVATION FROM THE R.C.T.M. G.P.S. STATION "CLBD"

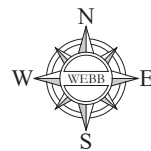


LONG JACK PRESSURE REDUCING
STATION REPLACEMENT PROJECT

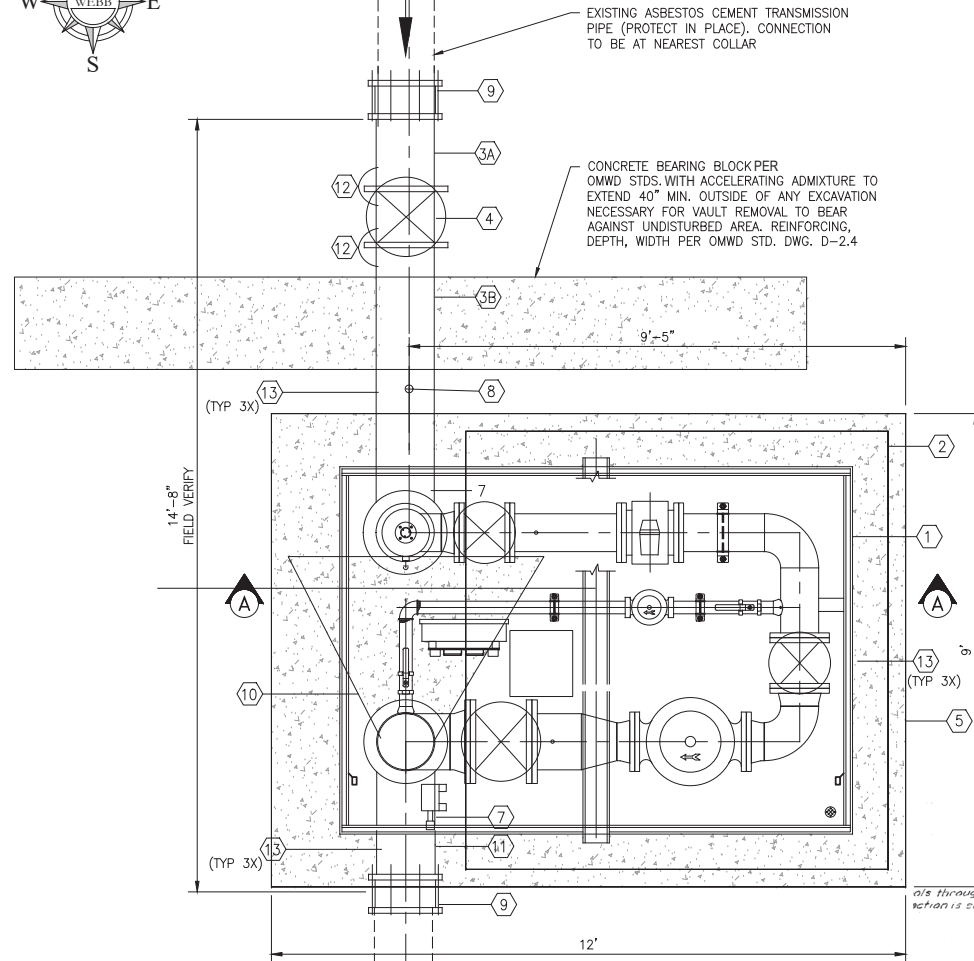
PLAN AND PROFILE STA. 10+00 TO STA. 16+50
AND STA. 20+00 TO STA. 21+94

