

PLANS FOR THE ORD VILLAGE LIFT STATION FORCE MAIN REPLACEMENT PROJECT MARINA COAST WATER DISTRICT CIP NO. OS-0147

LOCATION MAP
SCALE: 1" = 1000'



EXISTING LIFT STATION: 5990 BEACH RANGE ROAD, SEASIDE, CA
NEW LIFT STATION: 630 MONTEREY ROAD, SEASIDE, CA

LEGEND

EXISTING	DESCRIPTION	PROPOSED
---	EASEMENT	---
---	TEMPORARY CONSTRUCTION EASEMENT	--- TCE ---
---	PROPERTY LINE - R/W	---
---	LIMIT OF WORK	---
---	CYCLONE FENCE	---
---	WOOD FENCE	---
W	WATER LINE	--- W ---
SSFM	SANITARY SEWER FORCE MAIN	--- SSFM ---
SS	SANITARY SEWER GRAVITY MAIN	--- SS ---
OHE	(E) OVERHEAD ELECTRIC	--- OHE ---
181.44	SPOT ELEVATION	181.44
---	DRAIN PIPE	---
---	REMOVE AND DISPOSE	-----
---	EDGE OF (E) PAVEMENT	-----
---	MAJOR CONTOUR LINE (TOPO)	---
---	MINOR CONTOUR LINE (TOPO)	---
---	LIMIT OF GRADING	---
G	(E) GAS	---
E	BURIED ELECTRIC	---
T	TELEPHONE	---
OH	OVERHEAD COMMUNICATION	---
---	VEGETATION	---
SD	STORM DRAIN PIPE	--- SD ---
□	VAULT	---
○	MANHOLE	○
△	CONTROL POINT	---
●	FOUND MONUMENT AS NOTED	---
⊙	EXISTING TREE & TYPE	---
⊙	TREE CLUSTER WITH SIZE	---
CYP	CYPRESS	---
K	OAK	---
P	PINE	---
RDWD	REDWOOD	---
T	TREE (MISC)	---
●	FIRE HYDRANT	---
⊗	VALVE	⊗
←	GUY WIRE	---
☀	STREET LIGHT	---

ABBREVIATIONS

BC	BEGIN OF CURVE
CI	CATCH INLET
CL	CENTER LINE
CPL	COUPLING
DIP	DUCTILE IRON PIPE
(E)	EXISTING
EC	END OF CURVE
ELL	ELBOW
FL	FLANGE
FM	FORCE MAIN
FOC	FACE OF CURB
G	GAS
INV	INVERT
JT	JOINT TRENCH
MCWD	MARINA COAST WATER DISTRICT
MH	MANHOLE
MJ	MECHANICAL JOINT
PVC	POLYVINYL CHLORIDE
P	PROPERTY LINE
(P)	PROPOSED
SD	STORM DRAIN
SS	SANITARY SEWER
STA	STATION
T	TELEPHONE
W	WATER
①	DETAIL IDENTIFICATION NUMBER
①	SHEET NUMBER WHERE DETAIL APPEARS

SUBMITTED: Andrew A. Sterbenz 12/14/2020
ANDREW A. STERBENZ, PE
SCHAAF & WHEELER DATE

REVIEWED: Michael Wegley 12/30/2020
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



**ORD VILLAGE FORCE MAIN REPLACEMENT
COVER SHEET**

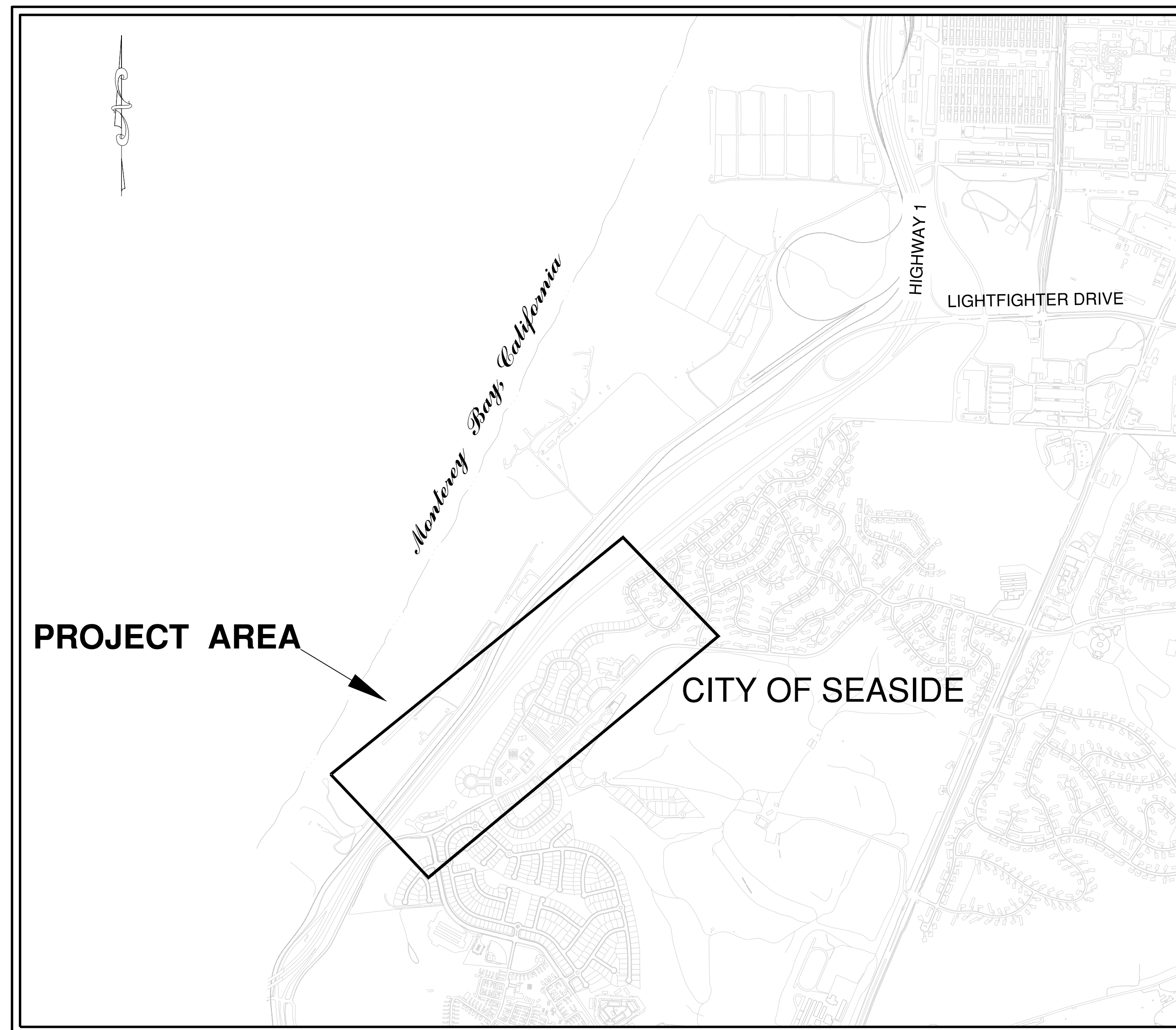
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T	TELEPHONE	---
OH	OVERHEAD COMMUNICATION	---
SD	VEGETATION	---
SD	STORM DRAIN PIPE	SD
□	VAULT	□
○	MANHOLE	○
△	CONTROL POINT	△
●	FOUND MONUMENT AS NOTED	●
⊙	EXISTING TREE & TYPE	⊙
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T	TELEPHONE
W	WATER
1/1	DETAIL IDENTIFICATION NUMBER SHEET NUMBER WHERE DETAIL APPEARS

SUBMITTED: _____ DATE _____
 ANDREW A. STERBENZ, PE
 SCHAAF & WHEELER

REVIEWED: _____ DATE _____
 MICHAEL WEGLEY, PE
 MARINA COAST WATER DISTRICT

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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 OWNER AT (831) 883-5935 WITH ANY QUESTIONS OR DISCREPANCIES. ANY REVISIONS REQUIRE OWNER'S APPROVAL BEFORE PROCEEDING WITH REVISED PLANS.
- CONSTRUCTION CONTRACTOR AGREES THAT 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 THE PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE CIVIL ENGINEER.
- CONTRACTOR SHALL POSSESS A VALID CLASS A - GENERAL ENGINEERING CONTRACTOR LICENSE AT THE TIME THE CONTRACT IS AWARDED AND SHALL MAINTAIN THROUGHOUT THE LENGTH OF CONTRACT.
- CONTRACTOR SHALL POST EMERGENCY TELEPHONE NUMBERS AT THE JOB SITE FOR PUBLIC WORKS, AMBULANCE, POLICE AND FIRE DEPARTMENTS.
- 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.
- EXCAVATIONS SHALL BE ADEQUATELY SHORED, BRACED AND SHEETED SO THAT THE EARTH WILL NOT SETTLE OR SETTLE AND SO THAT ALL EXISTING IMPROVEMENTS OF ANY KIND WILL BE 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.
- INFORMATION CONCERNING EXISTING UTILITIES IS NOT GUARANTEED; LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. DISTRICT DOES NOT GUARANTEE THE ACCURACY, COMPLETENESS, LOCATION, OR THE EXISTENCE OR NONEXISTENCE 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 UTILITY LINES, PIPES, OR STRUCTURES.
- CONTRACTOR SHALL REQUEST THAT UNDERGROUND FACILITIES BE LOCATED AND MARKED IN THE FIELD A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION BY CALLING UNDERGROUND SERVICE ALERT (USA) AT 800.227.2600.
- CONTRACTOR SHALL POTHOLE, EXCAVATE, AND EXPOSE ALL UTILITY CROSSINGS OR CONNECTIONS AFFECTED BY THE WORK. ALL EXISTING UTILITIES SHALL BE ADEQUATELY SUPPORTED AND PROTECTED TO THE SATISFACTION OF THE DISTRICT. IN THE EVENT OF DAMAGE TO ANY UTILITY OCCASIONED BY THE CONTRACTOR OPERATIONS, THE CONTRACTOR, AT HIS SOLE COST AND EXPENSE, WILL IMMEDIATELY CAUSE REPAIRS TO BE MADE TO THE SATISFACTION OF THE AFFECTED UTILITY. NOTIFY THE PROJECT ENGINEER OF ANY ADJUSTMENTS NECESSITATED BY WAY OF CONFLICT WITH EXISTING UTILITIES.
- CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAG MEN, CONES OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY IN ACCORDANCE WITH THE SPECIFICATIONS.
- 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.
- THE CONTRACTOR SHALL PROVIDE FOR INGRESS AND EGRESS FOR ANY PRIVATE PROPERTY ADJACENT TO THE WORK AREA THROUGHOUT THE PERIOD OF CONSTRUCTION.
- CONTRACTOR SHALL REPLACE, AT HIS EXPENSE, ALL TREES, SHRUBS, LAWNS, FENCES, IRRIGATION SYSTEMS AND IMPROVEMENTS WHICH ARE TO REMAIN INTACT BUT HAVE BEEN REMOVED OR DAMAGED DURING CONSTRUCTION.
- ALL PERMANENT IMPROVEMENTS REMOVED OR DAMAGED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL LOCATION AND CONDITION BY THE CONTRACTOR USING NEW MATERIALS AS DIRECTED BY THE ENGINEER.
- ALL SURPLUS AND UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE SITE AND PUBLIC RIGHT-OF-WAY.
- 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.
- OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT ON SITE OR IN THE STREET RIGHT-OF-WAY SHALL NOT BE PERMITTED, EXCEPT AT LOCATION(S) APPROVED BY THE DISTRICT.
- CONTRACTOR SHALL OBTAIN CITY OF SEASIDE ENCROACHMENT PERMITS FOR WORK WITHIN PUBLIC RIGHT-OF-WAY AND EASEMENTS. CONTRACTOR IS RESPONSIBLE FOR ANY/ALL PERMITS AND ASSOCIATED FEES FOR ENTRY OR USE OF PRIVATE PROPERTY.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE REQUIREMENTS OF THE DIVISION OF INDUSTRIAL SAFETY PERTAINING TO "CONFINED SPACES". ANY MANHOLE, CULVERT, DROP INLET OR TRENCH (WHICH COULD CONTAIN AIR) THAT IS NOT READILY VENTILATED MAY BE CONSIDERED A "CONFINED SPACE".
- 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.
- 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.
- 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.

STANDARD SEWER NOTES

- THE SEWER SYSTEM AS SHOWN ON THESE PLANS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD PLANS AND SPECIFICATIONS OF THE MARINA COAST WATER DISTRICT. CONTRACTOR SHALL KEEP A COPY OF THE STANDARD SPECIFICATIONS AND DRAWINGS ON THE JOBSITE AT ALL TIMES.
- THE MARINA COAST WATER DISTRICT SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO COMMENCING WORK ON THE SEWERS. PHONE (831) 384-6131 FOR INSPECTION. A PRECONSTRUCTION MEETING SHALL BE HELD AT LEAST 24 HOURS BEFORE STARTING CONSTRUCTION.
- SEWER CONNECTION: 4-INCH HOUSE CONNECTION IS TO BE CONSTRUCTED FROM THE SEWER MAIN TO THE PROPERTY LINE FOR EACH LOT.
- ALL SEWER LENGTHS ARE CALCULATED ON HORIZONTAL DISTANCES ALONG THE CENTERLINE OF THE SEWER.
- PRESSURE TESTING OF SEWERS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE MARINA COAST WATER DISTRICT.
- IN ORDER TO PREVENT ACCIDENTAL USE OF THE NEW SEWER PRIOR TO COMPLETION AND ACCEPTANCE, THE OUTLET OR INLET TO EXISTING TIE-IN MANHOLE(S) SHALL BE SEALED WITH BROKEN BRICK AND MORTAR. INSTALLATION OF THESE PLUGS SHALL BE APPROVED BY THE DISTRICT. PLUGS SHALL BE REMOVED AT THE TIME OF FINAL ACCEPTANCE.
- CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITY CROSSINGS BEFORE CONSTRUCTING ANY SEWERS IN THIS PROJECT.
- CONTRACTOR'S SURVEYOR SHALL STAKE THE LOCATION OF ALL WYE FITTINGS. ALL HOUSE LATERALS NOT NORMAL TO STREET SEWER TO HAVE END OF LATERAL AT PROPERTY LINE STAKED AND TIED TO A PROPERTY CORNER AS SHOWN ON THE PLANS.
- THE CONTRACTOR SHALL CONDUCT ALL TESTS AS REQUIRED IN THE PRESENCE OF THE DISTRICT REPRESENTATIVE.
- ANY WORK TO BE PERFORMED INSIDE A LIVE MANHOLE SHALL BE DONE IN ACCORDANCE WITH CAL OSHA "CONFINED SPACES" AND DISTRICT MANHOLE ENTRY REGULATIONS. MANHOLE ENTRY WITHOUT DISTRICT PERSONNEL PRESENT IS NOT ALLOWED.
- ALL SEWER MANHOLE LIDS ARE TO HAVE "MCWD" CAST THEREON AS SHOWN IN STANDARD PLAN S-3 OF MARINA COAST WATER DISTRICT'S "STANDARD PLANS AND SPECIFICATIONS FOR CONSTRUCTION OF DOMESTIC WATER, SEWER AND RECYCLED WATER FACILITIES."
- CURB FACE SHALL BE INSCRIBED WITH AN "S" INDICATING LOCATION OF ALL SEWER LATERALS.

GRADING NOTES:

- THE APPROXIMATE QUANTITY OF EARTHWORK CONSISTS OF 1590 CUBIC YARDS OF CUT AND 1540 CUBIC YARDS OF FILL. THE EARTHWORK QUANTITY IS EXCLUDING UTILITY TRENCH EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF SAID GRADING QUANTITIES PRIOR TO THE START OF THE GRADING OPERATION.
- THE CONTRACTOR SHALL PROVIDE THE CONSTRUCTION STAKES. 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 CHAPTER 15 OF THE CITY OF SEASIDE MUNICIPAL CODE.
- CONTRACTOR SHALL NOTIFY THE ENGINEER 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.
- 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. 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.
- CLEAR SURFACE VEGETATION AND STRIP TOPSOIL TO BOTTOM OF ROOT ZONE WITHIN GRADING AREAS. STOCKPILE TOPSOIL ON-SITE FOR FUTURE USE.
- STRUCTURAL FILL AREAS SHALL BE SCARIFIED TO A DEPTH OF 18-INCHES, MOISTURE CONDITIONED AND COMPACTED.
- BACKFILL FOR UNDERGROUND UTILITIES PLACED ON SITE SHALL BE CLEAN NATIVE OR IMPORTED SAND MATERIALS (MINIMUM S.E. = 30) UNLESS OTHERWISE APPROVED BY THE 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. = 30) FOR FULL TRENCH DEPTH TO THE PAVEMENT SUBGRADE, UNLESS SHOWN OTHERWISE ON THE PLAN OR APPROVED BY THE 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.
- ALL DISTURBED AREAS SHALL BE RE-SEEDDED WITH THE FOLLOWING EROSION CONTROL MIX:

SPECIES	COMMON NAME	POUNDS PER ACRE
BROMUS CARINATUS	CALIFORNIA BROME	6
ELYMUS GLAUCUS	WESTERN RYEGRASS	10.5
BROMUS HOREACAUS	BLANDO BROME	4.5
TRIFOLIUM HIRTUM	ROSE CLOVER	4.5
TRIFOLIUM INCARNATUM	CRIMSON CLOVER	4.5
- 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.

ORDER OF THE WORK:

- CONSTRUCT (N) PUMP STATION, 10" FORCE MAIN AND GRAVITY SEWERS, INCLUDING SITE PAVING, WETWELL, MCC, PIPES, VALVE VAULT, MANHOLES, AND OTHER APPURTENANCES. SET PLUGS AS NEEDED TO ISOLATE (N) SYSTEM FROM (E) SYSTEM.
- LEAK AND PRESSURE TEST (N) SSFM AND GRAVITY SYSTEM.
- TRANSFER PUMPS AND TEST (N) PUMP STATION.
- REMOVE PLUGS TO MAKE (N) PUMP STATION PRIMARY
- FLUSH (E) SSFM BEFORE ABANDONING IN PLACE
- DEMOLISH (E) ORD VILLAGE PUMP STATION AND ABANDON (E) PIPELINES.

SHEET INDEX

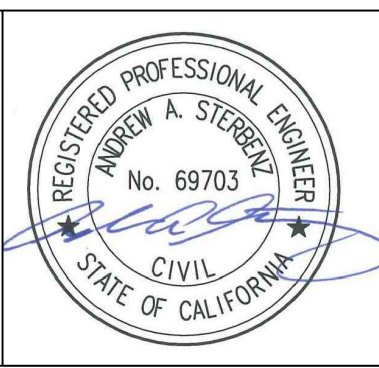
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E5.1	ELECTRICAL DETAILS
E6.0	ELECTRICAL DETAILS

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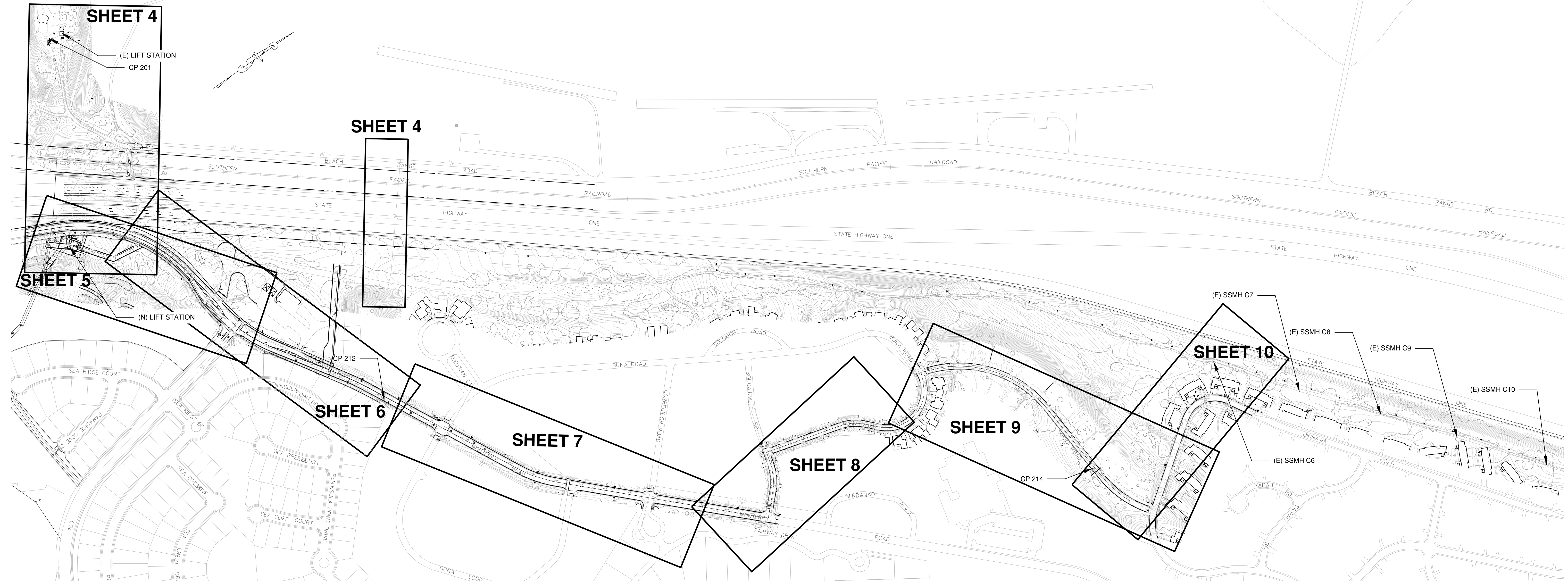
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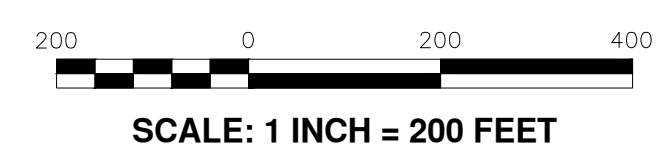
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1+00	2124463.16	5729399.77
1+73.9	2124500.11	5729463.75
2+62.3	2124534.01	5729545.36
3+59.6	2124556.91	5729640.01
5+97.6	2124578.74	5729876.92
6+80.7	2124598.52	5729956.44
7+31.1	2124617.76	5730004.38
7+72.2	2124635.56	5730041.42
8+16.0	2124657.63	5730079.28
10+61.1	2124791.82	5730283.23
11+55.6	2124842.42	5730364.16
12+19.7	2124874.13	5730419.91
13+77.7	2124945.45	5730560.90
16+35.2	2125060.78	5730791.11
19+41.2	2125197.39	5731064.93
19+97.8	2125225.80	5731113.87
20+85.1	2125280.38	5731181.98
29+69.7	2125909.48	5731803.86
30+10.9	2125938.44	5731774.57
30+86.3	2125991.46	5731720.87
31+26.8	2126016.46	5731689.01
31+75.1	2126037.70	5731645.71
32+05.9	2126046.57	5731616.17
32+41.7	2126056.43	5731581.72
32+81.6	2126094.78	5731592.70
35+33.2	2126337.64	5731658.20
35+74.6	2126377.33	5731670.09
36+05.7	2126405.31	5731683.59
36+22.5	2126419.44	5731692.85
36+59.1	2126447.25	5731716.65
37+52.6	2126466.96	5731736.89
37+78.8	2126497.49	5731768.73

37+87.4	2126528.13	5731789.83
37+95.0	2126552.26	5731800.15
38+34.4	2126591.16	5731806.91
38+61.7	2126618.43	5731805.52
38+95.7	2126651.36	5731797.33
39+25.2	2126677.90	5731784.32
39+46.1	2126694.79	5731772.13
39+66.8	2126709.68	5731757.68
39+85.3	2126721.18	5731743.15
40+29.4	2126741.53	5731704.04
40+60.4	2126753.13	5731675.33
100+76.3	2126835.58	5731708.65
101+07.4	2126862.93	5731723.33
101+48.0	2126897.15	5731745.21
101+91.9	2126931.77	5731772.20
102+53.0	2126975.05	5731815.30
103+08.8	2127009.33	5731859.42
103+50.2	2127031.15	5731894.62
104+06.2	2127055.29	5731945.05
104+74.7	2127075.85	5732010.37
105+49.4	2127086.71	5732084.24
107+15.7	2127097.44	5732250.22
108+53.9	2127106.35	5732388.19
109+48.8	2127114.81	5732482.67
0+00.0	2127101.90	5732395.65
1+00.0	2127114.4713	5732494.7083
2+00.0	2127145.41	5732589.65
3+00.0	2127194.66	5732671.19
4+00.0	2127275.68	5732612.58
5+00.0	2127356.70	5732553.96
6+00.0	2127437.72	5732495.35
7+00.0	2127522.28	5732442.31
8+00.0	2127614.73	2127614.73
9+00.0	2127681.08	2127681.08



SITE PLAN
SCALE: 1" = 200'

LOCAL CONTROL POINTS			
	NORTHING	EASTING	ELEVATION
CP 201	2124640.68	5728551.49	62.77
CP 212	2124911.25	5730523.19	110.85
CP 214	2127098.28	5730523.19	150.39

BASIS OF BEARINGS
THE BASIS OF BEARINGS FOR THIS SURVEY ARE APPROXIMATE NAD83 CCS, ZONE 4, USFT, BASED ON STATIC GPS OBSERVATIONS AND AN OPUS SOLUTION FOR POINT #201.

POINT #201 IS THE ONLY TRUE GRID POINT. ALL OTHER POINTS IN THIS DRAWING HAVE BEEN SCALED TO GROUND COORDINATES ABOUT POINT #201 USING THE FOLLOWING AVERAGE COMBINED SCALE FACTOR: 1.0000568650

BENCHMARK
ELEVATIONS IN THIS DRAWING ARE RELATIVE TO NAVD88 BASED ON GPS OBSERVATIONS AND THE OPUS-DERIVED NAVD88 ELEVATION OF POINT #201.

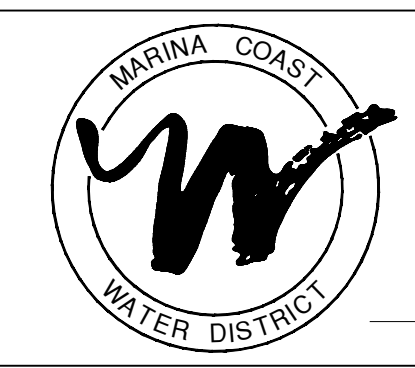
SUBTRACT 2.74' TO OBTAIN NGVD29 ELEVATIONS, BASED ON A DATUM SHIFT VALUE DETERMINED FROM A RELIABLE LOCAL NGS-PUBLISHED BENCHMARK, "M 813 RESET" (GU2113):

PUBLISHED NAVD88 ELEVATION:	74.89'
SUPERSEDED NGVD29 ELEVATION:	72.15'
DATUM SHIFT:	-2.74'

CONTOUR INTERVAL = 1 FEET

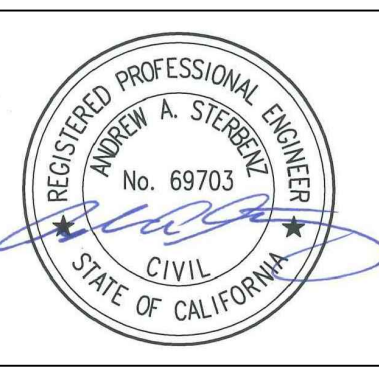
DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF

NO.	REVISION DESCRIPTION	DATE	APPR



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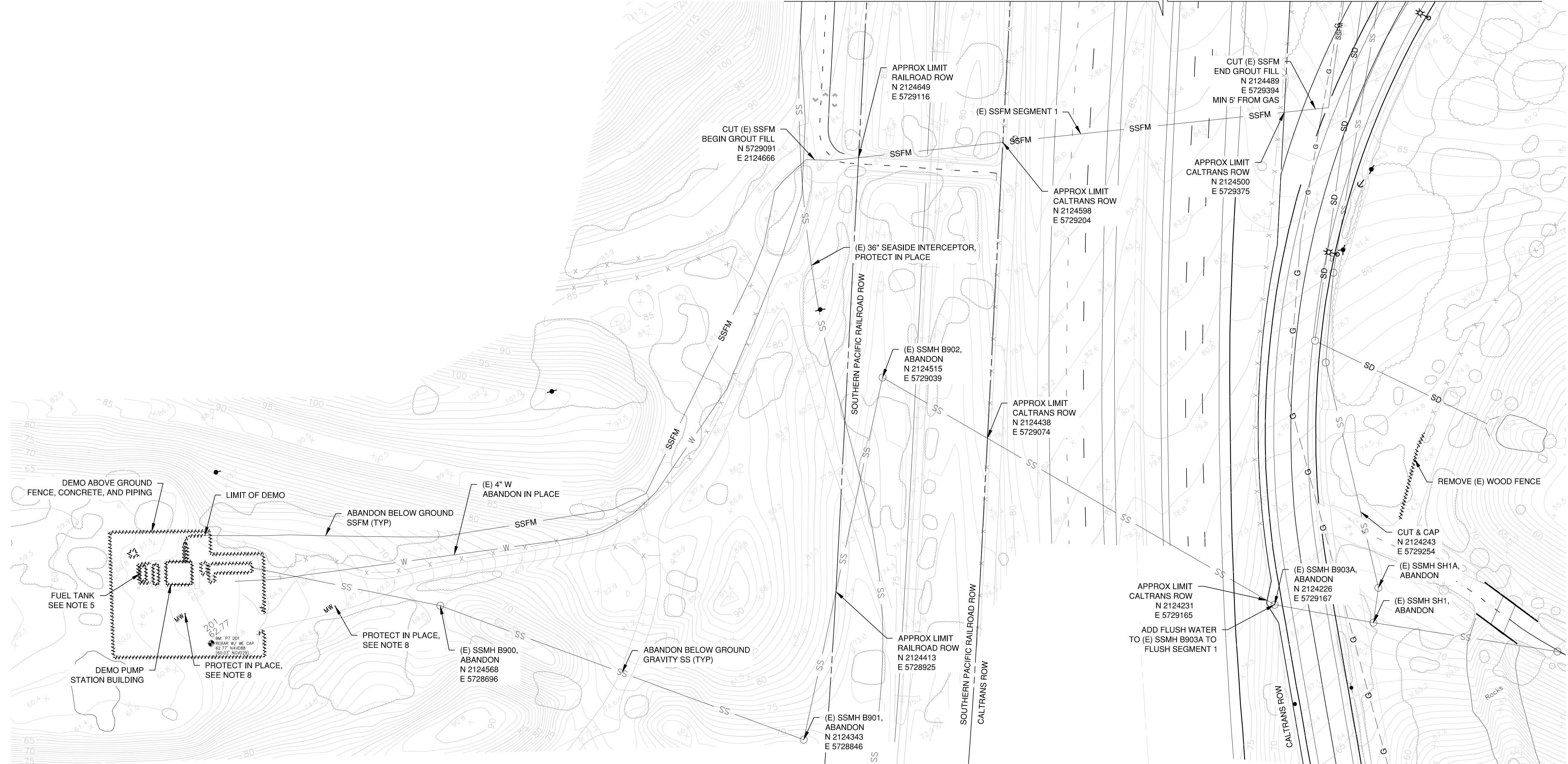
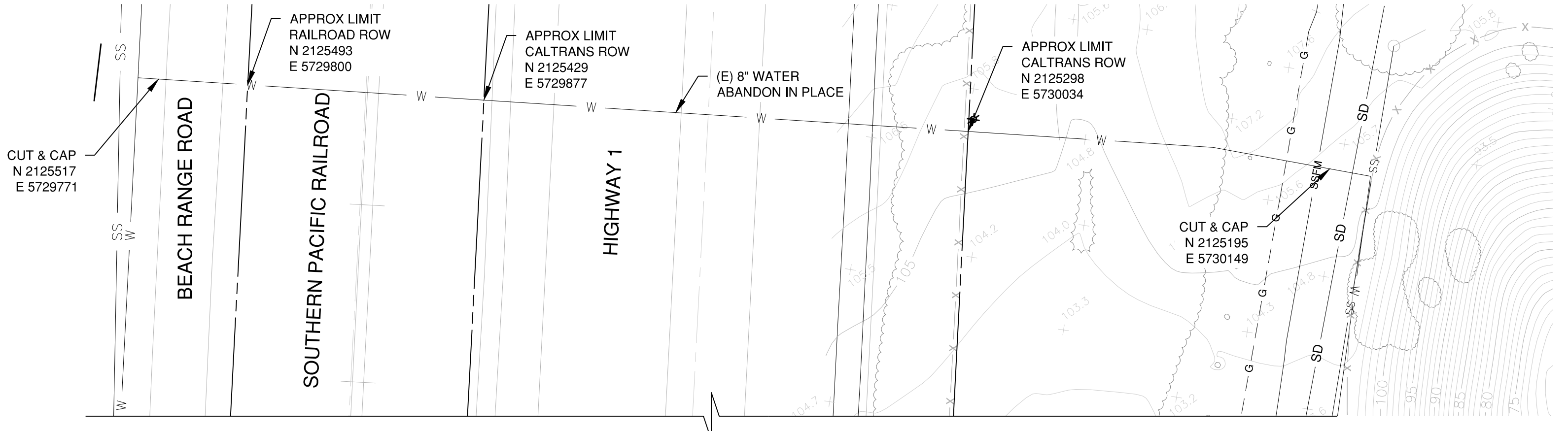
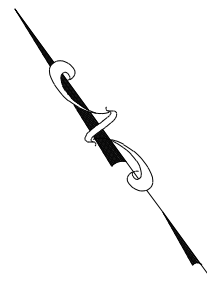
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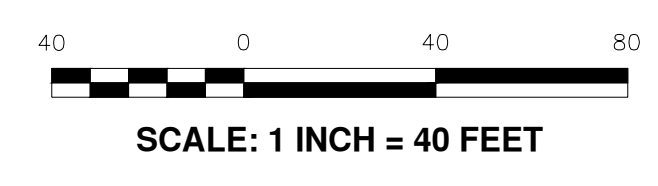
ORD VILLAGE FORCE MAIN REPLACEMENT PROJECT OVERVIEW

DATE:	12/04/2020
SCALE:	1" = 200'
DESIGN:	CJM
DRAWN:	CJM
CHECK:	AAS

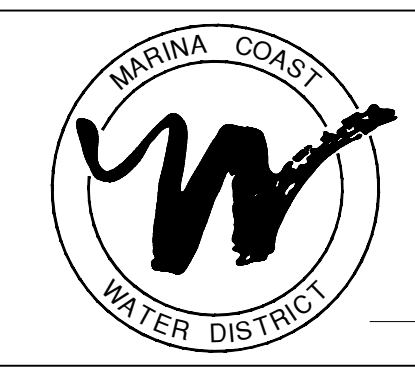
SHEET 3 of 31



- NOTES:
- PIPE LOCATIONS ARE APPROXIMATE. ALL PIPES SHALL BE FIELD VERIFIED.
 - SSMH B900, B901, B902, B903A, SH1, SH1A AND ASSOCIATED GRAVITY PIPELINES SHALL BE ABANDONED AS SPECIFIED IN SECTION 022220.
 - ABANDONED SSFM TO BE FLUSHED IN 3 SEGMENTS: 1) FROM (E) ORD VILLAGE PUMP STATION TO THE SOUTHWEST SIDE OF SEASIDE SENIOR LIVING (4,600 GAL), 2) THE PORTION BEING RELOCATED IN SEASIDE SENIOR LIVING (4,060 GAL), AND 3) FROM SSMH C3 TO THE NORTHEAST END OF SEASIDE SENIOR LIVING (13,460 GAL).
 - SSFM SEGMENT 2 IS PART OF SEASIDE SENIOR LIVING PROJECT.
 - RECOVER (E) FUEL TANK & DELIVER TO MCWD CORP YARD.
 - RELOCATE (E) GENERATOR TO (N) LIFT STATION
 - PIPELINES UNDER HWY 1 SHALL BE FILLED W/ CEMENT SLURRY AND CAPPED AT EACH END.
 - PROTECT (E) MONITORING WELLS DURING THE WORK BY COVERING WITH 2-INCHES OF SAND AND A STEEL TRAFFIC PLATE (6FTx6FT MIN). REMOVE PLATES AND SAND DURING FINAL CLEAN-UP.

