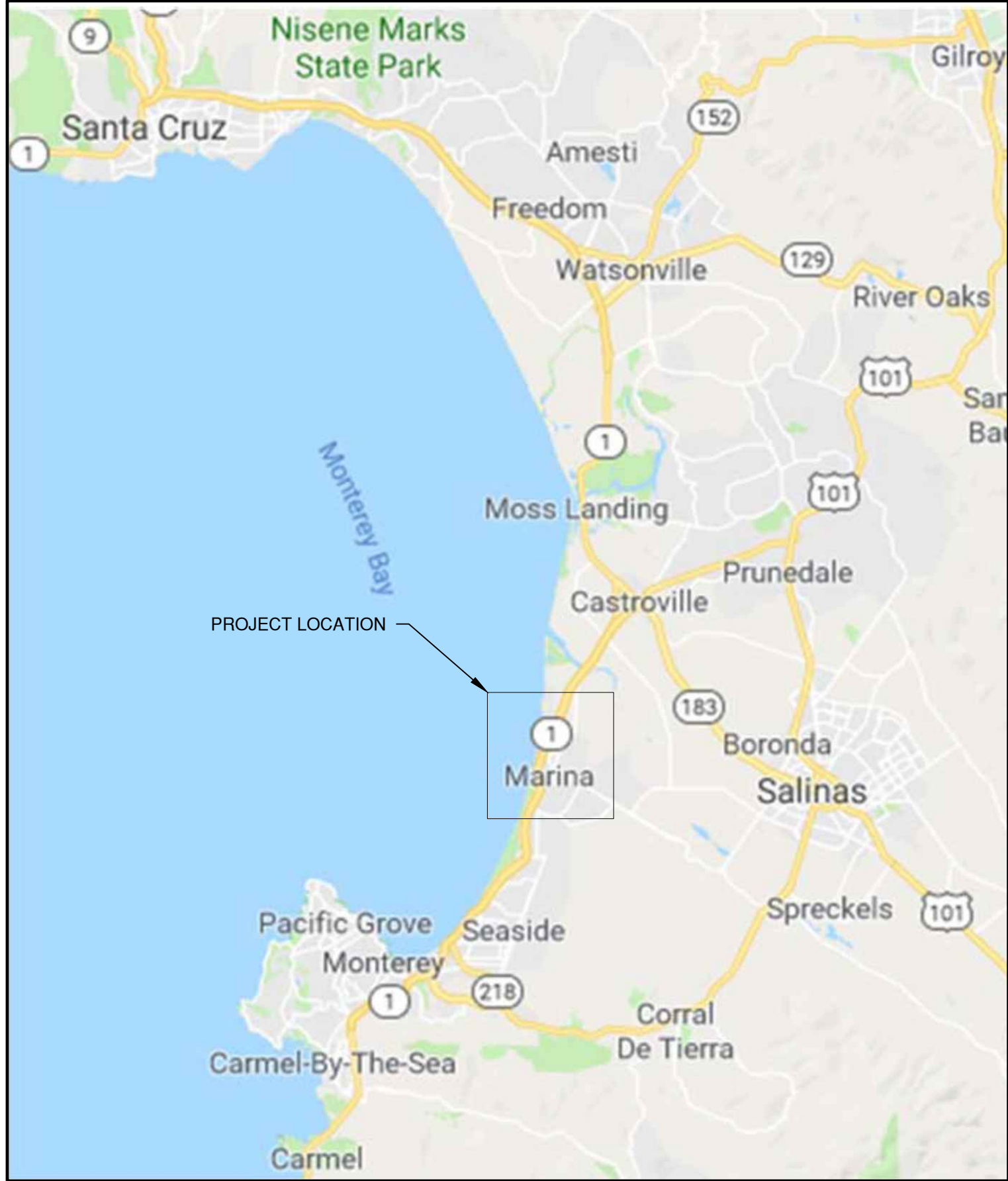
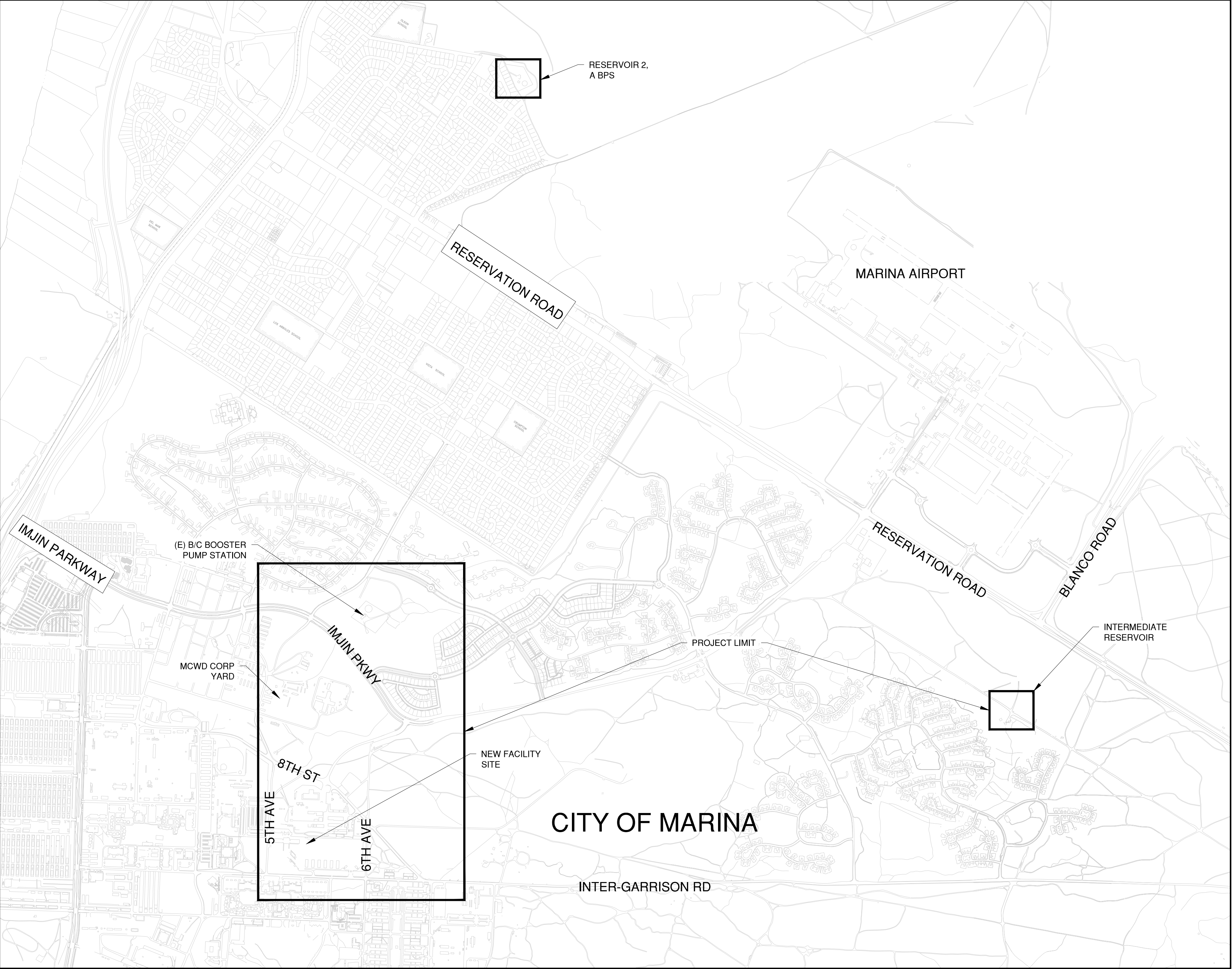


PLANS FOR THE A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION MARINA COAST WATER DISTRICT CIP NO. GW- 0112



VICINITY MAP

SUBMITTED:		1/4/2021
	ANDREW A. STERBENZ, PE SCHAAF & WHEELER	DATE
APPROVED:		
	MICHAEL WEGLEY, PE MARINA COAST WATER DISTRICT	DATE

NO.	REVISION DESCRIPTION	DATE	APPR



MARINA COAST WATER DISTRICT
11 RESERVATION ROAD
MARINA, CA 93933
(831) 384-6131

Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS
3 QUAIL RUN CIRCLE, STE. 101
SALINAS, CA 93907
(831) 883-4848



A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

TITLE SHEET AND PROJECT LOCATION

DATE:	12/23/20
SCALE:	NTS
DESIGN:	MF
DRAWN:	MF
CHECK:	AAS

SHEET
G-01
OF

GENERAL

- G-01 - TITLE SHEET AND PROJECT LOCATION
- G-02 - SHEET LIST
- G-03 - GENERAL AND CIVIL LEGENDS, SYMBOLS, AND ABBREVIATIONS
- G-04 - GENERAL NOTES
- G-05 - HYDRAULIC PROFILE AND KEY SYSTEM ELEMENTS
- G-06 - SITE PLAN, ACCESS AND SURVEY CONTROL

CIVIL

- C-001 - SITE PLAN (1 OF 2)
- C-002 - SITE PLAN (2 OF 2)
- C-003 - EROSION CONTROL PLAN
- C-005 - TRAFFIC CONTROL PLAN
- C-006 - TRAFFIC CONTROL DETAILS
- C-007 - DEMOLITION PAN
- C-008 - GRADING AND DRAINAGE PLAN
- C-009 - PAVING AND SITE LAYOUT
- C-011 - PIPELINE DETAILS
- C-012 - PIPELINE DETAILS
- C-013 - PIPELINE PLAN AND PROFILE BPS TO 6TH AVE
- C-014 - PIPELINE PLAN AND PROFILE BPS TO 5TH AVE
- C-015 - A ZONE CONNECTION PLAN & PROFILE
- C-016 - SAND TANK SITE PLAN
- C-017 - PIPELINE SECTIONS BPS TO 6TH AVE
- C-018 - PIPELINE SECTIONS BPS TO 5TH AVE
- C-019 - DRIVEWAY GATES
- C-104 - YARD PIPING PLAN & PROFILE
- C-105 - SEWER PLAN & PROFILE
- C-106 - STORM DRAIN PLAN & PROFILE
- C-107 - PERCOLATION BASIN STORM DRAIN PLAN & PROFILE
- C-110 - TANK PLAN VIEW
- C-111 - TANK SITE PROFILE
- C-112 - TANK DETAILS
- C-113 - TANK DETAILS
- C-114 - CHAIN LINK FENCE DETAILS
- C-115 - FENCE DETAILS
- C-118 - SEWER DETAILS
- C-120 - PUMP STATION PLAN
- C-121 - PUMP STATION ELEVATIONS
- C-122 - PUMP STATION DETAILS
- C-130 - CHLORINATION PUMP REPLACEMENT
- C-140 - INTERMEDIATE RESERVOIR MODIFICATIONS
- C-141 - FLOW METER DETAILS

ARCHITECTURAL

- A1.1 - SITE PLAN
- A2.1 - PLANS AND DETAILS
- A3.1 - ELEVATIONS

STRUCTURAL

- GS-1 - GENERAL NOTES I
- GS-2 - GENERAL NOTES II
- GS-3 - ABBREVIATIONS AND LEGEND
- GS-4 - STANDARD DETAILS I
- GS-5 - STANDARD DETAILS II
- GS-6 - STANDARD DETAILS III
- GS-7 - STANDARD DETAILS IV
- GS-8 - STANDARD DETAILS - V
- S-1 - BOOSTER PUMP STATION - FLOOR PLAN
- S-2 - BOOSTER PUMP STATION - INTERMEDIATE FLOOR PLAN
- S-3 - BOOSTER PUMP STATION - ROOF PLAN
- S-4 - BOOSTER PUMP STATION - SECTION
- S-5 - BOOSTER PUMP STATION - SECTION
- S-6 - BOOSTER PUMP STATION - DETAILS
- S-7 - RESERVOIRS A1/A2 - TANK BOTTOM PLAN AND DETAIL
- S-8 - RESERVOIRS A1/A2 - TANK TOP PLAN
- S-9 - RESERVOIRS A1/A2 - DETAILS
- S-10 - RESERVOIRS A1/A2 - LADDER DETAILS
- S-11 - GENSET - PLAN, SECTION AND DETAIL
- S-12 - SLIDE GATE OPERATOR - PLAN AND SECTIONS

INSTRUMENTATION

- GI-1 - I&C LEGEND AND ABBREVIATIONS 1 OF 2
- GI-2 - I&C LEGEND AND ABBREVIATIONS 2 OF 2
- GI-3 - STANDARD DETAILS I
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- I-2 - P&ID, B/C BOOSTER PUMP STATION DISTRIBUTION SYSTEM
- I-3 - P&ID, B-ZONE BOOSTER PUMP STATION
- I-4 - P&ID, C-ZONE BOOSTER PUMP STATION
- I-5 - P&ID, A1/A2 RESERVOIRS AND B/C BOOSTER PS MISCELLANEOUS
- I-6 - P&ID, F BOOSTER / INTERMEDIATE RESERVOIR CHLORINATION BUILDING
- I-7 - P&ID, F BOOSTER / INT. RESV. CHLORINATION BUILDING MISCELLANEOUS

ELECTRICAL

- GE-1 - ELECTRICAL LEGENDS AND ABBREVIATIONS I
- GE-2 - ELECTRICAL LEGENDS AND ABBREVIATIONS II
- GE-3 - STANDARD DETAILS I
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- E-1 - ELECTRICAL SINGLE-LINE DIAGRAM
- E-2 - ELECTRICAL EQUIPMENT ELEVATIONS AND SCHEDULES
- E-3 - A1/A2 RESERVOIRS PLAN DRAWING
- E-4 - B/C BOOSTER PUMP STATION - POWER AND SIGNAL PLAN
- E-5 - B/C BOOSTER PUMP STATION - LIGHTING PLAN
- E-6 - BOOSTER STATION F / INTERMEDIATE RESERVOIR SINGLE LINE DIAGRAM
- E-7 - BOOSTER STATION F / INTERMEDIATE RESERVOIR ELECTRICAL SITE PLAN
- E-8 - CHLORINATION AND F BOOSTER ELECTRICAL POWER AND SIGNAL PLAN
- E-9 - CONTROL SCHEMATICS, BOOSTER PUMPS AND VENTILATION FANS
- E-10 - MARINA BOOSTER PUMP STATION ELECTRICAL POWER AND SIGNAL PLAN

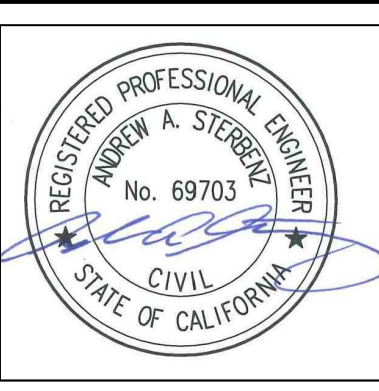
MARINA COAST WATER DISTRICT - A1/A2 - BOOSTER PUMP STATION SHEET LIST.dwg, 12/23/20, 12:52:24, Andrew A. Stenberg

NO.	REVISION DESCRIPTION	DATE	APPR



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 11 RESERVATION ROAD
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A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

SHEET LIST

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SHEET
G-02
OF

ABBREVIATIONS			
AB	AGGREGATE BASE	LOC	LOCATION
AC	ASPHALT CONCRETE	MB	MAILBOX
APPROX	APPROXIMATE	MSB	MAIN SWITCHBOARD
ARV	AIR RELEASE VALVE	MH	MANHOLE
AWWA	AMERICAN WATERWORKS ASSOC	MAX	MAXIMUM
BLDG	BUILDINGS	MJ	MECHANICAL JOINT
BLRDS	BOLLARDS	MIN	MINIMUM
BTFly	BUTTERFLY	MIP	MALE IRON PIPE
BTW	BETWEEN	MCC	MOTOR CONTROL CENTER
CL	CENTERLINE	N	NORTH
COM	COMMUNICATION	N.C.	NORMALLY CLOSED
CP	CONTROL POINT	N.I.C	NOT IN CONTRACT
CV	CHECK VALVE	NPT	NATIONAL PIPE THREAD
CVR	COVER	NSHT	NATIONAL STANDARD HOSE THREAD
CLR	CLEAR	NTS	NOT TO SCALE
CMP	CORRUGATED METAL PIPE	O.C.	ON CENTER
CONC	CONCRETE	OD	OUTSIDE DIAMETER
CPT	CONTROL POINT	OH	OVERHEAD
CFS	CUBIC FEET PER SECOND	PNL	PANEL
CYC	CYCLONE	PE	PLAIN END, POLYETHYLENE
DL	DAYLIGHT	PVC	POLY-VINYL CHLORIDE
DET	DETAIL	PSI	POUNDS PER SQUARE INCH
DIA	DIAMETER	PP	POWER POLE
DBL	DOUBLE	(P)	PROPOSED
DWGS	DRAWINGS	RED	REDUCER
DWY	DRIVEWAY	RCP	REINFORCED CONCRETE PIPE
DI	DUCTILE IRON	R/W	RIGHT-OF-WAY
DIP	DUCTILE IRON PIPE	RSR	RISER
EA	EACH	RD	ROAD
EP	EDGE OF PAVEMENT	SCH	SCHEDULE
ESMT	EASEMENT	SPECS	SPECIFICATIONS
E	EAST	SS	SANITARY SEWER
EB	EXISTING BOREHOLE	SSCO	SANITARY SEWER CLEANOUT
EP	EDGE OF PAVEMENT	SSFM	SANITARY SEWER FORCE MAIN
ELEC, ELECT	ELECTRICAL	SSMH	SANITARY SEWER MANHOLE
EL,ELEV	ELEVATION	SRVP	SERVICE POLE
ELL	ELBOW	SP	STATIC PRESSURE
EQUIP	EQUIPMENT	STA	STATION
(E)	EXISTING	STD	STANDARD
(F)	FUTURE	STL	STEEL
FIPT	FEMALE IRON PIPE THREAD	SD	STORM DRAIN
FNPT	FEMALE NATIONAL PIPE THREAD	SL	STREET LIGHT
FEN	FENCE	STS	STREET NAME SIGN
FF	FINISH FLOOR	TCE	TEMPORARY CONSTRUCTION EASEMENT
FLG, FL	FLANGE	TOD	TOP OF DITCH
FL, FLR	FLOW LINE	TOS	TOP OF SLOPE
GAL	GALLON(S)	TS	TRAFFIC SIGN
GPM	GALLONS PER MINUTE	TYP	TYPICAL
GALV	GALVANIZED	VLTS	VAULTS
GV	GATE VALVE	W	WATER
GB	GRADE BREAK	WM	WATER MAIN
HHW	HEATING HOT WATER	W/	WITH
HW	HEADWALL	WSP	WELDED STEEL PIPE
HP	HORSEPOWER	WD	WOOD
HDPE	HIGH-DENSITY POLYETHYLENE	WDFE	WOOD FENCE
ID	INSIDE DIAMETER		
INV	INVERT		
IW	INDUSTRIAL WASTE		
IPS	IRON PIPE SIZE		

LEGEND		
EXISTING	DESCRIPTION	PROPOSED
	EASEMENT	
	TEMPORARY CONSTRUCTION EASEMENT	
	PROPERTY LINE - R/W	
	LIMIT OF WORK	
	CYCLONE FENCE	
	WATER LINE	
	A-ZONE WATER LINE	
	B-ZONE WATER LINE	
	C-ZONE WATER LINE	
	HEATING HOT WATER	
	OVERHEAD ELECTRIC	
	SPOT ELEVATION	
	DRAIN PIPE	
	REMOVE	
	EDGE OF (E) PAVEMENT	
	MAJOR CONTOUR LINE (TOPO)	
	MINOR CONTOUR LINE (TOPO)	
	BURIED ELECTRIC	
	SANITARY SEWER PIPE	
	NATURAL GAS LINE	
	TELEPHONE	
	OVERHEAD COMMUNICATION	
	VEGETATION	
	STORM DRAIN PIPE	
	VAULT	
	MANHOLE	
	ISOLATION VALVE	
	REDUCER	
	CONTROL POINT	
	FOUND MONUMENT AS NOTED	
	EXISTING TREE & TYPE	
	TREE CLUSTER WITH SIZE	
	CYPRESS	
	OAK	
	PINE	
	REDWOOD	
	TREE (MISC)	

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NO.	REVISION DESCRIPTION	DATE	APPR



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A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

**GENERAL AND CIVIL LEGENDS,
 SYMBOLS, AND ABBREVIATIONS**

DATE:	12/23/20	SHEET G-03 OF
SCALE:	NTS	
DESIGN:	CJM	
DRAWN:	CJM	
CHECK:	AAS	

GENERAL NOTES:

- SHOULD IT APPEAR THAT THE WORK TO BE PERFORMED OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER, (831) 883-4848 x 408 WITH ANY QUESTIONS OR DISCREPANCIES. ANY REVISIONS REQUIRE OWNER'S APPROVAL BEFORE PROCEEDING WITH REVISED PLANS.
- CONSTRUCTION CONTRACTOR AGREES THAT THE IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONSTRUCTION CONTRACTOR SHALL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY OF THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT 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 THE CIVIL ENGINEER AND THE OWNER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF THE WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE CIVIL ENGINEER.
- THE GENERAL CONTRACTOR SHALL POSSESS A VALID CLASS A - GENERAL ENGINEERING CONTRACTOR LICENSE, ALL OTHERS SHALL POSSESS THE APPLICABLE C-SERIES LICENSE, AT THE TIME THE CONTRACT IS AWARDED AND SHALL MAINTAIN THROUGHOUT THE LENGTH OF CONTRACT.
- THE CONTRACTOR SHALL POST EMERGENCY TELEPHONE NUMBERS AT THE JOB SITE FOR PUBLIC WORKS, AMBULANCE, POLICE AND FIRE DEPARTMENTS. CONTRACTOR SHALL POST SIGN AT JOB SITE BEARING OWNER'S NAME AND SITE ADDRESS. PROPERTY CORNERS SHALL BE CLEARLY MARKED.
- CONTRACTOR SHALL CONFORM TO THE RULES AND REGULATIONS OF THE STATE CONSTRUCTION SAFETY ORDERS PERTAINING TO EXCAVATION AND TRENCHING. CONTRACTOR SHALL BEAR FULL RESPONSIBILITY FOR TRENCH SHORING DESIGN AND INSTALLATION.
- EXCAVATION SHALL BE ADEQUATELY SHORED, BRACED AND SHEETED SO THAT THE EARTH WILL NOT SLIDE OR SETTLE AND SO THAT ALL EXISTING IMPROVEMENTS OF ANY KIND WILL FULLY PROTECTED FROM DAMAGE. ANY DAMAGE RESULTING FROM A LACK OF ADEQUATE SHORING, BRACING AND SHEETING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND HE SHALL EFFECT NECESSARY REPAIRS OR RECONSTRUCTION AT HIS OWN EXPENSE. WHERE THE EXCAVATION FOR A CONDUIT TRENCH, STRUCTURE AND/OR BORING AND JACKING PIT IS REQUIRED, THE CONTRACTOR SHALL CONFORM TO THE APPLICABLE CONSTRUCTION SAFETY ORDERS OF THE DIVISION OF INDUSTRIAL SAFETY OF THE STATE OF CALIFORNIA. THE CONTRACTOR SHALL ALWAYS COMPLY WITH OSHA REQUIREMENTS.
- THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. APPROVAL OF THESE PLANS BY THE AGENCY DOES NOT GUARANTEE THE ACCURACY, COMPLETENESS, LOCATION OR THE EXISTENCE OR NON-EXISTENCE OF ANY UTILITY PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THE CONTRACTOR IS REQUIRED TO TAKE ALL DUE PRECAUTIONARY MEANS NECESSARY TO PROTECT EXISTING UTILITY LINES.
- CONTRACTOR SHALL HAVE UTILITIES LOCATED BY CALLING UNDERGROUND SERVICE ALERT (USA) NORTH AT (800) 227-2600 OR 811 AT LEAST 48-HOURS PRIOR TO START OF CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER AND THE OWNER OF ANY DIFFERENCES IN THE LOCATIONS OF EXISTING UTILITIES SHOWN, OR ANY CONFLICTS WITH THE DESIGN, BEFORE CONTINUING WITH WORK IN THAT AREA.
- THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN AND OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY AND TO MAINTAIN TRAFFIC CONTROL AT ALL TIMES.
- THE CONTRACTOR SHALL PROVIDE FOR INGRESS AND EGRESS FOR ANY PRIVATE PROPERTY ADJACENT TO THE WORK AREA THROUGHOUT THE PERIOD OF CONSTRUCTION.
- WATER FOR COMPACTION, DUST CONTROL AND OTHER CONSTRUCTION MAY BE OBTAINED FROM MARINA COAST WATER DISTRICT THROUGH AN APPROPRIATE HYDRANT METER AND BACKFLOW PREVENTION DEVICE. CONTACT MCWD AT (831) 384-6131
- THE CONTRACTOR SHALL NOT DESTROY ANY PERMANENT SURVEY POINTS. ANY PERMANENT MONUMENTS OR POINTS DESTROYED SHALL BE REPLACED BY A LICENSED ENGINEER OR LICENSED SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- DURING GRADING OPERATIONS, THE CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES ON SITE AND ON HAUL ROUTES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING AN AIRBORNE DUST NUISANCE FROM THE CONSTRUCTION SITE BY WATERING AND/OR TREATING THE SITE IN SUCH A MANNER TO LIMIT THE EXTENT OF AIRBORNE DUST PARTICLES.
- SITE WORK HOURS ARE 8:00 A.M. TO 5:00 P.M. MONDAY THRU FRIDAY. NO GRADING WORK SHALL BE PERFORMED ON SATURDAYS, SUNDAYS OR OBSERVED NATIONAL HOLIDAYS.
- BEFORE GRADING OPERATION BEGINS, A TEMPORARY ORANGE SNOWFLAKE FENCE SHALL BE INSTALLED AROUND RETAINED TREES, AS IDENTIFIED BY THE PROJECT BIOLOGIST. SAID FENCE SHALL ALSO BE INSTALLED AT THE BOUNDARY OF ENVIRONMENTAL AREAS, AS DIRECTED BY THE PROJECT BIOLOGIST.
- THESE PLANS SHOW EXISTING FEATURES INCLUDING BUT NOT LIMITED TO TREES, UTILITIES AND STRUCTURES THAT MAY BE AFFECTED BY THE CONSTRUCTION OR PLACEMENT OF THE PROPOSED ENGINEERED IMPROVEMENTS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE TO IMMEDIATELY NOTIFY THE ENGINEER IF THERE ARE ANY EXISTING FACILITIES, WHETHER SHOWN OR NOT SHOWN ON THESE PLANS, WHICH COULD IN ANY WAY BE IN POTENTIAL CONFLICT WITH THE DESIGN ON THESE PLANS. ALL WORK WITHIN THE VICINITY OF POTENTIAL CONFLICT SHALL CEASE UNTIL AN ADEQUATE AND APPROPRIATE SOLUTION IS DETERMINED BY THE ENGINEER/OWNER'S REPRESENTATIVE AND APPROVED BY THE OWNER.
- CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION SITE STORM WATER POLLUTION PREVENTION AND IMPLEMENTING NECESSARY BEST MANAGEMENT PRACTICES. EROSION CONTROL MEASURES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY. WET SEASON CONTROLS ARE REQUIRED (MINIMUM) BETWEEN OCTOBER 15 AND APRIL 15.
- THE CONTRACTOR SHALL COMPLY WITH ALL RULES, REGULATIONS AND PROCEDURES OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) FOR MUNICIPAL, CONSTRUCTION AND INDUSTRIAL ACTIVITIES AS PROMULGATED BY THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD OR ANY OF ITS' REGIONAL WATER QUALITY CONTROL BOARDS. REFER TO THE FOLLOWING GENERAL PERMITS
 - WQO 2009-0009-DWQ, GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES, WITH AMENDMENTS
 - WQO 2014-0194-DWQ, GENERAL ORDER NO. CAG140001, STATEWIDE NPDES PERMIT FOR DRINKING WATER SYSTEM DISCHARGES TO WATERS OF THE UNITED STATES
 - WQO 2013-0001-DWQ, GENERAL PERMIT FOR STORM WATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4S)
- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. THE FOLLOWING LIST OF STANDARDS ARE/OR SPECIFICATIONS ARE INCORPORATED INTO THESE PLANS BY REFERENCE. DESIGN AND CONSTRUCTION OF ALL IMPROVEMENTS SHALL COMPLY WITH ALL APPLICABLE STANDARDS INCLUDING:
 - CITY OF MARINA MUNICIPAL CODE
 - MARINA COAST WATER DISTRICT STANDARD DETAILS AND SPECIFICATIONS
 - STANDARD SPECIFICATIONS, STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, 2018 EDITION
 - STANDARD PLANS, STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS), 2018 EDITION
- IF ARCHAEOLOGICAL RESOURCES OR HUMAN REMAINS ARE DISCOVERED DURING CONSTRUCTION, THE COUNTY CORONER SHALL BE NOTIFIED AND WORK SHALL BE HALTED TO WITHIN 150-FEET OF THE FIND UNTIL IT CAN BE EVALUATED BY A QUALIFIED PROFESSIONAL ARCHAEOLOGIST. IF THE FIND IS SIGNIFICANT, APPROPRIATE MITIGATION MEASURES SHALL BE FORMULATED AND IMPLEMENTED.
- THE CONTRACTOR SHALL SUBMIT TWO SETS OF "RED-LINE" AS-BUILT PLANS TO THE OWNER PRIOR TO FINAL ACCEPTANCE OF THE IMPROVEMENTS.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO KEEP PUBLIC STREETS FREE FROM DIRT AND DEBRIS. SHOULD ANY DIRT OR DEBRIS BE DEPOSITED IN PUBLIC RIGHT-OF-WAY, THE CONTRACTOR SHALL REMOVE IT IMMEDIATELY.
- OWNER HAS ACQUIRED TEMPORARY CONSTRUCTION EASEMENTS AND STORAGE AREAS AS INDICATED ON THE DRAWINGS. SEE THE SPECIAL PROVISIONS OF THE SPECIFICATIONS FOR REQUIREMENTS PERTAINING TO THESE EASEMENT RIGHTS. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY ADDITIONAL TEMPORARY EASEMENTS REQUIRED FOR STORAGE OR CONSTRUCTION OPERATIONS; AT NO ADDITIONAL EXPENSE TO THE OWNER. FILE WITH THE OWNER A COPY OF EACH WRITTEN AGREEMENT BETWEEN THE CONTRACTOR AND PROPERTY OWNER FOR EASEMENTS THUS ACQUIRED PRIOR TO ENTRY INTO OR USE OF THE SUBJECT AREA.
- MAINTAIN ONE-WAY TRAFFIC ON PUBLIC AND PRIVATE ROADS, PAVED OR UNPAVED, ON WHICH WORK IS BEING PERFORMED DURING WORKING HOURS, OR COORDINATE WITH OWNER TO PROVIDE AN ACCEPTABLE DETOUR ROUTE AROUND THE WORKING AREA. MAINTAIN NORMAL TRAFFIC TRAVEL WIDTH DURING NON-WORKING HOURS. REFER TO ENCROACHMENT PERMITS, LICENSES, EASEMENT CONDITIONS AND TRAFFIC PLANS, WHERE APPLICABLE, AS INCLUDED IN THE SPECIFICATIONS.

27. CONDUCT STORAGE OF PIPE AND OTHER CONSTRUCTION MATERIALS AND EQUIPMENT ON/ALONG PRIVATE ROADS DURING NON-WORKING HOURS IN A MANNER THAT DOES NOT PREVENT THE NORMAL USE OF THAT RIGHT-OF-WAY, ROAD OR TRAIL. RELOCATE STORED PIPE, MATERIALS OR EQUIPMENT WHEN DIRECTED BY THE OWNER TO RESTORE THE REQUIRED USE OF THE RIGHT-OF-WAY OR ROAD.

GRADING NOTES:

- THE APPROXIMATE QUANTITY OF EARTH WORK FOR SITE PREPARATION IS 1720 CUBIC YARDS OF CUT AND 2120 CUBIC YARDS OF FILL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF SAID GRADING QUANTITIES PRIOR TO THE START OF THE GRADING OPERATION. EARTH WORK DOES NOT INCLUDE OVER-EXCAVATION FOR ANY FOUNDATION OR ANY TRENCH WORK.
- THE CONTRACTOR SHALL PROVIDE THE CONSTRUCTION STAKES. THE NUMBER AND LOCATION OF STAKES REQUIRED SHALL BE DETERMINED BEFORE THE CONSTRUCTION BEGINS. ALL CONSTRUCTION STAKING SHALL BE DONE BY A REGISTERED CIVIL ENGINEER OR LICENSED LAND SURVEYOR.
- ALL EXISTING ELEVATIONS SHOWN ARE AS MEASURED IN THE FIELD, UNLESS NOTED OTHERWISE.
- ALL GRADES SHOWN ARE FINISHED GRADES, UNLESS OTHERWISE NOTED.
- ALL GRADING, EROSION CONTROL, SITE PREPARATION, AND PLACING AND COMPACTION OF FILL SHALL BE DONE IN ACCORDANCE WITH TITLE 15 OF THE CITY OF MARINA MUNICIPAL CODE AND THE REQUIREMENTS AND RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL EXPLORATION REPORT PREPARED BY CONERSTONE EARTH GROUP DATED DECEMBER, 2020.
- CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL INSPECTOR AND THE OWNER AT LEAST TWO WORKING DAYS PRIOR TO THE START OF WORK.
- ANY DEVIATION FROM THE APPROVED PLAN REQUIRES WRITTEN APPROVAL OF THE OWNER PRIOR TO MAKING ANY CHANGES IN THE FIELD.
- SLOPE GRADIENTS TO BE PER THE GEOTECHNICAL EXPLORATION REPORT PREPARED BY CORNERSTONE EARTH GROUP, DATED DECEMBER, 2020 AND THIS APPROVED SET OF PLANS (SEE BELOW). ANY DEVIATION OF SLOPE REQUIRES APPROVAL OF THE ENGINEER AND CITY INSPECTOR.

SLOPE GRADIENT (HORIZONTAL:VERTICAL)	FILL (FEET)	CUT (FEET)
3:1	15	15

- THE CONTRACTOR IS RESPONSIBLE FOR MATCHING EXISTING STREETS, SURROUNDING LANDSCAPING AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC., AND TO AVOID THE CREATION OF ANY LOW SPOTS OR HAZARDOUS CONDITIONS OR ABRUPT OR APPARENT CHANGES IN APPEARANCE, GRADES OR CROSS SLOPES.
- ALL EARTHWORK SHALL BE CONSTRUCTED PER THE GRADING SPECIFICATIONS IN THE GEOTECHNICAL REPORT. ALL SOIL SHALL BE COMPACTED TO A MINIMUM OF 90% RELATIVE COMPACTION, AS REQUIRED BY THE ASTM TEST DESIGNATIONS D1557, D1556 AND D2922 (LATEST EDITIONS) EXCEPT THE PAVEMENT SUB-GRADE AND STRUCTURAL FILL, WHICH SHALL BE COMPACTED TO 95% RELATIVE COMPACTION. GENERAL FILL (TANK AND PUMP STATION PADS), OIL SAND CUSHION, TRENCH BACKFILL IN PIPE ZONE, TRENCH BACKFILL IN PIPE ZONE, TRENCH BACKFILL IN TRENCH ZONE IN PAVED AREAS, AND BASEMENT WALL BACKFILL WITH SURFACE IMPROVEMENTS SHALL BE COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION PER SOILS REPORT. REFER TO "COMPACTION" SECTION OF GEOTECHNICAL REPORT.
- CLEAR SURFACE VEGETATION AND STRIP TOPSOIL TO BOTTOM OF ROOT ZONE WITHIN GRADING AREAS. STOCKPILE TOPSOIL ON-SITE FOR FUTURE USE. SOIL WITH ORGANIC CONTENT GREATER THAN 3 PERCENT BY WEIGHT SHALL NOT BE USED AS FILL UNLESS WITHIN SPECIFIC LANDSCAPE AREAS THAT WILL NOT REQUIRE ANY STRUCTURAL SUPPORT FOR ADJACENT IMPROVEMENTS. REFER TO "MATERIAL FOR FILL" SECTION OF GEOTECHNICAL REPORT.
- STRUCTURAL FILL AREAS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 12-INCHES BELOW EXISTING PAVEMENT AND AGGREGATE BASE OR BELOW THE BOTTOM OF FOUNDATION, WHICHEVER IS DEEPER. MOISTURE CONDITION AND RECOMPACT TO THE SPECIFIED DENSITY. EXTEND FOUNDATION PREPARATION 5-FT HORIZONTALLY FROM OUTER EDGE OF FOOTINGS. PLEASE NOTE THE SUBGRADE PREPARATION RECOMMENDATIONS VARY DEPENDING ON THE LOCATION AT THE SITE. PLEASE REFER TO "EARTHWORK" SECTION OF GEOTECHNICAL REPORT FOR MINIMUM SUBGRADE AND PAD PREPARATION AND COMPACTION RECOMMENDATIONS.
- BACKFILL FOR UNDERGROUND UTILITIES PLACED ON SITE SHALL BE CLEAN NATIVE OR IMPORTED SAND MATERIALS (MINIMUM S.E. = 30) UNLESS OTHERWISE APPROVED BY THE GEOTECHNICAL ENGINEER, TO A MINIMUM OF 12-INCHES OVER THE CONDUIT, UNLESS SHOWN OTHERWISE ON THE PLAN. BACKFILL FOR UNDERGROUND UTILITIES PLACED IN EXISTING STREETS SHALL CONSIST OF CLEAN, NATIVE OR IMPORTED SAND MATERIAL (MINIMUM S.E. = 90) FOR FULL TRENCH DEPTH TO THE PAVEMENT SUBGRADE, UNLESS SHOWN OTHERWISE ON THE PLAN OR APPROVED BY THE GEOTECHNICAL ENGINEER. A MATERIAL SAMPLE SHALL BE SUBMITTED FOUR (4) DAYS BEFORE INTENDED USE FOR REVIEW BY THE GEOTECHNICAL ENGINEER. BACKFILL WITHIN THE UTILITY TRENCHES SHALL BE COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 95% AS BASED UPON ASTM TEST DESIGNATIONS D1557, D1556 AND D2922 (LATEST EDITIONS).
- ALL SURPLUS AND UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE SITE.
- CONTRACTOR SHALL NEITHER WASTE NOR DEPOSIT ANY HAZARDOUS MATERIALS ON THE GRADING SURFACES OR WITHIN THE GRADED CUT AND FILL AREAS OF THIS PROJECT, INCLUDING BUT NOT LIMITED TO GASOLINE OR DIESEL FUELS, MOTOR OILS OR TRANSMISSION FLUIDS, ANTIFREEZE, HYDRAULIC FLUIDS, LUBRICANTS, STARTING FLUIDS AND FILTERS, AND/OR CONTAINERS FOR THESE PRODUCTS. HAZARDOUS MATERIAL SPILLS THAT OCCUR AS A RESULT OF EITHER EQUIPMENT FAILURES OR VANDALISM INCLUDING ALL ADJACENT CONTAMINATED SOILS, SHALL BE EXCAVATED AND PACKAGED FOR DISPOSAL AT AN ENVIRONMENTALLY APPROVED DISPOSAL SITE. MATERIALS SHALL NOT BE TRANSPORTED OFF THE SITE UNTIL THEY ARE CATALOGED AND APPROVED BY THE CONSTRUCTION MANAGER. ALL REMOVAL, PACKAGING, TRANSPORTATION AND DISPOSAL COSTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL DISTURBED AREAS SHALL BE RE-SEEDDED WITH AN EROSION CONTROL MIX.

DATE: 12/23/2020 11:43 AM BY: ANDREW A. STERBERG, CIVIL ENGINEER, LICENSE NO. 69703

NO.	REVISION DESCRIPTION	DATE	APPR



MARINA COAST WATER DISTRICT
 11 RESERVATION ROAD
 MARINA, CA 93933
 (831) 384-6131

Schaaf & Wheeler
 CONSULTING CIVIL ENGINEERS
 3 QUAIL RUN CIRCLE, STE. 101
 SALINAS, CA 93907
 (831) 883-4848



A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

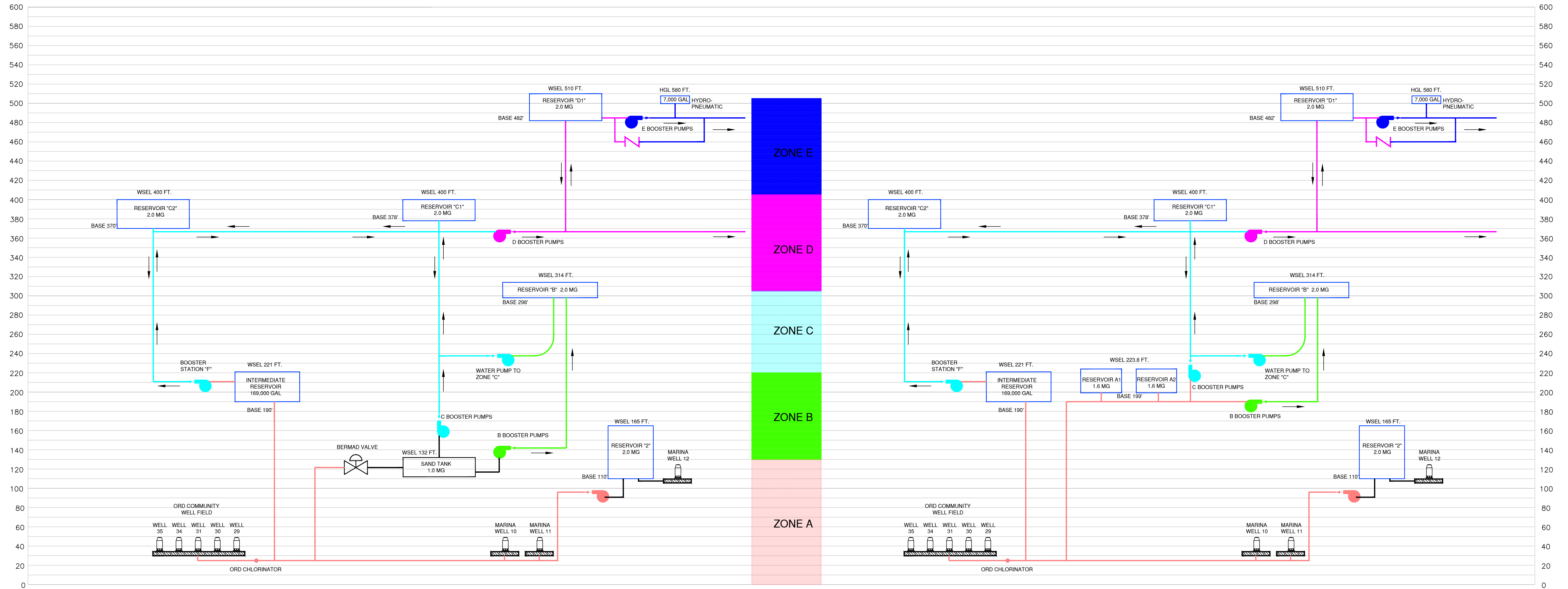
GENERAL NOTES

DATE:	12/23/20
SCALE:	NO SCALE
DESIGN:	CJM
DRAWN:	CJM
CHECK:	AAS

SHEET
G-04
OF

EXISTING WATER SYSTEM

PROPOSED WATER SYSTEM



NOTE:
ELEVATIONS ARE IN NGVD 1929. ADD 2.8 FT FOR NAVD 1988.

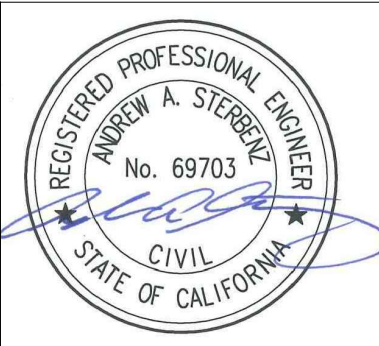
DATE: 12/23/20 11:43 AM; PROJECT: A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION; SHEET: G-05

NO.	REVISION DESCRIPTION	DATE	APPR



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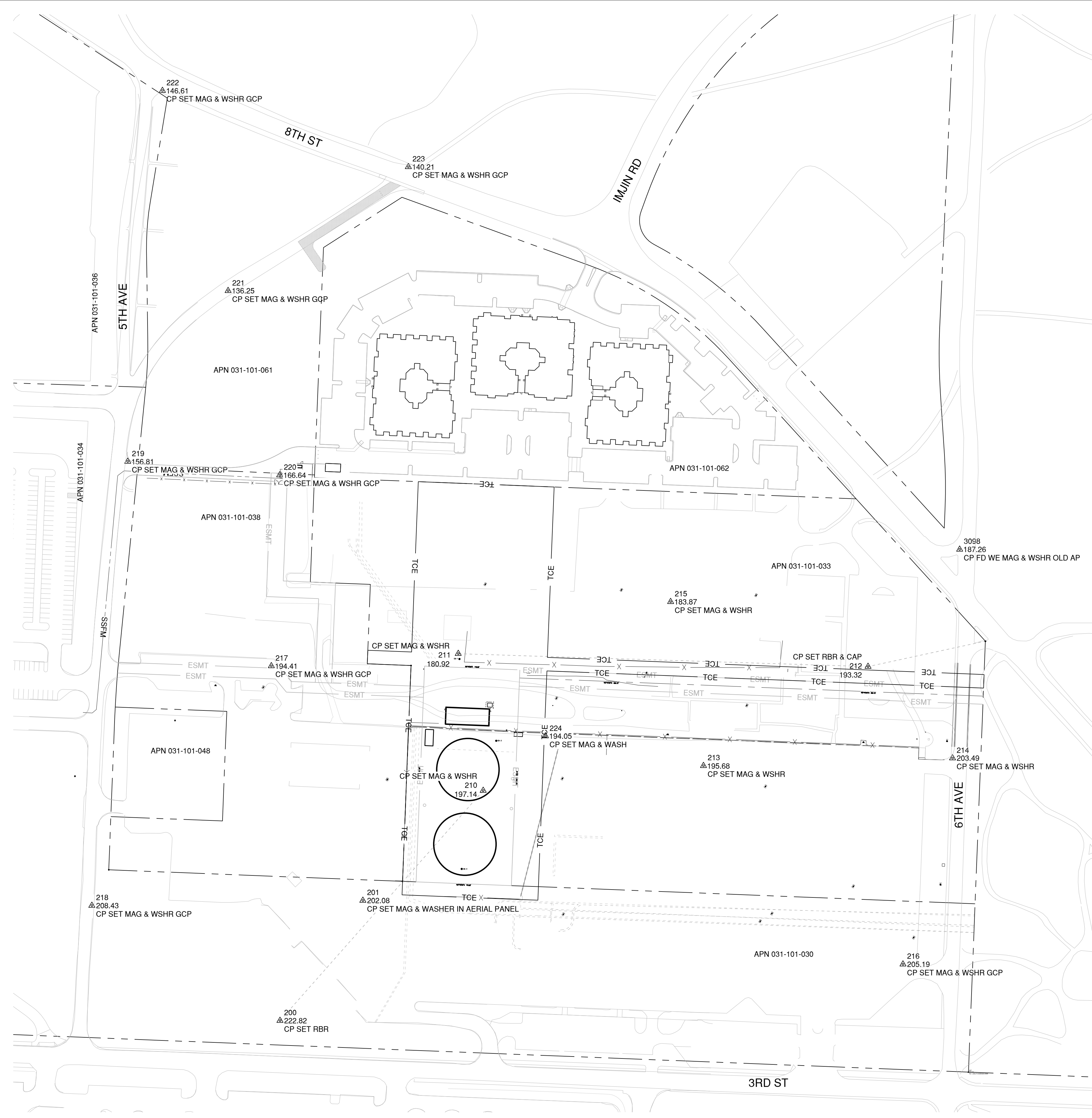


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

**HYDRAULIC PROFILE
AND KEY SYSTEM ELEMENTS**

DATE:	12/23/20
SCALE:	NO SCALE
DESIGN:	CJM
DRAWN:	CJM
CHECK:	AAS

SHEET
G-05
OF



BASIS OF BEARINGS
 THE CALIFORNIA COORDINATE SYSTEM, NAD83, ZONE 4 IS THE BASIS FOR ALL BEARINGS AND COORDINATES SHOWN HEREON.

BENCHMARK
 ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), BASED ON HOLDING AN ELEVATION OF 83.0 FEET FOR THE STATION DESIGNATED "HPGN D CA 05 WB" (PID: GU4318), AS PUBLISHED BY THE NATIONAL GEODETIC SURVEY (NGS). A NAVD88 ELEVATION OF 197.14 FEET FOR A "MAG" NAIL & WASHER DESIGNATED CONTROL POINT 210, SHOWN HEREON, IS THE LOCAL SITE BENCHMARK FOR THIS SURVEY.

- SURVEY NOTES**
- DISTANCES SHOWN HEREON ARE EXPRESSED IN FEET AND DECIMALS THEREOF.
 - POINTS FOUND OR SET ARE SO NOTED. ALL OTHER POINTS ARE FOR REFERENCE ONLY.
 - THIS IS NOT AN ALTA SURVEY. NOT ALL ENTITLEMENTS OR ENCUMBRANCES ARE NECESSARILY SHOWN.
 - THIS MAP HAS BEEN PREPARED FROM FIELD DATA COLLECTED IN JUNE OF 2019.

LOCAL SURVEY CONTROL

SURVEY CONTROL POINTS			
CP	NORTHING	EASTING	ELEVATION
200	2133510.47	5741174.33	222.82
201	2133732.35	5741327.33	202.08
210	2133935.38	5741549.46	197.14
211	2134188.20	5741503.39	180.92
212	2134164.41	5742259.94	193.32
213	2133981.25	5741956.14	195.68
214	2133995.40	5742415.97	203.49
215	2134284.01	5741895.50	183.87
216	2133614.64	5742324.45	205.19
217	2134165.53	5741158.36	194.41
218	2133723.04	5740827.03	208.43
219	2134543.08	5740893.22	156.81
220	2134518.09	5741173.84	166.64
221	2134858.37	5741078.58	136.25
222	2135227.90	5740957.27	146.61
223	2135087.18	5741411.33	140.21
224	2134035.98	5741664.38	194.05

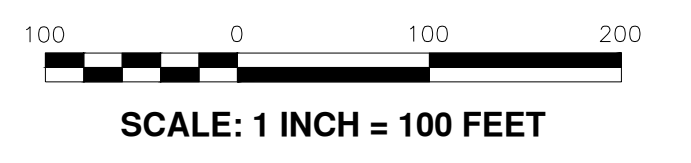
NOTE
 TCE LIMITS ARE TENTATIVE. FINAL LIMITS WILL BE PER CAMPUS CONSTRUCTION RIGHT OF ENTRY

PERMANENT EASEMENT

NORTHING	EASTING
2134152.45	5740874.37
2134141.53	5741166.11
2134117.22	5741186.09
2134107.76	5741438.96
2133766.82	5741425.57
2133759.91	5741601.43
2134128.42	5741615.91
2134094.78	5742472.01
2134124.76	5742473.18
2134165.31	5741441.23
2134127.74	5741439.75
2134136.85	5741195.14
2134161.26	5741172.49

TEMPORARY CONSTRUCTION EASEMENT

NORTHING	EASTING
2134149.74	5742474.16
2134181.42	5741668.03
2134496.09	5741680.40
2134505.94	5741429.60
2134191.29	5741417.23
2134194.48	5741336.42
2134169.50	5741335.44
2134166.31	5741416.25
2133742.86	5741399.60
2133733.00	5741650.40
2134156.44	5741667.04
2134124.76	5742473.18

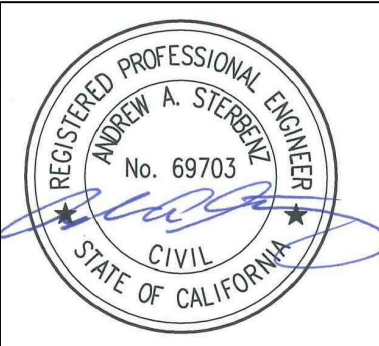


NO.	REVISION DESCRIPTION	DATE	APPR



MARINA COAST WATER DISTRICT
 11 RESERVATION ROAD
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 (831) 384-6131

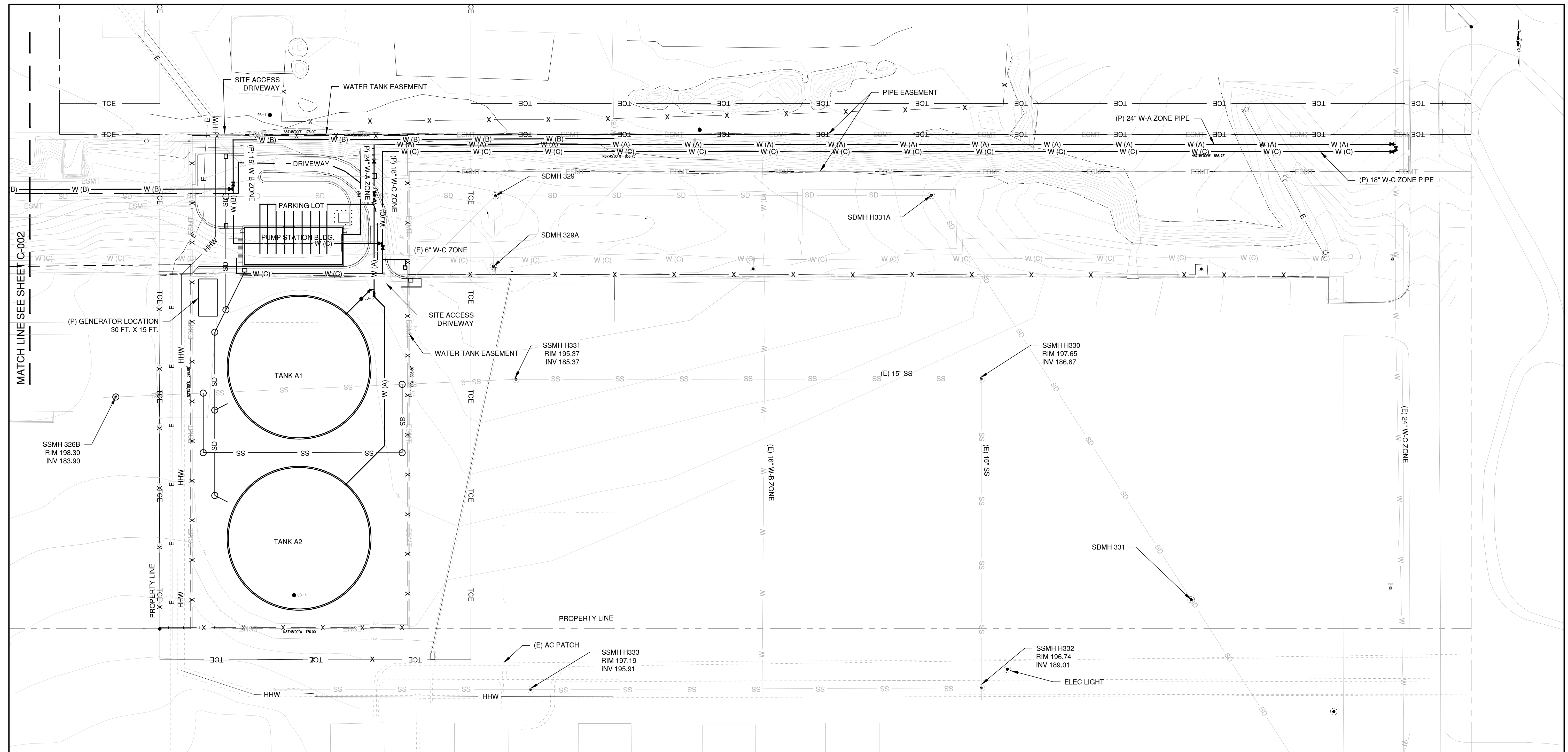
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 SALINAS, CA 93907
 (831) 883-4848



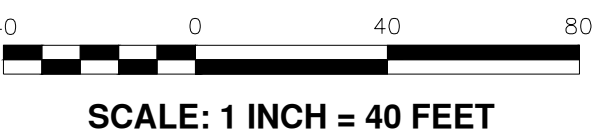
A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
 SITE PLAN, ACCESS, & SURVEY CONTROL

DATE: 12/23/20
 SCALE: 1"=100'
 DESIGN: CJM
 DRAWN: CJM
 CHECK: AAS

SHEET
 G-06
 OF



NOTE:
COORDINATE HAUL ROADS, WORK/STORAGE AREA, AND
PARKING WITH CSUMB.



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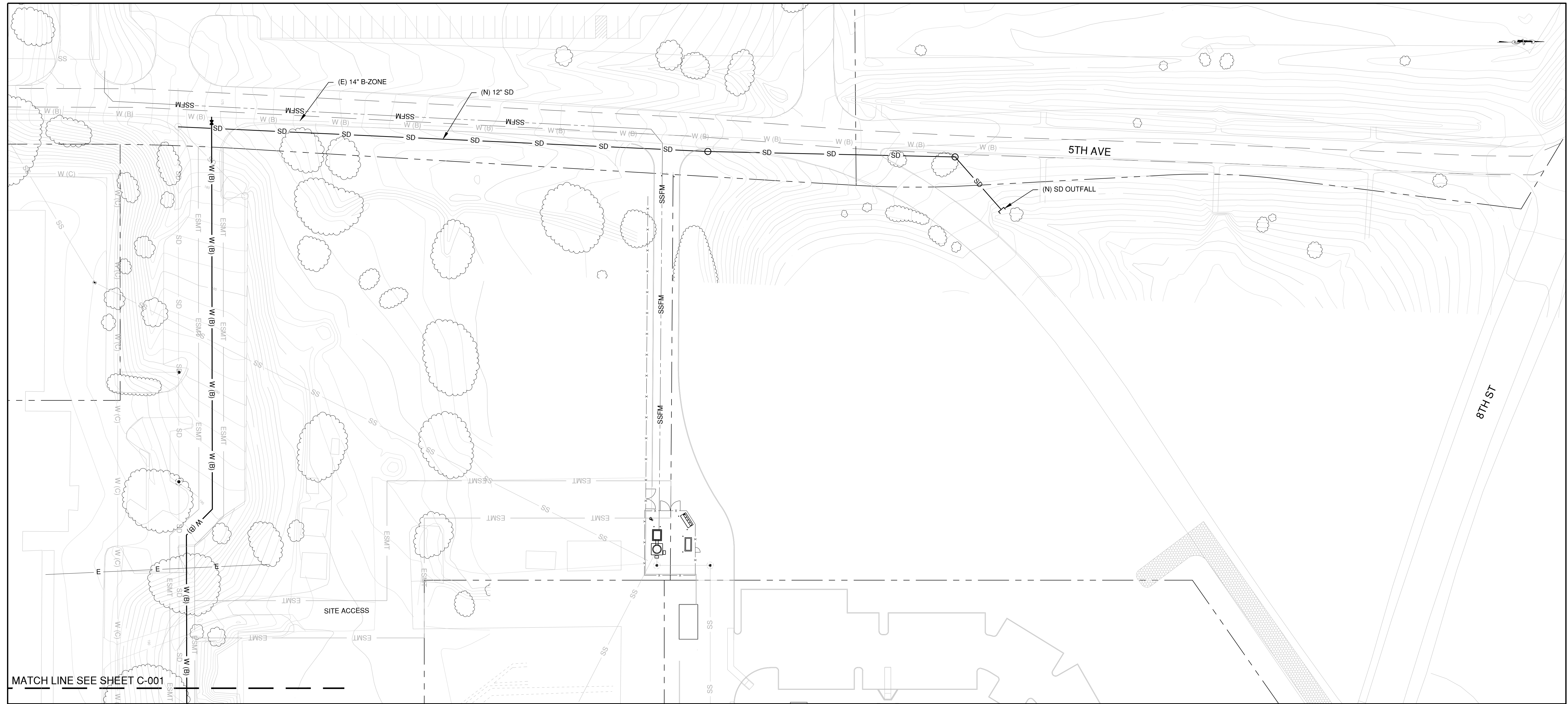


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

SITE PLAN (1 OF 2)

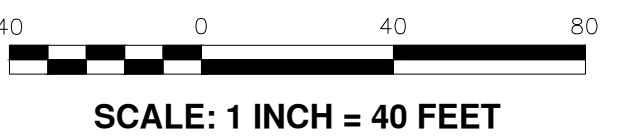
DATE: 12/23/20
SCALE: 1"=40'
DESIGN: MF
DRAWN: MF
CHECK: AAS

SHEET
C-001
OF



MATCH LINE SEE SHEET C-001

NOTE:
COORDINATE HAUL ROADS, WORK/STORAGE AREA, AND
PARKING WITH CSUMB.



NO.	REVISION DESCRIPTION	DATE	APPR



MARINA COAST WATER DISTRICT
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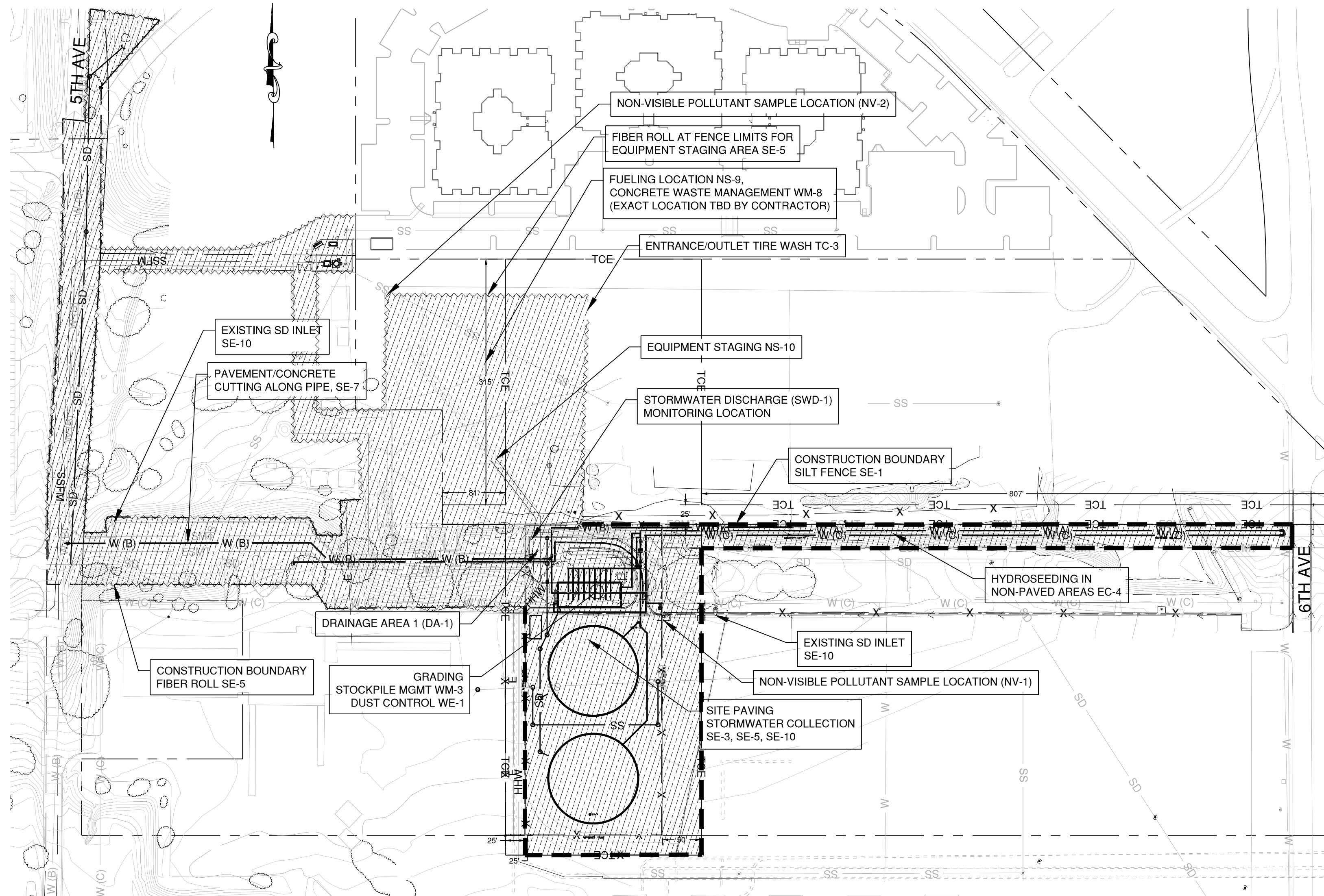
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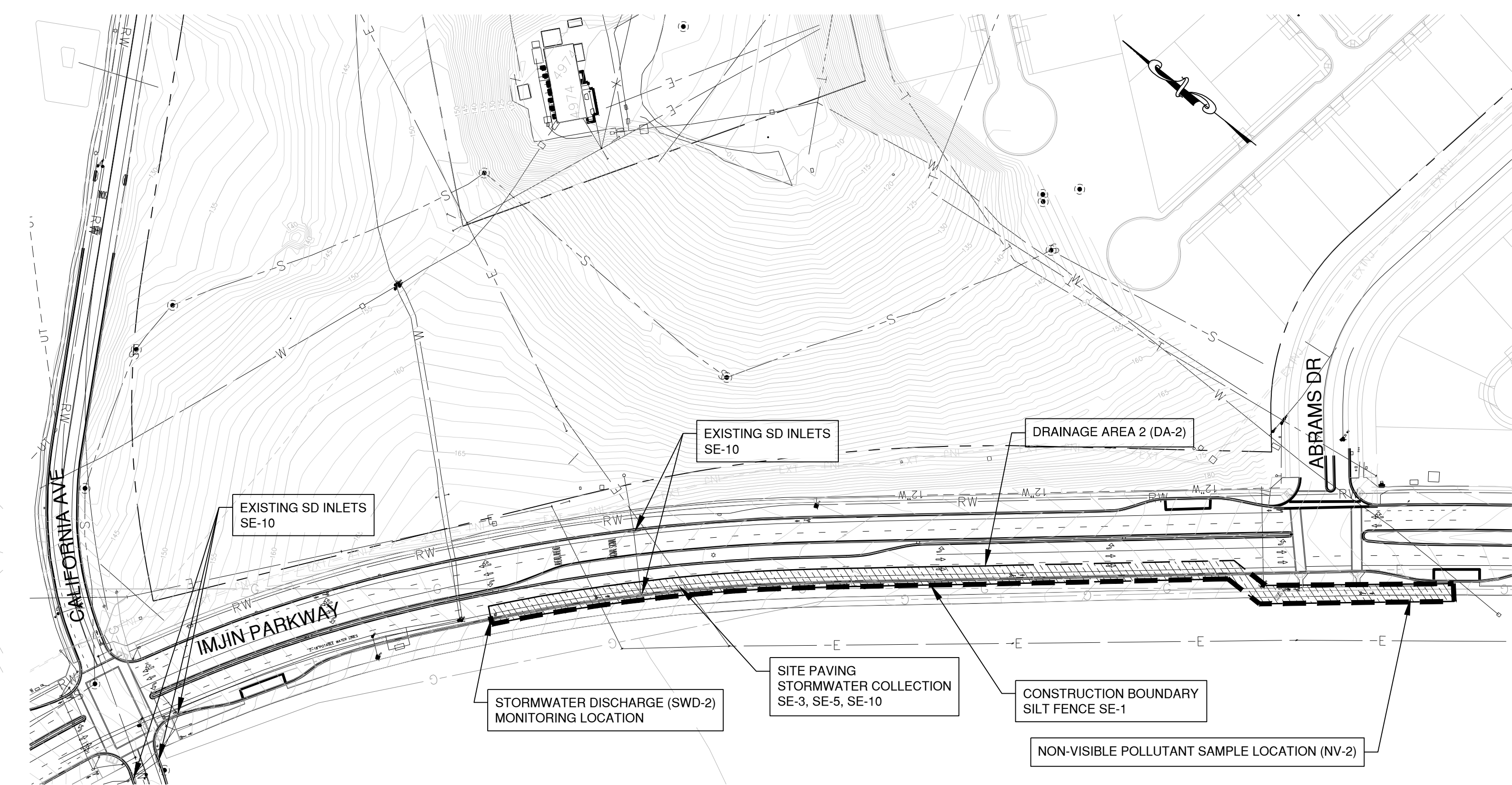
A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
 SITE PLAN (2 OF 2)

DATE: 12/23/20
 SCALE: 1"=40'
 DESIGN: CJM
 DRAWN: CJM
 CHECK: CJM

SHEET
C-002
 OF



TANK SITE
1
1"=100'



IMJIN PARKWAY CONNECTION 2
1"=100'

LEGEND: SWPPP STRUCTURAL STORMWATER BMP's

SYMBOL	BMP NUMBER	BMP NAME	SYMBOL	BMP NUMBER	BMP NAME
[Hatched Box]	TC-1	STABILIZED CONSTRUCTION ENTRANCE/EXIT	[None]	WM-1	MATERIAL DELIVERY AND STORAGE
[Hatched Box]	TC-2	ENTRANCE/OUTLET TIRE WASH	[None]	WM-2	MATERIAL USE
[None]	EC-2	PRESERVATION OF EXISTING VEGETATION	[None]	WM-3	STOCKPILE MANAGEMENT
[None]	EC-4	HYDROSEEDING	[None]	WM-4	SPILL PREVENTION AND CONTROL
[None]	EC-7	GEOTEXTILE AND MATS	[None]	WM-8	CONCRETE WASTE MANAGEMENT
[None]	EC-9	GRASSY DRAINAGE SWALES	[None]	NS-9	VEHICLE AND EQUIPMENT FUELING
[None]	EC-10	VELOCITY DISSIPATION DEVICE	[None]	NS-10	VEHICLE AND EQUIPMENT MAINTENANCE
[None]	EC-16	NON-VEGETATIVE STABILIZATION	[None]		
[Dashed Line]	SE-1	SILT FENCE	[Hatched Box]		AREA OF SOIL DISTURBANCE
[None]	SE-3	SEDIMENT TRAP	[Dashed Line]		PROJECT BOUNDARY/TEMPORARY CONSTRUCTION EASEMENT
[None]	SE-5	FIBER ROLLS			
[None]	SE-6	GRAVEL BAG BERM			
[None]	SE-7	STREET SWEEPING AND VACUUMING			
[None]	SE-8	SAND BAG BARRIER			
[None]	SE-10	STORM DRAIN INLET PROTECTION			
[None]	WE-1	WIND EROSION CONTROL			

NOTE:
 1. SEE CASQA CALIFORNIA STORMWATER BMP HANDBOOK-CONSTRUCTION FOR BMP DESCRIPTIONS AND DETAILS.
 2. STOCKPILES AND LOOSE UNCOMPACTED MATERIAL SHALL BE PROTECTED FROM WIND EROSION PER BMP STANDARDS AND SWPPP PLAN.
 3. ALL DISTURBED UNPAVED AREAS TO BE STABILIZED WITH HYDROSEED. VEGETATION MUST BE ESTABLISHED PRIOR TO PROJECT COMPLETION.
 4. ALL VEGETATION OUTSIDE OF THE PROJECT LIMITS SHALL BE PROTECTED. IF EXISTING VEGETATION OUTSIDE OF DESIGNATED WORKING AREAS IS DISTURBED, CONTRACTOR TO REPLACE AND RESTORE VEGETATION AT NO ADDITIONAL COST.

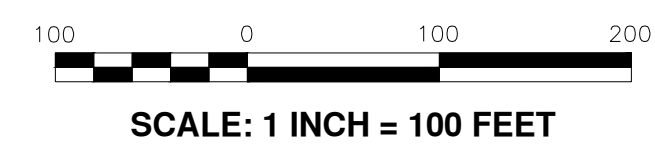
GENERAL NOTES

1. THE EROSION CONTROL MEASURES ARE TO BE OPERATIONAL DURING THE RAINY SEASON, OCTOBER 1 TO APRIL 15. BY OCTOBER 1, GRADING AND INSTALLATION OF STORM DRAINAGE AND EROSION CONTROL FACILITIES WILL NEED TO BE COMPLETED AND EROSION CONTROL PLANTING WILL NEED TO BE ESTABLISHED. PERIMETER CONTROLS (SILT FENCES) ARE REQUIRED YEAR-ROUND FOR EARTHWORK AREAS.
2. PIPE CULVERTS, STANDARD DROP INLETS, UNDERGROUND STORM DRAINAGE PIPE, AND APPURTENANCES SHALL BE CONSTRUCTED PRIOR TO WINTERIZATION, AND WILL REMAIN AS PERMANENT TRACT IMPROVEMENTS.
3. CHANGES TO THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE MADE TO MEET FIELD CONDITIONS ONLY WITH THE APPROVAL OF OR AT THE DIRECTION OF THE DISTRICT.
4. DURING THE RAINY SEASON, ALL PAVED AREAS SHALL BE KEPT CLEAR OF EARTH MATERIAL AND DEBRIS. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT-LADEN RUNOFF TO ANY STORM DRAINAGE SYSTEM.
5. SEED AND MULCH ARE TO BE PLACED ON ALL DISTURBED SLOPES STEEPER THAN 2% AND HIGHER THAN 3 FEET, AND TO ALL CUT AND FILL SLOPES WITHIN OR ADJACENT TO PUBLIC RIGHTS OF WAY AND AS DIRECTED BY THE DISTRICT. SEED PLACED BETWEEN MAY AND SEPTEMBER SHALL BE IRRIGATED AS NECESSARY TO ESTABLISH GROWTH BY OCTOBER 1.
6. SEE CONTRACTOR'S SWPPP FOR RESPONSIBLE PARTY AND APPLICABLE FACILITY LOCATIONS AND DETAILS.
7. THE DISTRICT'S INSPECTOR AND/OR THE CITY BUILDING OFFICIAL SHALL STOP OPERATIONS DURING PERIODS OF INCLEMENT WEATHER IF HE OR SHE DETERMINES THAT EROSION PROBLEMS ARE NOT BEING CONTROLLED ADEQUATELY.
8. ALL GRADING SHALL CONFORM TO THE MARINA MUNICIPAL CODE, TITLE 15, BUILDINGS AND CONSTRUCTION, AND THE CALIFORNIA BUILDING CODE.
9. NO VEGETATION REMOVAL OR GRADING WILL BE ALLOWED WHICH WILL RESULT IN SILTATION OF WATER COURSES OR UNCONTROLLABLE EROSION.
10. IT SHALL BE THE RESPONSIBILITY OF THE OWNER AND THE PERMITTEE TO ENSURE THAT EROSION DOES NOT OCCUR FROM AN ACTIVITY DURING OR AFTER PROJECT CONSTRUCTION. ADDITIONAL MEASURES, BEYOND THOSE SPECIFIED, MAY BE REQUIRED AS DEEMED NECESSARY TO CONTROL ACCELERATED EROSION. (MCC 16.12.100)
10. ALL ON-SITE EROSION CONTROL FACILITIES SHALL BE PROPERLY MAINTAINED BY THE OWNERS FOR THE LIFE OF THE PROJECT SO THAT THEY DO NOT BECOME NUISANCES WITH STAGNANT WATER, HEAVY ALGAE GROWTH, INSECT BREEDING, ODORS, DISCARDED DEBRIS, AND/OR SAFETY HAZARDS. VEGETATIVE MAINTENANCE MAY INCLUDE MOWING, FERTILIZATION, IRRIGATION AND/OR RESEEDING. (SMC 15.32.180 M)
11. DURING CONSTRUCTION THE OWNER/APPLICANT SHALL SCHEDULE AN INSPECTION WITH THE CITY

OF MARINA TO INSPECT DRAINAGE DEVICE INSTALLATION, REVIEW THE MAINTENANCE AND EFFECTIVENESS OF BMPs INSTALLED, AS WELL AS, TO VERIFY THAT POLLUTANTS OF CONCERN ARE NOT DISCHARGED FROM THE SITE.

MAINTENANCE NOTES

- SILT FENCES**
1. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH SIGNIFICANT RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
 2. IF THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSES OR BECOMES INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
 3. SEDIMENT DEPOSITS THAT REMAIN IN PLACE AFTER REMOVAL OF THE SILT FENCE OR FILTER BARRIER SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE AND SEEDED.
 4. SILT FENCES ARE TO BE KEYED IN.
- GRAVEL INLET SEDIMENT TRAP**
1. THE STRUCTURE SHALL BE INSPECTED AFTER EACH SIGNIFICANT RAIN AND REPAIRS MADE AS NEEDED.
 2. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHOULD BE DEPOSITED IN A SUITABLE AREA, IN A MANNER THAT WILL NOT PROMOTE EROSION.
 3. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREAS HAS BEEN PROPERLY STABILIZED.
- CONSTRUCTION ENTRANCE**
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND.
 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. THIS SHALL BE DONE AT AN AREA STABILIZED WITH CRUSHED STONE, WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.



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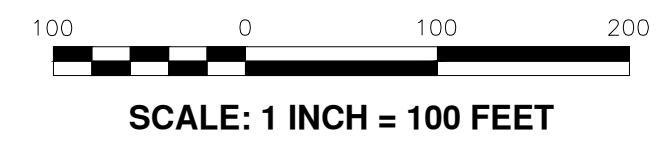
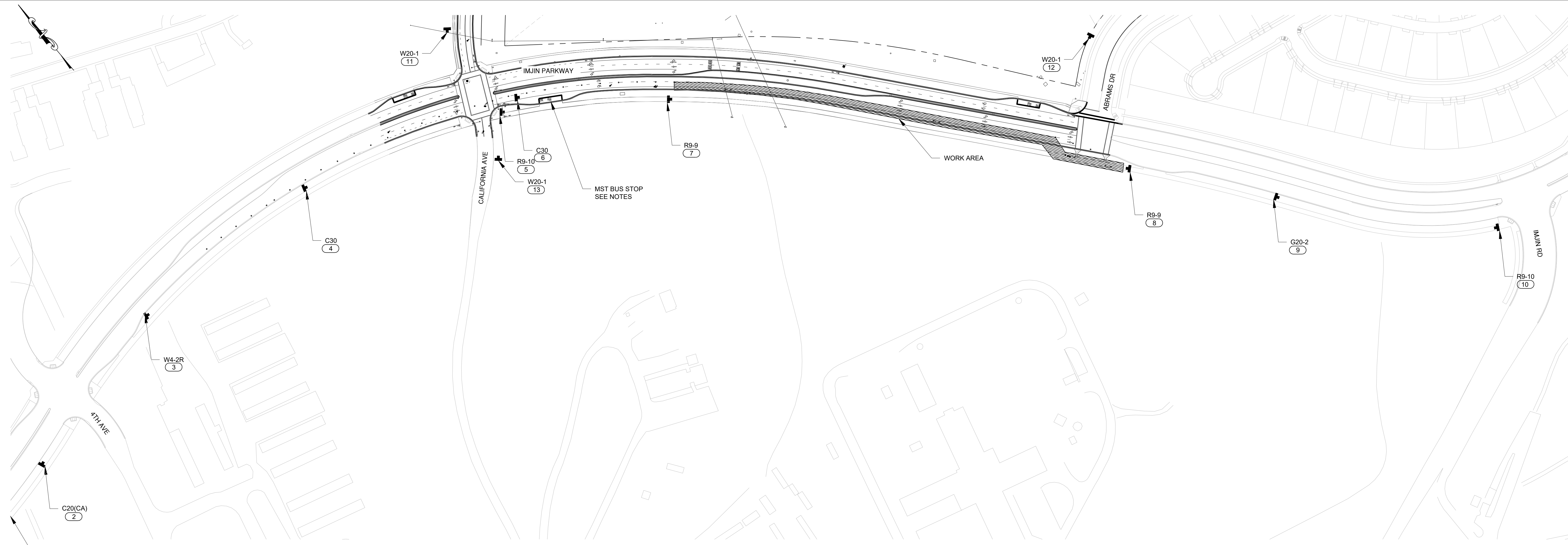


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION




EROSION CONTROL PLAN

DATE: 12/23/20
 SCALE: 1"=100'
 DESIGN: CJM
 DRAWN: CJM
 CHECK: AAS

SHEET
C-003
 OF



LEGEND:

-  TEMPORARY TRAFFIC CONTROL SIGN (SHOWN FACING LEFT)
-  ROADSIDE SIGN NUMBER
-  TRAFFIC CONE

TRAFFIC CONTROL NOTES:

1. THIS TRAFFIC CONTROL PLAN SHALL BE USED IN CONJUNCTION WITH CALTRANS STANDARD PLANS AND THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
2. CONTRACTOR SHALL KEEP THE INTERSECTION OF GENERAL IMJIN PARKWAY AND CALIFORNIA AVENUE OPEN AT ALL TIMES.
3. TRAFFIC CONTROL SHALL BE PER CALTRANS STANDARD PLANS T11 AND T9 (2015 EDITION).
4. CONSTRUCTION SIGN DIMENSIONS AND ANCHORAGE SHALL BE AS REQUIRED PER THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
5. CONTRACTOR SHALL SUBMIT A PROJECT-SPECIFIC TRAFFIC CONTROL PLAN FOR OWNER AND CITY REVIEW AND APPROVAL.

MST BUS STOP NOTES:

1. NOTIFY MONTEREY-SALINAS TRANSIT ONE-WEEK PRIOR TO IMPACTING BUS STOP TRAFFIC.
2. BUS STOP ID: 1778, IMJIN PARKWAY AT CALIFORNIA AVENUE.
3. BUS STOP ID: 7105, IMJIN PARKWAY AT ABRAMS DRIVE.
4. POINT OF CONTACT AT MST IS CHARLES ARMBRUSTER, (831) 760-0862. CARMBRUSTER@MST.ORG.

SIGN SCHEDULE

SIGN NO.	TYPE	SIGN MSG.	QTY.
1, 11, 12	W20-1	ROAD WORK AHEAD	3
5, 10	R9-10	SIDEWALK CLOSED USE OTHER SIDE	2
7, 8	R9-9	SIDEWALK CLOSED	2
10	R9-11	SIDEWALK CLOSED AHEAD CROSS HERE	1
9	G-20-2	END ROAD WORK	1
3	W4-2R	RIGHT LANE ENDS	1
2	C20	RIGHT LANE CLOSED AHEAD	1
4, 6	C30	LANE CLOSED	2

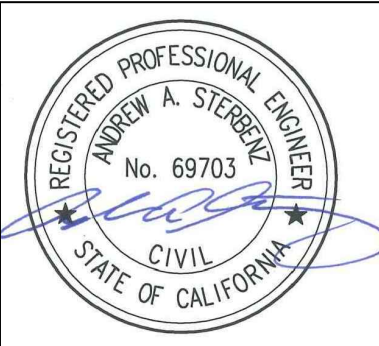
DATE PLOTTED: 12/23/20 11:43 AM PLOTTER: HP DesignJet 5000PSN PLOTTER: HP DesignJet 5000PSN

NO.	REVISION DESCRIPTION	DATE	APPR



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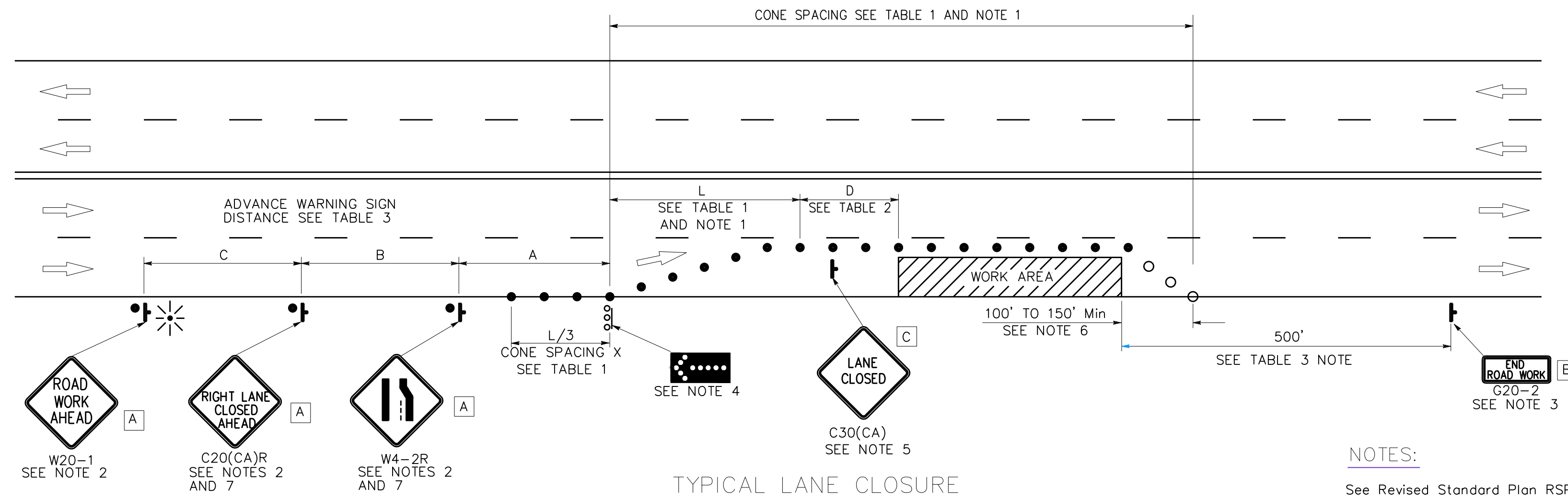
Schaaf & Wheeler
 CONSULTING CIVIL ENGINEERS
 3 QUAIL RUN CIRCLE, STE. 101
 SALINAS, CA 93907
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A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
TRAFFIC CONTROL PLAN

DATE: 12/23/20
 SCALE: 1"=100'
 DESIGN: CJM
 DRAWN: CJM
 CHECK: AAS

SHEET
C-005
 OF



NOTES:

1. Portable delineators placed at one-half the spacing indicated for traffic cones may be used instead of cones for daytime closures only.
2. Each advance warning sign shall be equipped with at least two flags for daytime closure. Each flag shall be at least 16" x 16" in size and shall be orange or fluorescent red-orange in color. Flashing beacons shall be placed at the locations indicated for lane closure during hours of darkness.
3. A G20-2 "END ROAD WORK" sign shall be placed at the end of the lane closure unless the end of work area is obvious or ends within the larger project's limits.
4. A minimum 1500' of sight distance shall be provided where possible for vehicles approaching the first flashing arrow sign. Lane closures shall not begin at the top of crest vertical curve or on a horizontal curve.

5. Place C30(CA) "LANE CLOSED" sign at 500' to 1000' intervals throughout extended work area.
6. Length may be reduced by the Engineer to address site conditions.
7. Median lane closures shall conform to the details shown except that C20(CA)L and W4-2L signs shall be used.
8. For approach speeds over 50 MPH, use the "Traffic Control System for Lane Closure on Freeways and Expressways" plan for lane closure details and requirements.

NOTES:

See Revised Standard Plan RSP T9 for tables.

Use cone spacing X for taper segment, Y for tangent segment or Z for conflict situations, as appropriate, per Table 1, unless X, Y, or Z cone spacing is shown on this sheet.

Provide at least one person to continuously maintain traffic control devices for lane closures.

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- † TEMPORARY TRAFFIC CONTROL SIGN
- ⬢ FLASHING ARROW SIGN (FAS)
- ⬢ FAS SUPPORT OR TRAILER
- ⚡ PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

- A 48" x 48"
- B 36" x 18"
- C 30" x 30"

CALTRANS RSP T11
NTS

TABLE 1

SPEED (S)	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W)				MAXIMUM CHANNELIZING DEVICE SPACING		
	TANGENT 2L	MERGING L	SHIFTING L/2	SHOULDER L/3	X	Y	Z **
					TAPER	TANGENT	CONFLICT
mph	ft	ft	ft	ft	ft	ft	ft
20	160	80	40	27	20	40	10
25	250	125	63	42	25	50	12
30	360	180	90	60	30	60	15
35	490	245	123	82	35	70	17
40	640	320	160	107	40	80	20
45	1080	540	270	180	45	90	22
50	1200	600	300	200	50	100	25
55	1320	660	330	220	50	100	25
60	1440	720	360	240	50	100	25
65	1560	780	390	260	50	100	25
70	1680	840	420	280	50	100	25
75	1800	900	450	300	50	100	25

* - For other offsets, use the following merging taper length formula for L:
For speed of 40 mph or less, L = WS/60
For speed of 45 mph or more, L = WS

Where: L = Taper length in feet

W = Width of offset in feet

S = Posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Use for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers (CA).

TABLE 2

SPEED *	Min D **	DOWNGRADE Min D ***		
		-3%	-6%	-9%
		ft	ft	ft
mph	ft	ft	ft	ft
20	115	116	120	126
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891
75	820	866	927	1003

* - Speed is posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Longitudinal buffer space or flagger station spacing

*** - Use on sustained downgrade steeper than -3 percent and longer than 1 mile.

TABLE 3

ROAD TYPE	DISTANCE BETWEEN SIGNS *		
	A	B	C
	ft	ft	ft
URBAN - 25 mph OR LESS	100	100	100
URBAN - MORE THAN 25 mph TO 40 mph	250	250	250
URBAN - MORE THAN 40 mph	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2640

* - The distances are approximate, are intended for guidance purposes only, and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommended distances.

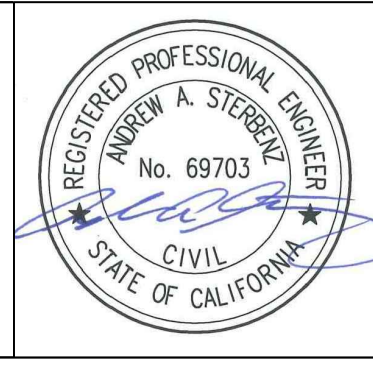
CALTRANS RSP T9
NTS

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Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS
3 QUAIL RUN CIRCLE, STE. 101
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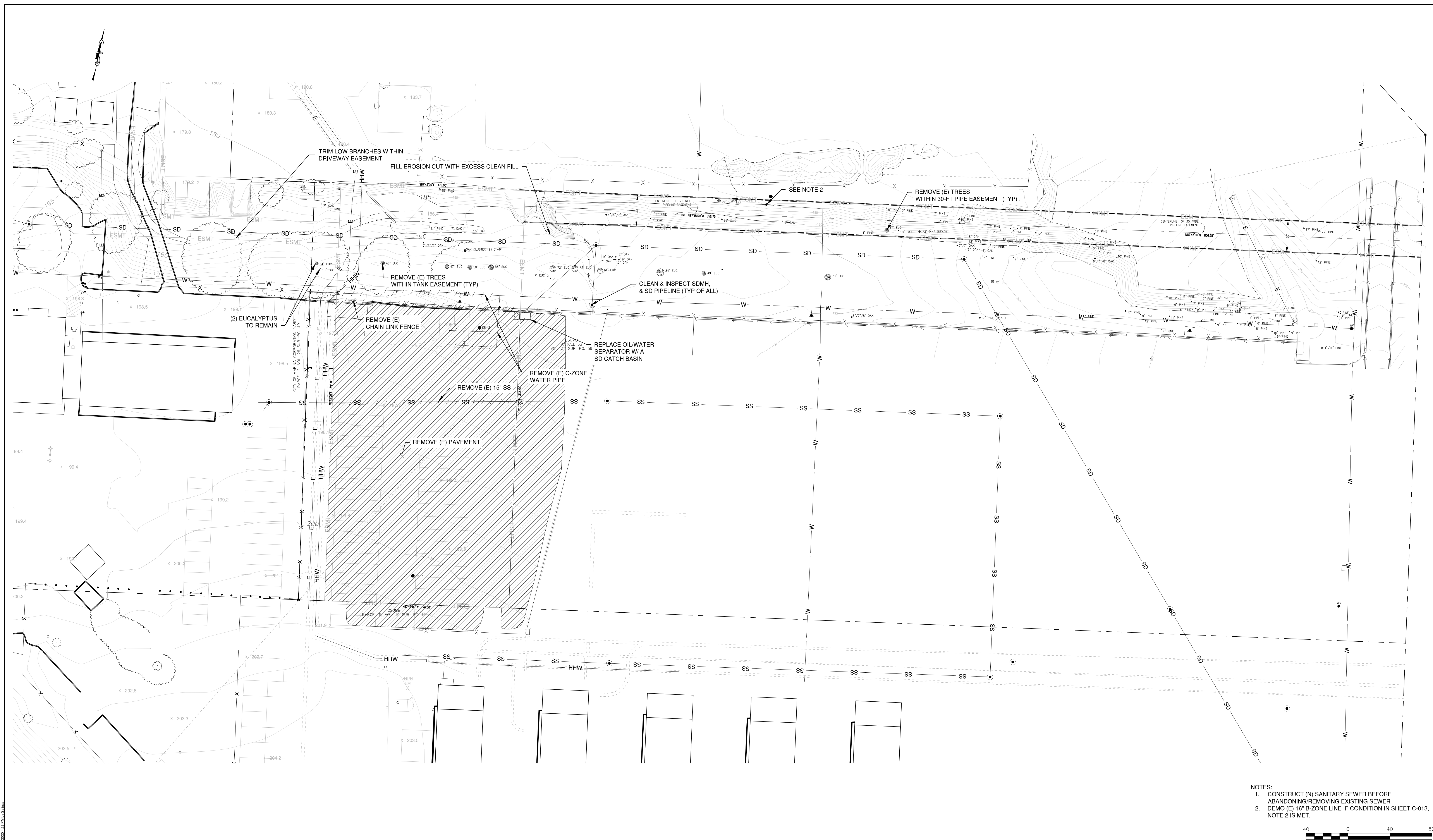


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

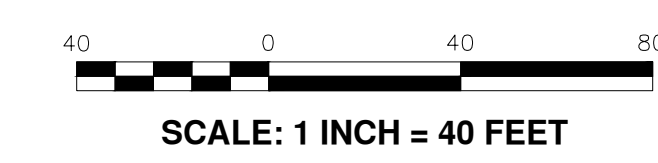
TRAFFIC CONTROL DETAILS

DATE: 12/23/20
SCALE: NTS
DESIGN: CJM
DRAWN: CJM
CHECK: AAS

SHEET
C-006
OF



NOTES:
 1. CONSTRUCT (N) SANITARY SEWER BEFORE ABANDONING/REMOVING EXISTING SEWER
 2. DEMO (E) 16\"/>



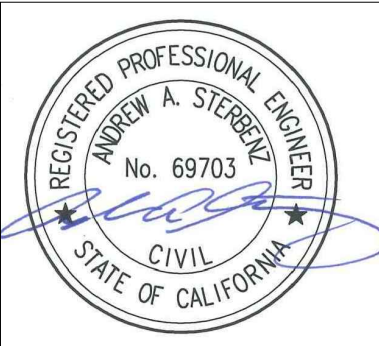
DEMOLITION PLAN
 1
 1"=40'

NO.	REVISION DESCRIPTION	DATE	APPR



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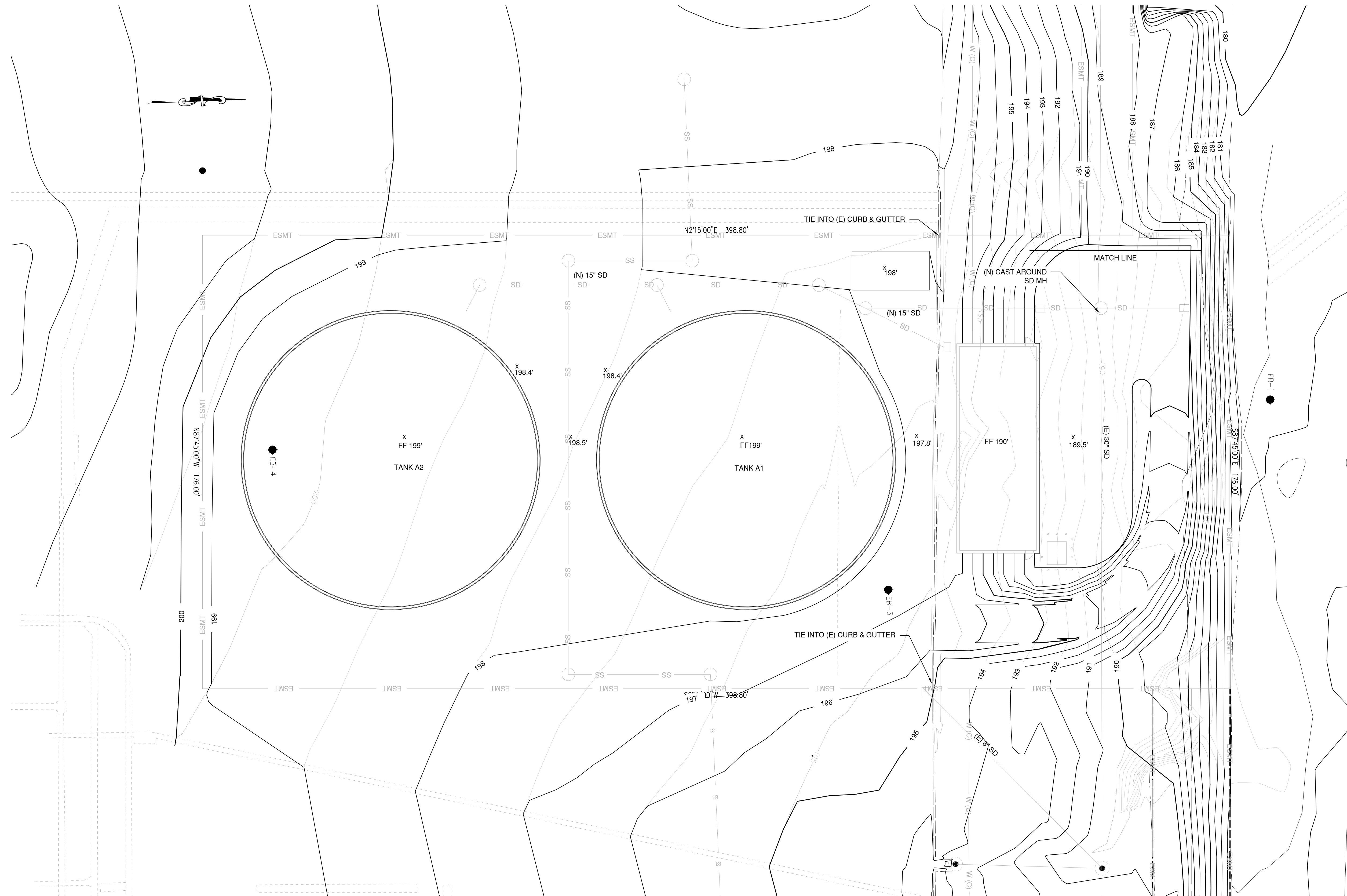


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

DEMOLITION PLAN

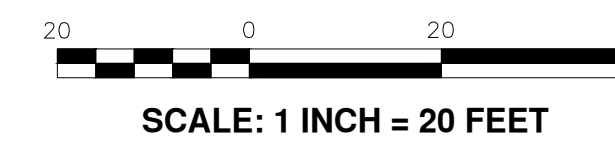
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 DESIGN: CJM
 DRAWN: CJM
 CHECK: AAS

SHEET
C-007
OF



NOTE:
MAINTAIN A MINIMUM SLOPE OF 3:1 (H:V)

TANK SITE GRADING PLAN 1
1 IN. = 20 FT.



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A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

GRADING PLAN

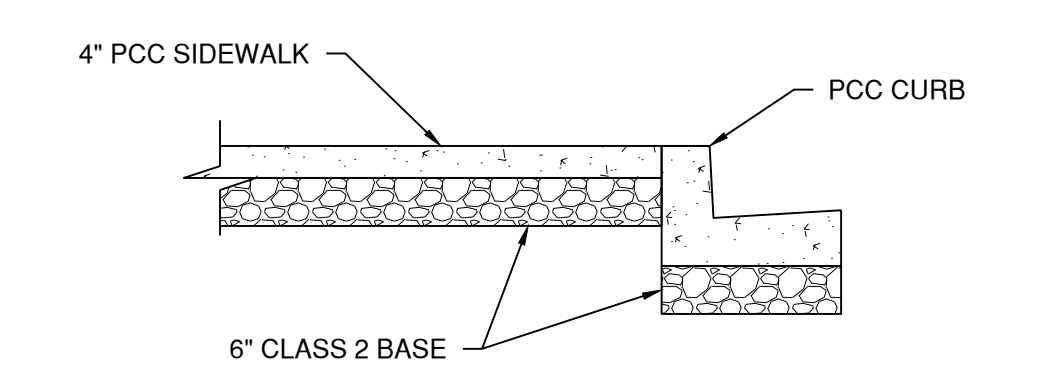
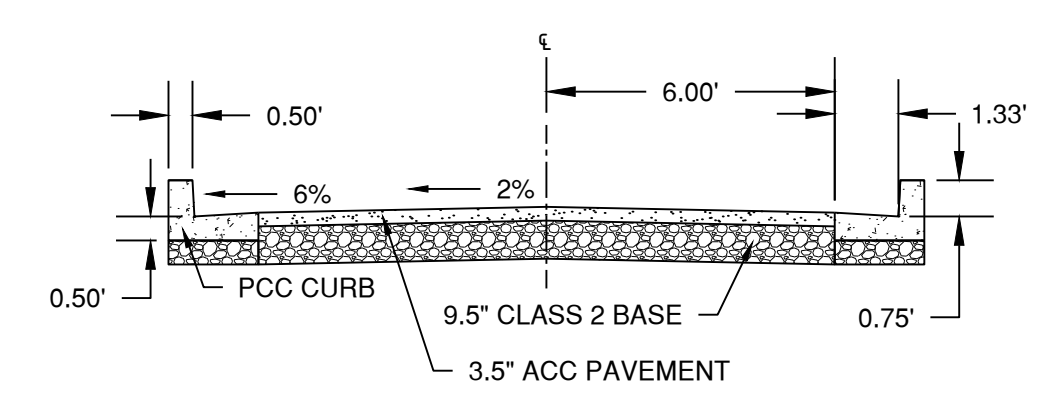
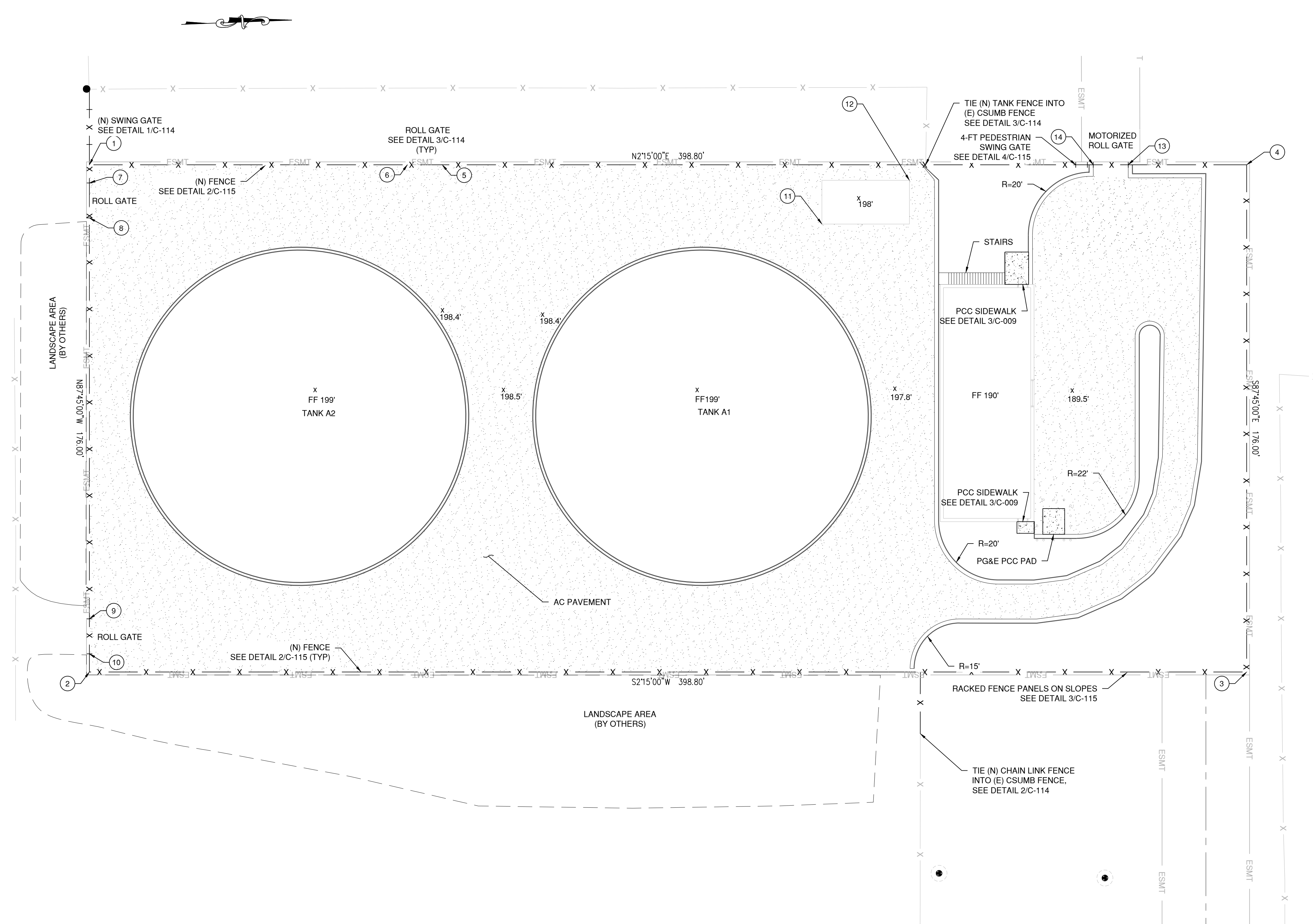
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SCALE: 1"=20'
DESIGN: JCT
DRAWN: JCT
CHECK: AAS

SHEET
C-008
OF

C:\Users\jwh\OneDrive\Documents\Projects\2020\12232020_C11022020.dwg

COORDINATES		
POINT	NORTHING	EASTING
1	2133767.78	5741426.61
2	2133760.94	5741600.47
3	2134157.44	5741616.05
4	2134164.27	5741442.19
5	2133888.68	5741431.36
6	2133876.69	5741430.89
7	2133767.69	5741430.89
8	2133767.06	5741444.84
9	2133761.66	5741582.24
10	2133761.19	5741594.24
11	2134017.95	5741456.78
12	2134048.51	5741442.97
13	2134123.71	5741440.59
14	2134111.72	5741440.12

NOTES:
 1. SEE SHEET C-120 FOR BUILDING CORNER COORDINATES.
 2. SEE SHEET C-110 FOR TANK CENTER COORDINATES.



PAVING & SITE LAYOUT
 1 IN. = 20 FT.



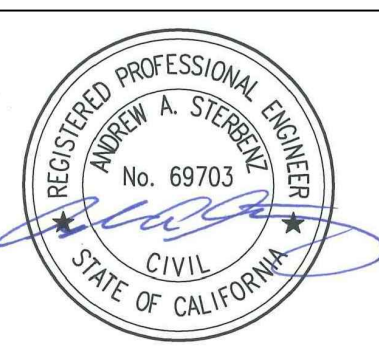
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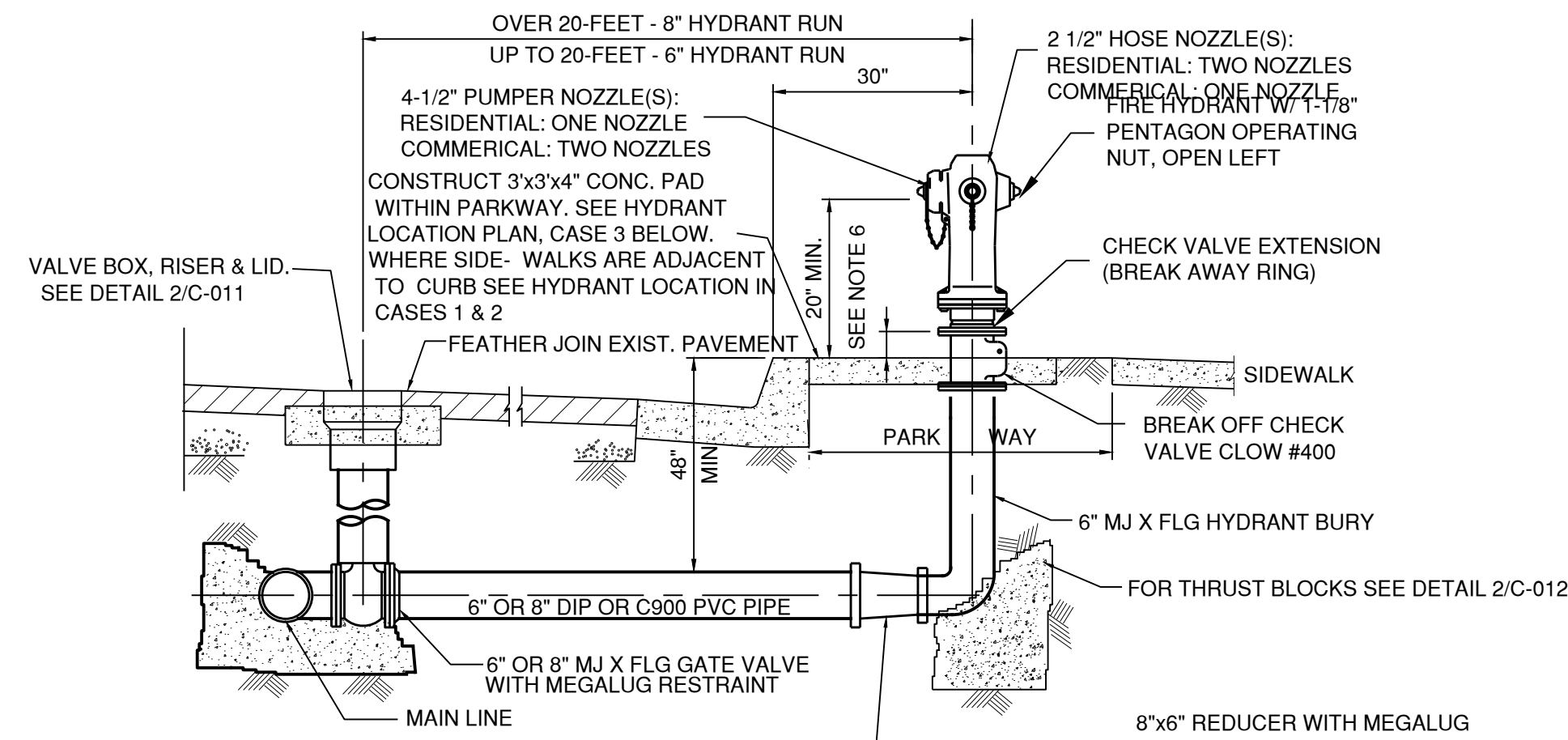


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

PAVING & SITE LAYOUT

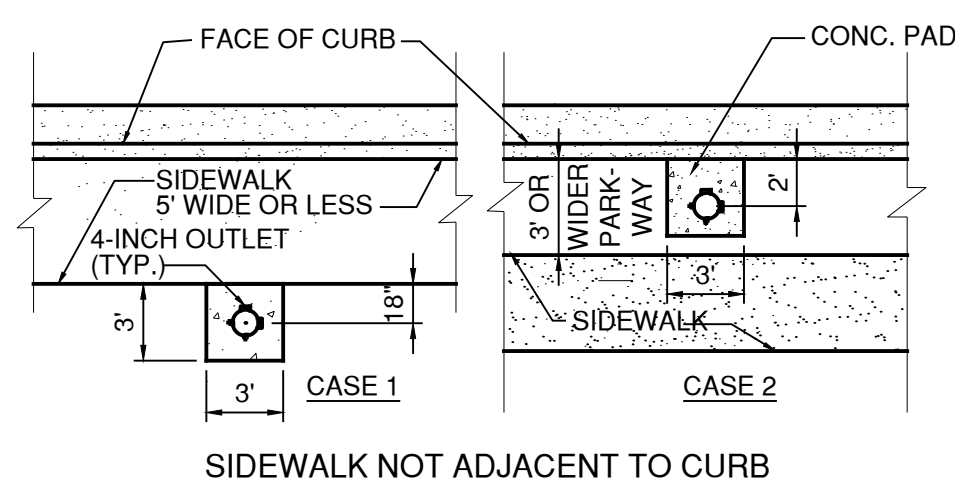
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 CHECK: AAS

SHEET
C-009
OF



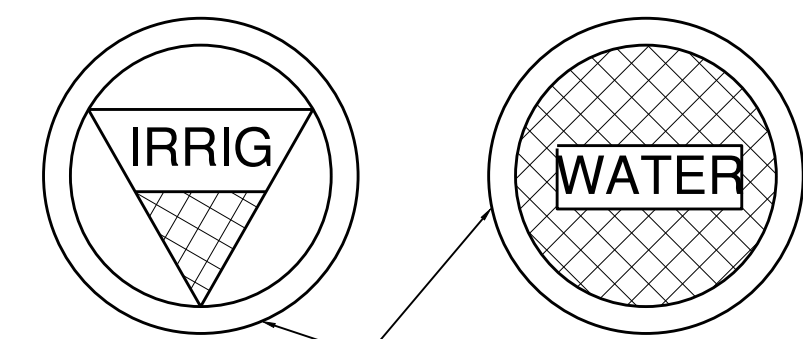
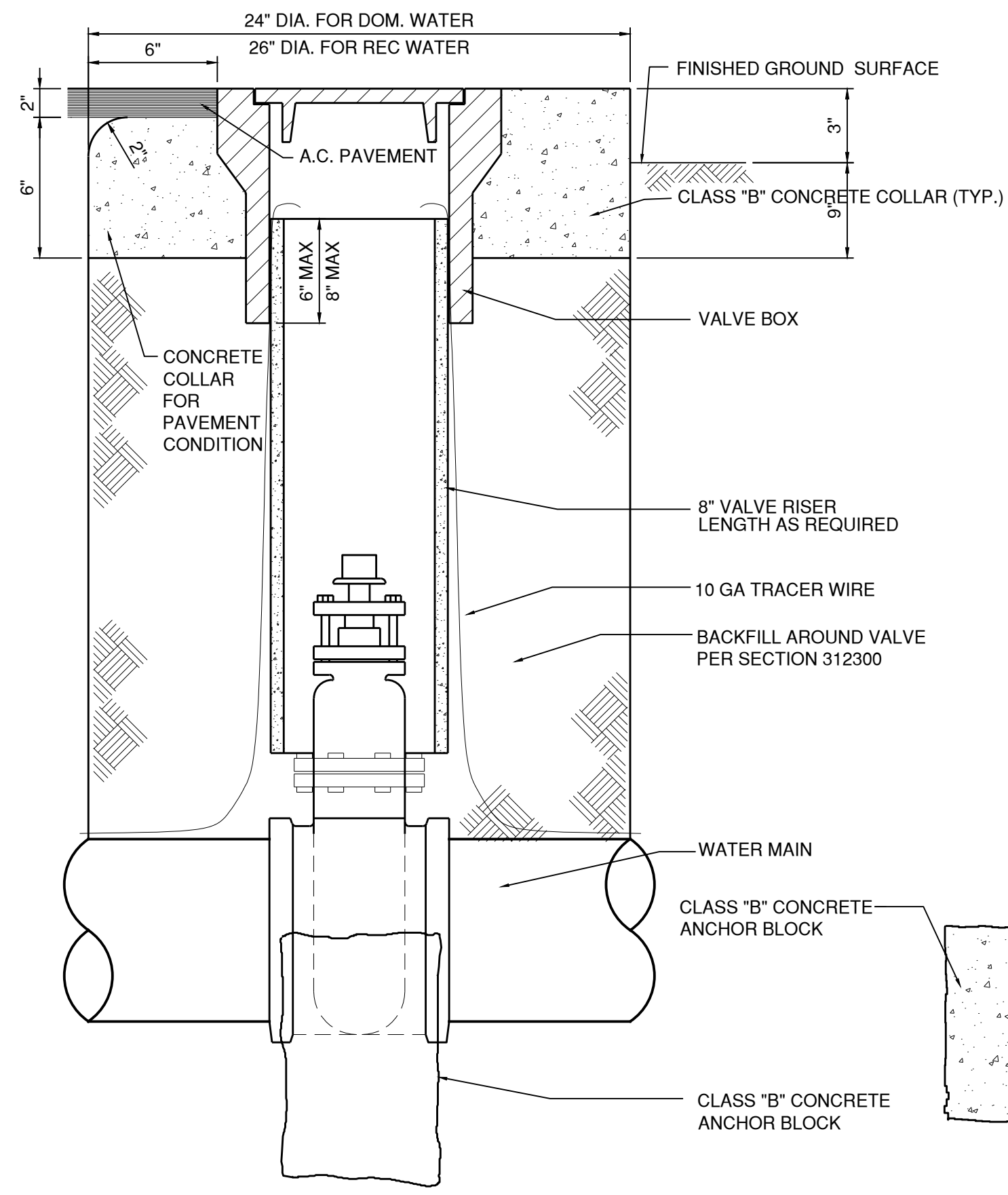
- NOTES:**
1. FOR APPROVED TYPES OF FIRE HYDRANTS SEE SPECIFICATIONS SECTION 400581.13
 2. HYDRANTS TO BE PAINTED ACCORDING TO PAINT SPECIFICATION SECTION 099000
 3. HYDRANT FLANGE GASKET SHALL BE "FULL FACE" AND OF RUBBER COMPOSITION 1/8" THICK.
 4. BOLLARDS SHALL BE INSTALLED AS REQUIRED BY THE DISTRICT
 5. THRUST BLOCK NOT REQUIRED IF LATERAL IS FULLY RESTRAINED.
 6. GASKET AT TOP OF BREAK OFF CHECK VALVE SHALL BE MINIMUM 4-INCHES, MAXIMUM 8-INCHES ABOVE CONCRETE.

HYDRANT LOCATION PLANS



FIRE HYDRANT
NTS

1
-

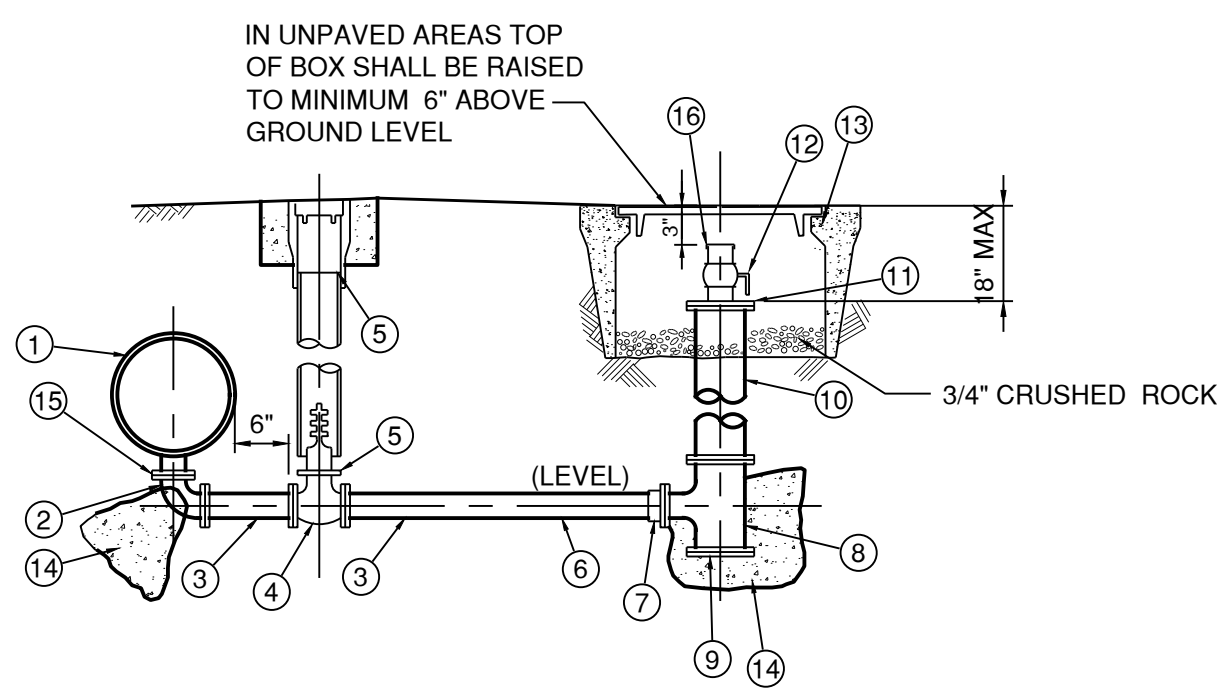


IRON COVER WITH WORD "WATER" CAST THEREON FOR DOMESTIC WATER LINES OR "IRRIG" FOR IRRIGATION SERVICES.

- NOTES:**
1. PROVIDE VALVE STEEL STEM EXTENSION IF DEPTH TO VALVE NUT EXCEEDS 4 FEET. IN NEW TRACT DEVELOPMENTS EXTEND VALVE WELL PIPE 2' ABOVE GROUND ON "KEY VALVES" FOR EMERGENCY SHUTOFFS.
 2. BUTTERFLY VALVE OPERATORS SHALL BE LOCATED ON THE LEFT-HAND SIDE OF THE VALVE (AT THE TEE OR CROSS), LOOKING THROUGH THE VALVE TOWARD THE PIPE END.
 3. WHERE CONCRETE CROSS GUTTERS AT STREET INTERSECTIONS WILL INTERFERE WITH VALVE BOXES, THE PIPELINE SHALL BE MOVED TO A POSITION 7 FEET OFF THE CURB FACE TO CLEAR THE CROSS GUTTER.
 4. VALVES TO BE LOCATED ADJACENT TO FITTINGS WHEREVER POSSIBLE.
 5. VALVES BOLTED TO FITTINGS WILL NOT REQUIRE ANCHOR BLOCKS.

VALVE AND VALVE BOX
NTS

2
-

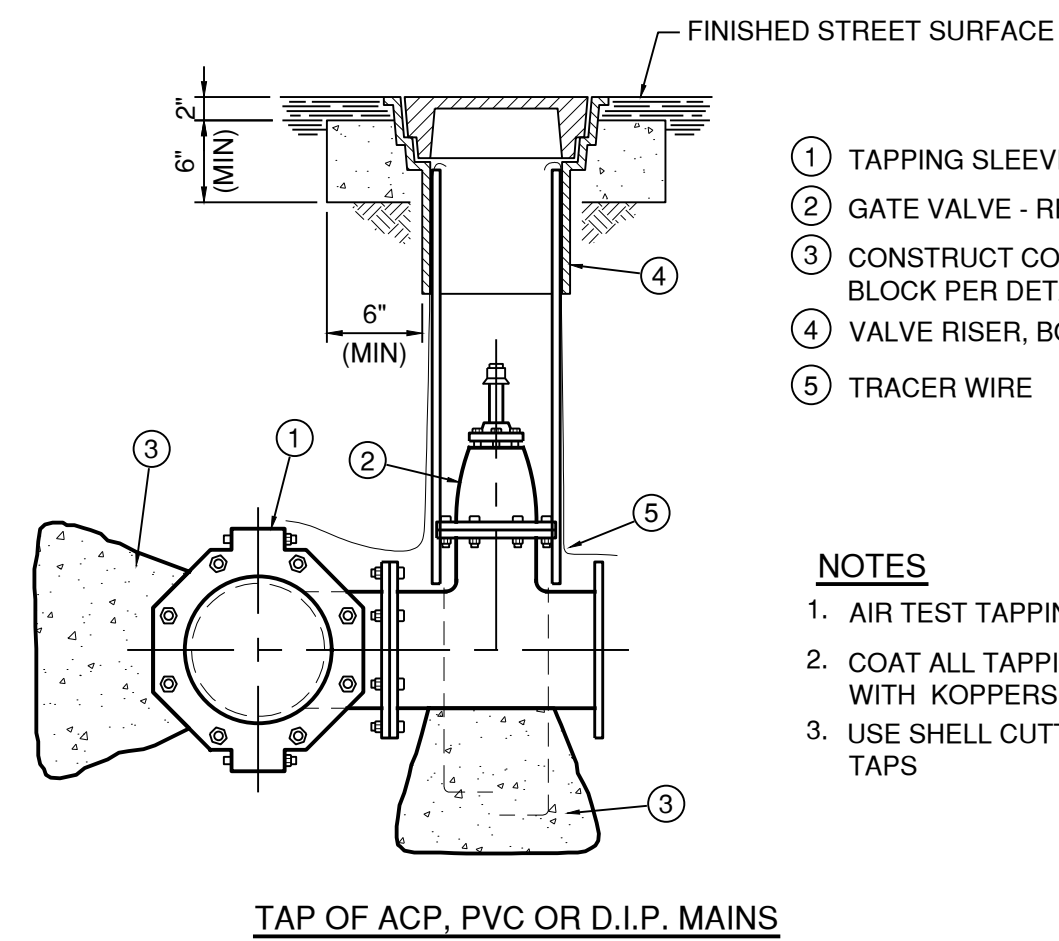


MATERIALS

- | | |
|---|---|
| 1 PIPE DIA. x 4" D.I. OR WSP TEE, FLANGED | 10 8" AS REQ'D D.I. PIPE |
| 2 4" D.I. 90° ELL. x FLG. | 11 8" BLIND FLANGE W/ 2 1/2" TAP |
| 3 4" x AS REQ'D D.I. SPOOL | 12 2 1/2" BRASS NIPPLE AND 2 1/2" BALL VALVE, IP THREAD |
| 4 4" GATE VALVE, FLG. x FLG. | 13 8" MINIMUM DIAMETER VALVE BOX |
| 5 VALVE AND VALVE BOX INSTALLATION PER DETAIL 2/C-011 | 14 THRUST BLOCKS PER DETAIL 2/C-012 |
| 6 4" x AS REQ'D FLG. x PE D.I. PIPE | 15 INSULATING KIT SHALL BE PROVIDED AS REQUIRED BY CORROSION STUDY & DISTRICT |
| 7 4" D.I. FLANGE COUPLING ADAPTER | 16 2 1/2" BRASS NIPPLE, I.P. THREAD X FH THREAD, WITH PROTECTIVE CAP |
| 8 8" x 4" D.I. TEE | |
| 9 8" D.I. BLIND FLANGE | |

4" LINE DRAIN BLOWOFF
NTS

3
-

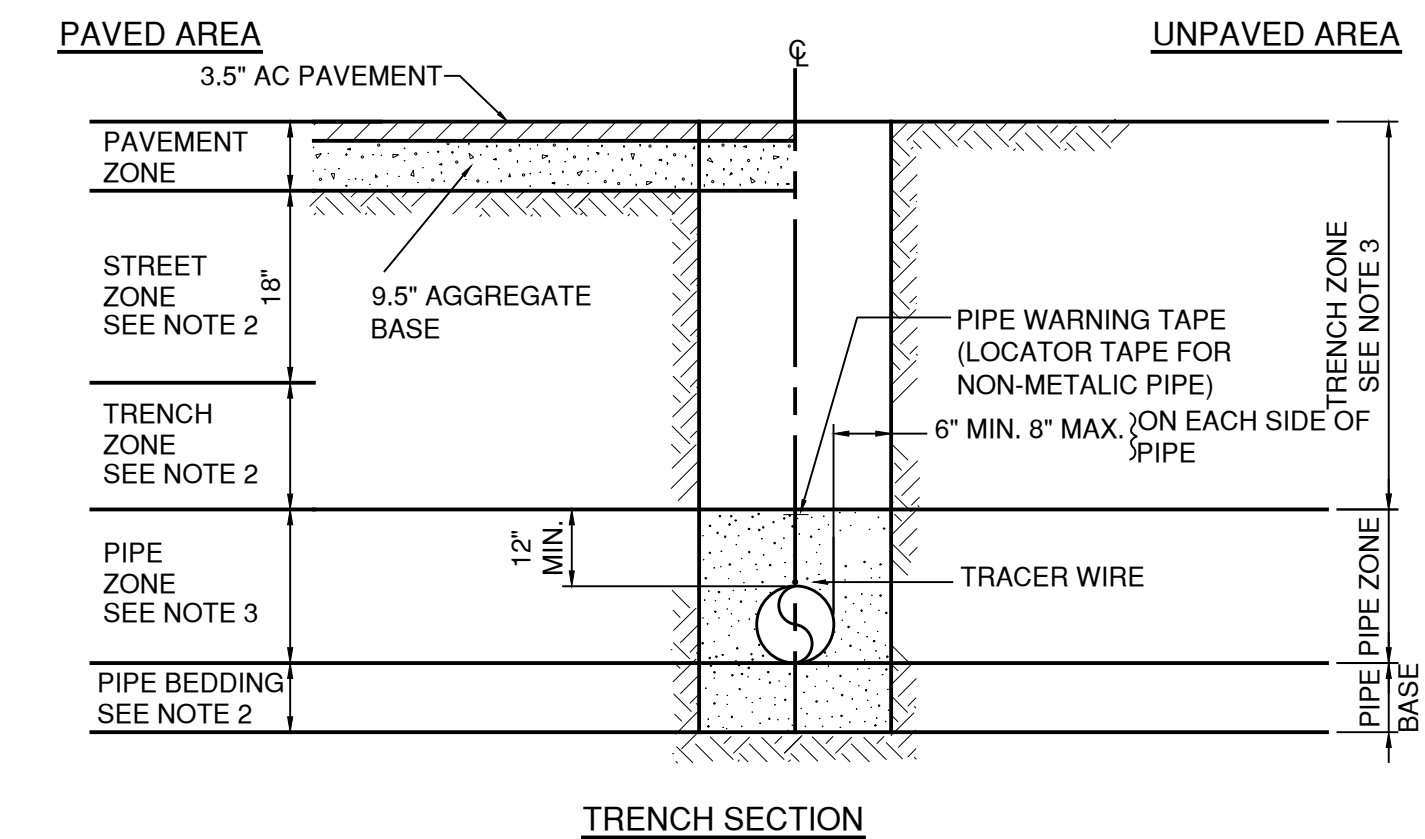


- 1 TAPPING SLEEVE - SS, FL
- 2 GATE VALVE - RESILIENT WEDGE, FLANGED
- 3 CONSTRUCT CONCRETE THRUST BLOCK PER DETAIL 2/C-012
- 4 VALVE RISER, BOX & LID PER DETAIL 2/C-011
- 5 TRACER WIRE

- NOTES:**
1. AIR TEST TAPPING SLEEVE PRIOR TO TAP
 2. COAT ALL TAPPING SLEEVE BOLTS WITH KOPPERS BITUMASTIC
 3. USE SHELL CUTTER ON ALL PVC TAPS

CONNECTION TO EXISTING PIPE
NTS

4
-



- NOTES:**
- 1- FOR PIPE SIZES 4-INCH THROUGH 10-INCH DIAMETER, PIPE BASE SHALL BE A MINIMUM OF 4-INCHES IN DEPTH; FOR 12-INCH DIAMETER PIPE AND LARGER, PIPE SHALL BE A MINIMUM OF 6-INCHES IN DEPTH.
 - 2- 95% COMPACTION OF IMPORTED BACKFILL OR NATIVE BACKFILL AS APPROVED BY ENGINEER
 - 3- 90% COMPACTION OF IMPORTED BACKFILL OR NATIVE BACKFILL AS APPROVED BY ENGINEER

WATER LINE TRENCH SECTION AND BEDDING
NTS

5
-

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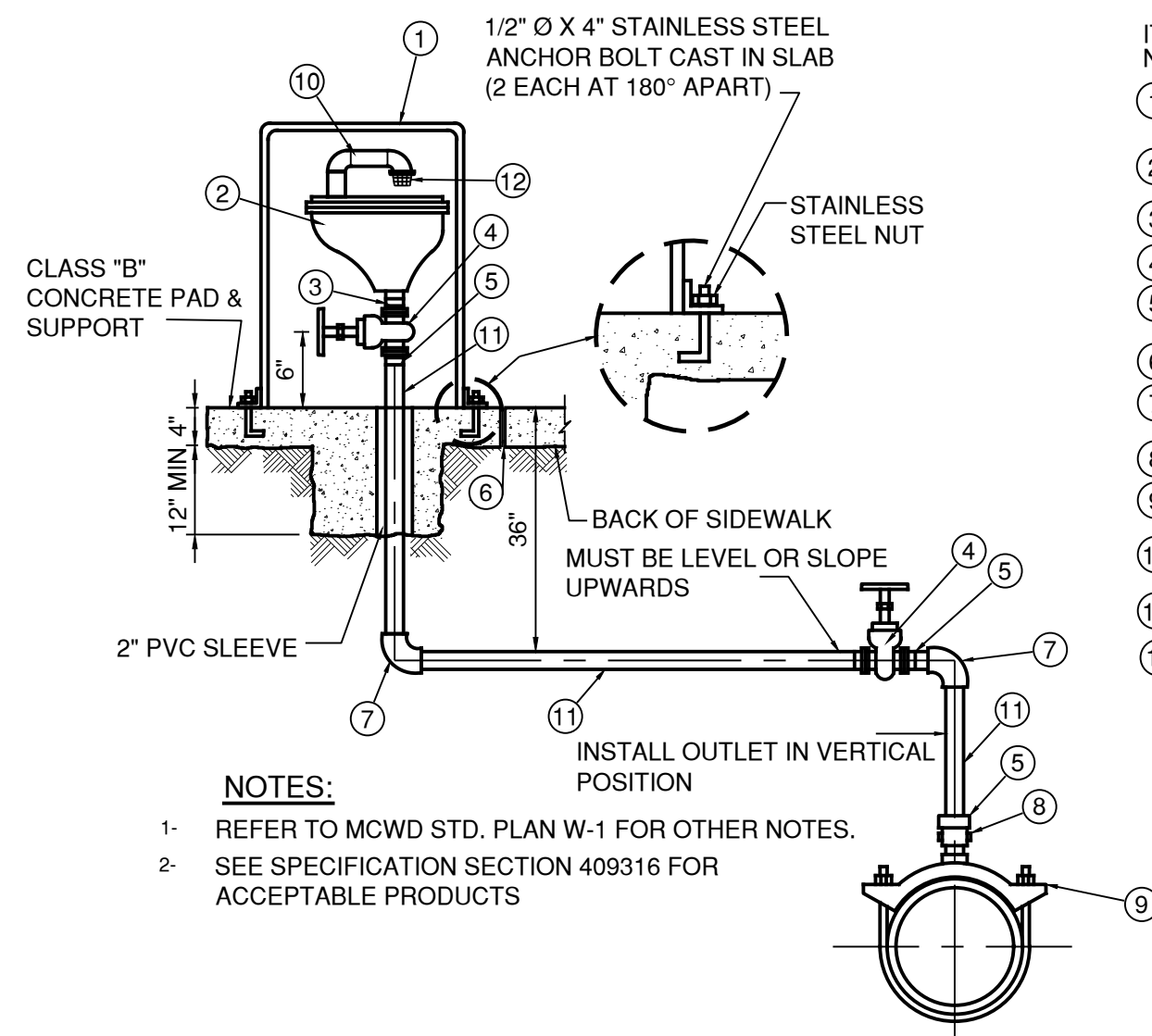


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

PIPELINE DETAILS

DATE: 12/23/20
SCALE: NTS
DESIGN: CJM
DRAWN: CJM
CHECK: AAS

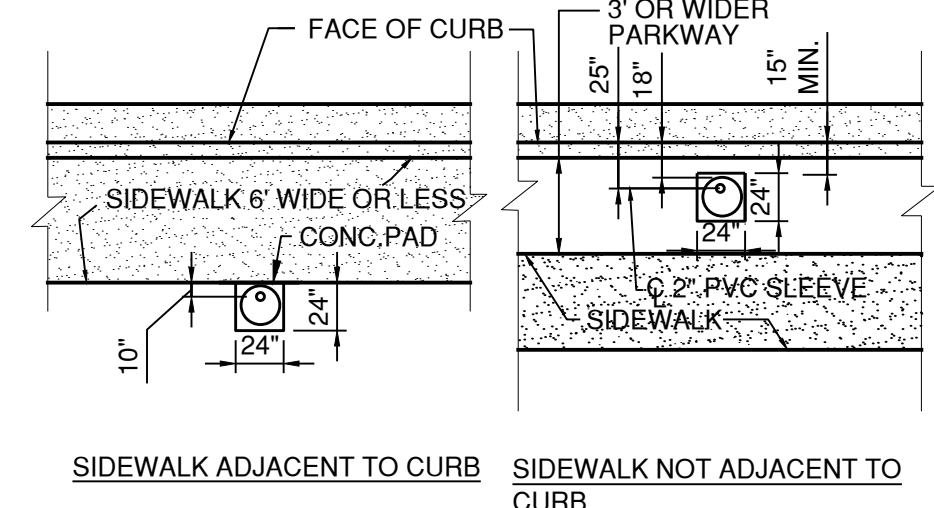
SHEET
C-011
OF



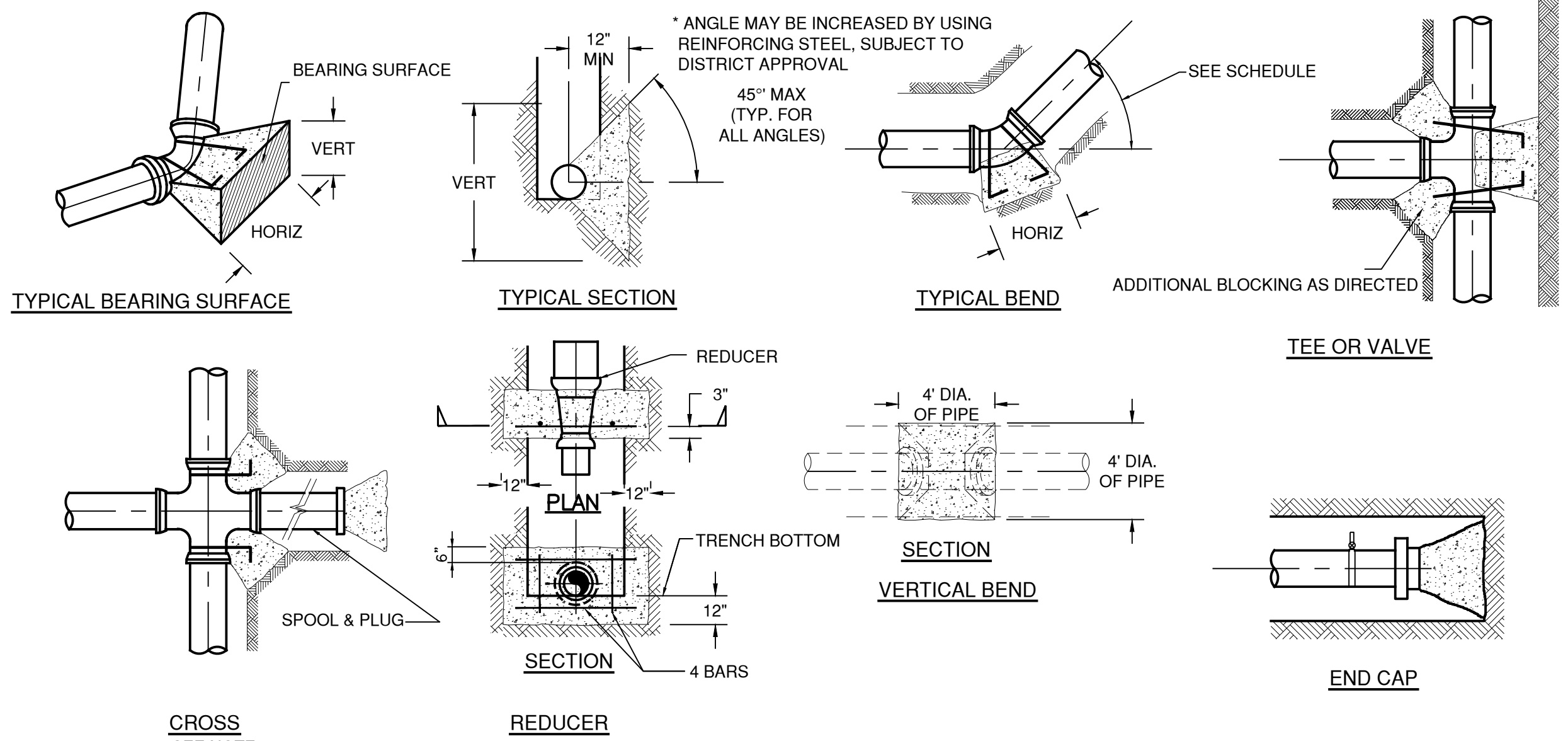
- MATERIALS**
- 1 1/2" Ø X 4" STAINLESS STEEL ANCHOR BOLT CAST IN SLAB (2 EACH AT 180° APART)
 - 1 STAINLESS STEEL VENTED COVER (PIPELINE VCSP-1530)
 - 1" AIR & VACUUM RELIEF VALVE
 - 1" BRASS CLOSE NIPPLE
 - 1" BRONZE THREADED GATE VALVE
 - 1" BRASS COMPRESSION FITTING WITH IP & CTS ADAPTER
 - COLD JOINT STRIP
 - 1" 90° COMP X COMP COPPER OR BRASS ELL
 - 1" CORPORATION STOP
 - SIZE BY 1" SERVICE SADDLE, SEE MCWD STANDARD DETAIL W-1
 - 1" SCH. 80 PVC CLOSE NIPPLES AND 90° BENDS
 - 1" COPPER TUBING TYPE 'K' RIGID
 - THREADED PRE-FAB. PVC SCREEN OUTLET WITH RIGID STAINLESS STEEL SCREEN.

