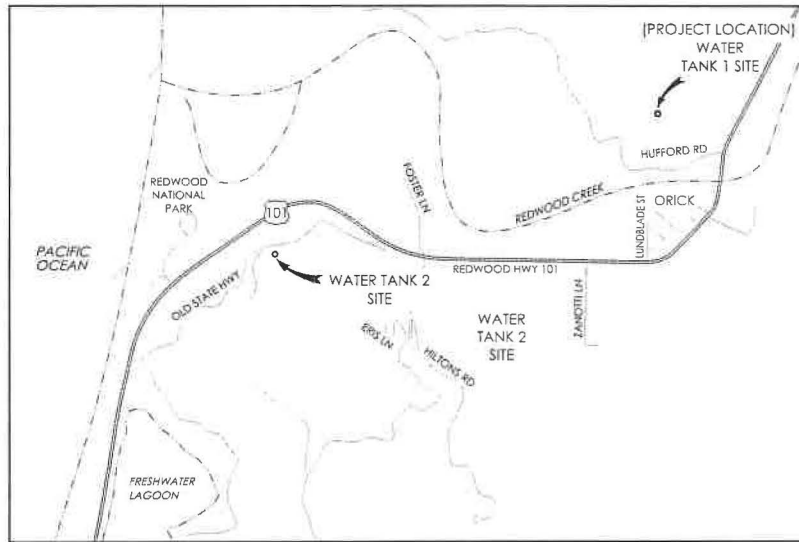


# ORICK COMMUNITY SERVICES DISTRICT ORICK COMMUNITY TANK REPLACEMENT PROJECT TANK 1 REPLACEMENT

FUNDED IN PART BY THE STATE OF CALIFORNIA DEPARTMENT OF WATER RESOURCES (DWR)  
AGREEMENT No. 4600014877



VICINITY MAP  
1"=1000'

### BOARD OF DIRECTORS

- |                     |               |
|---------------------|---------------|
| - RON BARLOW        | CHAIRMAN      |
| - ROBERT SECOR, JR. | VICE CHAIRMAN |
| - BYRON FRICK       | BOARD MEMBER  |
| - DOUG COMSTOCK     | BOARD MEMBER  |
| - BRIANNA DENLIS    | BOARD MEMBER  |

### OCSD STAFF

- |                |                     |
|----------------|---------------------|
| - TREVOR AVRAM | MAINTENANCE MANAGER |
|----------------|---------------------|

### PACE DESIGN TEAM

- |                   |                        |
|-------------------|------------------------|
| - TOM WARNOCK     | PROJECT MANAGER        |
| - STEVE WILSON    | STRUCTURAL ENGINEER    |
| - TONY BOWSER     | ELECTRICAL ENGINEER    |
| - SEAN MCGUIGAN   | STAFF ENGINEER         |
| - BRYAN STUTCHMAN | ENGINEERING TECHNICIAN |

SHEET INDEX		
NO	DESCRIPTION	SHEET NAME
1	G1.0	TITLE
2	G2.0	ABBREVIATIONS
3	G3.0	LEGENDS
4	C1.0	CIVIL DETAILS
5	C2.0	DEMOLITION PLAN
6	C2.1	SITE AND GRADING PLAN
7	M1.0	TANK MECHANICAL
8	S1.0	TYPICAL DETAILS
9	S2.0	TANK SECTION & DETAILS
10	S2.1	TANK DETAILS
11	S2.2	TANK DETAILS
12	S2.3	TANK DETAILS
13	S2.4	TANK DETAILS
14	S2.5	TANK DETAILS
15	E1.0	ELECTRICAL SYMBOLS & ABBREVIATIONS
16	E2.0	OFFICE - TANK 1 ONE-LINE DIAGRAMS
17	E3.0	TANK 1 - ELECTRICAL SITE PLAN
18	E4.0	TANK 1 POWER PLAN
19	E5.0	OFFICE POWER PLAN
20	E6.0	ELECTRICAL DETAILS
21	I1.0	INSTRUMENTATION SYMBOLS & ABBREVIATIONS
22	I2.0	EXISTING OFFICE CONTROL DIAGRAMS
23	I2.1	NEW TANK 1 CP DIAGRAM



PRELIMINARY  
NOT FOR  
CONSTRUCTION



SHEET  
**G1.0**

P:\Data - Internal\12-2023\3027.01 - Orick Tank Replacement\Drawings

ABBREVIATIONS - WATER/MECHANICAL

Ø	Ø	Ø	DN	DOWN	M	MALE or MECHANICAL	SECT	SECTION
t or PL	DIAMETER	DWG	D/W	DRAWING	MECH	MECHANICAL	SENS	SENSIBLE
AB	PLATE OR PROPERTY LINE	D/W	D/W	DRIVEWAY	MAX	MAXIMUM	SG	SUPPLY GRILLE
AC	ANCHOR BOLT, AGGREGATE BASE	E	E	ELECTRICAL CONDUIT	MCA	MINIMUM CIRCUIT AMPACITY	SGL	SINGLE
AD	ASBESTOS CEMENT PIPE or ASPHALT CONCRETE	[E] or EXIST	[E] or EXIST	EXISTING	MCC	MOTOR CONTROL CENTER	SH or SHT	SHEET
ADDN'L	AREA DRAIN or AEROBIC DIGESTER	EA	EA	EACH	MFR	MANUFACTURER	SHFG	SHEATHING, SHEETING
ADH AB	ADDITIONAL	EER	EER	ENERGY EFFICIENCY RATIO	MG	MILLION GALLONS	SH	SIMILAR
AFF	ADHESIVE ANCHOR BOLT	EF	EF	EXHAUST FAN	MH	MANHOLE	SMS	SHEET METAL SCREW
AGG or AGGR	ABOVE FINISH FLOOR	EL or ELEV	EL or ELEV	ELEVATION	MIN	MINIMUM	SOOS	SHOWN OUT OF SECTION
AIR	AGGREGATE	ELB	ELB	ELBOW	MISC	MISCELLANEOUS	SP	SPACE or SPACES or STATIC PRESSURE
AI	ANALYZER INDICATING RECORDER	EMBED	EMBED	EMBED or EMBEDMENT	MJ	MECHANICAL JOINT	SPEC'S	SPECIFICATIONS
ALUM	ANALYZER INDICATING TRANSMITTER	EN	EN	EDGE NAILING	MOCOP	MAXIMUM OVERCURRENT PROTECTION	SQ	SQUARE
APPROX	ALUMINUM	ENGR	ENGR	ENGINEER	MS	MECHANICAL RUBBER SEAL	SS	SANITARY SEWER or STAINLESS STEEL
ARV	APPROXIMATELY	EP	EP	EDGE OF PAVEMENT	MTL	METAL	STD	STANDARD
ASOV	AIR RELEASE VALVE	EQ	EQ	EQUAL	MWS	MAXIMUM WATER SURFACE	STL	STEEL
ASSY	AUTOMATIC SHUTOFF VALVE	EQUIP	EQUIP	EQUIPMENT	[N]	NEW	STRUCT	STRUCTURAL
ASTM	ASSEMBLY	ER	ER	EDGE OF ROAD	NB&G	NUTS, BOLTS, & GASKETS	SW	SURFACE WASH
AV	AMERICAN SOCIETY FOR TESTING OF MATERIALS	ESMT	ESMT	EASEMENT	NF	NEAR FACE	SWMH	STORM WATER MANHOLE
BCV	AIR VALVE	ESP	ESP	EXTERNAL STATIC PRESSURE	NIC	NOT IN CONTRACT	SYM	SYMMETRICAL
BFM	BACKWATER CHECK VALVE OR BUTTERFLY	EW	EW	EACH WAY	No.	NUMBER	T	TELEPHONE CONDUIT or TOP
BFV	CONTROL VALVE OR BALL CHECK VALVE	EXP AB	EXP AB	EXPANSIVE ANCHOR BOLT	NPT	NATIONAL PIPE THREAD	T&B	TOP AND BOTTOM
BCV/M	BONDED FIBER MATRIX	EXP JT	EXP JT	EXPANSION JOINT(S)	NTS	NOT TO SCALE	TBC	TOP BACK OF CURVE
BCV/P	BUTTERFLY VALVE	EXT	EXT	EXTERIOR	O/F	OVER	TBF	TRAVELING BRIDGE FILTER
BHP	BUTTERFLY VALVE W/ MOTOR ACTUATOR	F	F	FENCE or FEMALE	OF	OVERFLOW	TBM	TEMPORARY BENCH MARK
BKFL	PNEUMATIC OPERATED BUTTERFLY VALVE	FBE	FBE	FIBER BONDED EPOXY	OC	ON CENTER	TC	TOP OF CONCRETE
BLDG	BRAKE HORSE POWER	FC	FC	FLEXIBLE COUPLING	OCSO	ORICK COMMUNITY SERVICES DISTRICT	TELE	TELEPHONE
BLK	BACKFILL	FCA	FCA	FLANGED COUPLING ADAPTOR	OD	OUTSIDE DIAMETER	THD	THREADED
BLKG	BUILDING	FD	FD	FRENCH DRAIN OR FLOOR DRAIN	OF	OUTSIDE FACE	THK	THICK or THICKNESS
BM	BLOCK	FE	FE	FILTERED EFFLUENT	OG	ORIGINAL GROUND	TL	TRAFFIC LID
BO	BLOCKING	FF	FF	FINISHED FLOOR or FAR FACE	OH	OVERHEAD	TN	TOE NAIL
BOIT	BENCH MARK OR BEAM	FG or FIN GR	FG or FIN GR	FINISH GRADE	OPG or OPGN	OPENING	TOW	TOP OF WALL
BV	BLOW OFF or BLOCK-OUT	FH	FH	FIRE HYDRANT or FULL HEIGHT	OPP	OPPOSITE	TR	THRUST RESTRAINT
CAV	BOTTOM	FHWS	FHWS	FLAT HEAD WOOD SCREW	PDJ	PUMP DISMANTLING JOINT	TYP	TYPICAL
CCP	BALL VALVE	FIN	FIN	FINISH	P&ID or PID	PROCESS INSTRUMENTATION DIAGRAM	UG	UNDER GROUND
CCF	BACKWASH	FL	FL	FLOW LINE	PE	PLAIN END	ULT	ULTRASONIC LEVEL TRANSMITTER
CFM	CENTERLINE	FLA	FLA	FULL LOAD AMPS	PER	PERMETER	UNO	UNLESS NOTED OTHERWISE
CI	CONDUIT	FLG	FLG	FLANGE	PH	PHASE	V	VENT or VENTS
CIP	COMBINATION AIR RELEASE VALVE	FLR	FLR	FLOOR	PNL	PANEL	VCP	VITRIFIED CLAY PIPE
CISP	CONCRETE CYLINDER PIPE	FMJA	FMJA	FLANGE x MJ ADAPTER	PNT	PAINT	VERT	VERTICAL
CJ	COMBINED FILTER EFFLUENT	FND	FND	FOUNDATION	#	POUND	W	WATER
CL or CLR	CUBIC FEET PER MINUTE	PFM	PFM	FEET PER MINUTE	PP	POWER POLE	W/	WITH
CLG	CAST IRON PIPE	PF	PF	FIBER REINFORCED POLYETHYLENE	PR	PAIR	W/O	WITHOUT
CMP	CAST IN PLACE	FIG	FIG	FOOTING	PREFAB	PREFABRICATED	WC	WATER CLOSET OR WATER COMPANY
CMU	CAST IRON SOIL PIPE	FW	FW	FILTERED WATER	PROJ	PROJECT	WH	WARF HEAD HYDRANT
CO	CONTROL JOINT or CEILING JOINT	GA	GA	GAGE	PRSV	PRESSURE REDUCING SOLENOID VALVE	WHF	WHOLE HOUSE FAN
COL	CLEAR	GAL	GAL	GALLON	PRV	PRESSURE RELIEF VALVE	WM	WATER METER
COMB	CEILING	GALV	GALV	GALVANIZED	PS	PIPE SUPPORT	WS	WATER STOP or WATER SERVICE
COMP	CORRUGATED METAL PIPE	GC	GC	GROOVED COUPLING	PSI	POUNDS PER SQUARE INCH	WSL	WATER SERVICE LEVEL
CONC	CONCRETE MASONRY UNIT	GSP	GSP	GALVANIZED STEEL PIPE	PV	PLUG VALVE	WSP	WELDED STEEL PIPE
CONST	CONCRETE	GV	GV	GATE VALVE	PVC	POLYVINYL CHLORIDE PIPE	WV	WATER VALVE
CONT	CONSTRUCTION	HC	HC	HALF COUPLING	PW	POTABLE WATER	WTP	WATER TREATMENT PLANT
CONTR	CONTINUOUS	HDPE	HDPE	HOLDDOWN or HOT DIPPED	R	RADIUS	WWTP	WASTEWATER TREATMENT PLANT
CORP	CONTRACTOR	HMA	HMA	HORIZONTAL	RCP	REINFORCED CONCRETE PIPE		
CORP	CORPORATION	HP	HP	HORSE POWER or HEAT PUMP	RDW or RDWD	REDWOOD		
CP	COLLECTION PIPE or CONTROL PANEL	HT	HT	HEIGHT	RED	REDUCER		
CPF	CORRUGATED POLYETHYLENE PIPE	HVAC	HVAC	HEATING, VENTILATION, AND AIR CONDITIONING	REINF	REINFORCEMENT STEEL, REBAR		
CTR	CENTER	HZ	HZ	HERTZ	REQ'D	REQUIRED		
CU	COPPER	I	I	INSTRUMENTATION	REST	RESTRAINED		
CV	CHECK VALVE	ID	ID	INSIDE DIAMETER	RFCA	RESTRAINED FLANGED COUPLING ADAPTER		
D	DRAIN	IEER	IEER	INTEGRATED ENERGY EFFICIENCY RATIO	RFMA	RESTRAINED FLANGED MECHANICAL JOINT ADAPTER		
DBL	DRAIN	IN WC	IN WC	INCHES WATER COLUMN	RFG	ROOFING		
DBL	DIRECT BURIAL	INSUL	INSUL	INSULATION	RG	RETURN GRILLE		
DCV	DOUBLE	INT	INT	INTERIOR or INTERMEDIATE	RH	ROD HOLE		
DET	DETAIL	INV	INV	INVERT	RLA	RATED LOAD AMPS		
DI	DUCTILE IRON or DROP INLET	KV	KV	KNIFE GATE VALVE	RMJ	RESTRAINED MECHANICAL JOINT		
DIP	DUCTILE IRON PIPE	L	L	STEEL ANGLE	RO	ROUGH OPENING		
DIA	DIAMETER	LAT	LAT	LATENT	ROW	RIGHT OF WAY		
DIAPH	DIAPHRAGM	LF	LF	LINEAR FOOT	RPM	ROTATIONS PER MINUTE		
DIM	DIMENSION	LG	LG	LIP OF GUTTER	RSP	ROCK SLOPE PROTECTOR		
		LLA	LLA	LIQUID LEVEL ANALYZER	RW	RAW WATER		
		LVR	LVR	LOUVER	S	SLOPE		
					SCH or SCHED	SCHEDULE		
					SD	STORM DRAIN		

BAR IS ONE INCH ON ORIGINAL DRAWING  
 0" 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

REVISIONS		
NO.	DATE	DESCRIPTION



DES: TWW CKD: TWW JOB NO. 2021-0222  
 DRN: RT DATE: 2/19/2023 3027.01

SIGNED  
 PRELIMINARY  
 NOT FOR CONSTRUCTION

ORICK COMMUNITY SERVICES DISTRICT  
 ORICK COMMUNITY TANK REPLACEMENT PROJECT TANK 1 REPLACEMENT

ABBREVIATIONS

SHEET  
**G2.0**  
 PG 2 OF 23

**SYMBOL LEGEND**

- ▬ AGGREGATE BASE LIMIT
- ▣ AREA DRAIN
- BENCHMARK
- BOLLARD
- ⊕ CENTERLINE
- △<sup>CP#</sup> CONTROL POINT
- ⤴ CULVERT
- ➔ DRAINAGE DIRECTION ARROW
- ▣ ELECTRICAL PANEL / BOX
- /○ FOUND MONUMENT AS NOTED
- ⊕ (E) FIRE HYDRANT
- ⊕ (N) FIRE HYDRANT
- ⊕ GAS METER
- ⊕ GAS VALVE
- ⊕ GUY ANCHOR
- ⊕ GRID TICK
- ⊕ HOSE BIB
- ⊕ LIGHT POLE
- ⊕ PHONE PEDESTAL
- ⊕ POLE-JOINT UTILITY
- ⊕ POLE-POWER
- ⊕ ROCK
- ⊕ RIPRAP DISSIPATOR
- ⊕ SANITARY SEWER LATERAL
- ⊕ SANITARY SEWER MANHOLE
- ⊕ SANITARY SEWER CLEANOUT / RODHOLE
- ⊕ SANITARY SEWER CAP
- ⊕ SIGN - SINGLE POLE
- ⊕ SIGN - DOUBLE POLE
- ⊕ STOP SIGN
- ⊕ STORM DRAIN CATCH BASIN
- ⊕ STORM DRAIN CATCH BASIN - TYPE 3
- ⊕ STORM DRAIN CATCH BASIN - TYPE 4
- ⊕ STORM DRAIN MANHOLE
- ⊕ TELCO BOX
- ⊕ TEST PIT
- ⊕ TREE/SHRUB
- ⊕ WATER BLOWOFF
- ⊕ WATER METER/BOX
- ⊕ (E) WATER VALVE
- ⊕ (N) WATER VALVE
- ⊕ WELL
- ⊕ SLOPE DIRECTION MARKERS
- ➔ AIRFLOW DIRECTION ARROW
- ① KEYNOTE

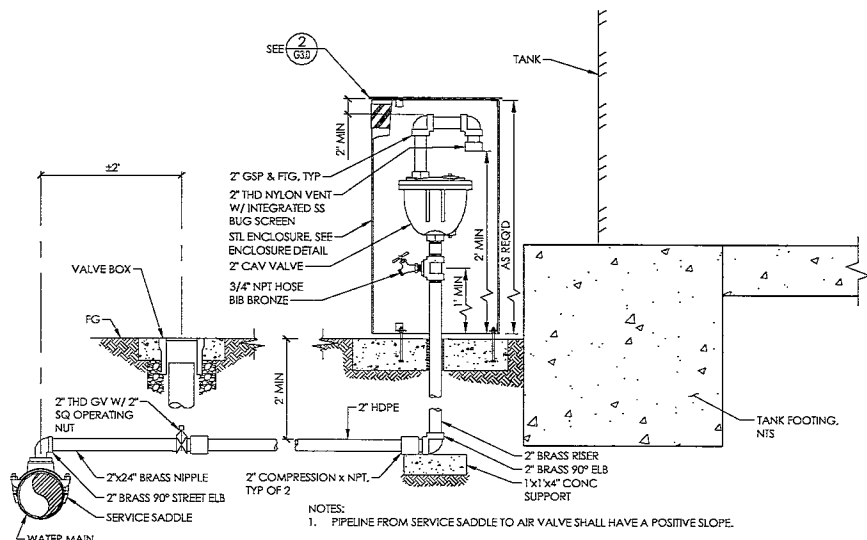
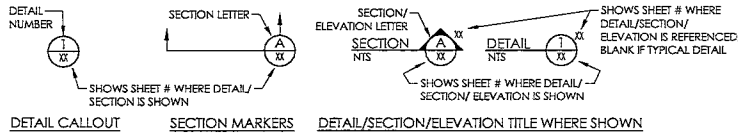
**LINE LEGEND**