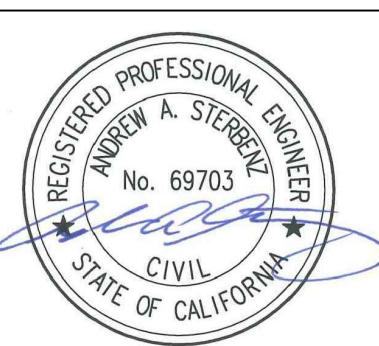


NO.	REVISION DESCRIPTION	DATE	APPR



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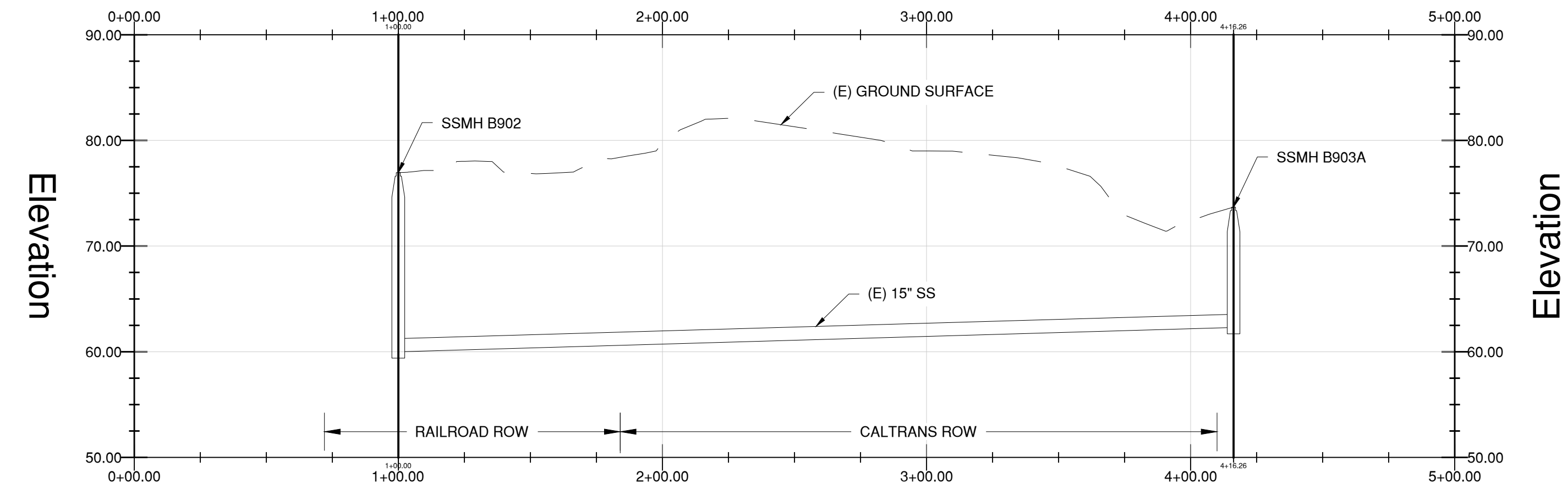
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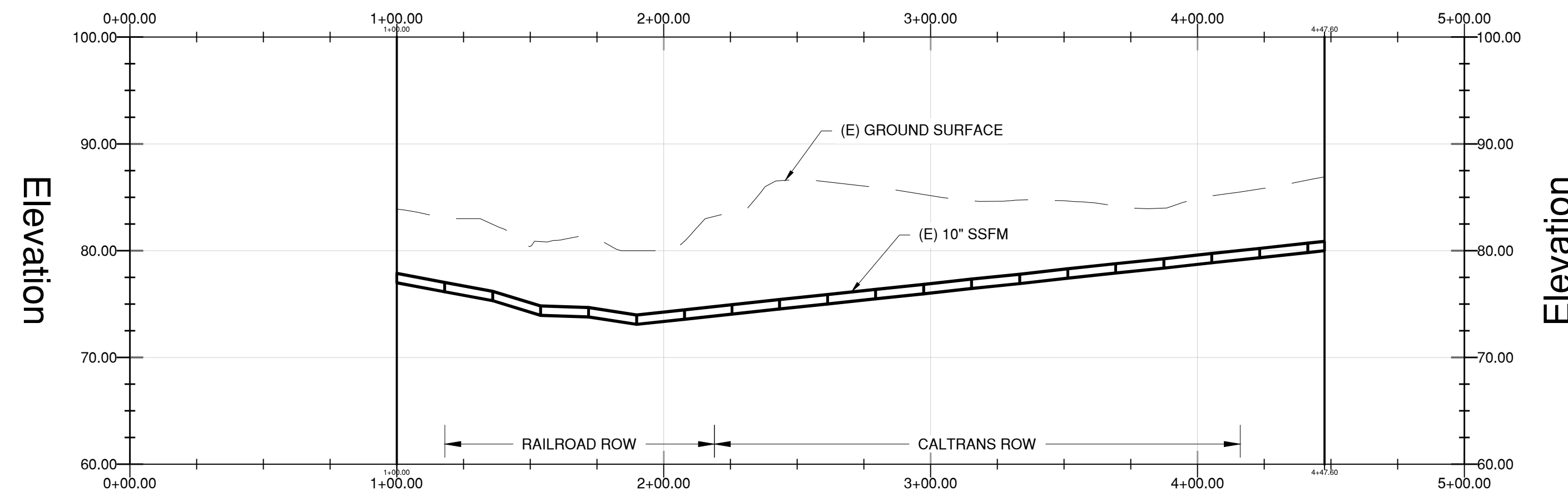
**ORD VILLAGE FORCE MAIN REPLACEMENT
 (E) PUMP STATION DEMO PLAN**

DATE: 12/04/2020
 SCALE: 1" = 40'
 DESIGN: CJM
 DRAWN: CJM
 CHECK: AAS

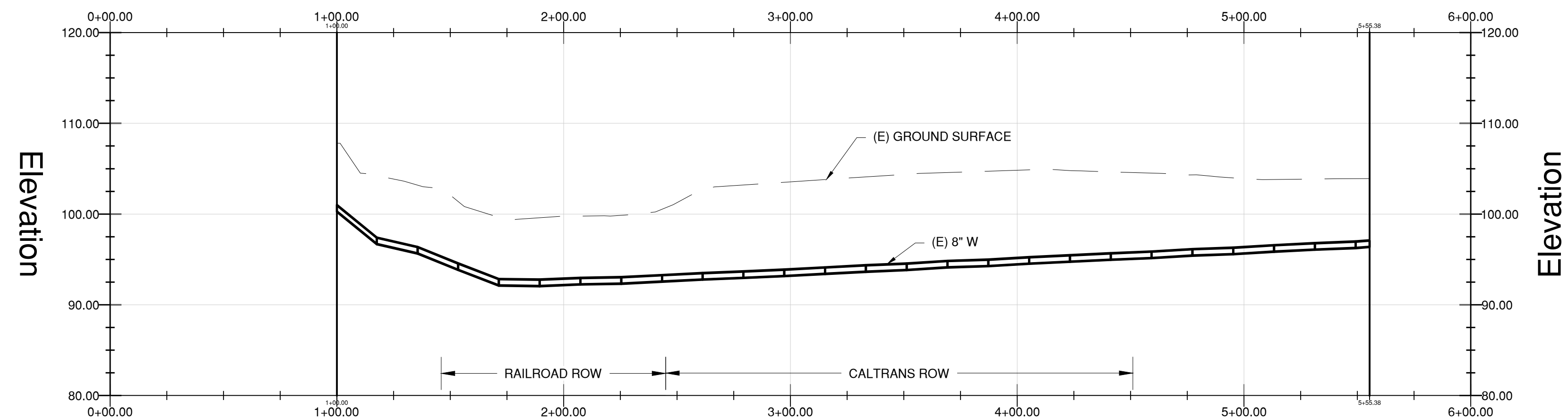
**SHEET
 4
 of
 31**



GRAVITY SEWER ①
 HOR. SCALE: 1"=40'
 VER. SCALE: 1"=10'



SEWER FORCE MAIN ②
 HOR. SCALE: 1"=40'
 VER. SCALE: 1"=10'



WATER ③
 HOR. SCALE: 1"=40'
 VER. SCALE: 1"=10'

- NOTES:
 1. WATER MAIN SURFACE IS BASED ON 1998 TOPO ADJUSTED TO NAVD 1988.
 2. WATER MAIN DEPTH ASSUMED.

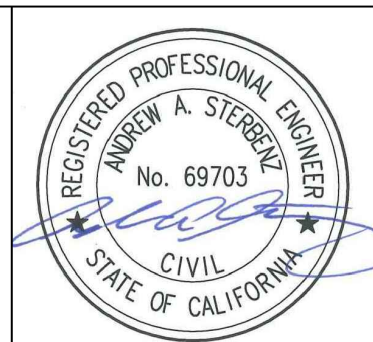
NOTE:
 1. PIPE DEPTHS ARE APPROXIMATE. ALL PIPES SHALL BE FIELD VERIFIED.

CALTRANS PERMIT 0520 NUS 0424	6/1/20	AAS
NO.	REVISION DESCRIPTION	DATE APPR



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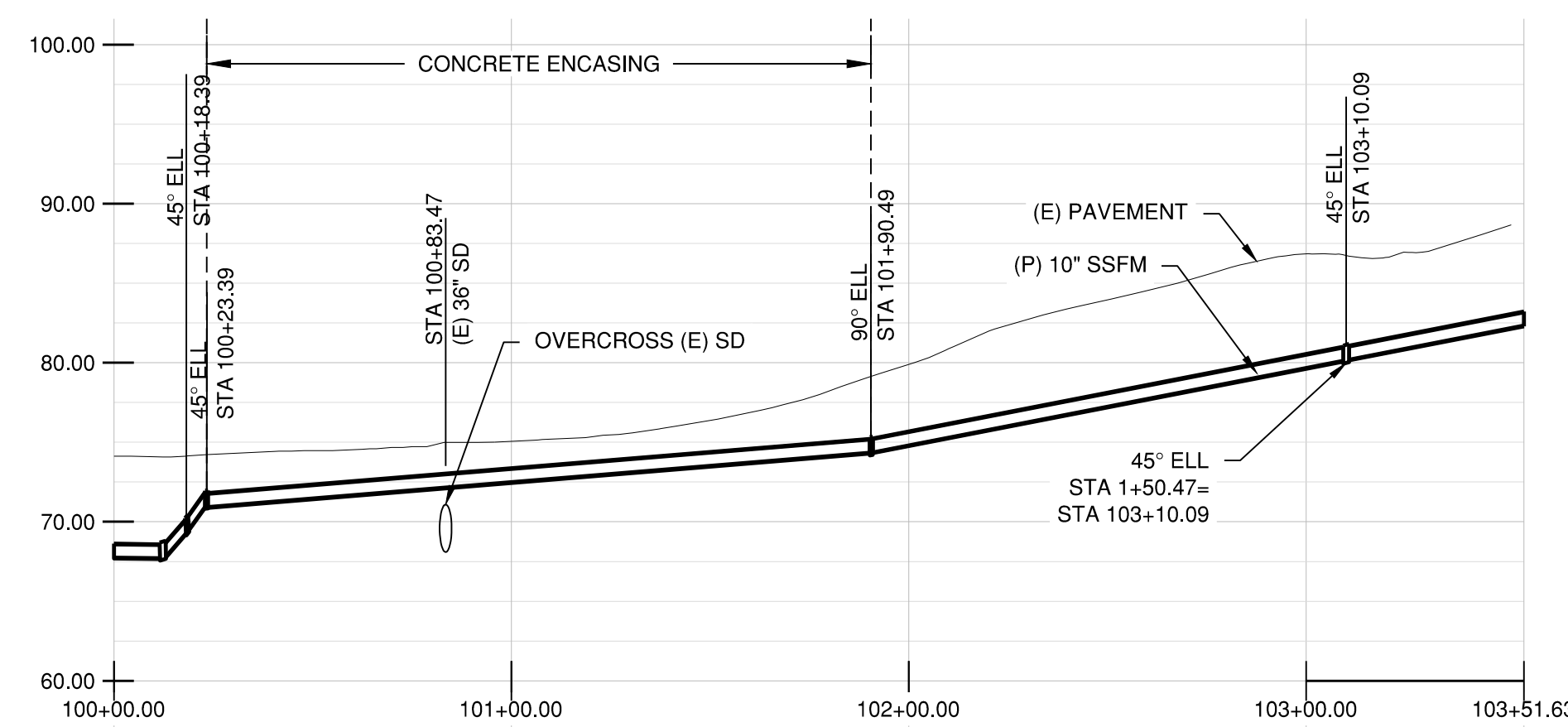
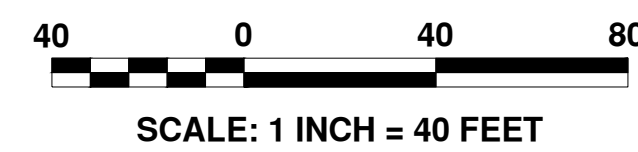
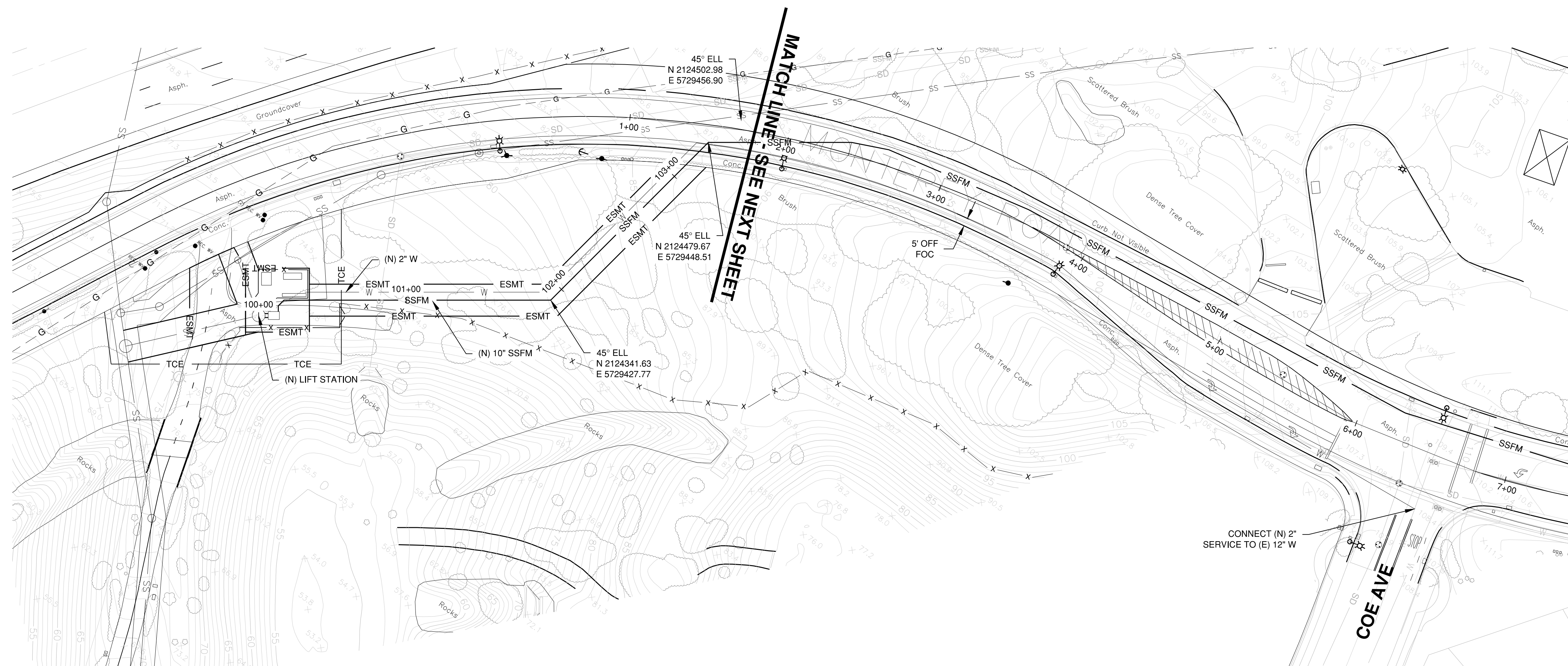
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**ORD VILLAGE FORCE MAIN REPLACEMENT
 DEMOLITION PROFILES**

DATE:	12/04/2020
SCALE:	AS SHOWN
DESIGN:	CJM
DRAWN:	CJM
CHECK:	AAS

**SHEET
 4A
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 31**



PROFILE

HOR. SCALE: 1"=40'
VER. SCALE: 1"=10'

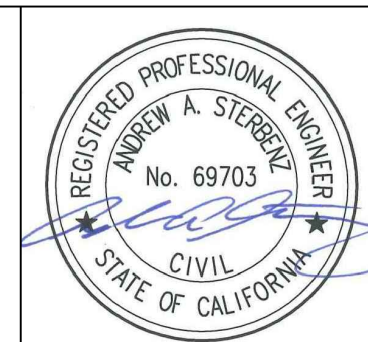
- NOTES:
1. PIPE LOCATIONS ARE APPROXIMATE. ALL PIPES SHALL BE FIELD VERIFIED.
 2. MINIMUM 12" CLEARANCE WHEN CROSSING PIPELINES.
 3. ENCASE FORCE MAIN IN CONCRETE SLURRY, SEE DETAIL 3/18.
 4. FORCE MAIN SHALL BE FULLY RESTRAINED

NO.	REVISION DESCRIPTION	DATE	APPR



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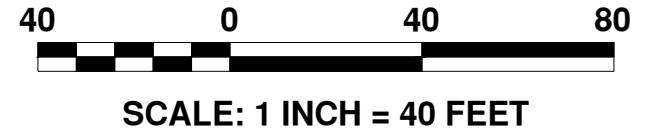
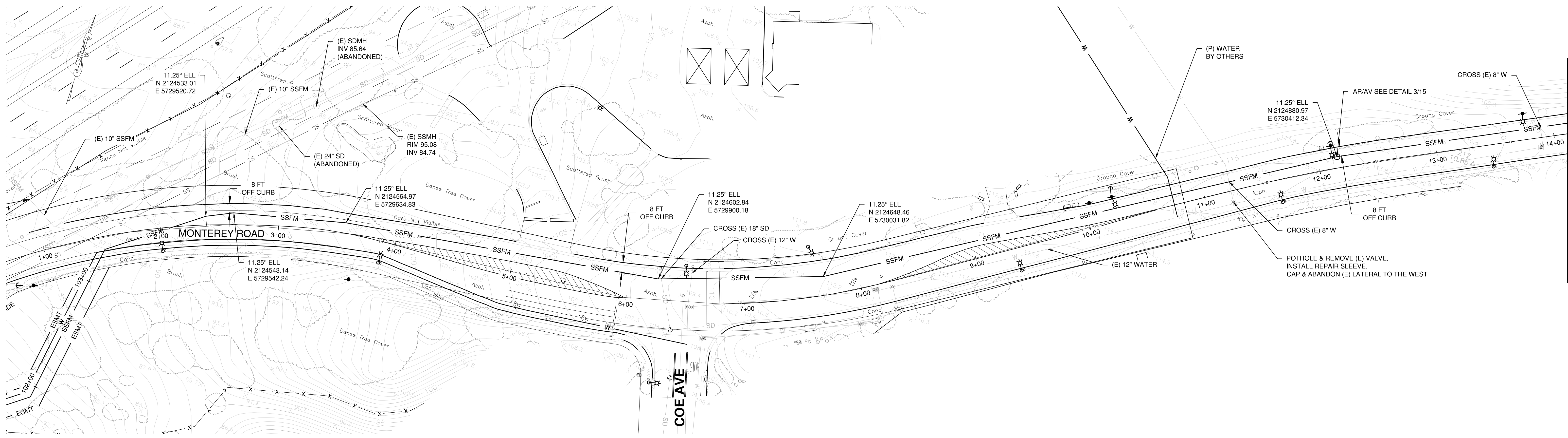
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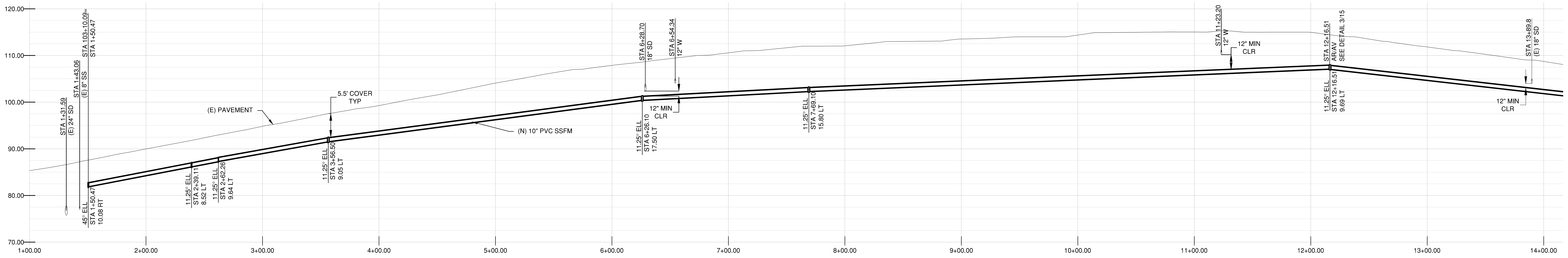
**ORD VILLAGE FORCE MAIN REPLACEMENT
PLAN & PROFILE (1 OF 6)**

DATE:	12/04/2020
SCALE:	1" = 40'
DESIGN:	CJM
DRAWN:	CJM
CHECK:	AAS

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OF
31



MATCH LINE - SEE NEXT SHEET

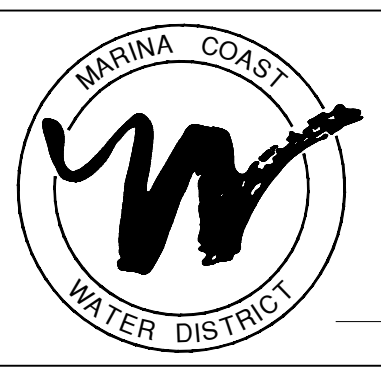


- NOTES:
1. PIPE LOCATIONS ARE APPROXIMATE. ALL PIPES SHALL BE FIELD VERIFIED.
 2. MINIMUM 12" PIPE CLEARANCE WHEN CROSSING PIPELINES.
 3. FORCE MAIN SHALL BE FULLY RESTRAINED.

PROFILE

HOR. SCALE: 1"=40'
VER. SCALE: 1"=10'

NO.	REVISION DESCRIPTION	DATE	APPR



MARINA COAST WATER DISTRICT
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MARINA, CA 93933
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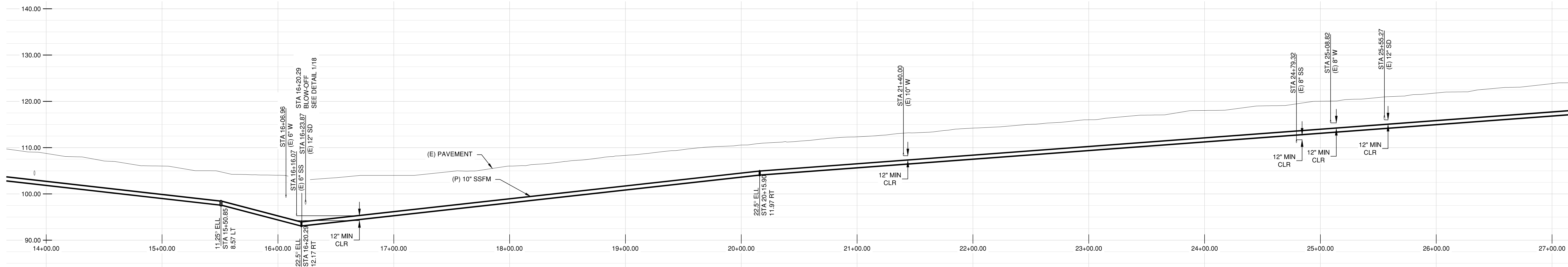
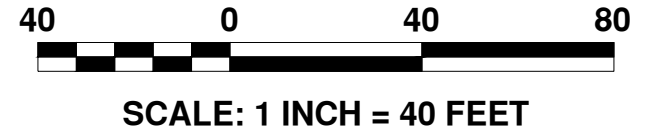
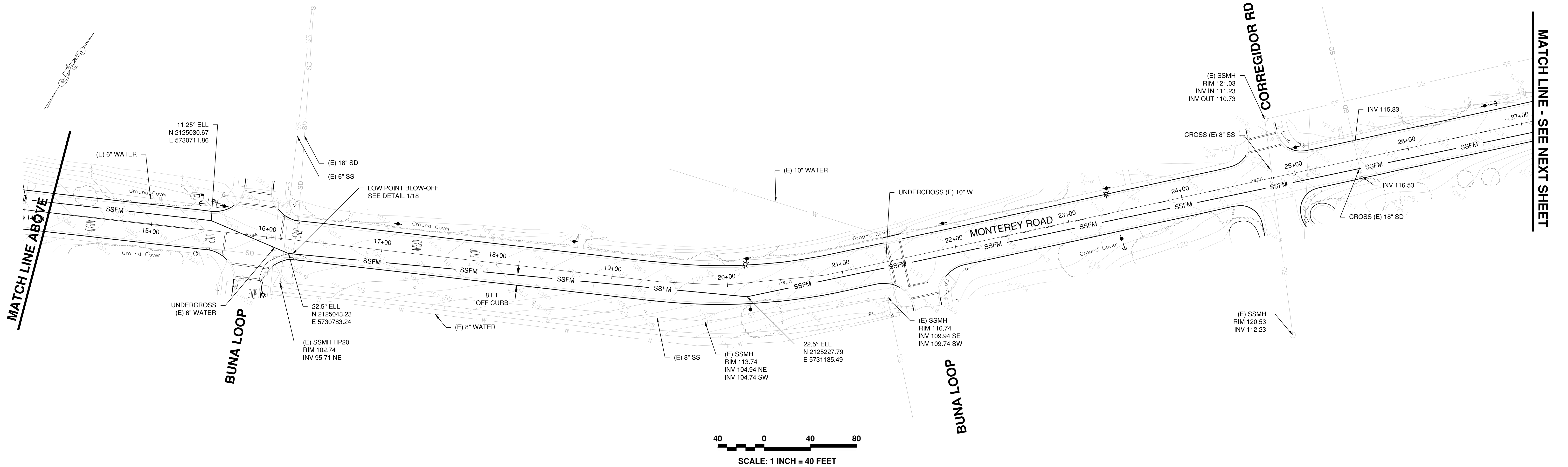
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**ORD VILLAGE FORCE MAIN REPLACEMENT
PLAN & PROFILE (2 OF 6)**

DATE:	12/04/2020
SCALE:	1" = 40'
DESIGN:	CJM
DRAWN:	CJM
CHECK:	AAS

**SHEET
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of
31**

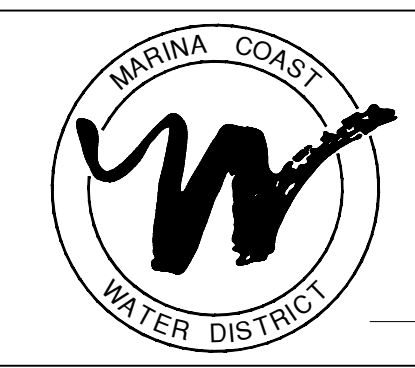


PROFILE

HOR. SCALE: 1"=40'
VER. SCALE: 1"=10'

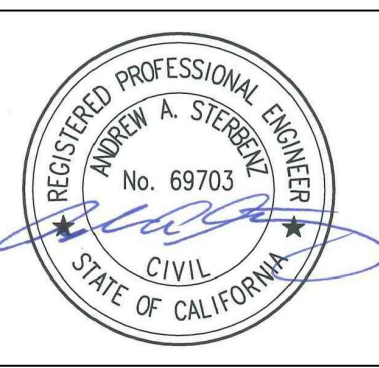
- NOTES:
1. PIPE LOCATIONS ARE APPROXIMATE. ALL PIPES SHALL BE FIELD VERIFIED.
 2. MINIMUM 12" CLEARANCE WHEN CROSSING PIPELINES.
 3. FORCE MAIN SHALL BE FULLY RESTRAINED.

NO.	REVISION DESCRIPTION	DATE	APPR



MARINA COAST WATER DISTRICT
11 RESERVATION ROAD
MARINA, CA 93933
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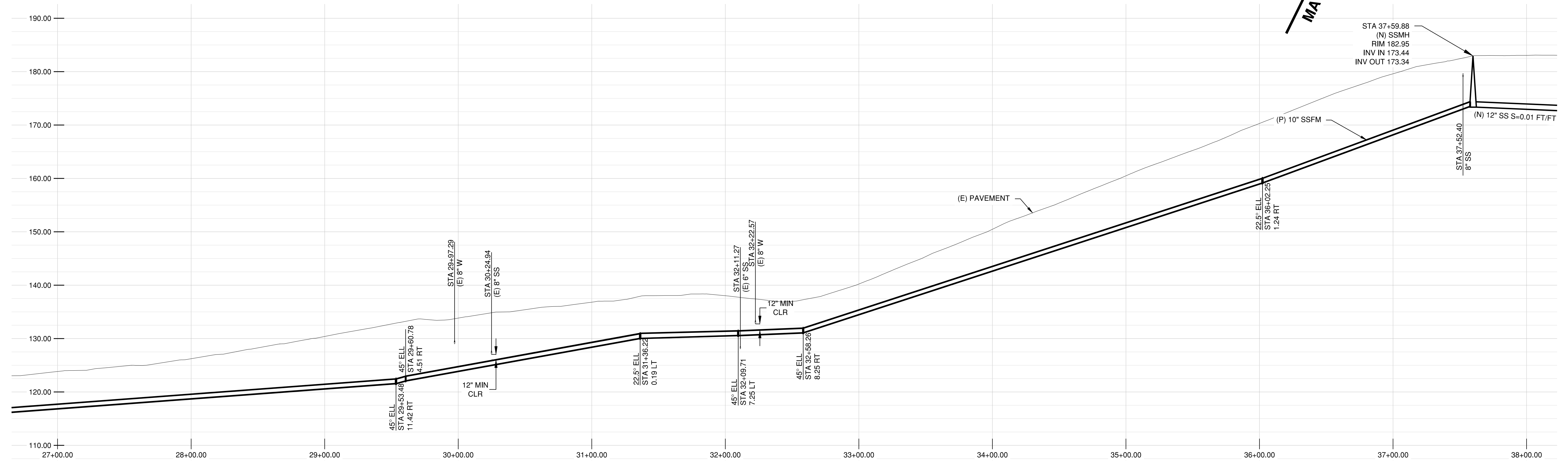
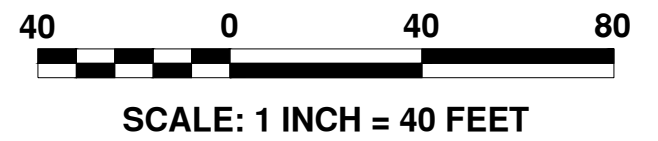
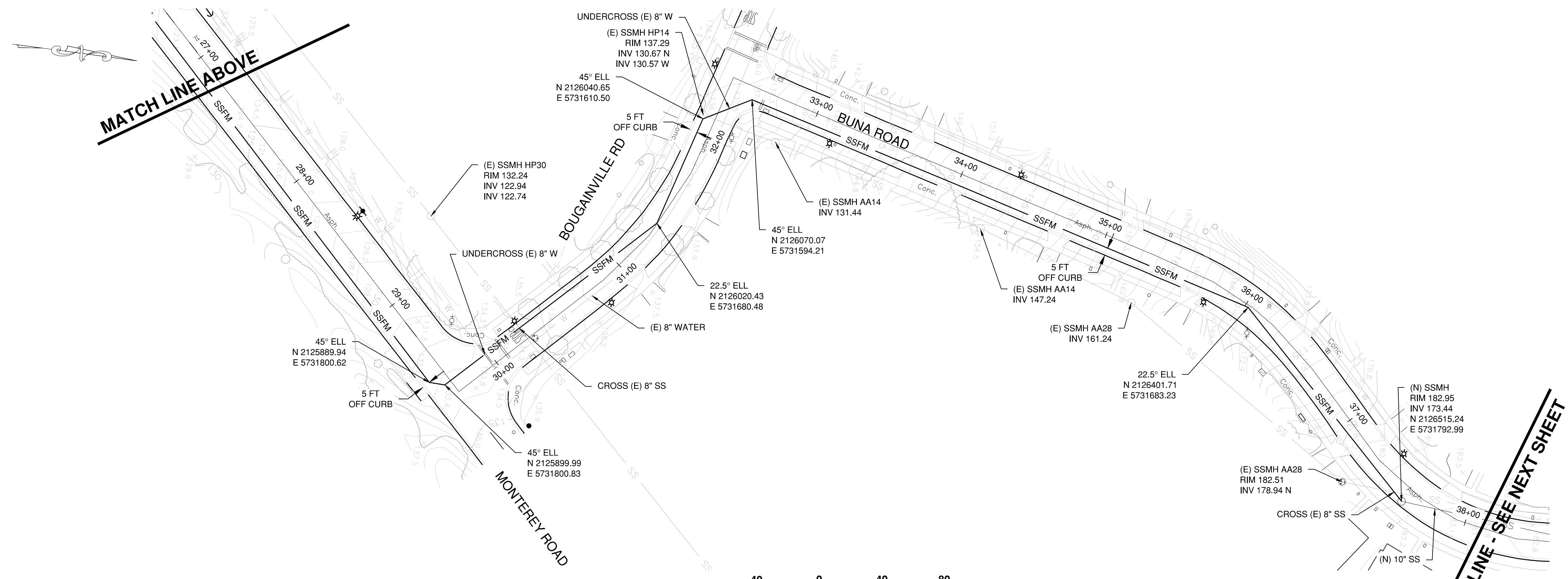
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**ORD VILLAGE FORCE MAIN REPLACEMENT
PLAN & PROFILE (3 OF 6)**

DATE:	12/04/2020
SCALE:	1" = 40'
DESIGN:	CJM
DRAWN:	CJM
CHECK:	AAS

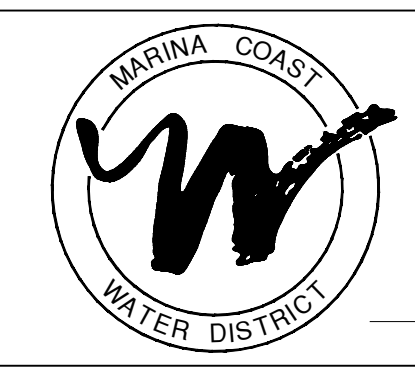
**SHEET
7
of
31**



PROFILE
 HOR. SCALE: 1"=40'
 VER. SCALE: 1"=10'

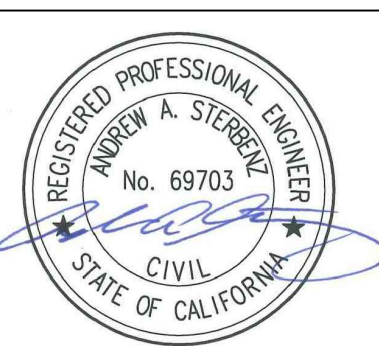
- NOTES:
1. PIPE LOCATIONS ARE APPROXIMATE. ALL PIPES SHALL BE FIELD VERIFIED.
 2. MINIMUM 12" CLEARANCE WHEN CROSSING PIPELINES.
 3. NEW MANHOLES TO BE EPOXY-LINED WITH RAVEN 405 OR EQUAL.
 4. FORCE MAIN SHALL BE FULLY RESTRAINED.

NO.	REVISION DESCRIPTION	DATE	APPR



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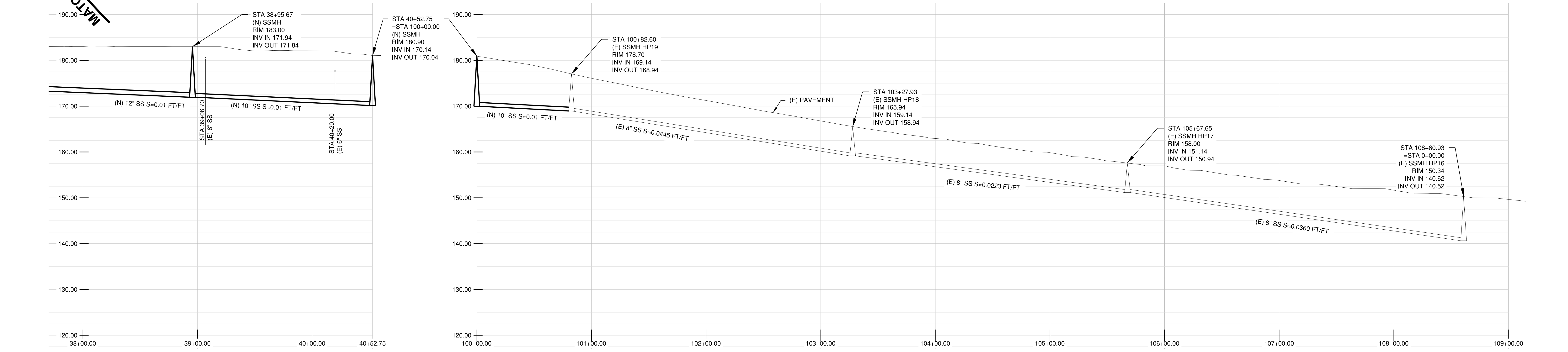
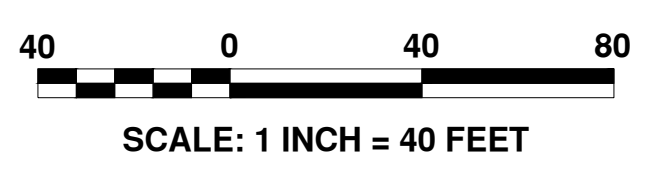
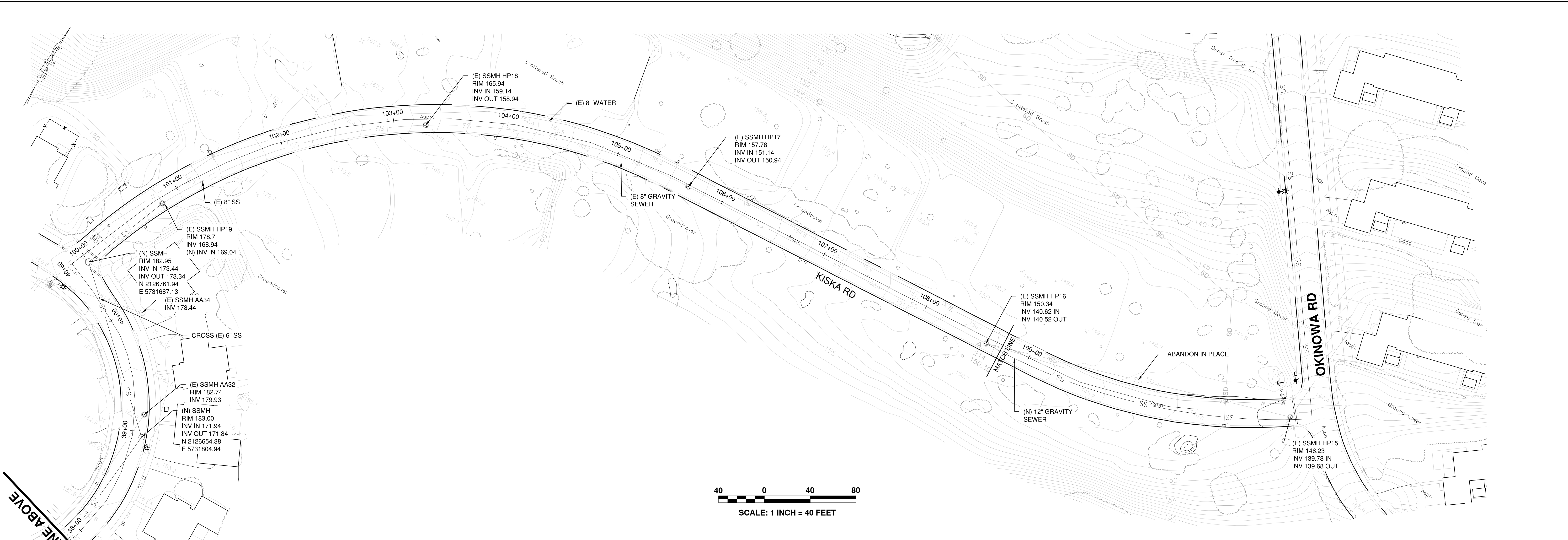
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**ORD VILLAGE FORCE MAIN REPLACEMENT
 PLAN & PROFILE (4 OF 6)**

DATE:	12/04/2020
SCALE:	1" = 40'
DESIGN:	CJM
DRAWN:	CJM
CHECK:	AAS

**SHEET
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 OF
 31**



PROFILE
 HOR. SCALE: 1"=40'
 VER. SCALE: 1"=10'

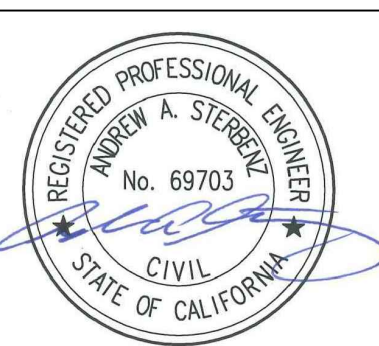
- NOTES:
 1. PIPE LOCATIONS ARE APPROXIMATE. ALL PIPES SHALL BE FIELD VERIFIED.
 2. MINIMUM 12" CLEARANCE WHEN CROSSING PIPELINES.
 3. NEW MANHOLES TO BE EPOXY-LINED WITH RAVEN 405 OR EQUAL.

