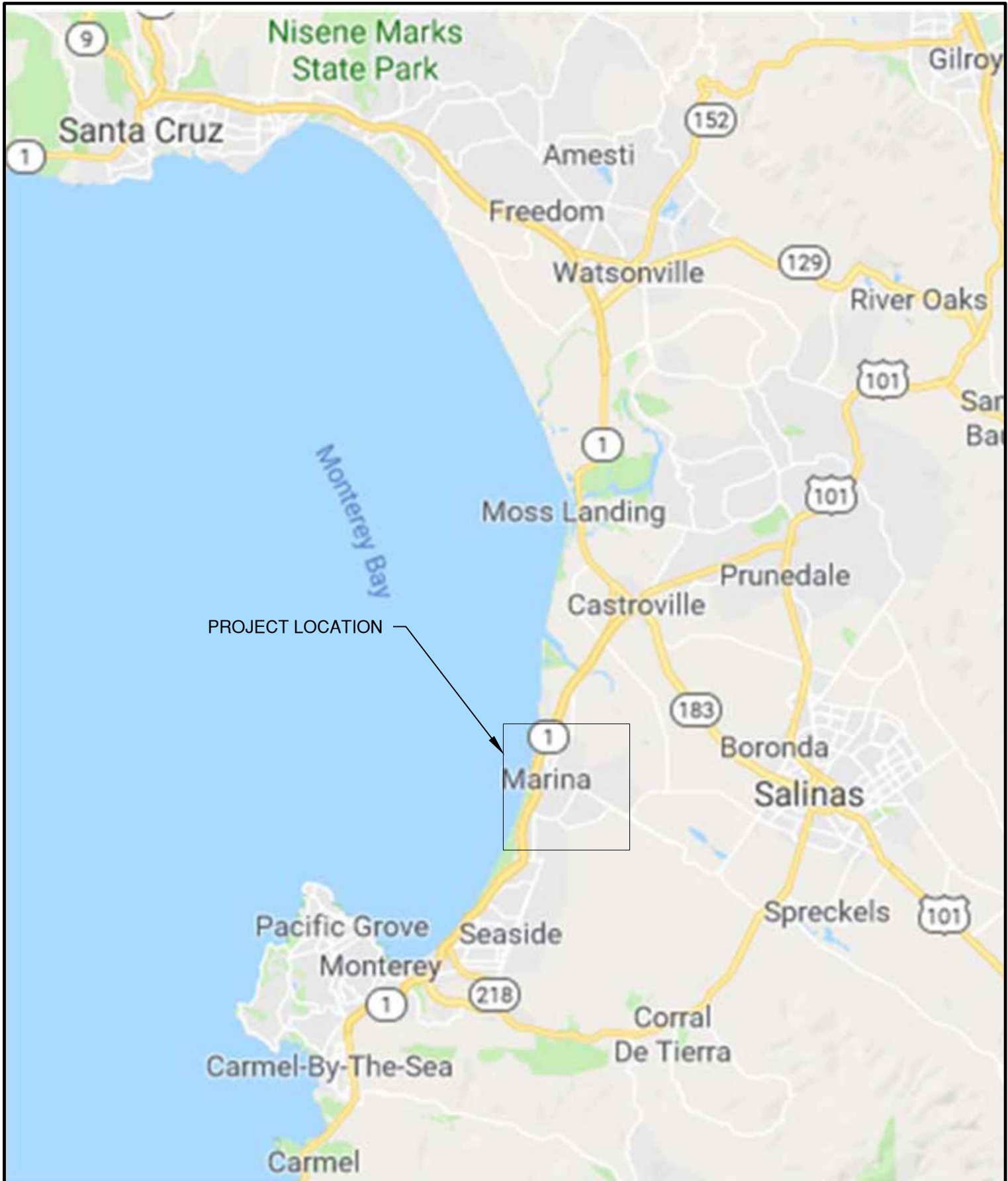
