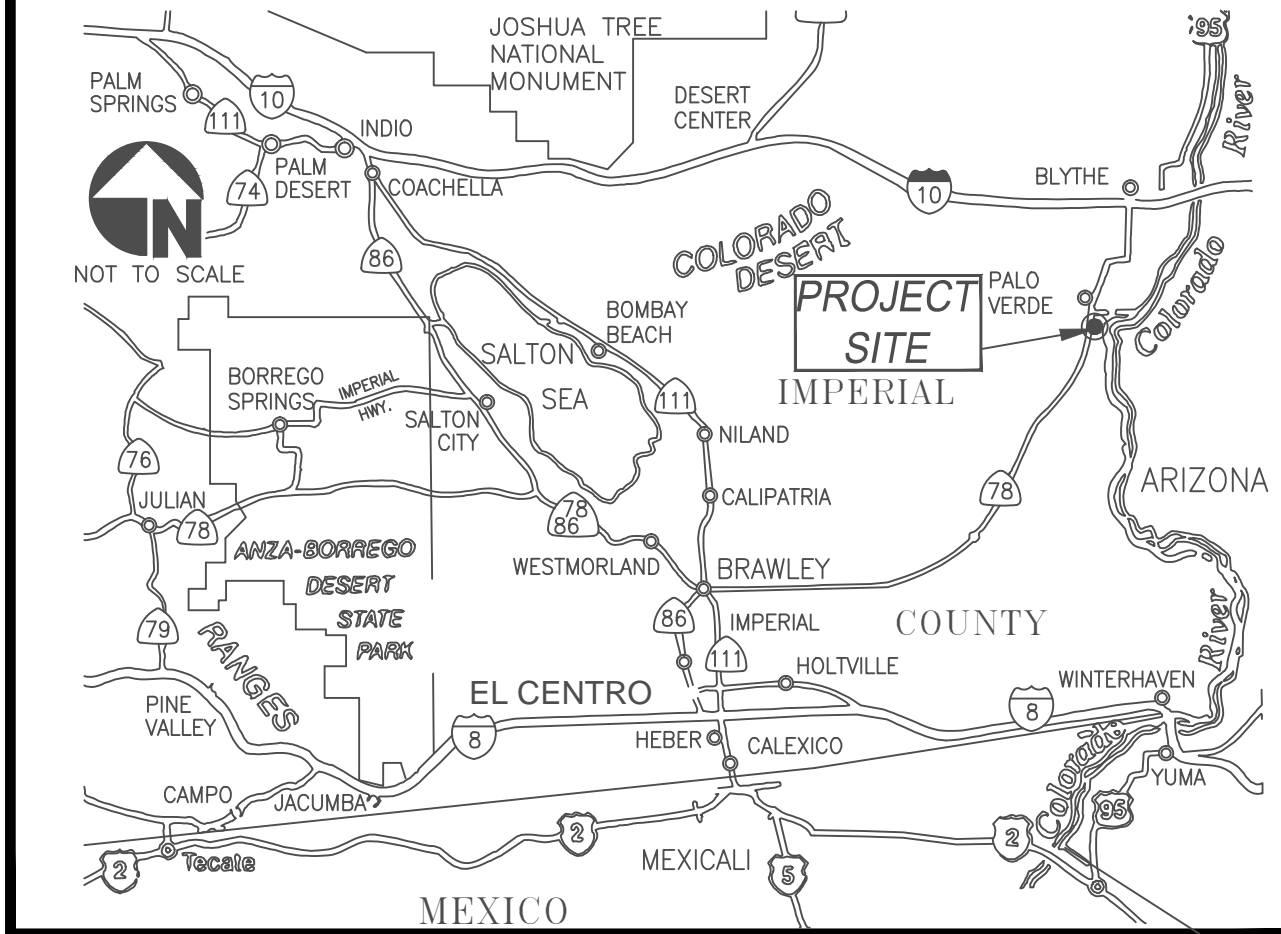


VICINITY MAP



PALO VERDE COUNTY WATER DISTRICT - NORTH BOLTED TANK REPLACEMENT AND FILTER INSTALLATION PROJECT

PROJECT INFORMATION

OWNER
PALO VERDE COUNTY WATER DISTRICT
 1065 DESERT VIEW ROAD
 PALO VERDE, CA 92266
 TEL. (760) 834-3519

ENGINEER
 DAVID DALE, PE
 203 COUNTRYSIDE DRIVE
 EL CENTRO, CA 92243
 TEL. (760) 960-8500
 EMAIL: daviddalePE@gmail.com

AGENCY CONTACTS

PALO VERDE COUNTY WATER DISTRICT
 1065 DESERT VIEW ROAD
 PALO VERDE, CA 92266
 TEL. (760) 834-3519
SOUTHERN CALIFORNIA EDISON
 PHONE: 800-655-4555

IMPERIAL COUNTY PUBLIC HEALTH DEPARTMENT (LPA)
 JORGE PEREZ
 ENVIRONMENTAL HEALTH SERVICES MANAGER
 797 MAIN STREET, SUITE B
 EL CENTRO, CA 92243
 PHONE: 442-265-1888
 EMAIL: jorgeperez@co.imperial.ca.us

IMPERIAL COUNTY COMMUNITY AND ECONOMIC DEVELOPMENT
 ESPERANZA COLIO WARREN
 COMMUNITY AND ECONOMIC DEVELOPMENT MANAGER
 940 W MAIN STREET, SUITE 203
 EL CENTRO, CA 92243
 PHONE: 442-265-1101
 EMAIL: esperanzacolio@co.imperial.ca.us

SHEET INDEX

- TITLE SHEET, VICINITY MAP AND GENERAL NOTES
- SITE PLAN
- 125,000 GALLON TANK PLAN
- TANK DETAILS
- FILTER PLAN
- DETAILS
- ELECTRICAL

PROJECT LOCATION

THE PROPOSED PROJECT IS LOCATED AT THE EXISTING PALO VERDE COUNTY WATER DISTRICT WATER TREATMENT PLANT AT 3719 ICE PLANT ROAD, PALO VERDE CALIFORNIA 92266. THE WATER PLANT IS APPROXIMATELY TWO MILES SOUTH OF THE TOWN OF PALO VERDE, ALONG STATE HIGHWAY 78 AT THE INTERSECTION OF BUTLER ROAD AND STATE HIGHWAY 78.

GENERAL NOTES

- ALL WORK, MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (THE GREENBOOK) CURRENT EDITION AND AMERICAN WATER WORKS ASSOCIATION STANDARDS. IF CONTRADICTIONS ARISE BETWEEN VARIOUS CODES, THE MOST RESTRICTIVE STANDARDS APPLY.
- TRENCHING AND BACKFILL SHALL COMPLY WITH THE RECOMMENDATIONS OF THE PLANS.
- THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY, AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS.
- ALL DRAWINGS ARE CONSIDERED TO BE A PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR ENGINEER.
- THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.
- NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.
- THE EXISTENCE, LOCATION AND CHARACTERISTICS OF UNDERGROUND UTILITY INFORMATION SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DATA. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. CONTRACTOR WILL VERIFY LOCATIONS.
- IF AT ANY TIME DURING EXCAVATION OPERATIONS ANY UNFAVORABLE GEOLOGICAL CONDITIONS ARE ENCOUNTERED, INCLUDING BUT NOT LIMITED TO THE UNCOVERING OF ARTICLES POTENTIALLY ARCHEOLOGICAL IN NATURE, EXCAVATION IN THAT AREA WILL STOP UNTIL APPROVED CORRECTIVE MEASURES ARE OBTAINED. CONTRACTOR WILL VERIFY LOCATIONS.
- ALL DEBRIS AND FOREIGN MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT APPROVED DISPOSAL SITES. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS FOR THE TRANSPORTATION OF MATERIAL TO AND FROM THE SITE.
- DIMENSIONS TO PIPELINES ARE TO CENTERLINE UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL REPLACE ALL EXISTING IMPROVEMENTS DAMAGED DURING CONSTRUCTION TO MATCH EXISTING, INCLUDING PERMANENT TRENCH RESURFACING.
- ALL DIMENSIONS ARE IN FEET OR DECIMALS THEREOF.
- WATER SHALL BE PROVIDED ONSITE AND USED TO CONTROL DUST DURING CONSTRUCTION OPERATIONS.
- A GEOTECHNICAL FIRM SHALL ALSO BE RESPONSIBLE TO VERIFY AND REPORT THAT PROPER COMPACTION HAS BEEN OBTAINED BY SUBCONTRACTORS AND AGENCIES CONCERNING UTILITY LINE BACKFILL (INCLUDING, BUT NOT LIMITED TO WATER LINES, ELECTRICAL AND LANDSCAPE IRRIGATION LINES).
- IF ANY UNFORESEEN SUB-SURFACE STRUCTURES ARE ENCOUNTERED DURING CONSTRUCTION, THEY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING FURTHER.
- UNSATURABLE MATERIAL THAT IS EXCAVATED BY THE CONTRACTOR THAT CANNOT BE USED AS FILL SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR.
- CONTRACTOR SHALL REPLACE ANY SURFACE OR SUBSURFACE IMPROVEMENTS DAMAGED OR REMOVED DUE TO CONSTRUCTION AND IS REQUIRED TO REPLACE THEM TO THEIR ORIGINAL CONDITION.
- CONTRACTOR SHALL MAINTAIN ACCESS TO EXISTING FIRE LANES AT ALL TIMES. COORDINATE WITH FIRE AUTHORITY
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY INSPECTIONS PRIOR TO POURING ANY CONCRETE.
- CONTRACTOR IS RESPONSIBLE FOR EROSION, DUST, MUD, SILT, DEBRIS AND TEMPORARY DRAINAGE CONTROL DURING EXCAVATION OPERATIONS.

- THE TERM "INSPECTION" OR INSPECT AS USED IN THESE CONTRACT DOCUMENTS SHALL BE TAKEN TO MEAN "OBSERVE" OR "OBSERVATION". THE ENGINEER IS NOT RESPONSIBLE FOR THE CONTRACTOR'S CONSTRUCTION METHODS.
 - SUBMIT SHOP DRAWINGS AND LAYOUT DRAWINGS FOR ALL MATERIALS PRIOR TO ANY MATERIAL PURCHASE OR INSTALLATION FOR REVIEW/APPROVAL BY THE ENGINEER.
 - REMOVE INTERFERING PORTIONS OF EXISTING ABANDONED UTILITIES AS REQUIRED TO CONSTRUCT PROJECT. VERIFY ABANDONED STATUS PRIOR TO REMOVAL.
 - IN THE COURSE OF RUNOFF WATER CONTROL, THE CONTRACTOR SHALL PROTECT ALL WATER COURSES, THE GROUND WATER BODIES OF WATER FROM POLLUTION BY FUEL, OILS, BITUMENS OR OTHER HARMFUL MATERIALS.
 - HARD HAT AND HIGH VISIBILITY ORANGE VESTS SHALL BE WORN AT ALL TIMES WHEN WORKING ON THE PROJECT.
 - CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT 48 HOURS PRIOR TO ANY EXCAVATION. 811
 - CONTRACTOR SHALL NOTIFY THE PALO VERDE COUNTY WATER DISTRICT 48 HOURS PRIOR TO COMMENCEMENT OF WORK. TELEPHONE: 760-854-3519
 - THE CONTRACTOR SHALL PROVIDE THE DISTRICT CHIEF OPERATOR WRITTEN NOTICE AS TO THE PROPOSED TIME OF CONNECTION TO AN EXISTING DISTRICT WATERLINE. UNINTERRUPTED SERVICE SHALL BE PROVIDED TO THE CONSUMER EXCEPT IN INSTANCES SPECIFICALLY APPROVED BY THE DISTRICT CHIEF OPERATOR. SAID NOTICE SHALL OUTLINE THE SEQUENCE OF WORK REQUIRED TO MAKE CONNECTION VERIFY ALL AFFECTED WATER USERS AND ESTIMATE THE DURATION OF ANY PROPOSED SHUTDOWN TIME. SPECIFIC APPROVAL OF THE DISTRICT CHIEF OPERATOR SHALL BE REQUIRED PRIOR TO ANY SHUTDOWN. 24-HOUR WRITTEN NOTICE SHALL BE PROVIDED BY THE CONTRACTOR TO ALL AFFECTED CONSUMERS. THE CONTRACTOR SHALL NOTIFY THE DISTRICT CHIEF OPERATOR 48 HOURS PRIOR TO STARTING ANY WORK. THE CONNECTION TO EXISTING DISTRICT WATERLINE SHALL BE SUPERVISED BY THE DISTRICT CHIEF OPERATOR.
 - ALL DRAINING OF EXISTING WATER MAINS AT TIE-INS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 - ALL WATER LINE INSTALLATIONS SHALL BE CHLORINATED IN ACCORDANCE WITH THE STATE OF CALIFORNIA HEALTH DEPARTMENT, CONSISTING OF NOT LESS THAN 50 PPM INITIAL DOSAGE WITH NOT LESS THAN 25 PPM RESIDUAL DOSAGE, AFTER 24 HOURS. INSTALLATIONS SHALL BE FLUSHED AND A 48-HOUR BACTI TEST SHALL BE REQUIRED PRIOR TO PRESSURE TESTING. ALL TESTING AND TESTING METHODS SHALL BE APPROVED BY THE COUNTY ENGINEER. DISINFECTION REQUIREMENTS AT PIPE CONNECTIONS AND SHORT PIPE RUNS MAY BE ACCOMPLISHED IN ACCORDANCE WITH AVVVVA STANDARDS.
 - ALL SYSTEM PIPING SHALL BE HYDROSTATICALLY TESTED PER GREENBOOK STANDARDS, LATEST EDITION.
 - PRIOR TO PLACING NEW/ALTERED WATER PIPELINE SECTIONS IN SERVICE, OR AFTER DEPRESSURIZING AN EXISTING WATER PIPELINE SECTION BELOW 5 PSI, A BACTERIA TEST IS TO BE COMPLETED AND THE RESULTS ARE TO BE REVIEWED BY THE LPA FOR APPROVAL FOR MINOR PIPELINE WORK INVOLVING THE CUTTING INTO OR REMOVING OR REPAIRING EXISTING SMALL LENGTH PIPING, VALVES OR FITTINGS DISINFECTION MAY BE ALLOWED PER AVVVVA C651-14 WITHOUT THE NECESSITY OF COMPLETING BACTERIAL TESTING IF APPROVED BY THE LPA.
 - THE CONTRACTOR SHALL FIELD VERIFY THE TYPE OF EXISTING JOINT AT ALL POINTS OF CONNECTION, AND IS RESPONSIBLE FOR PROVIDING ALL FITTINGS WITH THE JOINTS REQUIRED TO MAKE CONNECTIONS TO EXISTING PIPELINES.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL GEOTECHNICAL REPORTS TO THE COUNTY OF IMPERIAL FOR COMPACTION, CONCRETE STRENGTH, ETC.
 - ALL TREATMENT CHEMICALS USED SHALL BE NSF 60 CERTIFIED. ALL MATERIALS USED ON THIS PROJECT SHALL BE NSF 61 CERTIFIED.
- DEMOLITION NOTES**
 - THE CONTRACTOR SHALL DEMOLISH AND REMOVE FROM THE SITE ALL EXISTING UTILITIES, STRUCTURES, AND ALL OTHER SITE FEATURES, UNLESS OTHERWISE NOTED ON THE PLAN.
 - THE CONTRACTOR SHALL BE FAMILIAR WITH AND RESPONSIBLE FOR CLEARING THE SITE IN PREPARATION FOR CONSTRUCTION. THE ENGINEER OF RECORD ASSUMES NO LIABILITY FOR THE EXISTENCE AND LOCATIONS OF UNDERGROUND UTILITY LINES, STRUCTURES OR IRRIGATION LINES. THE CONTRACTOR IS TO MAKE AN ON-SITE INSPECTION AND NOTIFY ALL UTILITY AND IRRIGATION COMPANIES PRIOR TO WORK OR EXCAVATION TO DETERMINE THE EXACT LOCATION OF ANY AND ALL UNDERGROUND FACILITIES.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS AND SHALL PAY ALL FEES NECESSARY FOR GRADING AND DEMOLITION AS REQUIRED BY PRIVATE, LOCAL AND STATE JURISDICTIONS
 - THE CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING ABOVE AND UNDERGROUND UTILITIES. LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND ARE SHOWN FOR GENERAL INFORMATION ONLY
 - DAMAGE TO ANY EXISTING UTILITIES AND SERVICES TO REMAIN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL REPAIR AND/OR REPLACE IN KIND.
 - ANY WALLS, FENCES, STRUCTURES AND/OR APPURTENANCES ADJACENT TO THIS PROJECT SHALL BE PROTECTED IN PLACE. IF GRADING OPERATIONS DAMAGE OR ADVERSELY AFFECT SAID ITEMS IN ANY WAY, THE CONTRACTOR/DEVELOPER IS RESPONSIBLE FOR WORKING OUT AN ACCEPTABLE SOLUTION TO THE SATISFACTION OF THE AFFECTED PROPERTY OWNER(S).
 - CONTRACTOR AND CONSTRUCTION MANAGER SHALL MAINTAIN RECORD DRAWINGS OF ALL UTILITIES ENCOUNTERED DURING DEMOLITION, AND RECORD THE LOCATIONS OF ALL CAPPED UTILITIES.
 - COORDINATE SALVAGE OF REMOVAL ITEMS/EQUIPMENT WITH THE OWNER.
 - CONTRACTOR MUST OBTAIN A DUST PERMIT AND IMPLEMENT THE PROVISIONS OF THE DUST PERMIT DURING CONSTRUCTION