NO.	REVISION DESCRIPTION	DATE	APPR



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 11 RESERVATION ROAD
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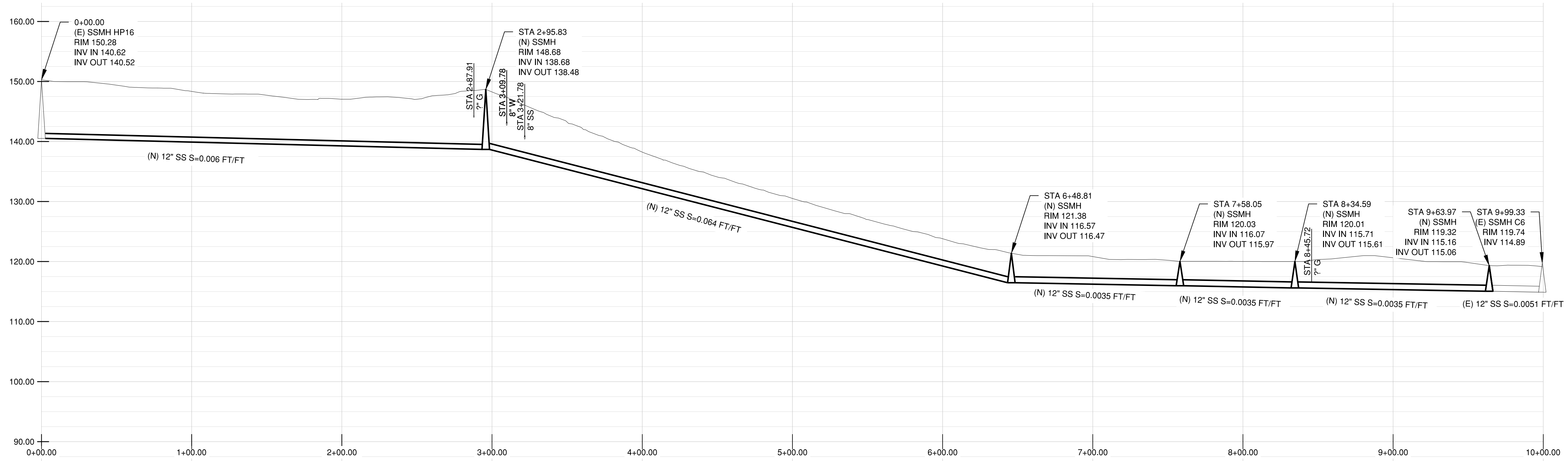
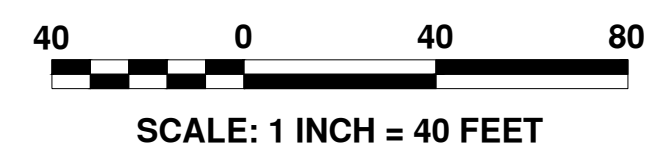
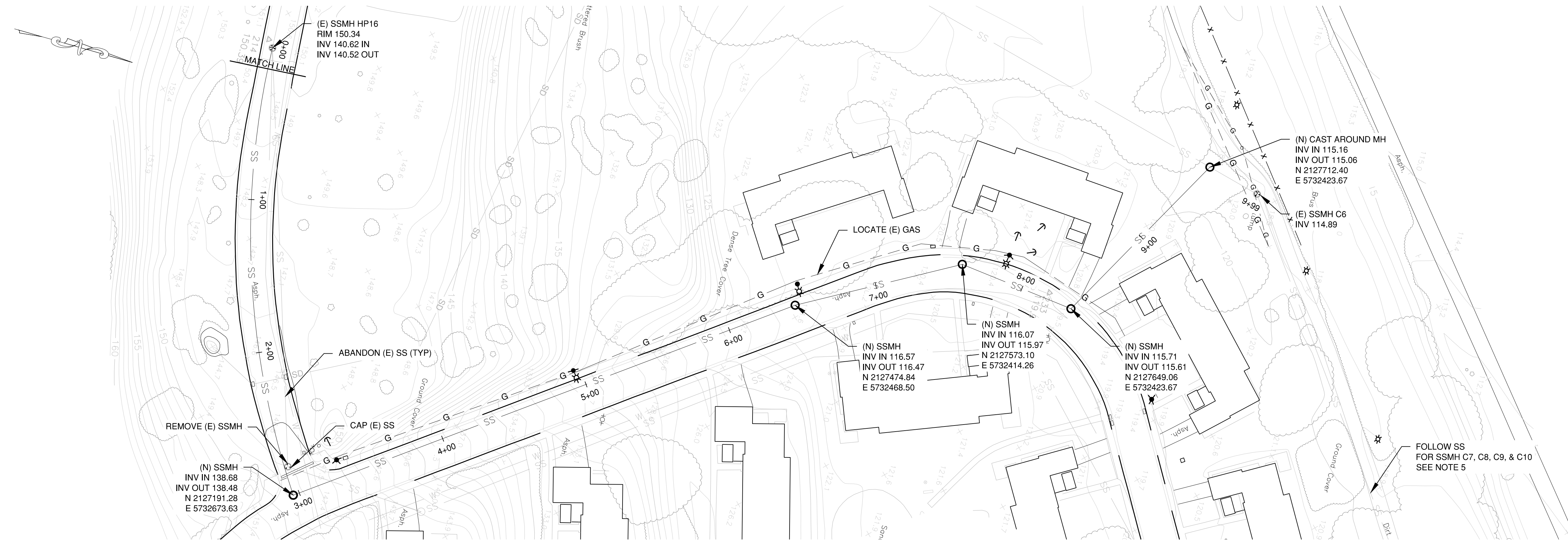
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**ORD VILLAGE FORCE MAIN REPLACEMENT
 PLAN & PROFILE (5 OF 6)**

DATE:	12/04/2020
SCALE:	1" = 40'
DESIGN:	CJM
DRAWN:	CJM
CHECK:	AAS

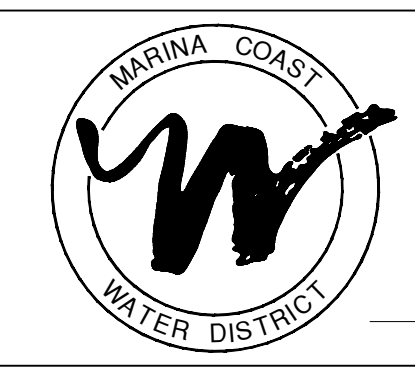
**SHEET
 9
 OF
 31**



PROFILE
 HOR. SCALE: 1"=40'
 VER. SCALE: 1"=10'

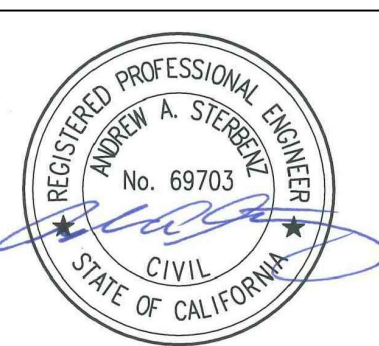
- NOTES:
1. PIPE LOCATIONS ARE APPROXIMATE. ALL PIPES SHALL BE FIELD VERIFIED.
 2. MINIMUM 12" CLEARANCE WHEN CROSSING PIPELINES.
 3. NEW MANHOLES TO BE EPOXY-LINED WITH RAVEN 405 OR EQUAL.
 4. FOR CROSSING (E) SEWER LATERALS WITH LESS THAN 12" CLEARANCE, SEE DETAIL 2/19
 5. EPOXY LINE MANHOLES C6, C7, C8, C9, & C10 (NOT SHOWN)

NO.	REVISION DESCRIPTION	DATE	APPR



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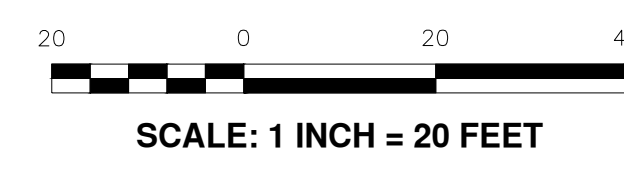
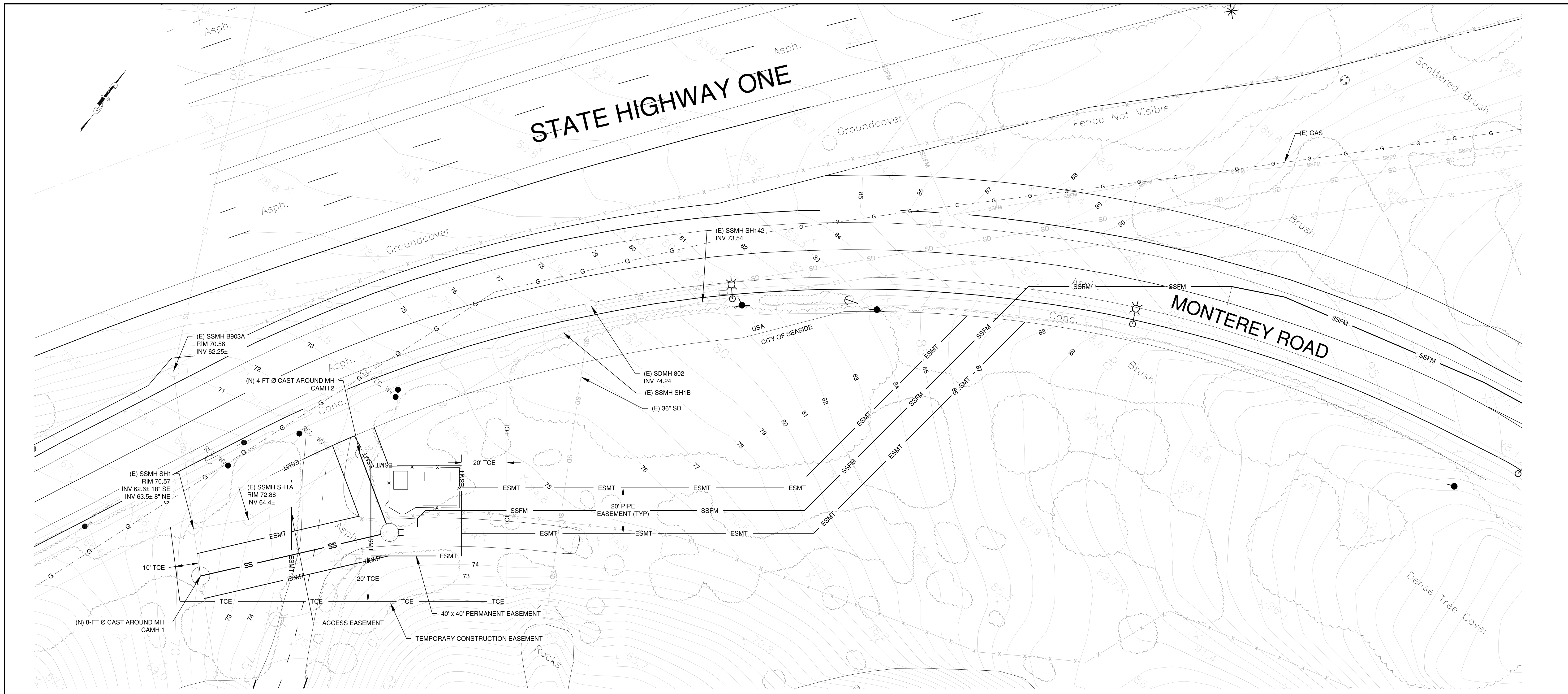
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**ORD VILLAGE FORCE MAIN REPLACEMENT
 PLAN & PROFILE (6 OF 6)**

DATE:	12/04/2020
SCALE:	1" = 40'
DESIGN:	CJM
DRAWN:	CJM
CHECK:	AAS

**SHEET
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 OF
 31**



PERMANENT EASEMENT CORNERS	
NORTHING	EASTING
2124267.93	5729294.33
2124235.76	5729318.10
2124211.99	5729285.93
2124244.16	5729262.16

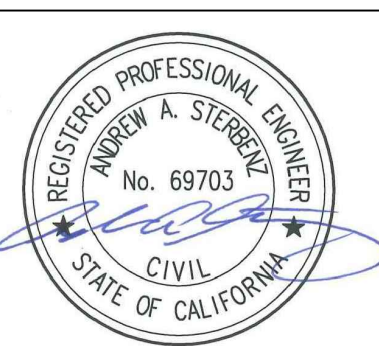
TCE CORNERS	
NORTHING	EASTING
2124309.45	5729288.53
2124231.55	5729346.07
2124145.85	5729230.04
2124169.61	5729207.36

NO.	REVISION DESCRIPTION	DATE	APPR



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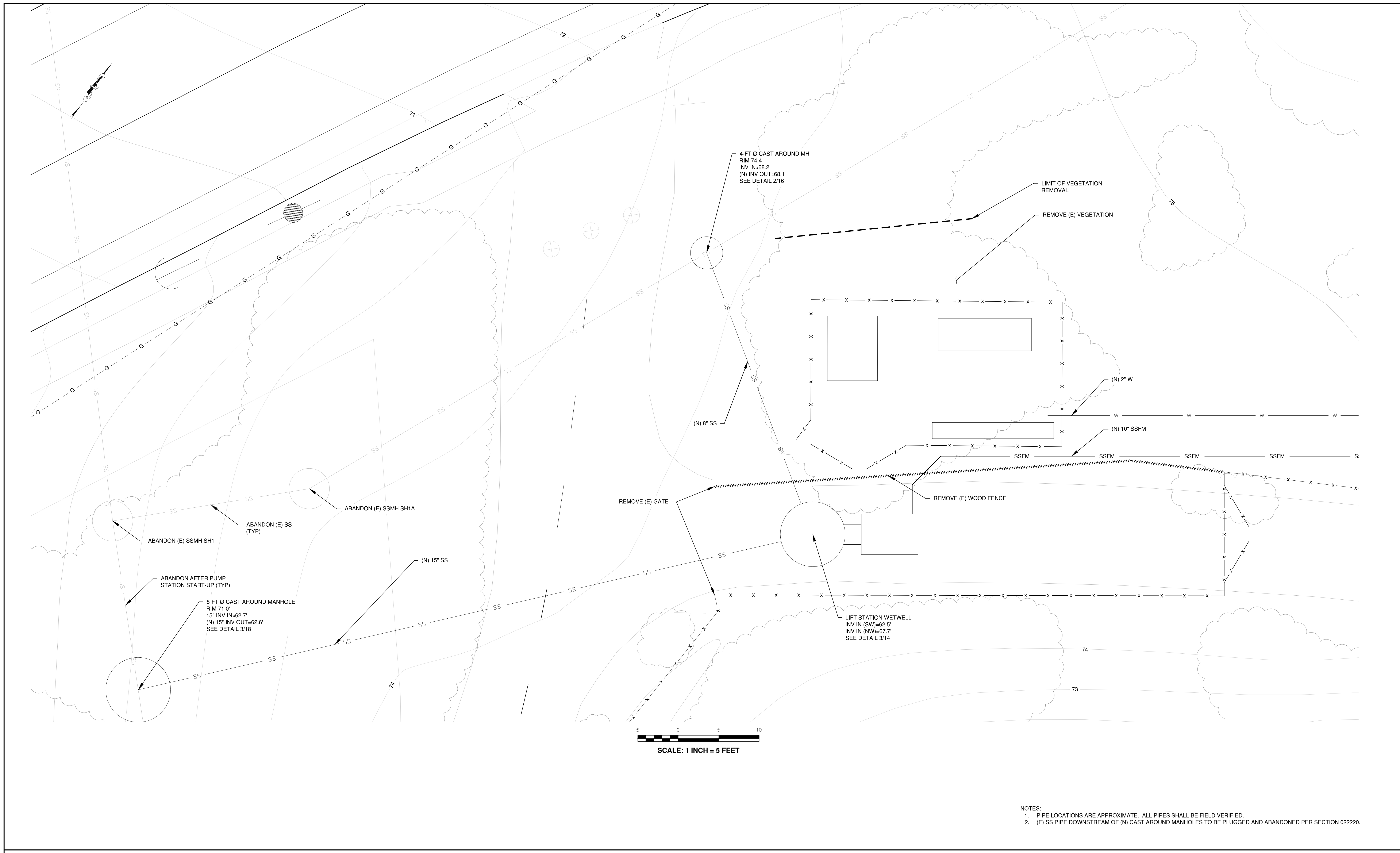
Schaaf & Wheeler
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**ORD VILLAGE FORCE MAIN REPLACEMENT
 EASEMENTS**


DATE: 12/04/2020
 SCALE: 1" = 20'
 DESIGN: CJM
 DRAWN: CJM
 CHECK: AAS

**SHEET
 11
 OF
 31**



- NOTES:
1. PIPE LOCATIONS ARE APPROXIMATE. ALL PIPES SHALL BE FIELD VERIFIED.
 2. (E) SS PIPE DOWNSTREAM OF (N) CAST AROUND MANHOLES TO BE PLUGGED AND ABANDONED PER SECTION 022220.

NO.	REVISION DESCRIPTION	DATE	APPR



MARINA COAST WATER DISTRICT
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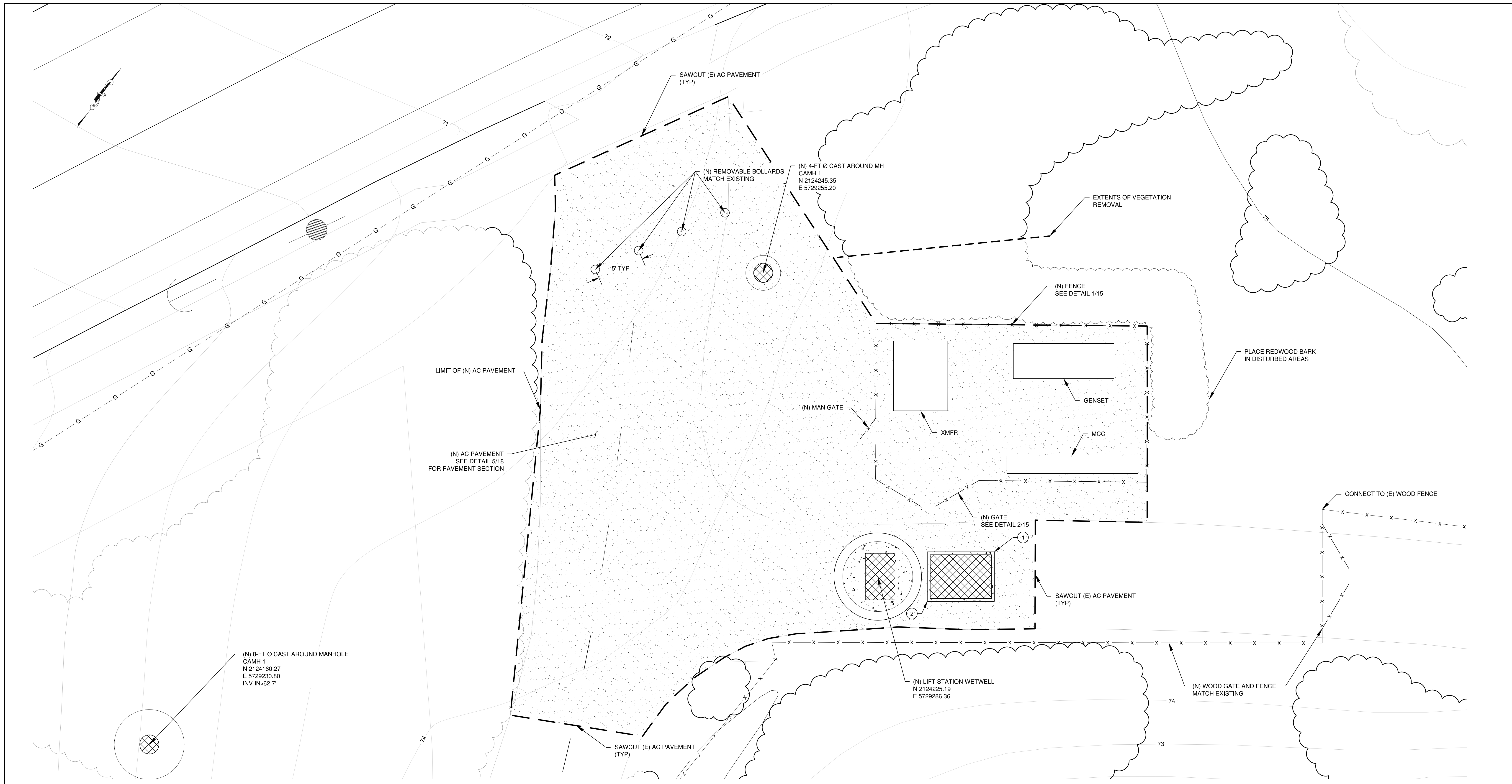
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 (831) 883-4848



**ORD VILLAGE FORCE MAIN REPLACEMENT
 PIPING PLAN**

DATE:	12/04/2020
SCALE:	1" = 5'
DESIGN:	CJM
DRAWN:	CJM
CHECK:	AAS

**SHEET
 12
 OF
 31**



(N) 8-FT Ø CAST AROUND MANHOLE
CAMH 1
N 2124160.27
E 5729230.80
INV IN-62.7'

(N) 4-FT Ø CAST AROUND MH
CAMH 1
N 2124245.35
E 5729255.20

(N) LIFT STATION WETWELL
N 2124225.19
E 5729286.36

SCALE: 1 INCH = 5 FEET

COORDINATE CALLOUTS	
#	NORTHING EASTING
①	2124235.39 5729295.41
②	2124226.28 5729292.61

FENCE CORNERS	
NORTHING	EASTING
2124266.53	5729294.12
2124256.89	5729301.27
2124238.72	5729276.15
2124248.37	5729269.01

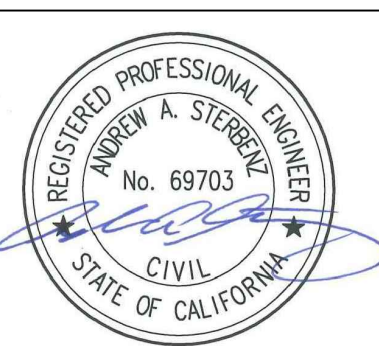
NOTES:
1. PIPE LOCATIONS ARE APPROXIMATE. ALL PIPES SHALL BE FIELD VERIFIED.

NO.	REVISION DESCRIPTION	DATE	APPR



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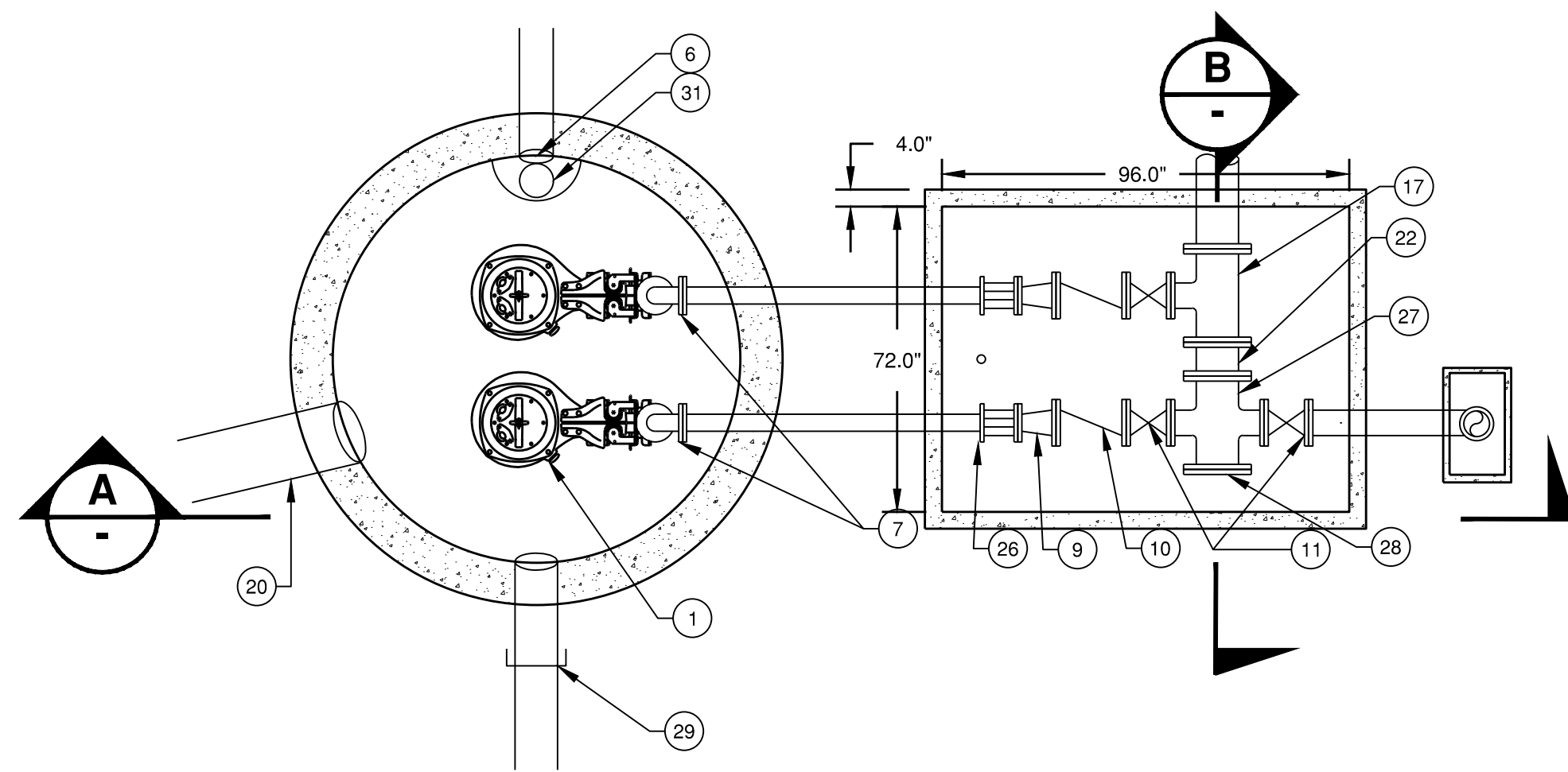
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SALINAS, CA 93907
(831) 883-4848



**ORD VILLAGE FORCE MAIN REPLACEMENT
IMPROVEMENT SITE PLAN**

DATE: 12/04/2020
SCALE: 1" = 5'
DESIGN: CJM
DRAWN: CJM
CHECK: AAS

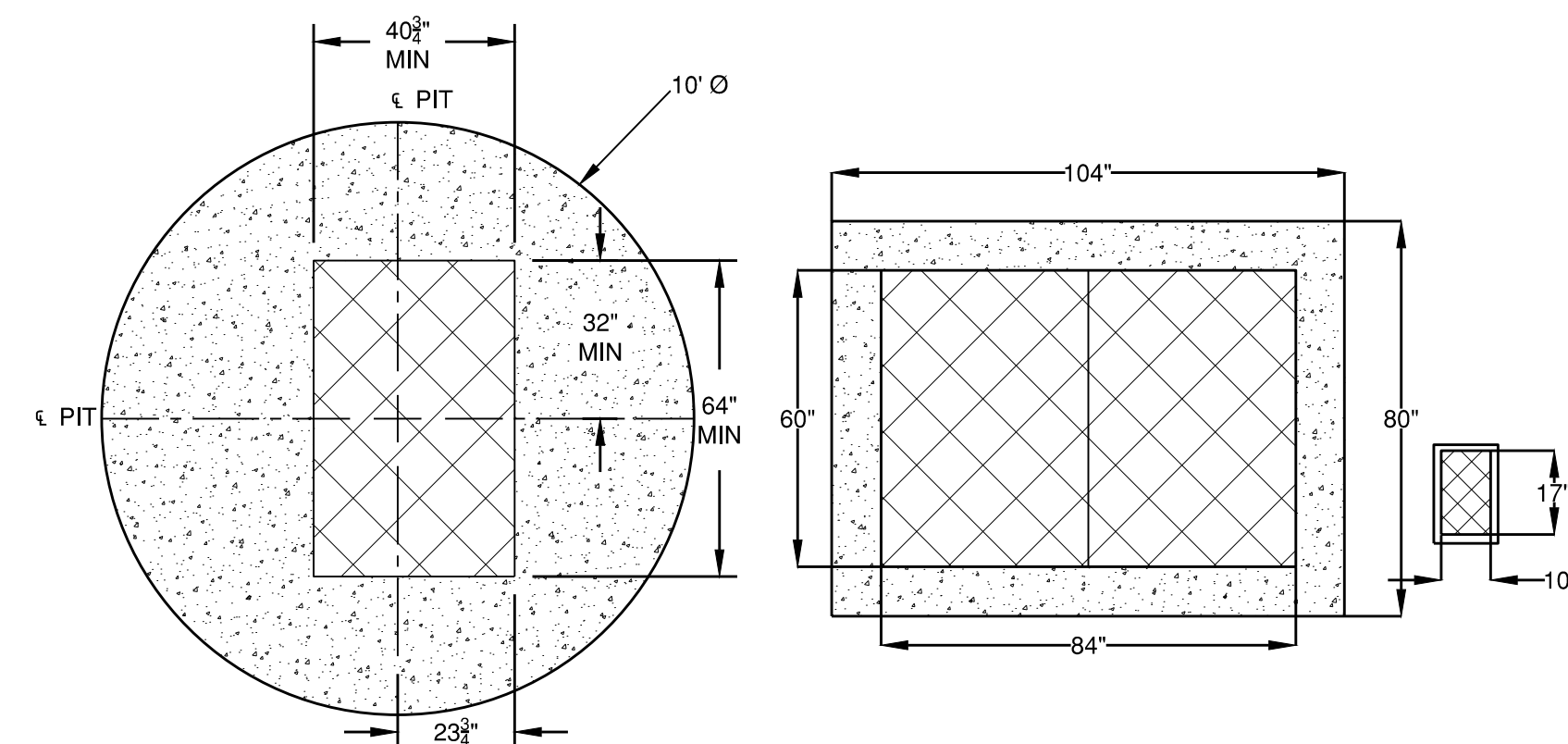
**SHEET
13
of
31**



PUMP STATION PLAN

1"=3'

3
14



VAULT LIDS

1"=3'

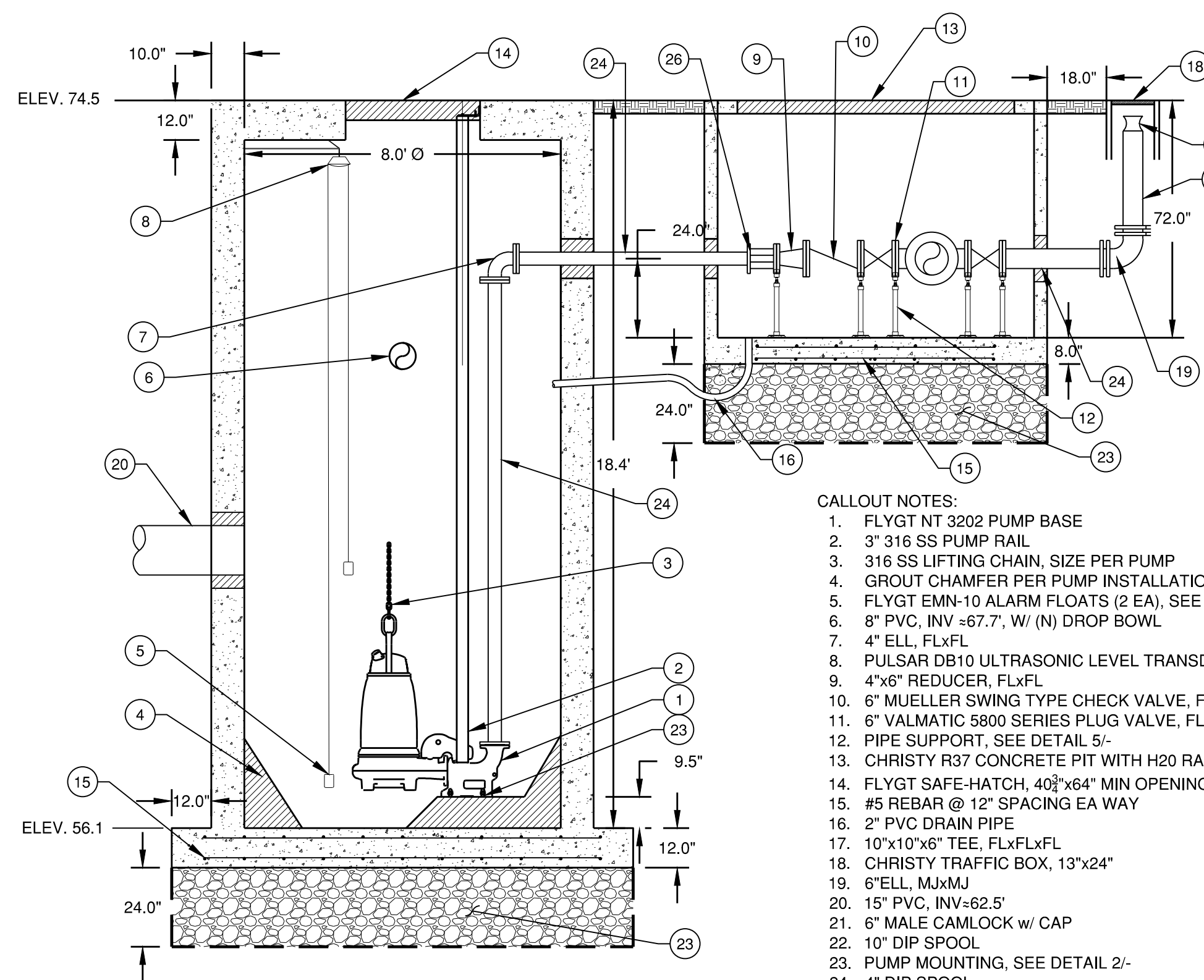
1
-

PROJECT SPECIFIC ELEVATIONS

DESCRIPTION	VALUE (FT)
RIM ELEV	74.5
INVERT IN	ELEV#1: 62.5, ELEV#2: 67.7
HIGH HIGH WATER FLOAT	62.5
HIGH WATER ALARM	62.3
LAG PUMP ON	62.0
LAG PUMP OFF	61.5
LEAD PUMP ON	61.5
LEAD PUMP OFF	57.8
LOW WATER ALARM	57.5
LOW LOW WATER FLOAT	57.3
WET WELL FLOOR ELEV	56.1
BOTTOM OF SLAB	55.1
BOTTOM OF FILL	53.1

SYSTEM CHARACTERISTICS

DESCRIPTION	VALUE
DESIGN FLOW	925 GPM
STATIC HEAD	114 FT
TOTAL DYNAMIC HEAD	157 FT
FORCE MAIN LENGTH	4000 FT
MOTOR SIZE	70 HP
PUMP MAKE	FLYGT
PUMP MODEL	NP 3202-466

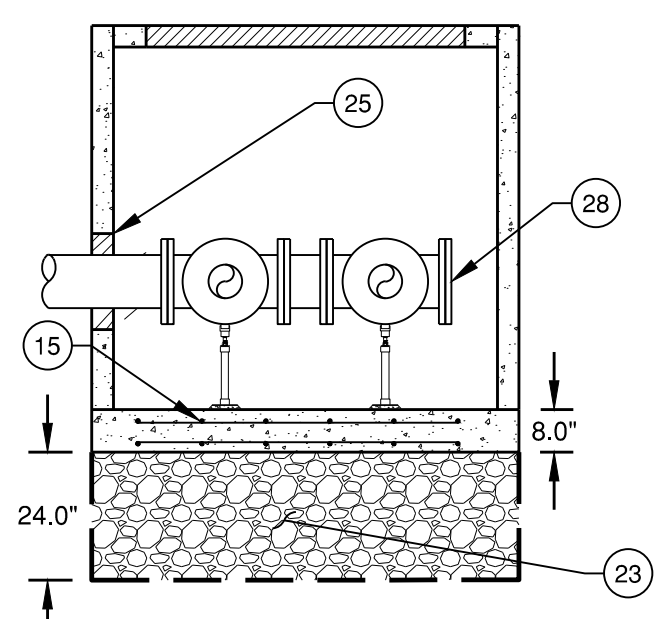


SECTION A

1"=3'