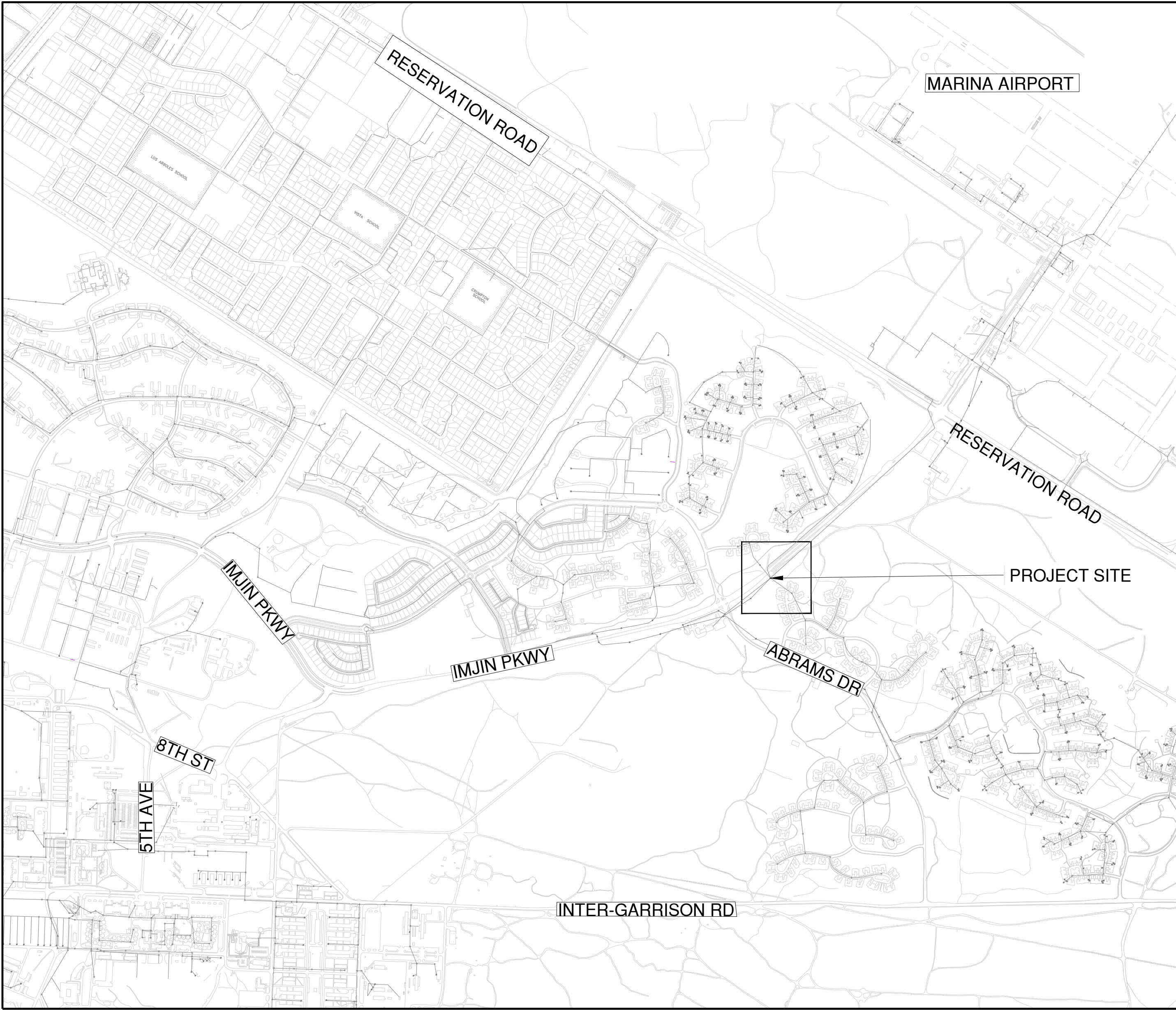