- ▬ VERTICAL CURB
- ▬ (E) EP
- ▬ (N) EP
- ▬ (E) CONC
- ▬ (N) CONC
- ▬ PROPERTY LINE
- ▬ FLOWLINE
- ▬ (E) WATER MAIN
- ▬ (N) WATER MAIN
- ▬ (E) WATER SERVICE
- ▬ (N) WATER SERVICE
- ▬ (E) FIRE SERVICE
- ▬ (N) FIRE SERVICE
- ▬ (E) STORM DRAIN
- ▬ (N) STORM DRAIN
- ▬ (E) SANITARY SEWER
- ▬ (N) SANITARY SEWER
- ▬ (E) GAS LINE
- ▬ (N) GAS LINE

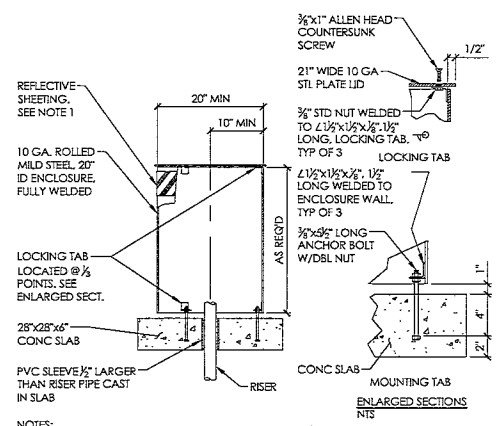
**HATCH LEGEND**

- ▬ (E) CONCRETE
- ▬ (N) CONCRETE
- ▬ (E) PAVEMENT
- ▬ (N) PAVEMENT (X" HMA OVER X" AB)
- ▬ (E) AB ROAD
- ▬ (N) AB ROAD
- ▬ (N) RIPRAP (4-6" COBBLES)
- ▬ (N) BUILDING
- ▬ LAWN/LANDSCAPE AREA
- ▬ DETECTABLE WARNING SURFACE

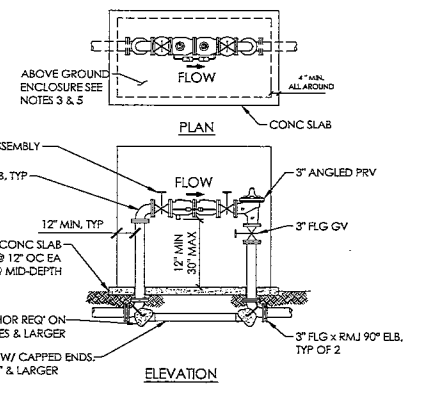
**GENERAL INFORMATION**



CAV DETAIL ① G3.0



- NOTES:
- REFLECTIVE SHEETING SHALL BE INSTALLED @ TOP OF EXTERIOR SIDEWALL WRAP SHEETING 360° AROUND ENCLOSURE.
  - ALL ABOVE GRADE PIPING SHALL BE INSULATED.
  - CAV SHALL BE INSULATED WITH A FLEXIBLE INSULATION COVER.
  - ALL ENCLOSURE HARDWARE SHALL BE GALVANIZED OR STAINLESS STEEL.
  - ALL METAL SURFACES NOT GALVANIZED SHALL BE POWDERCOATED OLIVE GREEN.



- NOTES:
- DEVICES SHALL BE INSTALLED WITHIN RIGHT-OF-WAY OR EASEMENT, AS CLOSE AS PRACTICAL TO MAIN AFTER THE WATER METER.
  - DEVICES SHALL BE INSPECTED & TESTED UPON INSTALLATION BY A CERTIFIED BACKFLOW TESTER (AWWA OR ABPA).
  - DEVICES SHALL BE PLACED IN AN APPROVED ENCLOSURE SIZED FOR MAINTENANCE, TESTING &/OR REMOVAL OF DEVICE. REFER TO SPECIFICATIONS.
  - ALL ABOVE GROUND PIPING INSTALLATION SHALL BE FLANGED DI.
  - PROVIDE FREEZE PROTECTION.

REVISIONS		
NO	DATE	DESCRIPTION

**PACE ENGINEERING**

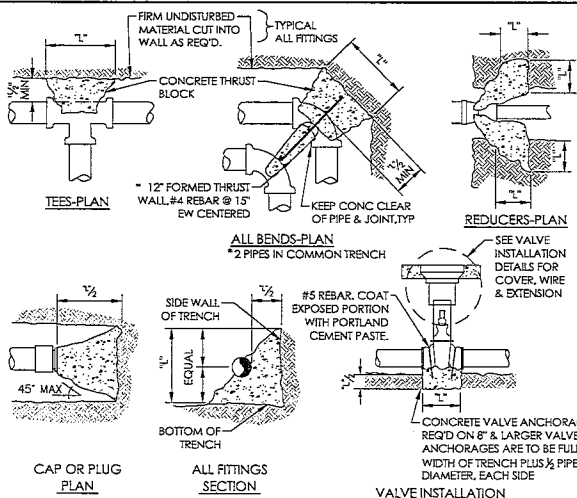
DES: TWW    CKD: TWW    JOB NO. 3022.01

DRN: RT    DATE: 2/18/2023

SIGNED: PRELIMINARY NOT FOR CONSTRUCTION

ORICK COMMUNITY SERVICES DISTRICT  
ORICK COMMUNITY TANK REPLACEMENT PROJECT TANK 1 REPLACEMENT

LEGENDS



NOTE  
INCREASE ALL DIMENSIONS IN TABLE 1 BY 10% TO ALLOW FOR INCREASE IN PRESSURE TO 175psf.

**TABLE 1**  
STANDARD THRUST BLOCK MINIMUM DIMENSION "L" IN INCHES

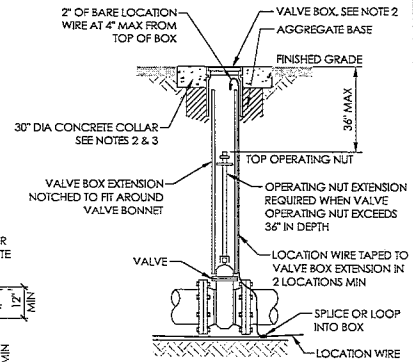
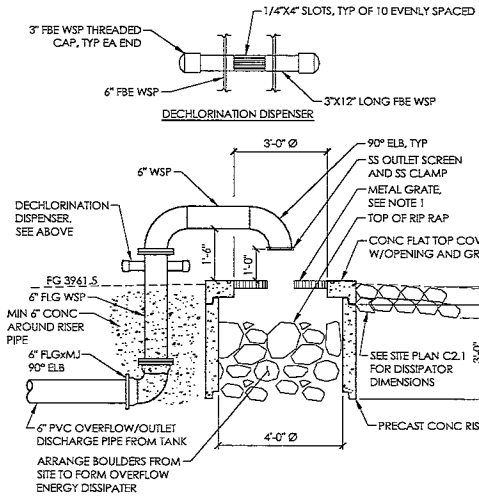
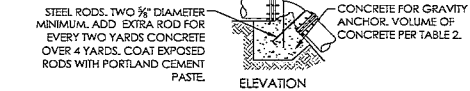
NOMINAL PIPE DIAMETER INCHES	FITTINGS							VALVE
	TEE, WYE, OR PLUG	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND	REDUCER (BASED ON LARGEST DIA.)		
4"	18	22	16	15	15	-	-	
6"	26	31	23	17	15	-	-	
8"	34	40	30	21	15	17	12	
10"	41	49	36	26	18	21	12	
12"	49	59	44	31	22	25	16	
14"	58	68	50	36	26	30	16	
16"	66	77	57	41	28	33	18	
18"	74	88	65	45	32	37	REQUIRES SPECIAL DESIGN	
20"	81	97	71	50	36	41		
24"	97	115	85	61	43	49		

**TABLE 2**  
VERTICAL FITTING THRUST BLOCKS  
WHERE VERTICAL BENDS ARE DIRECTED WITH THE THRUST TOWARD THE BOTTOM OF THE TRENCH, THEY SHALL HAVE THRUST BLOCKS PER HORIZONTAL BENDS EXCEPT CONCRETE SHALL BEAR AGAINST THE TRENCH BOTTOM.

WHERE VERTICAL BENDS ARE DIRECTED WITH THE THRUST TOWARD THE TOP OF TRENCH, THEY SHALL BE INSTALLED PER THE FOLLOWING DETAIL. MINIMUM ROD EMBEDMENT SHALL BE 30 INCHES FOR 12" AND SMALLER PIPE AND 36 INCHES FOR 14" AND LARGER PIPE.

CUBIC YARDS CONCRETE FOR VERTICAL FITTINGS (SEE DETAIL BELOW)

BEND ANGLE	PIPE DIAMETER						REQUIRES SPECIAL DESIGN
	4"	6"	8"	10"	12"	14" AND OVER	
11-1/2°	0	0.4	0.7	0.9	1.3	1.8	
22-1/2°	0.4	0.8	1.3	1.8	2.5	3.4	
45°	0.7	1.4	2.4	3.5	4.9	6.6	
90°	1.3	2.5	4.3	6.4	9.1	12.2	

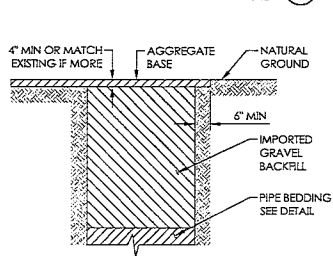


- NOTES:
- THRUST BLOCKS SHALL BE PROVIDED AT ALL BURIED PIPE FITTINGS OF 4" DIA OR LARGER. THRUST BLOCK SIZE IS BASED ON PIPE SIZE, 150 PSI TEST PRESSURE, & SOIL BEARING OF 1200 LB/FP. DIMENSION "L" IS SHOWN IN TABLE 1 & IS BOTH A VERTICAL & HORIZONTAL DIMENSION UNLESS SHOWN OTHERWISE. IF PIPE COVER HAS BEEN APPROVED TO BE LESS THAN 30", INCREASE HORIZONTAL THRUST BLOCKS IN PROPORTION TO 30 INCHES DIVIDED BY THE ACTUAL COVER. IF TEST PRESSURE IS LESS THAN 150 PSI, THRUST BLOCK AREAS OR VOLUMES MAY BE PROPORTIONATELY SMALLER. KEEP CONCRETE FREE OF ALL JOINTS, BOLTS & NUTS.
  - USE OF A MECHANICALLY RESTRAINED FITTING IN LIEU OF A THRUST BLOCK TYPICALLY REQUIRES A NUMBER OF PIPE JOINTS TO BE RESTRAINED UP AND DOWNSTREAM OF THE FITTING. WHERE RESTRAINED FITTINGS ARE SHOWN ON THE PLANS, OR WHERE A CONTRACTOR PROPOSES TO USE A RESTRAINED FITTING IN LIEU OF A THRUST BLOCK BECAUSE OF SITE CONDITIONS, THE CONTRACTOR SHALL DETERMINE THE NUMBER OF PIPE JOINTS TO BE RESTRAINED AND SUBMIT THIS INFORMATION TO THE ENGINEER FOR REVIEW. PAYMENT FOR RESTRAINED JOINTS SHALL BE INCLUDED IN THE MOST APPLICABLE BID ITEM.

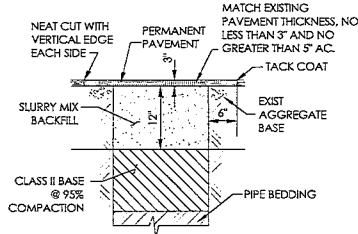
NOTE:  
1. METAL GRATE SHALL BE GALVANIZED STEEL OR CAST IRON.

- NOTES:
- SEE THRUST BLOCK DETAILS FOR VALVES 8" AND LARGER.
  - SET VALVE BOX AND COLLAR 1/2" BELOW GRADE IN PAVED AREAS AND 2" ABOVE IN ALL OTHER LOCATIONS.
  - CONCRETE COLLAR SHALL BE 12 INCHES THICK WHERE ANY VEHICULAR TRAFFIC IS EXPECTED AND 4 INCHES THICK IN ALL OTHER LOCATIONS.

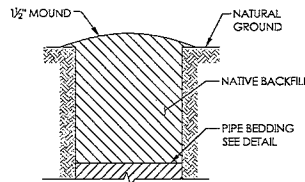
THRUST BLOCK DETAIL (1) NTS C1.0



NOTE:  
CLASS "A4" WILL BE USED IN GRAVELED SHOULDERS, ALLEYS, UNDER CONCRETE UNPAVED DRIVEWAYS, AND AT OTHER LOCATIONS DESIGNATED BY THE ENGINEER.

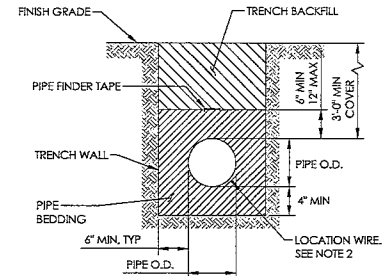


NOTE:  
CLASS "A5" BACKFILL SHALL BE USED IN THE CALTRANS ROW AND WHERE INDICATED ON PLANS.



- NOTES:
- CLASS "C" BACKFILL WILL BE USED IN AREAS WHERE VEHICLE TRAFFIC IS NOT EXPECTED AND AT THE LOCATIONS DESIGNATED BY THE ENGINEER.
  - WHEN IN CULTIVATED OR LANDSCAPED AREAS THE TOP 1" OF SOIL SHALL BE REPLACED WITH EXISTING OR IMPORTED TOPSOIL. THE SURFACE SHALL BE RELEVELLED FOLLOWING INUNDATION AND TRENCH SETTLEMENT. LAWNS OR OTHER LANDSCAPING SHALL THEN BE REPLACED.

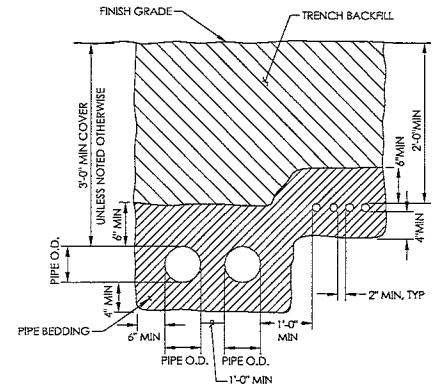
CLASS "C" DETAIL (6) NTS C1.0



- NOTES:
- FOR 2 PIPES IN COMMON TRENCH, MAINTAIN 12" CLEARANCE BETWEEN PIPES AND 6" MIN BETWEEN PIPES AND TRENCH WALL.
  - FOR WATER PIPING AND PRESSURE SEWERS ONLY, ALL SPLICES SHALL BE PERFORMED WITH WATER PROOF CONNECTORS. SEE SPECIFICATIONS.

PIPE BEDDING DETAIL (7) NTS C1.0

VALVE INSTALLATION DETAIL (3) NTS C1.0



MULTIPLE PIPE TRENCH DETAIL (8) NTS C1.0

THRUST BLOCK DETAIL (4) NTS C1.0

CLASS "A5" BACKFILL DETAIL (5) NTS C1.0

NO	DATE	DESCRIPTION

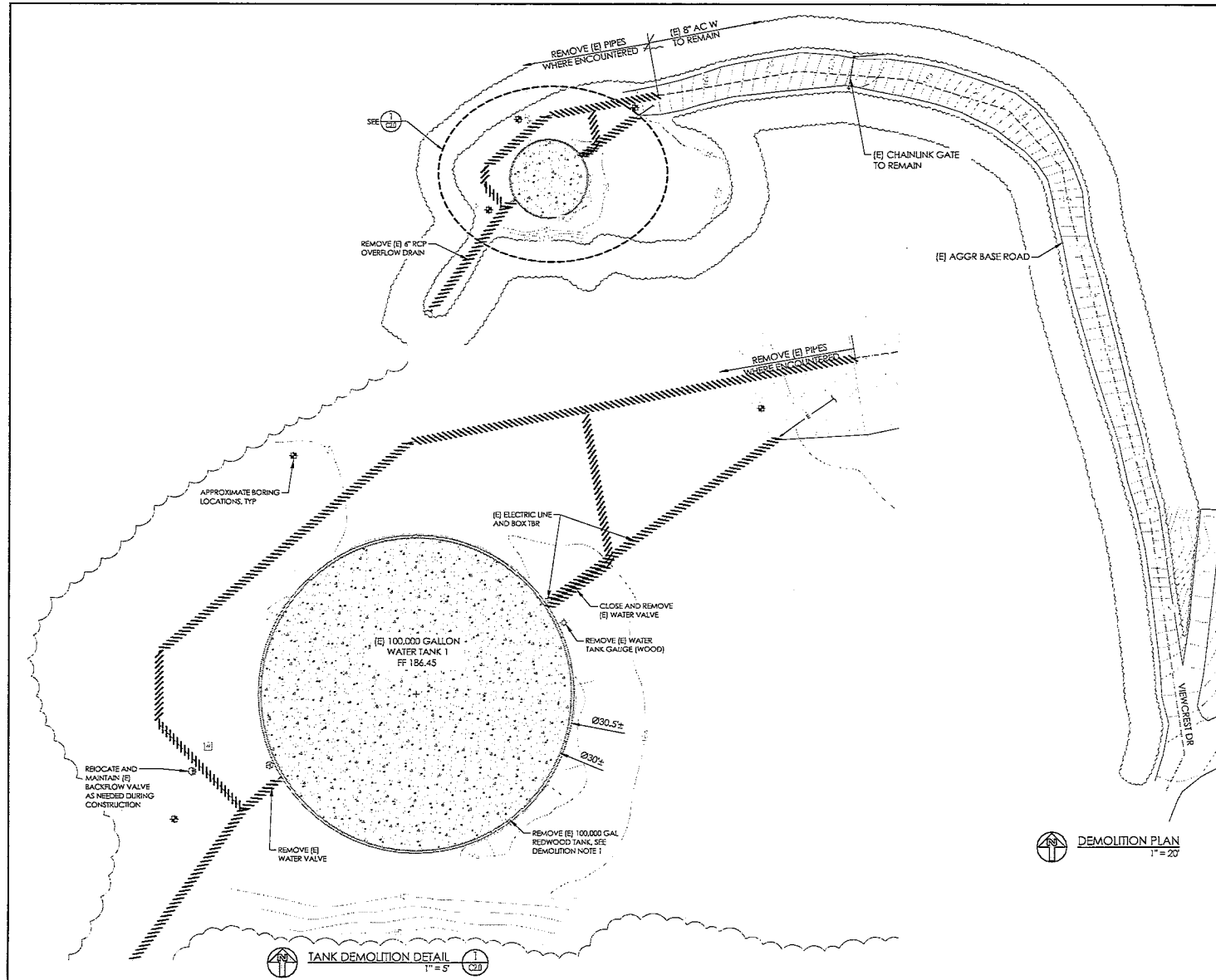


SIGNED  
PRELIMINARY FOR CONSTRUCTION

ORICK COMMUNITY SERVICES DISTRICT  
ORICK COMMUNITY TANK REPLACEMENT PROJECT TANK 1 REPLACEMENT

CIVIL DETAILS

SHEET  
**C1.0**  
PG 4 OF 23



**DEMOLITION LEGEND**

TBA	TO BE ABANDONED
TBR	TO BE REMOVED
(⊗)	TREES TO BE REMOVED
(---)	DEMOLITION LINE
(//)	DEMOLITION AREA (BLDG, CONC, SIDEWALK)

- SURVEY NOTES:**
1. THIS SURVEY WAS CONDUCTED ON 10/10/2022.
  2. COORDINATE SYSTEM: CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83), ZONE 1, (EPOCH 2017.5).
  3. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), (GEOID 18)
  4. CONTOUR INTERVAL: 1 FOOT.
  5. UNITS OF MEASUREMENT SHOWN HEREON ARE IN TERMS OF THE U.S. SURVEY FOOT AND DECIMALS THEREOF.
  6. UTILITIES/FEATURES SHOWN HEREON ARE BASED UPON ABOVE-GROUND, OBSERVED EVIDENCE ONLY.