NOTES:
 1- REFER TO MCWD STD. PLAN W-1 FOR OTHER NOTES.
 2- SEE SPECIFICATION SECTION 409316 FOR ACCEPTABLE PRODUCTS

VALVE ASSEMBLY LOCATION



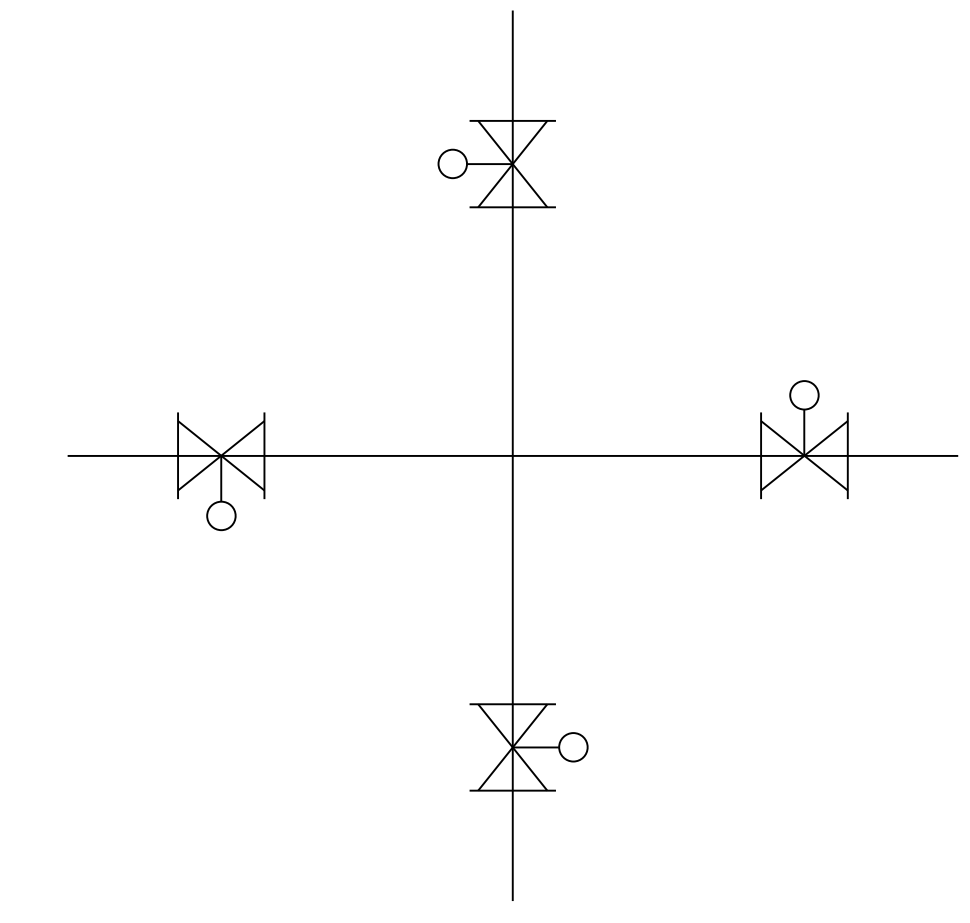
1" ARV
 NTS



- NOTES:**
- THRUST BLOCK BEARING AREA BASED ON ALLOWABLE SOIL BEARING VALUE OF 1500 psf PRESSURE AND 225 psi LINE PRESSURE WITH 3'-0" COVER MINIMUM. FOR BEARING = 1000 psf, 1.5 X AREA SHOWN FOR BEARING = 500 psf, 3.0 X AREA SHOWN
 - ALL THRUST BLOCKS SHALL BE 2,000 PSI CONCRETE AND PLACED AGAINST UNDISTURBED SOIL. DESIGN ENGINEER SHALL DETERMINE SIZES NOT SHOWN.
 - STRAPS TO BE #4 REBARS EMBEDDED IN THRUST BLOCK TO A DEPTH EQUAL TO 3/4 OF PIPE DIAMETER. STRAP BEND EQUALS 1/2 PIPE DIAMETER
 - CONCRETE SHALL NOT EXTEND ONTO FLANGE OR ADJOINING PIPE.
 - JOINTS AND FACE OF PLUGS TO BE KEPT CLEAR OF CONCRETE
 - WRAP EXPOSED PORTION OF BARS AND 2" INTO CONCRETE WITH HALF LAPPED, 10 MIL PVC TAPE
 - WHEN CLEARANCES TO OTHER FACILITIES OR UTILITIES DO NOT ALLOW THE USE OF THRUST BLOCK, RESTRAINED PIPE SHALL BE USED.
 - THRUST BLOCKS ON CROSSES SHALL BE USED ONLY WHEN THERE IS A STUB-OUT ON ONE OR MORE SIDES, OR WHEN THERE IS ADJOINING UNRESTRAINED LENGTHS OF VALVES.
 - PIPE DIAMETERS GREATER THAN 12" SHALL BE CALCULATED BY THE ENGINEER & SUBMITTED TO DISTRICT ENGINEER FOR APPROVAL.
 - DISTRICT ALLOWS RESTRAINED JOINTS AS AN ALTERNATIVE TO THRUST BLOCKS.

MINIMUM SIZE OF THRUST BLOCK BEARING SURFACE

PIPE SIZE	11 1/4" BEND		22 1/2" BEND		45° BEND		90° BEND		TEE		END CAP	
	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.	HORIZ.	VERT.
4"	1'-6"	0'-9"	1'-6"	0'-9"	1'-6"	1'-0"	2'-3"	1'-3"	1'-6"	1'-0"	1'-6"	1'-6"
6"	2'-6"	1'-0"	2'-6"	1'-0"	3'-6"	1'-6"	4'-6"	2'-3"	4'-0"	2'-0"	2'-6"	1'-9"
8"	3'-0"	1'-6"	3'-0"	1'-6"	4'-3"	2'-3"	5'-6"	3'-0"	5'-0"	2'-6"	3'-9"	2'-0"
10"	3'-9"	1'-9"	3'-9"	1'-9"	5'-0"	2'-9"	7'-0"	3'-6"	5'-6"	3'-3"	4'-6"	2'-6"
12"	4'-3"	2'-3"	4'-3"	2'-3"	5'-6"	3'-6"	8'-3"	4'-0"	7'-0"	3'-6"	5'-3"	3'-0"



BUTTERFLY VALVE OPERATORS
 NTS

THRUST BLOCK
 NTS

DUCTILE IRON PIPE (POLY-WRAP)

REQUIRED LENGTH (FT): 150 PSI (200 PSI) PRESSURE

NOMINAL PIPE SIZE	TEE BRANCH	BEND 90°	BEND 45°	BEND 22.5°	BEND 11.25°	VALVE/ DEAD END
6	24(47)	17 (23)	8 (10)	4 (5)	2 (3)	71 (95)
8	45 (76)	23 (30)	10 (13)	5 (6)	3 (3)	93 (124)
10	63 (100)	27 (35)	11 (15)	6 (7)	3 (4)	112 (149)
12	83 (126)	31 (42)	13 (17)	7 (9)	4 (5)	132 (176)
16	120 (176)	40 (53)	17 (22)	8 (11)	4 (6)	170 (226)
18	137 (200)	43 (58)	18 (24)	9 (12)	5 (6)	188 (250)
20	155 (223)	47 (63)	20 (26)	10 (13)	5 (7)	206 (274)
24	189 (269)	54 (72)	23 (30)	11 (15)	6 (8)	241 (321)

NOTES:
 -RESTRAINT LENGTHS IN TABLE ARE TO BE APPLIED IN BOTH DIRECTIONS OF FEATURE.
 -RESTRAINT LENGTH CALCULATION CRITERIA:
 -SOIL TYPE: SP
 -SAFETY FACTOR: 1.5
 -TRENCH TYPE: TYPE 5
 -DEPTH OF BURY: 3.5 FEET
 -TEST PRESSURE: 150 PSI (200 PSI)
 -TEE (BRANCH): LR=5 FEET (LENGTH TO FIRST JOINT ON RUN)

THRUST RESTRAINT TABLE
 NTS

PVC

REQUIRED LENGTH (FT): 150 PSI (200 PSI) PRESSURE

NOMINAL PIPE SIZE	TEE BRANCH	BEND 90°	BEND 45°	BEND 22.5°	BEND 11.25°	VALVE/ DEAD END
6	15 (31)	15 (20)	7 (9)	3 (4)	2 (2)	46 (61)
8	29 (49)	20 (27)	9 (11)	4 (6)	2 (3)	60 (80)
10	41 (65)	24 (32)	10 (13)	5 (7)	3 (4)	72 (96)
12	54 (82)	28 (37)	12 (16)	6 (8)	3 (4)	86 (114)

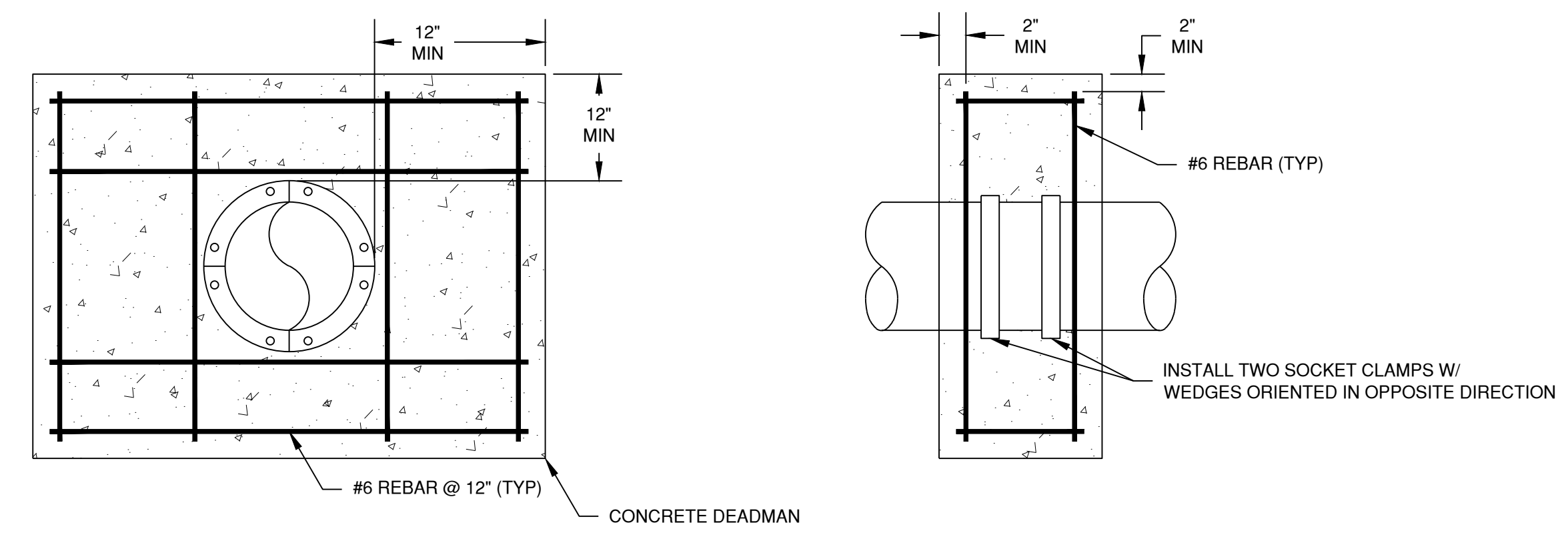
NOTES:
 -RESTRAINT LENGTHS IN TABLE ARE TO BE APPLIED IN BOTH DIRECTIONS OF FEATURE.
 -RESTRAINT LENGTH CALCULATION CRITERIA:
 -SOIL TYPE: SP
 -SAFETY FACTOR: 1.5
 -TRENCH TYPE: TYPE 5
 -DEPTH OF BURY: 3.5 FEET
 -TEST PRESSURE: 150 PSI (200 PSI)
 -TEE (BRANCH): LR=5 FEET (LENGTH TO FIRST JOINT ON RUN)

LARGE THRUST BLOCK DIMENSIONS

	PIPE DIAMETER	REQ. AREA	WIDTH	HEIGHT	THICKNESS
A-ZONE	24 IN	77 SF	11 FT	7 FT	2 FT
B-ZONE	16 IN	35 SF	7 FT	5 FT	2 FT
C-ZONE	24 IN	77 SF	11 FT	7 FT	2 FT

SOIL TYPE: SP
 SAFETY FACTOR: 1.5:1
 SOIL BEARING PRESSURE: 1500 PSF
 TEST PRESSURE: 150 PSI

CAST THRUST BLOCK AGAINST WETTED UNDISTURBED SOIL AND/OR MOISTURE-CONDITIONED SOIL COMPACTED TO 95% R.C.

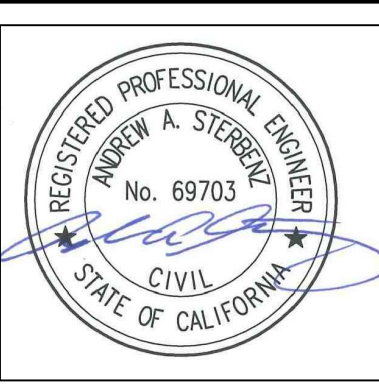


LARGE THRUST BLOCKS
 NTS

NO.	REVISION DESCRIPTION	DATE	APPR

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 CONSULTING CIVIL ENGINEERS
 3 QUAIL RUN CIRCLE, STE. 101
 SALINAS, CA 93907
 (831) 883-4848

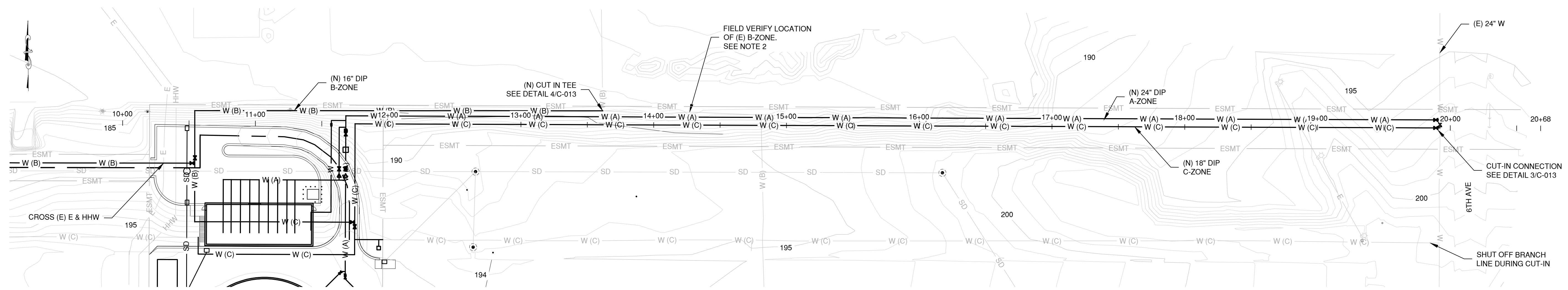


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

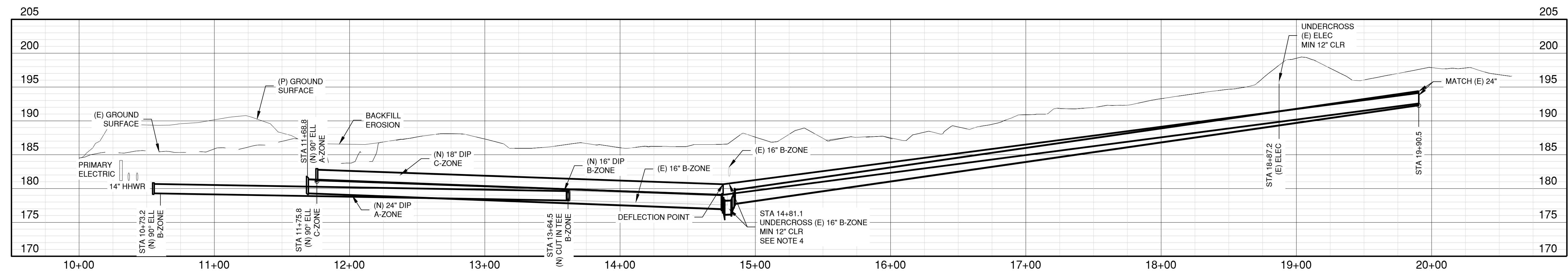
DATE: 12/23/20
 SCALE: NTS
 DESIGN: CJM
 DRAWN: CJM
 CHECK: AAS

PIPELINE DETAILS

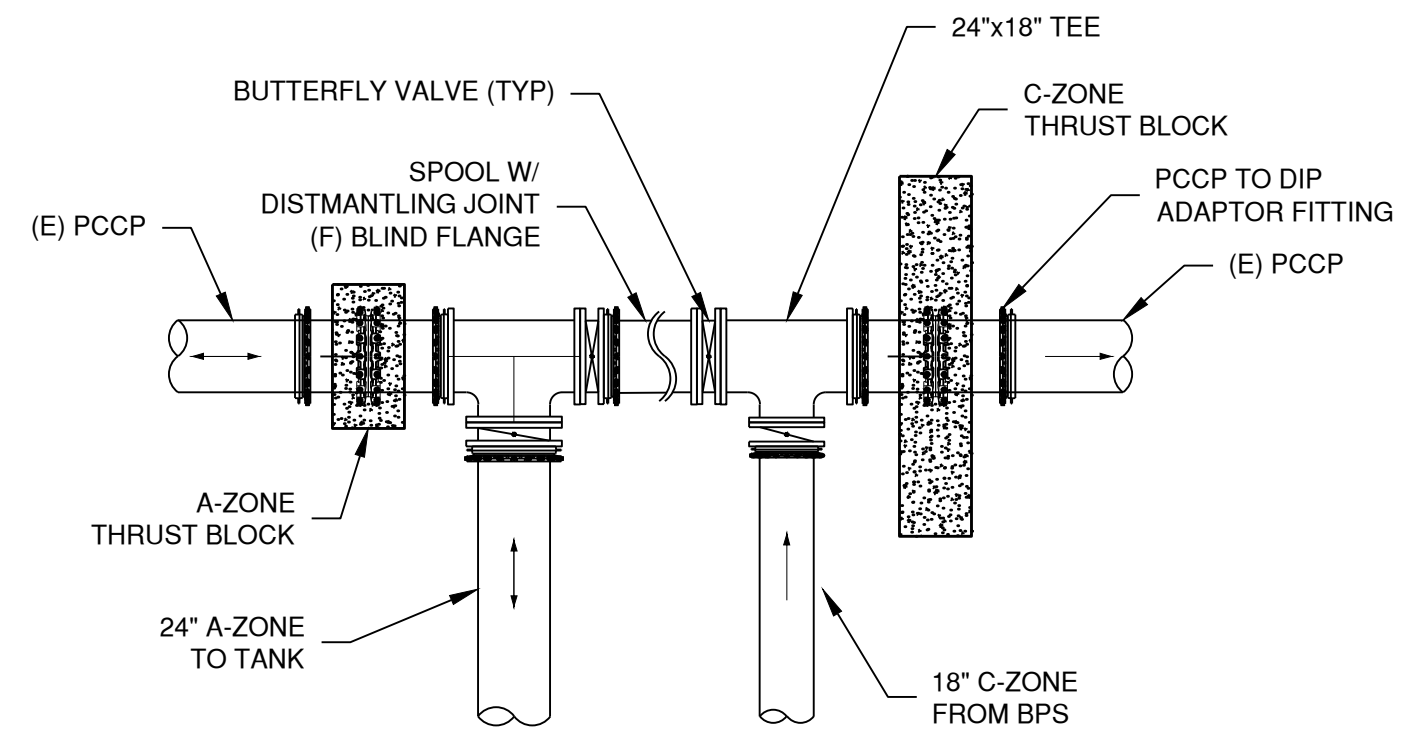
SHEET
 C-012
 OF



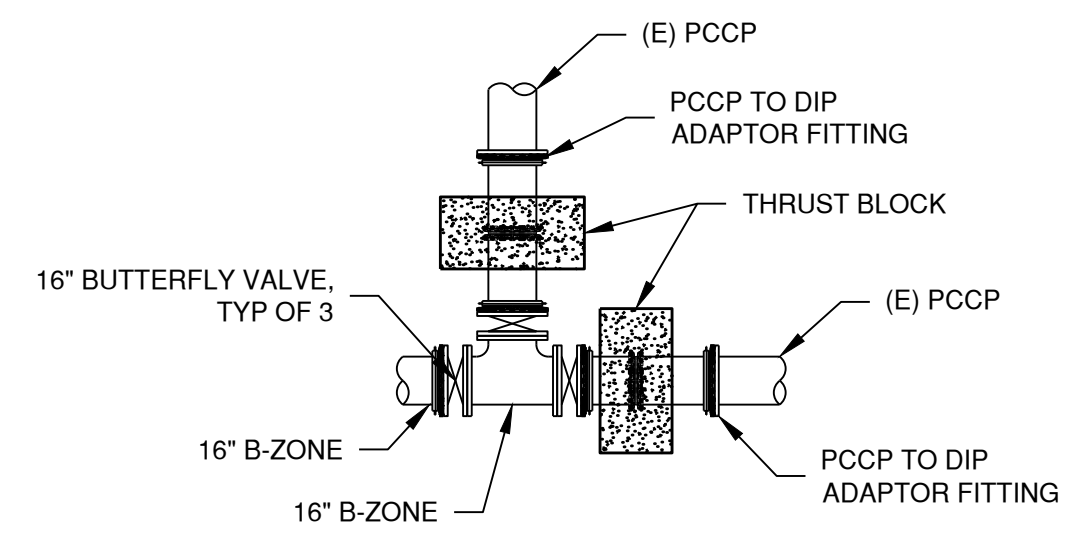
PIPELINE PLAN
1
1"=40'



PIPELINE PROFILE
2
HORIZONTAL: 1"=40'
VERTICAL: 1"=8'



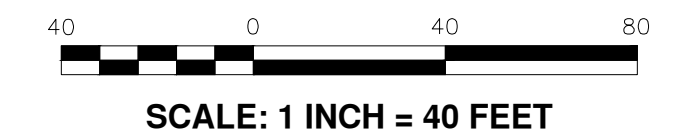
CUT-IN CONNECTION
3
NTS



CUT-IN CONNECTION
4
NTS

- CUT-IN CONNECTION NOTES:**
1. POTHOLE TO LOCATE BELL FITTINGS ON (E) 24" TRANSMISSION MAIN AT POINT OF CONNECTION. PROVIDE NEW PIPE AND FITTINGS BETWEEN EXISTING JOINTS.
 2. PRE-ASSEMBLE TEES, VALVES & SPOOLS TO MINIMIZE THE SHUT-DOWN DURATION.
 3. ISOLATE 24" PIPELINE BY CLOSING 24" BUTTERFLY VALVE AT 6TH AVE & INTERGARRISON RD AND 6-IN BRANCH LINE. COORDINATE SHUT-DOWN WITH DISTRICT STAFF.
 4. INSTALL (N) TEES WITH TRANSMISSION VALVES OPEN AND BRANCH VALVES CLOSED. DISINFECT PIPE PER AWWA C-651, METHOD 4.11
 5. INSTALL THRUST BLOCKS AS SHOWN. ALLOW THRUST BLOCKS FULL 28-DAY CURE PERIOD BEFORE CLOSING A VALVE ON THE TRANSMISSION MAIN.
 6. SCHEDULE CUT-IN FOR LOW WATER DEMAND SEASON AND LOW CAMPUS ATTENDANCE PERIOD.

- NOTES:**
1. POTHOLE AND VERIFY (E) UTILITIES
 2. SCHEDULE SHUT-DOWN TO MAKE B-ZONE CONNECTION AND CONSTRUCT PARALLEL A- AND C-ZONE PIPELINES. DO NOT RE-PRESSURIZE B-ZONE PIPELINE UNTIL PARALLEL TRENCHES ARE BACKFILLED AND THRUST ANCHORS HAVE SET.
 3. SEE SHEET C-017 FOR CROSS SECTIONS
 4. UNDERCROSS (E) 16" B-ZONE, WITH 4 x 24" 45° ELL FOR 24" A-ZONE PIPELINE TO MAINTAIN 12" MIN CLR

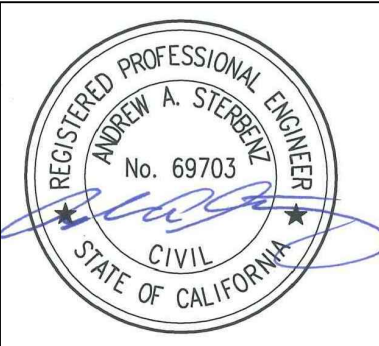


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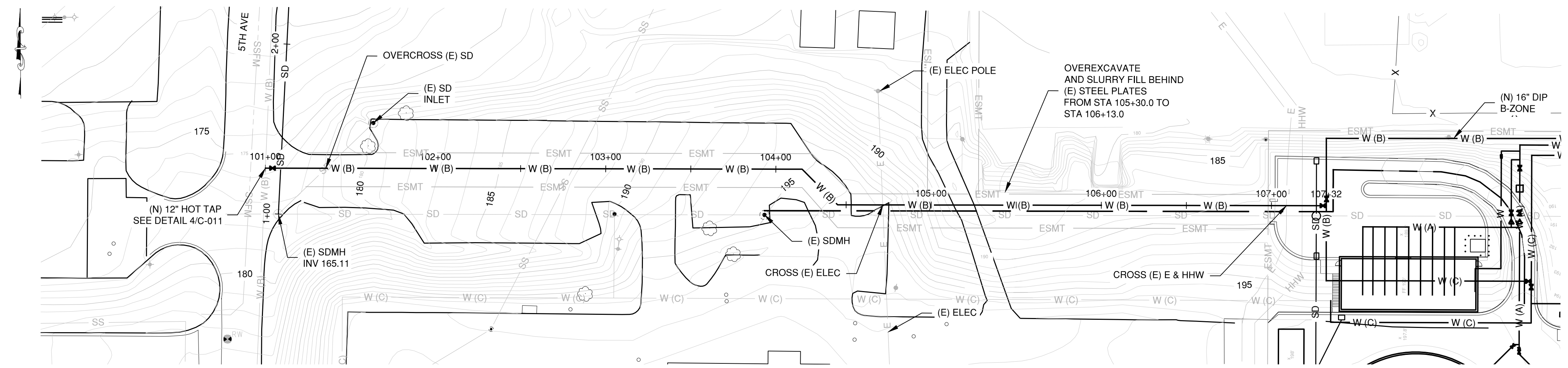


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

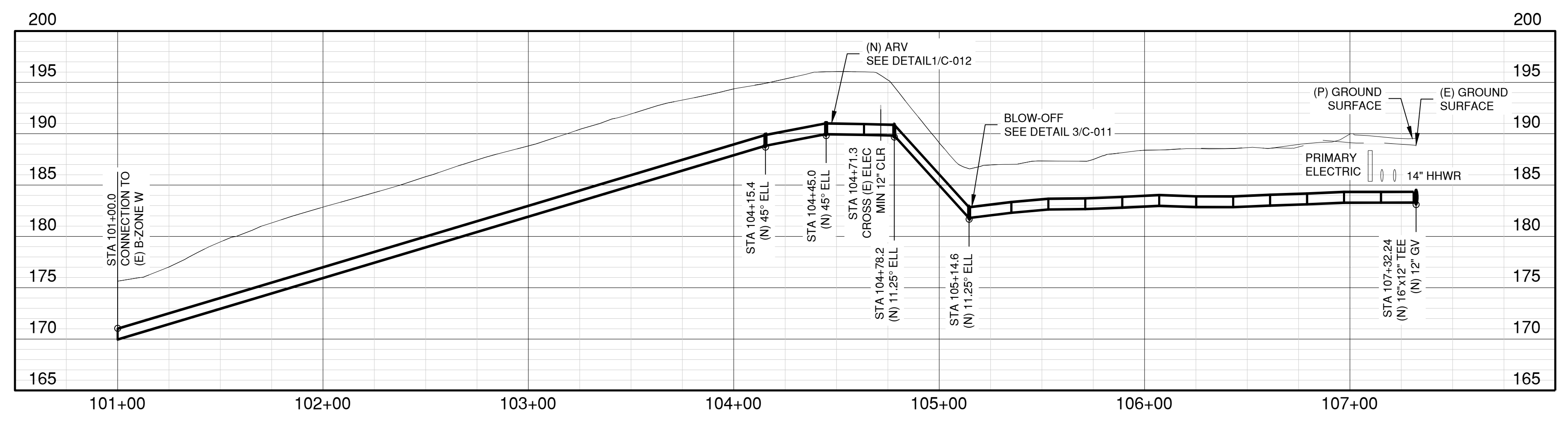
**PIPELINE PLAN & PROFILE
BPS TO 6TH AVE**

DATE: 12/23/20
SCALE: AS SHOWN
DESIGN: CJM
DRAWN: CJM
CHECK: AAS

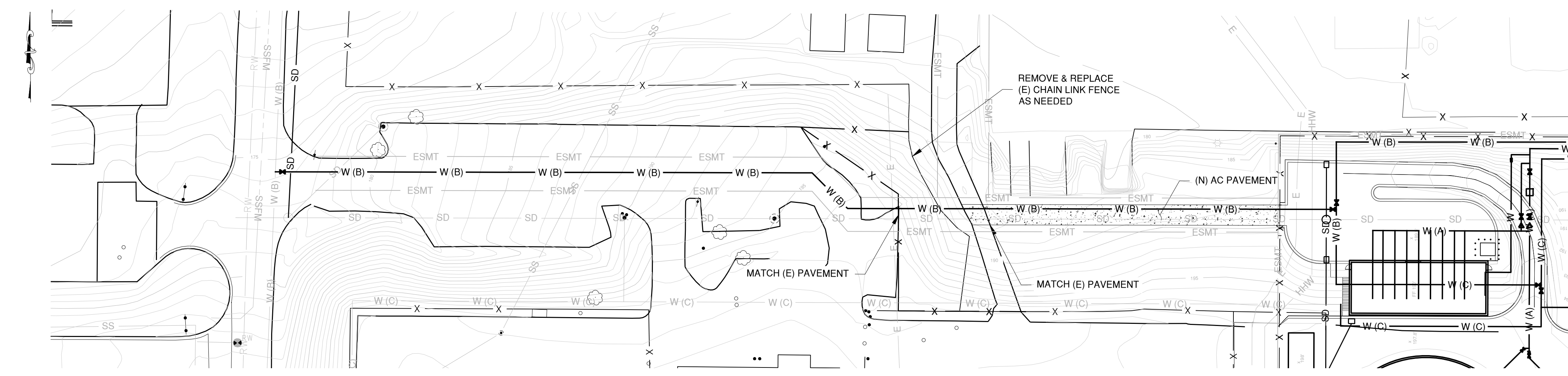
**SHEET
C-013
OF**



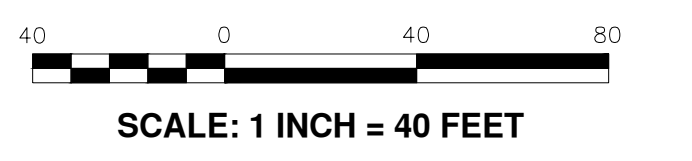
PIPELINE PLAN
1
1"=40'



PIPELINE PROFILE
2
HORIZONTAL: 1"=40'
VERTICAL: 1"=8'



IMPROVEMENT PLAN
3
1"=40'



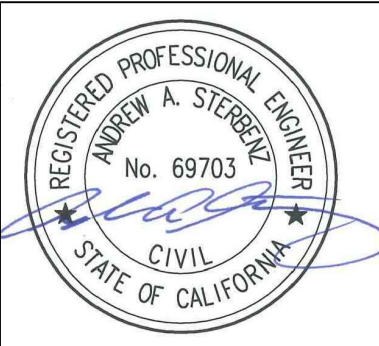
NOTE:
POTHOLE AND VERIFY (E) UTILITIES

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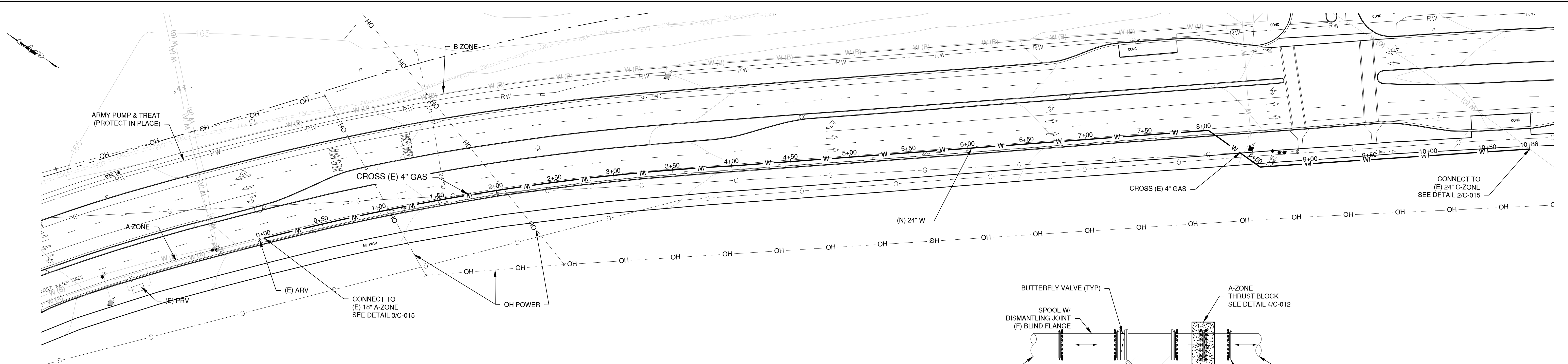


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

**PIPELINE PLAN & PROFILE
BPS TO 5TH AVE**

DATE:	12/23/20
SCALE:	AS SHOWN
DESIGN:	CJM
DRAWN:	CJM
CHECK:	AAS

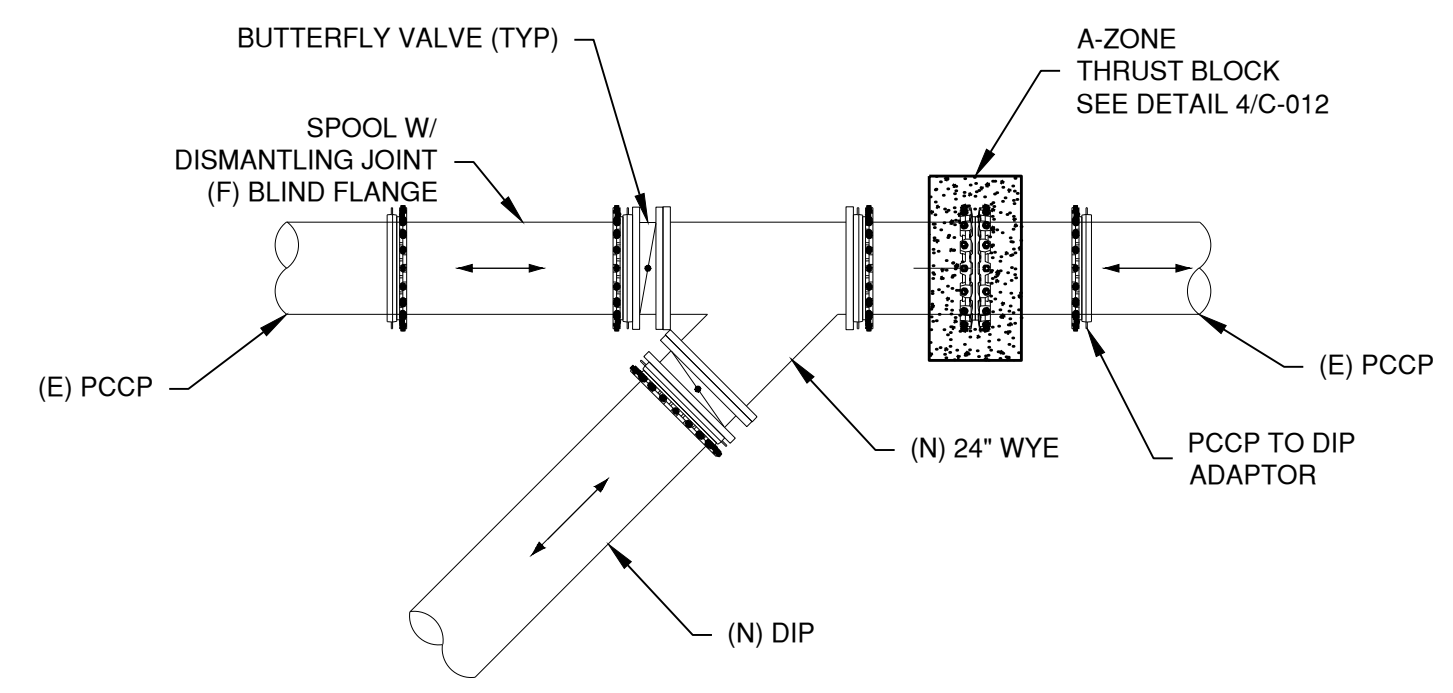
SHEET
C-014
OF



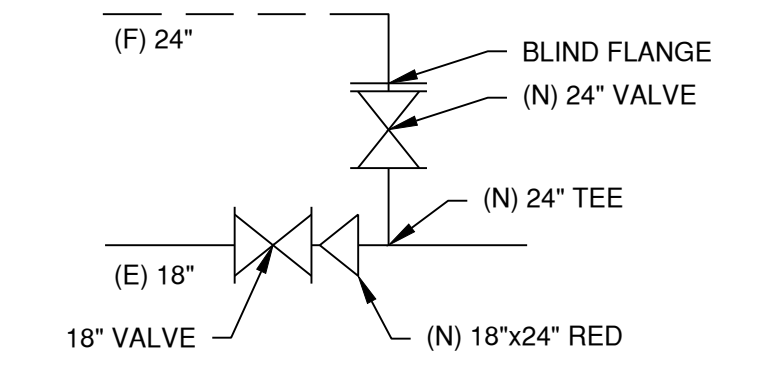
- NOTES:**
- CUT IN 24" X 24" TEE W/ 24" BFV ON RUN AND BRANCH ON (E) C-ZONE 24"
 - ADD 18" X 24" REDUCER TO (E) 18" A-ZONE
 - ADD 24" X 24" TEE W/ 24" BFV AFTER REDUCER
 - 1000 LF OF 24" DIP

COORDINATES			
	STA	NORTHING	EASTING
CONNECTION	0+00.0	2137340.00	5741823.00
	2+00.0	2137173.45	5741993.90
	4+00.0	2137019.35	5742120.07
	6+00.0	2136860.81	5742241.99
(N) 24" 45° ELL	8+03.6	2136699.52	5742366.51
(N) 24" 45° ELL	8+57.3	2136645.99	5742364.74
CONNECTION	10+82.7	2136464.17	5742502.64

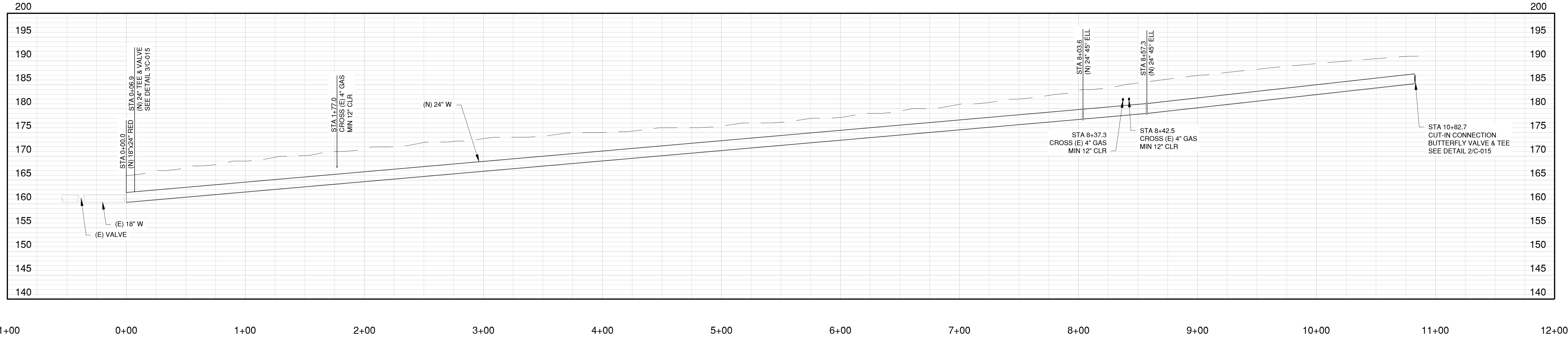
PIPELINE ALIGNMENT
1
1"=40'



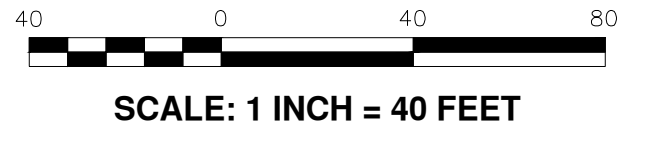
CUT-IN CONNECTION
2
NTS



CUT-IN CONNECTION
3
NTS
NOTE: INSTALL TEE 12-FT FROM THE (E) 18" VALVE



PIPELINE PROFILE
2
HOR SCALE: 1"=40'
VER SCALE: 1"=8'



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(831) 883-4848

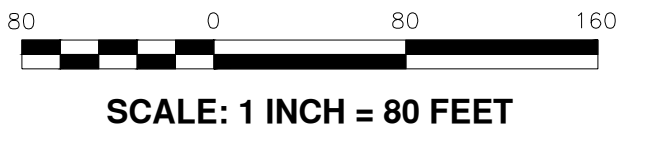


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

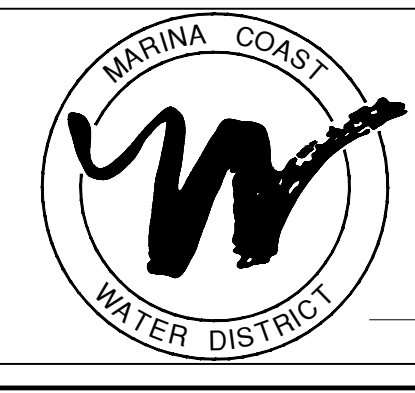
A-ZONE CONNECTION PLAN & PROFILE

DATE: 12/23/20
SCALE: AS SHOWN
DESIGN: CJM
DRAWN: CJM
CHECK: AAS

SHEET
C-015
OF

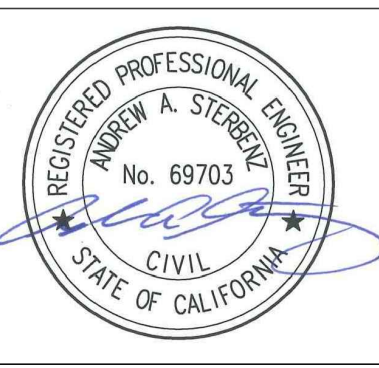


NO.	REVISION DESCRIPTION	DATE	APPR



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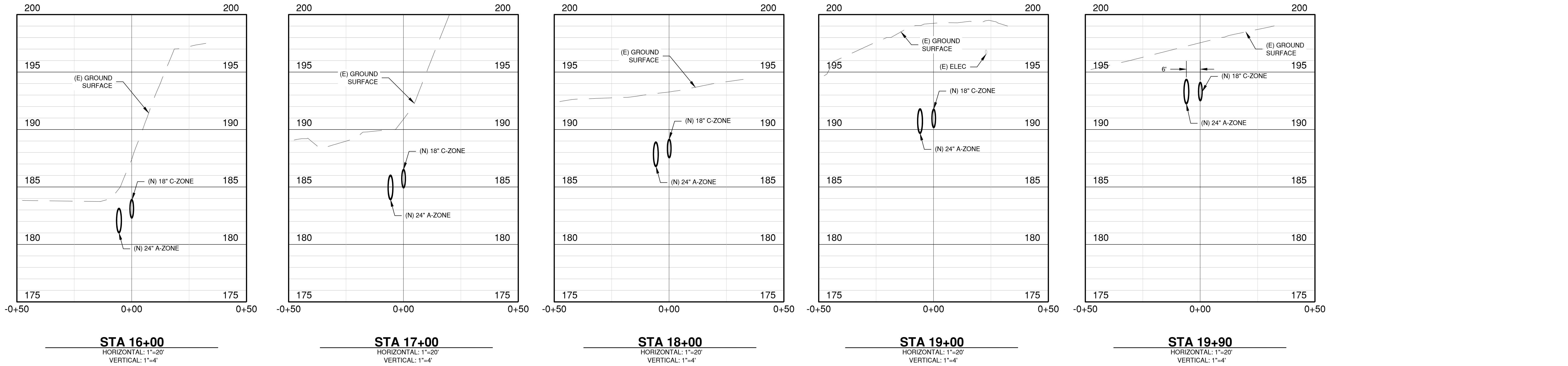
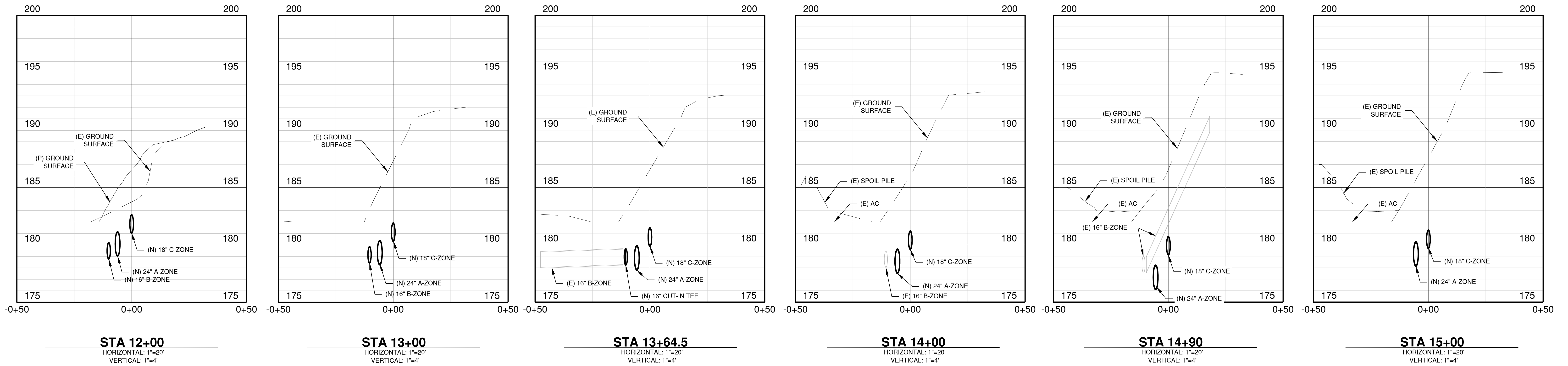
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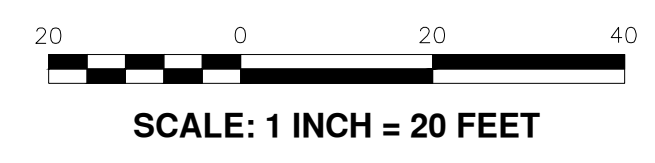
A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
SAND TANK SITE PLAN

DATE: 12/23/20
 SCALE: 1"=80'
 DESIGN: CJM
 DRAWN: CJM
 CHECK: AAS

SHEET
C-016
 OF



- NOTES:
1. POTHOLE AND VERIFY (E) UTILITIES
 2. IF (E) B-ZONE CUT-IN TEE IS SOUTH OF CROSSING A-ZONE OR C-ZONE PIPES, CONSTRUCT EXTRA 150 LF OF 16\"/>

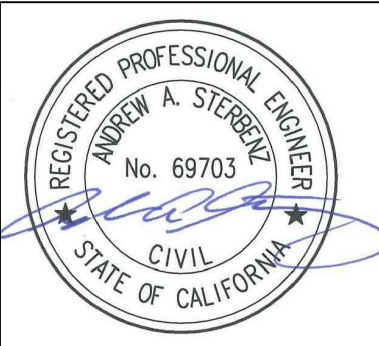


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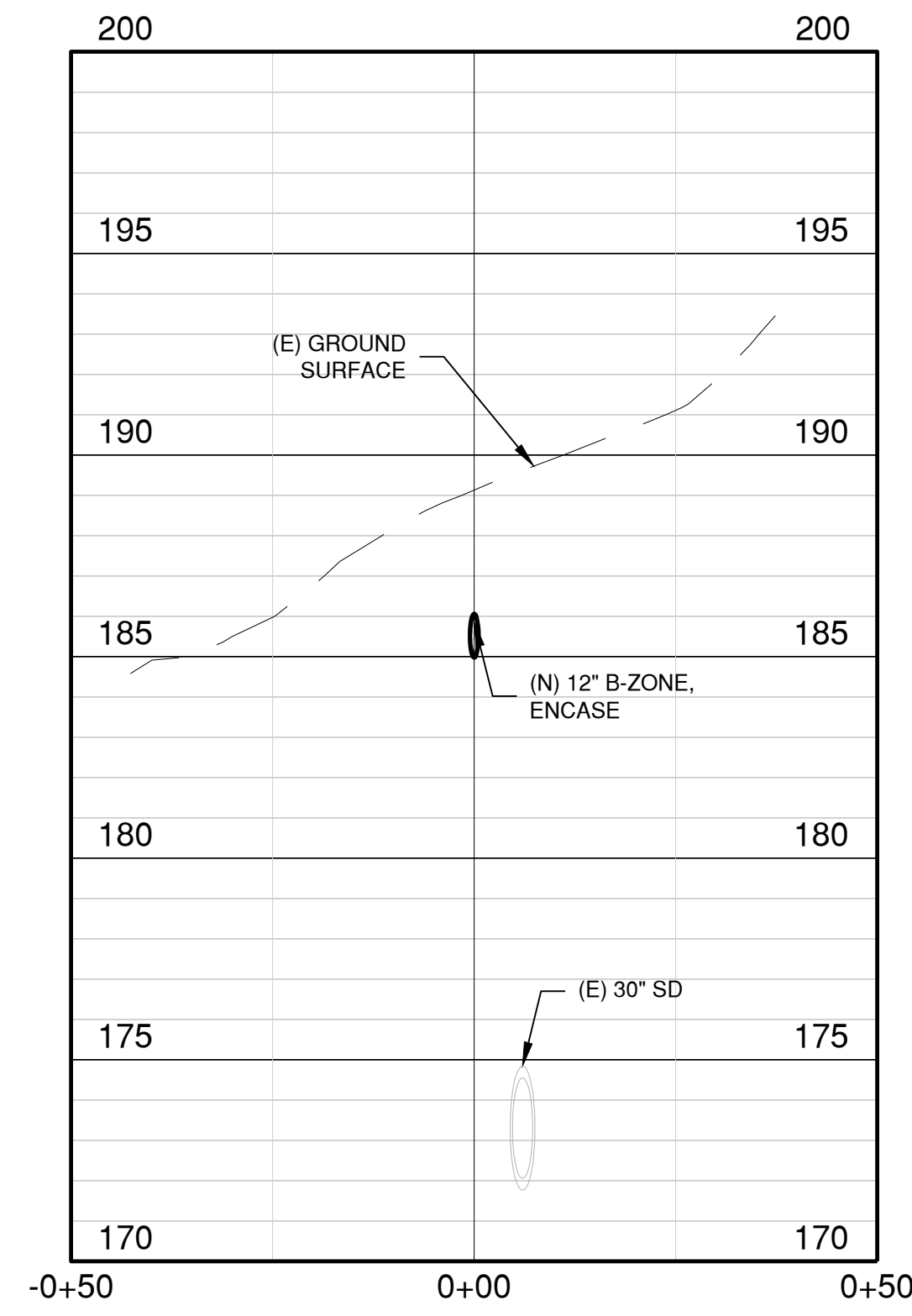


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

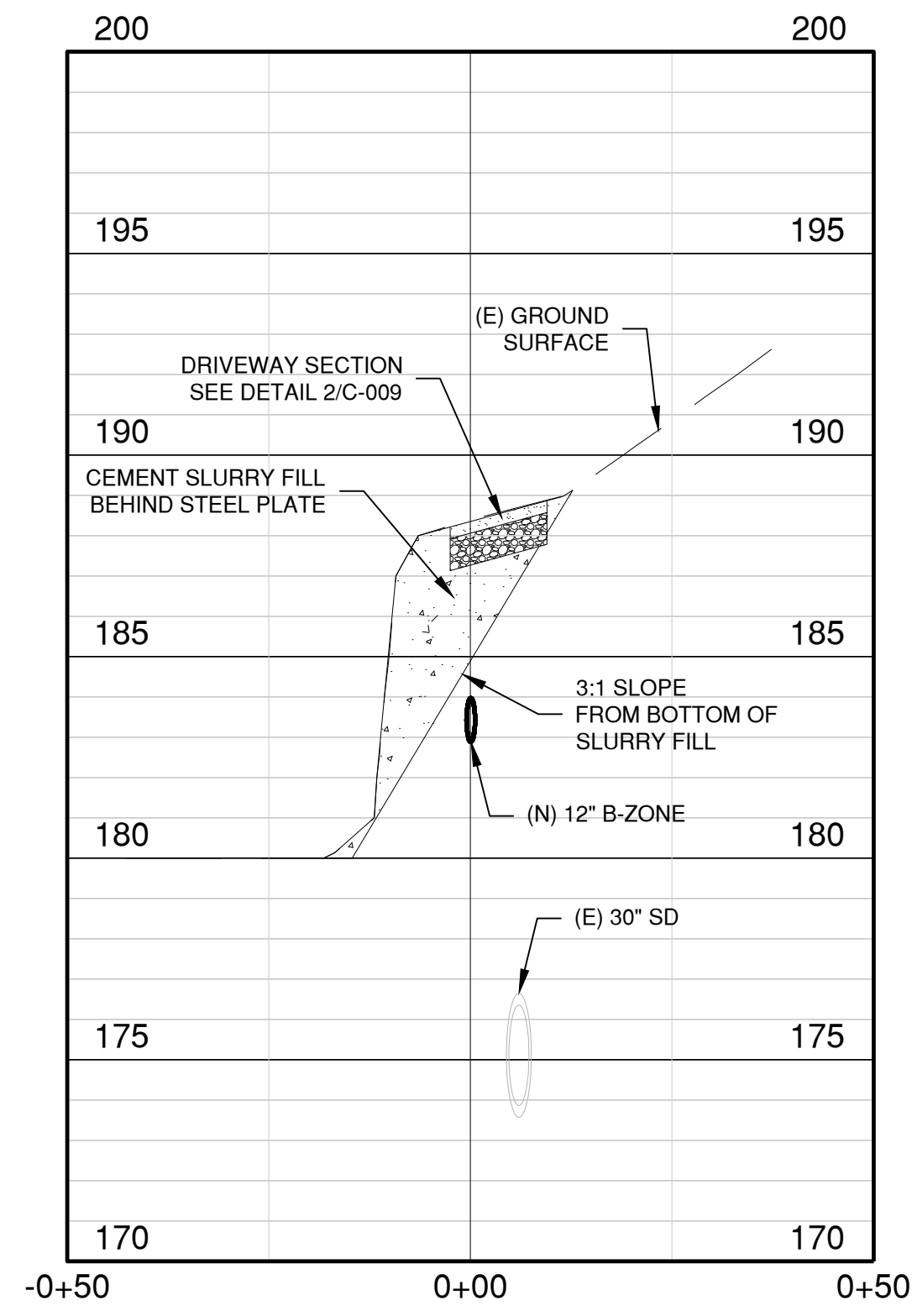
**PIPELINE SECTIONS
 BPS TO 6TH AVE**

DATE: 12/23/20
 SCALE: AS SHOWN
 DESIGN: CJM
 DRAWN: CJM
 CHECK: AAS

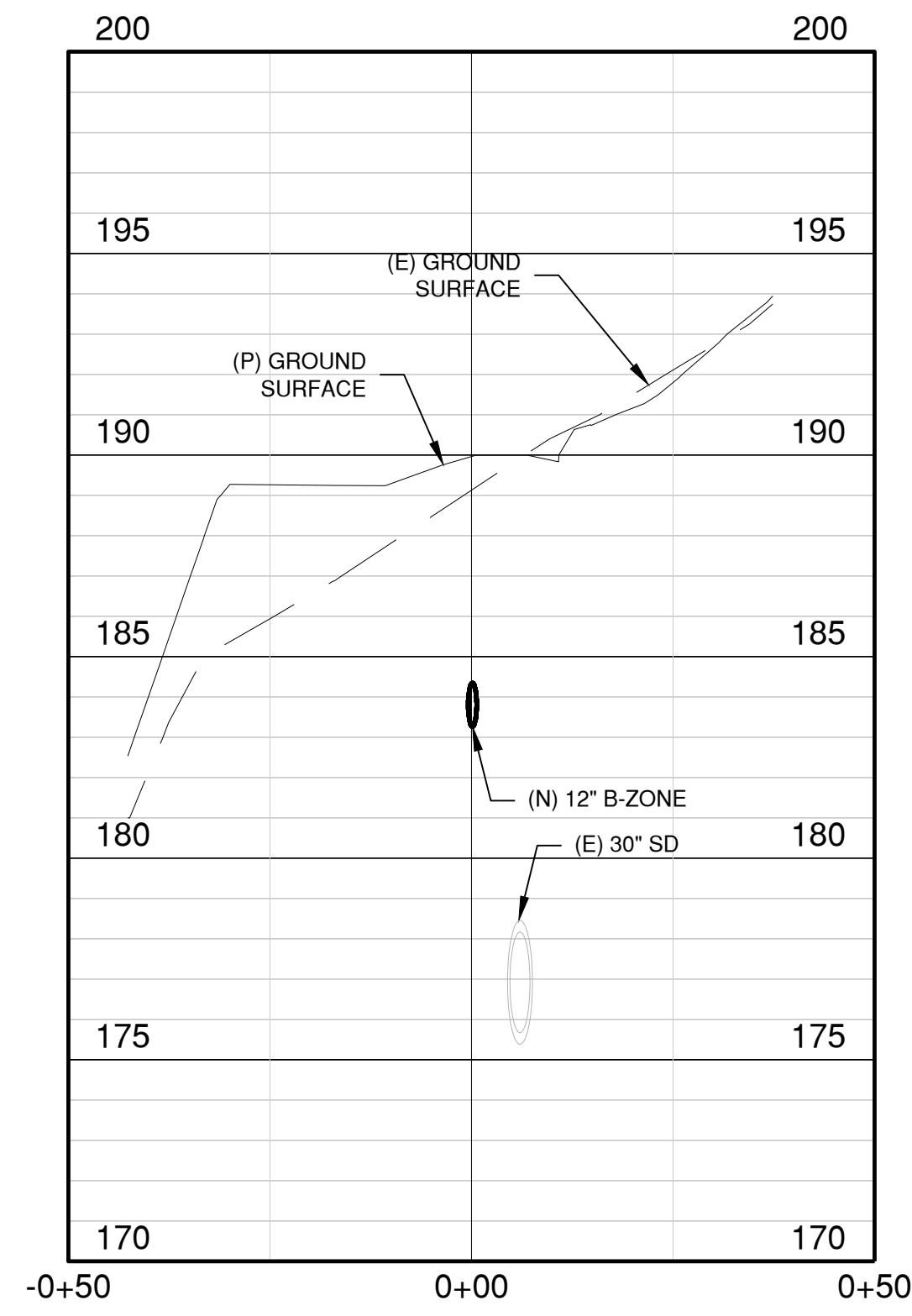
SHEET
C-017
OF



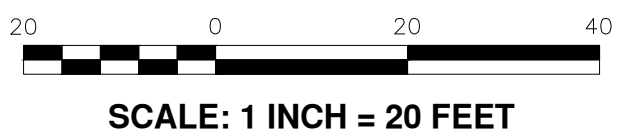
STA 105+00
HORIZONTAL: 1"=20'
VERTICAL: 1"=4'



STA 106+00
HORIZONTAL: 1"=20'
VERTICAL: 1"=4'



STA 107+00
HORIZONTAL: 1"=20'
VERTICAL: 1"=4'



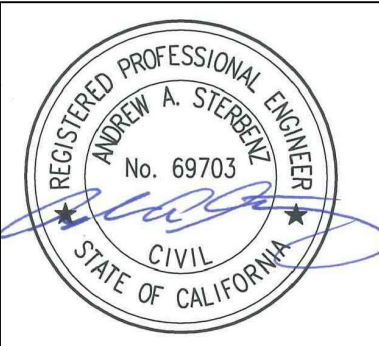
DATE: 12/23/2020 11:43 AM 12/23/2020 11:43 AM

NO.	REVISION DESCRIPTION	DATE	APPR



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(831) 883-4848



A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

**PIPELINE SECTIONS
BPS TO 5TH AVE**

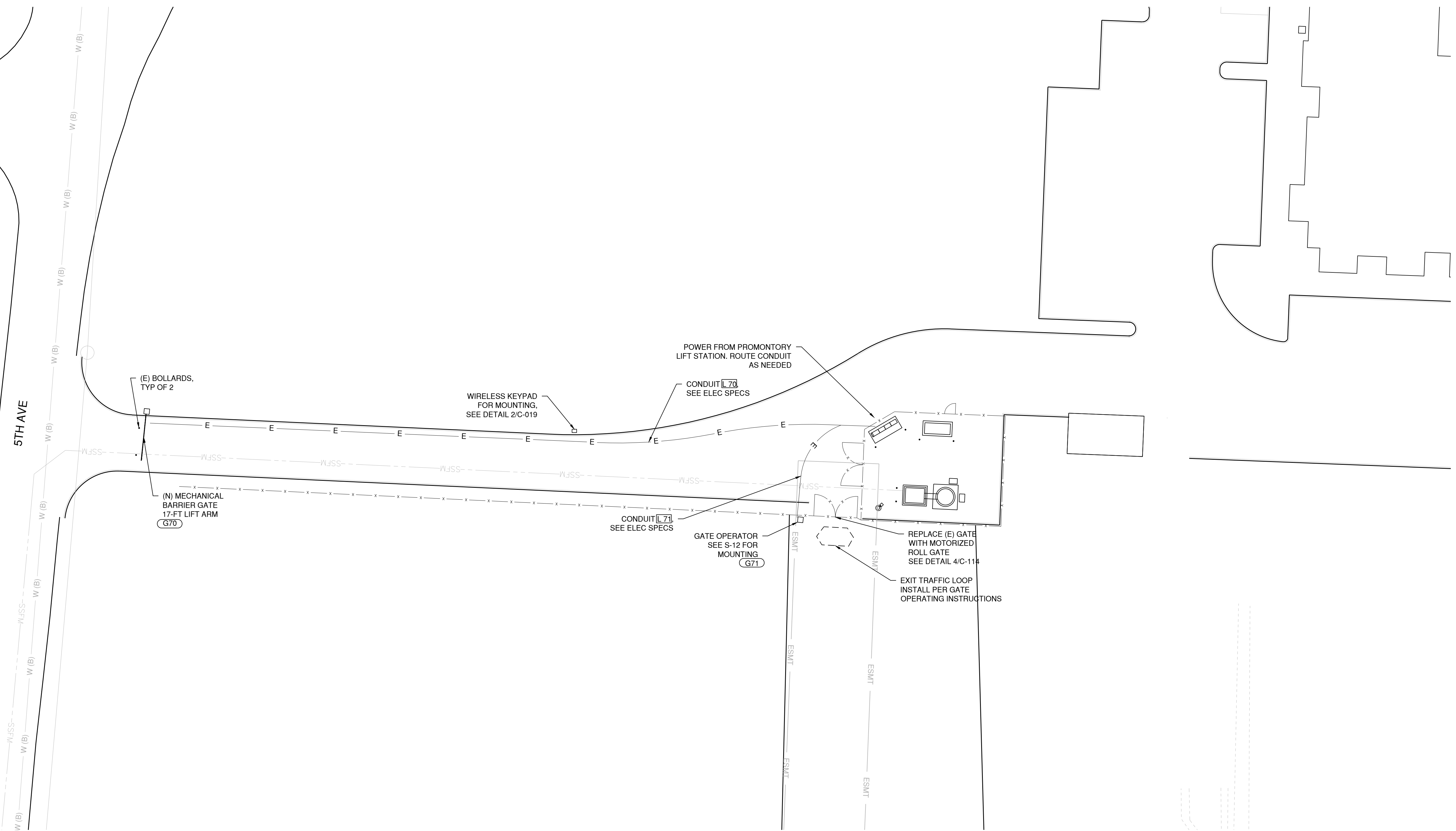
DATE:	12/23/20
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DESIGN:	CJM
DRAWN:	CJM
CHECK:	AAS

SHEET
C-018
OF



KEYPAD MOUNT
NTS

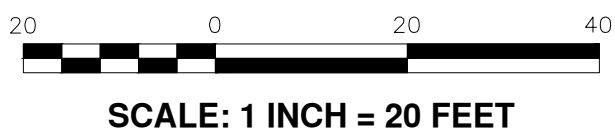
2
-



- NOTES:**
- 1. REUSE EXISTING SPARE BREAKERS IN EXISTING PANEL BOARD LP FOR EACH GATE. FIELD VERIFY AVAILABILITY OF CIRCUITS PRIOR TO PERFORMING ANY WORK.
 - 2. REFERENCE SPECIFICATION 26 05 33 APPENDIX A4 FOR CONDUIT SCHEDULE.

DRIVEWAY GATES
1 IN. = 20 FT.

1
-



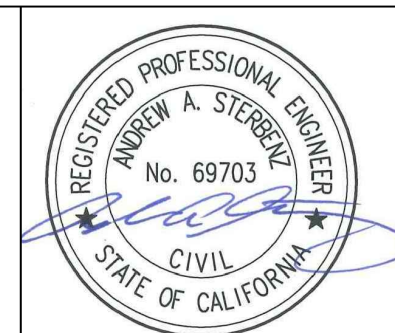
C:\Users\jwh\Documents\A1A2\Drawings\C-019 - DRIVWAY & STEEL LIFT ARM.dwg 12/23/20 10:05:14 AM

NO.	REVISION DESCRIPTION	DATE	APPR



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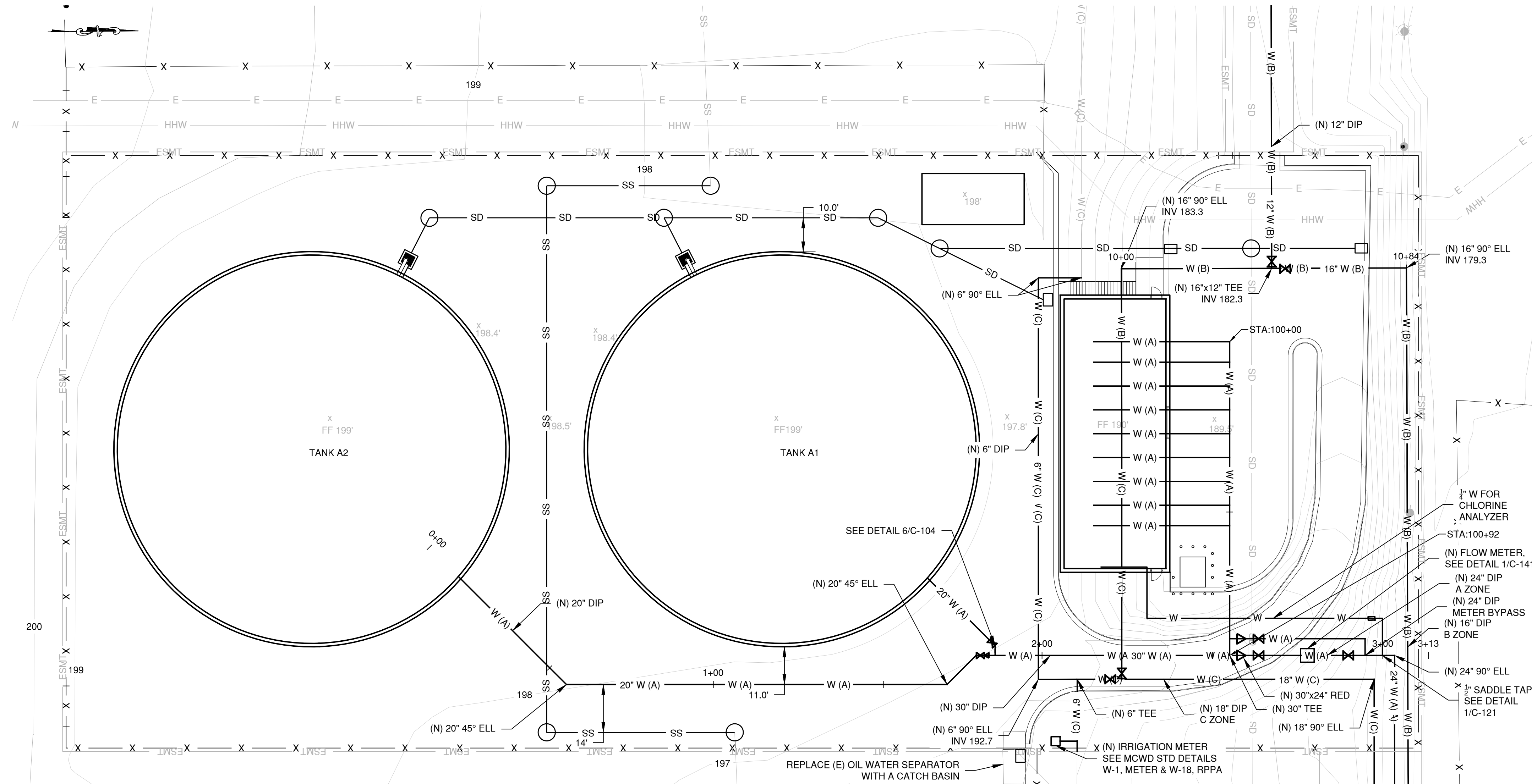


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

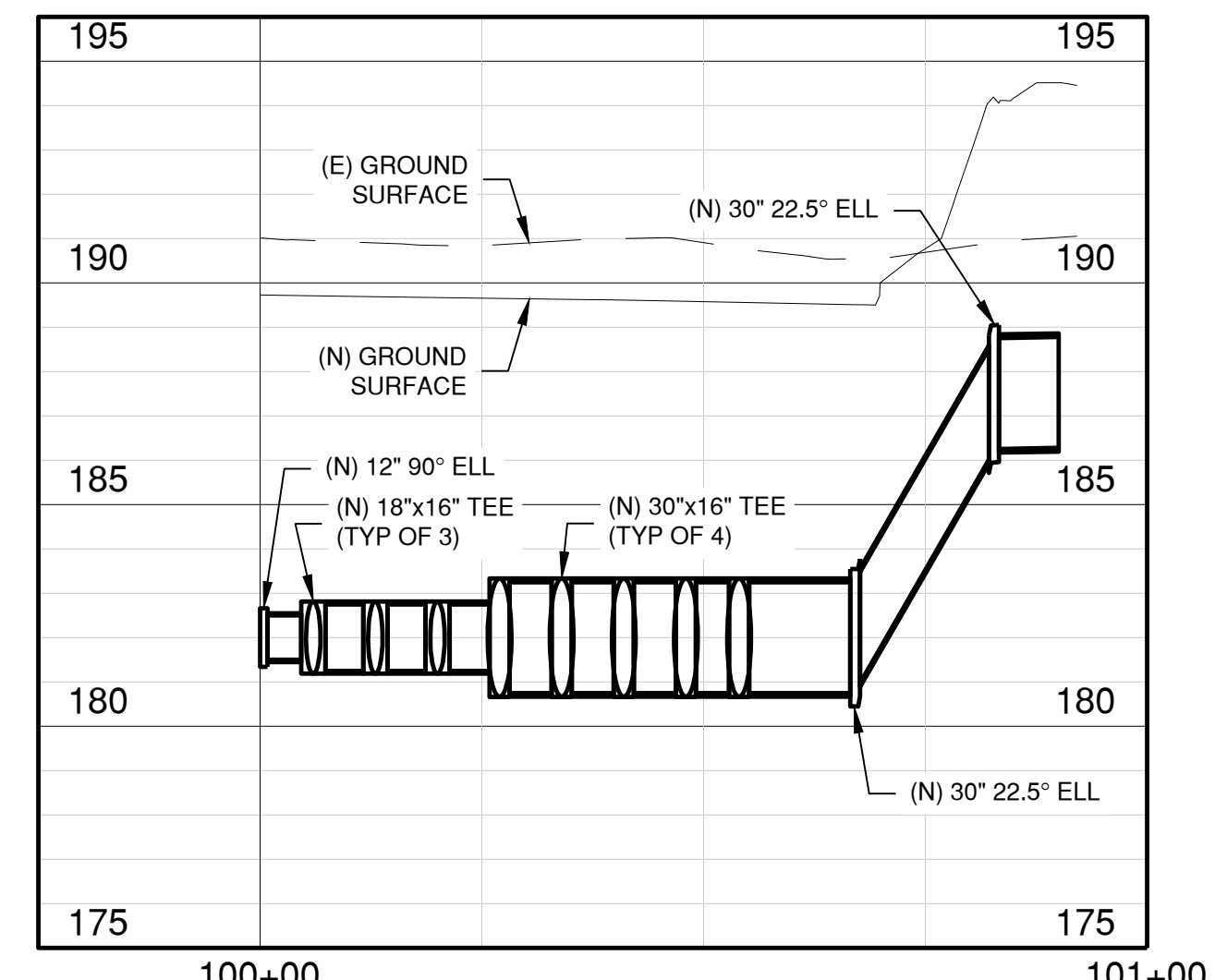
DRIVEWAY GATES

DATE: 12/23/20
SCALE: AS SHOWN
DESIGN: CJM
DRAWN: CJM
CHECK: AAS

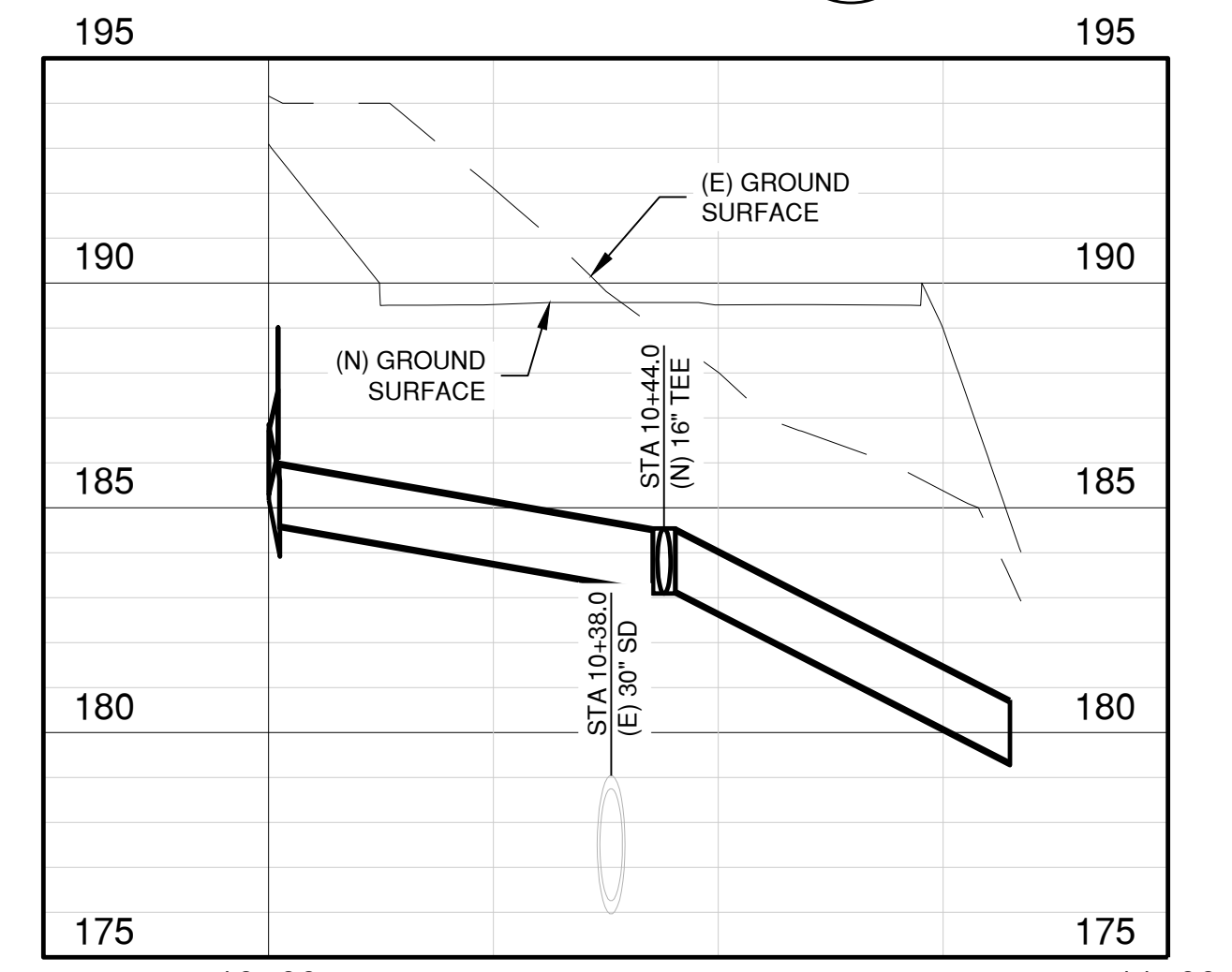
SHEET
C-019
OF



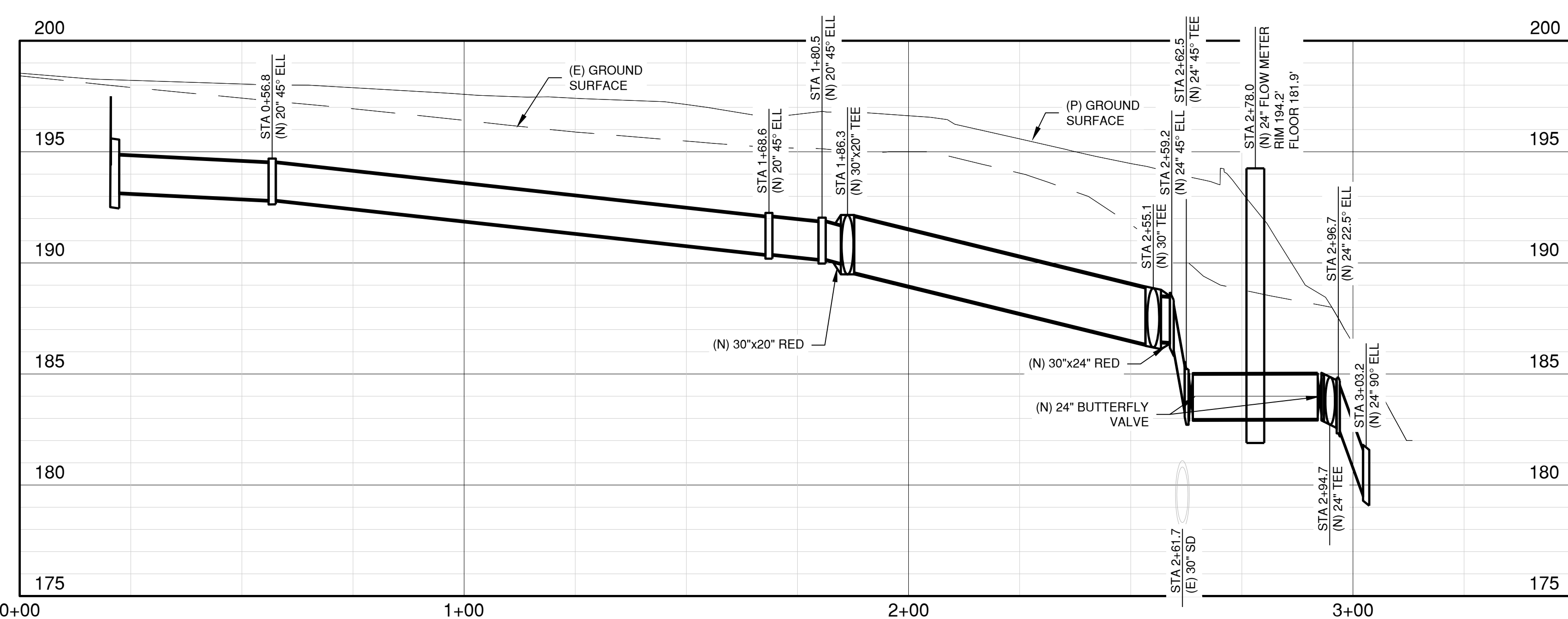
YARD PIPING PLAN
 1
 SCALE: 1 INCH = 20 FEET



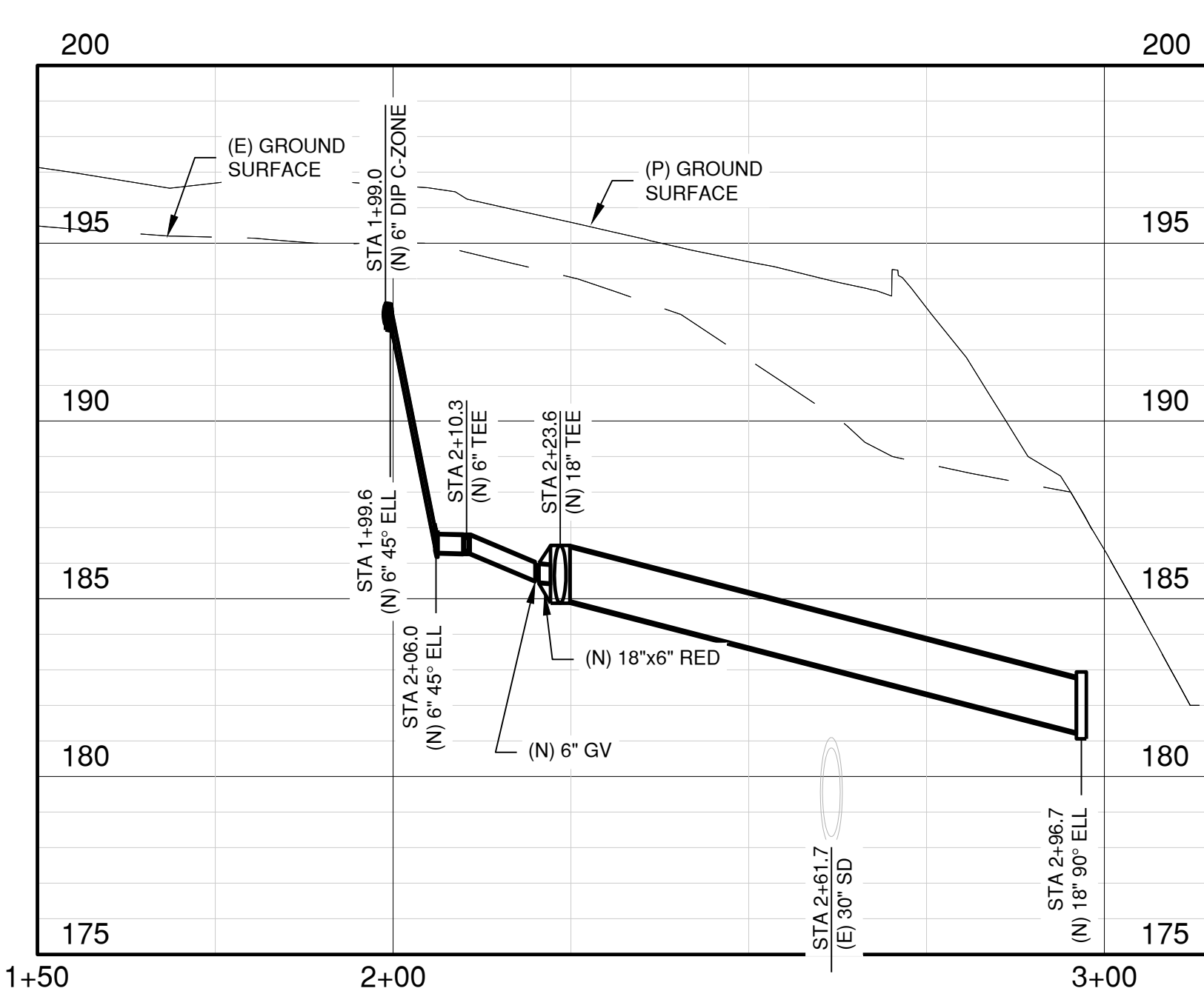
HEADER PROFILE
 2
 HORIZONTAL: 1"=20'
 VERTICAL: 1"=4'



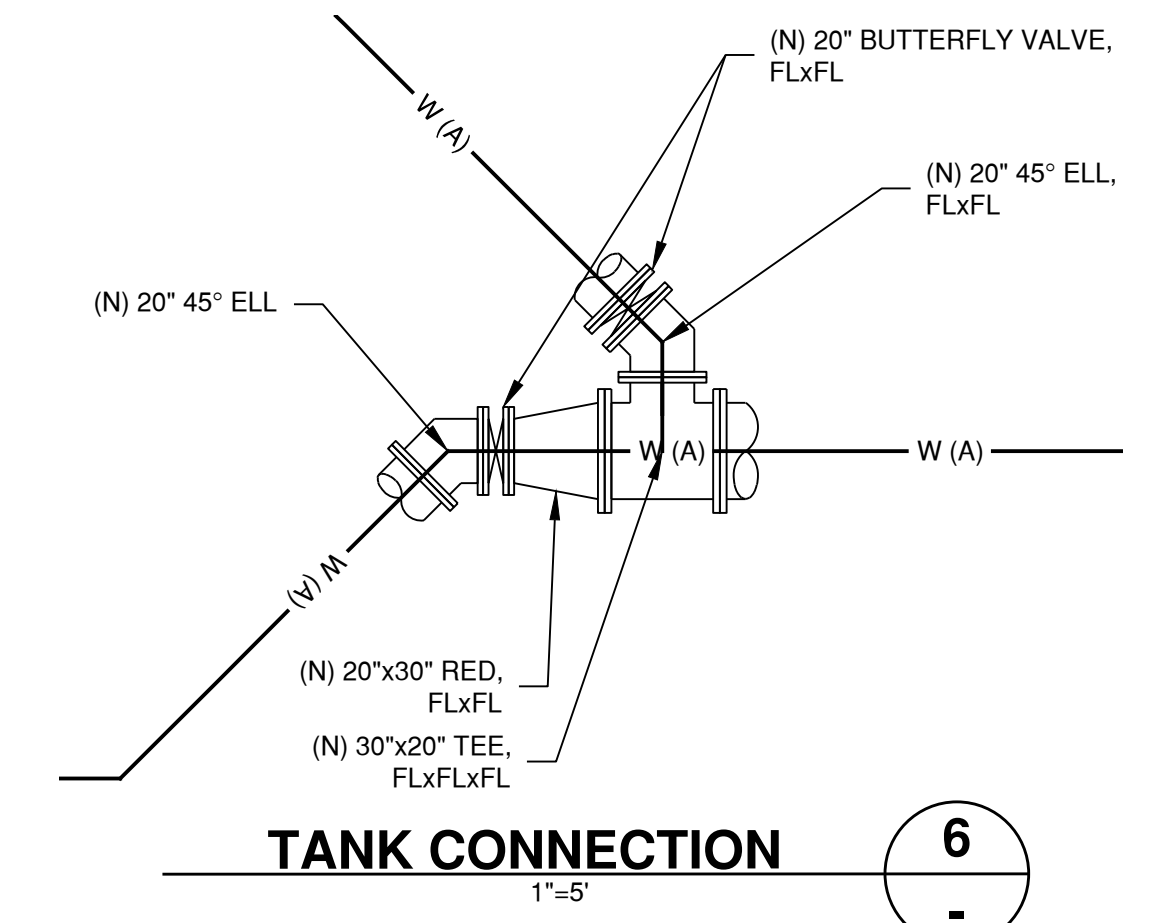
B-ZONE YARD PROFILE
 3
 HORIZONTAL: 1"=20'
 VERTICAL: 1"=4'



A-ZONE YARD PROFILE
 4
 HORIZONTAL: 1"=20'
 VERTICAL: 1"=4'



C-ZONE YARD PROFILE
 5
 HORIZONTAL: 1"=20'
 VERTICAL: 1"=4'



TANK CONNECTION
 6
 1"=5'

COORDINATES			
	STA	NORTHING	EASTING
(N) 20' 45" ELL	0+56.8	2133908.39	5741587.59
(N) 20' 45" ELL	1+68.6	2134019.99	5741591.98
(N) 20' 45" ELL	1+80.5	2134028.84	5741583.80
(N) 30"x20" TEE	1+86.3	2134034.42	5741584.02
(N) 30" TEE	2+55.1	2134103.19	5741586.72
(N) 24' 45" ELL	2+59.2	2134107.43	5741586.89
(N) 24' 45" ELL	2+62.5	2134110.62	5741587.01
(N) 24' 22.5" ELL	2+96.7	2134144.41	5741588.37
(N) 24' 90" ELL	3+03.2	2134150.54	5741588.58

- NOTES:
 1. FOR PUMP STATION PLAN, SEE SHEET C-120
 2. FOR PIPELINE PLAN & PROFILE, SEE SHEET C-012
 3. MAINTAIN 3.5' MINIMUM COVER FOR ALL WATER PIPES

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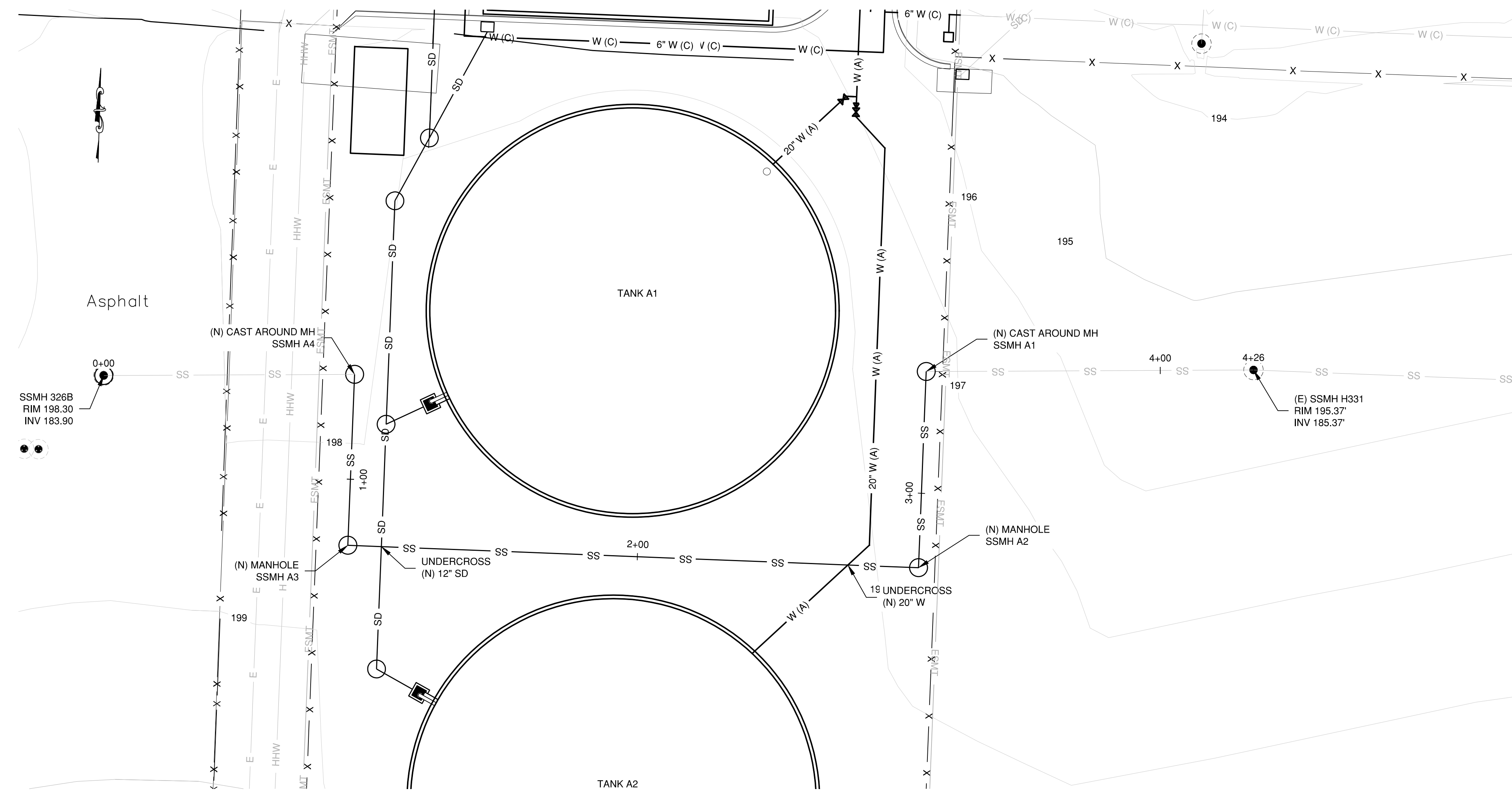
A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

YARD PIPING PLAN & PROFILE

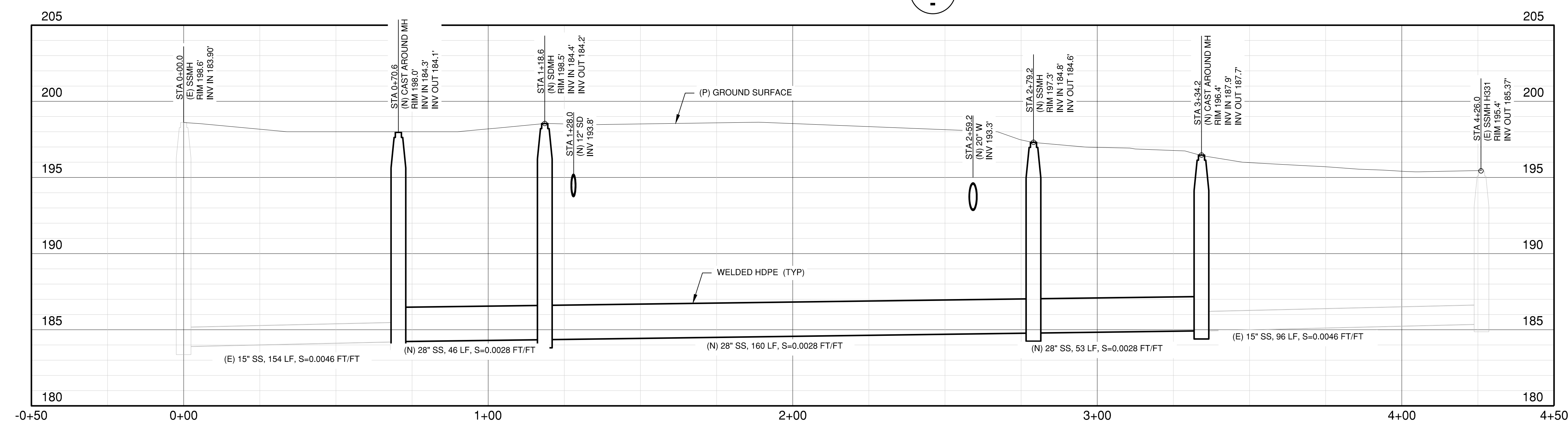
DATE: 12/23/20
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 DESIGN: CJM
 DRAWN: CJM
 CHECK: AAS

SHEET
C-104
 OF

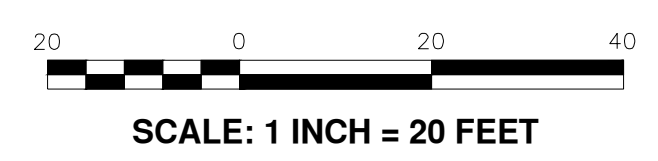
COORDINATES			
STA	NORTHING	EASTING	
SSMH M332	0+00.0	2133694.19	5742060.82
SSMH A4	0+70.6	2133956.39	5741442.95
SSMH A3	1+18.6	2133908.35	5741441.06
SSMH A2	2+79.2	2133902.04	5741601.41
SSMH A1	3+34.2	2133957.17	5741603.57
SSMH H331	4+26.0	2133957.62	5741695.54



SEWER PLAN
1
1"=20'



SEWER PROFILE
2
HORIZONTAL: 1"=20'
VERTICAL: 1"=4'

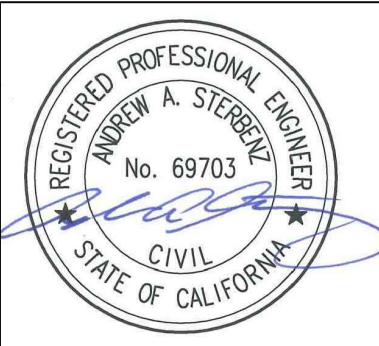


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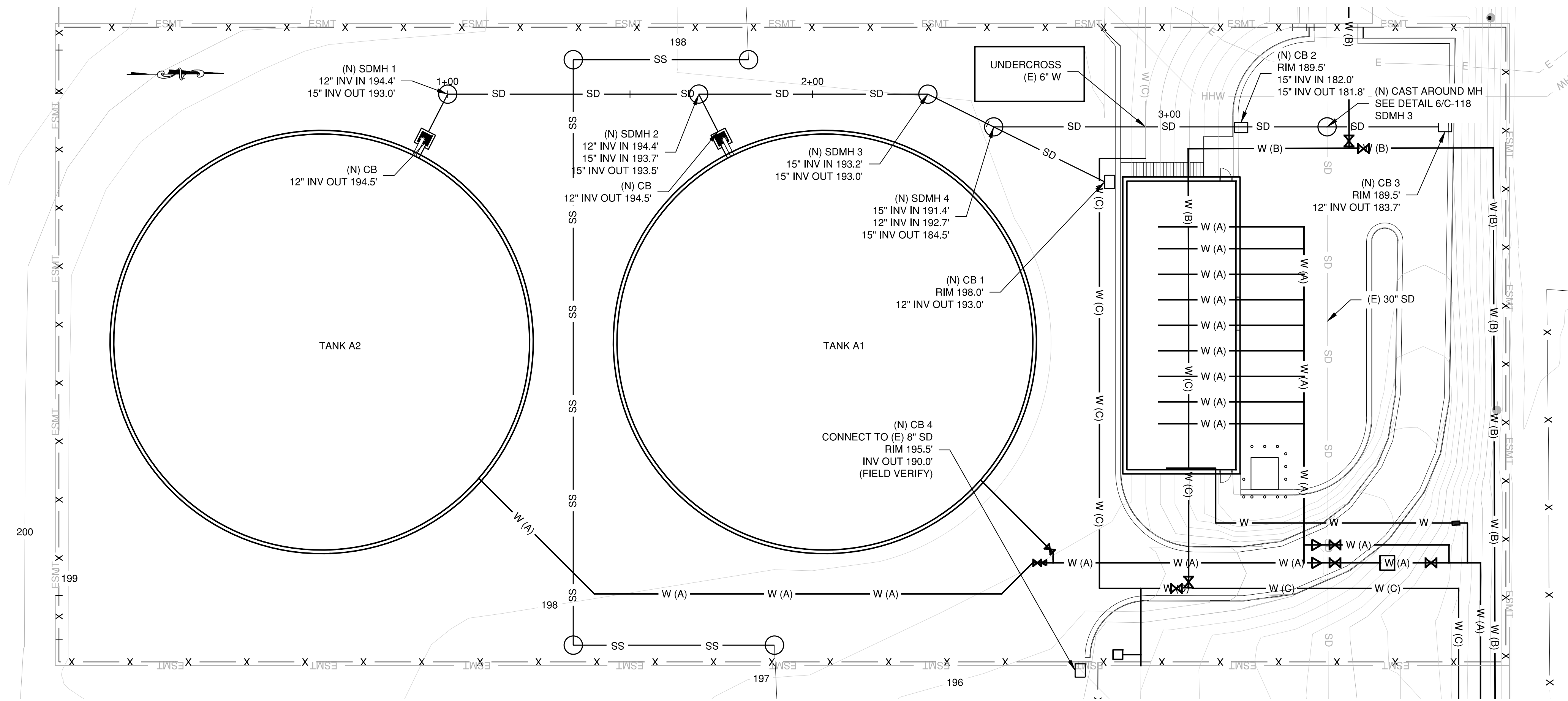


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

SEWER PLAN & PROFILE

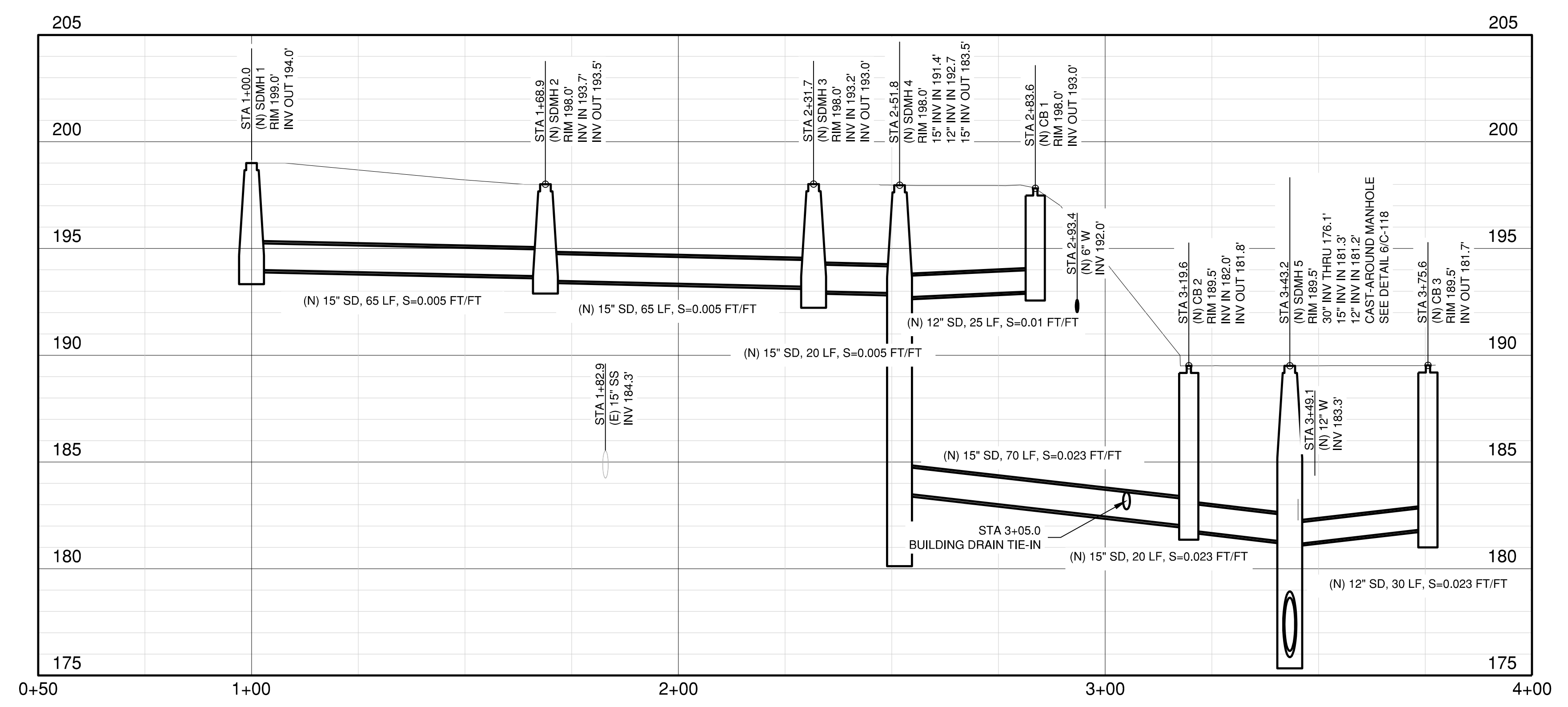
DATE: 12/23/20
SCALE: AS SHOWN
DESIGN: CJM
DRAWN: CJM
CHECK: AAS

SHEET
C-105
OF



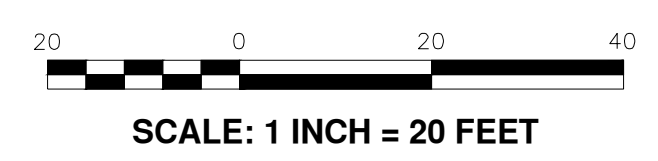
COORDINATES			
	STA	NORTHING	EASTING
SDMH 1	1+00.0	2133873.59	5741449.12
SDMH 2	1+68.8	2133942.38	5741451.85
SDMH 3	2+31.7	2134005.17	5741454.29
SDMH 4	2+51.8	2134022.83	5741463.96
CB 1	2+83.6 RT 15.1	2134054.04	5741480.34
CB 2	3+19.6	2134090.61	5741466.62
SDMH 5	3+43.2	2134114.19	5741467.55
CB 3	3+75.6	2134146.45	5741468.81
CB 4	N/A	2134040.76	5741613.93

STORM DRAIN PLAN 1
1"=20'



STORM DRAIN PROFILE 2
HORIZONTAL: 1"=20'
VERTICAL: 1"=4'

NOTE:
FOR CATCH BASINS SEE CITY OF MARINA STANDARD PLAN SD-3



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SALINAS, CA 93907
(831) 883-4848



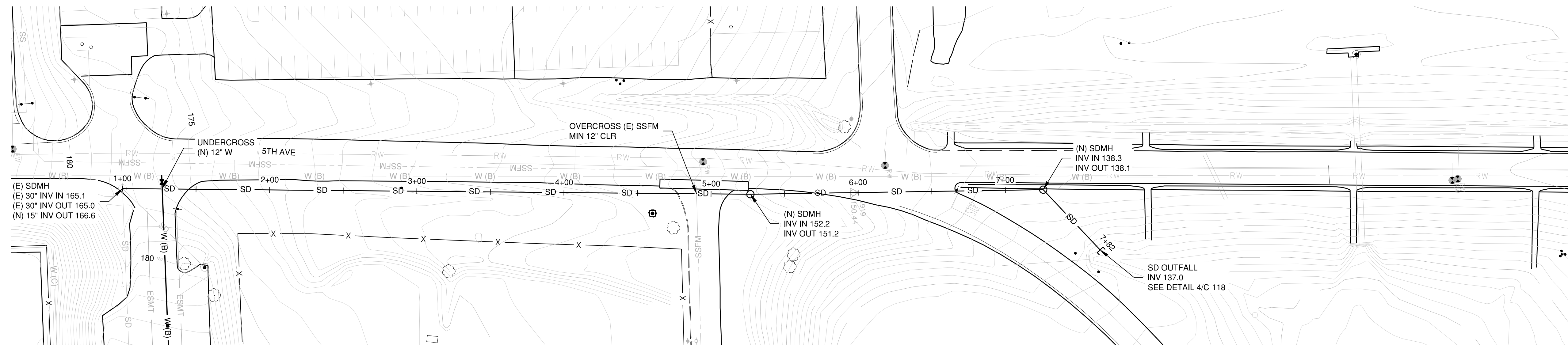
A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

STORM DRAIN PLAN & PROFILE

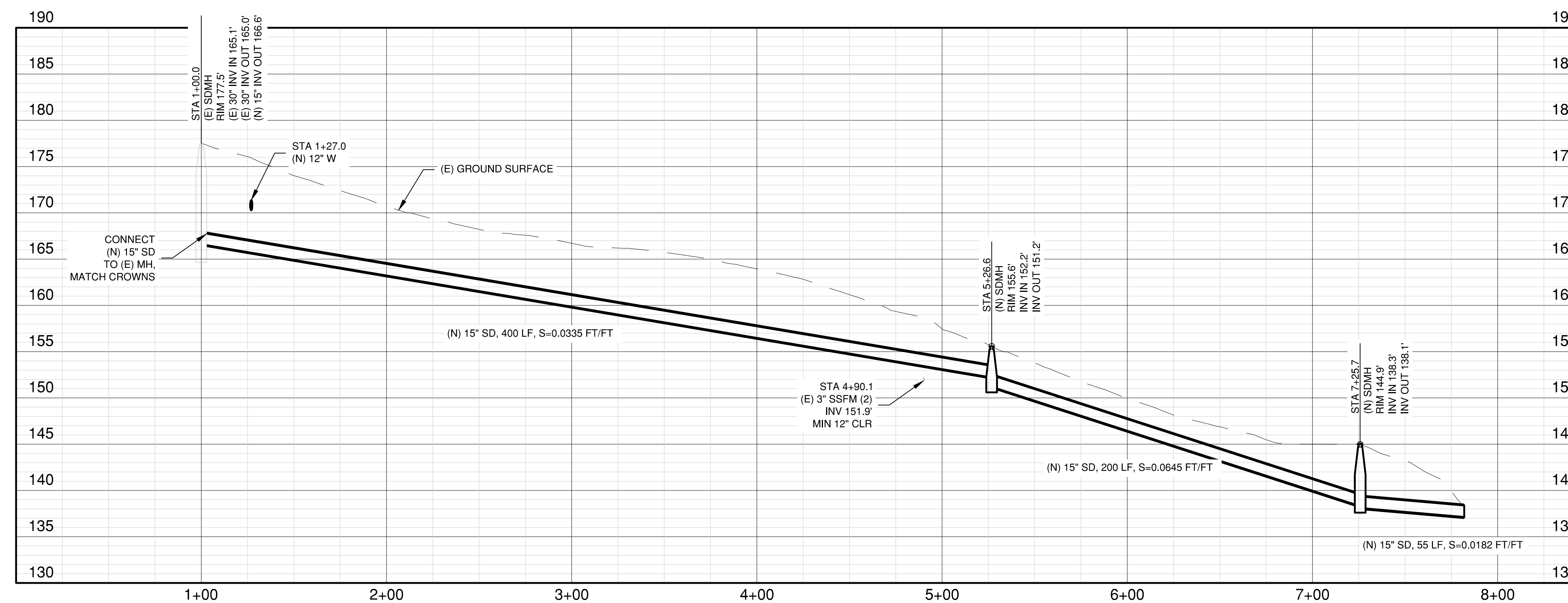
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DRAWN: CJM
CHECK: AAS

SHEET
C-106
OF

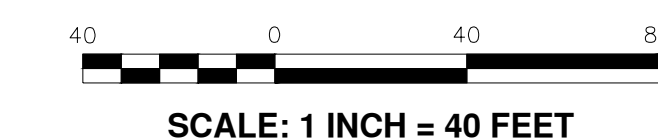
COORDINATES			
	STA	NORTHING	EASTING
(E) SDMH	1+00.0	2134163.81	5740859.99
(N) SDMH B1	5+26.6	2134562.09	5740894.48
(N) SDMH B2	7+25.7	2134760.70	5740906.67
12" OUTFALL	7+82.2	2134796.09	5740950.41



PERC BASIN STORM DRAIN 1
1"=40'



STORM DRAIN PROFILE 2
HORIZONTAL: 1"=40'
VERTICAL: 1"=8'

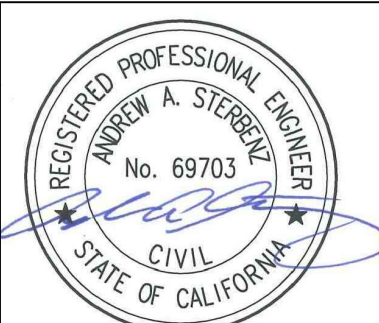


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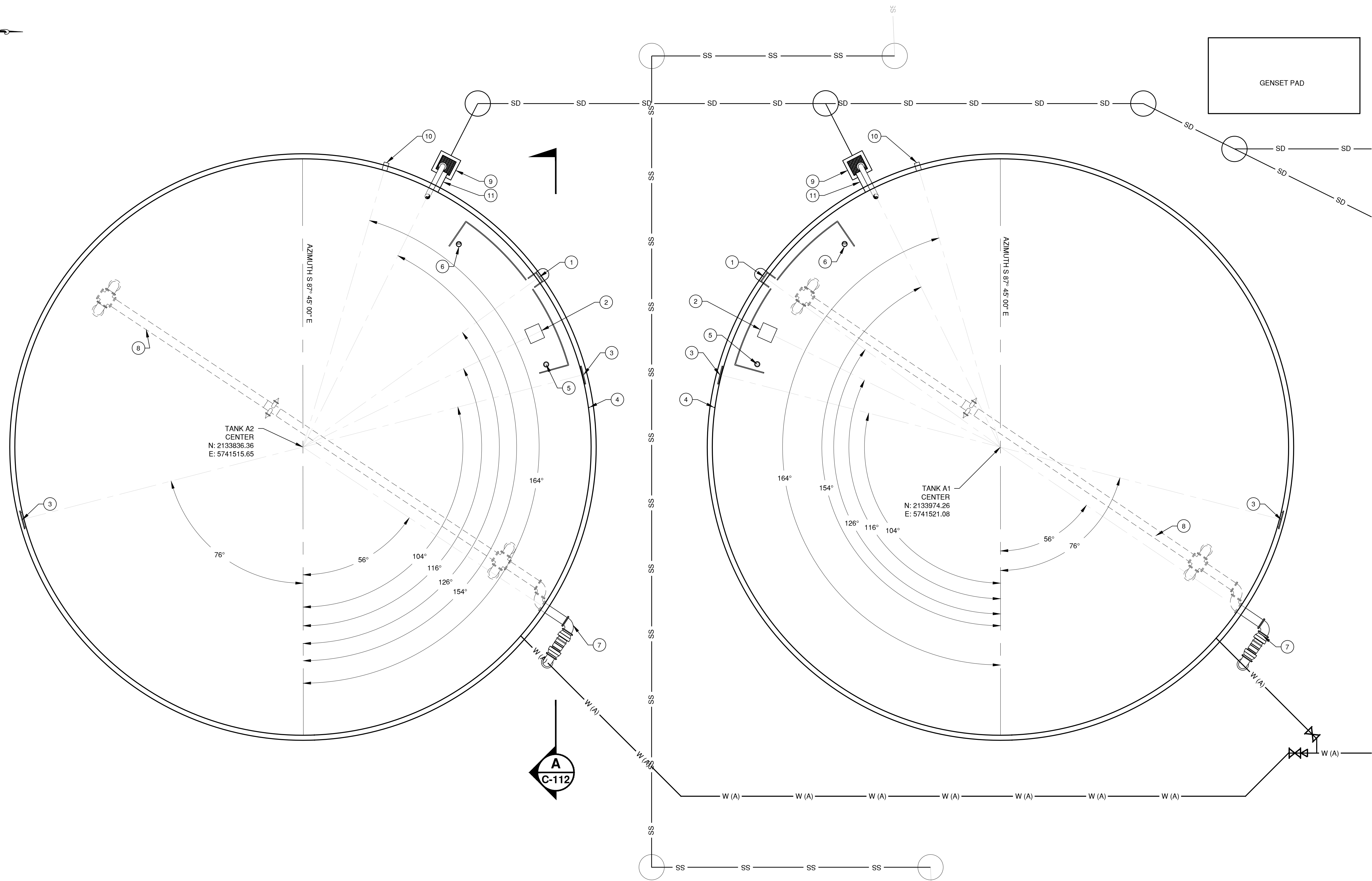
Schaaf & Wheeler
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A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
PERCOLATION BASIN STORM DRAIN PLAN & PROFILE

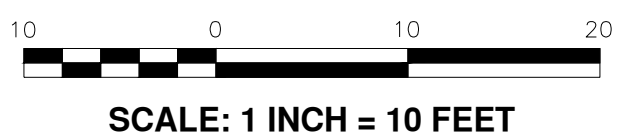
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SCALE:	AS SHOWN
DESIGN:	CJM
DRAWN:	CJM
CHECK:	AAS

SHEET
C-107
OF



CALLOUT NOTES

1. ACCESS LADDER W/ SAFETY GATE
2. ROOF ACCESS HATCH, SEE DETAIL A/S-9
3. 36" MANWAY
4. SAMPLING PORT, SEE DETAIL 2/C-113
5. SONIC LEVEL SENSOR ACCESS HATCH
6. SITE GAUGE ACCESS PANEL FOR GAUGE INSTALLATION
7. TANK INLET/OUTLET, SEE DETAIL 1/C-113
8. HYDRODYNAMIC MIXING SYSTEM, REFER TO SECTION 33 16 96. SYSTEM TO BE DESIGNED BY MIXING SYSTEM SUPPLIER.
9. 12" OVERFLOW DRAIN PIPE, SEE DETAIL 3/C-112
10. CLEANOUT DRAIN
11. 6" DRAIN OUTLET W/ GATE VALVE, FL

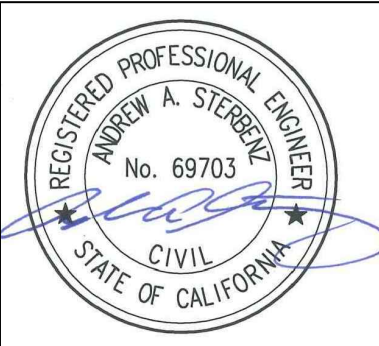


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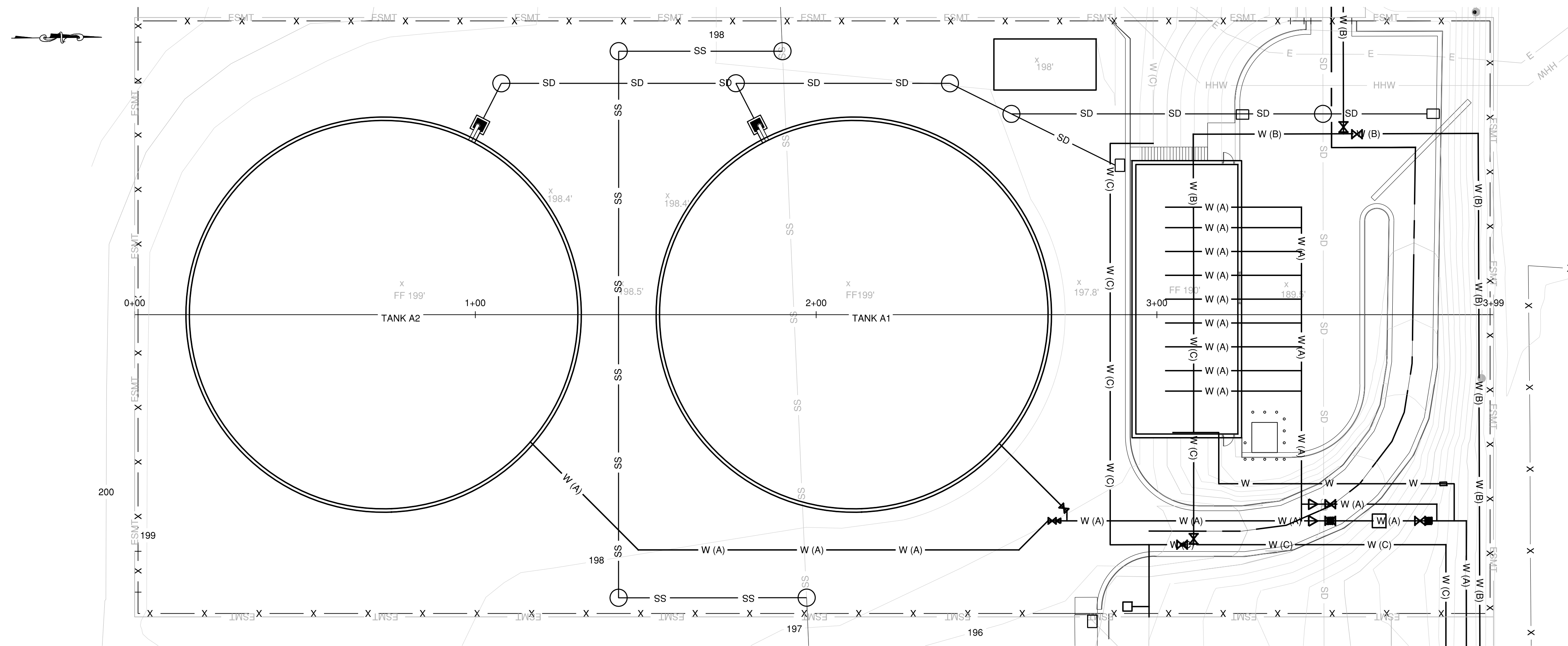


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

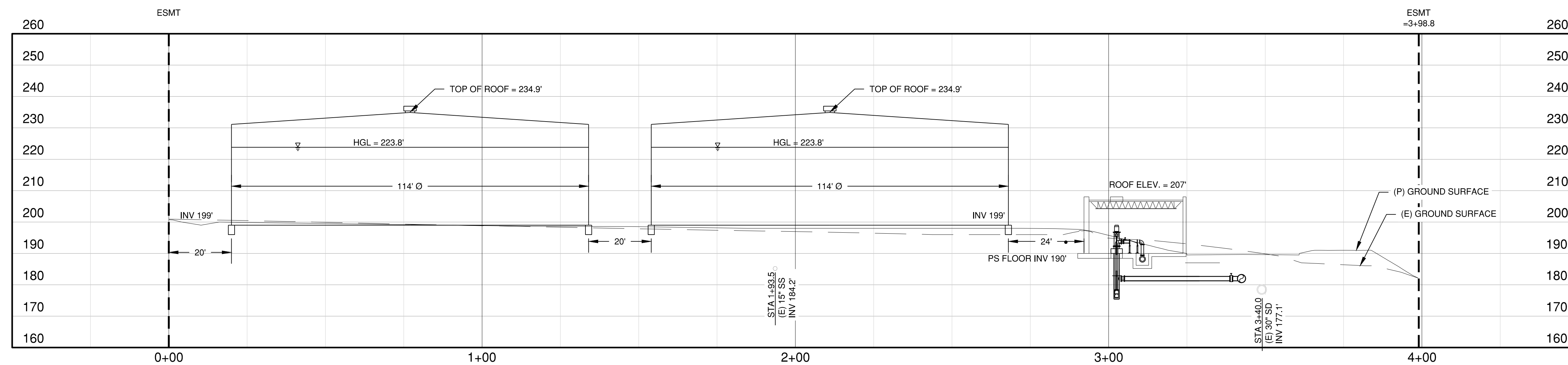
TANK PLAN VIEW

DATE: 12/23/20
 SCALE: 1"=10'
 DESIGN: CJM
 DRAWN: CJM
 CHECK: AAS

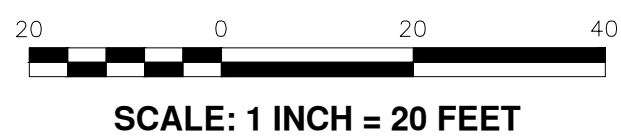
SHEET
C-110
OF



TANK PROFILE ALIGNMENT 1
 1"=20'



TANK SITE PROFILE 2
 HORIZONTAL: 1"=20'
 VERTICAL: 1"=20'

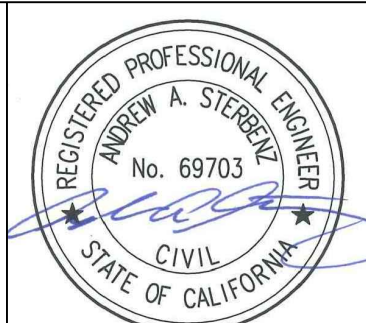


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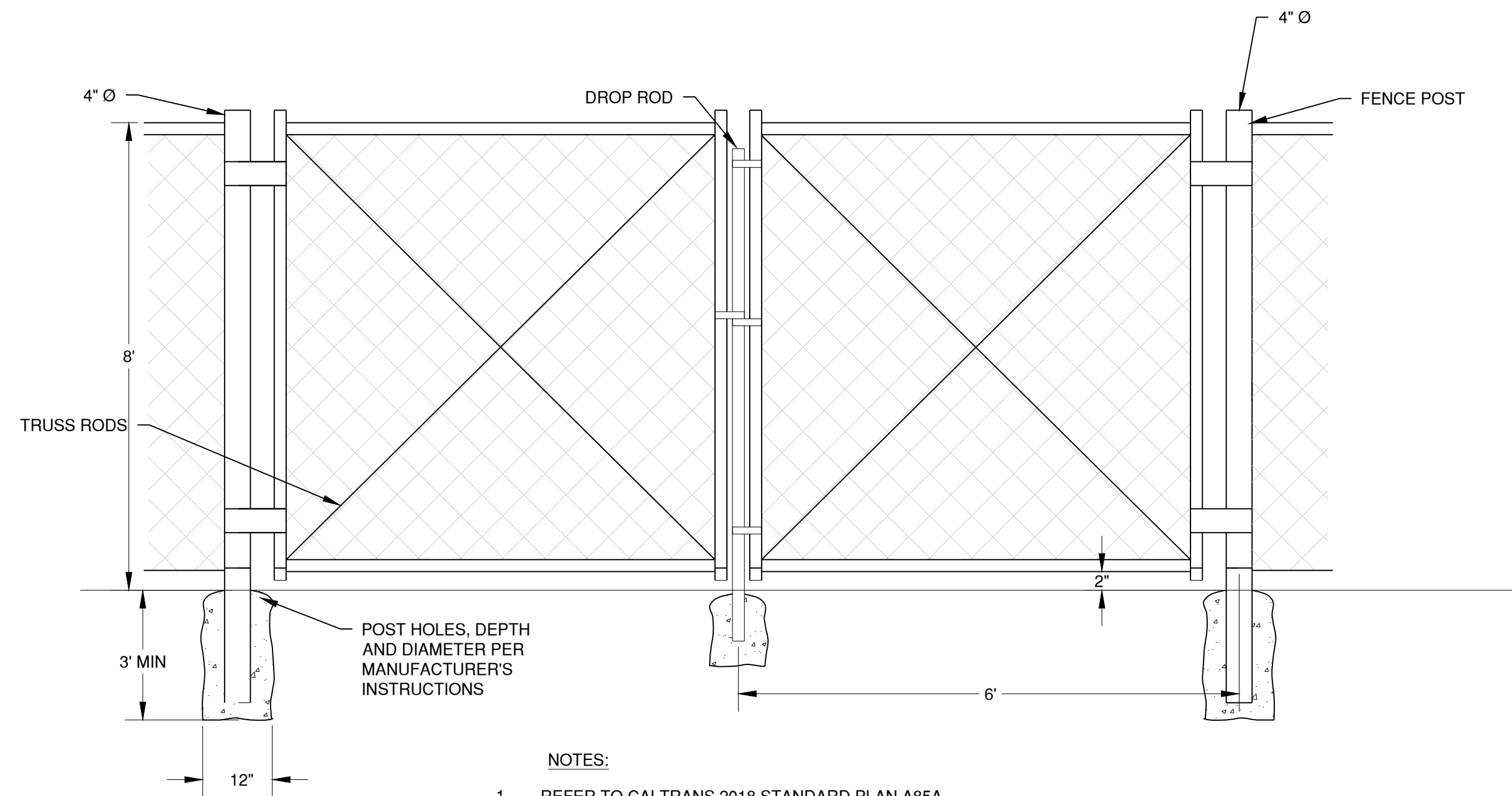


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

TANK SITE PROFILE

DATE: 12/23/20
 SCALE: AS SHOWN
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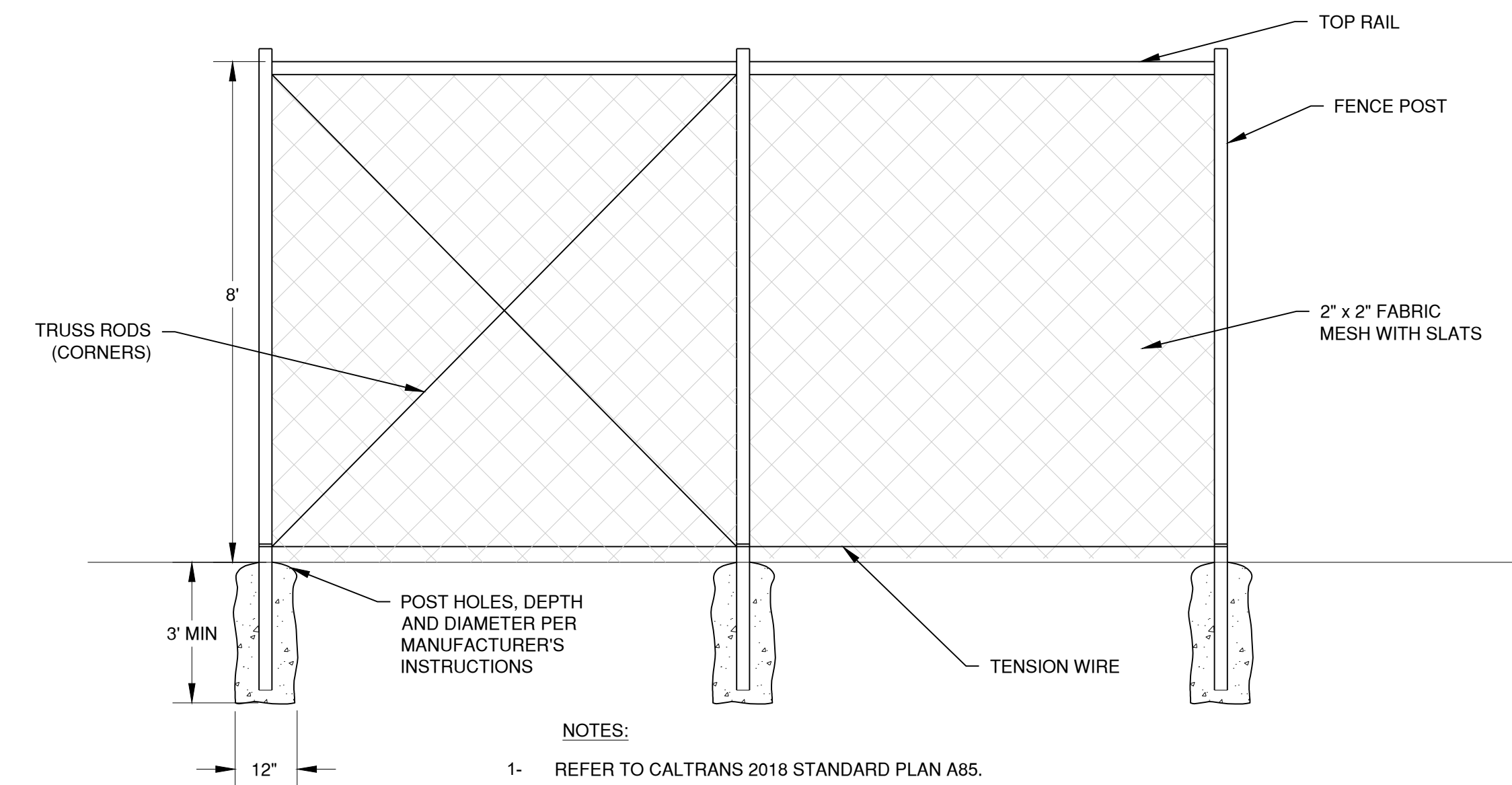
SHEET
C-111
OF



- NOTES:
- 1- REFER TO CALTRANS 2018 STANDARD PLAN A85A.
 - 2- SEE CALTRANS 2018 STANDARD PLAN A85A FOR CHAIN LINK GATE INSTALLATION.
 - 3- ALL FENCE MATERIAL SHALL BE GALVANIZED INCLUDING STRANDS OF BARBWIRE.