PLANS FOR THE  
IMJIN LIFT STATION ODOR CONTROL PROGRAM  
MARINA COAST WATER DISTRICT  
CIP NO. OS- 0348



VICINITY MAP

SUBMITTED:		4/8/2025
	ANDREW A. STERBENZ, PE SCHAAF & WHEELER	DATE
REVIEWED:	GARRETT HAERTEL, 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



IMJIN LIFT STATION ODOR CONTROL PROGRAM

COVER SHEET

DATE:	APRIL 2024
SCALE:	NTS
DESIGN:	AAS
DRAWN:	ALJ
CHECK:	AAS

SHEET  
G-1  
1 of 7







3. 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 404 WITH ANY QUESTIONS OR DISCREPANCIES. ANY REVISIONS REQUIRE OWNER'S APPROVAL BEFORE PROCEEDING WITH REVISED PLANS.

2. 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.

3. 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.

4. 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.

5. THE 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.

6. 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 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.

7. 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.

8. 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.

9. 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.

10. THE CONTRACTOR SHALL PROVIDE FOR INGRESS AND EGRESS FOR ANY PRIVATE PROPERTY ADJACENT TO THE WORK AREA THROUGHOUT THE PERIOD OF CONSTRUCTION.

11. 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

12. 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.

13. 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.

14. 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.

15. 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.

16. 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.

17. 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

a. WCO 2022-0057-DWQ, GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES, WITH AMENDMENTS

b. WCO 2014-0194-DWQ, GENERAL ORDER NO. CAG140001, STATEWIDE NPDES PERMIT FOR DRINKING WATER SYSTEM DISCHARGES TO WATERS OF THE UNITED STATES

c. WCO 2013-9001-DWQ, GENERAL PERMIT FOR STORM WATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4S)

21. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. THE FOLLOWING LIST OF STANDARDS AND/OR SPECIFICATIONS ARE INCORPORATED INTO THESE PLANS BY REFERENCE. DESIGN AND CONSTRUCTION OF ALL IMPROVEMENTS SHALL COMPLY WITH ALL APPLICABLE STANDARDS INCLUDING:

a. CITY OF MARINA MUNICIPAL CODE

b. MARINA COAST WATER DISTRICT STANDARD DETAILS AND SPECIFICATIONS

c. STANDARD SPECIFICATIONS, STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, 2023 EDITION

d. STANDARD PLANS, STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS), 2023 EDITION

22. 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.

23. THE CONTRACTOR SHALL SUBMIT TWO SETS OF "RED-LINE" AS-BUILT PLANS TO THE OWNER PRIOR TO FINAL ACCEPTANCE OF THE IMPROVEMENTS.

24. 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.

25. 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.

26. 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.

- 1.1. GENERAL CONTRACTOR TO PROVIDE THE FOLLOWING:
  - 1.1.1. CONCRETE EQUIPMENT PAD PER DETAIL 1/GC-1.
  - 1.1.2. 3-INCH DRAIN FROM THE EQUIPMENT PAD TO EXISTING JUNCTION RECEIVING MANHOLE. CORE-DRILL PIPE ENTRY AND SEAL PENETRATION PER DETAIL 4/GC-1.
  - 1.1.3. 2-INCH CONDUIT FROM EQUIPMENT PAD TO THE EXISTING JUNCTION RECEIVING MANHOLE. CORE-DRILL PIPE ENTRY AND SEAL PENETRATION PER DETAIL 4/GC-1.
  - 1.1.4. 2-INCH CONDUIT FROM EQUIPMENT PAD TO THE EXISTING VALVE VAULT. CORE-DRILL PIPE ENTRY AND SEAL PENETRATION PER DETAIL 4/GC-1/
  - 1.1.5. TAPPING SADDLE AND DOSING QUILL AT THE VALVE VAULT CONNECTION.
  - 1.1.6. TWO 1/2 INCHES FROM THE EQUIPMENT PAD TO THE PLC WITH CONDUCTORS.
- 1.2. ODOOR CONTROL VENDOR TO PROVIDE THE FOLLOWING:
  - 1.2.1. ODOOR CONTROL VENDOR SHALL BE RESPONSIBLE FOR PROVIDING AND CONNECTING ALL WIRES AND HOSES IN THE CONDUITS PROVIDED.
  - 1.2.2. ODOOR CONTROL VENDOR SHALL BE RESPONSIBLE FOR SEISMIC ANCHORAGE OF SUPPLIED EQUIPMENT.