- GENERAL NOTES:**
1. (E) AS ACCESS ROAD IS OVERGROWN W/ VEGETATION, CONTRACTOR SHALL USE 4-WHEEL DRIVE VEHICLES TO GAIN ACCESS TO SITE.
  2. (E) WATER PIPE SHOWN IN APPROXIMATE LOCATION.

- DEMOLITION NOTES:**
1. REMOVE (E) 100,000 GALLON REDWOOD WATER STORAGE TANK & FOUNDATION COMPLETE. SALVAGE STEEL HOOPS AND REDWOOD RAFTERS, STAVES, AND FLOORING SHALL BE DELIVERED IN TOWN, TO THE OWNER, OFF-LOADED AND STACKED W/ LATHE STICKERS.
  2. REMOVE (E) INLET AND OUTLET PIPING TO THE APPROXIMATE TIE IN LOCATION, LOCATE (N) GV TO PROVIDE ENOUGH LAY LENGTH FOR PIPING IMPROVEMENTS SHOWN ON SHEET M1.0.
  3. REMOVE (E) DRAIN AND OVERFLOW PIPING TO THE LIMITS OF DEMOLITION SHOWN, AND AS NEEDED TO GRADE ACCORDING TO THE TANK SITE PLAN.

DEMOLITION PLAN  
1" = 20'

TANK DEMOLITION DETAIL  
1" = 5'

DATE/REFERENCE ON ORIGINAL DRAWING  
OF  
IF NOT CONFINED ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

REVISIONS		
NO.	DATE	DESCRIPTION



DES: TWJ  
DRN: RT  
CKD: TWJ  
DATE: 2/19/2023  
JOB NO.: 3077.01

SIGNED  
PRELIMINARY  
NOT FOR  
CONSTRUCTION

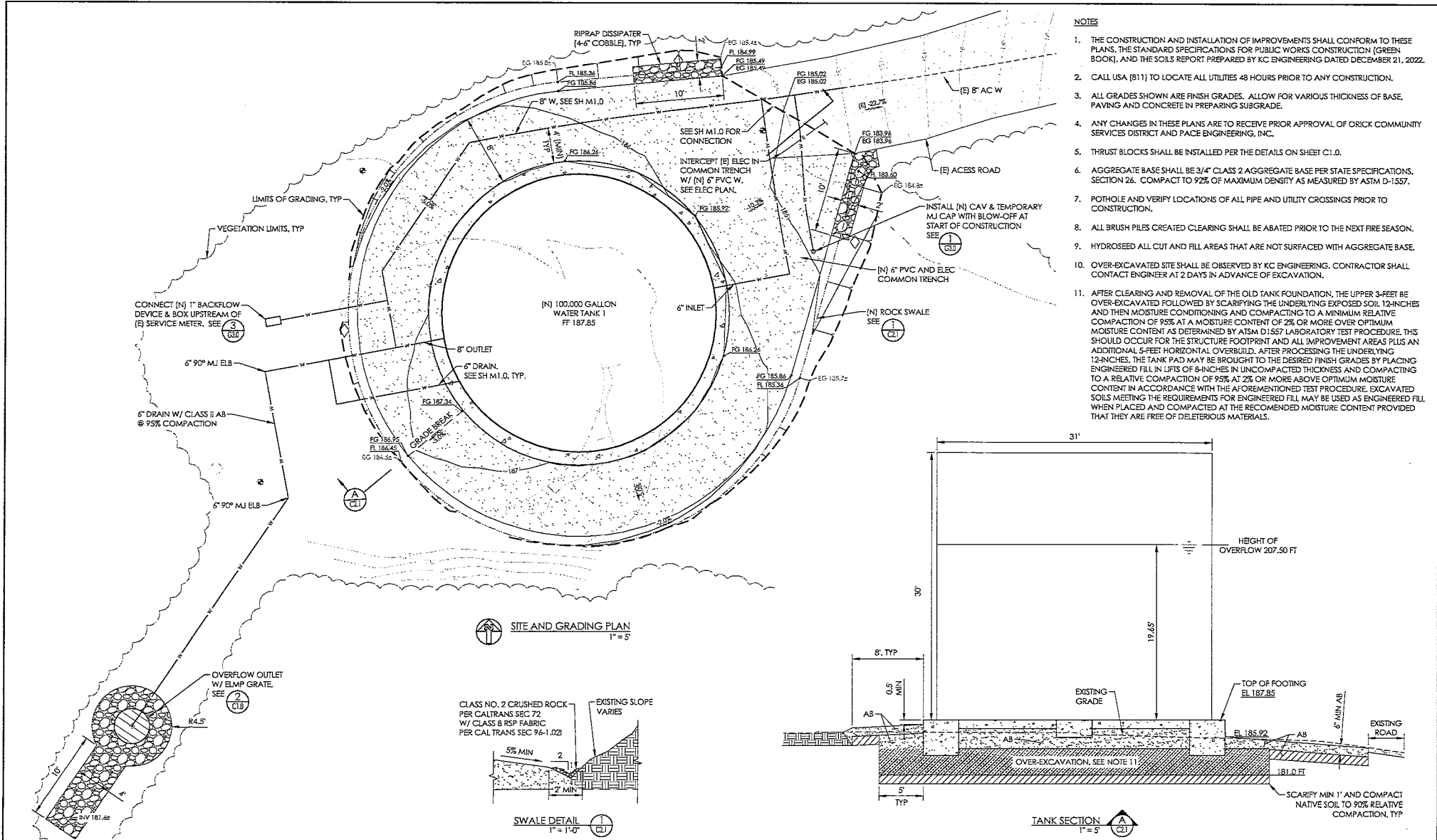
ORICK COMMUNITY SERVICES DISTRICT  
ORICK COMMUNITY TANK REPLACEMENT PROJECT TANK 1 REPLACEMENT

DEMOLITION PLAN

SHEET

C2.0

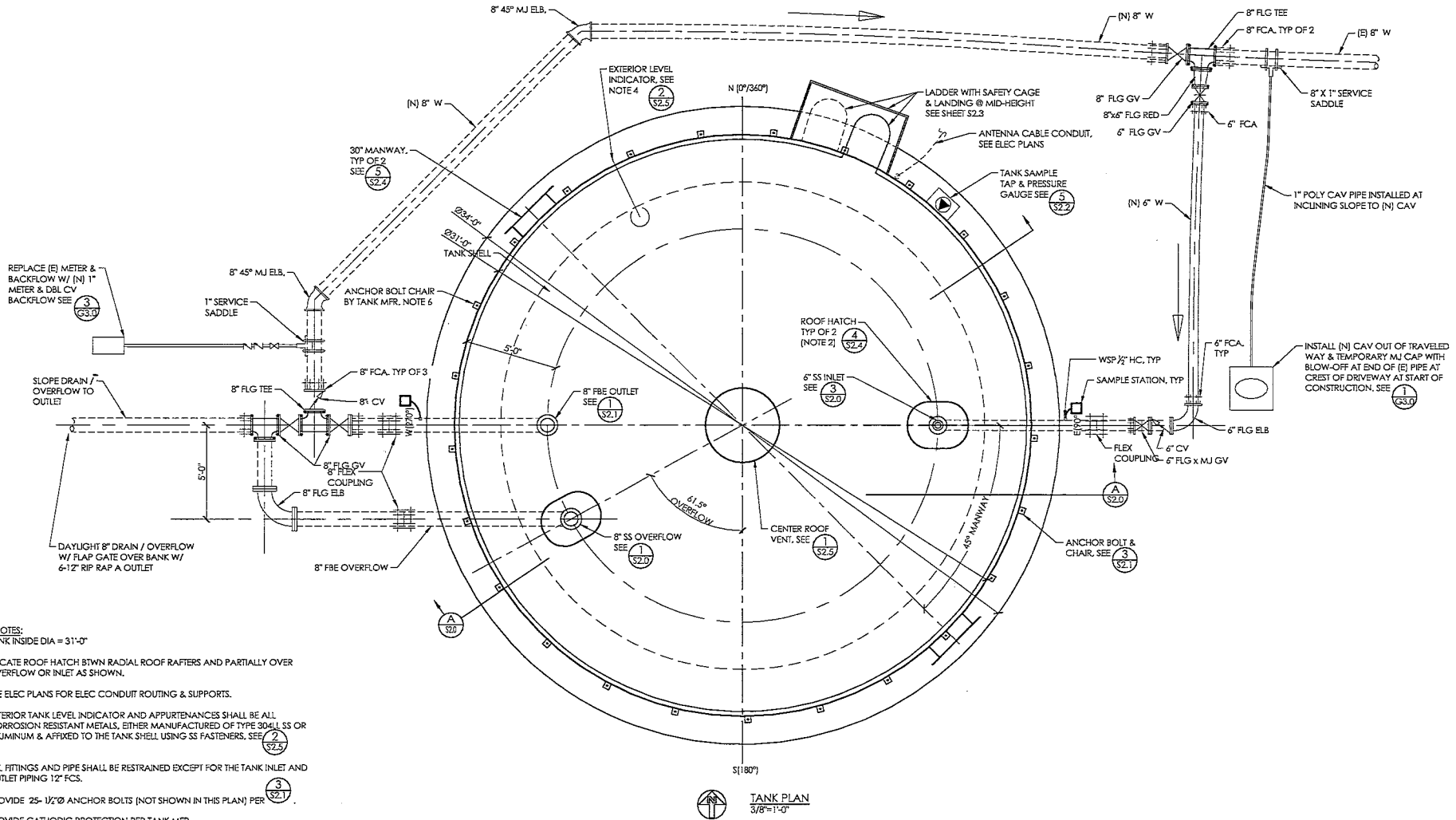
PG 5 OF 23



- NOTES**
1. THE CONSTRUCTION AND INSTALLATION OF IMPROVEMENTS SHALL CONFORM TO THESE PLANS, THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK), AND THE SOILS REPORT PREPARED BY KC ENGINEERING DATED DECEMBER 21, 2022.
  2. CALL USA (811) TO LOCATE ALL UTILITIES 48 HOURS PRIOR TO ANY CONSTRUCTION.
  3. ALL GRADES SHOWN ARE FINISH GRADES. ALLOW FOR VARIOUS THICKNESS OF BASE, PAVING AND CONCRETE IN PREPARING SUBGRADE.
  4. ANY CHANGES IN THESE PLANS ARE TO RECEIVE PRIOR APPROVAL OF ORICK COMMUNITY SERVICES DISTRICT AND PACE ENGINEERING, INC.
  5. THRUST BLOCKS SHALL BE INSTALLED PER THE DETAILS ON SHEET C1.0.
  6. AGGREGATE BASE SHALL BE 3/4" CLASS 2 AGGREGATE BASE PER STATE SPECIFICATIONS, SECTION 26. COMPACT TO 92% OF MAXIMUM DENSITY AS MEASURED BY ASTM D-1557.
  7. POTHOLE AND VERIFY LOCATIONS OF ALL PIPE AND UTILITY CROSSINGS PRIOR TO CONSTRUCTION.
  8. ALL BRUSH PILES CREATED CLEARING SHALL BE ABATED PRIOR TO THE NEXT FIRE SEASON.
  9. HYDROSEED ALL CUT AND FILL AREAS THAT ARE NOT SURFACED WITH AGGREGATE BASE.
  10. OVER-EXCAVATED SITE SHALL BE OBSERVED BY KC ENGINEERING. CONTRACTOR SHALL CONTACT ENGINEER AT 2 DAYS IN ADVANCE OF EXCAVATION.
  11. AFTER CLEARING AND REMOVAL OF THE OLD TANK FOUNDATION, THE UPPER 3- FEET BE OVER-EXCAVATED FOLLOWED BY SCARIFYING THE UNDERLYING EXPOSED SOIL 12-INCHES AND THEN MOISTURE CONDITIONING AND COMPACTING TO A MINIMUM RELATIVE COMPACTION OF 95% AT A MOISTURE CONTENT OF 2% OR MORE OVER OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D1557 LABORATORY TEST PROCEDURE. THIS SHOULD OCCUR FOR THE STRUCTURE FOOTPRINT AND ALL IMPROVEMENT AREAS PLUS AN ADDITIONAL 5- FEET HORIZONTAL OVERBUILD. AFTER PROCESSING THE UNDERLYING 12-INCHES, THE TANK PAD MAY BE BROUGHT TO THE DESIRED FINISH GRADES BY PLACING ENGINEERED FILL IN LIFTS OF 8-INCHES IN UNCOMPACTED THICKNESS AND COMPACTING TO A RELATIVE COMPACTION OF 95% AT 2% OR MORE ABOVE OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH THE AFOREMENTIONED TEST PROCEDURE. EXCAVATED SOILS MEETING THE REQUIREMENTS FOR ENGINEERED FILL MAY BE USED AS ENGINEERED FILL WHEN PLACED AND COMPACTED AT THE RECOMMENDED MOISTURE CONTENT PROVIDED THAT THEY ARE FREE OF DELETERIOUS MATERIALS.

<p>DATE CHANGED ON ORIGINAL DRAWING</p> <p>IF NOT CHANGED ON THIS SHEET, QUOTE SCALES ACCORDINGLY.</p>	<p><b>REVISIONS</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">NO</th> <th style="width: 10%;">DATE</th> <th style="width: 85%;">DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	NO	DATE	DESCRIPTION													<p><b>PACE ENGINEERING</b></p> <p>DVS: JHW    CKD: JHW    JOB NO.             DRW: BT    DATE: 2/10/2023    397/01</p>	<p>SIGNED</p> <p style="writing-mode: vertical-rl; transform: rotate(180deg);">PRELIMINARY NOT FOR CONSTRUCTION</p>	<p>ORICK COMMUNITY SERVICES DISTRICT          ORICK COMMUNITY TANK REPLACEMENT PROJECT TANK 1 REPLACEMENT</p> <p><b>SITE AND GRADING PLAN</b></p>	<p>SHEET</p> <p style="font-size: 2em;"><b>C2.1</b></p> <p>PG 6 OF 23</p>
NO	DATE	DESCRIPTION																		

PL 0204 - February 8, 2023 - 10:51 am - Top View (planview)



- TANK NOTES:**
- TANK INSIDE DIA = 31'-0"
  - LOCATE ROOF HATCH BTWN RADIAL ROOF RAFTERS AND PARTIALLY OVER OVERFLOW OR INLET AS SHOWN.
  - SEE ELEC PLANS FOR ELEC CONDUIT ROUTING & SUPPORTS.
  - EXTERIOR TANK LEVEL INDICATOR AND APPURTENANCES SHALL BE ALL CORROSION RESISTANT METALS, EITHER MANUFACTURED OF TYPE 304L SS OR ALUMINUM & AFFIXED TO THE TANK SHELL USING SS FASTENERS, SEE (2) S2.5
  - ALL FITTINGS AND PIPE SHALL BE RESTRAINED EXCEPT FOR THE TANK INLET AND OUTLET PIPING 12" FCS.
  - PROVIDE 25-1/2" ANCHOR BOLTS (NOT SHOWN IN THIS PLAN) PER (3) S2.1
  - PROVIDE CATHODIC PROTECTION PER TANK MFR, SEE SHEET S2.2.

BAR IS ONE INCH ON ORIGINAL DRAWING  
 0' 1'  
 IF NOT ONE INCH ON THIS SHEET, MUST SCALE ACCORDINGLY.

REVISIONS	
NO	DATE

**PACE ENGINEERING**

DES: TMM / CKD: TMM / JOB NO. 3021-01  
 DRN: BTBMS / DATE: 2/10/2025

SIGNED  
 PRELIMINARY  
 NOT FOR  
 CONSTRUCTION

ORICK COMMUNITY SERVICES DISTRICT  
 ORICK COMMUNITY TANK REPLACEMENT PROJECT TANK 1 REPLACEMENT

**TANK MECHANICAL**

SHEET  
**M1.0**  
 PG 7 OF 23

COPY HERE THROUGH

λ <sub>s</sub> SPLICE LENGTH TABLE (SEE NOTES)														28 DAY DESIGN COMPR STRENGTH			
BAR SIZE	3	4	5	6	7	8	9		10		11		3				
MIN COVER	3/4	3/4	3/4	1	1	1	2	1	2	2 1/2	1	2	3				
SPLICE LENGTH (IN)	TOP BAR	26	34	43	51	61	81	69	146	102	77	185	130	93	227	159	114
	OTHER	20	27	33	39	48	62	53	111	78	59	142	99	71	174	123	87
	TOP BAR	23	31	39	46	55	73	62	131	91	69	166	117	84	204	143	102
	OTHER	18	24	30	35	43	56	47	100	70	53	128	89	64	156	110	78
	TOP BAR	21	28	35	42	50	66	56	119	83	63	151	106	76	185	130	93
	OTHER	16	22	27	32	39	51	43	97	64	48	116	81	58	142	100	71
	TOP BAR	18	24	30	36	43	57	48	103	72	55	131	92	65	160	112	80
	OTHER	16	19	23	28	33	44	37	79	56	42	101	70	50	123	86	62

- NOTES:
- TOP BARS INCLUDE HORIZONTAL BARS IN WALLS, BEAMS, FOOTINGS AND SLABS WITH MORE THAN 12 INCHES OF CONC CAST BELOW THE BAR.
  - SEE PLANS FOR ACTUAL COVER.
  - LAP SPLICE LENGTH SPECIFIED ELSEWHERE ON THE DRAWINGS SHALL GOVERN OVER THIS TABLE.