UNDERGROUND UTILITY CONFLICT NOTES

- LOCATIONS AND DEPTHS OF UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE AND BASED ON AVAILABLE RECORD DRAWINGS. LOCATIONS AND DEPTHS OF EXISTING WATER PIPELINES ARE UNKNOWN.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE MARK-OUT OF ALL UNDERGROUND FACILITIES PRIOR TO ANY EXCAVATION.
- NO LESS THAN 3 WORKING DAYS PRIOR TO ANY EXCAVATION OR TRENCHING, EACH CONTRACTOR DOING SUCH WORK SHALL CONTACT THE FOLLOWING AGENCIES SO THAT EXISTING UNDERGROUND UTILITIES MAY BE LOCATED, THE AGENCY MAY REQUIRE AN INSPECTOR TO BE PRESENT.
- PALO VERDE COUNTY WATER DISTRICT (760)854-3519
- SOUTHERN CALIFORNIA EDISON (760)922-9158
- VERIZON (928)669-2414
- PRIOR TO EXCAVATING FOOTINGS FOR LIGHTS OR CONCRETE PADS AND SLABS, THE CONTRACTOR SHALL CONFIRM THAT NO UNDERGROUND UTILITIES ARE WITHIN A HORIZONTALITY OF THE PROPOSED EXCAVATION.
- ANY UTILITY FOUND TO BE WITHIN 3' OF THE EXCAVATION SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER. THE LOCATION OF THE STREET LIGHT, CONCRETE PAD AND SLABS MAY BE ADJUSTED AS DIRECTED BY THE CONSTRUCTION MANAGER
- CONTRACTOR TO TAKE PRECAUTIONARY MEASURES TO PROTECT EXISTING WATER MAINS DURING PREPARATION OF SUBGRADE.

CLEANUP

THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL RUBBISH, WASTE MATERIALS, EXISTING PAVEMENT, CONCRETE DEBRIS AND ALL OTHER MATERIAL RESULTING FROM DEMOLITION ACTIVITIES. SURPLUS NATIVE MATERIAL SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

SAFETY

THE CONTRACTOR SHALL COMPLY WITH SAFETY AND PROTECTION REQUIREMENTS NOTED IN THE GENERAL CONDITIONS, AND ALL PERTINENT PROVISIONS OF THE DEPARTMENT OF LABOR "SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION," TITLE 29, PARTS 1910 AND 1926 (ALSO NOTED IN THE TECHNICAL SPECIFICATIONS), WITH ADDITIONS OR MODIFICATIONS THERETO, IN EFFECT DURING CONSTRUCTION OF THIS PROJECT.

ALL HEAVY CONSTRUCTION MACHINERY TO INCLUDE TRENCHING MACHINES, BULLDOZERS, BACKHOES, ETC. MUST BE EQUIPPED WITH A ROLL BAR MEETING THE REQUIREMENTS OF THE ABOVE REGULATION. SAFETY HELMETS SHALL BE WORN BY ALL PERSONNEL WORKING AT THE SITE. IN ADDITION, ALL SPECTATORS AND INSPECTORS SHALL BE REQUIRED TO WEAR SAFETY HELMETS IN CONSTRUCTION ZONE. STEEL TOE SAFETY SHOES OR BOOTS, LONG SLEEVE SHIRTS AND LONG PANTS SHALL BE WORN BY ALL PERSONNEL WORKING AT THE SITE

INCIDENTAL ITEMS

ANY ITEM OF WORK CALLED OUT BY THE CONTRACT PLANS OR SPECIFICATIONS AND NOT SPECIFICALLY NOTED AS A BID ITEM ON THE PROPOSAL SHALL BE CONSIDERED INCIDENTAL TO ONE OF THE BID ITEMS ON THE PROPOSAL FORM.

PROJECT DESCRIPTION

THE NORTH 125,000 GALLON BOLTED STEEL GROUND STORAGE RESERVOIR IS TO BE DEMOLISHED AND REPLACED. THE TANK IS CURRENTLY FULL. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE EXISTING BOLTED STEEL TANK, AND INSTALL A NEW BOLTED STEEL TANK PER THE DETAILS ON THE FOLLOWING SHEETS. A TRIHALOMETHANE (THM) REDUCTION SYSTEM SHALL BE INSTALLED IN THE NORTH TANK, WHICH CONSISTS OF A WATER RECIRCULATION SYSTEM FROM THE DISTRIBUTION PUMPS TO (2) SPECIALLY DESIGNED SPRAYERS THAT VOLTITIZE THE THM. A VENTILATOR MOVES AIR THROUGH THE TANK REMOVING SOME OF THE THM.

THE SOUTH TANK AND THE EXISTING WATER TREATMENT SYSTEM SHALL REMAIN IN SERVICE AT ALL TIMES DURING THE REPLACEMENT OF THE SOUTH TANK. STAGING AREA TO BE WITHIN FENCED WATER TREATMENT PLANT BOUNDARIES.

A REDUNDANT PRESSURIZED WATER FILTER SHALL BE INSTALLED, INCLUDING ALL NECESSARY PIPING AND VALVES. THE DISTRIBUTION PUMPS WILL BE REPAIRED; THE EXISTING PUMP CASINGS ARE CAST IRON AND ARE CORRODED. THE NEW CASINGS WILL BE STAINLESS STEEL. ADDITIONALLY THE EXISTING PUMP CHECK VALVES ARE FAILING AND REQUIRE REPLACEMENT.

NOTES TO CONTRACTOR

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL. ALL PERSONNEL SHALL ADHERE TO ALL NECESSARY SAFETY REQUIREMENTS, INCLUDING WEARING HARD HATS, SAFETY VESTS, EYE PROTECTION, LONG SLEEVE SHIRTS, EAR PROTECTION, STEEL TOE BOOTS, AND OTHERS AT ALL TIMES.

CONTRACTOR IS RESPONSIBLE TO COMPLETE A FIELD INSPECTION OF THE SITE PRIOR TO BIDDING THE PROJECT AND BE THOROUGHLY FAMILIARIZED WITH THE EXISTING VISIBLE CONDITIONS. THE DRAWINGS ARE DIAGRAMMATIC IN NATURE. THE PROJECT WILL REQUIRE THE CONTRACTOR TO PROVIDE FITTINGS AND APPURTENANCES NOT SHOWN AND ROUTE THE ABOVE GROUND PIPING AS NECESSARY IN THE FIELD. NO CHANGES WILL BE ALLOWED TO THE CONTRACT WITH REGARD TO ISSUES THAT THE CONTRACTOR COULD HAVE REASONABLY FORESEEN.

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS.

CONTRACTOR TO POSSES A VALID CLASS A CONTRACTOR'S LICENSE IN THE STATE OF CALIFORNIA FOR ALL WORK SHOWN IN THESE PLANS.

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

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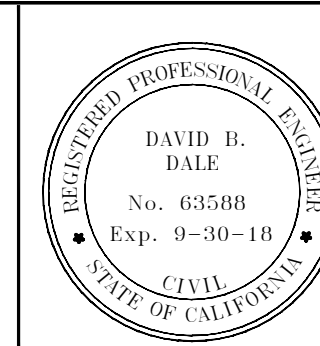
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NO.	REVISIONS:	APPROVED	DATE

UNAUTHORIZED CHANGES & USES: The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.

BENCH MARK:
 TEMPORARY PROJECT BENCHMARK
 BENCHMARK DESCRIPTION:
 CHISLED "X" ON THE NORTHWEST CORNER OF A PCC SLAB LOCATED SOUTHEAST OF THE ENTRANCE GATE TO THE WATER TREATMENT PLANT
 ELEVATION = 233.00

DAVID DALE, PE
 203 COUNTRYSIDE DRIVE
 EL CENTRO, CA 92243
 PH: (760) 960-8500
 EMAIL: DAVIDDALEPE@GMAIL.COM

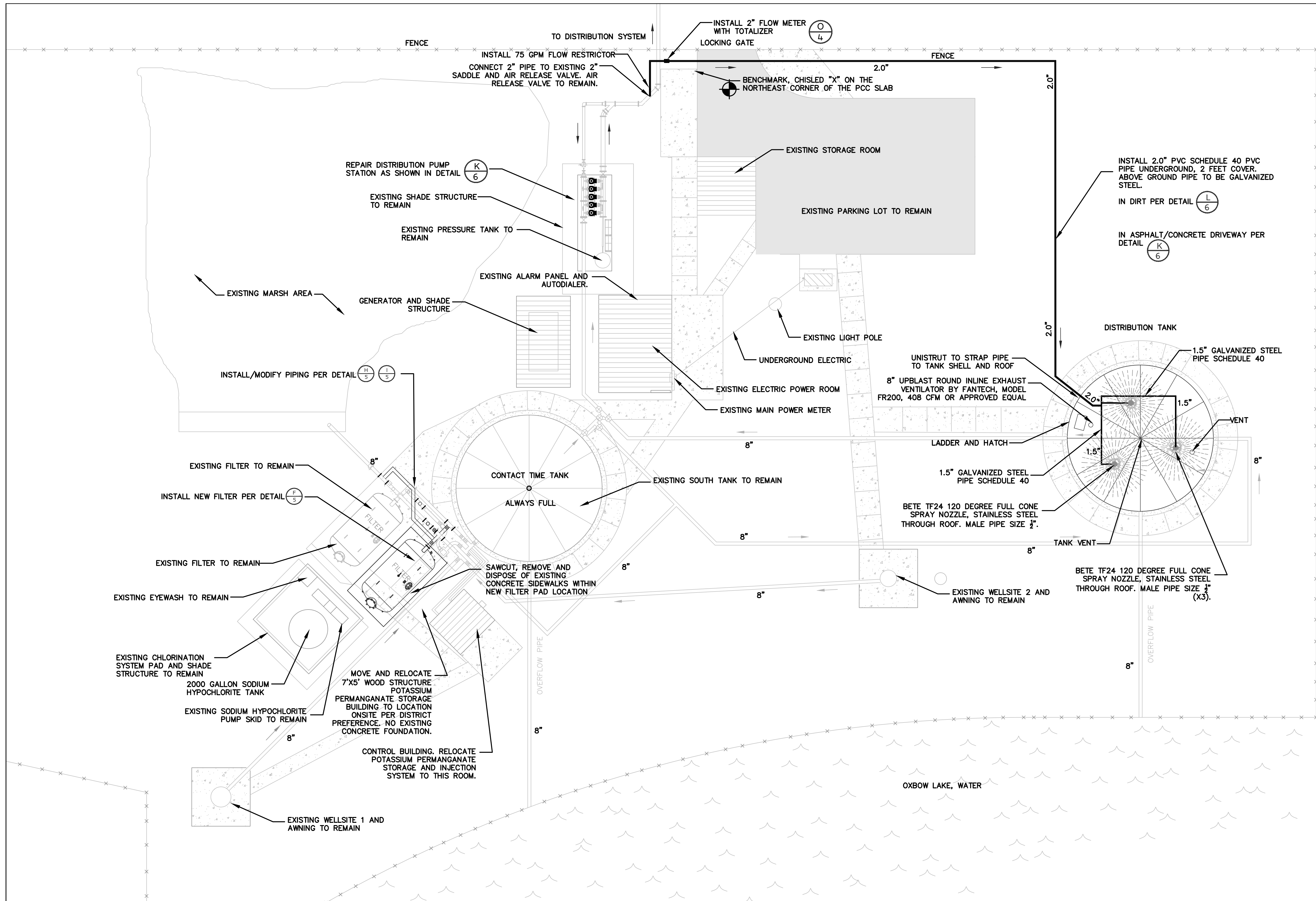


PREPARED UNDER THE DIRECT SUPERVISION OF:	
DAVID B. DALE, P.E.	63588
9/15/17	09/30/18
DATE	REG. EXP.

PALO VERDE COUNTY WATER DISTRICT - NORTH BOLTED TANK REPLACEMENT AND FILTER INSTALLATION PROJECT

TITLE SHEET

DATE: 9/15/17	SHEET NO.
SCALE	1
DESIGN DD	OF 7 SHEETS
DRAWING NO:	



FILTER SPECIFICATIONS:

NUMBER OF FILTERS:
(2) TWO

NUMBER OF CELLS PER FILTER:
(1) ONE CELL

FILTRATION AREA EACH FILTER:
117.8 SQ. FT.

MAX FILTRATION RATE:
350 GPM (3.0 GPM/SQ. FT.) AS DETERMINED BY LPA

HIGH RATE BACKWASH RATE (WATER ONLY):
1,767 GPM (15 GPM/SQ. FT.)/CELL
(APPROXIMATE - ACTUAL GPM TO BE DETERMINED IN FIELD DURING START-UP)

SUPPORT GRAVELS:
3" - 3/4" x 1/2" GRADED GRAVEL™
3" - 1/2" x 1/4" GRADED GRAVEL
3" - 1/4" x 1/8" GRADED GRAVEL
3" - 0.8-1.2mm TORPEDO SAND

FILTER MEDIA:
24" SILICA SAND WITH IRONMAN
8" ANTHRACITE

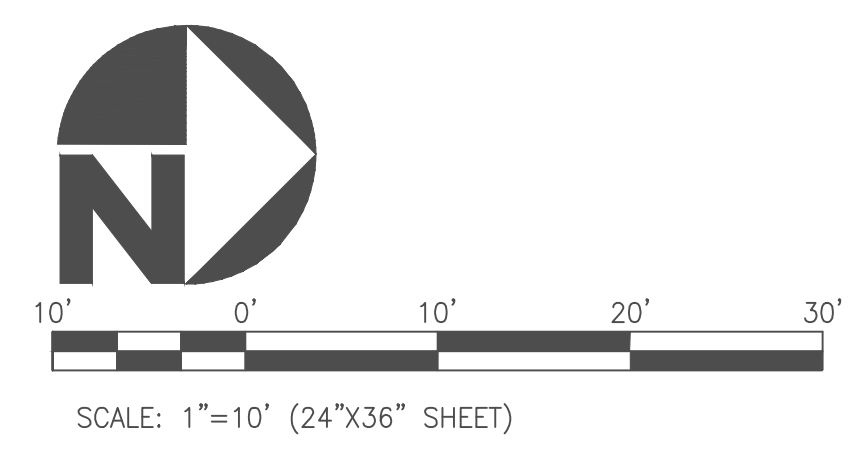
CONSTRUCTION:
8'-0" DIA. x 16'-0" OVERALL LENGTH
WORKING PRESSURE - 100 PSIG
HYDROSTATIC TEST - 130 PSIG
BUILT TO ASME CODE AND STAMPED ACCORDINGLY