A
-

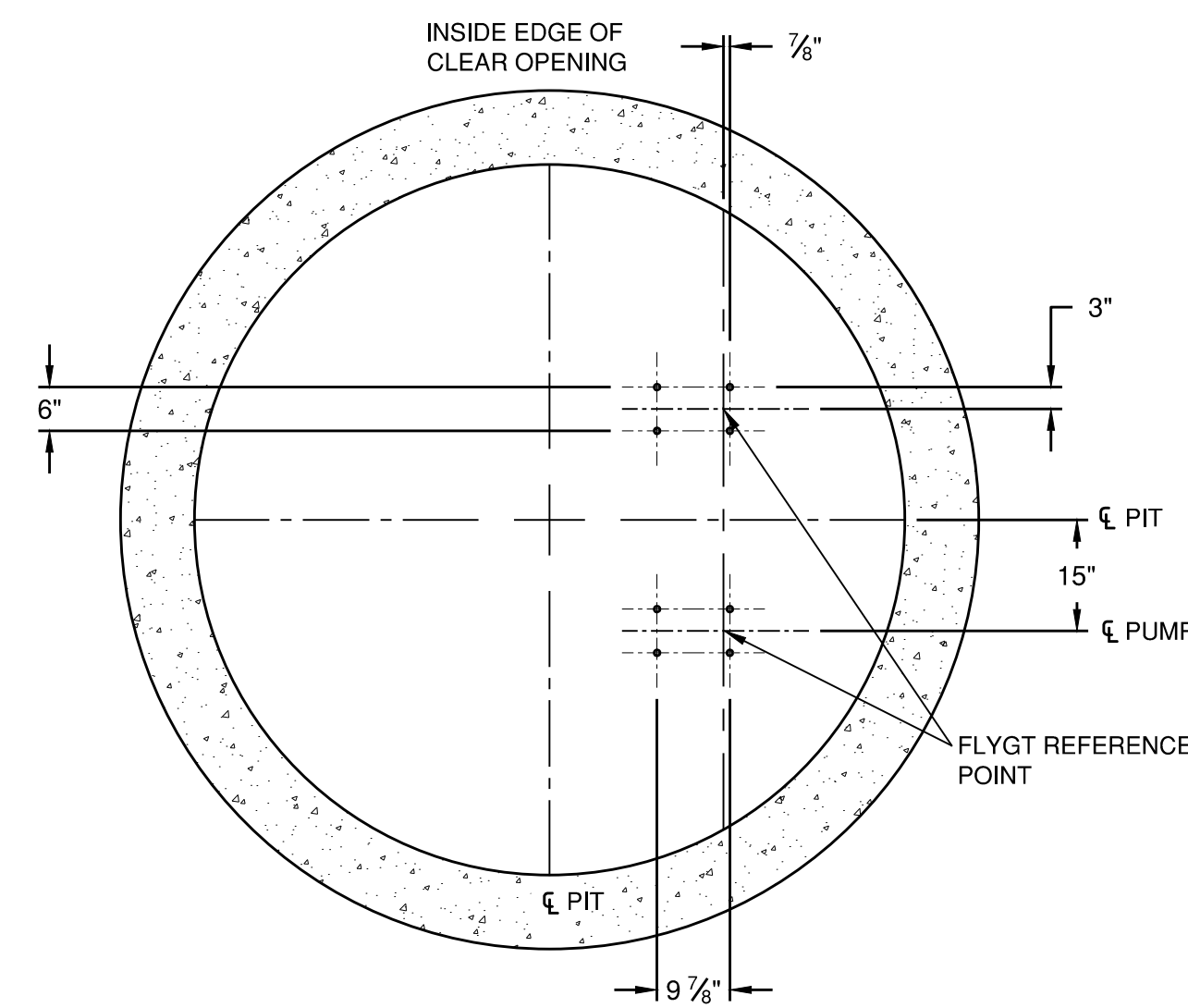
- CALLOUT NOTES:**
1. FLYGT NT 3202 PUMP BASE
 2. 3" 316 SS PUMP RAIL
 3. 316 SS LIFTING CHAIN, SIZE PER PUMP
 4. GROUT CHAMFER PER PUMP INSTALLATION INSTRUCTIONS
 5. FLYGT EMN-10 ALARM FLOATS (2 EA), SEE DETAIL 5/15
 6. 3" PVC, INV = 67.7', W/ (N) DROP BOWL
 7. 4" ELL, FLxFL
 8. PULSAR DB10 ULTRASONIC LEVEL TRANSDUCER
 9. 4"x6" REDUCER, FLxFL
 10. 6" MUELLER SWING TYPE CHECK VALVE, FLxFL
 11. 6" VALMATIC 5800 SERIES PLUG VALVE, FLxFL
 12. PIPE SUPPORT, SEE DETAIL 5/-
 13. CHRISTY R37 CONCRETE PIT WITH H2O RATED LID
 14. FLYGT SAFE-HATCH, 40"x64" MIN OPENING, SEE DETAIL 1/-
 15. #5 REBAR @ 12" SPACING EA WAY
 16. 2" PVC DRAIN PIPE
 17. 10"x10"x6" TEE, FLxFLxFL
 18. CHRISTY TRAFFIC BOX, 13"x24"
 19. 6" TELL, MxMxM
 20. 15" PVC, INV=62.5'
 21. 6" MALE CAMLOCK w/ CAP
 22. 10" DIP SPOOL
 23. PUMP MOUNTING, SEE DETAIL 2/-
 24. 4" DIP SPOOL
 25. PIPE PENETRATION, SEE DETAIL 4/-
 26. 4" DISMANTLING JOINT, ROMAC DJ400
 27. 6"x10" CROSS
 28. 10" BLIND FLANGE
 29. 10" STUB FOR (F) CONNECTION (PLUGGED)
 30. 6" SPOOL, NPTxPE
 31. DROP BOWL
 32. CLASS 2 BASE ROCK



SECTION B

1"=3'

B
-



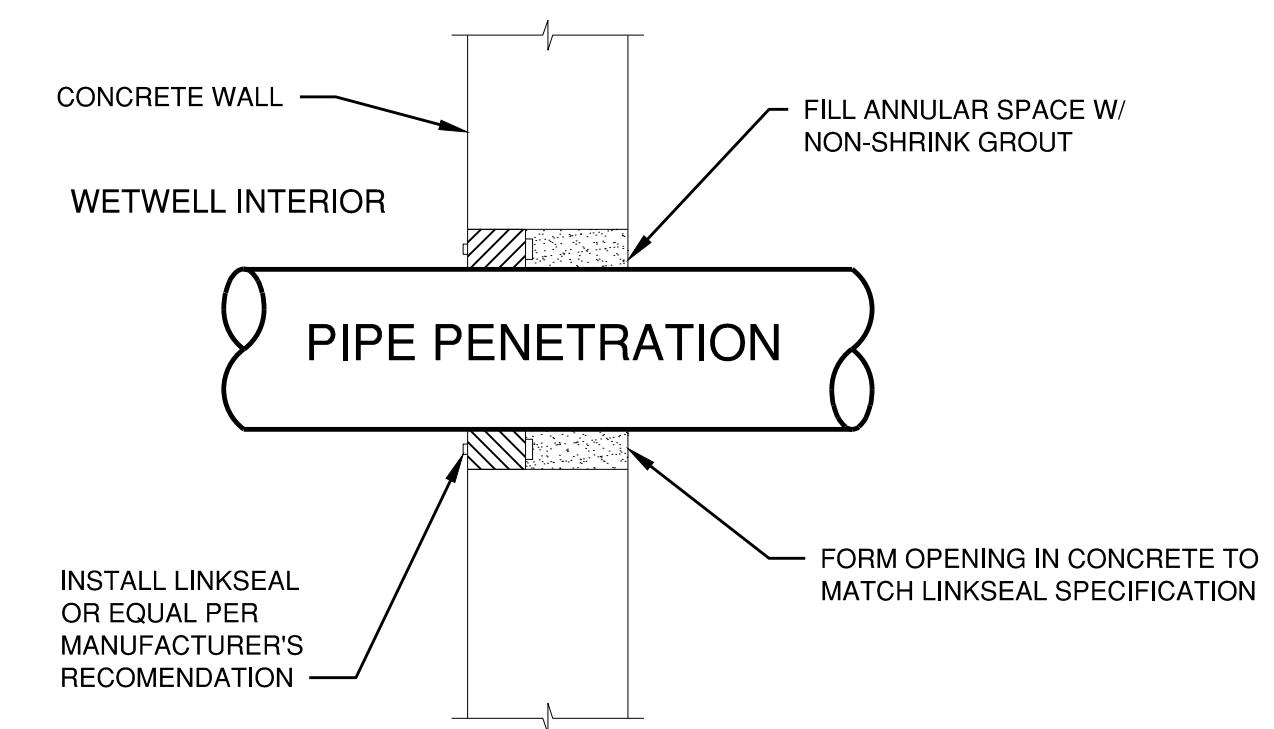
PUMP MOUNTING

1"=2'

2
-



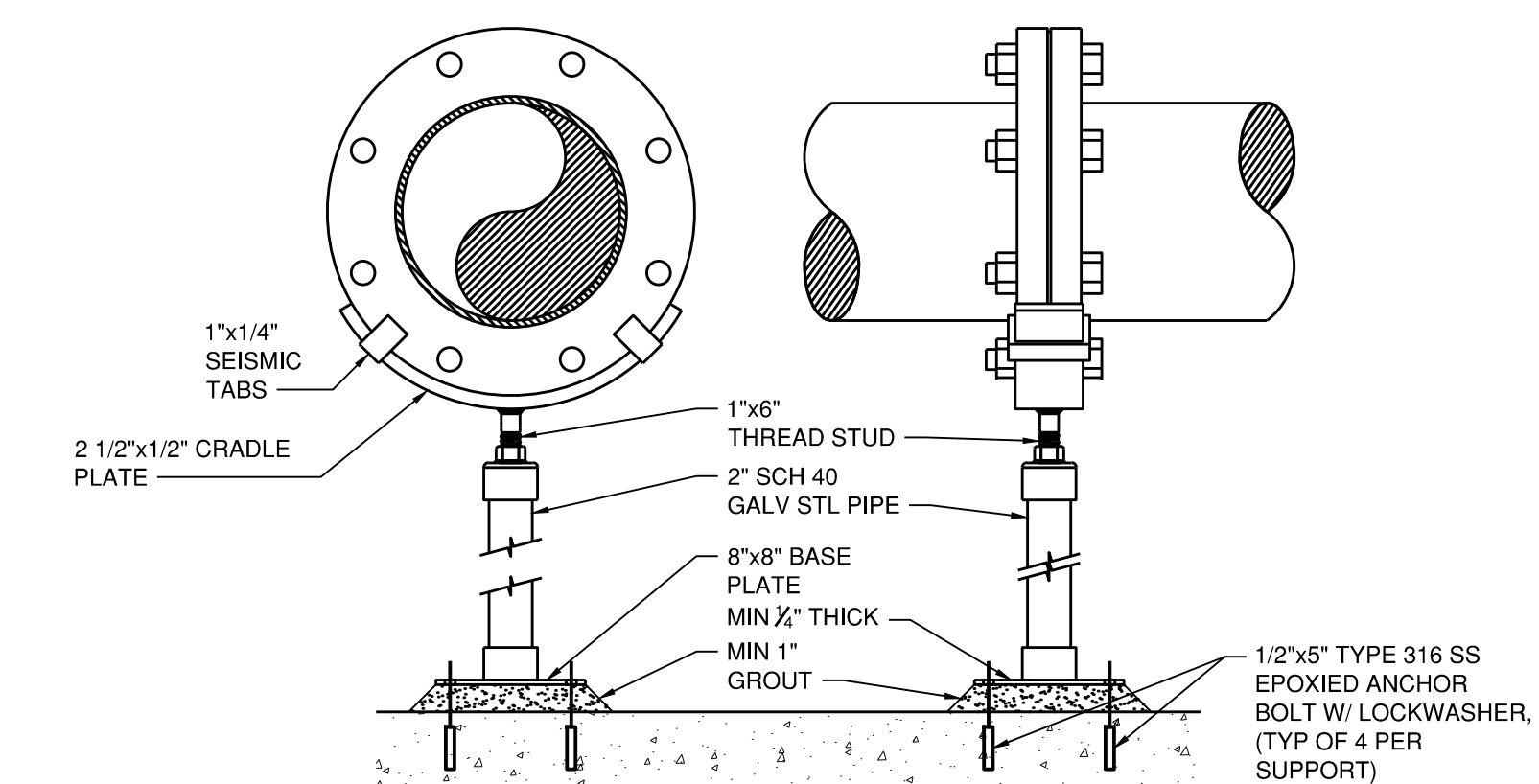
SCALE: 1 INCH = 2 FEET



PIPE PENETRATION

NTS

4
-



PIPE SUPPORT

NTS

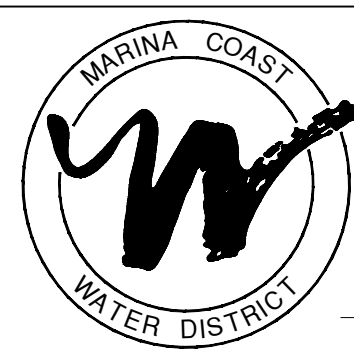
5
-

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



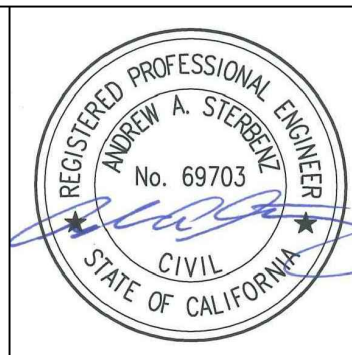
SCALE: 1 INCH = 3 FEET

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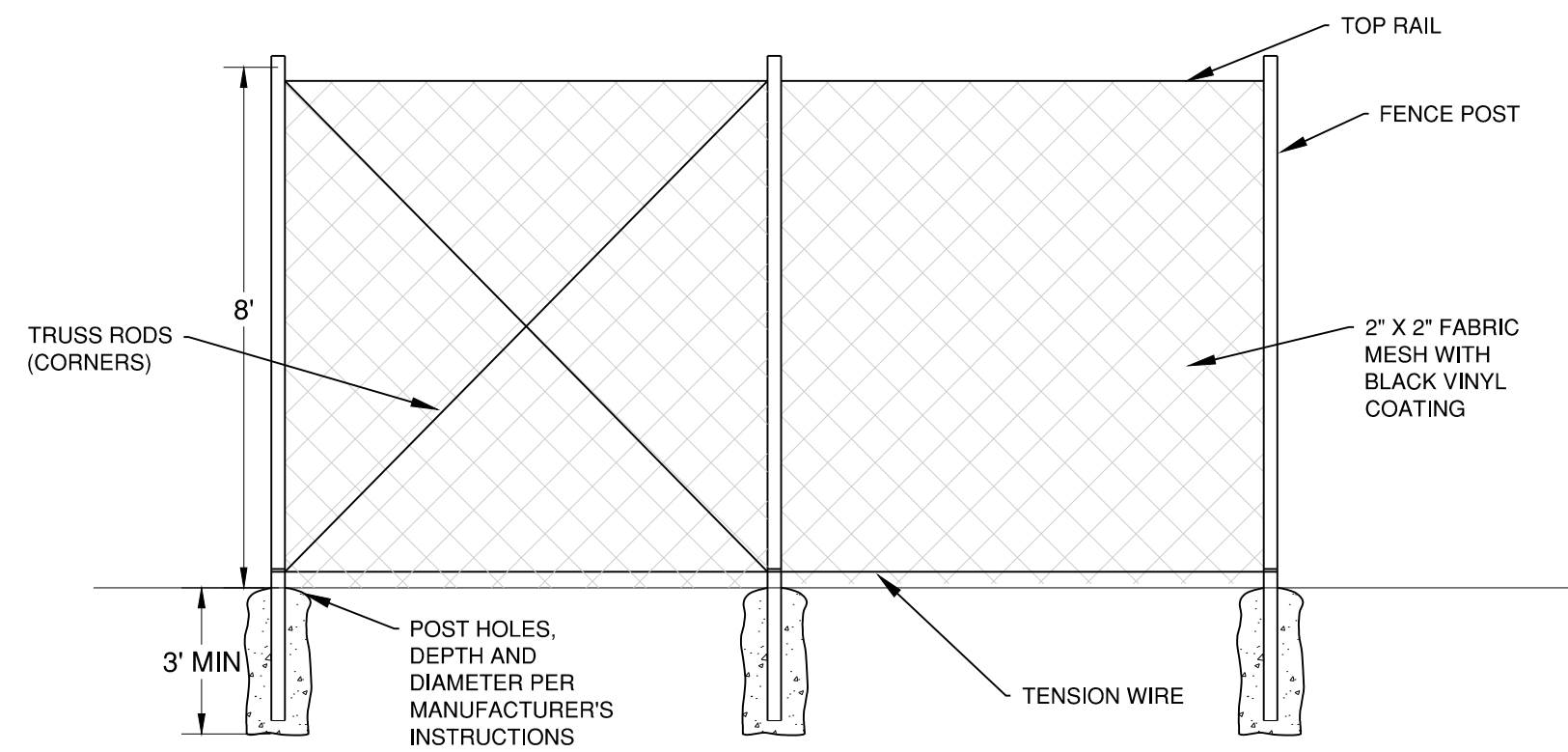
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SALINAS, CA 93907
(831) 883-4848



**ORD VILLAGE FORCE MAIN REPLACEMENT
PUMP STATION**

DATE: 12/04/2020
SCALE: AS SHOWN
DESIGN: CJM
DRAWN: CJM
CHECK: AAS

**SHEET
14
OF
31**

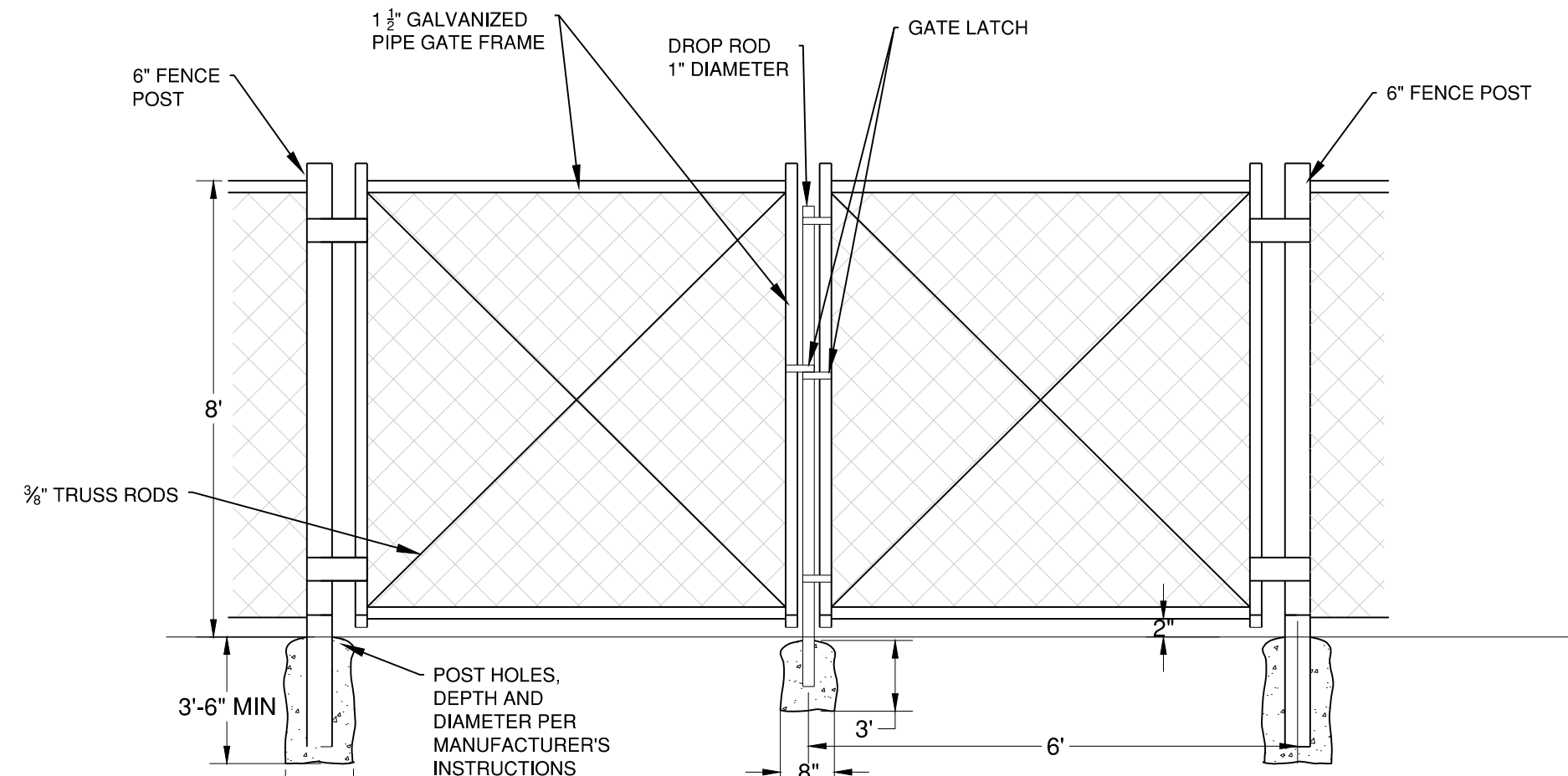


FENCE DETAIL

NTS

1

13

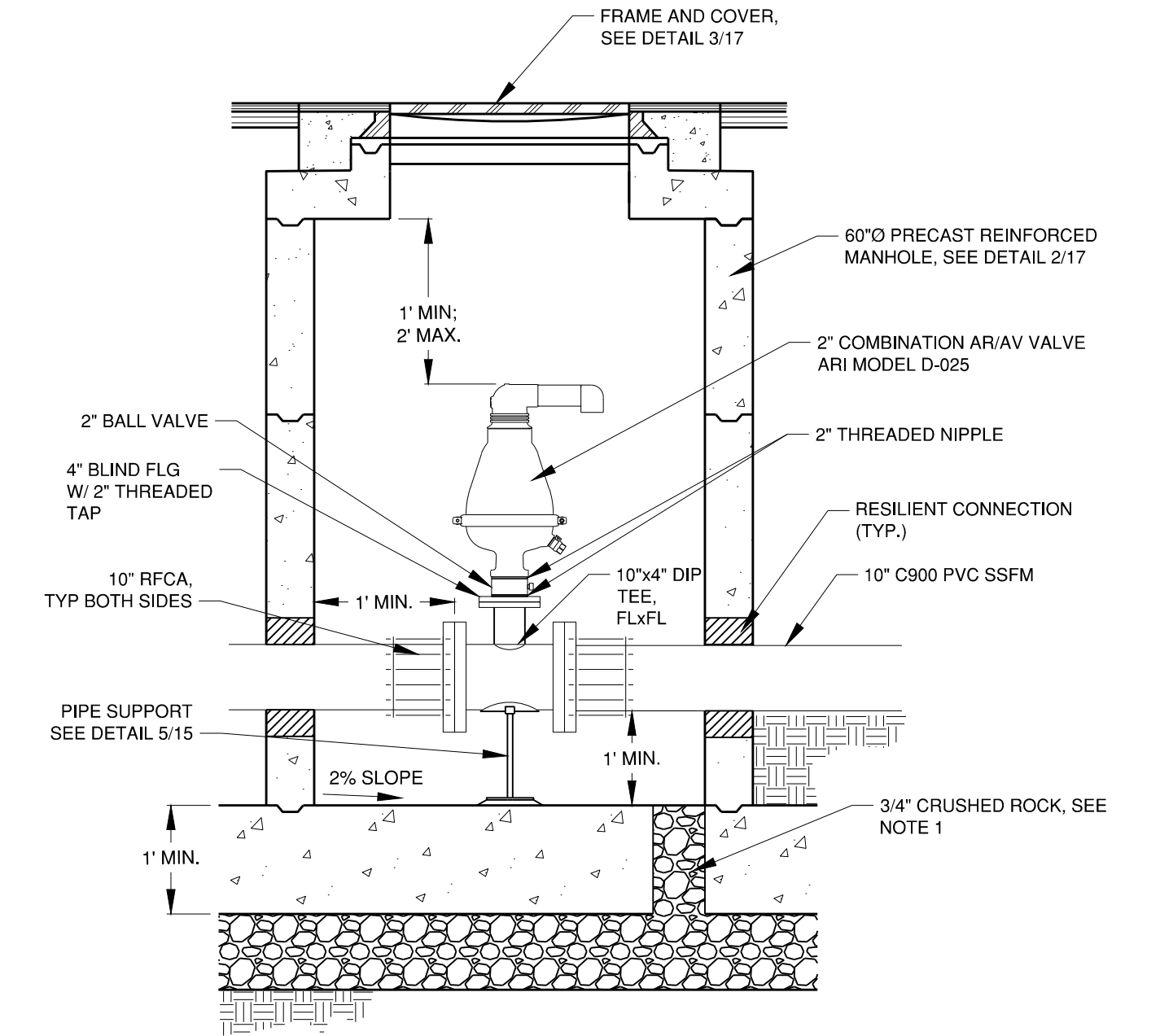


GATE DETAIL

NTS

2

13

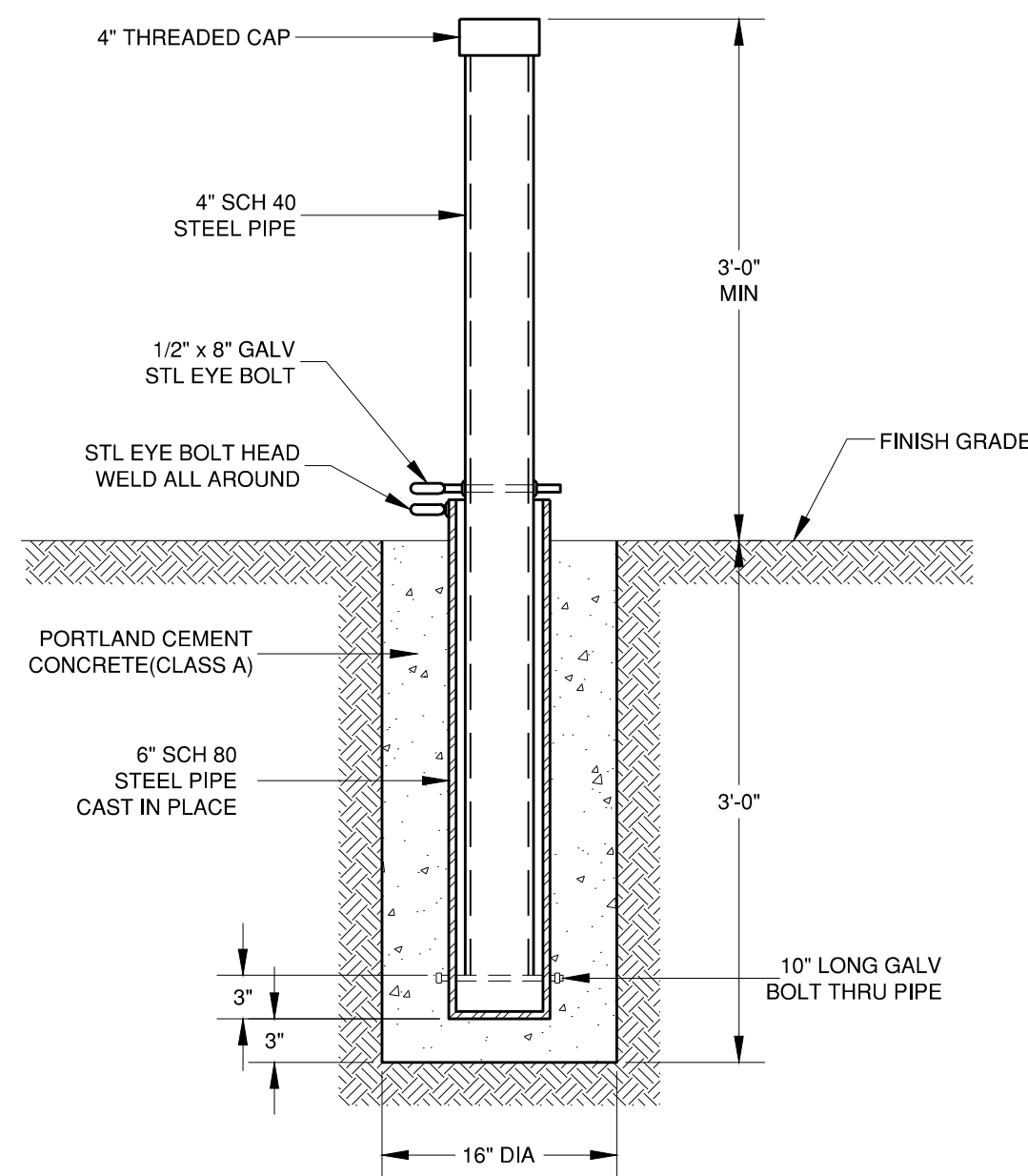


AR/AV ASSEMBLY

NTS

3

6

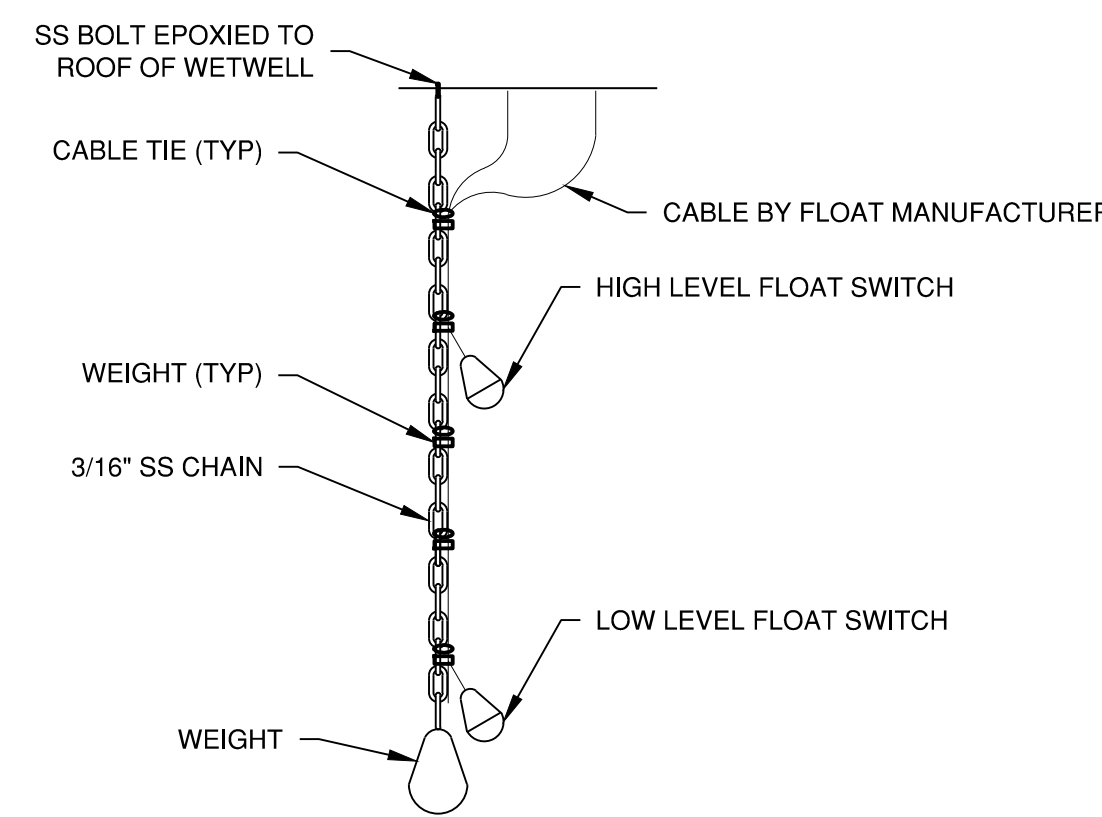


REMOVABLE GUARD POST

NTS

4

13



FLOAT SWITCH MOUNTING

NTS

5

14

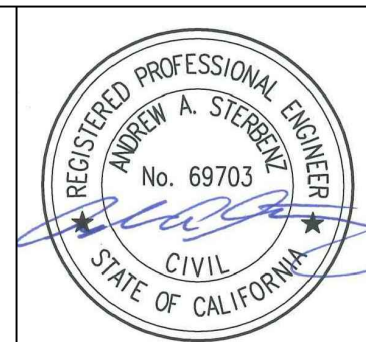
- NOTES:
1. SLOPE BASE TO ONE CORNER. CORE DRILL 4" HOLE THROUGH BASE AND FILL WITH CRUSHED ROCK.
 2. ALL HARDWARE AND FASTENERS SHALL BE 316 SS.
 3. PIPE PENETRATIONS THROUGH MANHOLE SHALL INCLUDE ASTM C923 RESILIENT CONNECTORS SUCH AS KOR-N-SEAL, A-LOK OR EQUAL PER DETAIL.

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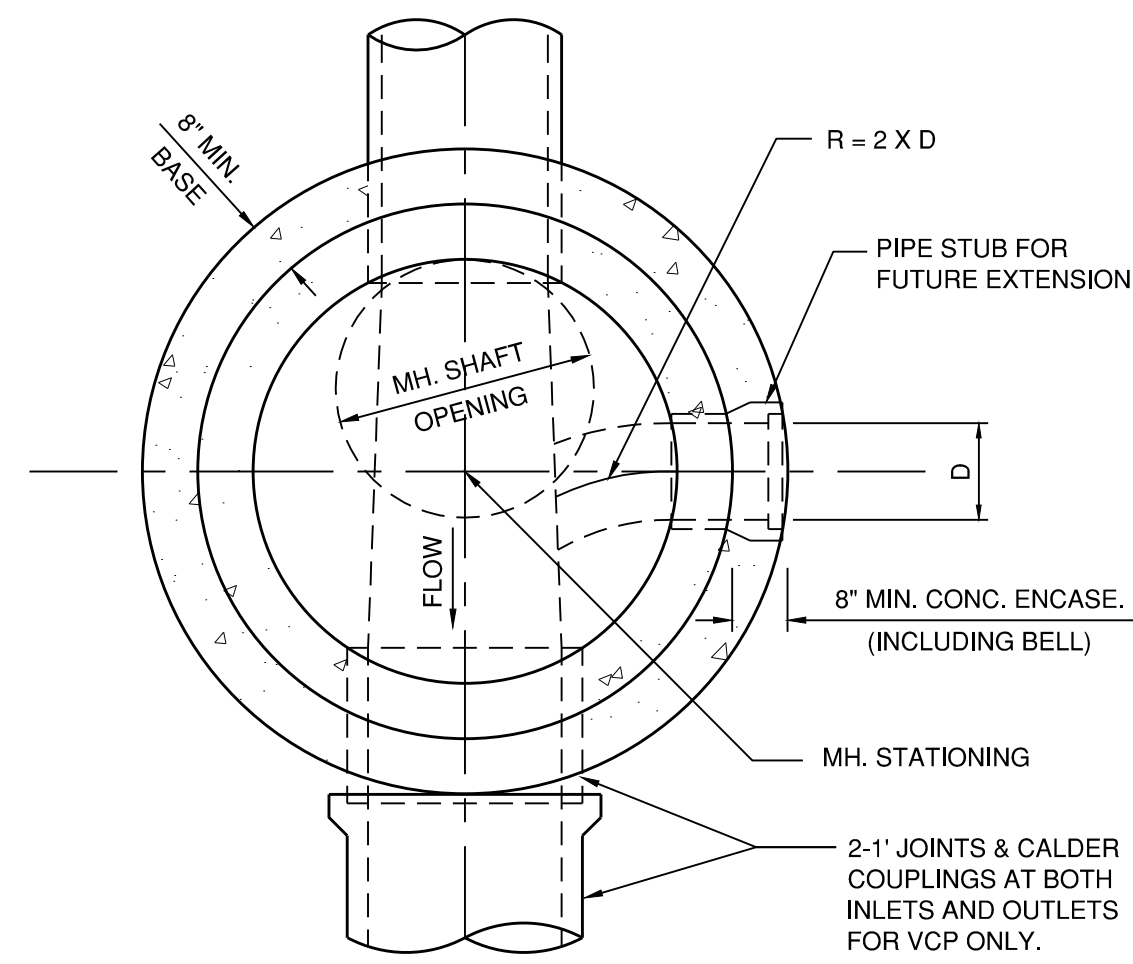
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**ORD VILLAGE FORCE MAIN REPLACEMENT
 SEWER DETAILS (1 OF 4)**

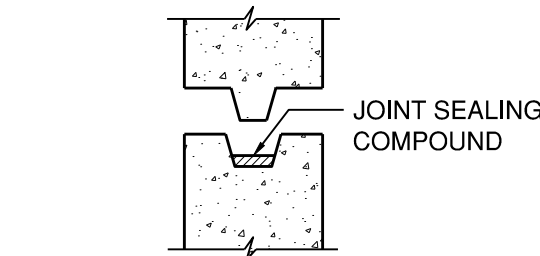
DATE: 12/04/2020
 SCALE: AS NOTED
 DESIGN: CJM
 DRAWN: CJM
 CHECK: AAS

SHEET
15
 OF
31

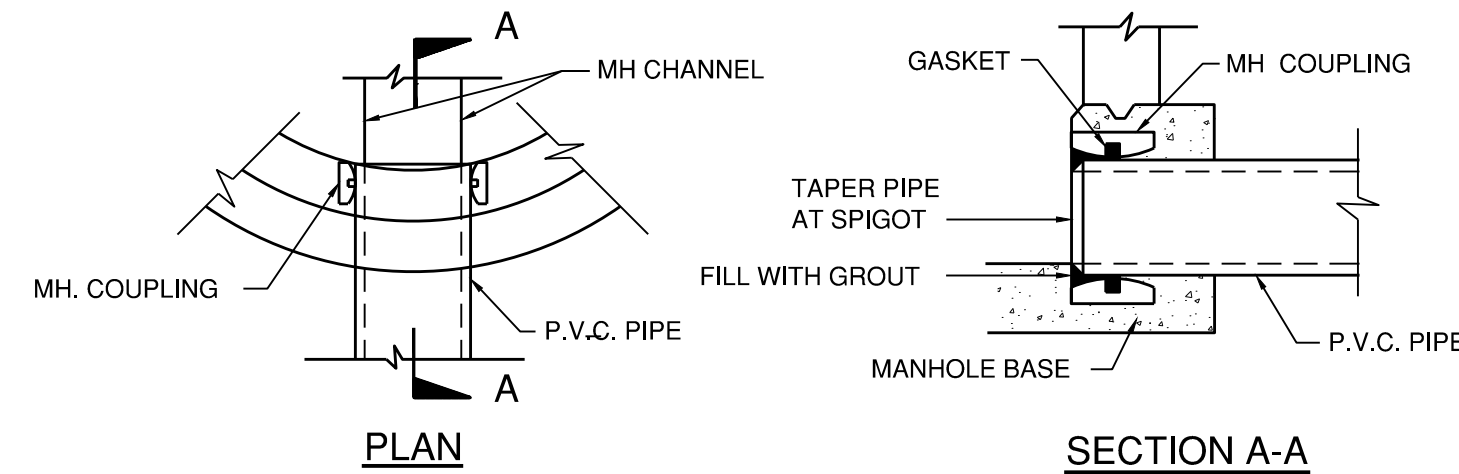


MANHOLE BASE PLAN

0.10' MIN. FALL ACROSS MH. (TYP.) UNLESS SEWER SLOPE GREATER. 0.20' MIN. FALL FOR 90° MH.