GENERAL MATERIAL REQUIREMENTS

1.1. ALL PRODUCTS AND MATERIALS FURNISHED AS PART OF THE WORK INCLUDED IN THIS PLAN SET SHALL BE SUBMITTED TO OWNER REPRESENTATIVE FOR APPROVAL. SUBMITTALS SHALL INCLUDE BUT BE LIMITED TO: SHOP DRAWINGS, MATERIAL PROPERTIES, PRODUCT CUT SHEETS, INSTALLATION REQUIREMENTS AND OPERATION AND MAINTENANCE MANUALS. CONTRACTOR SHALL NOT PURCHASE NOR INSTALL ANY PRODUCTS OR MATERIALS WITHOUT PRIOR SATISFACTORY REVIEW DETERMINATION BY OWNER REPRESENTATIVE.

1.2. ALL MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER REPRESENTATIVE, AND SHALL NOT BE USED BEFORE BEING INSPECTED AND APPROVED BY THE INSPECTOR. OWNER HAS THE RIGHT TO PERFORM ANY TESTING NECESSARY TO ENSURE COMPLIANCE OF THE MATERIALS WITH THE MATERIALS SPECIFICATIONS. FAILURE OR NEGLIGENCE ON THE PART OF THE OWNERS REPRESENTATIVE TO CONDEMN OR REJECT WORK MATERIALS NOT IN ACCORDANCE WITH THE MATERIALS SPECIFICATIONS SHALL NOT BE CONSTRUED TO IMPLY ACCEPTANCE SHOULD THEIR INFERIORITY BECOME EVIDENT AT ANY TIME. MATERIALS REJECTED BY THE OWNER REPRESENTATIVE SHALL BE IMMEDIATELY REMOVED FROM THE JOBSITE.

2. REFERENCE STANDARDS

2.1. ANSI – AMERICAN NATIONAL STANDARDS INSTITUTE

2.2. ASME - AMERICAN SOCIETY OF MECHANICAL ENGINEERS

2.3. ASTM – AMERICAN SOCIETY FOR TESTING AND MATERIALS

2.4. AWWA - AMERICAN WATER WORKS ASSOCIATION

2.5. FM - FM GLOBAL (FACTORY MUTUAL)

2.6. HI - HYDRAULIC INSTITUTE

2.7. IEEE – INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

2.12. ISO – INTERNATIONAL STANDARDS ORGANIZATION

2.13. NEMA – NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION

2.14. NEC – NATIONAL ELECTRICAL CODE

2.15. NFPA - NATIONAL FIRE PROTECTION ASSOCIATION

2.16. NSF - NSF INTERNATIONAL (NATIONAL SANITATION FOUNDATION)

2.17. UL – UNDERWRITERS LABORATORIES, INC.

3. CAST-IN-PLACE CONCRETE

3.1. CONCRETE SHALL BE MINOR CONCRETE PER CALTRANS STANDARD 90-2, PORTLAND CEMENT CONCRETE, 3000 PSI AT 28 DAYS MAX 3-INCH SLUMP.

3.2. MAXIMUM AGGREGATE SIZE SHALL BE  $\frac{1}{2}$  -INCH.

3.3. REBAR SHALL BE DEFORMED STEEL PER CALTRANS SECTION 52.

3.4. PLACE CONCRETE PER THE REQUIREMENTS OF CALTRANS SECTIONS 51 AND 73.

3.5. SUBMIT MIX DESIGN FOR APPROVAL PRIOR TO CONSTRUCTION.

4. BASE AND SUBBASE

4.1. CLASS 2 AGGREGATE BASE,  $\frac{3}{4}$ -INCH MAXIMUM, PER CALTRANS SECTION 26.

5. PEA GRAVEL FOR STRUCTURAL BEDDING

5.1.  $\frac{3}{4}$ -INCH CRUSHED AND WASHED STONE, 100% PASSING THE 1-INCH SIEVE AND LESS THAN 6% PASSING THE #4 SIEVE.

6. GROUT

6.1. PRE-PROPORTIONED, PREPACKAGED NON-SHRINK GROUTS.

6.2. CEMENT GROUTS SHALL CONSIST OF PORTLAND CEMENT AND SAND, MIXED WITH WATER ON-SITE PER THE MANUFACTURER'S INSTRUCTIONS.