FLANGES:
150 LBS. SLIP ON FLANGE - BOLT HOLES WELDED ON SPLIT CENTERS

COUPLINGS:
300 LB. NPT - STEEL

HEADS:
SA-516 GRADE 70 STEEL

SHELL:
SA-516 GRADE 70 STEEL



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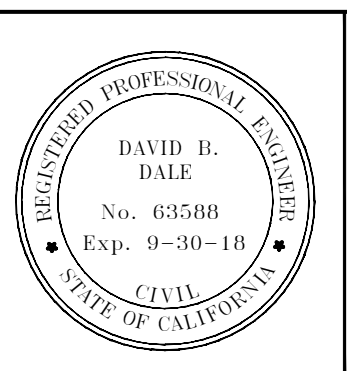
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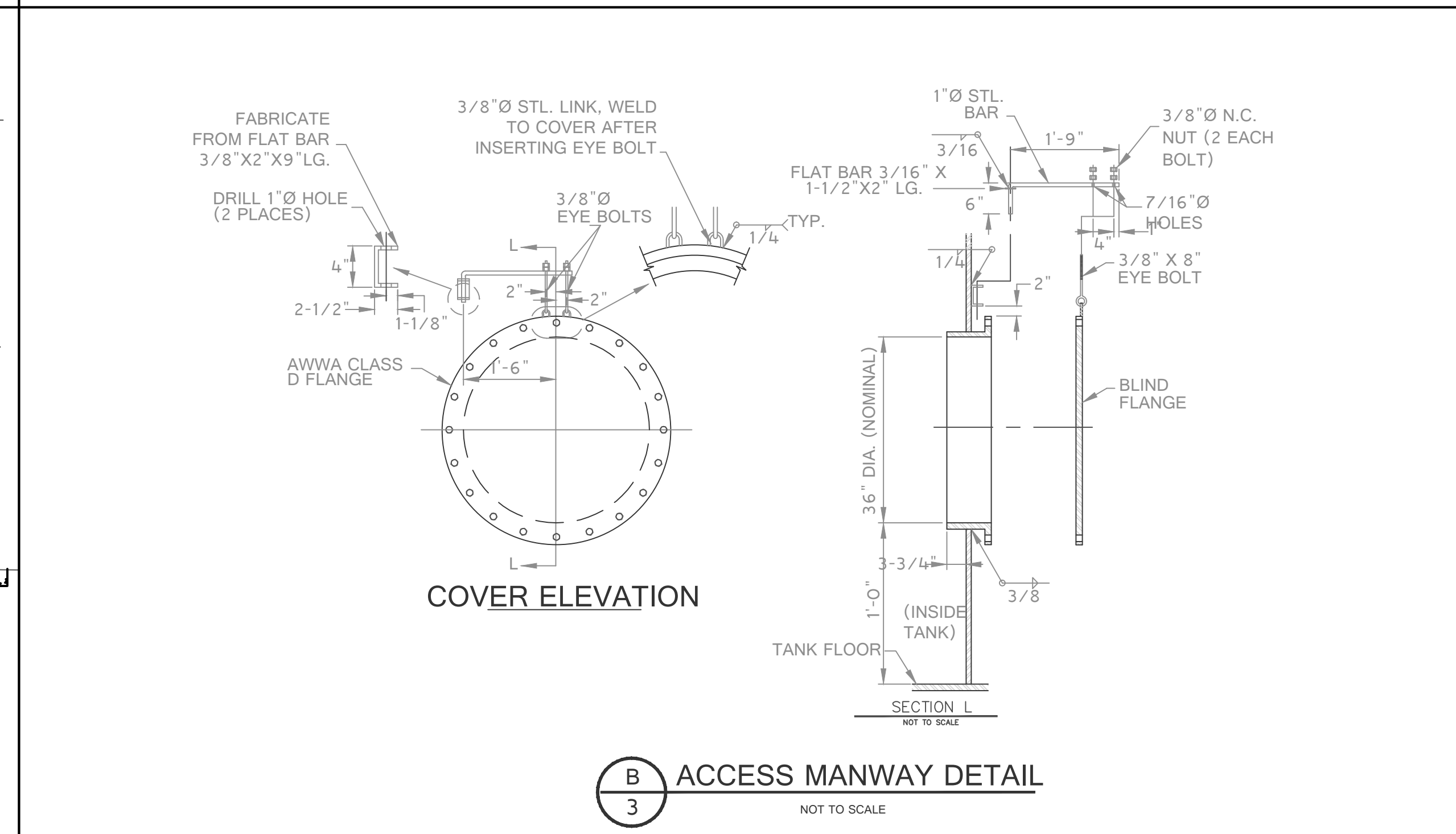
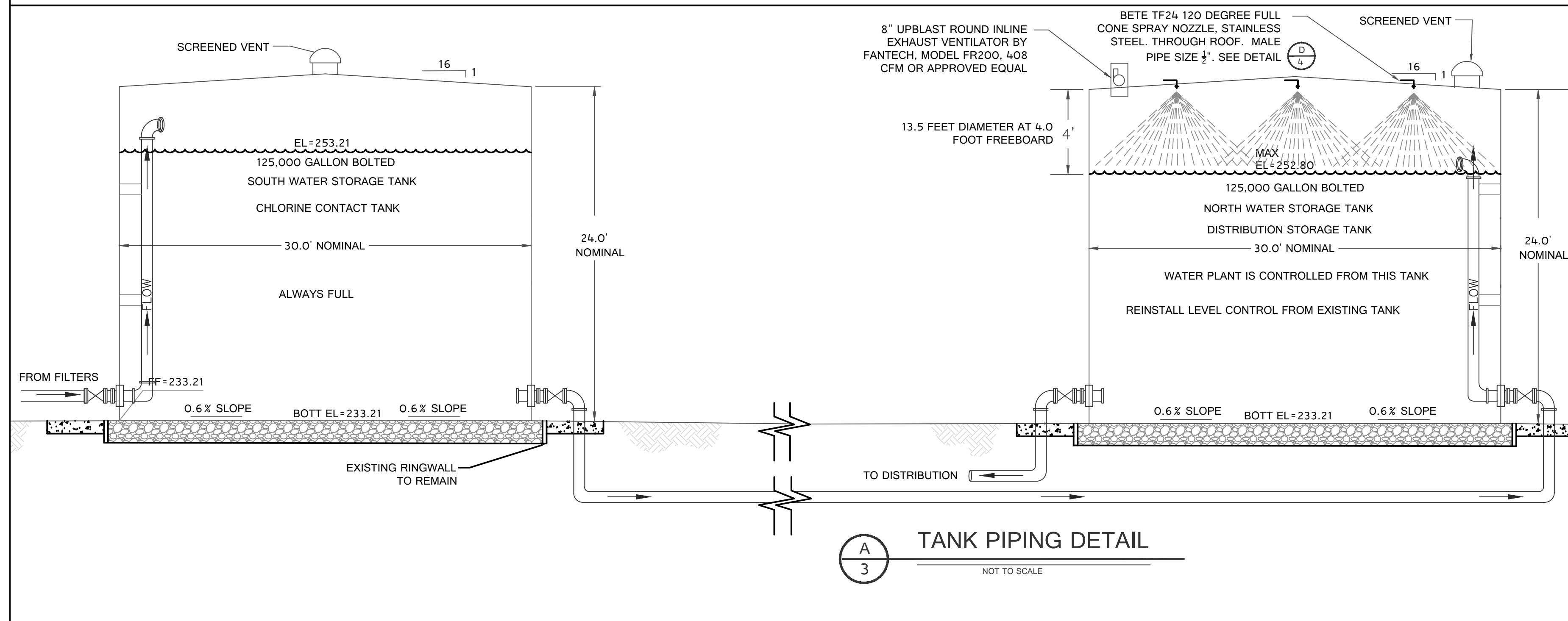
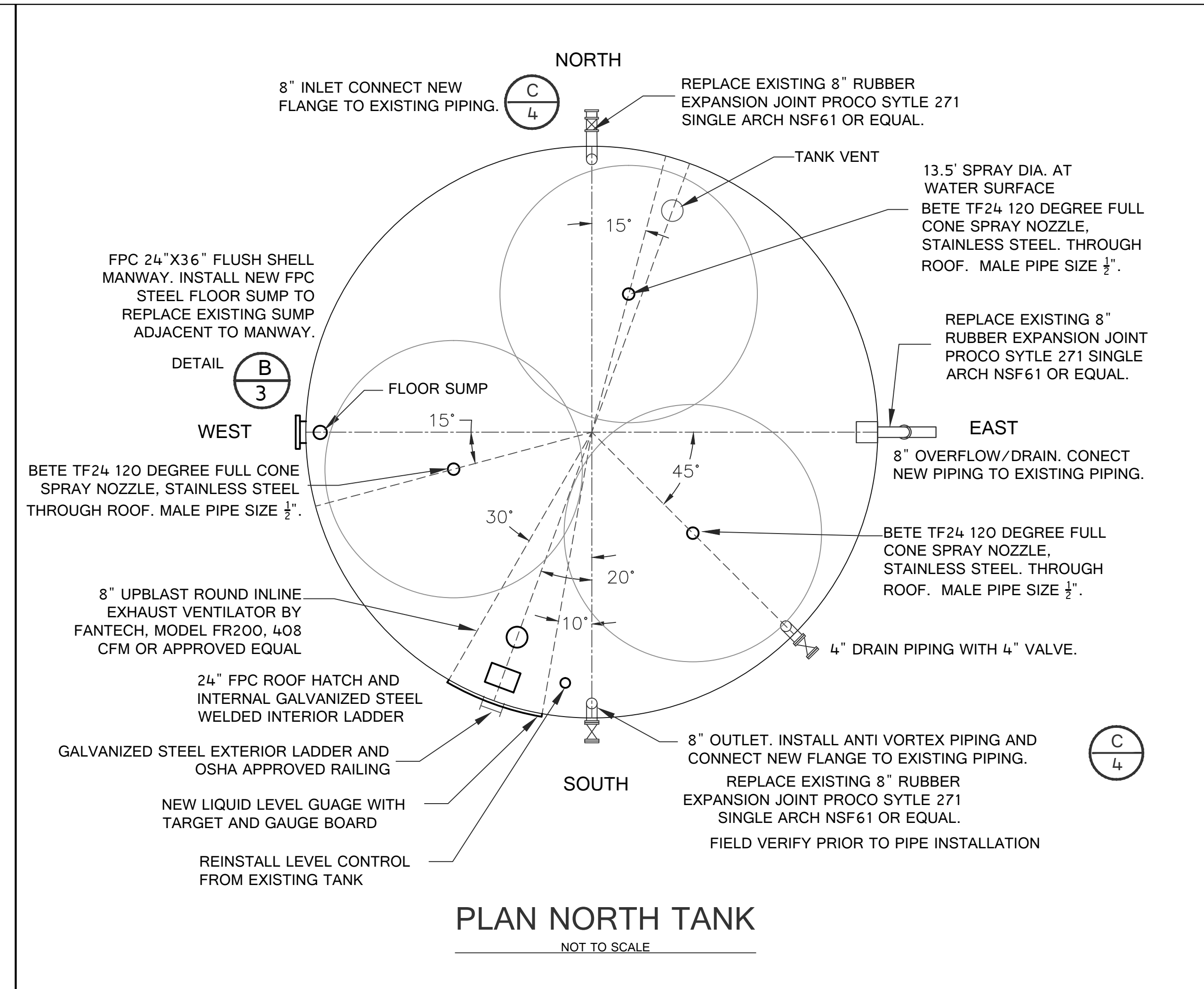
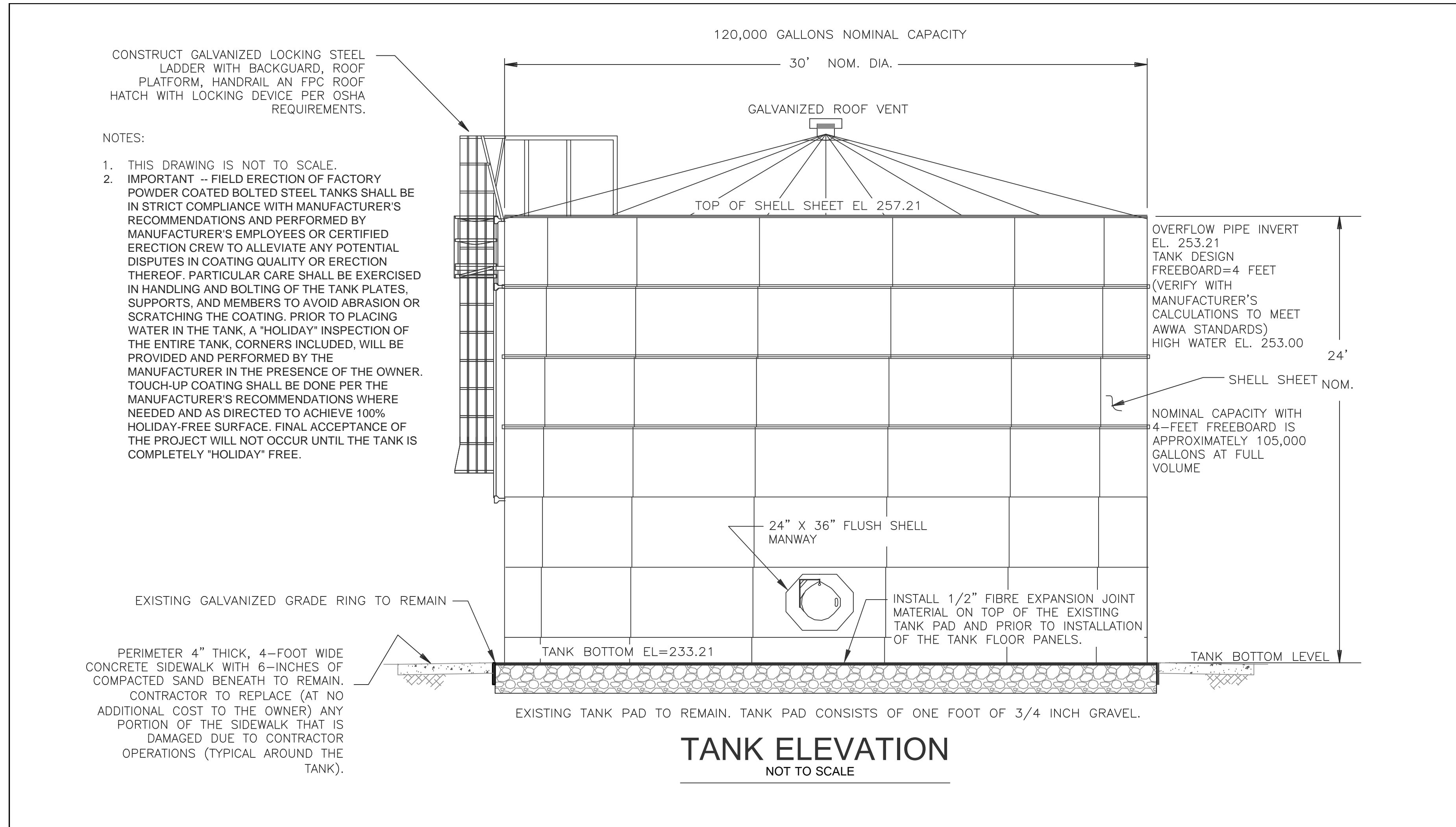
PREPARED UNDER THE DIRECT SUPERVISION OF:
David Dale
DAVID B. DALE, P.E.
9/15/17
DATE