BARREL JOINT SEALANT

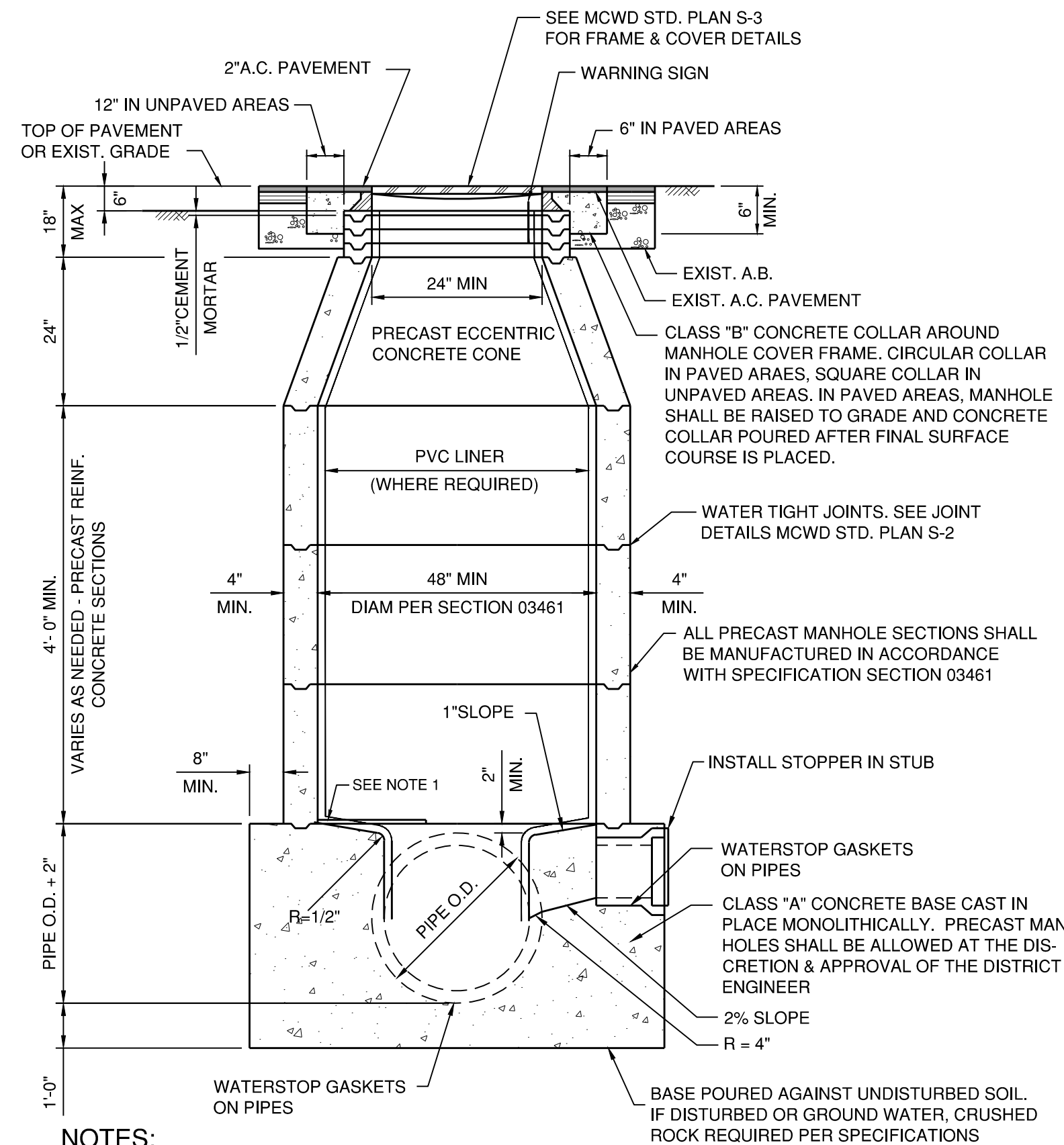
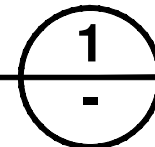


MANHOLE CONNECTION DETAILS

NOTES:

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

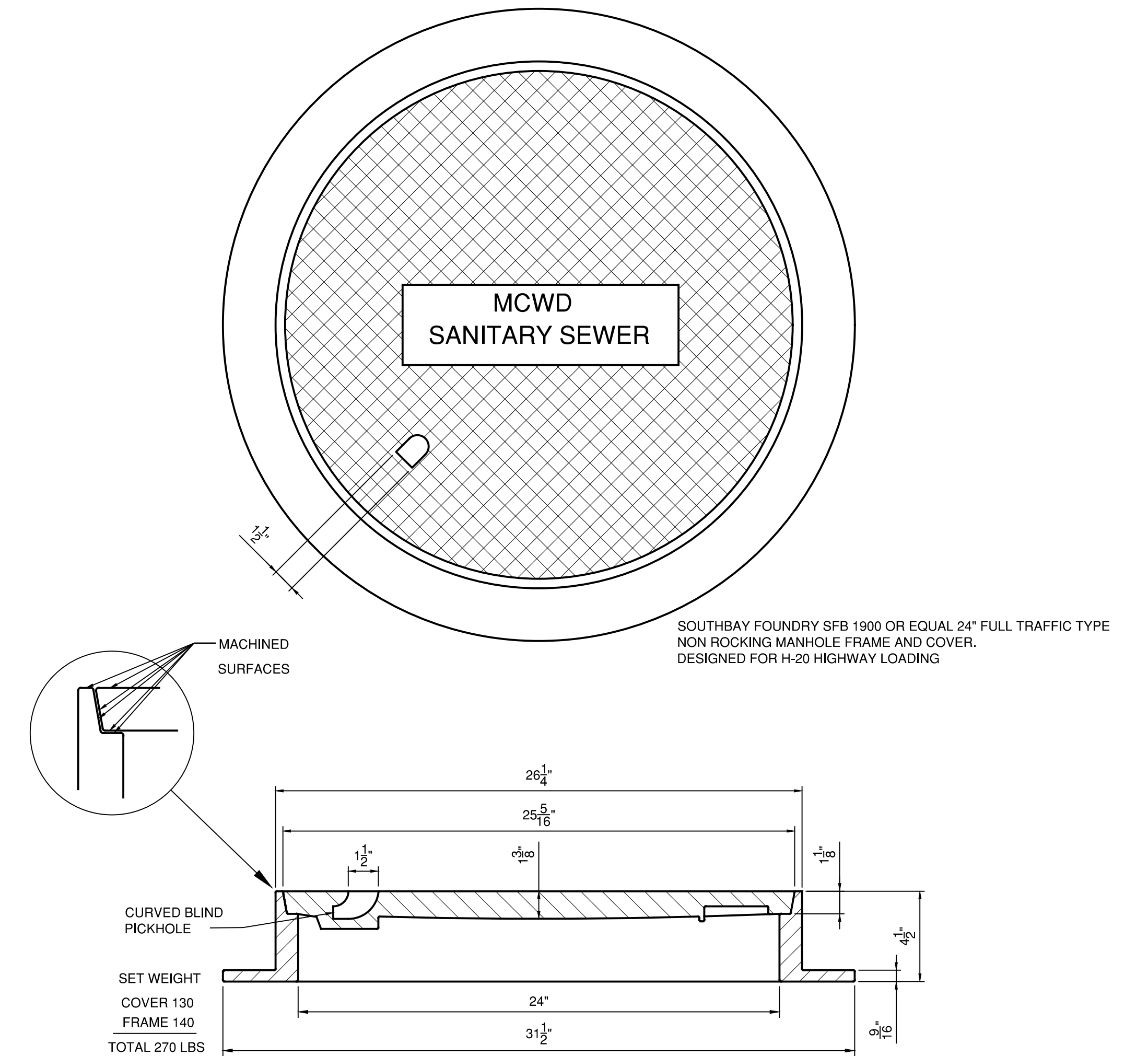
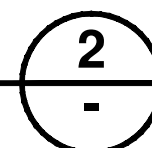
MANHOLE BASE
NTS



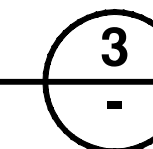
NOTES:

1. PLACE TWO HALF MOON SHAPED PLYWOOD COVERS (5/8" THICK MINIMUM) ON MANHOLE SHELF AFTER SHAFTS HAVE BEEN SET TO KEEP DEBRIS FROM ENTERING SEWER UNTIL PROJECT COMPLETION & ACCEPTANCE BY DISTRICT.
2. FOR DROP MANHOLE SEE MCWD STD. PLAN S-11. DROPS OVER 1-FT REQUIRE DISTRICT APPROVAL.
3. FOR MANHOLES LOCATED OUTSIDE PAVED AREAS THE FRAME AND COVER SHOULD BE SET A MINIMUM OF 0.1 FT. ABOVE FINISH GRADE IN SHOULDER AREAS, UNPAVED ROADS OR LANDSCAPED AREAS, AND 18" IN UNFINISHED AREAS.
4. ALL INLETS AND OUTLETS SHALL BE SUPPORTED WITH CONCRETE SUPPORTS PRIOR TO POURING MANHOLE BASE.

MANHOLE
NTS



MANHOLE COVER
NTS



NO.	REVISION DESCRIPTION	DATE	APPR



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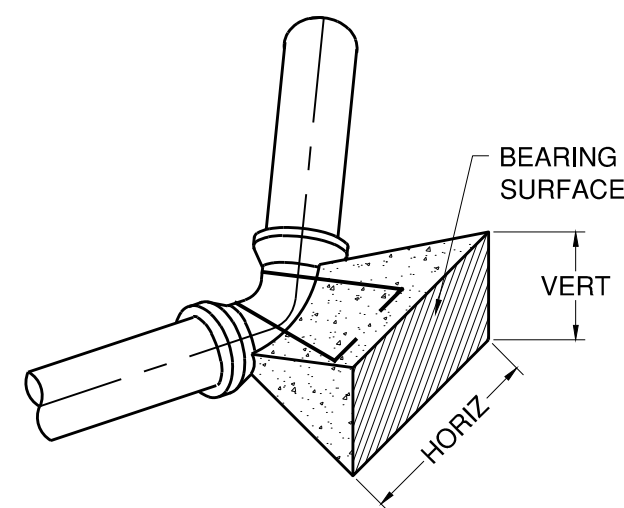
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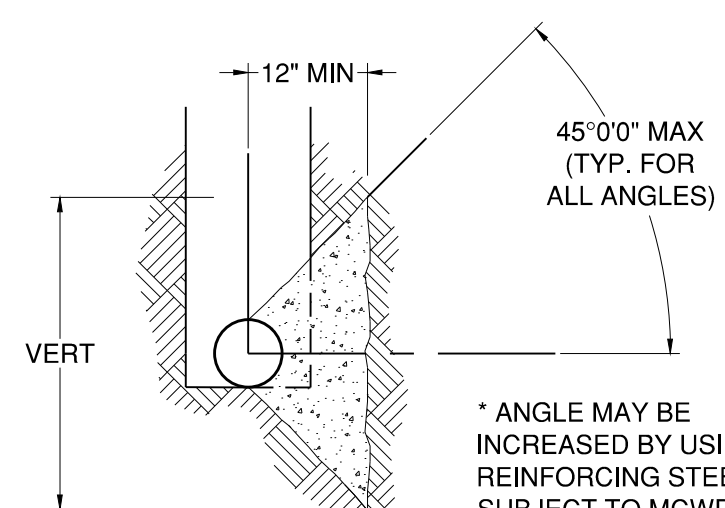
**ORD VILLAGE FORCE MAIN REPLACEMENT
SEWER DETAILS (2 OF 4)**

DATE: 12/04/2020
SCALE: AS NOTED
DESIGN: CJM
DRAWN: CJM
CHECK: AAS

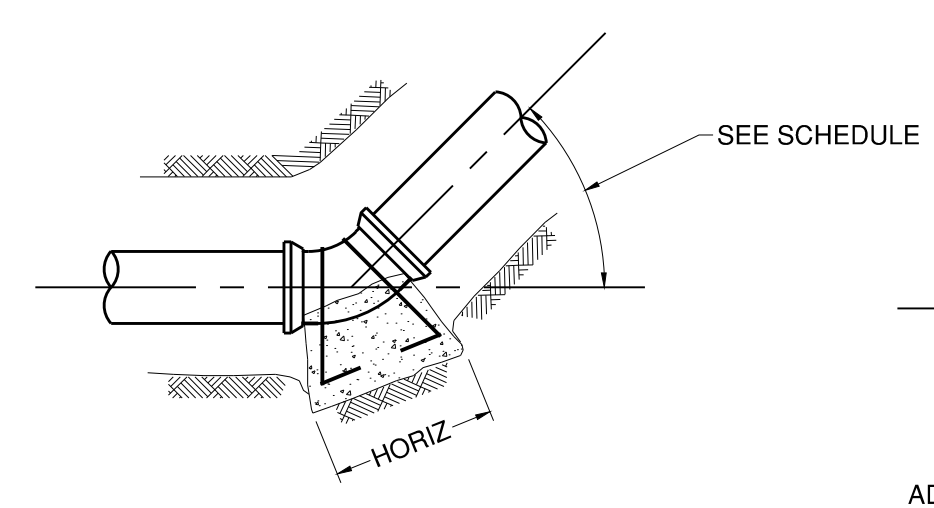
**SHEET
16
OF
31**



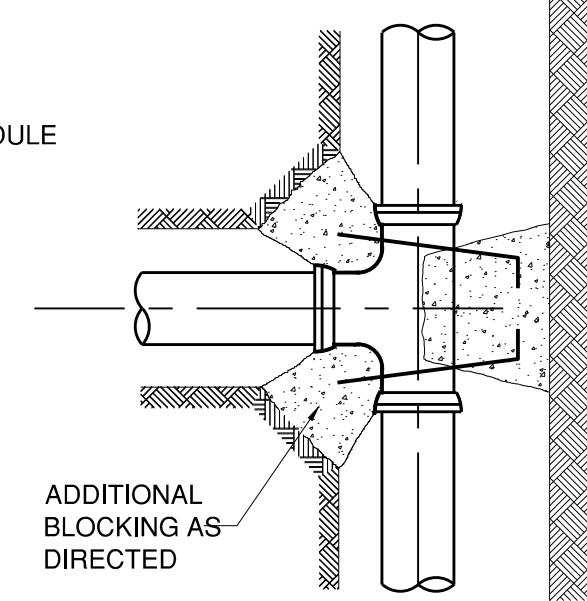
TYPICAL BEARING SURFACE



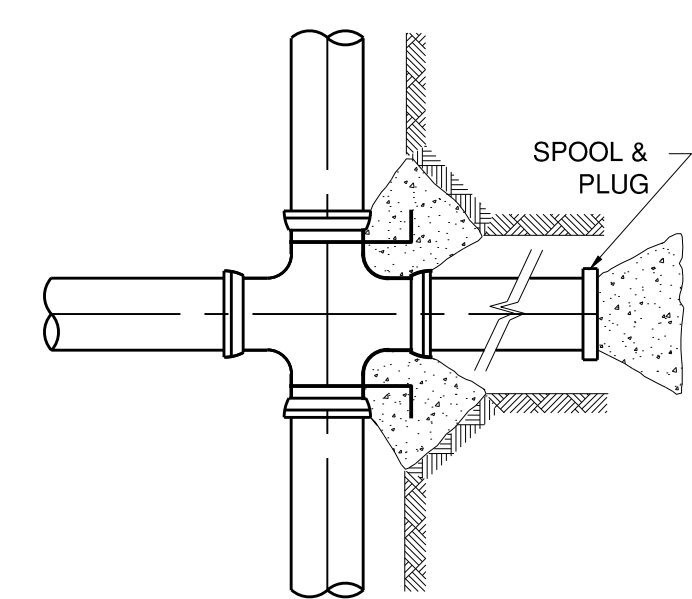
TYPICAL SECTION



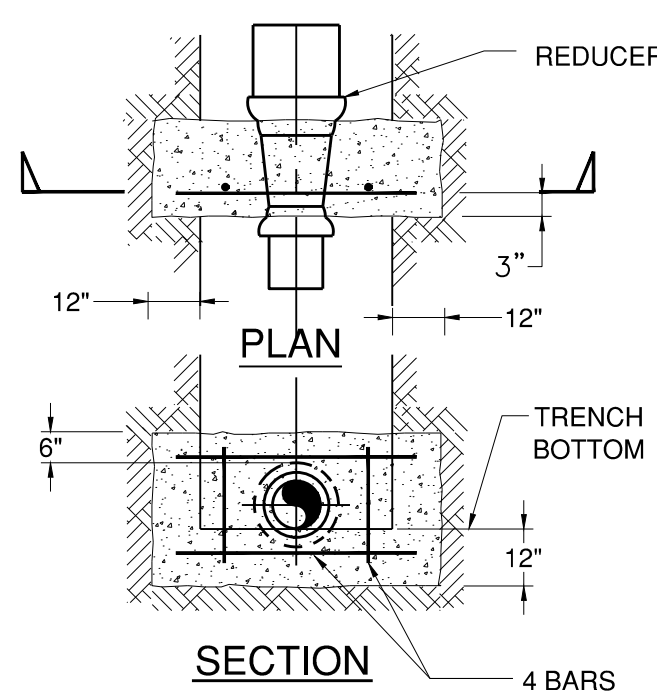
TYPICAL BEND



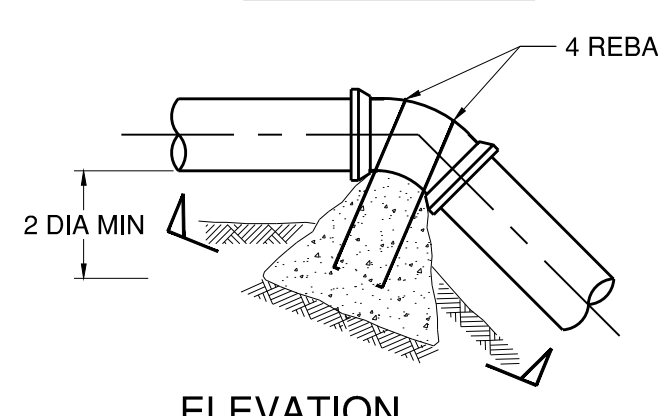
TEE OR VALVE



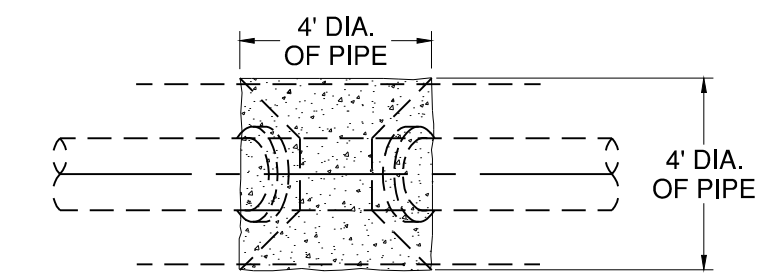
CROSS
SEE NOTE 8



REDUCER

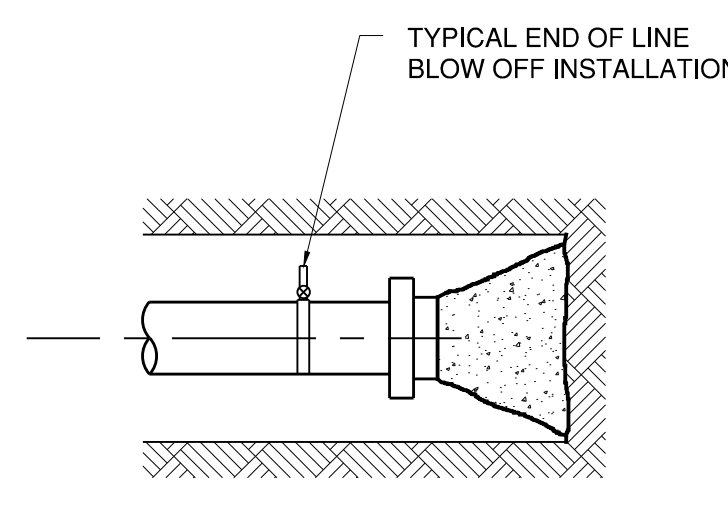


ELEVATION



SECTION

VERTICAL BEND



END CAP

PVC PIPE

NOMINAL PIPE SIZE	REQUIRED LENGTH (ft): 150psi TEST PRESSURE (200 psi TEST PRESSURE)					
	TEE (BRANCH)	VALVE (BOTH SIDES)	BEND 90°	BEND 45°	BEND 22.5°	BEND 11.25°
8	27 (46)	59 (79)	19 (25)	8 (11)	4 (5)	2 (3)
12	50 (78)	83 (111)	26 (35)	11 (15)	6 (7)	3 (4)
16	73 (109)	107 (143)	33 (44)	14 (18)	7 (9)	4 (5)

DUCTILE IRON PIPE (POLY-WRAP)

NOMINAL PIPE SIZE	REQUIRED LENGTH (ft): 150psi TEST PRESSURE (200 psi TEST PRESSURE)					
	TEE (BRANCH)	VALVE (BOTH SIDES)	BEND 90°	BEND 45°	BEND 22.5°	BEND 11.25°
8	48 (83)	107 (143)	22 (29)	9 (12)	5 (6)	3 (3)
12	90 (140)	151 (201)	30 (40)	13 (17)	6 (8)	3 (4)
16	131 (195)	193 (257)	38 (51)	16 (21)	8 (10)	4 (5)

NOTES:

- RESTRAINT LENGTHS IN TABLE ARE TO BE APPLIED IN BOTH DIRECTIONS OF FEATURE.
- RESTRAINT LENGTH CALCULATION CRITERIA:
- PIPE MATERIAL
- SOIL TYPE: SW (WELL-GRADED SAND)
- SAFETY FACTOR: 1.5
- TRENCH TYPE: TYPE 5
- DEPTH OF BURY: 3 FEET
- TEST PRESSURE: 150 PSI (200 PSI)
- TEE (BRANCH): LR=5 FEET (LENGTH TO FIRST JOINT ON RUN)

THRUST RESTRAINT TABLE 2

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. 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.

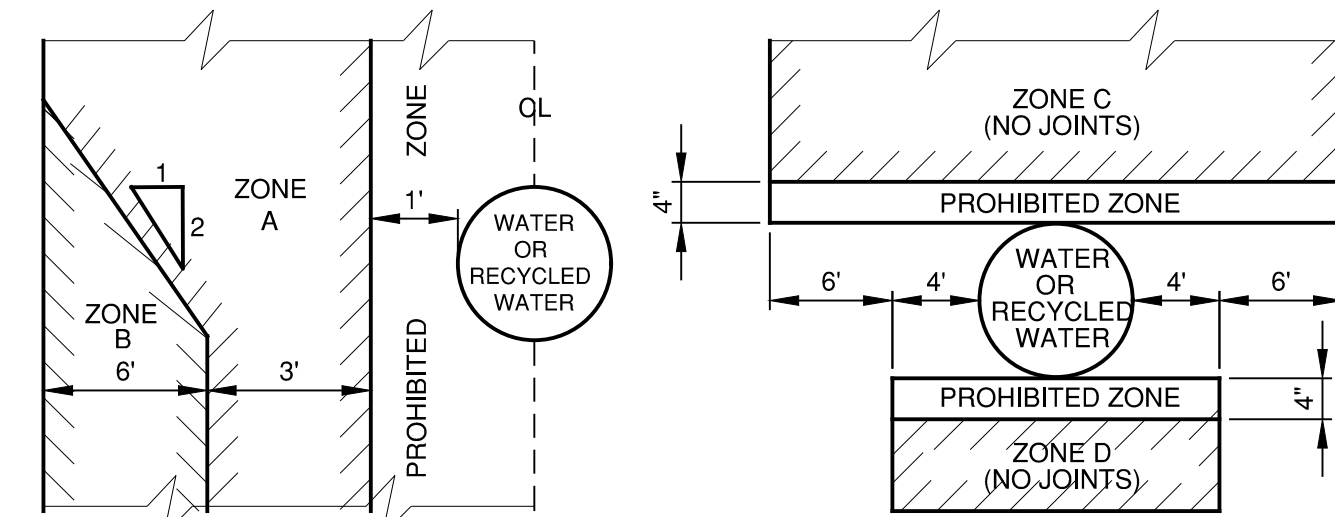
MINIMUM SIZE OF THRUST BLOCK BEARING SURFACE

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

THRUST BLOCK TABLE 1

NTS

SITUATION:
LOCATION OF NEW DOMESTIC & RECYCLED WATER LINES TO EXISTING DOMESTIC & RECYCLED WATER LINES



PARALLEL CONSTRUCTION

PERPENDICULAR CROSSING

IF ANY SEWER OR RECYCLED WATER PIPELINES ARE TO BE CONSTRUCTED WITHIN ANY OF THE ABOVE INDICATED ZONES, SPECIAL CONSTRUCTION SHALL BE REQUIRED AS DESCRIBED BELOW.

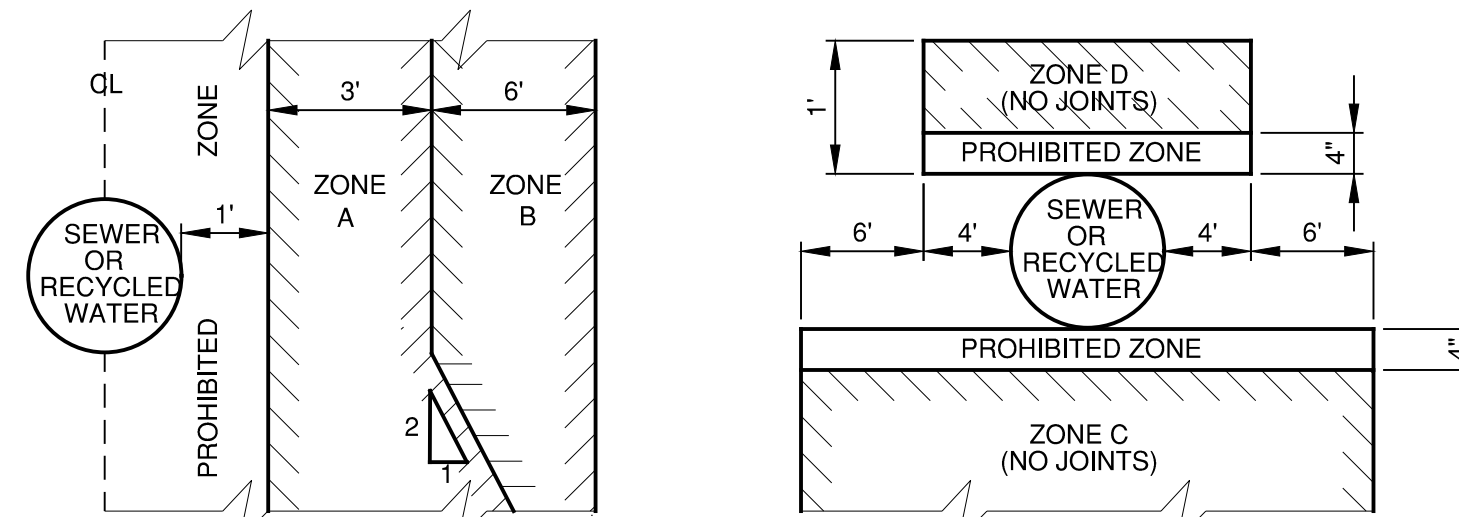
ZONE SEWER

- A DO NOT LOCATE ANY PARALLEL SEWER OR RECYCLED WATER LINES IN THIS AREA WITHOUT STATE AND LOCAL HEALTH DEPARTMENT APPROVAL.
- B USE D.I.P. WITH COMPRESSION JOINTS.
- C USE D.I.P. WITH MECHANICAL JOINTS OR CLASS 200 P.V.C. - AWWA C900
- D USE D.I.P. OR CLASS 200 P.V.C. - AWWA C900

RECYCLED WATER

- USE D.I.P. OR CLASS 200 P.V.C. - AWWA C900
- USE D.I.P. OR CLASS 200 P.V.C. - AWWA C900
- USE D.I.P. OR CLASS 200 P.V.C. - AWWA C900
- USE D.I.P. OR CLASS 200 P.V.C. - AWWA C900

SITUATION:
LOCATION OF NEW DOMESTIC & RECYCLED WATER LINES TO EXISTING SEWER & RECYCLED WATER LINES



PARALLEL CONSTRUCTION

PERPENDICULAR CROSSING

IF ANY WATER OR RECYCLED WATER PIPELINES ARE TO BE CONSTRUCTED WITHIN ANY OF THE ABOVE INDICATED ZONES, SPECIAL CONSTRUCTION SHALL BE REQUIRED AS DESCRIBED BELOW.

ZONE DOMESTIC WATER OR RECYCLED WATER

- A DO NOT LOCATE ANY PARALLEL DOMESTIC WATER OR RECYCLED WATER MAIN IN THIS AREA WITHOUT STATE AND LOCAL HEALTH DEPARTMENT APPROVAL.
- B USE D.I.P. OR CLASS 200 P.V.C. - AWWA C900
- C USE D.I.P. OR CLASS 200 P.V.C. - AWWA C900
- D USE D.I.P. OR CLASS 200 P.V.C. - AWWA C900

PIPE SEPARATION DETAIL 3

NTS

BASIC SEPARATION STANDARDS

- PARALLEL CONSTRUCTION: THE HORIZONTAL DISTANCE BETWEEN PRESSURE DOMESTIC WATER AND RECYCLED WATER MAINS AND SEWER LINES SHALL BE AT LEAST 10 FEET.
- PERPENDICULAR CONSTRUCTION (CROSSING): PRESSURE WATER MAINS SHALL BE AT LEAST ONE FOOT ABOVE SANITARY SEWER AND RECYCLED WATER LINES WHERE THESE LINES MUST CROSS.
- SPECIAL PROVISIONS: ALTERNATIVE CONSTRUCTION CRITERIA WHERE THE BASIC SEPARATION STANDARDS CANNOT BE ATTAINED ARE SHOWN BELOW:

GENERAL NOTES

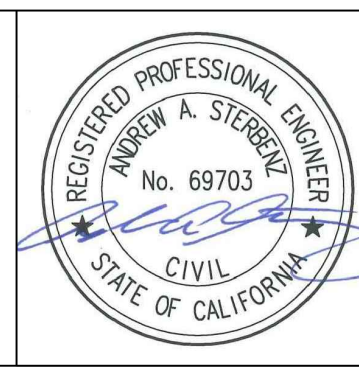
- NO PIPE JOINTS SHALL BE PERMITTED WITHIN ZONE D. IT IS THE INTENT OF THESE SPECIFICATIONS THAT NO JOINTS SHALL OCCUR WITHIN ZONE C. IF THAT CANNOT BE ACCOMPLISHED, THE NEW PIPELINE SHALL BE ENCASED IN CONCRETE FOR THE FULL LENGTH OF ZONE C. ENCASEMENT SHALL BE PER MCWD STD. PLAN S-9, TYPE "B"
- ALL D.I.P. MUST HAVE HOT DIP BITUMINOUS COATING AND ALL CLASS 200 P.V.C. MUST MEET DR-14 PER AWWA C900 OR EQUIVALENT.
- SEWER FORCE MAINS SHALL NOT BE PERMITTED IN ZONES A THROUGH D.
- THIS CRITERIA DOES NOT APPLY FOR A RECYCLED WATER LINE CROSSING ANOTHER RECYCLED WATER LINE.
- THE CONSTRUCTION CRITERIA APPLY TO HOUSE LATERALS THAT CROSS ABOVE A PRESSURE WATER MAIN BUT NOT TO THOSE HOUSE LATERALS THAT CROSS BELOW A PRESSURE WATER MAIN.