SWING GATE DETAIL
NTS

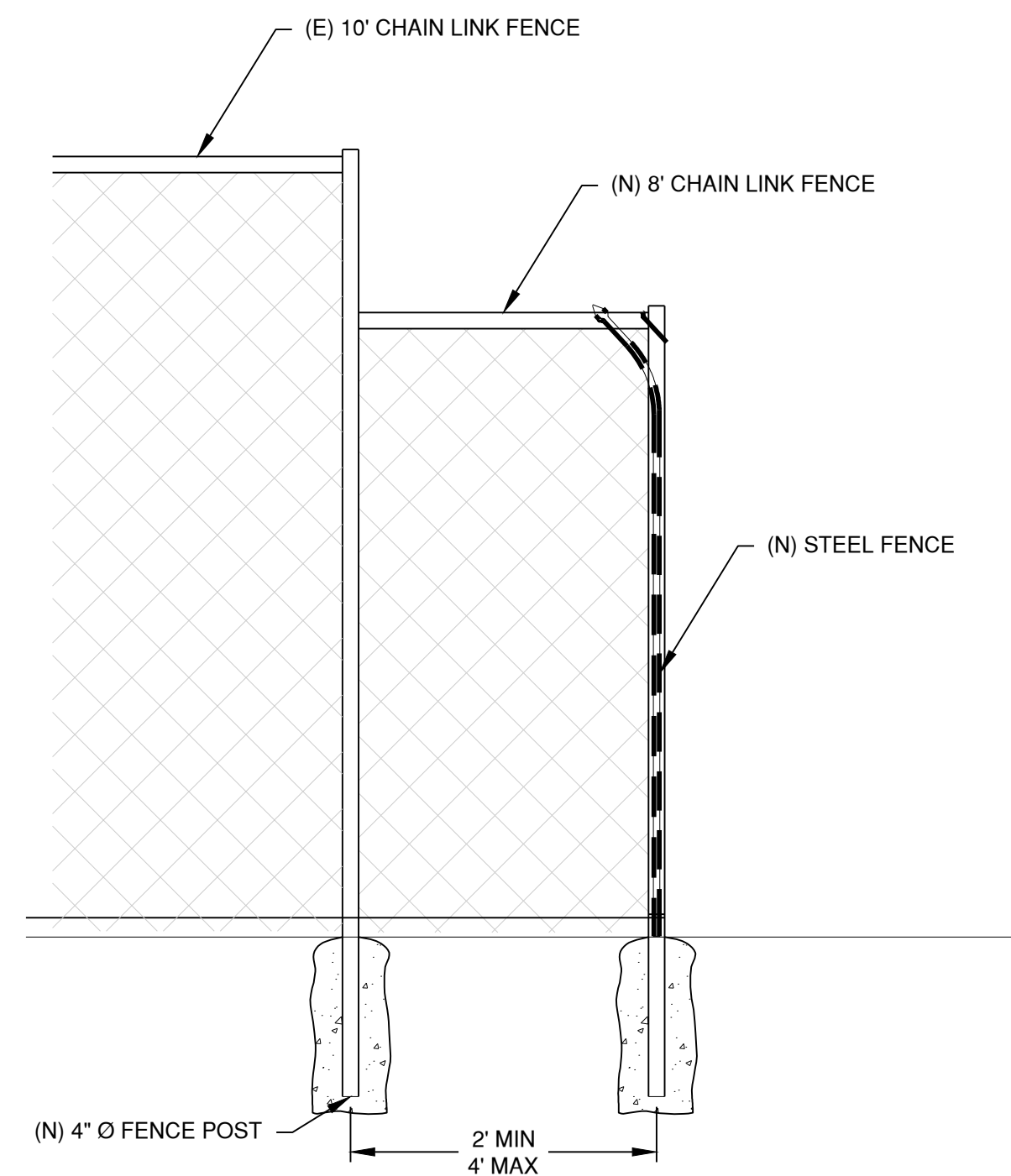
1
C-009



- NOTES:
- 1- REFER TO CALTRANS 2018 STANDARD PLAN A85.
 - 2- SEE CALTRANS 2018 STANDARD PLAN A85 FOR CHAIN LINK GATE INSTALLATION.
 - 3- SEE CALTRANS 2018 STANDARD PLAN A85A FOR BARBED WIRE POST TOP DETAIL.
 - 4- ALL FENCE MATERIAL SHALL BE GALVANIZED INCLUDING STRANDS OF BARBWIRE.

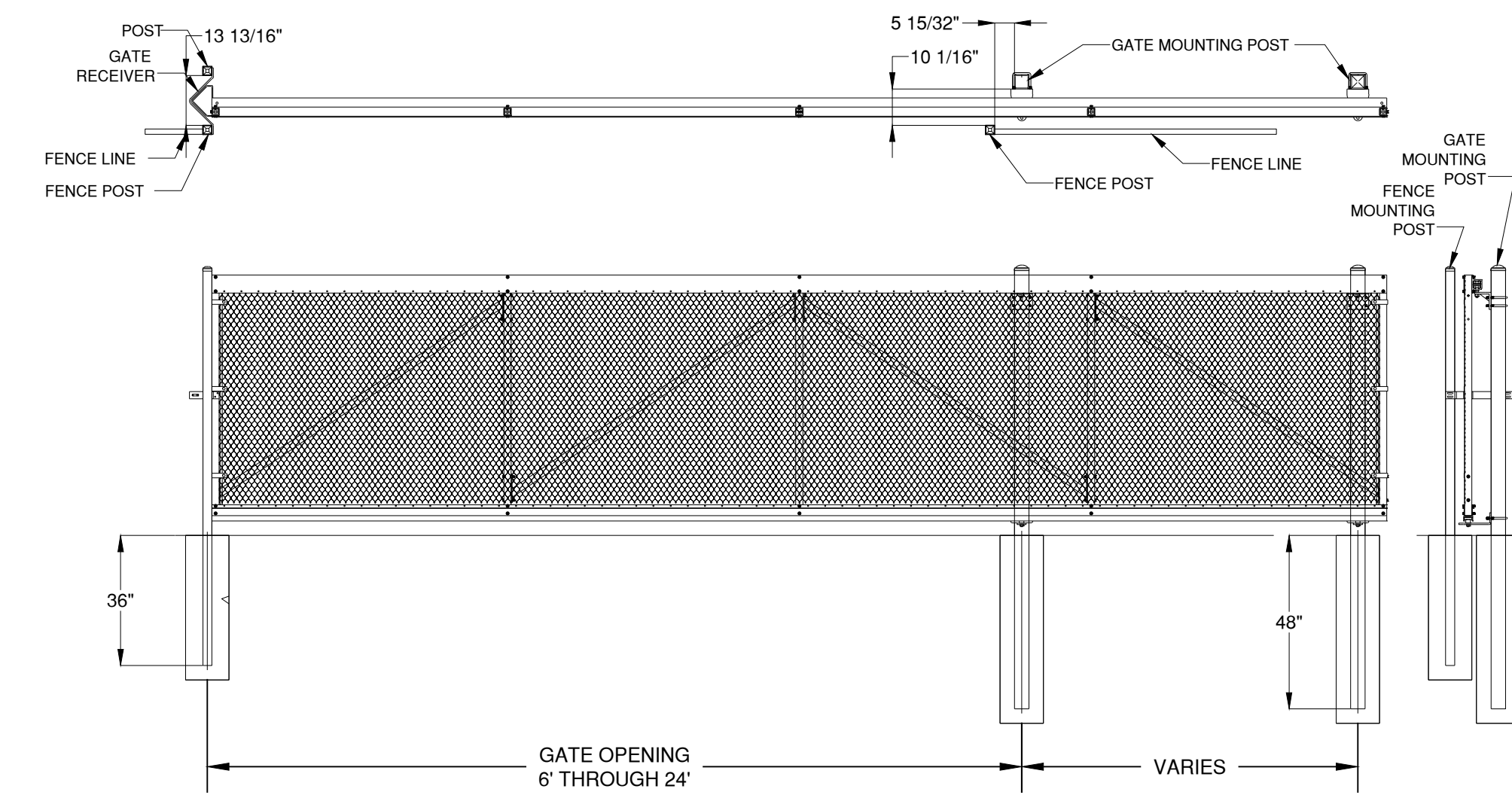
CHAIN LINKED FENCE
NTS

2
C-009



TANK SITE FENCE
NTS

3
C-009



CHAIN LINK ROLL GATE
NTS

4
C-019

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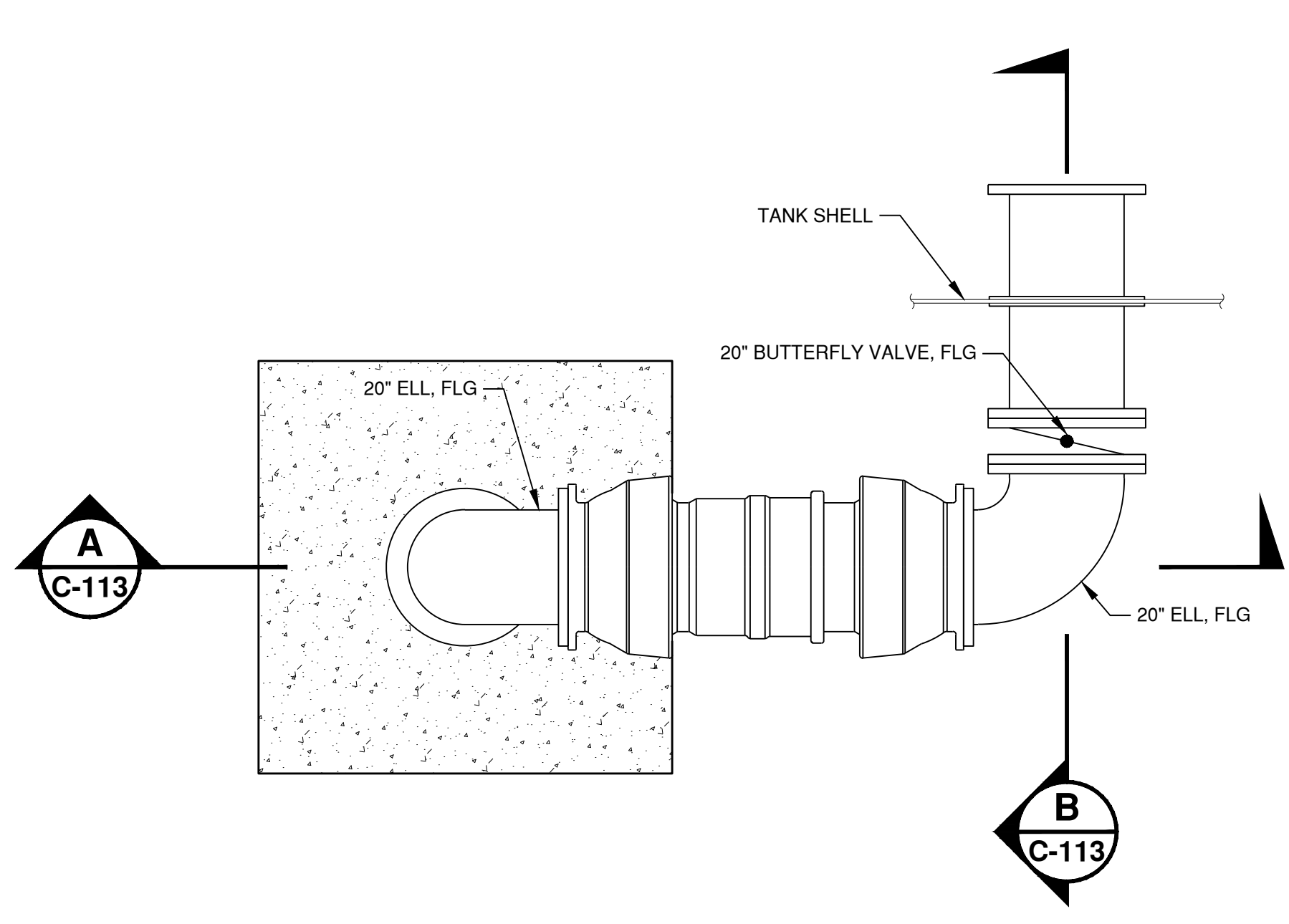


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

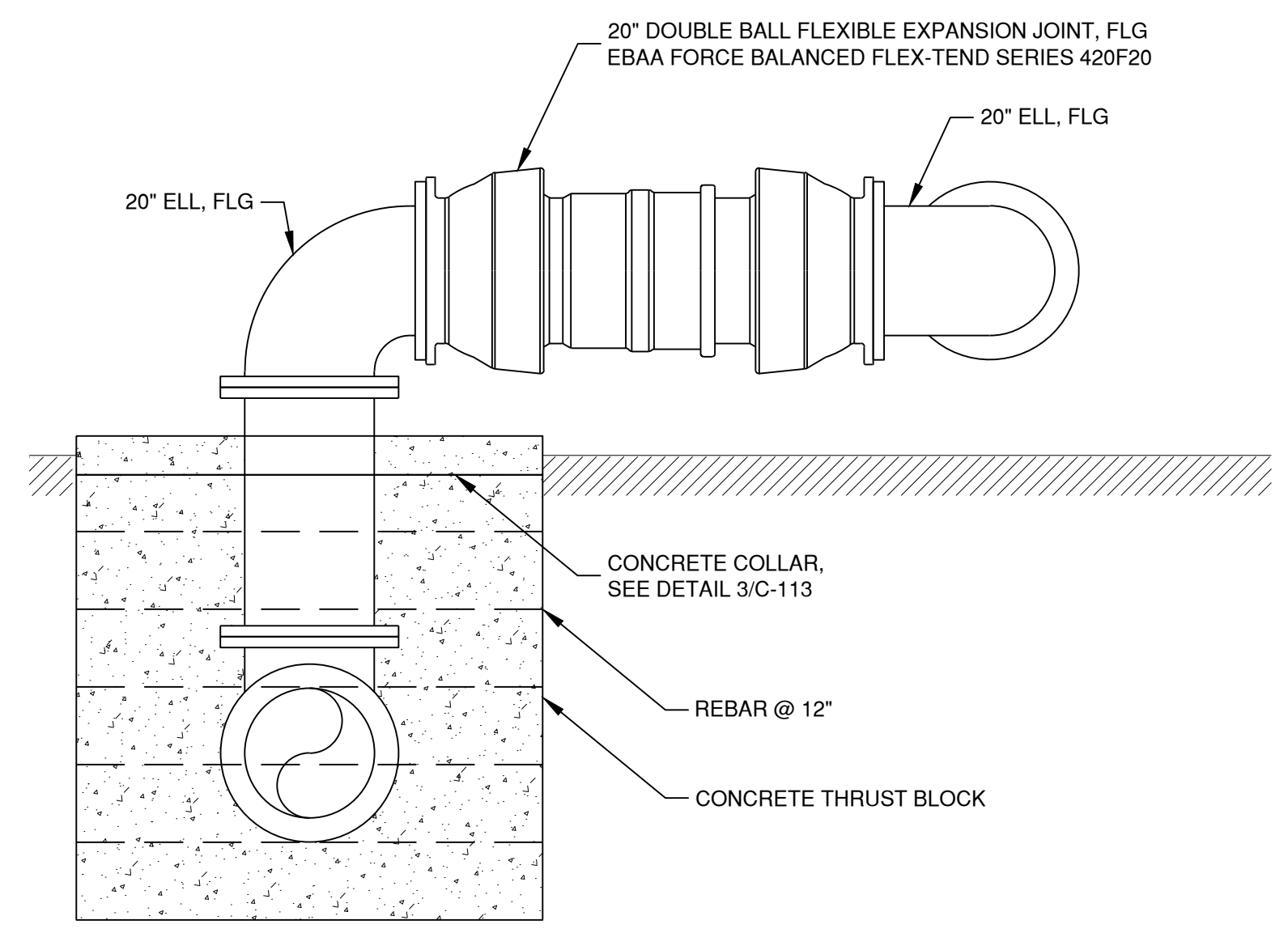
CHAIN LINK FENCE DETAILS

DATE: 12/23/20
SCALE: AS SHOWN
DESIGN: CJM
DRAWN: CJM
CHECK: AAS

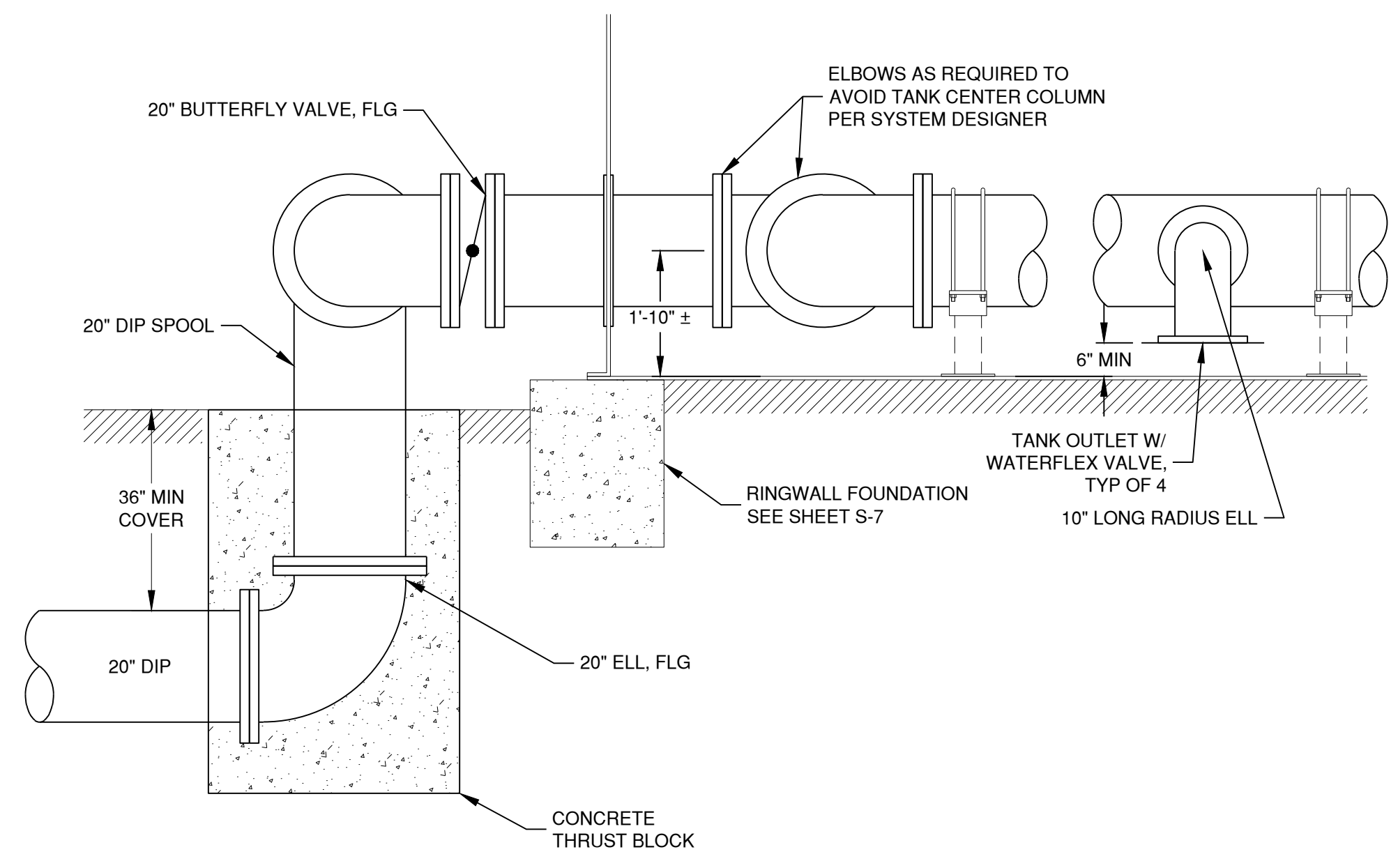
SHEET
C-114
OF



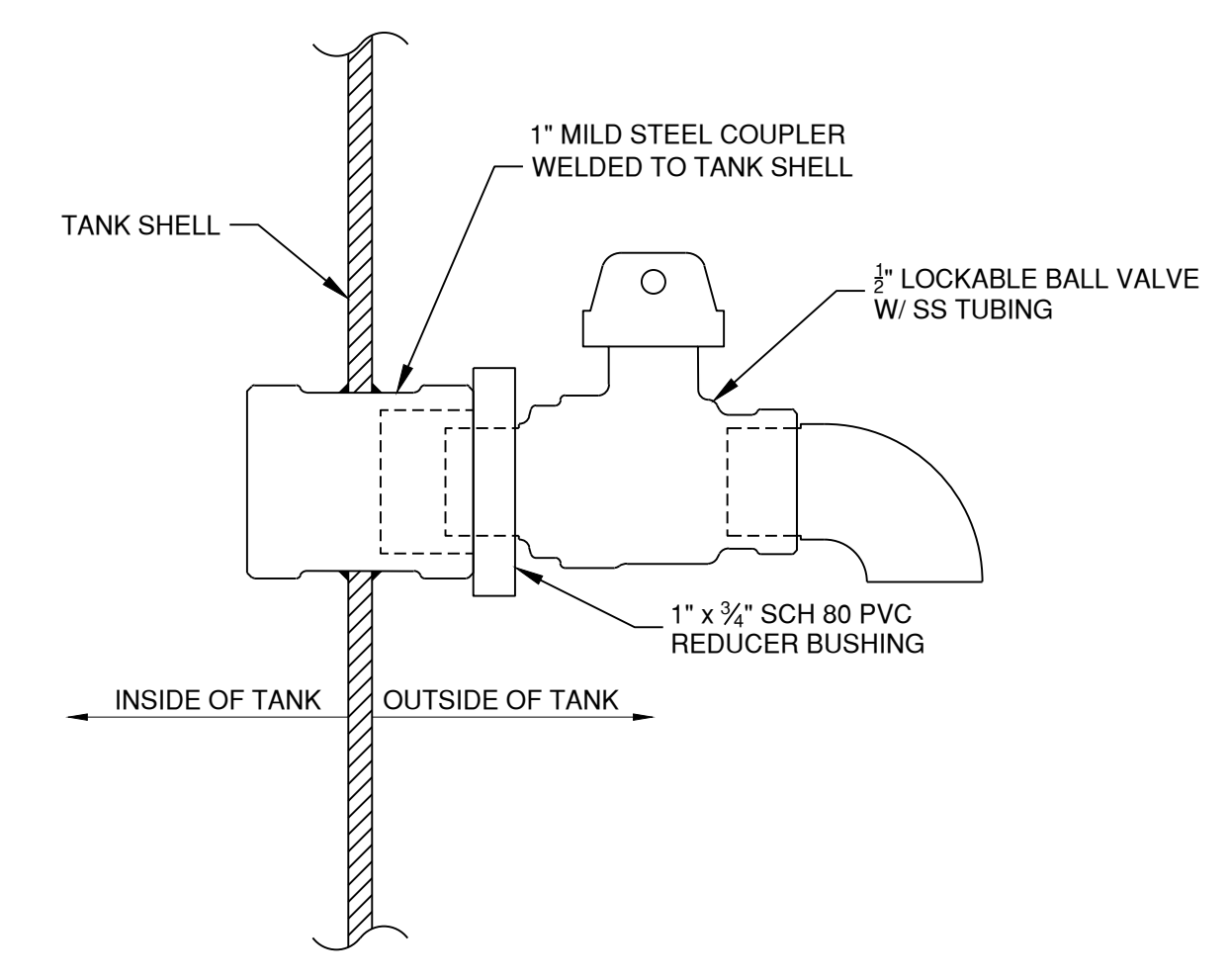
TANK INLET/OUTLET
1/2"=1"
1
C-110



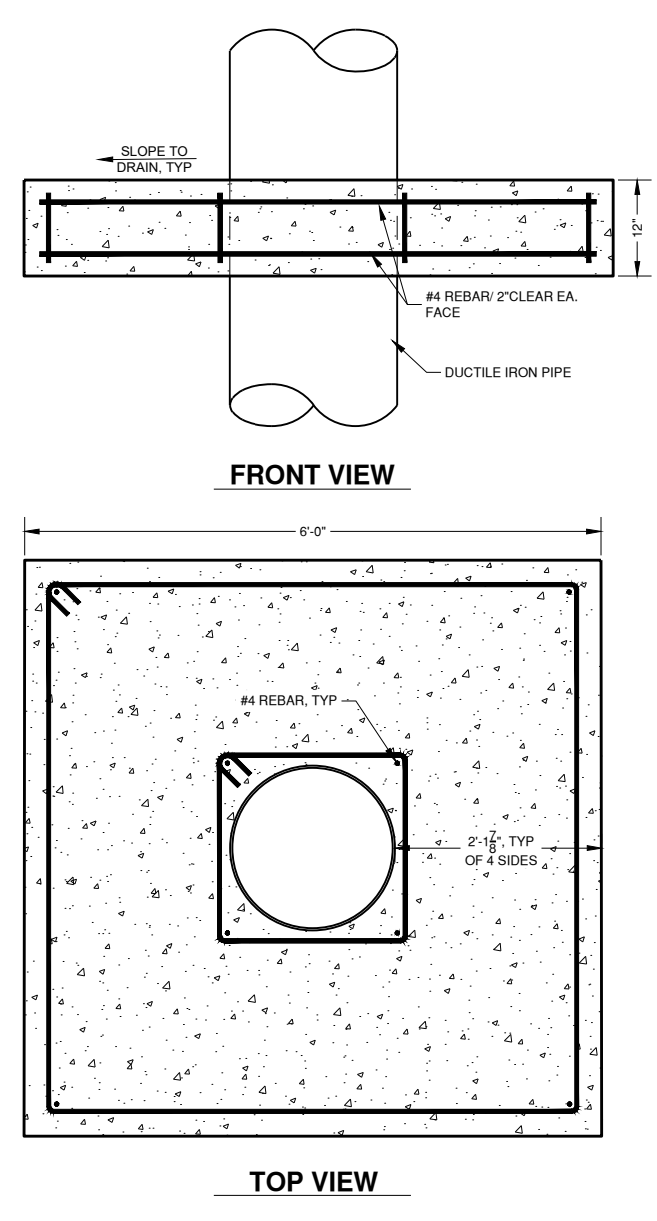
SECTION A
1/2"=1"
A
C-113



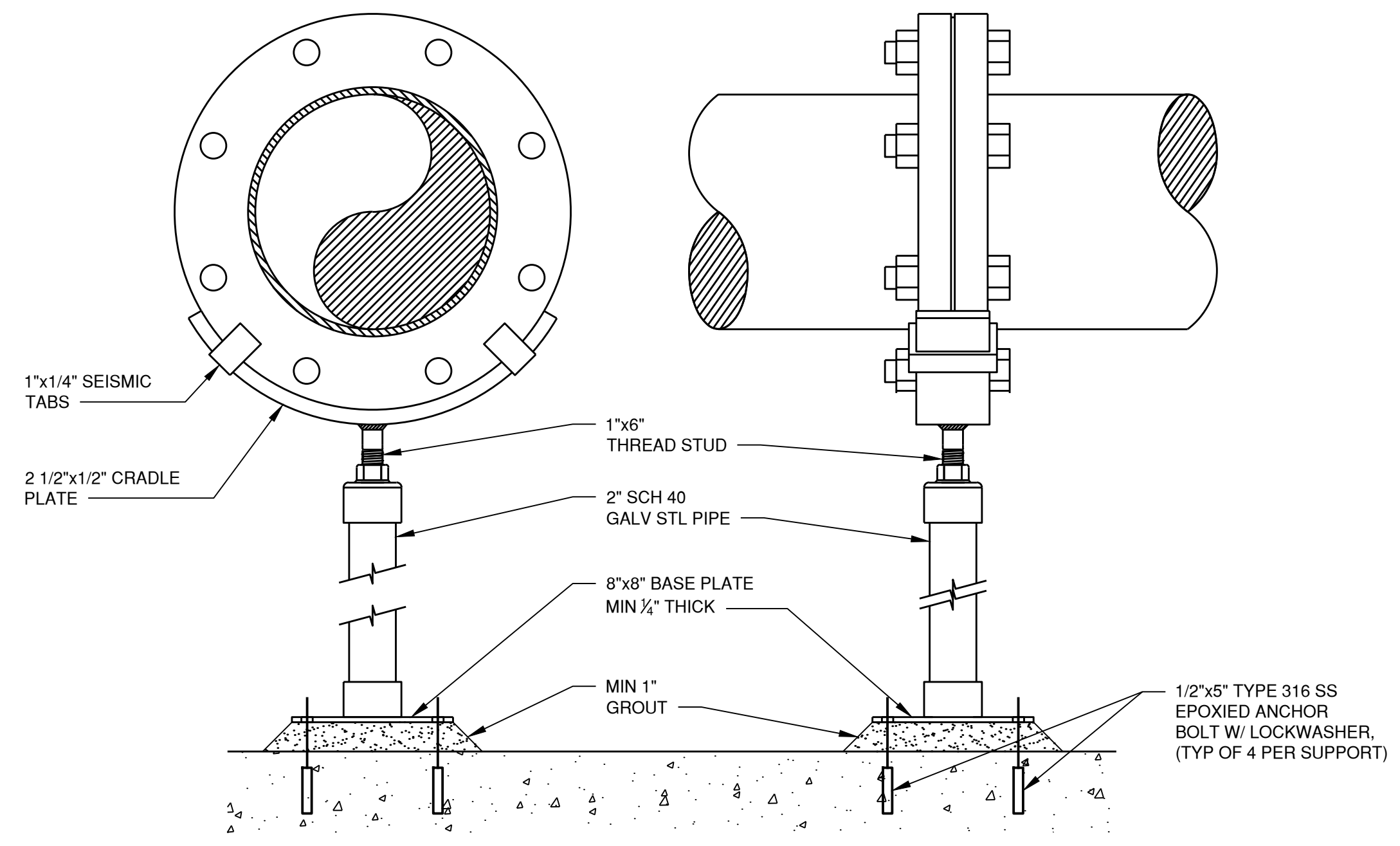
SECTION B
1/2"=1"
B
C-113



SAMPLING TAP
NTS
2
C-110

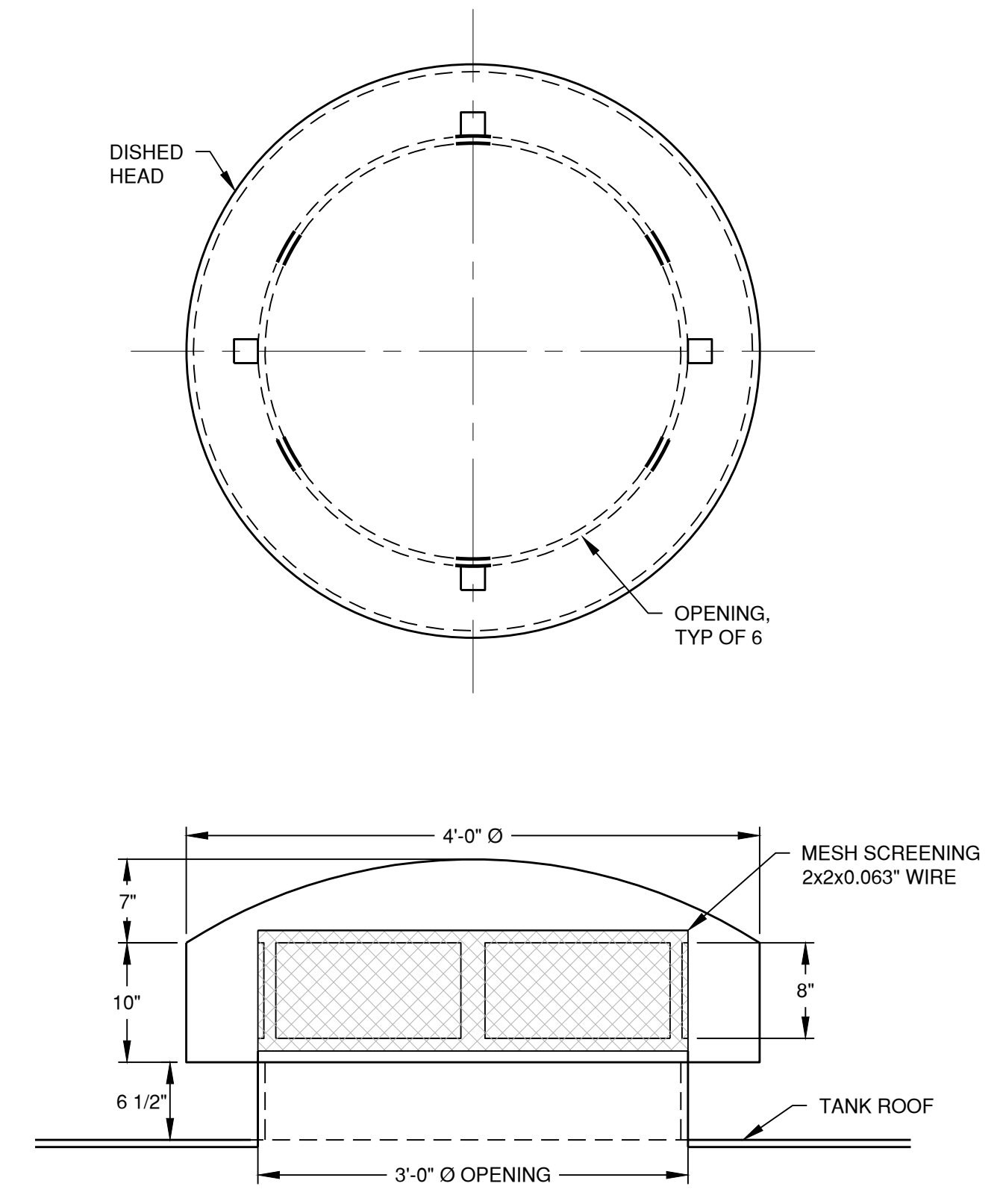


CONCRETE COLLAR
NTS
3
C-113



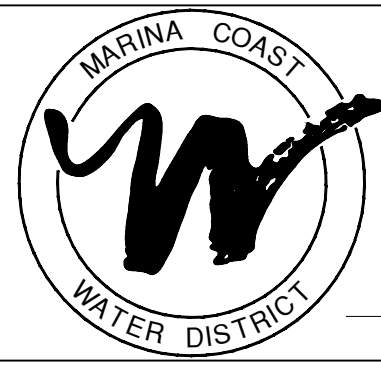
NOTES:
1. ALL PIPE FLANGE SUPPORT METAL SHALL BE HOT DIPPED GALVANIZED STEEL PER ASTM SPECIFICATION A123

FLANGED PIPE SUPPORT
NTS
4
-



AIR VENT
NTS
5
C-112

NO.	REVISION DESCRIPTION	DATE	APPR



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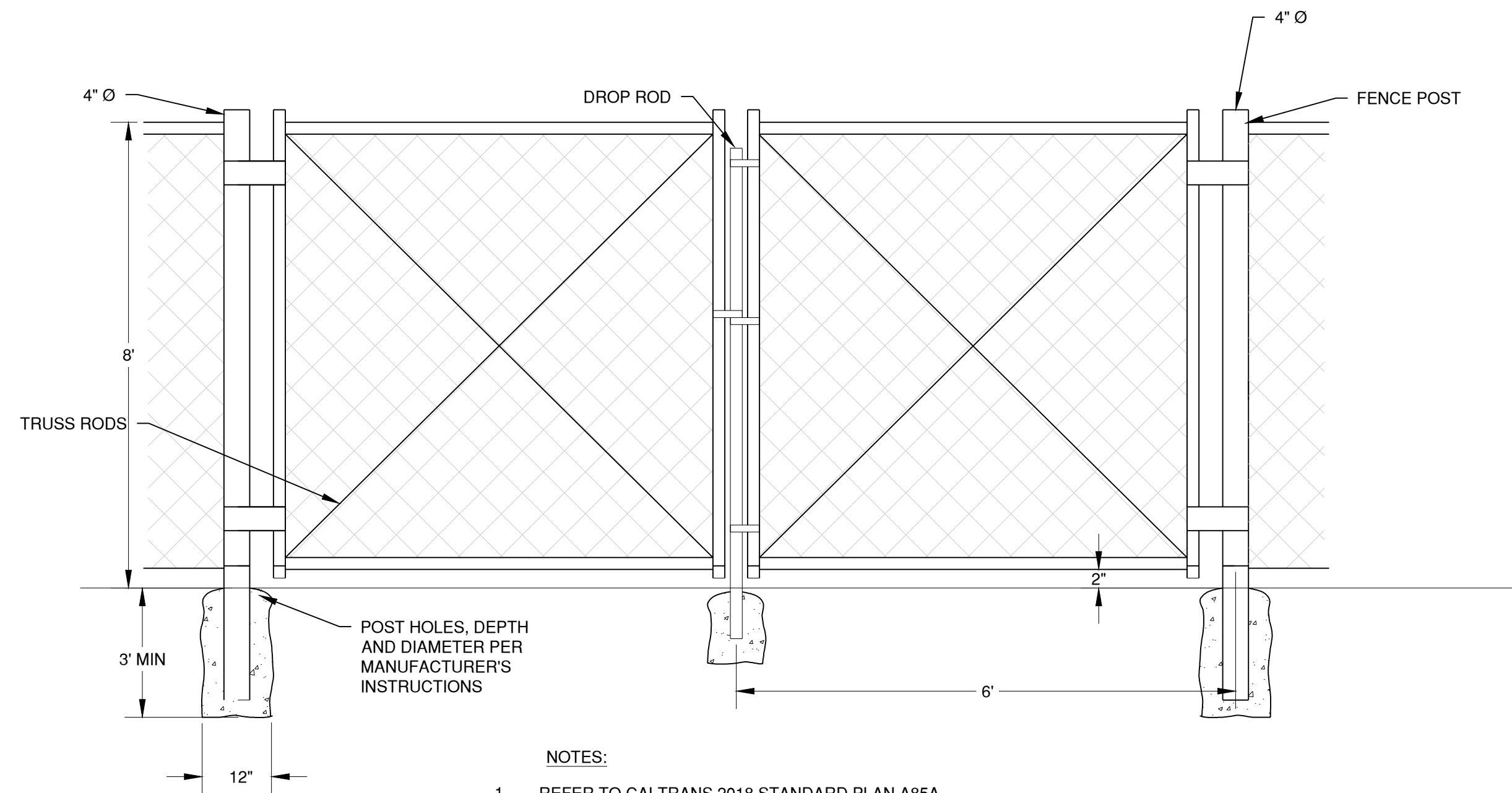


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

TANK DETAILS

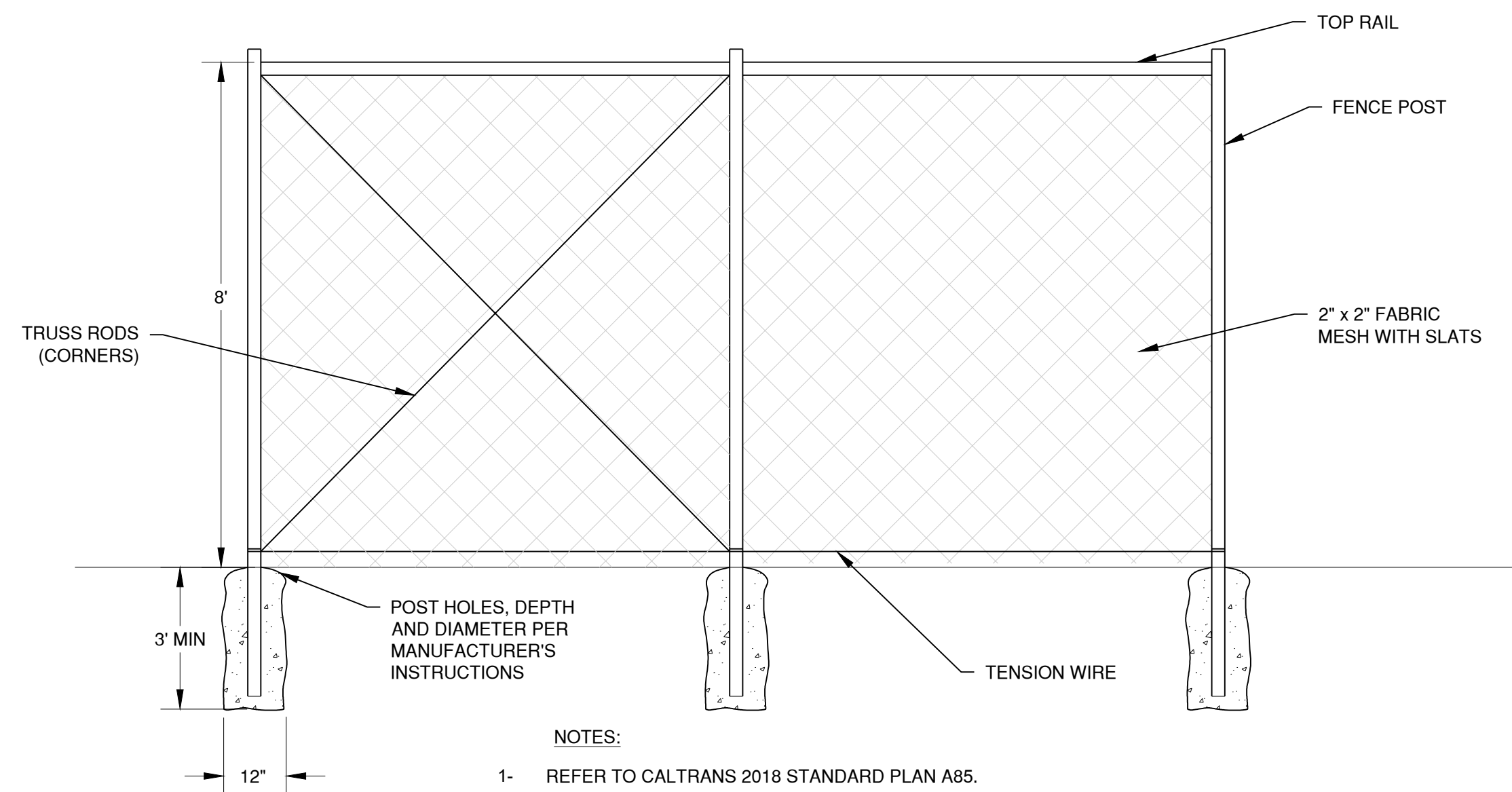
DATE: 12/23/20
SCALE: AS SHOWN
DESIGN: CJM
DRAWN: CJM
CHECK: AAS

SHEET
C-113
OF



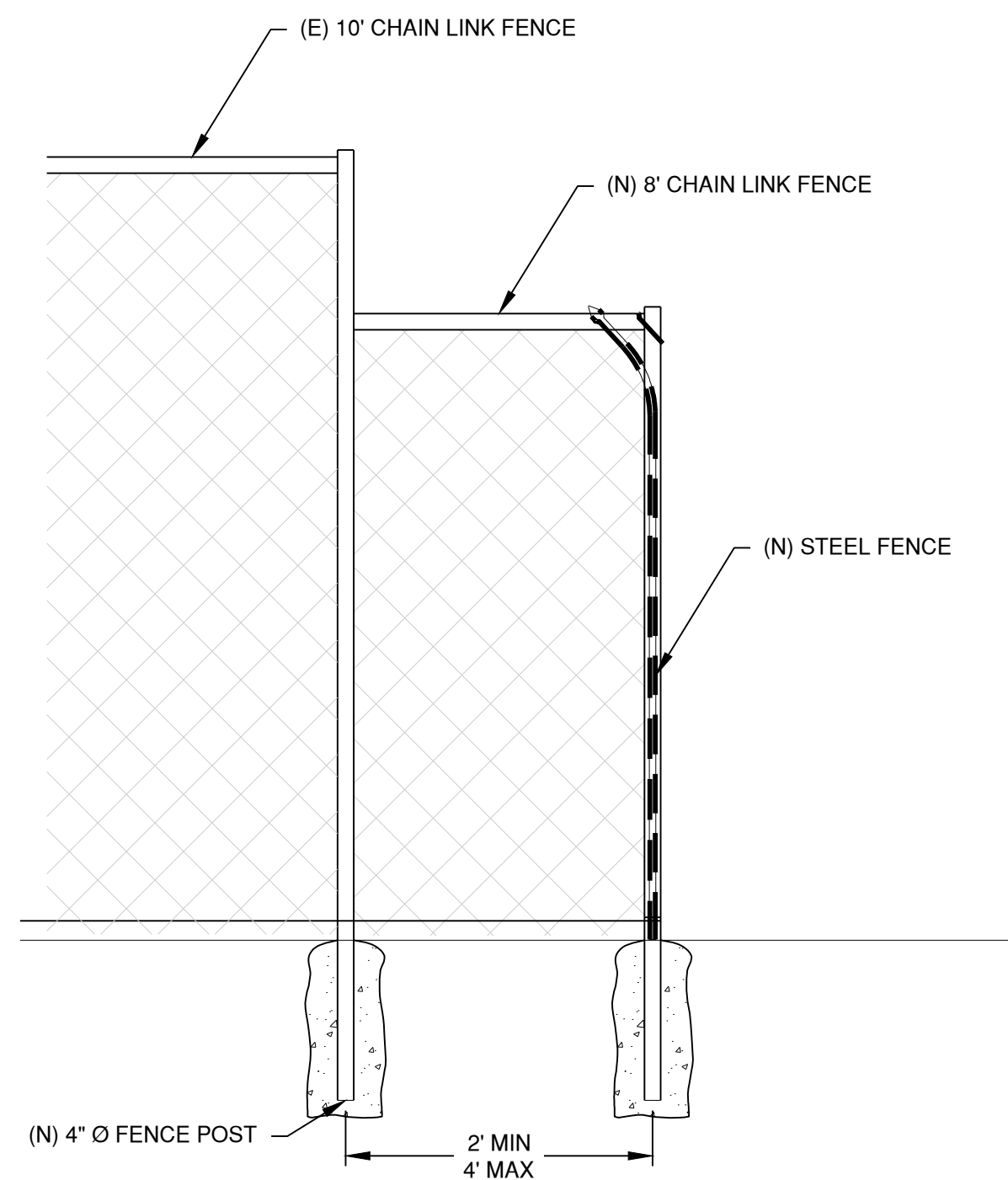
- NOTES:
- 1- REFER TO CALTRANS 2018 STANDARD PLAN A85A.
 - 2- SEE CALTRANS 2018 STANDARD PLAN A85A FOR CHAIN LINK GATE INSTALLATION.
 - 3- ALL FENCE MATERIAL SHALL BE GALVANIZED INCLUDING STRANDS OF BARBWIRE.

SWING GATE DETAIL
NTS
1
C-009

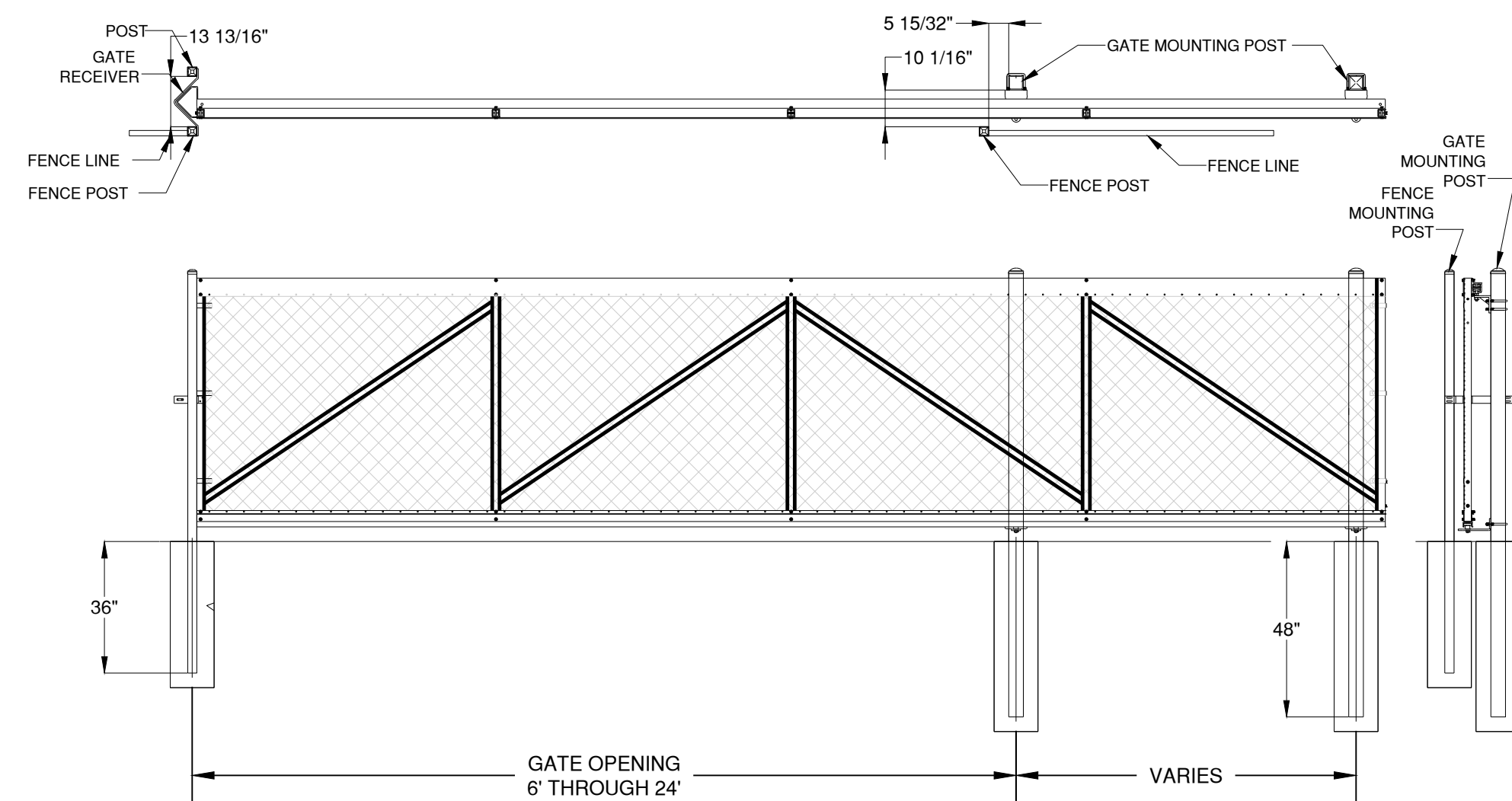


- NOTES:
- 1- REFER TO CALTRANS 2018 STANDARD PLAN A85.
 - 2- SEE CALTRANS 2018 STANDARD PLAN A85 FOR CHAIN LINK GATE INSTALLATION.
 - 3- SEE CALTRANS 2018 STANDARD PLAN A85A FOR BARBED WIRE POST TOP DETAIL.
 - 4- ALL FENCE MATERIAL SHALL BE GALVANIZED INCLUDING STRANDS OF BARBWIRE.

CHAIN LINKED FENCE
NTS
2
C-009



TANK SITE FENCE
NTS
3
C-009



CHAIN LINK ROLL GATE
NTS
4
C-019

NO.	REVISION DESCRIPTION	DATE	APPR

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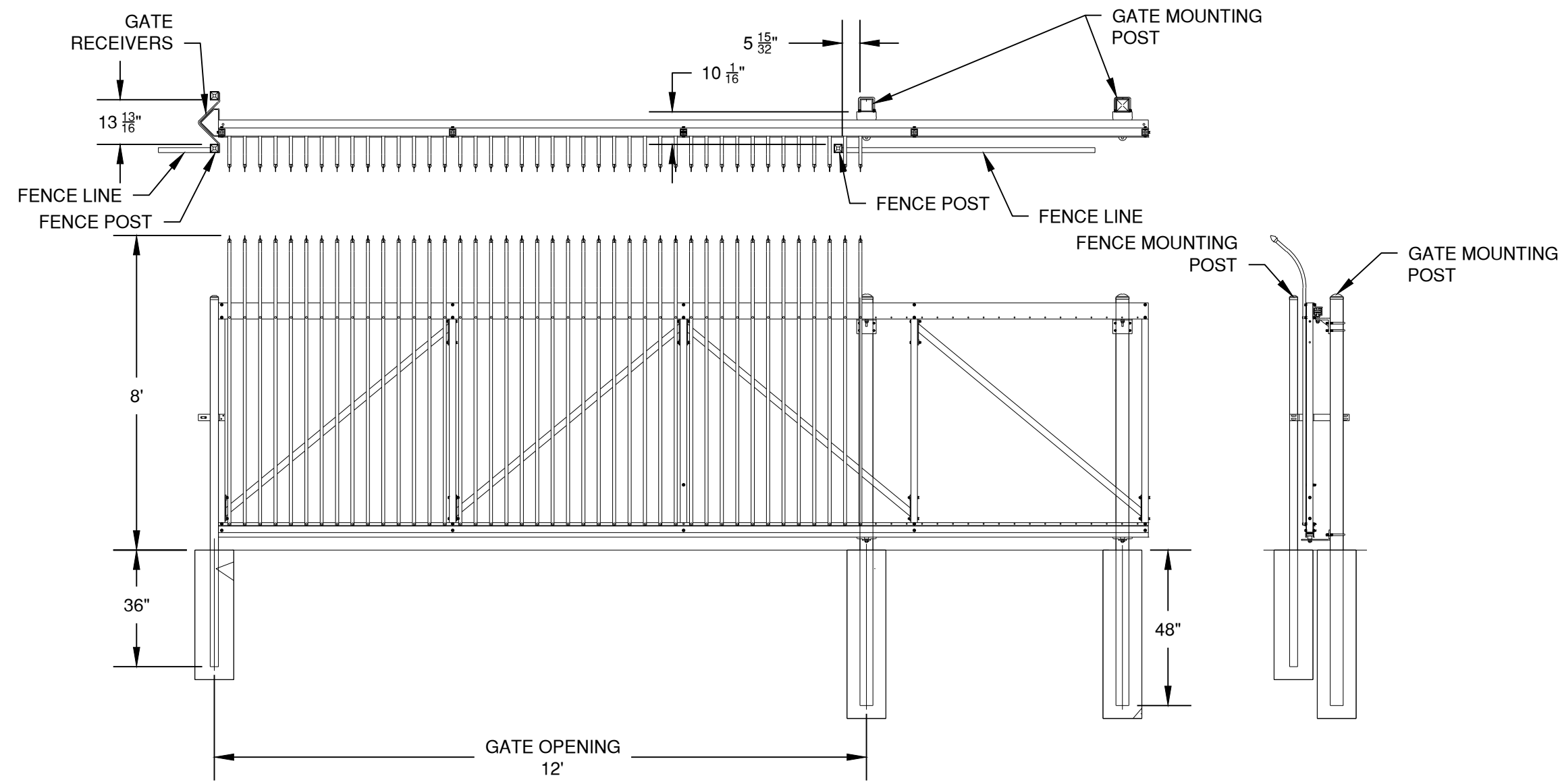
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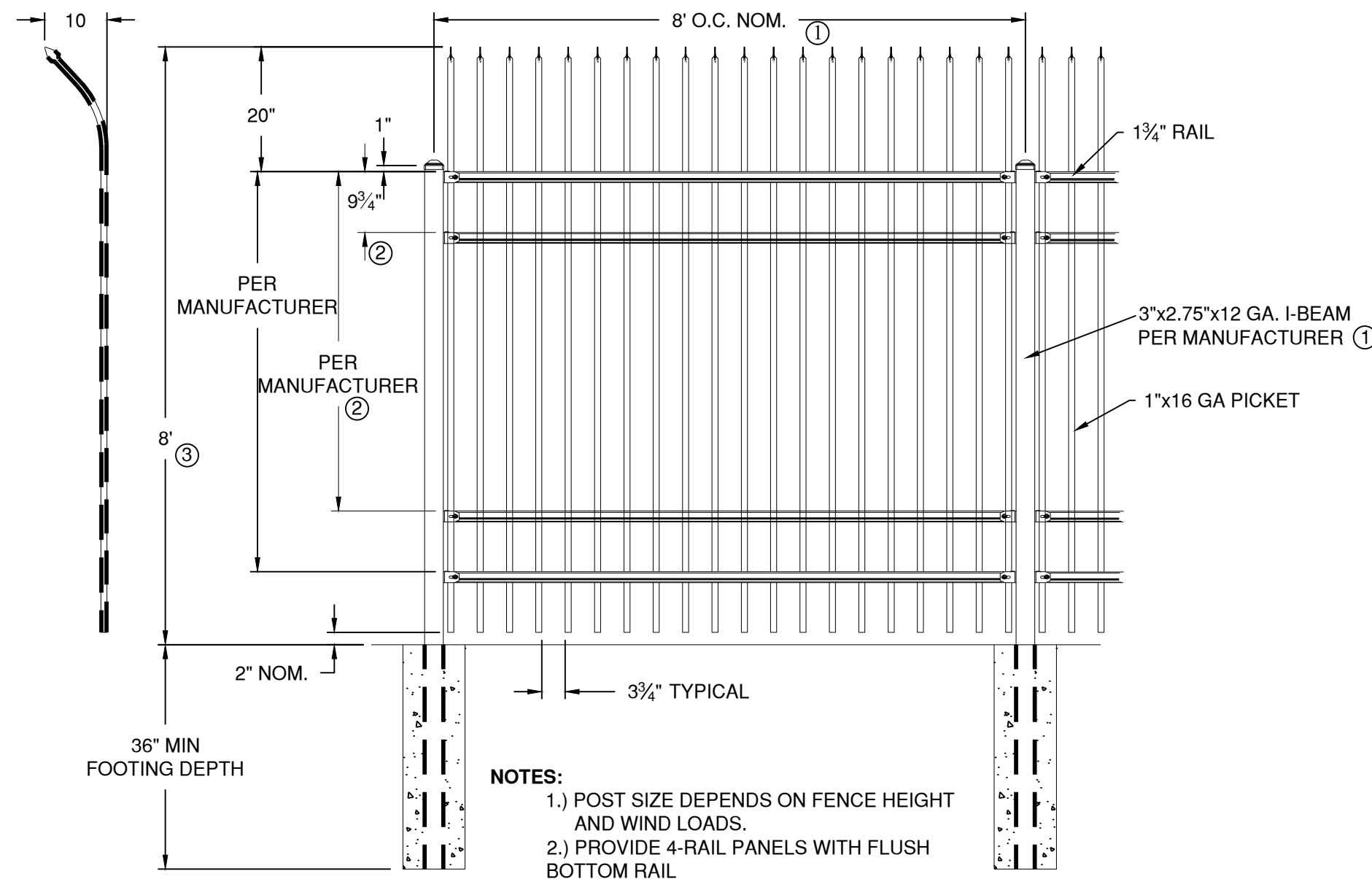
A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
CHAIN LINK FENCE DETAILS

DATE: 12/23/20
SCALE: AS SHOWN
DESIGN: CJM
DRAWN: CJM
CHECK: AAS

SHEET
C-114
OF

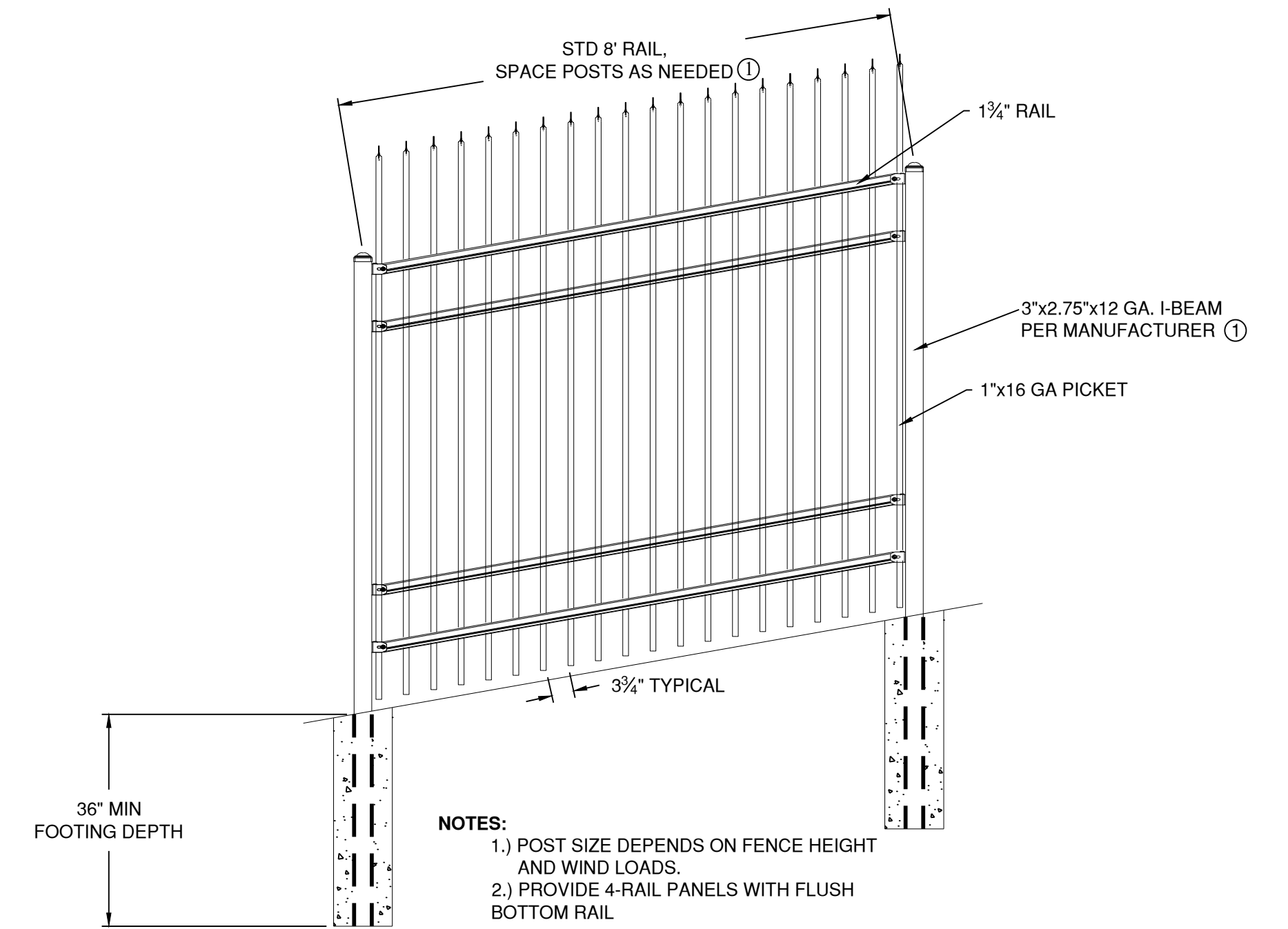


TANK SITE ROLL GATE 1
 NTS C-009



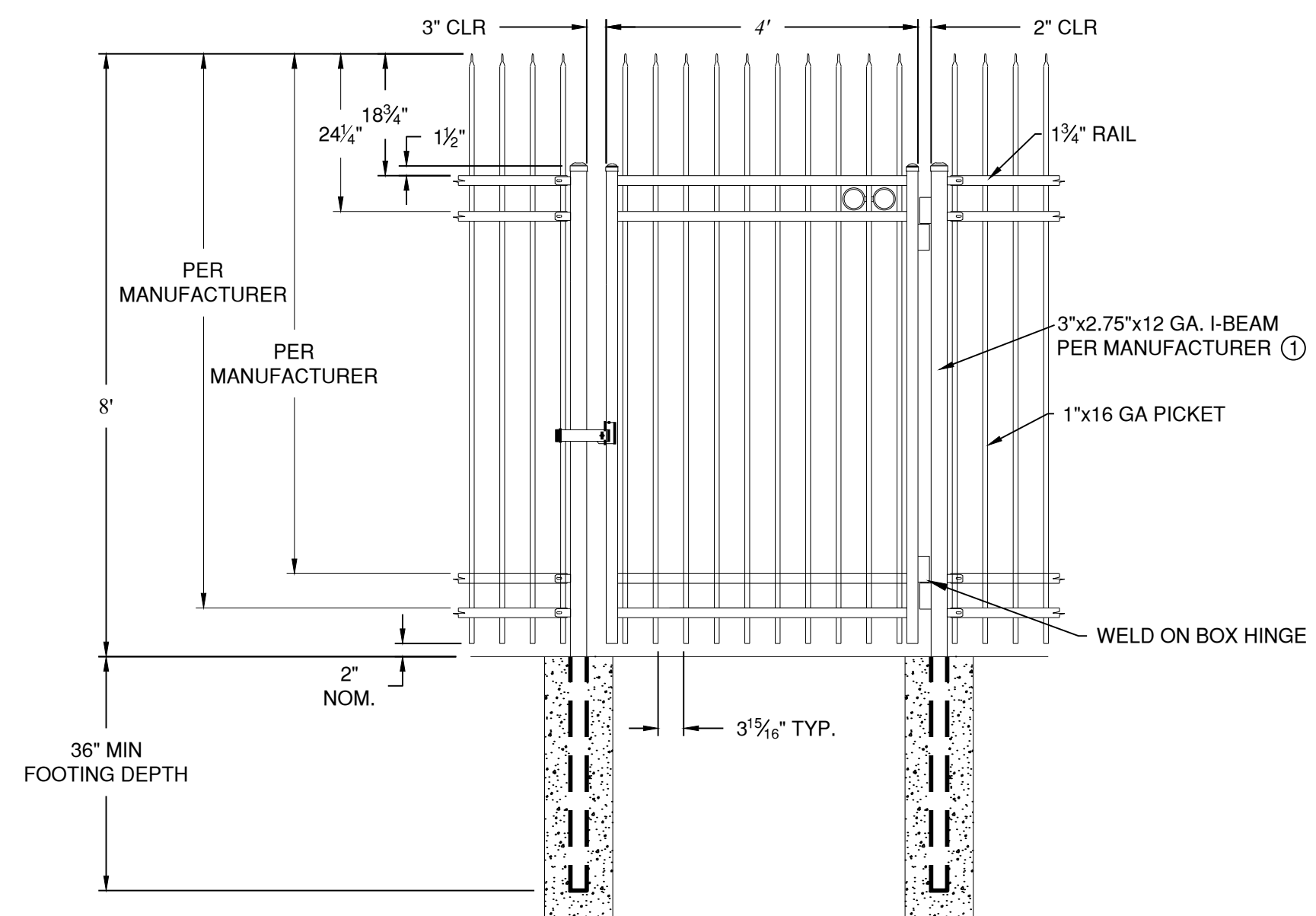
- NOTES:
 1.) POST SIZE DEPENDS ON FENCE HEIGHT AND WIND LOADS.
 2.) PROVIDE 4-RAIL PANELS WITH FLUSH BOTTOM RAIL

TANK SITE FENCE 2
 NTS C-009



- NOTES:
 1.) POST SIZE DEPENDS ON FENCE HEIGHT AND WIND LOADS.
 2.) PROVIDE 4-RAIL PANELS WITH FLUSH BOTTOM RAIL

RACKED FENCE PANEL 3
 NTS C-009



- NOTES:
 1.) POST SIZE DEPENDS ON FENCE HEIGHT, WEIGHT AND WIND LOADS.
 SEE MONTAGE COMMERCIAL SPECIFICATIONS FOR POST SIZING CHART.

PEDESTRIAN SWING GATE 4
 NTS C-009

C:\Users\jwheeler\OneDrive\Desktop\A1A2\A1A2\A1A2.dwg 12/23/20 11:03:24 AM

NO.	REVISION DESCRIPTION	DATE	APPR



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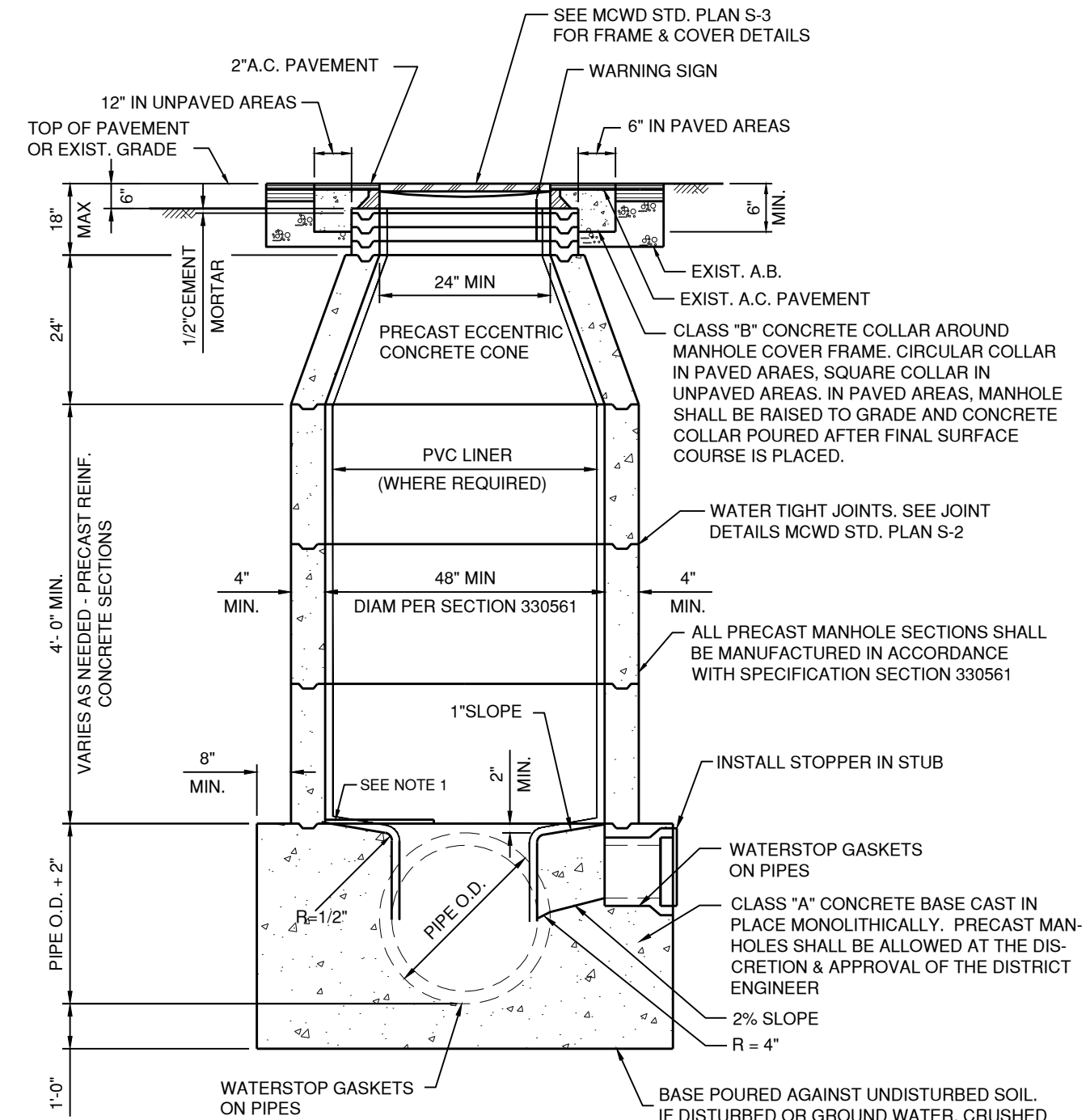


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

FENCE DETAILS

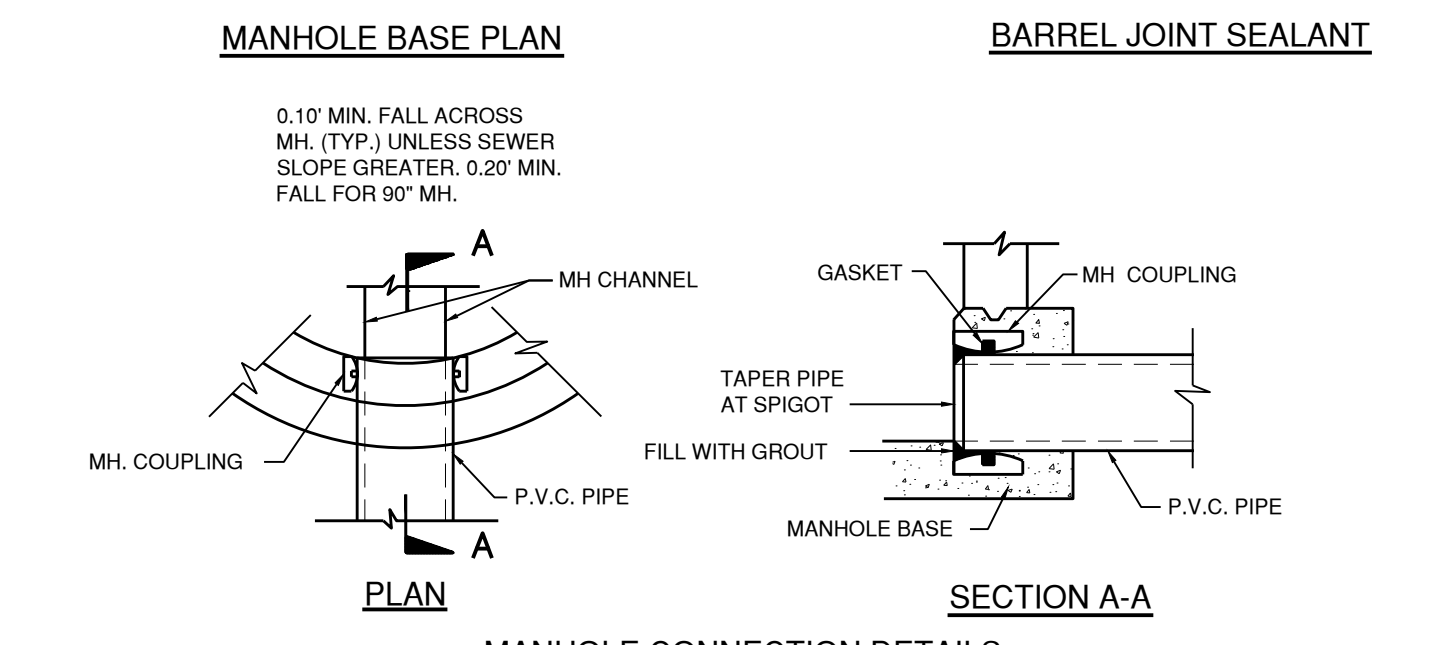
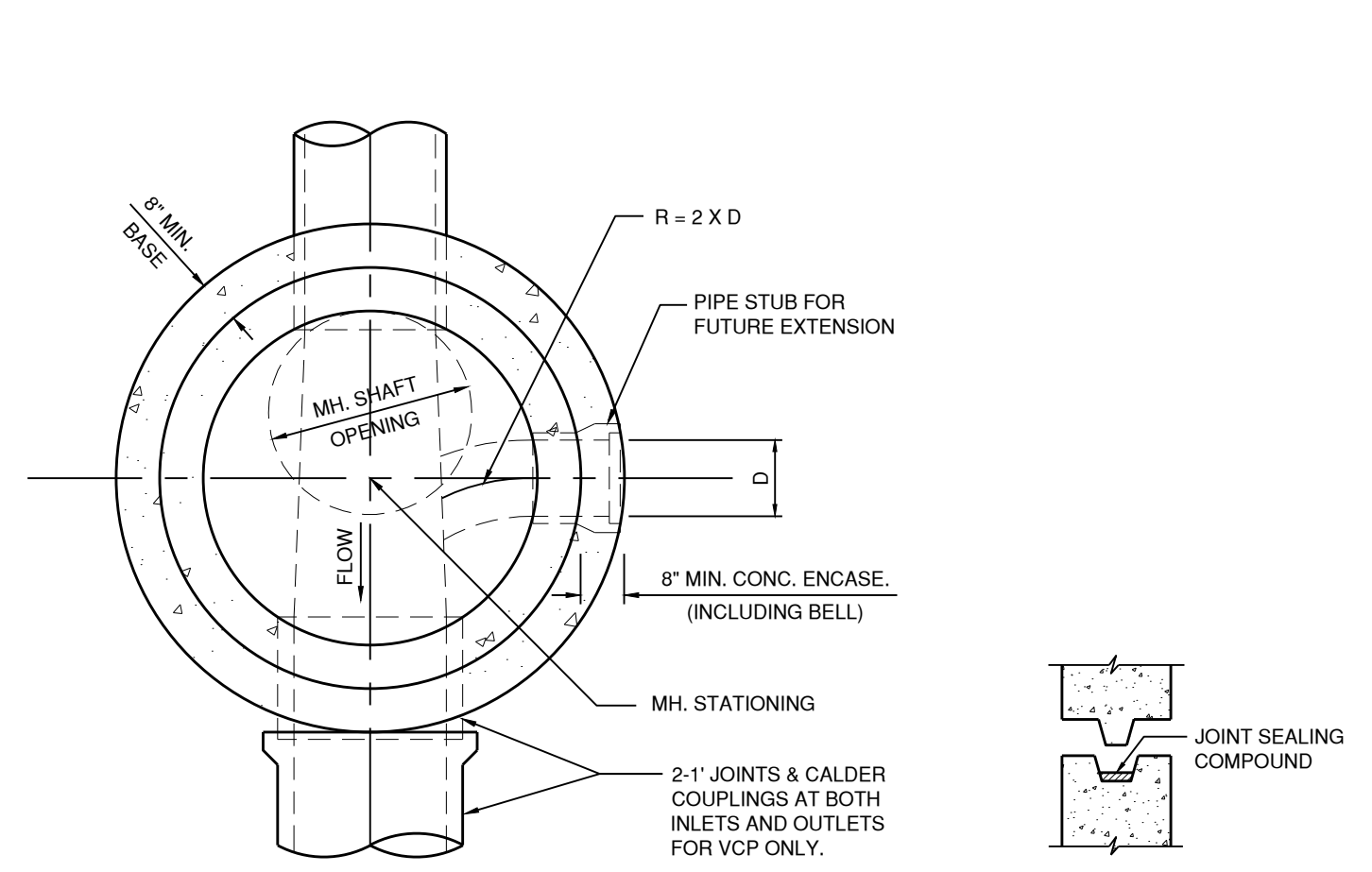
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 CHECK: AAS

SHEET
C-115
 OF



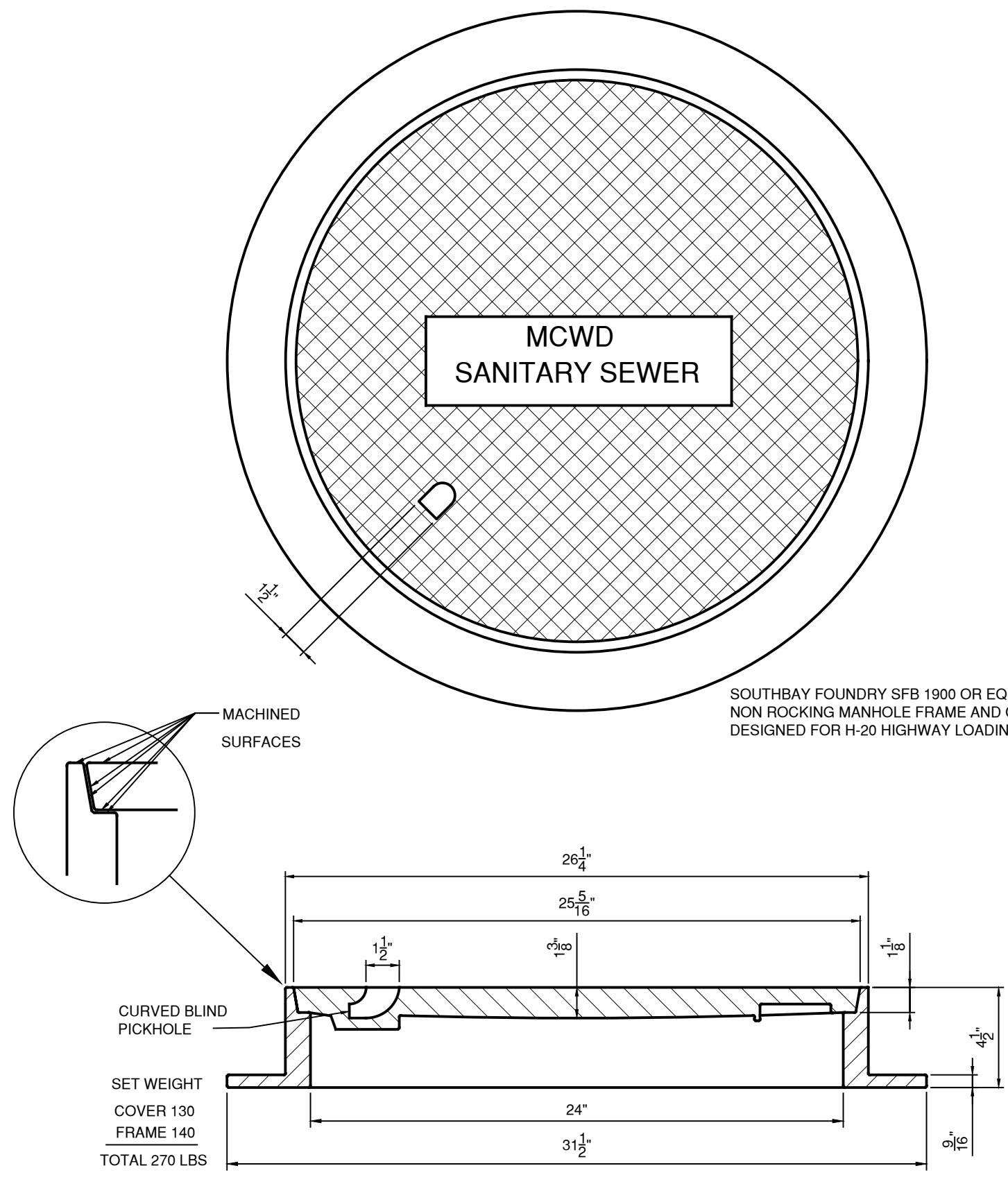
NOTES:

1. PLACE TWO HALF MOON SHAPED PLYWOOD COVERS (5/8\"/>



NOTES:

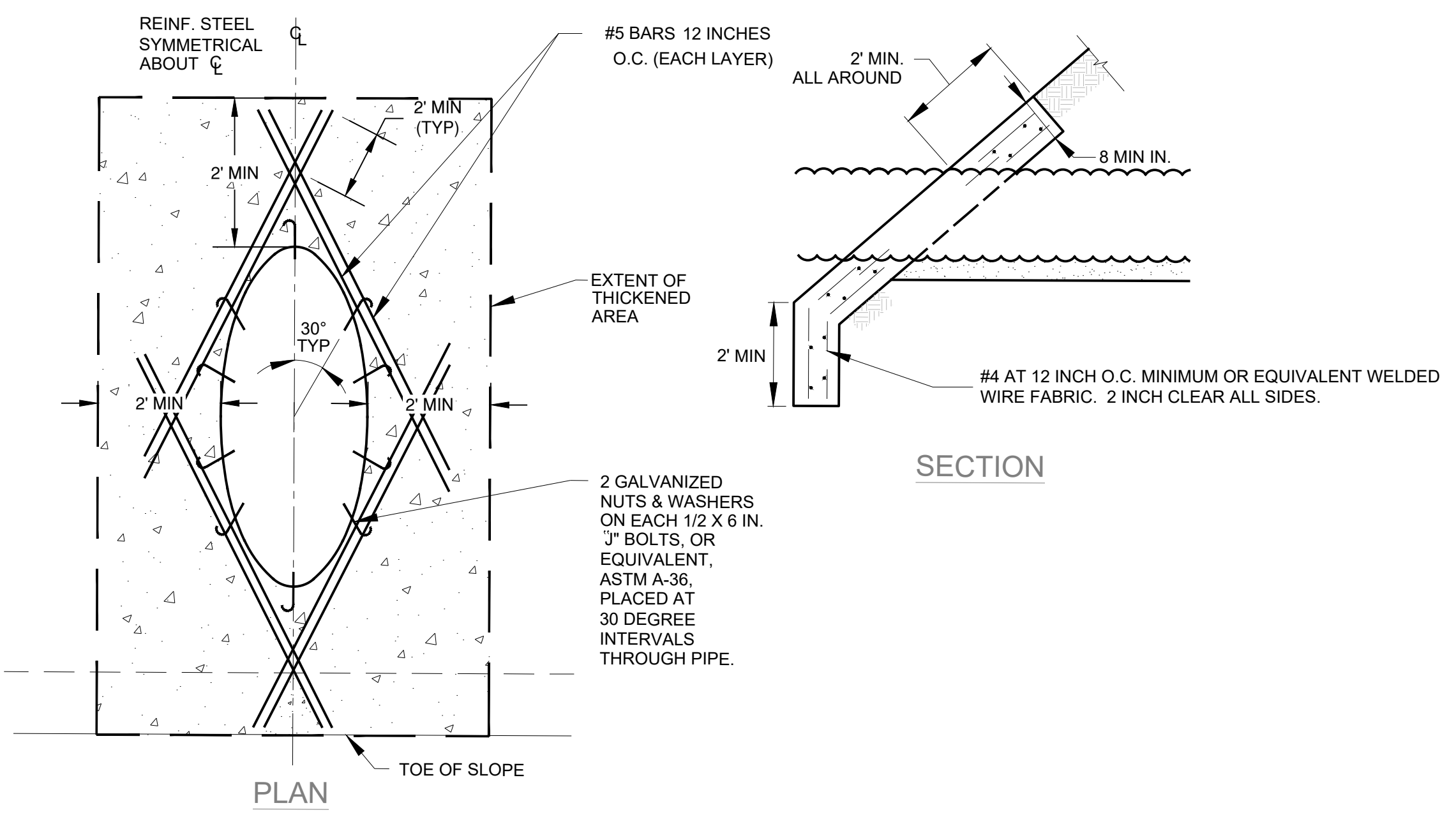
1. BARREL JOINT SEALANT - PREFORMED COLD-APPLIED ELASTOMERIC PLASTIC JOINT SEALING COMPOUND SHALL BE RAM-NEK OR APPROVED EQUAL.



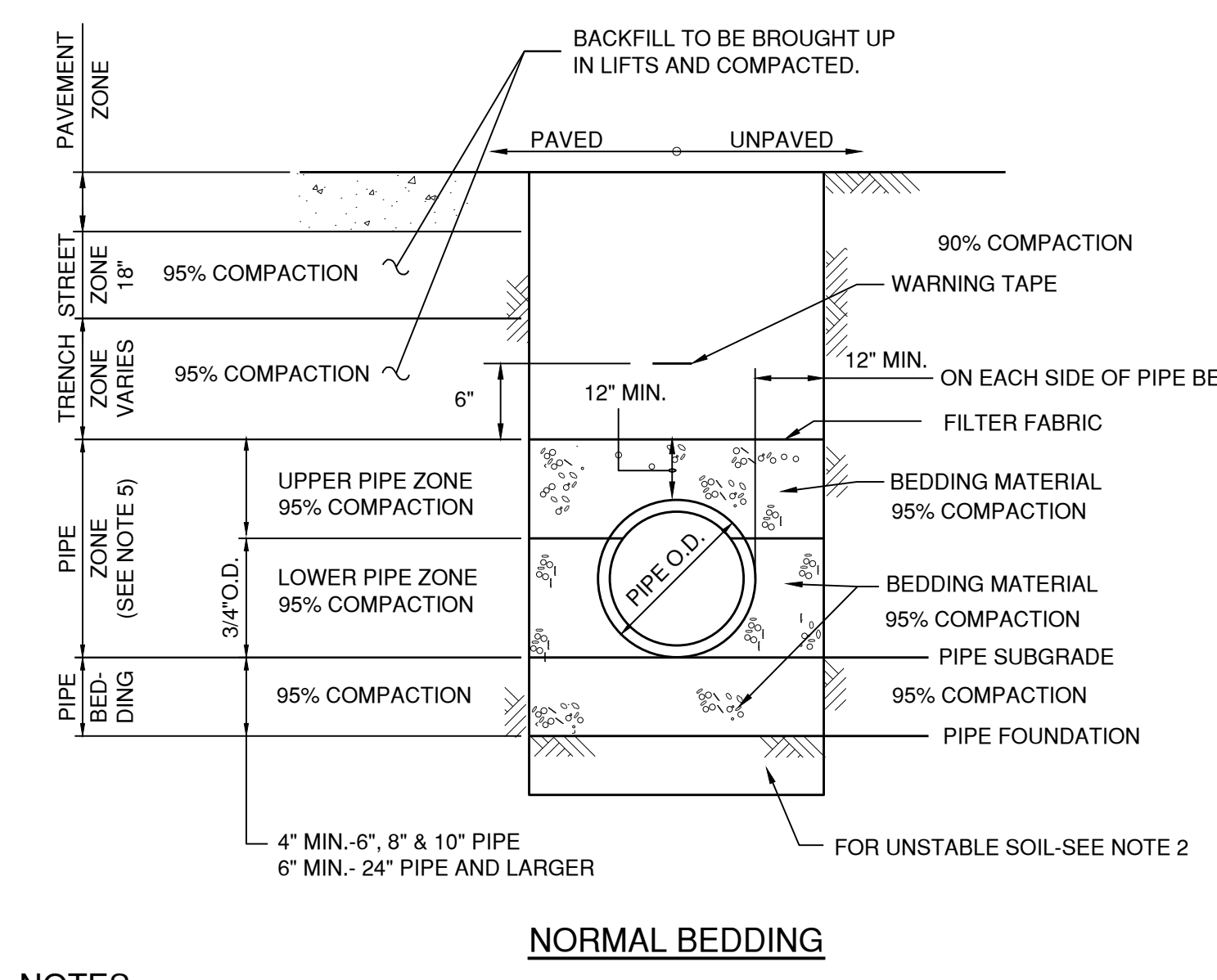
TYP SEWER MANHOLE 1
NTS

TYP MANHOLE BASE 2
NTS

TYP MANHOLE COVER 3
NTS



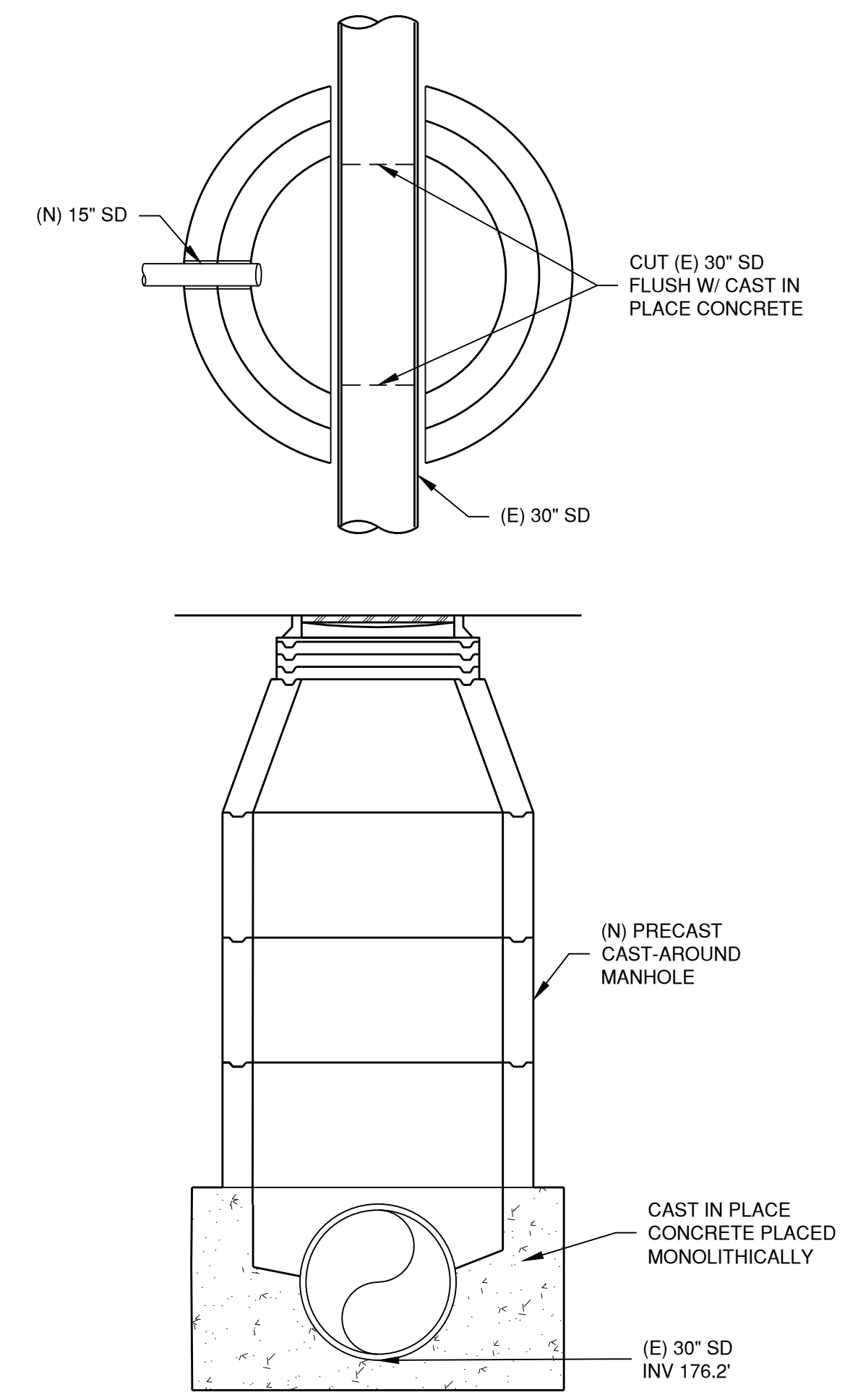
OUTFALL HEADWALL 4
NTS



NOTES:

1. CONCRETE ENCASEMENT PER MCWD STD. PLAN S-8 SHALL BE USED WHERE THE TRENCH WIDTH AT THE UPPER LIMIT OF THE PIPE ZONE EXCEEDS THE MAX. WIDTH SPECIFIED ABOVE.
2. IF UNSTABLE SOIL IS ENCOUNTERED, DISTRICT REPRESENTATIVE SHALL DETERMINE DEPTH OF REMOVAL AND SIZE OF FOUNDATION ROCK REFILL MATERIAL.
3. OVERWIDTH BEDDING SHALL BE USED WHERE THE TRENCH WIDTH AT THE UPPER LIMITS OF THE PIPE ZONE EXCEEDS THE MAXIMUM SPECIFIED ABOVE. MAXIMUM OVERWIDTH BEDDING TO BE DETERMINED IN THE FIELD BY THE DISTRICT REPRESENTATIVE ON THE BASIS OF OVERWIDTH EXCAVATED.
4. NO NATIVE BACKFILL SHALL BE ALLOWED IN THE PIPE ZONE.
5. PIPE INSTALLED MORE THAN 20' BELOW GRADE SHALL BE ENGINEERED AND SUBMITTED TO THE DISTRICT ENGINEER FOR APPROVAL.
6. THESE ARE MINIMUM REQUIREMENTS. IF OTHER JURISDICTIONAL REQUIREMENTS DIFFER FROM THOSE CONTAINED HEREIN, THE MOST STRINGENT REQUIREMENTS SHALL DICTATE.

TYPICAL GRAVITY PIPE TRENCH 5
NTS



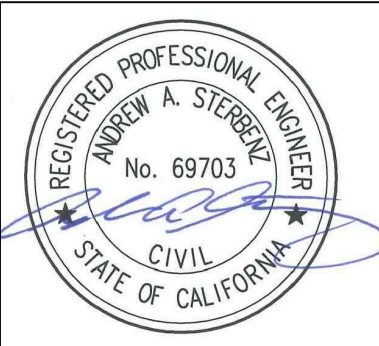
CAST AROUND MANHOLE 6
NTS
C-106

DATE PLOTTED: 12/23/2010 10:52 AM



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A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

SEWER DETAILS

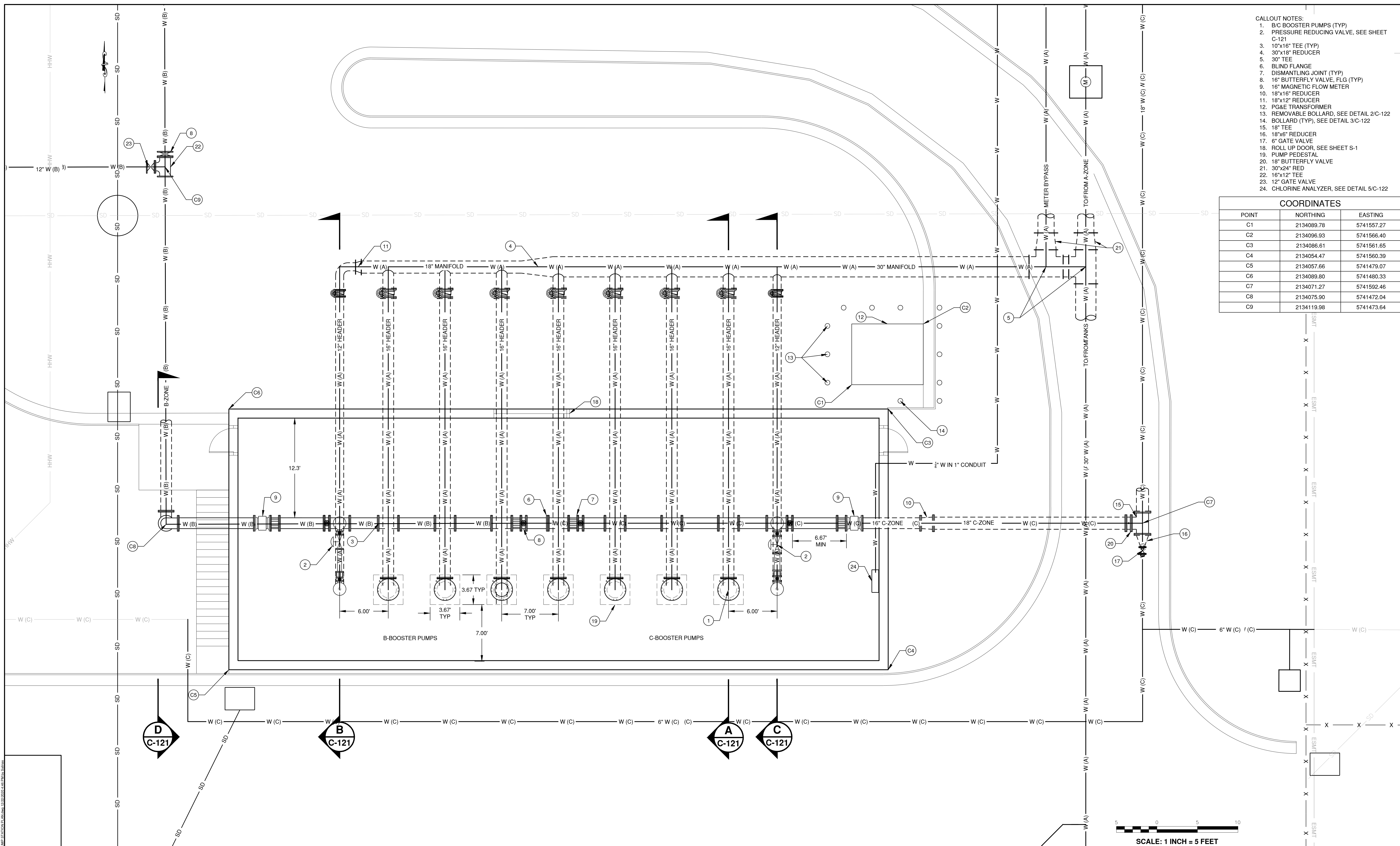
DATE: 12/23/20
SCALE: NTS
DESIGN: CJM
DRAWN: CJM
CHECK: AAS

SHEET
C-118
OF

NO.	REVISION DESCRIPTION	DATE	APPR

- CALLOUT NOTES:
- B/C BOOSTER PUMPS (TYP)
 - PRESSURE REDUCING VALVE, SEE SHEET C-121
 - 10"x16" TEE (TYP)
 - 30"x18" REDUCER
 - 30" TEE
 - BLIND FLANGE
 - DISMANTLING JOINT (TYP)
 - 16" BUTTERFLY VALVE, FLG (TYP)
 - 16" MAGNETIC FLOW METER
 - 18"x16" REDUCER
 - 18"x12" REDUCER
 - PG&E TRANSFORMER
 - REMOVABLE BOLLARD, SEE DETAIL 2/C-122
 - 18" TEE
 - 18"x6" REDUCER
 - 6" GATE VALVE
 - ROLL UP DOOR, SEE SHEET S-1
 - PUMP PEDESTAL
 - 18" BUTTERFLY VALVE
 - 30"x24" RED
 - 16"x12" TEE
 - 12" GATE VALVE
 - CHLORINE ANALYZER, SEE DETAIL 5/C-122

COORDINATES		
POINT	NORTHING	EASTING
C1	2134089.78	5741557.27
C2	2134096.93	5741566.40
C3	2134086.61	5741561.65
C4	2134054.47	5741560.39
C5	2134057.66	5741479.07
C6	2134089.80	5741480.33
C7	2134071.27	5741592.46
C8	2134075.90	5741472.04
C9	2134119.98	5741473.64

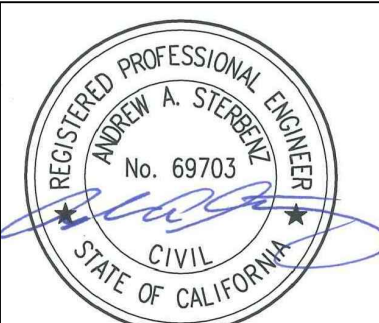


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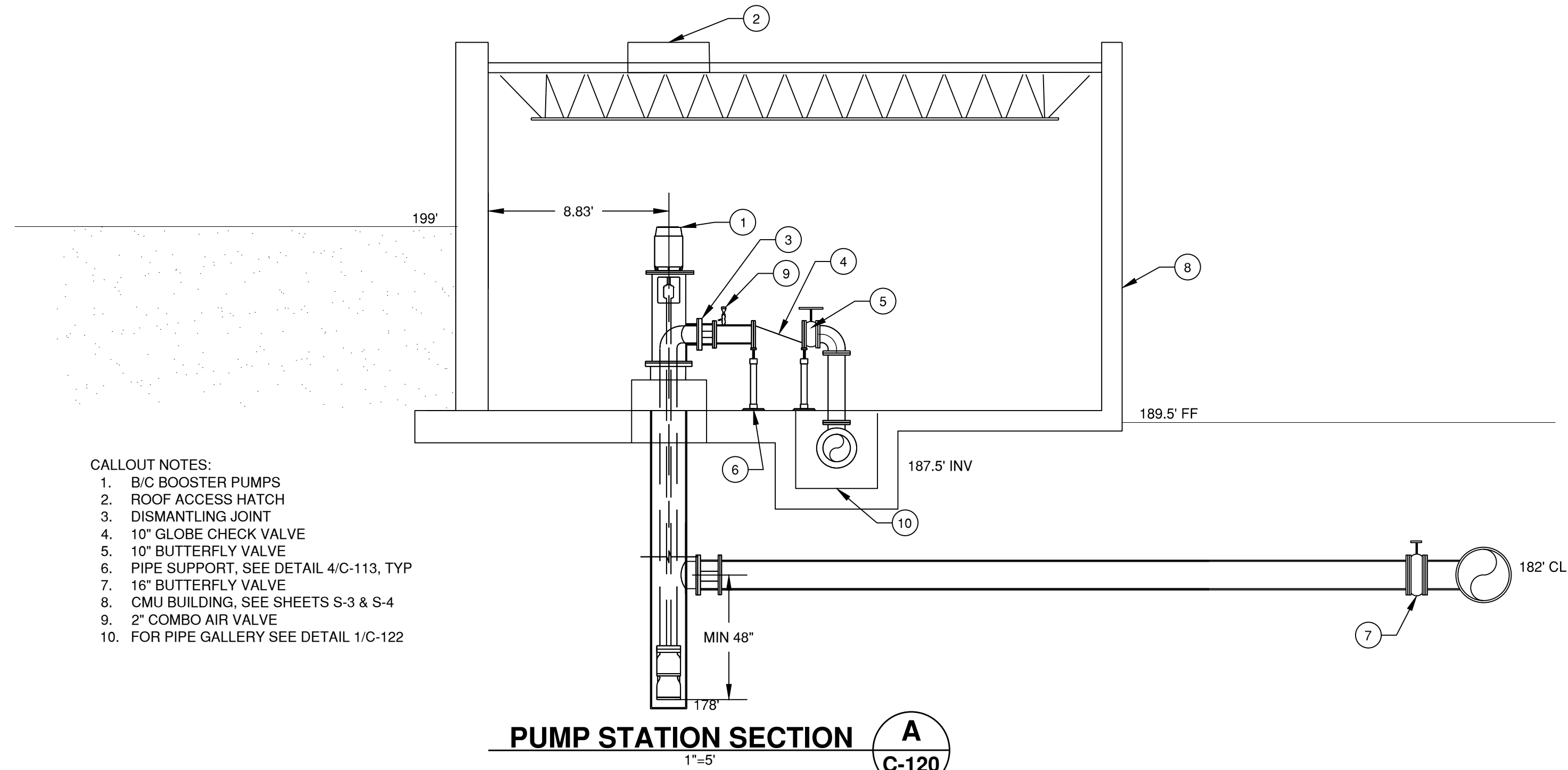


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

PUMP STATION PLAN

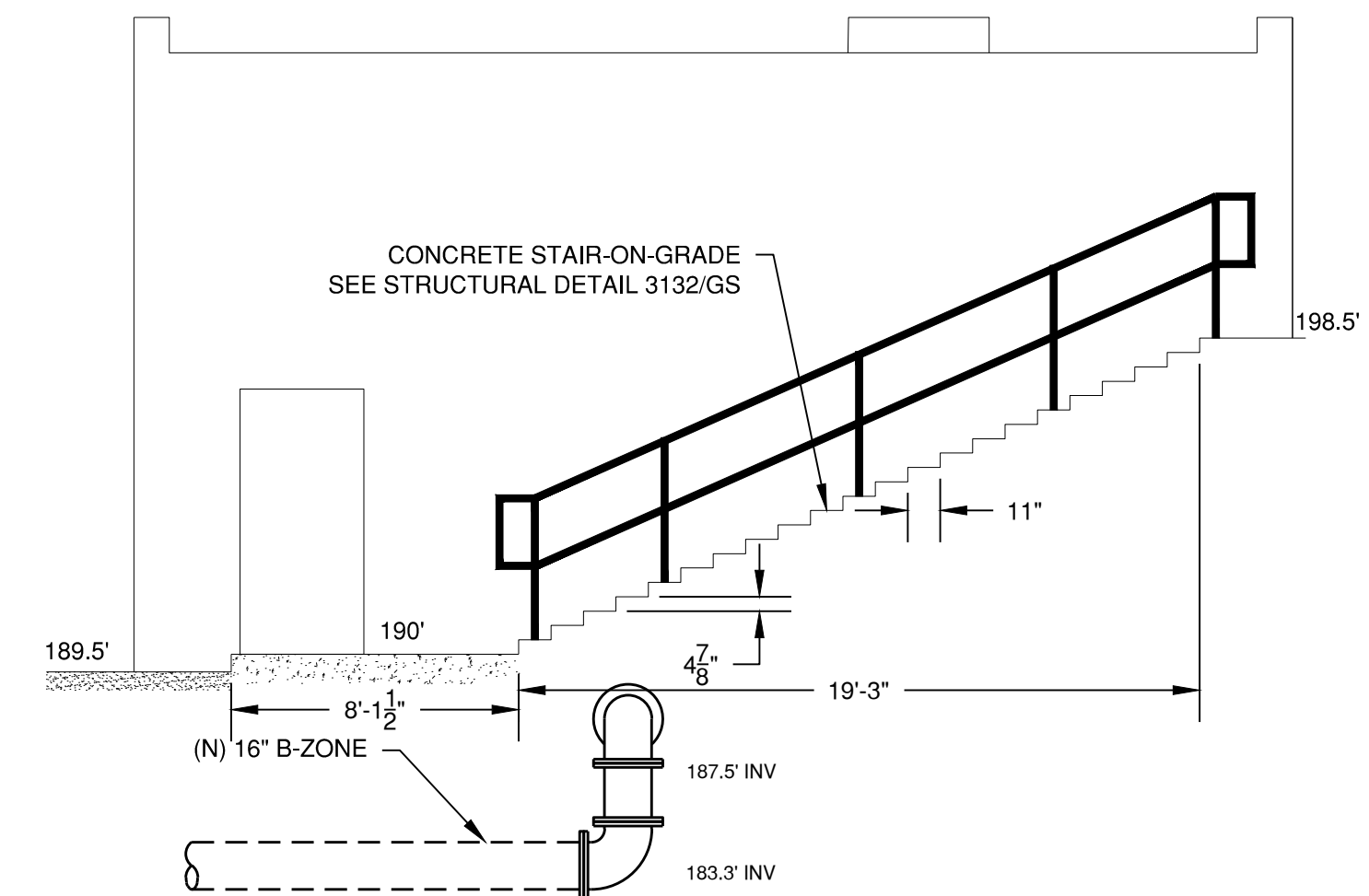
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SHEET
C-120
OF

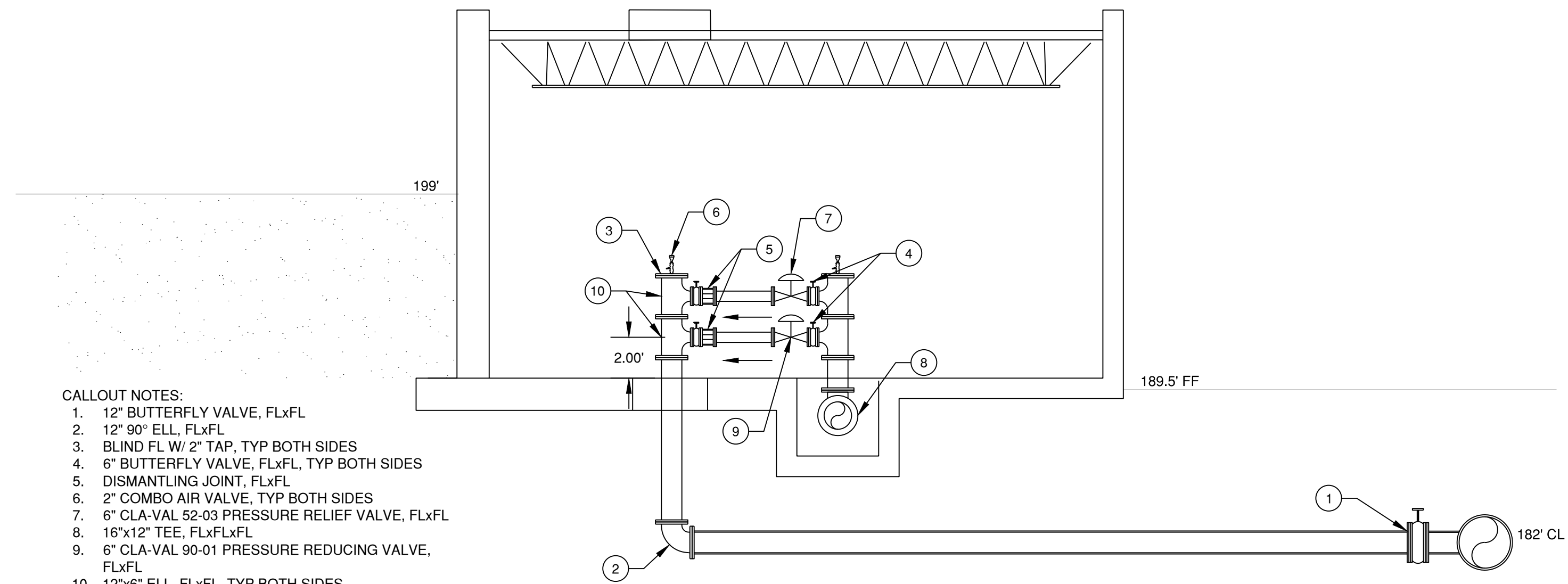


- CALLOUT NOTES:
1. B/C BOOSTER PUMPS
 2. ROOF ACCESS HATCH
 3. DISMANTLING JOINT
 4. 10" GLOBE CHECK VALVE
 5. 10" BUTTERFLY VALVE
 6. PIPE SUPPORT, SEE DETAIL 4/C-113, TYP
 7. 16" BUTTERFLY VALVE
 8. CMU BUILDING, SEE SHEETS S-3 & S-4
 9. 2" COMBO AIR VALVE
 10. FOR PIPE GALLERY SEE DETAIL 1/C-122

PUMP STATION SECTION A
1"=5' C-120

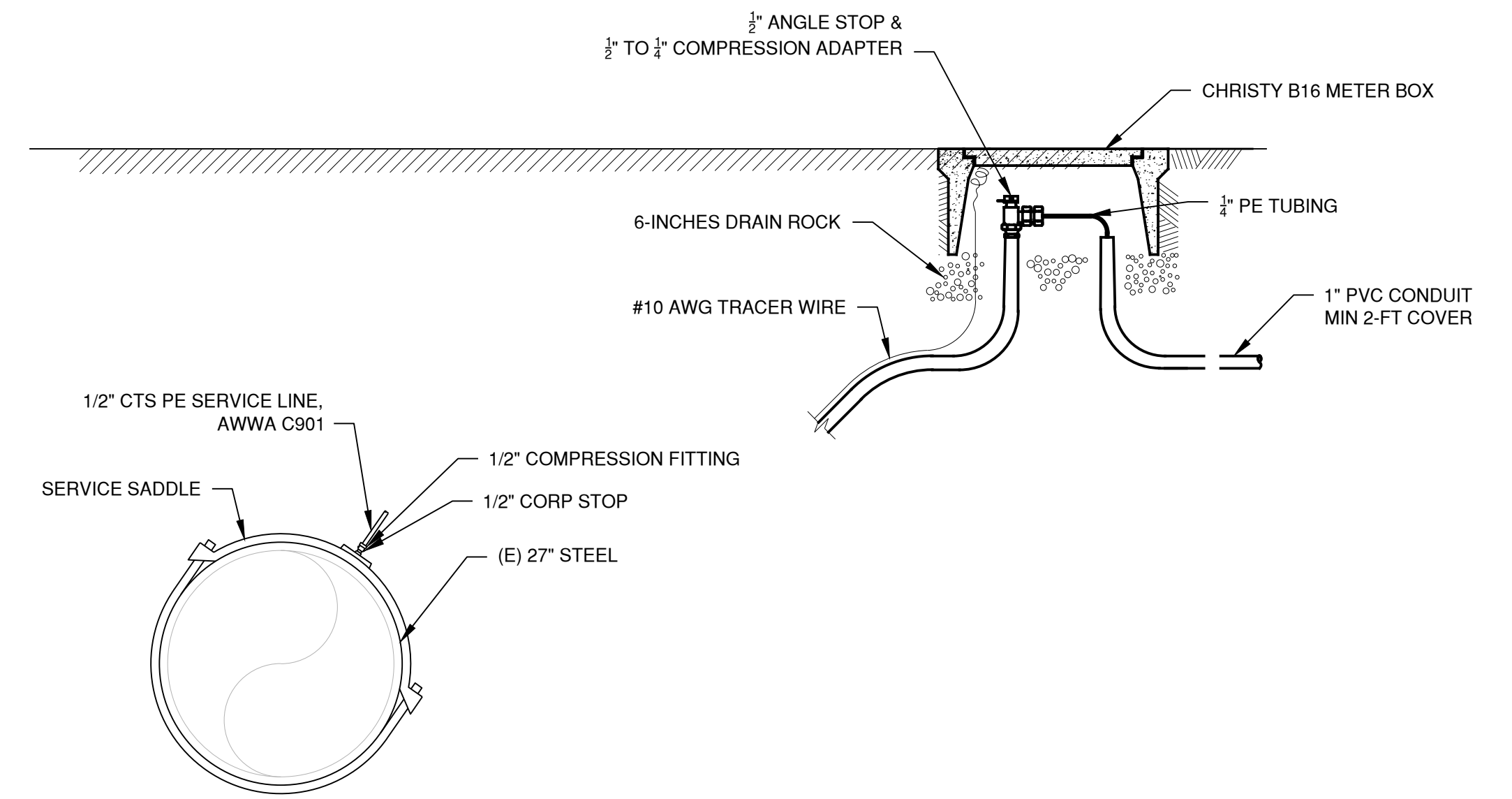


STAIRS SECTION D
1"=5' C-120

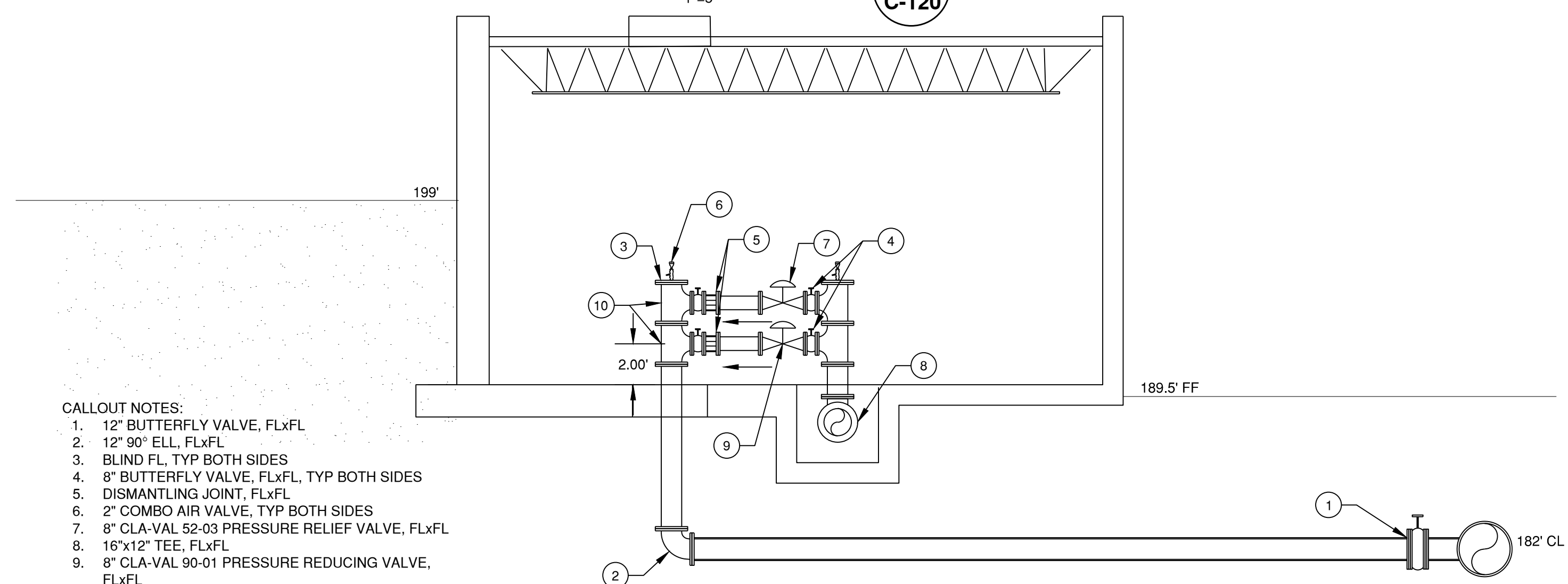


- CALLOUT NOTES:
1. 12" BUTTERFLY VALVE, FLxFL
 2. 12" 90° ELL, FLxFL
 3. BLIND FL W/ 2" TAP, TYP BOTH SIDES
 4. 8" BUTTERFLY VALVE, FLxFL, TYP BOTH SIDES
 5. DISMANTLING JOINT, FLxFL
 6. 2" COMBO AIR VALVE, TYP BOTH SIDES
 7. 6" CLA-VAL 52-03 PRESSURE RELIEF VALVE, FLxFL
 8. 16"x12" TEE, FLxFL
 9. 6" CLA-VAL 90-01 PRESSURE REDUCING VALVE, FLxFL
 10. 12"x6" ELL, FLxFL, TYP BOTH SIDES

PUMP STATION SECTION B
1"=5' C-120

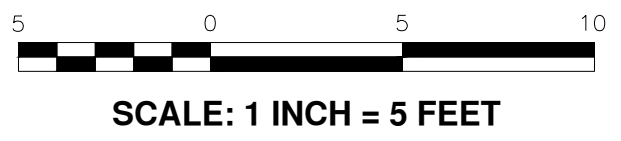


1/2" SERVICE TAP
NTS C-104



- CALLOUT NOTES:
1. 12" BUTTERFLY VALVE, FLxFL
 2. 12" 90° ELL, FLxFL
 3. BLIND FL, TYP BOTH SIDES
 4. 8" BUTTERFLY VALVE, FLxFL, TYP BOTH SIDES
 5. DISMANTLING JOINT, FLxFL
 6. 2" COMBO AIR VALVE, TYP BOTH SIDES
 7. 8" CLA-VAL 52-03 PRESSURE RELIEF VALVE, FLxFL
 8. 16"x12" TEE, FLxFL
 9. 8" CLA-VAL 90-01 PRESSURE REDUCING VALVE, FLxFL
 10. 12"x8" TEE, FLxFL, TYP BOTH SIDES

PUMP STATION SECTION C
1"=5' C-120



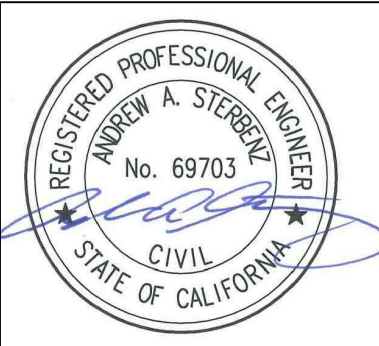
DATE: 12/23/2020 10:48:10 AM USER: ANDREW.A.STERBERG

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11 RESERVATION ROAD
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Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS
3 QUAIL RUN CIRCLE, STE. 101
SALINAS, CA 93907
(831) 883-4848

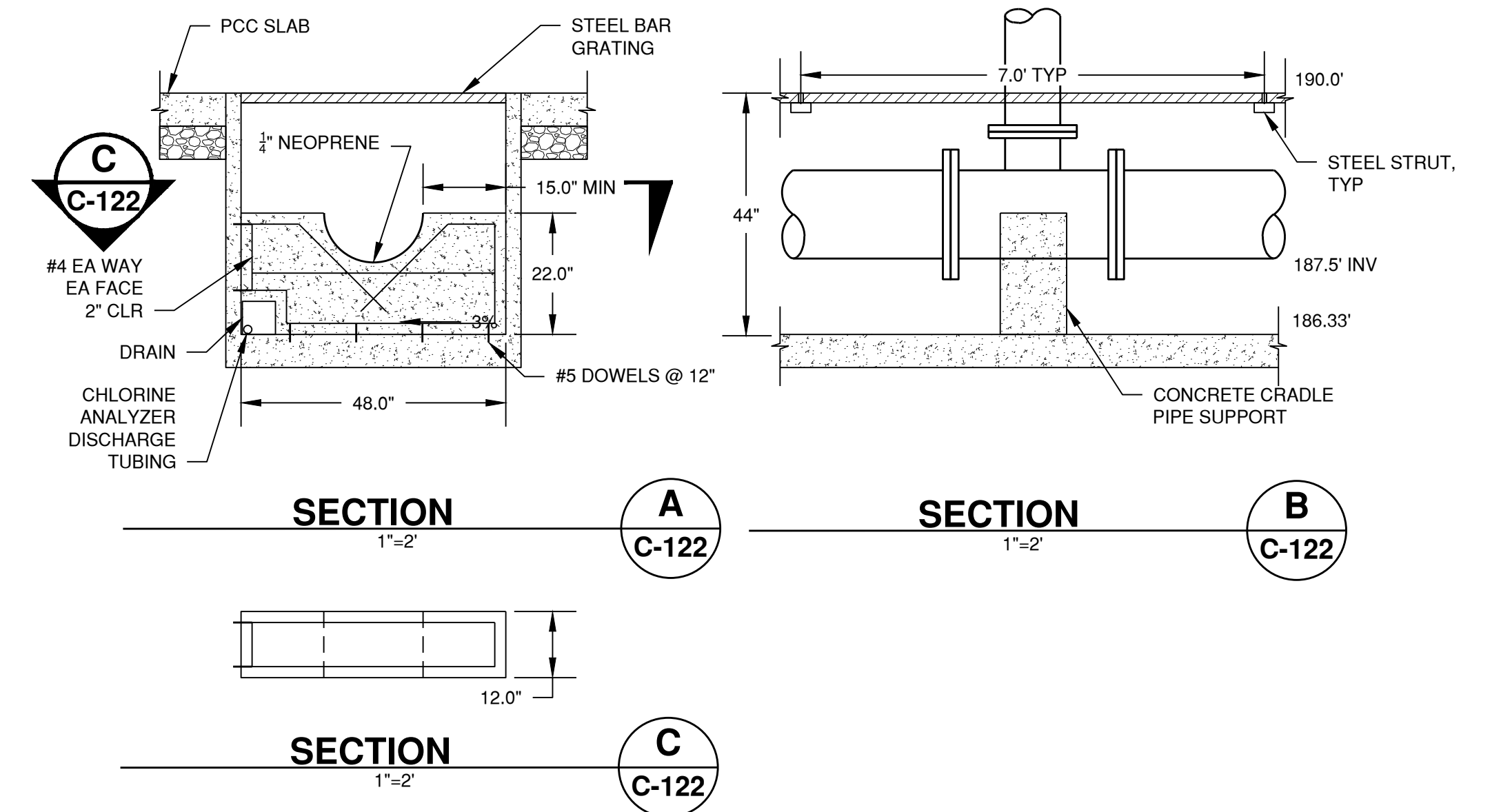
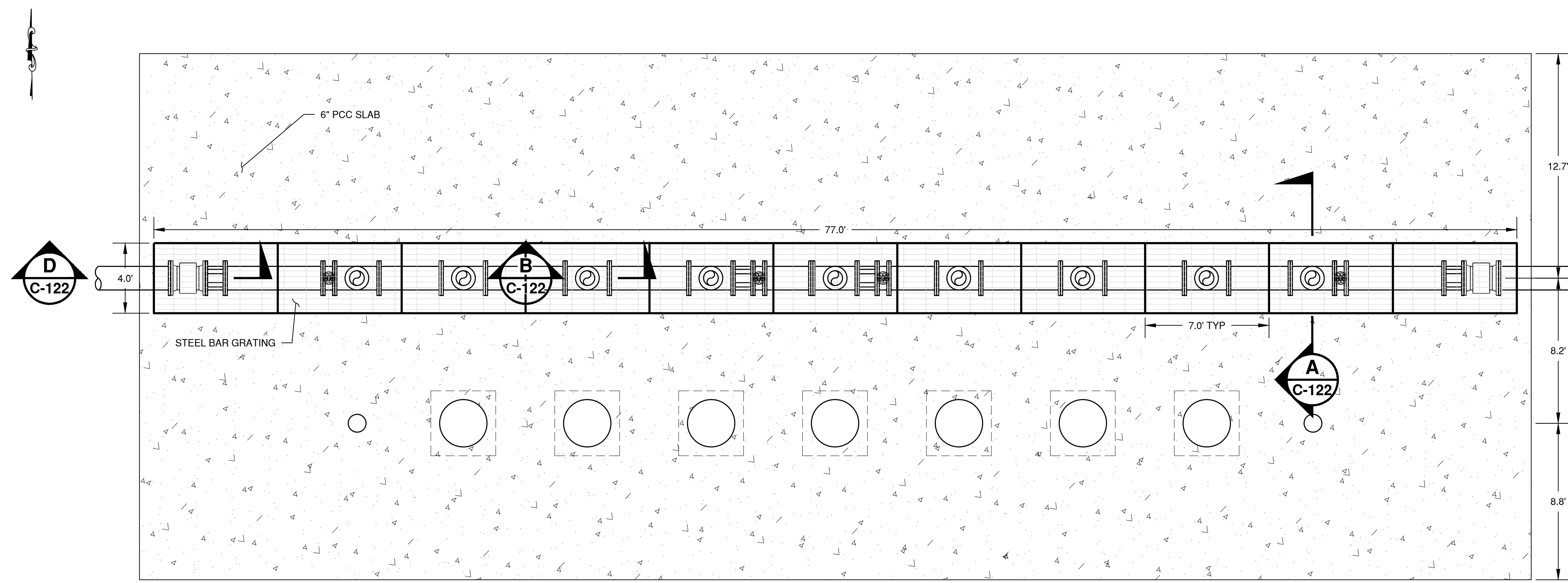