CONCRETE REINF. SPLICE TABLE 1  
NTS

ADHESIVE ANCHOR INSTALLATION TABLE IN CONCRETE AND CMU													
		HILTI HY - 200 ADH					SIMPSON SET-XP ADH						
ROD/REBAR Ø		3/8	1/2	5/8	3/4	7/8	1	3/8	1/2	5/8	3/4	7/8	1
DRILL BIT Ø	ROD	7/16	9/16	3/4	7/8	1	1 1/8	1/2	5/8	3/4	7/8	1	1 1/8
	REBAR	1/2	5/8	3/4	7/8	1	1 1/8	1/2	5/8	3/4	7/8	1	1 1/8
MAXIMUM ROD INSTALLATION TORQUE (FT-LBS)		15	30	60	100	125	150	10	20	30	45	60	80

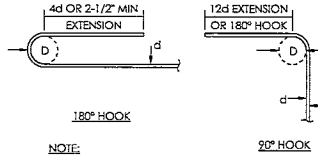
NOTES FOR INSTALLATION IN CONCRETE:

- INSTALLATION SHALL BE IN ACCORDANCE W/ MNFRS EVALUATION REPORT (ICC ESR - 3187 FOR HILTI & ICC ESR - 2508 FOR SIMPSON) & INSTALLATION INSTRUCTIONS.
- SPECIAL INSPECTION IS REQ'D DURING INSTALLATION.
- MINIMUM BOLT EMBEDMENT & EDGE DISTANCE SHALL BE AS SHOWN ON THE DWGS.
- THRD ROD SHALL BE ASTM A36, ASTM F1554 GR 36, OR HILTI HAS - V - 36. WHERE SSTL ANCHORS ARE NOTED ON THE DRAWINGS, USE ASTM A193 GR 88 (TYPE 304SS), OR HILTI HAS - R 304SS.
- EXISTING REINF STEEL SHALL BE LOCATED PRIOR TO ADH ANCHOR INSTALLATION.

NOTES FOR INSTALLATION IN THE FACE OF FULLY GROUTED CMU:

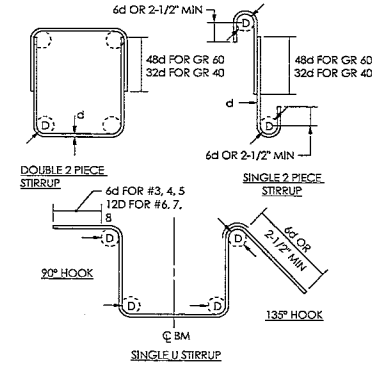
- THE TABLE AND NOTES ABOVE FOR INSTALLATION IN CONCRETE APPLY EXCEPT AS NOTED IN 2 & 3 BELOW
- INSTALLATION SHALL BE IN ACCORDANCE W/ MNFRS EVALUATION REPORT (ICC ESR - 3963 FOR HILTI & LAPMO ER 265 FOR SIMPSON) & INSTALLATION INSTRUCTIONS.
- WHEN USING SIMPSON SET-XP EPOXY IN CMU, ANCHORS SHALL HAVE 4" MINIMUM EDGE AND END DISTANCE AND ANCHORS SHALL NOT BE LOCATED WITH 1 1/2" OF HEAD JOINTS PER MFR INSTRUCTIONS.

ADHESIVE ANCHOR INSTALLATION TABLE 4  
NTS



NOTE:  
D = 6d FOR #3 THRU #8 BARS  
D = 8d FOR #9, 10, 11 BARS

STANDARD REBAR ENDS 2  
NTS



NOTE:  
D = MIN TAILS FOR SEISMIC USE SHALL BE 10d  
D = 4d FOR #3, 4, 5 BARS AND  
D = 6d FOR #6, 7, 8 BARS

3/8" & ONE INCH ON ORIGINAL DRAWING  
IF NOT ONE INCH ON THIS SHEET, ADD STARS ACCORDINGLY

REVISIONS		
NO.	DATE	DESCRIPTION



DES: SPW  
CHK: SPW  
DATE: 2/19/23

JOB NO.: 3027.01

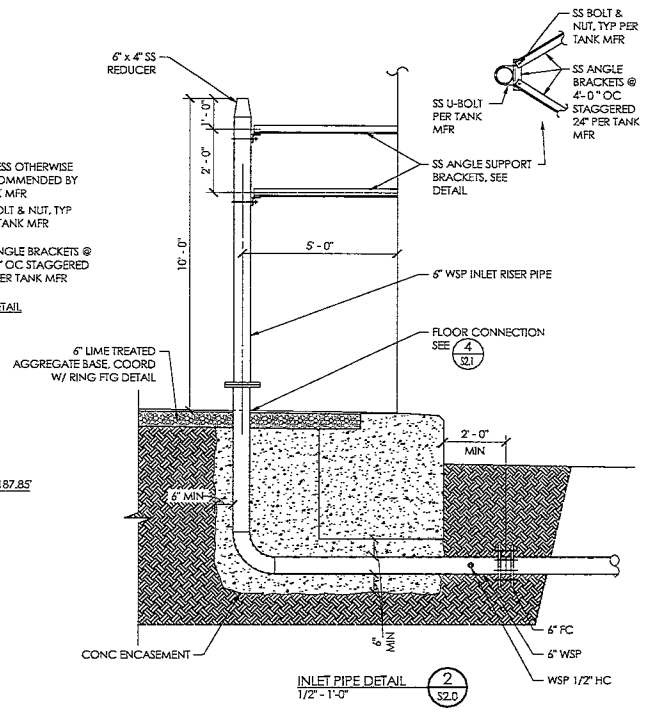
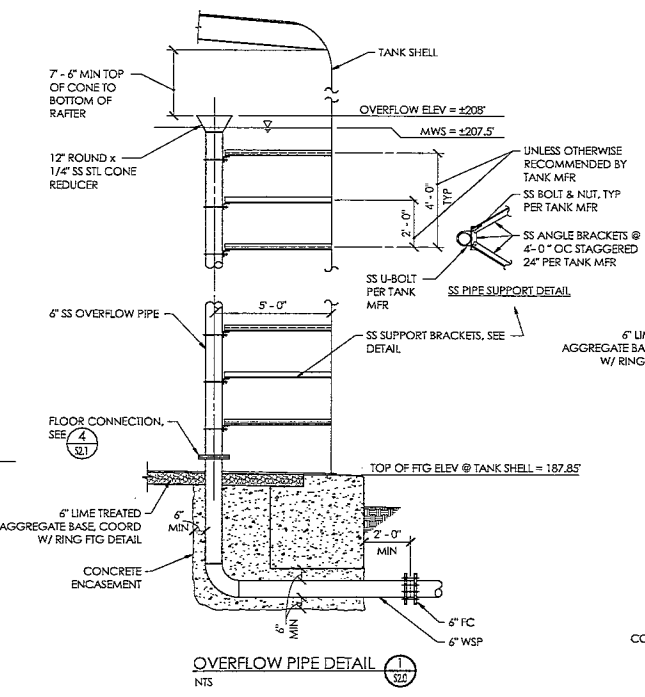
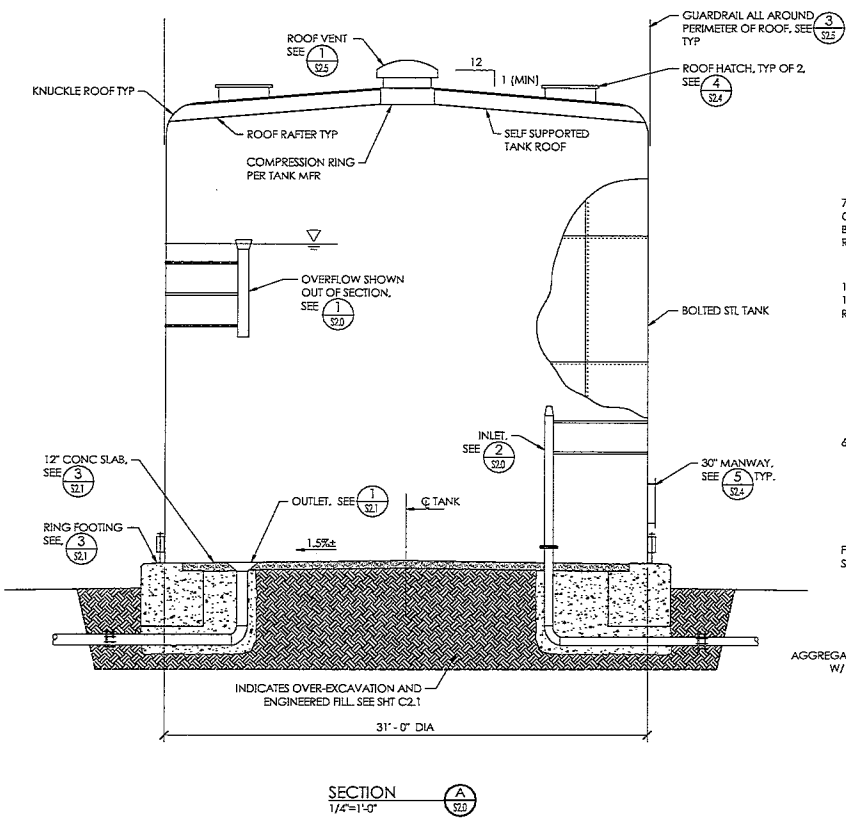
SIGNED  
PRELIMINARY  
NOT FOR  
CONSTRUCTION

ORICK COMMUNITY SERVICES DISTRICT  
WATER SYSTEM IMPROVEMENTS PROJECT TANK 1 REPLACEMENT

TYPICAL DETAILS

SHEET  
S1.0  
PG 8 OF 23





SEE 0.1 ON SHEET FOR ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS		
NO	DATE	DESCRIPTION

**PACE ENGINEERING**

DES: SPW    CKD: SPW    JOB NO: 3027.01

DWN: JF    DATE: 2/10/23

SIGNED

PRELIMINARY NOT FOR CONSTRUCTION

ORICK COMMUNITY SERVICES DISTRICT

WATER SYSTEM IMPROVEMENTS PROJECT TANK 1 REPLACEMENT

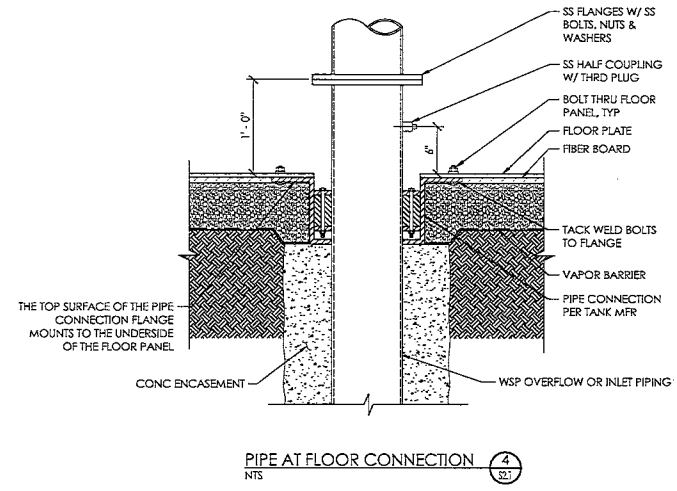
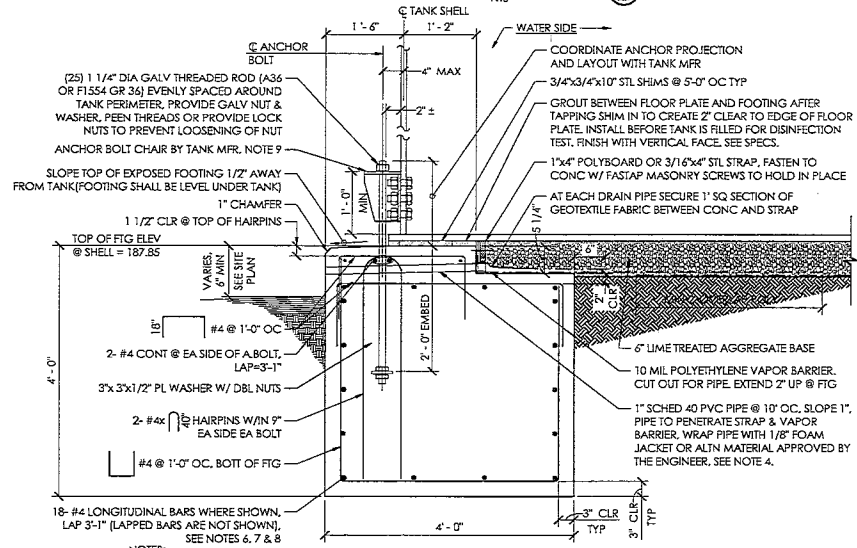
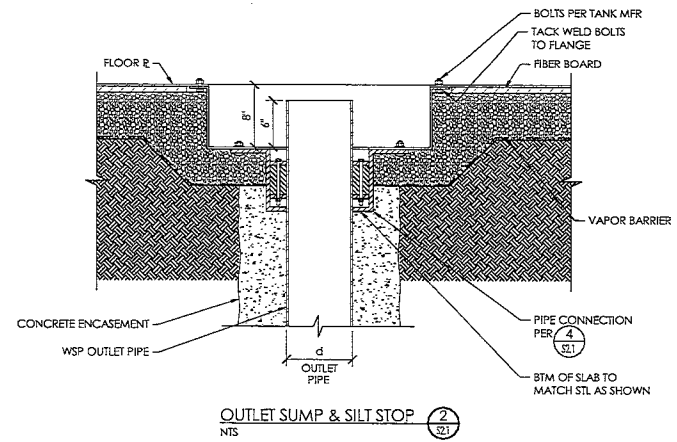
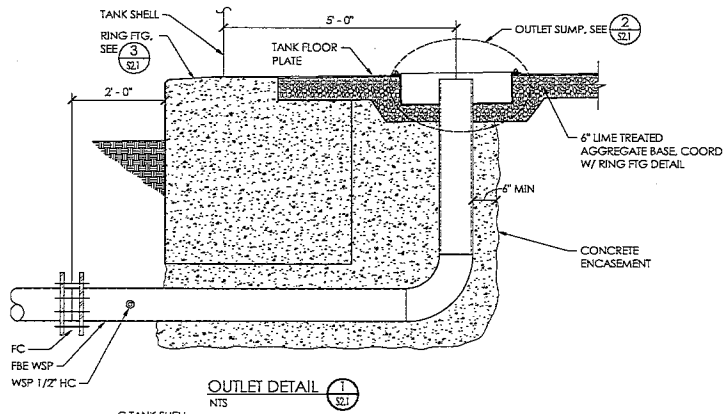
TANK SECTIONS & DETAILS

SHEET

**S2.0**

PG 9 OF 23

7/10/2023 12:20:34 PM - C:\New Local Files\3027.01 - Orick CSD - Tank 1\3027.01\_3\_Orick\_CSD\_Tank\_1\_R16.rvt



- NOTES:**
1. ALL LOOSE MATERIAL SHALL BE REMOVED FROM FOOTING TRENCHES.
  2. ALL FOOTING EXCAVATIONS SHALL BE OBSERVED BY THE ENGINEER PRIOR TO PLACEMENT OF REINFORCING STEEL.
  3. CONCRETE SHALL BE PLACED NEAT BELOW ORIGINAL GRADE.
  4. DRAIN PIPE TO BE FLUSH WITH EXTERIOR FOOTING. AFTER CONIC FOOTING FORMS HAVE BEEN REMOVED, REMOVE FOAM JACKET 3/8" BACK AND FILL ANNULAR SPACE WITH GRAY SIKA-FLEX POLYURETHANE SEALANT.
  5. GEOTECHNICAL ENGINEER TO EVALUATE EXISTING SOIL CONDITIONS PRIOR TO OVER-EXCAVATION AND FILL PLACEMENT AND ALSO AFTER FOOTING TRENCH EXCAVATION.
  6. VERTICAL CLEARANCE BETWEEN LONGITUDINAL BARS SHALL BE 2 BAR DIA MINIMUM.
  7. LONGITUDINAL BAR SPLICES SHALL OCCUR IN ALTERNATE HORIZONTAL ROWS AND SHALL BE STAGGERED HORIZONTALLY (CENTER OF LAP BELOW TO CENTER OF LAP ABOVE) BY A MINIMUM DISTANCE OF 3'-0".
  8. BARS SHALL BE PRE-BENT IN SHOP TO CORRECT RADIUS PRIOR TO INSTALLATION.
  9. ANCHOR BOLTS AND CHAIRS SHALL BE INSTALLED TO AVOID CONFLICT WITH LADDER AND OTHER APPURTENANCES.