NO.	REVISION DESCRIPTION	DATE	APPR



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

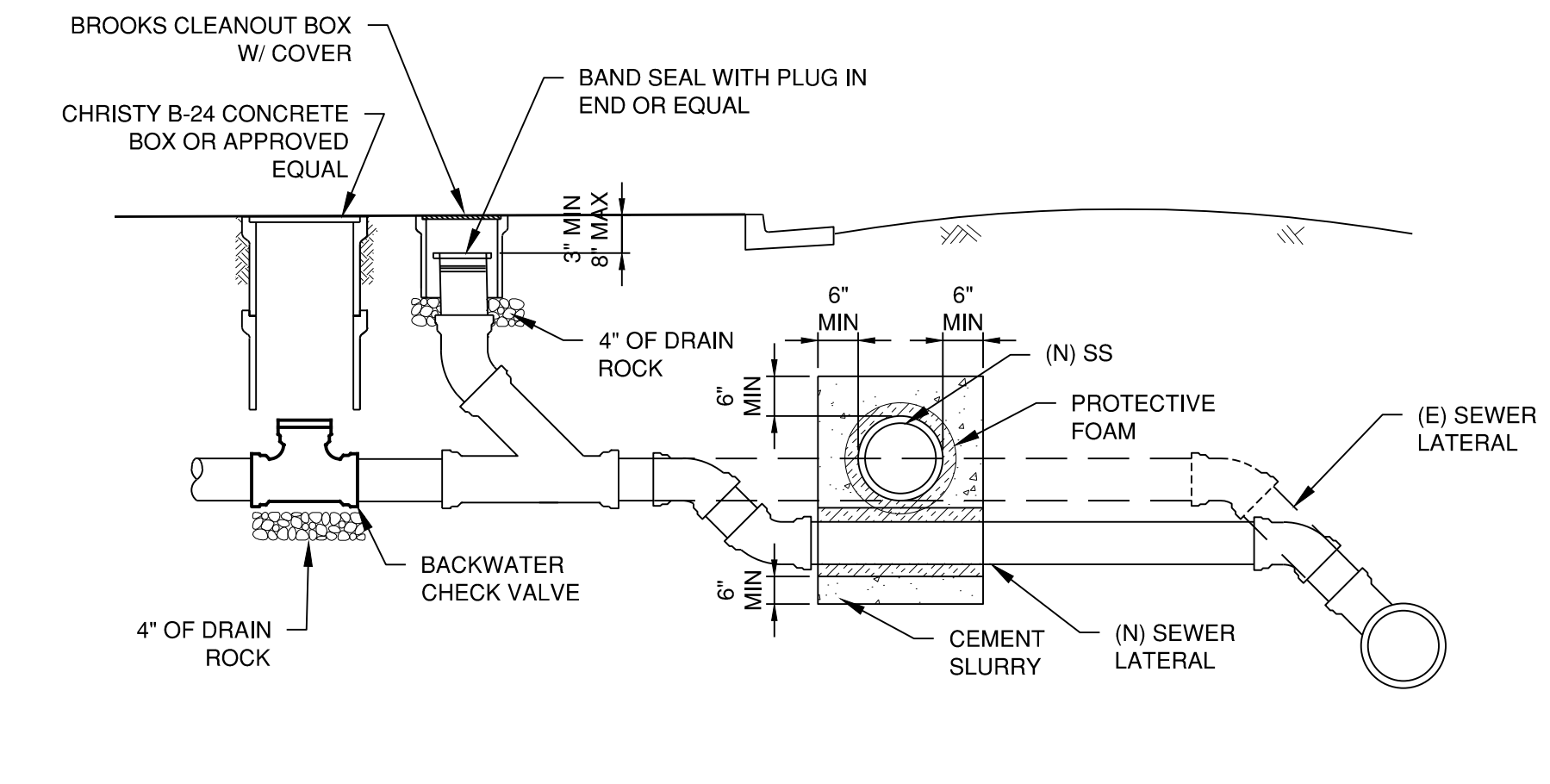
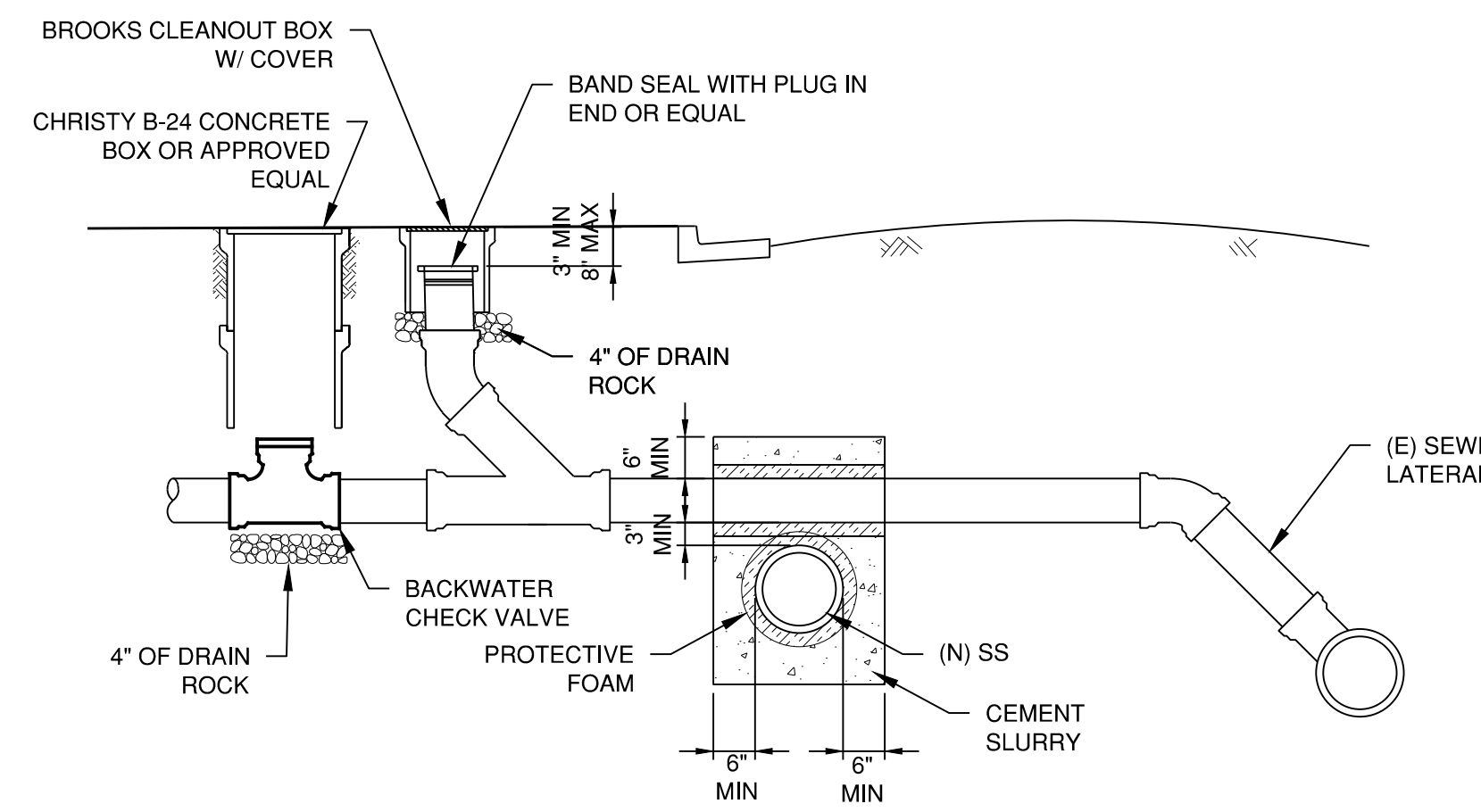
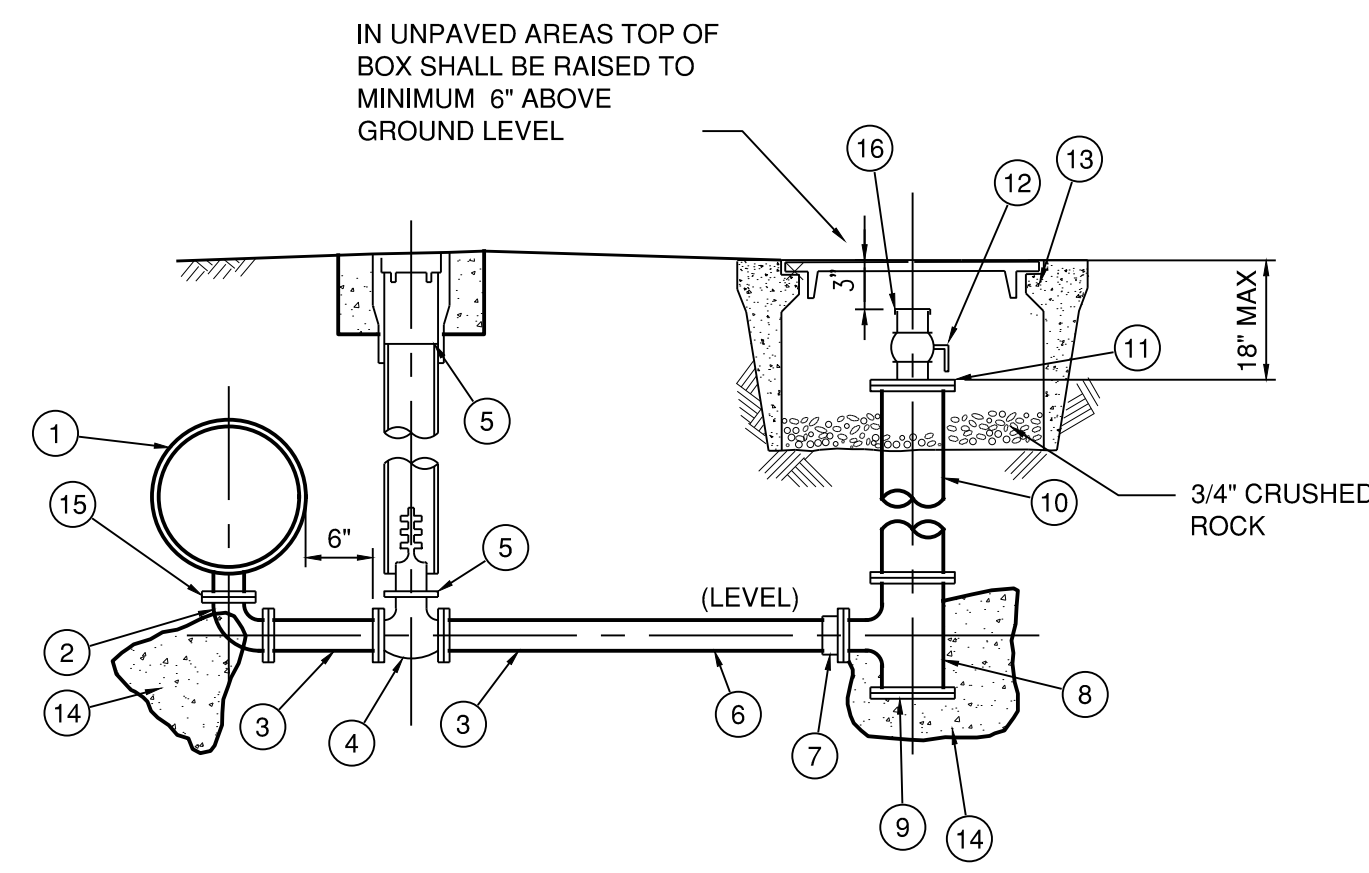
Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS
3 QUAIL RUN CIRCLE, STE. 101
SALINAS, CA 93907
(831) 883-4848



**ORD VILLAGE FORCE MAIN REPLACEMENT
SEWER DETAILS (3 OF 4)**

DATE: 12/04/2020
SCALE: AS NOTED
DESIGN: CJM
DRAWN: CJM
CHECK: AAS

**SHEET
17
OF
31**



MATERIALS

- 1 PIPE DIA. x 4" D.I. OR WSP TEE, FLANGED
- 2 4" D.I. 90° ELL, FLG. x FLG.
- 3 4" x AS REQ'D D.I. SPOOL
- 4 4" RW GATE VALVE, FLG. x FLG. ONE VALVE REQUIRED FOR MAINS LESS THAN 24-INCHES IN DIAMETER, TWO VALVES ARE REQUIRED, AS SHOWN, FOR MAINS 24-INCHES IN DIAMETER AND LARGER.
- 5 VALVE AND VALVE BOX INSTALLATION PER M.C.W.D. STD. PLAN W-7
- 6 4" x AS REQ'D FLG. x PE D.I. PIPE
- 7 4" D.I. FLANGE COUPLING ADAPTER
- 8 8" x 4" D.I. TEE
- 9 8" D.I. BLIND FLANGE
- 10 8" x AS REQ'D D.I. PIPE
- 11 8" BLIND FLANGE W/ 2 1/2" TAP
- 12 2 1/2" BRASS NIPPLE AND 2 1/2" BALL VALVE, IP THREAD
- 13 8" MINIMUM DIAMETER VALVE BOX
- 14 THRUST BLOCKS PER MCWD STD. PLAN W-13
- 15 INSULATING KIT SHALL BE PROVIDED AS REQUIRED BY CORROSION STUDY & DISTRICT.
- 16 2 1/2" BRASS NIPPLE, I.P. THREAD X FH THREAD, WITH PROTECTIVE CAP

OPTION 1

OPTION 2

LATERAL CROSSING

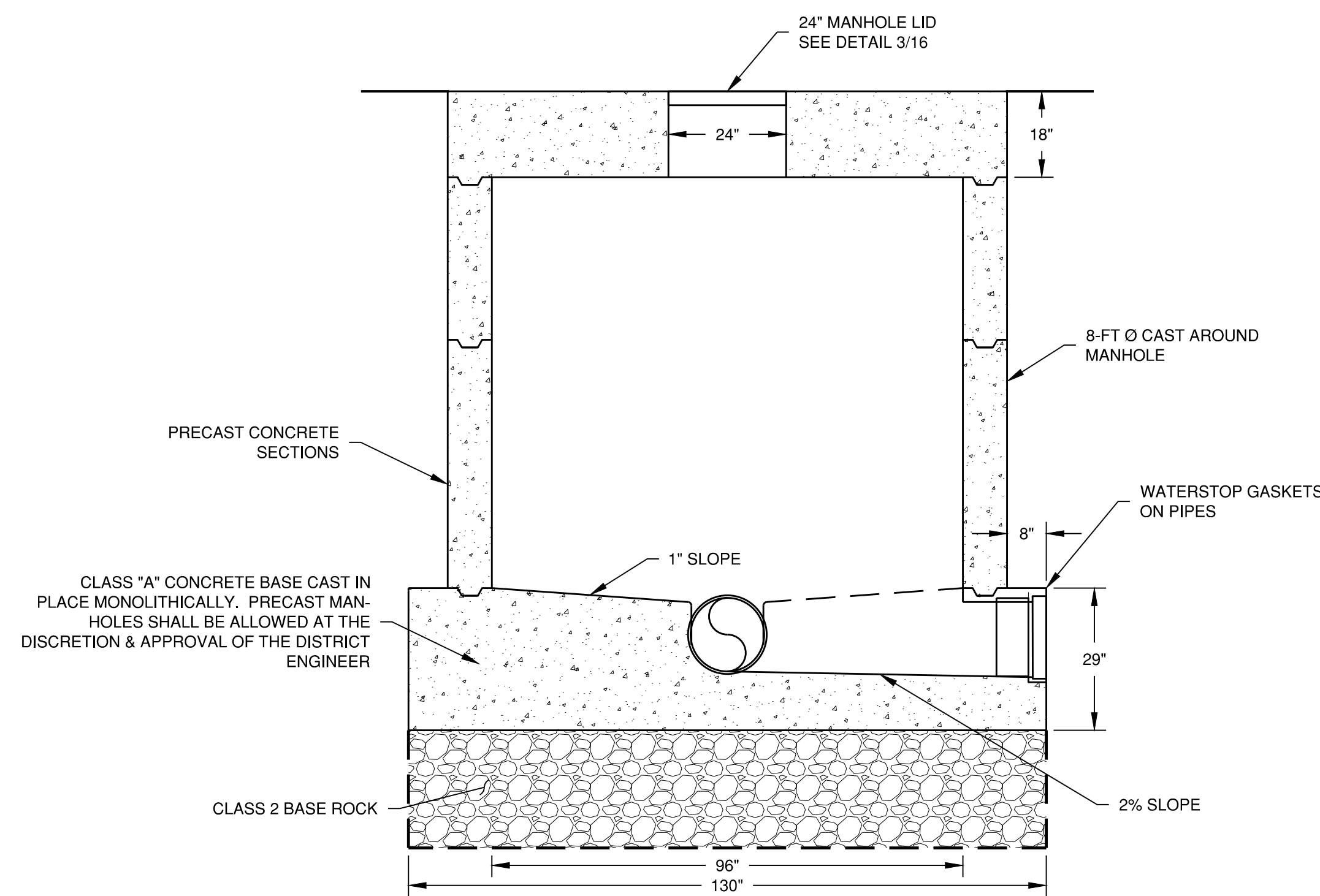
NTS

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LATERAL CROSSING

NTS

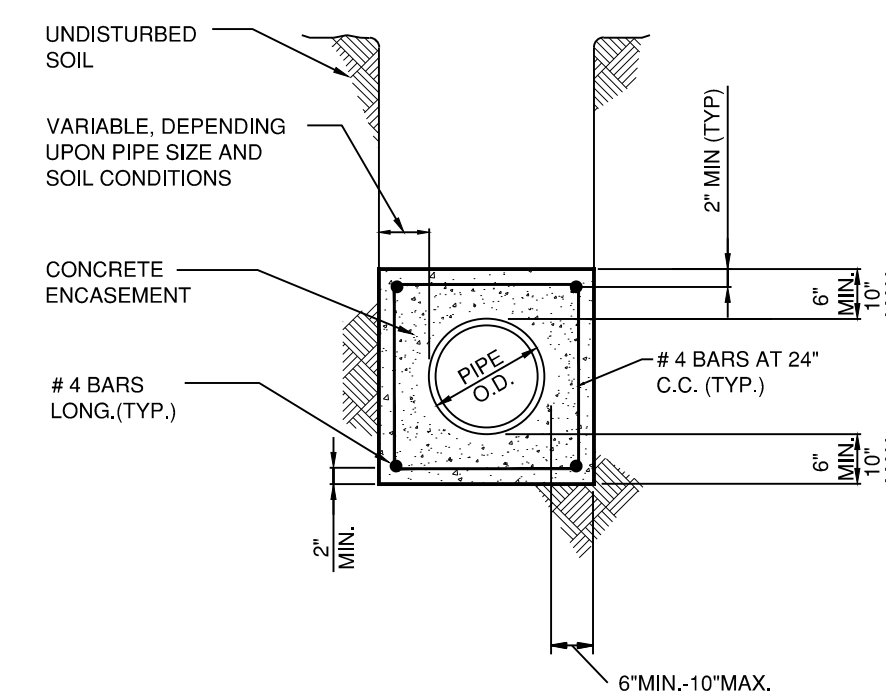
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CAMH1

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3
-



NOTES:

- 1- CONCRETE ENCASEMENT SHALL BE USED WHEN COVER IS UNDER 4' OR OVER 20'
- 2- ENCASEMENT TO BE PLACED AGAINST UNDISTURBED NATURAL GROUND OR FILL COMPACTED TO 90% RELATIVE DENSITY
- 3- NO. 4 STEEL REINFORCING BARS SHALL BE USED AS SPECIFIED.
- 4- UNLESS NOTED OTHERWISE, ENCASEMENT SHALL BE CLASS "B" CONCRETE.
- 5- WHERE SLOPED TRENCHES ARE USED, WALLS WILL NOT BEGIN TO SLOPE CLOSER THAN 12" FROM THE TOP OF THE PIPE.
- 6- DUCTILE IRON PIPE MAY BE PERMISSIBLE IN LIEU OF CONCRETE ENCASEMENT AS APPROVED BY THE ENGINEER.

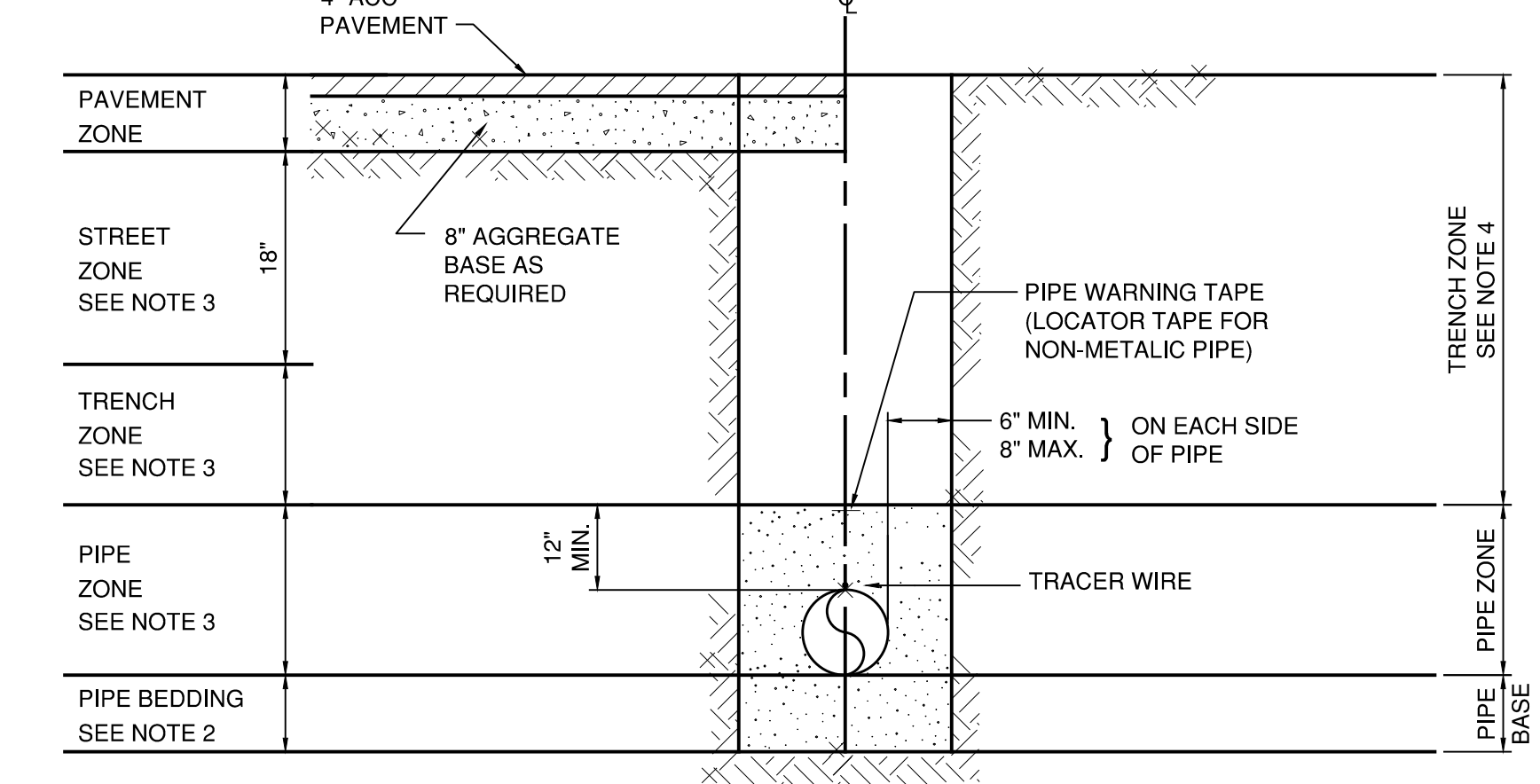
CONCRETE ENCASEMENT

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4
-

PAVED AREA

UNPAVED AREA



TRENCH SECTION

NOTES:

- 1- ALL WORKS SHALL BE IN ACCORDANCE WITH SPECIFICATION SECTION 02223.
- 2- 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.
- 3- 95% COMPACTION OF IMPORTED BACKFILL OR NATIVE BACKFILL AS APPROVED BY DISTRICT ENGINEER
- 4- 90% COMPACTION OF IMPORTED BACKFILL OR NATIVE BACKFILL AS APPROVED BY DISTRICT ENGINEER

PIPE BEDDING DETAIL

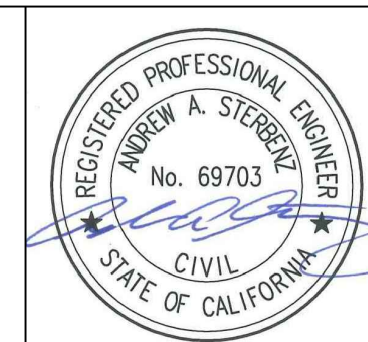
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MARINA COAST WATER DISTRICT
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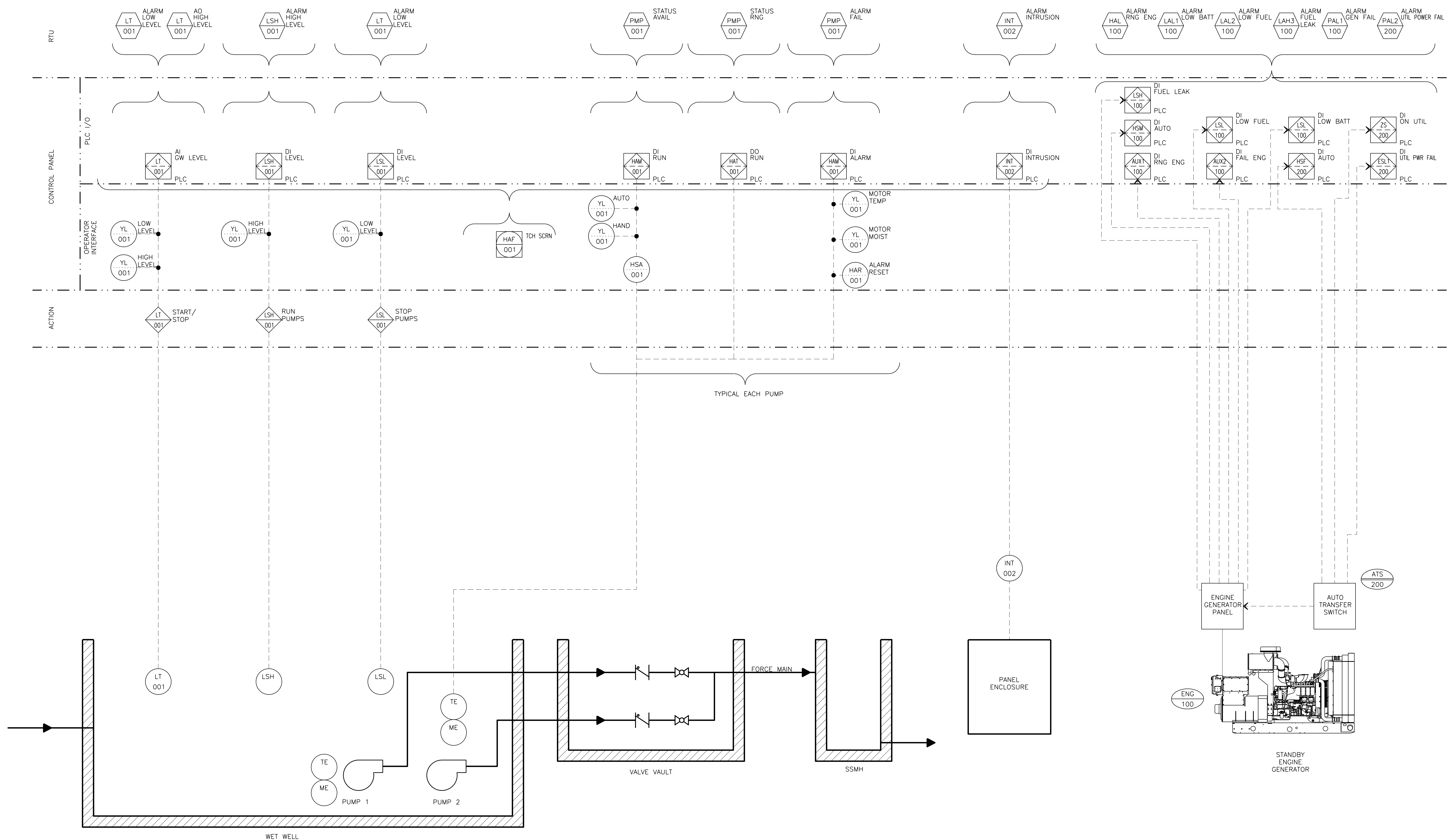


**ORD VILLAGE FORCE MAIN REPLACEMENT
SEWER DETAILS (4 OF 4)**

DATE: 12/04/2020
SCALE: AS NOTED
DESIGN: CJM
DRAWN: CJM
CHECK: AAS

SHEET
18
OF
31

NO.	REVISION DESCRIPTION	DATE	APPR



NO.	REVISION DESCRIPTION	DATE	APPR



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**ORD VILLAGE FORCE MAIN REPLACEMENT
 PROCESS AND INSTRUMENTATION DIAGRAM**

DATE: 12/04/2020
 SCALE: NA
 DESIGN: AAS
 DRAWN: MF
 CHECK: AAS

**SHEET
 20
 OF
 31**

SYMBOLS AND ABBREVIATIONS

1 OCT. 08

SYMBOLS & ABBREVIATIONS SHOWN ARE FOR GENERAL USE
DISREGARD THOSE WHICH DO NOT APPEAR ON THE PLANS

LIGHT FIXTURES

- FLUORESCENT - ANY MOUNT
- FLUORESCENT STRIP - ANY MOUNT
- INCAND. OR HID - CEILING RECESSED
- INCAND. OR HID - SURF. OR SUSP.
- INCAND. OR HID - WALL MOUNT
- SITE LIGHT - ARM MOUNTED ON POLE
- SITE LIGHT - GROUND, POST OR POLE MOUNTED
- EXIT LIGHT - ANY MOUNT SEE PLANS FOR MTG.
- EMERGENCY LIGHTING SET

SWITCHES

- ALL SWITCHES 20A - 120/277V - U.O.N.
SWITCH MOUNTING = +48" TO TOP OF ELECTRICAL BOX U.O.N.
- S.P.S.T.
 - SINGLE LOAD MOTION SENSOR SWITCH
 - DOUBLE LOAD MOTION SENSOR SWITCH
 - 3 - WAY
 - 4 - WAY
 - S.P.S.T. WITH PILOT LIGHT
 - S.P.S.T. KEY OPERATED
 - COMBINATION SWITCH/MOTION DETECTOR WHERE "X" INDICATES THE NUMBER OF CIRCUITS CONTROLLED
 - WALL MOUNTED OCCUPANCY SWITCH
 - PUSHBUTTON - SEE DWGS FOR TYPES
 - OCCUPANCY SENSOR - CEILING MOUNTED
 - OCCUPANCY SENSOR - WALL MOUNTED
 - EMERGENCY DISCONNECT PUSHBUTTON

OUTLETS

- ALL RECEPTACLE OUTLETS 20A - 125V. - U.O.N.
OUTLET MOUNTING = +18" TO BOTTOM OF ELECTRICAL BOX U.O.N.
- SINGLE RECEPTACLE - WALL MOUNT
 - DUPLEX RECEPTACLE - WALL MOUNT
 - DUPLEX RECEPTACLE-MOUNTED ABOVE COUNTER (VERIFY HEIGHT)
 - SINGLE ISO. GND. RECEPT. - WALL MOUNT
 - DUPLEX ISO. GND. RECEPT. - WALL MOUNT
 - DUPLEX RECEPTACLE - WITH GROUND FAULT INTERRUPTER
 - DUPLEX RECEPTACLE ANY TYPE; SPLITWIRED ONE RECEPTACLE CONTROLLED ONE RECEPTACLE UNCONTROLLED
 - 4-PLEX RECEPTACLE - WALL MOUNT
 - POWER OUTLET - SEE DWGS FOR THIS TYPES
 - CLOCK OUTLET - 15A-125V @ +90" U.O.N.
 - COMPUTER DATA OUTLET-WALL MOUNT
 - TELE/DATA COMBO. OUTLET-WALL MOUNT
 - TELEPHONE OUTLET-WALL MOUNT
 - TV OUTLET - WALL MOUNT
 - FLOOR RECEPTACLE - 20A
 - FLOOR COMPUTER DATA OUTLET
 - FLOOR TELEPHONE OUTLET
 - FLOOR TV OUTLET
 - THERMOSTAT OUTLET BOX @ +48" U.O.N.
 - JUNCTION BOX - WALL MOUNT
 - JUNCTION BOX - CEILING MOUNT
 - SPEAKER - WALL MOUNT
 - SPEAKER - CEILING MOUNT

FIRE ALARM

- HEAT DETECTOR
- TAMPER SWITCH
- SMOKE DETECTOR
- SPRINKLER RISER FLOW SWITCH
- FIRE SMOKE DAMPER
- *VOICE ANNUNCIATOR/STROBE-WALL MOUNT
- *HORN/STROBE-ANY MOUNT-ANY TYPE
- *STROBE ONLY - ANY MOUNT
- *HORN-ANY MOUNT-ANY TYPE
- MANUAL PULL STATION @ +48" U.O.N.
- ALARM BELL
- *+80"A.F.F. TO BOTTOM OF DEVICE OR 6" BELOW CEILING WHICHEVER IS LOWER

CONDUIT/WIRING

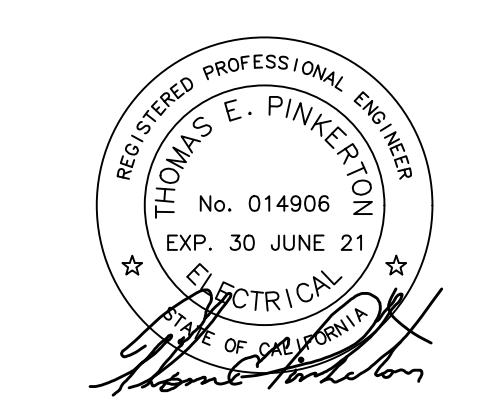
- CONCEALED IN WALLS OR CEILING; OR EXPOSED WHEN SPECIFICALLY NOTED
- UNDER FLOOR SLABS OR UNDERGROUND
- HOMERUN TO PANEL, TERMINAL OR EQUIPMENT INDICATED
- DENOTES NEUT. WIRE
- DENOTES PHASE WIRES
- BRANCH CIRCUIT WIRING ID.
- CONDUIT STUB-OUT
- CONDUIT UP OR DOWN-AS NOTED
- TELEPHONE SYSTEM
- TELEVISION SYSTEM
- FIRE ALARM SYSTEM
- EMERGENCY SYSTEM
- GROUND SYSTEM
- COMPUTER SYSTEM
- EXISTING CONDUIT/WIRING
- INDICATES (E) TO BE REMOVED

MISCELLANEOUS

- MOTOR CONNECTION
- FUSED DISCONNECT SWITCH-FUSED WITH DUAL-ELEMENT TIME DELAY FUSES, SIZED PER EQUIP. MFG'S NAME PLATE DATA
- DISCONNECT SWITCH-NONFUSED U.O.N.
- MAGNETIC MOTOR STARTER
- COMBINATION MAG STARTER & FUSED DISCONNECT SWITCH
- GROUND ROD-DIRECT BURIED
- GROUND ROD-WITH ACCESSIBLE BOX
- FEEDER TAG
- EQUIP. ID TAG-SEE SHEET NOTES ON SAME SHEET WHERE SYMBOL APPEARS U.O.N.
- SHEET NOTE TAG
- TRANSFORMER PAD MOUNT OR DRY TYPE
- SWITCHGEAR OR MCC
- PANELBOARD - FLUSH MOUNTED
- PANELBOARD - SURFACE MOUNTED
- SPECIAL PURPOSE EQUIP., DEVICE, PANEL OR TERMINAL CABINET (F.A., LIGHTING CONTROL, ETC.) EQUIPMENT PARAMETERS INDICATED ON PLANS
- CONCRETE PULLBOX SIZE INDICATED ON PLANS
- INDICATES MOUNTING HEIGHT TO CENTER OF DEVICE OR EQUIP. ABOVE FINISHED FLOOR.
- SUBSCRIPT LETTER INDICATES CONTROL
- FIGURE INDICATES BRANCH CIRCUIT NUMBER

ABBREVIATIONS

- | | | | |
|----------|-------------------------|-----------|--|
| A.F.G. | ABOVE FINISHED GRADE | (N) | NEW |
| ARCH. | ARCHITECT | NL | NOT IN CONTRACT |
| B.C. | BARE COPPER | OFCI | OWNER FURNISHED CONTRACTOR INSTALLED EQUIPMENT |
| C. | CONDUIT | | |
| CKT | CIRCUIT | | |
| C.O. | CONDUIT ONLY | PH. | PHASE |
| CONC. | CONCRETE | P.O.C. | POINT OF CONNECTION |
| CONTR. | CONTRACTOR | P/O | PART OF |
| DISC. | DISCONNECT | (R) | RELOCATED |
| (E) | EXISTING | SW | SWITCH |
| ELEC. | ELECTRICAL | SWBD | SWITCHBOARD |
| EM | EMERGENCY | T., TELE. | TELEPHONE |
| (F) | FUTURE | TERM. | TERMINAL |
| F.A. | FIRE ALARM | TSP | TWISTED PAIR |
| G, GND. | GROUND (ELEC) | TV | TELEVISION |
| GEC | GROUNDING | UG | UNDERGROUND |
| | ELECTRODE CONDUCTOR | U.O.N. | UNLESS OTHERWISE NOTED |
| GFI | GROUND FAULT INTERRUPT | WP | WEATHERPROOF |
| ISO GND. | ISOLATED GND. | XFMR | TRANSFORMER |
| MECH. | MECHANICAL | | |
| MCP | MOTOR CIRCUIT PROTECTOR | | |



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FAX: (831) 786-8523
EMAIL: tpinkerton@fehrengineering.com
CONSULTING ELECTRICAL ENGINEERS
FE JOB No. 19006.00

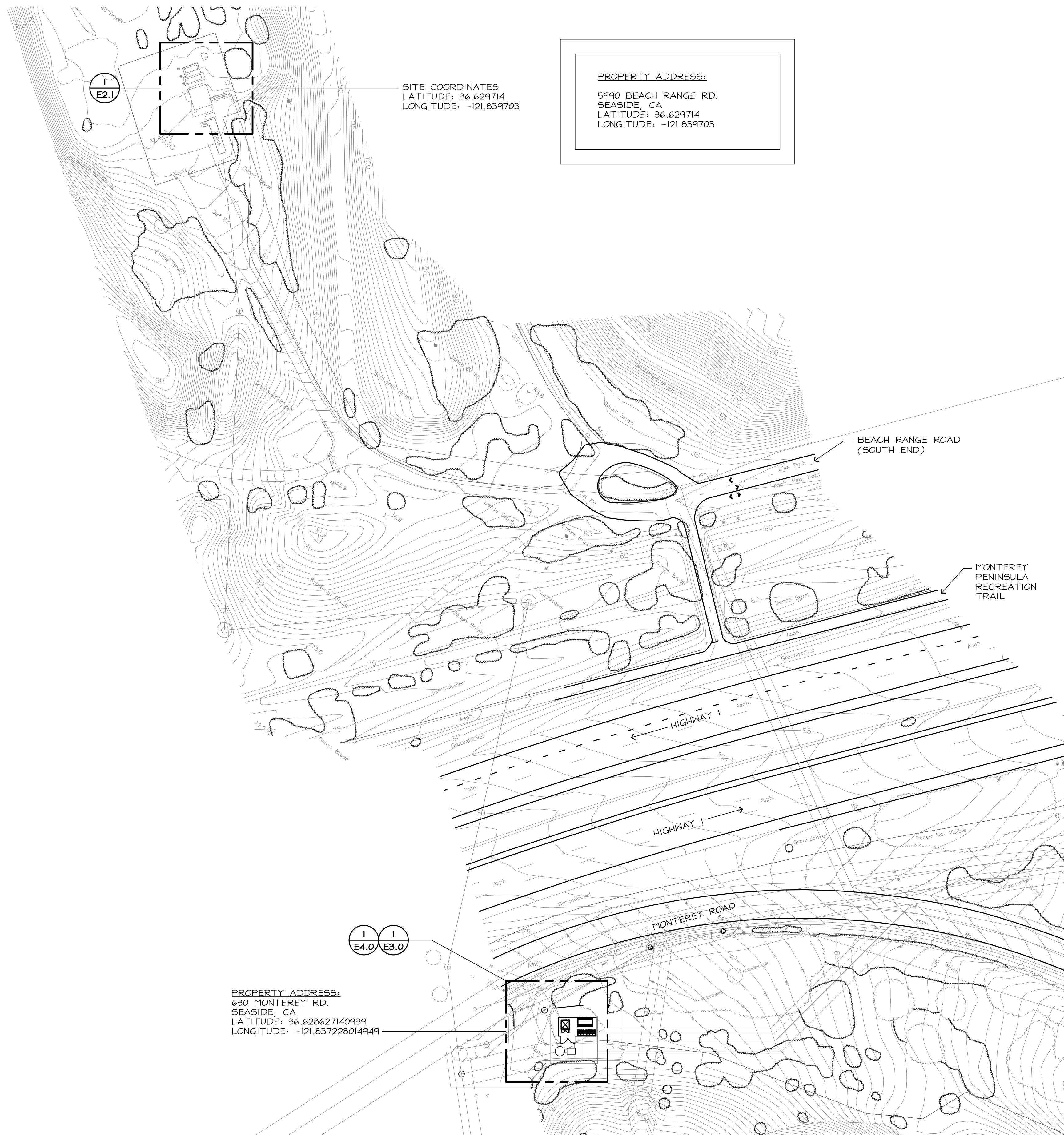
PG&E CLARIFICATION	9/13/19	T.P.
NO.	REVISION DESCRIPTION	DATE APPR.

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ORD VILLAGE FORCE MAIN REPLACEMENT
SYMBOLS & ABBREVIATIONS

DATE:	7/18/2019	SHEET E1.0 OF 31
SCALE:	AS SHOWN	
DESIGN:	T.P.	
DRAWN:	C.L.	
CHECK:	T.P.	