63588
R.C.E. NO.
09/30/18
REG. EXP.

PALO VERDE COUNTY WATER DISTRICT -
NORTH BOLTED TANK REPLACEMENT AND
FILTER INSTALLATION PROJECT

SITE PLAN

DATE: 9/15/17
SCALE
DESIGN DD
DRAWING NO:
SHEET NO. 2
OF 7 SHEETS



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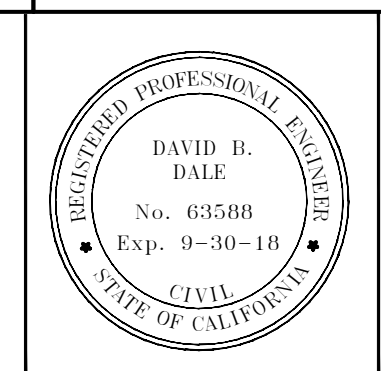
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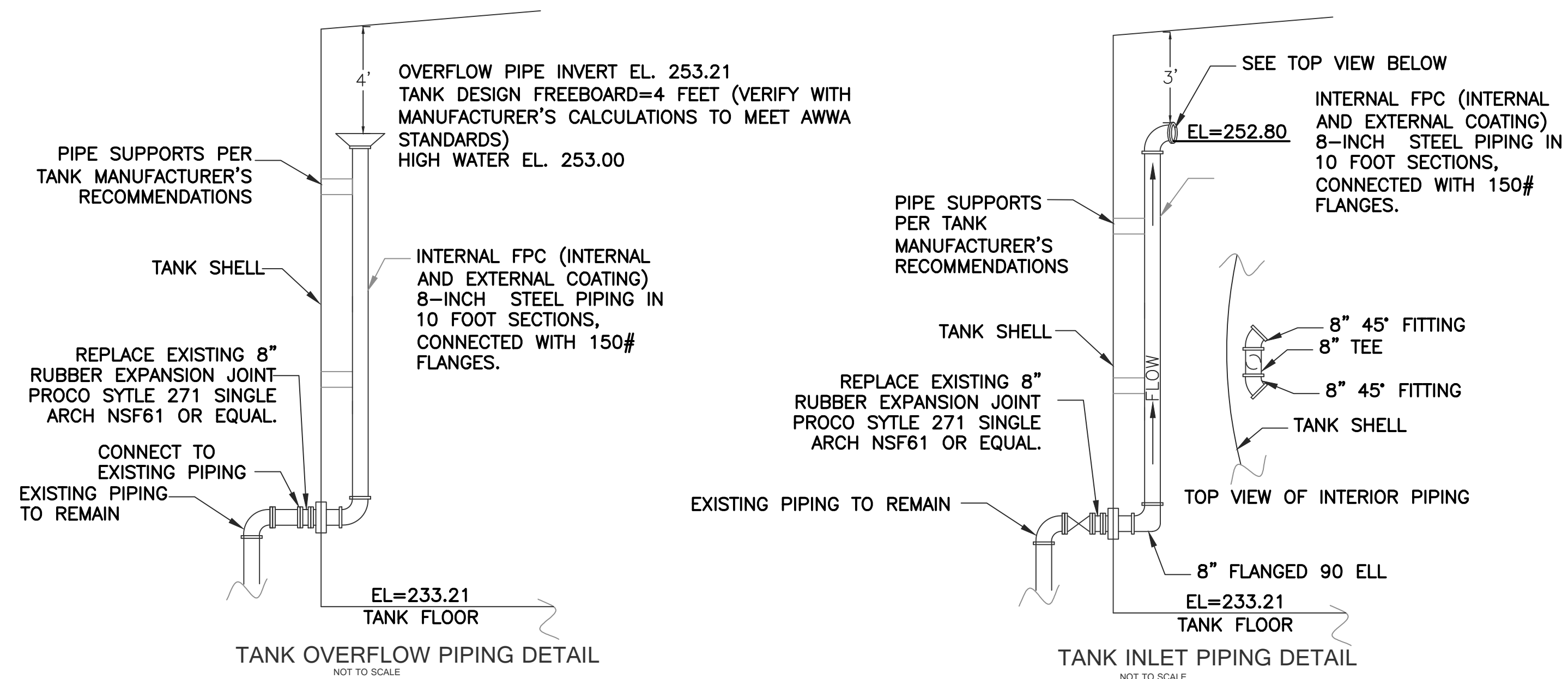
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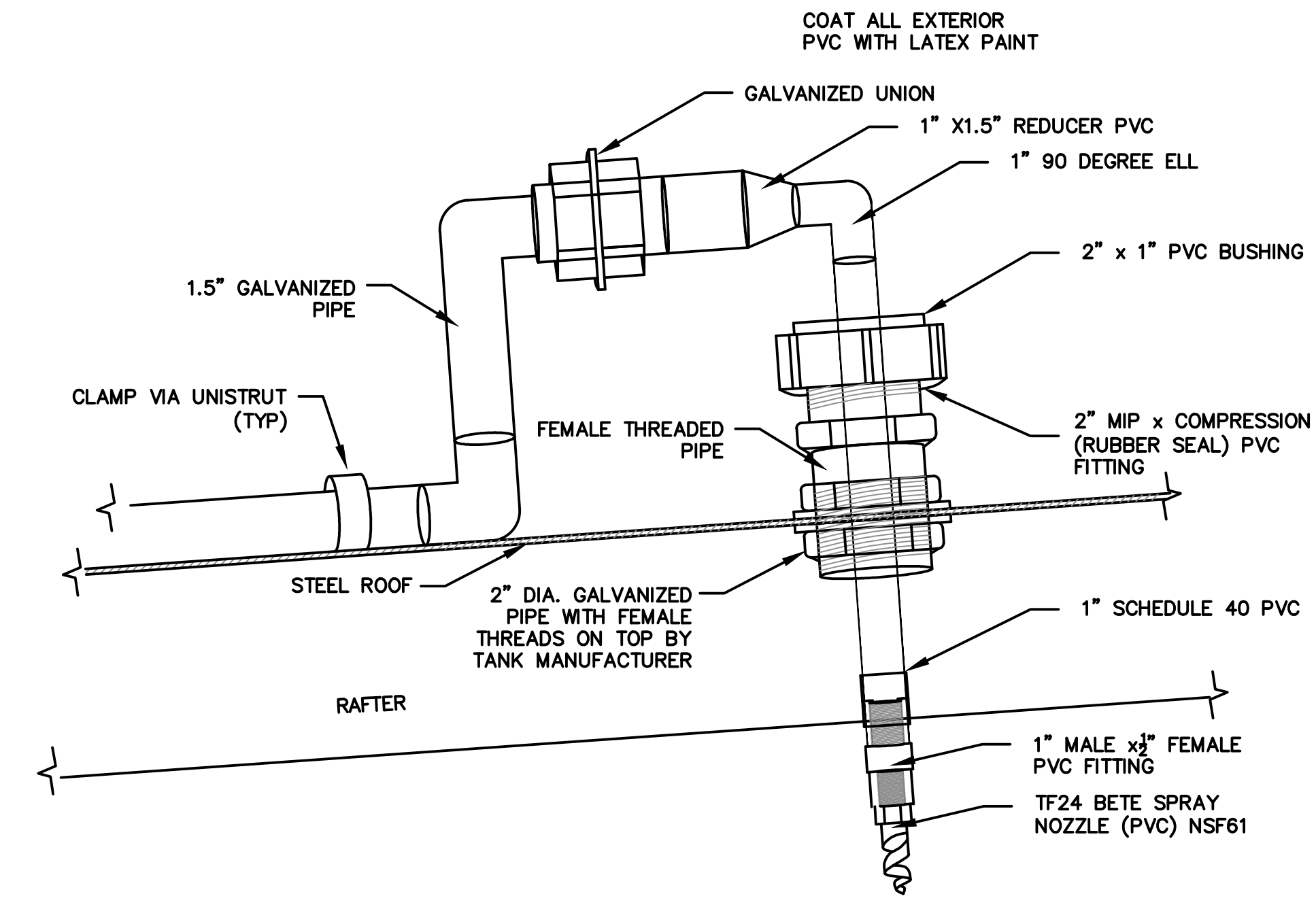
PALO VERDE COUNTY WATER DISTRICT - NORTH BOLTED TANK REPLACEMENT AND FILTER INSTALLATION PROJECT

125,000 GALLON TANK

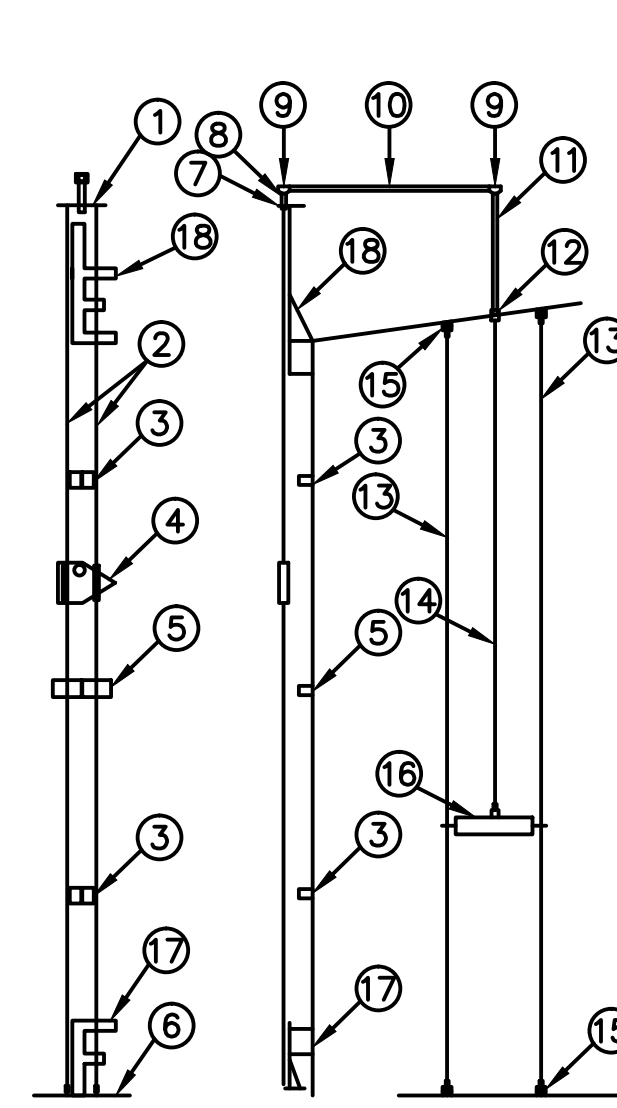
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DESIGN DD
DRAWING NO:
SHEET NO. 3 OF 7 SHEETS



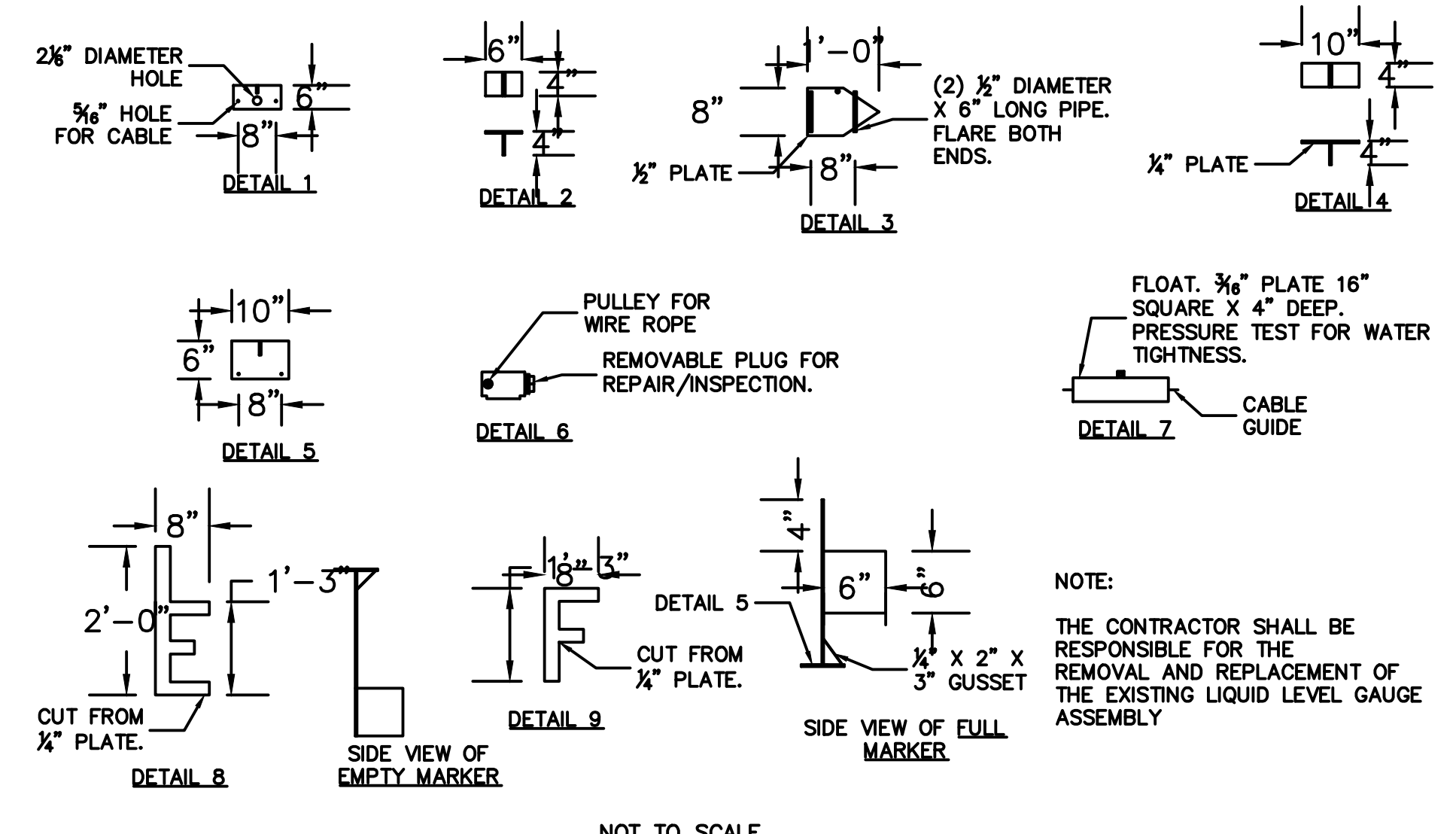
C
4
NORTH TANK PIPING DETAILS
NOT TO SCALE



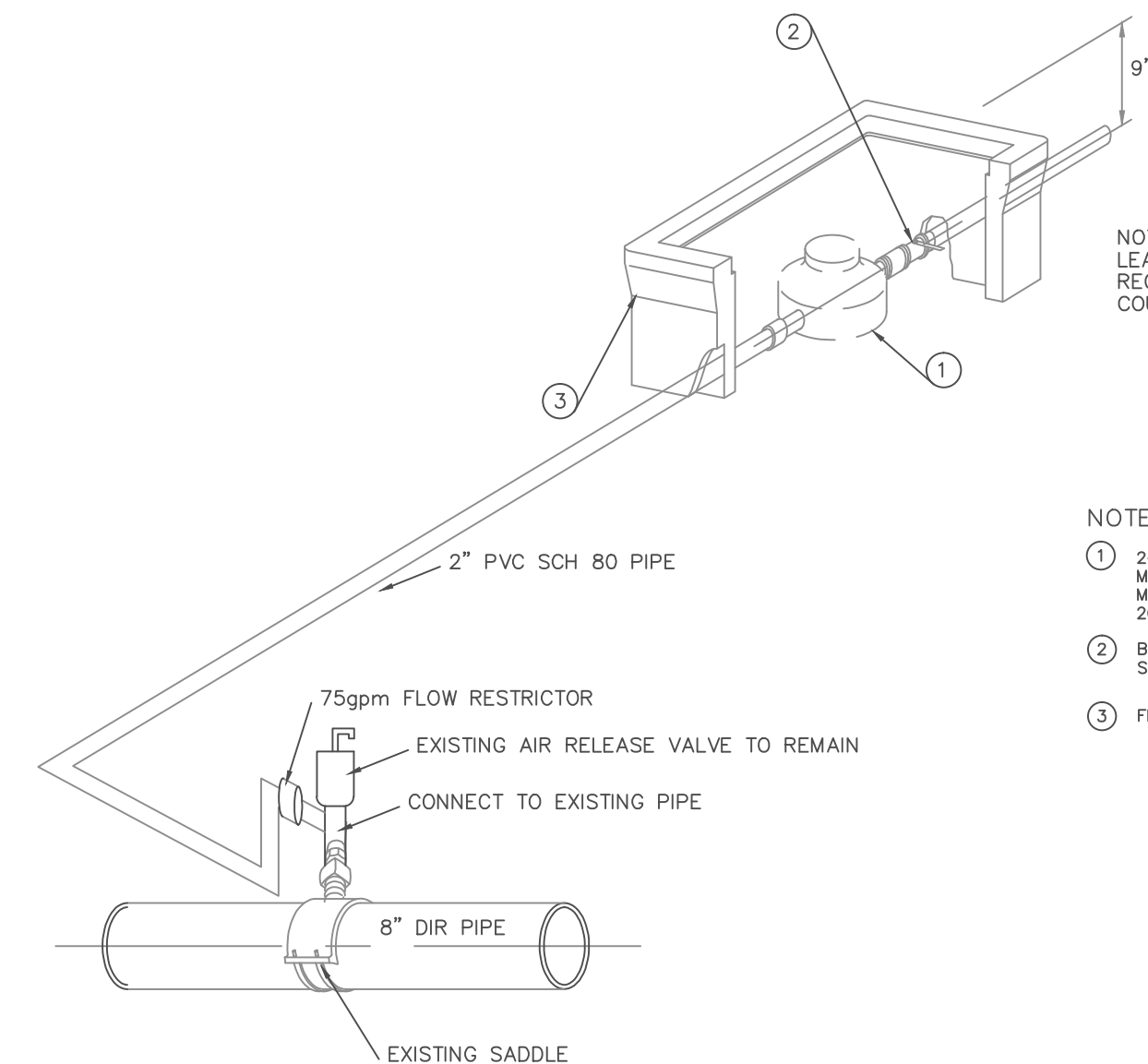
D
4
THM REDUCTION SPRAYER DETAIL
NOT TO SCALE