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

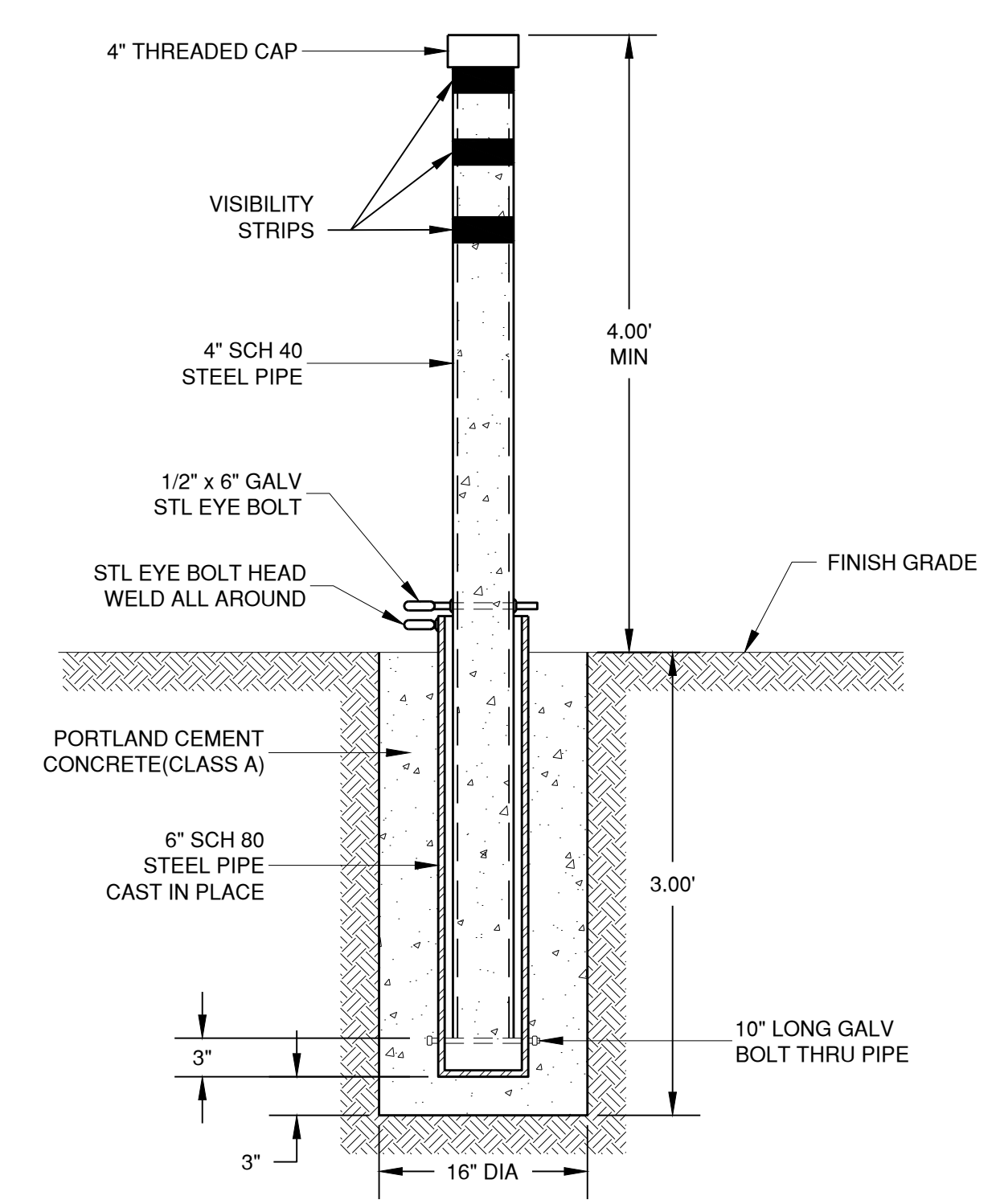
PUMP STATION SECTIONS

DATE:	12/23/20
SCALE:	AS SHOWN
DESIGN:	CJM
DRAWN:	CJM
CHECK:	AAS

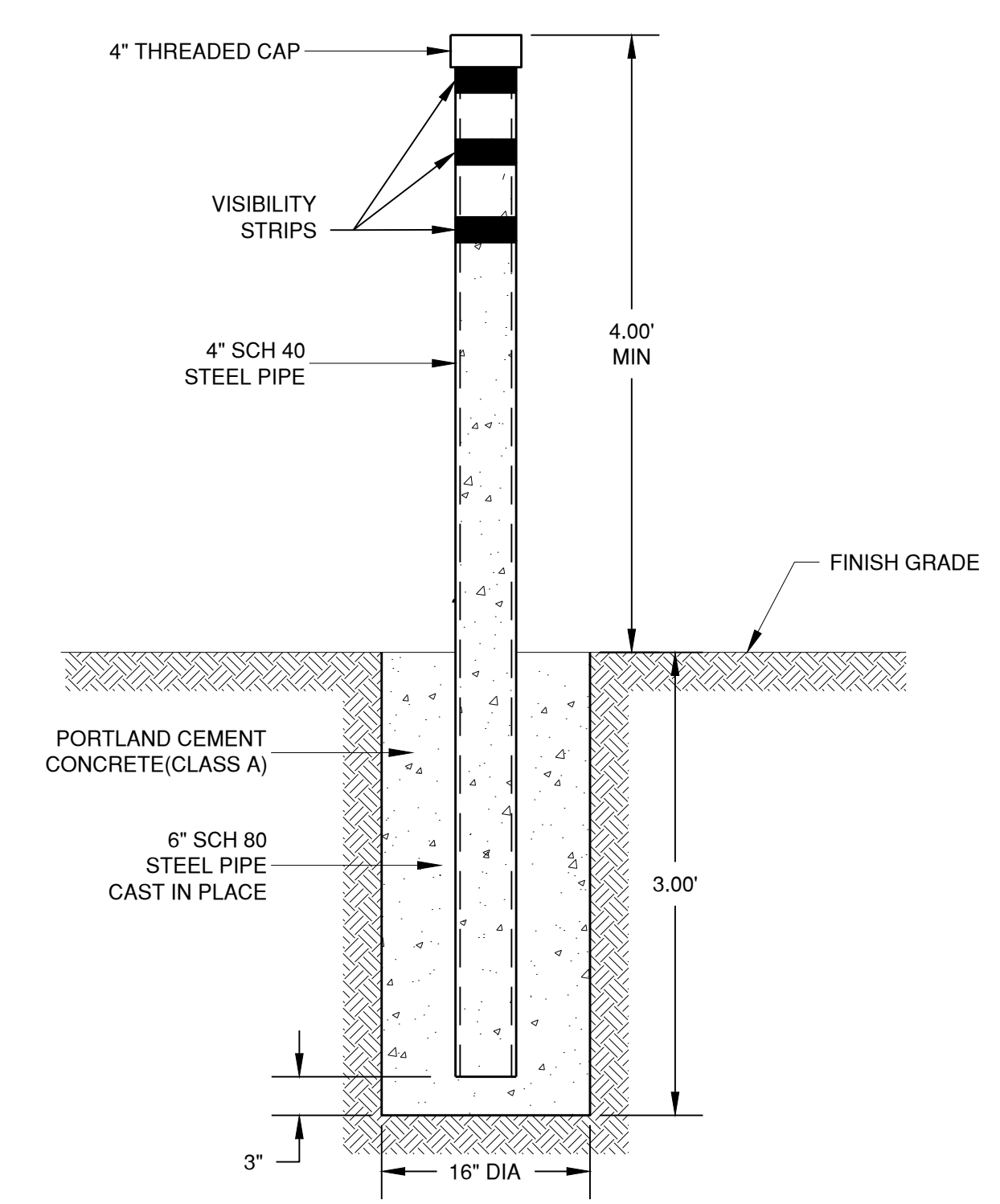
SHEET
C-121
OF



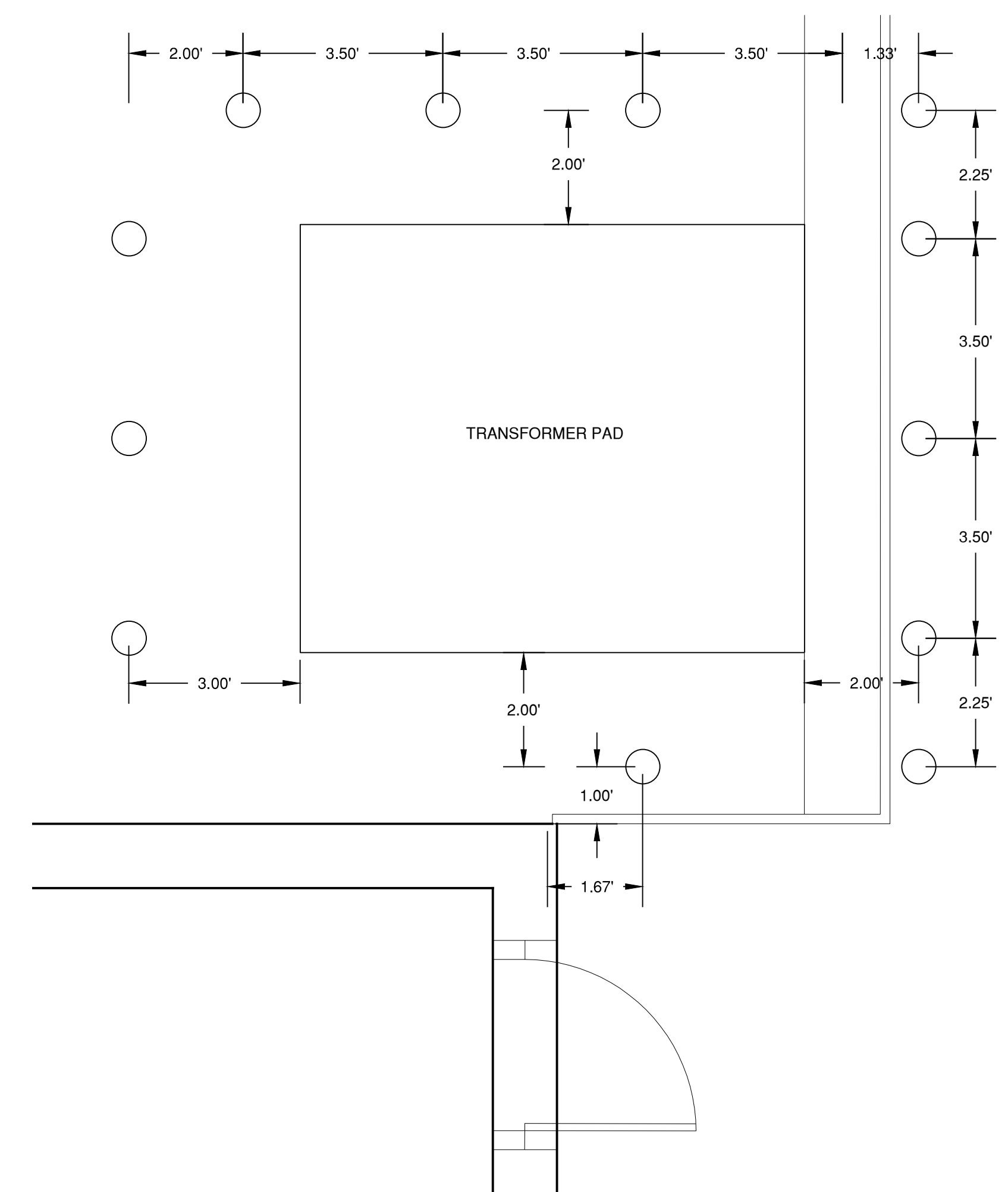
PIPE GALLERY
1"=4" **1** C-121



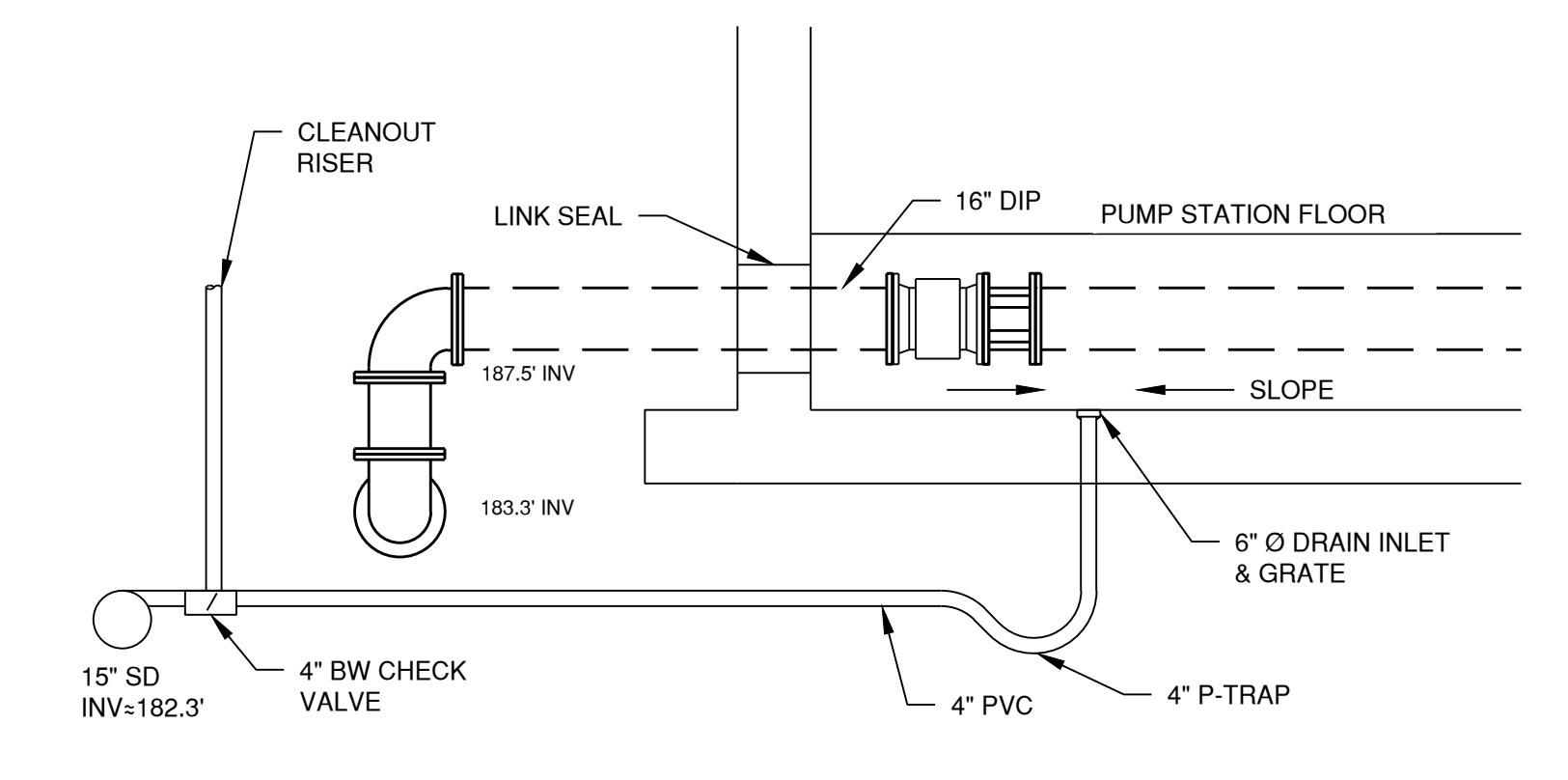
REMOVABLE BOLLARD
1"=1" **2** C-120



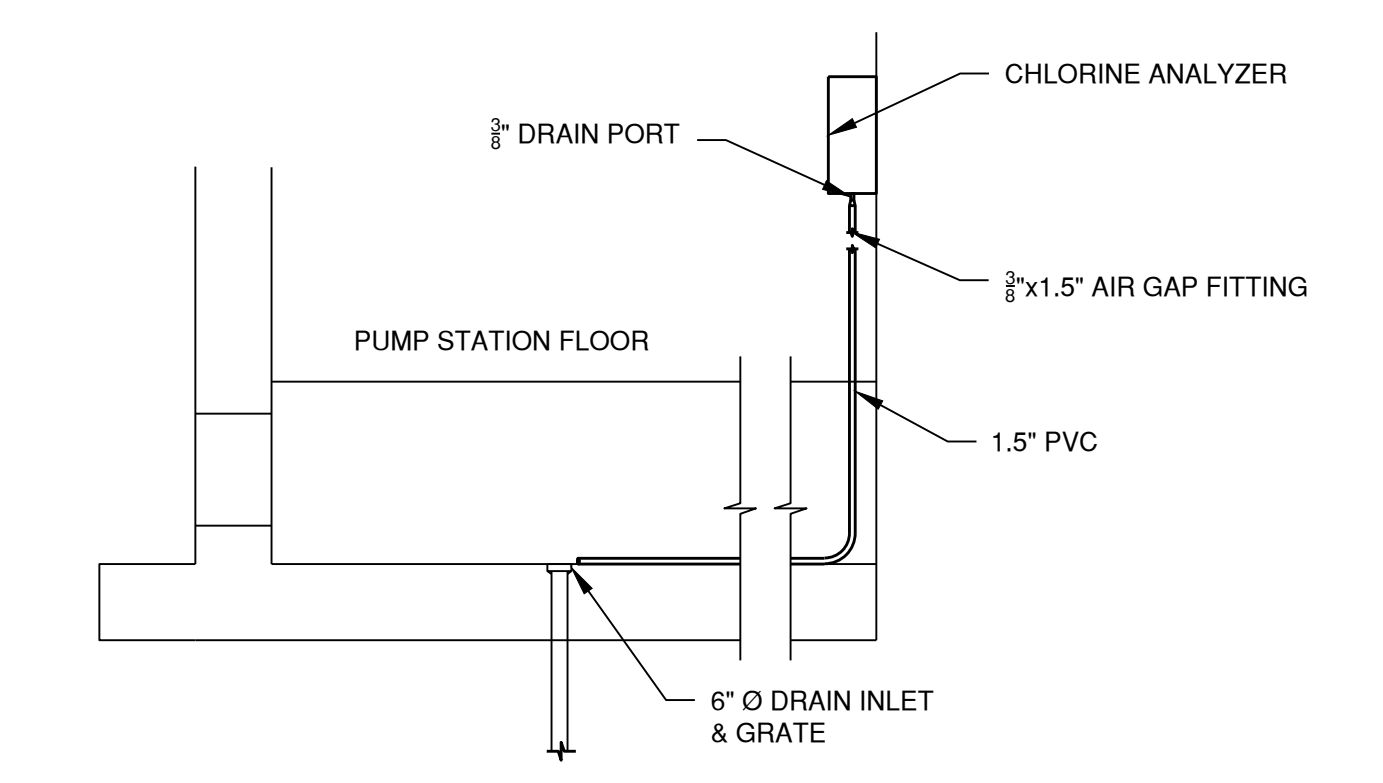
BOLLARD
1"=1" **3** C-120



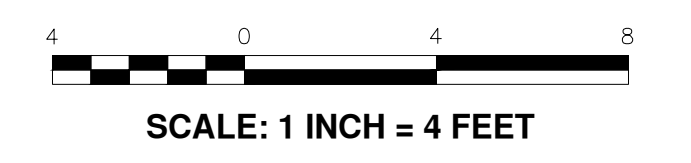
BOLLARD SPACING
1"=2" **4** C-120



PIPE GALLERY
1"=4" **D** C-122



CHLORINE ANALYZER DISCHARGE
NTS **5** C-120



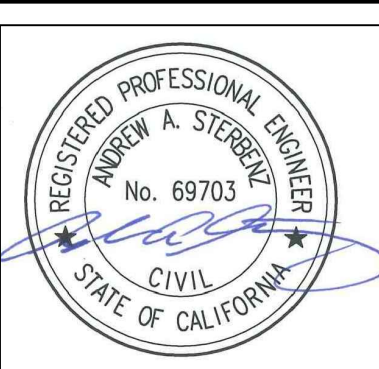
DATE PLOTTED: 12/23/2021 10:54:00 AM USERNAME: ANDREW.A.STERNO

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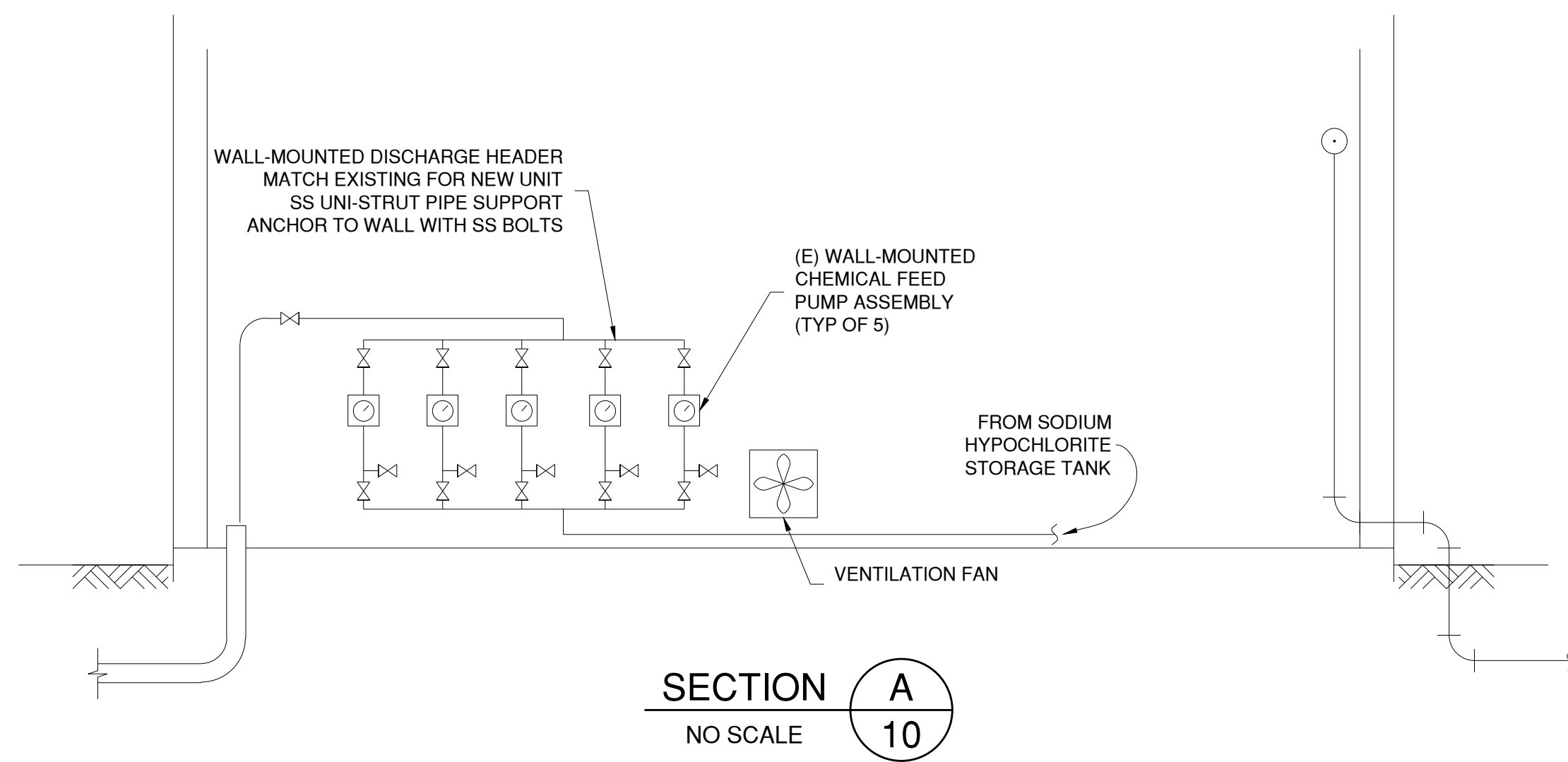
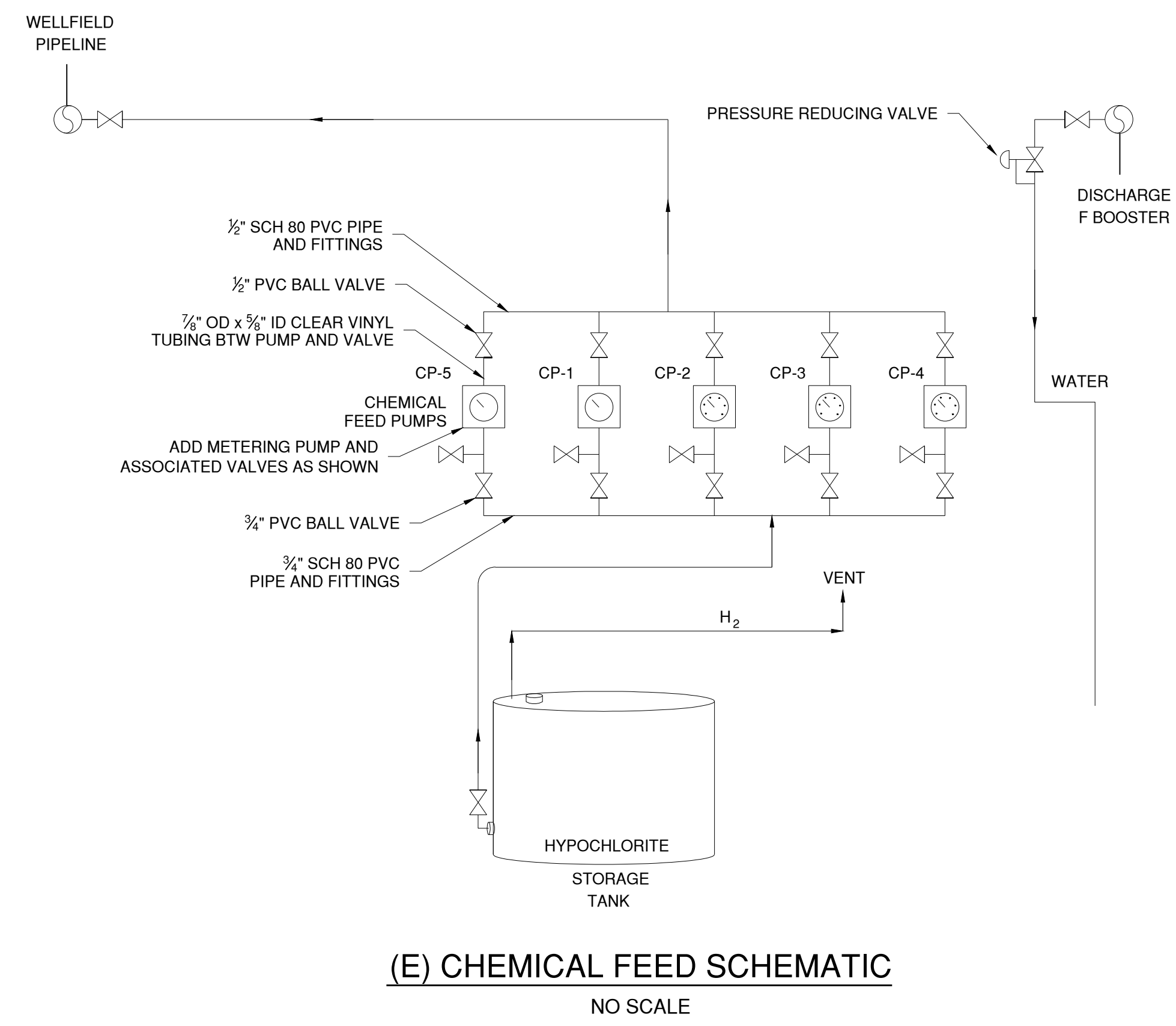
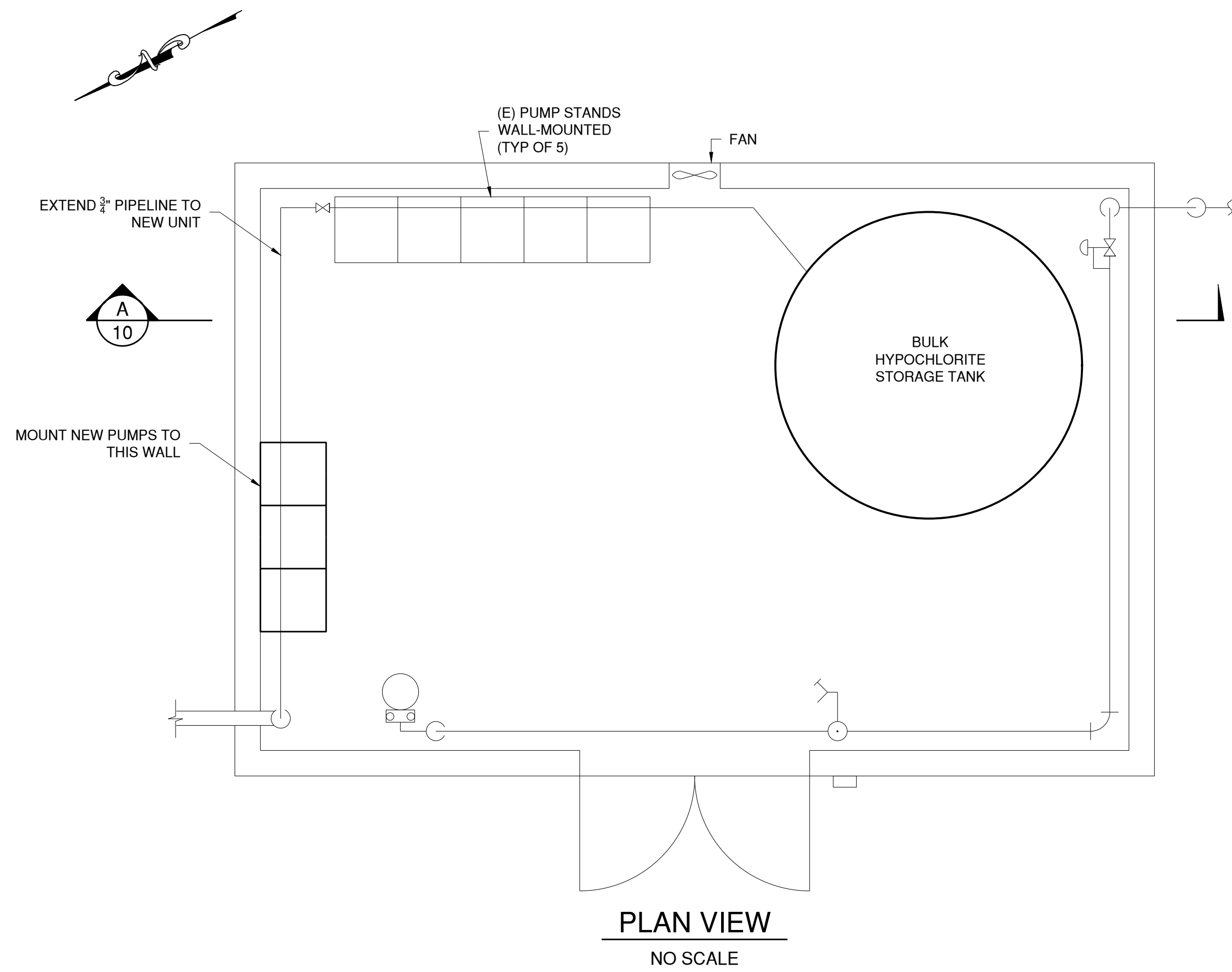


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

PUMP STATION DETAILS

DATE: 12/23/20
SCALE: AS SHOWN
DESIGN: CJM
DRAWN: CJM
CHECK: AAS

SHEET
C-122
OF



NOTES:

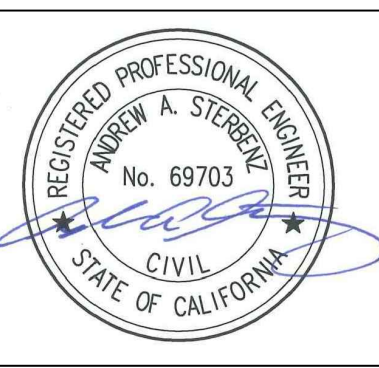
1. PROVIDE THREE (3) CHEMICAL FEED PUMPS WITH CONTROLLER, ASSOCIATED PIPING, WIRING AND CONDUITS. MATCH EXISTING PIPING SIZE AND COLOR.
2. INSTALL NEW PUMPS ON NORTH WALL. REMOVE EXISTING PUMPS AFTER NEW SYSTEM IS OPERATIONAL.
3. COORDINATE WITH DISTRICT FOR INITIAL DOSING SETTING.
4. PROVIDE PUMP MOUNTING BRACKETS OR STANDS SIMILAR TO EXISTING PUMP MOUNTING BRACKETS. ROUGH DIMENSIONS OF EACH LEG 19" TALL x 16.5" DEEP. TWO LEGS PER PUMP, 6.25" FLANGE WIDTH FOR PUMP MOUNTING. MOUNT EACH LEG WITH A MINIMUM OF TWO 3/8" Ø SS ANCHOR BOLTS TO CMU WALL.
5. SEE ELECTRICAL SHEETS FOR POWER AND CONTROL DETAILS.

NO.	REVISION DESCRIPTION	DATE	APPR



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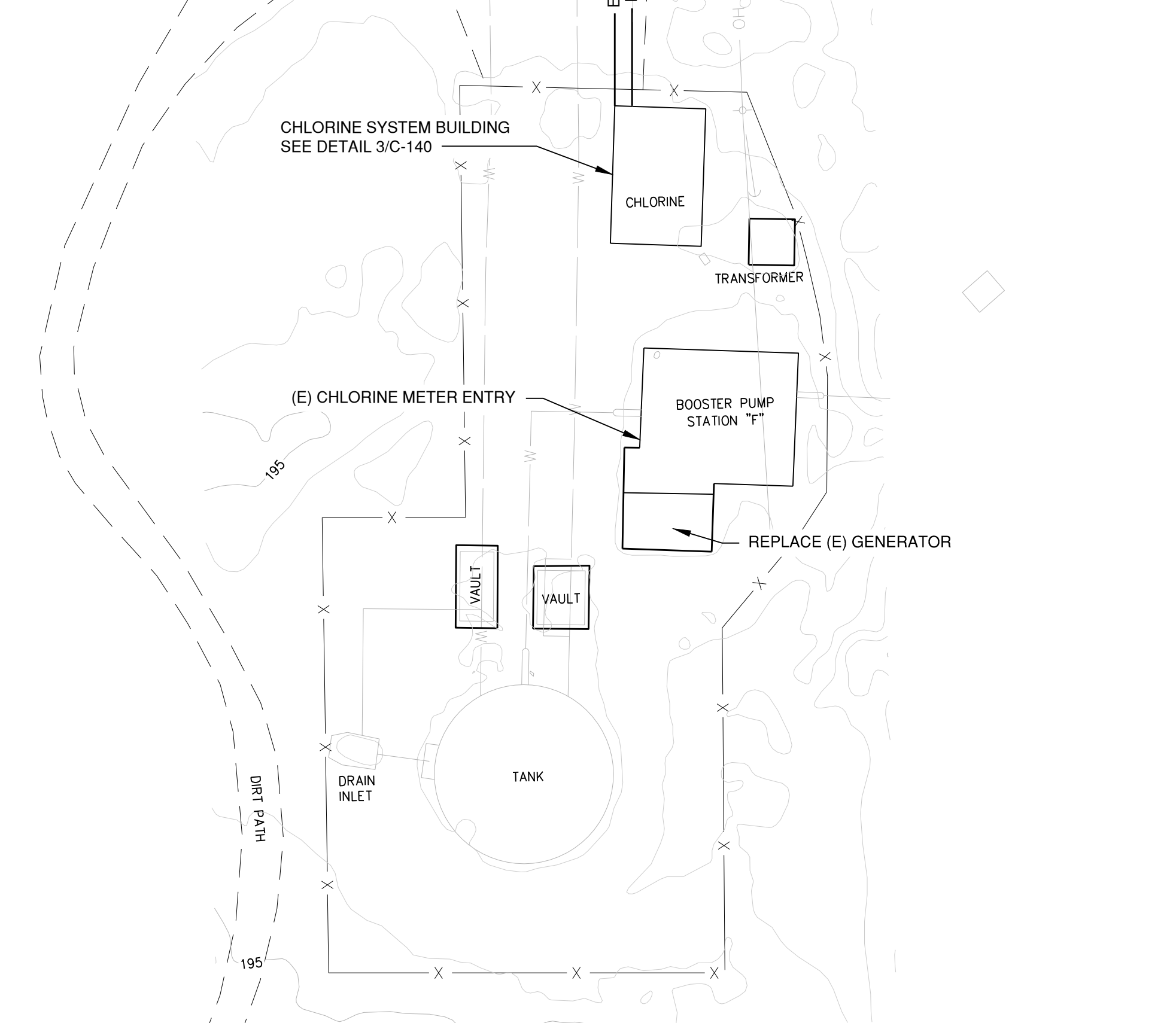
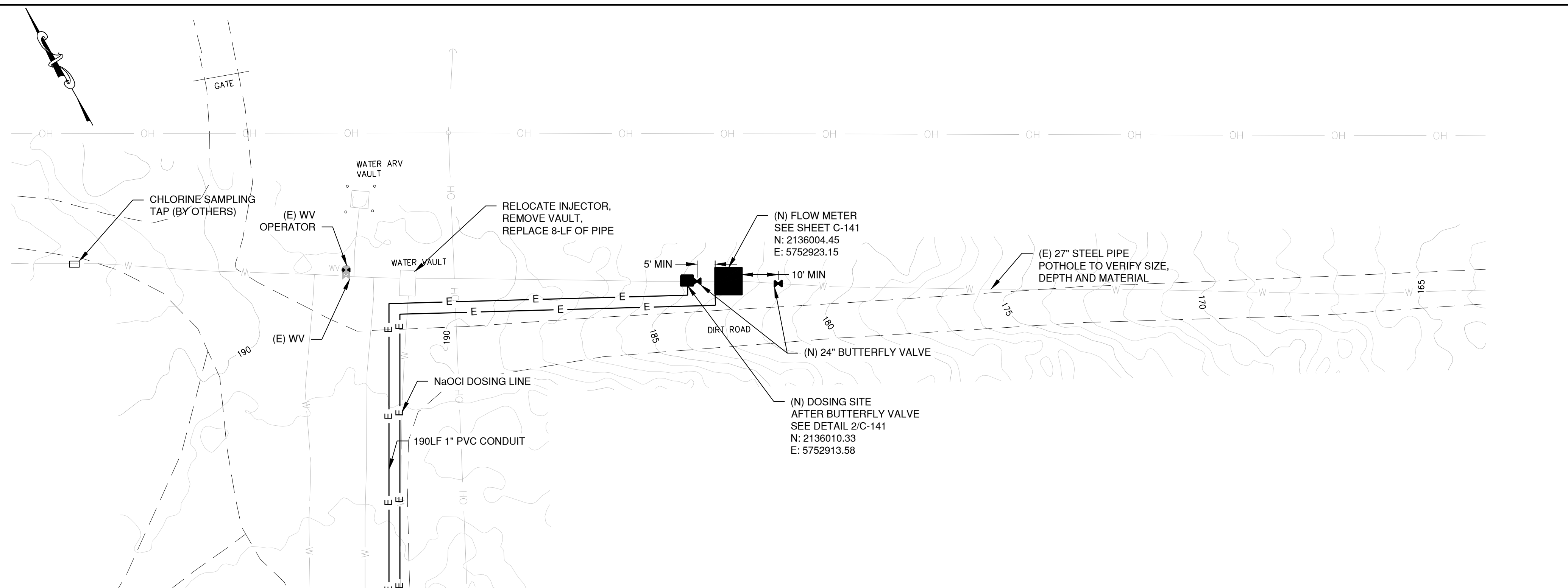
Schaaf & Wheeler
 CONSULTING CIVIL ENGINEERS
 3 QUAIL RUN CIRCLE, STE. 101
 SALINAS, CA 93907
 (831) 883-4848



A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
CHLORINE PUMP REPLACEMENT

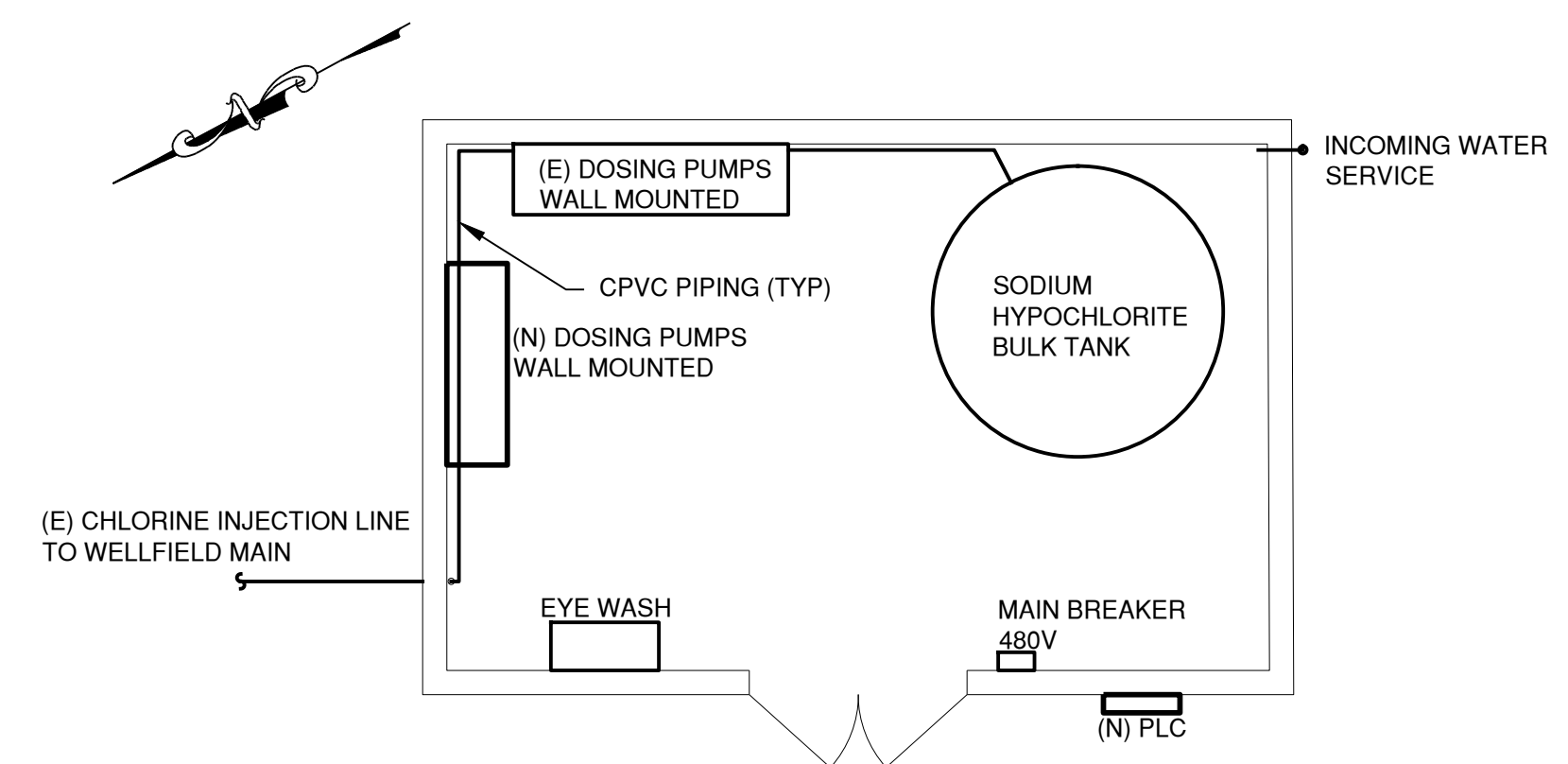
DATE: 12/23/20
 SCALE: AS SHOWN
 DESIGN: CJM
 DRAWN: CJM
 CHECK: AAS

SHEET
C-130
 OF



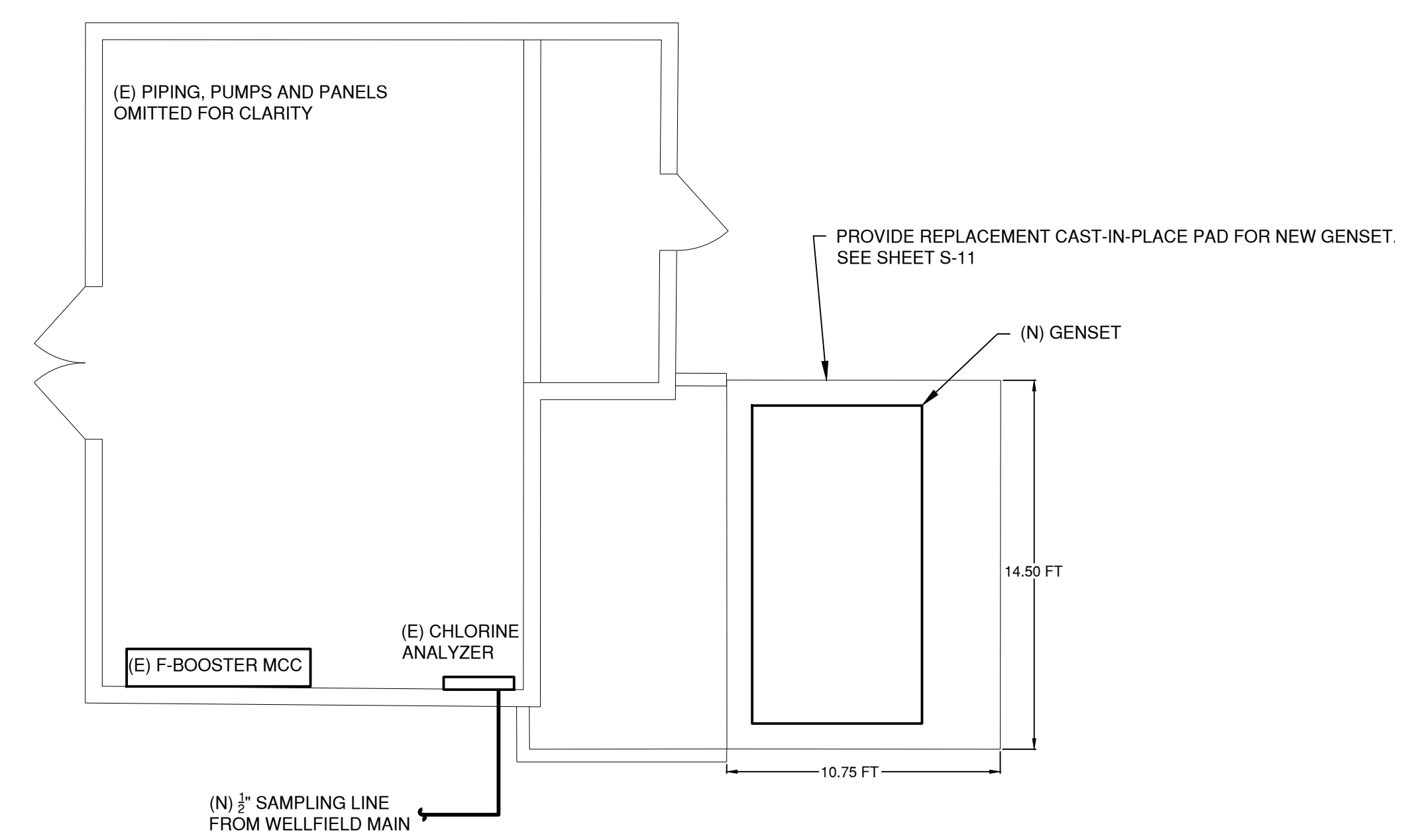
INTERMEDIATE SITE
1"
1"=20'
SCALE: 1 INCH = 20 FEET

- SHEET NOTES:**
- WORK AT THIS SITE INCLUDES THE FOLLOWING ITEMS:
 - PROVIDE NEW FLOW METER WITH PRECAST VAULT AND ISOLATION VALVES.
 - PROVIDE NEW HYPOCHLORITE DOSING SYSTEM, INCLUDING PLC, DOSING PUMPS, INJECTION QUILL AND VAULT.
 - REMOVE EXISTING INJECTION QUILL AND VAULT AND REPLACE THAT SECTION OF PIPE.
 - REMOVE THE EXISTING EMERGENCY GENERATOR AND FUEL TANK, SAW CUT AND REMOVE A PORTION OF THE EXISTING CONTAINMENT WALL AND SLAB, CAST IN PLACE A NEW GENERATOR PAD AND PROVIDE A NEW DIESEL ELECTRIC GENERATOR.
 - POTHOLE TO VERIFY SIZE, DEPTH AND MATERIAL OF EXISTING PIPELINE BEFORE ORDERING PRE-CAST VAULT AND TRANSITION COUPLINGS.
 - ALL WORK ON THIS SITE OCCURS AFTER THE NEW TANKS AND BOOSTER PUMP STATION ARE COMPLETE AND IN-SERVICE.

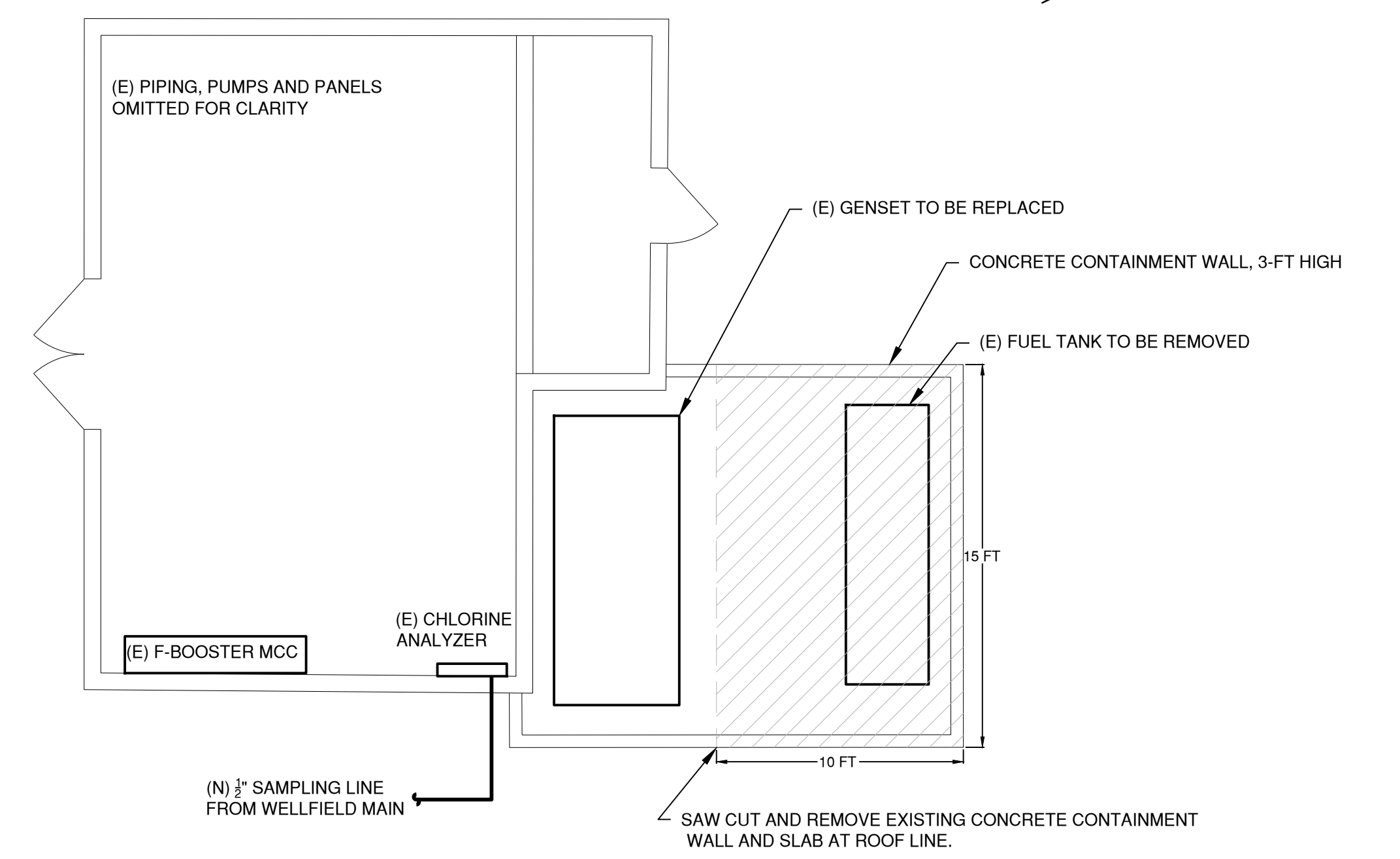


- LOCATIONS APPROXIMATE. ADJUST EQUIPMENT LAYOUT AS NEEDED.
- PROVIDE (N) CONDUIT AND INJECTION LINE FROM BUILDING TO INJECTION VAULT.

CHLORINATION SYSTEM
NTS



F BOOSTER GENSET
NTS



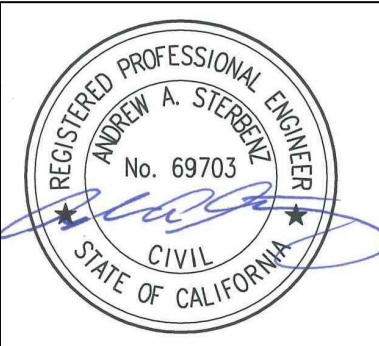
F BOOSTER DEMO
NTS

NO.	REVISION DESCRIPTION	DATE	APPR



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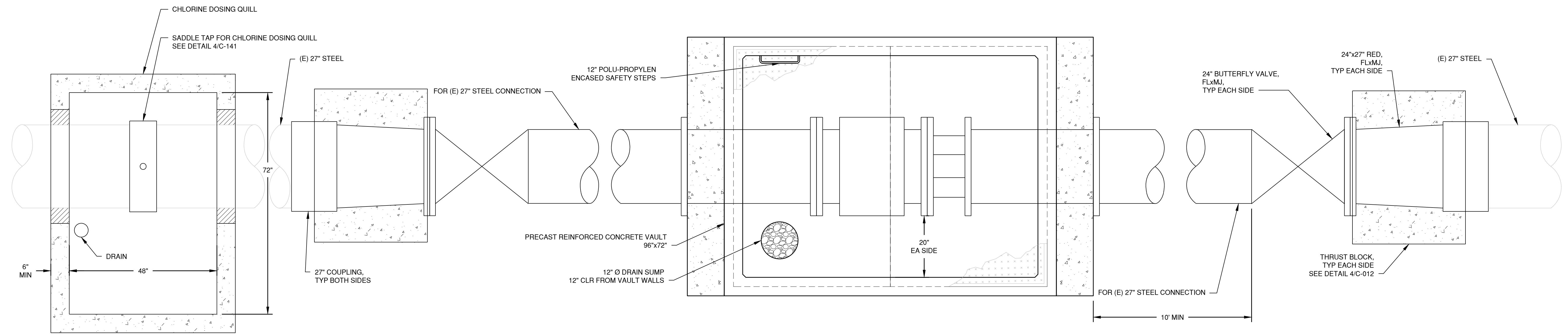
Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS
3 QUAIL RUN CIRCLE, STE. 101
SALINAS, CA 93907
(831) 883-4848



A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
INTERMEDIATE RESERVOIR MODIFICATIONS

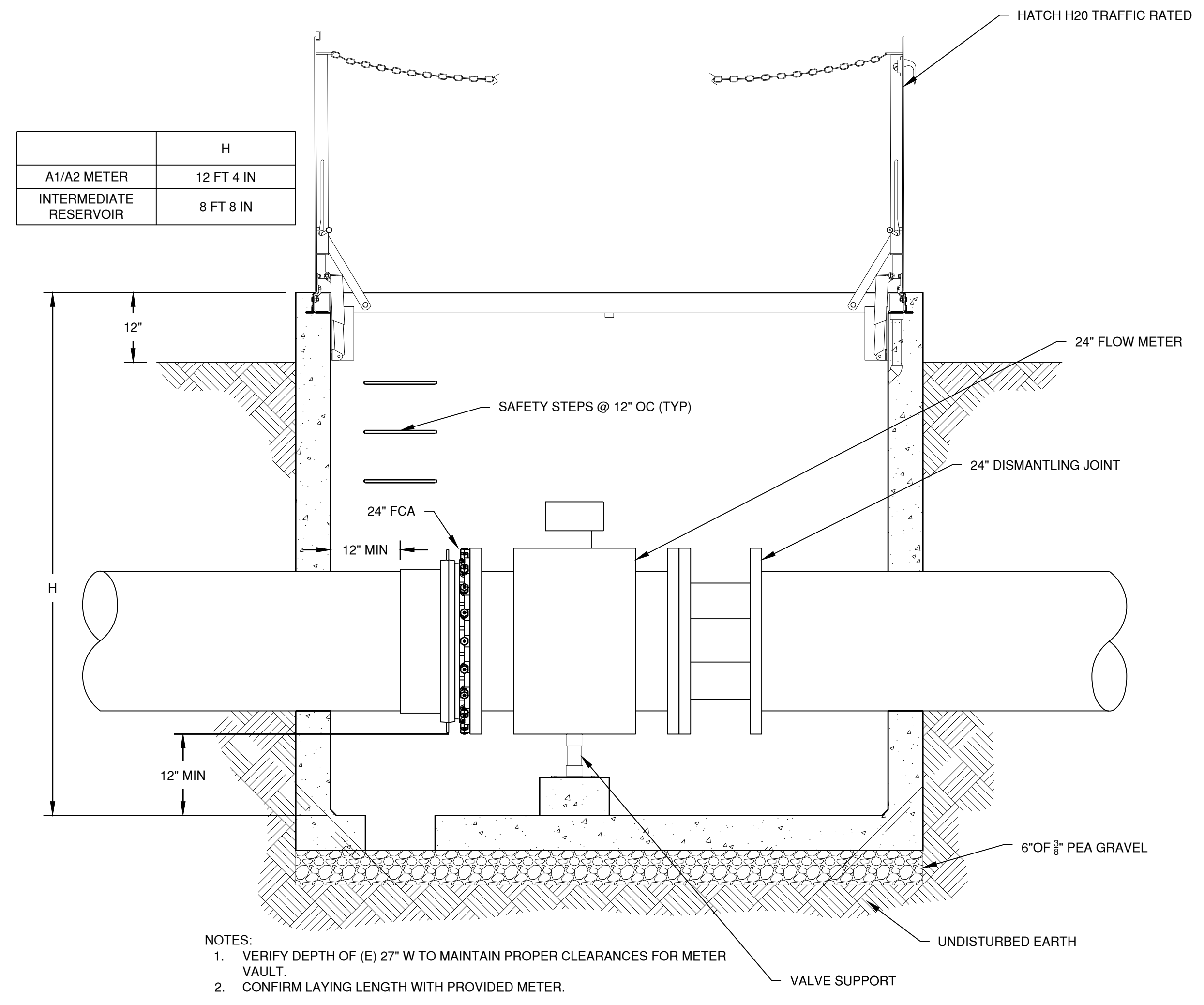
DATE: 12/23/20
SCALE: AS SHOWN
DESIGN: CJM
DRAWN: CJM
CHECK: AAS

SHEET
C-140
OF



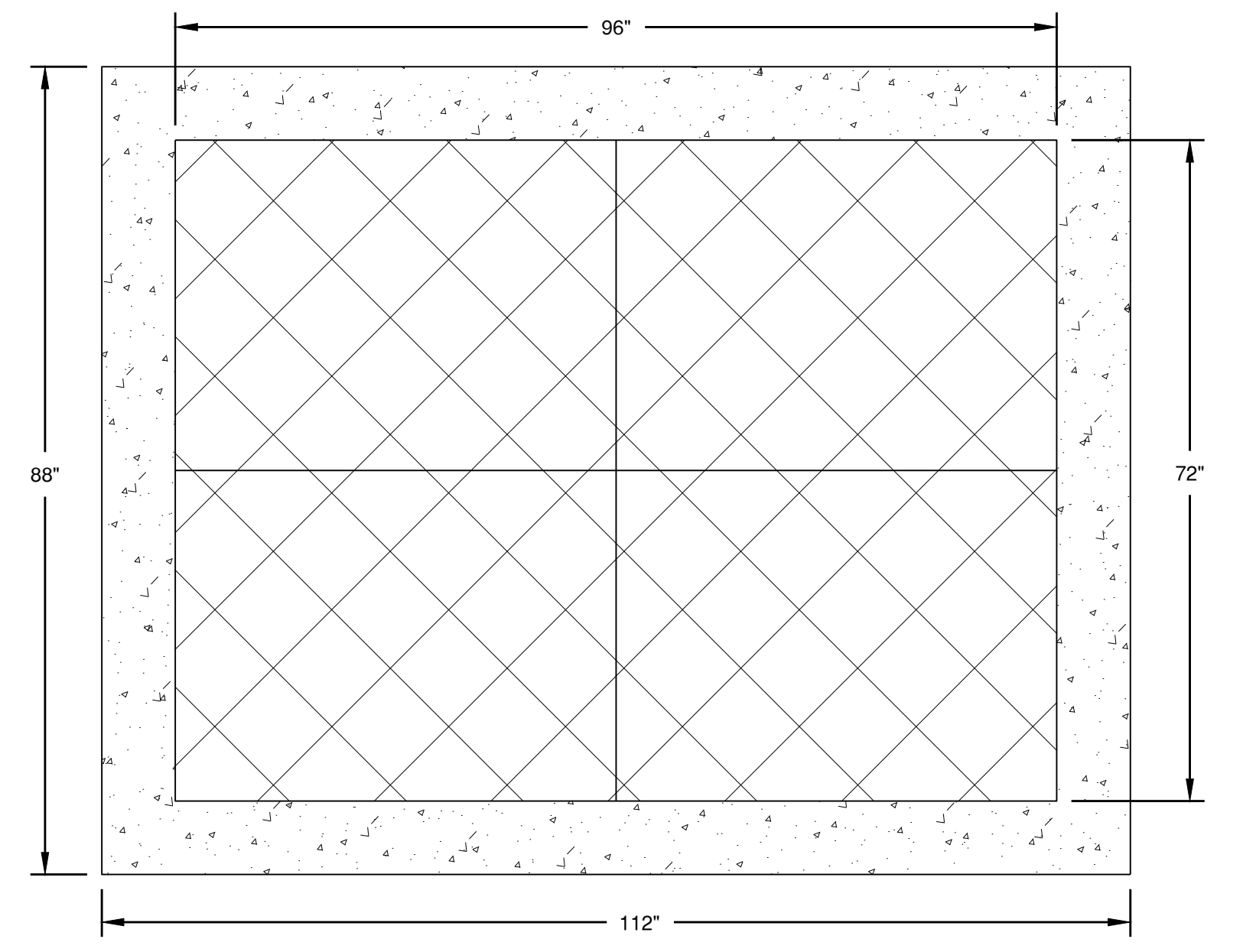
FLOW METER PLAN
NTS

1
-



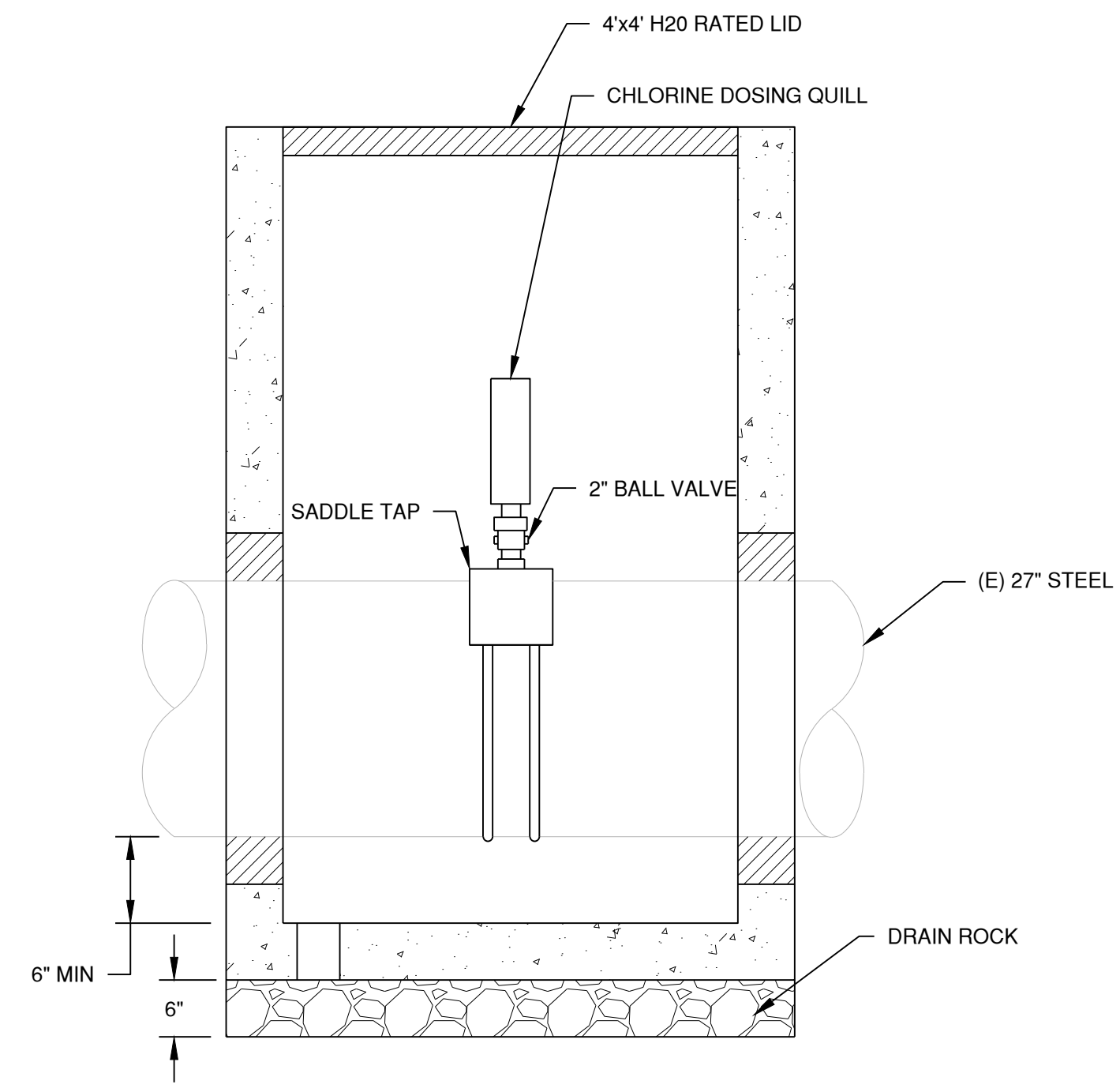
FLOW METER SECTION
NTS

3
-



VAULT LID
NTS

4
-



CHLORINE DOSING
NTS

2
-

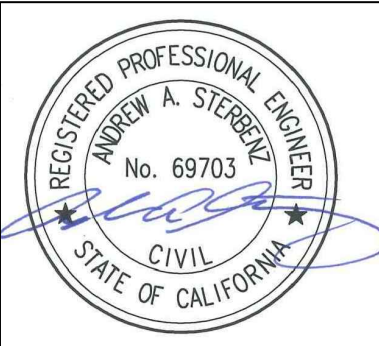
- NOTES:
1. VERIFY DEPTH OF (E) 27" W TO MAINTAIN PROPER CLEARANCES FOR METER VAULT
2. CONFIRM LAYING LENGTH WITH PROVIDED METER.

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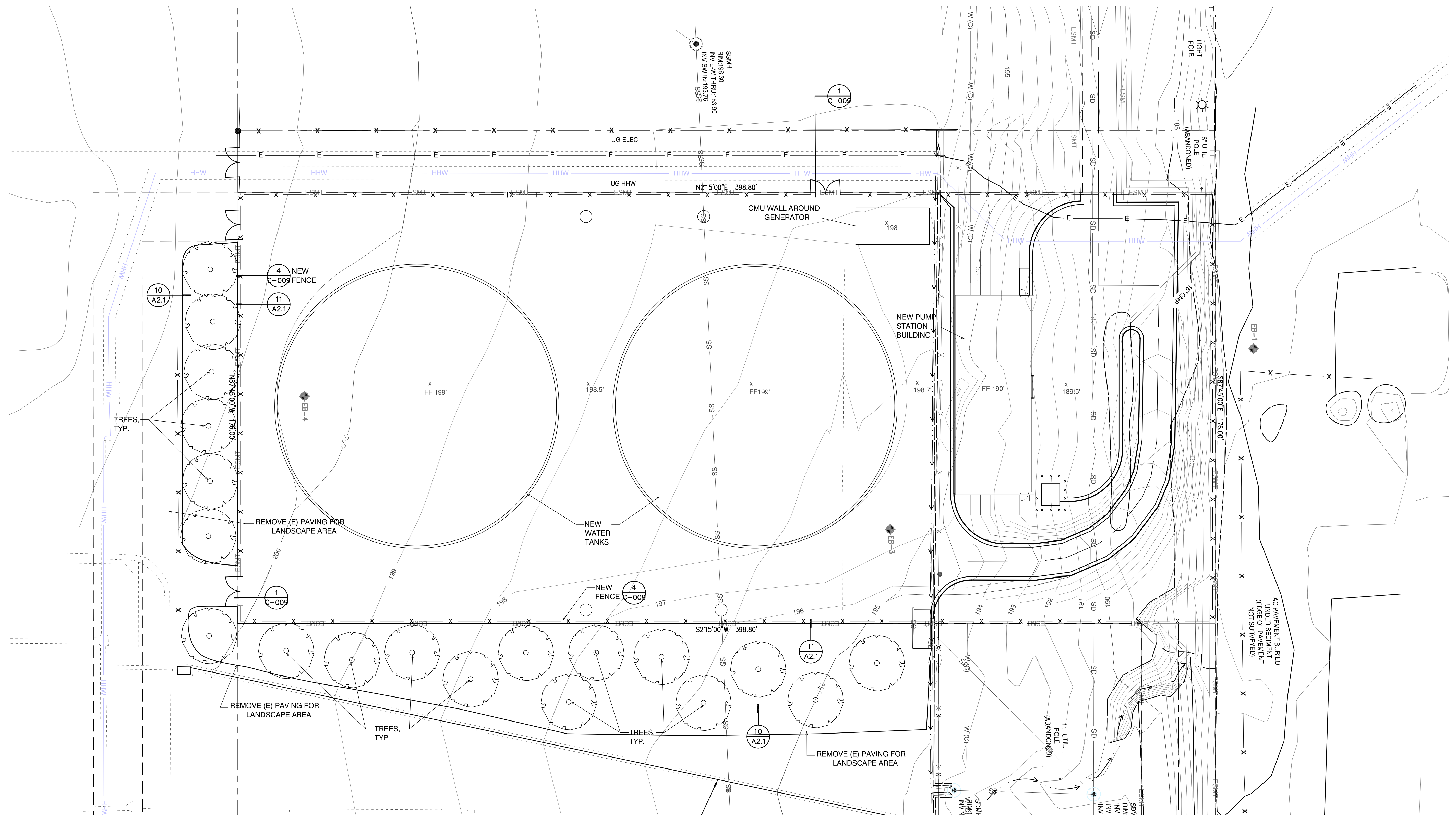


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

FLOW METER DETAILS

DATE:	12/23/20
SCALE:	NTS
DESIGN:	MF
DRAWN:	MF
CHECK:	AAS

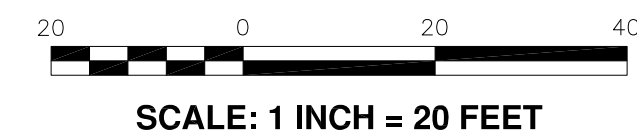
SHEET
C-141
OF



SITE PLAN

1"-20'

1



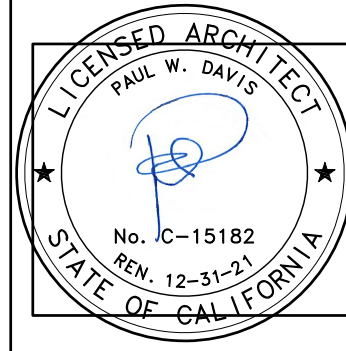
NOTES:
1.

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THE PAUL DAVIS PARTNERSHIP
 ARCHITECTS & PLANNERS
 The Paul Davis Partnership, LLP
 286 Eldorado Street
 Monterey, CA 93940
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 EMAIL: info@pauldavispartnership.com

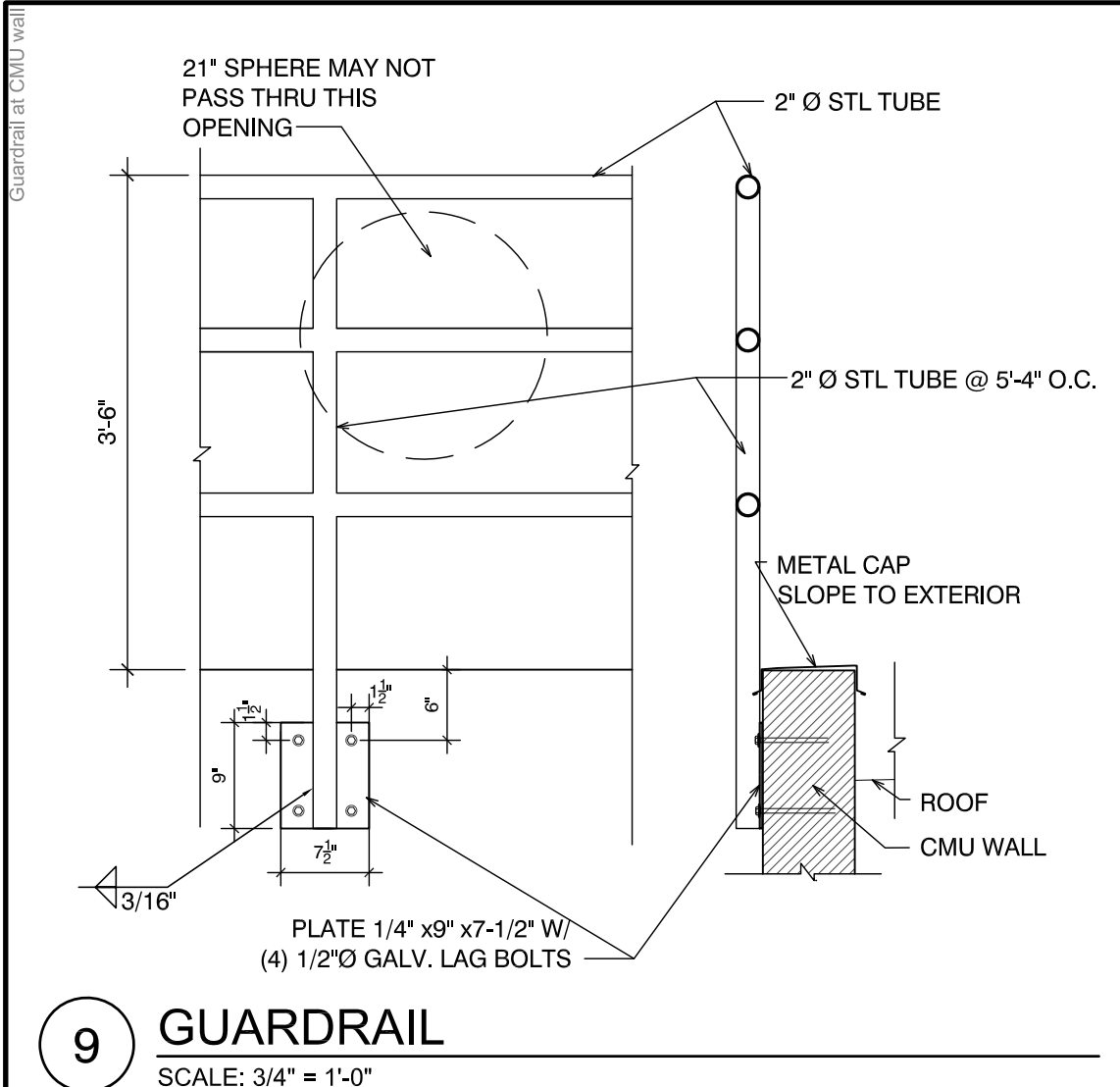


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

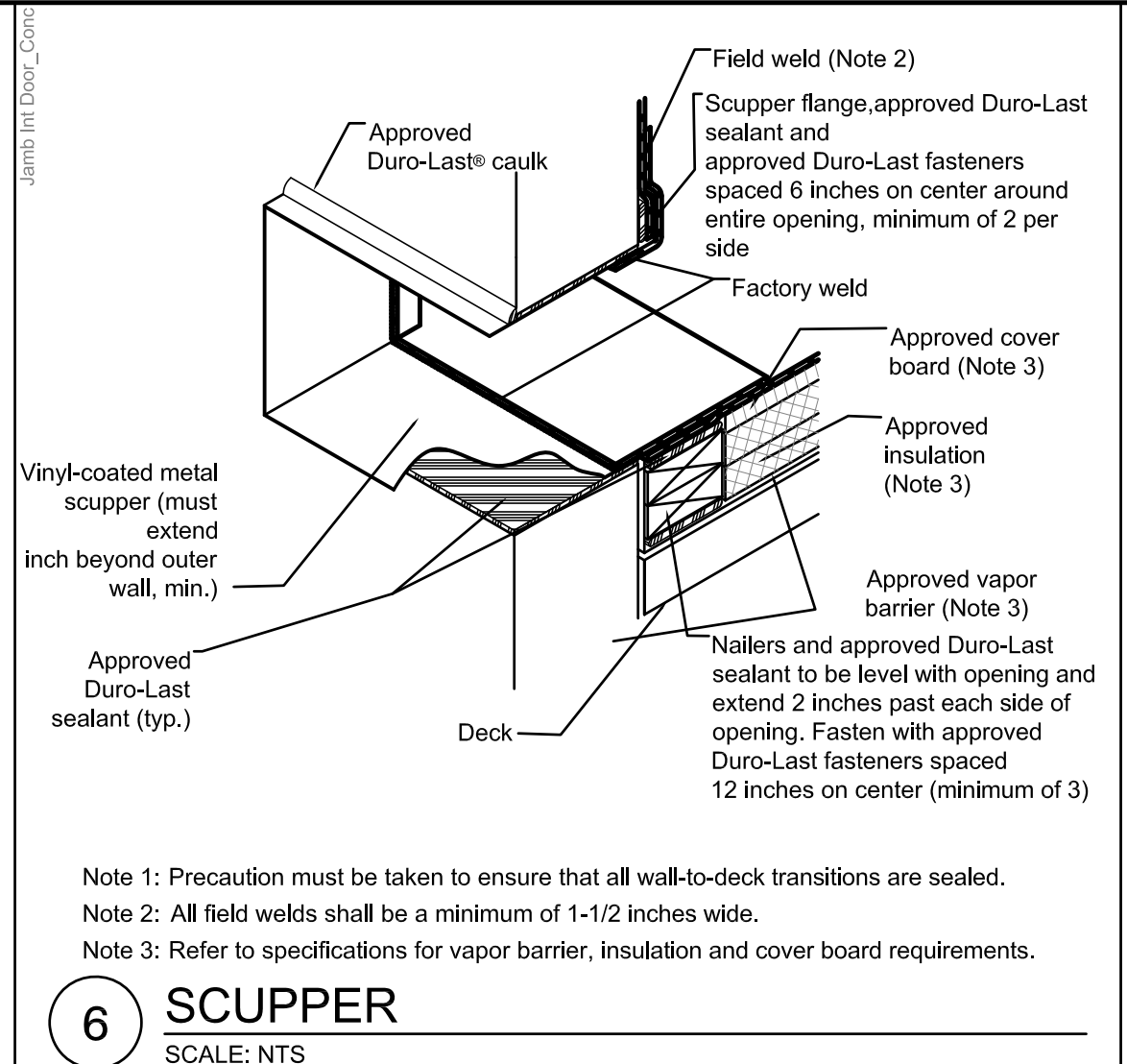
SITE PLAN

DATE: 12/22/20
 SCALE: 1/4"=1'-0"
 DESIGN: AP
 DRAWN: AP
 CHECK: -

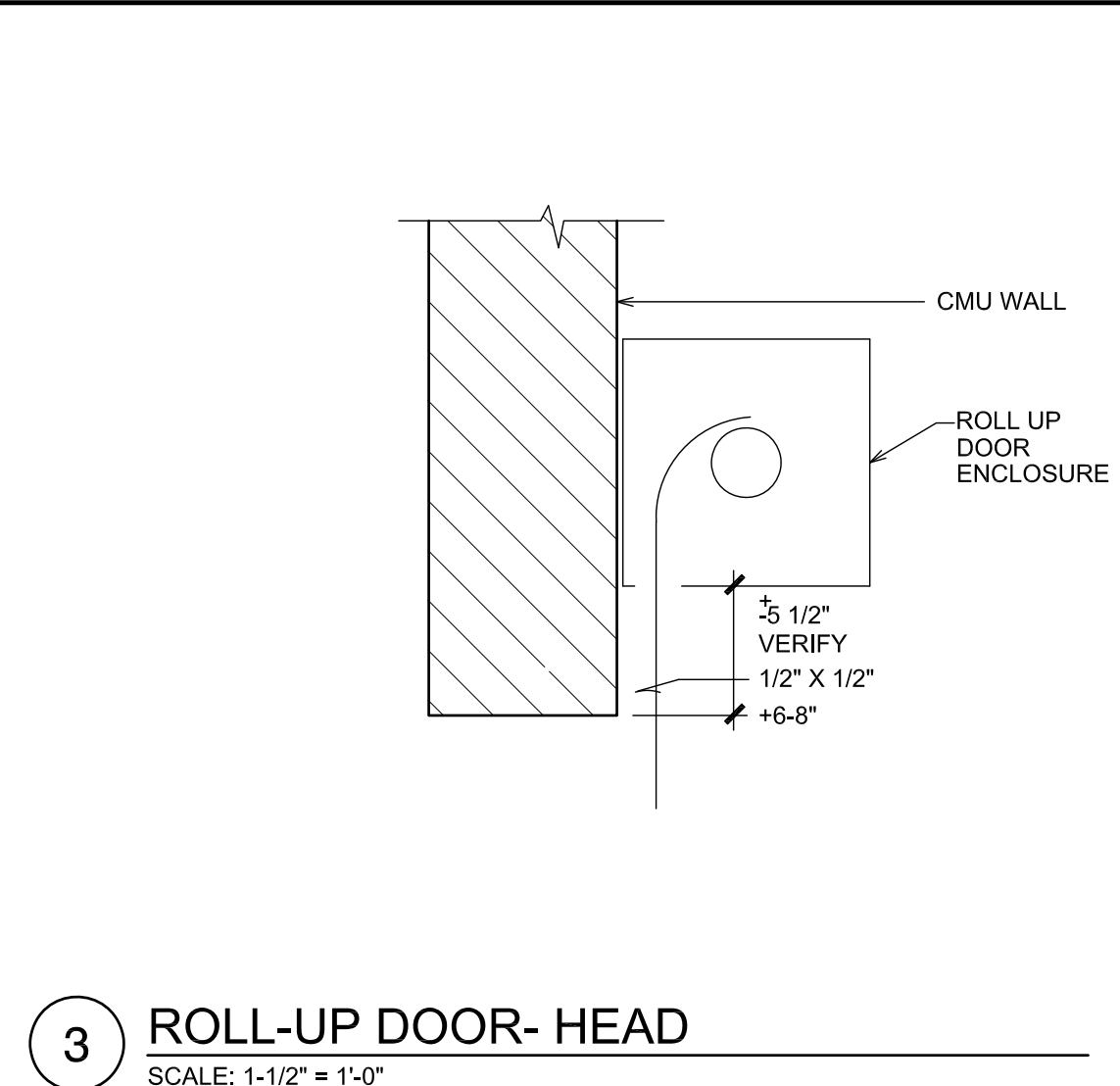
SHEET
A1.1
 OF



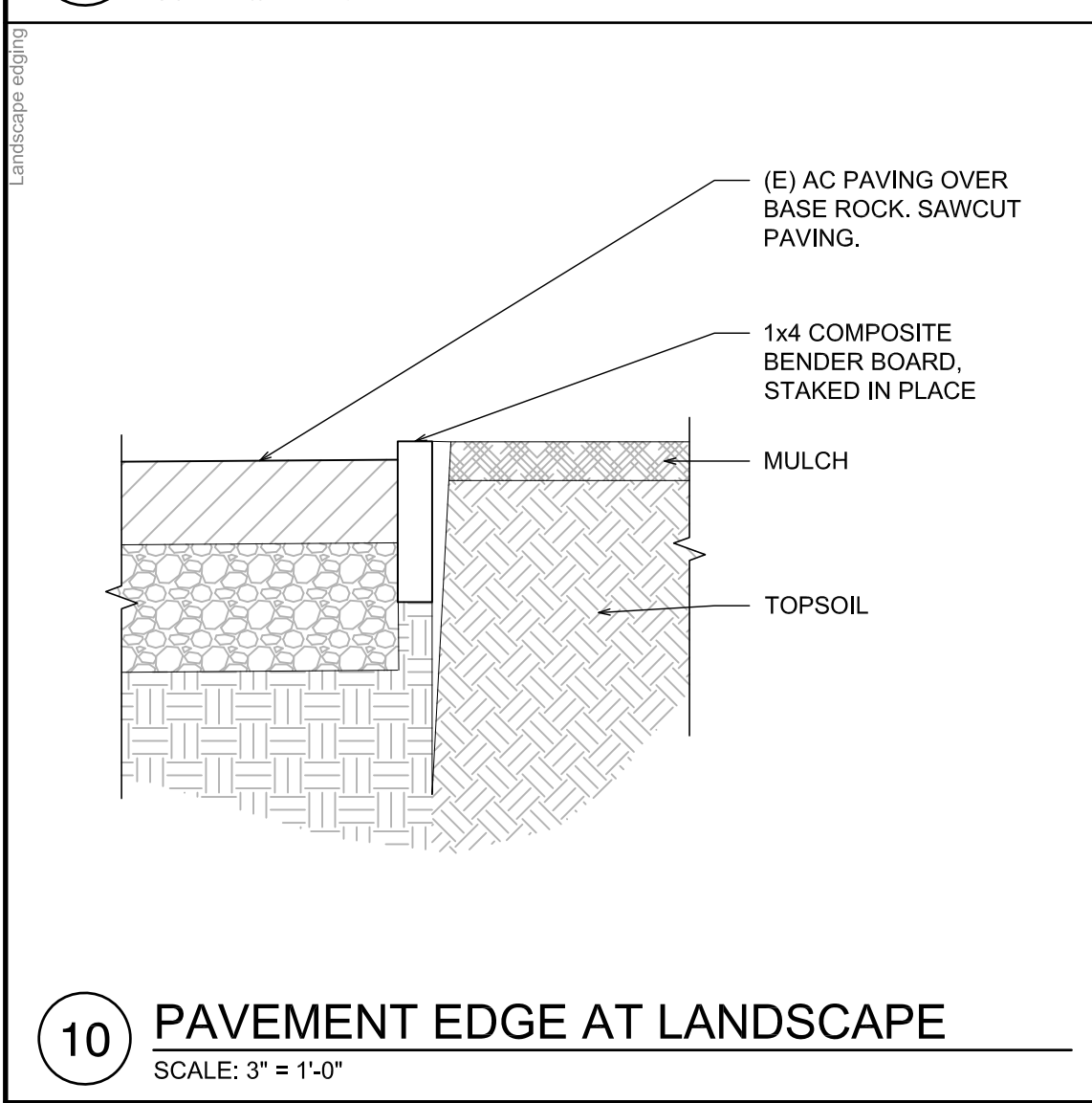
9 GUARDRAIL
SCALE: 3/4" = 1'-0"



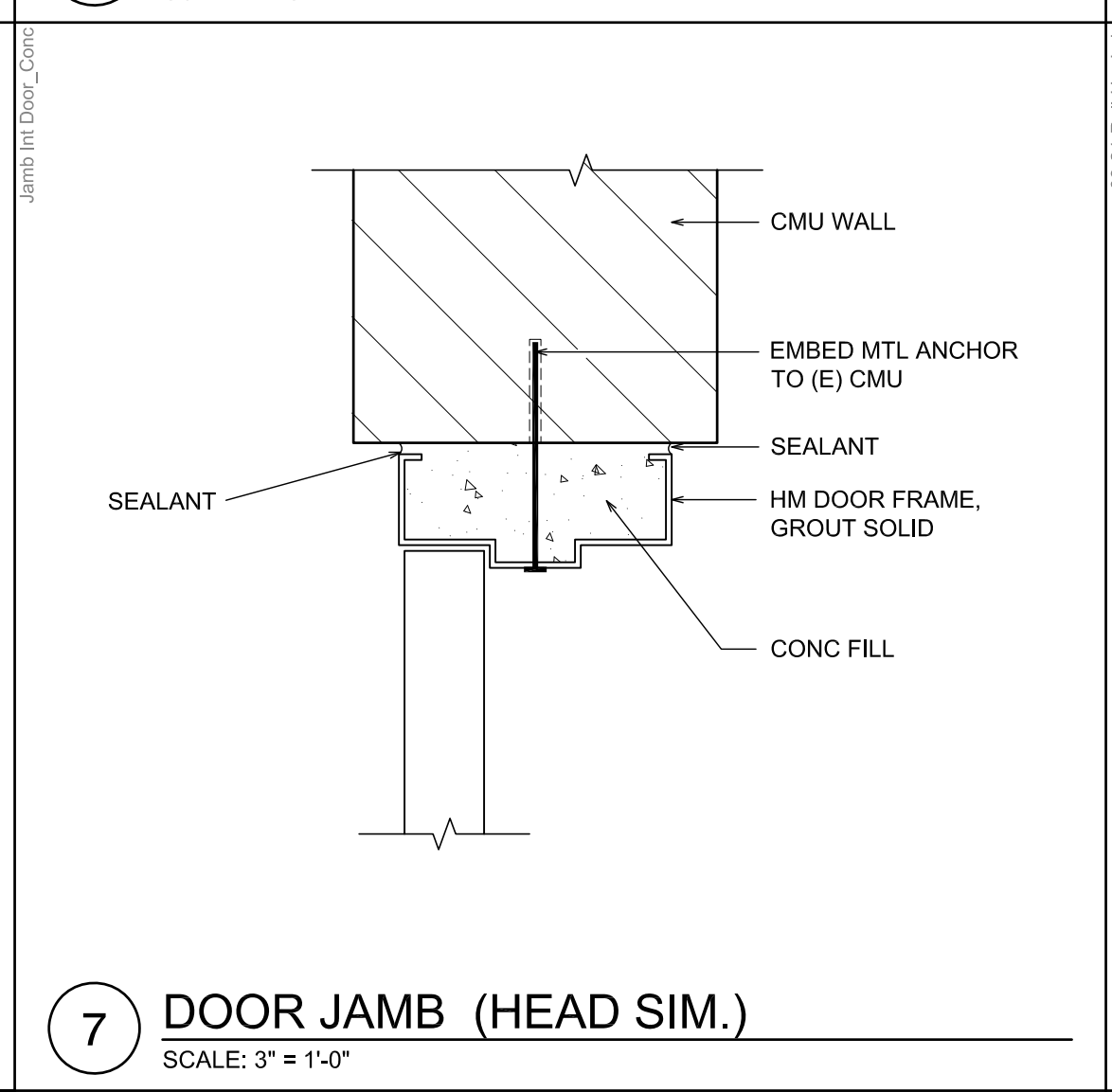
6 SCUPPER
SCALE: NTS



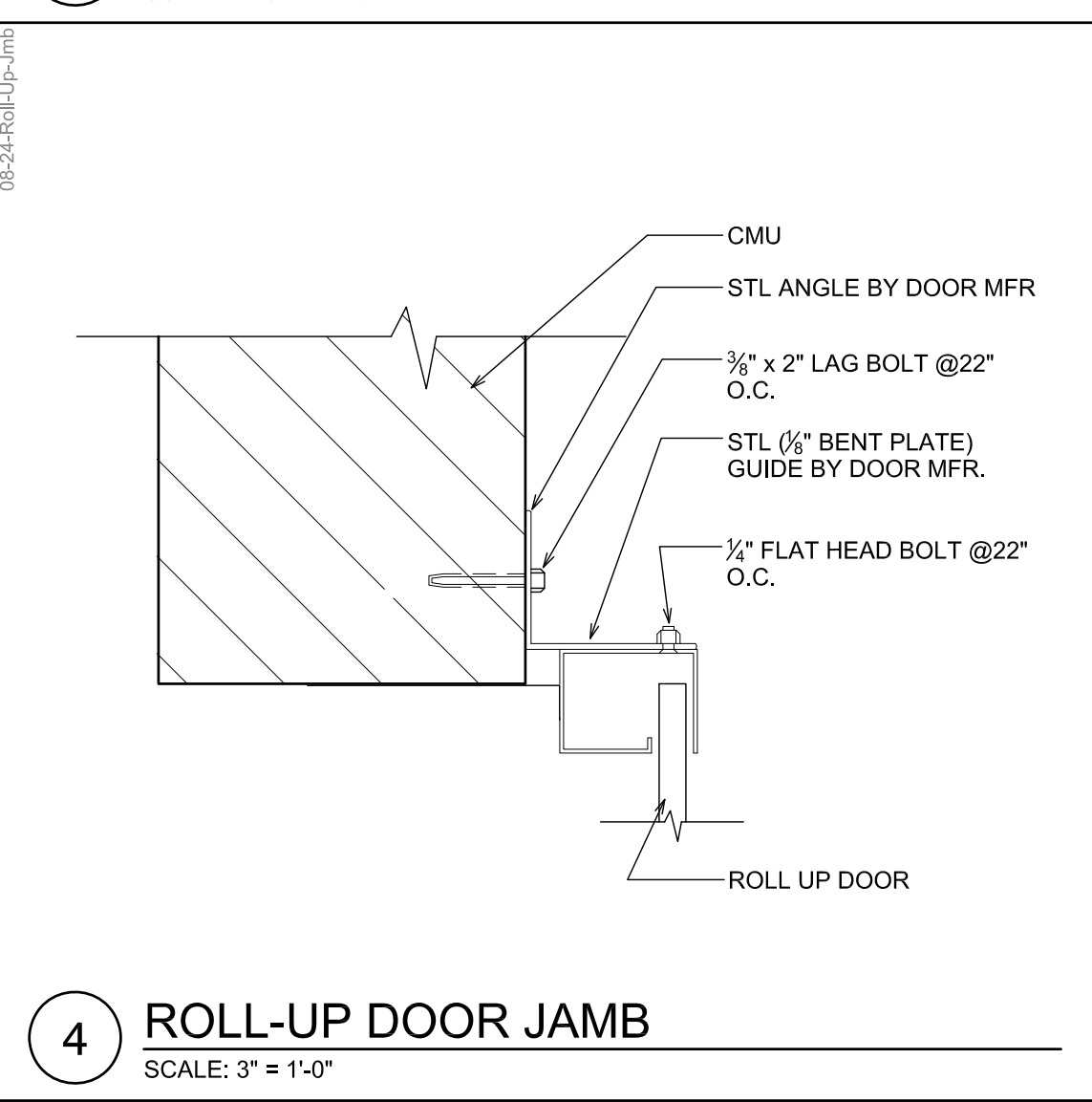
3 ROLL-UP DOOR- HEAD
SCALE: 1-1/2" = 1'-0"



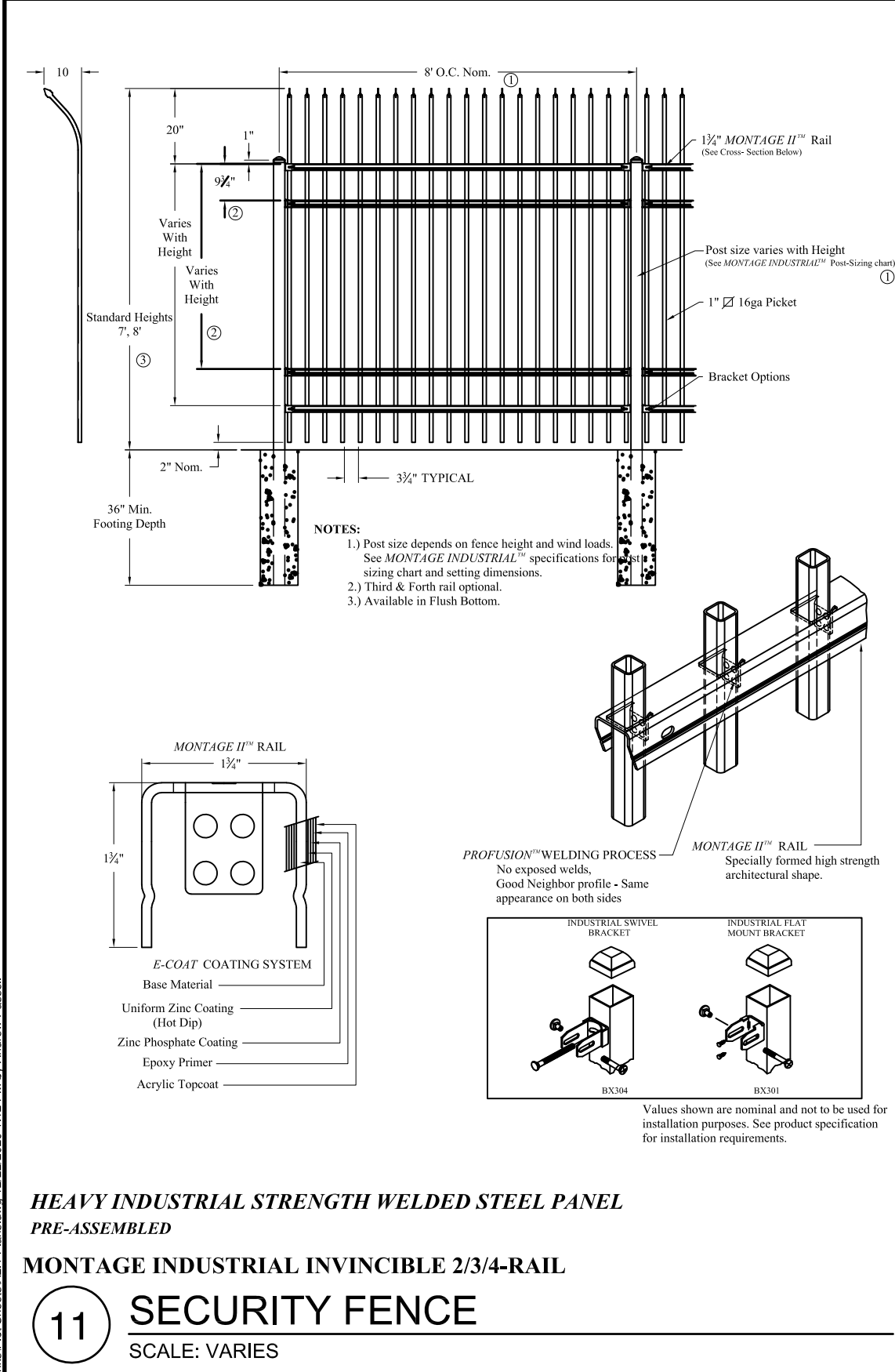
10 PAVEMENT EDGE AT LANDSCAPE
SCALE: 3" = 1'-0"



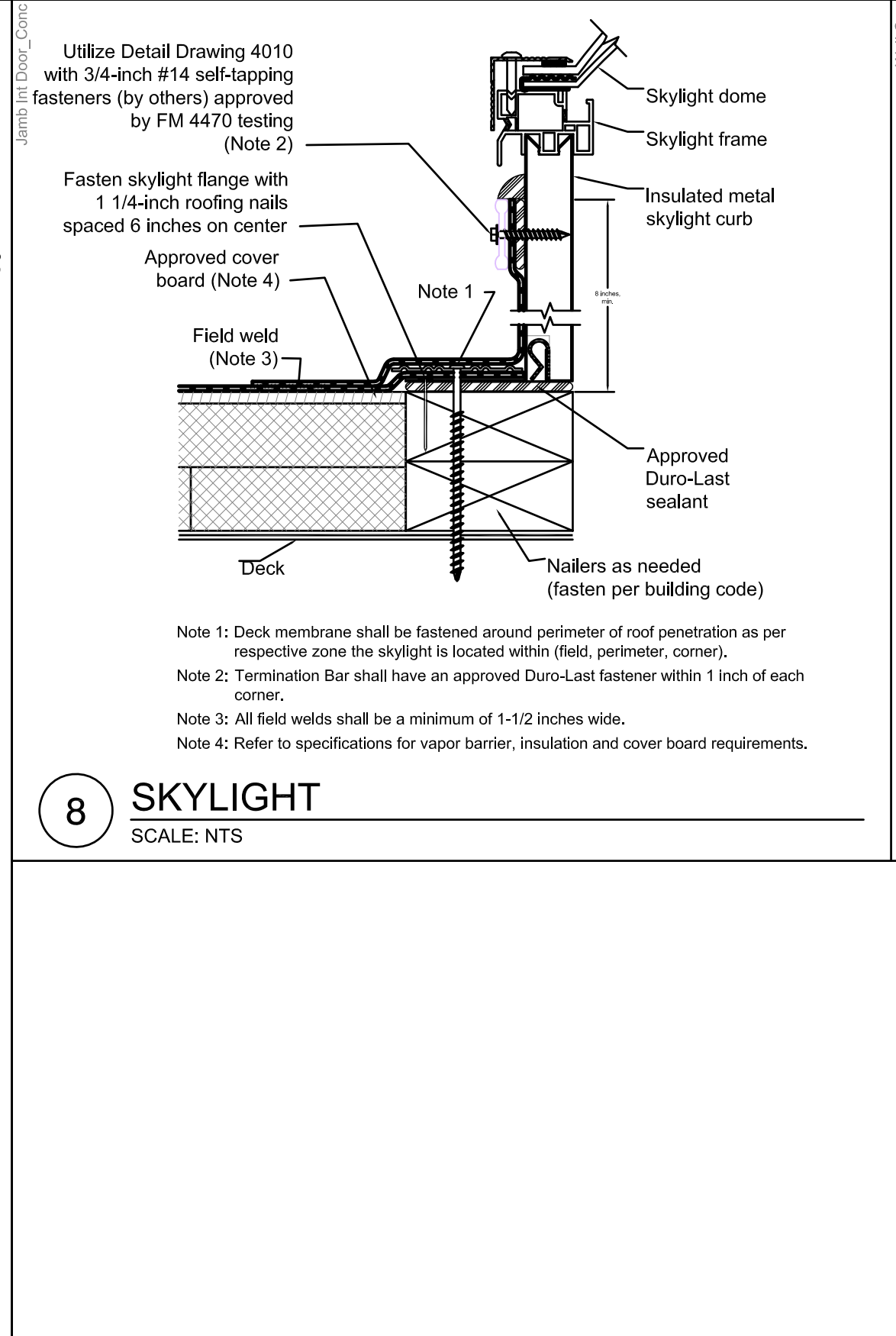
7 DOOR JAMB (HEAD SIM.)
SCALE: 3" = 1'-0"



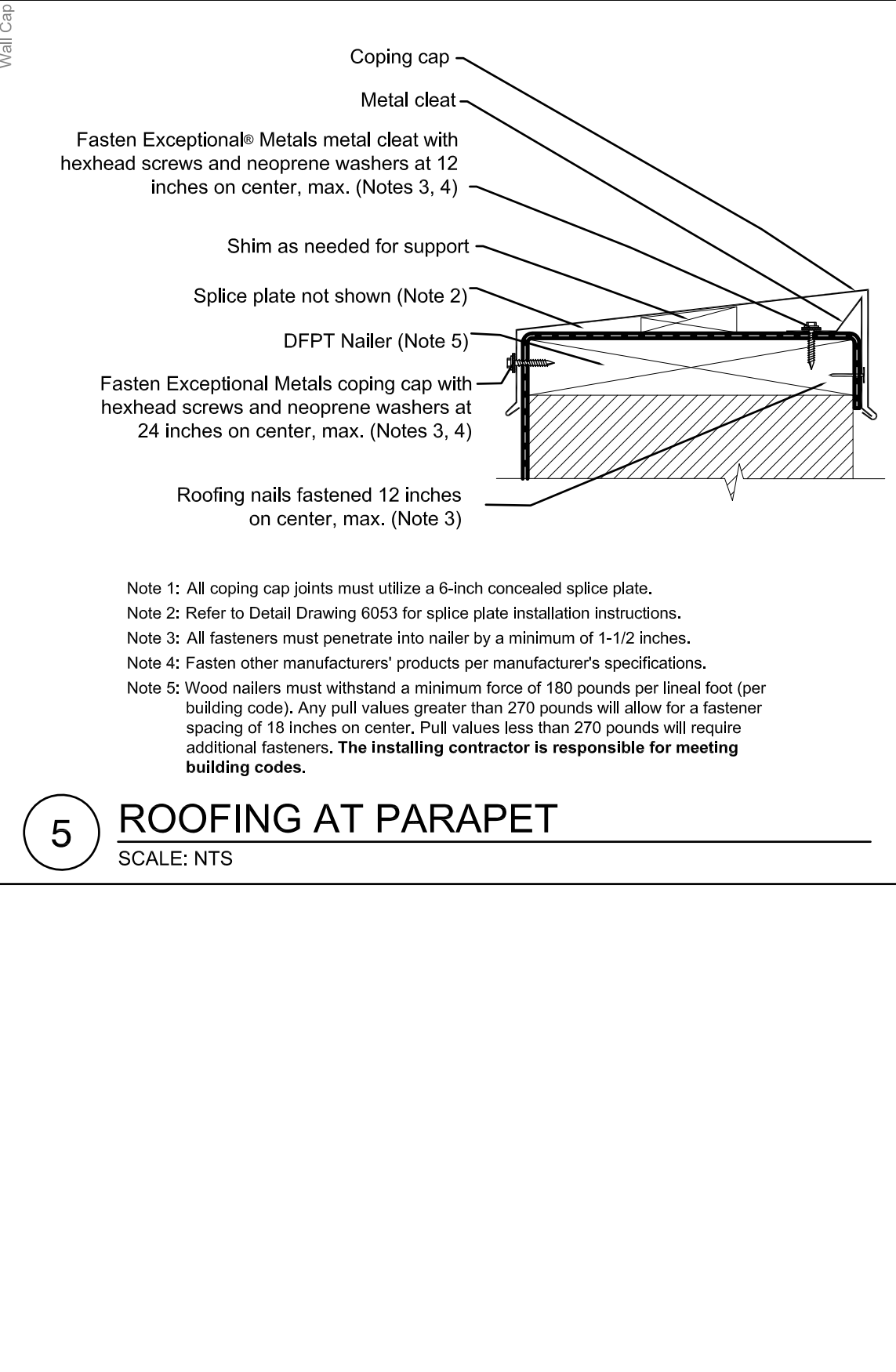
4 ROLL-UP DOOR JAMB
SCALE: 3" = 1'-0"



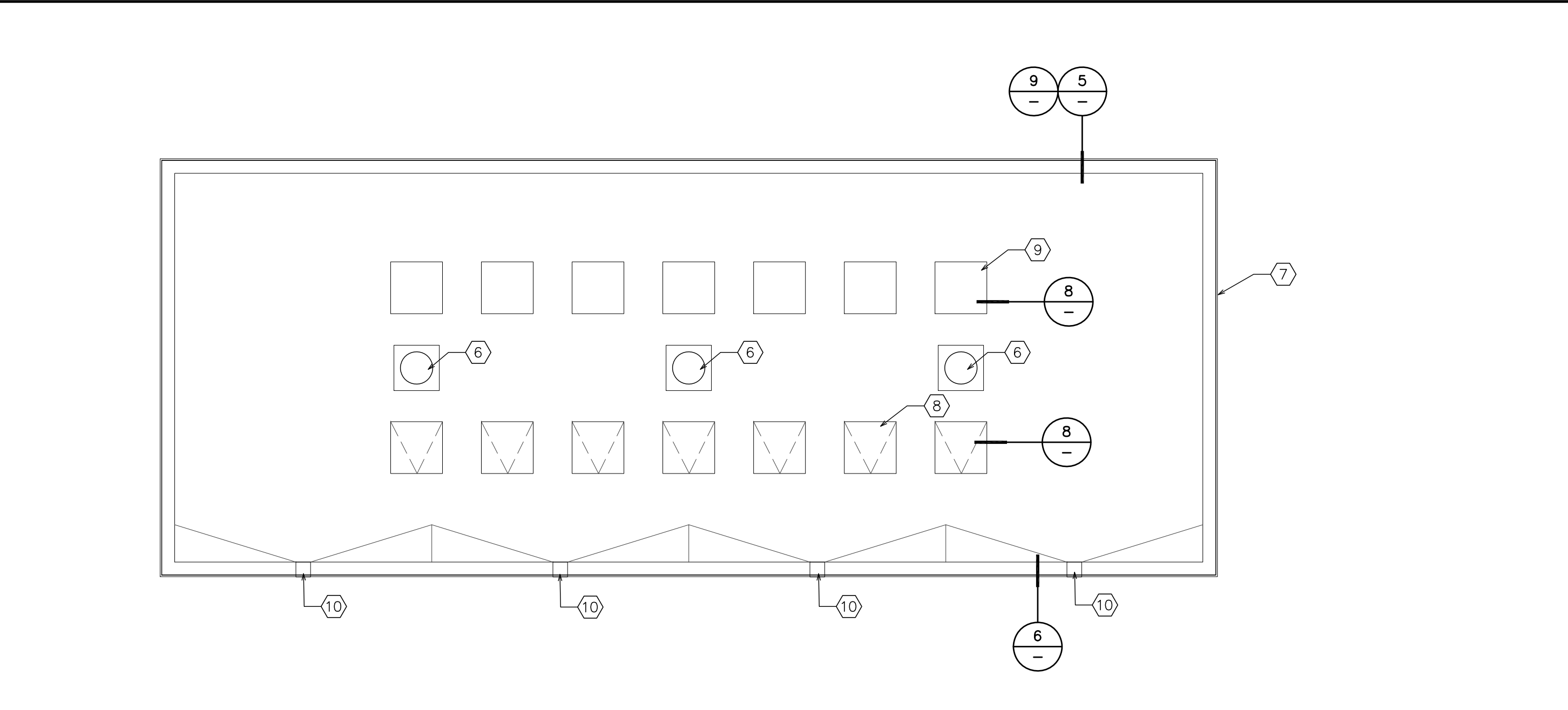
11 SECURITY FENCE
SCALE: VARIES



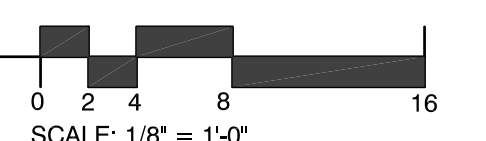
8 SKYLIGHT
SCALE: NTS



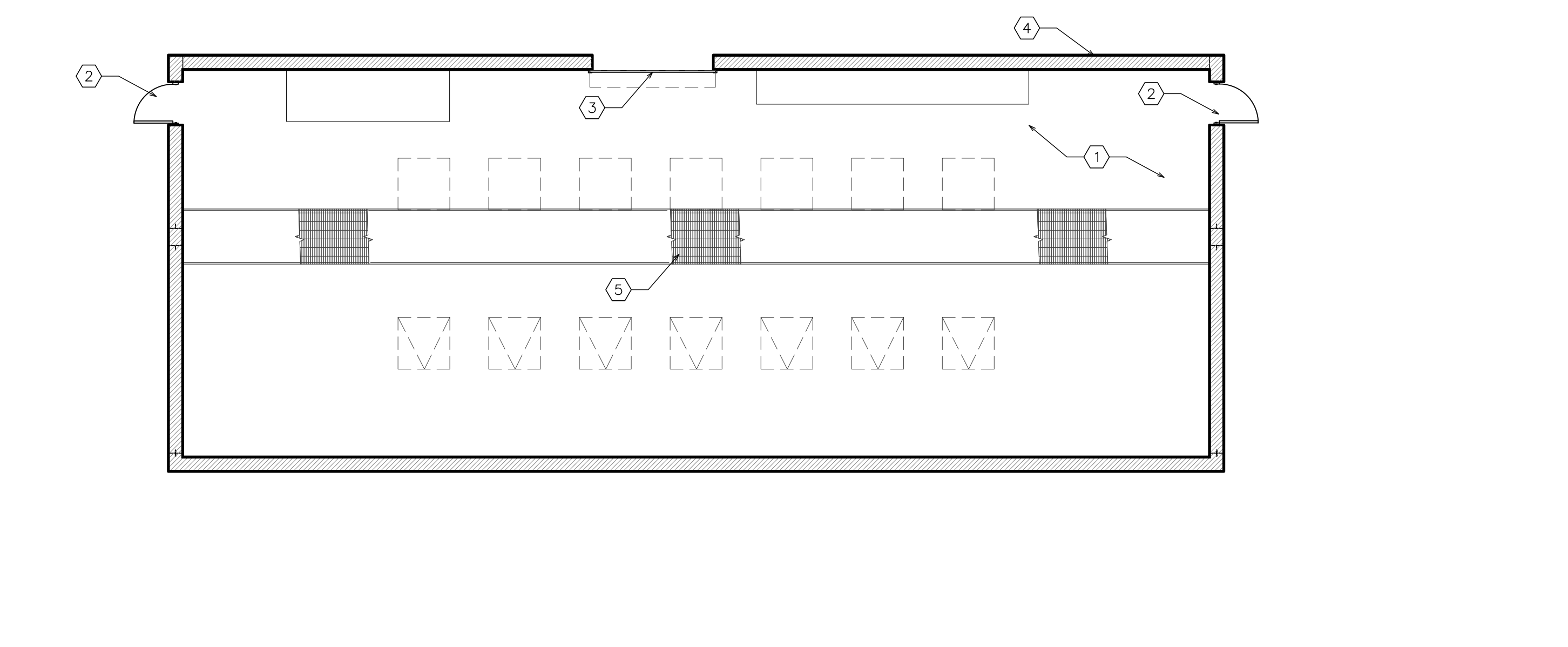
5 ROOFING AT PARAPET
SCALE: NTS



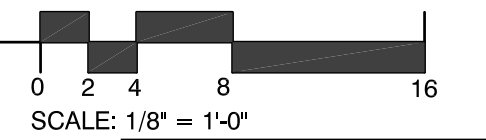
PUMP BLDG. ROOF PLAN
SCALE: 1/8" = 1'-0"



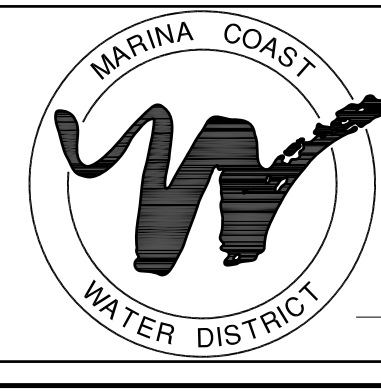
- SHEET NOTES**
- CONCRETE SLAB
 - PAINTED HM DOOR WITH LOUVERS 7
 - PAINTED ROLLUP DOOR 3,4
 - CMU WALL- 12" ON 13-1/2" CONCRETE WALL- TYP., SEE STRUCTURAL
 - FLOOR GRATING
 - EXHAUST FAN
 - METAL GUARD RAIL - SEE 9/A2.1, STRUCTURAL DRAWINGS
 - FIXED SKYLIGHT 4' x 4'
 - ALUMINUM ACCESS HATCH 4' x 4'
 - SCUPPER TO DOWNSPOUT



PUMP BLDG. FLOOR PLAN
SCALE: 1/8" = 1'-0"

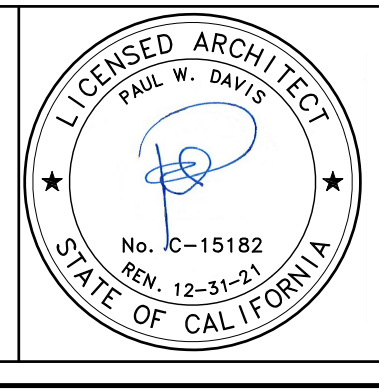


NO.	REVISION DESCRIPTION	DATE	APPR



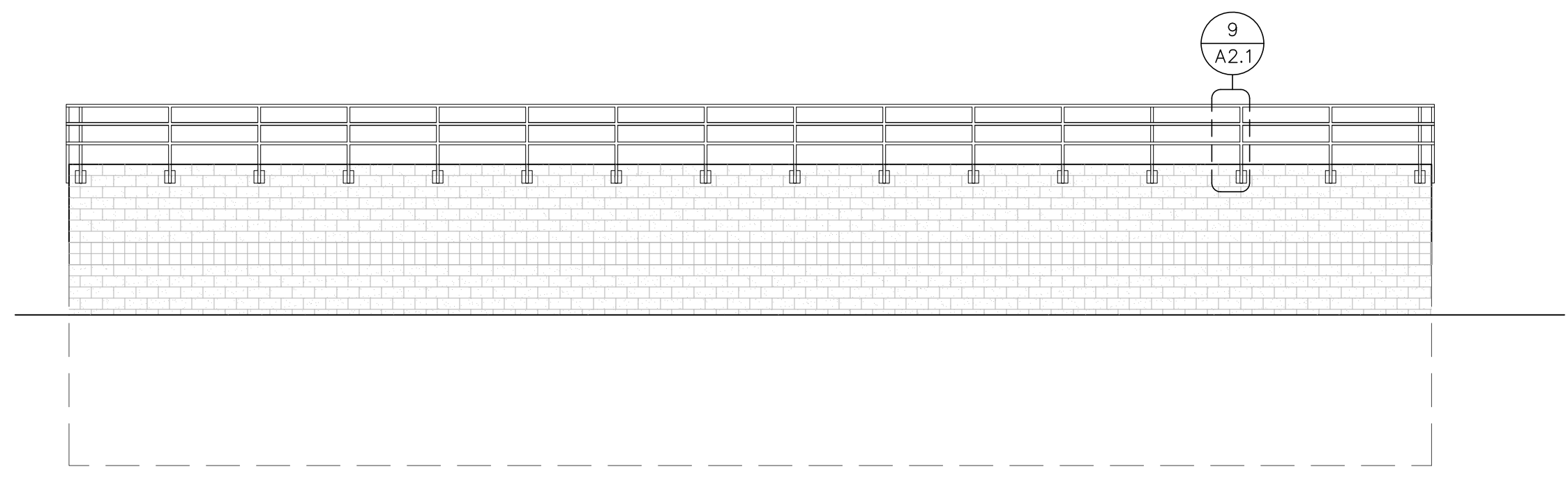
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ARCHITECTS & PLANNERS
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EMAIL: info@pauldavispartnership.com



A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
PLANS & DETAILS

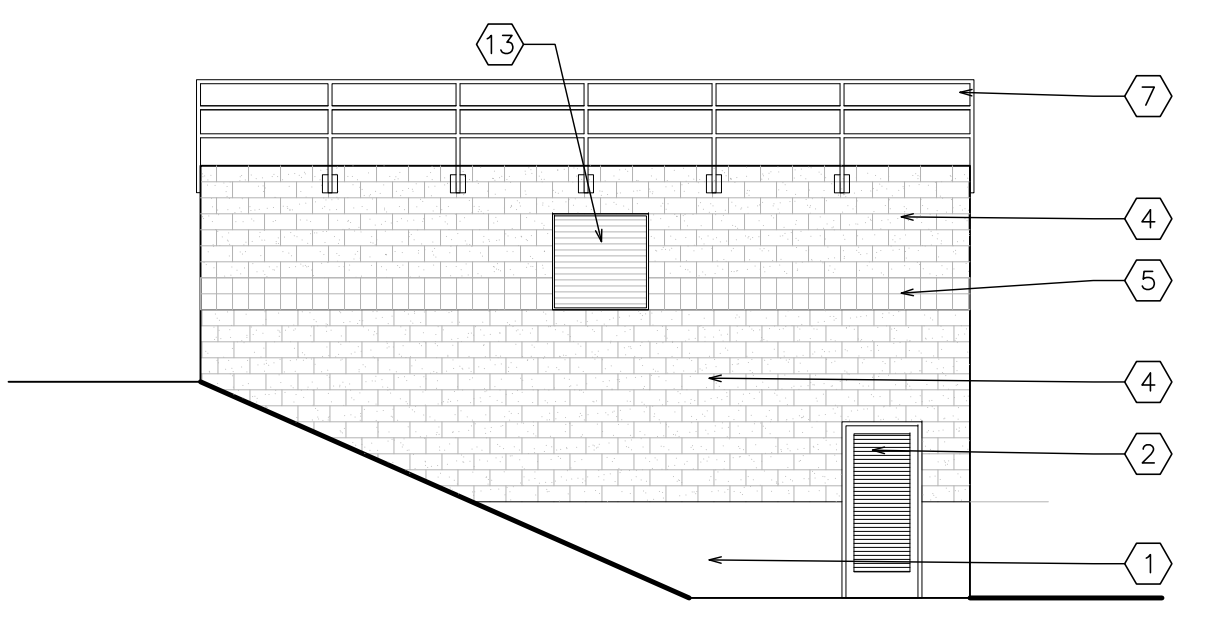
DATE:	12/22/20	SHEET A2.1 OF
SCALE:	1/4"=1'-0"	
DESIGN:	AP	
DRAWN:	AP	
CHECK:	-	



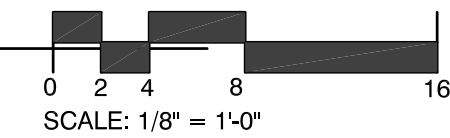
SOUTH ELEVATION

PUMP BLDG.

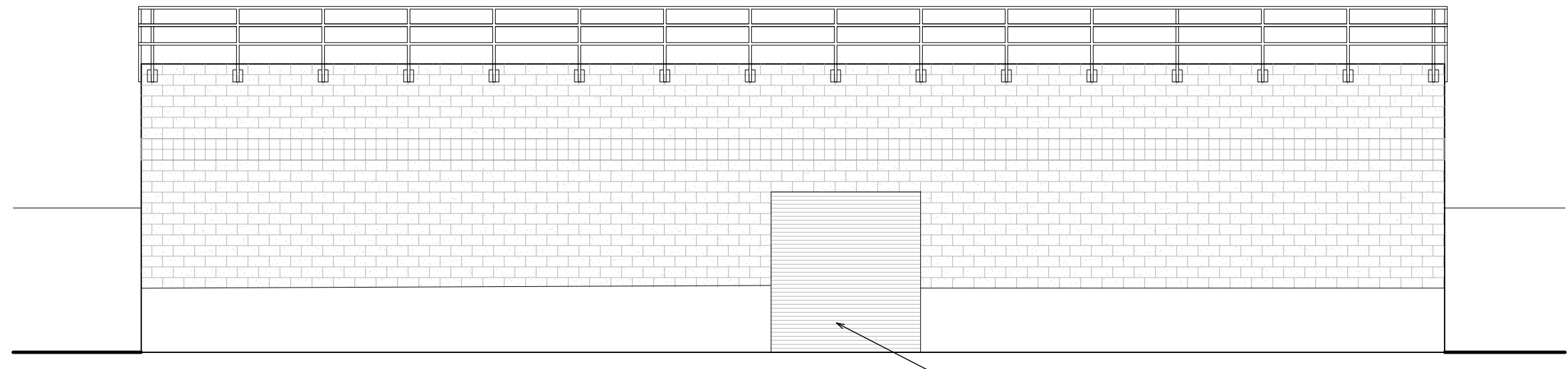
SCALE: 1/8" = 1'-0"



EAST ELEVATION (WEST SIM.)



SCALE: 1/8" = 1'-0"



NORTH ELEVATION

SPLIT-FACE COLOR OPTIONS



NATURAL GRAY LW SPLIT-FACE (ORCO or equal)

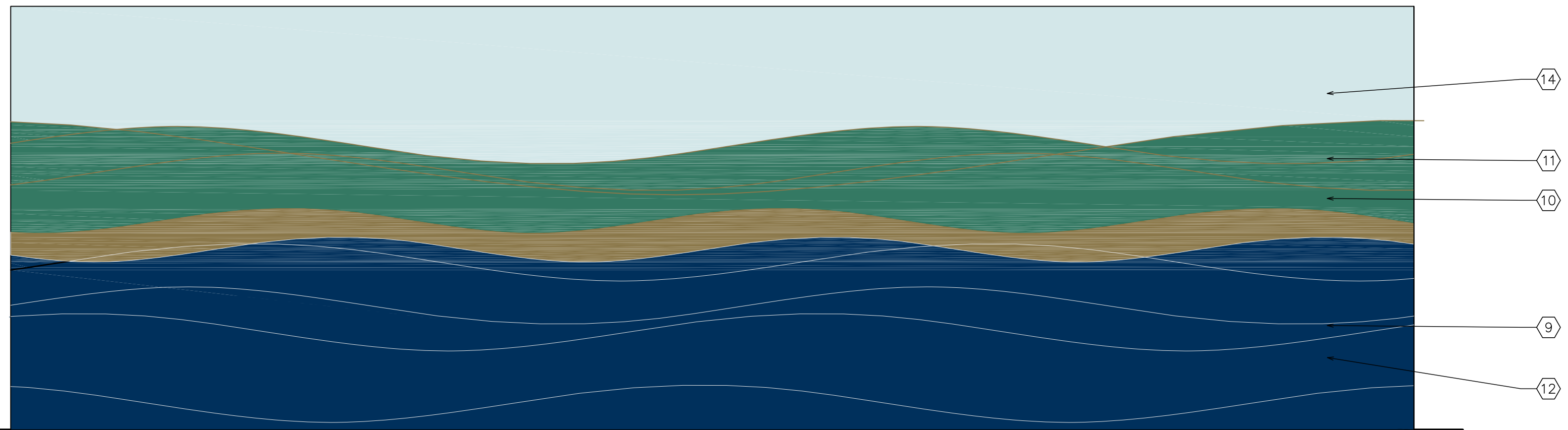


PORTOLA MW -SPLIT-FACE (ORCO or equal)

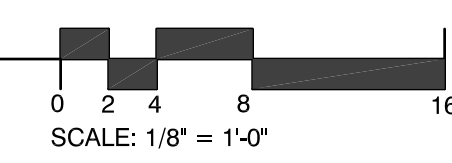
SHEET NOTES

1. CONCRETE
2. PAINTED HM DOOR WITH LOUVERS
3. PAINTED ROLLUP DOOR
4. CMU WALL- 8 x 16 SPLIT FACED, TAN COLORED
5. CMU WALL- 8 x 16 SINGLE SCORED, GROUND TEXTURE
6. -
7. METAL GUARD RAIL - SEE 9/A2.1 & STRUCTURAL DRAWINGS.
8. FENCE ; SEE 11/A2.1
9. COLOR 1: PMS 540 BAY BLUE
10. COLOR 2: PMS METALLIC 871 GOLDEN SAND
11. COLOR 3: PMS 341 VALLEY GREEN
12. SINE CURVE ACCENTS: WHITE ON COLOR 1 BACKGROUND, COLOR 2 ON COLOR 3 BACKGROUND
13. LOUVER 48" W x 48" H
14. COLOR 4: SHERWIN WILLIAMS 6784 BRAVO BLUE

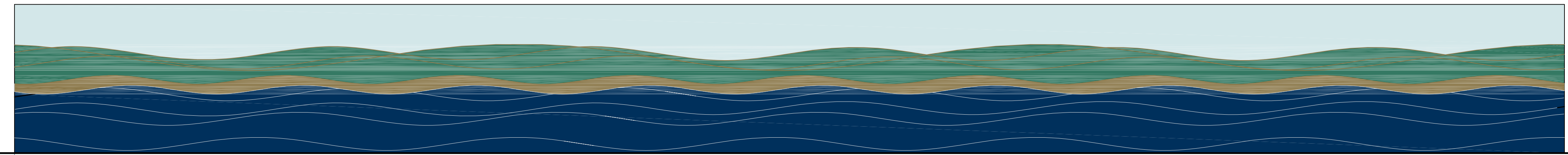
VERIFY COLORS WITH OWNER AND CSUMB REPRESENTATIVE PRIOR TO PAINTING



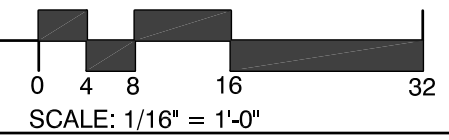
ELEVATION SCALE: 1/8" = 1'-0"
PATTERN SHOWN FLAT



SCALE: 1/8" = 1'-0"



UNWRAPPED ELEVATION SCALE: 1/16" = 1'-0"



SCALE: 1/16" = 1'-0"

TANKS

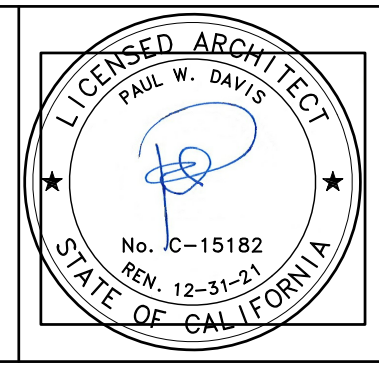
SCALE: VARIES

NO.	REVISION DESCRIPTION	DATE	APPR



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A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

ELEVATIONS

DATE:	12/22/20
SCALE:	1"=40'
DESIGN:	MF
DRAWN:	MF
CHECK:	AAS

SHEET
A3.1
OF

SITE WORK

1. A GEOTECHNICAL REPORT HAS BEEN PREPARED FOR THE PROJECT BY CORNERSTONE EARTH GROUP. A COPY OF THE REPORT IS ON FILE AT THE OFFICE OF THE ENGINEER AND MAY BE REVIEWED WITH PROPER ADVANCED NOTIFICATION.
2. EXCAVATION FOR PADS AS SHOWN ON THE DRAWINGS. THE BOTTOMS OF ALL EXCAVATIONS SHALL BE LEVEL, TAMPED FIRM, CLEAN AND FREE FROM ALL DEBRIS OR FOREIGN MATTER.
3. OVER-EXCAVATION SHALL EXTEND Laterally BEYOND THE OUTSIDE EDGE OF FOOTINGS BY A MINIMUM OF 5- FEET BEYOND THE BUILDING FOOTPRINT OR A LATERAL DISTANCE EQUAL TO THE FILL DEPTH BELOW THE PERIMETER FOOTING, WHICHEVER IS GREATER.
4. WHERE PRACTICABLE, SIDES OF FOOTINGS SHALL BE CUT NEAT AND CONCRETE Poured DIRECTLY AGAINST THE EXCAVATION. IF FORMING IS REQUIRED, THE TRENCHES SHALL BE EXCAVATED WIDE ENOUGH TO PERMIT THE ERECTION AND REMOVAL OF FORMS.
5. THE BOTTOM OF ALL EXCAVATIONS SHALL BE SCARIFIED TO A DEPTH OF 12-INCHES, MOISTURE CONDITIONED TO THE OPTIMUM MOISTURE CONTENT, AND COMPACTED TO A LEAST 95 PERCENT (± 1 PERCENT) RELATIVE COMPACTION.
6. CLASS 2 AGGREGATE BASEROCK SHALL CONSIST OF MATERIAL FREE FROM DEBRIS AND ORGANIC OR OTHER DELETERIOUS MATERIALS. BACKFILL MATERIAL SHALL BE PLACED IN 8-INCH LAYERS, LEVELED, RAMMED AND TAMPED IN PLACE. COMPACTION OF ALL LAYERS SHALL BE A MINIMUM OF 95 PERCENT MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D1557.

CONCRETE REINFORCING

1. REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF ASTM SPECIFICATION A706 OR A615, GRADE 60.
2. REINFORCING STEEL FABRICATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF CRSI MANUAL OF STANDARD PRACTICE.
3. REINFORCING SHALL HAVE THE FOLLOWING CLEAR CONCRETE COVER, UNLESS OTHERWISE NOTED ON THE DRAWINGS.

CONDITION	COVER (INCHES)
UNFORMED SURFACES IN CONTACT WITH EARTH	3
FORMED SURFACES EXPOSED TO EARTH, WATER AND/OR WEATHER	
- PRIMARY REINFORCING FOR BEAMS AND COLUMNS	2 1/2
- ALL OTHER LOCATIONS	2
BOTTOM SURFACES FOR SLAB OVER WATER	2
CONCRETE SURFACES FOR DRY CONDITIONS	
- WALLS, SLABS AND JOISTS	2
- BEAMS AND COLUMNS:	
- PRIMARY REINFORCING	2
- STIRRUPS, SPIRALS AND TIES	1 1/2

4. SPLICED BARS SHALL HAVE A MINIMUM CLASS B CONTACT LAP AS SPECIFIED IN THE LATEST EDITION OF ACI 315 DETAILING MANUAL AND ACI 318 UNLESS OTHERWISE NOTED ON THE DRAWINGS. WHERE SHOWN ON THE DRAWINGS, ld = DEVELOPMENT LENGTH AS DEFINED IN THE STANDARD DETAILS OF THESE DRAWINGS. HOOKS OF REINFORCING STEEL SHALL COMPLY WITH ACI 318.
5. WRITTEN SPACING AND LOCATION OF REINFORCING SHALL TAKE PRECEDENCE OVER DEPICTED SPACING AND LOCATION.
6. UNLESS OTHERWISE NOTED ON THE DRAWINGS, REINFORCING BARS SHOWN TERMINATING WITH A HOOK SHALL BE FABRICATED WITH A STANDARD HOOK AS DEFINED WITHIN ACI 318. WHERE SECTION THICKNESS DOES NOT ALLOW FOR FULL HOOK EXTENSION, TILT HOOK UNTIL HOOK FITS. ALTERNATIVELY CONTRACTOR MAY USE 180° HOOK OR TWO SMALLER HOOKED BARS OF EQUIVALENT AREA OF STEEL.
7. IN CASES WHERE REINFORCING BARS CANNOT BE EXTENDED AS FAR AS REQUIRED DUE TO THE LIMITED EXTENT OF THE ADJACENT CONCRETE STRUCTURE, THE BARS SHALL EXTEND AS FAR AS POSSIBLE AND BE TERMINATED WITH A STANDARD HOOK.
8. AT FOOTING CORNERS AND INTERSECTIONS, EXTEND BARS AROUND CORNERS AND LAP A MINIMUM OF 40 BAR DIAMETERS.

CONCRETE

1. REINFORCED CONCRETE SHALL CONFORM TO ACI 318.
2. PORTLAND CEMENT SHALL CONFORM TO ASTM C150 TYPE II. ONE BRAND OF CEMENT SHALL BE USED THROUGHOUT THE WORK.
3. USE OF UP TO 25% POZZOLAN (FLY ASH, CLASS F) CONTENT OF TOTAL CEMENTITIOUS MATERIAL IS PERMITTED.
4. USE OF GRANULATED GROUND BLAST FURACE SLAG (GGBFS) IN THE CONCRETE IS NOT PERMISSIBLE.
5. ALL AGGREGATES SHALL CONFORM TO ASTM C33. THE MAXIMUM SIZE AGGREGATE SHALL BE 1 INCH.
6. CONCRETE COMPRESSIVE STRENGTH SHALL MEET THE MINIMUM REQUIREMENTS LISTED BELOW.

LOCATION	MIN 28 DAY STRENGTH (psi)
STRUCTURAL CONCRETE	4,000
CONCRETE SIDEWALKS AND PAVEMENTS	3,000
CONCRETE FILL	2,500

7. ADDITIONAL BENEFITS OF INCREASED COHESION, IMPROVED COMPACTION, REDUCED SCALING AND ENHANCED LONG TERM QUALITY DURABILITY, ALL CONCRETE SHALL HAVE AIR CONTENT (ENTRAINED AND ENTRAINED) OF 5.0 TO 6.5 PERCENT.
8. CONSTRUCTION JOINTS SHALL NOT BE PLACED AT LOCATIONS OTHER THAN THOSE SHOWN ON THE DRAWINGS WITHOUT THE PRIOR APPROVAL OF THE ENGINEER OF RECORD.
9. ALL EXPOSED CORNERS OF CONCRETE SHALL HAVE 3/4" MINIMUM CHAMFER, UNLESS NOTED OTHERWISE.