**RING FOOTING DETAIL (3)**  
NTS

**PIPE AT FLOOR CONNECTION (4)**  
NTS

3/8" = ONE INCH ON ORIGINAL DRAWING  
0" = 1"  
3/8" = ONE INCH ON THIS SHEET, ABOVE SCALES ACCORDINGLY

REVISIONS		
NO.	DATE	DESCRIPTION

**PACE ENGINEERING**

DES: SPW    CHK: SPW    JCS NCL  
 DRN: JE    DATE: 2/10/23    3027.01

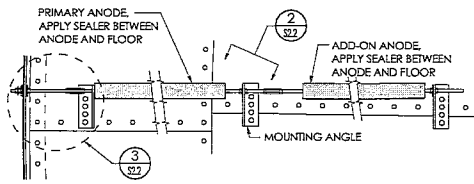
SIGNED  
PRELIMINARY FOR CONSTRUCTION

ORICK COMMUNITY SERVICES DISTRICT  
WATER SYSTEM IMPROVEMENTS PROJECT TANK 1 REPLACEMENT

TANK DETAILS

SHEET  
**S2.1**  
PG 10 OF 23

2/10/2023 12:50:37 PM  
C:\Users\lucifer\OneDrive\Documents\3027.01 - Orick CID - TANK 1\3027.01\_Orick CID\TANK\_1\_R1.rvt

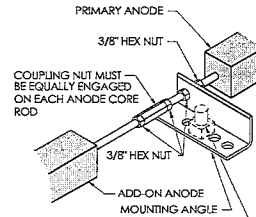


USAGE AQUASTORE STEEL FLOOR FOUNDATION PLAN VIEW OF ANODE IN ASSEMBLED POSITION

NOTES:

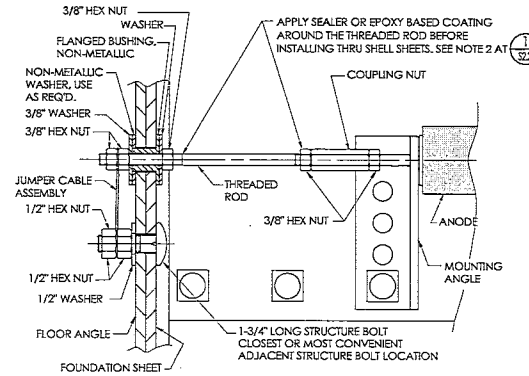
- THIS CONSTRUCTION DETAIL IS INTENDED TO SHOW THE CATHODIC PROTECTION SYSTEM AS INSTALLED. SEE MFR FOR DETAILED INSTALLATION INSTRUCTIONS.
- ALL NSF APPROVED SEALERS AND EPOXY BASED COATINGS USED WHEN INSTALLING THE CATHODIC PROTECTION SYSTEM ARE TO BE SUPPLIED BY THE BUILDER.

CATHODIC PROTECTION DETAIL 1  
NTS

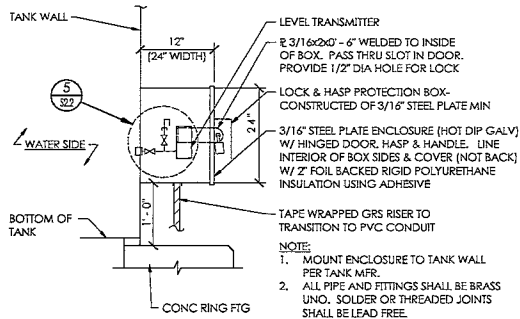


INSTALL ENCAPSULATED NUT AS PROVIDED IN THE AQUASTORE STEEL FLOOR FOUNDATION ASSEMBLY. NOTE: STRUCTURE BOLT IN GLASS FLOOR APPLICATIONS MAY BE FLUSH WITH OR SLIGHTLY BELOW NUT FACE.

CATHODIC PROTECTION DETAIL 2  
NTS

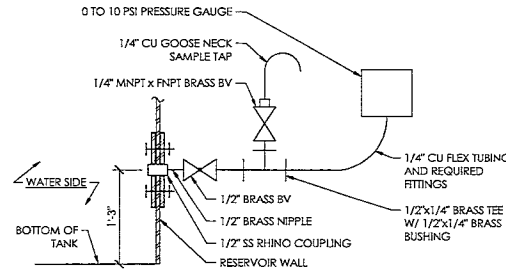


CATHODIC PROTECTION DETAIL 3  
NTS



LEVEL TRANSMITTER 4  
NTS

- NOTE:
- MOUNT ENCLOSURE TO TANK WALL PER TANK MFR.
  - ALL PIPE AND FITTINGS SHALL BE BRASS UNO. SOLDER OR THREADED JOINTS SHALL BE LEAD FREE.



DETAIL 5  
NTS

- NOTE:
- UNIONS TO BE INSTALLED FOR DISASSEMBLY

SEE 1/8" ONE INCH ON ORIGINAL DRAWING  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS		
NO.	DATE	DESCRIPTION



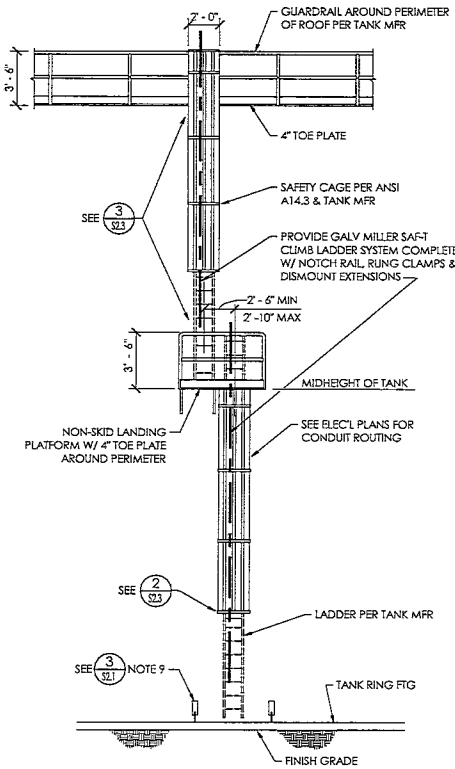
DES: SPW  
DWN: JF  
CRD: SPW  
DATE: 2/10/23  
JOB NO.: 3022.01

SIGNED  
PRELIMINARY  
NOT FOR  
CONSTRUCTION

ORICK COMMUNITY SERVICES DISTRICT  
WATER SYSTEM IMPROVEMENTS PROJECT TANK 1 REPLACEMENT

TANK DETAILS

SHEET  
S2.2  
PG 11 OF 23

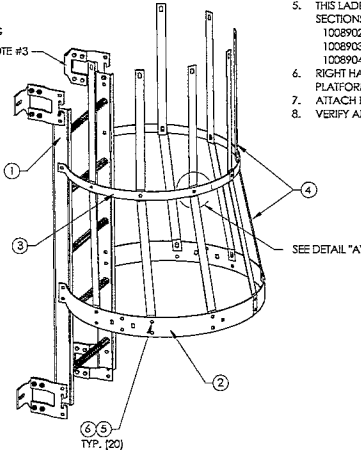


- GENERAL NOTES:**
1. ALL STEEL COMPONENTS ARE HOT DIP GALVANIZED.
  2. FASTEN COMPONENTS TOGETHER USING 1/2" DIA. HEX HD CAP SCREW SETS.
  3. LADDER BRACKET ASSEMBLIES ARE SHOWN FOR REFERENCE ONLY. POSITION OF THE BRACKETS TO BE DETERMINED DURING INSTALLATION. SEE PROJECT SUBMITTAL DOCUMENTATION FOR BRACKET TYPE AND QUANTITY REQUIREMENTS.
  4. THIS LADDER SECTION IS CONNECTED AT THE BOTTOM TO ANY ONE OF THE LADDER SECTIONS ILLUSTRATED ON THE FOLLOWING CONSTRUCTION DETAIL DRAWINGS:  
 1008902 LADDER SECTION - INTERMEDIATE  
 1008903 LADDER SECTION - TOP  
 1008109 LADDER AND PLATFORM SECTION - OPEN TOP  
 1008900 LADDER AND MANWAY PLATFORM SECTION

POSITION ALL FASTENERS SUCH THAT THE CAP SCREW HEAD IS ON THE INSIDE OF THE SAFETY CAGE ASSEMBLY

DETAIL "A"

ITEM	DESCRIPTION	QTY.
7	WASHER, 1/2"	20
6	NUT - 1/2" HEX	20
5	HHCS - 1/2" X 1 1/2" LG	20
4	STRINGER, 22"	14
3	LADDER CAGE HOOP HALF, INTERMEDIATE SINGLE	2
2	LADDER CAGE HOOP HALF, BOTTOM FLARED DOUBLE	2
1	LADDER ASSEMBLY, SHORT	1
-	SHORT BOTTOM LADDER & SAFETY CAGE KIT	-

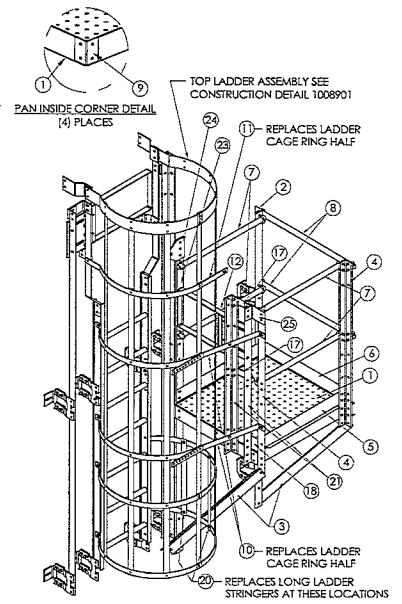


LADDER BOTTOM  
NTS

- GENERAL NOTES:**
1. ALL STEEL COMPONENTS ARE HOT DIP GALVANIZED.
  2. FASTEN COMPONENTS TOGETHER USING 1/2" DIA. HEX HD CAP SCREW SETS. USE 1" U-BOLT SETS TO CONNECT HANDRAILS TO POSTS. FASTENER USAGE FOR ASSEMBLY OF THIS SECTION IS AS FOLLOWS:  
 SET OF 1/2" X 1 1/2" LONG (ITEM #15 AND 22) AT ALL JOINTS EXCEPT HANDRAIL CONNECTIONS.  
 SET OF 1" U-BOLT W/ NUTS & WASHERS (ITEM #13 AND 14) AT HANDRAIL CONNECTIONS TO POSTS.
  3. POSITION OF THE PLATFORM BRACKETS TO BE DETERMINED DURING INSTALLATION. SEE PROJECT SUBMITTAL DOCUMENTATION FOR BRACKET TYPE AND QUANTITY REQUIREMENTS.
  4. ATTACH SAFETY GATE (ITEM #12) AT THE OPEN SIDE OF THE PLATFORM USING THE 5/8" HARDWARE THAT COMES WITH THE SAFETY GATE. POSITION GATE SO THAT IT CAN BE PUSHED TO ACCESS THE PLATFORM FROM THE LADDER AND MUST BE PULLED OPEN TO ACCESS THE LADDER FROM THE PLATFORM.
  5. THIS LADDER SECTION IS CONNECTED AT THE BOTTOM TO ANY ONE OF THE LADDER SECTIONS ILLUSTRATED ON THE FOLLOWING CONSTRUCTION DETAIL DRAWINGS:  
 1008902 LADDER SECTION - INTERMEDIATE  
 1008903 LADDER SECTION - LONG BOTTOM  
 1008904 LADDER SECTION - SHORT BOTTOM
  6. RIGHT HAND PLATFORM MOUNT IS SHOWN. DEPENDENT ON SITE REQUIREMENTS, THE PLATFORM MAY BE MOUNTED ON THE LEFT HAND SIDE OF THE LADDER.
  7. ATTACH PIPE CAPS (ITEM #19) TO EACH HANDRAIL, ONE ON EACH END.
  8. VERIFY ALL QUANTITIES SHOWN.

ITEM	DESCRIPTION	QTY.
25	CORNER POST CLIP	1
24	ANCHOR CLIP	1
23	MANWAY PLATFORM VERTICAL SUPPORT	1
22	WASHER, 1/2"	60
21	HANDRAIL POST, SWING GATE	2
20	STRINGER, 22"	2
19	PIPE CAP	16
18	TOEBOARD, REST PLATFORM OPENING	2
17	HANDRAIL, REST PLATFORM OPENING	2
16	NUT - 1/2" HEX	60
15	HHCS - 1/2" X 1 1/2" LG	60
14	WASHER, 3/8"	32
13	U-BOLT 1" W/ NUTS	16
12	SAFETY GATE, 18"	1
11	CAGE BAND, SHORT	1
10	CAGE BAND, SHORT	2
9	LADDER REST PLATFORM CORNER CLIP	4
8	HANDRAIL - REST PLATFORM, SIDE	2
7	HANDRAIL - REST PLATFORM, FRONT/BACK	4
6	TOEBOARD - REST PLATFORM, SIDE	1
5	TOEBOARD - REST PLATFORM, FRONT/BACK	2
4	HANDRAIL - REST PLATFORM	2
3	TOP PLATFORM DIAGONAL SUPPORT	2
2	MANWAY PLATFORM VERTICAL SUPPORT	1
1	REST PLATFORM PAN	1
-	MANWAY PLATFORM KIT	-

LADDER TOP & PLATFORM  
NTS



NOTE:  
IF DISTANCE FROM TOP OF FIG TO TOP OF TANK IS LESS THAN 30', LANDING PLATFORM IS NOT REQUIRED.

ELEVATION  
1/4" = 1'-0"

SCALE: 1/4" = 1'-0"  
IF NOT ONE INCH ON THIS SHEET, QUOTE SCALES ACCORDINGLY

REVISIONS		
NO.	DATE	DESCRIPTION

**PACE ENGINEERING**

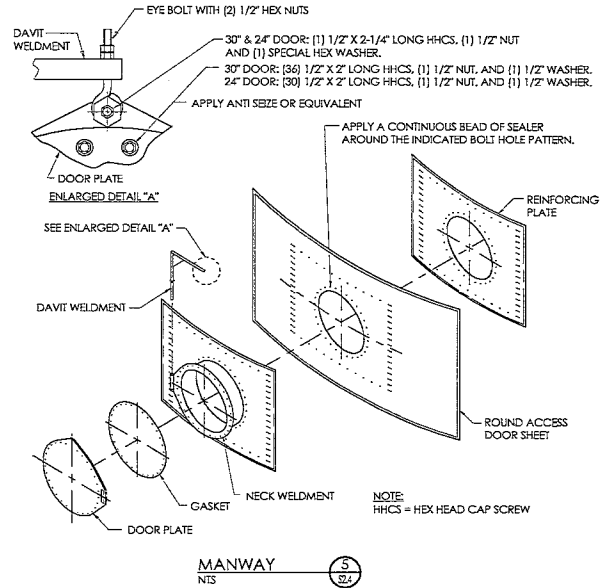
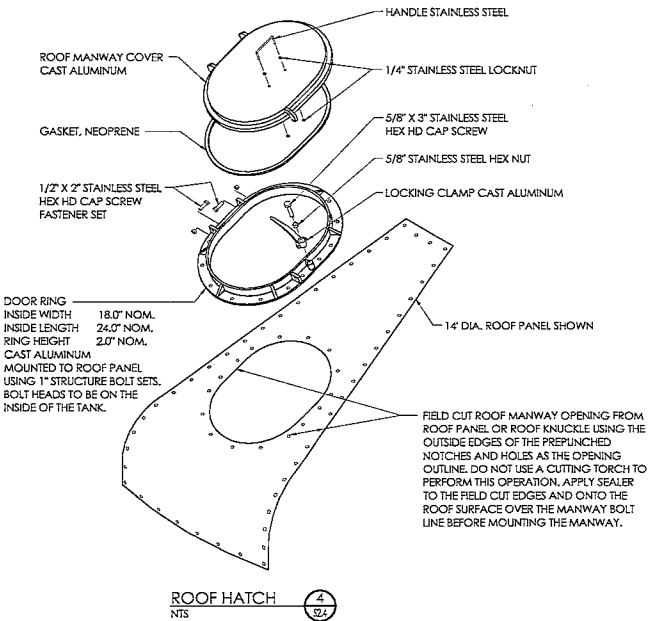
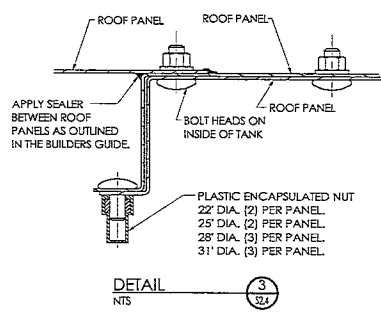
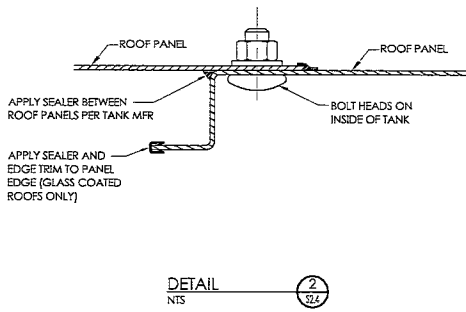
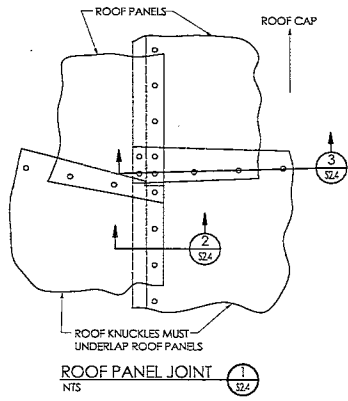
EST. SPW: DRY #  
 CRED. SPW: DATE: 2/10/23  
 JOB NO.: 3822.01

SIGNED  
PRELIMINARY NOT FOR CONSTRUCTION

ORICK COMMUNITY SERVICES DISTRICT  
 WATER SYSTEM IMPROVEMENTS PROJECT TANK 1 REPLACEMENT

TANK DETAILS

SHEET  
**S2.3**  
 PG. 12 OF 23



1/8" = 1" ONE INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS		
NO.	DATE	DESCRIPTION

**PACE ENGINEERING**

DES: SPW    CKD: SPW    JCS NO. 3027.01  
 DRN: JF    DATE: 2/10/23

SIGNED

PRELIMINARY NOT FOR CONSTRUCTION

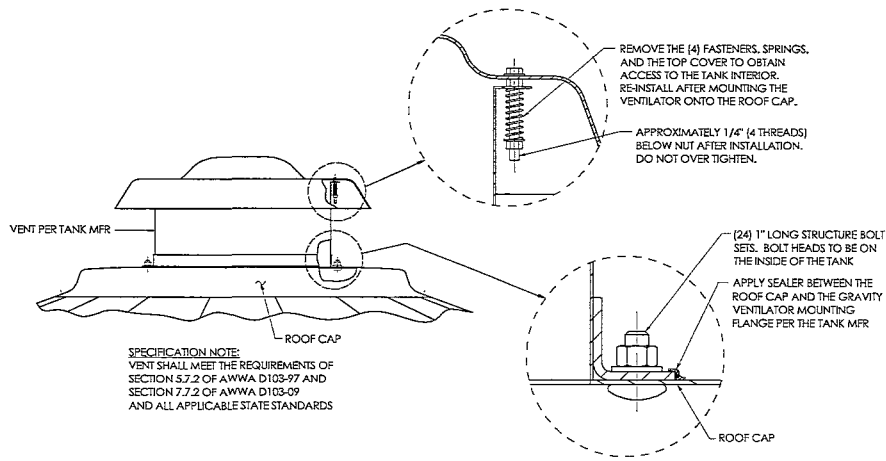
ORICK COMMUNITY SERVICES DISTRICT  
 WATER SYSTEM IMPROVEMENTS PROJECT TANK 1 REPLACEMENT