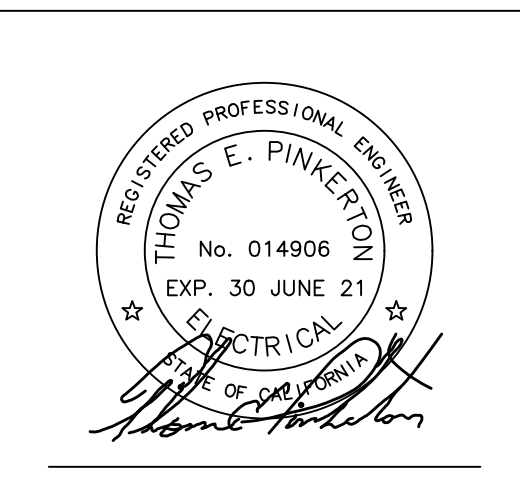
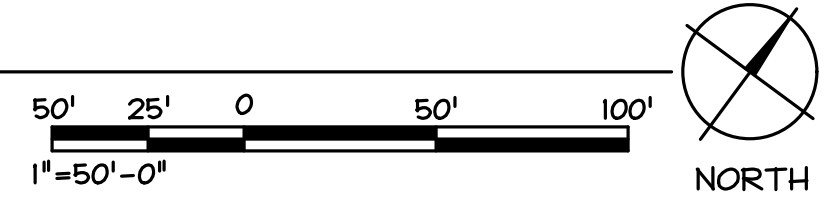


PROPERTY ADDRESS:
 5990 BEACH RANGE RD.
 SEASIDE, CA
 LATITUDE: 36.629714
 LONGITUDE: -121.839703

SITING COORDINATES
 LATITUDE: 36.629714
 LONGITUDE: -121.839703


PROPERTY ADDRESS:
 630 MONTEREY RD.
 SEASIDE, CA
 LATITUDE: 36.628627140939
 LONGITUDE: -121.837228014949

1 SITE PLAN
 1"=50'-0"



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ORD VILLAGE FORCE MAIN REPLACEMENT
SITE PLAN

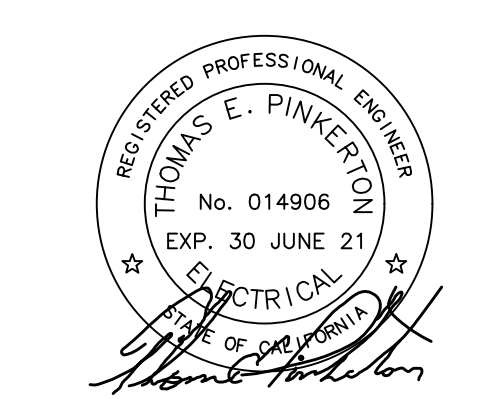
DATE:	7/18/2019	SHEET E2.0 OF 31
SCALE:	AS SHOWN	
DESIGN:	T.P.	
DRAWN:	C.L.	
CHECK:	T.P.	

SHEET NOTES

1. (E) PG&E SERVICE SINGLE METER; SEE DETAIL 2/E3.0.
2. (E) UNDERGROUND ROUTING APPROXIMATED.
3. APPROXIMATE LOCATION OF (E) STAND-BY EMERGENCY GENERATOR TO BE RELOCATED UNDER THIS PLAN; SEE DETAIL 2/E3.0 AND THE ELECTRICAL SPECIFICATION.
4. COORDINATE WITH THE OWNER TO DISCONNECT POWER FROM (E) PUMPS; PUMPS TO BE RELOCATED UNDER CIVIL PLANS.



1 PARTIAL SITE PLAN (E) SERVICE
1/8"=1'-0"



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**ORD VILLAGE FORCE MAIN REPLACEMENT
PARTIAL SITE PLAN**

DATE: 7/18/2019
SCALE: AS SHOWN
DESIGN: T.P.
DRAWN: C.L.
CHECK: T.P.

**SHEET
E2.1
OF
31**

GENERAL SINGLE LINE NOTES

- A. ALL ELECTRICAL SHOWN IS NEW, U.O.N.
- B. ALL CIRCUIT BREAKERS ARE 3-POLE, U.O.N.
- C. VOLTAGE DESIGNATIONS: (U.O.N.)
 240-1 = 240/120V-1PH-3WIRE
 480-1 = 480V-1PH-2WIRE
 208Y = 208/120V-3PH-4 WIRE
 480Y = 480/277V-3PH-4WIRE
 480Δ = 480V-3PH-3 WIRE
- D. "KA" AT CIRCUIT BREAKERS DENOTES MINIMUM REQUIRED INTERRUPTING CAPACITY IN AMP² (x 1000).
- E. SPO AT BREAKER DENOTES: PROVIDE MOUNTING SPACE & HARDWARE FOR FUTURE 3-POLE BREAKER OF RATINGS INDICATED.
- F. I_{sc} = AVAILABLE SHORT CIRCUIT (RMS SYM. AMP²) BASED ON 500MVA SHORT-CIRCUIT DUTY AT SERVICE XFMR PRIMARY AND 7.5% BELOW NOMINAL XFMR IMPEDANCES; VALUES ON LOAD-SIDE OF MAIN SWITCHBOARD INCLUDE MOTOR CONTRIBUTION.

FEEDER SCHEDULE

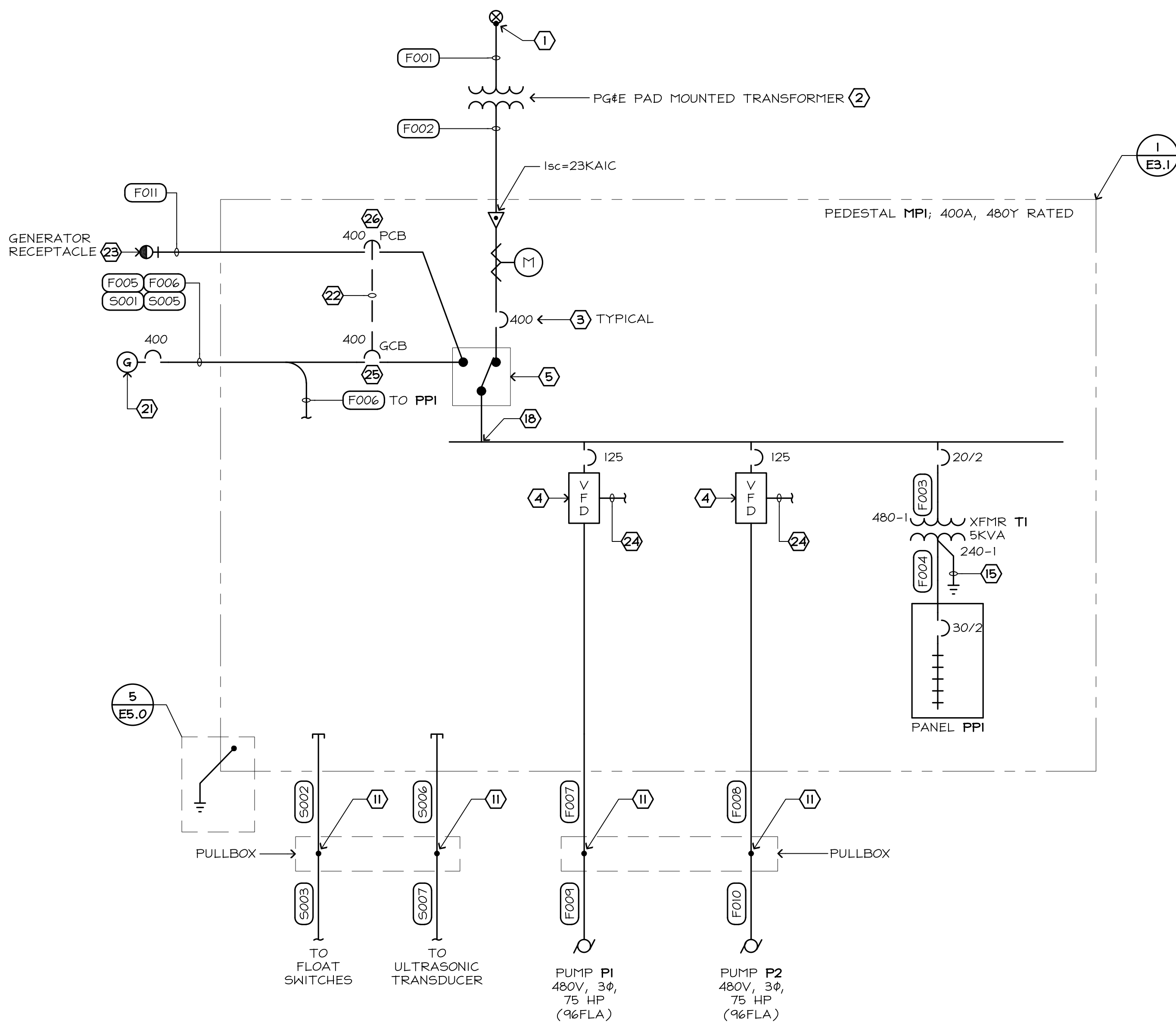
FDR No.	CONDUIT AND CONDUCTORS	REMARK
F001	4" C.O.	PG#E PRIMARY
F002	5" C.O.	PG#E SECONDARY
F003	2#12, 1#12 GND.	
F004	3#10, 1#10 GND.	
F005	4" C., 8#4/0, 1#2 GND.	(20)
F006	3/4" C., 3#12, 1#12 GND.	(7)
F007	2 1/2" C., 3#1, 1#6 GND. # 2#12	(10)
F008	2 1/2" C., 3#1, 1#6 GND. # 2#12	(10)
F009	2 1/2" C., 3#1, 1#6 GND.	(14)
F010	2 1/2" C., 3#1, 1#6 GND.	(14)
F011	4" C., 4#500kcmil, 1#2 GND.	
S001	3/4" C., 2#12	(6)
S002	3/4" C., 6#12	(8)
S003	1 1/2" C., (9)	
S004	2" C.O.	(13)
S005	1" C., 10#14	(27)
S006	3/4" C. (23)	
S007	3/4" C. (28)	

PANELBOARD SCHEDULE

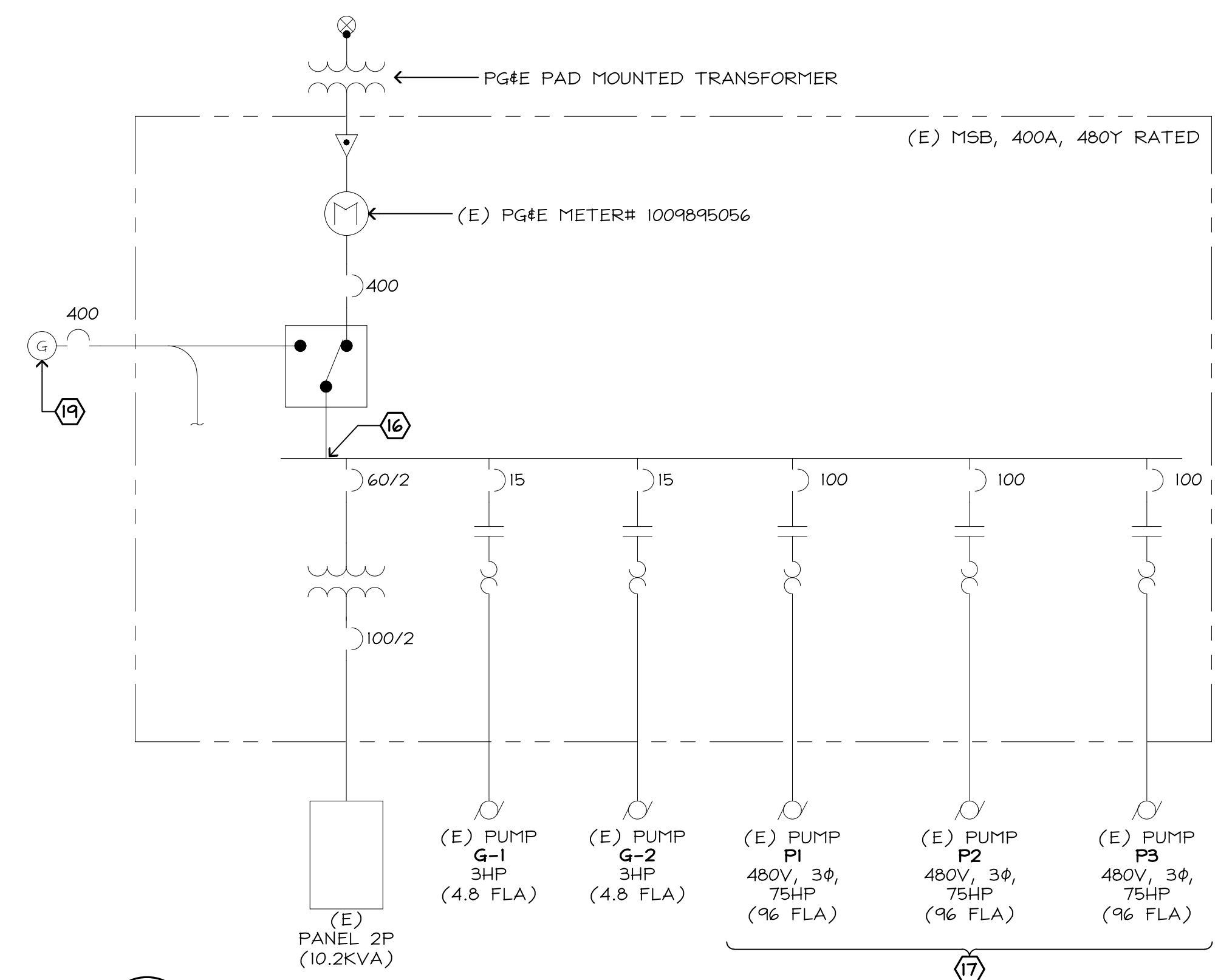
PP1	TYPE	NEMA 1		BUS	100A, 1φ, 3W	VOLT	120/240V	
	MOUNT	(2)		MAINS	30/2 C.B.	CONNECTED LOAD		
	A.I.C.	10,000		FEED		KVA	4.5 A 19	
USE	VOLT-AMPS		TRIP	F	F	VOLT-AMPS		USE
	A	B				A	B	
SPARE								MPI HEATERS
GENERATOR BLOCK HTR.		1800	20/1	1	2	20/1	1250	MPI LIGHT & RECEPT.
GENERATOR BATTERY CHG.	500			3	4		500	MPI COMM. SECTION
SPARE				5	6			SPARE
				7	8			
				9	10			
	500	1800	CONNECTED LOADS			1750	500	

SHEET NOTES

1. CONDUIT STUBBED UP AT BASE OF UTILITY POLE; COORDINATE WITH PG#E.
2. PROVIDE & INSTALL TRANSFORMER PAD PER PG#E REQUIREMENTS; COORDINATE WITH PG#E PRIOR TO BEGINNING CONSTRUCTION.
3. RATE PEDESTAL EQUIPMENT AT 23 KA INTERRUPTING CAPACITY MINIMUM.
4. VFD SPEED CONTROLLED VIA MANUAL INPUT FROM VFD SCREEN; CONTROLS SEND START SIGNAL; SEE DETAIL 1/E6.0.
5. AUTOMATIC TRANSFER SWITCH 480 VAC; 3-POLE; SOLID NEUTRAL LUG; 400A RATED; SEE ELECTRICAL SPECIFICATION.
6. GENERATOR START SIGNAL FROM ATS.
7. CIRCUIT CONDUCTORS FOR GENERATOR HEATER & BATTERY CHARGER; SEE PANEL SCHEDULE.
8. FLOAT SWITCH SIGNAL CONDUCTORS.
9. 2 FLOAT SWITCH CABLES; PART OF FLOAT SWITCHES.
10. VFD CABLE; BELDEN 29528 OR APPROVED EQUAL; AND SIGNAL CONDUCTORS PART OF MINI CAS SYSTEM.
11. CONDUCTOR SPLICE; SEE DETAIL 1/E4.1.
12. PANEL INTEGRAL TO PEDESTAL MPI.
13. ANTENNA CONDUCTOR.
14. PUMP CABLE PART OF PUMP COORDINATE WITH PUMP VENDOR.
15. BOND TO PEDESTAL GROUND BUS.
16. TOTAL CONNECTED LOAD=258.2 KVA. MAXIMUM STATION DEMAND=67%.
17. ONE REDUNDANT PUMP.
18. TOTAL CONNECTED LOAD=164.8 KVA MAXIMUM STATION DEMAND=100%.
19. OFCI EQUIPMENT; RELOCATE (E) GENERATOR TO (N) SITE; SEE DETAIL 1/E4.0 AND THE ELECTRICAL SPECIFICATION.
20. PARALLEL CONDUCTORS IN A SINGLE CONDUIT.
21. OFCI EQUIPMENT; RELOCATED GENERATOR; SEE DETAIL 1/E2.1.
22. INTERLOCKED SWITCHES; ONLY ONE SWITCH CLOSES SIMULTANEOUSLY.
23. GENERATOR RECEPTACLE SEE DETAIL 2/E5.1; PROVIDE WITH ANGLE ADAPTER AND BOX; NEMA 3R; 480V, 3φ, 400A RATED; APPLETON POWERITE; FIELD COORDINATE WITH OWNER FOR EXACT RECEPTACLE CONFIGURATION PRIOR TO ORDERING; PROVIDE EQUIPMENT SUBMITTAL PRIOR TO PURCHASE.
24. START SIGNAL FROM CONTROLS; SEE DETAIL 1/E6.0.
25. MOLDED CASE SWITCH; 400A, 3φ.
26. MOLDED CASE CIRCUIT BREAKER; 400A, 3φ.
27. GENERATOR STATUS SIGNAL CONDUCTORS; SEE DETAIL 1/E6.0.
28. ULTRASONIC TRANSDUCER CABLE; PART OF TRANSDUCER.
29. INSTRUMENTATION CABLE; TWO 22 AWG TWISTED SHIELDED PAIRS (7X 30) TINNED COPPER CONDUCTORS; CHEMICAL RESISTANT INSULATION 4-20mA SIGNAL; RATED FOR BURIED CONDUIT.

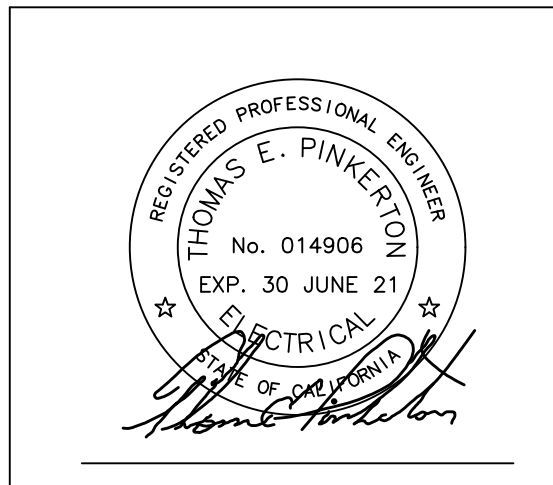


1 (N) SINGLE LINE DIAGRAM
NO SCALE



2 (E) SINGLE LINE DIAGRAM
NO SCALE

LOAD SUMMARY	KVA
(E) DEMAND LOAD (CONNECTED TO (E) METER)	173.0
(N) DEMAND LOAD (CONNECTED TO (N) METER)	164.8
DEMAND LOAD REMOVED	8.2



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 CONSULTING ELECTRICAL ENGINEERS
 FE JOB No. 19006.00

NO.	REVISION DESCRIPTION	DATE	APPR
Δ	PG&E CLARIFICATION	9/13/19	T.P.

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

ORD VILLAGE FORCE MAIN REPLACEMENT
SINGLE LINE DIAGRAM & ELECTRICAL DETAILS

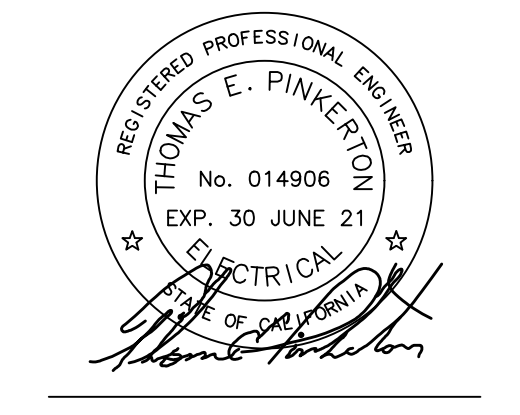
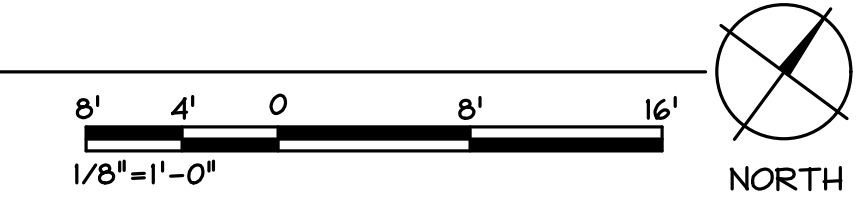
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SHEET NOTES

1. RADIATOR END OF GENERATOR.
2. MAINTAIN 8' CLEAR ACCESS TO TRANSFORMER FACE FOR HOT STICK OPERATION; COORDINATE WITH PG&E.
3. 13" X 24" CONCRETE PULLBOX; LABEL LID "SIGNAL"; SEE DETAIL 1/E4.1.
4. 13" X 24" CONCRETE PULLBOX; LABEL LID "POWER"; SEE DETAIL 1/E4.1.
5. PROVIDE & INSTALL TRANSFORMER PAD PER PG&E REQUIREMENTS; COORDINATE WITH PG&E PRIOR TO BEGINNING CONSTRUCTION.
6. (N) PG&E METER LOCATION; SINGLE METER; SEE DETAIL 1/E3.1.
7. OFCI EQUIPMENT; RELOCATED GENERATOR; SEE DETAIL 1/E2.1 AND THE ELECTRICAL SPECIFICATION.



1 SITE PLAN
1/8"=1'-0"



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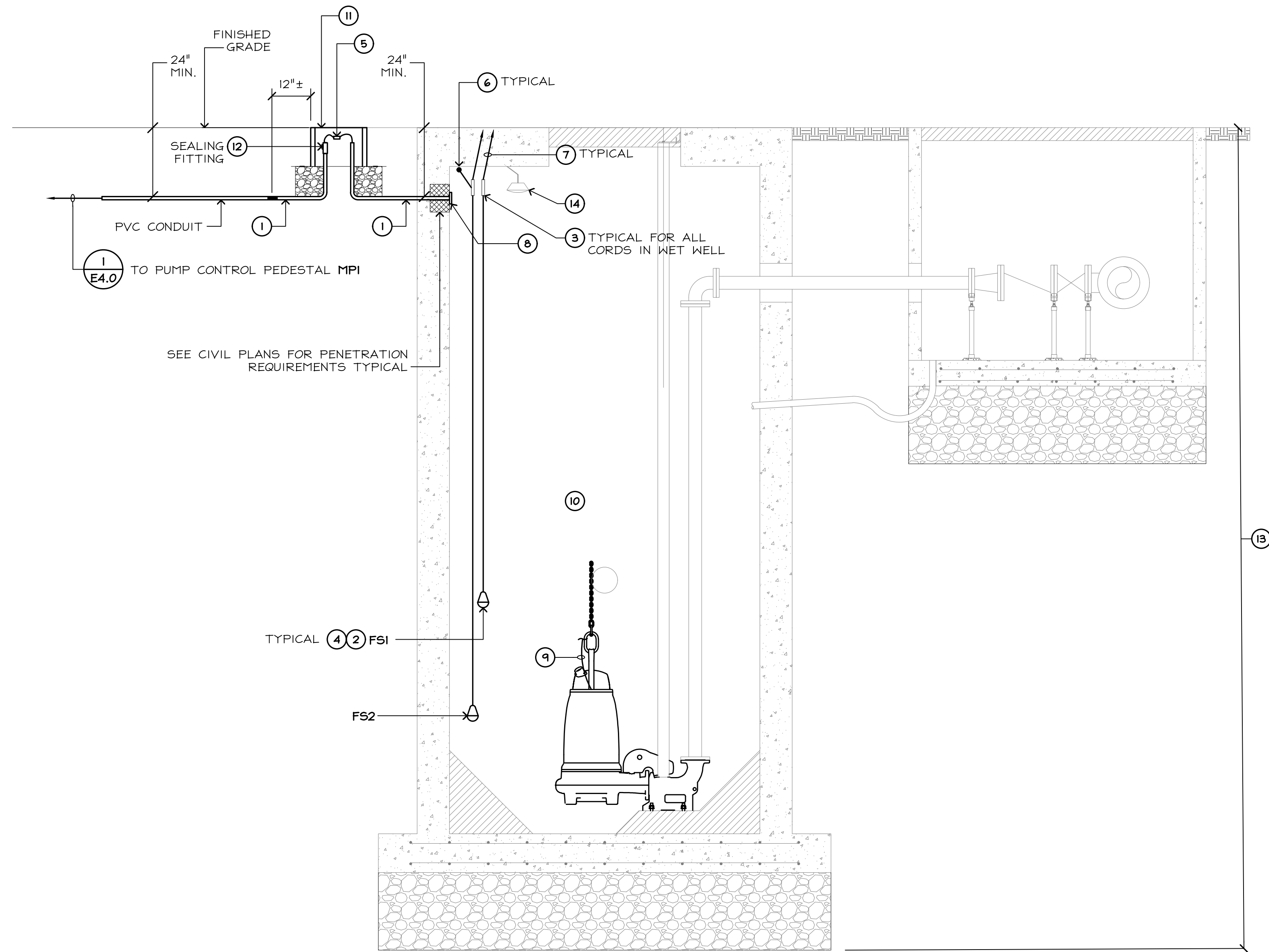
**ORD VILLAGE FORCE MAIN REPLACEMENT
PARTIAL SITE POWER PLAN**

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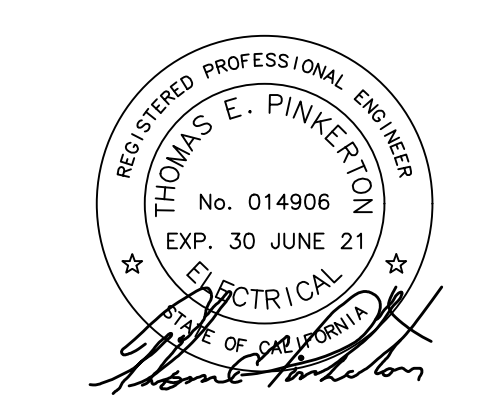
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○ **DETAIL NOTES:**

1. PVC COATED GALVANIZED RIGID STEEL CONDUITS (POWER AND SIGNAL) TO PULLBOX; EXACT ROUTE OF CONDUIT TO BE DETERMINED IN FIELD.
2. FLOAT SWITCH; SEE ELECTRICAL SPECIFICATION.
3. CABLE SUPPORT GRIP, HEAVY DUTY STAINLESS STEEL, OFFSET EYE SPLIT MESH. ROD CLOSING "KELLUMS" OR APPROVED EQUAL
4. COORDINATE FS MOUNTING HEIGHT WITH CIVIL PLANS.
5. CONDUCTOR SPLICE; SEE ELECTRICAL SPECIFICATION.
6. SECURE CABLE GRIP TO WET WELL STRUCTURE.
7. SIGNAL CIRCUIT THROUGH WETWELL WALL; PENETRATE WALL AS SHOWN FOR POWER CORD.
8. BELL ADAPTER SET FLUSH INTO GROUT OF WALL PENETRATION.
9. PUMP POWER CORD; SEE STATION SINGLE LINE DIAGRAM FOR CONNECTION REQUIREMENTS.
10. WET WELL IS A HAZARDOUS (CLASSIFIED) LOCATION; CLASS I DIVISION I; ELECTRICAL INSTALLATION SHALL COMPLY ACCORDINGLY.
11. CONCRETE PULLBOX; SEE DETAIL **1/E4.0** FOR SIZE AND COUNT & DETAIL **7/E5.0** SIMILAR INSTALLATION.
12. EYS SEALING FITTING; SIZED FOR FEEDER CONDUIT; SEE SINGLE LINE DIAGRAM.
13. DETAIL IS CONCEPTUAL IN NATURE TO REPRESENT WETWELL ELECTRICAL INSTALLATION REQUIREMENTS; COORDINATE WITH CIVIL PLANS FOR EXACT WETWELL CONFIGURATION.
14. ULTRASONIC TRANSDUCER; SEE ELECTRICAL SPECIFICATION.



1 WET WELL ELEVATION
NO SCALE



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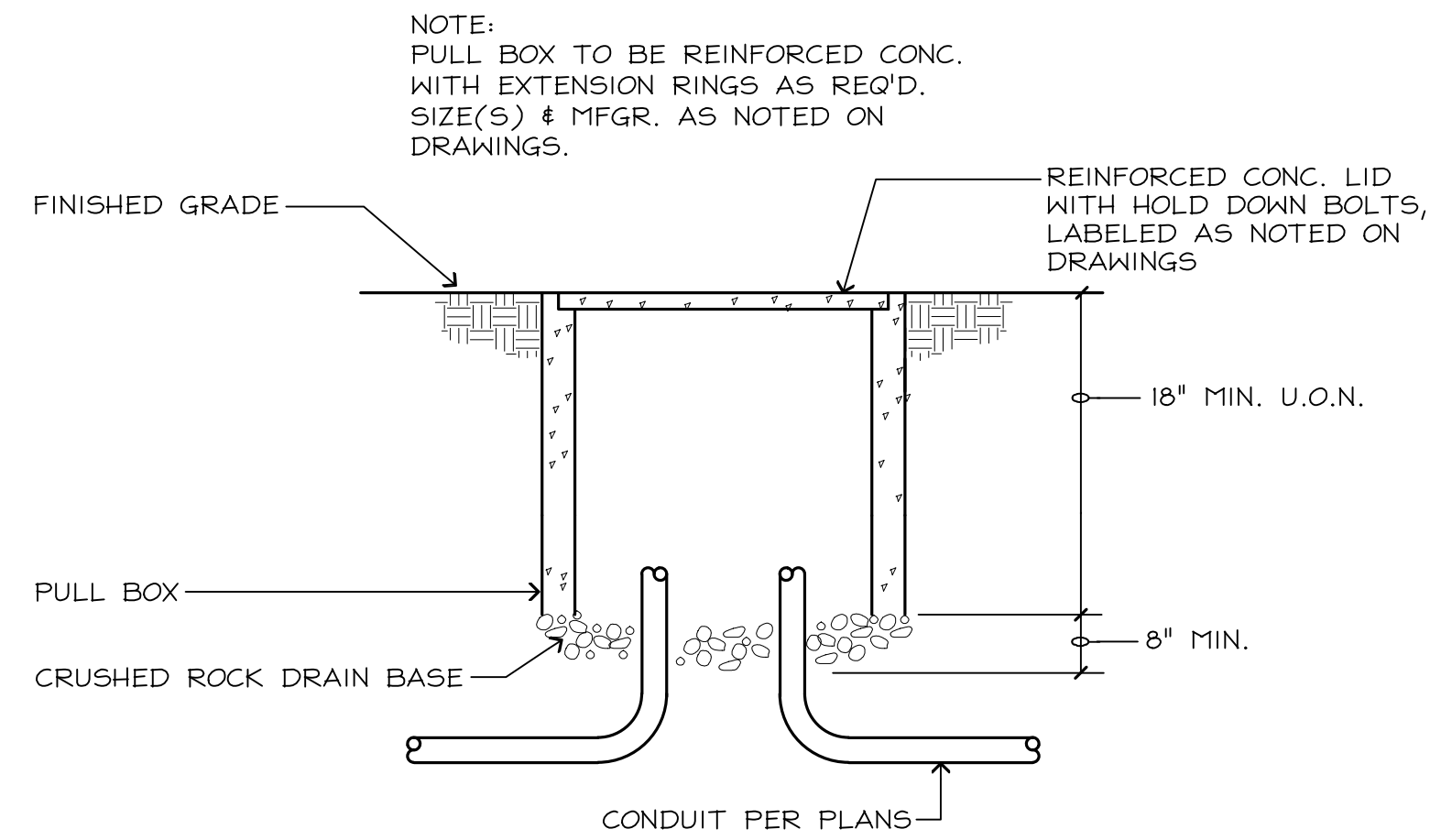
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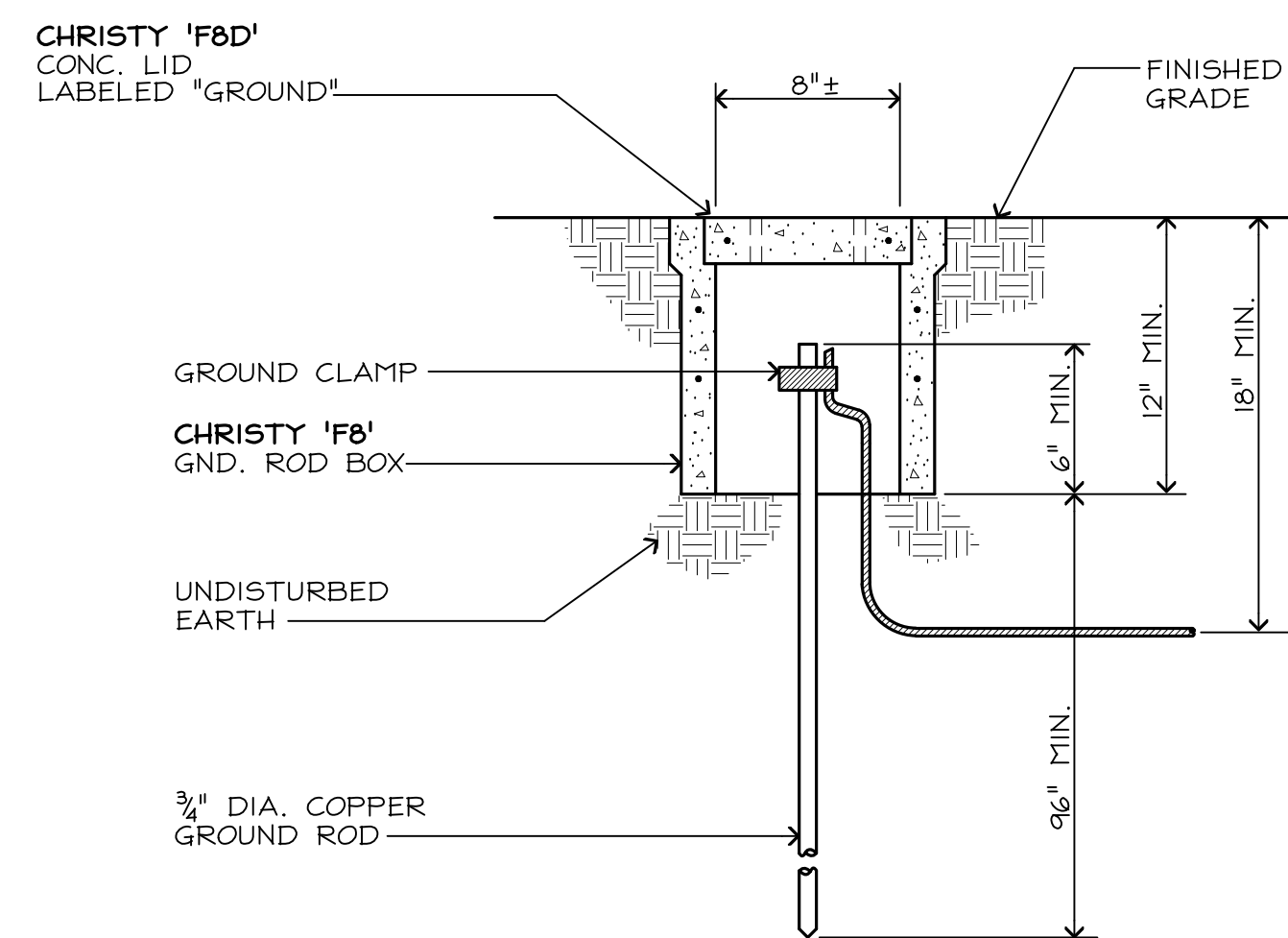
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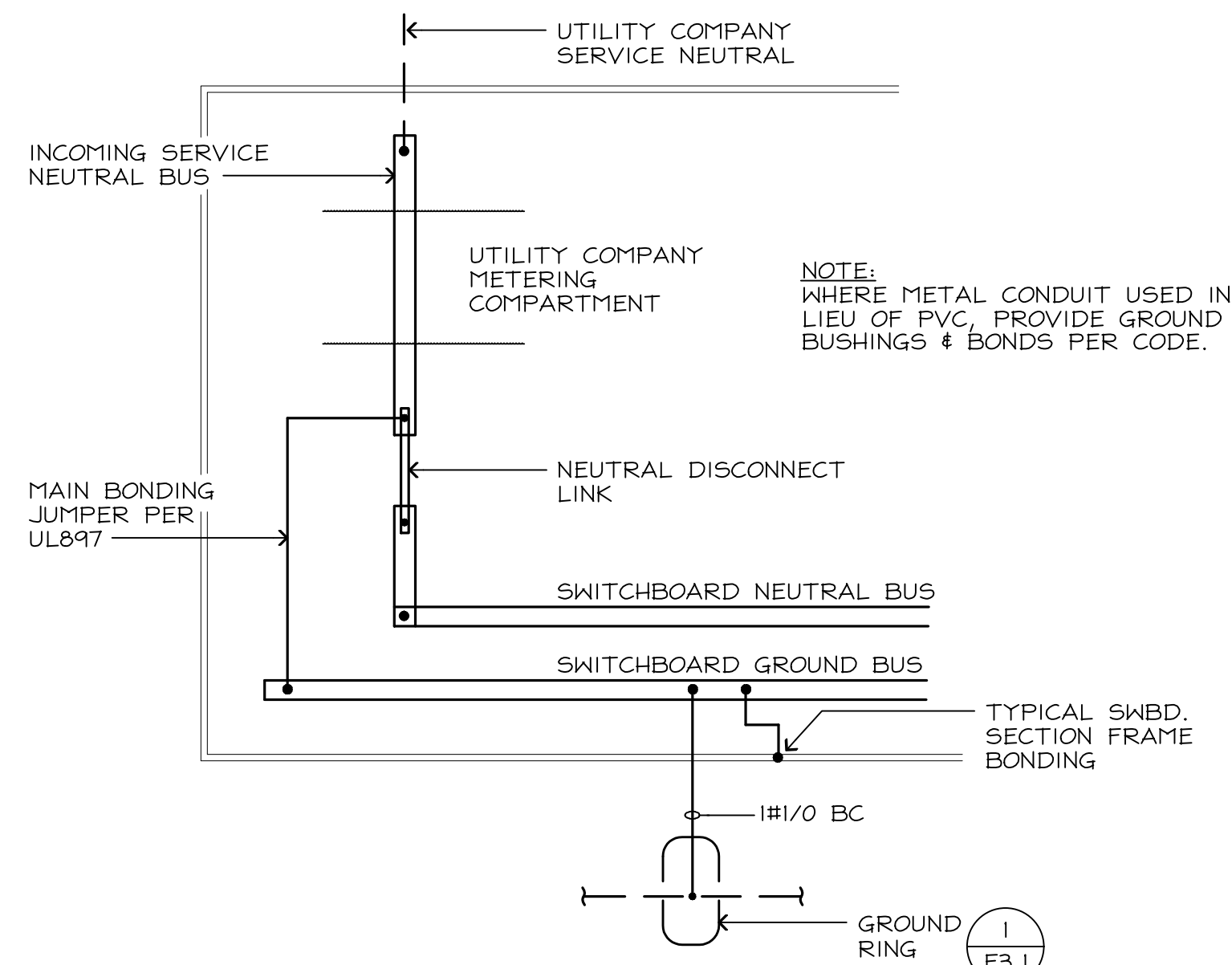
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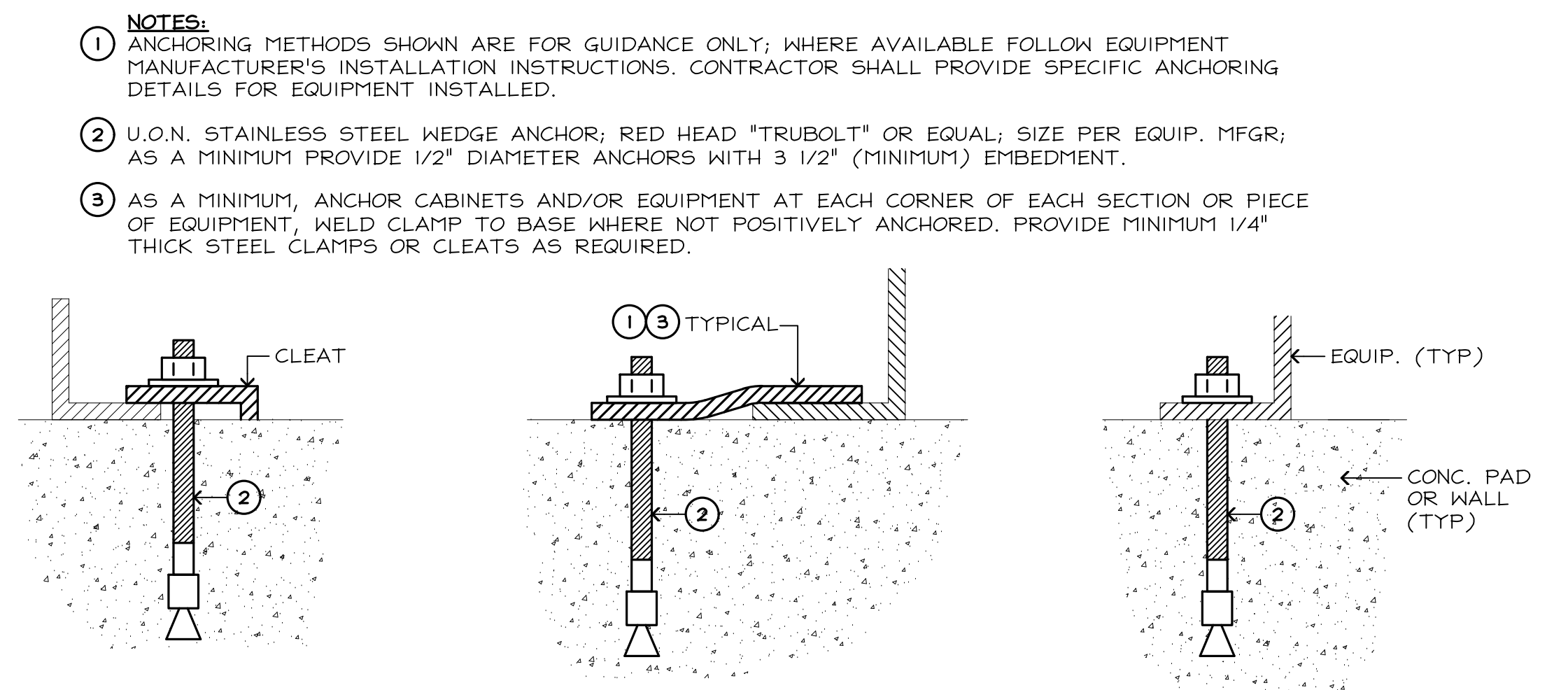
7 CONCRETE PULL BOX
NO SCALE