CONCRETE ANCHORS

1. CAST-IN ANCHOR RODS/BOLTS SHALL BE STAINLESS STEEL. TYPE 304 FOR INTERIOR DRY CONDITIONS AND TYPE 316 FOR INTERIOR WET, EXTERIOR OR SUBMERGED CONDITIONS.
2. POST-INSTALLED CONCRETE ANCHORS, INCLUDING ADHESIVE AND EXPANSION ANCHORS, SHALL CONFORM TO MANUFACTURER'S RECOMMENDATIONS AND THE APPROPRIATE EVALUATION REPORT. ANCHORS WITHOUT A CURRENT ICC-ES ESR, IAPMO-UES ER OR EQUAL SHALL NOT BE USED.
3. UNLESS OTHERWISE INDICATED, ALL ADHESIVE AND EXPANSION ANCHORS FOR INSTALLATION IN CONCRETE SHALL HAVE SATISFIED THE REQUIREMENTS OF THE SIMULATED SEISMIC TESTS OF ACI 308.4R OR ACI 308.5R. NO SUBSTITUTION SHALL BE ALLOWED.
4. CONTRACTOR SHALL LOCATE EXISTING REBAR USING NON-DESTRUCTIVE METHODS PRIOR TO DRILLING HOLES FOR POST-INSTALLED ANCHORS. ADJUST SPACING OF ANCHORS TO MISS EXISTING REINFORCING. TOTAL NUMBER OF ANCHORS PROVIDED SHALL BE EQUAL TO THAT SHOWN ON THE DRAWINGS.
5. ADHESIVE ANCHORS SHALL CONSIST OF A TWO-COMPONENT RESIN ADHESIVE. THE PACKAGES CONTAINING EACH COMPONENT SHALL BE ATTACHED TO A DISPENSING MANIFOLD. AN AUGER STYLE NOZZLE SHALL BE ATTACHED FOR PROPER MIXING OF THE ADHESIVE COMPONENTS. WHERE THREADED RODS ARE REQUIRED, RODS SHALL CONFORM TO ASTM A193 GRADE B7. WHERE STAINLESS STEEL IS CALLED FOR ON THE DRAWINGS, STAINLESS STEEL SHALL BE TYPE 316.
6. WHERE THE DESIGN OF THE ANCHORAGE REQUIRES ADDITIONAL SUPPLEMENTAL CONCRETE REINFORCING STEEL TO PROTECT AGAINST CONCRETE FAILURE MODES, THE DESIGN OF THE ADDITIONAL SUPPLEMENTAL REINFORCING STEEL SHALL BE INCLUDED AS PART OF THE SUBMITTED ANCHORAGE CALCULATIONS. THE ADDITIONAL SUPPLEMENTAL CONCRETE REINFORCING STEEL SHALL BE TREATED AS PART OF THE REQUIRED BUILDING AND/OR EQUIPMENT ANCHORAGE AND SHALL BE PROVIDED AND INSTALLED AT NO ADDITIONAL COST TO THE DISTRICT.

CONDUITS AND PIPES EMBEDDED IN CONCRETE

1. CONDUIT, PIPES, AND SLEEVES OF ANY MATERIAL NOT HARMFUL TO CONCRETE AND WITHIN LIMITATIONS OF THE PROJECT DRAWINGS AND SPECIFICATIONS, AND ACI 318 MAY BE PERMITTED TO BE EMBEDDED IN CONCRETE SUBJECT TO PRIOR APPROVAL BY THE ENGINEER OF RECORD, PROVIDED THEY ARE NOT CONSIDERED, BY THE ENGINEER OF RECORD, TO DISPLACE STRUCTURAL CONCRETE, EXCEPT AS PROVIDED HEREIN.
2. CONDUITS AND PIPES OF ALUMINUM SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE.
3. CONDUITS AND PIPES, WITH THEIR FITTINGS, EMBEDDED WITHIN A COLUMN SHALL NOT DISPLACE MORE THAN 4-PERCENT OF THE AREA OF THE CROSS SECTION ON WHICH THE STRENGTH IS CALCULATED OR WHICH IS REQUIRED FOR FIRE PROTECTION. THE ENGINEER OF RECORD SHALL DETERMINE IF THE STRENGTH OF THE CONSTRUCTION HAS BEEN SIGNIFICANTLY IMPAIRED.
4. CONDUITS AND PIPES EMBEDDED WITHIN A SLAB, WALL, OR BEAM SHALL SATISFY THE FOLLOWING:
 - a) THEY SHALL NOT BE LARGER IN OUTSIDE DIAMETER THAN 1/3 THE OVERALL THICKNESS OF SLAB, WALL, OR BEAM IN WHICH THEY ARE EMBEDDED.
 - b) MINIMUM CENTER-TO-CENTER SPACING BETWEEN CONDUIT AND/OR PIPING RUNS SHALL BE 3 TIMES OUTSIDE DIAMETER OR WIDTH.
 - c) THEY SHALL BE LOCATED IN SUCH A MANNER AS TO MAINTAIN A MINIMUM OF 1-INCH CLEAR SPACE BETWEEN THE EMBEDDED ITEM AND PRIMARY REINFORCEMENT.
 - d) THEY SHALL NOT SIGNIFICANTLY IMPAIR THE STRENGTH OF THE CONSTRUCTION. THE ENGINEER OF RECORD SHALL DETERMINE IF THE STRENGTH OF THE CONSTRUCTION HAS BEEN SIGNIFICANTLY IMPAIRED.
5. NO LIQUIDS, GAS, OR VAPOR, EXCEPT WATER NOT EXCEEDING 90 DEGREES FAHRENHEIT NOR 50 PSI, SHALL BE PLACED IN THE PIPES UNTIL THE CONCRETE HAS ATTAINED ITS DESIGN STRENGTH AS DETERMINED BY FIELD CYLINDER TESTS.
6. IN SOLID SLABS, CONDUITS AND/OR PIPING SHALL BE PLACED BETWEEN THE TOP AND BOTTOM REINFORCEMENT AT THE CENTERLINE OF THE SLAB. AT A MINIMUM, THEY SHALL BE LOCATED IN SUCH A MANNER AS TO MAINTAIN A MINIMUM OF 1-INCH CLEAR SPACE BETWEEN THE EMBEDDED ITEM AND PRIMARY REINFORCEMENT.
7. CONCRETE COVER FOR PIPES, CONDUITS, AND FITTINGS SHALL NOT BE LESS THAN 2-INCHES FOR CONCRETE EXPOSED TO EARTH, CONTAINED LIQUIDS, OR WEATHER, NOR LESS THAN 1-INCH FOR CONCRETE NOT EXPOSED TO CONTAINED LIQUIDS, WEATHER OR IN CONTACT WITH GROUND.
8. ADDITIONAL REINFORCEMENT WITH AN AREA NOT LESS THAN 0.002 TIMES THE AREA OF CONCRETE SECTION SHALL BE PROVIDED NORMAL TO THE CONDUIT AND/OR PIPING.
9. CONDUITS AND/OR PIPING SHALL BE SO FABRICATED AND INSTALLED THAT CUTTING, BENDING, OR DISPLACEMENT OF PRIMARY REINFORCEMENT FROM ITS PROPER LOCATION WILL NOT BE REQUIRED.

CONDUIT AND PIPES EMBEDDED IN CONCRETE MASONRY UNITS

1. CONDUIT, PIPES, AND SLEEVES OF ANY MATERIAL NOT HARMFUL TO MASONRY AND WITHIN LIMITATIONS OF THE PROJECT DRAWINGS AND SPECIFICATIONS, AND ACI-530 SHALL BE PERMITTED TO BE EMBEDDED IN MASONRY WITH THE PRIOR APPROVAL OF THE ENGINEER OF RECORD, PROVIDED THEY ARE NOT CONSIDERED, BY THE ENGINEER OF RECORD, TO DISPLACE STRUCTURAL MASONRY, EXCEPT AS PROVIDED HEREIN.
2. CONDUITS AND PIPES OF ALUMINUM SHALL NOT BE EMBEDDED IN STRUCTURAL MASONRY.
3. CONDUITS AND PIPES EMBEDDED HORIZONTALLY WITHIN THE PLANE OF THE WALL SHALL NOT BE PERMITTED.
4. CONDUITS AND PIPES EMBEDDED VERTICALLY SHALL NOT BE PLACED WITHIN A MASONRY CELL CONTAINING PRIMARY VERTICAL REINFORCEMENT.
5. CONDUITS AND PIPES EMBEDDED VERTICALLY WITHIN A MASONRY CELL SHALL NOT BE LARGER IN OUTSIDE DIAMETER THAN 1-INCH.
6. CONDUITS, PIPES, AND SLEEVES IN MASONRY SHALL NOT BE CLOSER THAN THREE DIAMETERS ON CENTER.
7. PIPES SHALL NOT BE EMBEDDED IN MASONRY WHEN:
 - a) CONTAINING LIQUID, GAS, OR VAPORS, AT TEMPERATURE HIGHER THAN 150 DEGREES-FAHRENHEIT
 - b) UNDER PRESSURE IN EXCESS OF 55-PSI.
 - c) CONTAINING WATER OR OTHER LIQUIDS SUBJECT TO FREEZING.
8. CONDUITS AND PIPES, WITH THEIR FITTINGS, EMBEDDED WITHIN A COLUMN OR PILASTER SHALL NOT DISPLACE MORE THAN 2-PERCENT OF THE AREA OF THE CROSS-SECTION ON WHICH THE STRENGTH IS CALCULATED OR WHICH IS REQUIRED FOR FIRE PROTECTION. THE ENGINEER OF RECORD SHALL DETERMINE IF THE STRENGTH OF THE CONSTRUCTION HAS BEEN SIGNIFICANTLY IMPAIRED.
9. CONDUITS AND/OR PIPING SHALL BE SO FABRICATED AND INSTALLED THAT CUTTING, BENDING, OR DISPLACEMENT OF REINFORCEMENT FROM ITS PROPER LOCATION WILL NOT BE REQUIRED.
10. THE MINIMUM CELL DIMENSIONS PROVIDED FOR THE PLACEMENT OF GROUT SHALL SATISFY THE GROUT AND POUR HEIGHT LIMITATIONS ESTABLISHED WITHIN THE PROJECT SPECIFICATIONS AND GOVERNING CODES/STANDARDS.
11. HOLES WITHIN MASONRY FACE SHELL SHALL BE CREATED BY MEANS OF CORING, CHIPPING OR OTHER METHODS THAT RESULT IN "BREAKING OUT" MASONRY SHALL NOT BE PERMITTED.
12. FLUSH MOUNTING (EMBEDDING) OF ELECTRICAL OUTLET BOXES SHALL NOT BE PERMITTED.

METAL JOISTS (PRE-ENGINEERED METAL TRUSSES)

1. METAL JOISTS, BRIDGING AND ACCESSORIES SHALL BE FABRICATED IN ACCORDANCE WITH THE STANDARDS OF THE STEEL JOIST INSTITUTE (SJI) BY A MANUFACTURER CERTIFIED BY SJI.
2. OPEN WEB STEEL JOISTS SHALL CONFORM TO SJI STANDARD FOR OPEN WEB STEEL JOISTS. SIZE AND LOCATION AS SHOWN ON THE DRAWINGS.
3. METAL JOISTS SHALL BE OF WELDED CONSTRUCTION, AND TOP AND BOTTOM CHORDS SHALL BE CONSTRUCTED OF HOT ROLLED STEEL SHAPES, RODS, REINFORCING BARS, OR COLD-FORMED STEEL MEMBERS WILL NOT BE ALLOWED FOR TOP AND BOTTOM CHORDS.
4. ALL JOISTS SHALL BE PRIME PAINTED.
5. SIZE AND LOCATION OF DIAGONAL AND HORIZONTAL BRIDGING SHALL BE PER SJI SPECIFICATIONS AND AS SHOWN ON THE DRAWINGS.
6. FIELD WELDING SHALL BE DONE BY CERTIFIED WELDERS IN ACCORDANCE WITH AWS (D1.1).
7. HIGH STRENGTH STEEL BOLTS SHALL CONFORM TO ASTM A325 AND SHALL BE MECHANICALLY GALVANIZED IN ACCORDANCE WITH ASTM B695, CLASS 50, TYPE II.
8. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW BY THE ENGINEER PRIOR TO FABRICATION.

METAL DECK

1. METAL DECK SHALL CONFORM TO THE REQUIREMENTS OF THE STEEL DECK INSTITUTE (SDI) STANDARD FOR STEEL DECK.
2. METAL DECK SHALL BE 1-1/2" INCH RIB DEPTH, TYPE B (WIDE RIB) AS MANUFACTURED BY VULCRAFT, OR APPROVED EQUAL. DECK SHEETS SHALL BE 36-INCHES WIDE WITH NESTABLE SIDE LAPS. GAGE SHALL BE AS SHOWN ON THE DRAWINGS.
3. METAL DECK AND ACCESSORIES SHALL BE MANUFACTURED FROM STEEL CONFORMING TO ASTM A653.
4. THE MINIMUM YIELD STRENGTH OF METAL DECK SHALL BE 38 KSI.
5. METAL DECK AND ACCESSORIES SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A653, COATING DESIGNATION G90.
6. PROVIDE MINIMUM 18-GAGE CLOSURE STRIPS, CANT STRIPS AND BUTT PLATES AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN. PROVIDE MINIMUM 14-GAGE ROOF SUMP PANS AS SHOWN ON THE DRAWINGS.
7. END LAPS OF METAL DECK SHALL BE AT LEAST 2-INCHES LONG AND SHALL OCCUR OVER TRANSVERSE SUPPORTING MEMBERS.
8. FASTEN METAL DECK TO ALL INTERIOR AND EXTERIOR TRANSVERSE SUPPORTS AND AT SIDE LAPS AND LONGITUDINAL SUPPORTS. DECK FASTENERS AND FASTENING SPACING SHALL BE AS NOTED IN THE METAL DECK SCHEDULE AND ROOF DECK FASTENING STANDARD DETAILS OR AS INDICATED ON THE ROOF FRAMING PLAN.
9. FIELD WELDING SHALL BE DONE BY CERTIFIED WELDERS AND SHALL BE IN ACCORDANCE WITH AWS D1.3 "STRUCTURAL WELDING CODE - SHEET STEEL."
10. WELDING FILLER MATERIAL SHALL BE AWS A5.1 OR A5.5 E60XX LOW HYDROGEN ELECTRODES.
11. WELDING SHALL RECEIVE SPECIAL INSPECTION IN ACCORDANCE WITH CHAPTER 17 OF IBC.
12. WELDS TO SUPPORTING MEMBERS AT END LAPS AND SIDE LAPS SHALL GO THROUGH BOTH SHEETS AND FUSE PROPERLY TO THE SUPPORTING STEEL.
13. WELD CLOSURE STRIPS, CANT STRIPS, BUTT PLATES AND ROOF SUMP PANS DIRECTLY TO METAL DECK TO PROVIDE FINISHED SURFACE.
14. OPENINGS GREATER THAN 6-INCHES AND LESS THAN 12-INCHES IN GREATEST DISTANCE SHALL BE REINFORCED WITH A 24-INCH BY 24-INCH FLAT PLATE, MINIMUM 20-GAGE THICKNESS, CENTERED ON THE OPENING.
15. METAL DECK SHALL BE CONTINUOUS FOR A MINIMUM OF THREE SPANS EXCEPT WHERE STEEL LAYOUT DOES NOT PERMIT.
16. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE STRUCTURAL WELDING CODE OF THE AWS (D1.1). CERTIFIED WELDERS SHALL PERFORM ALL WELDING.
17. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW BY THE ENGINEER PRIOR TO FABRICATION.

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A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

GENERAL NOTES II

DATE: 1/4/2021
 SCALE: NTS
 DESIGN: RKT
 DRAWN: ADP
 CHECK:

SHEET
 GS-2
 OF

NO.	REVISION DESCRIPTION	DATE	APPR

ABBREVIATIONS:

Ø	DIAMETER	fc	CONCRETE COMPRESSIVE STRENGTH	PCF	POUNDS PER CUBIC FOOT
°F	DEGREES - FAHRENHEIT	f _m	MASONRY PRISM STRENGTH	PJF	PREMOLDED JOINT FILLER PLATE
°C	DEGREES - CELSIUS	FAB	FABRICATE (OR, ED)	PL	PLYWOOD
AB	ANCHOR BOLT	FD	FLOOR DRAIN	PM	PRESSED METAL
ACI	AMERICAN CONCRETE INSTITUTE	FDN	FOUNDATION	PRCST	PRECAST
ADDL	ADDITIONAL	FHMS	FLATHEAD MACHINE SCREW	PRFAB	PRE-FABRICATED
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	FHWS	FLATHEAD WOOD SCREW	PSF	POUNDS PER SQUARE FOOT
AISI	AMERICAN IRON AND STEEL INSTITUTE	FIG	FIGURE	PSI	POUNDS PER SQUARE INCH
AITC	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION	FIN	FINISH (ED)	PT	POINT
AL	ALUMINUM	FL	FLOOR	PT	PRESSURE TREATED
ALT	ALTERNATE(ING)	FLX	FLEXIBLE	PVC	POLYVINYL CHLORIDE
APPROX	APPROXIMATE(LY)	FO	FACE OF	PVMT	PAVEMENT
AR	ANCHOR ROD	FRP	FIBERGLASS REINFORCED PLASTIC	PWT	PREFABRICATED WOOD TRUSS
ARND	AROUND	FTG	FOOTING	R	RISER
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	FURN	FURNISHED	RAD	RADIUS
ASTM	ASTM INTERNATIONAL	GA	GAGE	RC	REINFORCED CONCRETE
ATR	ALL-THREADED ROD	GALV	GALVANIZED	RD	ROOF DRAIN
AWS	AMERICAN WELDING SOCIETY	GALVS	GALVANIZED STEEL	REF	REFERENCE / REFER
		GLB	GLUE LAMINATED BEAM	REINF	REINFORCE (D, ING)
		GR	GUARD RAIL	REQD	REQUIRED
		GRTG	GRATING	REV	REVISION
				RM	ROOM
				RO	ROUGH OPENING
				RT	RIGHT
B TO B	BACK TO BACK	H.A.S.	HEADED ANCHOR STUD	SB	SOLID BLOCKING
BLDG	BUILDING	HD	HEADER	SCHED	SCHEDULE
BLK	BLOCK(ING)	HDR	HARDWOOD	SECT	SECTION
BM	BEAM	HDWD	HARDWOOD	SHT	SHEET
BN	BOUNDARY NAILING	HGR	HANGER	SIM	SIMILAR
B.O.	BOTTOM OF	HGT	HEIGHT	SL	SLOPE
BOT	BOTTOM	HM	HOLLOW METAL	SLNT	SEALANT
BRS	BEARING	HOR	HORIZONTAL	SP	SPACE (S, ED)
BTWN	BETWEEN	HP	HIGH POINT	SPEC	SPECIFICATION, SPECIFIED
		HR	HANDRAIL	SQ	SQUARE
		HS	HIGH STRENGTH	SQ-FT	SQUARE-FEET
CBC	CALIFORNIA BUILDING CODE	IAMPO	INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS	SS	STAINLESS STEEL
C/C	CENTER TO CENTER			SSMH	SANITARY SEWER MANHOLE
CHKD	CHECKERED			STD	STANDARD
CIRC	CIRCUMFERENTIAL			STIF	STIFFENER
CJ	CONSTRUCTION JOINT	ICC	INTERNATIONAL CODE COUNCIL	STIR.	STIRRUP (S)
CL	CENTERLINE	ID	INSIDE DIAMETER	STL	STEEL
CLG	CEILING	IE	INVERT ELEVATION	STRUC	STRUCTURE (S, URAL)
CLKG	CAULKING	I.F.	INSIDE FACE	STWY	STAIRWAY
CLR	CLEAR	INT	INTERIOR	SYM	SYMMETRICAL
CMU	CONCRETE MASONRY UNIT	I.P.S.	IRON PIPE SIZE	T	TREAD (S)
COL	COLUMN			T&B	TOP AND BOTTOM
CONC	CONCRETE			T&G	TONGUE AND GROOVE
CONN	CONNECTION	JB	JUNCTION BAR	TD	TRENCH DRAIN
CONST	CONSTRUCTION	JT	JOINT	THD	THREADED
CONT	CONTINUOUS	JT FLR	JOINT FILLER	THK	THICK (NESS)
CRS	COURSE(S)			TJ	TOOLED JOINT
CRSI	CONCRETE REINFORCING STEEL INSTITUTE	LBS	POUNDS	T.O.	TOP OF
		Ld	DEVELOPMENT LENGTH	TOC	TOP OF CONCRETE
CSK	COUNTERSINK	Ldh	DEVELOPMENT LENGTH STANDARD HOOK	TOS	TOP OF STEEL
CTJ	CONTROL JOINT	LG	LONG	T.O.W.	TOP OF WALL
CTR	CENTER (ED)	LL	LIVE LOAD	TPER	THERMOPLASTIC ELASTOMERIC RUBBER
		LLH	LONG LEG HORIZONTAL	TRNSV	TRANSVERSE
D	DEEP, DEPTH	LLV	LONG LEG VERTICAL	TYP	TYPICAL
d	PENNY	LNTL	LINTEL	UES	UNIFORM EVALUATION SERVICES UNLESS OTHERWISE NOTED
d _b	BAR DIAMETER/LIVE LOAD	LONG.	LONGITUDINAL	UON	
DBL	DOUBLE	LP	LOW POINT	VERT	VERTICAL
DEMO	DEMOLITION	Ls	CLASS B TENSION	VIF	VERIFY IN FIELD
DET	DETAIL	LT	CONTACT LAP SPLICE	VR	VAPOR RETARDER
DF	DOUGLAS FIR	LT	LEFT	W	WIDE
DIA	DIAMETER	LW	LIGHTWEIGHT	W/	WITH
DIAG	DIAGONAL			W/O	WITHOUT
DIM	DIMENSION	MAS	MASONRY	WD	WIDTH / WOOD
DL	DEAD LOAD	MATL	MATERIAL	WP	WORKING POINT
DN	DOWN	MAX	MAXIMUM	WPG	WATERPROOFING
DO.	DITTO	MB	MACHINE BOLT	WS	WATERSTOP
DP	DAMP-PROOFING	MCJ	MASONRY CONTROL JOINT	WT	WEIGHT
DR	DRAIN	MFR	MANUFACTURER	WWF	WELDED WIRE FABRIC
DWG(S)	DRAWING(S)	MIN	MINIMUM		
DWL(S)	DOWEL(S)	MO	MASONRY OPENING		
		MTL	METAL		
(E)	EXISTING	NAAMM	NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS		
EA	EACH	NIC	NOT IN CONTRACT		
EB	EXPANSION BOLT	NOM	NOMINAL		
ECC	ECCENTRIC	NSG	NON-SHRINK GROUT		
ED	EQUIPMENT DRAIN	NTS	NOT TO SCALE		
EF	EACH FACE				
EL	ELEVATION	O/E	OR EQUAL		
EMBED	EMBEDMENT	OC	ON CENTER		
EN	EDGE NAILING	OD	OUTSIDE DIAMETER		
EOR	ENGINEER OF RECORD	O.F.	OUTSIDE FACE		
EQ	EQUAL (LY)	OPNG(S)	OPENING(S)		
EQUIP	EQUIPMENT	OPP	OPPOSITE		
EQUIV	EQUIVALENT	OPP HD	OPPOSITE HAND		
ES	EACH SIDE	OPT	OPTION (AL)		
ESR	EVALUATION SERVICE REPORT				
ETC	ETCETERA				
EW	EACH WAY				
EXP	EXPANSION				
EXP JT	EXPANSION JOINT				
EXST	EXISTING				
EXT	EXTERIOR				
EY	EPOXY				

LEGEND:

CLASS II AGGREGATE BASE		GRATING		SPAN DIRECTION WHERE APPLICABLE
CLASS II PERMEABLE		MASONRY		
CLSM, CONTROLLED LOW STRENGTH MATERIAL		PAVEMENT OR SIDEWALK		
CONCRETE		SAND		
CONCRETE GROUT		STRUCTURAL FILL/BACKFILL		
DRAIN ROCK		UNDISTURBED EARTH		
SLOPE DOWN				

ABBREVIATION NOTES:

- ABBREVIATIONS AND DESIGNATIONS FOR STEEL MEMBERS MAY BE FOUND IN THE CURRENT STEEL CONSTRUCTION MANUAL BY AISC.
- ABBREVIATIONS OF TECHNICAL SOCIETIES AND TRADE ASSOCIATIONS MAY BE FOUND IN THE SPECIFICATIONS
- WELDING SYMBOLS AND ABBREVIATIONS MAY BE FOUND IN AWS 2.4.
- ABBREVIATIONS LISTED ARE FOR USE WITH STRUCTURAL DRAWINGS ONLY. SOME ABBREVIATIONS LISTED MAY NOT BE USED ON THE PLANS.

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MARINA COAST WATER DISTRICT
 11 RESERVATION ROAD
 MARINA, CA 93933
 (831) 384-6131

Schaaf & Wheeler
 CONSULTING CIVIL ENGINEERS
 3 QUAIL RUN CIRCLE, STE. 101
 SALINAS, CA 93907
 (831) 883-4848



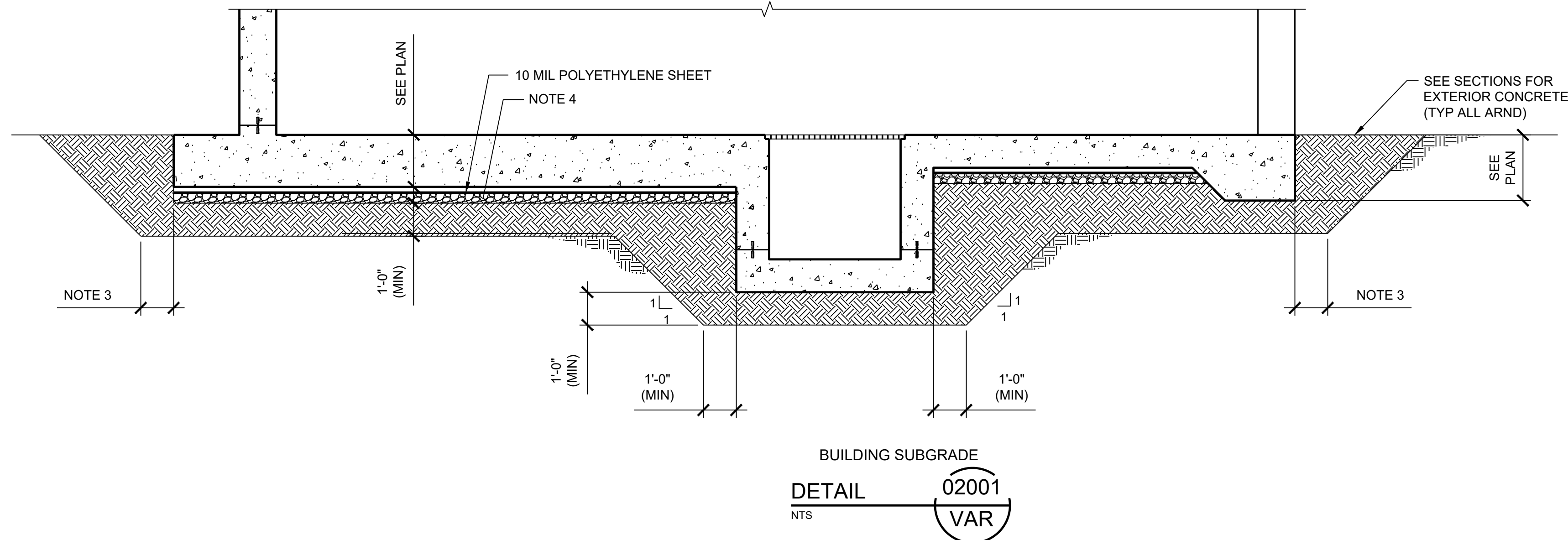
A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

ABBREVIATIONS AND LEGEND

DATE:	1/4/2021
SCALE:	NTS
DESIGN:	RKT
DRAWN:	ADP
CHECK:	

SHEET
GS-3
 OF

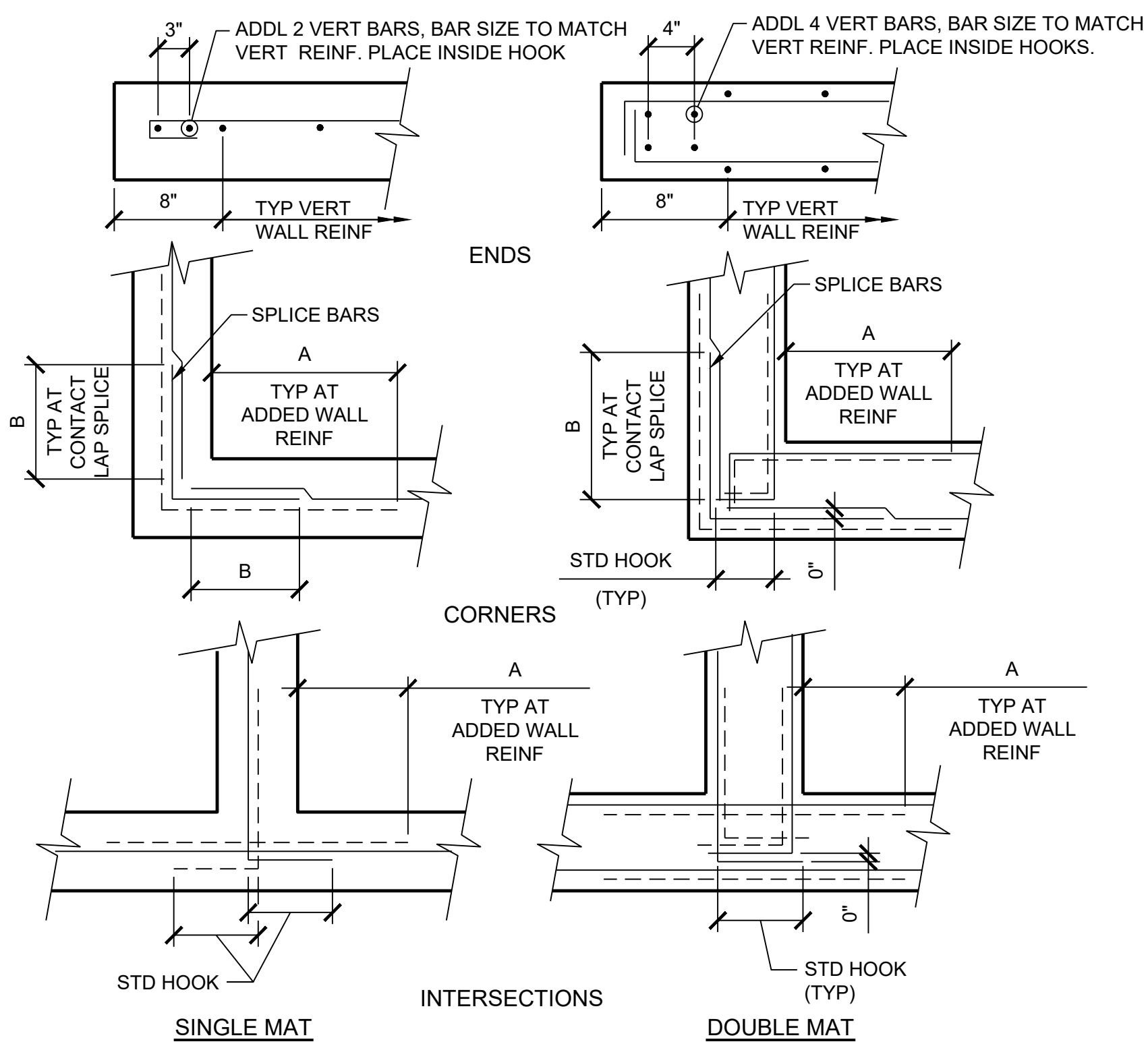
NO.	REVISION DESCRIPTION	DATE	APPR



NOTES:

1. FOOTINGS/FOUNDATIONS SHALL BE EXCAVATED INTO FIRM NATIVE SOIL OR ENGINEERED FILL. FOOTING/FOUNDATION EXCAVATIONS SHALL BE OBSERVED BY THE GEOTECH ENGINEER BEFORE PLACEMENT OF STEEL OR CONCRETE.
2. SUBGRADE PREPARATION SHOWN TYPICAL FOR BOTH DIRECTIONS.
3. OVER-EXCAVATION SHALL EXTEND LATERALLY BEYOND THE OUTSIDE EDGE OF FOOTINGS BY A MINIMUM OF 5- FEET BEYOND THE BUILDING FOOTPRINT OR A LATERAL DISTANCE EQUAL TO THE FILL DEPTH BELOW THE PERIMETER FOOTING, WHICHEVER IS GREATER.
4. PLACE A MINIMUM 10-MIL VAPOR RETARDER CONFORMING TO ASTM E 1745, CLASS C REQUIREMENTS OR BETTER DIRECTLY BELOW THE CONCRETE SLAB; THE VAPOR RETARDER SHALL EXTEND TO THE SLAB EDGES AND BE SEALED AT ALL SEAMS AND PENETRATIONS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND ASTM E 1643 REQUIREMENTS. A 4-INCH-THICK CAPILLARY BREAK, CONSISTING OF CRUSHED ROCK SHALL BE PLACED BELOW THE VAPOR RETARDER AND CONSOLIDATED IN PLACE WITH VIBRATORY EQUIPMENT. THE MINERAL AGGREGATE SHALL BE OF SUCH SIZE THAT THE PERCENTAGE COMPOSITION BY DRY WEIGHT AS DETERMINED BY LABORATORY SIEVES WILL CONFIRM TO THE FOLLOWING GRADATION:

SIEVE SIZE	PERCTAGE PASSING SIEVE
1"	100
3/4"	90 - 100
NO. 4	0 - 10



— DENOTES TYPICAL WALL REINFORCING.
- - - DENOTES ADDED WALL REINFORCING WHERE NOTED ON DRAWINGS.

A = 1/4 CLEAR SPAN, BUT NOT LESS THAN REQUIRED FOR CLASS B TENSION CONTACT LAP NOR GREATER THAN 10- FEET.

B = CLASS B TENSION CONTACT LAP. ASSUME "TOP BAR" LAPS WHERE MORE THAN 12" OF CONCRETE IS CAST IN ONE LIFT BENEATH THE BAR.

SPLICE BARS TO BE SAME SIZE & SPACING AS LARGER OF BARS BEING SPLICED, UON. SPLICE BARS SHALL BE CONTACT LAPPED WITH TYPICAL WALL REINFORCING.

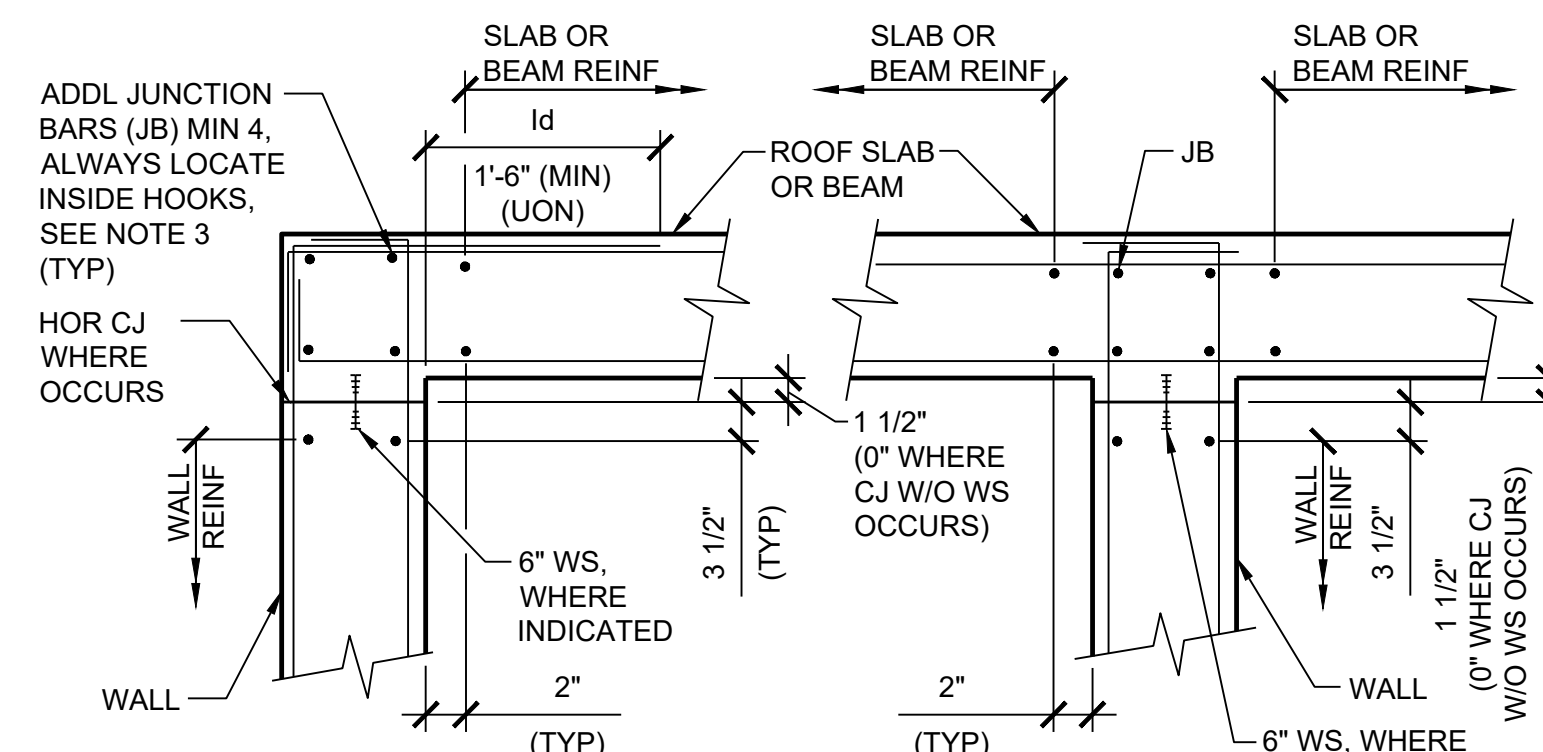
EXTEND BAR HOOKED ENDS TO FAR FACE OF WALL. WHERE WALL THICKNESS DOES NOT ALLOW FOR FULL HOOK EXTENSION, TILT (DOWN/UP) UNTIL HOOK FITS INTO WALL. ALTERNATIVELY, CONTRACTOR MAY USE 180° HOOK OR TWO SMALLER HOOKED BARS OF EQUIVALENT AREA OF STEEL.

ALTERNATE THE TYPICAL AND ADDED BARS. ADDED BARS TO BE IN SAME VERTICAL PLANE AS TYPICAL REINFORCING.

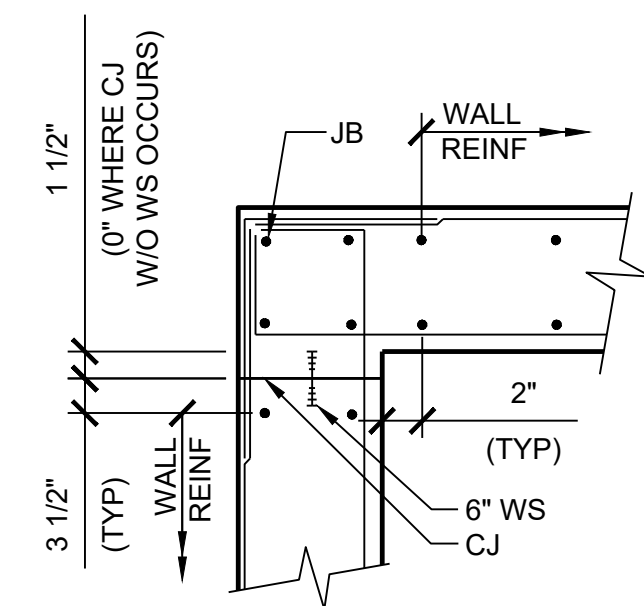
SOME VERTICAL REINFORCEMENT NOT SHOWN FOR CLARITY.

WALL REINFORCING PLANS

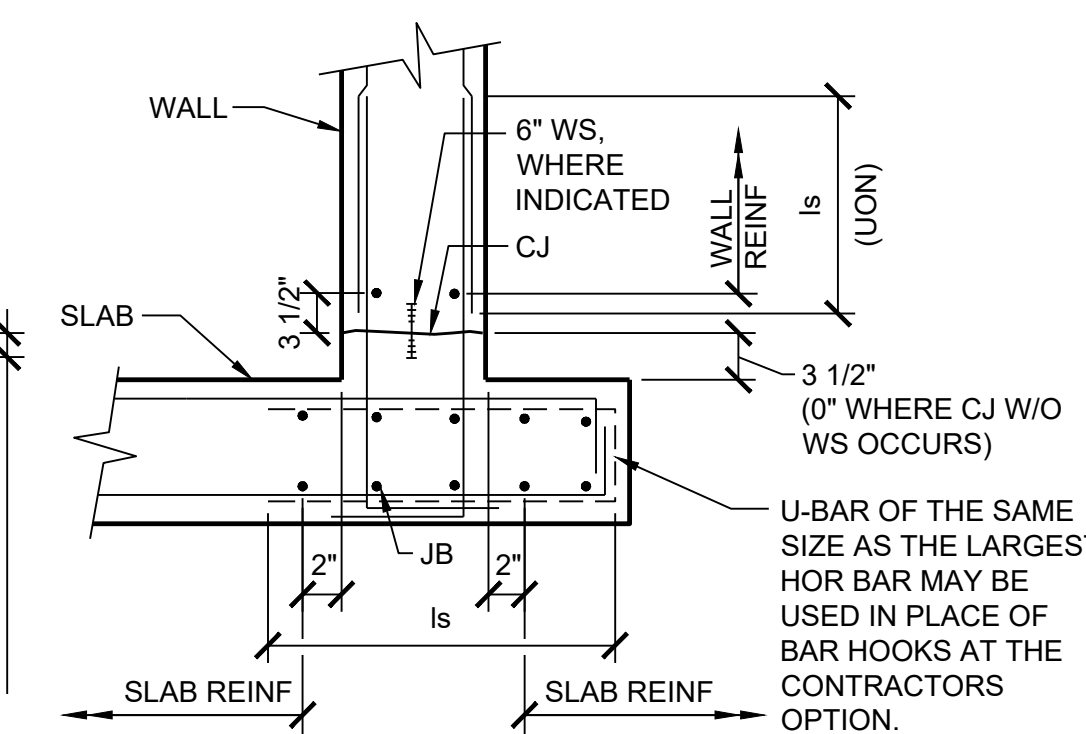
DETAIL 03001
NTS VAR



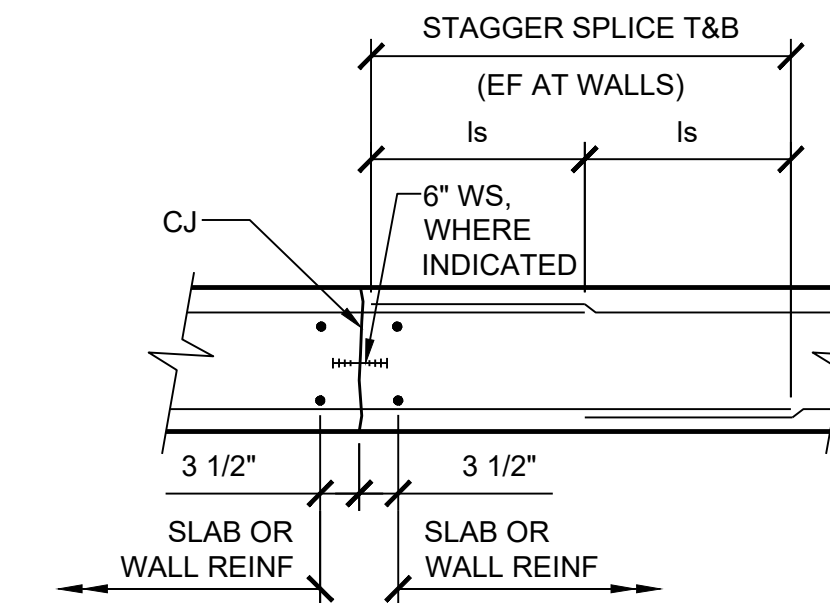
WALL TO TOP SLAB (SECTION)



WALL TO WALL (PLAN)



WALL TO BOTTOM SLAB (SECTION)



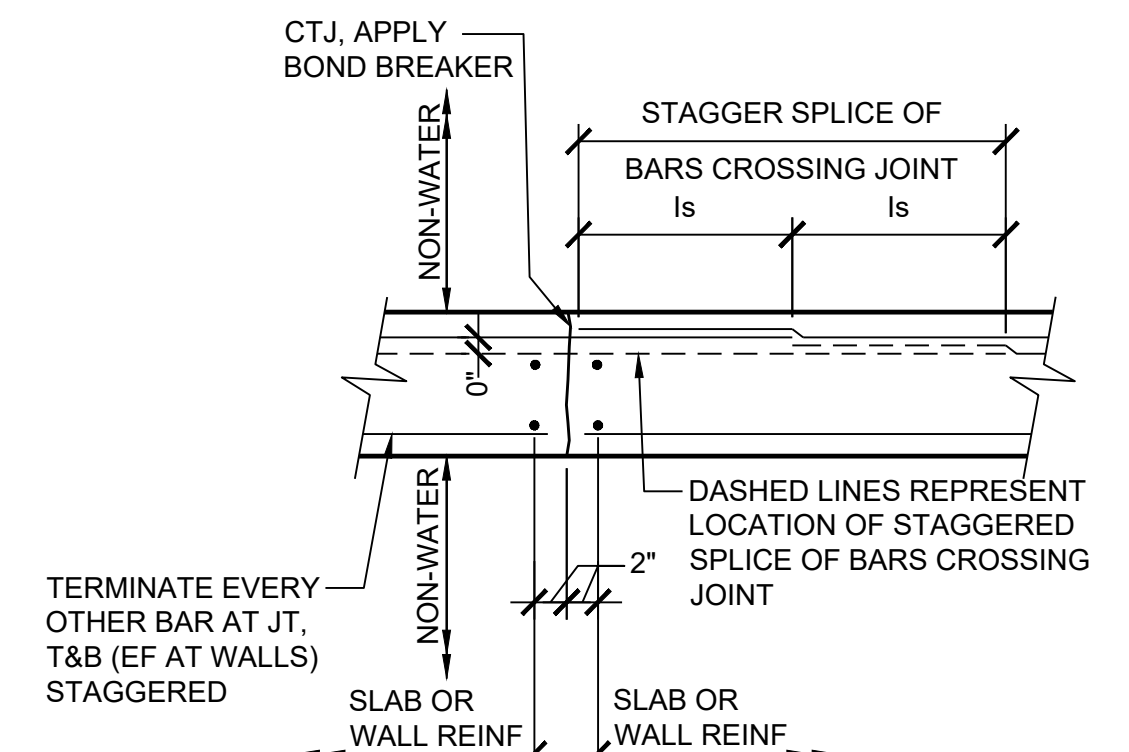
SLAB OR WALL CONTINUATION (PLAN/SECTION)

CONSTRUCTION JOINT (CJ)

DETAIL 03002
NTS VAR

CONSTRUCTION JOINT NOTES:

1. REINFORCING SHOWN IS FOR CLARITY ONLY. SEE PLANS AND SECTIONS FOR REINFORCING SIZES, SPACING, LOCATION AND DETAILS.
2. ALL SURFACES SHALL BE PREPARED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
3. JUNCTION BARS SHALL BE SAME SIZE OF THE LARGER OF WALL OR SLAB REINFORCING EXCEPT WHERE OTHERWISE NOTED ON THE DETAILS OR DRAWINGS. THESE ARE ADDITIONAL BARS TO THOSE CALLED OUT FOR WALLS & SLABS. JUNCTION BARS SHALL BE PLACED INSIDE PRIMARY REINFORCING.
4. ALL LAP SPLICES SHALL BE CLASS B TENSION CONTACT LAP.
5. WATERSTOP SHALL BE PLACED AT CENTER OF WALL OR SLAB, UNLESS OTHERWISE NOTED.
6. UNLESS OTHERWISE NOTED WATERSTOP SHALL BE PLACED AT ALL CONSTRUCTION JOINTS FOR BELOW GRADE OR WATER RETENTION STRUCTURES.
7. SEE PLANS & SECTIONS FOR LOCATION OF JOINTS.
8. UNLESS OTHERWISE NOTED, WITHIN CONTRACT DOCUMENTS, REINFORCING BARS SHALL TERMINATE WITH A STANDARD HOOK. WHERE SECTION THICKNESS DOES NOT ALLOW FOR FULL HOOK EXTENSION, ROTATE HOOK UNTIL HOOK FITS. ALTERNATIVELY, CONTRACTOR MAY USE 180° HOOK OR TWO SMALLER HOOKED BARS OF EQUIVALENT AREA OF STEEL.
9. SEE DETAIL 03001 FOR ADDITIONAL REINFORCING.
10. SEE PLANS AND SECTIONS FOR ORIENTATION OF PRIMARY REINFORCING.



SLAB OR WALL

CONTROL JOINT NOTES:

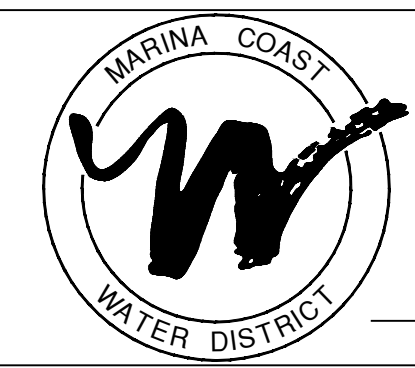
1. ALL SURFACES SHALL BE ROUGHENED AND PREPARED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
2. REINFORCING SHOWN IS FOR CLARITY ONLY. SEE PLANS AND SECTIONS FOR REINFORCING SIZES AND LOCATIONS.
3. ALL LAP SPLICES SHALL BE CLASS B TENSION CONTACT LAP OR 2'-0", WHICHEVER IS GREATER. PROVIDE "TOP BAR" LAPS WHERE MORE THAN 12" OF CONCRETE IS CAST IN ONE LIFT BENEATH THE BAR.
4. LAP SPLICES MAY BE OMITTED IF CONTINUOUS BARS ARE USED.

CONTROL JOINT (CTJ)

DETAIL 03003
NTS VAR

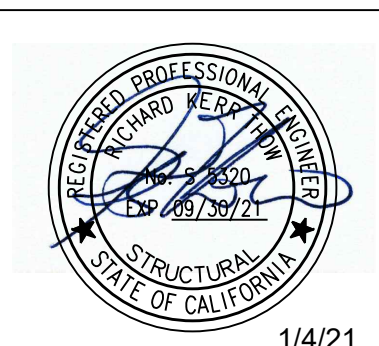
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NO.	REVISION DESCRIPTION	DATE	APPR



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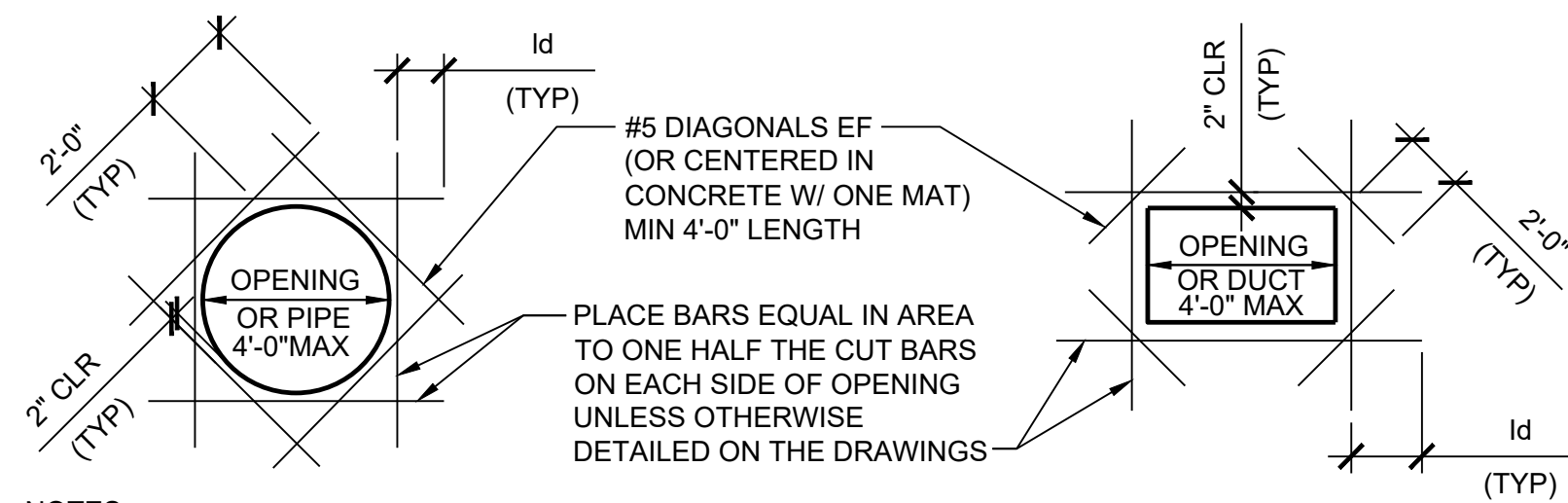


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

STANDARD DETAILS I

DATE: 1/4/2021
SCALE: NTS
DESIGN: RKT
DRAWN: ADP
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OF



- NOTES:**
1. PROVIDE STANDARD HOOK IF INDICATED LENGTH IS NOT POSSIBLE.
 2. REINFORCING STEEL IS TO BE CARRIED ACROSS ALL CONSTRUCTION JOINTS.
 3. DETAIL IS TYPICAL FOR ALL OPENINGS GREATER THAN 10 INCHES AND LESS THAN OR EQUAL TO 4 FEET IN THE LARGER DIMENSION IN CONCRETE WALLS AND SLABS UNLESS OTHERWISE DETAILED ON THE DRAWINGS.
 4. TRIM BARS ARE NOT REQUIRED AT AN OPENING EDGE PARALLEL TO AND WITHIN 6 INCHES OF A WALL OR BEAM.

ADDITIONAL TRIM REINFORCEMENT AT OPENINGS

DETAIL 03025
NTS VAR

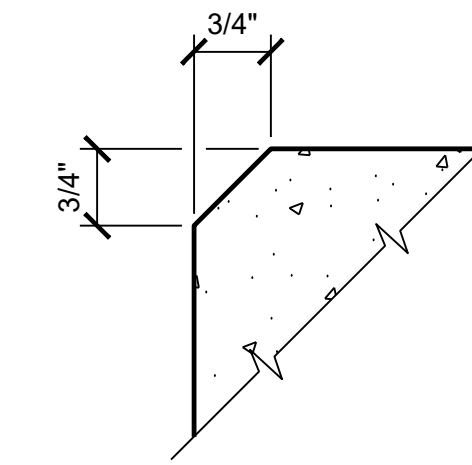
BAR SIZE	ld (INCHES)		ls (INCHES)		ldh (INCHES)
	TOP BAR	OTHER	TOP BAR	OTHER	
#3	24	19	32	25	9
#4	32	25	42	33	12
#5	39	30	51	39	15
#6	47	37	62	49	18
#3	22	17	29	23	9
#4	29	23	38	30	11
#5	36	28	47	37	14
#6	43	34	56	45	17
#3	19	15	25	20	8
#4	25	20	33	26	10
#5	31	24	41	32	12
#6	37	29	49	38	15
#7	54	42	71	55	17
#8	62	48	81	63	19
#9	70	54	91	71	22
#10	79	61	103	80	25

LAP SPLICE LENGTH

DETAIL 03026
NTS VAR

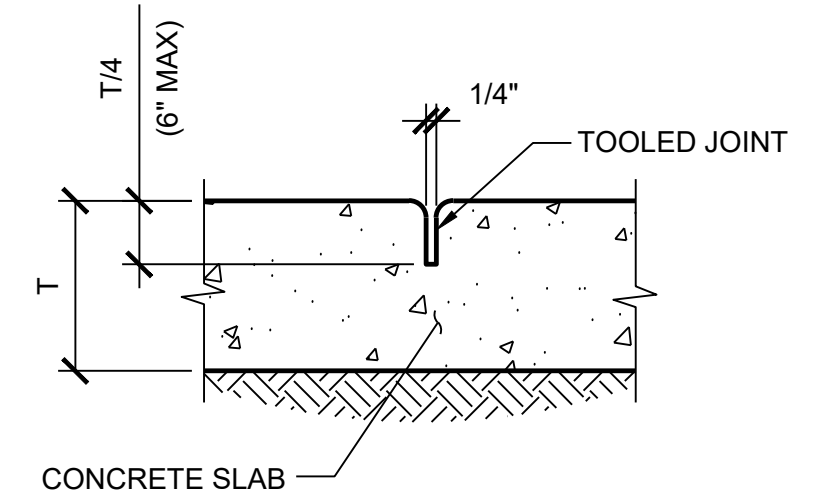
NOTES:

1. Id: DEVELOPMENT LENGTH FOR A STRAIGHT REINFORCING BAR IN TENSION.
ls: CLASS B TENSION CONTACT LAP SPLICE LENGTH.
ldh: DEVELOPMENT LENGTH FOR STANDARD HOOKS IN TENSION.
2. LAP SPLICES SHALL BE CLASS B TENSION CONTACT LAP SPLICES TYPICAL, UNLESS OTHERWISE NOTED ON DRAWINGS.
3. TOP BAR IS ANY HORIZONTAL BAR WITH MORE THAN 12" CONCRETE CAST IN ONE LIFT BENEATH THE BAR, INCLUDING BUT NOT LIMITED TO, HORIZONTAL BARS CAST IN WALLS.
4. SPLICES IN HORIZONTAL BARS SHALL BE STAGGERED.
5. UNLESS OTHERWISE DETAILED ON THE DRAWINGS, SPLICES IN TWO CURTAINS SHALL NOT OCCUR IN THE SAME LOCATION.



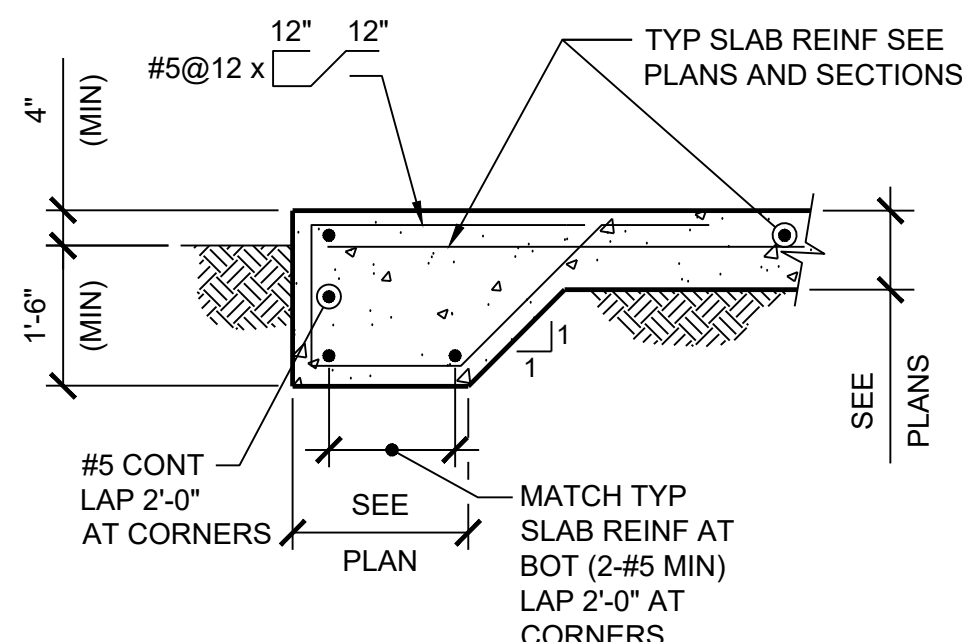
UON ON DRAWINGS

CONCRETE CHAMFER
DETAIL 03028
NTS VAR



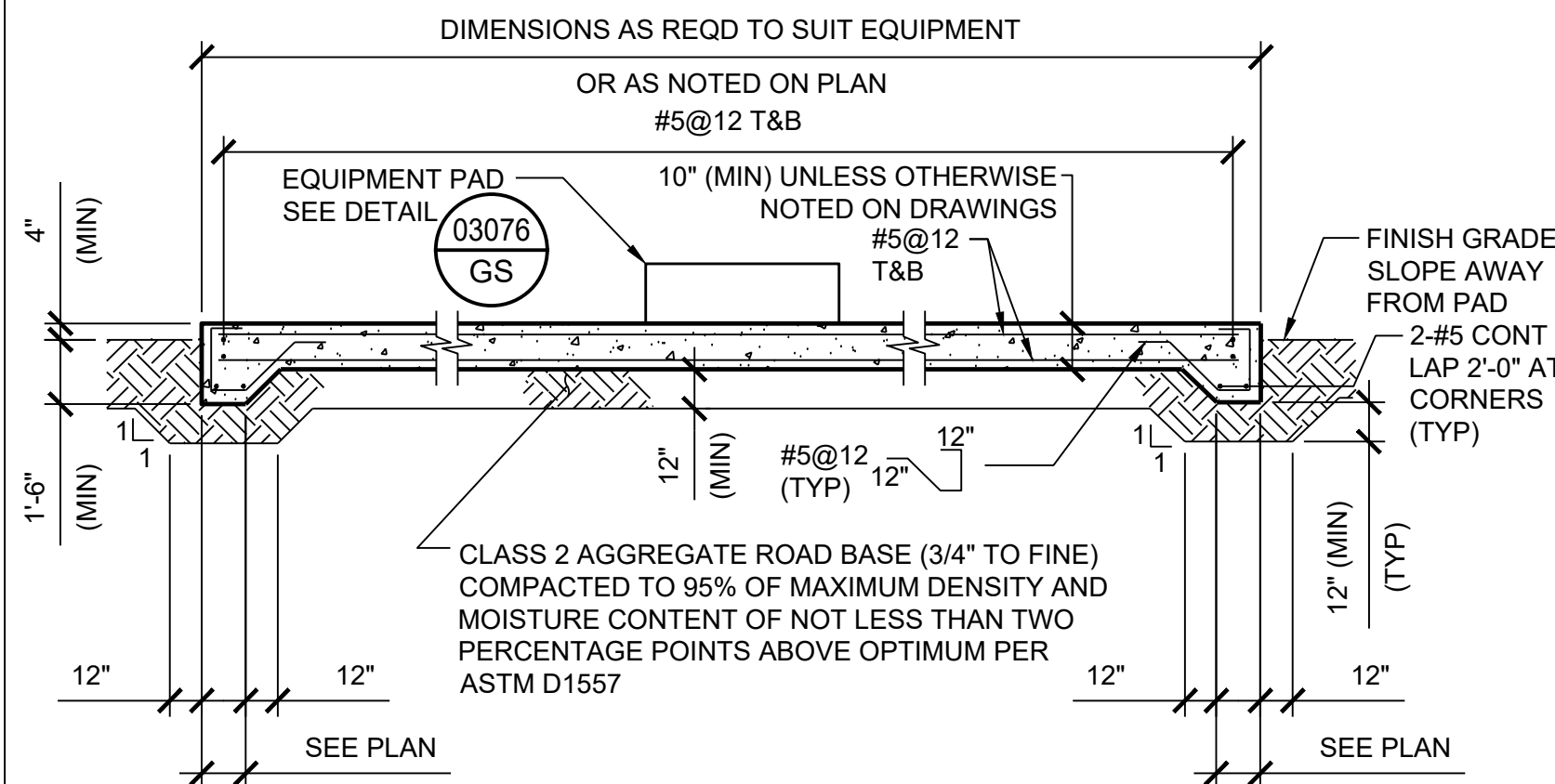
TOOLED CONTROL JOINT

DETAIL 03030
NTS VAR



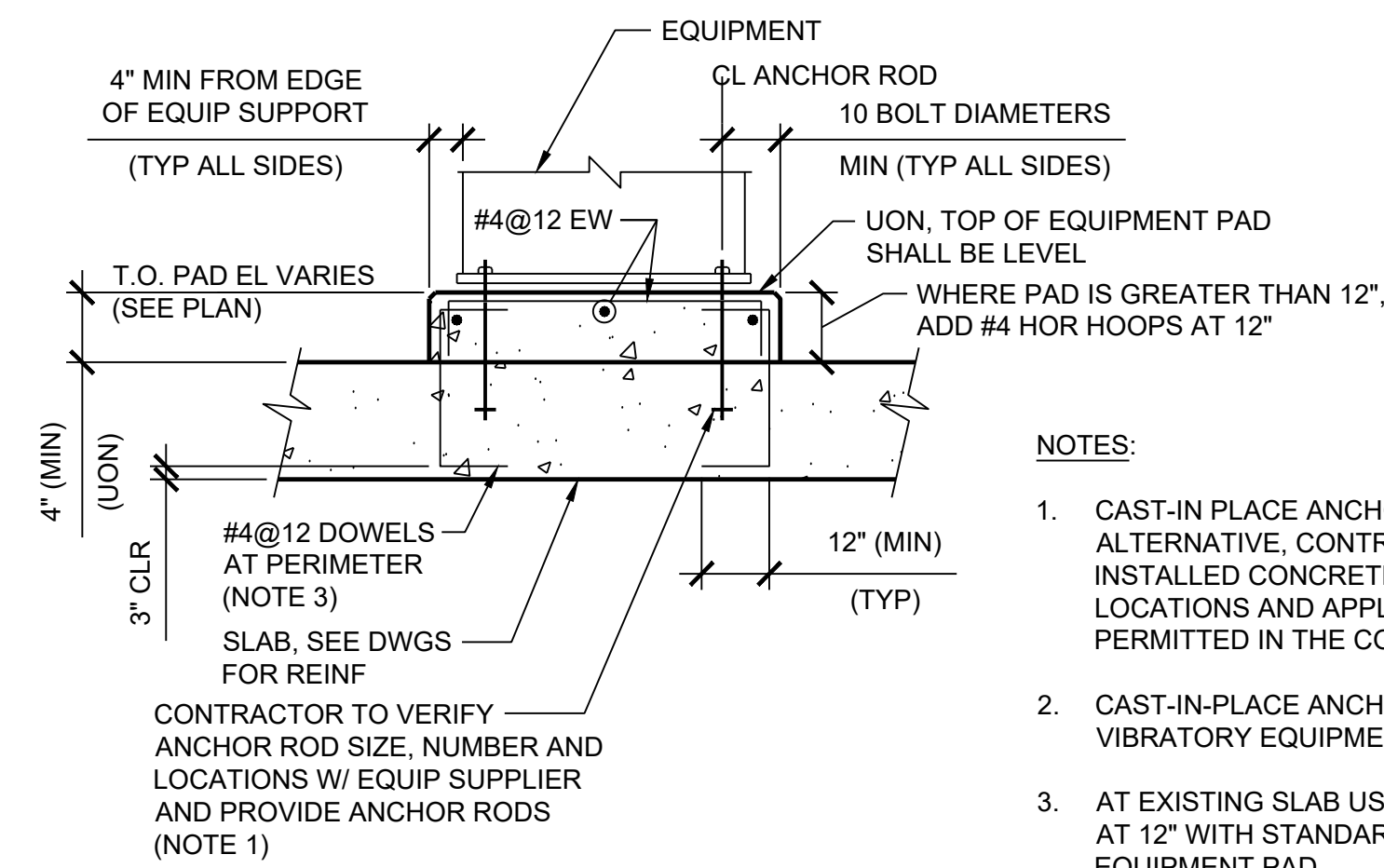
THICKENED SLAB EDGE

DETAIL 03032
NTS VAR



EXTERIOR EQUIPMENT SLAB

DETAIL 03075
NTS VAR

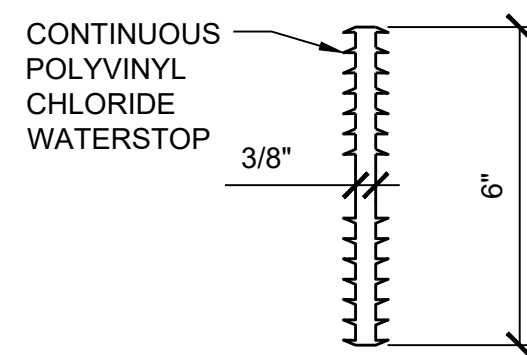


EQUIPMENT PAD

DETAIL 03076
NTS VAR

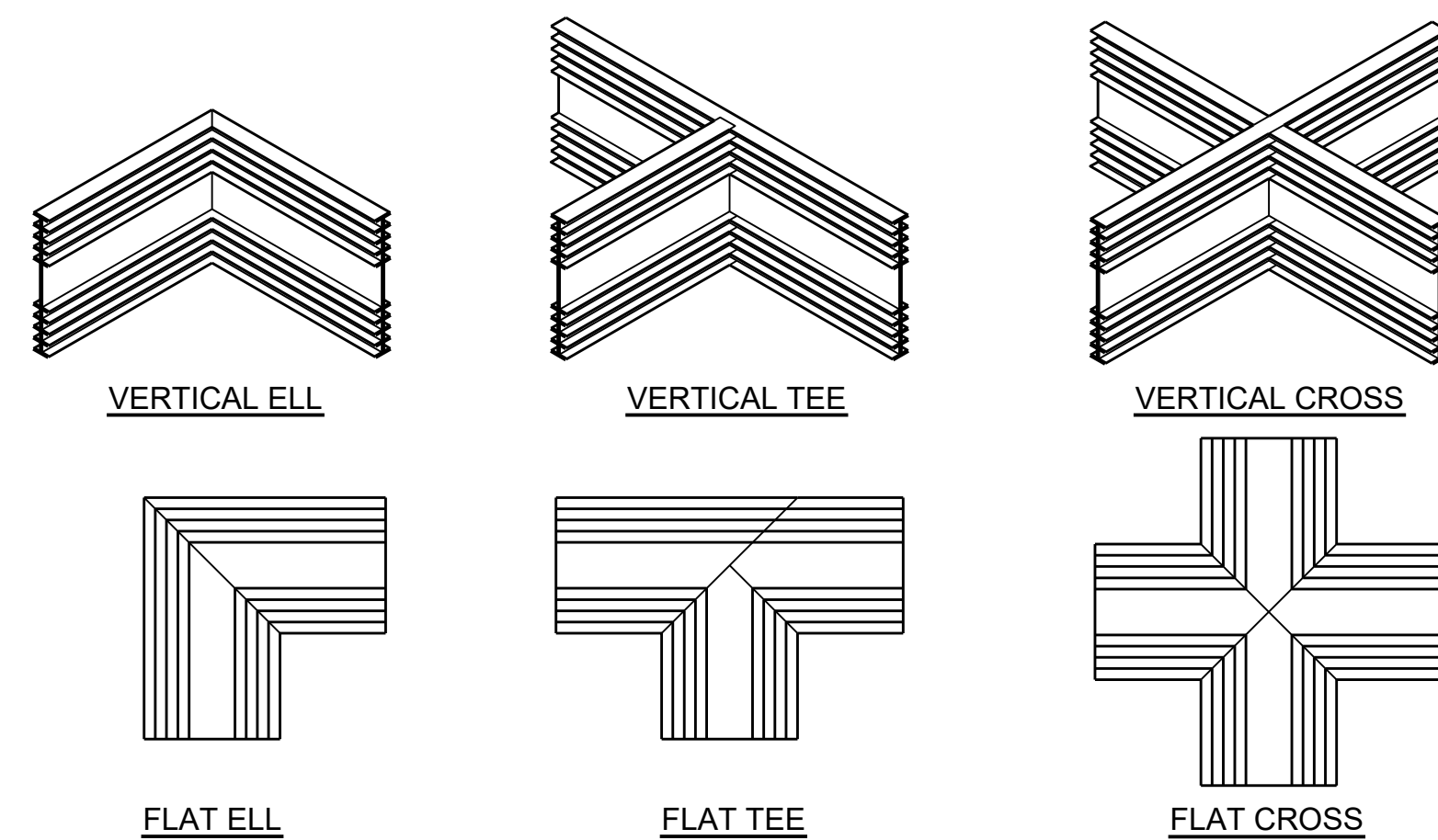
NOTES:

1. CAST-IN PLACE ANCHOR ROD SHOWN, AS AN ALTERNATIVE, CONTRACTOR MAY USE POST INSTALLED CONCRETE ANCHORS AT LOCATIONS AND APPLICATIONS WHERE PERMITTED IN THE CONTRACT DOCUMENTS.
2. CAST-IN-PLACE ANCHORS SHALL BE USED FOR VIBRATORY EQUIPMENT.
3. AT EXISTING SLAB USE #4 ADHESIVE DOWELS AT 12" WITH STANDARD HOOK INTO EQUIPMENT PAD.



SEE JT NOTES & DWGS FOR REQD LOCATIONS

6" PVC JOINT WATERSTOP
DETAIL 03102
NTS VAR



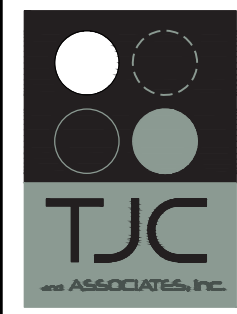
WATERSTOP FITTINGS

DETAIL 03106
NTS VAR

NOTES:

1. PVC WATERSTOPS SHOWN, SIMILAR FOR THERMOPLASTIC ELASTOMERIC RUBBER WATERSTOPS.
2. ALL FITTINGS SHALL BE FACTORY MADE OR SHOP WELDED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
3. ONLY STRAIGHT BUTT SPLICES SHALL BE MADE IN FIELD.

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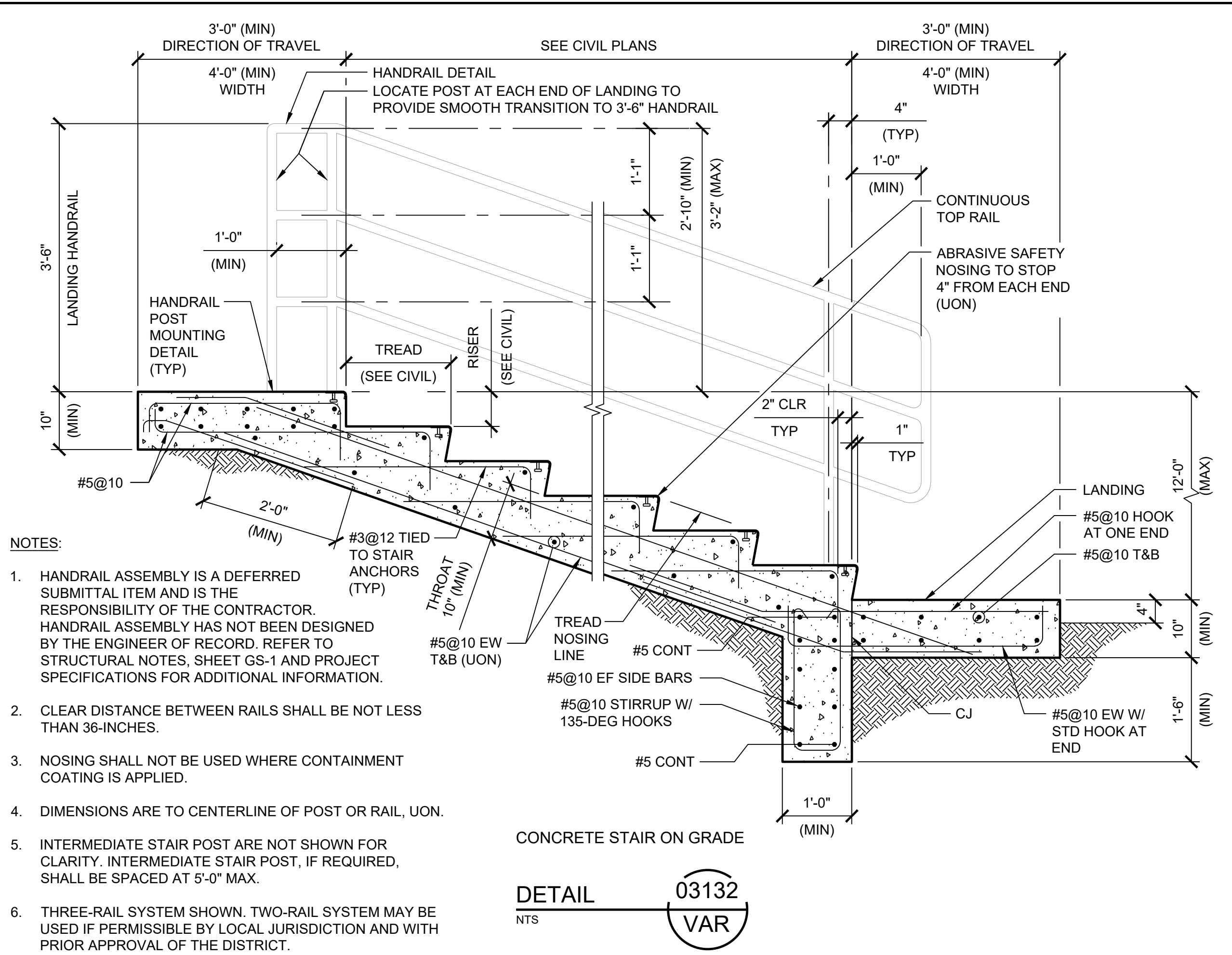
A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

STANDARD DETAILS II

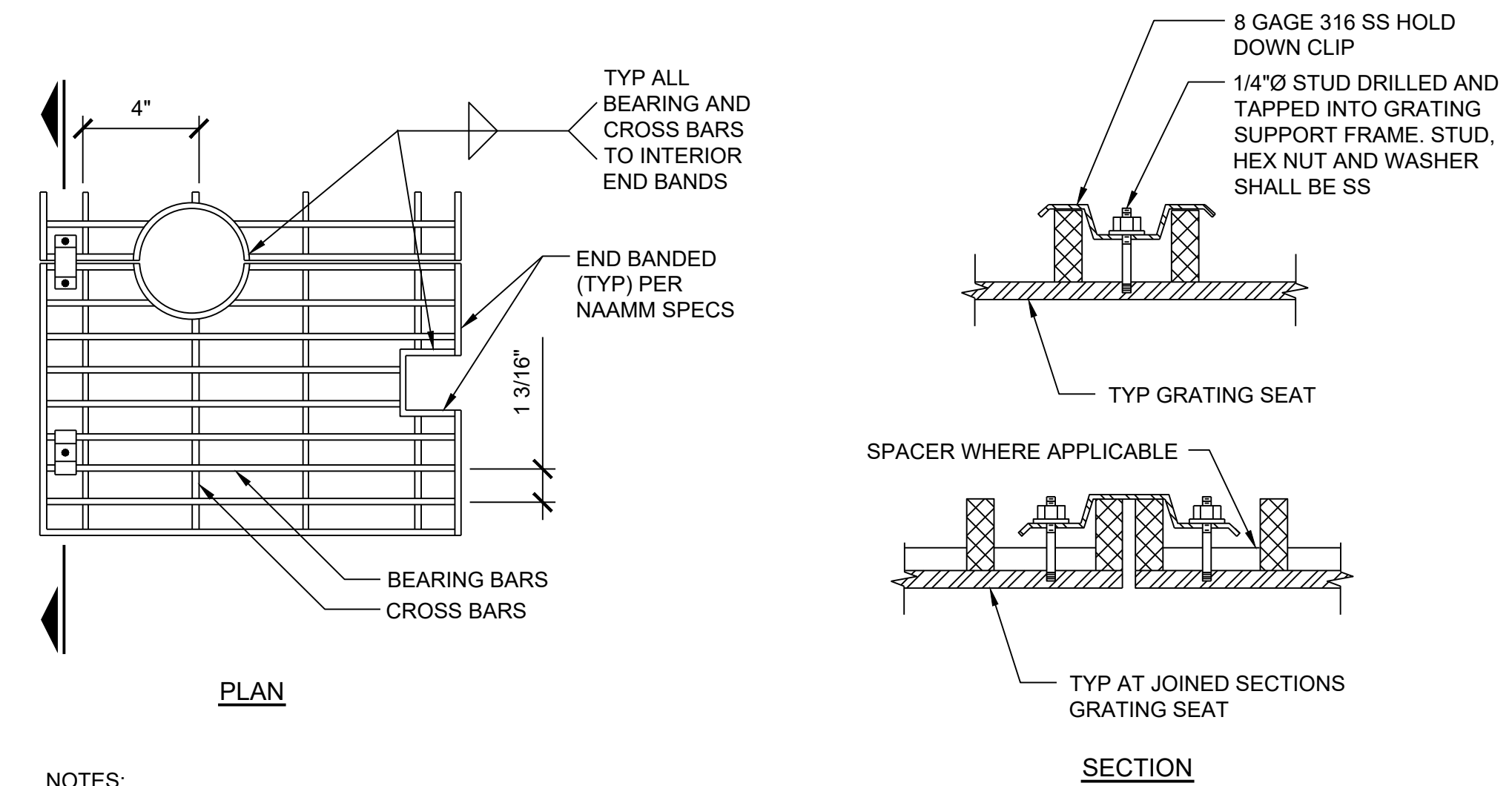
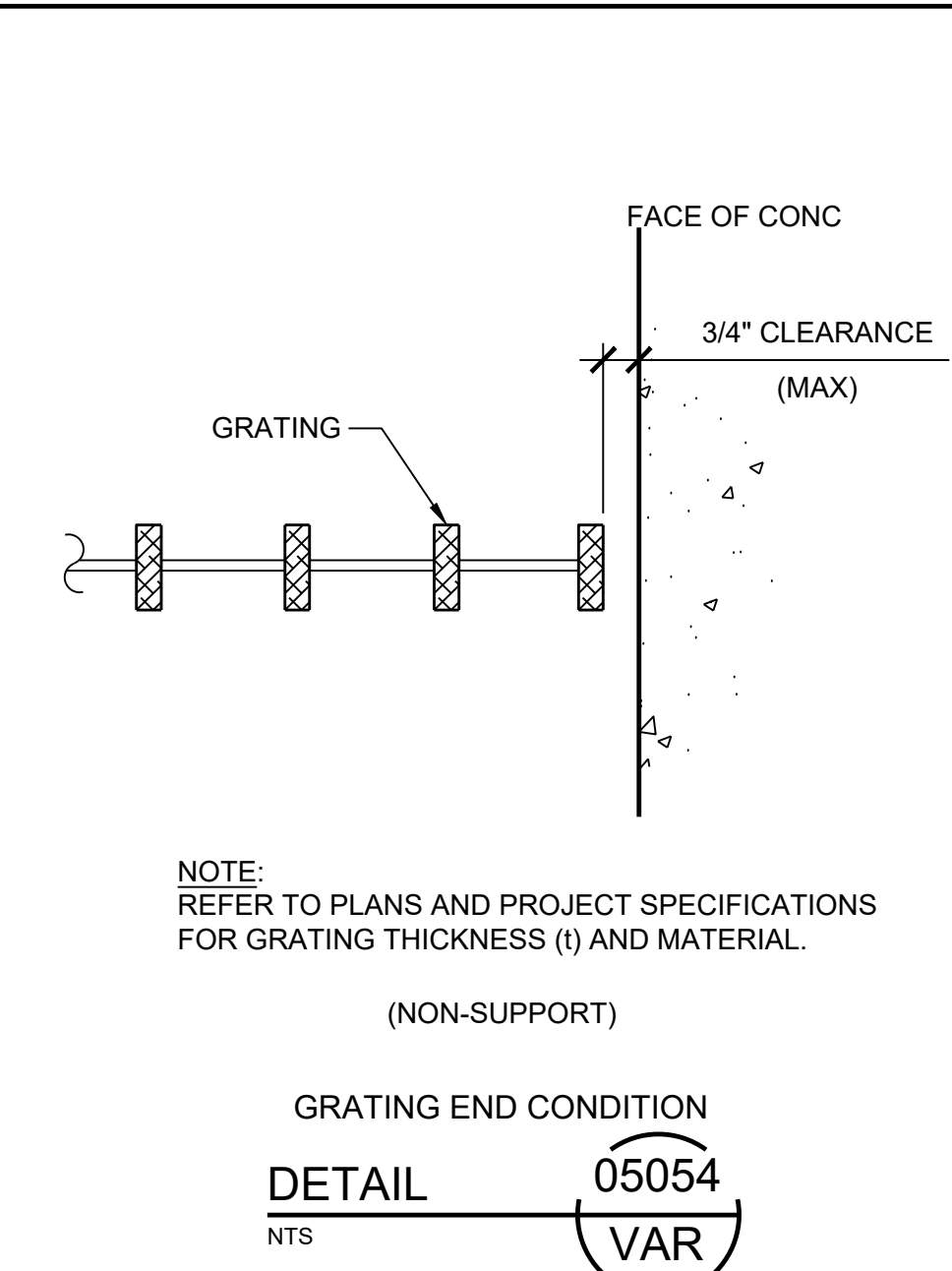
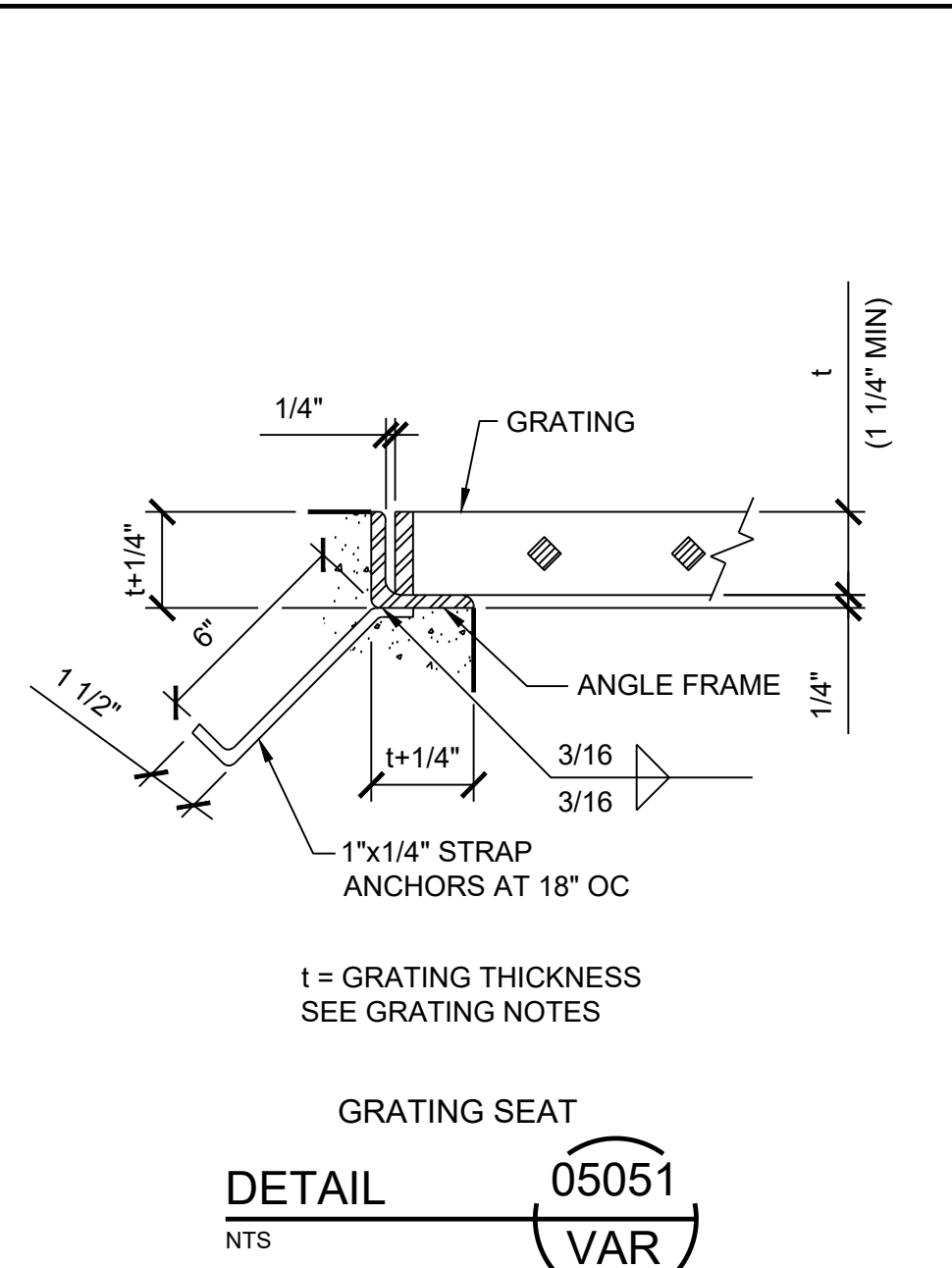
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SCALE: NTS
DESIGN: RKT
DRAWN: ADP
CHECK:

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GS-5
OF

NO.	REVISION DESCRIPTION	DATE	APPR



- NOTES:
- HANDRAIL ASSEMBLY IS A DEFERRED SUBMITTAL ITEM AND IS THE RESPONSIBILITY OF THE CONTRACTOR. HANDRAIL ASSEMBLY HAS NOT BEEN DESIGNED BY THE ENGINEER OF RECORD. REFER TO STRUCTURAL NOTES, SHEET GS-1 AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 - CLEAR DISTANCE BETWEEN RAILS SHALL BE NOT LESS THAN 36-INCHES.
 - NOSING SHALL NOT BE USED WHERE CONTAINMENT COATING IS APPLIED.
 - DIMENSIONS ARE TO CENTERLINE OF POST OR RAIL, UON.
 - INTERMEDIATE STAIR POST ARE NOT SHOWN FOR CLARITY. INTERMEDIATE STAIR POST, IF REQUIRED, SHALL BE SPACED AT 5'-0" MAX.
 - THREE-RAIL SYSTEM SHOWN. TWO-RAIL SYSTEM MAY BE USED IF PERMISSIBLE BY LOCAL JURISDICTION AND WITH PRIOR APPROVAL OF THE DISTRICT.

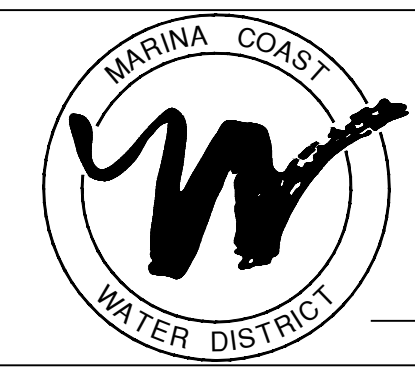


- NOTES:
- GRATING SHALL CONFORM TO THE METAL BAR GRATING MANUAL OF NAAMM. UNLESS OTHERWISE SPECIFIED, GRATING SHALL BE OF ALUMINUM.
 - GRATING SHALL BE SWAGED AND FORGED.
 - GRATING SHALL BE REMOVABLE.
 - PROVIDE 4 GRATING CLIPS APPROXIMATE 4" FROM THE CORNERS OF EACH PIECE. ADJACENT PIECES MAY BE ANCHORED WITH ONE CLIP AND TWO STUDS.
 - CLEAR SPAN SHALL BE PLAN DIMENSION, FACE TO FACE OF OPENING.
 - PROVIDE 1/8" THICK NEOPRENE ISOLATION BETWEEN ALUM GRATING AND GALVANIZED STEEL SUPPORTS.
 - END BAND TO BE A 1/4" LESS THAN GRATING DEPTH.
 - GRATING SHALL BE DESIGNED AS SPECIFIED IN SPECIFICATIONS UNLESS OTHERWISE SHOWN.

GRATING

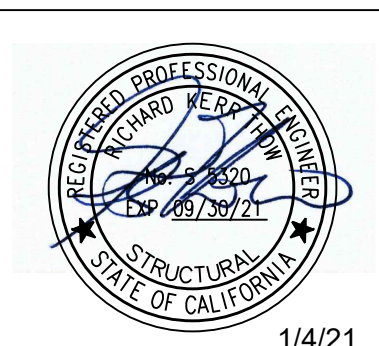
DETAIL 05061
NTS VAR

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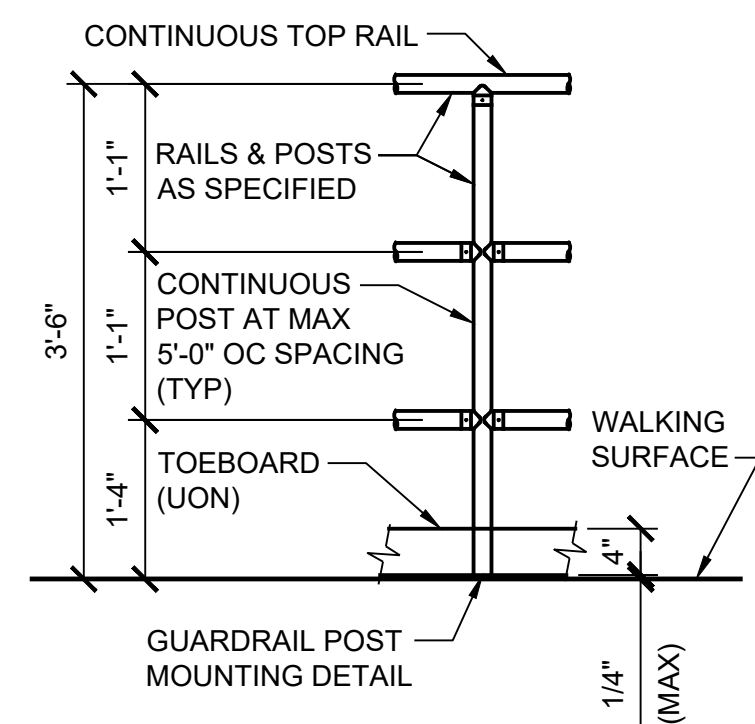
A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

STANDARD DETAILS III

DATE: 1/4/2021
SCALE: NTS
DESIGN: RKT
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OF

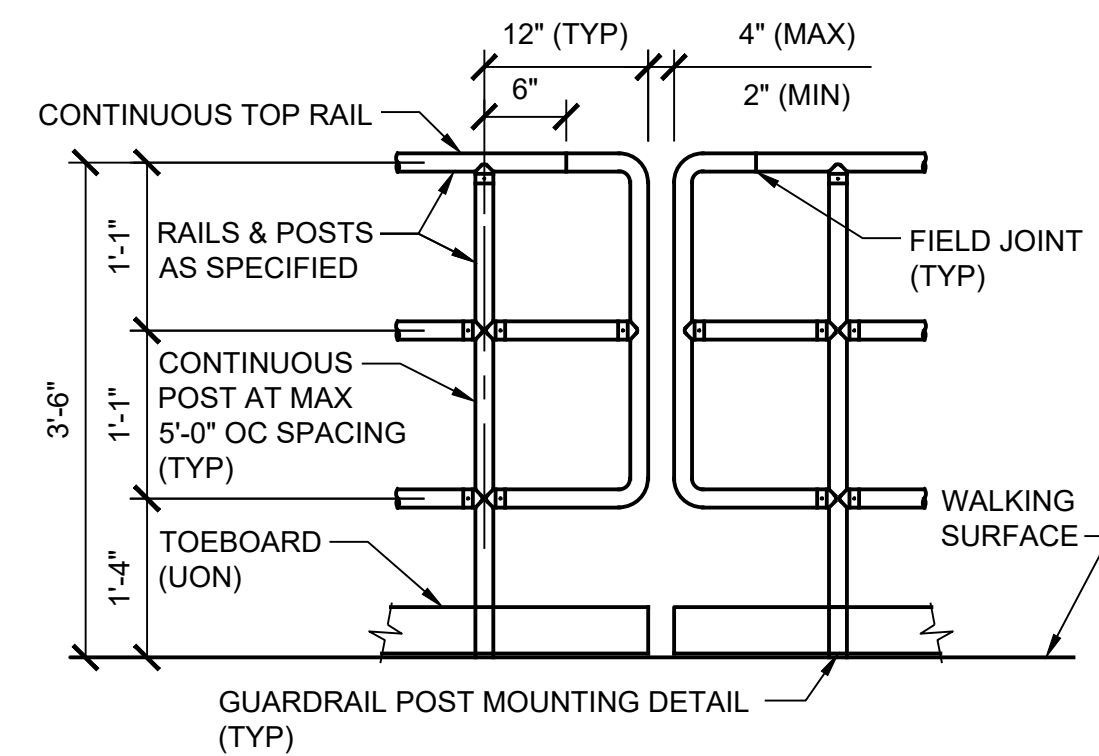
NO.	REVISION DESCRIPTION	DATE	APPR



NOTES:

- TOEBOARD SHALL BE PROVIDED UNLESS SPECIFICALLY NOTED OTHERWISE ON PLANS OR IN SPECS. TOEBOARD NOT REQUIRED WHEN CONCRETE CURBS 4" OR HIGHER ARE PROVIDED.
- THREE RAIL SYSTEM SHOWN. TWO RAIL SYSTEM MAY BE USED IF PERMISSIBLE BY LOCAL JURISDICTION AND WITH PRIOR APPROVAL OF DISTRICT.

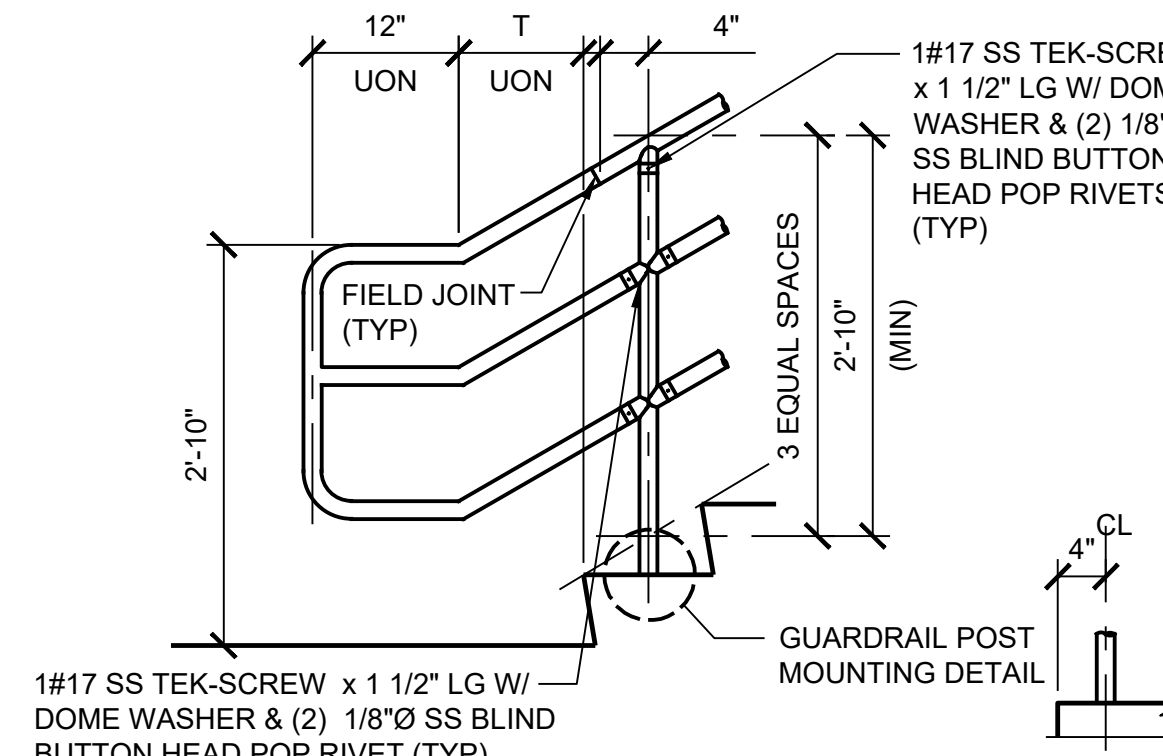
TYPICAL GUARDRAIL
DETAIL 05101
NTS VAR



NOTES:

- TOEBOARD SHALL BE PROVIDED UNLESS SPECIFICALLY NOTED OTHERWISE ON PLANS OR IN SPECS. TOEBOARD NOT REQUIRED WHEN CONCRETE CURBS 4" OR HIGHER ARE PROVIDED.
- THREE RAIL SYSTEM SHOWN. TWO RAIL SYSTEM MAY BE USED IF PERMISSIBLE BY LOCAL JURISDICTION AND WITH PRIOR APPROVAL OF DISTRICT.

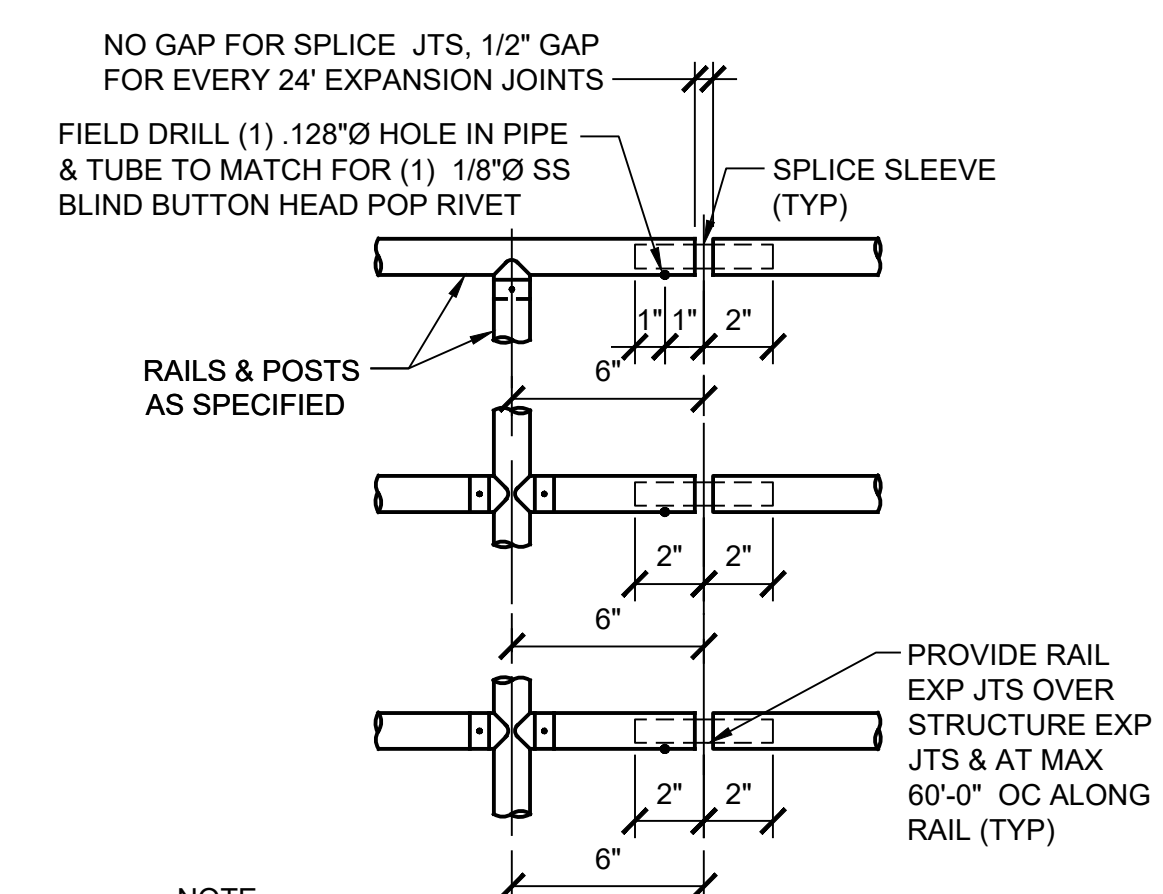
TYPICAL GUARDRAIL END POST
DETAIL 05102
NTS VAR



NOTE:

- THREE RAIL SYSTEM SHOWN. TWO RAIL SYSTEM MAY BE USED IF PERMISSIBLE BY LOCAL JURISDICTION AND WITH PRIOR APPROVAL OF DISTRICT.

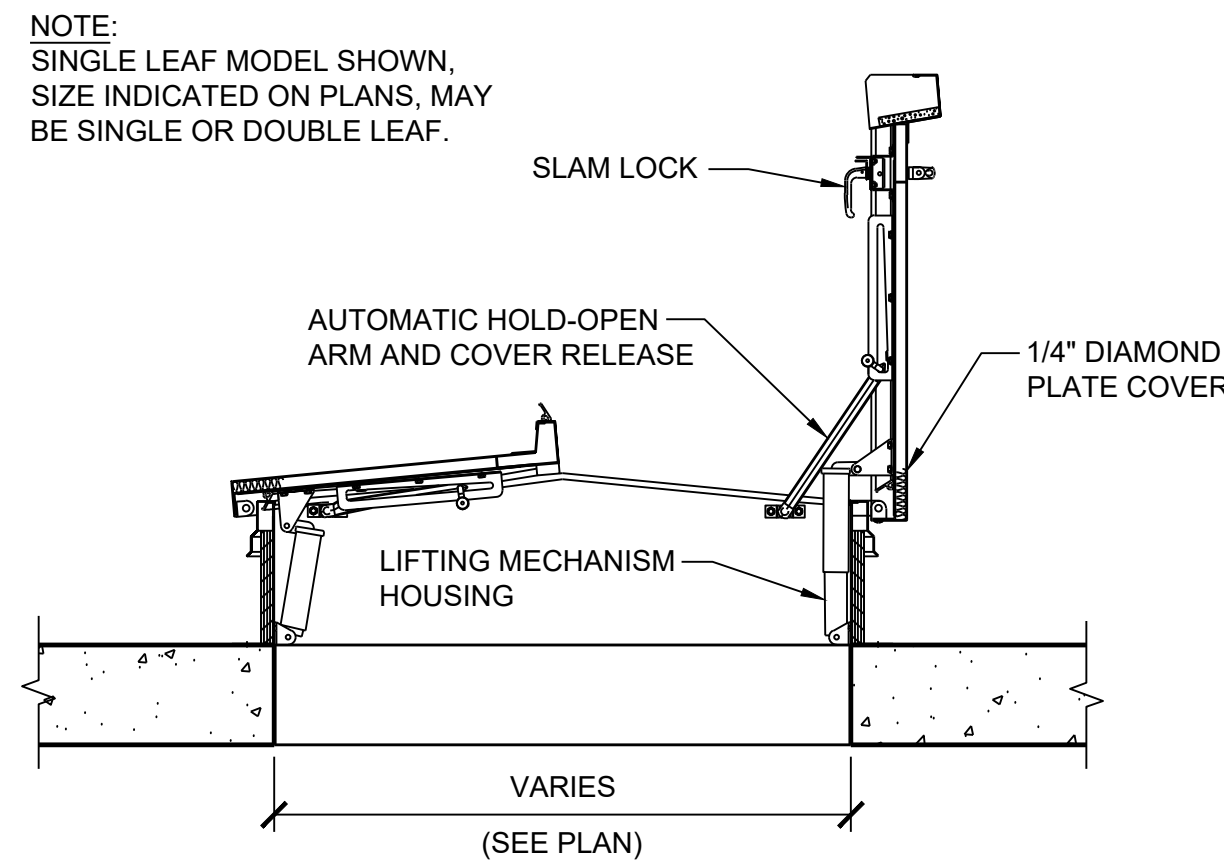
TYPICAL GUARDRAIL END POST AT STAIR
DETAIL 05103
NTS VAR



NOTE:

- THREE RAIL SYSTEM SHOWN. TWO RAIL SYSTEM MAY BE USED IF PERMISSIBLE BY LOCAL JURISDICTION AND WITH PRIOR APPROVAL OF DISTRICT.

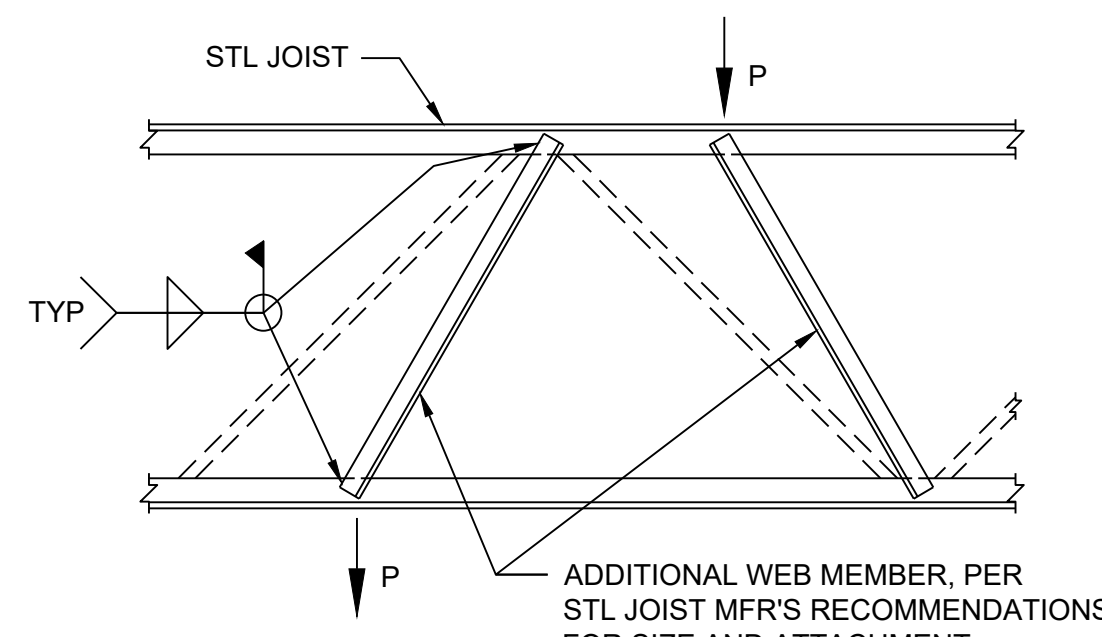
TYPICAL GUARDRAIL JOINT
DETAIL 05105
NTS VAR



NOTES:

- REFER TO PLANS AND PROJECT SPECIFICATIONS FOR HATCH MATERIAL.
- REFER TO PLANS AND PROJECT SPECIFICATIONS FOR HATCH DESIGN LOADS.

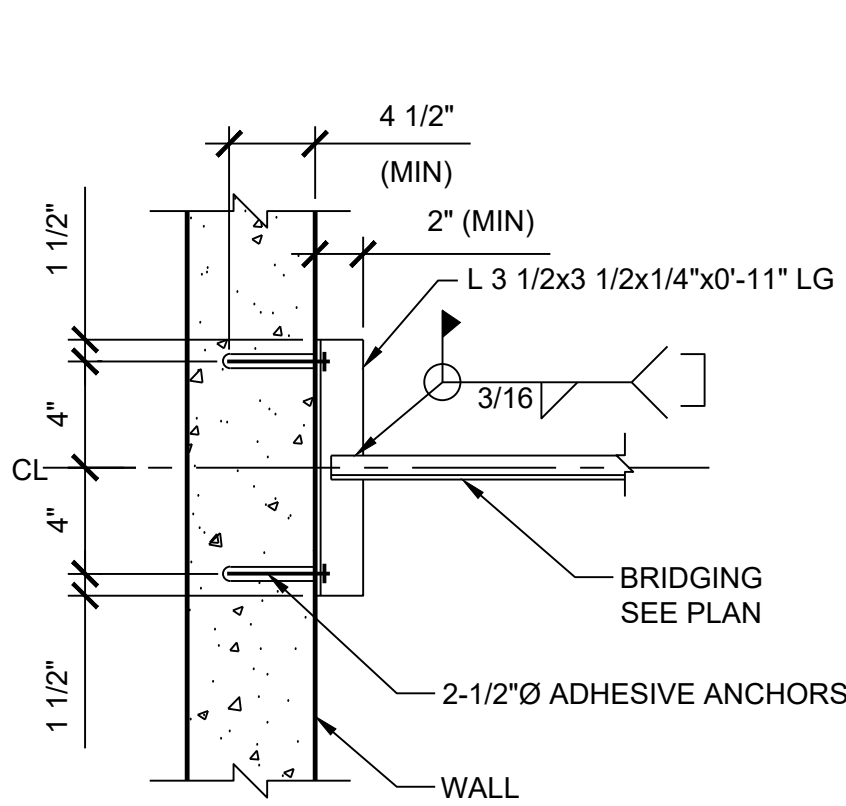
ALUMINUM ACCESS HATCH
(NON TRAFFIC RATED)
(LOAD LEVEL 1)
DETAIL 05203
NTS VAR



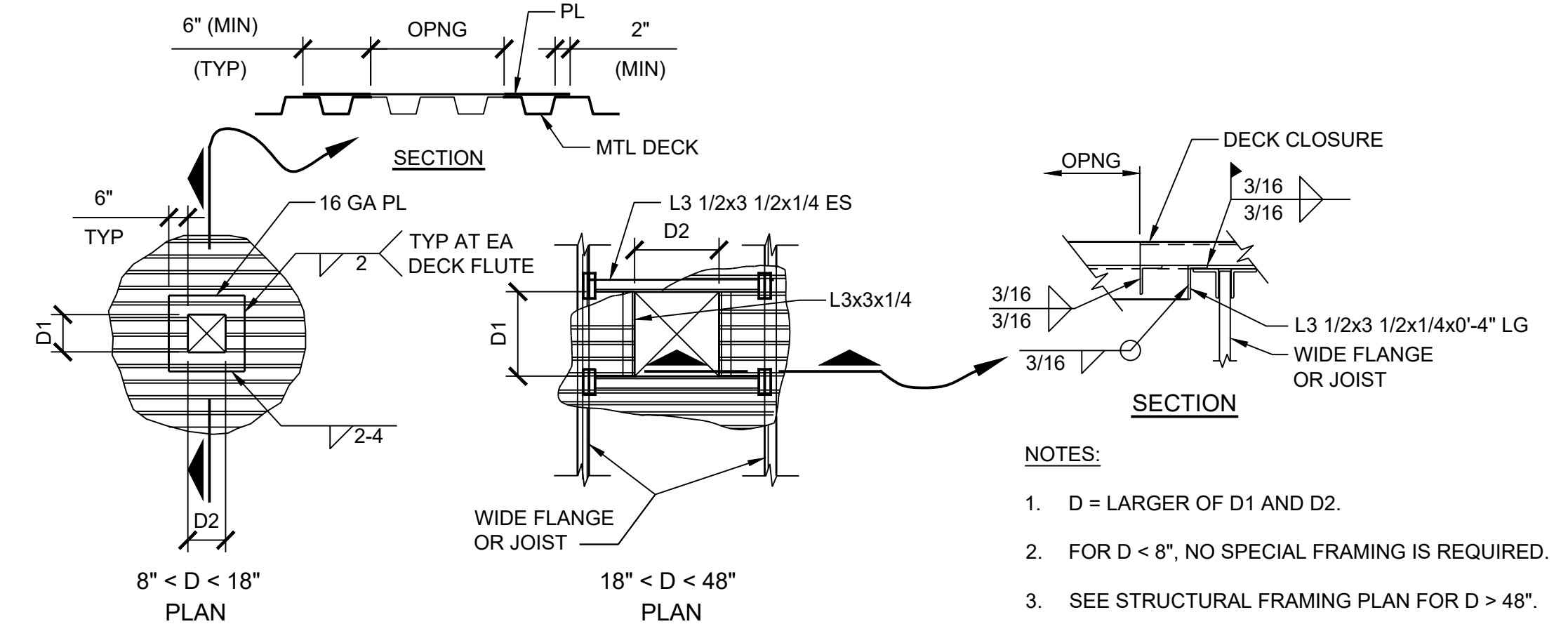
NOTES:

- LOCATE ADDITIONAL WEB MEMBER AT EACH CONCENTRATED LOAD POINT. ONE END OF ADDITIONAL MEMBER SHALL BE LOCATED AT POINT LOAD AND THE OTHER END IS LOCATED AT PANEL POINT.
- MAXIMUM CONCENTRATED LOAD 'P' SHALL NOT EXCEED 210 IBS.

STEEL JOIST ADDITIONAL
WEB MEMBER
DETAIL 05206
NTS VAR



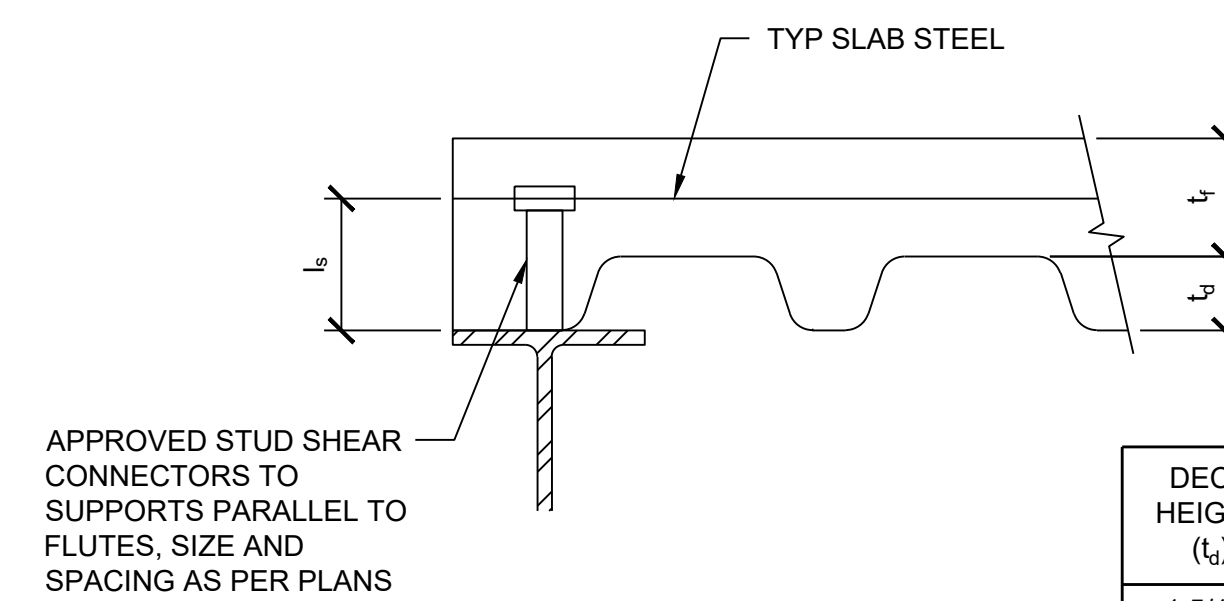
STEEL JOIST BRIDGING TO
CONCRETE WALL CONNECTION
(SIMILAR TO CMU)
DETAIL 05207
NTS VAR



NOTES:

- D = LARGER OF D1 AND D2.
- FOR D < 8", NO SPECIAL FRAMING IS REQUIRED.
- SEE STRUCTURAL FRAMING PLAN FOR D > 48".
- SEE PLAN FOR OPENING DIMENSIONS. WHERE DIMENSION IS NOT PROVIDED, COORDINATE SIZE OF OPENING WITH MECHANICAL DRAWINGS.
- PROVIDE TYPICAL DECK WELDS AT ALL 4 SIDES OF OPENING.

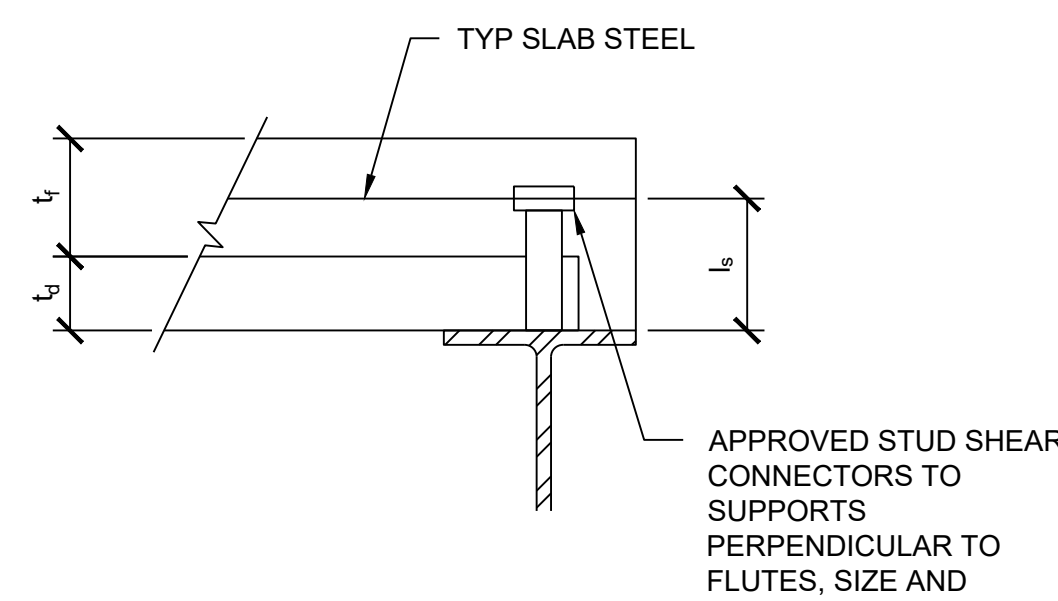
METAL DECK OPENING FRAMING
DETAIL 05208
NTS VAR



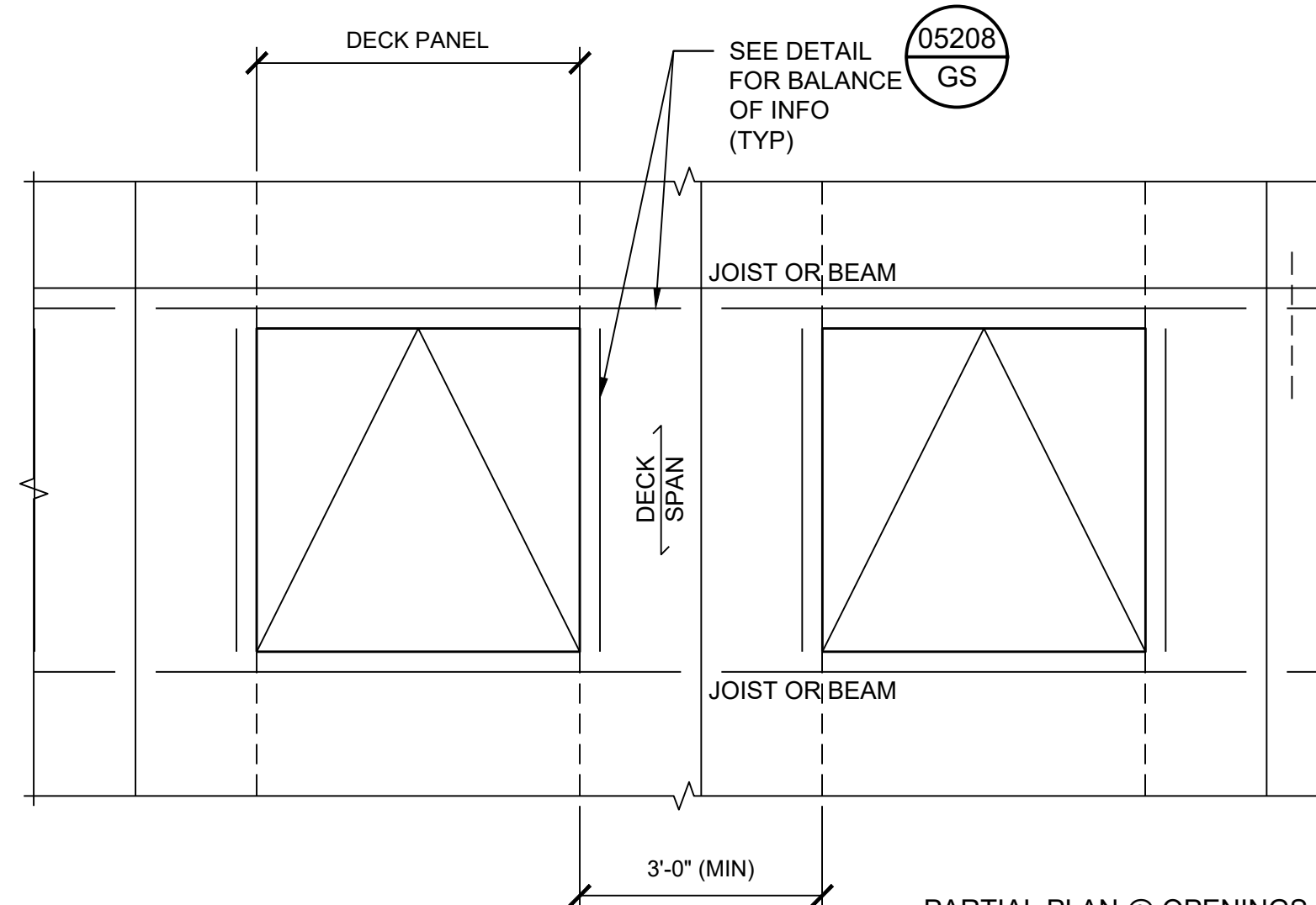
DECK HEIGHT (t _d)	STUD LENGTH (l _s)
1 5/16"	3
1 1/2"	3"
2"	3 1/2"
3"	4 1/2"

(MINIMUM FINISHED LENGTH)

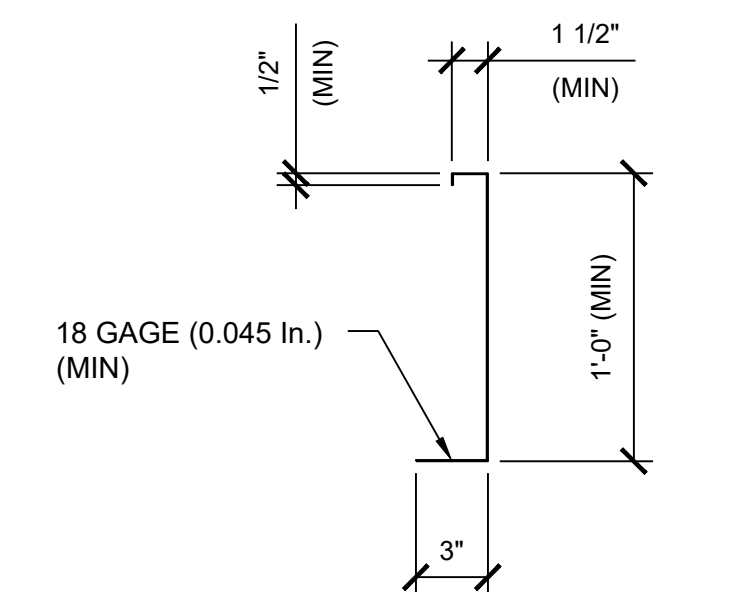
SHEAR CONNECTOR DETAILS
DETAIL 05217
NTS VAR



STUD SHEAR CONNECTORS AT SUPPORTS
PERPENDICULAR TO FLUTES



PARTIAL PLAN @ OPENINGS
DETAIL 05218
NTS VAR



MINIMUM ROOF CURB DIMENSIONS

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SALINAS, CA 93907
(831) 883-4848



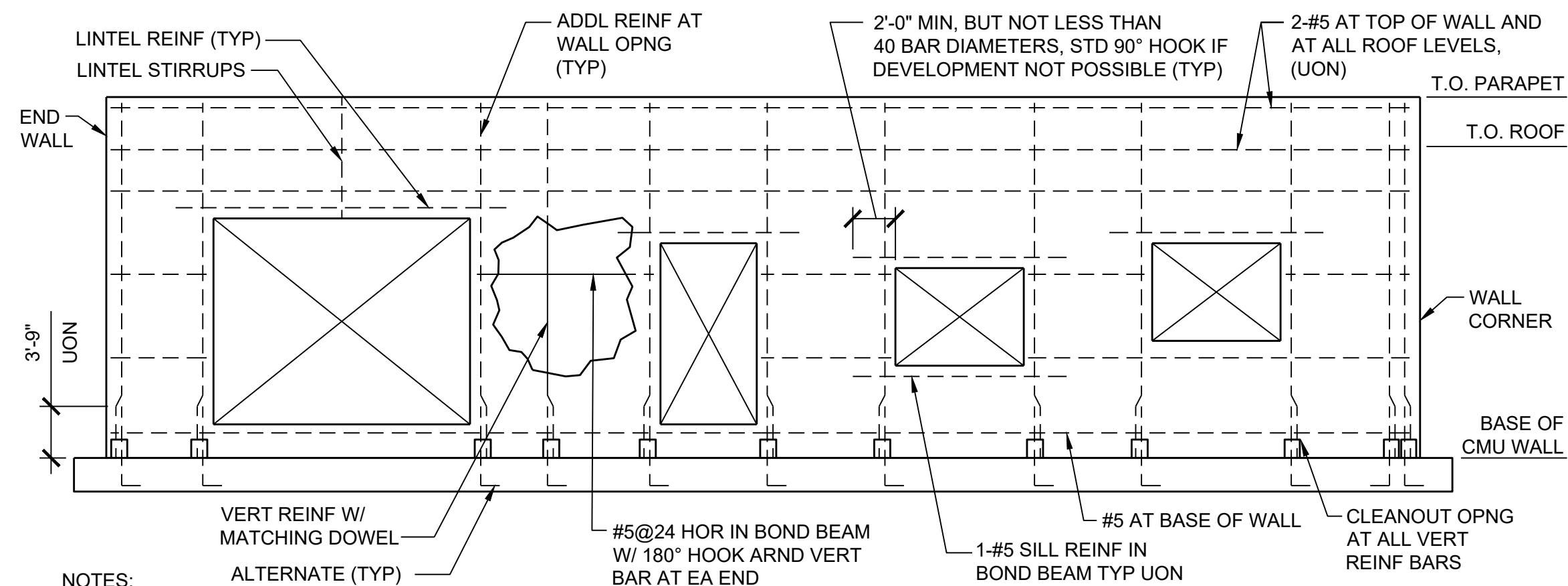
A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

STANDARD DETAILS IV

DATE: 1/4/2021
SCALE: NTS
DESIGN: RKT
DRAWN: ADP
CHECK:

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GS-7
OF

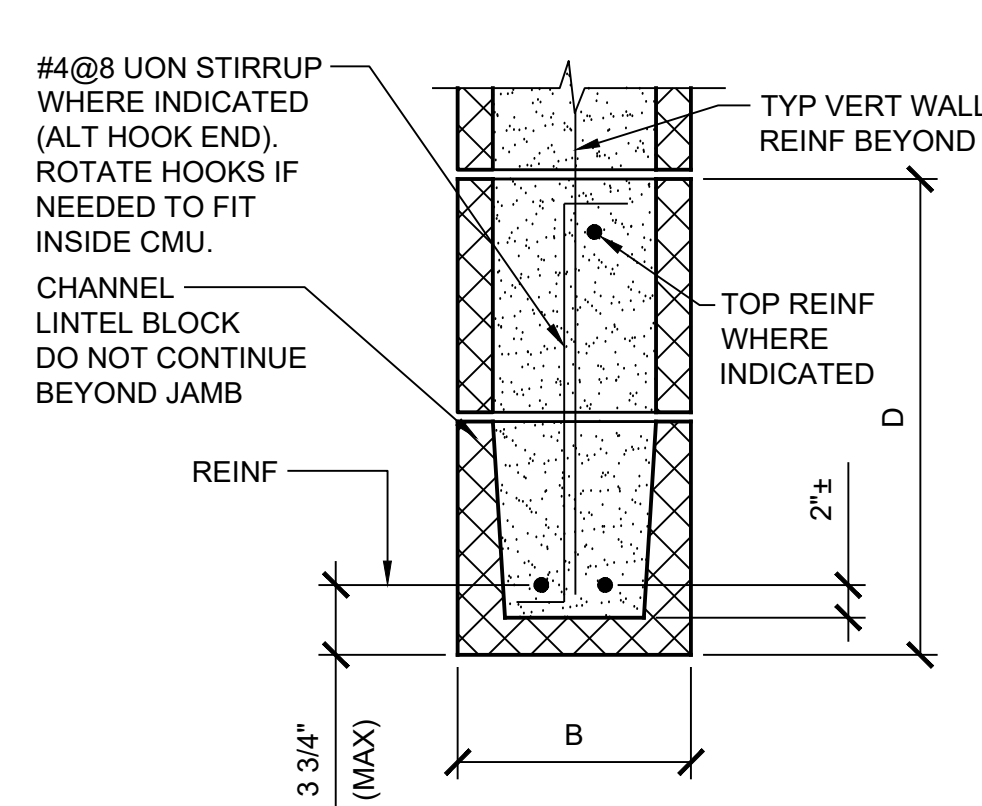
NO.	REVISION DESCRIPTION	DATE	APPR



- NOTES:**
- BETWEEN BARS SHOWN, PROVIDE TYPICAL WALL REINFORCING PER PLANS.
 - IF FULL LENGTH IS NOT AVAILABLE, EXTEND AS FAR AS POSSIBLE, HOOK 90°, THEN EXTEND, BEYOND BEND, REMAINDER OF LENGTH REQUIRED (BUT NOT LESS THAN 12").

TYPICAL CMU WALL REINFORCING

DETAIL 04001
NTS VAR



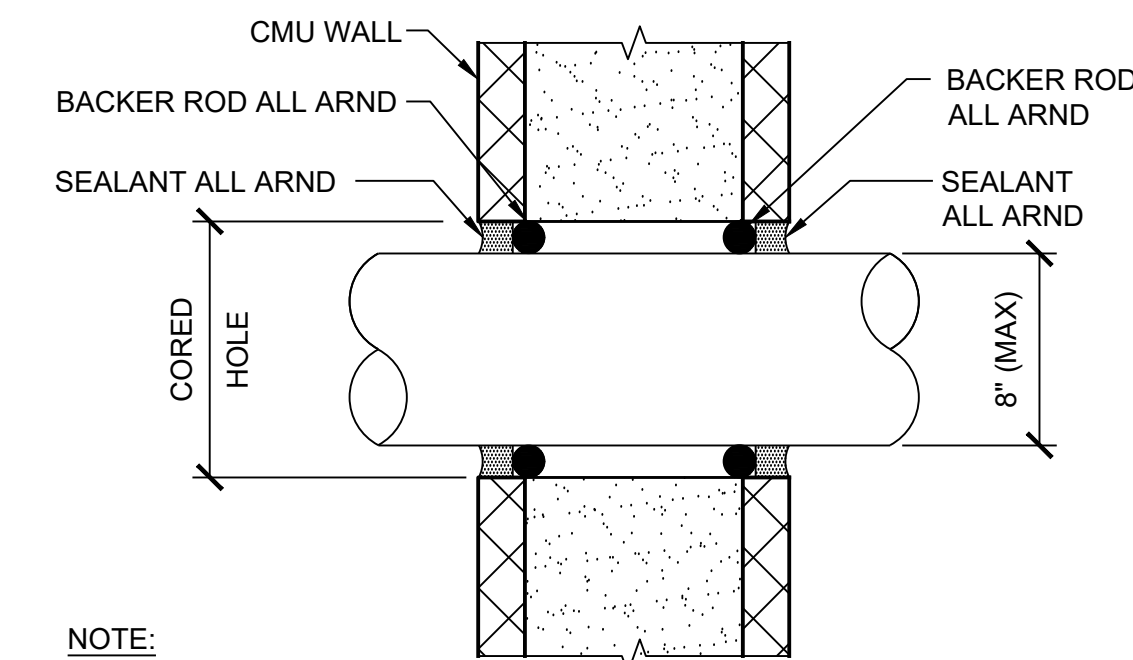
SPAN	MARK	B	D (MIN)	REINF	REMARKS
UP TO 7'-0"		12"	16"	2-#5	-
7'-0" TO 12'-0"		12"	32"	2-#5	-
		-	-	-	-
SPECIAL LINTELS					
	LINTEL A	-	-	-	NOT USED
	LINTEL B	-	-	-	NOT USED

CMU LINTEL NOTES:

- PROVIDE 8" MINIMUM BEARING AT EACH SIDE OF CLEAR SPAN (UNLESS OTHERWISE NOTED).
- FULLY GROUT CONCRETE MASONRY UNIT OVER DEPTH "D" TO ENDS OF BEARING.
- PROVIDE REINFORCING AS INDICATED AT ALL OPENINGS ON THE DRAWINGS.
- SPECIAL INSPECTION IN ACCORDANCE WITH CHAPTER 17 OF THE GOVERNING BUILDING CODE(S) SHALL BE REQUIRED FOR ALL LINTELS.