TANK DETAILS

SHEET

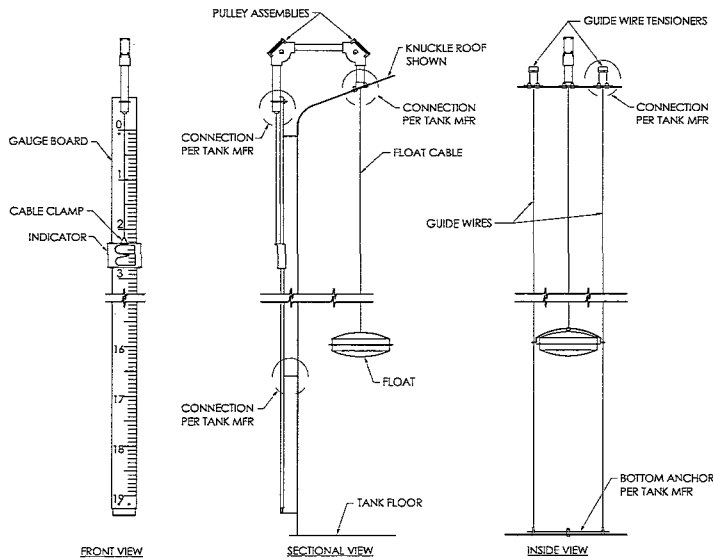
**S2.4**

PG 13 OF 23

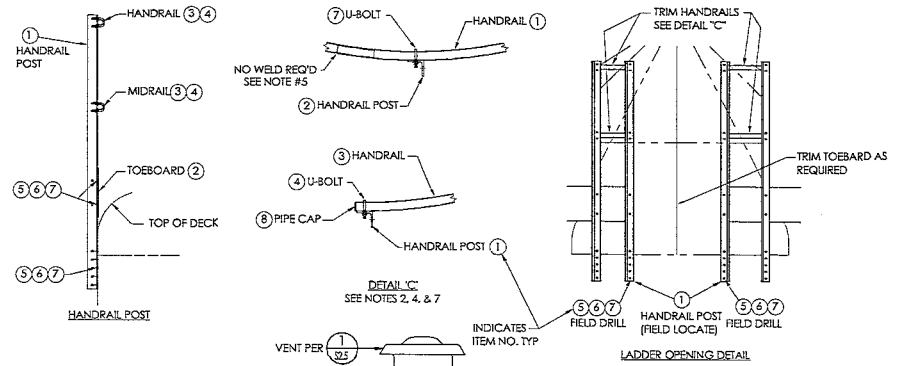


GRAVITY VENTILATOR GENERAL CONSTRUCTION:  
HOUSING COVER AND SUPPORT MEMBERS - ALUMINUM  
INSECT SCREEN - 23 TO 25 MESH .0135"/.0145" DIA. POLYESTER MONOFILAMENT WIRE  
BIRD SCREEN - .063 THICK ALUMINUM, .5 X .75 EXPANDED MESH

VENT DETAIL 1  
NTS



LEVEL INDICATOR DETAIL 2  
NTS



NOTES:

- THIS PERIMETER GUARDRAIL SHALL BE DESIGNED BY THE TANK MFR TO COMPLY WITH OSHA/CALOSHA REQUIREMENTS, UNO.
- THIS PERIMETER GUARDRAIL IS DESIGNED AS CONTINUOUS RAILING. ALL OPENINGS IN GUARDRAIL SHALL BE FIELD CUT.
- DO NOT TIGHTEN U-BOLTS UNTIL GUARDRAIL IS COMPLETELY POSITIONED.
- DO NOT CUT RAILING UNTIL AFTER ENTIRE RAIL IS POSITIONED IN THE U-BOLTS. DO NOT POSITION SPLICED PORTION OF RAILING AT U-BOLT.
- SPLICES ARE ACCOMPLISHED BY INSERTING THE SWAGED END OF RAIL INTO THE LARGER OPEN END OF RAILING.
- PIPE CAPS USED AT OPENINGS WILL NOT FIT SWAGED END OF PIPE.

CAP END 1-1/4" POP ON PLASTIC	(8)
HEX NUT, 1/2"	(7)
WASHER, FLAT 1/2"	(6)
STRUCTURE BOLT, 1-1/4"	(5)
U-BOLT, 1"	(4)
HANDRAIL SECTION	(3)
TOEBOARD SECTION	(2)
HANDRAIL POST	(1)
PERIMETER HANDRAIL ASSY-KNUCKLE	-
DESCRIPTION	ITEM

PERIMETER GUARDRAIL 3  
NTS

REVISIONS		
NO.	DATE	DESCRIPTION



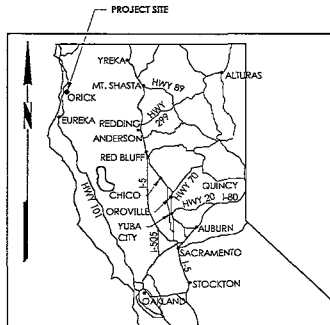
DES: SPW  
CYD: SPW  
DATE: 2/10/23  
JOB NO.: 3027.01

SIGNED  
PRELIMINARY  
NOT FOR  
CONSTRUCTION

ORICK COMMUNITY SERVICES DISTRICT  
WATER SYSTEM IMPROVEMENTS PROJECT TANK 1 REPLACEMENT

TANK DETAILS

SHEET  
S2.5  
PG. 14 OF 23



LOCATION MAP  
N.T.S.

ELECTRICAL SYMBOLS	
LINE TYPES AND SYMBOLS	CONDUIT EXPOSED
	CONDUIT CONCEALED or RURED
	INDICATES FIRE RATED WALL
	CONDUIT UP
	CONDUIT DOWN
	LA-2 HOME RUN DESTINATION SHOWN
	TICK MARKS W/BARS INDICATES NUMBER OF #10 CONDUCTORS WITH #10 GROUND
	TICK MARKS WITHOUT BARS INDICATES NUMBER OF #12 CONDUCTORS WITH #12 GROUND
	"1" INDICATES 0-10V DIMMING CABLE. "2E" INDICATES CATSE CABLE. "C2" INDICATES 0-10V DIMMING AND COLOR TUNING CABLE.
TICK MARKS	JUNCTION BOX
	CONNECTION POINT (CONTRACTOR SHALL DETERMINE CONNECTION CONFIGURATION)
	LOW VOLTAGE DEVICE BOX
	DUPLEX RECEPTACLE
	QUADRUPLX RECEPTACLE
	CONTROLLED SPLIT DUPLEX RECEPTACLE
	QUADRUPLX RECEPTACLE: [1] CONTROLLED SPLIT DUPLEX RECEPTACLE, [1] DUPLEX RECEPTACLE
	SINGLE OR THREE PHASE RECEPTACLE. SEE PLAN SHEETS TYPE PER LOCATION
	FLOOR BOX
	PULLBOX
DEVICES, NOTES AND TERMINATIONS	FUSED DISCONNECT
	NON-FUSED DISCONNECT
	MAJOR ELECTRICAL COMPONENT OR DEVICE NAME OR IDENTIFYING SYMBOL AS SHOWN
	SURFACE MOUNT PANELBOARD
	FLUSH MOUNT PANELBOARD
	BIOTHERMIC WELD, TERMINATION OR SPICE POINT
	GROUND ROD
	GROUNDING ELECTRODE
	CIRCUIT BREAKER
	CURRENT TRANSFORMER, NUMBER INDICATED
EQUIPMENT	INDICATES INTERCONNECTION OF PATHWAYS AND/OR CONDUCTORS. E.G., 4C-4#501 143G (MSB - PNL A)
	INDICATES CONDUIT AND CONDUCTORS ROUTED FROM THE MAIN SWITCHBOARD TO PANELBOARD A.
	SPECIFICATION NUMBER REFERENCE TAG. CONFORMANCE TO PROJECT SPECIFICATIONS IS REQUIRED, WHERE TAGS ARE SHOWN ON THE DRAWINGS. IT IS THE ENGINEER'S INTENT TO RAISE ADDITIONAL AWARENESS TO PRODUCTS OR EXECUTION METHODS THAT ARE CRITICAL, ATYPICAL OR NOT EXPRESSLY DETAILED ON THE DRAWINGS.
ANIMATION	

ELECTRICAL ABBREVIATIONS	
A	-AMMETER, AMPERE
AC	-ALTERNATING CURRENT
ACH	-ASIDE COUNTER HEIGHT
AFCI	-ARC FAULT CIRCUIT INTERRUPT
AFF	-ABOVE FINISHED FLOOR OR GRADE
AFC	-AMPS INTERRUPTING CAPACITY
AL	-ALUMINUM
ATS	-AUTOMATIC TRANSFER SWITCH
BGS	-BUILDING GROUND ELECTRODE SYSTEM
BRKR	-BREAKER
BOD	-BOTTOM OF DEVICE
C or COND	-CONDUIT
CEC	-CALIFORNIA ELECTRIC CODE
CCT	-CIRCUIT
CCD	-CENTER OF DEVICE
CR	-CONTROLLED RECEPTACLE
CT	-CURRENT TRANSFORMER
DC	-DIRECT CURRENT
EX or EXIST	-EXISTING
ESCR	-ELECTRICAL ENGINEER OF RECORD
ECC	-EQUIPMENT GROUNDING CONDUCTOR
ENC	-ENCLOSURE
FT	-FUTURE
G	-EQUIPMENT GROUNDING CONDUCTOR
GGC	-GROUNDING ELECTRODE CONDUCTOR
GFCI	-GROUNDING FAULT CIRCUIT INTERRUPT
GND	-GROUND
J	-JUNCTION BOX
LIG	-LIGHTING
M3J	-MAIN BONDING JUMPER
MCS	-MAIN CIRCUIT BREAKER
MFR	-MANUFACTURER
MLO	-MAIN LUG ONLY
MOC	-MAXIMUM OVERCURRENT PROTECTION
MSB	-MAIN SWITCH BOARD
MIS	-MANUAL TRANSFER SWITCH
NEC	-NATIONAL ELECTRIC CODE
NEMA	-NATIONAL ELECTRIC MANUFACTURER'S ASSOCIATION
N	-NEUTRAL
NI	-NEW
OFCT	-OWNER FURNISHED, CONTRACTOR INSTALLED
OFOR	-OWNER FURNISHED, OWNER INSTALLED
PB	-PULLBOX
PNL	-PANELBOARD
RFOT	-RECEPTACLE
SWBD	-SWITCHBOARD
SBJ	-SYSTEM BONDING JUMPER
SSBJ	-SUPPLY SIDE BONDING JUMPER
T	-THERMOSTAT OR TEE CONDUIT
TD	-TOP OF DEVICE
T	-TAMPER
TP	-TYPICAL
V	-VOLTMETER, VOLT
W	-WAIT
WW	-WIREWAY
WIP	-WEATHERPROOF (NEMA 3R)
XFR	-TRANSFORMER

COMPLY WITH APPLICABLE CODES	
#	CODE
1.	2021 NFPA 50: FLAMMABLE AND COMBUSTIBLE LIQUIDS.
2.	2021 NFPA 52: STATIONARY GASES.
3.	2021 NFPA 54: FUEL GAS CODE.
4.	2021 NFPA 56: LIQUID PETROLEUM GAS.
5.	2022 NFPA 72: FIRE ALARM AND SIGNALING CODE.
6.	2022 NFPA 110: EMERGENCY AND STANDBY POWER.
7.	2022 NFPA 111: STANDBY POWER SYSTEMS.
8.	2022 CALIFORNIA BUILDING CODE.
9.	2022 CALIFORNIA ELECTRIC CODE.
10.	2022 CALIFORNIA ENERGY CODE.
11.	2022 CALIFORNIA FIRE CODE.

BAR IS ONE INCH ON ORIGINAL DRAWING  
0" = 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

REVISIONS		
NO.	DATE	DESCRIPTION

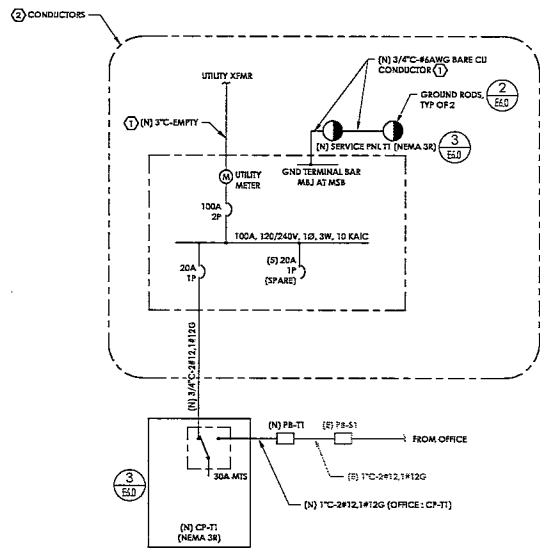
DES: S8d CKD: TS JOB NO. 3022.01  
DRN: BW DATE: 2/10/23

SIGNED  
PRELIMINARY  
NOT FOR  
CONSTRUCTION

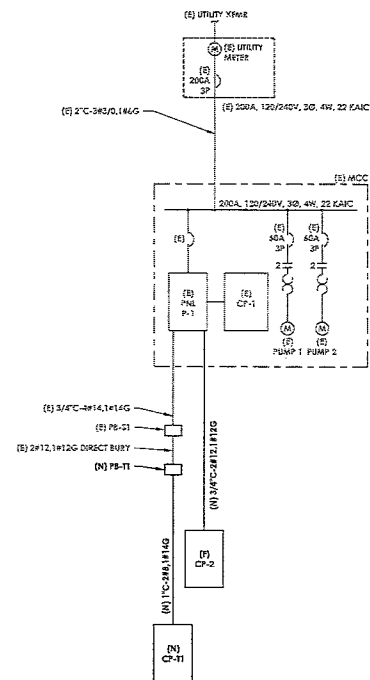
ORICK COMMUNITY SERVICES DISTRICT  
WATER SYSTEM IMPROVEMENTS PROJECT TANK 1 REPLACEMENT  
ELECTRICAL SYMBOLS & ABBREVIATIONS

SHEET  
**E1.0**  
PG 15 OF 23

KEYNOTES	
(N)	NOTE
1. PROVIDE AND INSTALL IN ACCORDANCE WITH PG&E REQUIREMENTS.	
2. ALL WORK HEREIN PERTAINS TO BID ITEM NO. 10.	



CONDUCTORS - ONE-LINE DIAGRAM 2  
E2.0



OFFICE/TANK 1 - ONE-LINE DIAGRAM 1  
E2.0

(E) PANEL		P-1		120/240 SINGLE		AIC RATING		10,000					
LOCATION	BLEC ROOM	VOLTS	WIRES	BUS RATING	CIRCUITS	MAIN BREAKER		225 A					
MOUNTING TYPE	SURFACE	(LABEL PANELBOARDS ACCORDING TO NAMING CONVENTIONS LISTED IN ELECTRICAL SPECIFICATIONS)											
ENCLOSURE TYPE	NEMA 1												
CKT	HOME RUN	LOAD NAME	TRIP	INT TYPE	A	B	A	B	INT TYPE	TRIP	LOAD NAME	HOME RUN	CKT
1	(E)	(E) EXTERIOR LIGHTING	20 A		500 VA		500 VA	500 VA		20 A	(E) INTERIOR LIGHTING & VENT FAN	(E)	2
3	(E)	(E) LOAD/(E) LOAD	20 A		500 VA	500 VA	500 VA	500 VA		20 A	(E) INTERIOR RCPTS	(E)	4
5	(E)	(E) CONTROL/ALARM	15 A		500 VA		500 VA	500 VA		20 A	(E) OFFICE LOAD	(E)	6
7		SPACE	-		-	-	500 VA	500 VA		30 A	(E) OFFICE LOAD	(E)	8
9		SPACE	-		-	-	500 VA	500 VA		30 A	(E) OFFICE LOAD	(E)	10
11	(N) 2#12,1#12G	(N) TANK 1	20 A		1200 VA		-	-		-	SPACE	(E)	12
					PHASE A		PHASE B		Notes: *SPLIT BREAKER				
					TOTAL LOAD (VA)		2500 VA		2700 VA				
					TOTAL LOAD (AMPS)		21		23				

SCALE IS ONE INCH ON ORIGINAL DRAWING  
0" = 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

REVISIONS		
NO.	DATE	DESCRIPTION

**PACE ENGINEERING**

DES: SBo CKD: IS JOB NO.: 3027.01  
DRN: SW DATE: 2/10/23

SIGNED  
PRELIMINARY  
NOT FOR  
CONSTRUCTION

ORICK COMMUNITY SERVICES DISTRICT  
WATER SYSTEM IMPROVEMENTS PROJECT TANK 1 REPLACEMENT  
OFFICE/TANK 1 - ONE-LINE DIAGRAMS

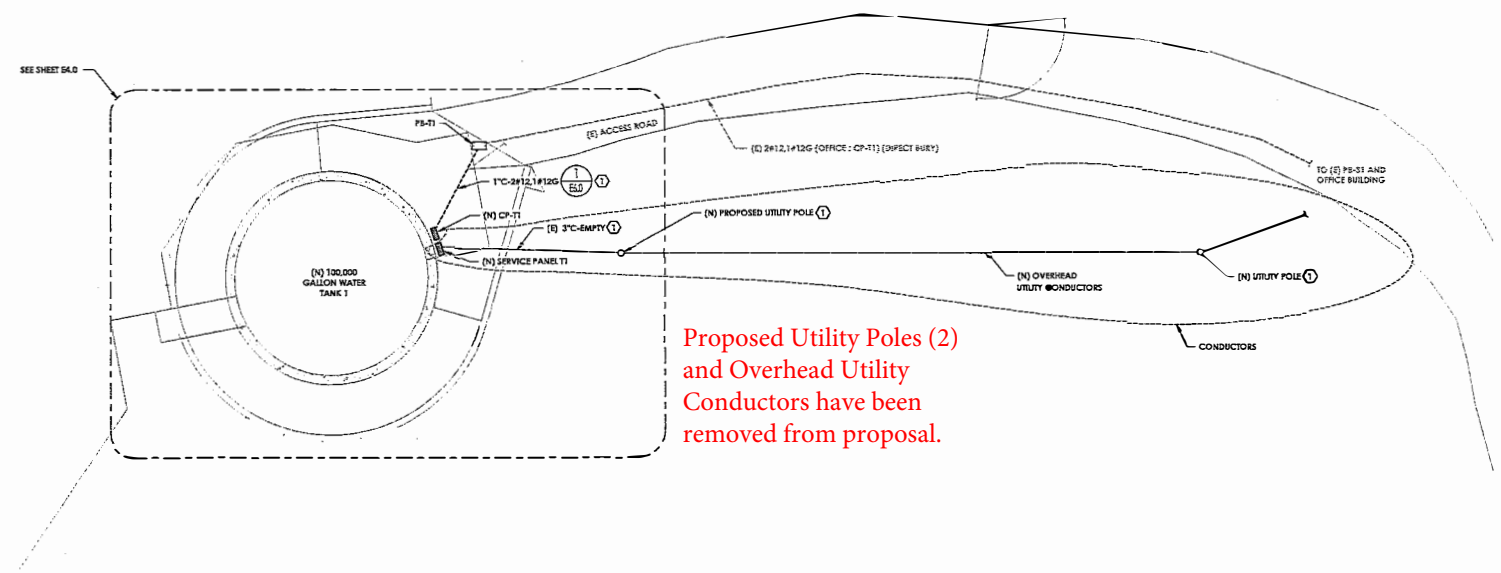
SHEET  
**E2.0**  
PG 16 OF 23

C:\Users\lucost\OneDrive\Documents\E\_Civil\CSIL\WSP\G01\0221.dwg



KEYNOTES	
(N)	NOTE
1. PROVIDE AND INSTALL IN ACCORDANCE WITH PG&E REQUIREMENTS. SEE PG&E UTILITY DESIGN PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY COORDINATION, INSTALLATION AND CONSTRUCTION FEES RELATED TO THE UTILITY. 2. INTERCEPT EXISTING CONDUCTORS WITH NEW PULLBOX SHOWN. CONTRACTOR SHALL FIELD LOCATE INTERCEPTION POINT SO AS TO MINIMIZE NEW UNDERGROUND CONDUIT/CONDUCTOR LENGTHS.	