- EXISTING KEYNOTES**
- 1 1/4" THICK TOP PLATE. SEE DETAIL 1.
 - 2 1/2" GALVANIZED WIRE ROPE TARGET GUIDES 29' LONG WITH CABLE CLAMPS FOR EACH END.
 - 3 QUARTER MARKER - 1/4" THICK WITH 1/2"x4"x4" STAND-OFF. SEE DETAIL 2.
 - 4 1/2" THICK TARGET. SEE DETAIL 3.
 - 5 HALF MARKER - 1/4" THICK WITH 1/2"x4"x4" STAND-OFF. SEE DETAIL 4.
 - 6 1/4" THICK BOTTOM PLATE. SEE DETAIL 5.
 - 7 PIPE LOCK NUTS TO TIGHTEN AGAINST TOP PLATE.
 - 8 1 1/2" DIAMETER GALVANIZED PIPE NIPPLE X 5" LONG.
 - 9 PULLY BOX FABRICATED FROM 1 1/2" GALVANIZED PIPE TEE WITH PULLY AND SPACER INSIDE. SEE DETAIL 6.
 - 10 1 1/2" DIAMETER GALVANIZED PIPE NIPPLE X 40 1/2" LONG.
 - 11 1 1/2" DIAMETER GALVANIZED PIPE NIPPLE X 18" LONG.
 - 12 1 1/2" FORGED THREAD COUPLING WELDED IN ROOF.
 - 13 1/2" GALVANIZED WIRE ROPE FLOAT GUIDES 28' LONG WITH CABLE CLAMP AT EACH END. ATTACHED TO CLIPS.
 - 14 1/2" GALVANIZED WIRE ROPE FOR FLOAT/TARGET. 34' LONG WITH CABLE CLAMPS AT EACH END.
 - 15 1/4" X 2" SQUARE CLIPS WITH 1" HOLE IN CENTER. WELD TO FLOOR AND ROOF FOR CABLE.
 - 16 16" SQUARE X 4" FLOAT X 3/16" THICK PLATE. SEE DETAIL 7.
 - 17 1/4" THICK EMPTY MARKER PLATE. SEE DETAIL 8.
 - 18 1/4" THICK FULL MARKER PLATE. SEE DETAIL 9.



E
4
PUMP DETAILS
NO SCALE



O
4
METER DETAILS
NO SCALE

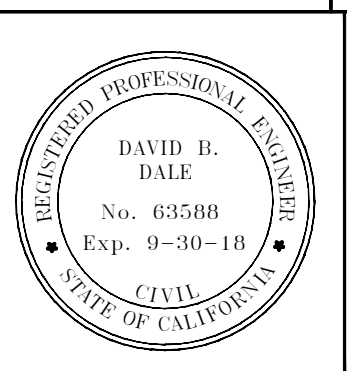
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BENCH MARK:
TEMPORARY PROJECT BENCHMARK
BENCHMARK DESCRIPTION:
CHISLED "X" ON THE NORTHWEST CORNER OF A PCC SLAB LOCATED SOUTHEAST OF THE ENTRANCE GATE TO THE WATER TREATMENT PLANT
ELEVATION = 233.00

DAVID DALE, PE
203 COUNTRYSIDE DRIVE
EL CENTRO, CA 92243
PH (760) 960-8500
EMAIL: DAVIDDALEPE@GMAIL.COM



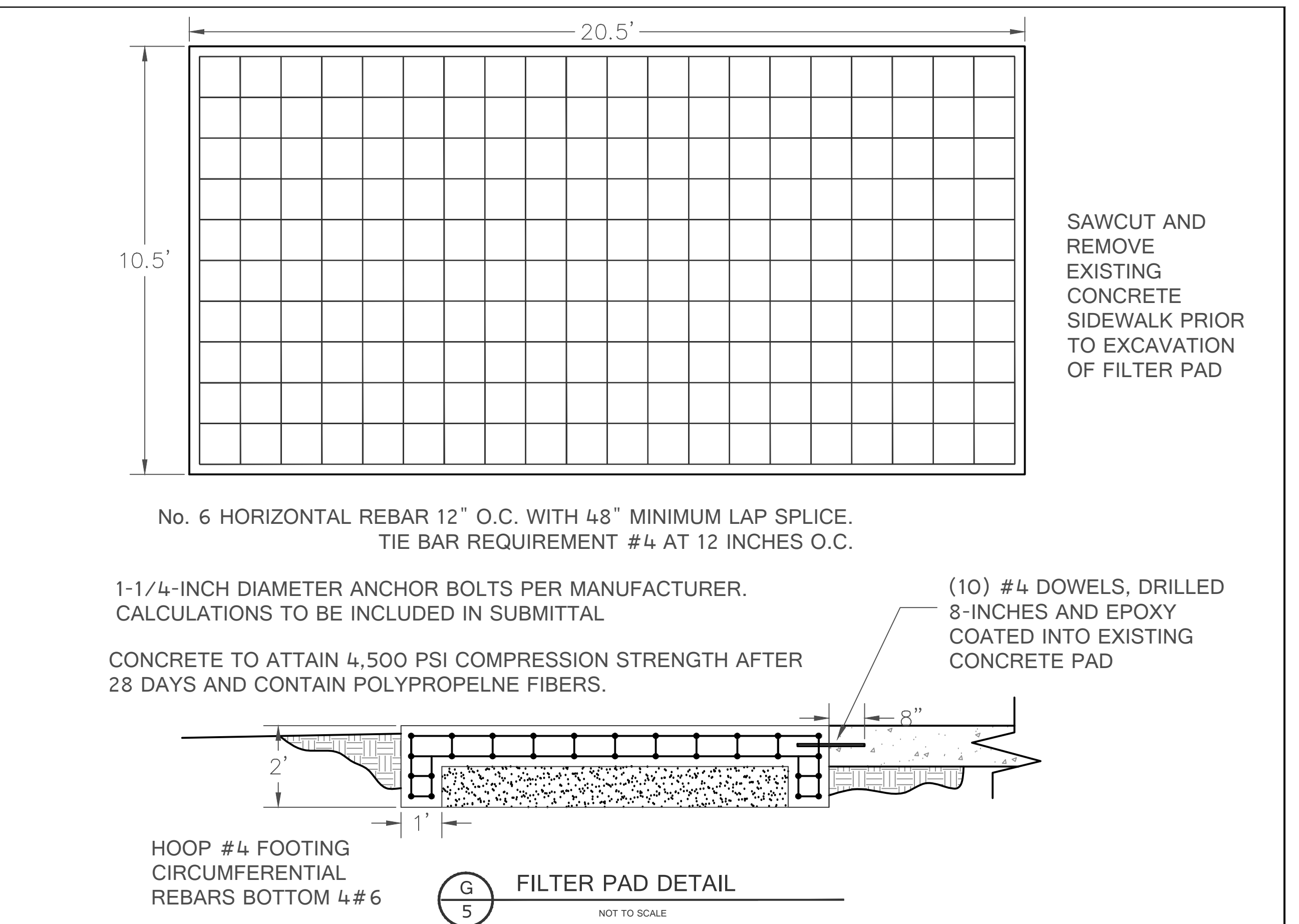
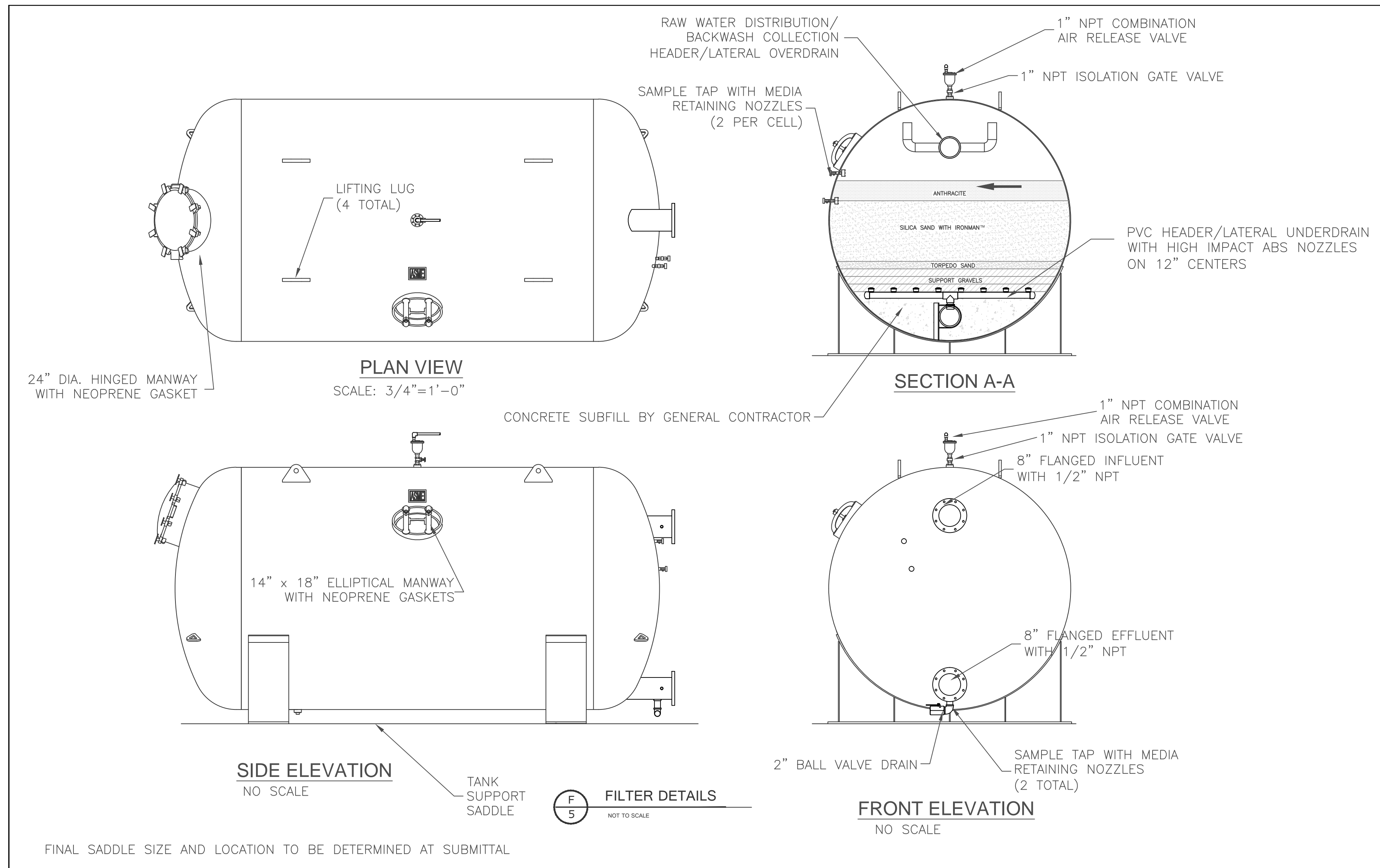
PREPARED UNDER THE DIRECT SUPERVISION OF:
David Dale
DAVID B. DALE, P.E.
DATE: 9/15/17

63588
R.C.E. NO.
09/30/18
REG. EXP.

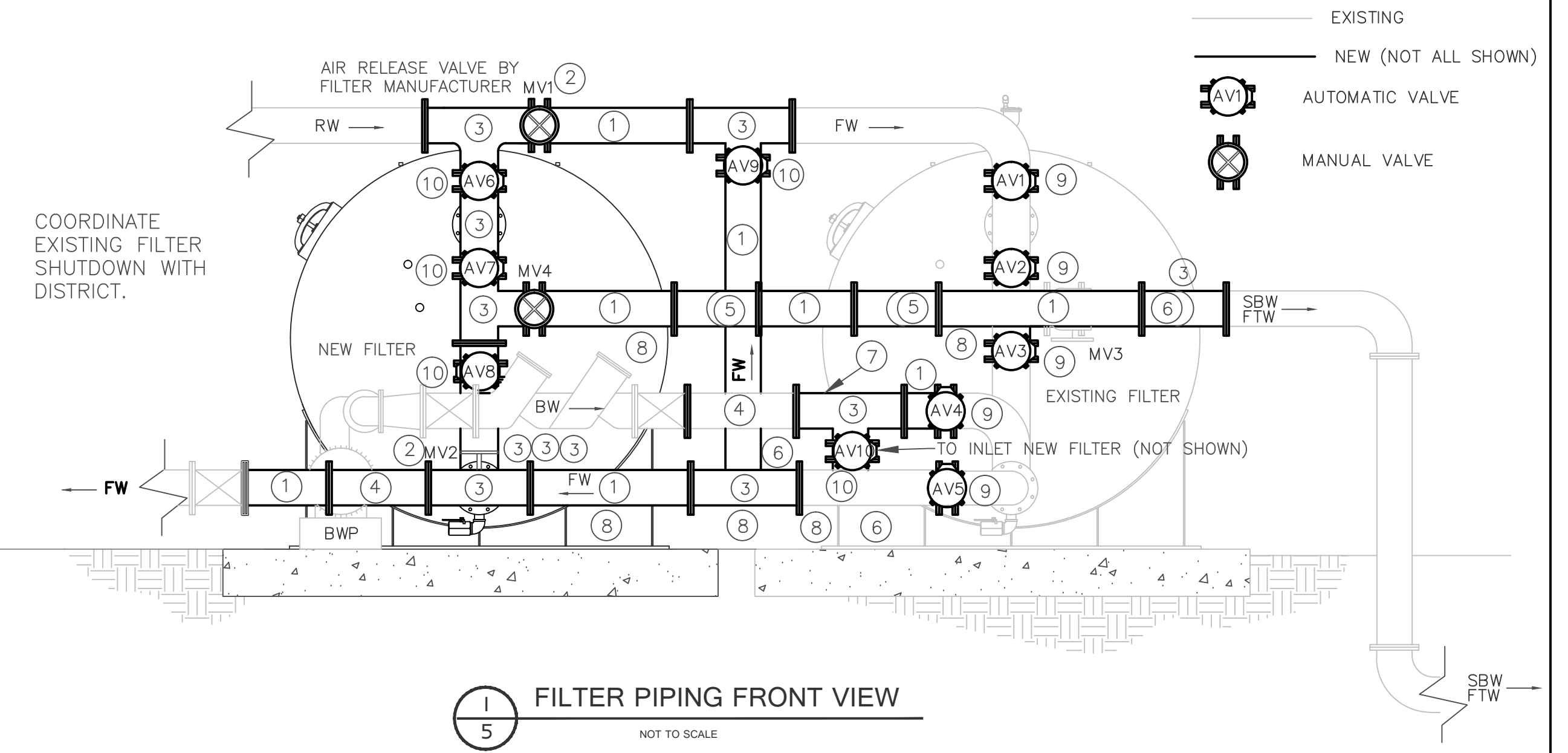
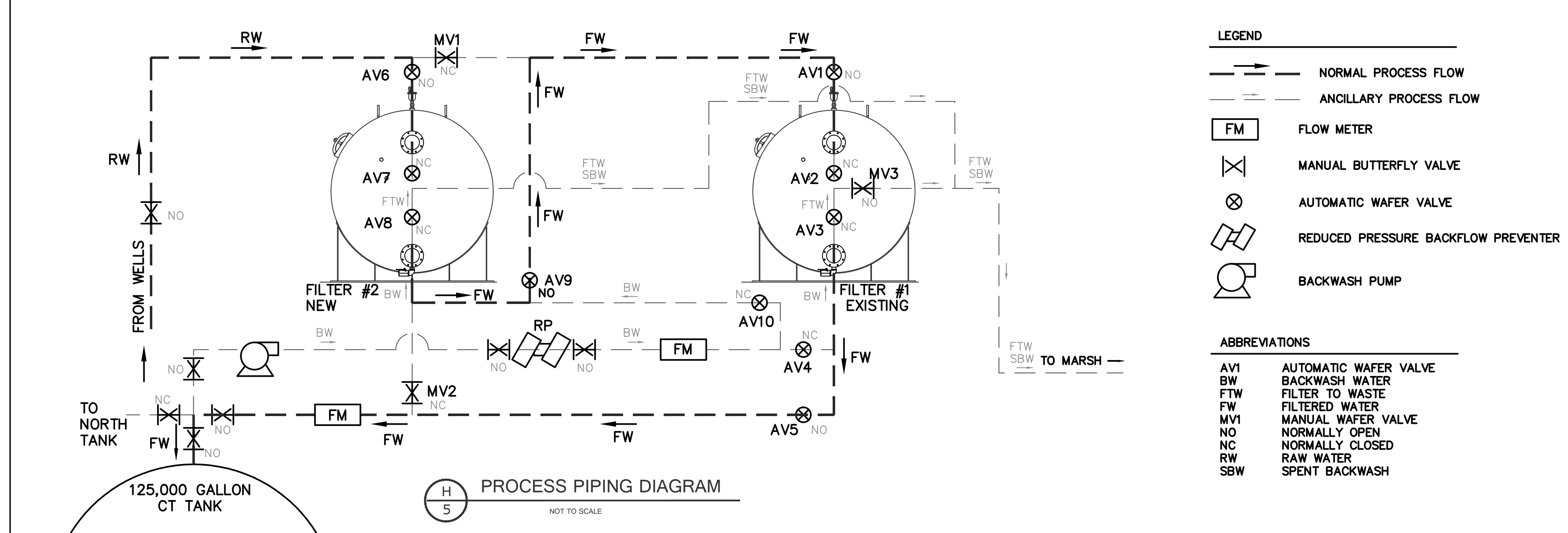
PALO VERDE COUNTY WATER DISTRICT - NORTH BOLTED TANK REPLACEMENT AND FILTER INSTALLATION PROJECT