CMU LINTEL REINFORCING SCHEDULE

DETAIL 04006
NTS VAR

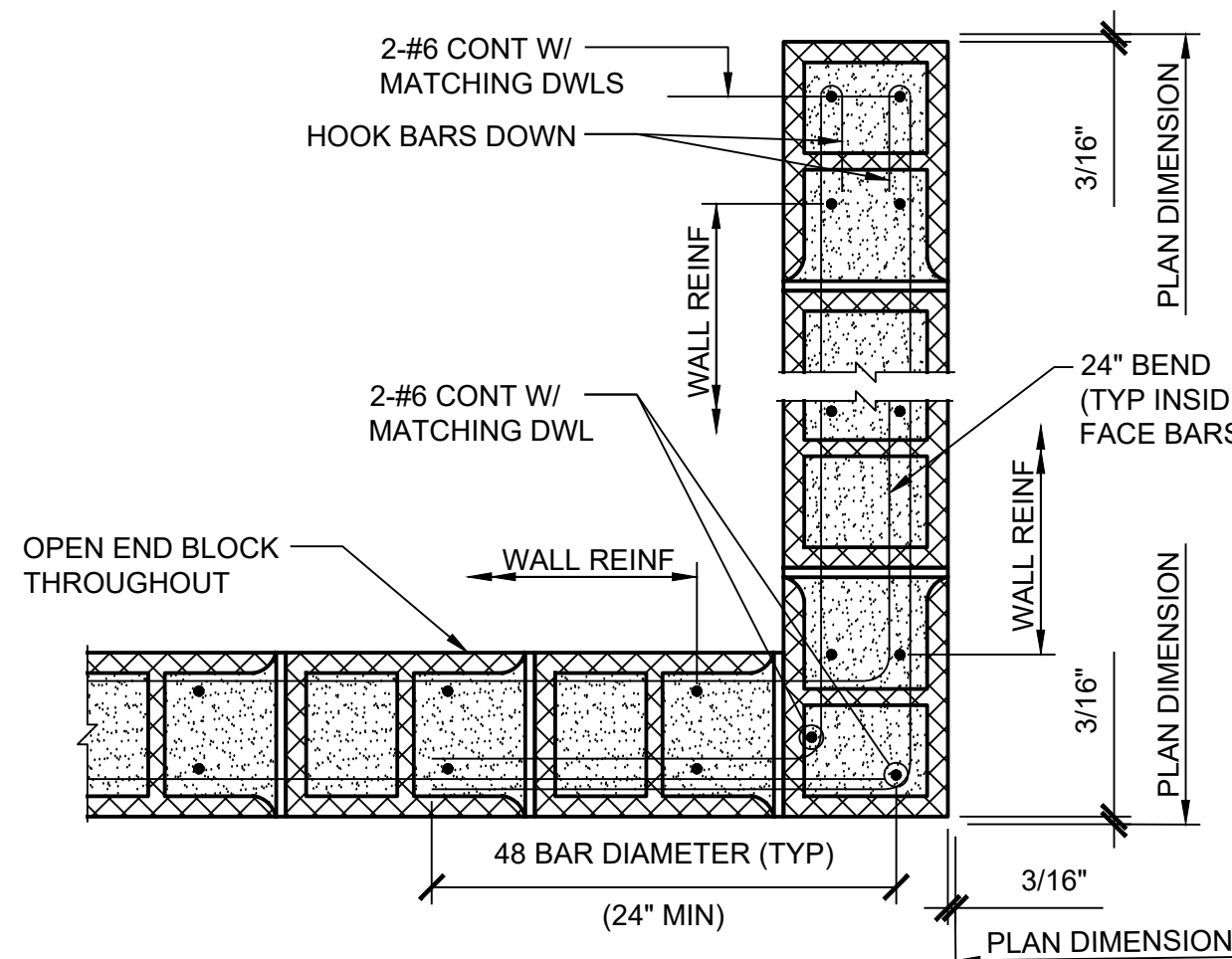


NOTE:

8" CMU BLOCK SHOWN SIMILAR FOR 12" CMU BLOCK

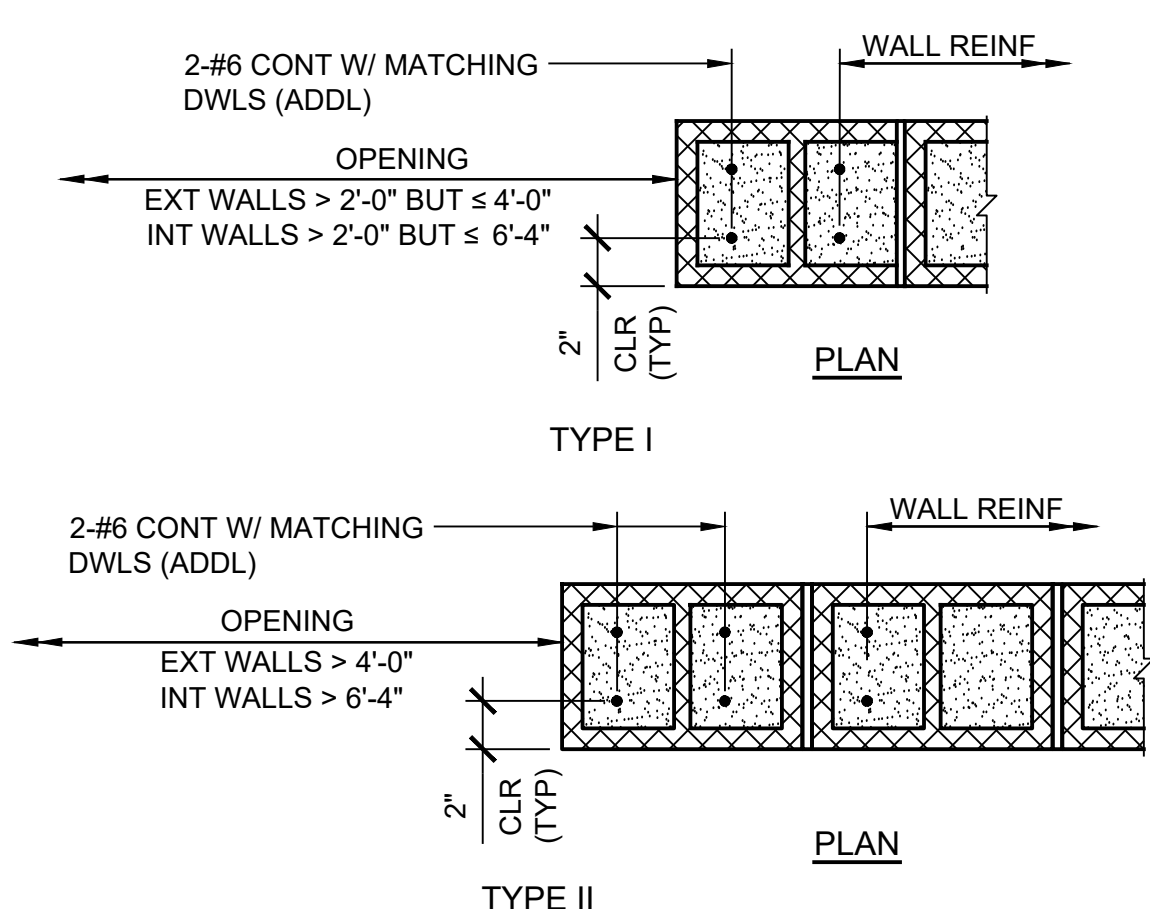
SEALANT AT CMU PIPE PENETRATION

DETAIL 04008
NTS VAR



TYPICAL 12" CMU WALL CORNER & END WALL

DETAIL 04009
NTS VAR

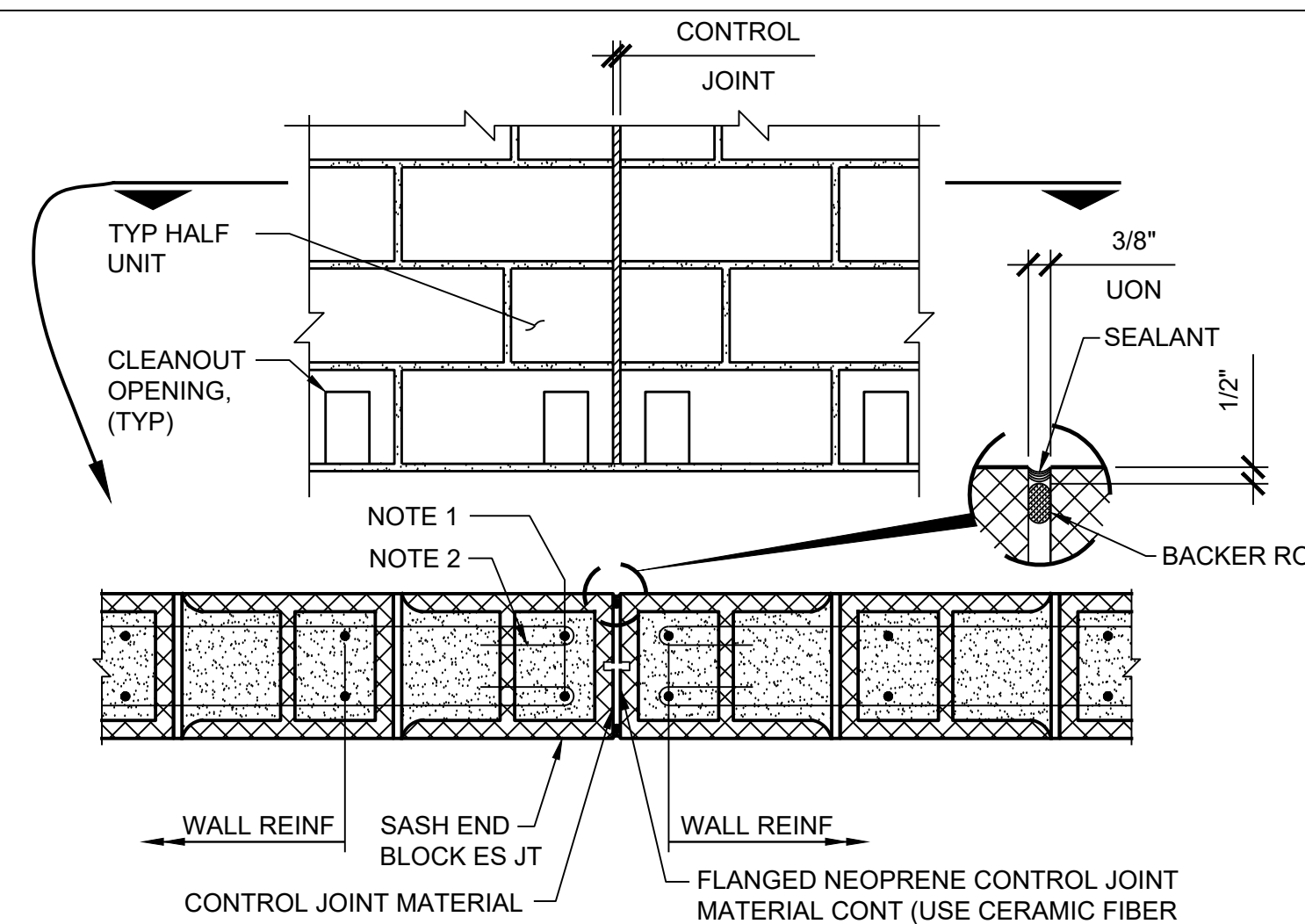


TYPICAL 12" CMU WALL OPENINGS (UON)

DETAIL 04011
NTS VAR

CONTROL JOINT NOTES:

- PROVIDE ADDITIONAL VERTICAL BARS, EQUAL IN SIZE TO TYPICAL REINFORCING, ON EACH SIDE OF ALL CONTROL JOINTS.
- TERMINATE HORIZONTAL REINFORCING TWO INCHES FROM CONTROL JOINTS, UNLESS OTHERWISE NOTED.
- CONTINUE HORIZONTAL REINFORCING THROUGH MASONRY CONTROL JOINT AT ROOF LEVEL AND LINTELS.
- MASONRY CONTROL JOINTS SHALL BE LOCATED AT A MAXIMUM SPACING OF 25 FEET WHENEVER POSSIBLE. MASONRY CONTROL JOINTS SHOULD BE PLACED AT RETURNS AND JAMBS OF WALL OPENINGS.



MASONRY CONTROL JOINT (MCJ)

DETAIL 04012
NTS VAR

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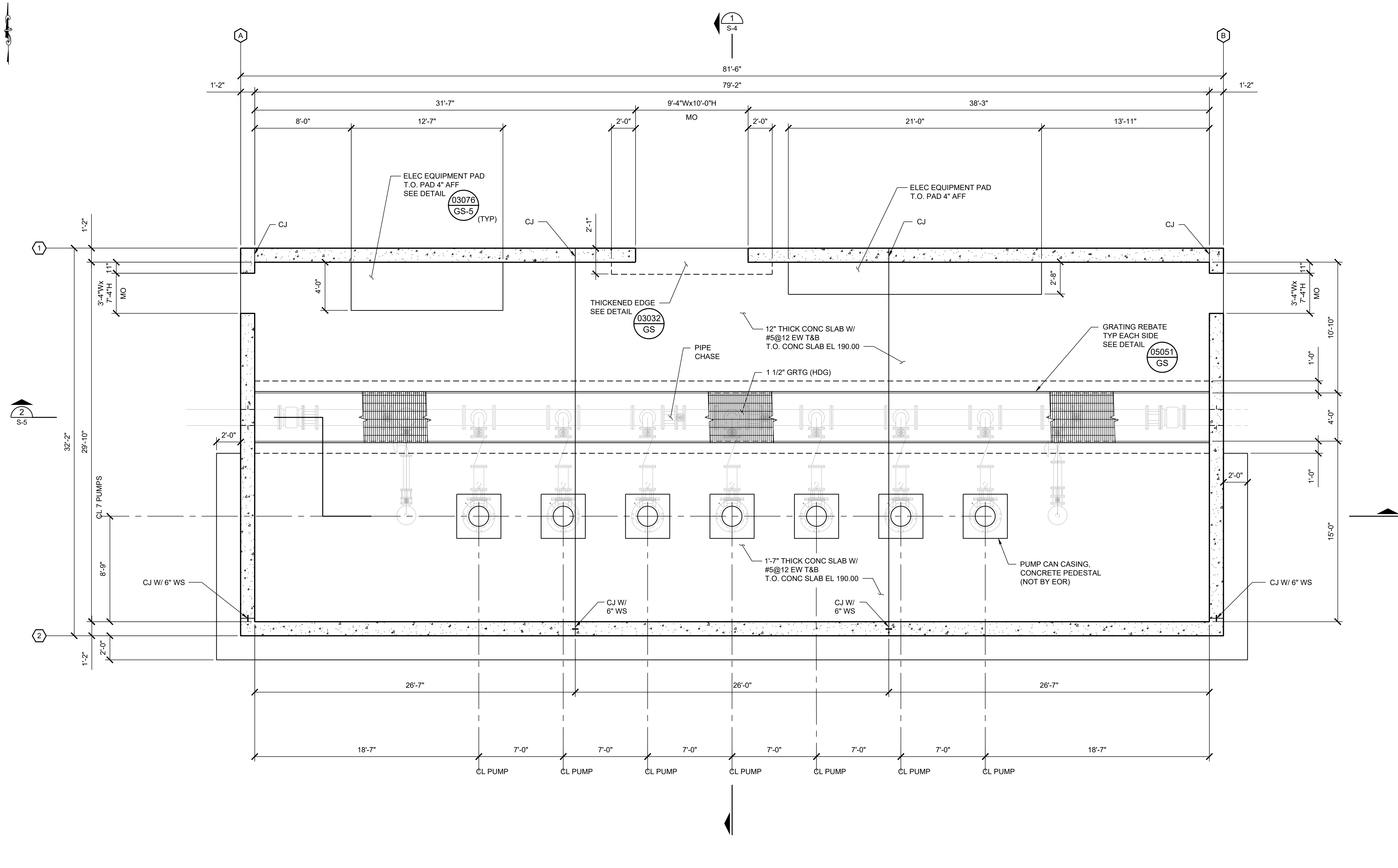
A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

STANDARD DETAILS V

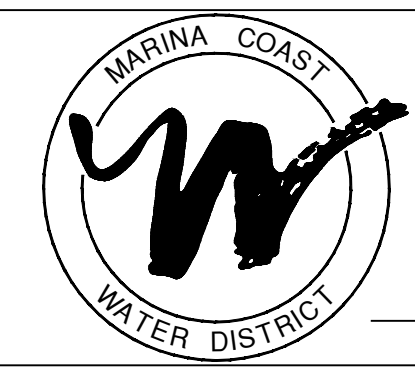
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SCALE: NTS
DESIGN: RKT
DRAWN: ADP
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OF

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FLOOR PLAN
SCALE: 1/4"=1'-0"



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A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

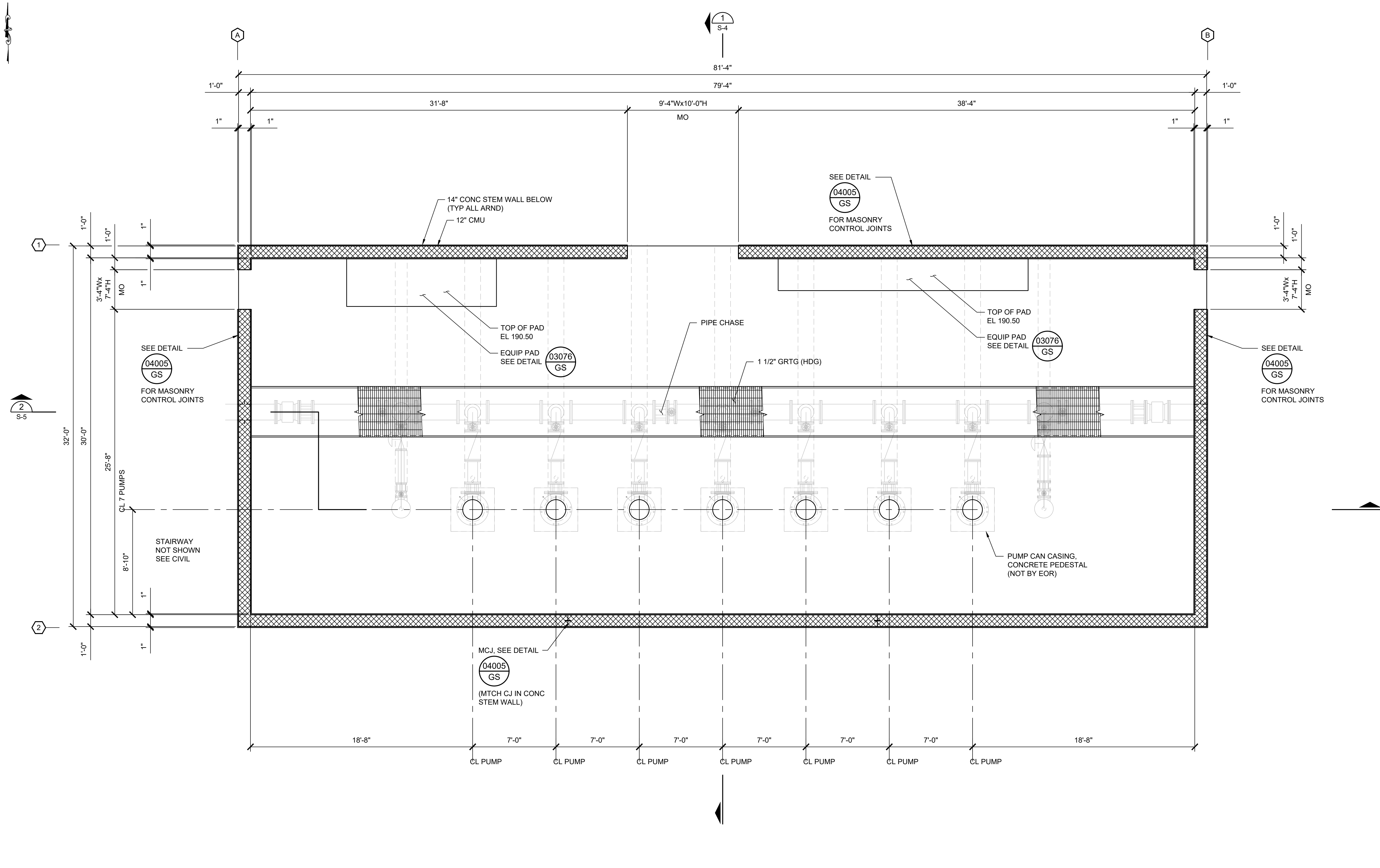
BOOSTER PUMP STATION FLOOR PLAN

DATE:	1/4/2021
SCALE:	AS SHOWN
DESIGN:	RKT
DRAWN:	ADP
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S-1
OF

NO.	REVISION DESCRIPTION	DATE	APPR

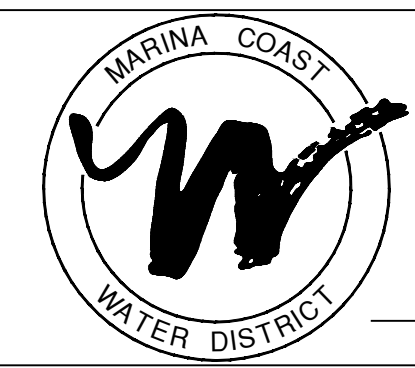
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INTERMEDIATE PLAN
SCALE: 1/4"=1'-0"

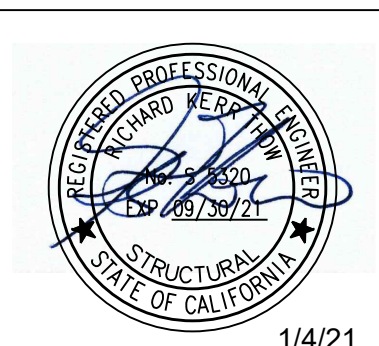


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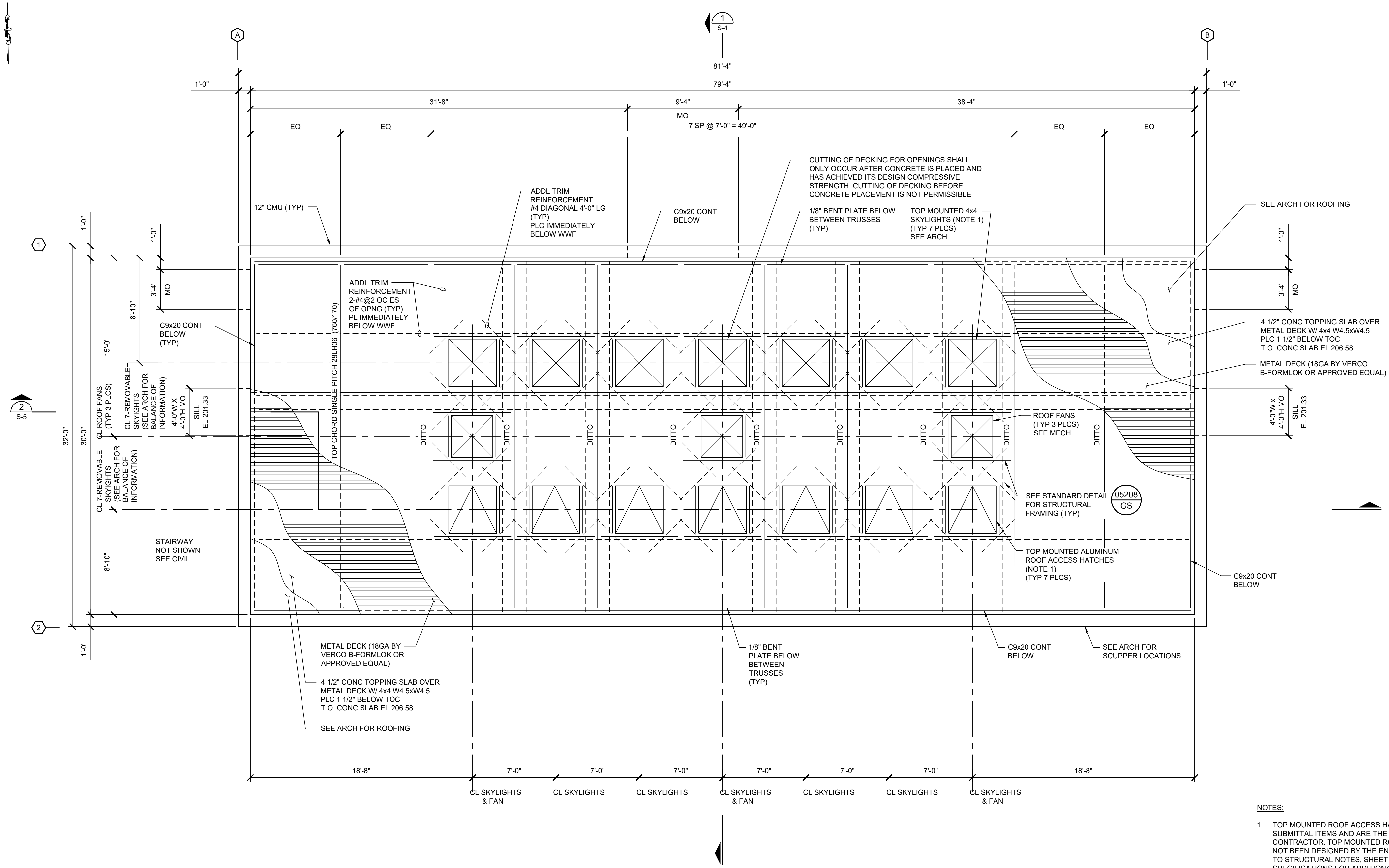


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
BOOSTER PUMP STATION
INTERMEDIATE FLOOR PLAN

DATE:	1/4/2021
SCALE:	AS SHOWN
DESIGN:	RKT
DRAWN:	ADP
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OF

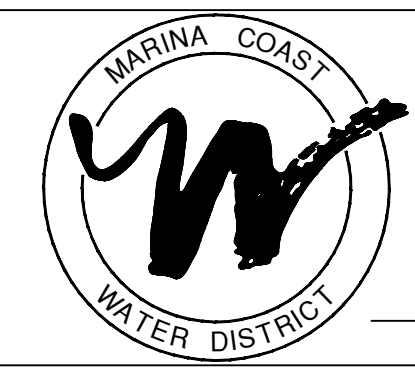
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ROOF PLAN
SCALE: 1/4"=1'-0"

- NOTES:**
- TOP MOUNTED ROOF ACCESS HATCHES ARE DEFERRED SUBMITTAL ITEMS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. TOP MOUNTED ROOF ACCESS HATCHES HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD. REFER TO STRUCTURAL NOTES, SHEET GS-1 AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 - CUTTING OF DECKING FOR OPENINGS SHALL ONLY OCCUR AFTER CONCRETE IS PLACED AND HAS ACHIEVED ITS DESIGN COMPRESSIVE STRENGTH. CUTTING OF DECKING BEFORE CONCRETE PLACEMENT IS NOT PERMISSIBLE.

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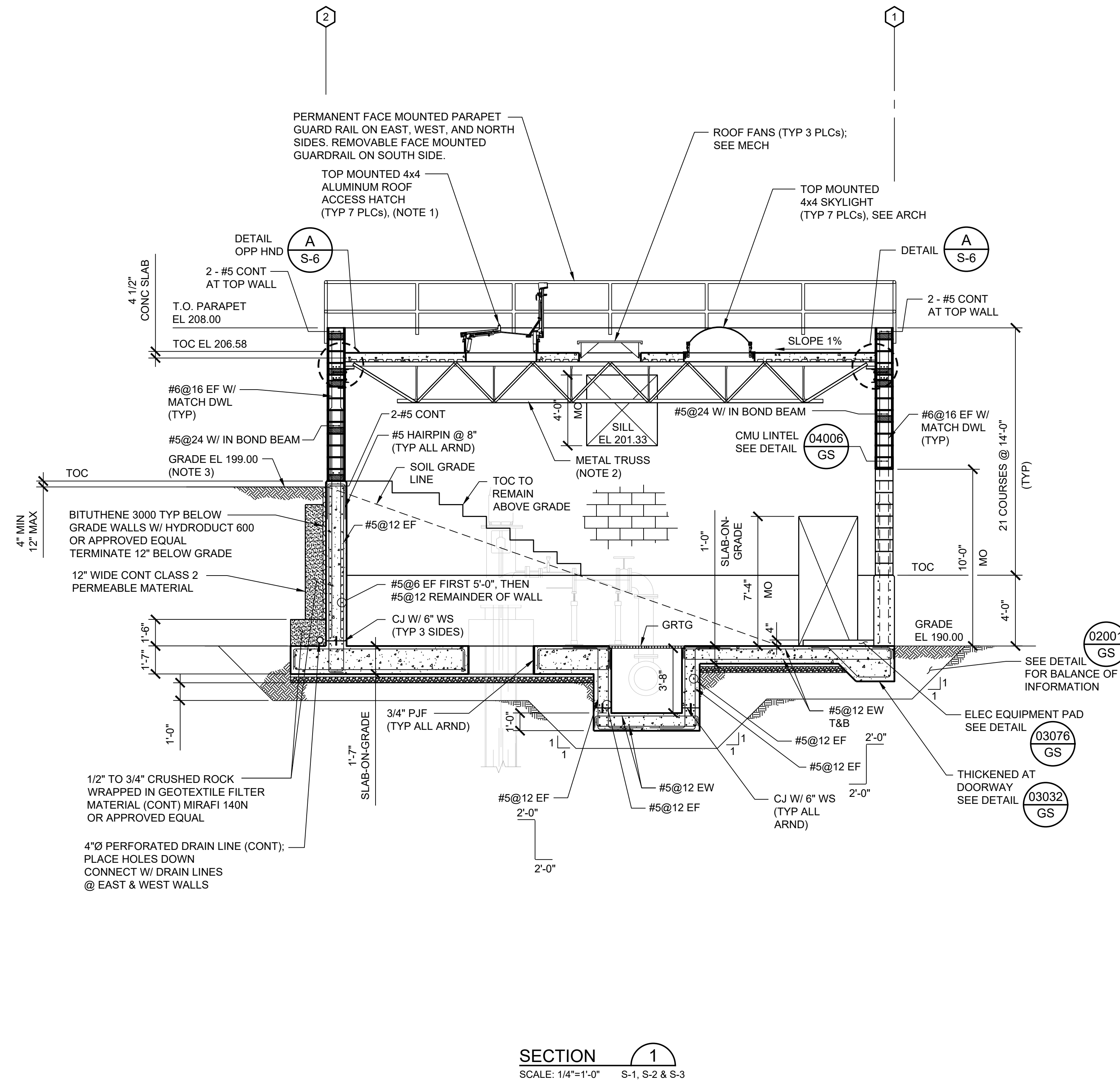
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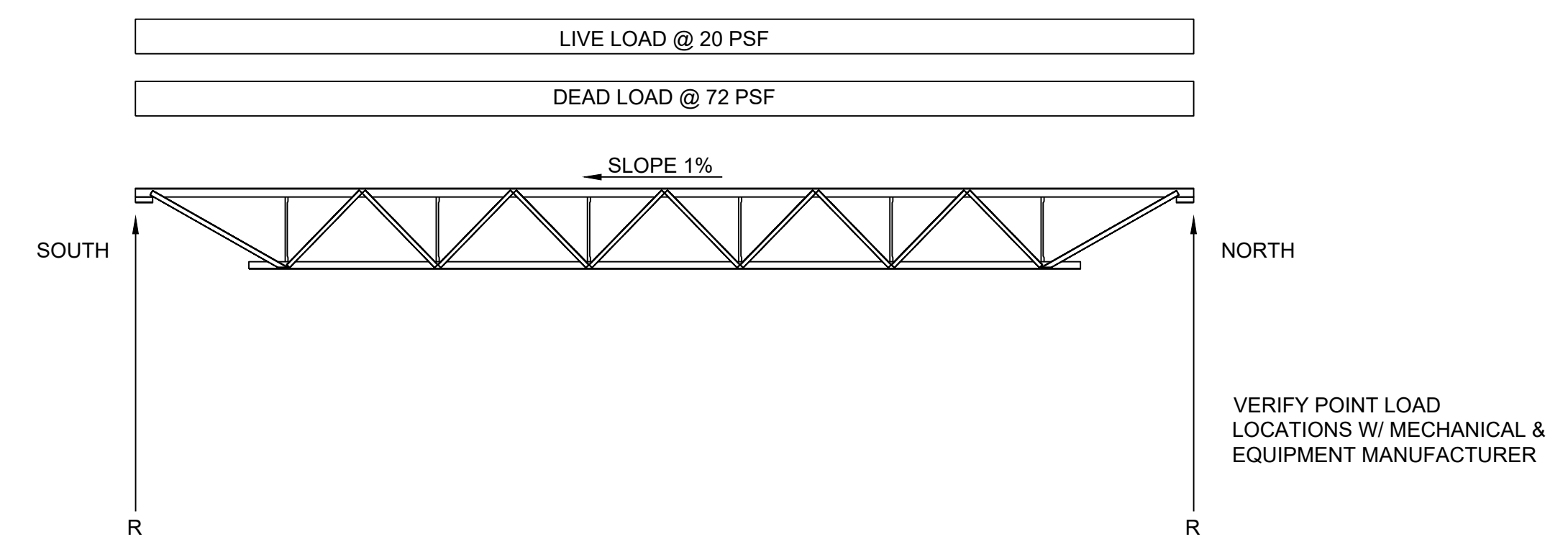
A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
BOOSTER PUMP STATION
ROOF PLAN

DATE: 1/4/2021
SCALE: AS SHOWN
DESIGN: RKT
DRAWN: ADP
CHECK:

SHEET
S-3
OF



SECTION 1
SCALE: 1/4"=1'-0" S-1, S-2 & S-3

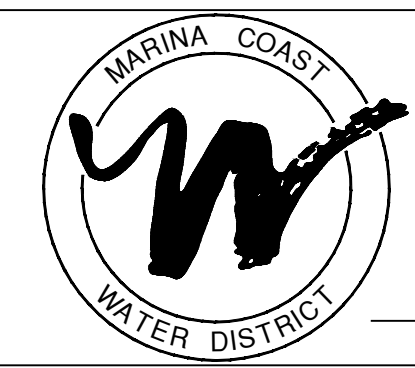


- NOTES:
1. FASTEN METAL DECK TO END SUPPORTS (BOUNDARY WELD) WITH 4-3/4" SHEAR STUDS PER PANEL.
 2. FASTEN METAL DECK SIDE LAPS WITH 3/8"x1/2" SIDE SEAM WELDS @ 12" OC.
 3. FASTEN METAL DECK TO SIDE SUPPORTS WITH 3/4" SHEAR STUDS @ 18" OC.
 4. ROOF DECKING SHALL BE CONTINUOUS FOR MINIMUM OF THREE SPANS WHENEVER POSSIBLE.
 5. DESIGN AND FURNISH JOISTS AND BRIDGING FOR NET UPLIFT OF 15 PSF.
 6. STEEL JOISTS SHALL BE DESIGNED FOR APPLIED DEAD LOAD OF 72 PSF AND LIVE LOAD OF 20 PSF.
 7. ADDITIONAL ROW OF BRIDGING REQUIRED AT BOTTOM CHORD FIRST PANEL POINT FROM SUPPORT BEAM SIDE.

TRUSS LOAD DIAGRAM
SCALE: NTS

- NOTES:
1. TOP MOUNTED ROOF ACCESS HATCHES ARE DEFERRED SUBMITTAL ITEMS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. TOP MOUNTED ROOF ACCESS HATCHES HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD. REFER TO STRUCTURAL NOTES, SHEET GS-1 AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 2. METAL TRUSSES IS A DEFERRED SUBMITTAL ITEM AND IS THE RESPONSIBILITY OF THE CONTRACTOR. METAL TRUSSES HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD. REFER TO STRUCTURAL NOTES, SHEET GS-1 AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 3. BACK-FILL SHALL NOT BE PLACED AGAINST WALLS UNTIL SUCH TIME THAT THE CONCRETE AND MASONRY GROUT HAVE ACHIEVED THEIR FULL DESIGN STRENGTH, AS DEMONSTRATED BY FIELD CYLINDER TESTS. DESIGN STRENGTH SHALL BE ESTABLISHED BY AN AVERAGE OF NOT LESS THAN TWO CYLINDERS.

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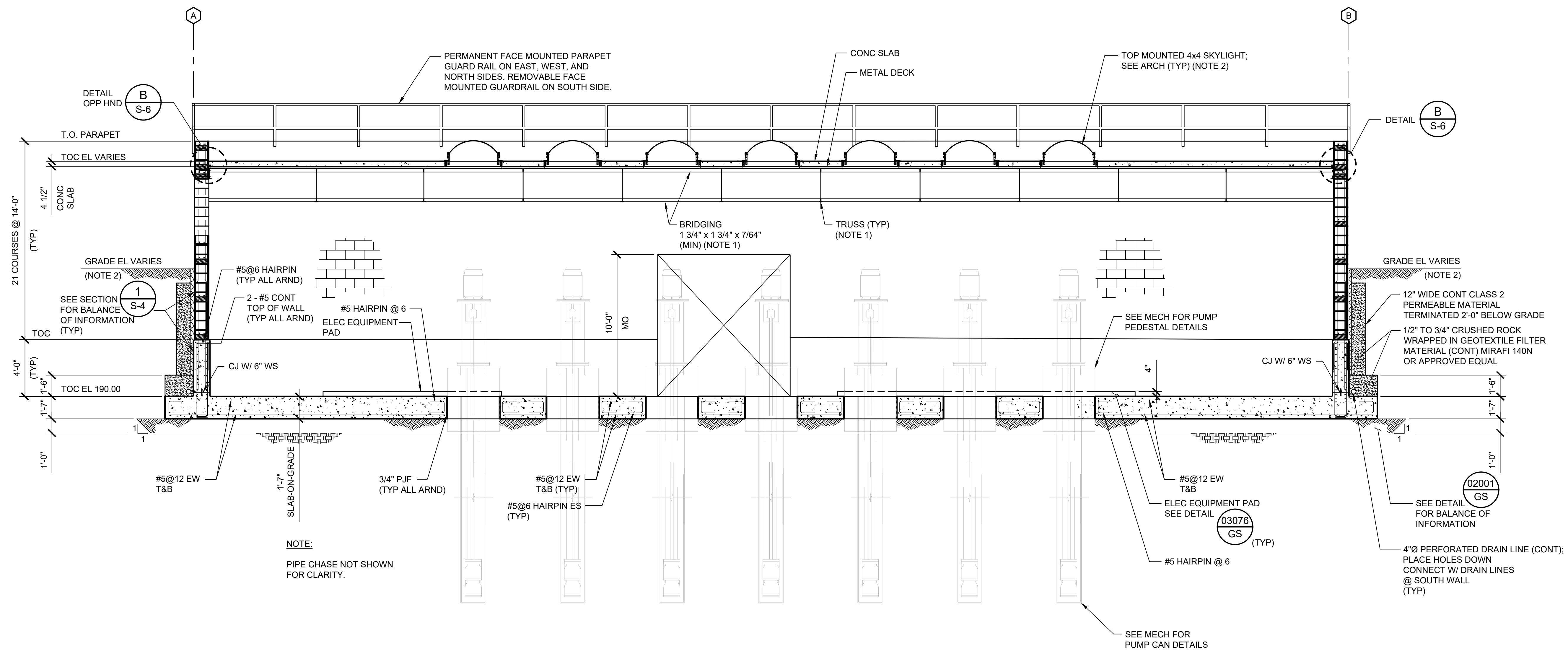
A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

BOOSTER PUMP STATION SECTION

DATE: 1/4/2021
SCALE: AS SHOWN
DESIGN: RKT
DRAWN: ADP
CHECK:

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OF

NO.	REVISION DESCRIPTION	DATE	APPR

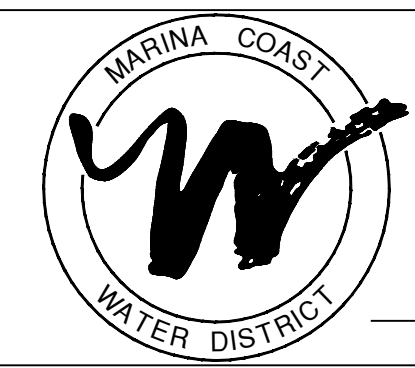


SECTION 2
SCALE: 1/4"=1'-0" S-1, S-2 & S-3

NOTE:
PIPE CHASE NOT SHOWN FOR CLARITY.

- NOTES:
- METAL TRUSSES AND BRIDGING ARE DEFERRED SUBMITTAL ITEMS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. METAL TRUSSES AND BRIDGING HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD. REFER TO STRUCTURAL NOTES, SHEET GS-1 AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 - BACK-FILL SHALL NOT BE PLACED AGAINST WALLS UNTIL SUCH TIME THAT THE CONCRETE AND MASONRY GROUT HAVE ACHIEVED THEIR FULL DESIGN STRENGTH, AS DEMONSTRATED BY FIELD CYLINDER TESTS. DESIGN STRENGTH SHALL BE ESTABLISHED BY AN AVERAGE OF NOT LESS THAN TWO CYLINDERS.

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A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

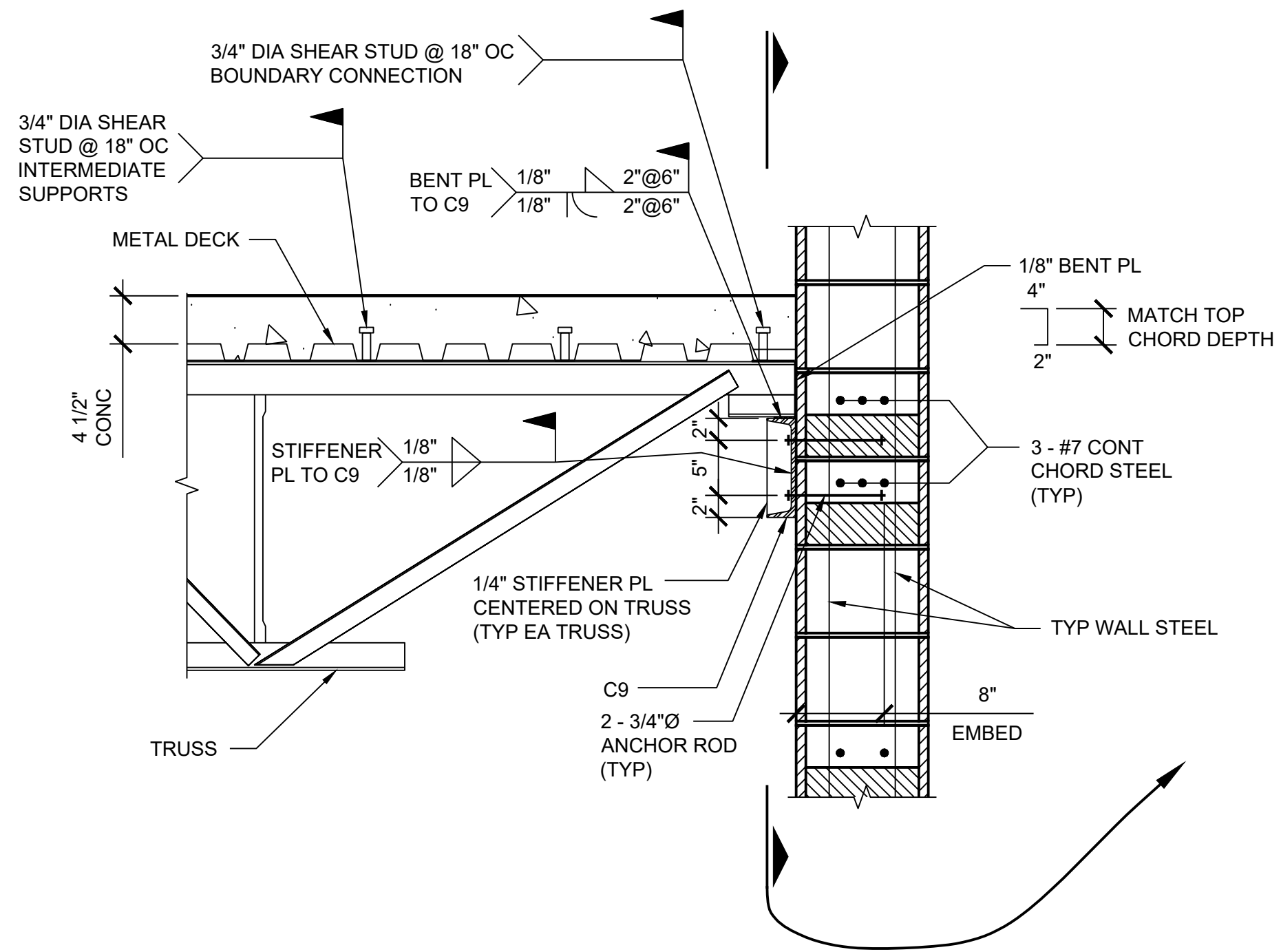
BOOSTER PUMP STATION SECTION

DATE: 1/4/2021
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DRAWN: ADP
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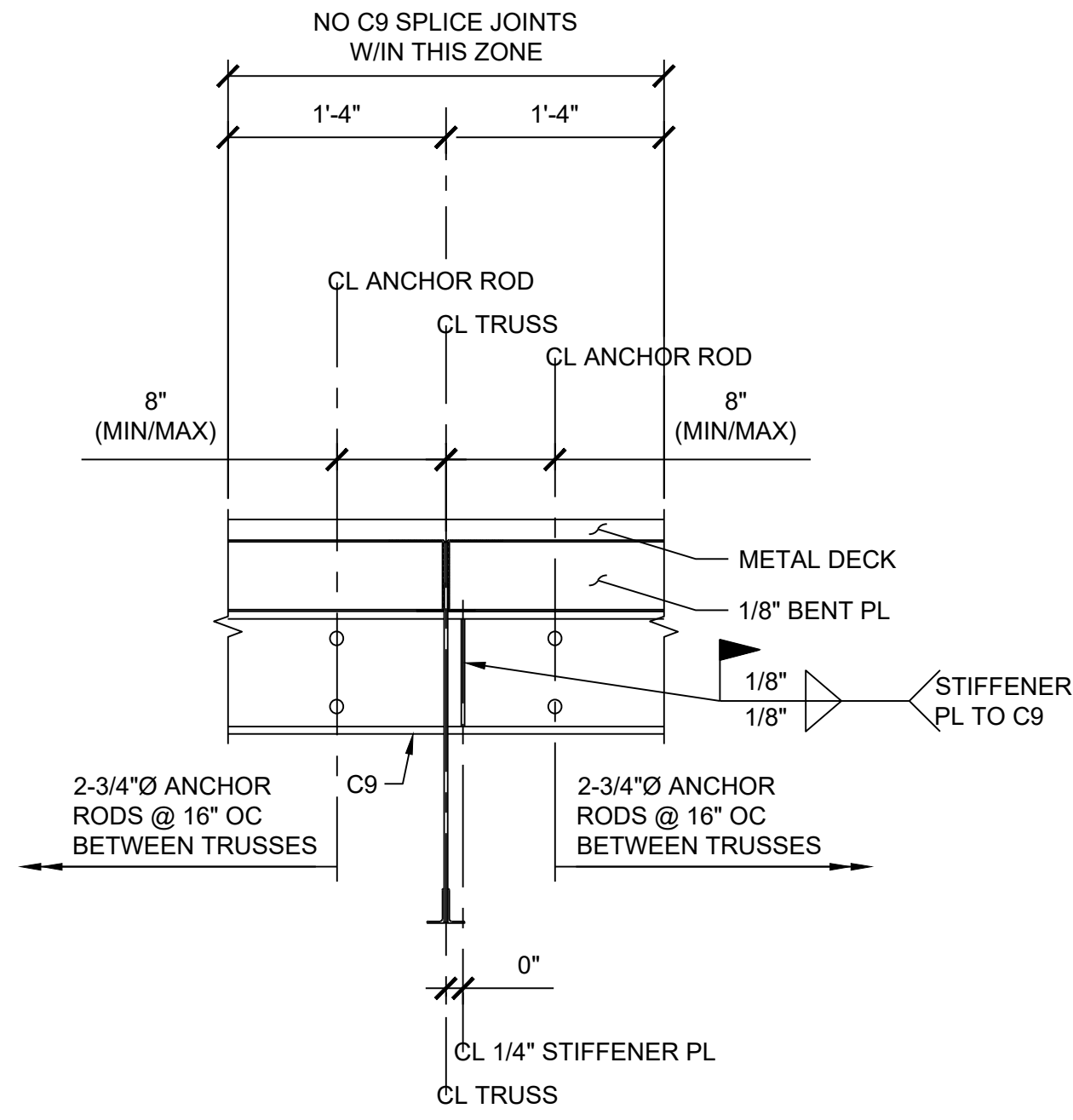
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OF

NO.	REVISION DESCRIPTION	DATE	APPR

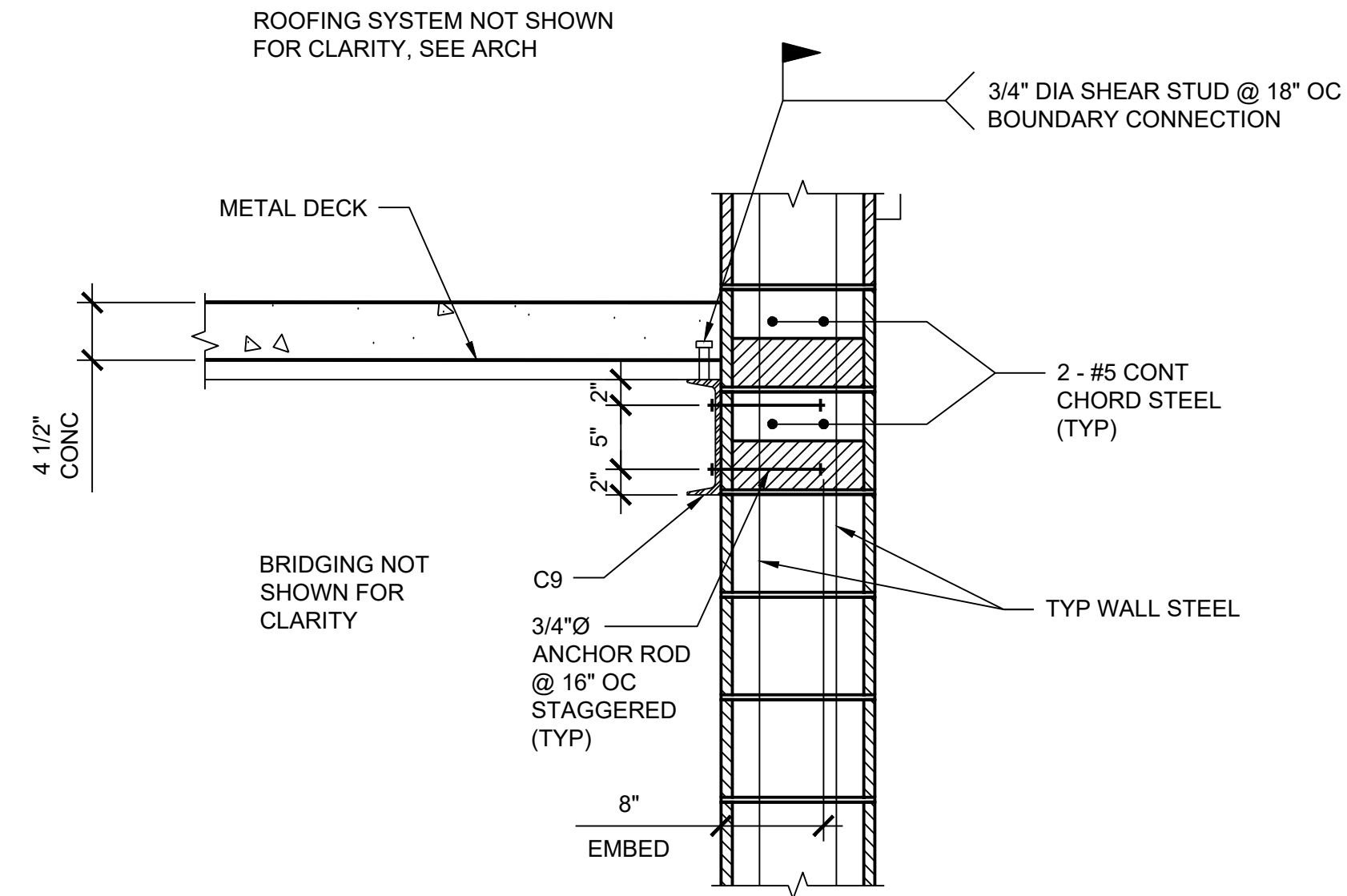
ROOFING SYSTEM NOT SHOWN FOR CLARITY, SEE ARCH



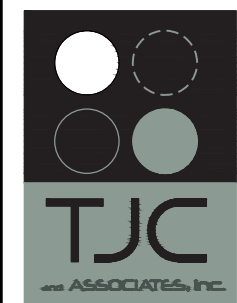
DETAIL A
SCALE: 1"=1'-0"



DETAIL B
SCALE: 1"=1'-0"



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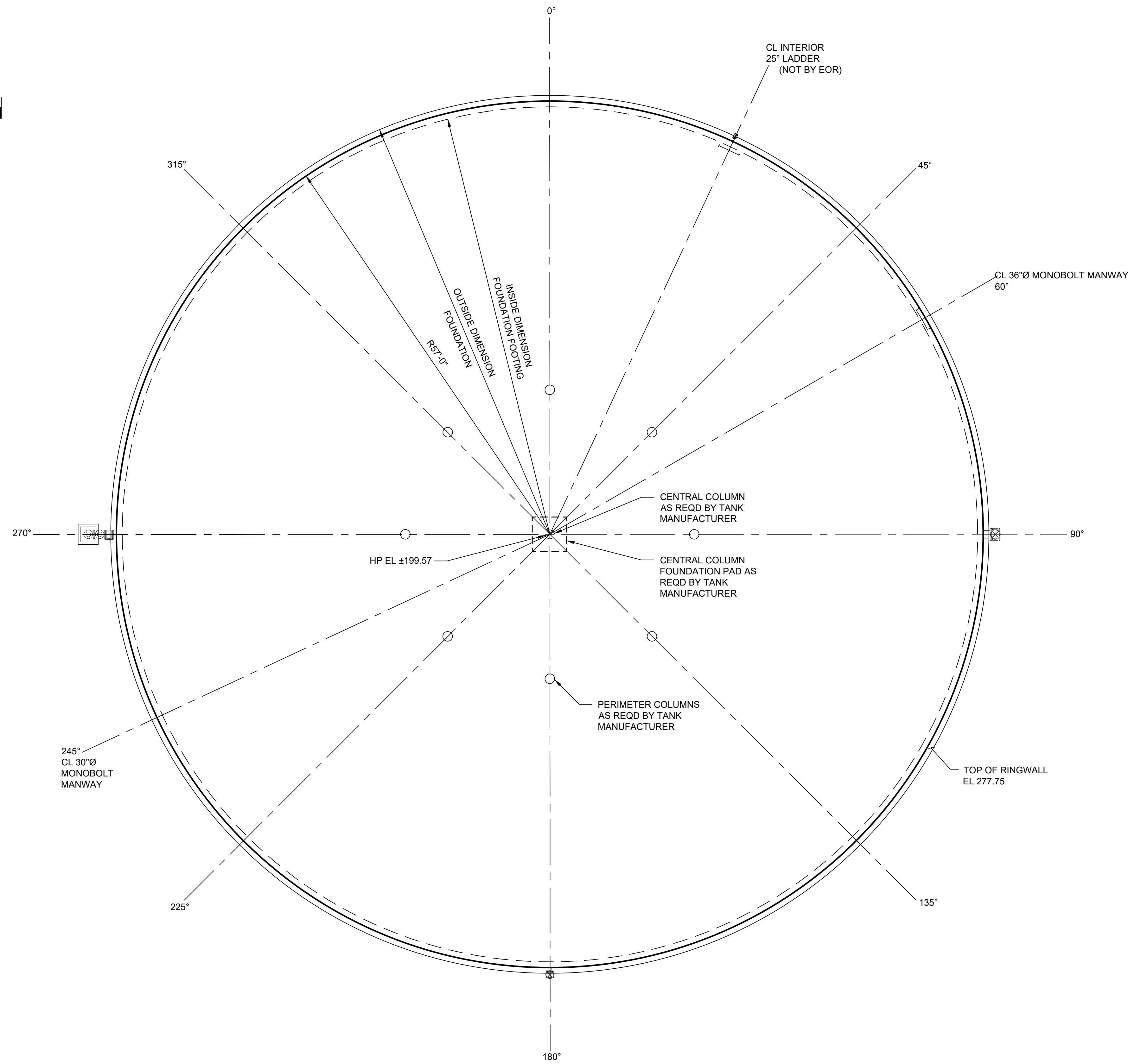
A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

**BOOSTER PUMP STATION
DETAILS**

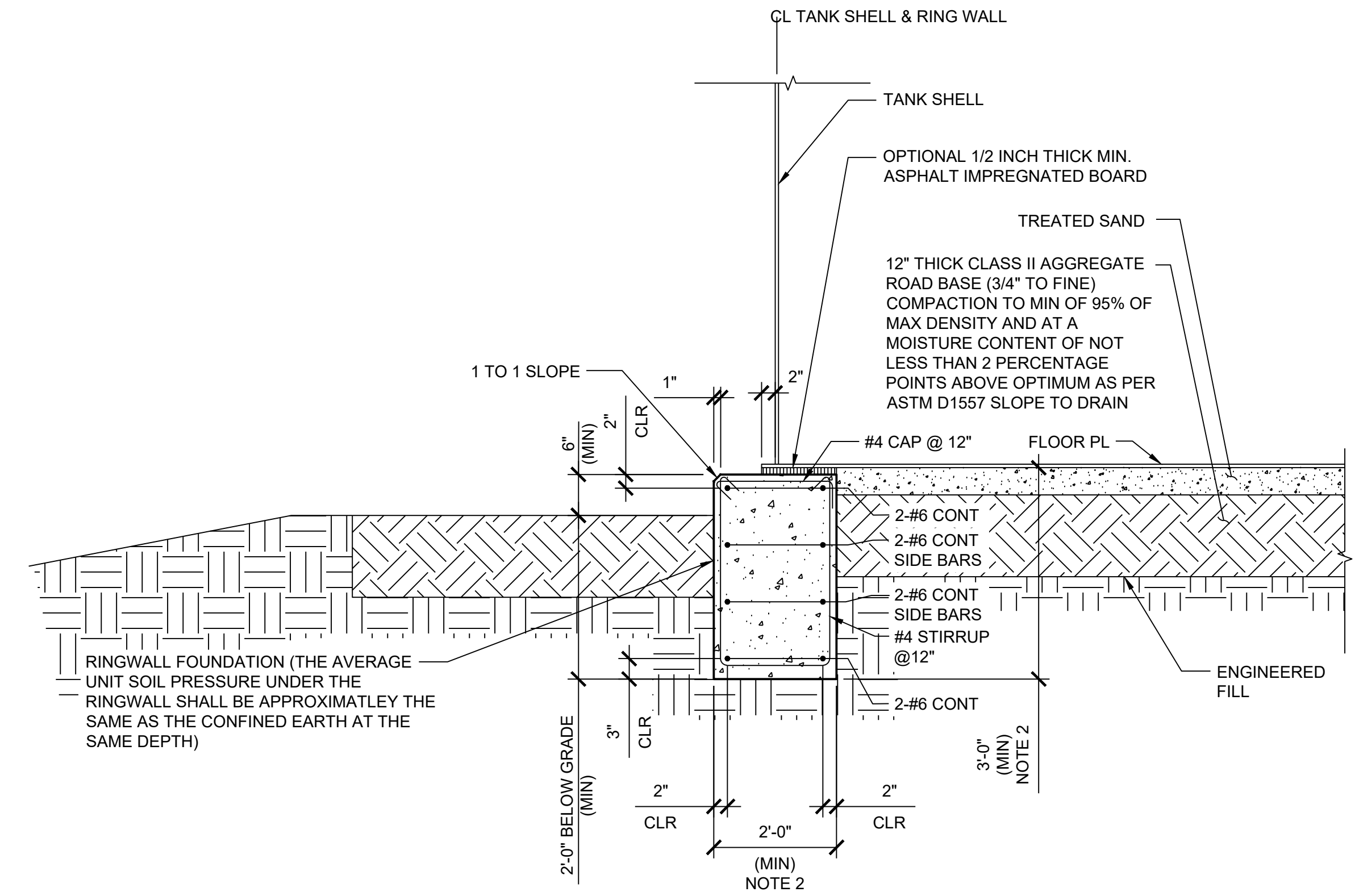
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OF

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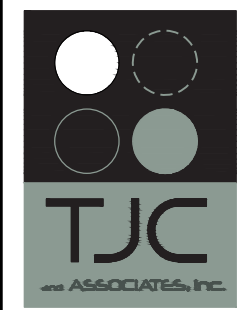
BOTTOM PLAN
SCALE: 1/8"=1'-0"



SCHEMATIC DESIGN OF EARTH FOUNDATION WITH RINGWALL
SCALE: NOT TO SCALE

- NOTES:**
1. STEEL TANK, LADDER, CONCRETE RINGWALL, AND APPURTENANCES ARE DEFERRED SUBMITTAL ITEMS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. DEFERRED SUBMITTAL ITEMS HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD. REFER TO STRUCTURAL NOTES, SHEET GS-1 AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 2. INFORMATION PROVIDED REPRESENTS MINIMUM DESIGN REQUIREMENTS. FINAL MATERIAL AND DIMENSIONAL REQUIREMENTS, ARE THE RESPONSIBILITY OF THE CONTRACTOR DESIGN ENGINEER.

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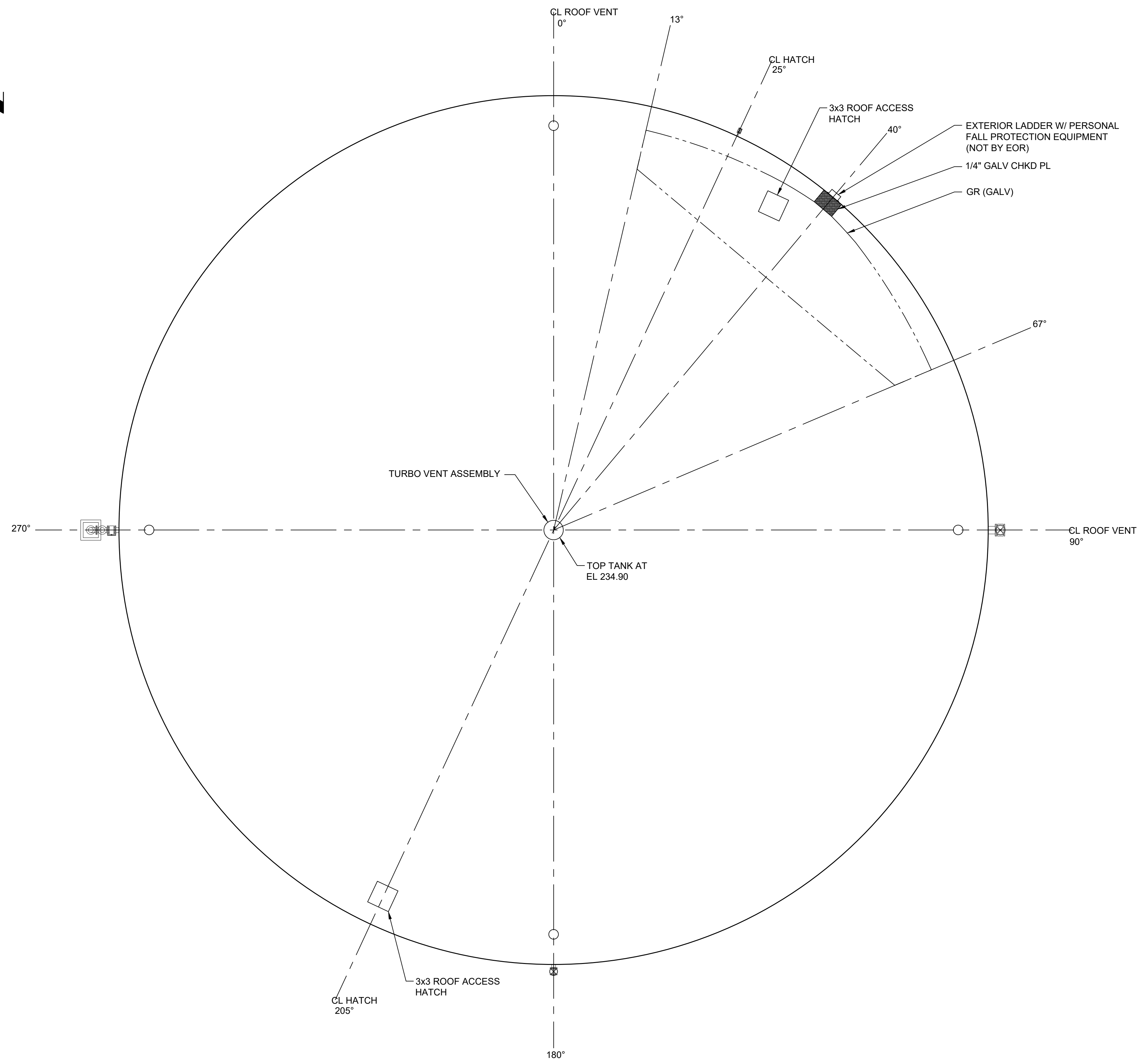
A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

**RESERVOIR A1/A2
TANK BOTTOM PLAN AND DETAIL**

DATE: 1/4/2021
SCALE: AS SHOWN
DESIGN: RKT
DRAWN: ADP
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S-7
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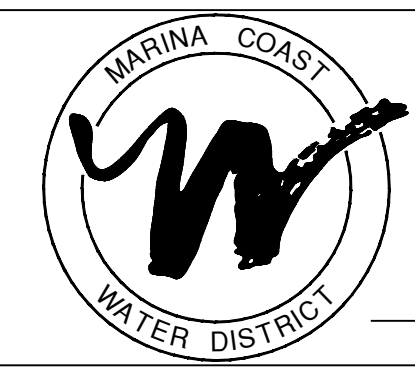
NO.	REVISION DESCRIPTION	DATE	APPR



TOP PLAN
SCALE: 1/8"=1'-0"

- NOTES:**
1. STEEL TANK, LADDER, CONCRETE RINGWALL, AND APPURTENANCES ARE DEFERRED SUBMITTAL ITEMS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. DEFERRED SUBMITTAL ITEMS HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD. REFER TO STRUCTURAL NOTES, SHEET GS-1 AND PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
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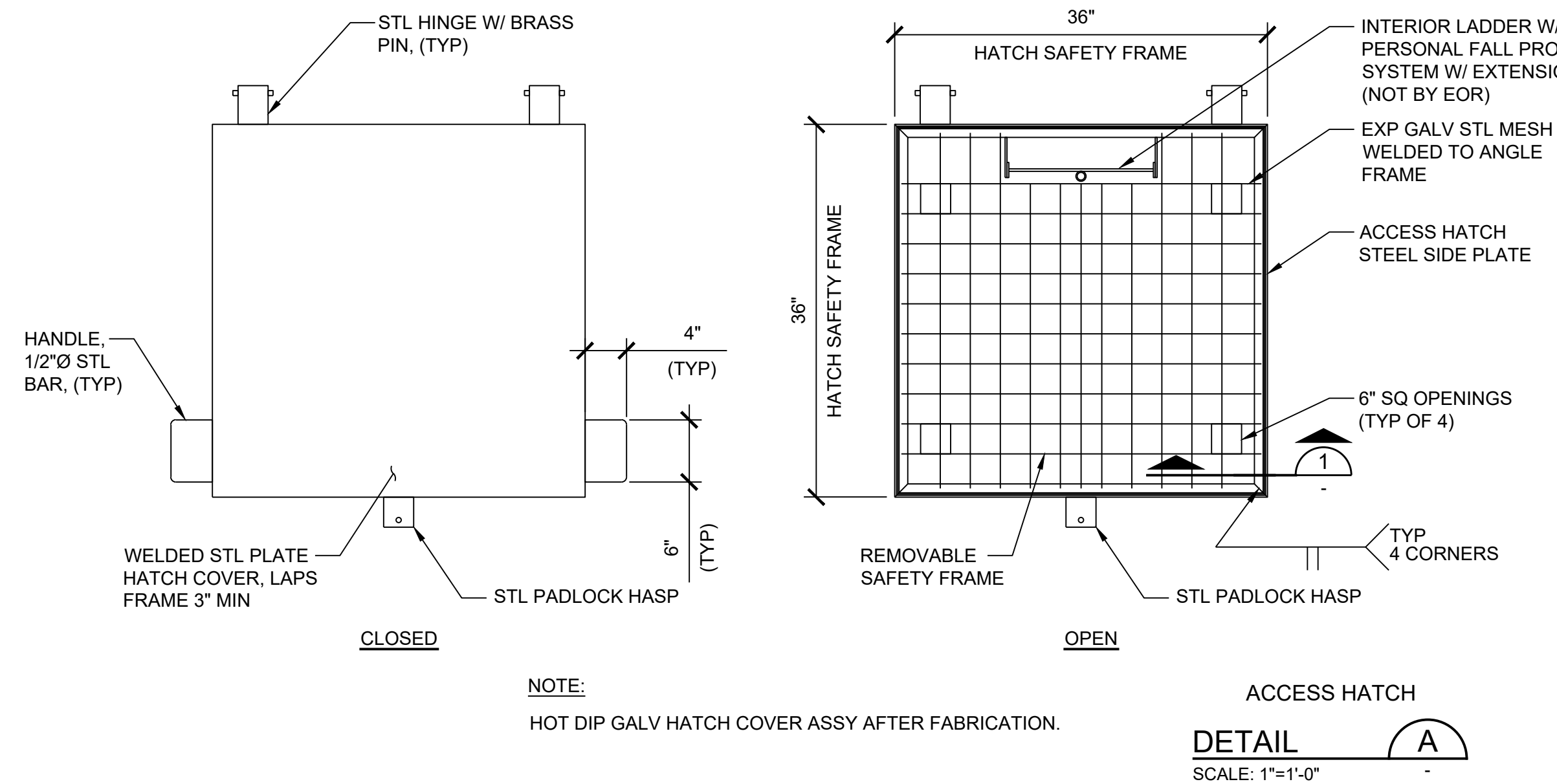
A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

**RESERVOIR A1/A2
TANK TOP PLAN**

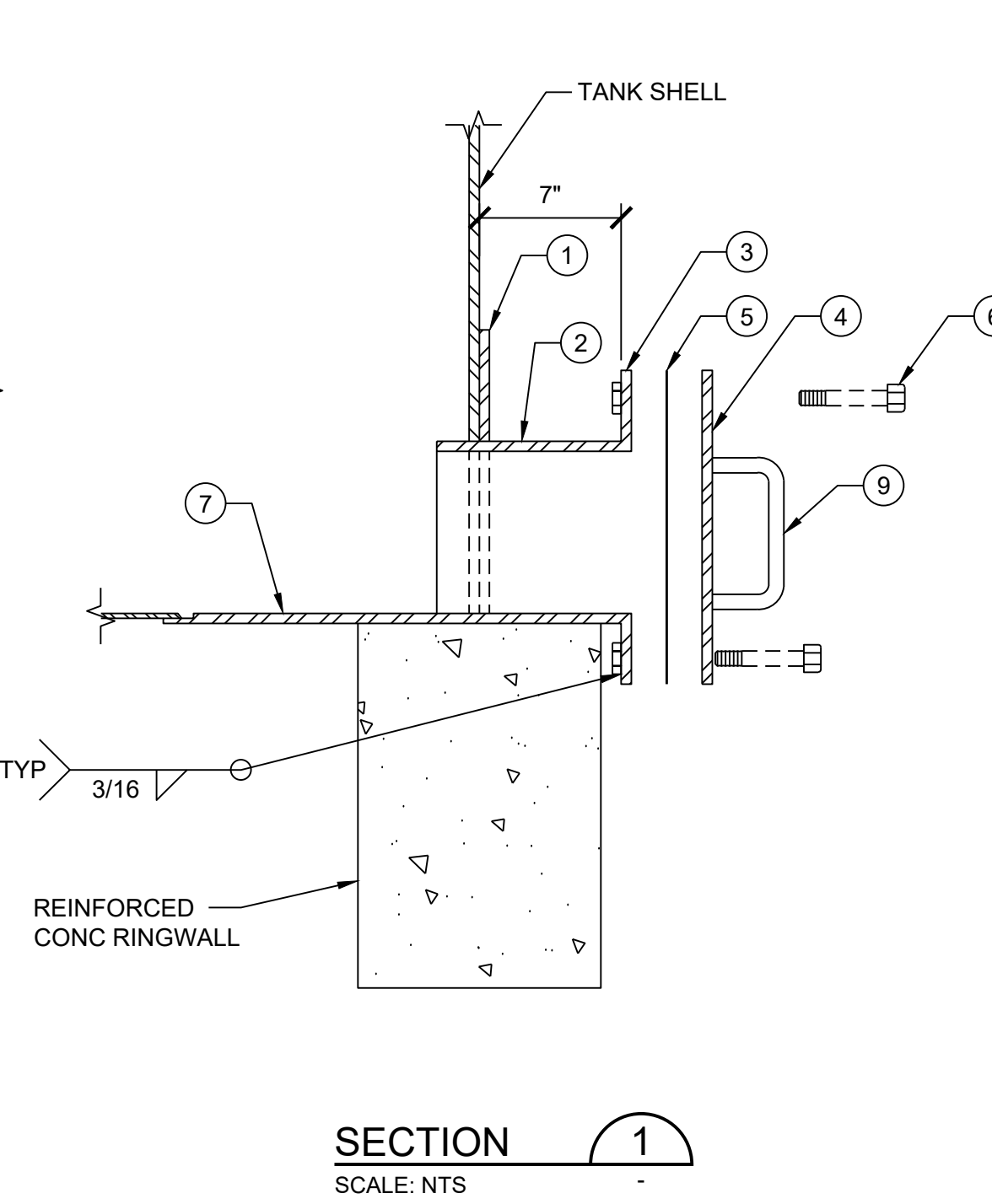
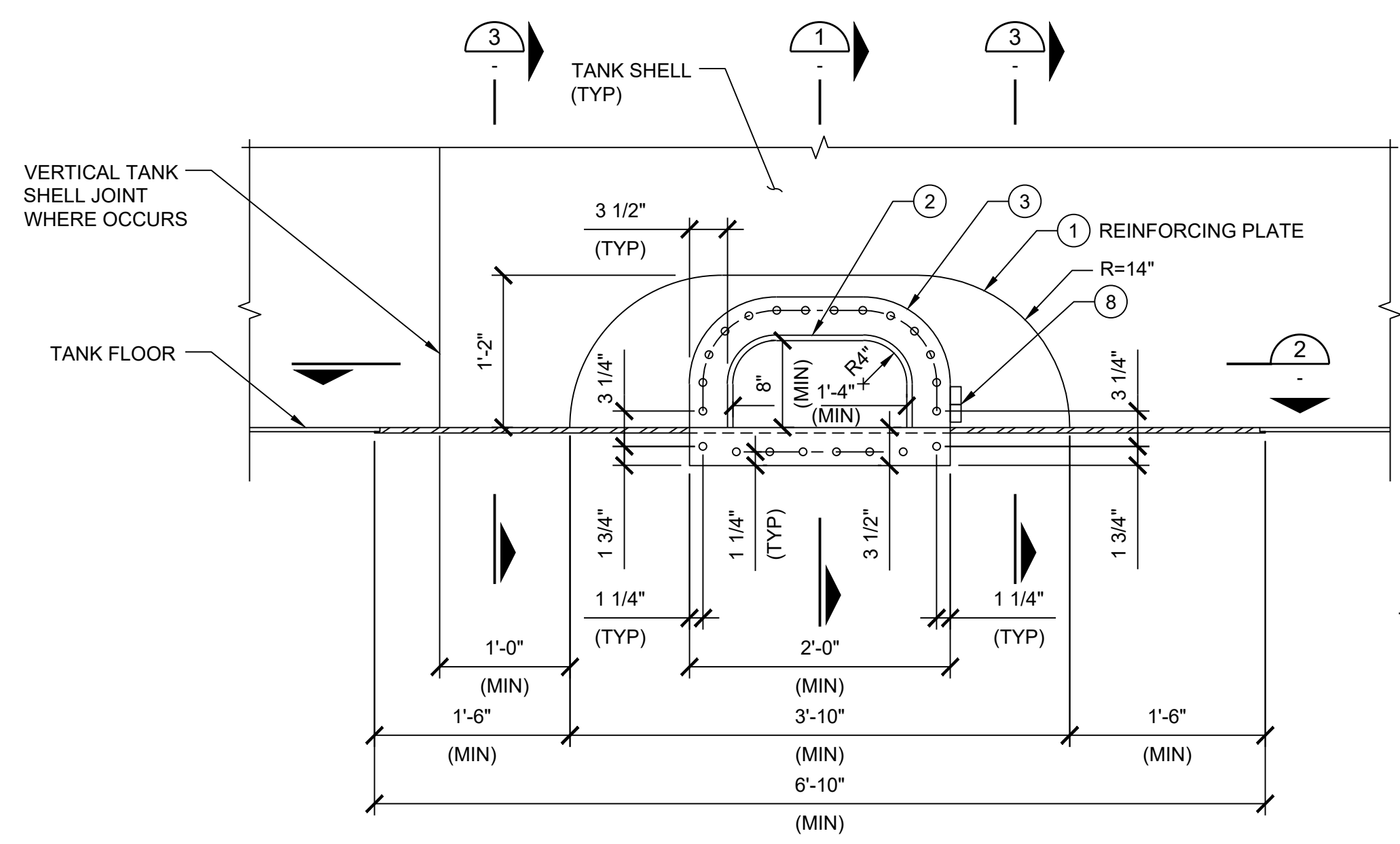
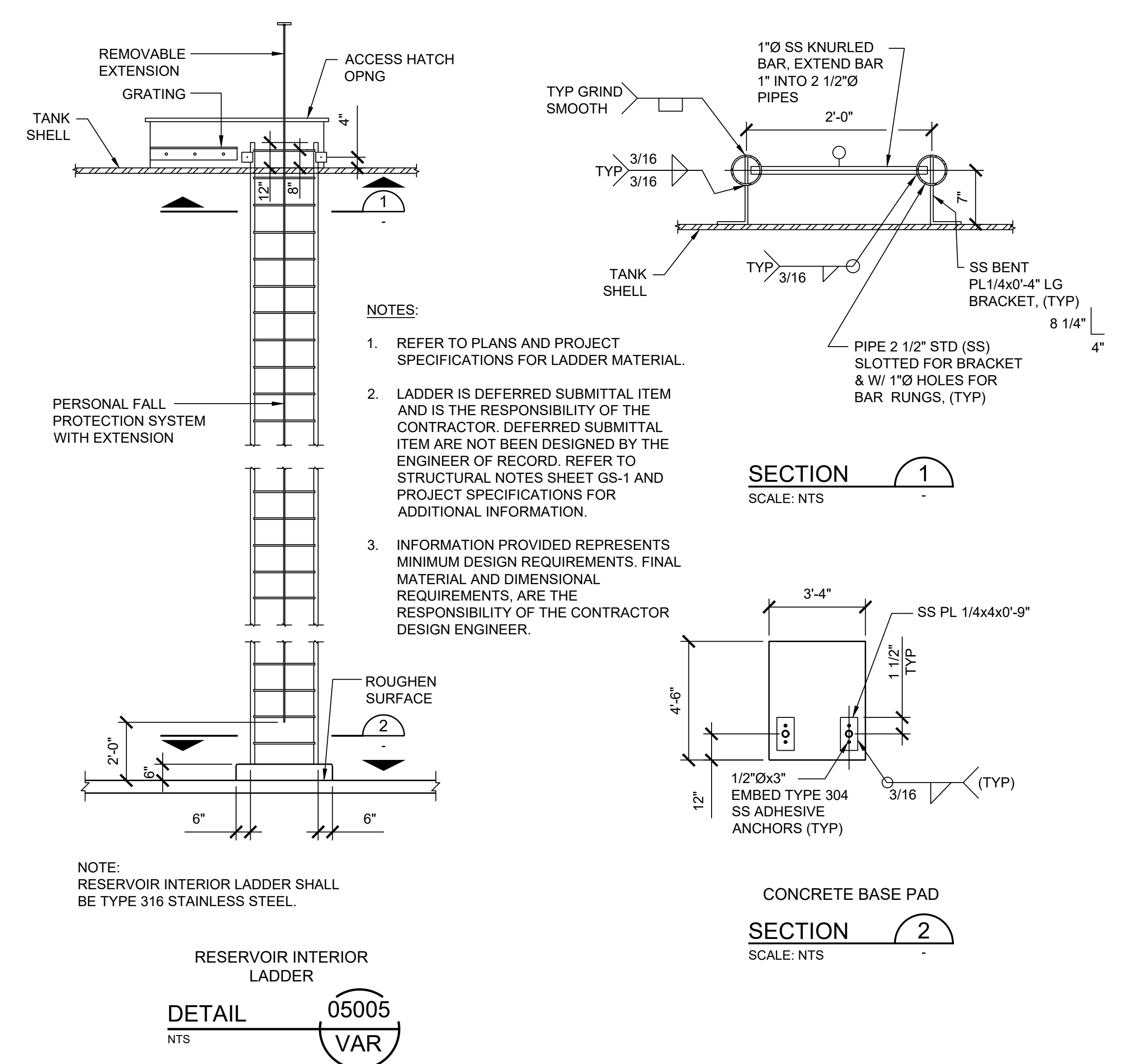
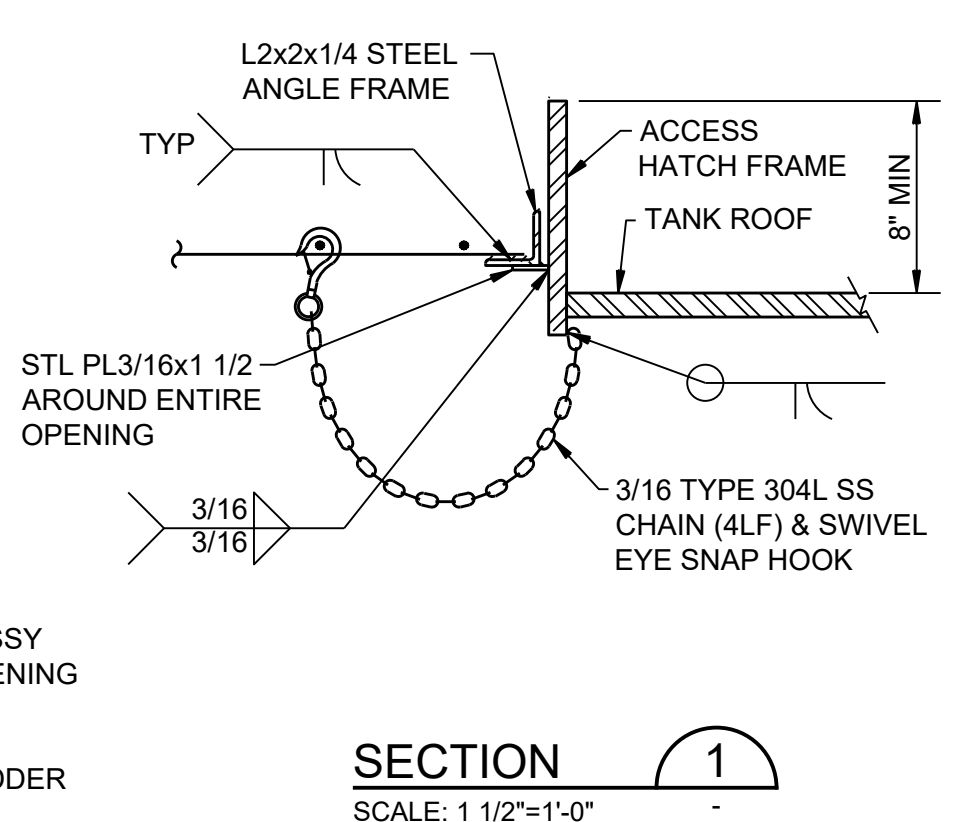
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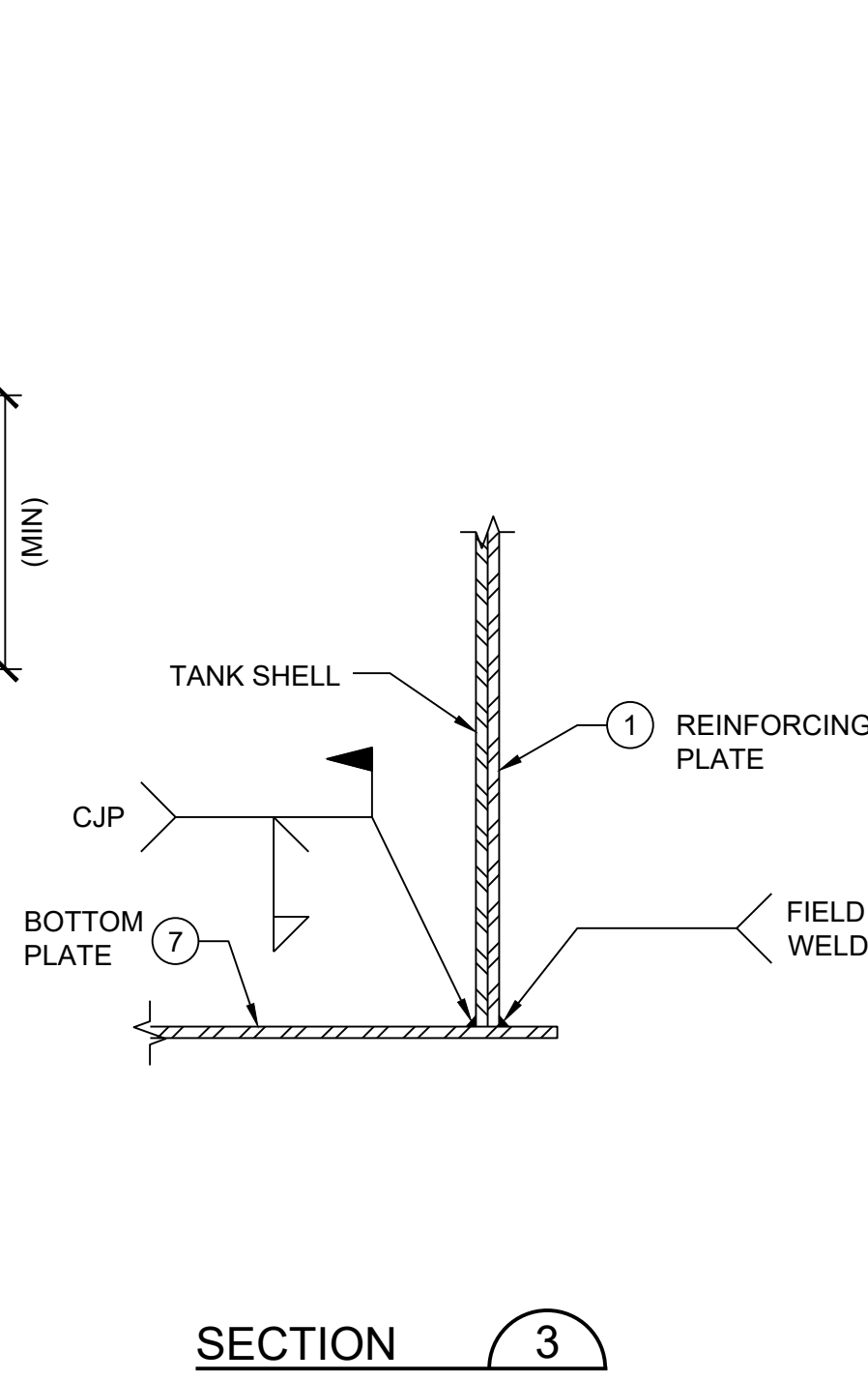
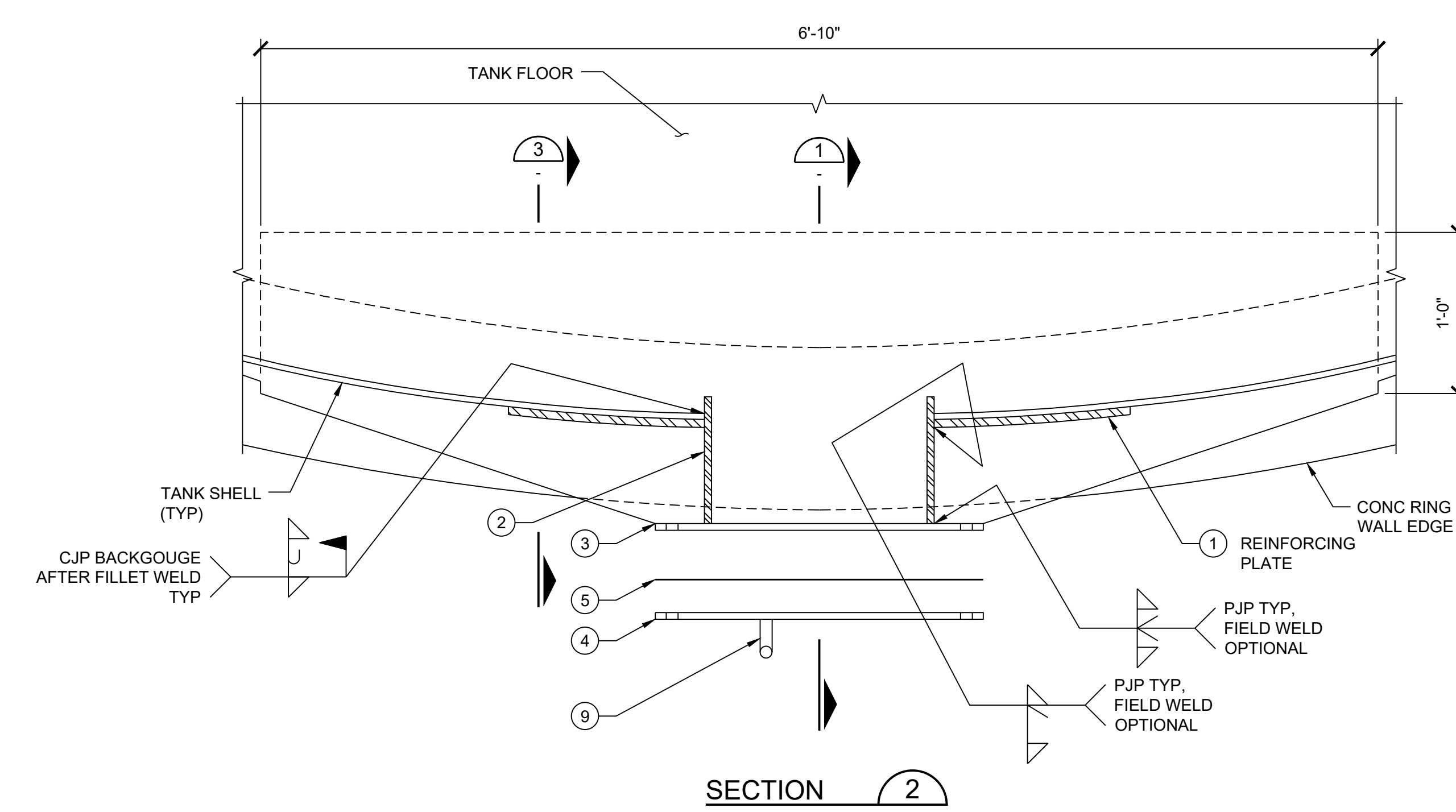
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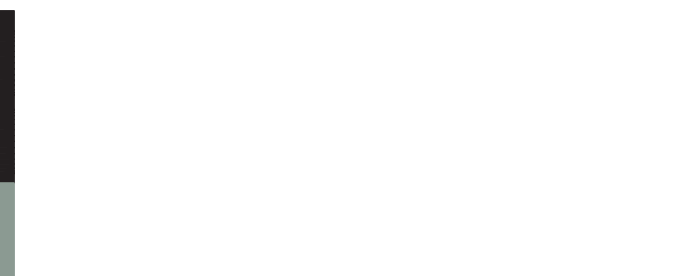
NOTES:
 1. HOT DIP GALV HATCH SAFETY FRAME ASSY AFTER FABRICATION, HATCH CLEAR OPENING IS 5'-10"x3'-10".
 2. MODIFY WWF AND FRAME TO CLEAR LADDER WHERE OCCURS.
 3. INFORMATION PROVIDED REPRESENTS MINIMUM DESIGN REQUIREMENTS. FINAL MATERIAL AND DIMENSIONAL REQUIREMENTS, ARE THE RESPONSIBILITY OF THE CONTRACTOR DESIGN ENGINEER.



FLUSH CLEANOUT SCHEDULE:
 ① REINFORCING PLATE CUT AS SHOWN, ROLL TO MATCH MID ORDINATE OF SHELL PLATE.
 ② CLEANOUT NECK ROLL PLATE AND TRIM
 ③ FLANGE CUT AS SHOWN
 ④ COVER PLATE CUT & DRILL TO MATCH ITEM
 ⑤ FULL FACE GASKET TO BE SPECIFIED BY DISTRICT, W/ HOLES TO MATCH ITEM
 ⑥ HS BOLT W/ NUT & WASHER
 ⑦ BOTTOM REINFORCING PLATE CUT AS SHOWN. INCREASE THICKNESS
 ⑧ HINGE
 ⑨ ROUND BAR 3/4"Ø x 1'-1" BEND AS SHOWN



NO. REVISION DESCRIPTION DATE APPR



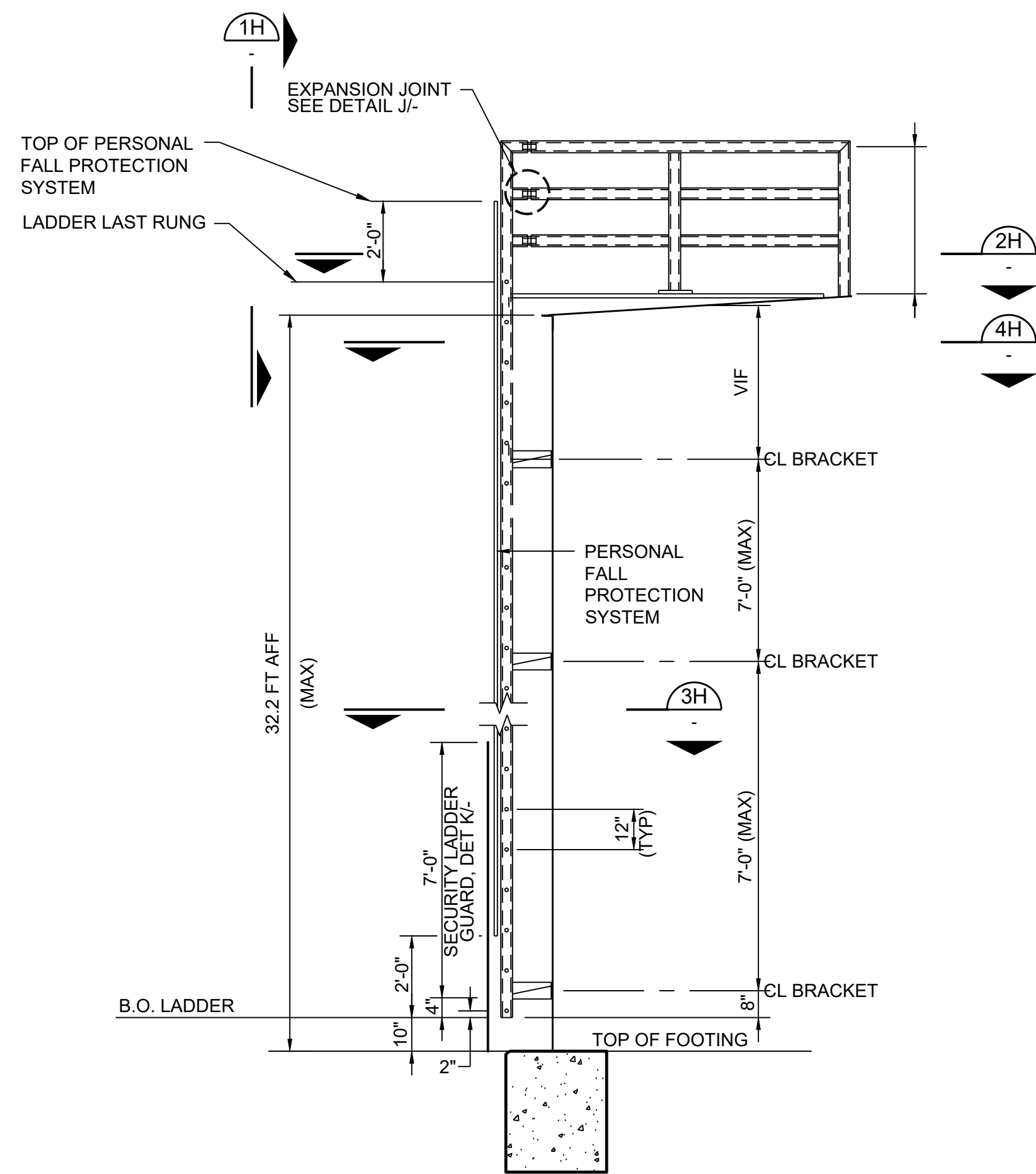
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 SALINAS, CA 93907
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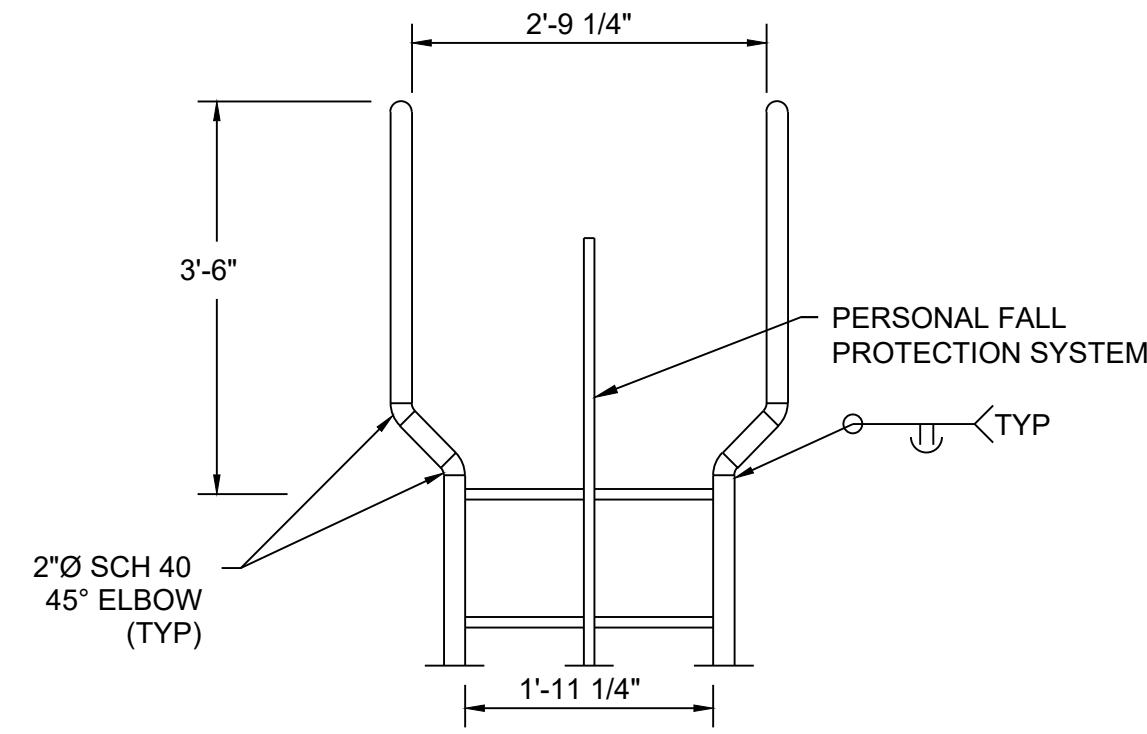


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
RESERVOIR A1/A2 DETAILS

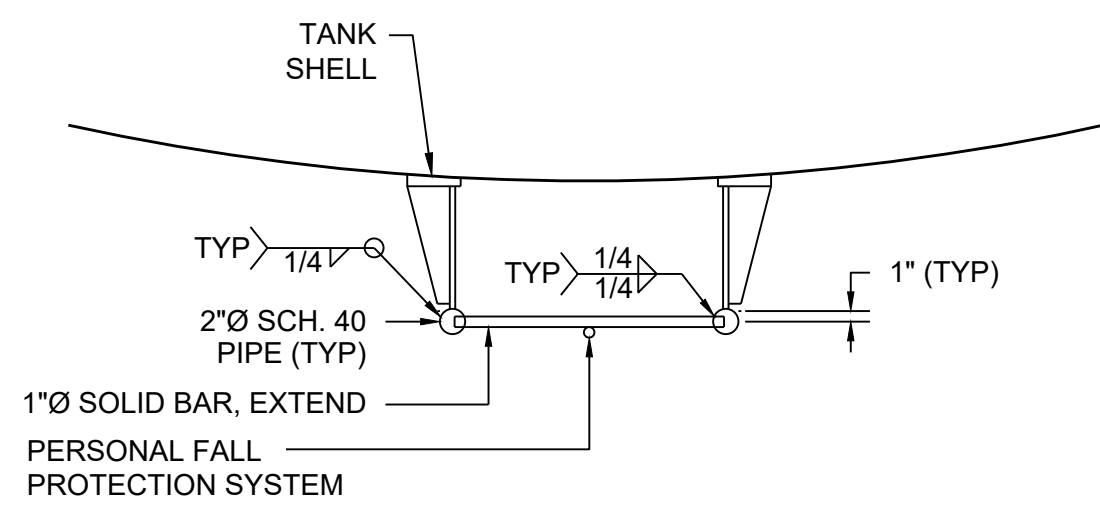
DATE:	1/4/2021	SHEET S-9 OF
SCALE:	AS SHOWN	
DESIGN:	RKT	
DRAWN:	ADP	
CHECK:		



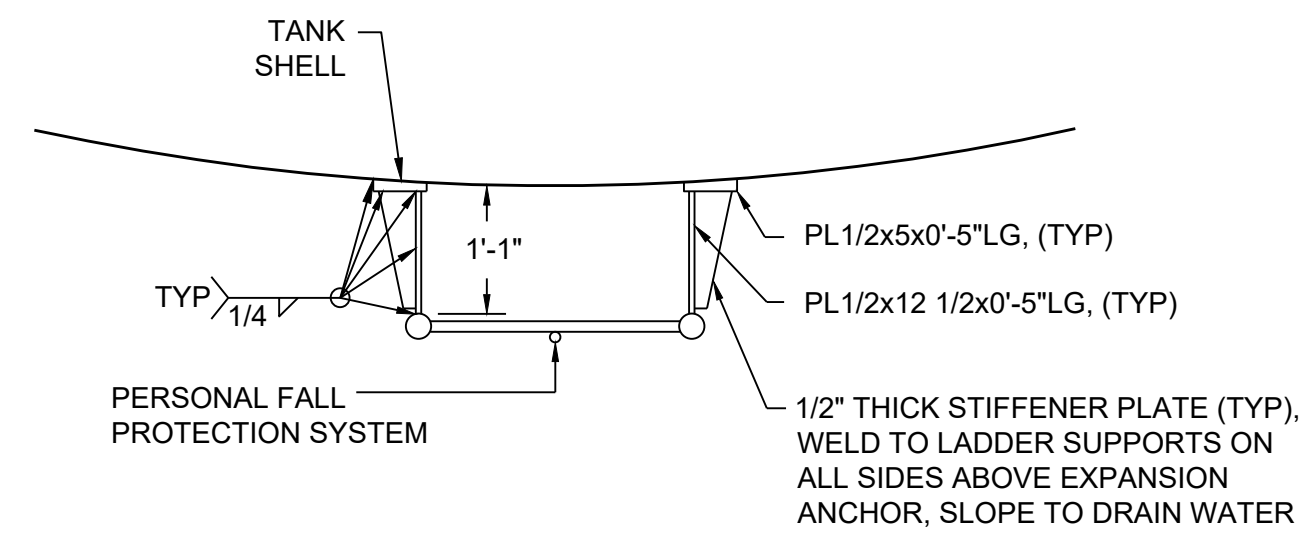
EXTERIOR LADDER ELEVATION
DETAIL H
 SCALE: NTS



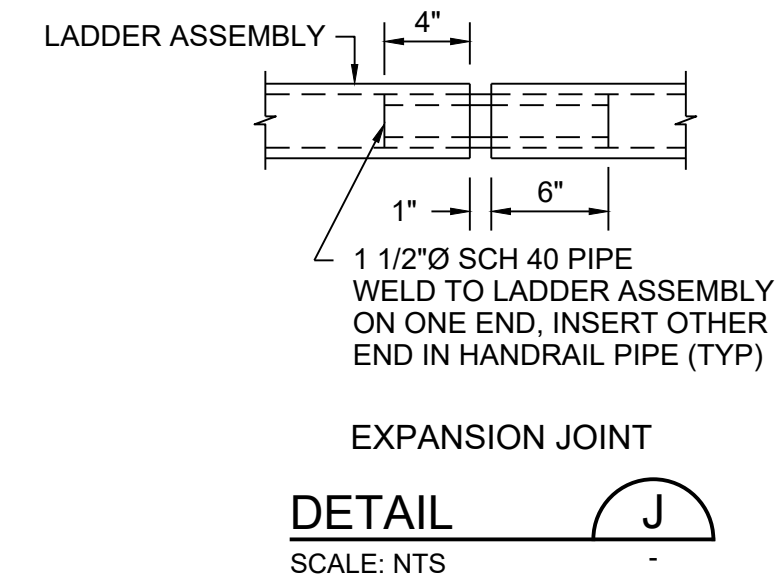
LADDER FLARE
SECTION 1H
 SCALE: NTS



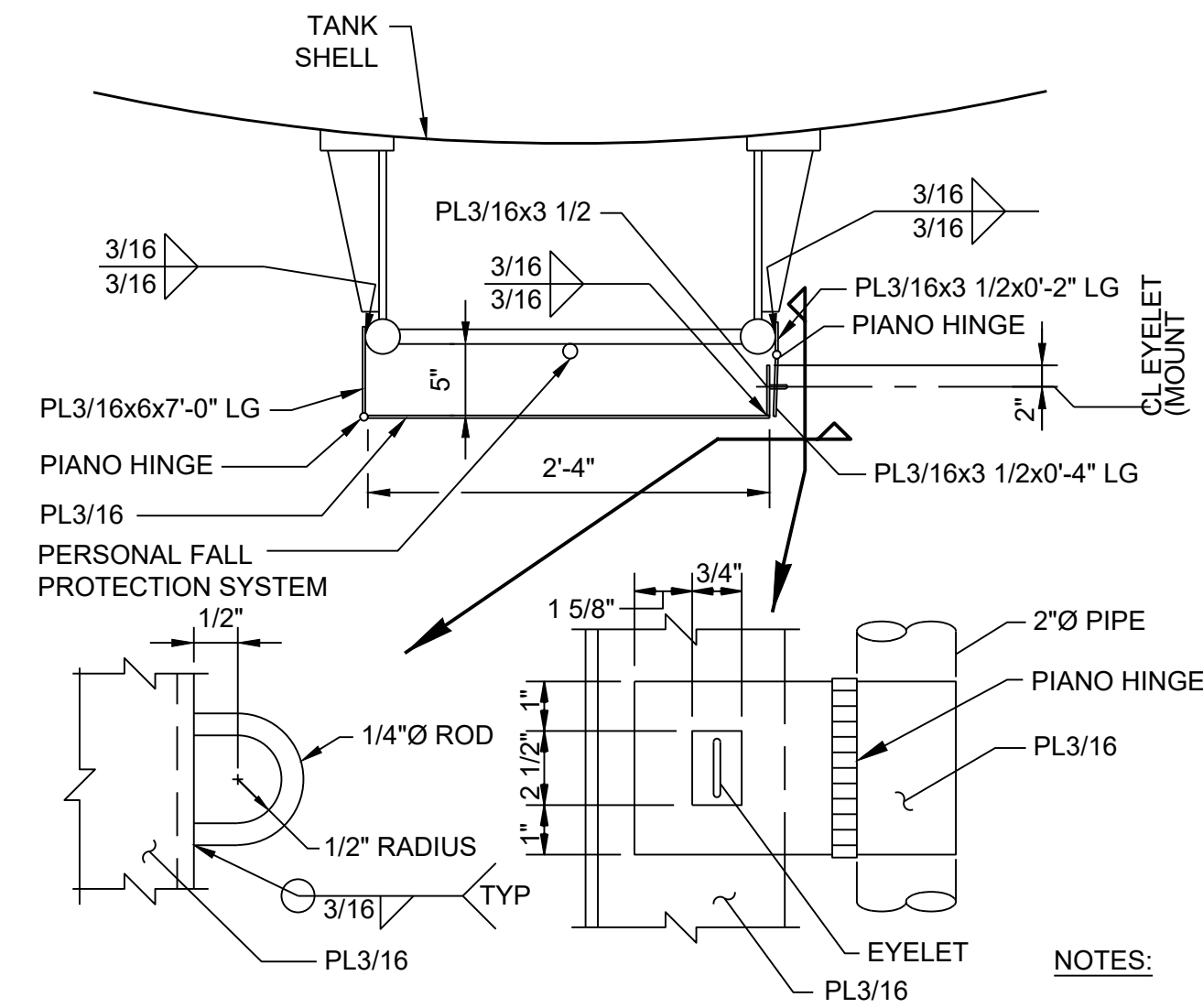
SECTION 2H, 3H
 SCALE: NTS



SECTION 4H
 SCALE: NTS



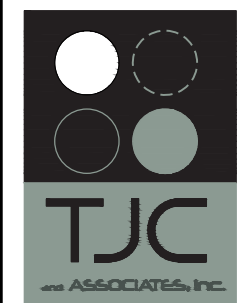
EXPANSION JOINT
DETAIL J
 SCALE: NTS



SECURITY LADDER GUARD
DETAIL K
 SCALE: NTS

- NOTES:**
1. ALL STEEL SHALL BE GALVANIZED.
 2. PADLOCK PROVIDED BY OWNER.
 3. LADDERS ARE DEFERRED SUBMITTAL ITEMS AND HAS NOT BEEN DESIGNED BY THE ENGINEER OF RECORD. DEFERRED SUBMITTAL ITEMS ARE THE CONTRACTOR'S RESPONSIBILITY. REFER TO STRUCTURAL NOTES, GS-1 AND CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION.
 4. INFORMATION PROVIDED REPRESENTS MINIMUM DESIGN REQUIREMENTS. FINAL MATERIAL AND DIMENSIONAL REQUIREMENTS, ARE THE RESPONSIBILITY OF THE CONTRACTOR'S DESIGN ENGINEER.

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 CONSULTING CIVIL ENGINEERS
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 SALINAS, CA 93907
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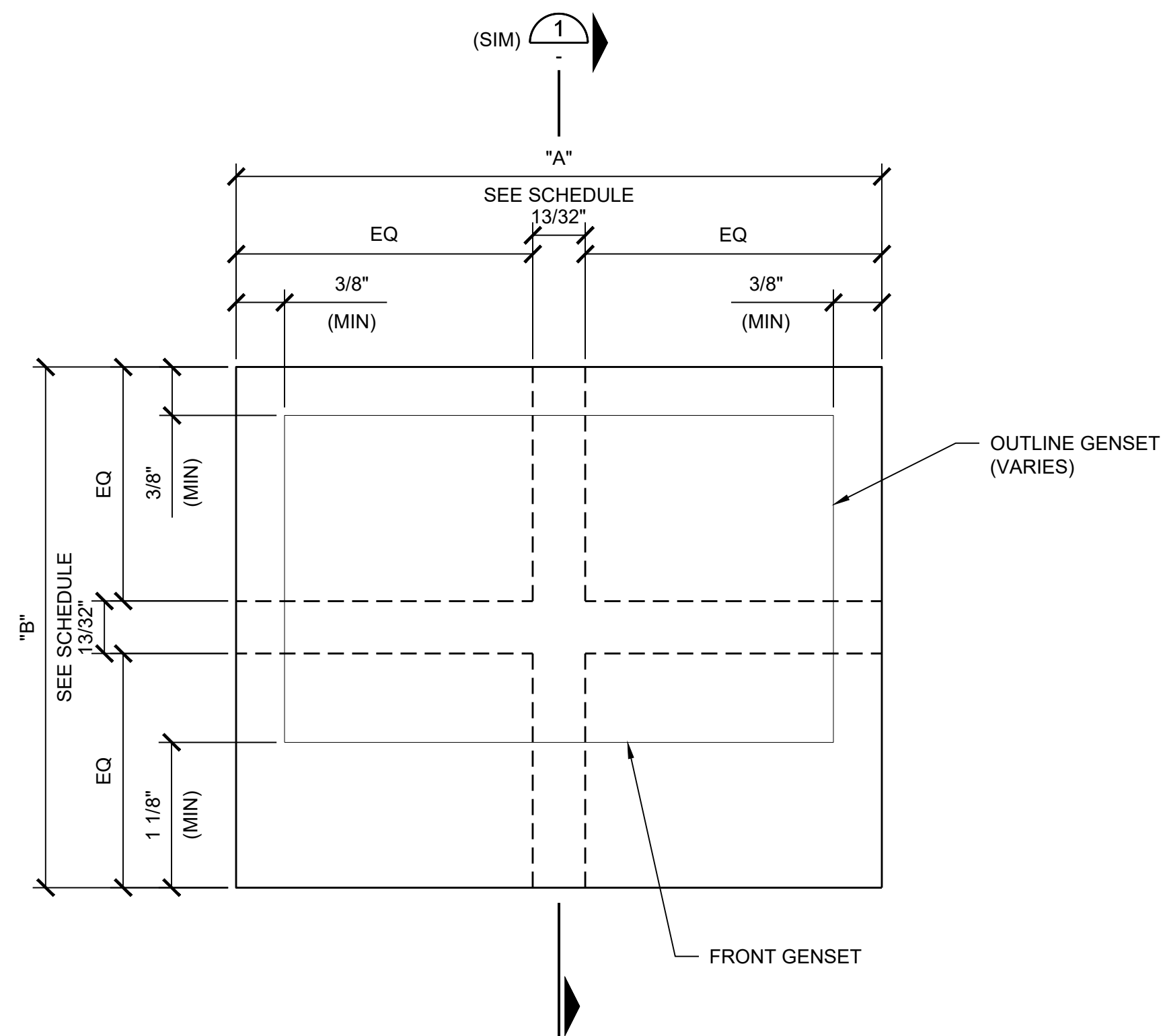
A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

**RESERVOIR A1/A2
 LADDER DETAILS**

DATE: 1/4/2021
 SCALE: AS SHOWN
 DESIGN: RKT
 DRAWN: ADP
 CHECK:

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S-10
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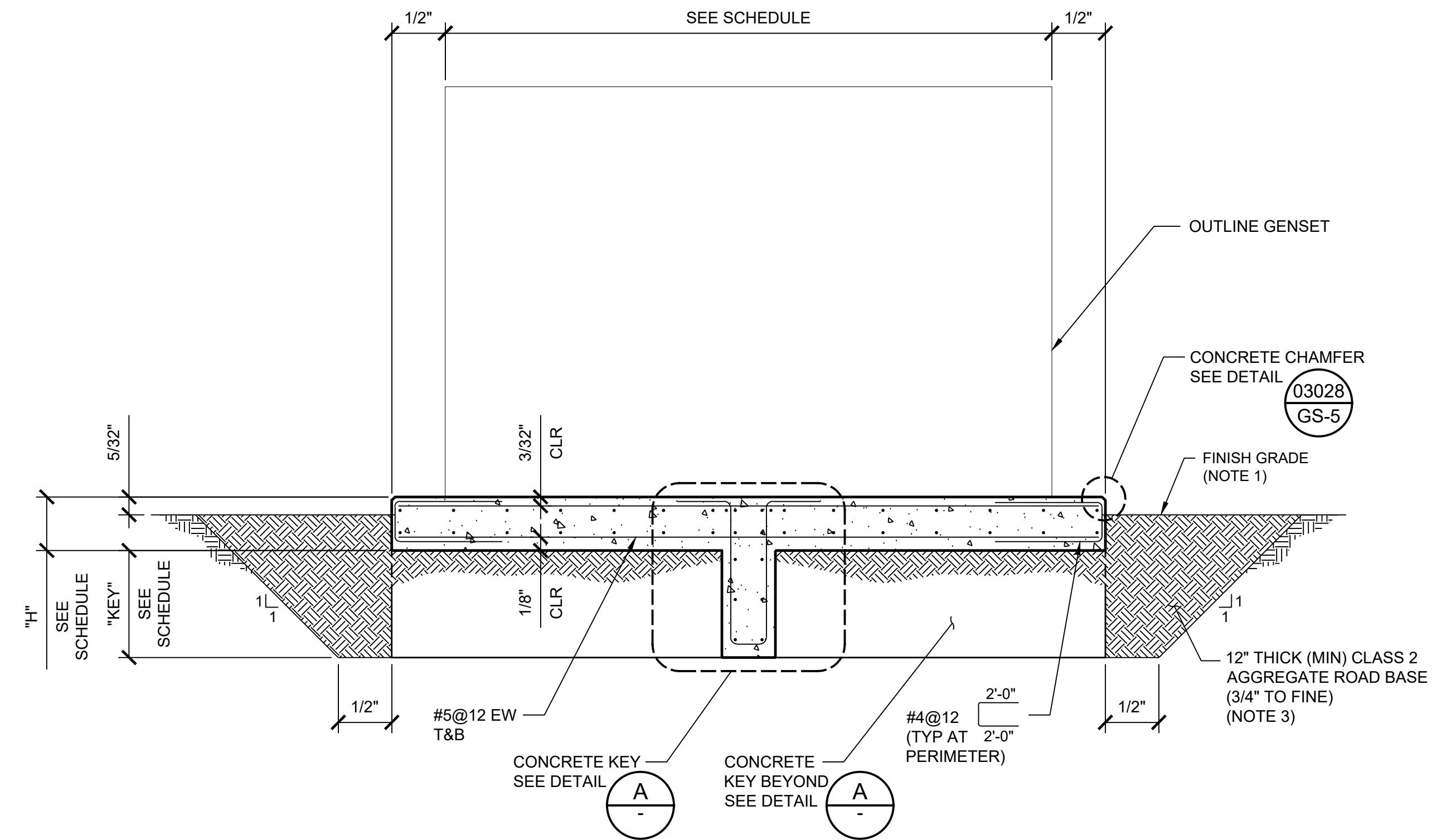
NO.	REVISION DESCRIPTION	DATE	APPR



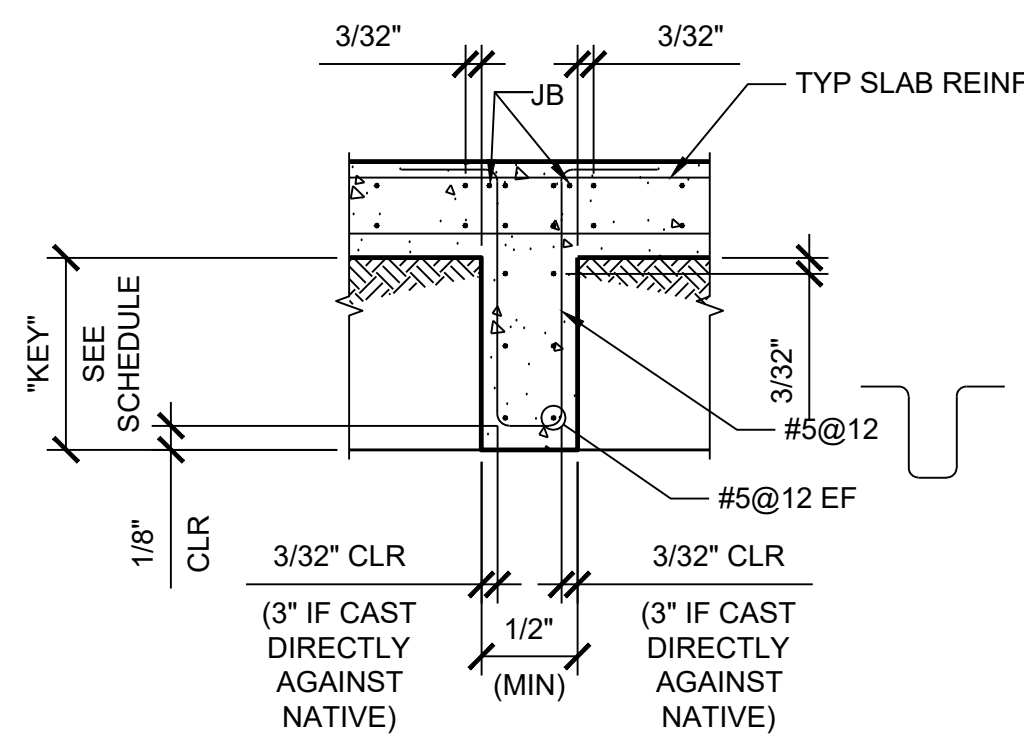
GENSET PAD SCHEDULE							
SITE	MODEL	WEIGHT	"A"	"B"	"H"	"KEY"	ANCHORAGE ⁽¹⁾⁽²⁾
F-BOOSTER PS	CAT C9-300ekW-60HZ	17,989 lbs	14'-6"	10'-9"	1'-4"	1'-5"	10 - 5/8"Ø (h _{eff} = 8")
ZONE B/C	CAT C18-600kW-60Hz	25,845 lbs	20'-3"	10'-9"	1'-4"	2'-3"	10 - 5/8"Ø (h _{eff} = 8")

- (1) SIMPSON STRONGTIE SET-XP: W/ ATR A193 GR. B8/B8M (304/316 SS) (ICC-ES ESR-2508), OR APPROVED EQUAL.
- (2) ASSUMES ANCHORS ARE EQUALLY SPACED, HALF PER LONG SIDE.
- (3) ANY DEVIATIONS IN GENSET WEIGHTS AND/OR ANCHOR COUNT SHALL BE COORDINATED WITH ENGINEER PRIOR TO COMMENCEMENT OF THE WORK.
- (4) SEE ELECTRICAL DRAWINGS FOR BALANCE OF INFORMATION.

GENSET PAD PLAN
SCALE: 1/2"=1'-0"



SECTION 1
SCALE: 1/2"=1'-0"



DETAIL A
SCALE: 1/2"=1'-0"

NOTES:

1. SLOPE GRADE AWAY FROM SLAB.
2. GENERATOR ANCHORAGE IS DEFERRED SUBMITTAL ITEMS AND IS THE RESPONSIBILITY OF THE CONTRACTOR. EQUIPMENT ANCHORAGE HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD. REFER TO STRUCTURAL NOTES ON SHEET GS-1 FOR ADDITIONAL INFORMATION.
3. 12" THICK (MIN) CLASS 2 AGGREGATE ROAD BASE (3/4" TO FINE) COMPACTED TO 95% OF MAXIMUM DENSITY AND MOISTURE CONTENT OF NOT LESS THAN TWO PERCENTAGE POINTS ABOVE OPTIMUM PER ASTM D1557.

CLASS 2 AGGREGATE ROAD BASE GRADATION	
SIEVE SIZE	PERCENT PASSING
1"	100
3/4"	88-100
NO. 4	30-65
NO. 30	5-35
NO. 200	0-12

4. SEE ELECTRICAL DRAWINGS FOR ORIENTATION ON PROJECT SITE.

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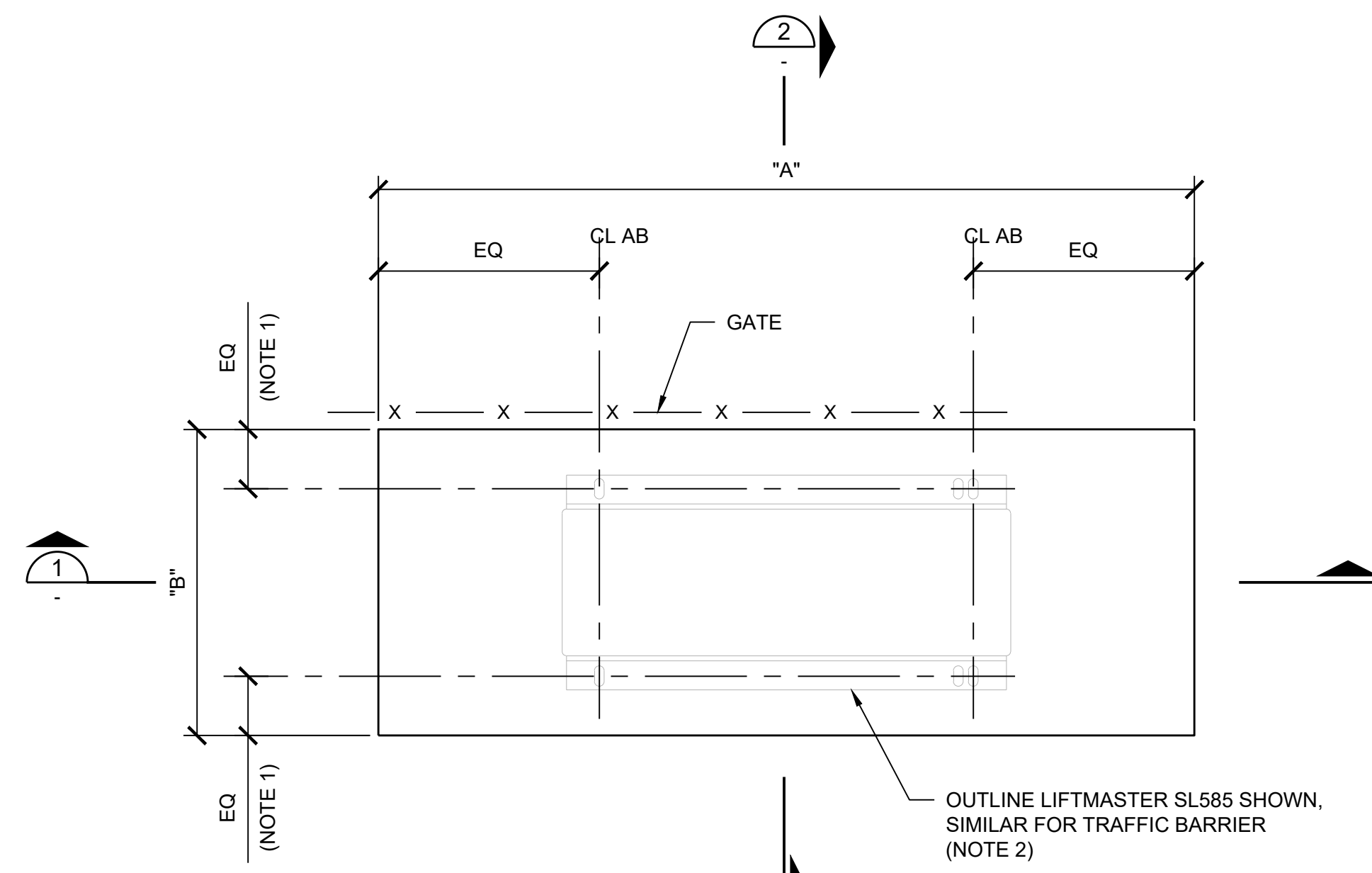
A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

**GENSET
PLAN, SECTION, AND DETAIL**

DATE: 1/4/2021
SCALE: 1/2"=1'-0"
DESIGN: RKT
DRAWN: BV
CHECK:

**SHEET
S-11
OF**

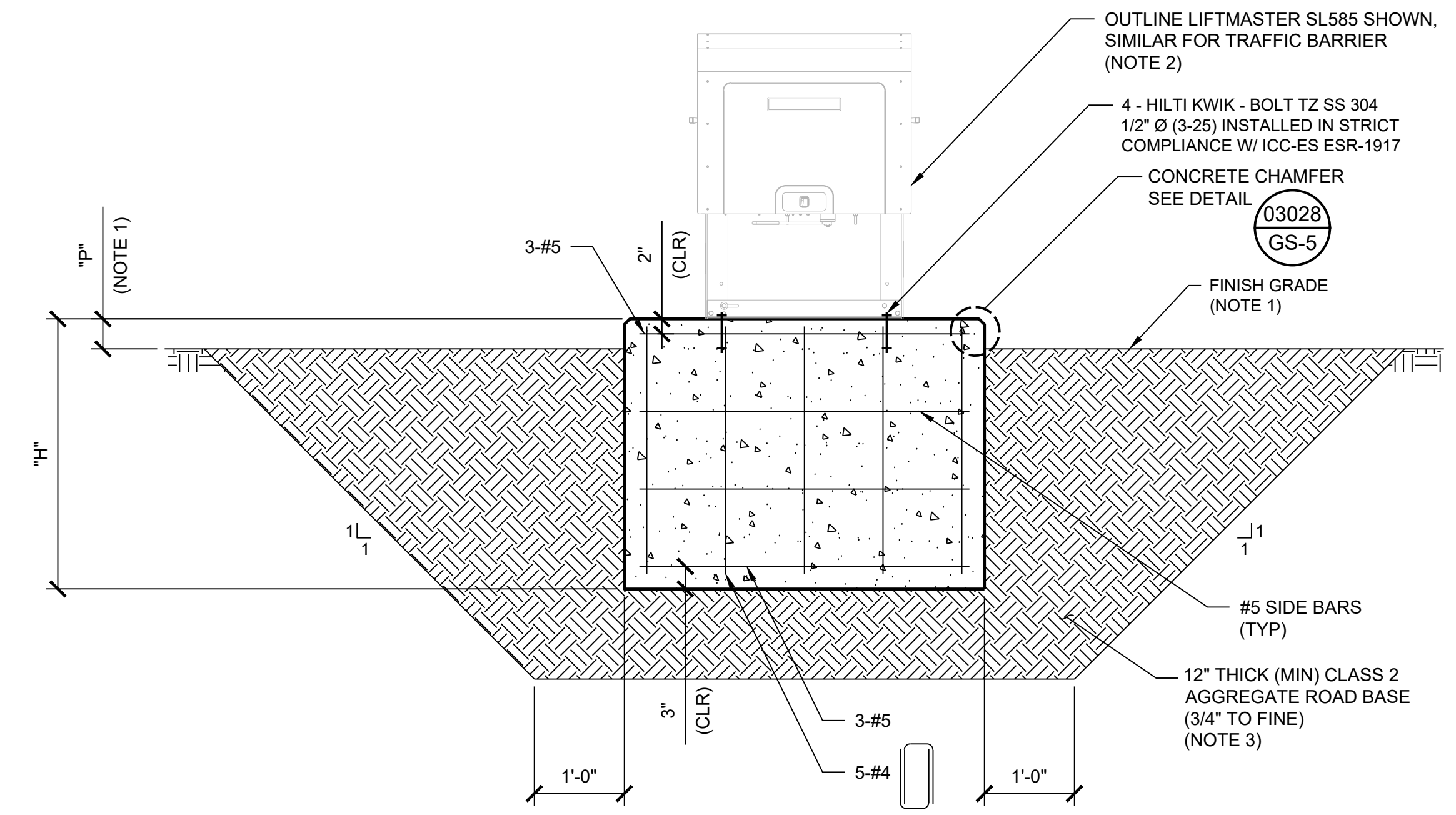
NO.	REVISION DESCRIPTION	DATE	APPR



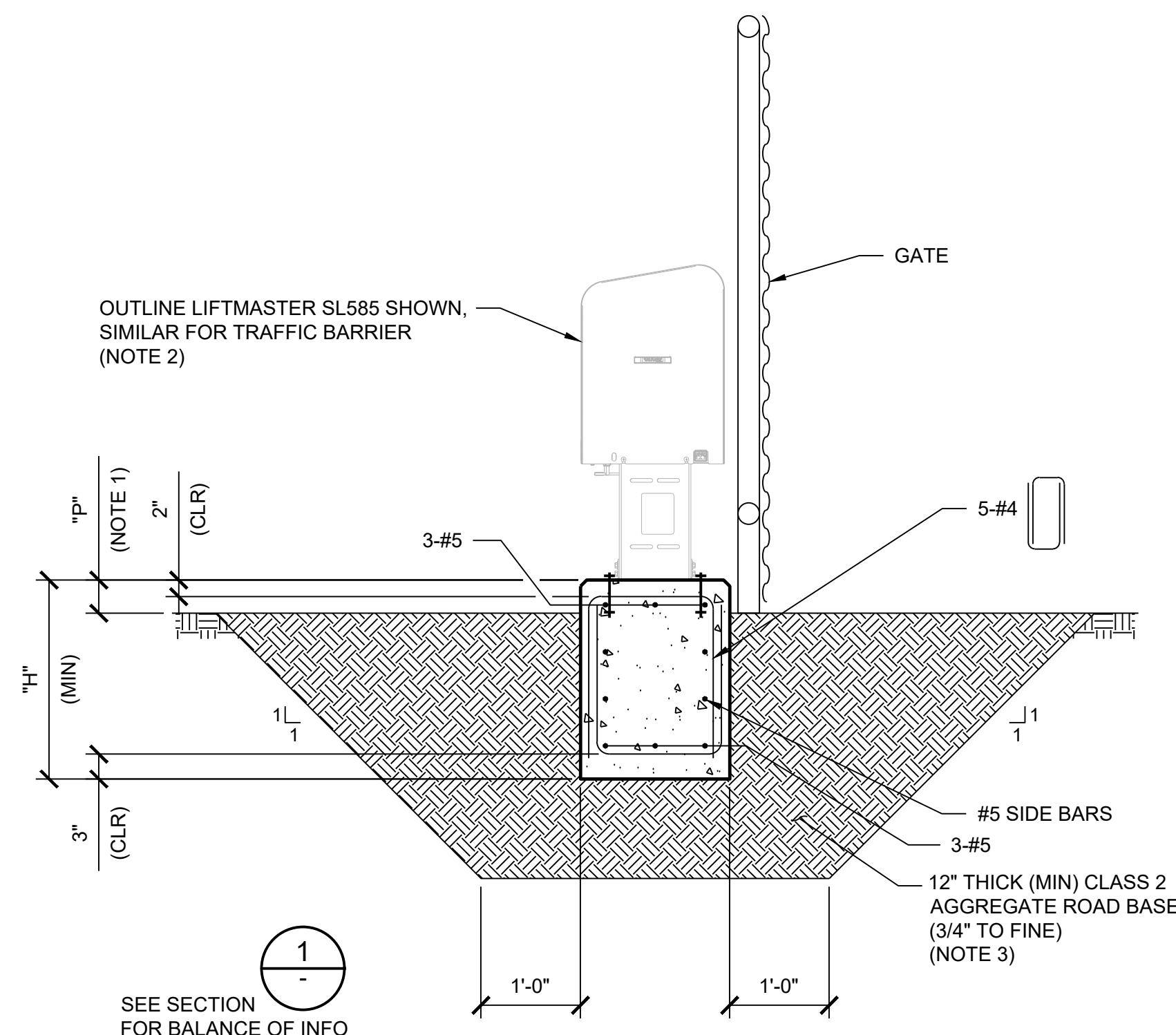
- NOTES:
- 3" MINIMUM, BUT NOT LESS THAN MANUFACTURER'S RECOMMENDATIONS.