GENERAL NOTES	
(#)	NOTE
1. CONTRACTOR SHALL HAVE THE NEW INSTRUMENTATION INSTALLED PRIOR TO THE DEMOLITION OF ANY INSTRUMENTATION AT THE TANK SITE.	



TANK 1 - ELECTRICAL SITE PLAN  
1" = 10'-0"

BAR IS ONE INCH ON ORIGINAL DRAWING  
0" 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS		
NO.	DATE	DESCRIPTION

**PACE ENGINEERING**

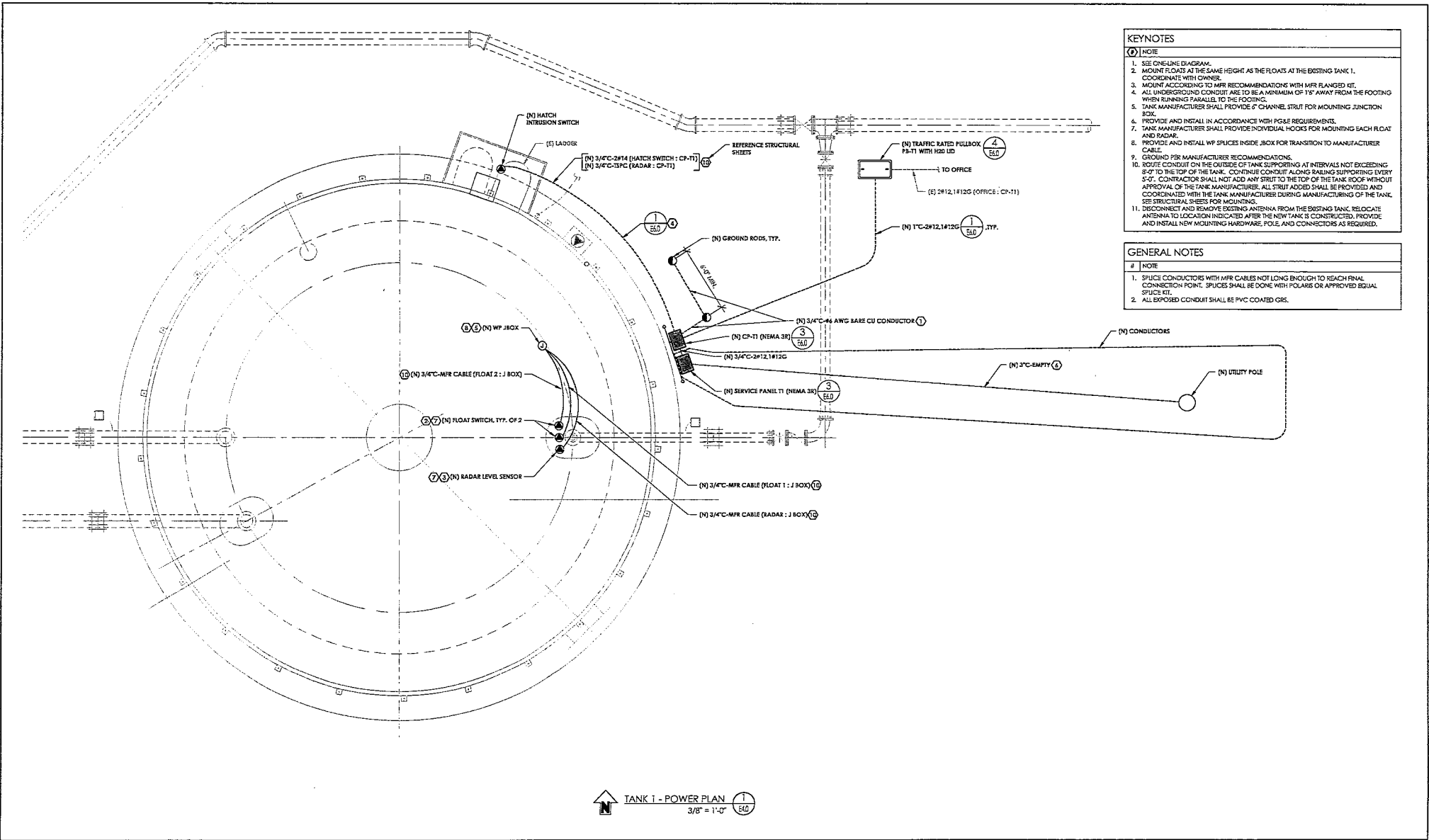
DES: sbc CKD: TB JOB NO. \_\_\_\_\_  
 DRN: BW DATE: 2/18/23 3022.01

SIGNED \_\_\_\_\_  
 PRELIMINARY NOT FOR CONSTRUCTION

ORICK COMMUNITY SERVICES DISTRICT  
 WATER SYSTEM IMPROVEMENTS PROJECT TANK 1 REPLACEMENT  
**TANK 1 - ELECTRICAL SITE PLAN**

SHEET  
**E3.0**  
 PG. 17 OF 23

C:\Revit\location\1307201\_E\_0162\_C162\_1\PROJECT\_1827.rvt



- KEYNOTES**
- (N) NOTE
- SEE ONE-LINE DIAGRAM.
  - MOUNT FLOATS AT THE SAME HEIGHT AS THE FLOATS AT THE EXISTING TANK 1. COORDINATE WITH OWNERS.
  - MOUNT ACCORDING TO MFR RECOMMENDATIONS WITH MFR FLANGED KIT.
  - ALL UNDERGROUND CONDUIT ARE TO BE A MINIMUM OF 18" AWAY FROM THE FOOTING WITH RUNNINGS PARALLEL TO THE FOOTING.
  - TANK MANUFACTURER SHALL PROVIDE 6" CHANNEL STRUT FOR MOUNTING JUNCTION BOX.
  - PROVIDE AND INSTALL IN ACCORDANCE WITH PG&E REQUIREMENTS.
  - TANK MANUFACTURER SHALL PROVIDE INDIVIDUAL HOOKS FOR MOUNTING EACH FLOAT AND RADAR.
  - PROVIDE AND INSTALL WP SPICES INSIDE .JBOX FOR TRANSITION TO MANUFACTURER CABLE.
  - GROUND PER MANUFACTURER RECOMMENDATIONS.
  - ROUTE CONDUIT ON THE OUTSIDE OF TANK SUPPORTING AT INTERVALS NOT EXCEEDING 8'-0" TO THE TOP OF THE TANK. CONTINUE CONDUIT ALONG RAILING SUPPORTING EVERY 5'-0". CONTRACTOR SHALL NOT ADD ANY STRUT TO THE TOP OF THE TANK ROOF WITHOUT APPROVAL OF THE TANK MANUFACTURER. ALL STRUT ADDED SHALL BE PROVIDED AND COORDINATED WITH THE TANK MANUFACTURER DURING MANUFACTURING OF THE TANK. SEE STRUCTURAL SHEETS FOR MOUNTING.
  - DISCONNECT AND REMOVE EXISTING ANTENNA FROM THE EXISTING TANK. RELOCATE ANTENNA TO LOCATION INDICATED AFTER THE NEW TANK IS CONSTRUCTED. PROVIDE AND INSTALL NEW MOUNTING HARDWARE, POLE, AND CONNECTORS AS REQUIRED.

- GENERAL NOTES**
- # NOTE
- SPlice CONDUCTORS WITH MFR CABLES NOT LONG ENOUGH TO REACH FINAL CONNECTION POINT. SPICES SHALL BE DONE WITH POLARIS OR APPROVED EQUAL SPICE KIT.
  - ALL EXPOSED CONDUIT SHALL BE PVC COATED GRB.

TANK 1 - POWER PLAN  
3/8" = 1'-0"

BASE IS ONE INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS		
NO.	DATE	DESCRIPTION

**PACE ENGINEERING**

DES: 880 CKD: TS JOB NO. 3027.01  
DRN: BW DATE: 2/10/23

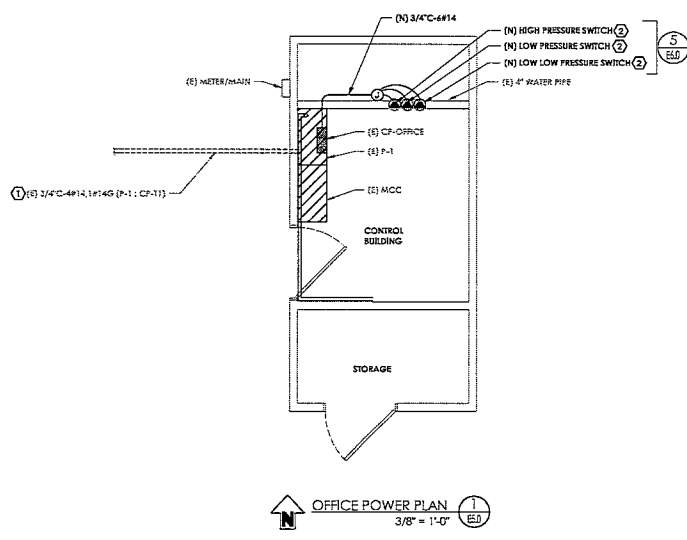
SIGNED  
PRELIMINARY  
NOT FOR  
CONSTRUCTION

ORICK COMMUNITY SERVICES DISTRICT  
WATER SYSTEM IMPROVEMENTS PROJECT TANK 1 REPLACEMENT  
**TANK 1 POWER PLAN**

SHEET  
**E4.0**  
PG 18 OF 23  
2/10/2023 12:26:41 PM

C:\New1\user\pax\3027.01\_E-0401\_C15L\_BWINGSHL\_022.rvt

KEYNOTES	
(N)	NOTE
1.	DISCONNECT CONDUCTORS FROM RECEPTACLE AND RECONNECT CONDUCTORS TO PANEL P1 CXT #11.
2.	REFERENCE MECHANICAL DETAIL FOR INSTALLATION OF PRESSURE SWITCH AND SUPPORTING EQUIPMENT.



OFFICE POWER PLAN  
3/8" = 1'-0" (E5)

BASE ONE INCH ON ORIGINAL DRAWING  
0' 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS		
NO	DATE	DESCRIPTION

**PACE ENGINEERING**

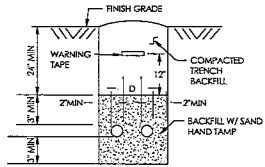
DES: BBo CKD: JS JOB NO.:  
DRN: BW DATE: 2/16/23 3277.01

SIGNED  
PRELIMINARY  
NOT FOR  
CONSTRUCTION

ORICK COMMUNITY SERVICES DISTRICT  
WATER SYSTEM IMPROVEMENTS PROJECT TANK 1 REPLACEMENT  
**OFFICE POWER PLAN**

SHEET  
**E5.0**  
PG 19 OF 23  
2/16/2023 12:04:41 PM

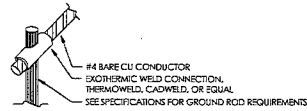
C:\Users\lucio\OneDrive\Documents\2023\01\_E-Orick\_CSD\_BWR\ETG\2221.rvt



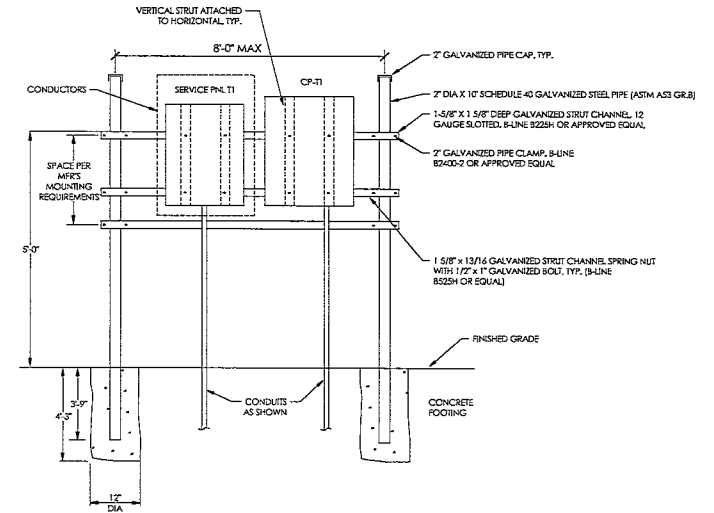
**NOTES:**

1. D=3" MIN FOR 2" AND LARGER CONDUIT
2. D=2" MIN FOR 1 1/2" AND SMALLER CONDUIT
3. CONDUIT DEPTH FOR LESS THAN 4 RACEWAYS PER TRENCH
4. DUCT RUNS WITH 5 OR MORE CONDUITS SHALL EMPLOY DUCT SPACERS.

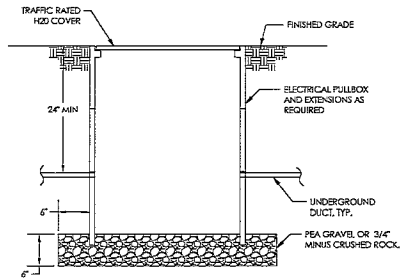
RACEWAY - UNDERGROUND CONDUIT 1  
NTS E6.0



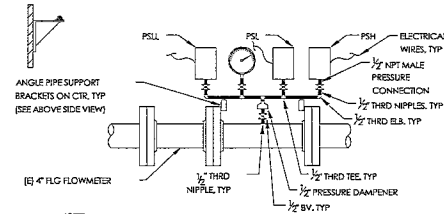
GROUNDING - CABLE TO GROUND ROD 2  
NTS E6.0



OUTDOOR EQUIPMENT MOUNTING ASSEMBLY 3  
NTS E6.0

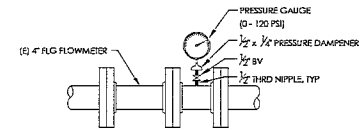


BOXES - UNDERGROUND PULL THROUGH 4  
NTS E6.0



- NOTES:**
1. ALL VALVES AND FITTINGS ARE BRONZE OR BRASS, TYPICAL
  2. PRESSURE TAP LOCATED AT DISTRICT OFFICE.

(N) PRESSURE GAUGE & HIGH/LOW SWITCHES 5  
NTS E6.0



(E) PRESSURE GAUGE 6  
NTS E6.0

BAR IS ONE INCH ON ORIGINAL DRAWING  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS		
NO	DATE	DESCRIPTION

**PACE ENGINEERING**

DES: 380 CD: TS JOB NO. 3027.01  
DRN: BW DATE: 2/10/23

SIGNED  
PRELIMINARY  
NOT FOR  
CONSTRUCTION

ORICK COMMUNITY SERVICES DISTRICT  
WATER SYSTEM IMPROVEMENTS PROJECT TANK 1 REPLACEMENT  
ELECTRICAL DETAILS

SHEET  
**E6.0**  
PG 20 OF 23  
2/10/2023 12:20:41 PM

INSTRUMENTATION SYMBOLS	
	CONDUIT EXPOSED
	CONDUIT CONCEALED OR BURIED
	MOTOR, HORSEPOWER INDICATED
	CONVENIENCE RECEPTACLE, DUPLEX UNLESS SPECIFIED OTHERWISE
	NON-FUSED DISCONNECT, SIZE INDICATED 3-POLE UNLESS INDICATED OTHERWISE
	FUSED DISCONNECT, SIZE INDICATED (60/40, 60-SWITCH RATING; 40-FUSE RATING) 3-POLE UNLESS INDICATED OTHERWISE
	STARTER MAGNETIC, NEMA SIZE INDICATED
	COMBINATION MAGNETIC STARTER, NEMA SIZE INDICATED
	CONTACT-NORMALLY OPEN W/ NEMA SIZE INDICATED AS APPLICABLE
	CONTACT-NORMALLY CLOSED W/ NEMA SIZE INDICATED AS APPLICABLE
	TIME DELAY RELAY CONTACT, TIMED TO CLOSE
	TIME DELAY RELAY CONTACT, TIMED TO OPEN
	REMOTE DEVICE
	RELAY COIL: CR-CONTROL RELAY, TDR-TIME DELAY RELAY
	OVERLOAD RELAY, 5-ELECTRONIC
	MAGNETIC STARTER W/ NEMA SIZE INDICATED
	CIRCUIT BREAKER, MAGNETIC TRIP ONLY, FRAME SIZE SHOWN, 3-POLE UNLESS INDICATED OTHERWISE
	CIRCUIT BREAKER, THERMAL MAGNETIC TRIP SHOWN, 3-POLE UNLESS INDICATED OTHERWISE
	SWITCH-CURRENT RATING INDICATED, 3-POLE UNLESS INDICATED OTHERWISE
	LIGHTNING ARRESTER
	FUSE
	GROUNDING SHIELD CONNECTION
	GROUND
	TRANSFORMER, SECONDARY VOLTAGES, PHASE AND RATING INDICATED AS APPLICABLE
	PUSH BUTTON SWITCH, NORMALLY OPEN
	PUSH BUTTON SWITCH, NORMALLY CLOSED
	PUSH-TO-TEST INDICATING LIGHT / LETTER INDICATES COLOR: A-AMBER, B-BLUE, C-CLEAR, G-GREEN, R-RED, W-WHITE
	SELECTOR SWITCH-MAINTAINED CONTACT; X-CLOSED CONTACT POSITION
	MOTOR SPACE HEATER
	FLOW SWITCH OPENS ON INCREASE IN FLOW
	FLOW SWITCH CLOSSES ON INCREASE IN FLOW
	FLOAT SWITCH OPENS ON RISING LEVEL
	FLOAT SWITCH CLOSSES ON RISING LEVEL
	PRESSURE OR VACUUM SWITCH OPENS ON RISING PRESSURE
	PRESSURE OR VACUUM SWITCH CLOSSES ON RISING PRESSURE
	TEMPERATURE SWITCH OPENS ON RISING TEMPERATURE
	TEMPERATURE SWITCH CLOSSES ON RISING TEMPERATURE
	RTU/PLC DISCRETE OUTPUT
	RTU/PLC DISCRETE INPUT

NOTE:  
1. THIS IS A SUPPLEMENTAL STANDARD INSTRUMENTATION LEGEND. SOME SYMBOLS MAY APPEAR ON THIS LEGEND AND NOT ON THE PLANS.