TANK AND PIPING DETAILS

DATE: 9/15/17
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- ① 8-INCH DIAMETER PIPE/SPOOL, FIELD MEASURE TO FIT. FIELD CUT/RESTRAIN JOINTS OR FLANGED.
- ② INSTALL MANUAL WAFER VALVE
- ③ INSTALL 8-INCH TEE
- ④ RELOCATE EXISTING FLOW 8-INCH FLOW METER
- ⑤ INSTALL 45 DEGREE ELL
- ⑥ INSTALL 90-DEGREE ELL
- ⑦ REMOVE EXISTING SPOOL AND FLOW SWITCH. INSTALL NEW TEE AND INSTALL EXISTING FLOW SWITCH IN NEW TEE
- ⑧ INSTALL PIPE SUPPORT PER DETAIL
- ⑨ REPLACE EXISTING AIR ACTUATOR WITH ELECTRIC ACTUATOR
- ⑩ INSTALL NEW WAFER VALVE WITH ELECTRIC ACTUATOR



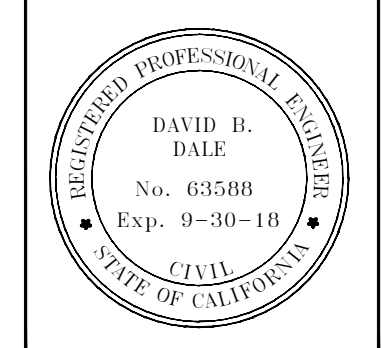
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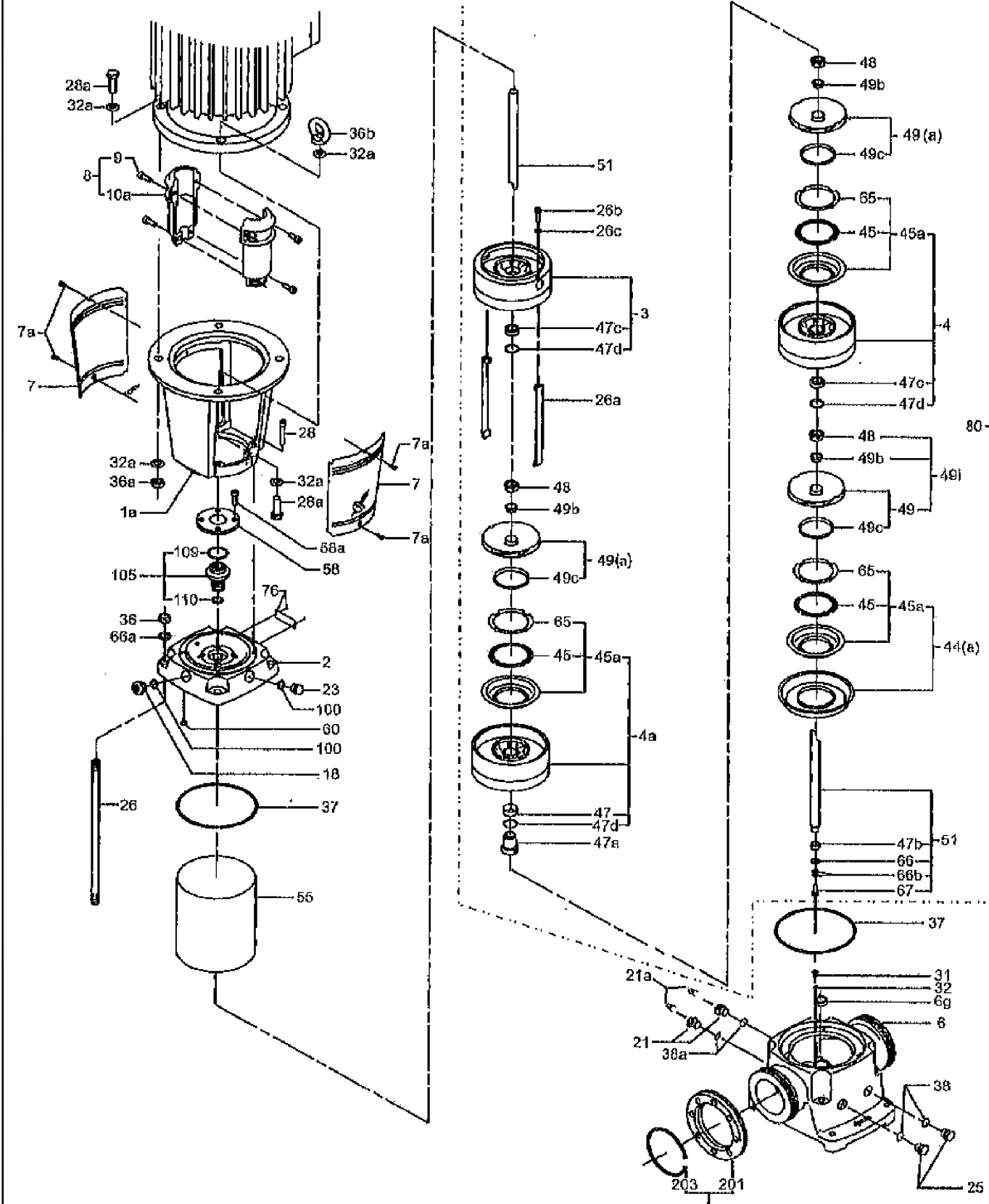
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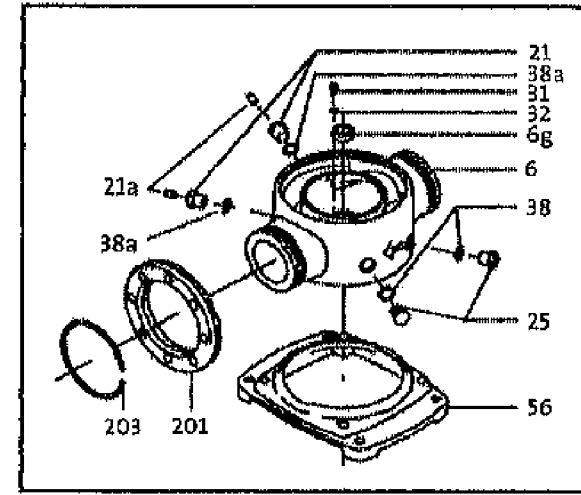
PALO VERDE COUNTY WATER DISTRICT - NORTH BOLTED TANK REPLACEMENT AND FILTER INSTALLATION PROJECT
 FILTER PLAN
 DATE: 9/15/17
 SCALE
 DESIGN DD
 DRAWING NO:
 SHEET NO. 5 OF 7 SHEETS

CR, CRN 32/45/64/90

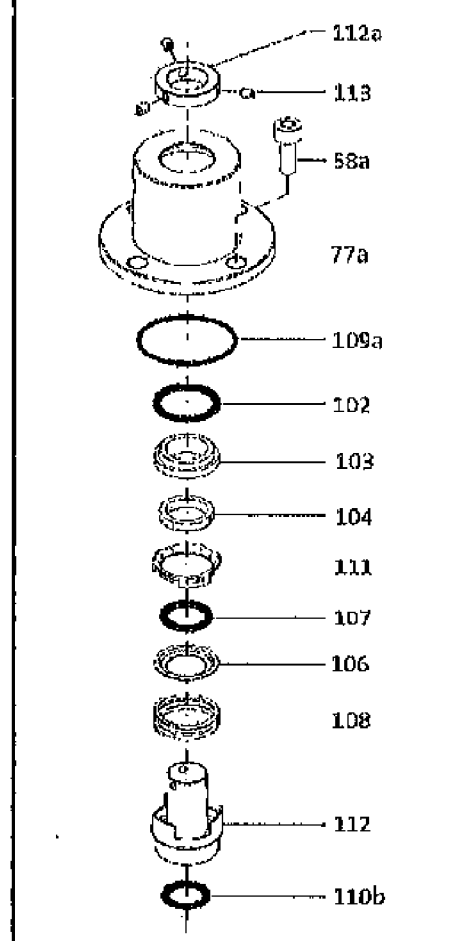
(For Position Number Reference)



For N Models

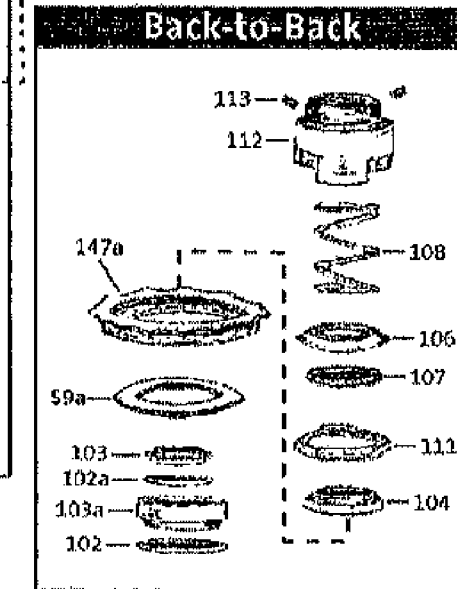


Tandem

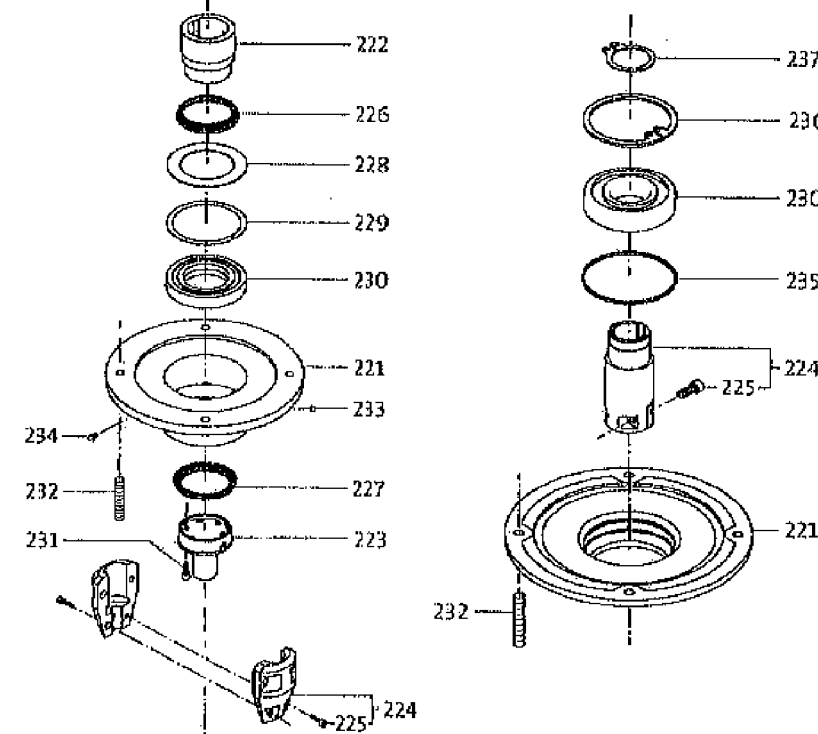


NOTE: Replace Pos. 58 with contents of 105c above.

For Back-to-Back add Pos. 105b below

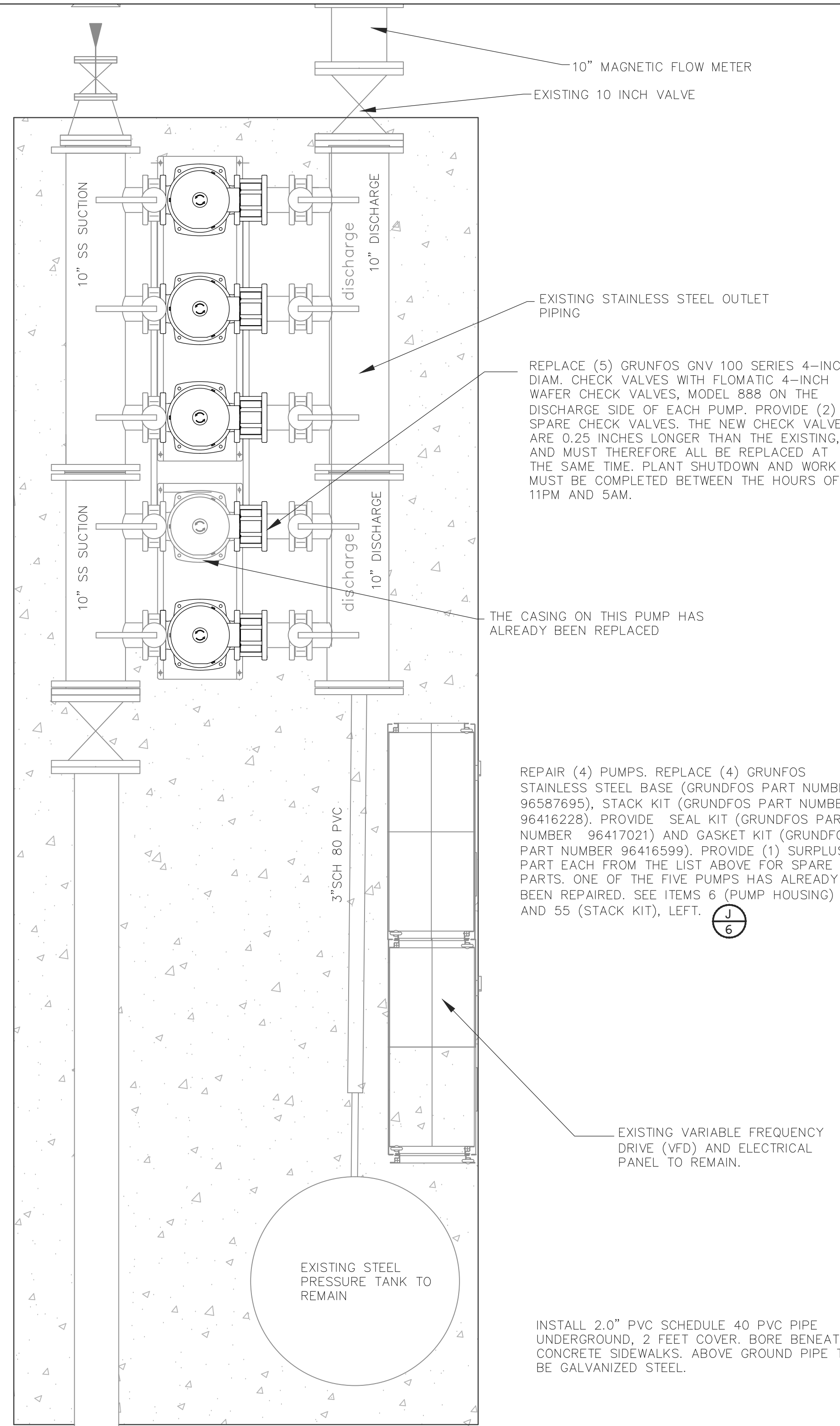


Bearing Flanges



NOTE: Some referenced position numbers may not be available as individual items (see complete kit). For contents of kits see WebCAPS.