ACCESS GATE & TRAFFIC BARRIER SCHEDULE				
COMPONENT	"A"	"B"	"H"	"P"
LIFTMASTER SL585 - ACCESS GATE	4'-0"	1'-6"	3'-0"	0'-4"
LIFTMASTER MA - TRAFFIC BARRIER (PEDESTAL)	2'-6"	2'-6"	2'-0"	0'-6"
LIFTMASTER MAT - TRAFFIC BARRIER (TOWER)	2'-6"	2'-6"	2'-0"	0'-6"

LIFTMASTER SLIDE GATE OPERATOR PLAN
SCALE: 1 1/2"=1'-0"



SECTION 1
SCALE: 3/4"=1'-0"



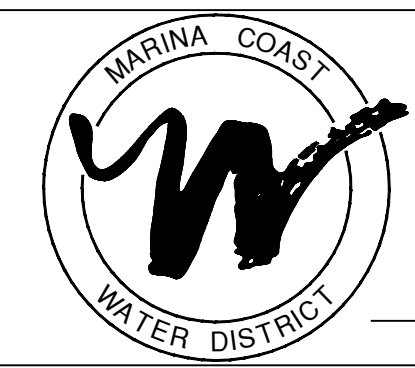
SEE SECTION 1 FOR BALANCE OF INFO

SECTION 2
SCALE: 3/4"=1'-0"

- NOTES:
- SLOPE GRADE AWAY FROM PAD.
 - OPERATOR PAD SHOWN IS FOR LIFTMASTER SL585 WITH MAXIMUM GATE WEIGHT OF 1000 LBS. ANY DEVIATIONS IN OPERATOR AND/OR GATE WEIGHT SHALL BE COORDINATED WITH THE ENGINEER OF RECORD PRIOR TO COMMENCEMENT OF WORK.
 - 12" THICK (MIN) CLASS 2 AGGREGATE ROAD BASE (3/4" TO FINE) COMPACTED TO 95% OF MAXIMUM DENSITY AND MOISTURE CONTENT OF NOT LESS THAN TWO PERCENTAGE POINTS ABOVE OPTIMUM PER ASTM D1557.

CLASS 2 AGGREGATE ROAD BASE GRADATION	
SIEVE SIZE	PERCENT PASSING
1"	100
3/4"	88-100
NO. 4	30-65
NO. 30	5-35
NO. 200	0-12

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A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION

SLIDE GATE OPERATOR PLAN AND SECTIONS

DATE: 1/4/2021
SCALE: AS SHOWN
DESIGN: RKT
DRAWN: BV
CHECK:

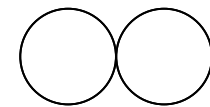



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OF

NO.	REVISION DESCRIPTION	DATE	APPR

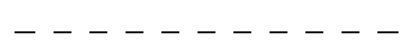
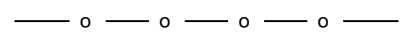
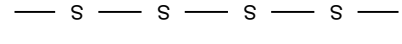


DRAWING SYMBOLS

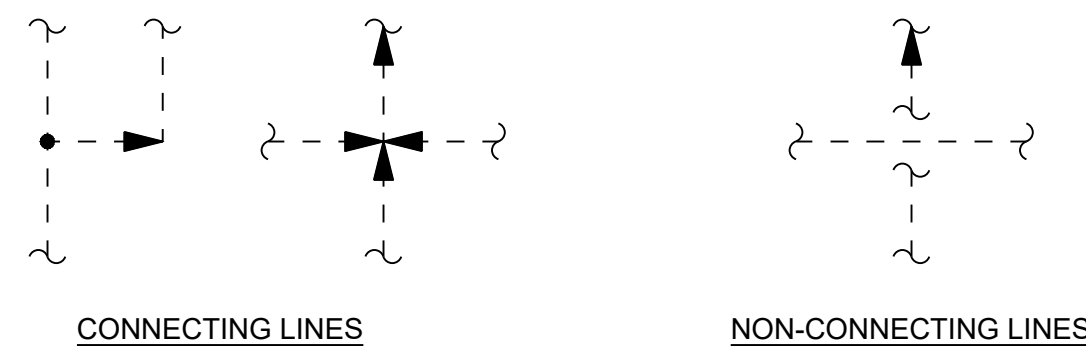
GENERAL INSTRUMENT OR FUNCTION SYMBOLS

	PRIMARY LOCATION NORMALLY ACCESSIBLE TO OPERATOR	FIELD MOUNTED	PRIMARY AUXILIARY LOCATION NORMALLY NOT ACCESSIBLE TO OPERATOR	SECONDARY LOCATION NORMALLY ACCESSIBLE TO OPERATOR	SECONDARY AUXILIARY LOCATION NORMALLY NOT ACCESSIBLE TO OPERATOR
DISCRETE INSTRUMENTS	XX ZZ	XX ZZ	XX ZZ	XX ZZ	XX ZZ
COMPUTER FUNCTION, SHARED DISPLAY, OR CONTROL (NOTE 5)	XX ZZ	N/A	XX ZZ	XX ZZ	XX ZZ
PROGRAMMABLE LOGIC CONTROLLER	XX ZZ	N/A	XX ZZ	XX ZZ	XX ZZ
PILOT LIGHT	XX ZZ	XX ZZ	N/A	XX ZZ	N/A

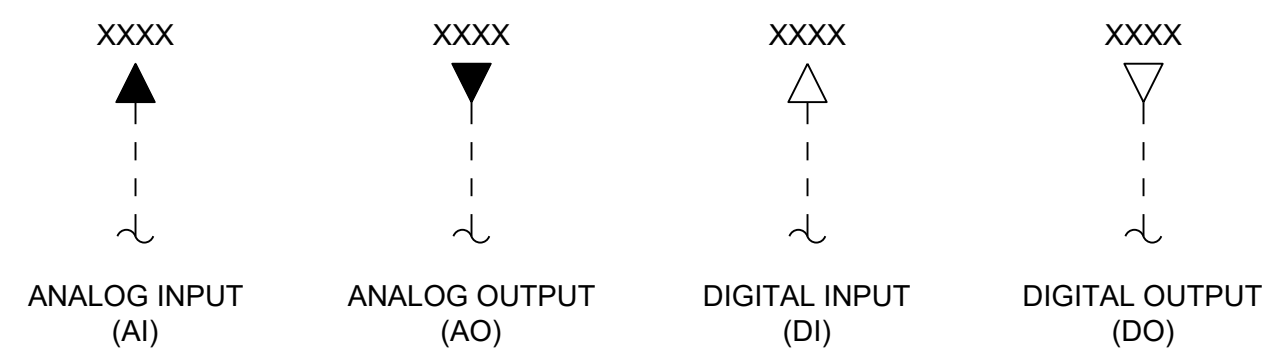
-  INDICATES HAVING A SINGLE INSTRUMENT OR OTHER COMPONENT HAVING MULTIPLE FUNCTIONS IN COMMON DEVICE
-  XXXX INDICATES MOTOR STARTER, INTERLOCK, OR LOGIC AT MOTOR CONTROL CENTER; XXXX - MCC DESIGNATION
-  XXXX INDICATES MOTOR STARTER, INTERLOCK, OR LOGIC IN LOCAL CONTROL PANEL (REFER TO CONTROL DESCRIPTIONS AND/OR CONTROL SCHEMATICS); XXXX - PANEL DESIGNATION
-  XXXX INDICATES VARIABLE FREQUENCY DRIVE IN LOCAL CONTROL PANEL, MOTOR CONTROL CENTER, OR DRIVE ENCLOSURE; XXXX - VFD DESIGNATION OR LOCATION

INSTRUMENT LINE SYMBOLS

-  ELECTRICAL SIGNAL
-  LOGICAL SIGNAL PATH (SOFTWARE LINK)
-  ELECTROMAGNETIC OR SONIC SIGNAL
-  INSTRUMENT SENSING LINE OR CONNECTION TO PROCESS
-  EXISTING LINES TO REMAIN IN PLACE (ELECTRICAL SIGNAL SHOWN - TYPICAL FOR OTHER SIGNALS)



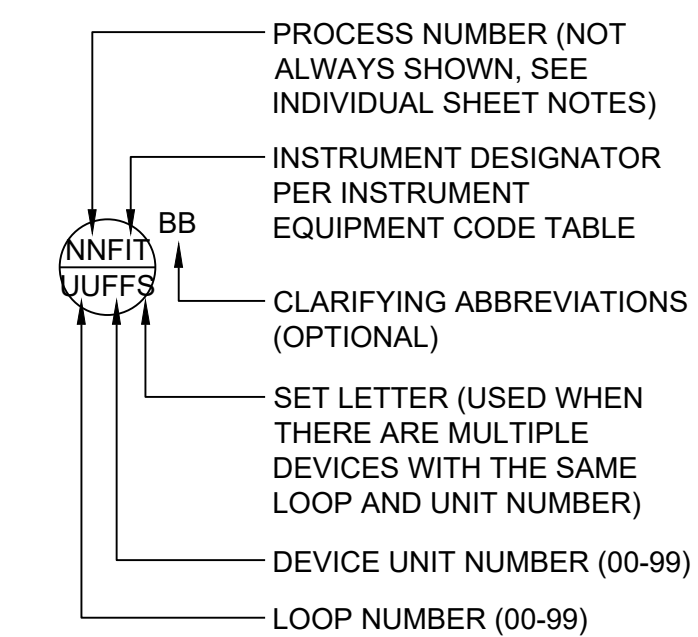
CONTROLLER INPUT/OUTPUT (I/O) SYMBOLS



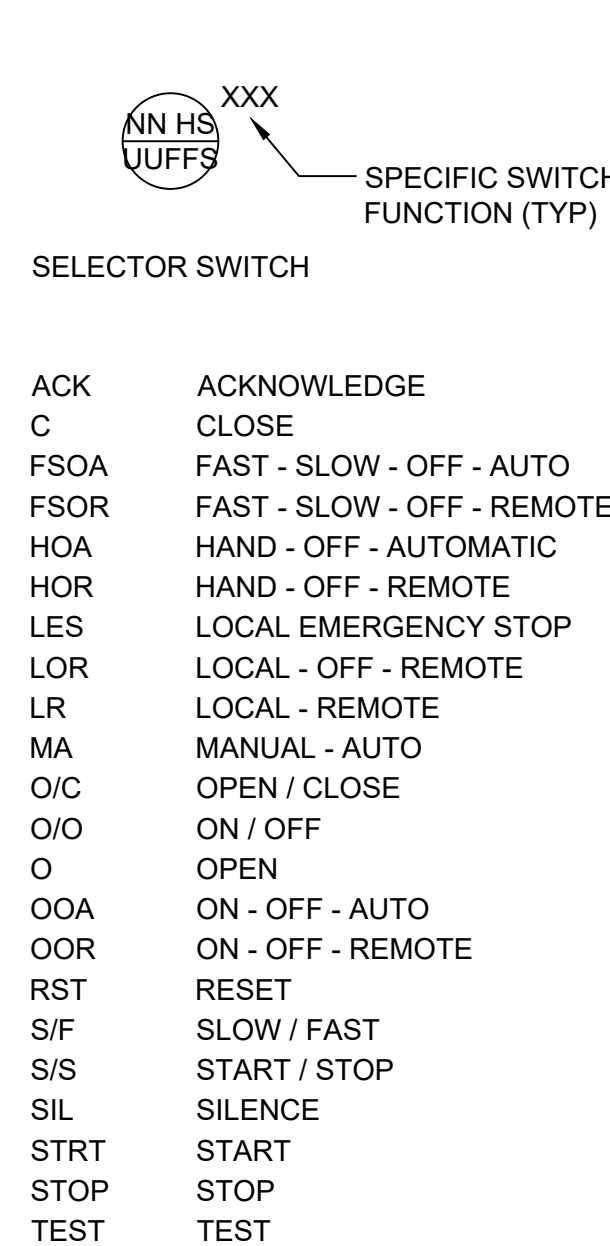
INSTRUMENT EQUIPMENT CODE TABLE

	FIRST LETTER		SUCCEEDING LETTERS		
	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM		
B	BURNER		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C	USER'S CHOICE			CONTROL	CLOSE
D	USER'S CHOICE	DIFFERENTIAL			
E	VOLTAGE		SENSOR (PRIMARY ELEMENT)		
F	FLOW RATE	RATIO			
G	USER'S CHOICE		SIGHT GLASS, VIEWING DEVICE		
H	HAND				HIGH
I	CURRENT		INDICATOR		
J	POWER	SCAN			
K	TIME, TIME SCHEDULE	TIME, RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT		LOW
M	USER'S CHOICE	MOMENTARY			MIDDLE, INTERMEDIATE
N	USER'S CHOICE		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O	USER'S CHOICE		ORIFICE, RESTRICTION		OPEN
P	PRESSURE, VACUUM		POINT (TEST) CONNECTION		
Q	QUANTITY	INTEGRATE, TOTALIZE			
R	RADIATION		RECORD		
S	SPEED, FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VIBRATION		VALVE, DAMPER, LOUVER		
W	WEIGHT, FORCE		WELL		
X	UNCLASSIFIED	X AXIS	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	EVENT, STATE, OR PRESENCE	Y AXIS		RELAY, COMPUTE, OR CONVERT	
Z	POSITION, DIMENSION	Z AXIS		DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT	

TYPICAL INSTRUMENTATION TAGGING



HAND SWITCHES



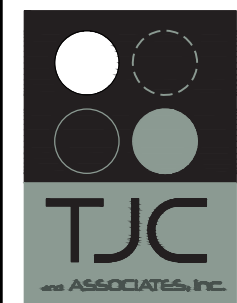
GENERAL SHEET NOTES

1. THIS IS A GENERAL P&ID LEGEND SHEET. SOME SYMBOLS OR NOTATIONS SHOWN MAY NOT BE USED ON THIS PROJECT.
2. EXISTING EQUIPMENT AND PROCESS PIPING AND STRUCTURES ARE SHOWN SCREENED BACK.
3. ALL NECESSARY VALVES ARE NOT SHOWN ON THE P&ID'S FOR CLARITY. PROVIDE ISOLATION VALVES ON ALL SAMPLE LINES TO SENSORS, THREE-VALVE MANIFOLDS FOR ALL ABSOLUTE AND GAUGE PRESSURE TRANSMITTERS, AND FIVE-VALVE MANIFOLDS FOR ALL DIFFERENTIAL PRESSURE TRANSMITTERS.
4. SHADING OF WORK IS USED TO INDICATE PROCUREMENT EQUIPMENT, CONTROLS, AND INSTRUMENTS PROVIDED BY OTHERS.
5. COMPUTER FUNCTIONS REFER TO DIGITAL DISPLAY OR STORAGE DEVICES.

ABBREVIATIONS AND LETTER SYMBOLS

AC	ALTERNATING CURRENT	OIP	OPERATOR INTERFACE PANEL
ANN	ANNUNCIATOR	ORP	OXIDATION REDUCTION POTENTIAL
AVG	AVERAGE	OL	OVERLOAD
CLG	CHLORINE GAS	pH	HYDROGEN ION CONCENTRATION
CL2	CHLORINE (TYP - USE STANDARD CHEMICAL ELEMENT ABBREV.)	PLC	PROGRAMMABLE LOGIC CONTROLLER
CP	CONTROL PANEL	RIO	REMOTE PLC INPUT/OUTPUT RACK
DC	DIRECT CURRENT	RTD	RESISTANCE TEMPERATURE DETECTOR
DCS	DISTRIBUTED CONTROL SYSTEM	RTU	REMOTE TERMINAL UNIT
DCU	DISTRIBUTED CONTROL UNIT	RW	RAW WATER; RECYCLED WATER
DO	DISSOLVED OXYGEN	SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
FCL	FREE CHLORINE RESIDUAL	SCD	STREAMING CURRENT DETECTOR
HMI	HUMAN MACHINE INTERFACE	TURB	TURBIDIMETER
I	INTERLOCK	UPS	UNINTERRUPTIBLE POWER SUPPLY
I/O	INPUT/OUTPUT	VFD	VARIABLE FREQUENCY DRIVE
ISR	INTRINSICALLY SAFE RELAY	VHC	VOLATILE HYDROCARBONS
LAN	LOCAL AREA NETWORK	VIB	VIBRATION
LEL	LOWER EXPLOSIVE LIMIT	VOC	VOLATILE ORGANIC COMPOUNDS
LOP	LOCAL OPERATION PANEL		
MCC	MOTOR CONTROL CENTER	WAN	WIDE AREA NETWORK
MLC	MULTILOOP CONTROLLER		
MUX	MULTIPLEXER		
		Δ	DIFFERENCE
		Σ	SUM
		x	MULTIPLY
		÷	DIVIDE
		√	SQUARE ROOT
		>	SELECT HIGHEST SIGNAL
		<	SELECT LOWEST SIGNAL

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A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
I&C LEGEND AND ABBREVIATIONS
1 OF 2

DATE: 1/4/2021
SCALE: NTS
DESIGN: HT
DRAWN: BV
CHECK: PJG

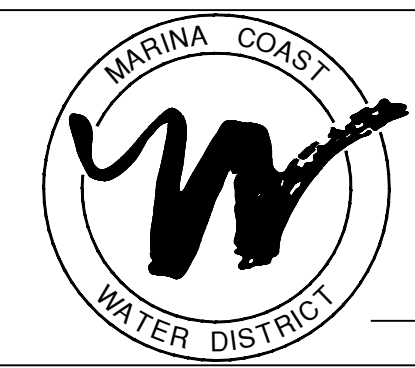
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NO.	REVISION DESCRIPTION	DATE	APPR

DRAWING SYMBOLS

SHEET CONNECTION AND CONTINUATION SYMBOLS	PIPELINE SYMBOLS	VALVE SYMBOLS	PUMP SYMBOLS	FLOW ELEMENT SYMBOLS	TANK AND STRUCTURE SYMBOLS																																																																																																																														
<p>REMARK I-4 0211 →</p> <p>REMARK I-6 0211 →</p> <p>0211 = CONNECTION NUMBER I-6 = DESTINATION DRAWING NUMBER I-4 = SOURCE DRAWING NUMBER</p>	<p>PRIMARY PROCESS</p> <p>SECONDARY PROCESS</p> <p>EXISTING PRIMARY PROCESS</p> <p>EXISTING SECONDARY PROCESS</p> <p>PIPE CONTINUATION</p> <p>BLIND FLANGE</p> <p>PIPE CAP OR PLUG</p> <p>QUICK CONNECT</p> <p>SLEEVE-TYPE FLEXIBLE COUPLING</p> <p>RUBBER-TYPE FLEXIBLE COUPLING</p> <p>UNION</p> <p>GROOVED-END COUPLING (VICTAULIC)</p> <p>REDUCER</p> <p>RUBBER-TYPE FLEXIBLE REDUCER</p> <p>FLEXIBLE COUPLING</p> <p>FLEXIBLE HOSE</p> <p>DOUBLE-WALLED OR INSULATED PIPING</p> <p>Y- STRAINER</p> <p>BASKET STRAINER</p> <p>MECHANICAL STRAINER</p> <p>FILTER</p> <p>SIGHT GLASS (IN LINE)</p> <p>IN LINE MIXER</p> <p>ANNULAR TYP E PRESSURE SENSOR</p> <p>DIAPHRAGM SEAL</p> <p>RUPTURE DISK FOR PRESSURE RELIEF</p> <p>RUPTURE DISK FOR VACUUM RELIEF</p> <p>EQUIPMENT DRAIN</p> <p>FLOOR DRAIN</p> <p>HOSE BIBB</p> <p>FIRE DEPARTMENT CONNECTION</p> <p>SPRINKLER</p> <p>SPRAYER</p>	<p>SWING CHECK VALVE</p> <p>BALL CHECK VALVE</p> <p>DOUBLE DISK CHECK VALVE</p> <p>DUCKBILL CHECK VALVE</p> <p>BALL VALVE</p> <p>BUTTERFLY VALVE</p> <p>GATE VALVE</p> <p>KNIFE GATE VALVE</p> <p>PLUG VALVE</p> <p>CONE VALVE</p> <p>MUD VALVE</p> <p>TELESCOPING VALVE</p> <p>GLOBE VALVE</p> <p>DIAPHRAGM VALVE</p> <p>NEEDLE VALVE</p> <p>PINCH VALVE</p> <p>PRESSURE REDUCING VALVE</p> <p>PRESSURE REGULATING VALVE OR SUSTAINING</p> <p>SOLENOID VALVE</p> <p>3-WAY VALVE</p> <p>3-WAY BALL VALVE</p> <p>4-WAY VALVE</p> <p>4-WAY BALL VALVE</p> <p>ANGLE VALVE</p> <p>PRV PRESSURE RELIEF OR SUSTAINING VALVE</p> <p>PRV PRESSURE REDUCING OR SUSTAINING VALVE</p> <p>VRV VACUUM RELIEF VALVE</p> <p>CAV COMBINATION AIR VALVE</p> <p>AIR RELEASE VALVE</p> <p>XXXXXX</p>	<p>CENTRIFUGAL PUMP</p> <p>SUBMERSIBLE CENTRIFUGAL PUMP</p> <p>CHEMICAL METERING PUMP (UNCLASSIFIED)</p> <p>POSITIVE DISPLACEMENT PUMP (UNCLASSIFIED)</p> <p>GEAR PUMP</p> <p>PROGRESSIVE CAVITY PUMP</p> <p>PERISTALTIC PUMP</p> <p>VERTICAL TURBINE PUMP</p> <p>SUBMERSIBLE VERTICAL TURBINE PUMP</p>	<p>AVERAGING PITOT TUBE</p> <p>FLUME</p> <p>MAGNETIC FLOW METER</p> <p>ORIFICE PLATE</p> <p>PITOT TUBE</p> <p>PROPELLER METER</p> <p>ROTAMETER</p> <p>TARGET FLOW METER</p> <p>ULTRASONIC FLOW METER</p> <p>VENTURI TUBE</p> <p>WEIR</p>	<p>LIQUID LEVEL (IN TANK OR STRUCTURE)</p> <p>VENT (ON TANK OR STRUCTURE)</p> <p>SIGHT GAUGE (TANK MOUNTED)</p> <p>CHEMICAL CONTAINMENT AREA</p> <p>CHEMICAL TANK</p> <p>HYDROPNEUMATIC TANK</p>																																																																																																																														
PIPING AND EQUIPMENT TAGGING																																																																																																																																			
<p>PROCESS PIPING TAGGING</p> <p>LINE SIZE (DIAMETER)</p> <p>FLOW STREAM CODE</p> <p>MATERIAL SPECIFICATION CODE</p> <p>SS-FFF-MMMM</p> <p>PROCESS EQUIPMENT TAGGING</p> <p>UNIT PROCESS NUMBER (IF PRESENT)</p> <p>EQUIPMENT OR VALVE ID</p> <p>ZONE NUMBER (IF PRESENT)</p> <p>UNIT NUMBER (OO-99)</p> <p>LL-EE-ZZ-YY</p>																																																																																																																																			
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NO.	REVISION DESCRIPTION	DATE	APPR



MARINA COAST WATER DISTRICT
 11 RESERVATION ROAD
 MARINA, CA 93933
 (831) 384-6131

Schaaf & Wheeler
 CONSULTING CIVIL ENGINEERS
 3 QUAIL RUN CIRCLE, STE. 101
 SALINAS, CA 93907
 (831) 883-4848

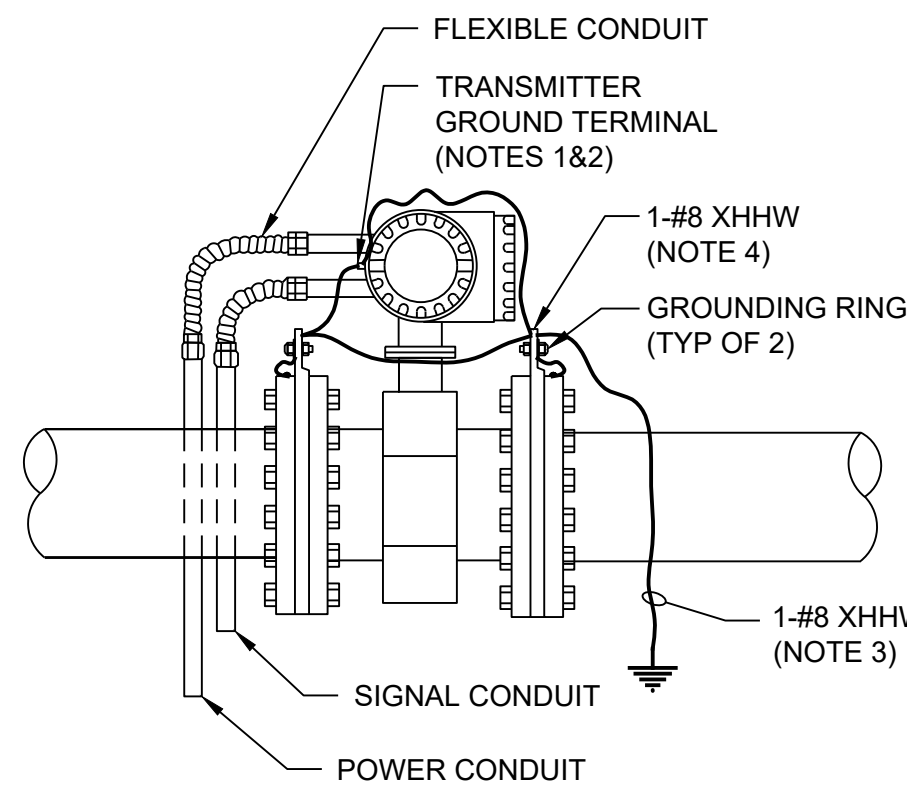


**A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
 I&C LEGEND AND ABBREVIATIONS
 2 OF 2**

DATE:	1/4/2021
SCALE:	NTS
DESIGN:	HT
DRAWN:	BV
CHECK:	PJG

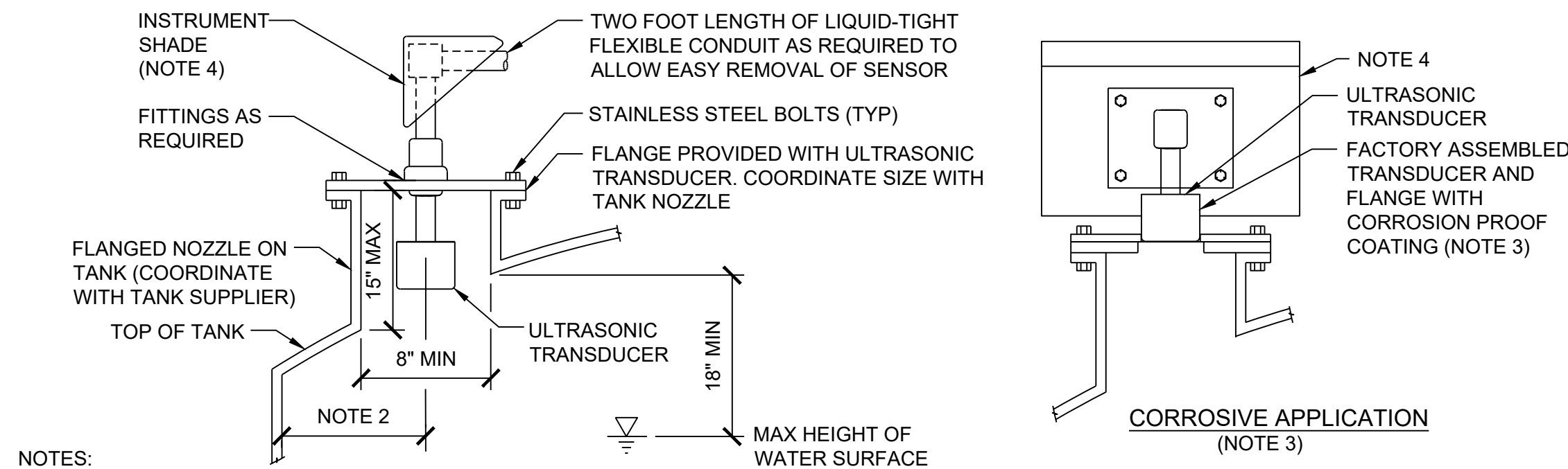
**SHEET
 GI-2
 OF**

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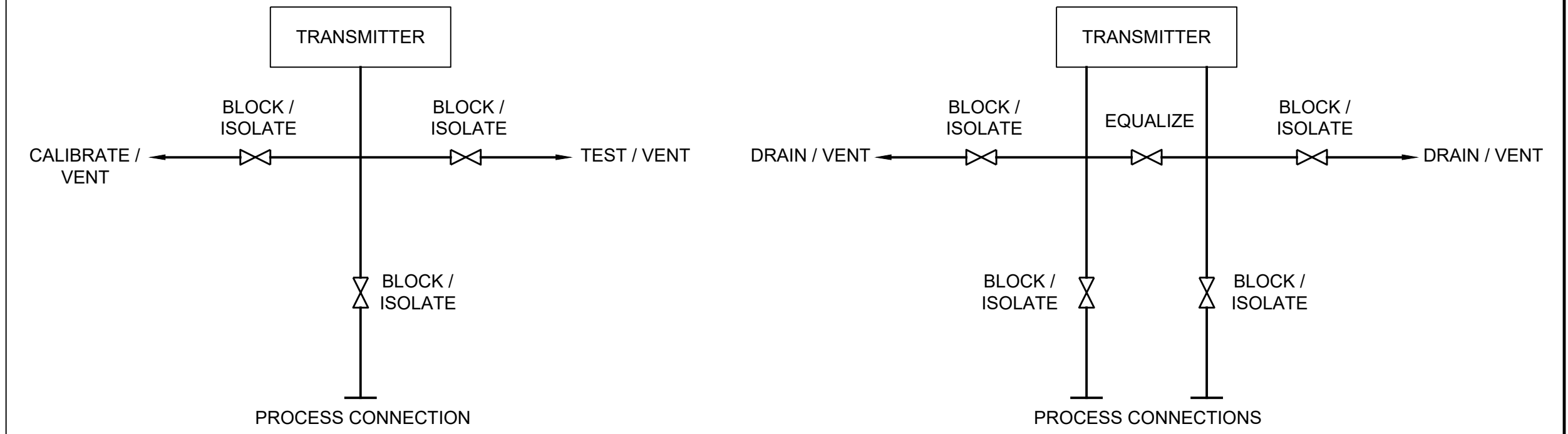
- NOTES:**
1. CONTRACTOR SHALL VERIFY ZERO GROUND POTENTIAL BETWEEN FLOW TUBE AND TRANSMITTER GROUND TERMINAL.
 2. CONTRACTOR SHALL CONNECT TRANSMITTER GROUND TERMINAL TO GROUND RINGS.
 3. METER BODY SHALL BE CONNECTED TO EARTH GROUND POTENTIAL.
 4. EQUALIZE POTENTIAL VIA GROUND RINGS BETWEEN FLUID AND MAGMETER.

INTEGRAL MAGNETIC FLOW METER GROUNDING
DETAIL 13001
 NTS VAR



- NOTES:**
1. PROVIDE AND INSTALL ULTRASONIC TRANSDUCER IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
 2. MINIMUM OFFSET OF NOZZLE FROM INTERIOR TANK WALL SHALL BE 2'-0" FOR A MEASURING RANGE OF 0-18' (FROM TRANSDUCER FACE). FOR MEASURING RANGES GREATER THAN 0-18' REFER TO THE SPECIFICATIONS.
 3. PROVIDE A CHEMICALLY IMPERVIOUS COATING EXTENDING OVER THE ENTIRE FLANGE FACE FOR CORROSIVE ENVIRONMENTS.
 4. PROVIDE INSTRUMENT SUNSHIELD BY ANDERSON GREENWOOD INSTRUMENTATION MODEL 5L; OR APPROVED EQUAL. OPENED AREA SHALL BE INSTALLED FACING NORTH.

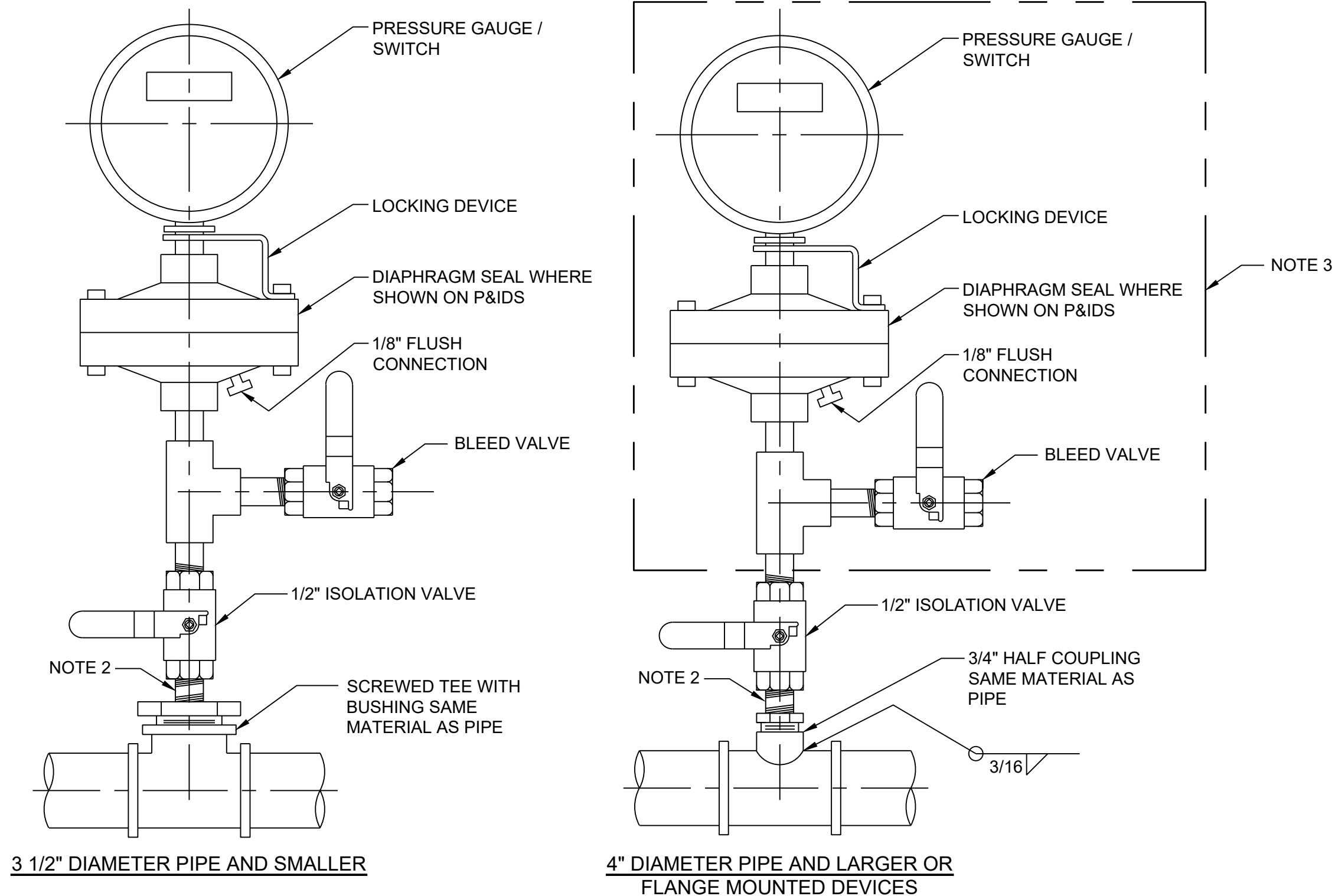
ULTRASONIC LEVEL SENSOR CLOSED TOP TANK INSTALLATION
DETAIL 13102
 NTS VAR



THREE - VALVE MANIFOLD CONNECTION DIAGRAM FOR ABSOLUTE AND GAGE PRESSURE TRANSMITTER

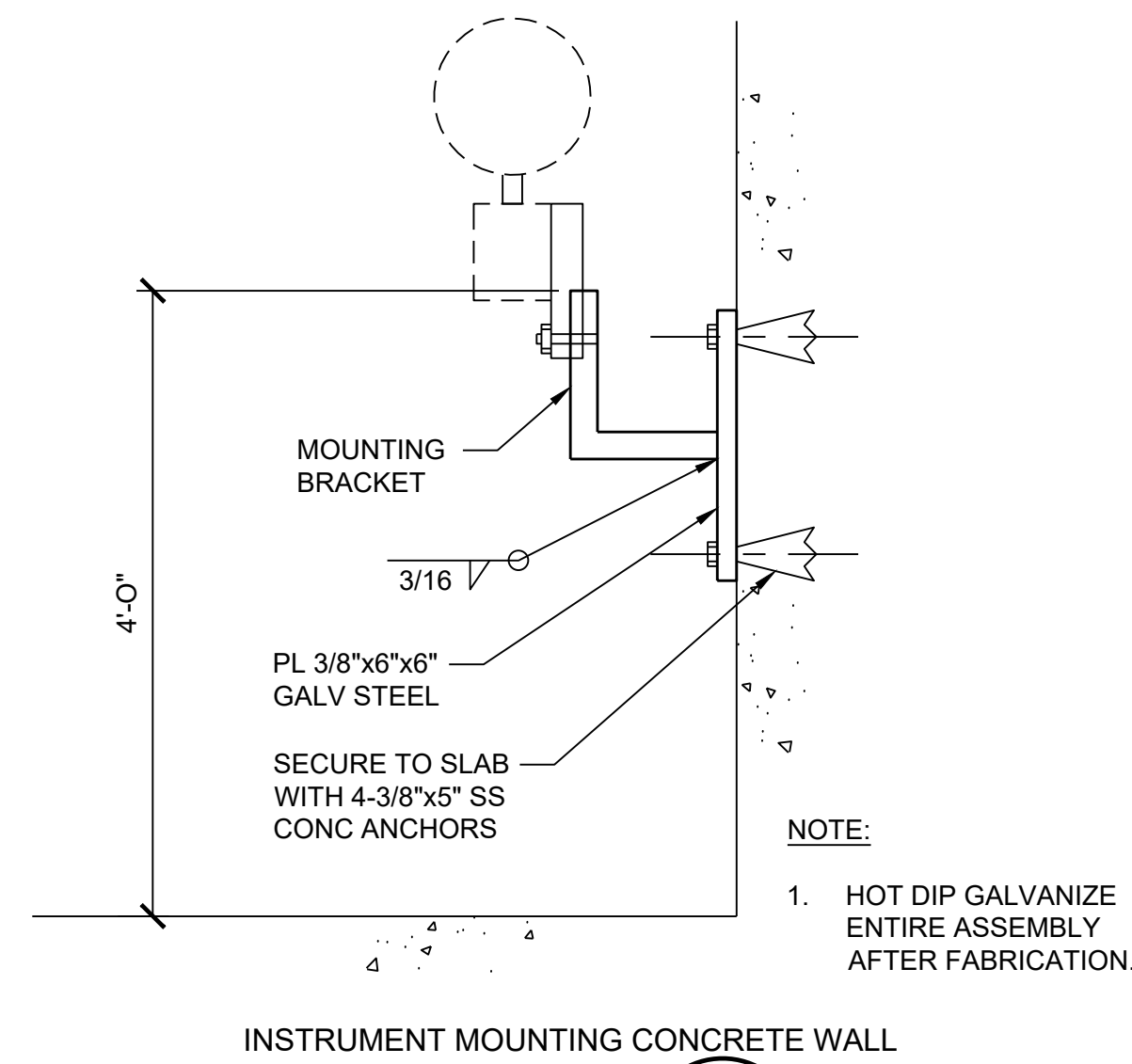
FIVE - VALVE MANIFOLD CONNECTION DIAGRAM FOR DIFFERENTIAL PRESSURE TRANSMITTER

VALVE MANIFOLD CONNECTION DIAGRAM
DETAIL 13211
 NTS VAR

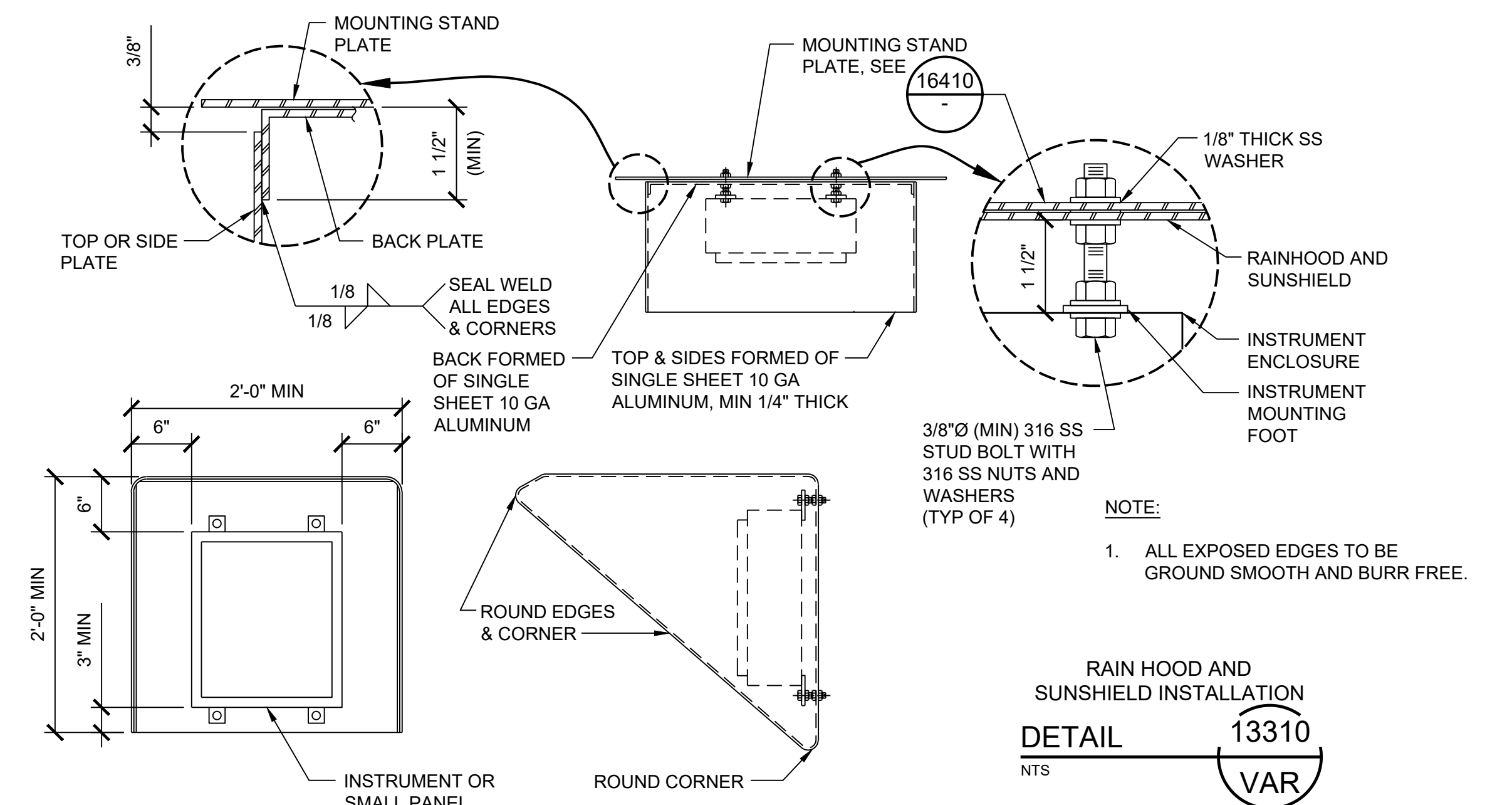


- NOTES:**
1. STAINLESS STEEL PIPING SHOWN. PROVIDE 316 STAINLESS STEEL PIPING AND VALVES. FOR PLASTIC LINES, PROVIDE PLASTIC PIPING AND VALVES. FOR ALL OTHER LINES, PROVIDE BRASS OR BRONZE. REFER TO DIVISION 15 FOR REQUIREMENTS.
 2. PROVIDE MINIMUM 1/4" STAINLESS STEEL PROCESS CONNECTION FOR CLEAN WATER APPLICATIONS OR 1/2" STAINLESS STEEL PROCESS CONNECTION FOR FLUIDS WITH SUSPENDED SOLIDS. PROVIDE TRI-CLAMP FITTINGS FOR SLUDGE APPLICATIONS.
 3. WHERE SHOWN ON P&ID WITH MULTIPLE PRESSURE INSTRUMENTS ON THE SAME PROCESS CONNECTION, PROVIDE EACH PRESSURE INSTRUMENT WITH SEPARATE DIAPHRAGM SEAL AND BLEED VALVE.

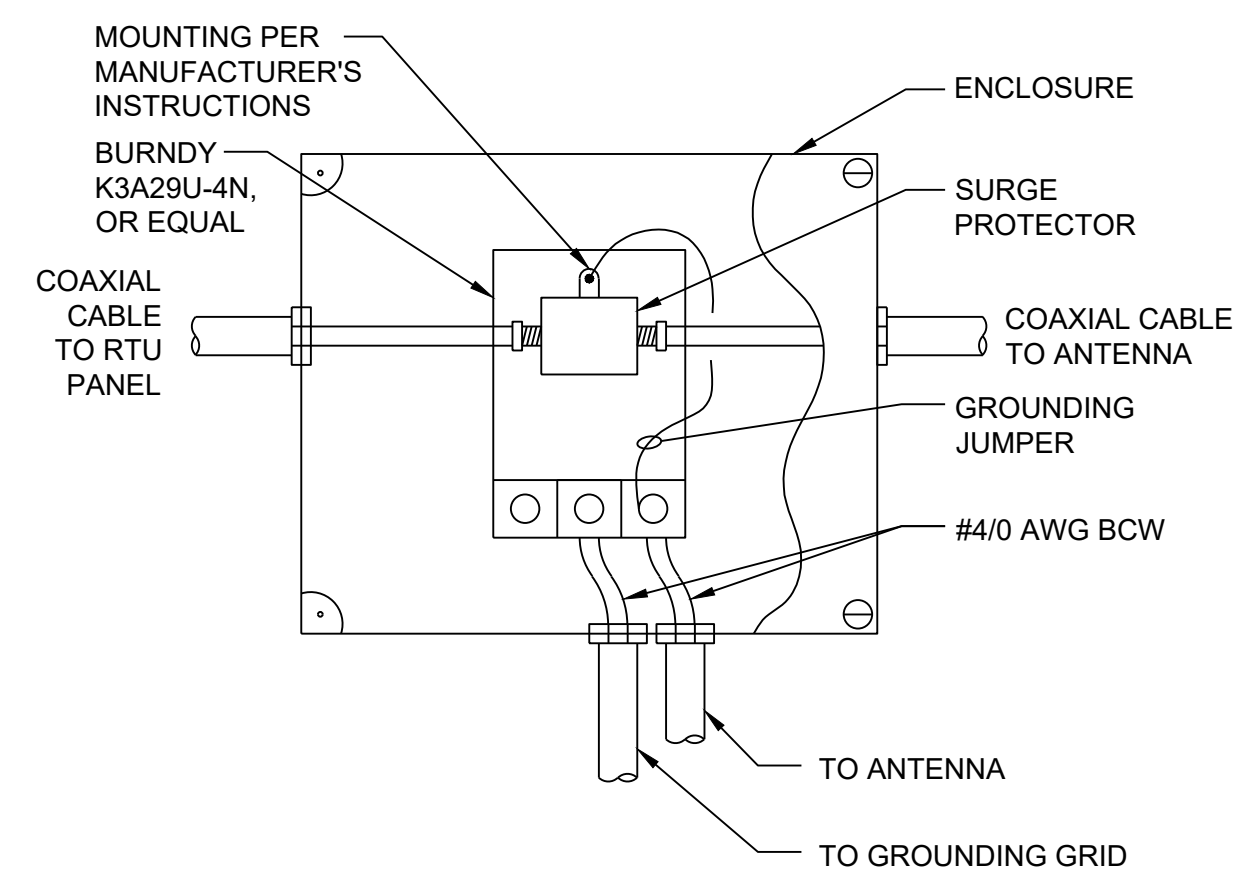
DIRECT PIPE MOUNT PRESSURE GAUGE / SWITCH
DETAIL 13205
 NTS VAR



INSTRUMENT MOUNTING CONCRETE WALL
DETAIL 13302
 NTS VAR



RAIN HOOD AND SUNSHIELD INSTALLATION
DETAIL 13310
 NTS VAR



ANTENNA SURGE PROTECTION UNIT
DETAIL 13401
 NTS VAR

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 SALINAS, CA 93907
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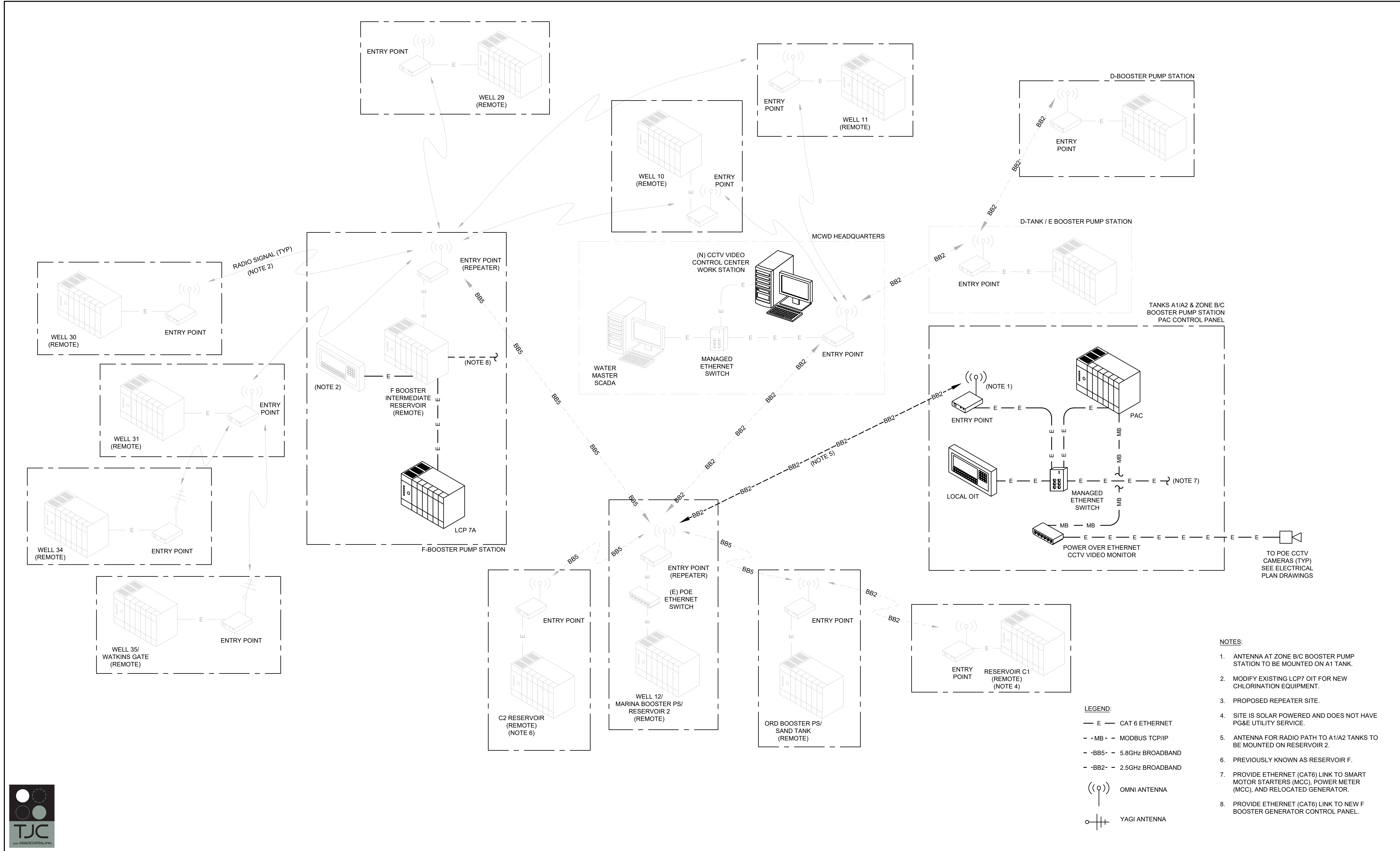
**A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
 STANDARD DETAILS I**

DATE: 1/4/2021
 SCALE: NTS
 DESIGN: HT
 DRAWN: BV
 CHECK: PJG

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NO.	REVISION DESCRIPTION	DATE	APPR

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- NOTES:**
1. ANTENNA AT ZONE B/C BOOSTER PUMP STATION TO BE MOUNTED ON A1 TANK.
 2. MODIFY EXISTING LCP7 OIT FOR NEW CHLORINATION EQUIPMENT.
 3. PROPOSED REPEATER SITE.
 4. SITE IS SOLAR POWERED AND DOES NOT HAVE PG&E UTILITY SERVICE.
 5. ANTENNA FOR RADIO PATH TO A1/A2 TANKS TO BE MOUNTED ON RESERVOIR 2.
 6. PREVIOUSLY KNOWN AS RESERVOIR F.
 7. PROVIDE ETHERNET (CAT6) LINK TO SMART MOTOR STARTERS (MCC), POWER METER (MCC), AND RELOCATED GENERATOR.
 8. PROVIDE ETHERNET (CAT6) LINK TO NEW F BOOSTER GENERATOR CONTROL PANEL.

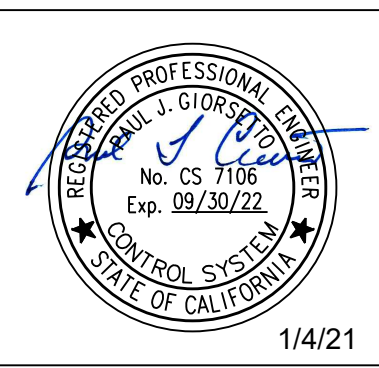
- LEGEND:**
- E — CAT 6 ETHERNET
 - - MB - - MODBUS TCP/IP
 - - BB5 - - 5.8GHz BROADBAND
 - - BB2 - - 2.5GHz BROADBAND
 - ((o)) OMNI ANTENNA
 - ⊥ YAGI ANTENNA

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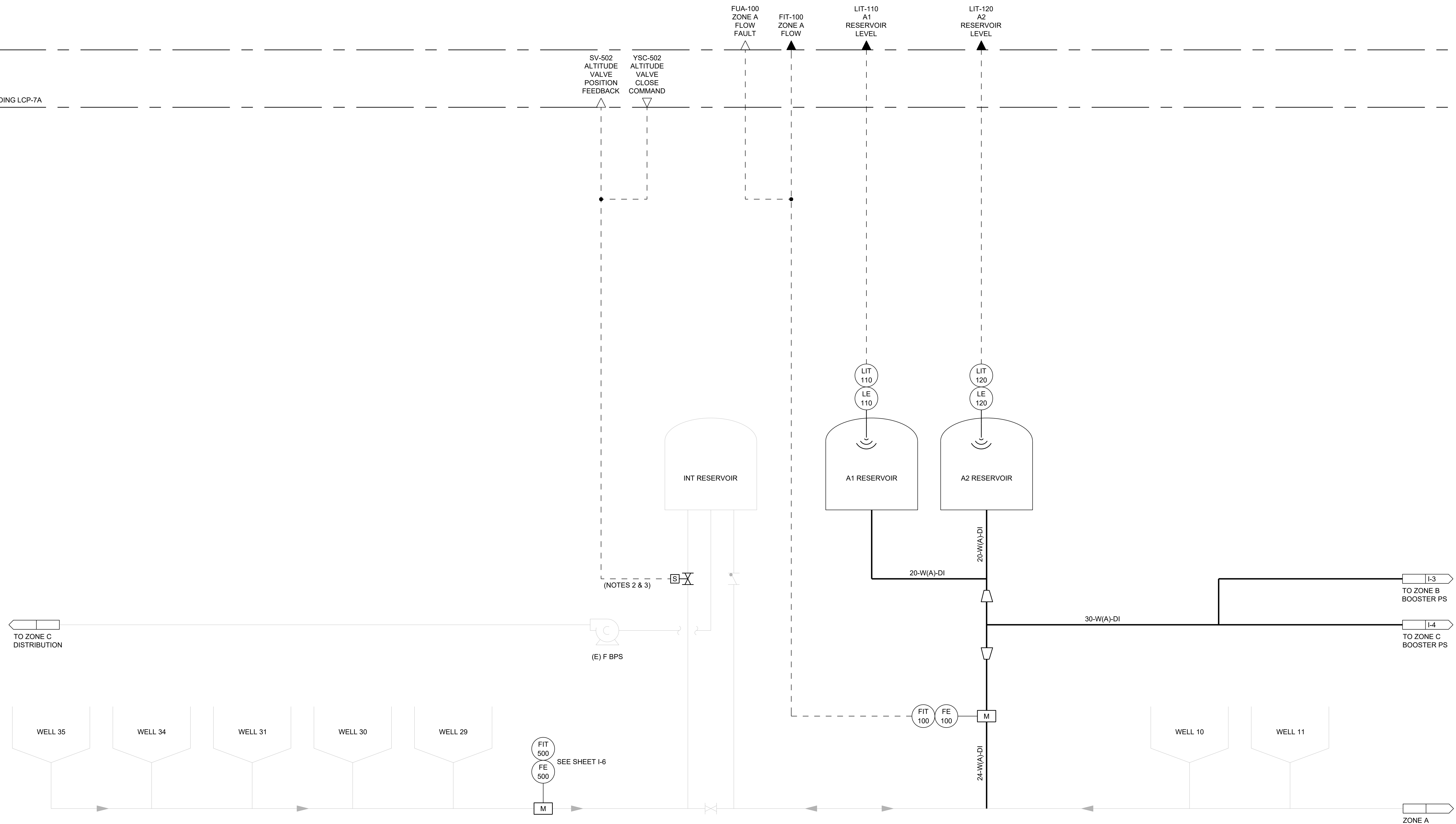
**A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
 SCADA NETWORK BLOCK DIAGRAM**

DATE: 1/4/2021
 SCALE: NTS
 DESIGN: HT
 DRAWN: BV
 CHECK: PJG

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OF

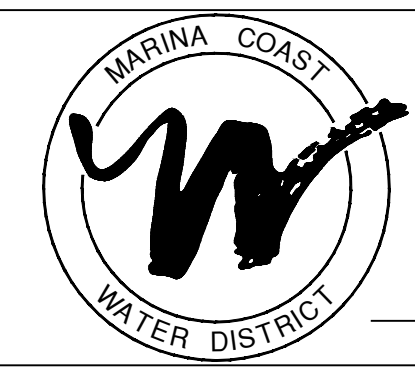
B/C BOOSTER MCP

CHLORINATION BUILDING LCP-7A



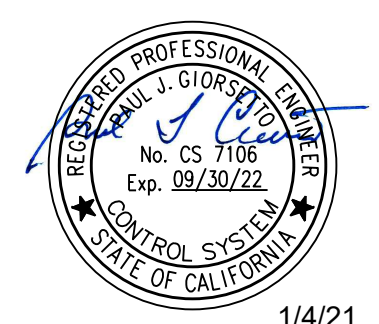
- NOTES:**
1. PROVIDE REDUNDANT TANK LEVEL TRANSMITTERS.
 2. NEW SOLENOID CONTROLLED ALTITUDE VALVE PROVIDED BY OTHERS.
 3. VALVE IS NORMALLY OPEN, ENERGIZE TO CLOSE. CLOSE WHEN F-BOOSTER PUMPS ARE RUNNING. REOPEN WHEN I.R. RESERVOIR DROPS BELOW 10 FT.

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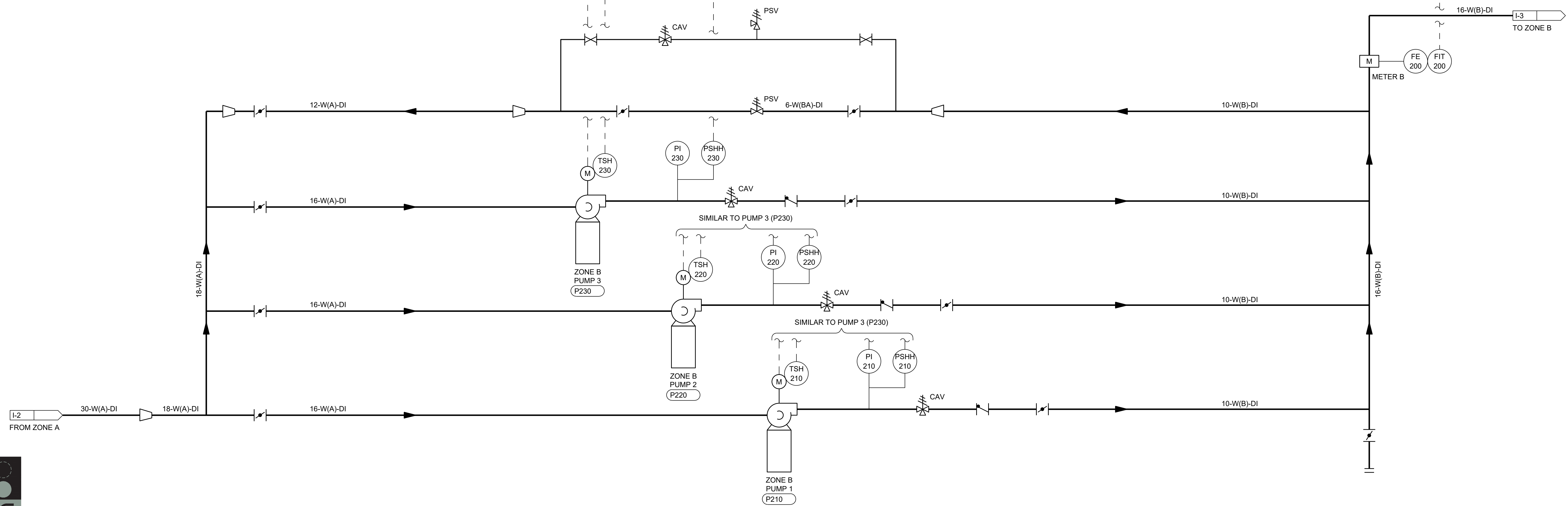
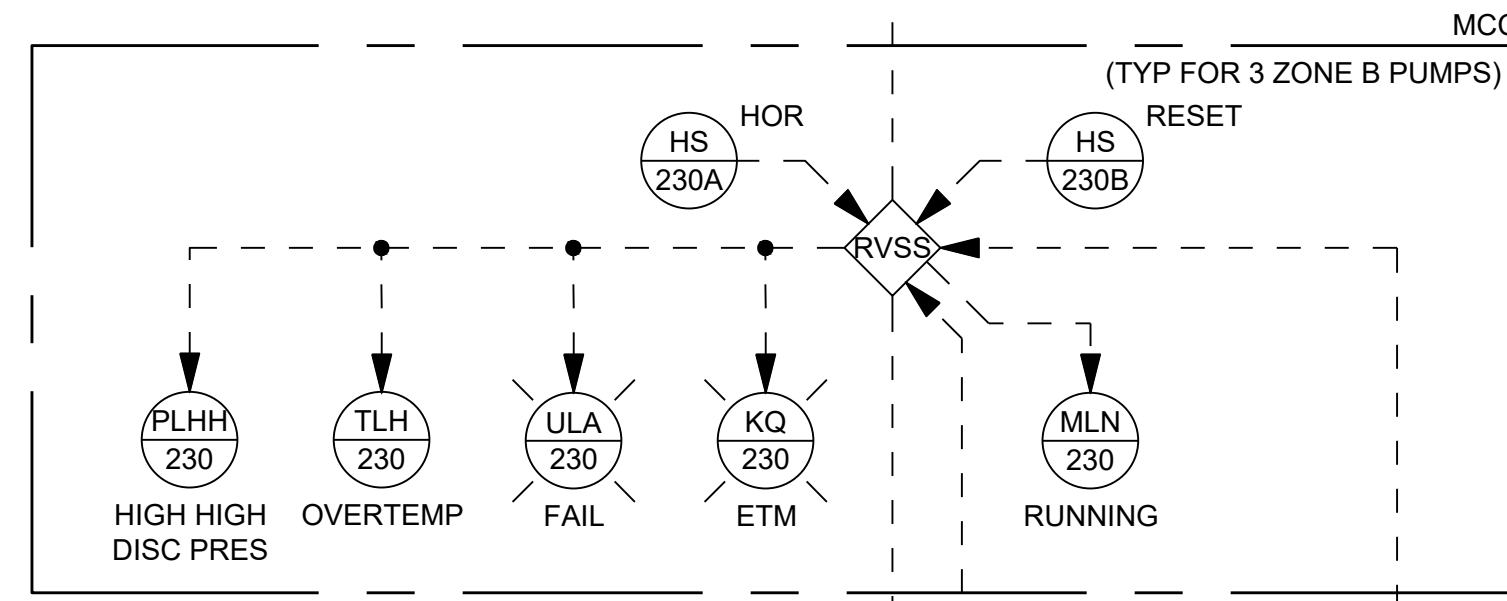
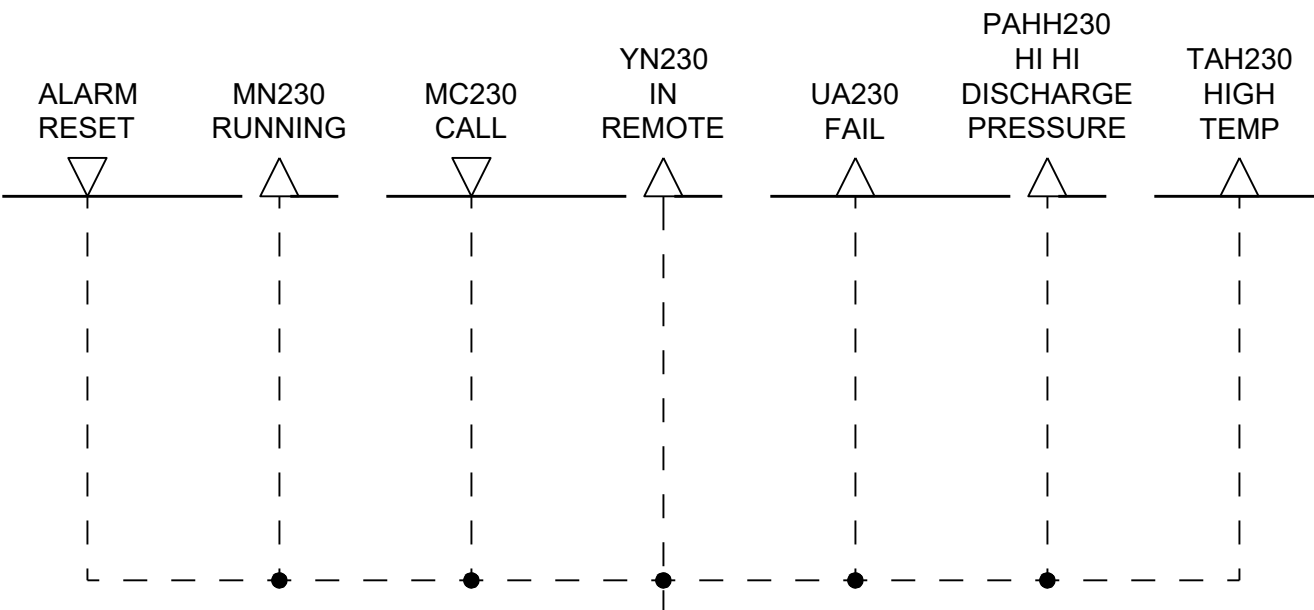
**A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
 P&ID
 B/C BOOSTER PUMP STATION DISTRIBUTION SYSTEM**

DATE: 1/4/2021
 SCALE: NTS
 DESIGN: HT
 DRAWN: BV
 CHECK: PJG

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NO.	REVISION DESCRIPTION	DATE	APPR

B/C BOOSTER MCP

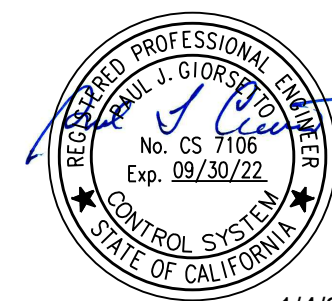


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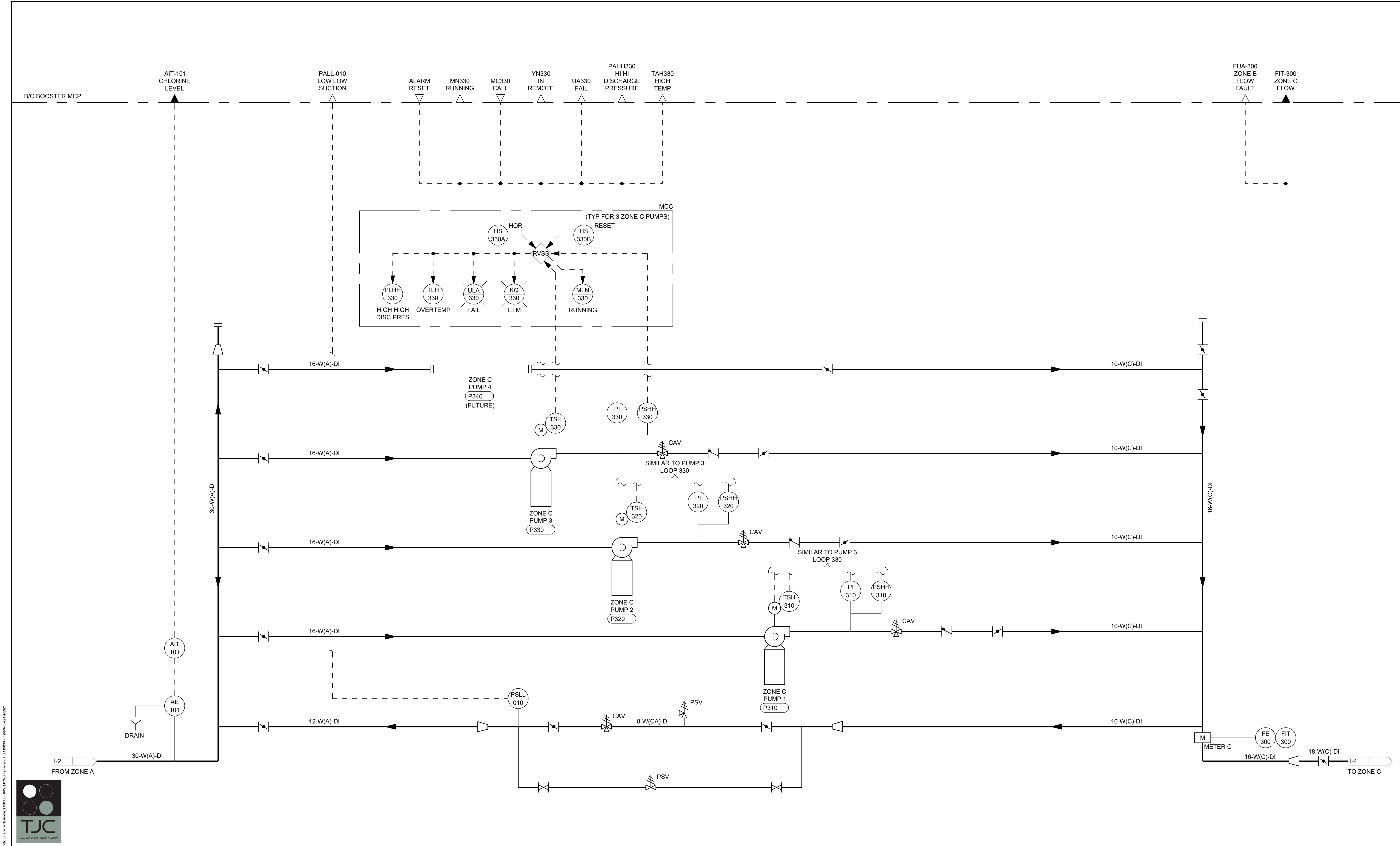


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
P&ID
ZONE B BOOSTER PUMP STATION

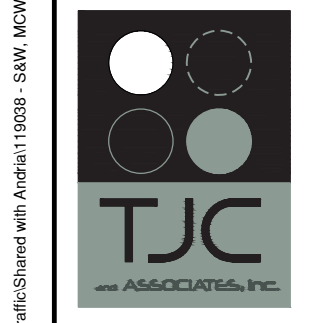
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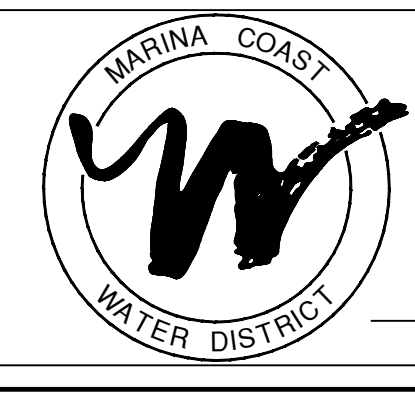
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 TJC ASSOCIATES, INC.



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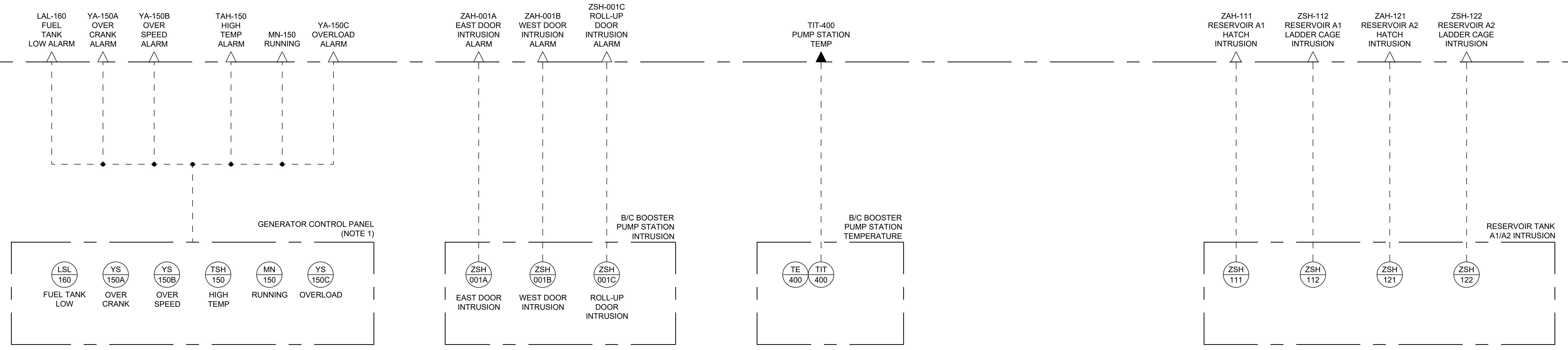


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
P&ID
ZONE C BOOSTER PUMP STATION

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 DRAWN: BV
 CHECK: PJG

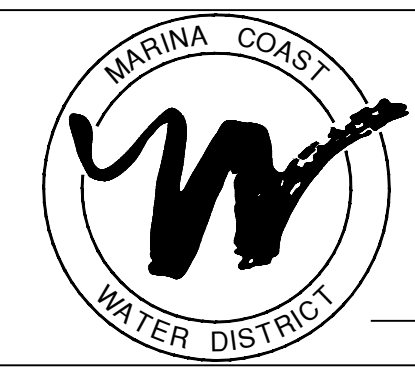
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B/C BOOSTER MCP



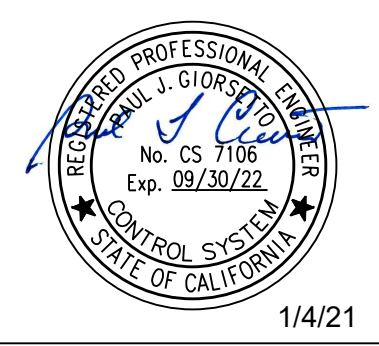
- NOTES:**
1. STATUS SHALL BE SENT TO MAIN CONTROL PANEL VIA BOTH ETHERNET/IP LINK AND HARDWIRED.

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A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION P&ID
A1/A2 RESERVOIRS AND B/C BOOSTER PS MISCELLANEOUS

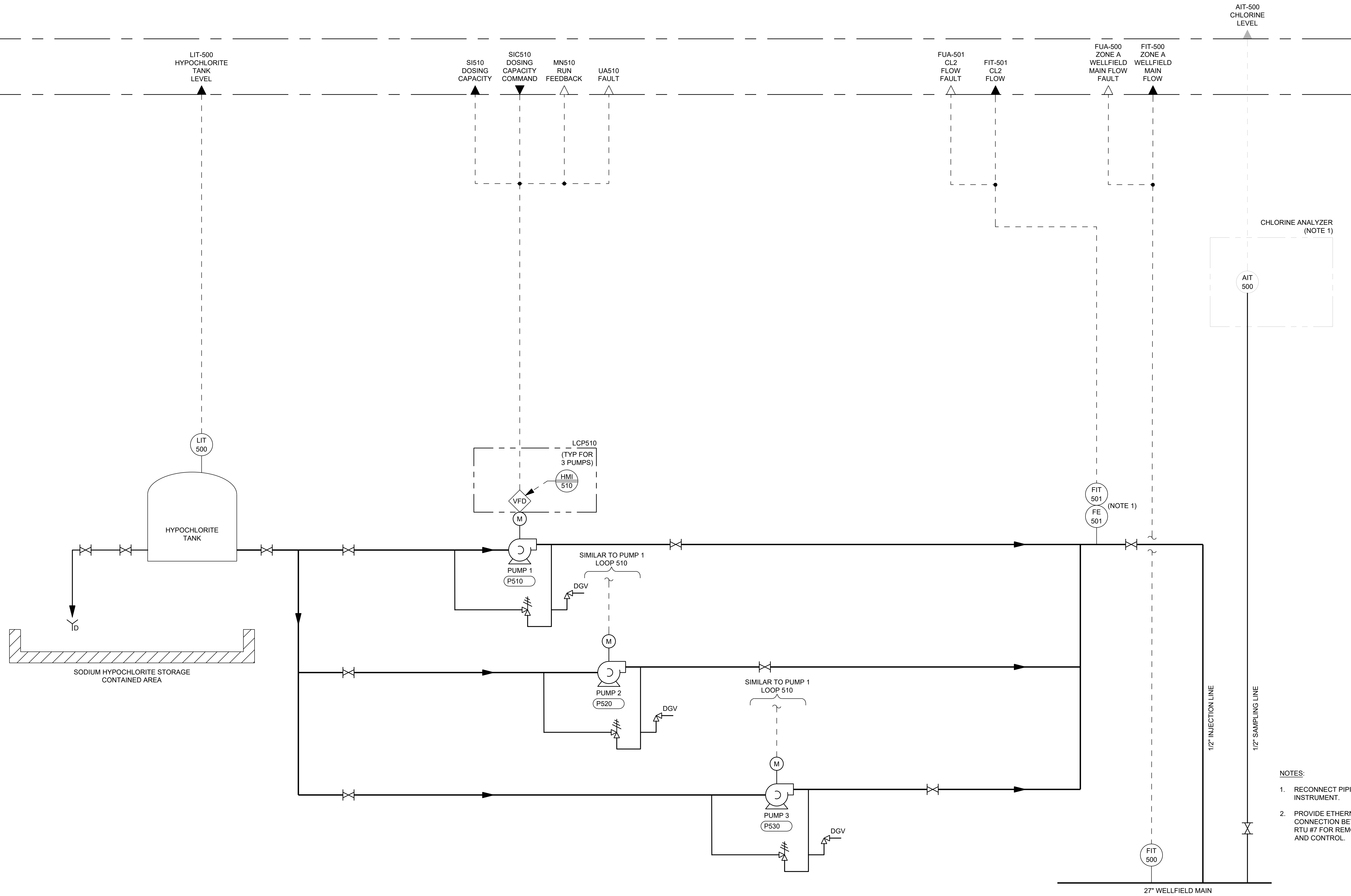
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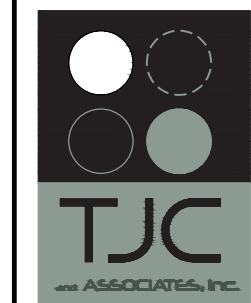
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INTERMEDIATE RESERVOIR /
F-BOOSTER LCP #7 (NOTE 1)

CHLORINATION BUILDING
LCP-7A PANEL



- NOTES:
1. RECONNECT PIPING TO EXISTING INSTRUMENT.
 2. PROVIDE ETHERNET I/P CONNECTION BETWEEN LCP-7A AND RTU #7 FOR REMOTE MONITORING AND CONTROL.



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**A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
P&ID
BOOSTER F / INTERMEDIATE RESERVOIR
CHLORINATION BUILDING**

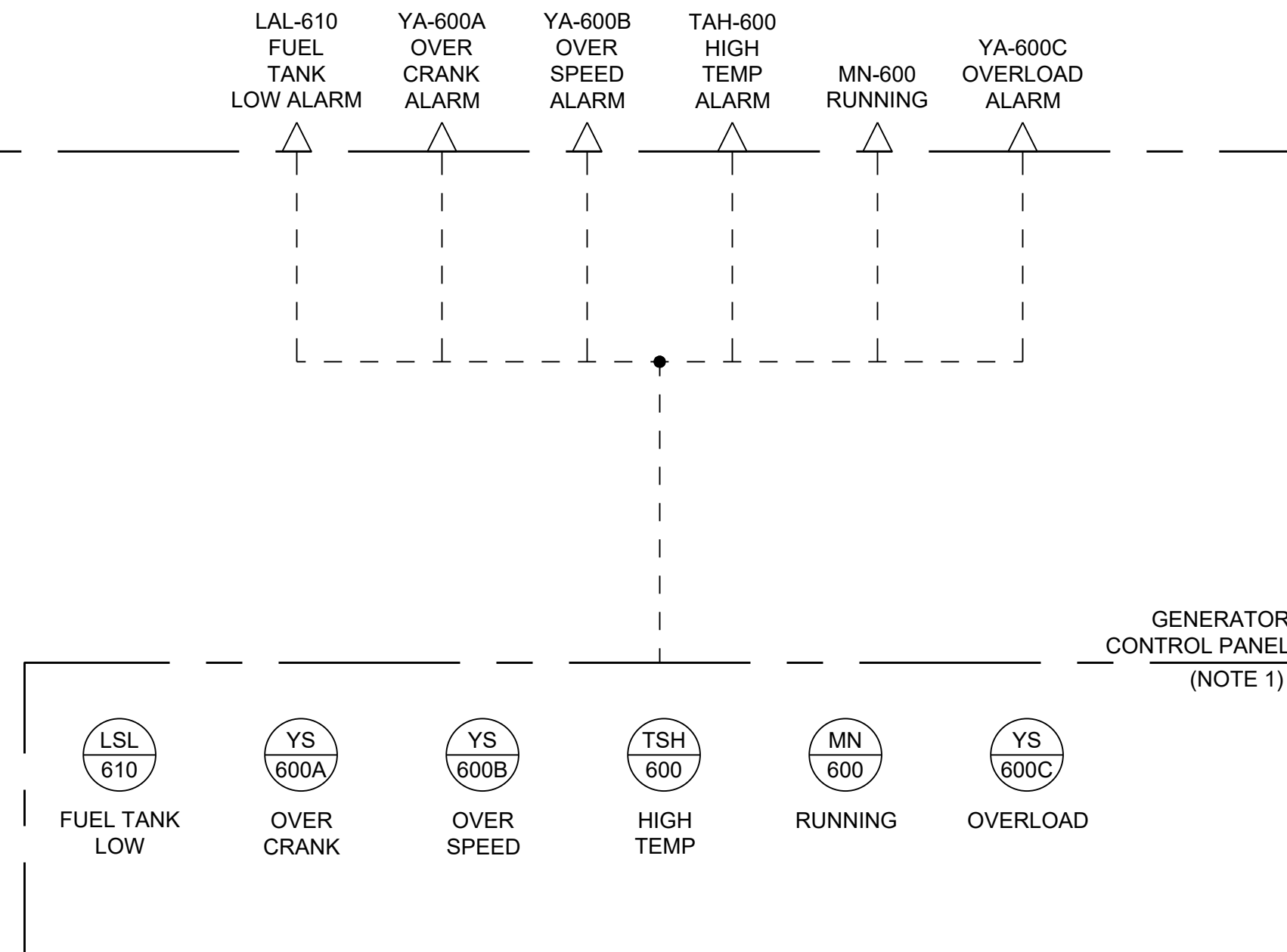
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DRAWN: BV
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NO.	REVISION DESCRIPTION	DATE	APPR

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 L. GIORGETTI
 TJC ASSOCIATES, INC.
 1/4/2021

CHLORINATION BUILDING LCP-7A



NOTES:

1. PROVIDE INTEGRAL I/O IN GENERATOR CONTROL PANEL FOR MONITORING STATUS POINTS SHOW. STATUS SHALL BE SENT TO CHLORINATION CONTROL PANEL VIA BOTH ETHERNET/IP LINK AND HARDWIRED.

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**A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
 P&ID
 F-BOOSTER/INTERMEDIATE RESERVOIR/
 CHLORINATION BUILDING MISCELLANEOUS**

DATE: 12/23/2020
 SCALE: NTS
 DESIGN: HT
 DRAWN: BV
 CHECK: PJG

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NO.	REVISION DESCRIPTION	DATE	APPR

ONE LINE OR CONTROL DIAGRAM	PLAN	DESCRIPTION
		EQUIPMENT IDENTIFIER AS DEFINED BY THE PROCESS
		CONDUIT ID: Z = CONDUIT TYPE (AS NOTED OR SCHEDULED) XXX = NUMBER PER SCHEDULE (NOTE 3)
		MOTOR OPERATED VALVE
		GENERATOR, RATINGS AND CONNECTIONS AS NOTED
		MOTOR, NUMERAL INDICATES HORSEPOWER
	N/A	UTILITY METER
	N/A	DIGITAL MULTIMETER
		LOW VOLTAGE AIR OR MOLDED CASE CIRCUIT BREAKER, 3 POLE UNLESS OTHERWISE NOTED; STABS INDICATE DRAWOUT TYPE
		MEDIUM VOLTAGE CIRCUIT BREAKER, 3 POLE UNLESS OTHERWISE NOTED; STABS INDICATE DRAWOUT TYPE
		SOLID STATE MOTOR CONTROL * D.C. = D.C. DRIVE CONTROLLER SCR = SILICON CONTROLLED RECTIFIER VFD = VARIABLE FREQUENCY DRIVE RVSS = REDUCED VOLTAGE SOLID STATE
	N/A	SURGE PROTECTION DEVICE
		COMBINATION MOTOR CIRCUIT PROTECTOR AND MAGNETIC MOTOR STARTER, FULL VOLTAGE NON-REVERSING UNLESS OTHERWISE NOTED: * FVR FULL VOLTAGE REVERSING 2S2W TWO SPEED, TWO WINDING RVAT REDUCED VOLTAGE, AUTO TRANSFORMER # NUMERAL INDICATES NEMA SIZE
		NON-FUSIBLE DISCONNECT SWITCH, 600 VOLT, 3 POLE * AMPERE RATING NOTED IF OTHER THAN 30A
		FUSIBLE DISCONNECT SWITCH, 600 VOLT, 3 POLE, AMPERE RATING AND FUSE SIZE AS NOTED * AMPERE RATING NOTED IF OTHER THAN 30A # FUSE RATING EXAMPLE 15
		MANUAL MOTOR STARTER WITH THERMAL OVERLOAD HEATER "P" INDICATES WITH PILOT LIGHT "2" INDICATES TWO POLE
		POWER TRANSFORMER, * RATINGS AND CONNECTIONS AS SHOWN ON THE SINGLE LINE DIAGRAM
		CONTROL TRANSFORMER, * RATINGS AND CONNECTIONS AS SHOWN ON THE SINGLE LINE DIAGRAM
	N/A	AUTOMATIC TRANSFER SWITCH NO. 1 (ATS-1) "N" INDICATES NORMAL SOURCE "S" INDICATES STANDBY SOURCE 100A INDICATES CONTINUOUS CURRENT RATING
	N/A	ARRESTOR, TYPE AS INDICATED * LA = LIGHTNING SURGE ARRESTOR SA = SURGE ARRESTOR
		GROUND OR GROUND ROD
		TERMINAL LUG, TERMINATION POINT, OR GROUNDING BOND POINT
	N/A	FUSE, AMPERE RATING AS NOTED
	N/A	CONTACT, NORMALLY OPEN (NO)
	N/A	CONTACT, NORMALLY CLOSED (NC)
	N/A	MOTOR STARTER COIL, NUMBER AS INDICATED
	N/A	CONTROL RELAY COIL, NUMBER AS INDICATED
	N/A	TERMINAL TO EXTERNAL DEVICE (FIELD OR OTHER PANEL)

ONE LINE OR CONTROL DIAGRAM	PLAN	DESCRIPTION																
N/A		CONTROL STATION, TAG NO. AS INDICATED * DEVICE TYPE DEFINED ON P&ID SHEETS OR CONTROL DIAGRAMS ## LOOP NO.																
		PUSHBUTTON, MOMENTARY CONTACT, SPRING RETURN, NORMALLY CLOSED																
		PUSHBUTTON, MOMENTARY CONTACT, SPRING RETURN, NORMALLY OPEN																
		PUSHBUTTON WITH RED MUSHROOM HEAD OPERATOR (MAINTAINED CONTACT)																
		SELECTOR SWITCH A ON LOCAL B OFF REMOTE																
		3 POSITION SELECTOR SWITCH, MAINTAINED CONTACT O-OPEN X-CLOSED <table border="1"> <thead> <tr> <th>POSITION</th> <th>TOP CONTACT</th> <th>MIDDLE CONTACT</th> <th>BOTTOM CONTACT</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>X</td> <td>0</td> <td>0</td> </tr> <tr> <td>B</td> <td>0</td> <td>X</td> <td>0</td> </tr> <tr> <td>C</td> <td>0</td> <td>0</td> <td>X</td> </tr> </tbody> </table> NAMEPLATE (A/B/C) * HOA - HAND/OFF/AUTO HOR - HAND/OFF/REMOTE LOR - LOCAL/OFF/REMOTE OSC - OPEN/STOP/CLOSE	POSITION	TOP CONTACT	MIDDLE CONTACT	BOTTOM CONTACT	A	X	0	0	B	0	X	0	C	0	0	X
POSITION	TOP CONTACT	MIDDLE CONTACT	BOTTOM CONTACT															
A	X	0	0															
B	0	X	0															
C	0	0	X															
	N/A	TIME DELAY RELAY, NUMBER AS INDICATED RANGE AS NOTED SETPOINT AS NOTED																
	N/A	NOTC-NORMALLY OPEN, TIMED CLOSING WHEN ENERGIZED (ON DELAY)																
	N/A	NCTO-NORMALLY CLOSED, TIMED OPENING WHEN ENERGIZED (ON DELAY)																
	N/A	NOTO-NORMALLY OPEN, TIMED OPENING WHEN DE-ENERGIZED (OFF DELAY)																
	N/A	NCTC-NORMALLY CLOSED, TIMED CLOSING WHEN DE-ENERGIZED (OFF DELAY)																
N/A		FIELD INSTRUMENT, TAG NO. AS INDICATED * INSTRUMENT TYPE DEFINED ON P&ID SHEETS, CONTROL DIAGRAMS, AND DIVISION 13 ## LOOP NO.																
		LIQUID LEVEL SWITCH NORMALLY OPEN, CLOSSES ON RISING LEVEL NORMALLY CLOSED, OPENS ON RISING LEVEL NORMALLY OPEN, CLOSSES ON DROPPING LEVEL																
		PRESSURE SWITCH NORMALLY OPEN, CLOSSES ON RISING PRESSURE NORMALLY CLOSED, OPENS ON RISING PRESSURE NORMALLY OPEN, CLOSSES ON DROPPING PRESSURE NORMALLY CLOSED, OPENS ON DROPPING PRESSURE																
		FLOW SWITCH (AIR, WATER, ETC.) NORMALLY OPEN, CLOSSES ON INCREASED FLOW NORMALLY CLOSED, OPENS ON INCREASED FLOW																
		POSITION (LIMIT) SWITCH NORMALLY OPEN NORMALLY OPEN - HELD CLOSED NORMALLY CLOSED NORMALLY CLOSED - HELD OPEN																
		TORQUE SWITCH NORMALLY CLOSED, OPENS ON HIGH TORQUE																
		TEMPERATURE SWITCH OR ROOM THERMOSTAT NORMALLY OPEN, CLOSSES ON RISING TEMPERATURE NORMALLY OPEN, CLOSSES ON DROPPING TEMPERATURE NORMALLY CLOSED, OPENS ON RISING TEMPERATURE NORMALLY CLOSED, OPENS ON DROPPING TEMPERATURE																

ONE LINE OR CONTROL DIAGRAM	PLAN	DESCRIPTION
		STRIP HEATER OR HEATING ELEMENT
		SOLENOID VALVE
		ELAPSED TIME METER
		KEY INTERLOCK
		RESISTANCE TEMPERATURE DETECTOR
		VIBRATION DETECTOR
	N/A	PILOT LIGHT AND PILOT LIGHT PUSH-TO-TEST TYPE COLOR AS NOTED * R - RED G - GREEN B - BLUE W - WHITE A - AMBER
		INTRINSICALLY SAFE RELAY; RELAY NUMBER AS INDICATED
		RELAY, NUMBER AS INDICATED 15 SPEED OR FREQUENCY MATCHING DEVICE 25 SYNCHRONISM CHECK RELAY 27 UNDERVOLTAGE RELAY 32 DIRECTIONAL POWER RELAY 38 BEARING PROTECTIVE DEVICE 40 LOSS OF EXCITATION RELAY 42 RUNNING CONTACTOR/PILOT RELAY 46 REVERSE PHASE/PHASE BALANCE/CURRENT RELAY 47 PHASE SEQUENCE VOLTAGE RELAY 49 MACHINE OR TRANSFORMER THERMAL RELAY 50 INSTANTANEOUS OVERCURRENT RELAY 50G INSTANTANEOUS GROUND 51 TIME OVERCURRENT RELAY 51G TIME OVERCURRENT RELAY, GROUNDING RESISTOR TYPE 51N TIME OVERCURRENT RELAY, RESIDUAL TYPE 51V TIME OVERCURRENT RELAY WITH VOLTAGE RESTRAINT 59 OVERVOLTAGE RELAY 60 NEGATIVE SEQUENCE VOLTAGE RELAY 62 TIME DELAY RELAY 63 OVERPRESSURE RELAY 65 GOVERNOR 67 AC DIRECTIONAL OVERCURRENT RELAY 75 POSITION CHANGING MECHANISM 81O OVER FREQUENCY RELAY 81U UNDER FREQUENCY RELAY 83 AUTOMATIC SELECTIVE CONTROL OR TRANSFER RELAY 86 LOCKING-OUT RELAY 86U LOCKING-OUT RELAY, "UP" POSITION SWITCH 87 DIFFERENTIAL PROTECTIVE RELAY 90 VOLTAGE AND POWER DIRECTIONAL RELAY AFD ARC FLASH DETECTOR B SUFFIX INDICATES "BUS" G SUFFIX INDICATES "GENERATOR" GF GROUND FAULT ST SHUNT TRIP PAF PHASE ARC FLASH T SUFFIX INDICATES "TRANSFORMER" X SUFFIX INDICATES "AUXILIARY" # NUMBER OF PHASE
	N/A	DRAWOUT TYPE EQUIPMENT OR DEVICE
	N/A	MEDIUM VOLTAGE CABLE TERMINATION
	N/A	MEDIUM VOLTAGE AIR INTERRUPTER SWITCH
	N/A	MEDIUM VOLTAGE FUSED AIR INTERRUPTER SWITCH
	N/A	MEDIUM VOLTAGE FUSED MOTOR CONTROLLER
		POTENTIAL TRANSFORMER * QUANTITY # PRIMARY VOLTS
		CURRENT TRANSFORMER * TURNS RATIO # QUANTITY
		UNIT HEATER - ELECTRIC HEATING COIL AND FAN
		UNIT HEATER - GAS HEATING COIL AND FAN
	N/A	CAPACITOR

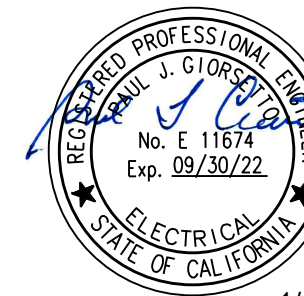
ONE LINE OR CONTROL DIAGRAM	PLAN	DESCRIPTION
	N/A	CONDUCTORS ELECTRICALLY CONNECTED
		INDICATES LIMITS OR EQUIPMENT OR WIRING ENCLOSURE
	N/A	INDUCTOR
	N/A	OVERLOAD HEATER
		DAMPER MOTOR
		CONDUIT, CIRCUIT, OR EQUIPMENT TO BE DEMOLISHED
	N/A	KEY INTERLOCK: # - KEY NUMBER AS INDICATED
	N/A	ELECTRICAL INTERLOCK

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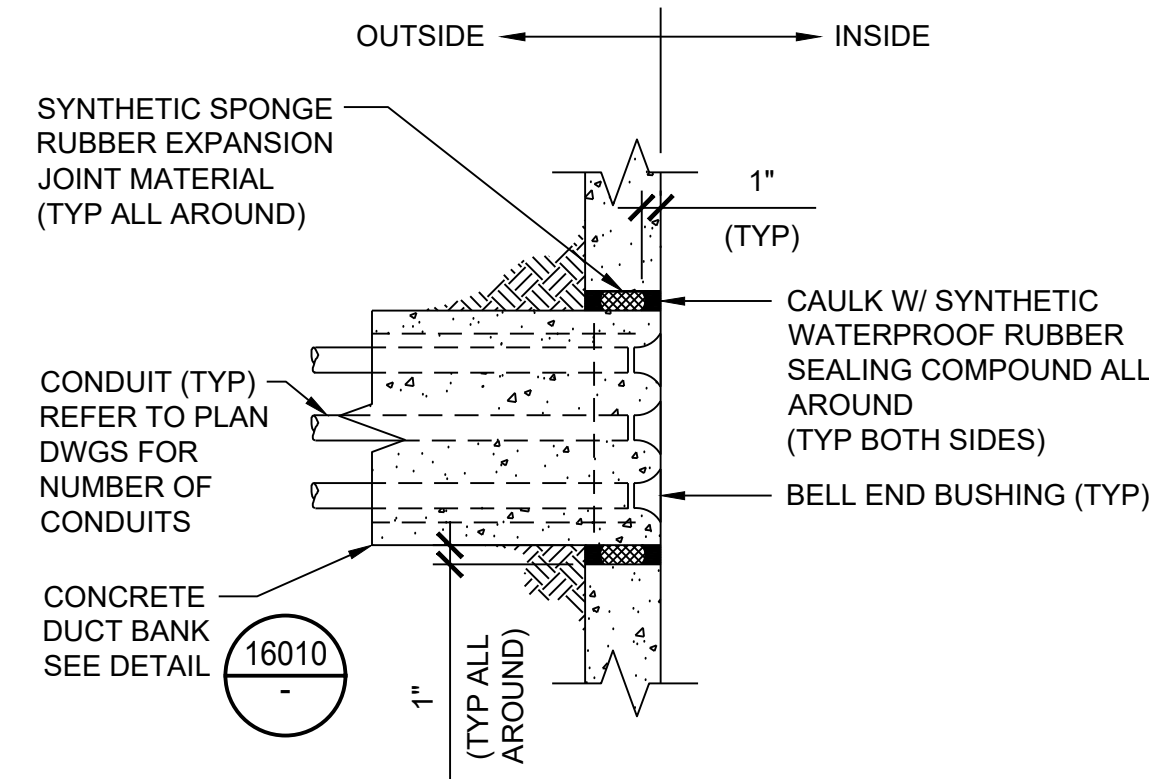


**A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
LEGENDS AND ABBREVIATIONS I**

DATE: 1/4/2021
SCALE: NTS
DESIGN: HT
DRAWN: BV
CHECK: PJG

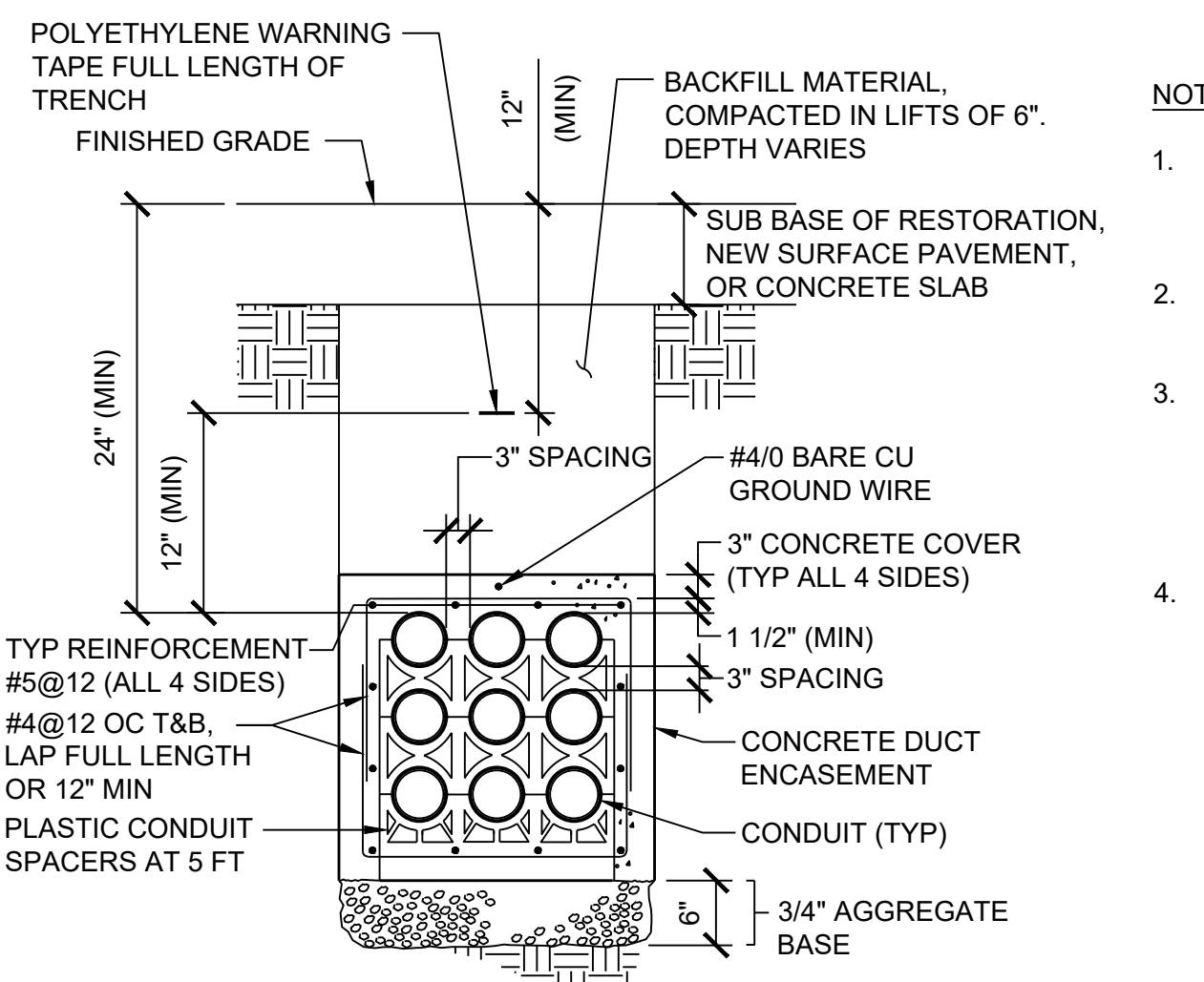
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CONCRETE ENCASED ELECTRICAL CONDUITS AT PRECAST MANHOLE OR HANDHOLE WITHOUT WATERSTOP

DETAIL 16000
NTS VAR

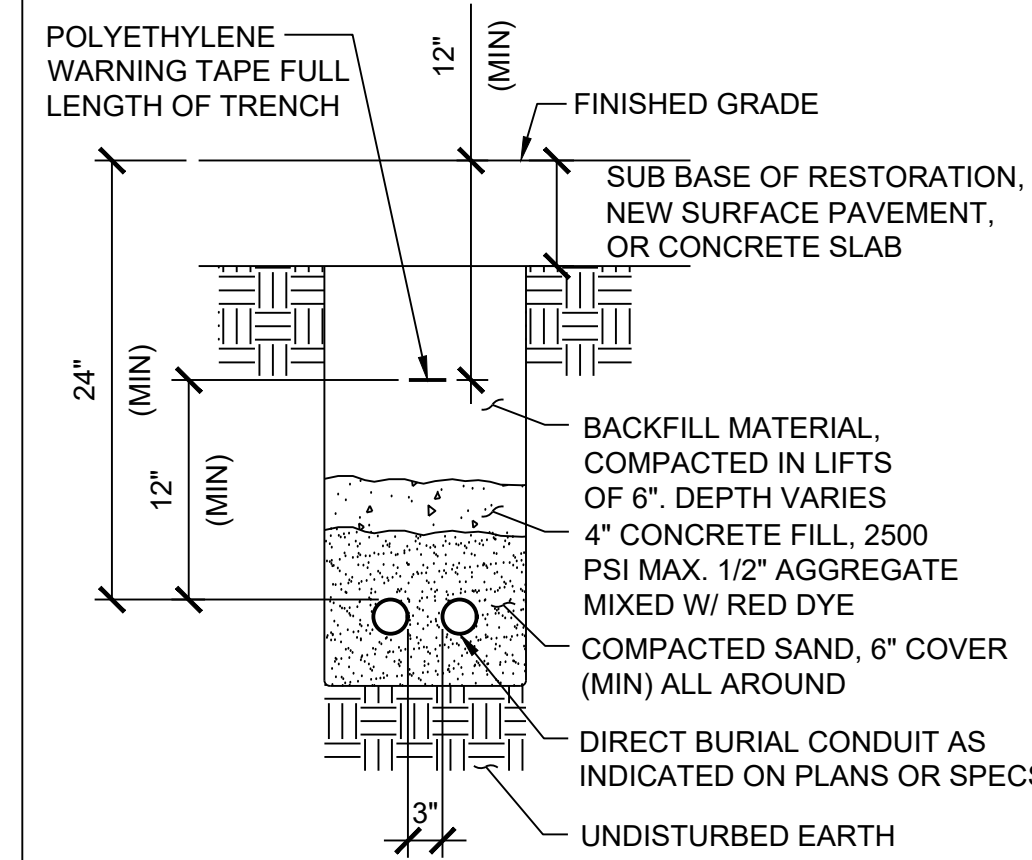


REINFORCED CONCRETE DUCT BANK

DETAIL 16010
NTS VAR

NOTES:

1. MAINTAIN A MINIMUM OF 12" SEPARATION BETWEEN INSTRUMENTATION AND POWER DUCT BANKS.
2. DETAIL IS APPLICABLE TO ALL UNDERGROUND CONDUIT RUNS.
3. DETAIL IS SHOWN WITH 9 CONDUITS AS A TYPICAL ONLY. REFER TO THE DETAILED PLAN DRAWINGS FOR THE QUANTITY AND SIZE OF CONDUITS REQUIRED FOR EACH DUCT BANK.
4. CONCRETE AND SOILS SHALL BE COMPACTED PER PROJECT SPECIFICATIONS.

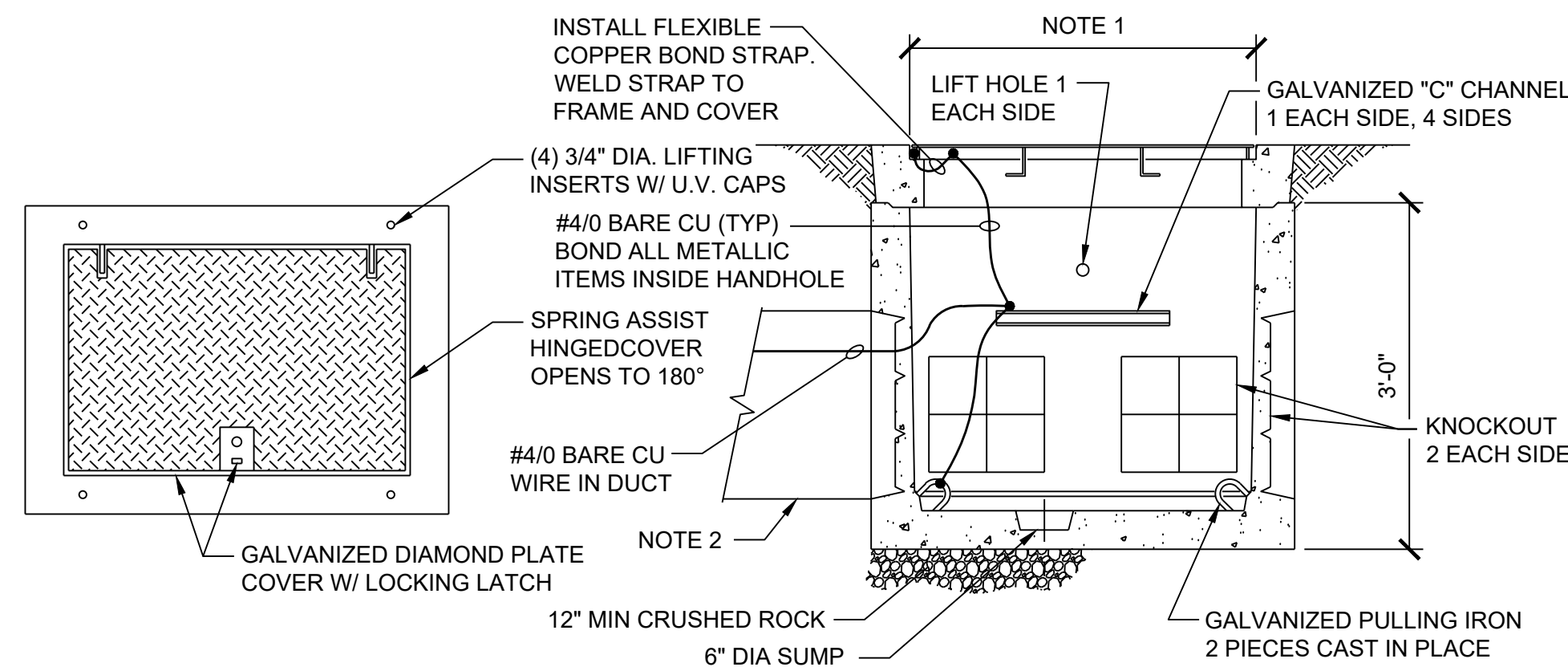


DIRECT BURIAL CONDUIT OR CABLE WITH CONCRETE CAP

DETAIL 16023
NTS VAR

NOTES:

1. FIELD CONDITIONS MAY REQUIRE A MINIMUM DEPTH GREATER THAN SHOWN.
2. SOILS SHALL BE COMPACTED PER PROJECT SPECIFICATIONS.
3. PROVIDE PLASTIC CONDUIT SPACERS AT 5'-0" FOR 3 OR MORE CONDUITS.
4. SOILS SHALL BE COMPACTED PER PROJECT SPECIFICATIONS.
5. IF BOTTOM OF TRENCH IS ROCKY AND PLASTIC CONDUITS ARE USED, USE ROCK FREE BACKFILL AND TAMP TO AFFORD A SMOOTH BEDDING FOR THE CONDUIT. BEFORE TAMPING IN AREA OF PLASTIC CONDUIT, APPLY AT LEAST SIX INCHES OF BACKFILL OVER TOP OF CONDUIT TO AVOID BREAKAGE. FINAL BACKFILL MAY THEN BE PLACED IN THE TRENCH AND TAMPING EMPLOYED TO FINISH GRADE. IN ORDER TO REDUCE COSTS, WHERE APPROVED BY THE ENGINEER, THE SOIL ORIGINALLY REMOVED FROM THE TRENCH SHOULD BE USED AS BACKFILL WHEREVER POSSIBLE.



COVER PLAN

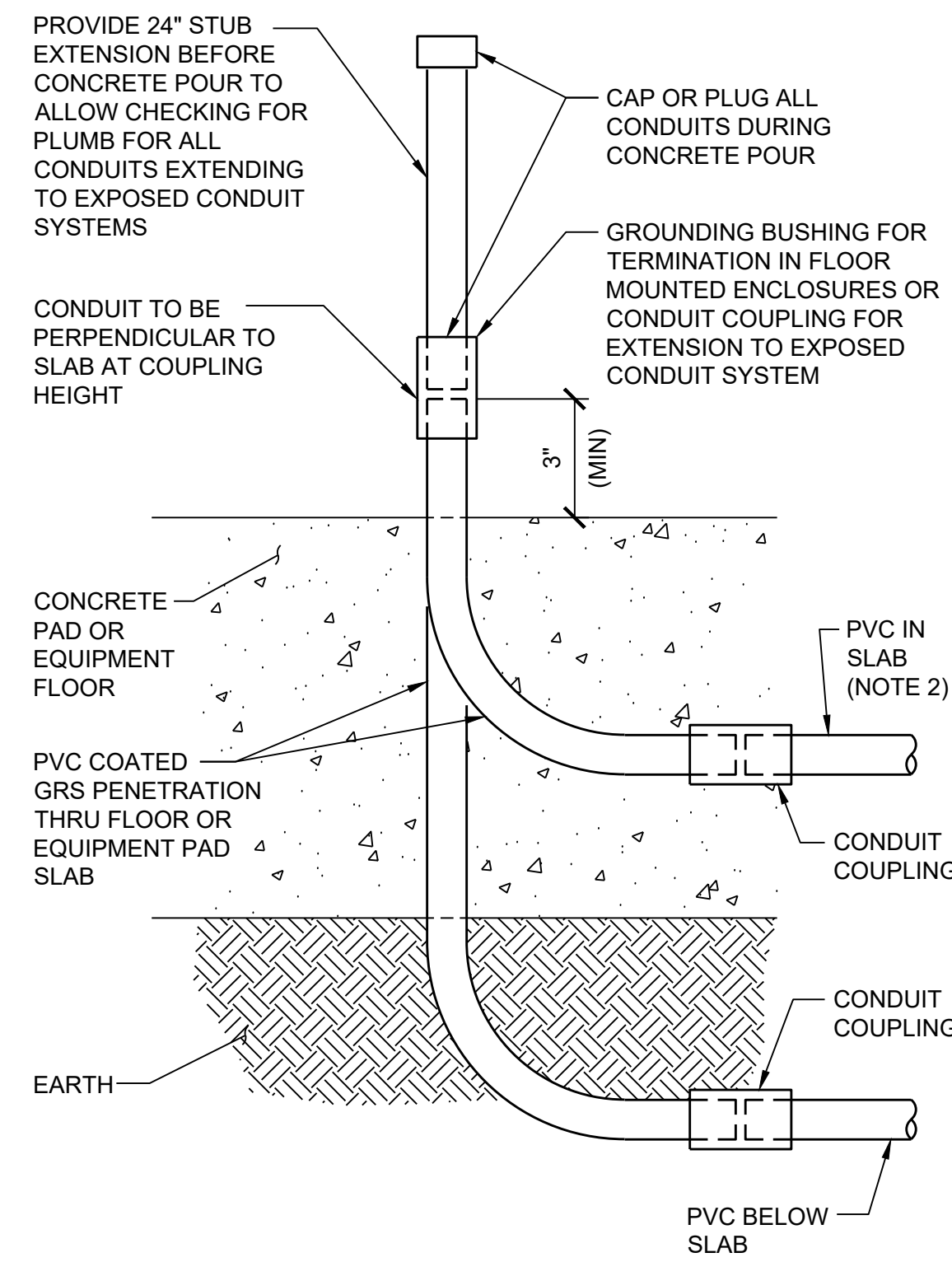
SECTION

TYPICAL ELECTRICAL HANDHOLE

DETAIL 16051
NTS VAR

NOTES:

1. SIZE OF HANDHOLE PER HANDHOLE SCHEDULE SHOWN ON DRAWINGS.
2. SEE DETAIL 16000 FOR CONCRETE ENCASED CONDUIT DUCT ENTRY INTO HANDHOLE.

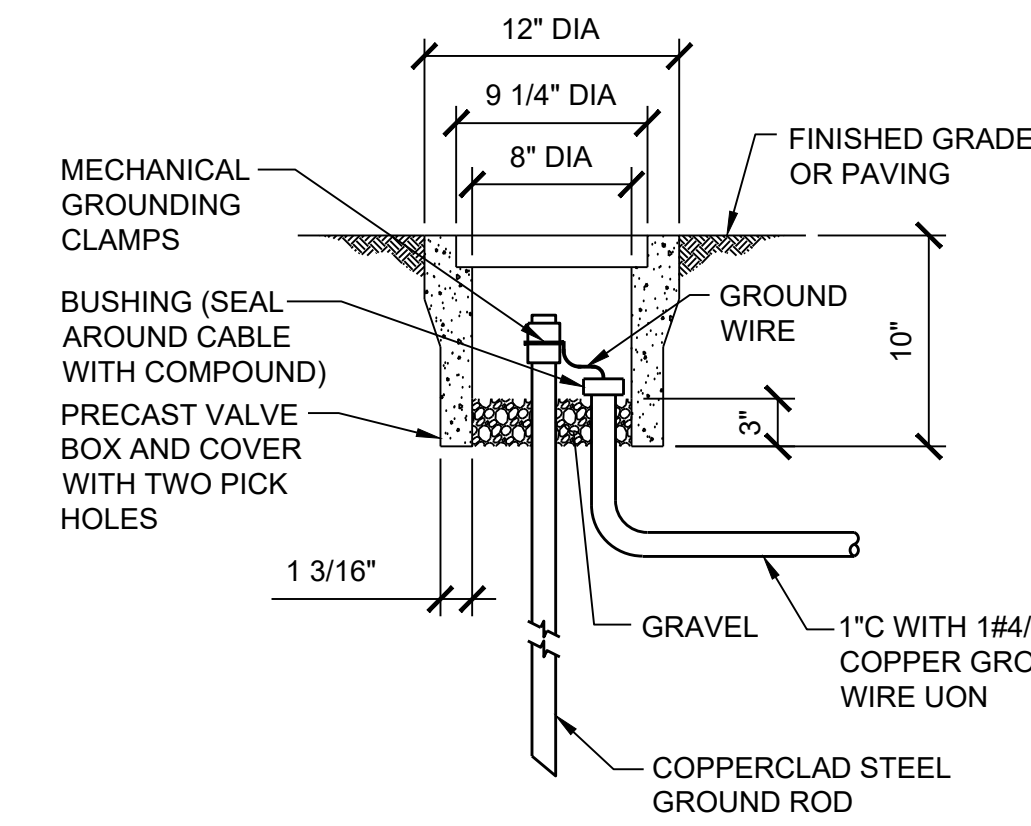


CONDUIT STUB UP / FLOOR PENETRATION

DETAIL 16107
NTS VAR

NOTES:

1. APPLICABLE IN ALL AREAS UNLESS NOTED OTHERWISE.
2. CONDUITS MAY BE ENCASED IN SLAB ONLY WHERE SPECIFICALLY SHOWN ON THE PLAN DRAWINGS. COORDINATE ENCASED CONDUIT WITH SLAB REINFORCEMENT.