INSTRUMENTATION ABBREVIATIONS	
A	- AMMETER, AMPERE
AC	- ALTERNATING CURRENT
AIC	- ANALYZER INDICATING CONTROLLER
AIR	- AIR OR AIR COMPRESSOR
AIT	- ANALYZER INDICATING TRANSMITTER
B	- BLOWER
BFV/S	- SOLENOID BUTTERFLY CONTROL VALVE
BFV/M	- MOTORIZED BUTTERFLY CONTROL VALVE
BFV/P	- PNEUMATIC BUTTERFLY CONTROL VALVE
BF	- BALL VALVE
BV/M	- MOTORIZED BALL VALVE
BV/S	- SOLENOID BALL VALVE
BW	- BACKWASH
C	- CONTACTOR/CONDUIT
CB	- CIRCUIT BREAKER
CB	- CABLE
CK	- CIRCUIT
COMP	- COMPRESSOR
COND	- CONDUIT
COND	- CONDUIT
CP	- CONTROL PANEL
CP	- CONTROL PANEL TRANSFORMER
CR	- CONTROL RELAY
DC	- DIRECT CURRENT
DI	- DIGITAL INPUT
DO	- DISSOLVED OXYGEN OR DIGITAL OUTPUT
DPT	- DIFFERENTIAL PRESSURE TRANSMITTER
DS	- DOOR SWITCH
EX	- EXISTING
EX	- EXHAUST FAN
ENC	- ENCLOSURE
ETM	- ELAPSED TIME METER
F	- FAN
FI	- FLOW INDICATING TRANSMITTER
FS	- FLOW SWITCH
G	- GROUND
GFI	- GROUND FAULT CIRCUIT INTERRUPT
H	- HEATER OR HEAT TRACE
HS	- HAND SWITCH
L	- LINE POWER
LA	- LIGHTNING ARRESTER
LS	- LEVEL SWITCH OR LIMIT SWITCH
LIT	- LEVEL INDICATING TRANSMITTER
M	- MOTOR OR FLOW METER ELEMENT
MCC	- MOTOR CONTROL CENTER
MFR	- MANUFACTURER
N	- NEUTRAL
NA	- NON-AUTOMATIC
NEC	- NATIONAL ELECTRIC CODE
NEMA	- NATIONAL ELECTRIC MANUFACTURERS ASSOCIATION
OIT	- OPERATOR INTERFACE TERMINAL
OL	- OVERLOAD RELAY
P	- PUMP
PS	- PULL BOX
PI	- PRESSURE INDICATING TRANSMITTER
PLC	- PROGRAMMABLE LOGIC CONTROLLER
PBL	- PANELBOARD
PS	- PRESSURE SWITCH
PV/M	- MOTORIZED PLUG VALVE
QL	- INDICATING LIGHT
RECEPT	- RECEPTACLE
RTU	- REMOTE TTELEMETRY UNIT
RW	- RECYCLE WATER
SPD	- SURGE PROTECTION DEVICE
SV	- SOLENOID VALVE
SW	- SWITCH
T	- TELE CONDUIT OR TURBIDIMETER
TDR	- TIME DELAY RELAY
TS	- THERMISTAT OR TEMPERATURE SWITCH
TI	- TEMPERATURE INDICATING TRANSMITTER
TR	- TYPICAL
UH	- UNIT HEATER
UIT	- ULTRAVIOLET TRANSMITTANCE TRANSMITTER
UPS	- UNINTERRUPTIBLE POWER SUPPLY
UV	- ULTRAVIOLET
UVT	- ULTRAVIOLET TRANSMITTANCE
V	- VOLTMETER, VOLT
VFD	- VARIABLE FREQUENCY DRIVE
VIT	- VACUUM INDICATING TRANSMITTER
W	- WATT
WT	- WEIGHT INDICATING TRANSMITTER
WP	- WEATHERPROOF (NEMA 4)
ZEMR	- TRANSFORMER
ZS	- ZERO SPEED SWITCH

NOTE: THIS IS A SUPPLEMENTAL STANDARD LEGEND. SOME SYMBOLS OR ABBREVIATIONS MAY APPEAR ON THIS LEGEND AND NOT ON THE PLANS.

SCALE: ONE INCH ON ORIGINAL DRAWING  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS		
NO.	DATE	DESCRIPTION

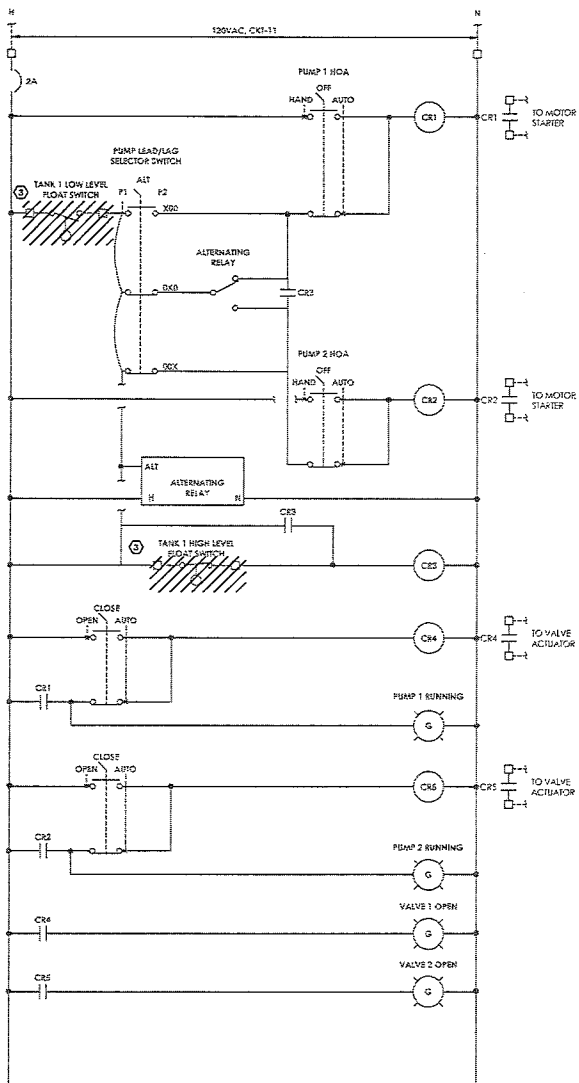
**PACE ENGINEERING**

DES: BBo    CKD: TS    JOB NO.     
 DRN: BBo    DATE: 2/19/23    3077.01

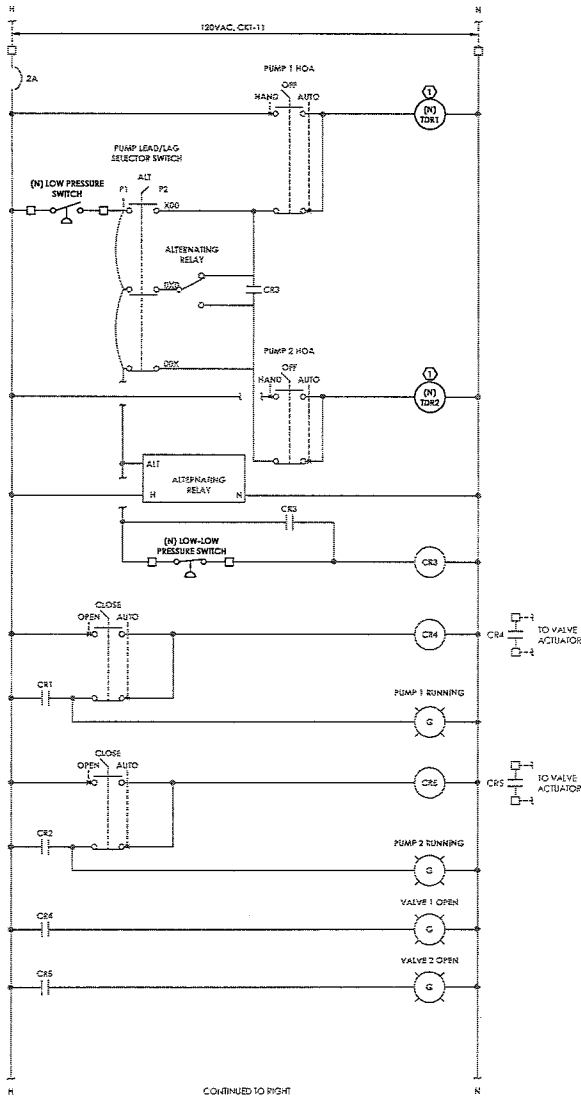
SIGNED  
PRELIMINARY  
NOT FOR  
CONSTRUCTION

ORICK COMMUNITY SERVICES DISTRICT  
 WATER SYSTEM IMPROVEMENTS PROJECT TANK 1 REPLACEMENT  
 INSTRUMENTATION SYMBOLS & ABBREVIATIONS

SHEET  
**11.0**  
 PG 21 OF 23  
 2/13/2023 12:06:41 PM



EXISTING OFFICE CONTROL DIAGRAM 1



NEW OFFICE CONTROL DIAGRAM 2

**KEYNOTES**

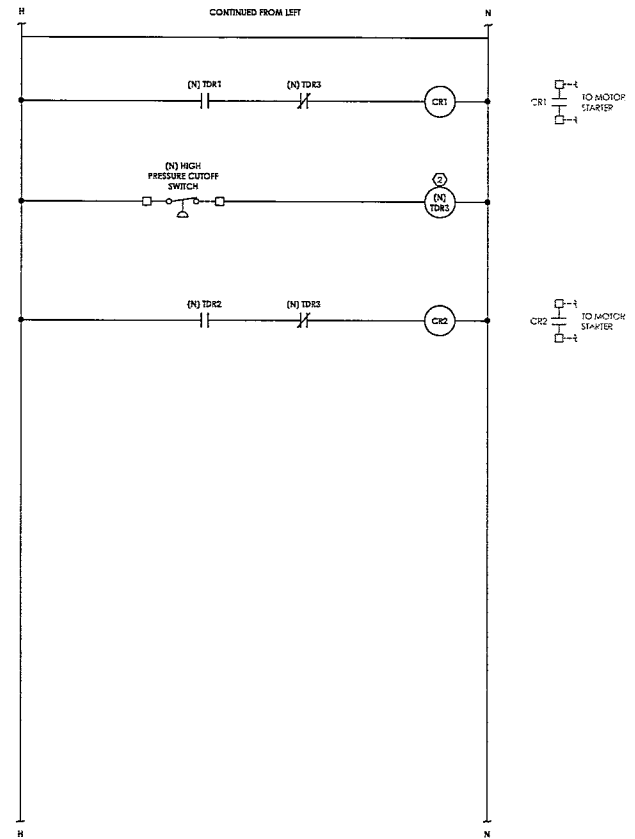
NOTE

1. TDR1 AND TDR2 SHALL BE ONE SHOT WITH ADJUSTABLE TIME BETWEEN 0-100 HOURS. PROPOSED TRM-8-D-240AD OR APPROVED EQUAL.
2. TDR3 SHALL BE ON TIMER SET AT 30 SECONDS AND ADJUSTABLE TO 1 MINUTE.
3. DISCONNECT AND REMOVE EXISTING EQUIPMENT. SEE NEW FILE CONTROL DIAGRAM (THIS SHEET) FOR MODIFICATIONS.

**GENERAL NOTES**

NOTE

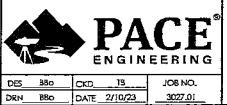
1. MAKE MODIFICATIONS AS INDICATED TO EXISTING CONTROL PANEL. PROVIDE AND INSTALL ALL NECESSARY HARDWARE. RESTORE ENTIRE PANEL FOR FUNCTION AFTER MODIFICATIONS AND COMPLETE IN PRESENCE OF ENGINEER OF RECORD.



BAR IS ONE INCH ON ORIGINAL DRAWING  
0" = 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS	
NO.	DATE

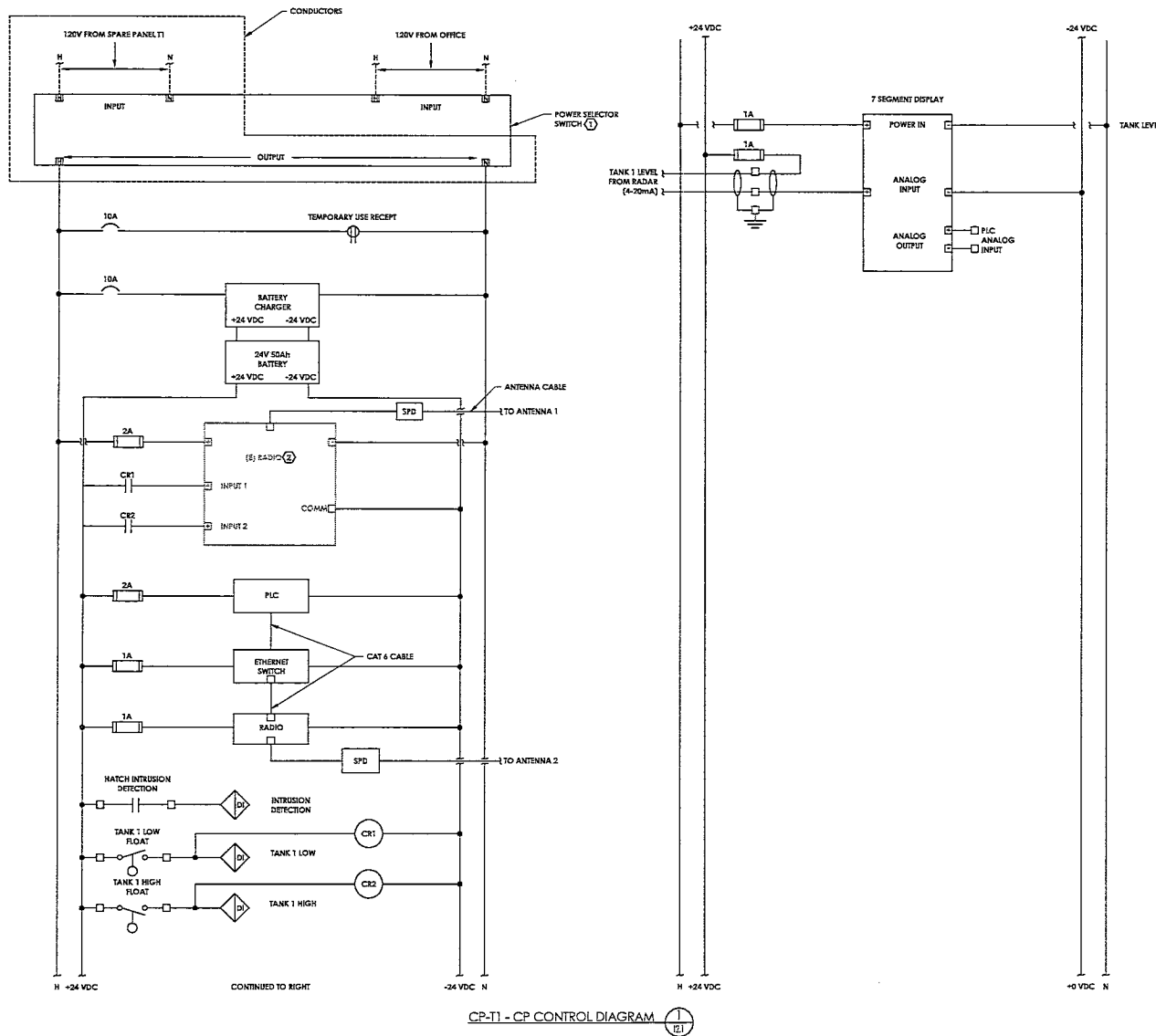


SIGNED  
PRELIMINARY  
NOT FOR  
CONSTRUCTION

DES: BBO CKD: JS JOB NO.:  
DN: BBO DATE: 2/10/23 3027.01

ORICK COMMUNITY SERVICES DISTRICT  
WATER SYSTEM IMPROVEMENTS PROJECT TANK 1 REPLACEMENT  
EXISTING OFFICE CONTROL DIAGRAMS

SHEET  
**12.0**  
PG. 22 OF 23

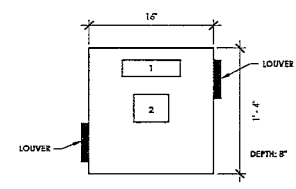


**KEYNOTES**

NOTE

1. PROVIDE AND INSTALL A GENERAC MODEL 6377 MS OR EQUAL.
2. INSTALL THE EXISTING RADIO IN THE NEW CP-T1. EXISTING RADIO IS REMOTE CONTROL TECHNOLOGY MEDIUM RANGE TRANSMITTER, PART #01242 WITH ENCLOSURE. NOT ALL RADIO HARDWARE IS SHOWN. VERIFY ALL EQUIPMENT PRIOR TO INSTALLATION.

CP-T1 SCHEDULE		
ITEM	DESCRIPTION	NAMEPLATE/INSCRIPTION
1	NAMEPLATE	CP-T1
2	RED LION DISPLAY	TANK LEVEL (FT)



TANK 1 CP ELEVATION 2/21

BAR IS ONE INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

REVISIONS		
NO	DATE	DESCRIPTION

**PACE ENGINEERING**

DES: BSO    CKD: TA    JOB NO. 3027.01

DRN: BSO    DATE: 2/10/23

SIGNED

PRELIMINARY NOT FOR CONSTRUCTION

ORICK COMMUNITY SERVICES DISTRICT  
 WATER SYSTEM IMPROVEMENTS PROJECT TANK 1 REPLACEMENT

CP-T1 - CONTROL DIAGRAM

SHEET

12.1

PG 23 OF 23

2/10/2023 12:04:43 PM

C:\New1\locat\164\3027.01\_E-CORR\_CFD\_BNTRGHE\_022.rvt