SHEET
C-1 3/4
WO D12078

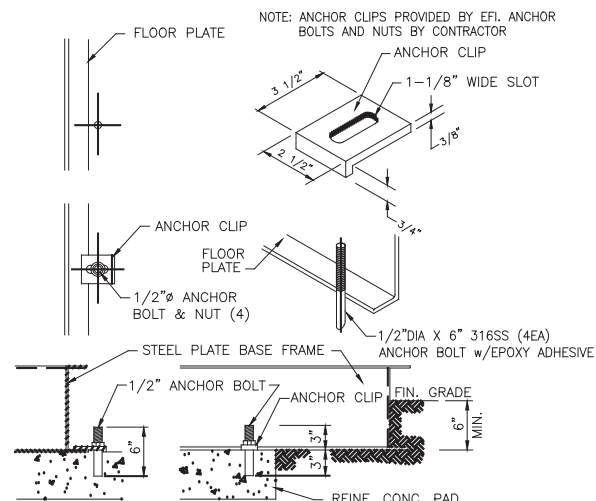
ORIGINAL SCALE IN INCHES



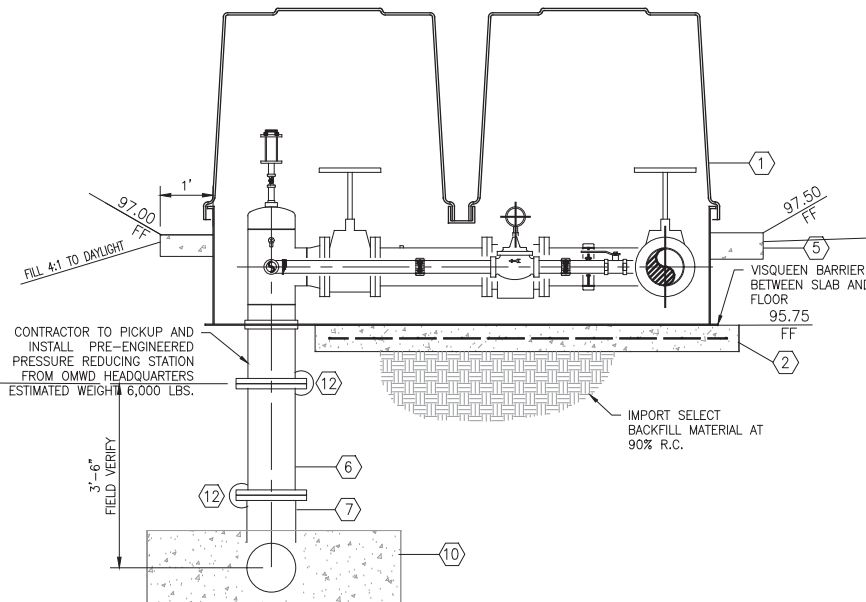
912' PRESSURE ZONE



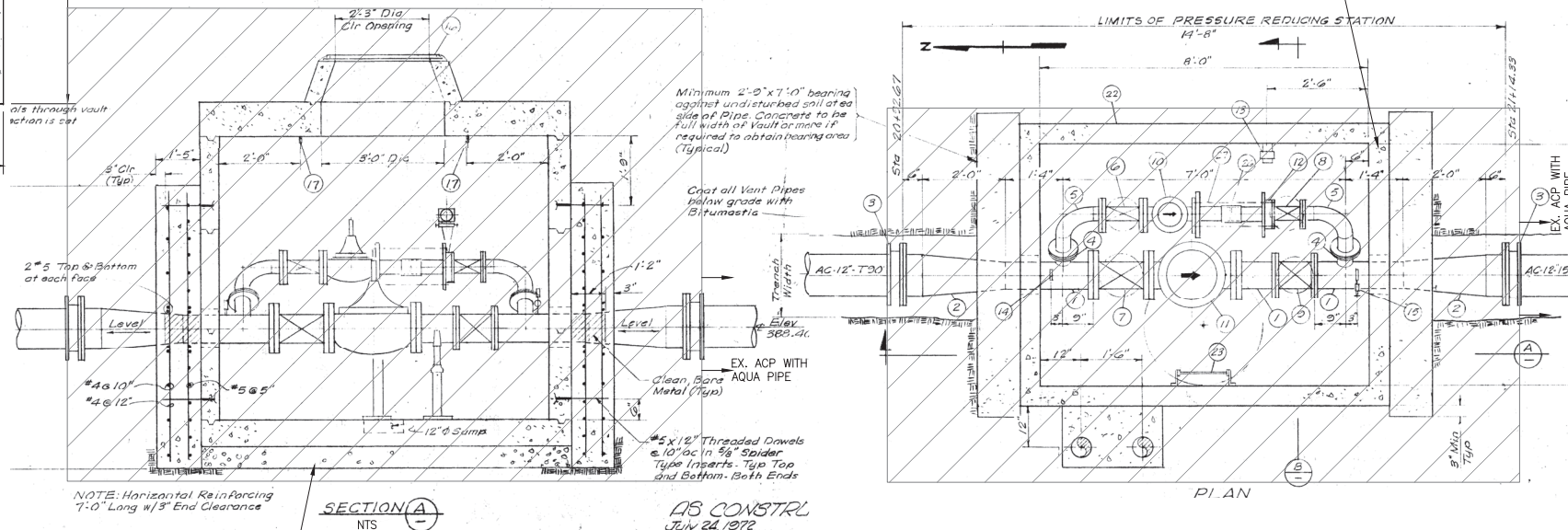
550' PRESSURE ZONE
DETAIL 8 - PRESSURE REDUCING STATION PLAN
NOT TO SCALE



DETAIL 10 - ANCHOR DETAIL
NOT TO SCALE



DETAIL 9 - SECTION A-A
NOT TO SCALE



DETAIL 11 - PRESSURE REDUCING STATION DEMOLITION PLAN
NOT TO SCALE

MATERIALS LIST:

- 1 PRE-ENGINEERED PRESSURE REDUCING STATION FURNISHED BY OMWD
- 2 6" THICK CLASS A CONCRETE SUPPORT PAD WITH #4 BARS 12" O.C. EACH WAY
- 3A 12" DIA. STEEL (CLASS 250) CMLC PIPE (MIN 6' LONG) FLGXPE. FIELD VERIFY TO NEAREST ACP COLLAR
- 3B 12" DIA. STEEL (CLASS 250) CMLC PIPE (MIN 6' LONG). FLGXPE w/CONCRETE ANCHOR BLOCKS PER OMWD STD DWG D-2.4
- 4 12" DIA. CLASS 250 GATE VALVE INSTALLATION PER OMWD STD DWG D-2.4
- 5 CLASS A CONCRETE HOUSEKEEPING PAD WITH #10 WIRE MESH 12" OUTSIDE STATION - 4" THICK
- 6 12" DIA. CMLC STL SPOOL (FLXFL) FIELD VERIFY LENGTH REQUIRED (TYP OF 2) CLASS 250 ON 912' PZ SIDE