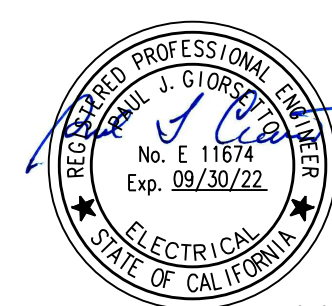
GROUND ROD
DETAIL 16200
NTS VAR

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(831) 384-6131

Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS
3 QUAIL RUN CIRCLE, STE. 101
SALINAS, CA 93907
(831) 883-4848

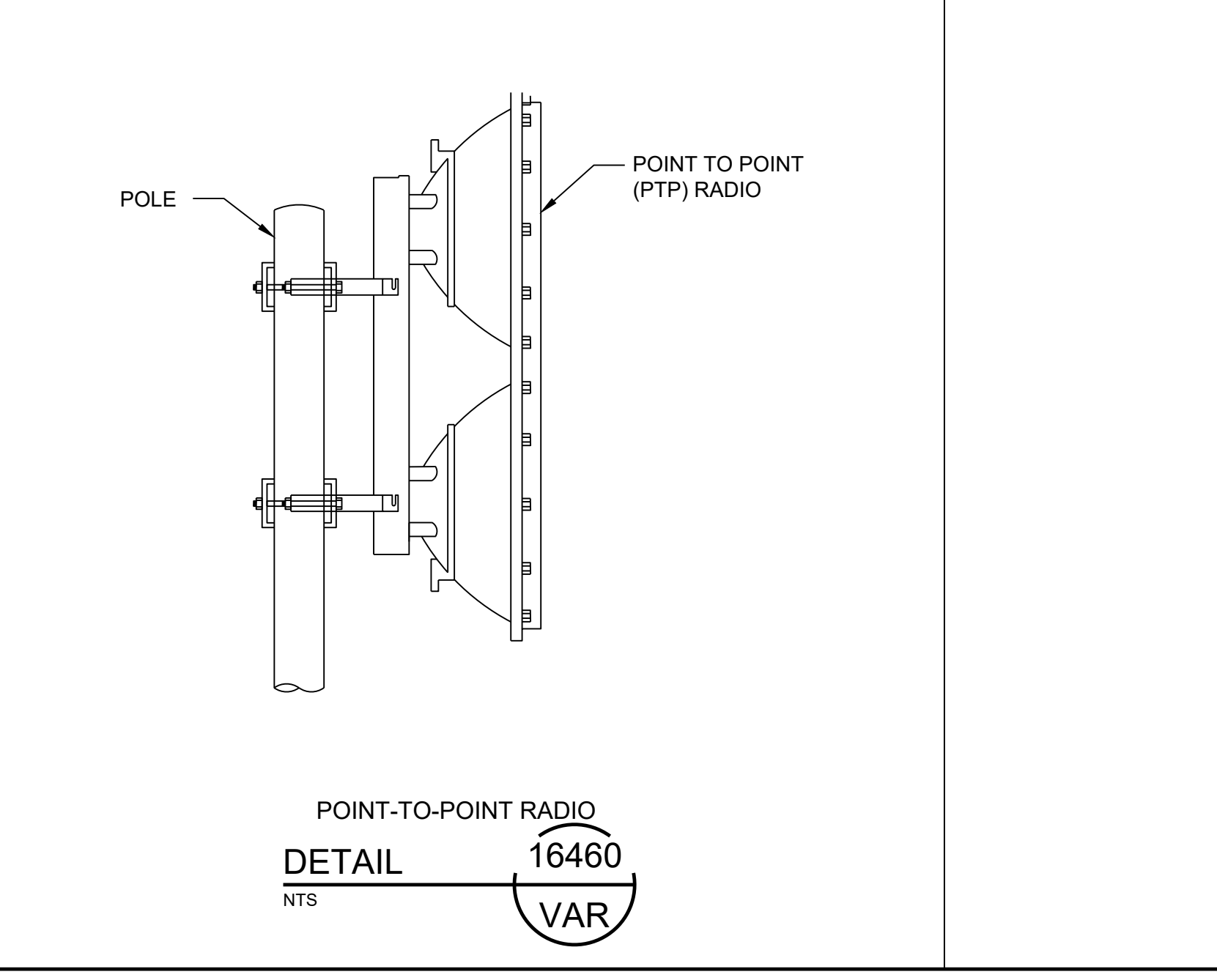
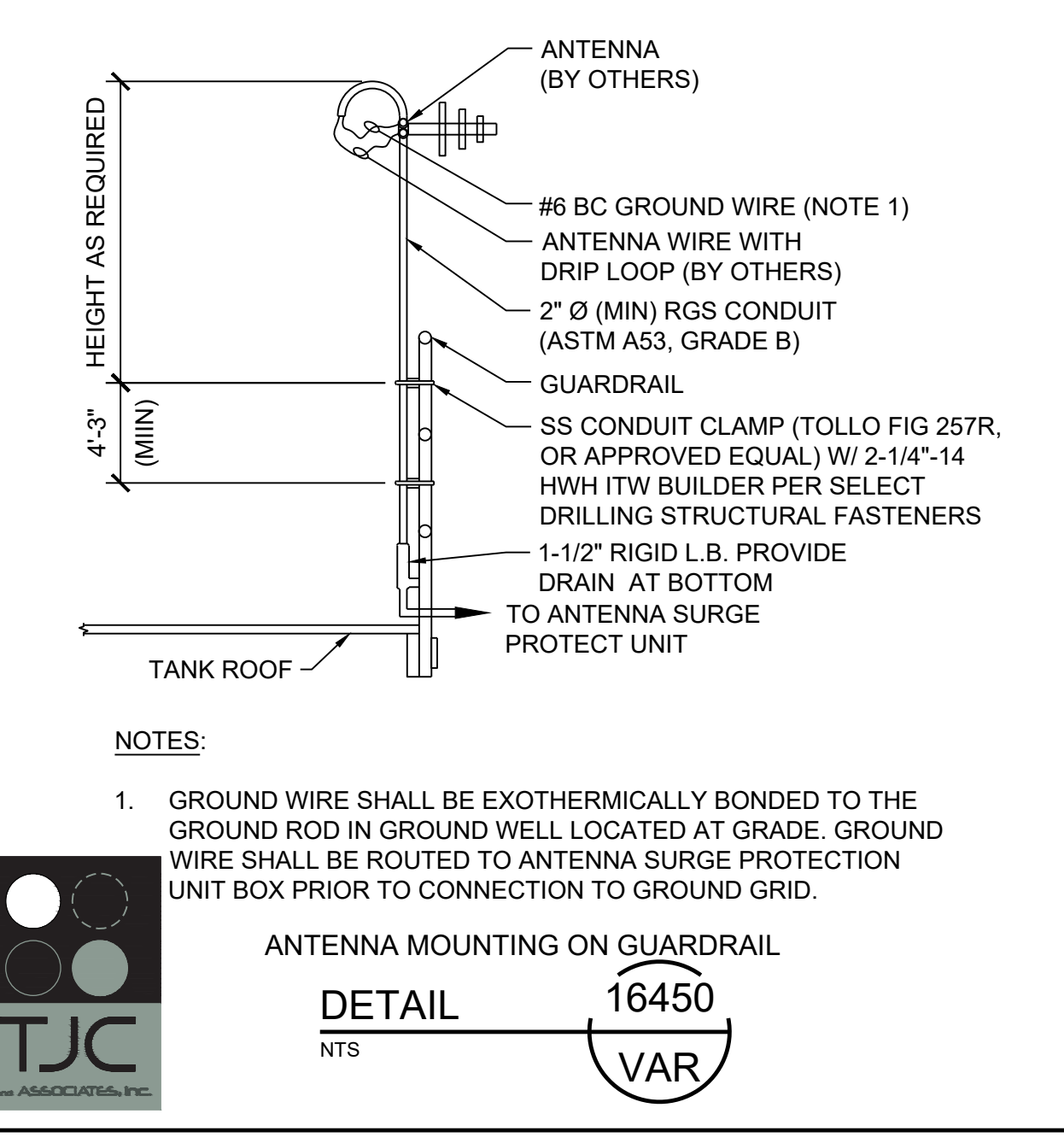
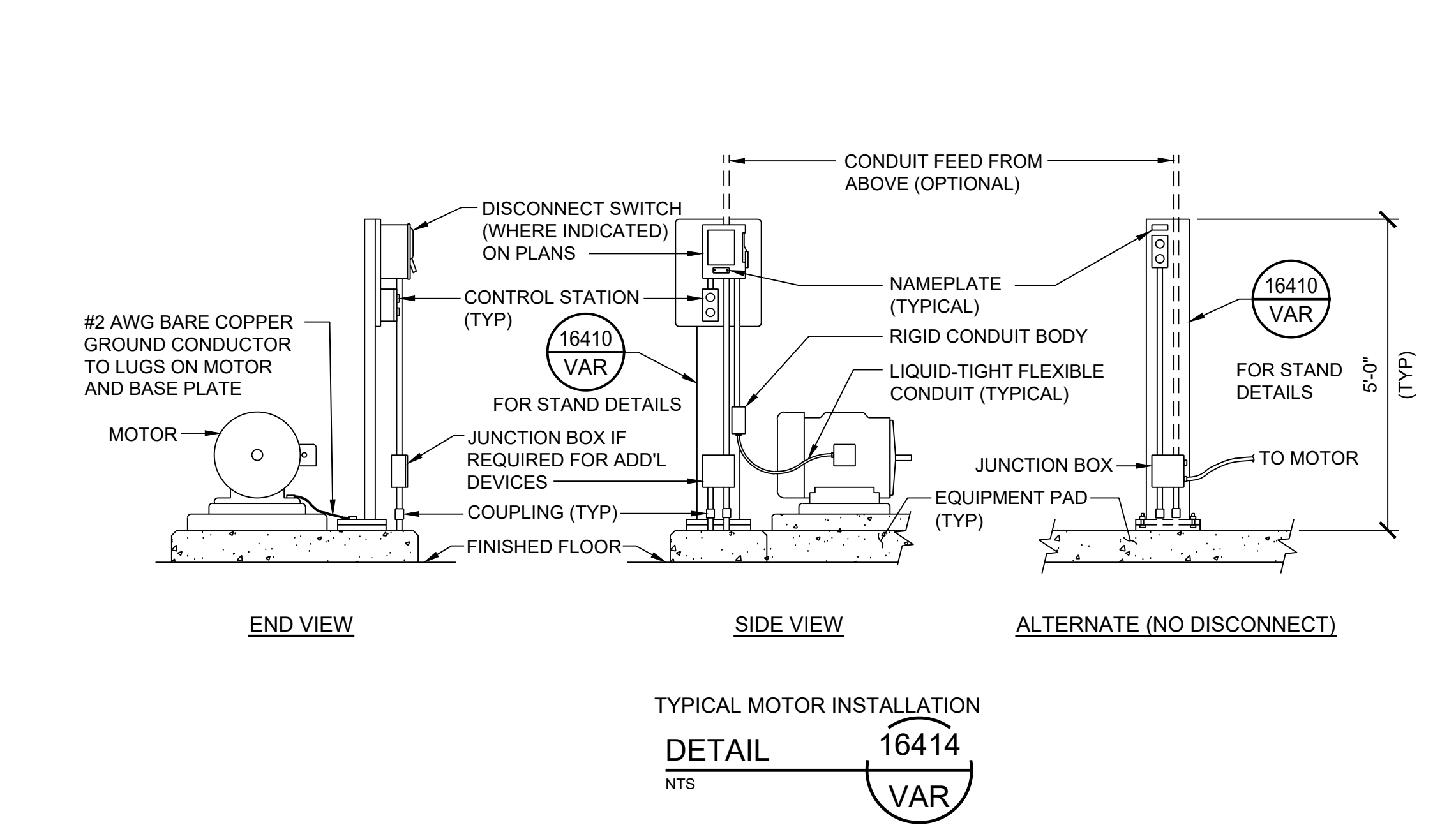
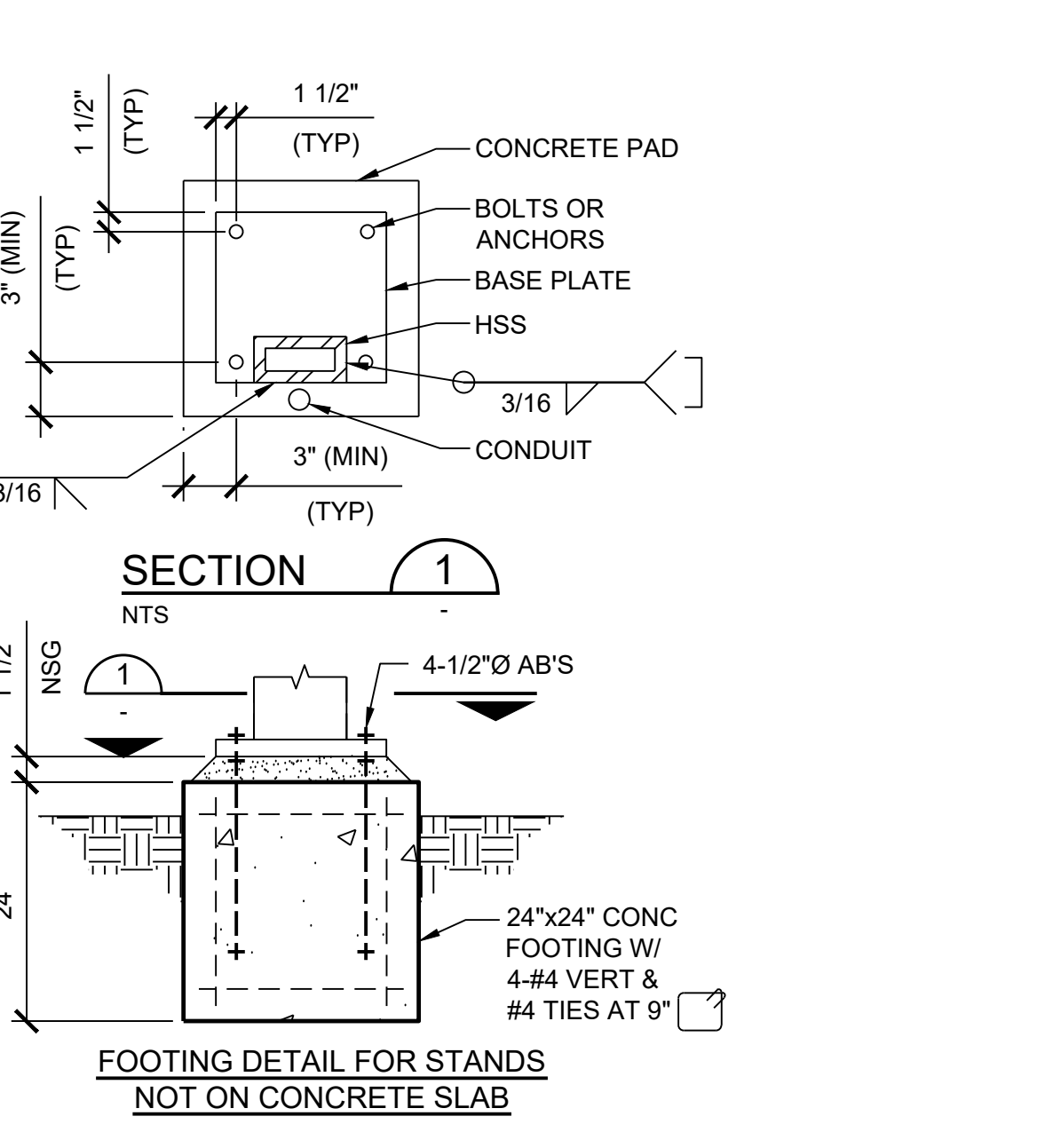
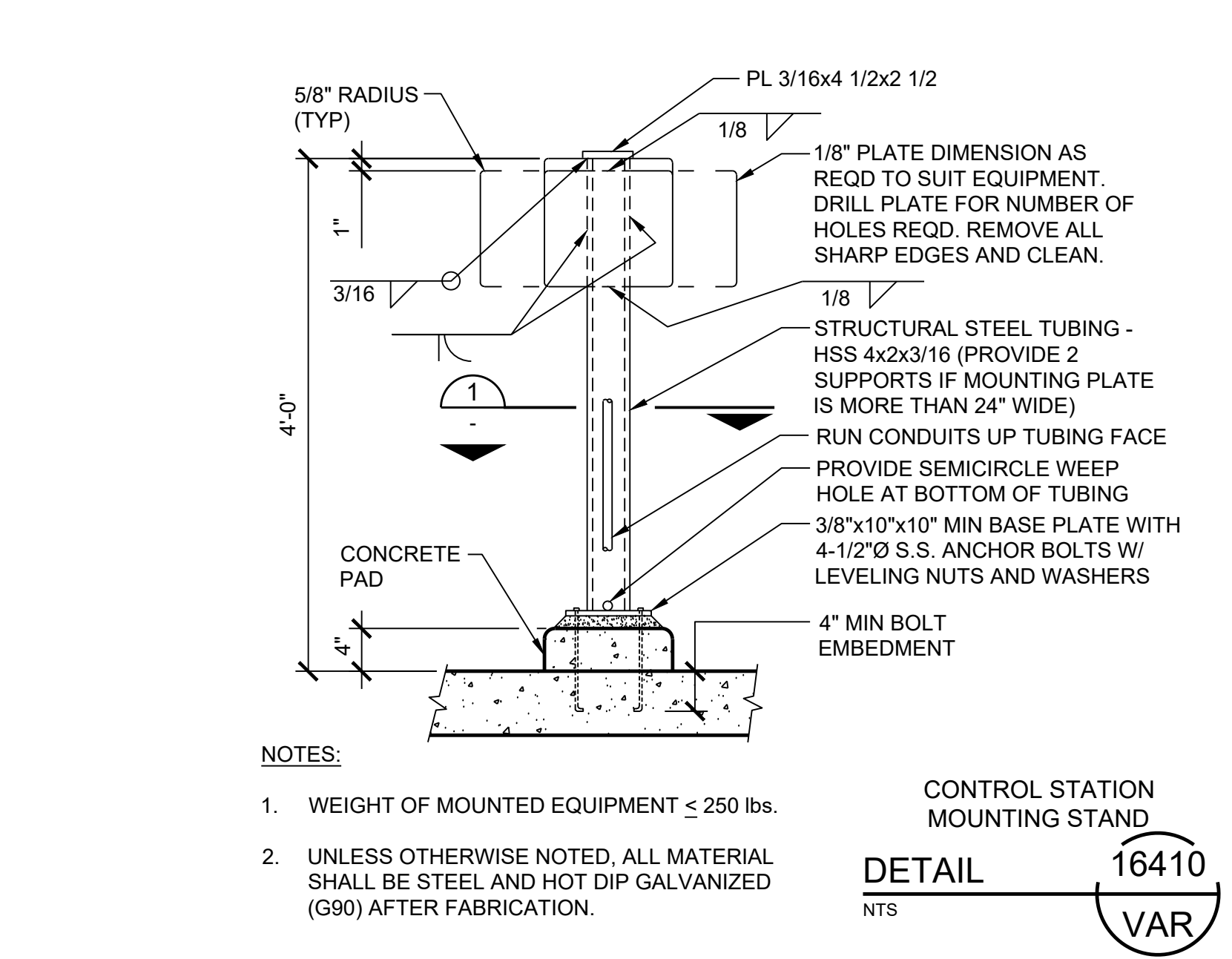
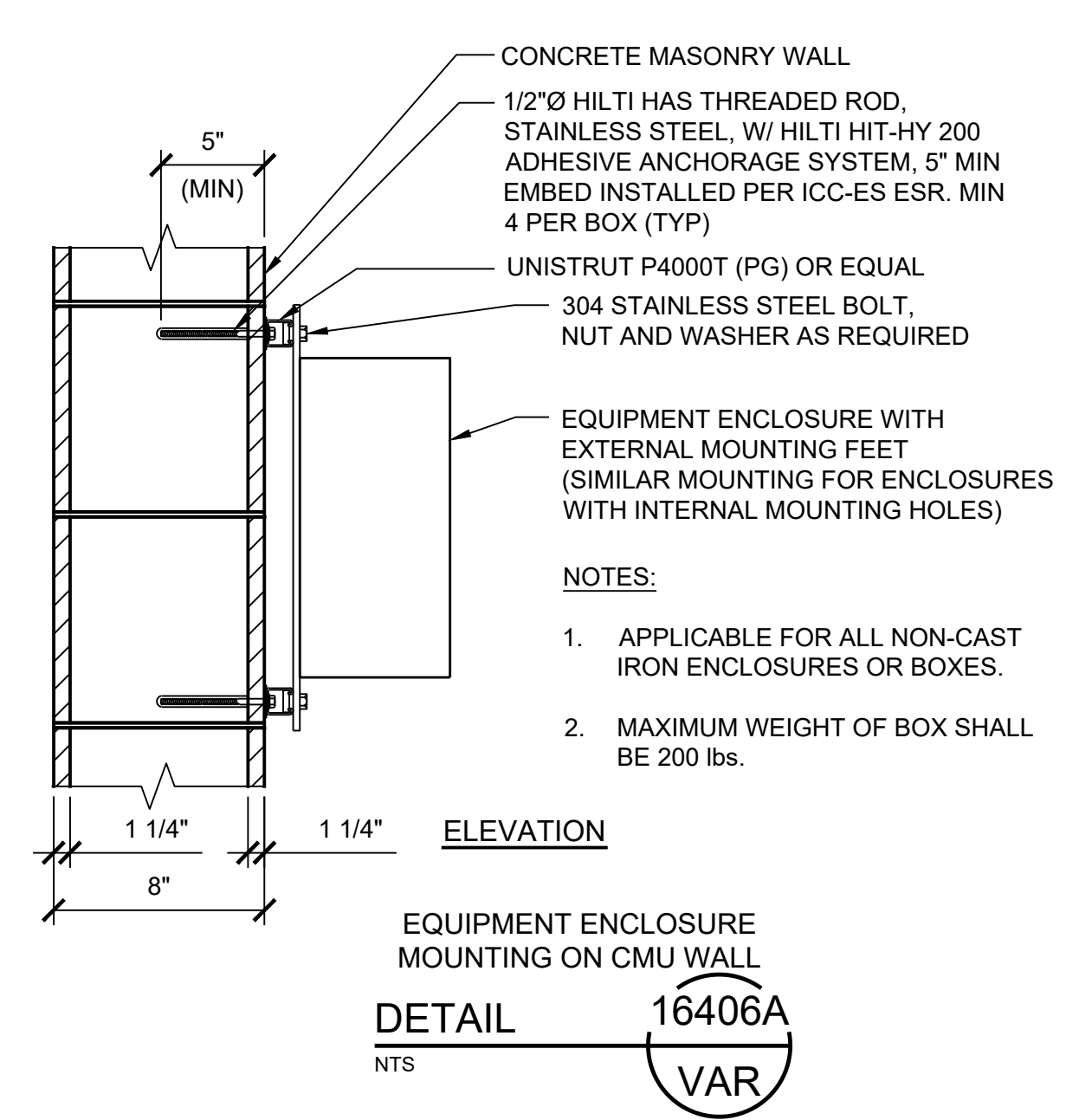
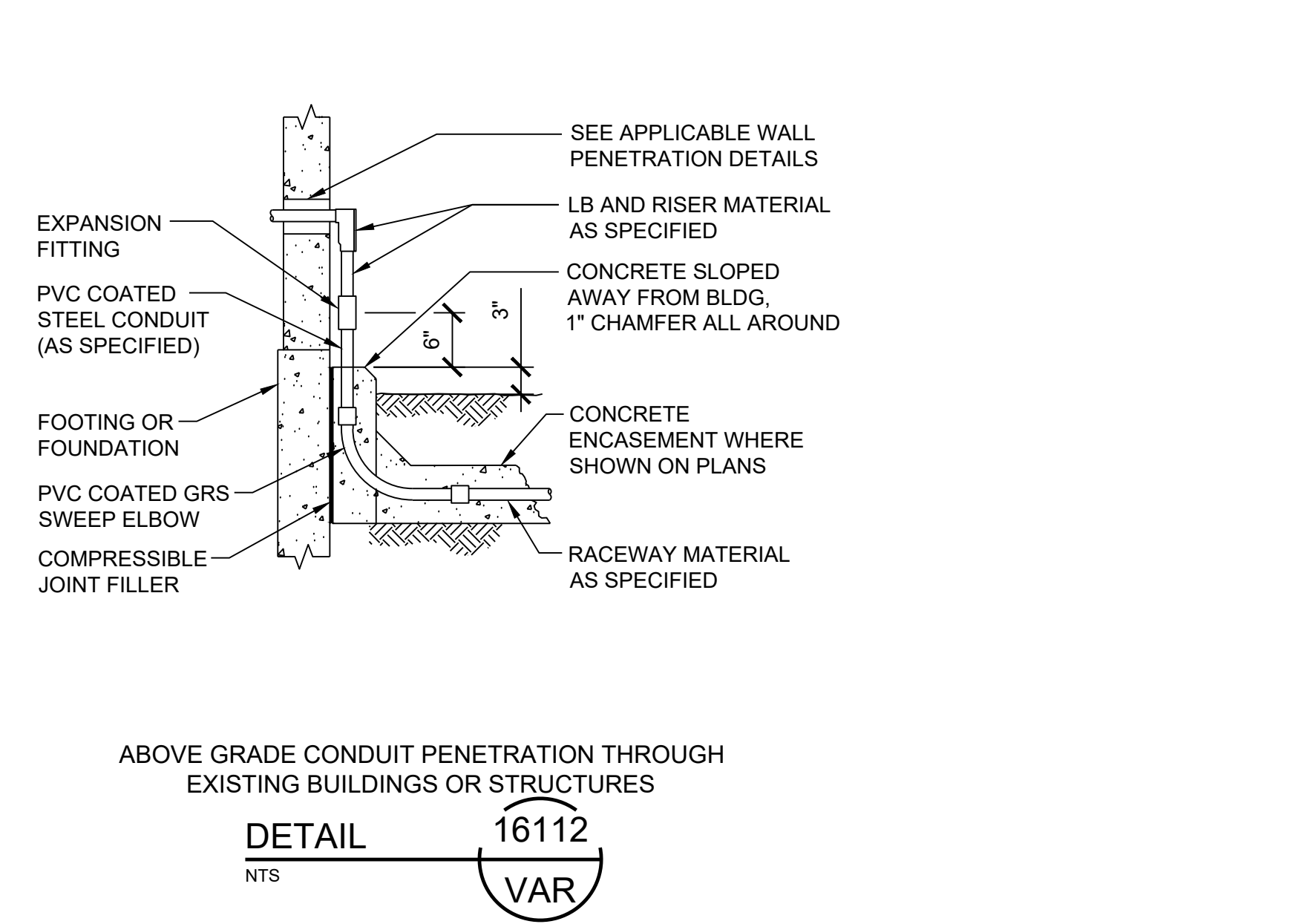
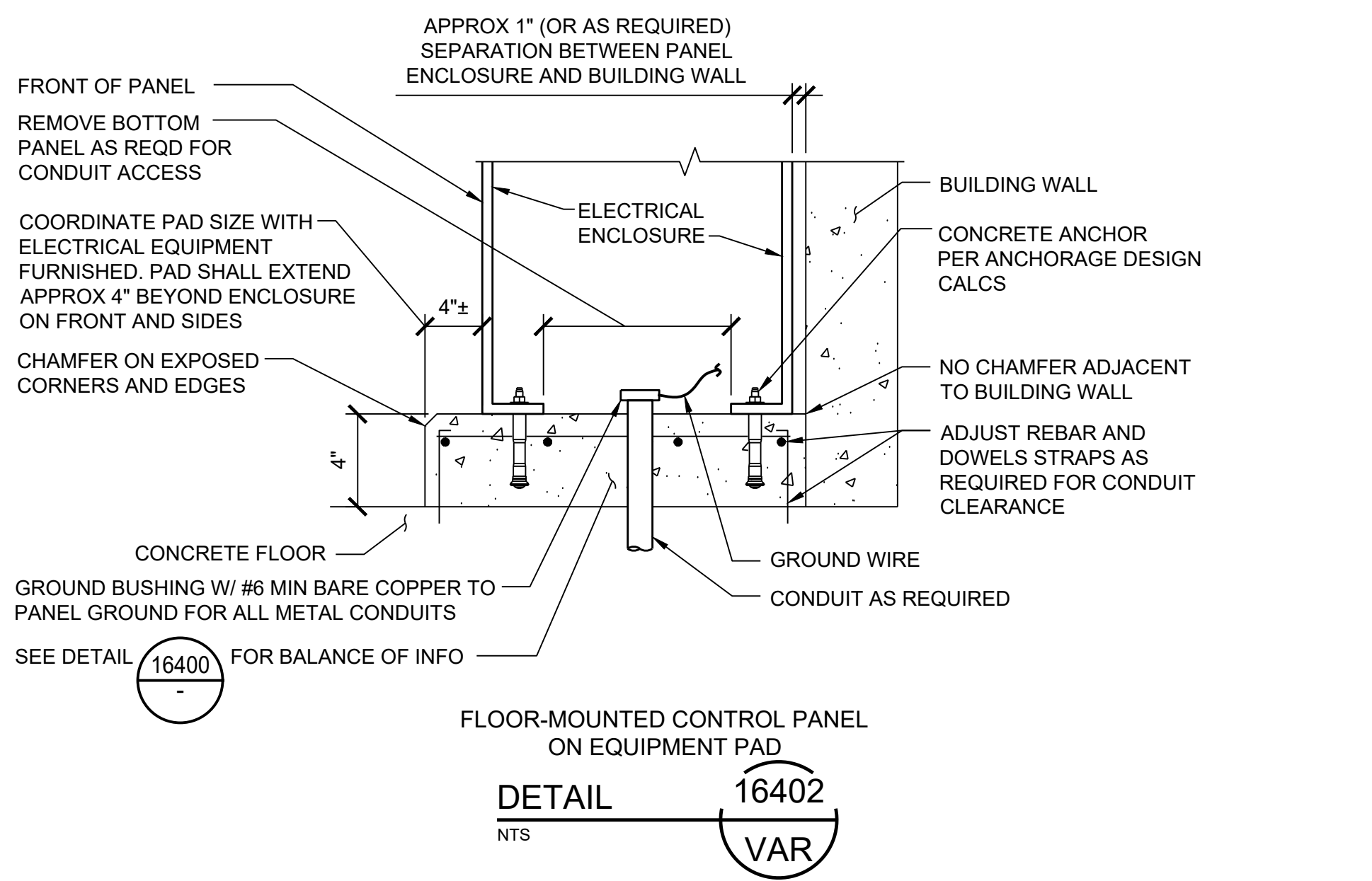
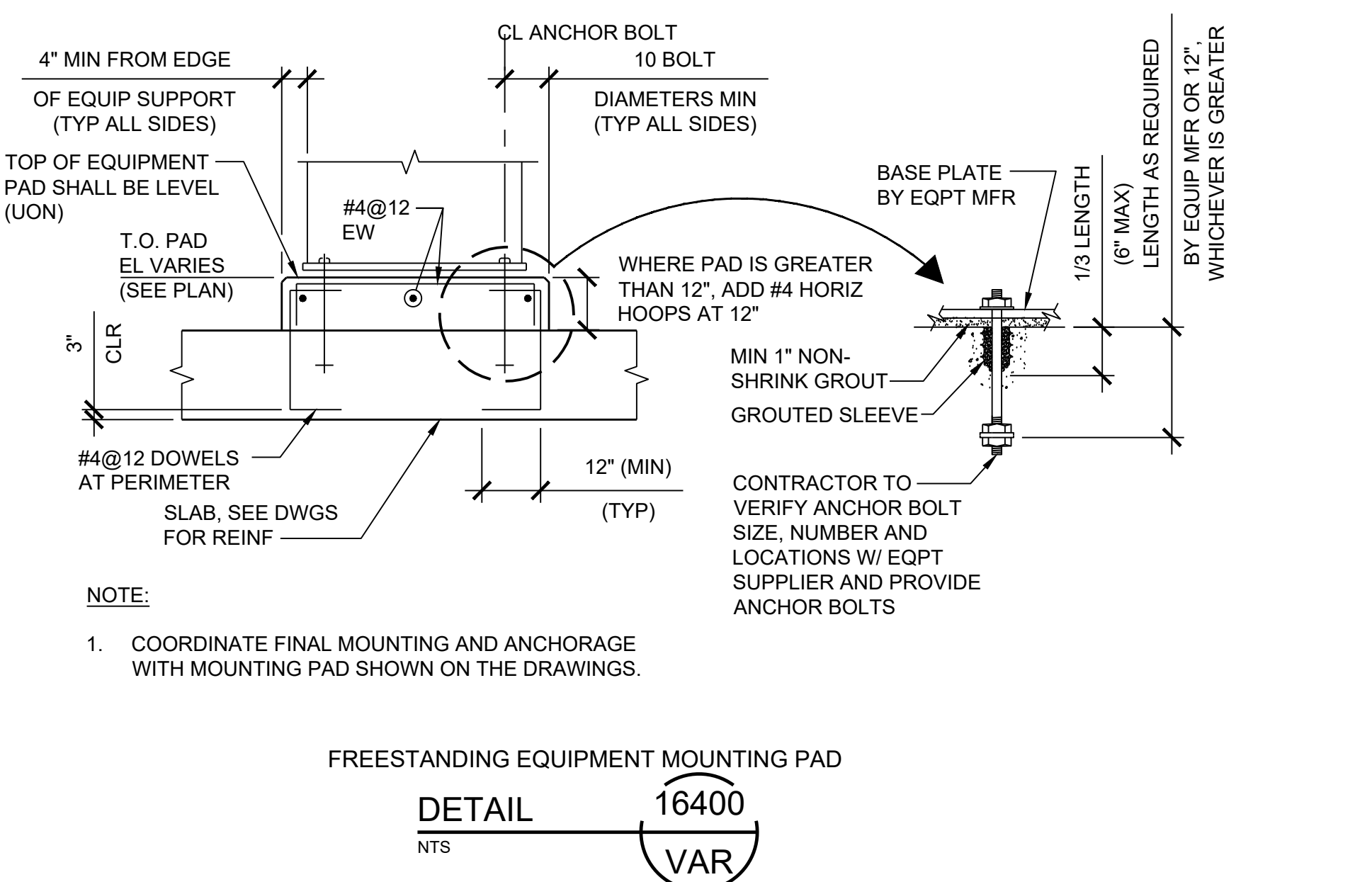


**A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
STANDARD DETAILS I**

DATE: 1/4/2021
SCALE: NTS
DESIGN: HT
DRAWN: BV
CHECK: PJG

**SHEET
GE-3
OF**

NO.	REVISION DESCRIPTION	DATE	APPR

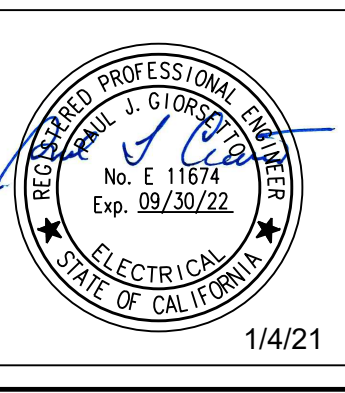


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 TJC ASSOCIATES, INC.

NO.	REVISION DESCRIPTION	DATE	APPR

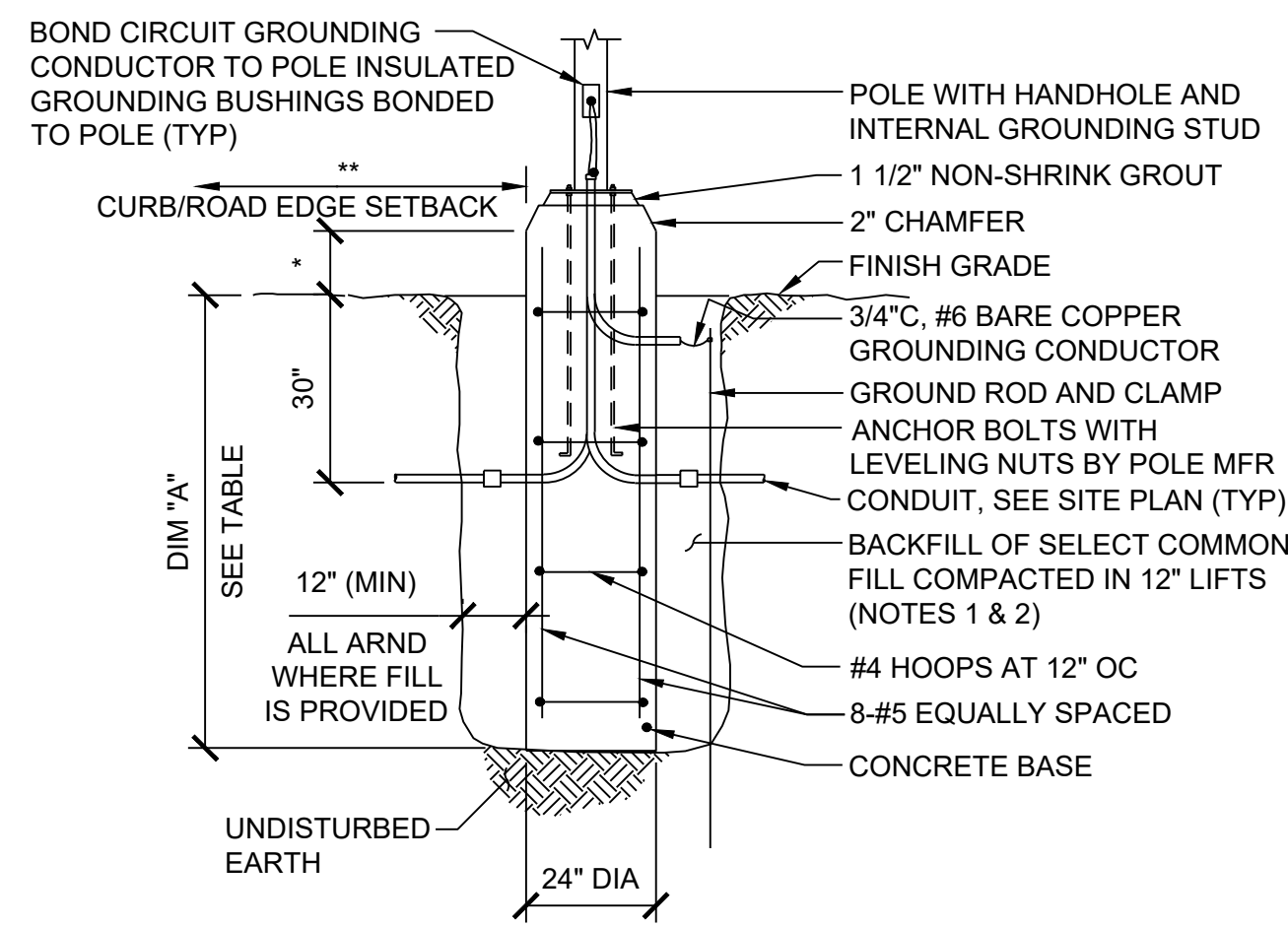
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A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION STANDARD DETAILS II

DATE:	1/4/2021	SHEET GE-4 OF
SCALE:	NTS	
DESIGN:	HT	
DRAWN:	BV	
CHECK:	PJG	



POLE HEIGHT	DIMENSION "A"
10'-0"	4'-6"
20'-0"	4'-6"
30'-0"	6'-6"
40'-0"	6'-6"

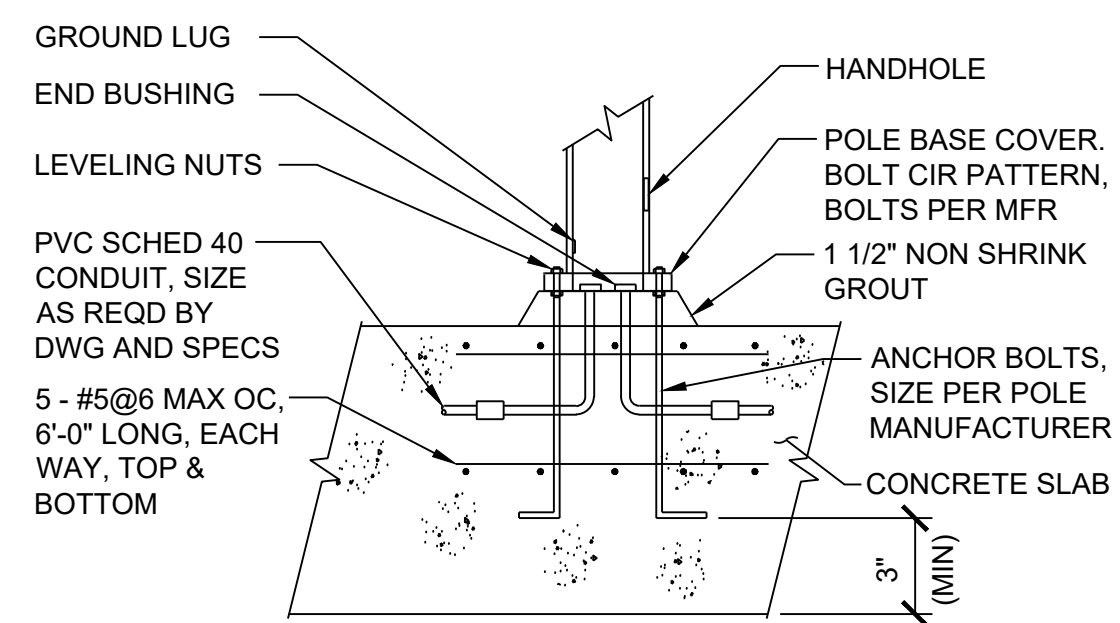
* = 2" MIN AT WALKWAYS; ** = 48" MIN AT WALKWAYS; 18" MIN AT ROADWAYS & 24" MIN AT ROADWAYS PARKING AREAS

NOTES:

- REFER TO SPECIFICATIONS FOR MATERIALS.
- SOILS SHALL BE COMPACTED PER PROJECT SPECIFICATIONS.

LIGHT POLE BASE INSTALLATION

DETAIL 16500
NTS VAR

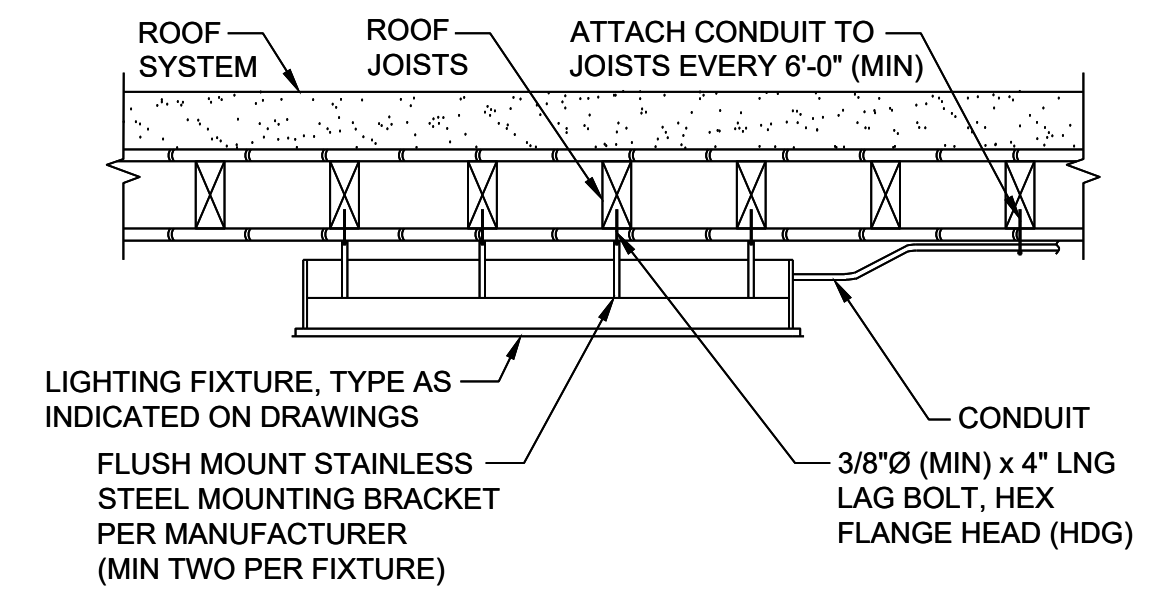


NOTE:

- REBAR SHOWN IS INTENDED FOR POLE MOUNTING REQUIREMENTS AND SHALL BE IN ADDITION TO THE REINFORCING STEEL SHOWN ON STRUCTURAL DRAWINGS.

CONCRETE SLAB MOUNTED LIGHT POLE

DETAIL 16502
NTS VAR

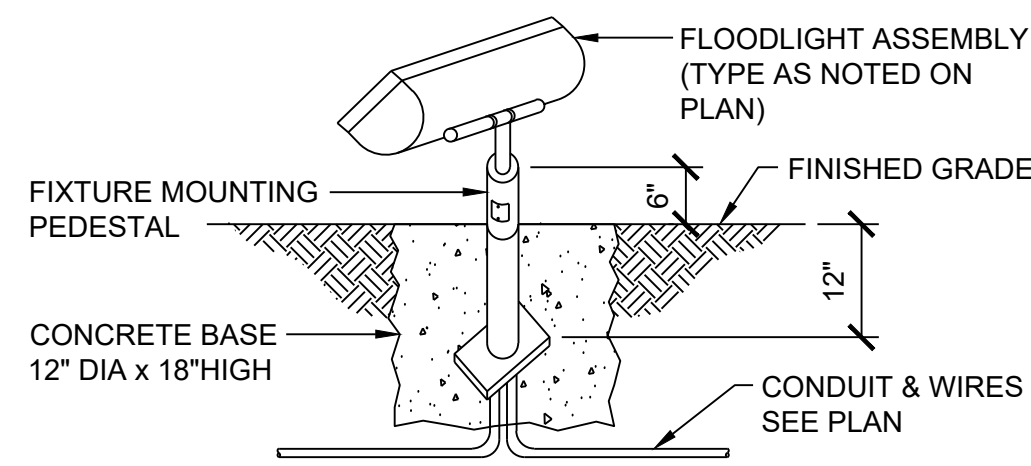


NOTES:

- LAG BOLTS MUST FULLY ENGAGE A WOOD JOIST.
- LAG BOLT SHALL BE PROVIDED WITH A LEAD HOLE AND SHALL HAVE A DIAMETER EQUAL TO 40% TO 70% OF THE SHANK DIAMETER.
- LAG BOLTS SHALL BE INSERTED BY TURNING WITH A WRENCH, NOT BY DRIVING WITH A HAMMER.

FIXTURE MOUNTING

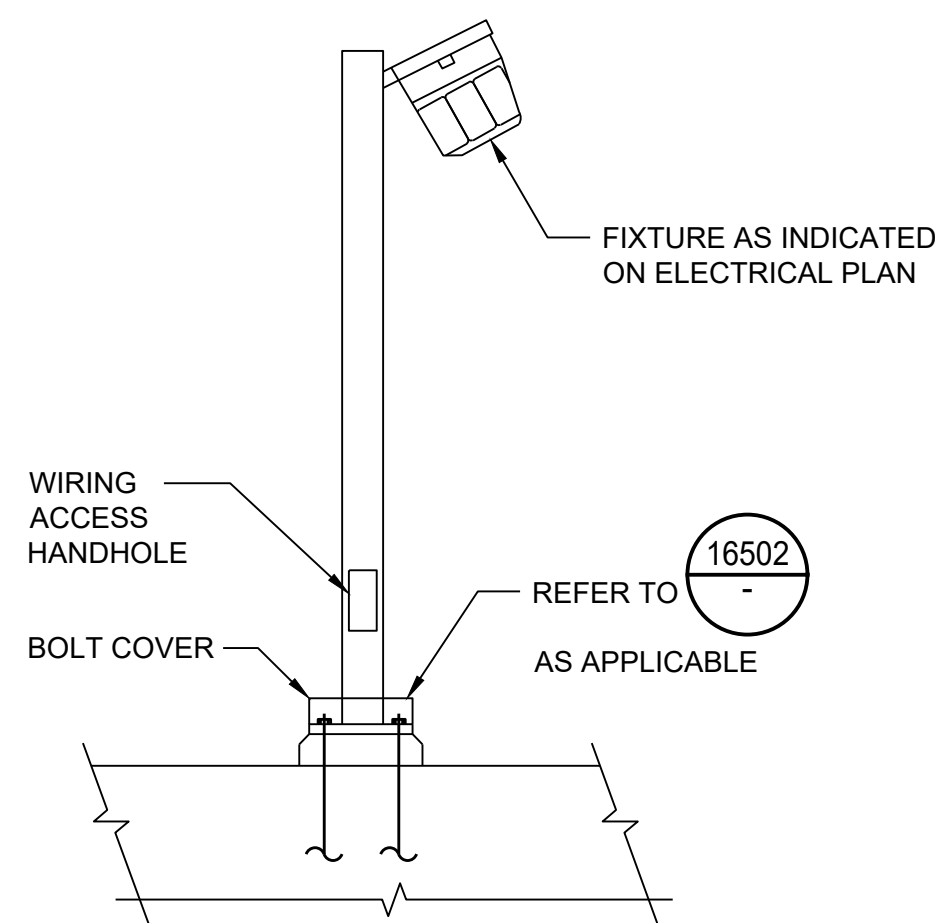
DETAIL 16524
NTS VAR



NOTE: MOUNT FIXTURE 6'-0" FROM FACE OF SIGN IN UP-AIMED POSITION.

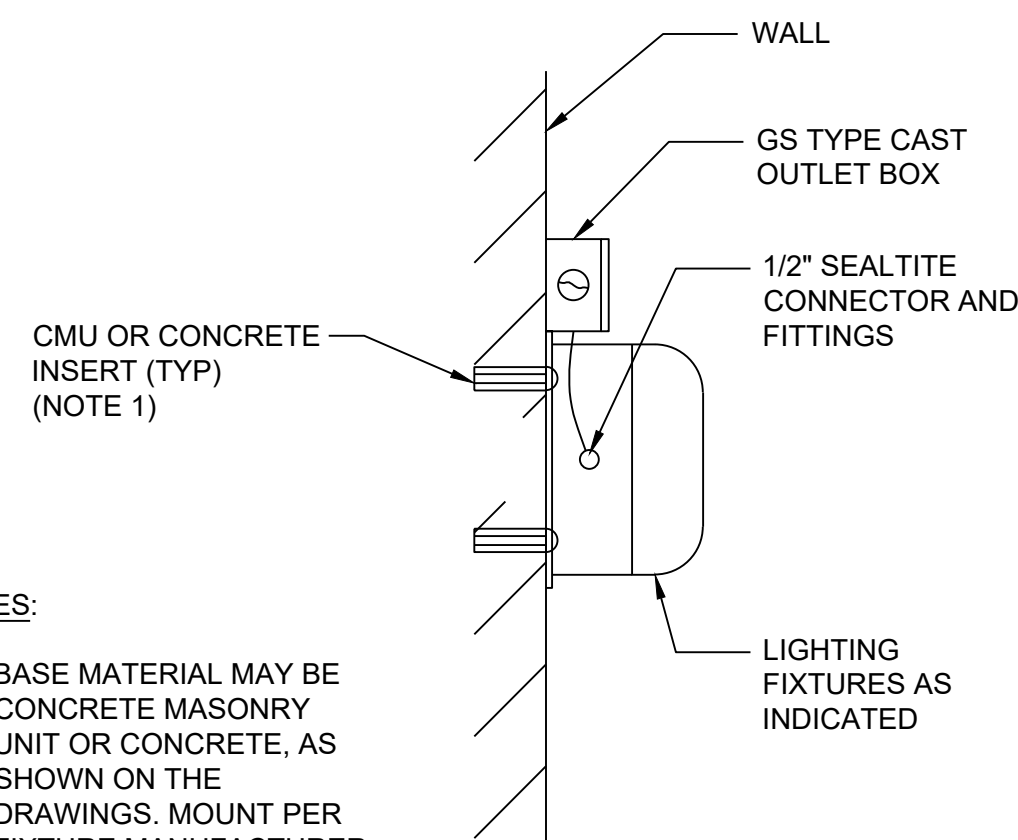
SIGN LIGHTING FIXTURE MOUNTING

DETAIL 16530
NTS VAR



AREA LIGHTING FIXTURE

DETAIL 16531
NTS VAR



NOTES:

- BASE MATERIAL MAY BE CONCRETE MASONRY UNIT OR CONCRETE, AS SHOWN ON THE DRAWINGS. MOUNT PER FIXTURE MANUFACTURER INSTRUCTIONS.

WALL LIGHTING FIXTURE MOUNTING DETAIL

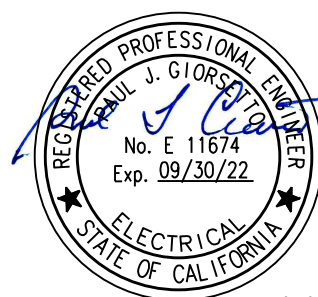
DETAIL 16540
NTS VAR

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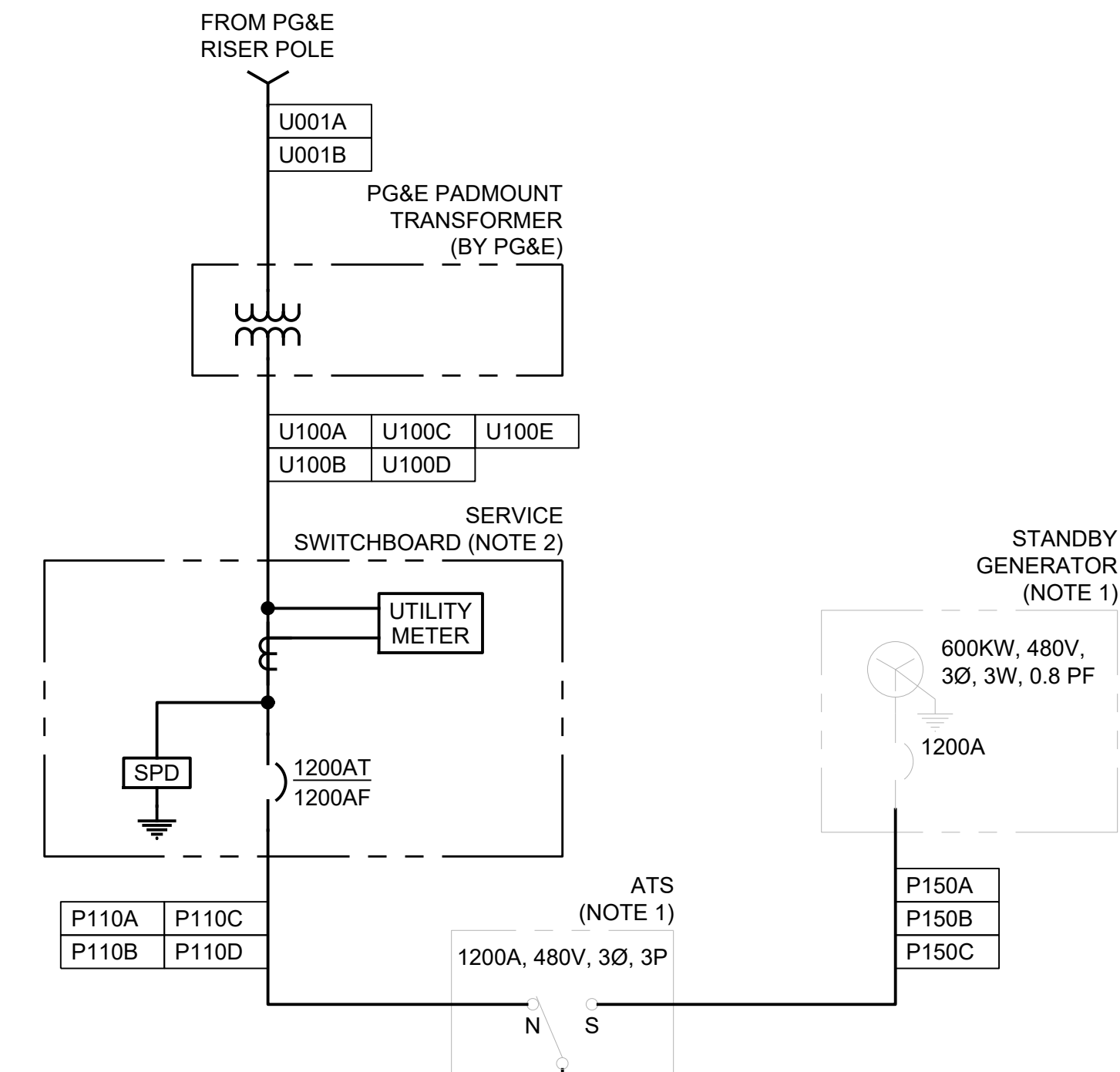


**A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
STANDARD DETAILS III**

DATE: 1/4/2021
SCALE: NTS
DESIGN: HT
DRAWN: BV
CHECK: -

**SHEET
GE-5
OF**

NO.	REVISION DESCRIPTION	DATE	APPR



HANDHOLE - SEE NOTE			
HANDHOLE IDENTIFIER	IN. INTERNAL DIMENSION (INCHES: W X L X D)	FUNCTION	GENERAL LOCATION: REFERENCE PLAN SHEET
HH-S100	36 x 36 x 48	SIGNAL - LOW VOLTAGE	B/C PUMP STATION: E-03
HH-P100	36 x 36 x 48	POWER - LOW VOLTAGE	B/C PUMP STATION: E-03
HH-S101	36 x 36 x 48	SIGNAL - LOW VOLTAGE	GENERATOR PAD: E-03
HH-P101	36 x 36 x 48	POWER - LOW VOLTAGE	GENERATOR PAD: E-03

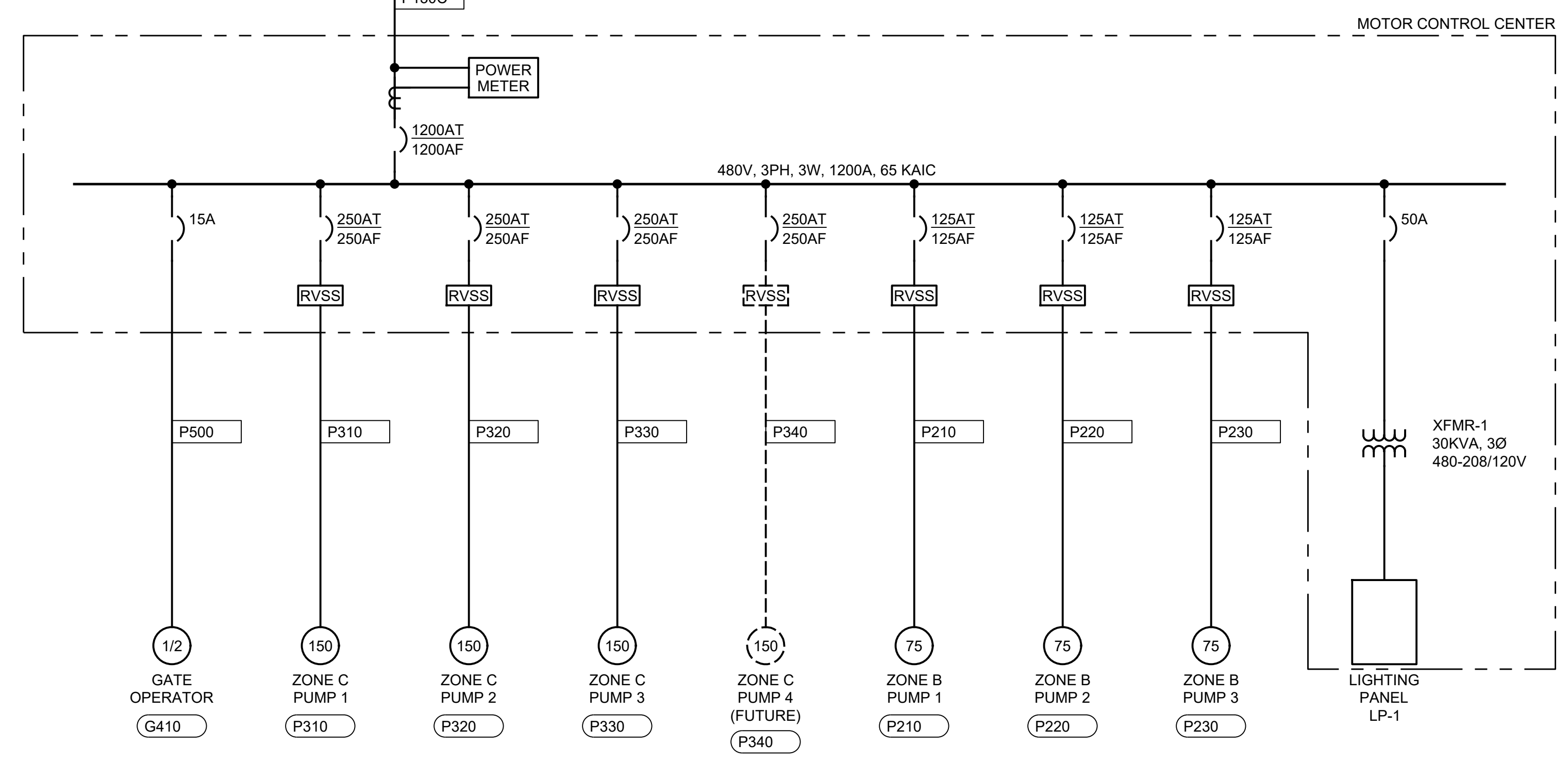
NOTE: DEPTH SHOWN IS NORMAL. PROVIDE RING EXTENDERS AS SPECIFIED TO BRING TOP OF HANDHOLE TO FINISHED GRADE.

PANELBOARD SCHEDULE													
CKT NO	LOAD TYPE	USAGE	VA			BRKR A/PLS	CKT NO	LOAD TYPE	USAGE	VA			BRKR A/PLS
			PHASE A	PHASE B	PHASE C					PHASE A	PHASE B	PHASE C	
1	CL	SWBD SPACE HEATER	2000	-	-	20/1	2	NCL	PS INTERIOR LIGHTING	400	-	-	20/1
3	NCL	FE/FIT-100	-	100	-	20/1	4	NCL	PS INTERIOR LIGHTING	-	400	-	20/1
5	CL	RES A1 RECEPTACLE	-	-	180	20/1	6	ML	CONTROL PANEL LCP	-	-	2800	20/1
7	CL	IRRIGATION CONTROL RECPT	200	-	-	20/1	8	ML	FE/FIT-200	100	-	-	20/1
9	CL	EMERGENCY LIGHTING	-	50	-	20/1	10	CL	PS INTERIOR RECEPTACLES	-	720	-	20/1
11	CL	PS INTERIOR RECEPTACLES	-	-	720	20/1	12	CL	RES A2 RECEPTACLE	-	-	180	20/1
13	CL	GENERATOR SPACE HEATER	1500	-	-	20/1	14	CL	PS EXTERIOR LIGHTING	325	-	-	20/1
15	CL	ARCHITECTURAL LIGHTING	-	960	-	20/1	16	CL	GEN BATTERY CHARGER	-	750	-	20/1
17	CL	GEN CONTROL PANEL	-	-	500	20/1	18	CL	RES A1 LEVEL SENSOR	-	-	200	20/1
19	CL	RES A2 LEVEL SENSOR	200	-	-	20/1	20	ML	FAN CONTROL PANEL	1000	-	-	25/3
21	CL	ARCHITECTURAL LIGHTING	-	1200	-	20/1	22	ML	FAN CONTROL PANEL	-	1000	-	25/3
23	CL	FE/FIT-300	-	-	100	20/1	24	ML	FAN CONTROL PANEL	-	-	1000	25/3
25	CL	SPACE	-	-	-	20/1	26	CL	SPACE	-	-	-	20/1
27	CL	SPACE	-	-	-	20/1	28	CL	SPACE	-	-	-	20/1
29	CL	SPACE	-	-	-	20/1	30	CL	SPACE	-	-	-	20/1
31	CL	SPACE	-	-	-	20/1	32	CL	SPACE	-	-	-	20/1
PHASE VA SUBTOTALS			3900	2310	1500		PHASE VA SUBTOTALS			1825	2870	4180	
PHASE VA TOTALS							PHASE VA TOTALS			5725	5180	5680	
PANELBOARD VA TOTAL							PANELBOARD VA TOTAL			16585			

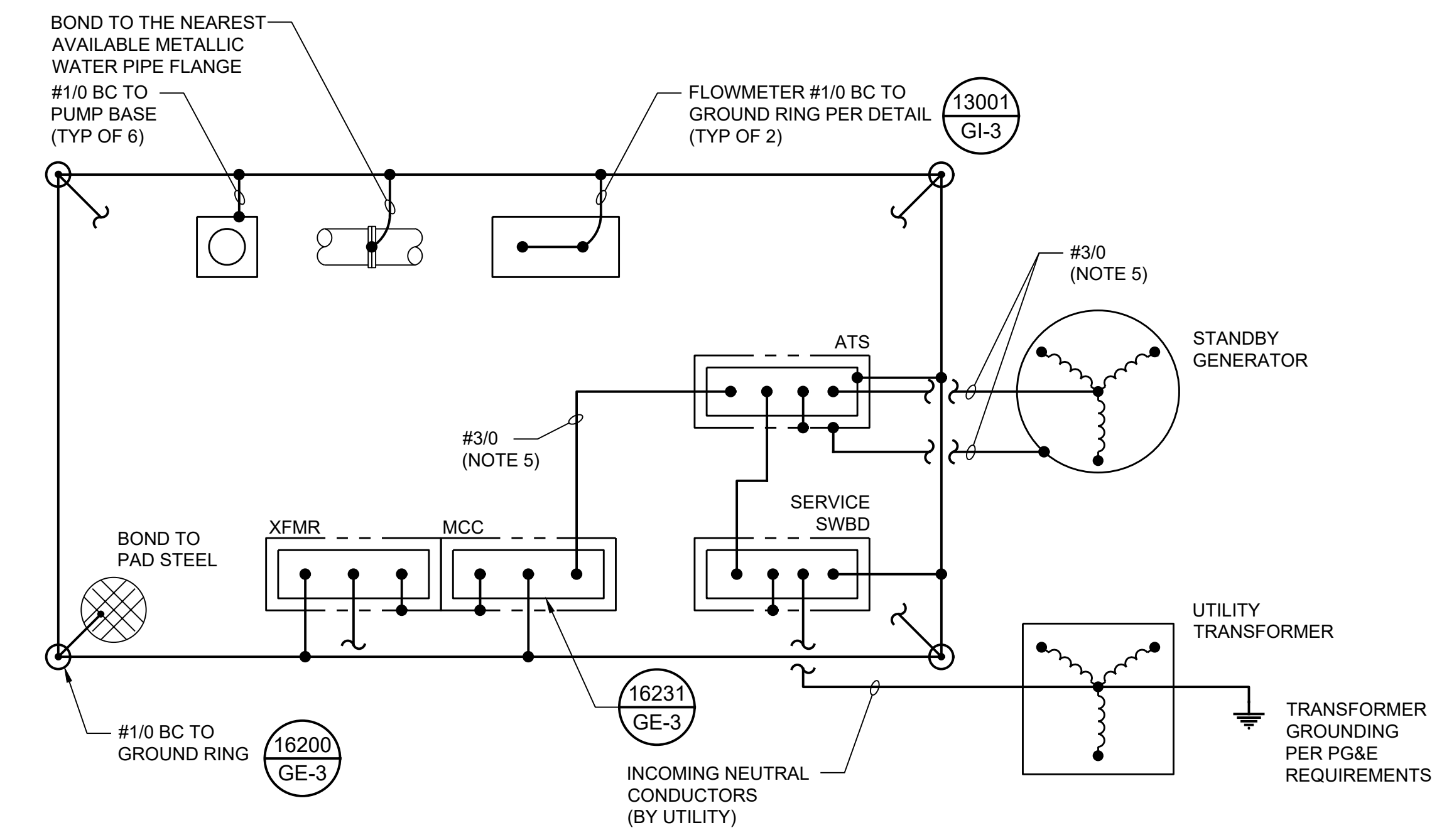
CL 125% TOTAL CONTINUOUS LOADS (VA): 12231
 NCL TOTAL NON-CONTINUOUS LOADS (VA): 900
 ML MOTOR LOADS (VA): 5900
 25% LARGEST MOTOR LOAD (VA): 50 200
 CALCULATED TOTAL LOAD (VA): 19081
 CALCULATED TOTAL LOAD (AMPS): 5.3

PANEL NO.: LP-1
 LOCATION: Booster B/C Pump Station
 VOLTAGE: 208/120V, 3Ø, 4W
 BUS RATING: 100A
 MAIN BREAKER: 100A
 SHORT CIRCUIT RATING: 22 KAIC

ABBREVIATIONS
 CL - CONTINUOUS LOAD
 ML - MOTOR LOAD
 NCL - NON-CONTINUOUS LOAD



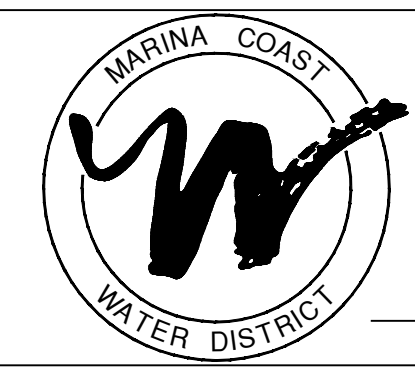
SINGLE LINE DIAGRAM
SCALE: NTS



GROUND GRID INTERCONNECT DIAGRAM
SCALE: NTS

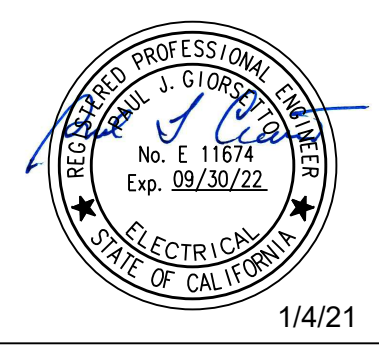
- NOTES:
- EXISTING EQUIPMENT: CONTRACTOR SHALL INSTALL STANDBY GENERATOR AND ATS RELOCATED FROM EXISTING ZONE B/C PUMP STATION.
 - PROVIDE 480V, 3PH, 3W, 65 KAIC SERVICE SWITCHBOARD. PROVIDE UL LISTED FOR SERVICE ENTRANCE PURPOSES.
 - EQUIPMENT GROUNDING CONDUCTOR INCLUDED WITH MCC FEEDER.
 - DIAGRAM INDICATES NEC GROUNDING ELECTRODE SYSTEM CONNECTIONS ONLY. PROVIDE EQUIPMENT GROUNDS AND OTHER GROUND CONNECTIONS AS SPECIFIED.
 - GENERATOR GROUNDING CONDUCTORS INCLUDED WITH GENERATOR CONDUCTORS.

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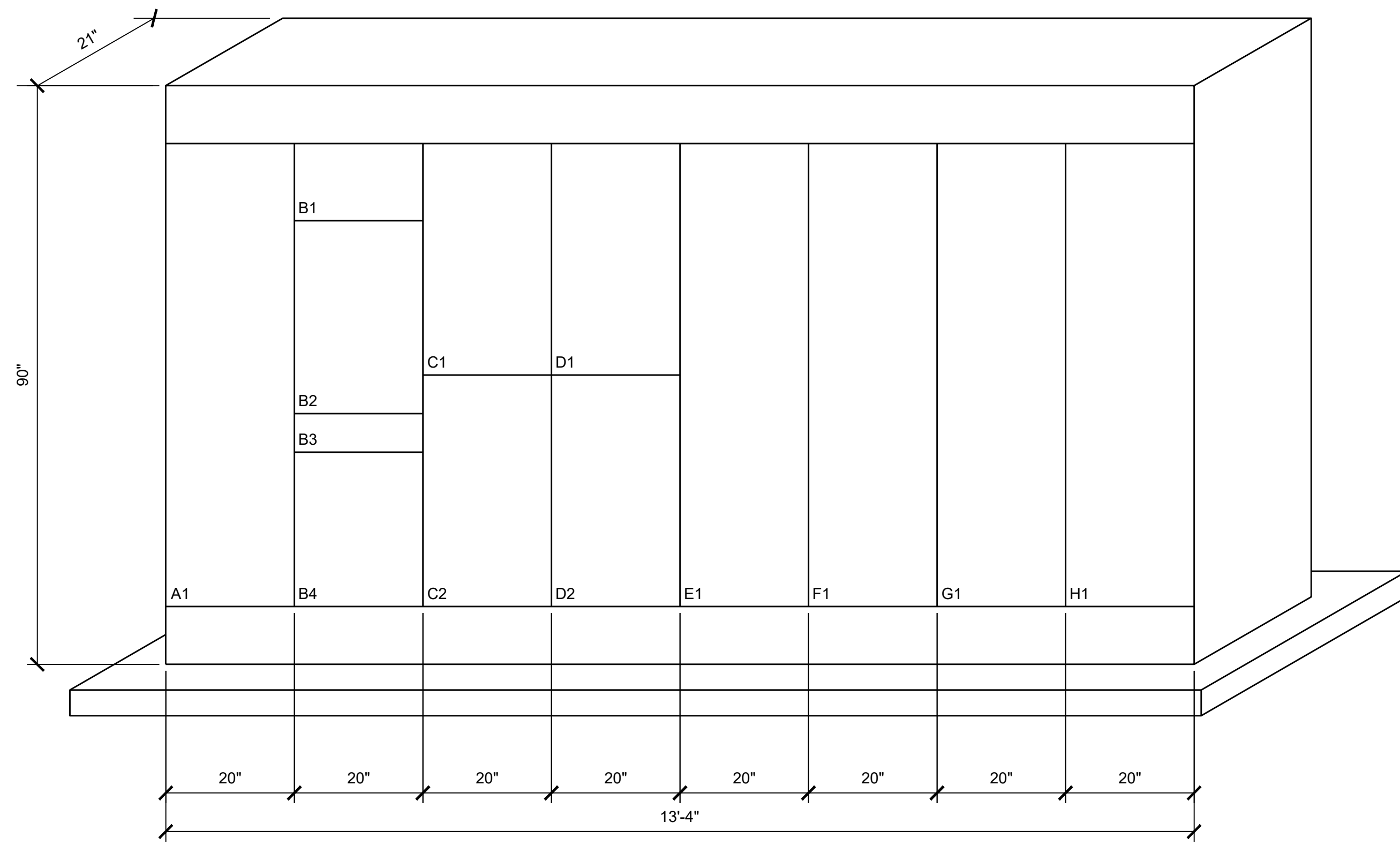


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
SINGLE LINE DIAGRAM

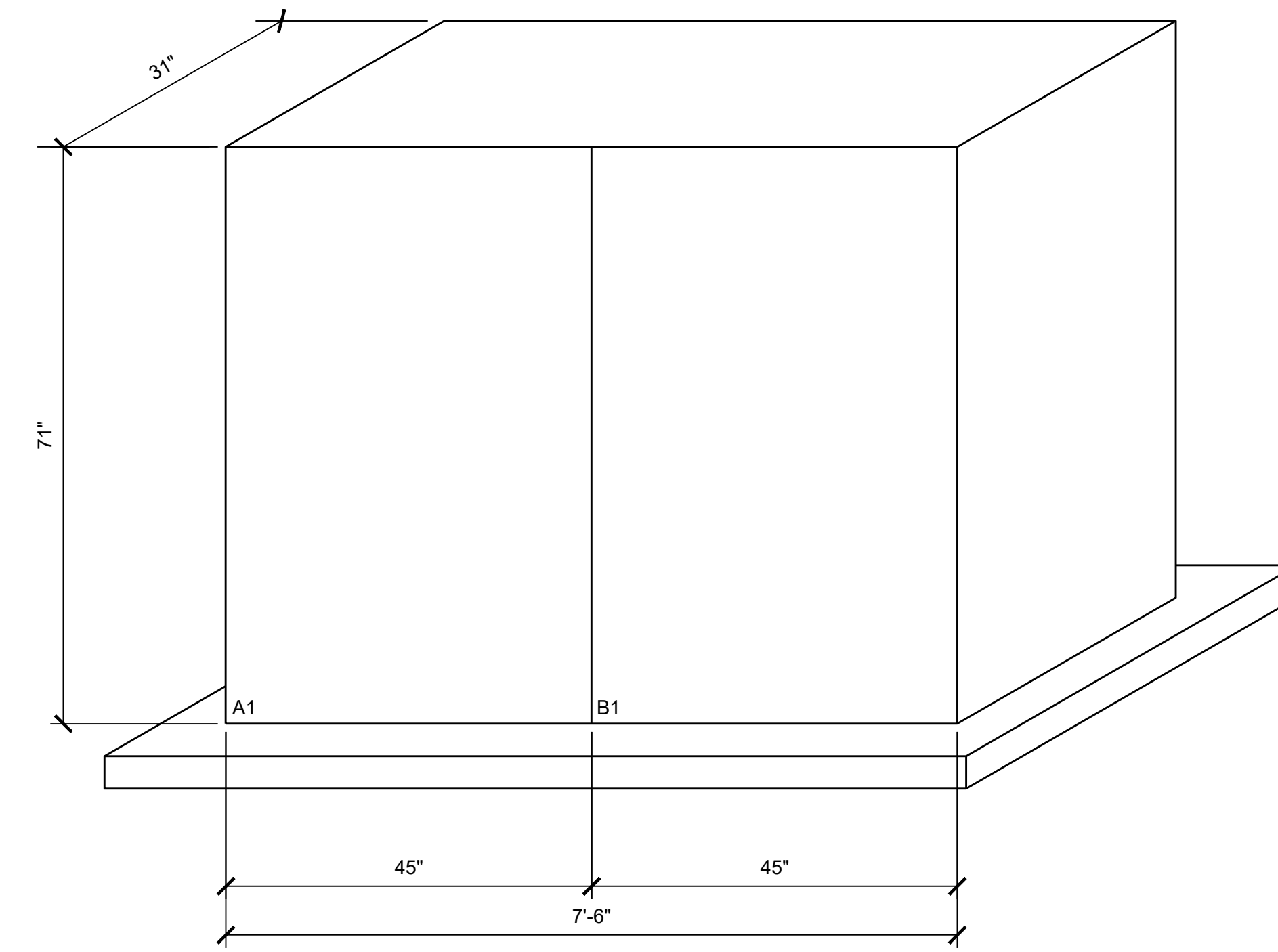
DATE: 1/4/2021
 SCALE: AS SHOWN
 DESIGN: HT
 DRAWN: BV
 CHECK: PJG

SHEET
E-1
 OF

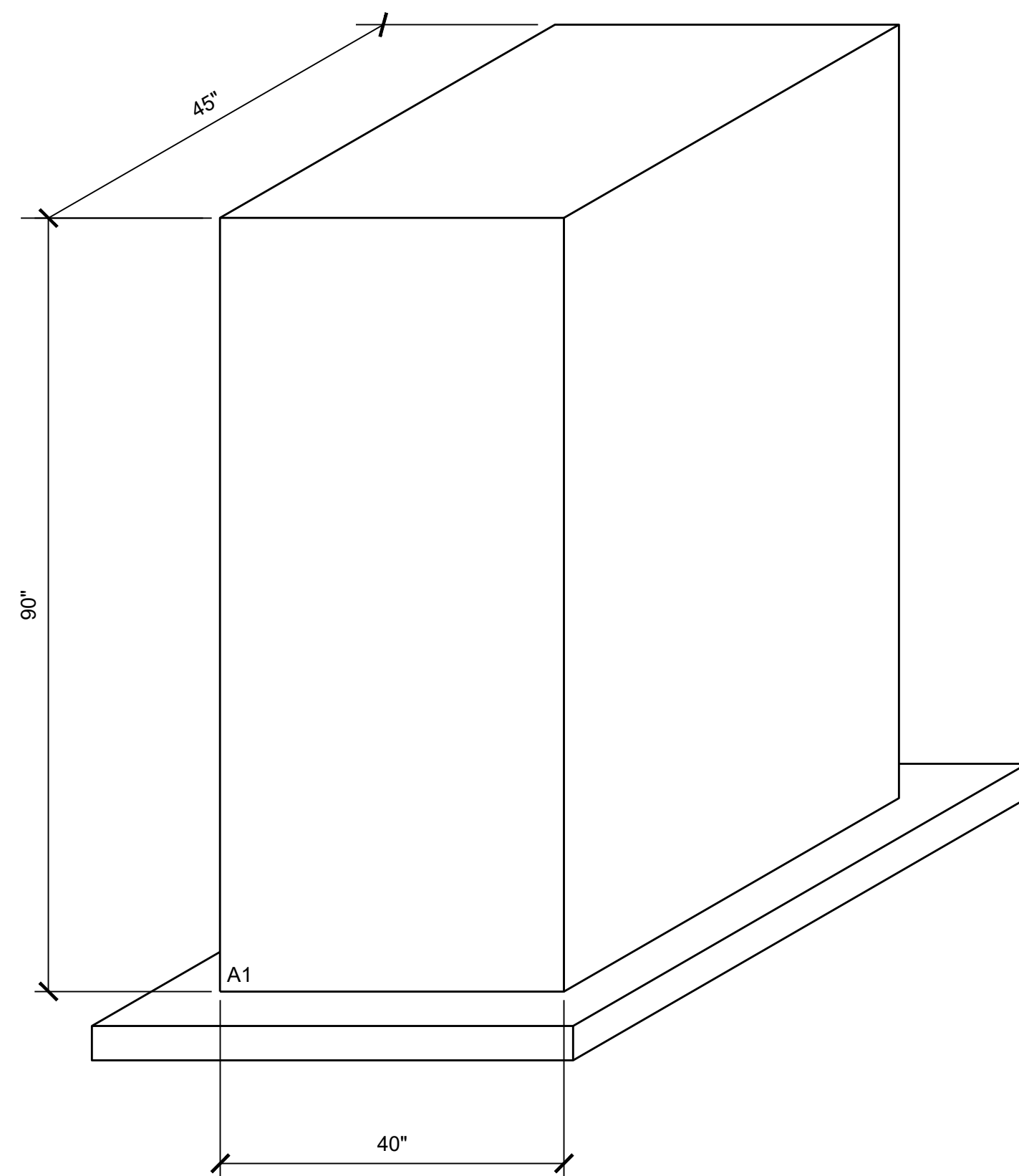
NO.	REVISION DESCRIPTION	DATE	APPR



MOTOR CONTROL CENTER ELEVATION
SCALE: 3/4"=1'-0"



SERVICE SWITCHBOARD ELEVATION
SCALE: 3/4"=1'-0"



AUTOMATIC TRANSFER SWITCH ELEVATION
SCALE: 3/4"=1'-0" (NOTE 1)

NAMEPLATE SCHEDULE : MCC			
NO.	LINE 1 - EQUIPMENT ID	LINE 2 - EQUIPMENT DESCRIPTIONS	CHAR. SIZE
A1		MAIN CIRCUIT BREAKER	1/4"
B1		METERING	1/4"
B2		30KVA TRANSFORMER	1/4"
B3		SLIDE GATE OPERATOR	1/4"
B4		SPACE	1/4"
C1		LIGHTING PANEL	1/4"
C2		ZONE B PUMP 3 RVSS (FUTURE)	1/4"
D1		ZONE B PUMP 1 RVSS	1/4"
D2		ZONE B PUMP 2 RVSS	1/4"
E1		ZONE C PUMP 1 RVSS	1/4"
F1		ZONE C PUMP 2 RVSS	1/4"
G1		ZONE C PUMP 3 RVSS	1/4"
H1		ZONE C PUMP 4 RVSS (FUTURE)	1/4"

NAMEPLATE SCHEDULE : SWBD			
NO.	LINE 1 - EQUIPMENT ID	LINE 2 - EQUIPMENT DESCRIPTIONS	CHAR. SIZE
A1		UTILITY METER PANEL	1/4"
B1		MAIN BREAKER	1/4"

NAMEPLATE SCHEDULE : ATS			
NO.	LINE 1 - EQUIPMENT ID	LINE 2 - EQUIPMENT DESCRIPTIONS	CHAR. SIZE
A1		AUTOMATIC TRANSFER SWITCH	1/4"

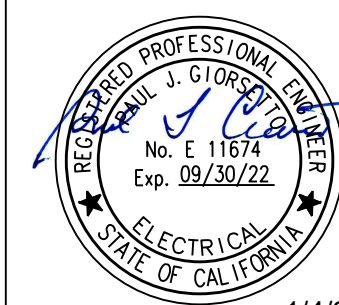
- NOTES:
1. EXISTING EQUIPMENT RELOCATED UNDER THIS CONTRACT.

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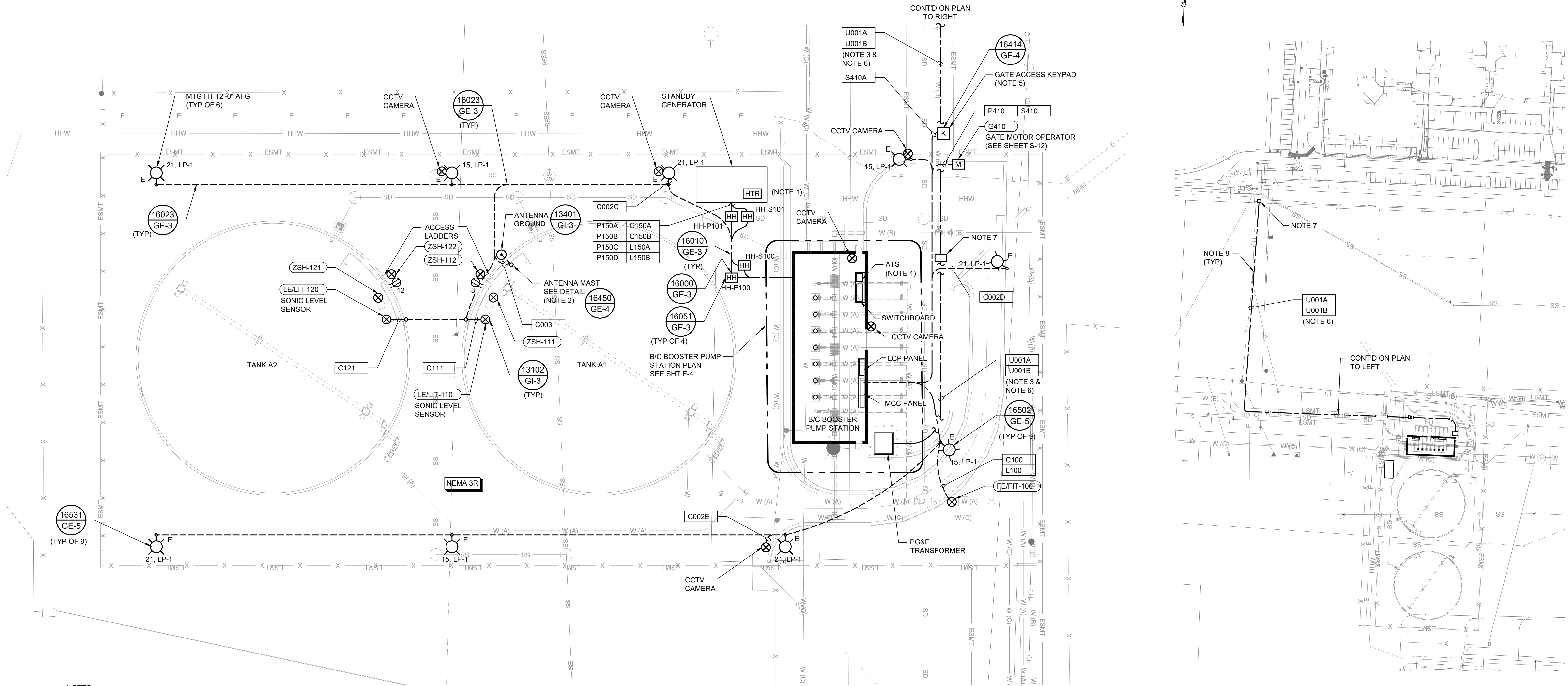


**A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
EQUIPMENT ELEVATIONS AND SCHEDULES**

DATE: 1/4/2021
SCALE: AS SHOWN
DESIGN: HT
DRAWN: BV
CHECK: PJG

SHEET
E-2
OF

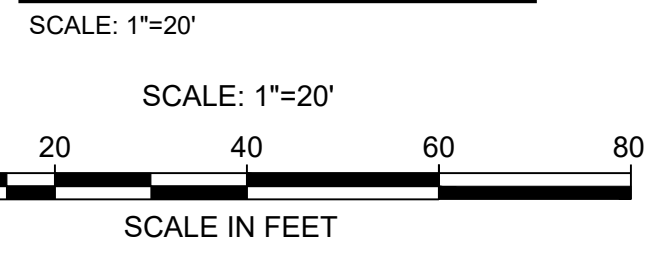
NO.	REVISION DESCRIPTION	DATE	APPR



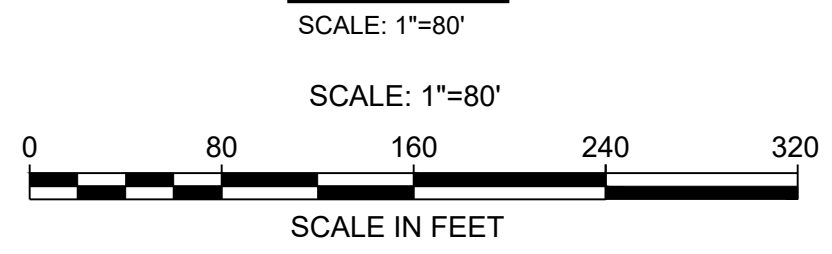
NOTES:

1. EXISTING EQUIPMENT RELOCATED UNDER THIS CONTRACT.
2. PROVIDE 10'-0", 2" DIAMETER GRS CONDUIT FOR MOUNTING ANTENNA ON TANK ROOF. COORDINATE WITH DISTRICT FOR FINAL ANTENNA INSTALLATION LOCATION, ORIENTATION AND MAST HEIGHT.
3. PROVIDE NEW PG&E PRIMARY CONDUITS AS SHOWN. INSTALL CONCRETE ENCASED CONDUITS AS REQUIRED BY PG&E STANDARDS AND PER DETAIL 16010/GE-3. HOWEVER, STEEL REINFORCEMENT IS NOT REQUIRED IN THE PG&E PRIMARY CONDUIT RUNS. ROUTE NEW CONDUITS IN ACCORDANCE WITH PG&E PRIMARY CONDUIT STANDARDS AND PER CALIFORNIA G.O. 128 FOR SEPARATION FROM OTHER UNDERGROUND UTILITIES.
4. PROVIDE 3 FT X 5 FT PG&E CONCRETE HANDHOLE FOR ROUTING PRIMARY CONDUITS. PROVIDE UNDERGROUND HANDHOLE IN CONFORMANCE WITH PG&E STANDARDS.
5. GATE OPERATOR AND KEYPAD PROVIDED AS A PACKAGE UNIT. COORDINATE FINAL INSTALLATION REQUIREMENTS WITH GATE SYSTEM SUPPLIER.
6. PROVIDE NEW PG&E PRIMARY CIRCUIT CONDUITS AS SHOWN ROUTED IN EXISTING UTILITY CORRIDOR. ROUTE AND INSTALL NEW CONDUITS IN ACCORDANCE WITH PG&E SERVICE CONDUIT REQUIREMENTS AND CALIFORNIA G.O. 128 FOR SEPARATION OF PRIMARY CONDUITS FROM OTHER EXISTING UTILITIES. ALL PRIMARY CONDUCTORS TO BE PROVIDED BY PG&E.
7. PROVIDE NEW 4 FT X 6 FT VAULT AT BASE OF EXISTING PG&E POLE 90563 FOR NEW SECTIONALIZING SWITCH TO BE PROVIDED BY PG&E. FURNISH AND INSTALL NEW VAULT IN CONFORMANCE WITH APPLICABLE PG&E STANDARDS AND PER PG&E SERVICE DOCUMENTATION FOR THIS PROJECT. EXTEND PRIMARY CONDUITS FROM NEW VAULT TO POLE AND PROVIDE 10'-FT MINIMUM CONDUIT RISERS UP POLE. POLE RISERS SHALL BE LOCATED AS REQUIRED BY PG&E AND INSTALLED IN ACCORDANCE WITH PG&E POLE RISER STANDARDS.
8. COORDINATE INSTALLATION AND INSPECTION OF PG&E SERVICE WORK WITH PG&E.

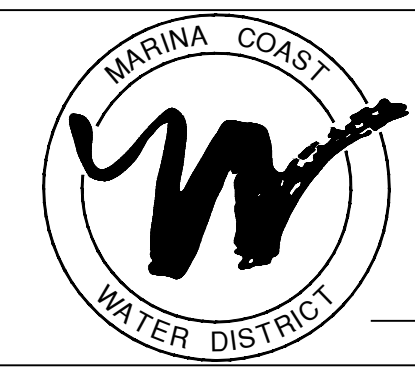
RESERVOIRS PLAN



PLAN



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 TJC ASSOCIATES, INC.



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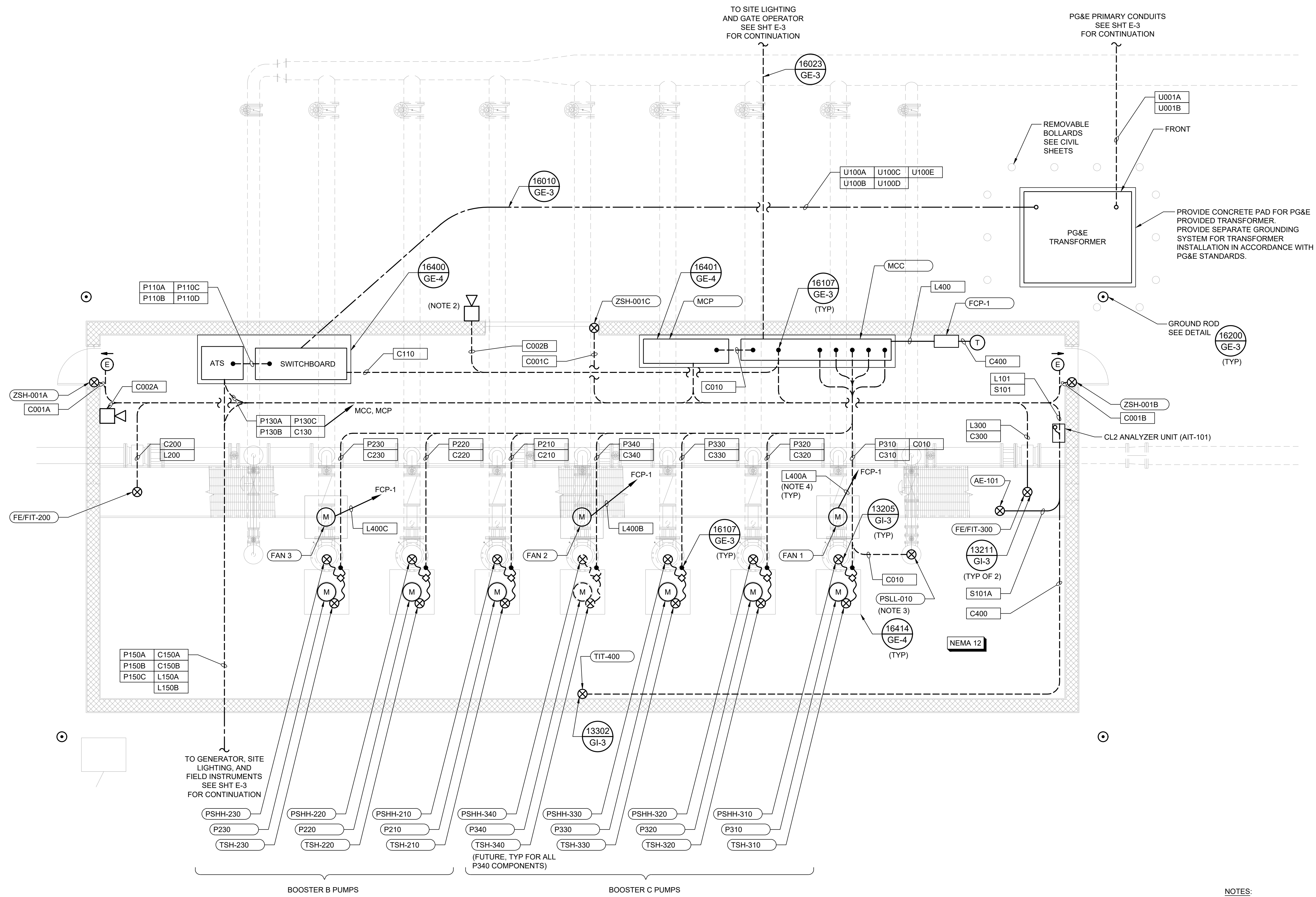


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
A1/A2 RESERVOIRS PLAN DRAWING

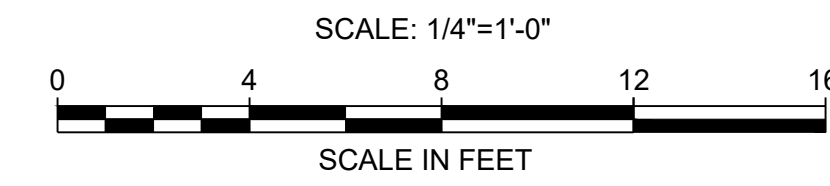
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 DESIGN: HT
 DRAWN: BV
 CHECK: PJG

SHEET
E-3
 OF

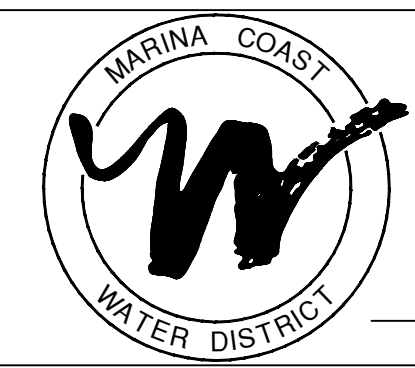
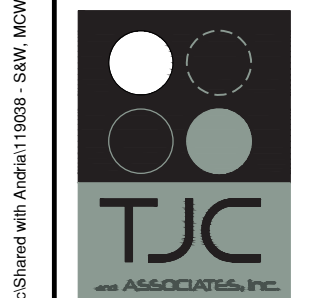
NO.	REVISION DESCRIPTION	DATE	APPR



B/C BOOSTER PUMP STATION PLAN
SCALE: 1/4"=1'-0"

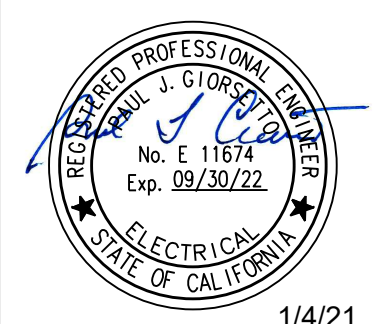


- NOTES:**
- EXISTING EQUIPMENT RELOCATED UNDER THIS CONTRACT.
 - CCTV CAMERAS ARE POWER OVER INTERNET. TYPICAL. SEE ALSO SHEET E-3.
 - MOUNT PSSL-010 ON VERTICAL. BYPASS/PRESSURE RELIEF RISER.
 - ROUTE CIRCUIT THROUGH FAN DISCONNECT SWITCH ON ROOF.



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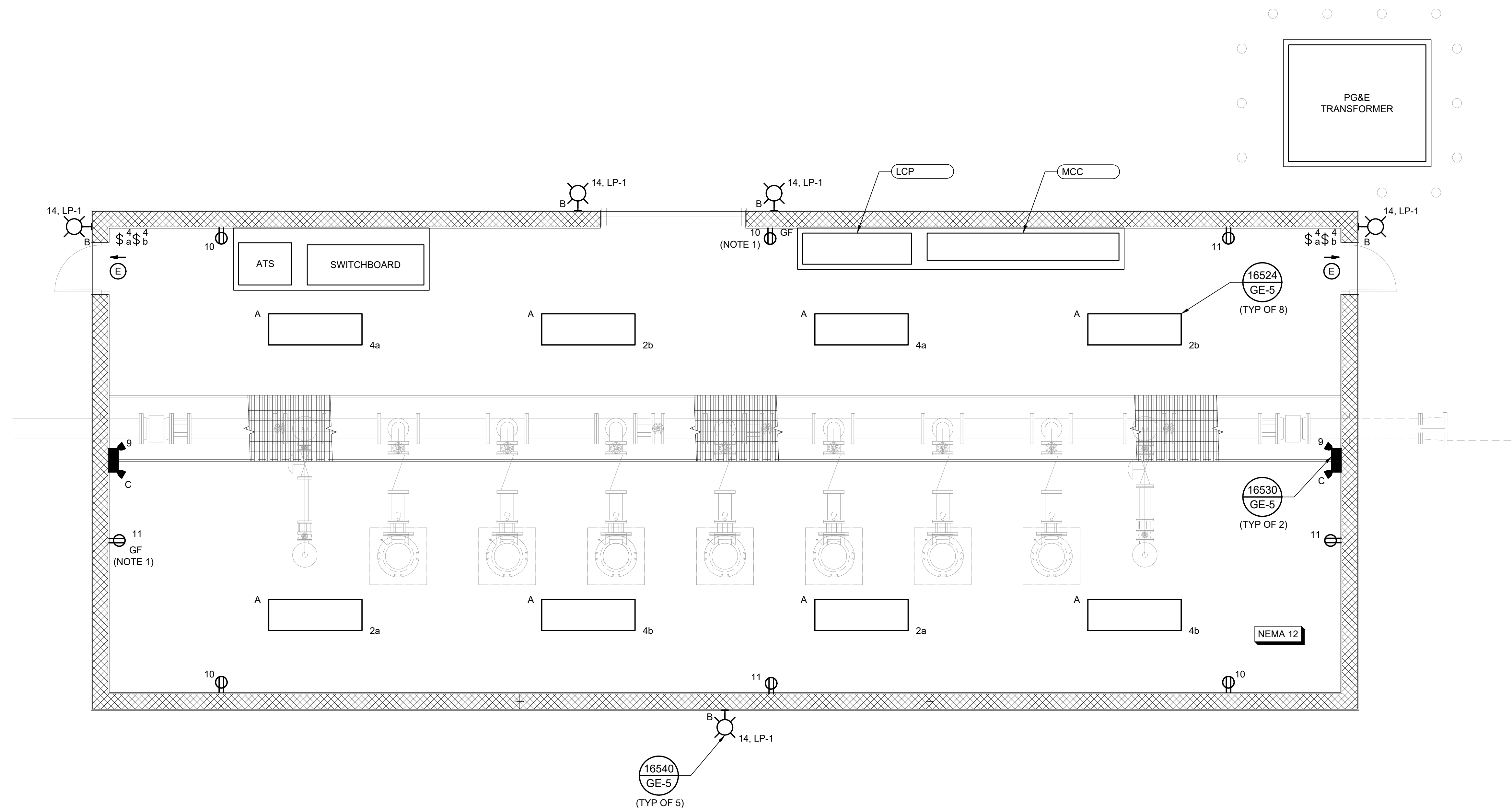


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
B/C BOOSTER PUMP STATION
POWER AND SIGNAL PLAN

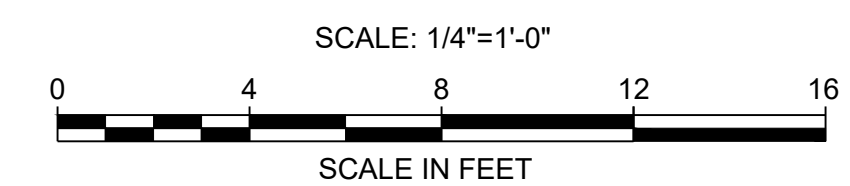
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DESIGN: HT
DRAWN: BV
CHECK: PJG

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E-4
OF

NO.	REVISION DESCRIPTION	DATE	APPR

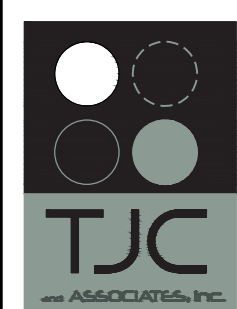


B/C BOOSTER PUMP STATION PLAN
SCALE: 1/4"=1'-0"

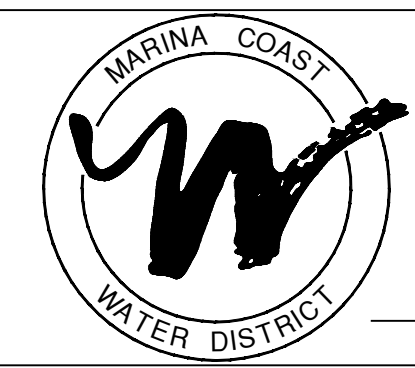


- NOTES:**
- ALL RECEPTACLES ON INDICATED CIRCUIT SHALL BE PROTECTED FROM GROUND FAULT FROM THIS DEVICE.

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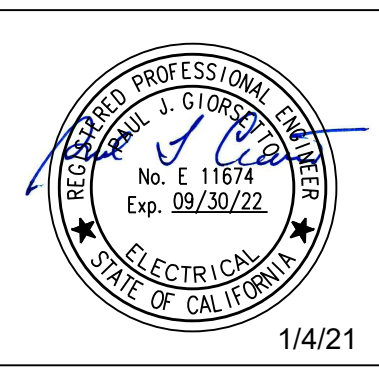


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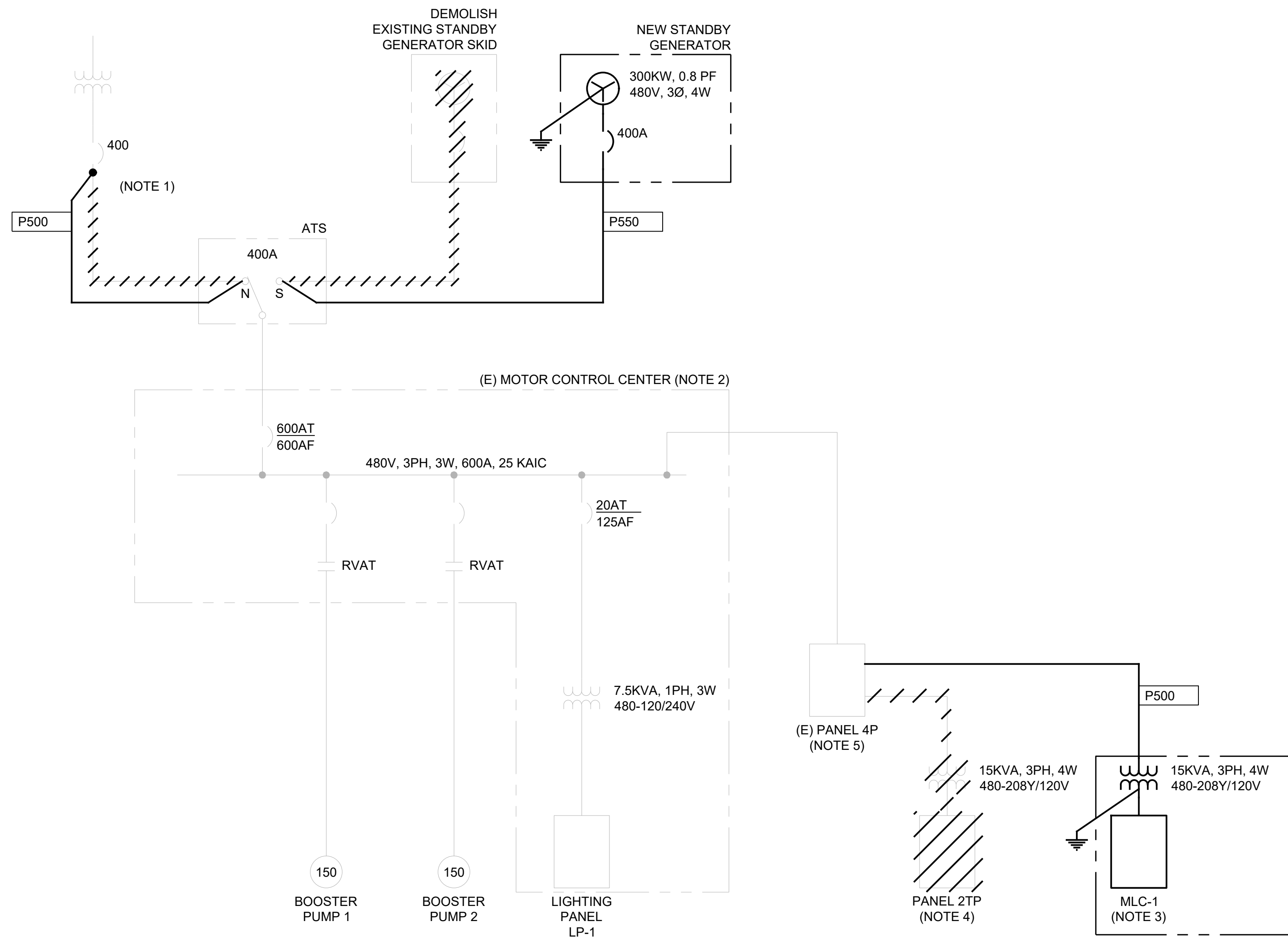
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A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
B/C BOOSTER PUMP STATION
LIGHTING PLAN

DATE:	1/4/2021
SCALE:	AS SHOWN
DESIGN:	HT
DRAWN:	BV
CHECK:	PJG

SHEET
E-5
OF



SINGLE LINE DIAGRAM
SCALE: NTS

PANELBOARD SCHEDULE												
CKT NO	LOAD TYPE	USAGE	VA			BRKR A/PLS	CKT NO	LOAD TYPE	USAGE	VA		
			PHASE A	PHASE B	PHASE C					PHASE A	PHASE B	PHASE C
1		Main Breaker	0	-	0	40/2	2			-	-	15/1
3			-	0	-		4			-	-	15/1
5	CL	McCrometer	100	-	-	15/1	6	NCL	Outlets	-	-	15/1
7			-	-	-	15/1	8			-	-	15/1
9	CL	SCADA - RTU #7	-	-	-	15/1	10	NCL	Lights	-	-	15/1
11	NCL	Control	-	-	-	15/1	12	NCL	Water Jacket Heater	-	-	15/1
PHASE VA SUBTOTALS			100	0	0		PHASE VA SUBTOTALS			0	0	
							PHASE VA TOTALS			100	0	
							PANELBOARD VA TOTAL			100	0	

CL 125% TOTAL CONTINUOUS LOADS (VA): 125
 NCL TOTAL NON-CONTINUOUS LOADS (VA): 0
 ML MOTOR LOADS (VA): 0
 25% LARGEST MOTOR LOAD (VA): 200
 CALCULATED TOTAL LOAD (VA): 325
 CALCULATED TOTAL LOAD (AMPS): 1

PANEL NO.: LP-1 - Existing
 LOCATION: Booster PS F Pump Station
 VOLTAGE: 120/240 V, 1 Phase, 3 Wire
 BUS RATING: 100 A
 MAIN BREAKER: 40 A
 SHORT CIRCUIT RATING: 65 KAIC

ABBREVIATIONS
 CL - CONTINUOUS LOAD
 ML - MOTOR LOAD
 NCL - NON-CONTINUOUS LOAD

PANELBOARD SCHEDULE													
CKT NO	LOAD TYPE	USAGE	VA			BRKR A/PLS	CKT NO	LOAD TYPE	USAGE	VA			
			PHASE A	PHASE B	PHASE C					PHASE A	PHASE B	PHASE C	
1	CL	P-510, METERING PUMP 1	2000	-	-	20/1	2	NCL	P-520, METERING PUMP 2	176	-	-	20/1
3	NCL	P-530, METERING PUMP 3	-	100	-	20/1	4	NCL	SPARE	-	176	-	20/1
5	CL	CL BLDG QUAD RECEPTACLE	-	-	-	720	6	ML	CONTROL PANEL LCP	-	-	-	2800
7	CL	CL BLDG LIGHTING	300	-	-	20/1	8	ML	FE/FIT-500, WELLFIELD MAIN FLOW	100	-	-	20/1
9	CL	VENTILATION FAN	-	0	-	20/1	10	CL		-	0	-	20/1
11	CL		-	-	-	0	12	CL		-	-	0	20/1
PHASE VA SUBTOTALS			2300	100	720		PHASE VA SUBTOTALS			276	176	2800	
							PHASE VA TOTALS			2576	276	3520	
							PANELBOARD VA TOTAL					6372	

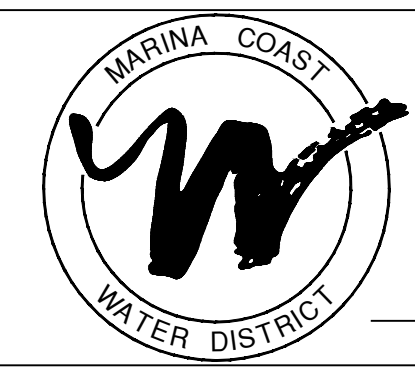
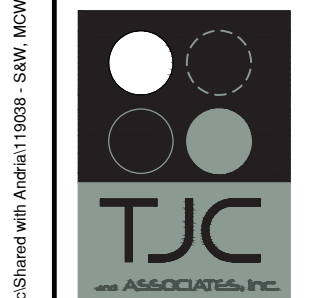
** PROVIDE GFI BREAKER

CL 125% TOTAL CONTINUOUS LOADS (VA): 3775
 NCL TOTAL NON-CONTINUOUS LOADS (VA): 452
 ML MOTOR LOADS (VA): 2900
 25% LARGEST MOTOR LOAD (VA): 50
 CALCULATED TOTAL LOAD (VA): 7177
 CALCULATED TOTAL LOAD (AMPS): 20

PANEL NO.: MLC-1
 LOCATION: Booster F PS, Chlorination Bldg
 VOLTAGE: 208/120V, 3Ø, 4W
 BUS RATING: 100A
 MAIN BREAKER: 25A
 SHORT CIRCUIT RATING: 22 KAIC

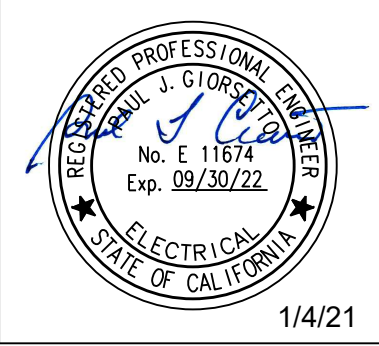
ABBREVIATIONS
 CL - CONTINUOUS LOAD
 ML - MOTOR LOAD
 NCL - NON-CONTINUOUS LOAD

- NOTES:
- DEMOLISH EXISTING MAIN FEED DISCONNECT SWITCH, CONDUIT, AND WIRE. PROVIDE NEW CONDUIT AND WIRE FROM EXISTING MAIN SERVICE BREAKER TO EXISTING AUTOMATIC TRANSFER SWITCH.
 - EXISTING SIEMENS MOTOR CONTROL CENTER. SALES ORDER NUMBER: 09-1454-56803-01.
 - PROVIDE NEW MINILOAD CENTER AT CHLORINATION BUILDING. PROVIDE MINILOAD CENTER UL LISTED FOR SERVICE ENTRANCE PURPOSES.
 - DEMOLISH EXISTING TRANSFORMER AND PANEL 2TP SERVING CHLORINATION BUILDING. REWIRE CHLORINATION BUILDING LOADS TO NEW MLC-1.
 - REUSE EXISTING FEEDER BREAKER TO TRANSFORMER AND PANEL 2TP FOR SERVING NEW PANEL MLC-1.



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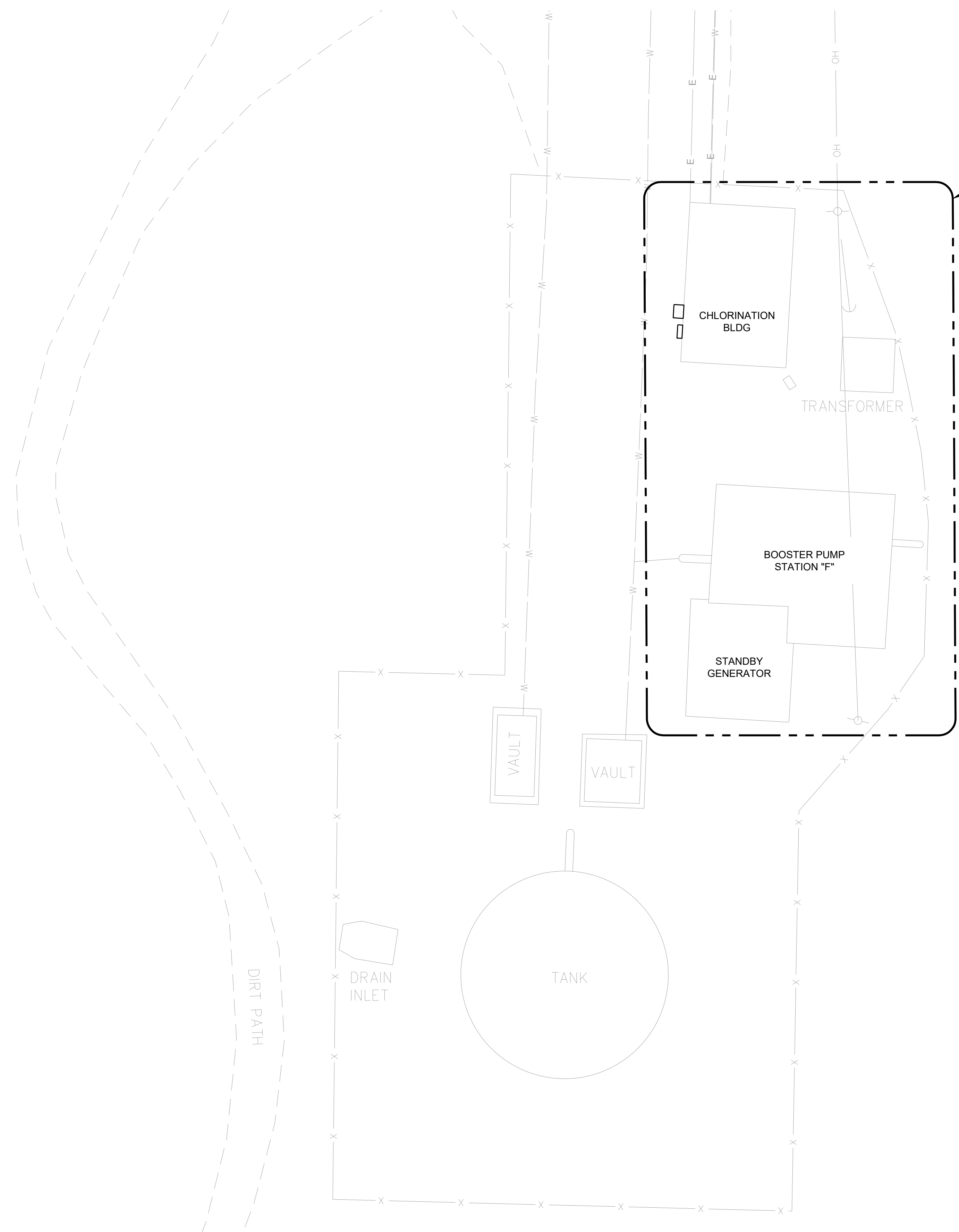
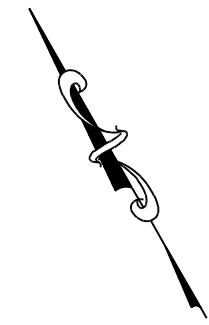
**A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
 BOOSTER STATION F INTERMEDIATE RESERVOIR
 SINGLE LINE DIAGRAM**

DATE: 1/4/2021
 SCALE: NTS
 DESIGN: PJG
 DRAWN: BV
 CHECK: PJG

SHEET
E-6
OF

NO.	REVISION DESCRIPTION	DATE	APPR

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 J. Giorgetti
 1/4/2021 10:00:00 AM



CHLORINATION BUILDING /
F-BOOSTER PUMP STATION PLAN
SEE SHT E-8



PHOTO 1
SCALE: NTS E-8

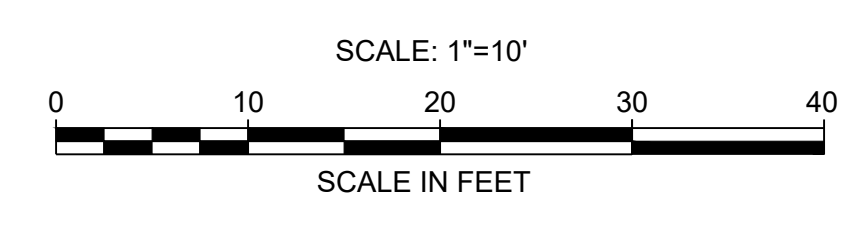
LOCATION FOR NEW PANEL LCP-7A
MOUNT WITH TOP OF PANEL AT
60-INCHES ABOVE FINISHED FLOOR
(MAX)



PHOTO 2
SCALE: NTS E-8



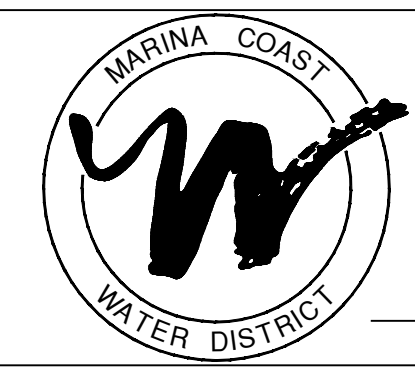
PHOTO 3
SCALE: NTS E-8



SITE PLAN
SCALE: 1"=10"

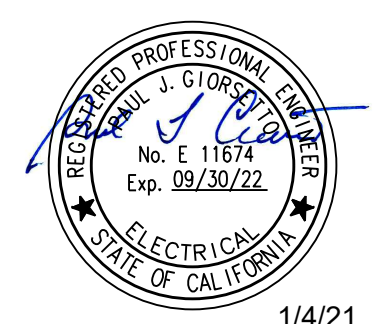


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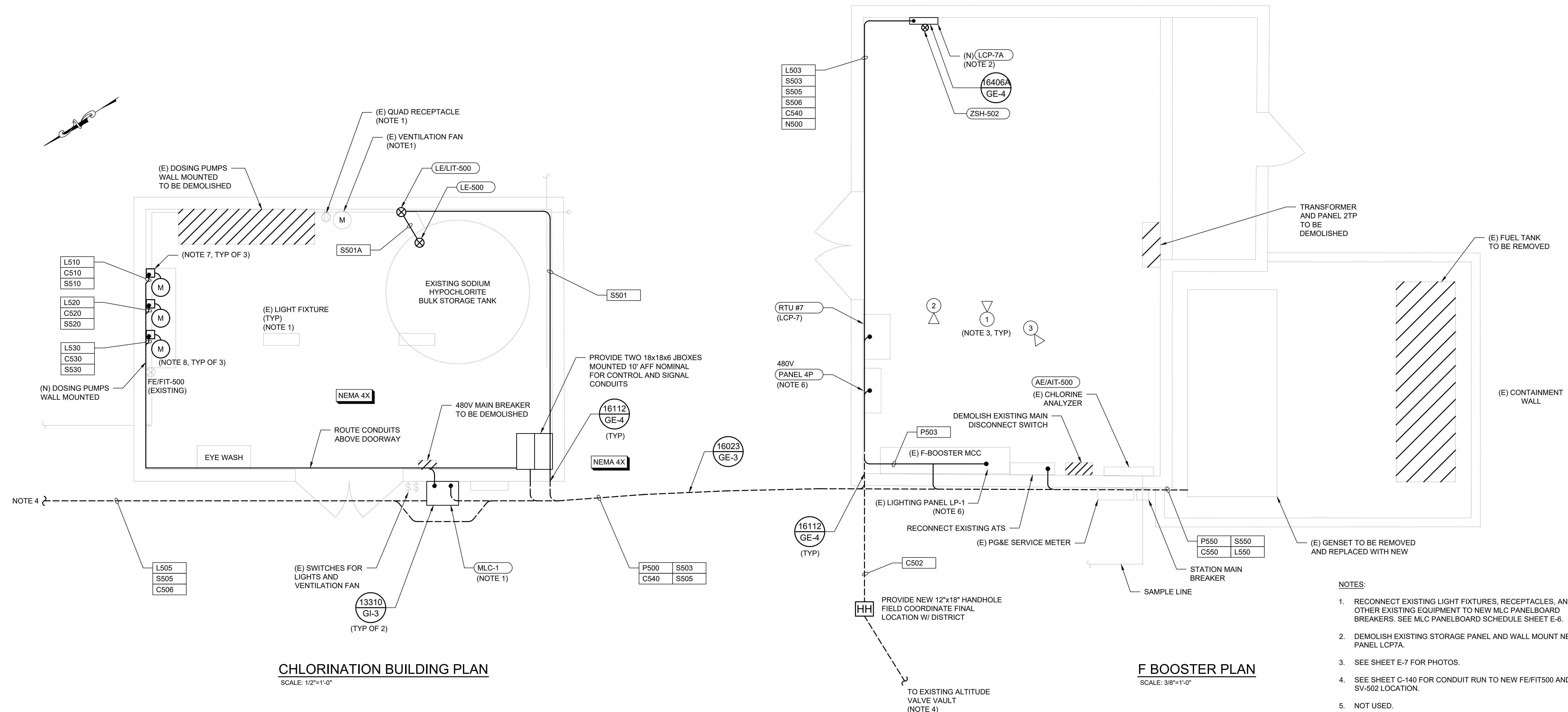


**A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
BOOSTER STATION F AND INTERMEDIATE RESERVOIR
ELECTRICAL SITE PLAN**

DATE:	1/4/2021
SCALE:	AS SHOWN
DESIGN:	PJG
DRAWN:	BV
CHECK:	PJG

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E-7
OF

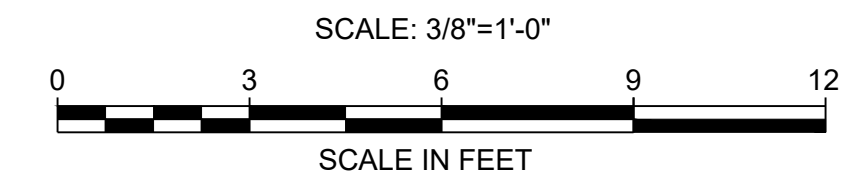
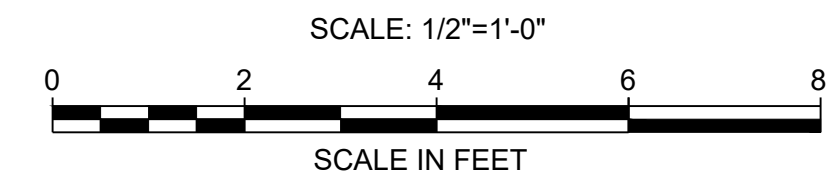
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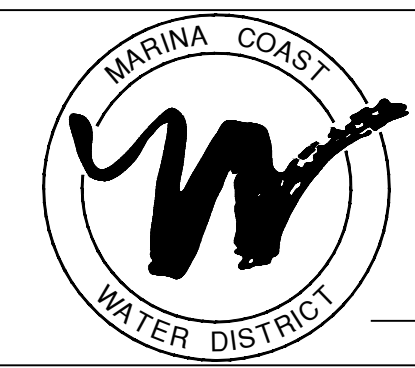
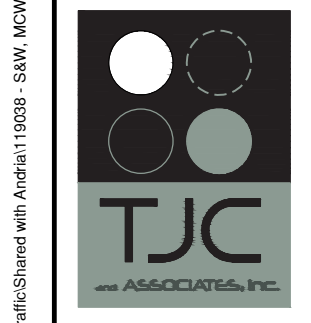
CHLORINATION BUILDING PLAN
SCALE: 1/2"=1'-0"

F BOOSTER PLAN
SCALE: 3/8"=1'-0"

- NOTES:**
1. RECONNECT EXISTING LIGHT FIXTURES, RECEPTACLES, AND OTHER EXISTING EQUIPMENT TO NEW MLC PANELBOARD BREAKERS. SEE MLC PANELBOARD SCHEDULE SHEET E-6.
 2. DEMOLISH EXISTING STORAGE PANEL AND WALL MOUNT NEW PANEL LCP7A.
 3. SEE SHEET E-7 FOR PHOTOS.
 4. SEE SHEET C-140 FOR CONDUIT RUN TO NEW FE/FIT500 AND SV-502 LOCATION.
 5. NOT USED.
 6. REUSE EXISTING SPARE BREAKER IN EXISTING LIGHTING PANEL LP-1. CONFIRM AVAILABILITY OF CIRCUIT PRIOR TO PERFORMING ANY WORK.
 7. PROVIDE 6 FT X 6 FT NEMA 4X JUNCTION BOX AT EACH PUMP WITH TERMINAL BLOCKS TO TERMINATE UNIVERSAL CONTROL CABLE FOR EXTERNAL CONTROL OF PUMPS. MOUNT JUNCTION BOX NOMINAL 60 FT ABOVE FINISHED FLOOR AND COORDINATE LOCATION WITH FINAL PUMP INSTALLATION. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL REQUIRED PIN REQUIREMENTS ARE MET FOR SUITABLE OPERATION OF PUMPS.
 8. PROVIDE GF RECEPTACLE FOR EACH PUMP NOMINAL 60 FT ABOVE FINISHED FLOOR. COORDINATE LOCATION WITH FINAL PUMP INSTALLATION.

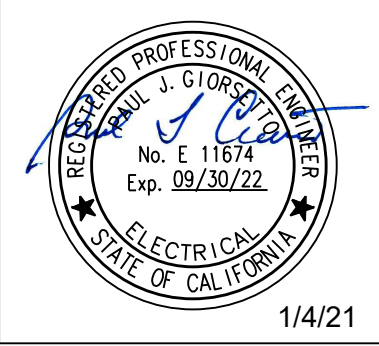


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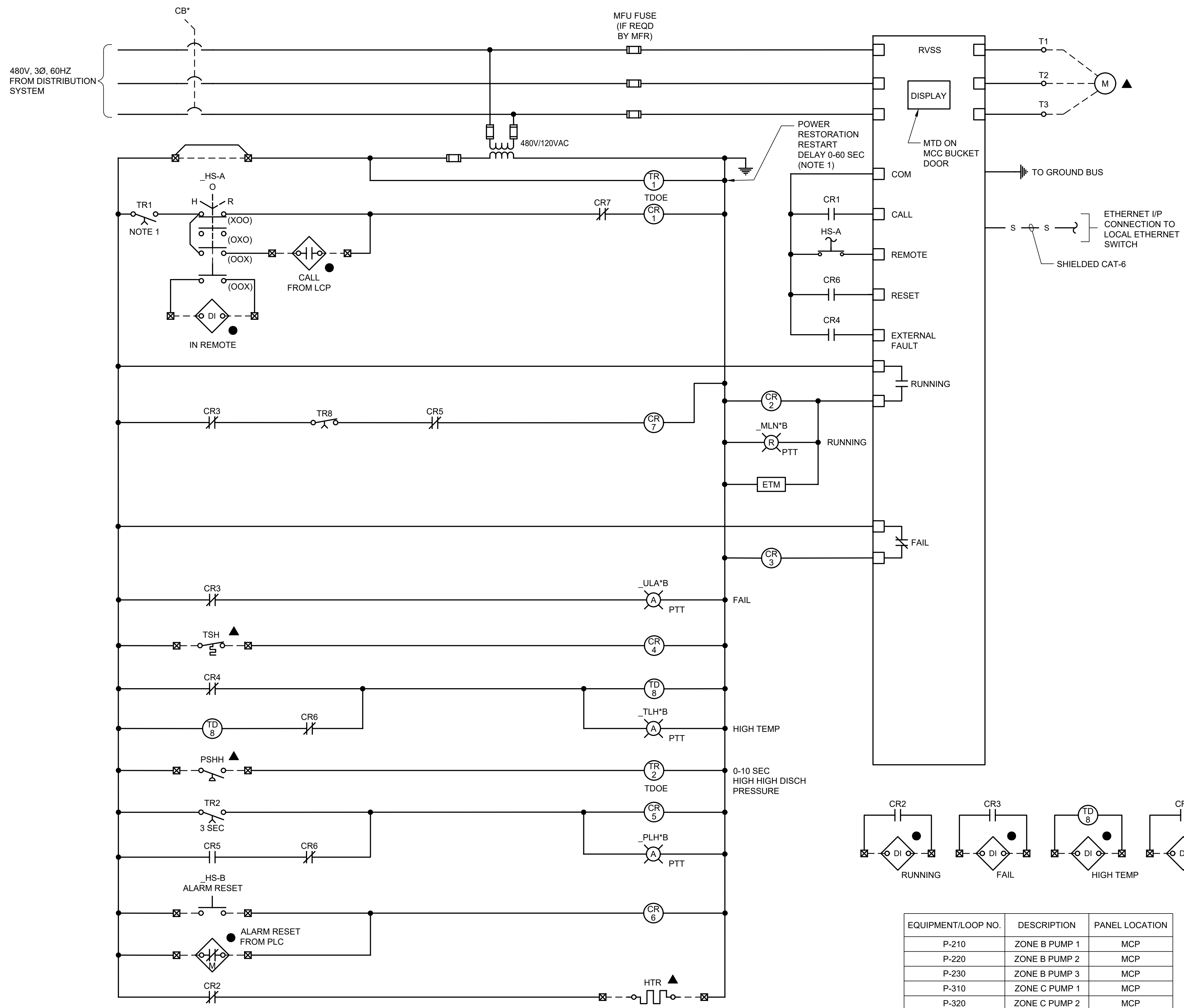


**A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
CHLORINATION AND F BOOSTER
ELECTRICAL POWER AND SIGNAL PLAN**

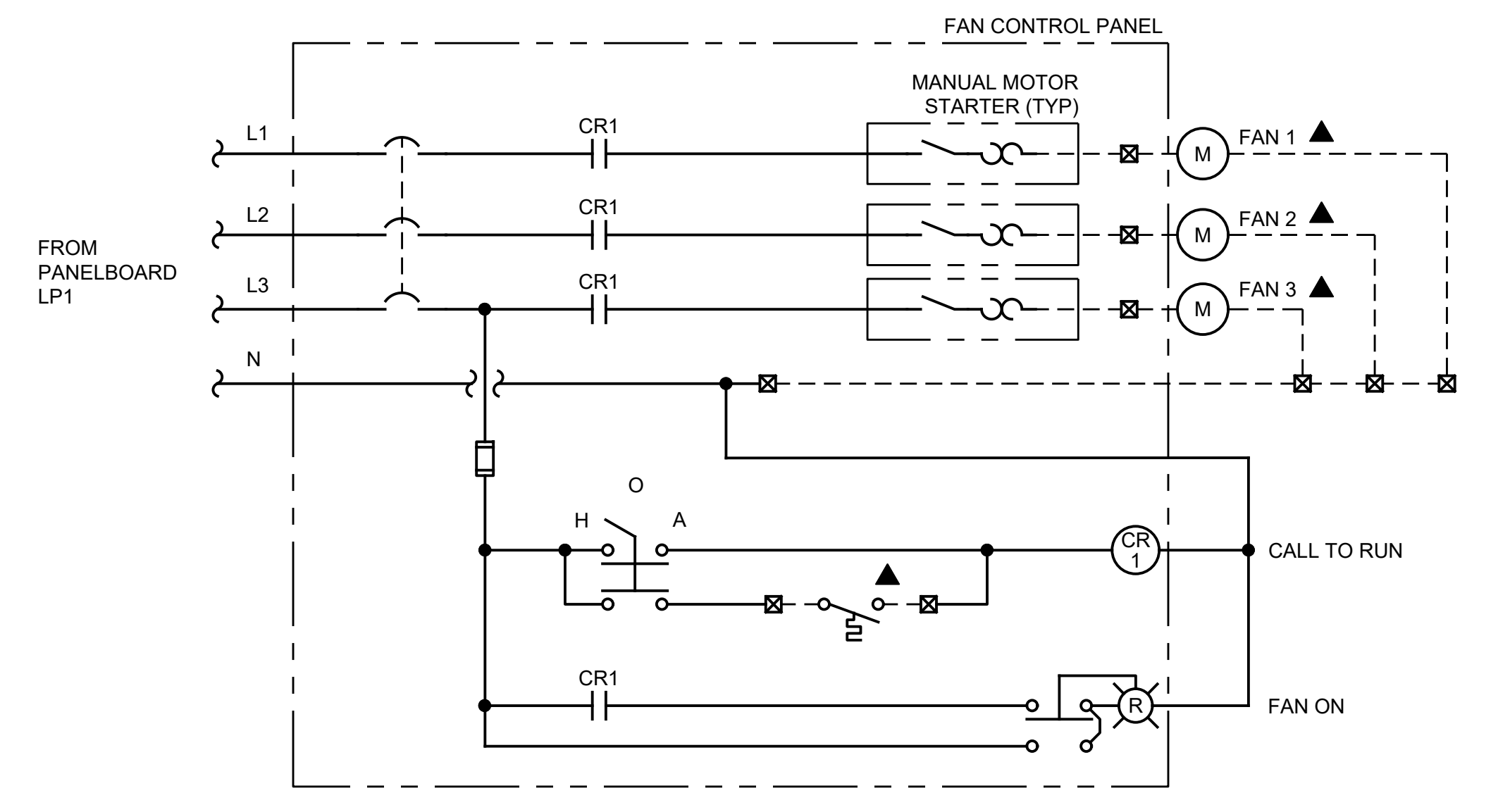
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DRAWN: BV
CHECK: PJG

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OF

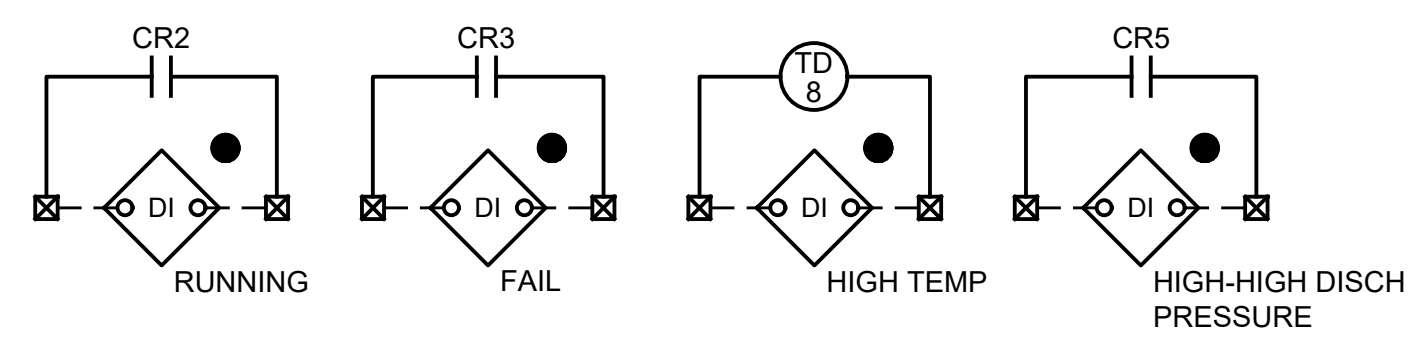
NO.	REVISION DESCRIPTION	DATE	APPR



TYPICAL BOOSTER WATER RVSS PUMP
SCALE: NTS



VENTILATION FANS CONTROL SCHEMATIC
SCALE: NTS (NOTE 2)

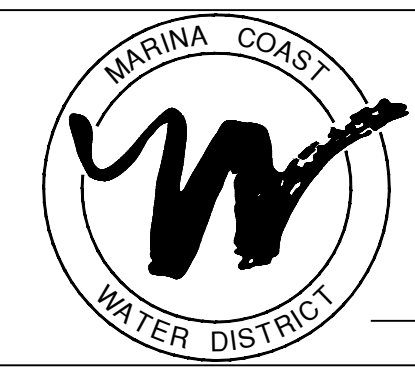


EQUIPMENT/LOOP NO.	DESCRIPTION	PANEL LOCATION
P-210	ZONE B PUMP 1	MCP
P-220	ZONE B PUMP 2	MCP
P-230	ZONE B PUMP 3	MCP
P-310	ZONE C PUMP 1	MCP
P-320	ZONE C PUMP 2	MCP
P-330	ZONE C PUMP 3	MCP
P-340	ZONE C PUMP 4	MCP

LEGEND
 ▲ AT FIELD EQUIPMENT LOCATION
 ● AT LCP CONTROL PANEL

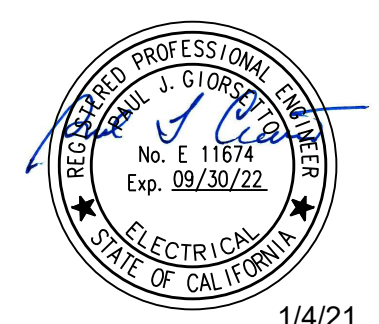
- NOTES:**
- PROVIDE RESTART DELAY. TIMER SETTINGS SHALL BE STAGGERED FOR EACH PUMP AS DIRECTED BY THE ENGINEER DURING STARTUP.
 - LCP EQUIPMENT LOCATED IN TEMPERATURE CONTROL PANEL.

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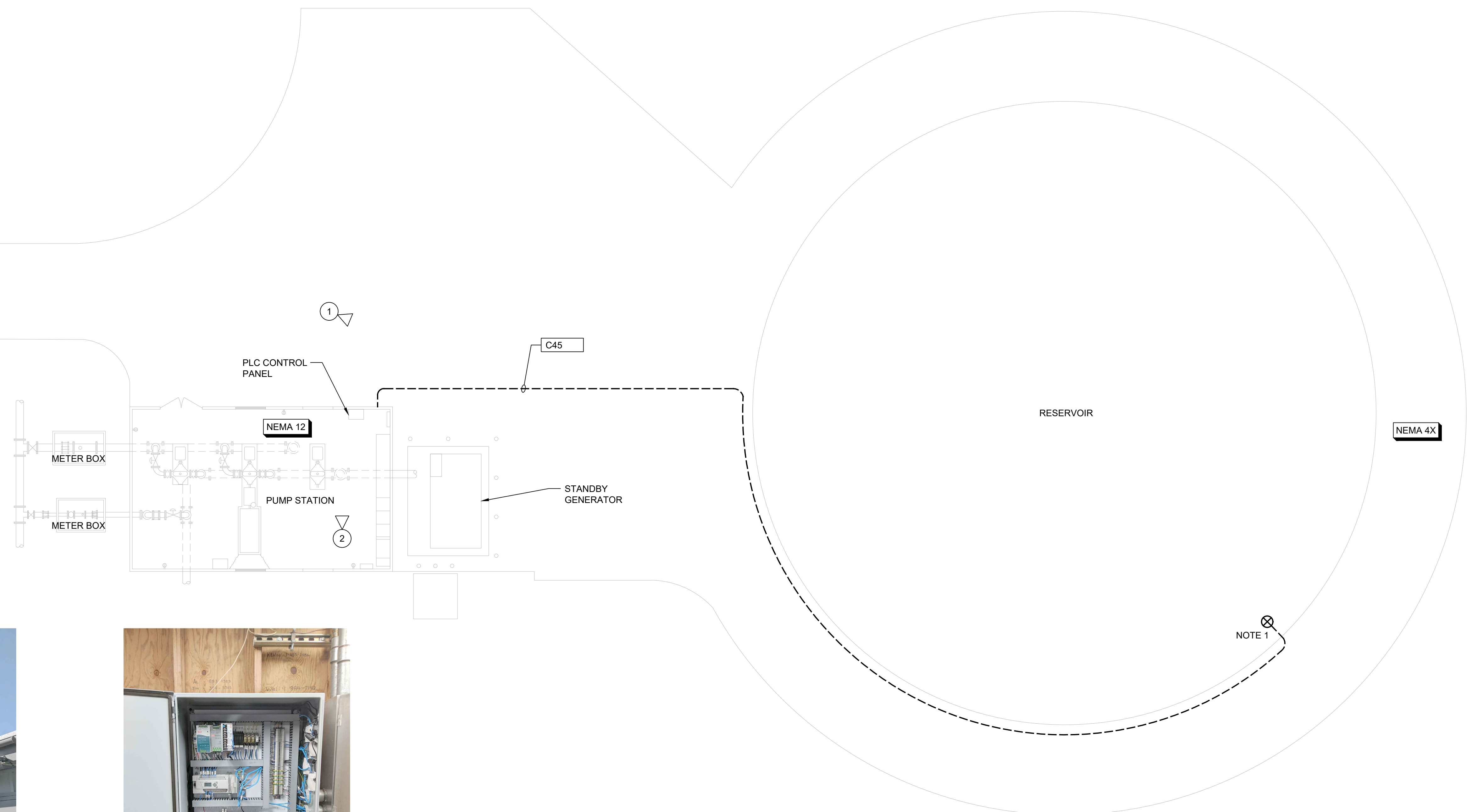


A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION CONTROL SCHEMATICS BOOSTER PUMPS AND VENTILATION FANS

DATE: 1/4/2021
 SCALE: NTS
 DESIGN: HT
 DRAWN: BV
 CHECK: PJG

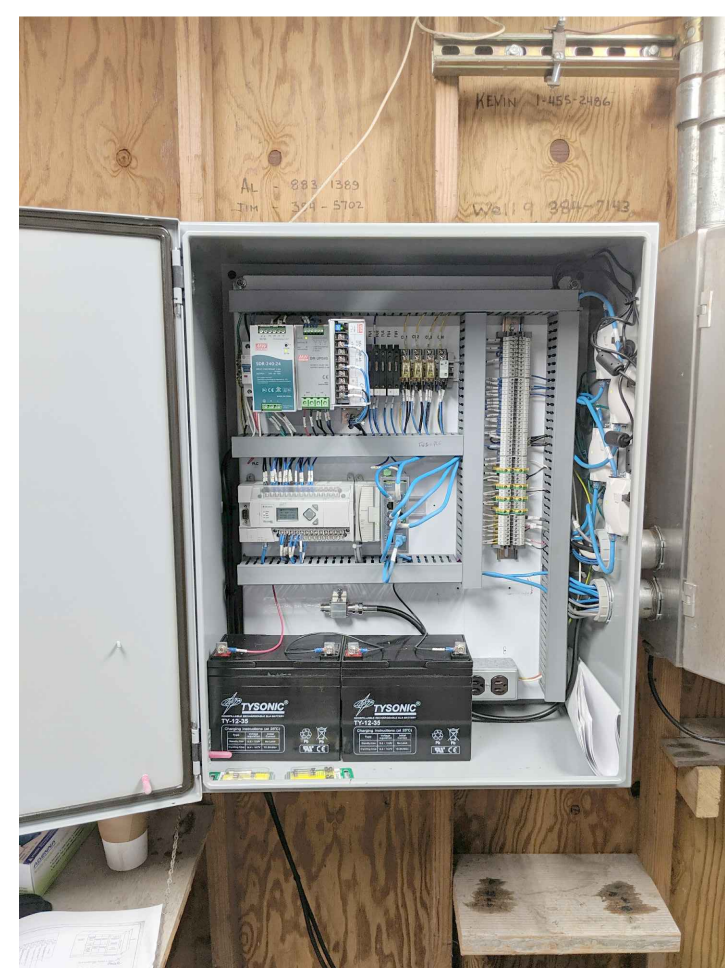
SHEET E-9 OF

NO.	REVISION DESCRIPTION	DATE	APPR



EXTERIOR VIEW OF MARINA BOOSTER PUMP STATION AND RESERVOIR 2

PHOTO 1
SCALE: NTS

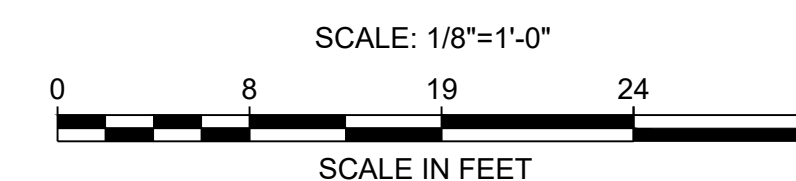


MARINA COAST BOOSTER LOCAL CONTROL PANEL

PHOTO 2
SCALE: NTS

MARINA BOOSTER PUMP STATION PLAN

SCALE: 1/8"=1'-0"



NOTES:

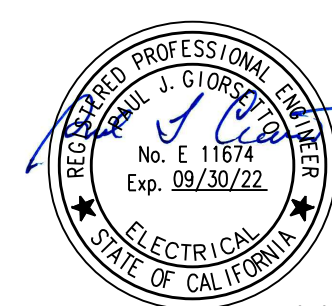
1. LOCATE ACCESS LADDER. INSTALL RADIO/ANTENNA ON TOP OF RESERVOIR R2 ON THE GUARD RAIL. RUN POWER OVER ETHERNET CAT 6 CABLE BETWEEN ANTENNA AND CONTROL PANEL IN MARINA BOOSTER PUMP STATION.

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**A1/A2 RESERVOIRS AND B/C BOOSTER PUMP STATION
MARINA BOOSTER PUMP STATION
ELECTRICAL POWER AND SIGNAL PLAN**

DATE: 1/4/2021
SCALE: AS SHOWN
DESIGN: HT
DRAWN: BV
CHECK: PJG

**SHEET
E-10
OF**

NO.	REVISION DESCRIPTION	DATE	APPR