6.3. EPOXY GROUTS SHALL CONSIST OF TWO-COMPONENT THERMOSETTING EPOXY RESIN AND INERT AGGREGATE, MIXED ON-SITE PER THE MANUFACTURER'S INSTRUCTIONS.

7. EPOXIES

7.1. WATER-INSENSITIVE TWO-PART TYPE EPOXY ADHESIVE MATERIAL CONTAINING 100 PERCENT SOLIDS, MEETING THE REQUIREMENTS OF CALTRANS STANDARD 95.

8. BALL VALVES

8.1. THREADED END BALL VALVES, 1 INCH AND SMALLER, FULL PORT BALL TYPE WITH LEVER OPERATOR, RATED FOR 150 PSI SERVICE.

8.2. VALVES SHALL HAVE STAINLESS STEEL BALL AND BODY. SEALS AND STEM SHALL BE NSF 61 COMPLIANT.

9. PRESSURE GAUGES

9.1. BOURDON TUBE PRESSURE GAUGE, 2.5 INCH DIAMETER FACE, RANGE AND INSTALLATION LOCATION AS SHOWN ON DRAWINGS.

9.2. GAUGE SHALL BE LIQUID-FILLED, WITH COPPER-ALLOY INTERNAL PARTS IN A STAINLESS STEEL CASE.

9.3. GAUGE ACCURACY SHALL BE  $\pm 2.5\%$ .

9.4. GAUGE SHALL BE CAPABLE OF EXPERIENCING A PRESSURE 30% ABOVE ITS MAXIMUM SPAN WITHOUT REQUIRING RECALIBRATION.

10. CHAIN LINK FENCE AND GATES

10.1. CHAIN LINK FENCES AND GATES SHALL BE PER CALTRANS STANDARD 80-3

10.2. FABRIC SHALL BE GALVANIZED STEEL WIRE WITH VINYL COATING, WITH KNUCKLED TOP AND TWISTED BOTTOM SELVAGES

10.3. FENCE SHALL HAVE TOP RAIL AND BOTTOM TENSION WIRE.

10.4. FENCE POSTS, BRACES AND RAILS SHALL BE SCHEDULE 40 GALVANIZED STEEL PIPE. LINE POSTS SHALL BE 2.5 INCHES DIAMETER. CORNER AND END POSTS SHALL BE 3 INCHES IN DIAMETER. GATE POSTS SHALL BE A MINIMUM OF 6 INCHES IN DIAMETER. BRACES AND TOP RAILS SHALL BE 1.67 INCHES IN DIAMETER. POSTS SHALL HAVE GALVANIZED CAPS TO EXCLUDE MOISTURE. TRUSS ROADS SHALL BE  $\frac{3}{8}$  INCH DIAMETER GALVANIZED STEEL. TURN-BUCKLES, TENSION WIRES, TIE WIRES AND HOG RINGS SHALL CONFORM TO CALTRANS STANDARD 80-3.

10.5. ALL POST AND HARDWARE SHALL BE POWER-COATED, COLOR TO MATCH THE EXISTING SLATS AND FENCE FABRIC.

10.6. BARBED WIRE SHALL BE 12.5 GAUGE WIRE WITH 4-POINT ROUNDED BARS, PER ASTM-A121, CLASS 3.

10.7. GATES SHALL BE OF THE SAME HEIGHT AS THE ADJACENT FENCE. GATES SHALL BE PROVIDED WITH ALL NECESSARY HARDWARE, INCLUDING HINGES, LATCHES, AND STOPS.

10.8. SWINGING GATE PANELS SHALL BE CROSS-TRUSSED WITH  $\frac{1}{2}$  INCH DIAMETER TRUSS RODS AND TURNBUCKLES. GATES SHALL BE HINGED TO OPEN 180-DEGREES. GATE SHALL BE FURNISHED WITH A KEEPER AND PLUNGER-BAR TYPE LATCH WITH PROVISION FOR A PADLOCK. THE PLUNGER BAR SHALL DROP INTO A BURIED CENTER STOP WHEN THE GATE IS CLOSED.