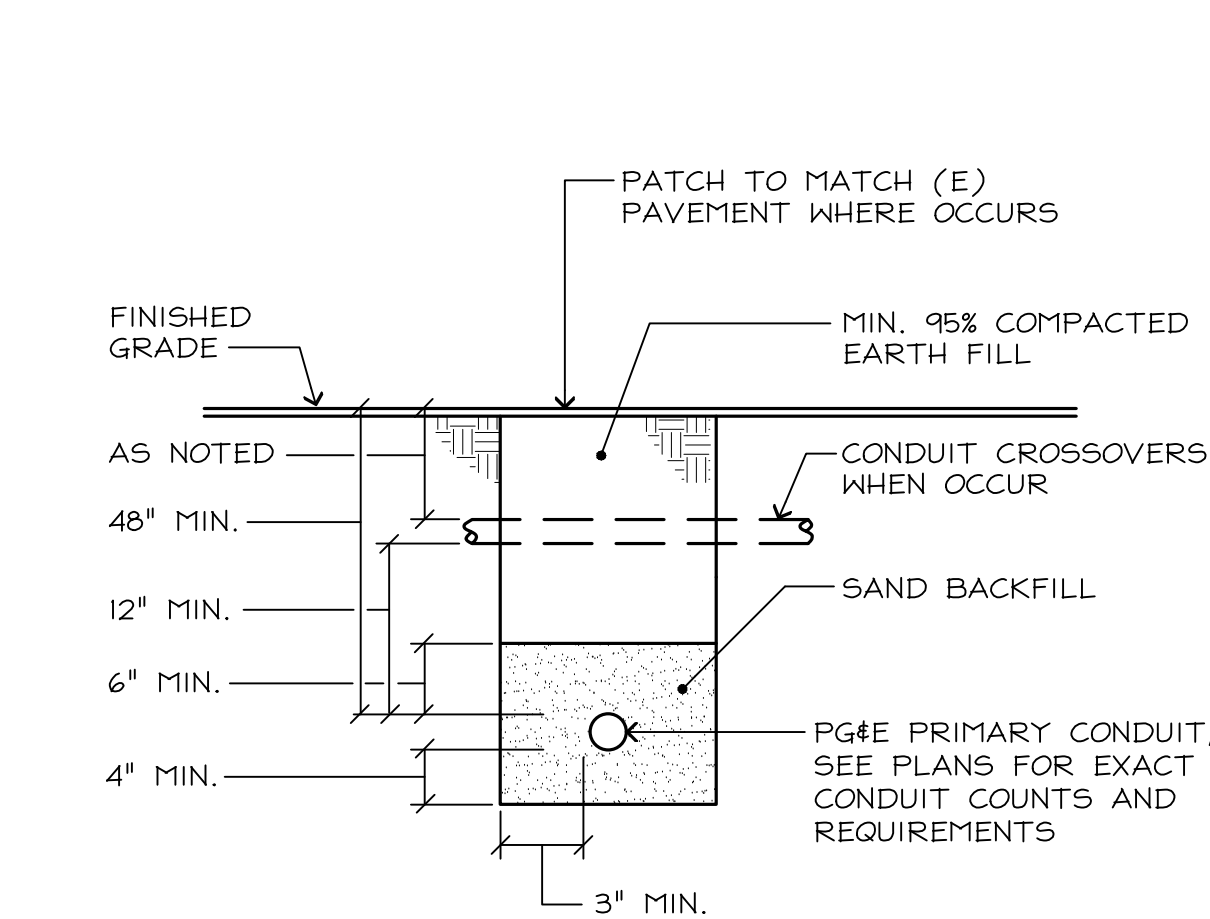
4 GROUND ROD & WELL
NO SCALE



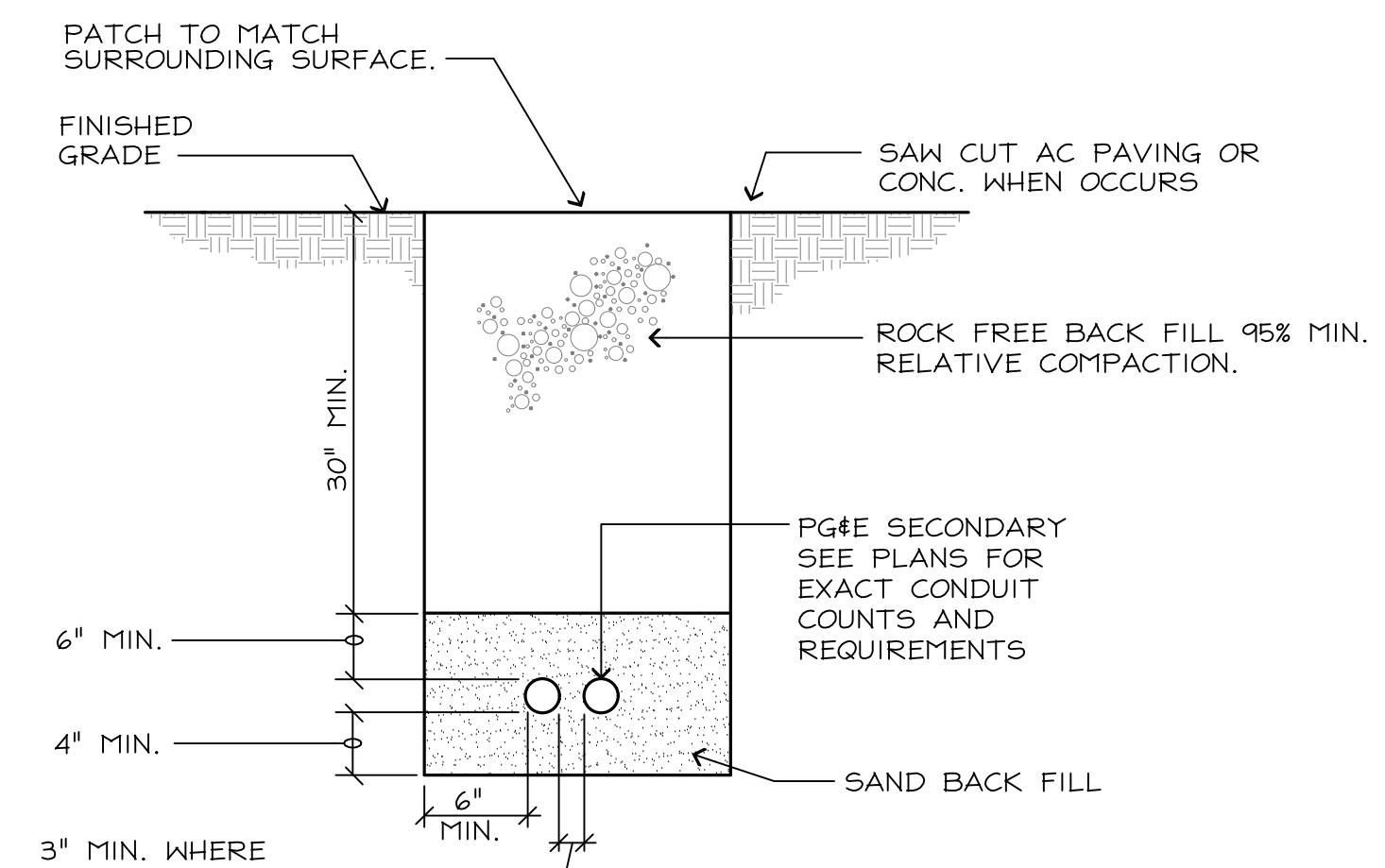
5 ELECTRICAL SERVICE GROUNDING
NO SCALE



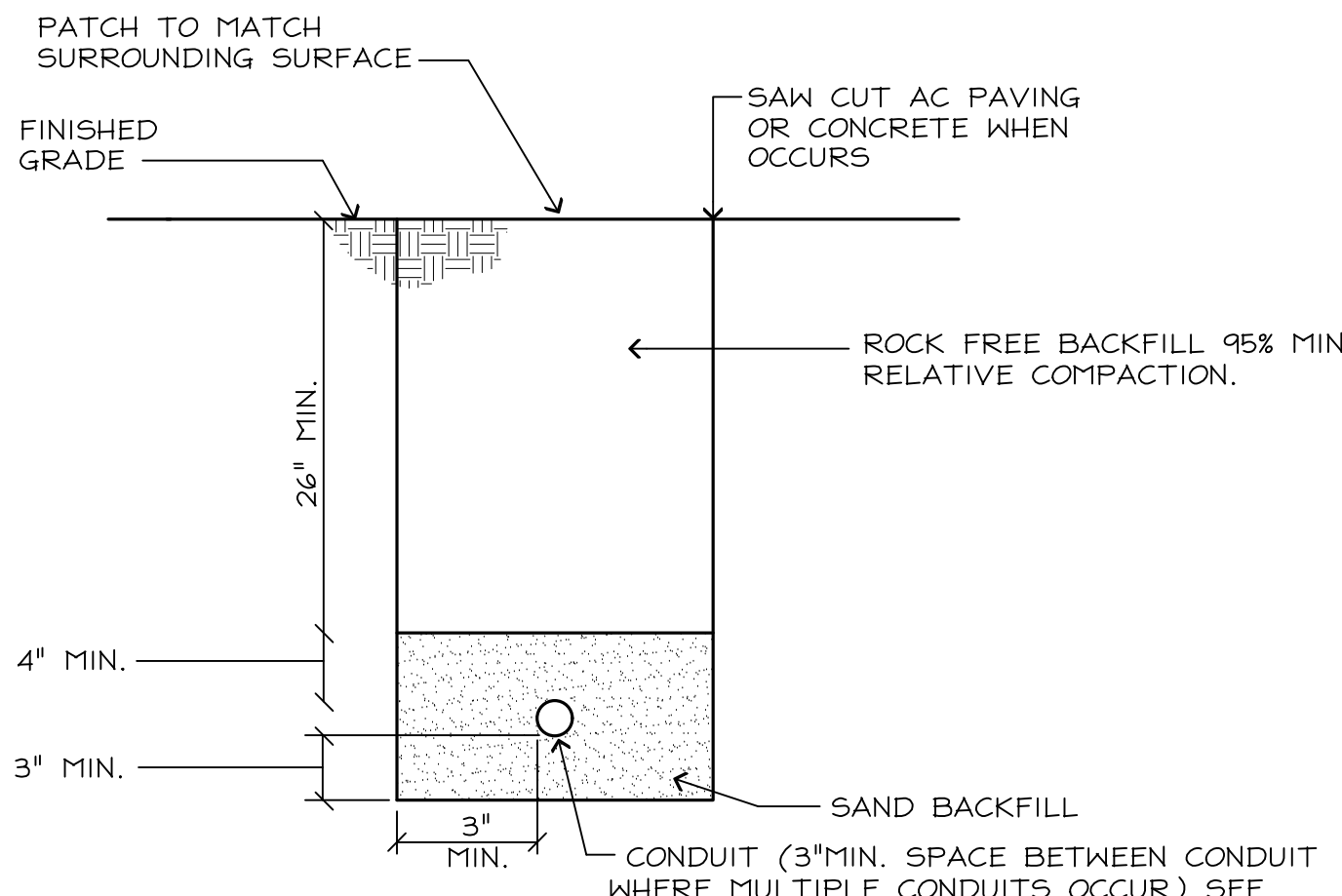
6 EQUIPMENT ANCHORING
NO SCALE



1 UTILITY PRIMARY TRENCH SECTION
NO SCALE



2 UTILITY SECONDARY TRENCH SECTION
NO SCALE



3 TRENCH SECTION
NO SCALE

REGISTERED PROFESSIONAL ENGINEER
THOMAS E. PINKERTON
No. 014906
EXP. 30 JUNE 21
ELECTRICAL
CONSULTING ELECTRICAL ENGINEERS
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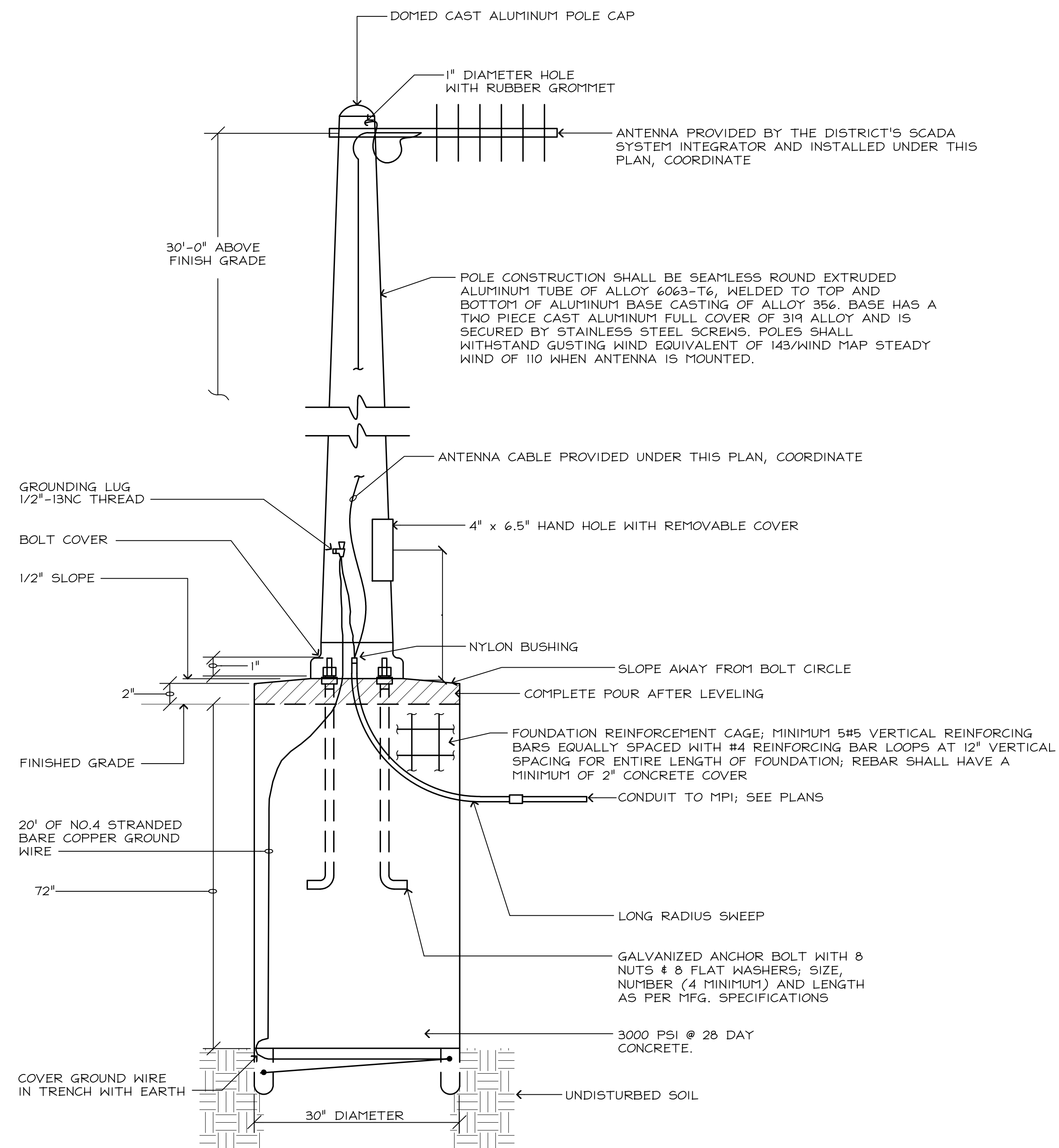
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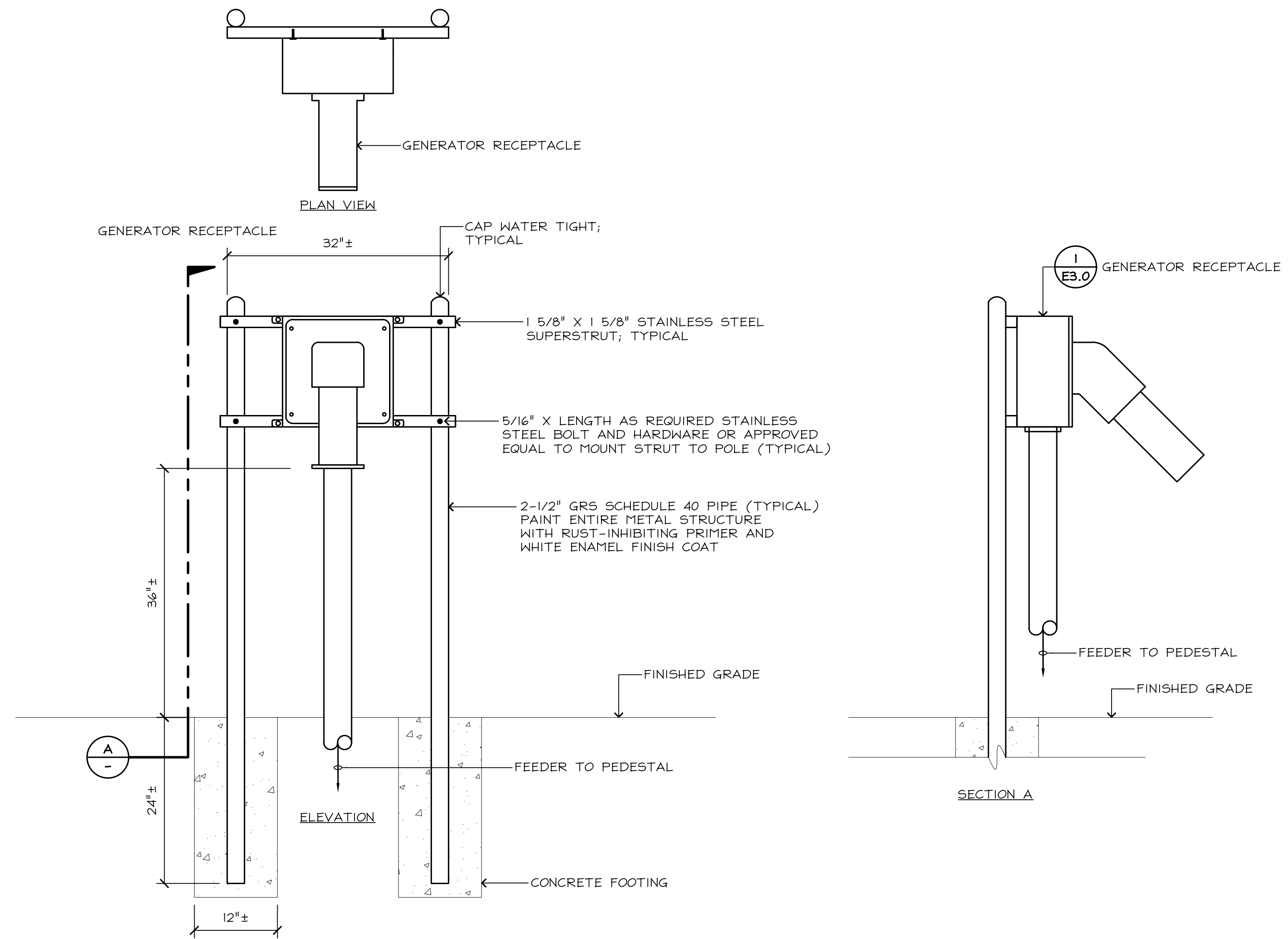
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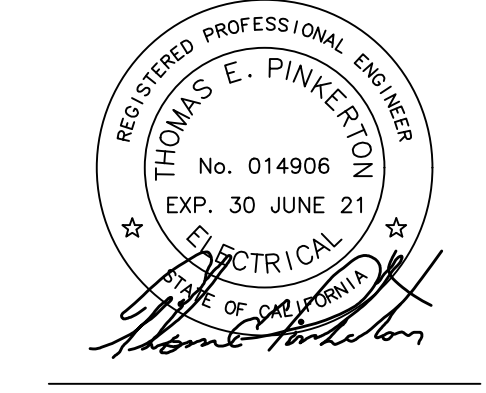
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1 SCADA ANTENNA
NO SCALE



2 GENERATOR RECEPTACLE
NO SCALE



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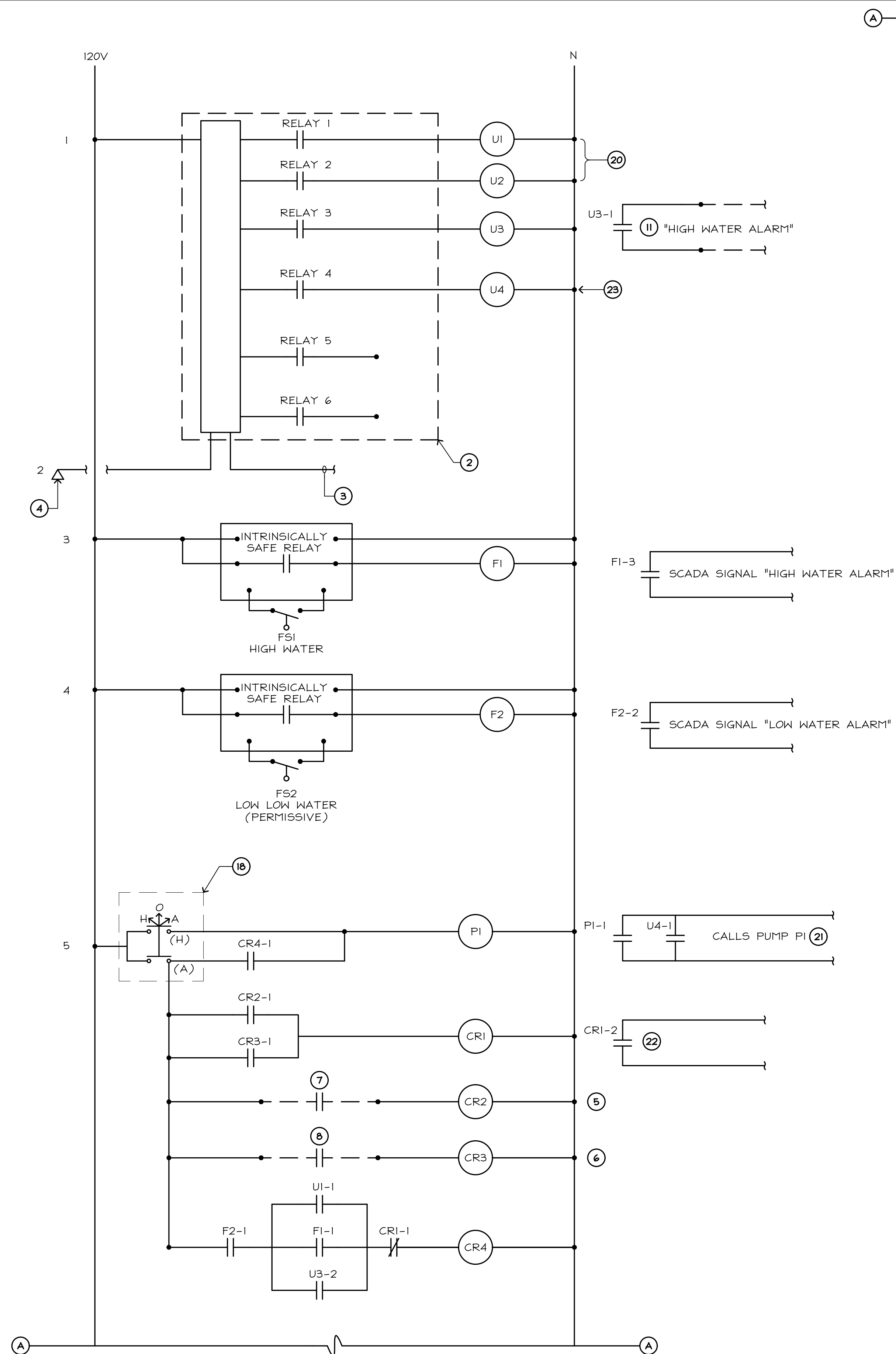
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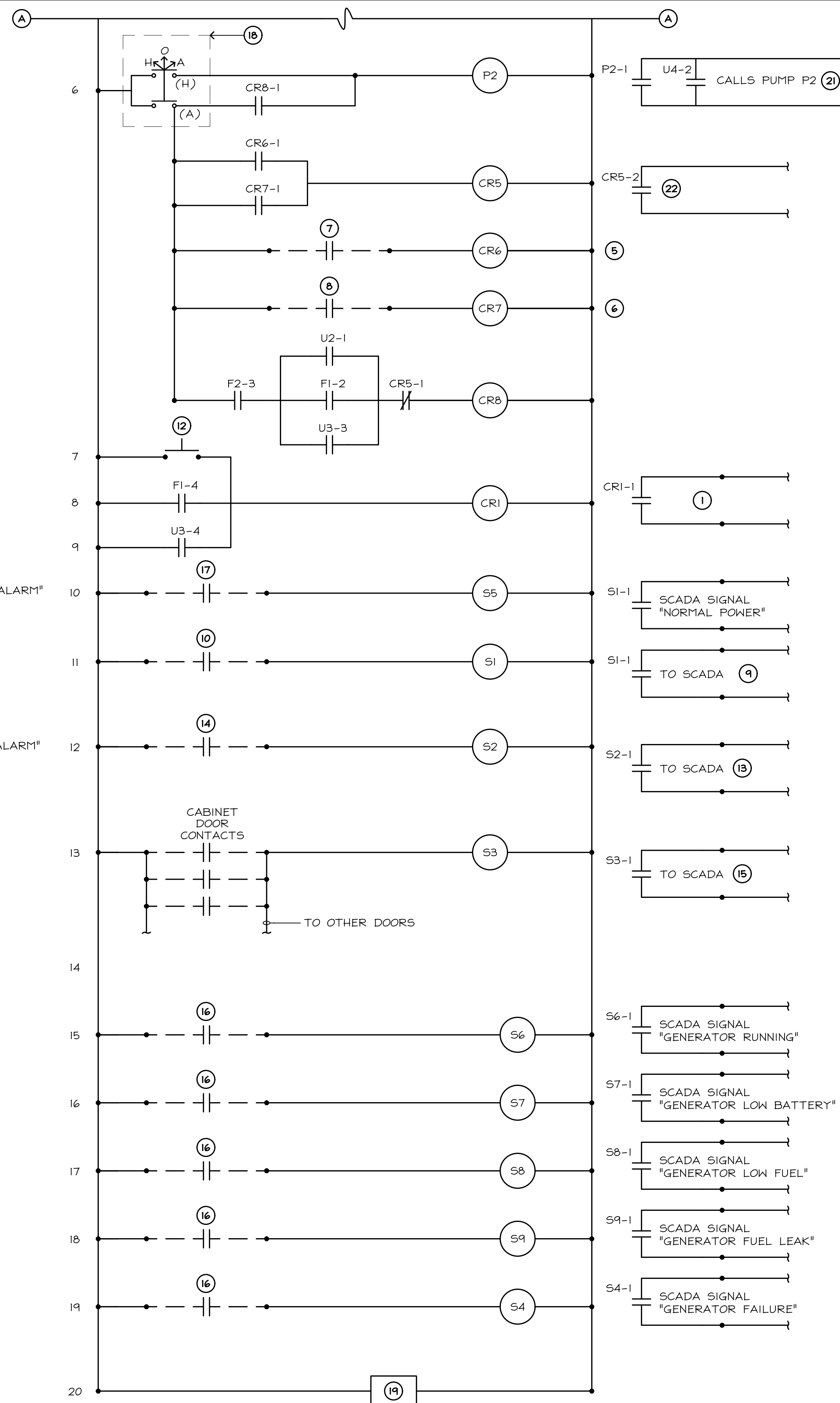
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1 CONTROL DIAGRAM (PRIMARY CONTROLLER)
NO SCALE

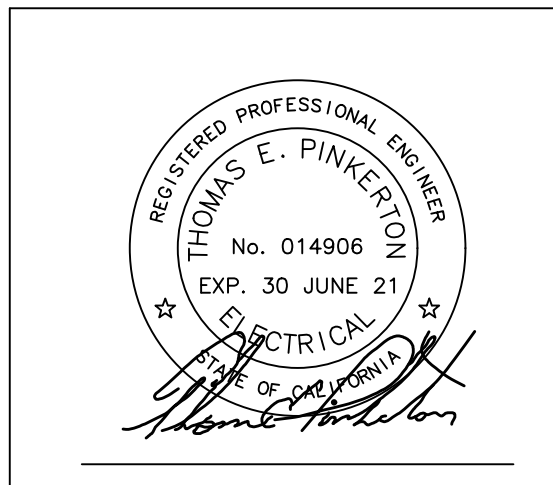


CONTROL DIAGRAM SYMBOLS

- FIELD WIRING
- WIRING INSIDE M5B
- || NORMALLY OPEN CONTACT
- ||| NORMALLY CLOSED CONTACT
- ⌋ TIMED CONTACT NORMALLY CLOSED TIMED OPEN
- ⌋ TIMED CONTACT NORMALLY OPEN TIMED CLOSED
- ⌋ TIMED CONTACT NORMALLY CLOSED TIMED CLOSED
- ⌋ TIMED CONTACT NORMALLY OPEN TIMED OPEN
- ⊙ XX RELAY; TYPE AS INDICATED; "XX" IS RELAY IDENTIFIER.
- H O A SELECTOR SWITCH; * INDICATES CONTACT SELECTION.
- ⊙ X PILOT LIGHT; "X" INDICATES LENS COLOR; R=RED, G=GREEN, A=AMBER.
- ⊙ X PILOT LIGHT WITH PUSH-TO-TEST; "X" INDICATES LENS COLOR; R=RED, G=GREEN, A=AMBER.
- ⌋ MOMENTARY CONTACT NORMALLY CLOSED
- ⌋ MOMENTARY CONTACT NORMALLY OPEN
- HOA HAND-OFF-AUTOMATIC SWITCH.
- PLC PROGRAMMABLE LOGIC CONTROL.
- HP HIGH PRESSURE.
- FSX FLOAT SWITCH "X" INDICATES IDENTIFIER NUMBER.

DETAIL NOTES:

1. HIGH WATER SIGNAL LIGHT MOUNTED TO CONTROLS ENCLOSURE; SEE DETAIL 1/E3.1.
2. ULTRASONIC PUMP STATION CONTROLLER; SEE ELECTRICAL SPECIFICATION; SEE CIVIL PLANS CONTROL WATER LEVELS.
3. ANALOG SIGNAL (4-20mA) TO PLC/SCADA; SIGNAL EFFLUENT LEVEL TO MONITORING STATION.
4. ULTRASONIC TRANSDUCER; SEE ELECTRICAL SPECIFICATION.
5. PUMP MOISTURE SENSOR.
6. PUMP TEMPERATURE SENSOR.
7. MOISTURE SENSOR RELAY FROM MINI CAS SYSTEM; PROVIDED AS PART OF PUMPS WITH CONTROLLER INSTALLED IN POWER PEDESTAL CONTROL SECTION.
8. TEMPERATURE SENSOR RELAY FROM MINI CAS SYSTEM; PROVIDED AS PART OF PUMPS WITH CONTROLLER INSTALLED IN POWER PEDESTAL CONTROL SECTION.
9. ATS ALARM SIGNAL "ATS TRANSFERRED TO EMERGENCY".
10. ATS AUXILIARY CONTACTS CLOSES UPON TRANSFER TO EMERGENCY POWER.
11. SEND DIGITAL SCADA SIGNAL; LABEL SIGNAL AS NOTED.
12. PEDESTAL MOUNTED MOMENTARY CONTACT LAMP TEST PUSH BUTTON.
13. GENERATOR ALARM SIGNAL "GENERATOR TROUBLE/FAILURE".
14. GENERATOR AUXILIARY CONTACT CLOSES UPON GENERATOR TROUBLE OR FAILURE.
15. INTRUSION ALARM SIGNAL "INTRUSION"; SEE DETAIL 1/E3.1.
16. GENERATOR AUXILIARY CONTACTS PART OF OFCI EQUIPMENT.
17. ATS AUXILIARY CONTACT CLOSES UPON TRANSFER TO NORMAL POWER.
18. PEDESTAL MOUNTED HAND-OFF-AUTO SWITCH.
19. RADIO; SEE ELECTRICAL SPECIFICATION.
20. CALL FOR PUMPING (P1,P2 OR BOTH) ALTERNATES LEAD/LAG PUMPING. SEE CIVIL PLAN FOR PUMPING LEVELS.
21. SENDS SCADA SIGNAL "CALL FOR PUMPING".
22. SEND SCADA SIGNAL "PUMP (PX) MOISTURE/TEMPERATURE FAILURE"; WHERE "PX" IDENTIFIES THE PUMP.
23. INDEPENDENT CALL FOR PUMPING UPON PLC FAILURE; SEE LINES 5 & 6.



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