- 7 12" DIA. STL CMLC 90° ELBOW (PEXFLG) CLASS 250 ON 912' PZ SIDE OF PRS
- 8 2" DIA. MANUAL AIR RELEASE ASSEMBLY PER OMWD STD. DWG. A-2.2
- 9 DUCTILE IRON COUPLING ROMAC 501 OR EQUAL
- 10 THRUST BLOCK PER OMWD STD. DWG. D-3.6 BETWEEN ELBOWS
- 11 12" DIA. STL CMLC SPOOL (FLGXPE) FIELD VERIFY TO NEAREST ACP COLLAR
- 12 BOND WIRES PER OMWD STD DWG G-6
- 13 2WIRE @ GRADE CATHODIC TEST STATION w/SINGLE 48-LB ANODE INSTALLATION PER OMWD STD. DWG G-1 (TYPICAL OF 3) LOCATIONS TO BE DETERMINED IN THE FIELD BY OMWD REPRESENTATIVE.

REMOVE AND DISPOSE EXISTING FACILITIES SHOWN HEREON FROM FLANGE X AC ADAPTER, BID ITEM 3, TOTAL OF APPROX 14'-8", AND CONSTRUCT NEW MAINLINE ISOLATION VALVE AND PRESSURE REDUCTION STATION FURNISHED BY DISTRICT.

OLIVENHAIN
Municipal Water District
1966 Olivenhain Road
Encinitas, CA 92024 (760) 753-6466

LONG JACK PRESSURE REDUCING
STATION REPLACEMENT PROJECT
PRESSURE REDUCING STATION REPLACEMENT

WO D12078

ORIGINAL SCALE IN INCHES