J
6 PUMP DETAILS
NO SCALE



10" MAGNETIC FLOW METER
EXISTING 10 INCH VALVE

EXISTING STAINLESS STEEL OUTLET PIPING
REPLACE (5) GRUNFOS GNV 100 SERIES 4-INCH DIAM. CHECK VALVES WITH FLOMATIC 4-INCH WAFER CHECK VALVES, MODEL 888 ON THE DISCHARGE SIDE OF EACH PUMP. PROVIDE (2) SPARE CHECK VALVES. THE NEW CHECK VALVES ARE 0.25 INCHES LONGER THAN THE EXISTING, AND MUST THEREFORE ALL BE REPLACED AT THE SAME TIME. PLANT SHUTDOWN AND WORK MUST BE COMPLETED BETWEEN THE HOURS OF 11PM AND 5AM.

THE CASING ON THIS PUMP HAS ALREADY BEEN REPLACED

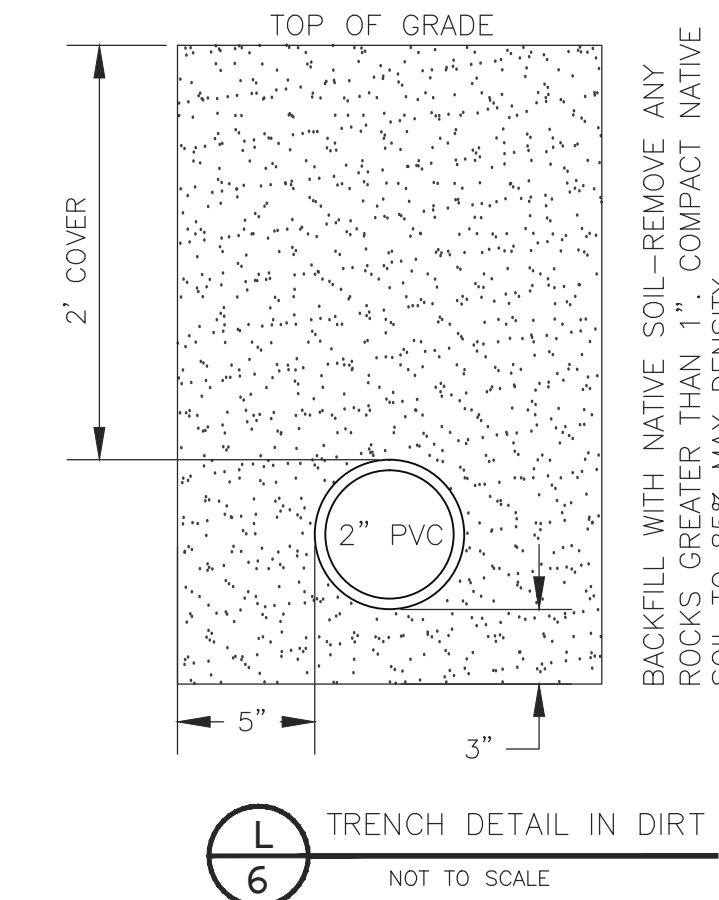
REPAIR (4) PUMPS. REPLACE (4) GRUNFOS STAINLESS STEEL BASE (GRUNDFOS PART NUMBER 96587695), STACK KIT (GRUNDFOS PART NUMBER 96416228). PROVIDE SEAL KIT (GRUNDFOS PART NUMBER 96417021) AND GASKET KIT (GRUNDFOS PART NUMBER 96416599). PROVIDE (1) SURPLUS PART EACH FROM THE LIST ABOVE FOR SPARE PARTS. ONE OF THE FIVE PUMPS HAS ALREADY BEEN REPAIRED. SEE ITEMS 6 (PUMP HOUSING) AND 55 (STACK KIT), LEFT.

EXISTING VARIABLE FREQUENCY DRIVE (VFD) AND ELECTRICAL PANEL TO REMAIN.

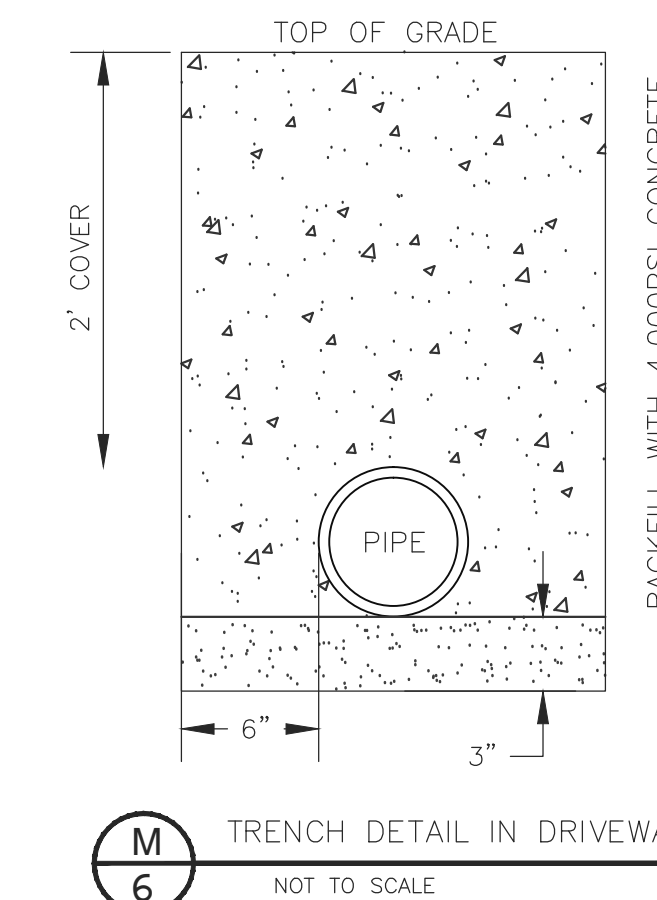
EXISTING STEEL PRESSURE TANK TO REMAIN

INSTALL 2.0" PVC SCHEDULE 40 PVC PIPE UNDERGROUND, 2 FEET COVER. BORE BENEATH CONCRETE SIDEWALKS. ABOVE GROUND PIPE TO BE GALVANIZED STEEL.

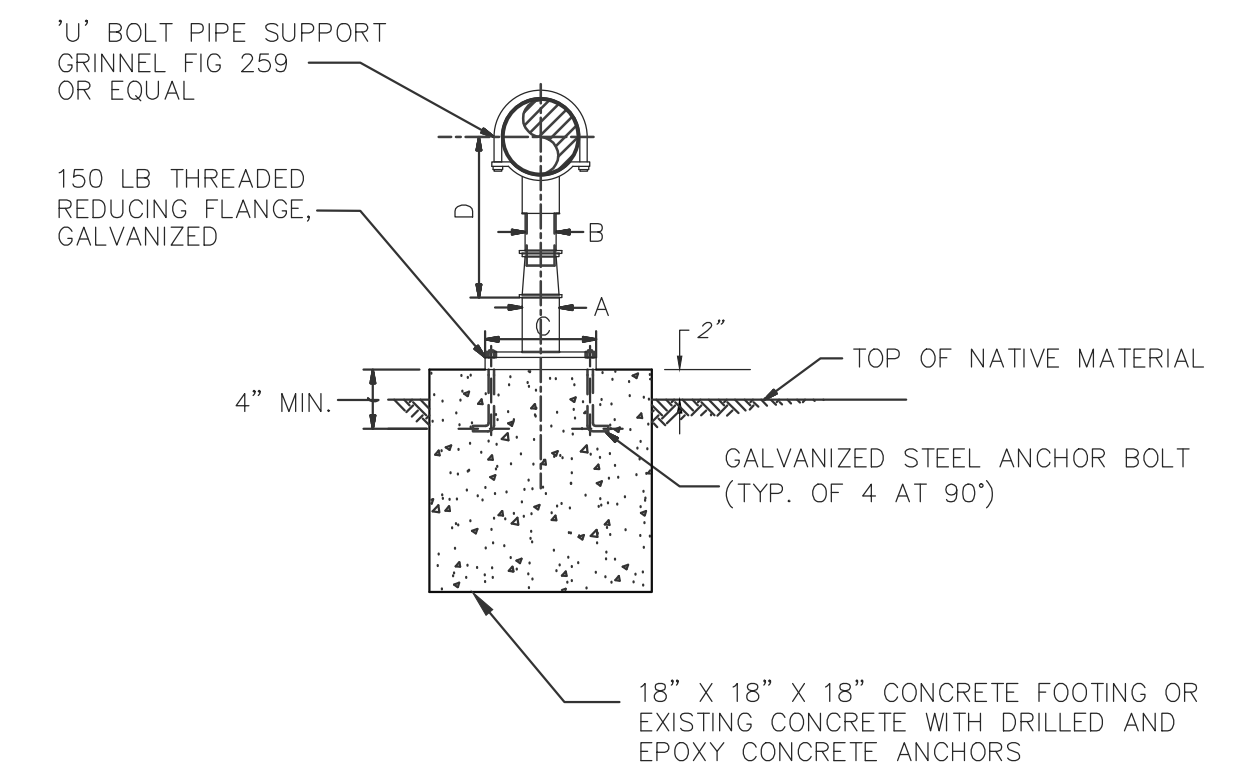
K
6 PUMP STATION PLAN
NO SCALE



L
6 TRENCH DETAIL IN DIRT
NOT TO SCALE



M
6 TRENCH DETAIL IN DRIVEWAY
NOT TO SCALE



N
6 ADJUSTABLE PIPE SUPPORT
WITH 'U' BOLT
NO SCALE

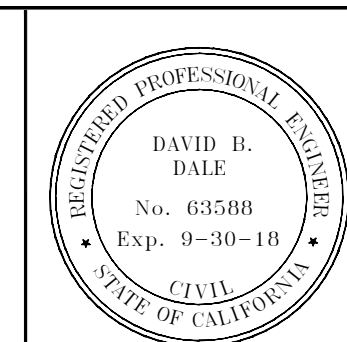
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PALO VERDE COUNTY WATER DISTRICT -
NORTH BOLTED TANK REPLACEMENT AND
FILTER INSTALLATION PROJECT

DETAILS

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6
OF 7 SHEETS

ELECTRICAL GENERAL NOTES:

1. ALL MATERIALS AND WORKMANSHIP TO BE NEW AND OF FIRST RATE QUALITY. MATERIALS TO BE UL LISTED AND APPROVED. ALL MATERIALS AND EQUIPMENT SHALL BE INSTALLED IN COMPLIANCE WITH THE CURRENT ADOPTED EDITION OF THE CALIFORNIA ELECTRICAL CODE AND ANY OTHER STATE AND LOCAL APPLICABLE CODES.
2. ALL CEILING, FLOOR, AND WALL PENETRATIONS AND BOXES SHALL BE CAULKED/SEALED TO PRESERVE FIRE RATINGS AND WATER PROOF INTEGRITY. FIRESTOPPING OF PENETRATIONS IN AND THROUGH FIRE RATED FLOORS, CEILINGS & WALLS SHALL BE IN ACCORDANCE WITH IBC & UL AND AS REQUIRED BY THE FIRESTOPPING MANUFACTURER FOR THE CONSTRUCTION TYPE & FIRE RATING SPECIFIED (SEE ARCHITECTURAL DRAWINGS). THE FIRESTOPPING SYSTEM SHALL BE LISTED AND TESTED TO UL-1479 & ASTM E-814. INSTALL IN STRICT COMPLIANCE WITH THE MANUFACTURER INSTRUCTIONS.
3. ALL ELECTRICAL CONDUCTORS SHALL BE COPPER, 90 DEGREE C TEMPERATURE RATING. MINIMUM SIZE IS NO. 12 AWG. ALL WIRING SHALL BE IN CONDUIT UNLESS OTHERWISE NOTED ON THE DRAWINGS. UNDERGROUND CONDUCTORS MUST BE RATED FOR 90 DEGREE C AS DEFINED FOR "WET LOCATION" BY THE NEC UNLESS NOTED.
- 4.A. ALL CONDUIT SHALL BE METALLIC ELECTRICAL CONDUIT UNLESS NOTED OTHERWISE ON THE DRAWINGS. MINIMUM SIZE CONDUIT IS 1/2". ALL CONDUITS AND BOXES SHALL BE CONCEALED ABOVE CEILINGS, IN WALLS OR UNDER FLOORS AS REQUIRED OR AS NOTED OTHERWISE ON THE DRAWINGS.
4. B. UNDERGROUND CONDUIT SHALL BE MINIMUM OF SCHEDULE 40 PVC, 90 DEGREE C. RATED WITH MINIMUM OF TRENCH COVER PER NEC TABLE 300-5. ALL UNDERGROUND JUNCTION/PULL BOXES SHALL BE RATED THE SAME AS THE ASSOCIATED CONDUIT, MINIMUM SIZE UNDERGROUND CONDUIT IS 3/4".
5. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF CONDUIT, WIRING, ELECTRICAL EQUIPMENT AND ASSOCIATED HARDWARE WITH THE INSTALLATION OF THE MECHANICAL EQUIPMENT AND OTHER TRADES. SEE THE CIVIL PLANS FOR EXACT LOCATIONS.
6. THE ELECTRICIAN IS RESPONSIBLE FOR COORDINATION AND INSTALLATION OF SERVING ELECTRICAL TELEPHONE/TV COMPANY CONDUIT SYSTEMS AND SERVICE EQUIPMENT. UNDERGROUND TRENCH LOCATIONS SHOWN ARE APPROXIMATE AND MUST BE VERIFIED BY THE SERVING UTILITY. CONTACT WITH THE SERVING UTILITIES IS REQUIRED PRIOR TO INSTALLATION. THE CONTRACTOR IS RESPONSIBLE FOR EXISTING FIELD CONDITIONS AND PROVIDING A FULL FUNCTIONING ELECTRICAL SYSTEM.
7. ALL LIGHT FIXTURES, RECEPTACLE AND JUNCTION BOXES, PANEL BOARDS AND ALL OTHER METALLIC ELECTRICAL APPLIANCES AND DEVICES MUST BE GROUNDED AS REQUIRED BY SECTION 250 OF THE NATIONAL ELECTRICAL CODE.
8. ASBESTOS CONTAINING MATERIALS MAY BE PRESENT IN THE EXISTING STRUCTURES ON THIS PROJECT. THE CONTRACTOR SHALL TAKE APPROPRIATE SAFETY PRECAUTIONS IN ACCORDANCE WITH OSHA AND EPA REGULATIONS DURING INSTALLATION OF ELECTRICAL EQUIPMENT AND, OR REMOVAL OF EXISTING BUILDING MATERIALS WHICH MAY CONTAIN ASBESTOS. CONTRACTOR SHALL IMMEDIATELY CEASE WORK AND NOTIFY THE OWNER OF ANY MATERIALS BELIEVED TO CONTAIN ASBESTOS. WORK SHALL PROCEED ONLY UPON DIRECTION FROM THE OWNER.

ELECTRICAL SPECIFICATIONS:

FURNISH AND INSTALL, INCLUDING LABOR, SUPERVISION, MATERIALS, TOOLS, SERVICES, TRANSPORTATION, OVERHEAD COSTS, FEES, PLAN CHECK FEES, INSPECTION CHARGES, ROYALTIES, PROFITS, ETC., A COMPLETE ELECTRICAL INSTALLATION AS SPECIFIED HEREIN AND INDICATED ON THE ELECTRICAL DRAWINGS. PERFORM WORK IN AN APPROVED, NEAT, FIRST CLASS, SAFE, WORKMANSHIP LIKE MANNER THAT COMPLIES WITH ALL APPLICABLE LOCAL, STATE, FEDERAL, AND SERVICING ELECTRICAL AND TELEPHONE UTILITIES, ETC., CODES, ORDINANCES, RULES, REGULATIONS, STANDARDS, ETC. THE ENTIRE ELECTRICAL INSTALLATION SHALL COMPLY WITH OR SURPASS THE MOST RECENT EDITION OF THE CALIFORNIA ELECTRICAL CODE AND OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA).

ALL MATERIALS AND EQUIPMENT FURNISHED BY THE ELECTRICAL CONTRACTOR SHALL BE NEW OF FIRST-CLASS QUALITY UNLESS NOTED OTHERWISE. FREE FROM DEFECTS, AND CONFORM WITH UNDERWRITER LABORATORIES INC. STANDARDS AND BE SO LABELED MATERIALS, EQUIPMENT ETC. NOT INDICATED ON DRAWINGS OR SPECIFIED HEREIN BUT REQUIRED FOR A SUCCESSFUL AND EFFICIENT COMPLETION OF THE ELECTRICAL INSTALLATION SHALL BE HELD TO BE IMPLIED AND SHALL BE FURNISHED AND INSTALLED AT NO ADDITIONAL COST. ENCLOSURES FOR ALL EQUIPMENT SHALL BE SUITABLE FOR USE INTENDED e.g., WEATHER-PROOF FOR EXTERIOR AND WET LOCATIONS. ALL EQUIPMENT SHALL BE RATED FOR USE INTENDED, e.g., VOLTAGE, HORSE POWER, RATING OF DISCONNECT SWITCHES, ETC.

MATERIALS, EQUIPMENT, ETC., INCLUDING THOSE FURNISHED BY OTHERS, THAT ARE TO BE INSTALLED BY THE ELECTRICIAN SHALL BE RECEIVED AND PROPERLY PROTECTED BY THE CONTRACTOR UNTIL ENTIRE INSTALLATION IS COMPLETE.

MAKE NO INSTALLATION OF WORK WHICH WOULD LEAVE INADEQUATE OPERATION OR SERVICING SPACE FOR ANY ITEM FOR THE ENTIRE PROJECT. DRAWINGS ARE NOT INTENDED TO SHOW IN DETAIL ALL FEATURES OF WORK. CHECK LOCATION AT ELECTRICAL WORK TO DETERMINE IN ADVANCE THAT IT CLEARS ALL OPENINGS, STRUCTURAL MEMBERS, ETC. THE CONTRACTOR SHALL INSTALL ALL THE MINIMUM CODE REQUIRED MATERIALS AND EQUIPMENT AT NO ADDITIONAL COST.

ALL WIRING SHALL BE INSTALLED IN APPROVED RACEWAYS IF REQUIRED BY CODES. RACEWAYS SHALL BE APPROVED FOR USE INTENDED. ALL ELECTRICAL CONDUCTORS SHOWN ARE 600V COPPER, MINIMUM SIZE CONDUCTOR IS NO. 12 AWG, AND AS RECOMMENDED BY SUPPLIER OF EQUIPMENT AS APPLICABLE.

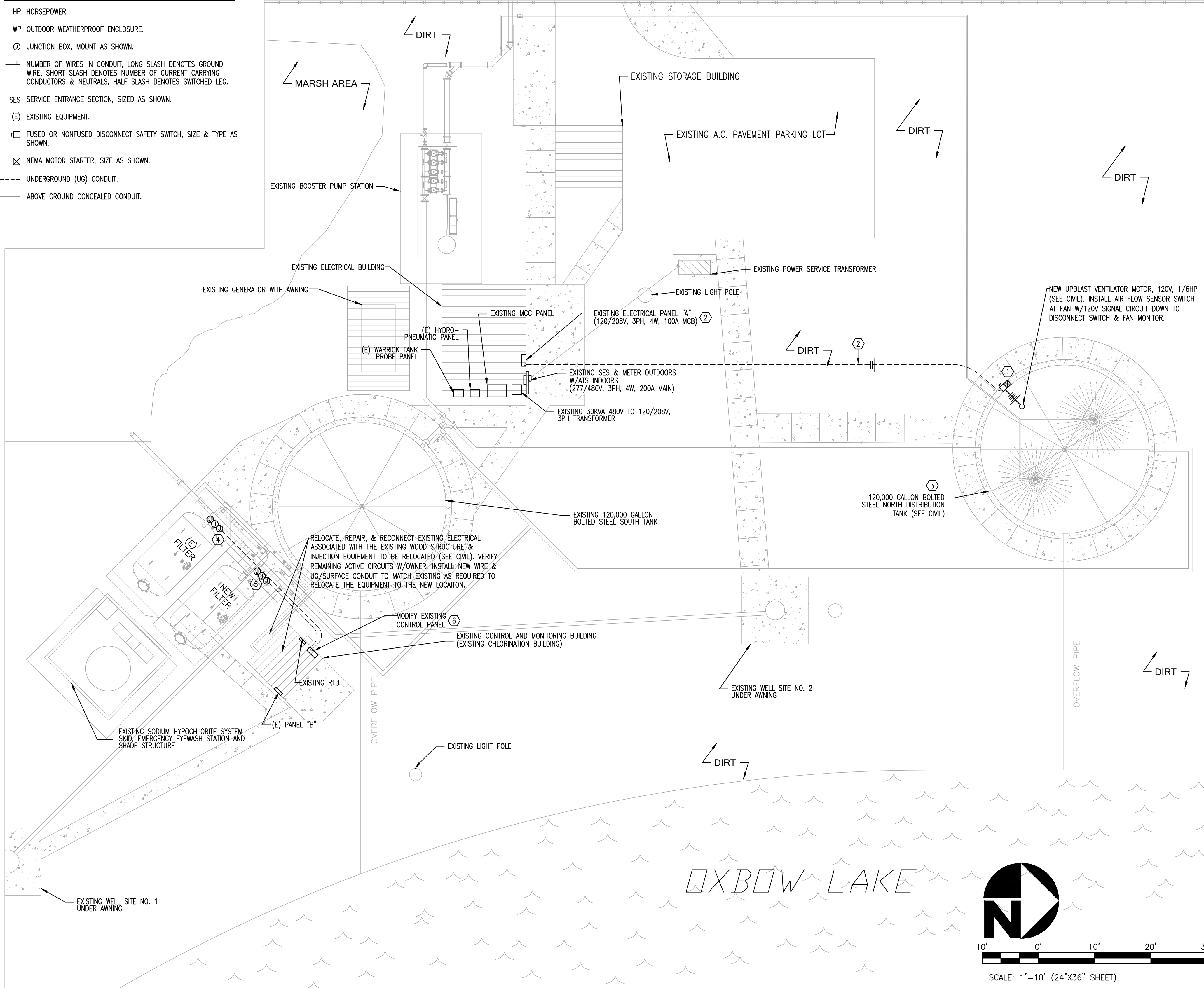
LABEL EQUIPMENT & WIRING PER NEC. UPDATE TYPED PANEL DIRECTORIES AND IDENTIFY ALL CIRCUITS & SPACES. LABEL EQUIPMENT WITH MYCARTA TAGS, 1/4" ENGRAVED LETTERS. PROVIDE WIRE COLOR CODING PER NEC & ACCEPTED STANDARDS. PROVIDE UNDERGROUND WARNING TAPE AT ALL UNDERGROUND CONDUIT SYSTEMS.

THIS CONTRACT IS TO INCLUDE ALL CONTINGENCIES WHICH MAY ARISE AND WHICH MAY BE REQUIRED TO MAKE A COMPLETE ELECTRICAL SYSTEM. THE ELECTRICAL CONTRACTOR SHALL VISIT SITE AND DETERMINE EXTENT OF THE WORK. AT COMPLETION OF ELECTRICAL INSTALLATION, PROVIDE OWNER WITH ACCURATE AS-BUILT DRAWINGS INDICATING ALL VARIATIONS FROM CONTRACT DRAWINGS, AND A LETTER TO THE OWNER'S REPRESENTATIVE STATING PROJECT FULLY COMPLIES WITH ALL CONTRACT DOCUMENTS AND IF NOT, HOW INSTALLATION WAS ACCOMPLISHED. ALL CHANGES SHALL BE SUBJECT TO OWNER'S REPRESENTATIVE'S APPROVAL.

PROVIDE NECESSARY LABOR, TOOLS, EQUIPMENT, e.g., VOLTMETER, AMMETER, MEGGER, ETC., AND CHECK ENTIRE ELECTRICAL SYSTEM IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE. ALL TESTING SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION OF EQUIPMENT, MATERIALS, ETC., BEING TESTED.

ELECTRICAL SYMBOLS:

- HP HORSEPOWER.
- WP OUTDOOR WEATHERPROOF ENCLOSURE.
- ⊙ JUNCTION BOX, MOUNT AS SHOWN.
- ⎓ NUMBER OF WIRES IN CONDUIT, LONG SLASH DENOTES GROUND WIRE, SHORT SLASH DENOTES NUMBER OF CURRENT CARRYING CONDUCTORS & NEUTRALS, HALF SLASH DENOTES SWITCHED LEG.
- SES SERVICE ENTRANCE SECTION, SIZED AS SHOWN.
- (E) EXISTING EQUIPMENT.
- ⎓ FUSED OR NONFUSED DISCONNECT SAFETY SWITCH, SIZE & TYPE AS SHOWN.
- ☒ NEMA MOTOR STARTER, SIZE AS SHOWN.
- UNDERGROUND (UG) CONDUIT.
- ABOVE GROUND CONCEALED CONDUIT.



KEY NOTES:

1. PROVIDE & INSTALL FAN MOTOR MANUAL DISCONNECT SWITCH & MONITOR, MIN. 20A/1P, NON-FUSED, NEMA 3R ENCLOSURE, MOTOR ELAPSED TIME METER (ETM), & FAN RUNNING PILOT LIGHT. PROVIDE & INSTALL IP65 AIR FLOW MONITOR SENSOR ('NO' TYPE) AT FAN WIRED IN SERIES WITH THE ETM AND PILOT LIGHT. NORMAL AIR FLOW AT OPERATIONAL FAN SHALL MAINTAIN THE 'NO' SWITCH IN A CLOSED POSITION & MAINTAIN THE ETM AND PILOT LIGHT ON. UPON FAN FAILURE & LOSS OF AIR FLOW, POWER TO THE ETM & PILOT LIGHT WILL SHUT DOWN.
2. VERIFY EXISTING SPARE 20A CIRCUIT BREAKER AT SPACE 14 & CONNECT NEW FAN BRANCH CIRCUIT. INSTALL NEW FAN BRANCH CIRCUIT TO TANK IN 3/4" PVC UG CONDUIT. NEW BRANCH CIRCUIT WILL ADD 122W ADDITIONAL LOAD TO THE EXISTING PANEL.
3. COORDINATE WITH CIVIL ENGINEER & RELOCATE/REPLACE/RECONNECT EXISTING LEVEL SENSORS AND CONTROL/SIGNAL CIRCUITS AS NEEDED.
4. COORDINATE REMOVAL OF EXISTING PNEUMATIC ACTUATED VALVES, TUBING, CONDUITS, & CONTROL SYSTEMS & INSTALLATION OF NEW ELECTRIC ACTUATED VALVES, CONDUIT, WIRING, & CONTROL SYSTEMS WITH CIVIL. INSTALL ALL NEW REQUIRED CONTROL/SIGNAL WIRING. INSTALL NEW 1 1/4" UG CONDUIT FROM CONTROL BUILDING TO FILTER, NEW 3/4" RGS CONDUITS ABOVE GRADE, NEW LFMC CONDUITS TO VALVES, & NEW WP OUTLET BOXES AS NEEDED.
5. COORDINATE INSTALLATION OF NEW ELECTRIC ACTUATED VALVES, CONDUIT, WIRING, & CONTROL SYSTEMS WITH CIVIL. INSTALL ALL NEW REQUIRED CONTROL/SIGNAL WIRING. INSTALL NEW 1 1/4" UG CONDUIT FROM CONTROL BUILDING TO FILTER, NEW 3/4" RGS CONDUITS ABOVE GRADE, NEW LFMC CONDUITS TO VALVES, & NEW WP OUTLET BOXES AS NEEDED.
6. VERIFY EXISTING CONTROL PANEL WITH OWNER. PROVIDE COMPLETE MODIFICATIONS TO EXISTING CONTROL PANEL AS REQUIRED HEREIN. ALL WORK ON EXISTING CONTROL PANEL SHALL BE BY A TECHNICIAN CERTIFIED & APPROVED BY THE EXISTING CONTROL PANEL MANUFACTURER. OBTAIN COPY OF EXISTING CONTROL PANEL SHOP DRAWINGS FROM OWNER/CIVIL ENGINEER AND SUBMIT SHOP DRAWINGS OF ALL PROPOSED MODIFICATIONS PRIOR TO WORK. COORDINATE WITH CIVIL & VERIFY EXISTING MAC SOLENOID OPERATED VALVES BELOW PANEL ARE NO LONGER REQUIRED. REMOVE FROM SERVICE. RECURUIT & REPROGRAM 5 EXISTING CONTROL PANEL FILTER VALVE OUTPUTS TO CONTROL NEW ELECTRIC ACTUATED VALVES AV-1 THRU AV-5. VERIFY REMAINING EXISTING CONTROL PANEL I/O PORTS WITH OWNER & USE 5 NEW OR REPURPOSED PNEUMATIC SYSTEM OUTPUTS FOR CONTROL OF THE NEW FILTER ELECTRIC ACTUATED VALVES AV-6 THRU AV-10. COORDINATE WITH OWNER TO INSTALL NEW OR RECONFIGURE EXISTING OUTPUTS AS NEEDED FOR MONITORING OF THE NEW VALVES AT THE EXISTING RTU AT THE CONTROL & MONITORING BUILDING.

NOTES:

1. ALL ELECTRICAL WORK SHOWN IS NEW UNLESS OTHERWISE NOTED.
2. EXISTING ELECTRICAL NOT INDICATED TO BE REMOVED OR REPLACED SHALL BE PROTECTED DURING CONSTRUCTION & LEFT IN PLACE. CLEAN/REPAIR/RESTORE THIS EXISTING ELECTRICAL TO SERVICEABLE CONDITION PRIOR TO COMPLETION OF WORK.
3. THE ELECTRICAL CONTRACTOR SHALL COORDINATE, BID, AND PROVIDE ALL INCIDENTAL ELECTRICAL DEMOLITION WORK, TEMPORARY ELECTRICAL REMOVAL & REINSTALLATION WORK, & RESTORATION OF EXISTING ELECTRICAL WORK TO EXISTING CONDITION OR BETTER AT ANY CIVIL OR MECHANICAL DEMOLITION OR RENOVATIONS IDENTIFIED ON THE CIVIL PLANS. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE CIVIL PLANS & COORDINATING WORK RESPONSIBILITY WITH THE GENERAL CONTRACTOR & INCLUDING ALL SUCH WORK IN THE CONTRACT BID.

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

Underground Service Alert
Call: TOLL FREE 811

TWO WORKING DAYS BEFORE YOU DIG.

NO.	REVISIONS:	APPROVED	DATE

UNAUTHORIZED CHANGES & USES: The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. All changes to the plans must be in writing and must be approved by the preparer of these plans.

BENCH MARK:
TEMPORARY PROJECT BENCHMARK
BENCHMARK DESCRIPTION:
CHISELED "X" ON THE NORTHWEST CORNER OF A PCC SLAB LOCATED SOUTHEAST OF THE ENTRANCE GATE TO THE WATER TREATMENT PLANT
ELEVATION = 233.00

DAVID DALE, PE
203 COUNTRYSIDE DRIVE
EL CENTRO, CA 92243
PH (760) 960-8500
EMAIL: DAVIDDALEPE@GMAIL.COM

PREPARED UNDER THE DIRECT SUPERVISION OF:
JRA
JAMES R. ADLER, P.E.
07/20/17
DATE

E 16119
R.C.E. NO.
12/31/17
REG. EXP.

PALO VERDE COUNTY WATER DISTRICT -
NORTH BOLTED TANK REPLACEMENT AND
FILTER INSTALLATION PROJECT

ELECTRICAL SITE PLAN

DATE: 6/5/17
SCALE: 1" = 10'
DESIGN: JRA
DRAWING NO:
SHEET NO. **E1**
OF 1 SHEETS

JOL ENTERPRISES, INC.
720 E. 39th Place, Suite 6
Yuma, Arizona, 85365
office: (928) 783-0922
fax: (928) 783-3854
www.jolenterprises.com

JOB No.: 17-029

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