11. LINK SEALS

11.1. PROVIDE LINK SEALS AT PIPE PENETRATIONS THROUGH CONCRETE SLABS, WHERE INDICATED ON THE DRAWINGS.

11.2. LINK SEAL SHALL BE MODEL "C" LINK-SEAL (EPDM), BY GPT INDUSTRIES, OR APPROVED EQUAL.

11.3. PROVIDE STEEL SLEEVE WITH INTEGRAL WATER STOP FOR CAST-IN-PLACE CONCRETE SLABS, GPT INDUSTRIES SERIES WS OR APPROVED EQUAL. INSTALL VERTICAL PIPE WITH LINK SEAL AND STEEL SLEEVE PRIOR TO PLACING CONCRETE SLAB OR FOUNDATION.

12. PVC GRAVITY SEWER PIPE

12.1. PVC GRAVITY SEWER PIPE SHALL BE SDR 26 WITH GASKETED JOINTS, MEETING OR EXCEEDING THE REQUIREMENTS OF ASTM D3034.

12.2. GASKETS SHALL BE OF SYNTHETIC ELASTOMER.

13. CONDUCTORS

13.1. CONDUCTORS SHALL BE INSULATED COPPER, NO. 10 AWG MINIMUM SIZE, UNLESS OTHERWISE NOTED ON THE PLANS.

14. CONDUIT

14.1. ALL CONDUITS FOR UNDERGROUND OR UNDER SLAB INSTALLATIONS SHALL BE SCHEDULE 40 PVC PLASTIC.

1. P1, 1" CONDUIT, 4 #10 WIRE, 1 #10 GROUND
2. S1. 1" CONDUIT, 2 TSP
  - 2.1. TSP = TWISTED SHIELDED PAIR, #12 WIRE

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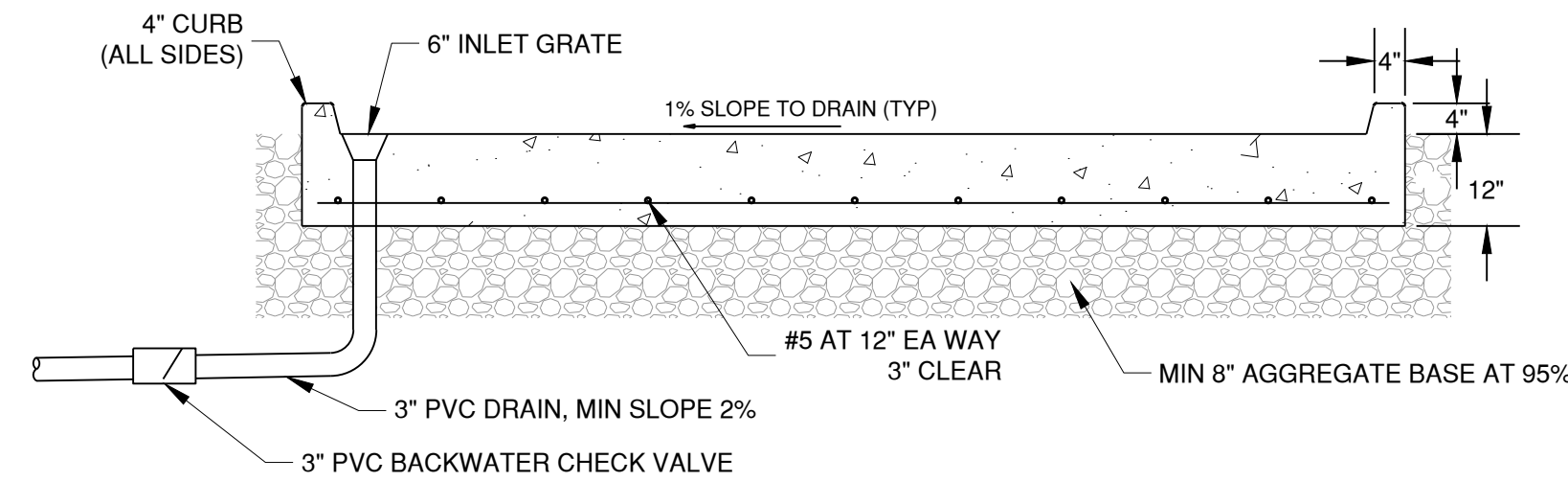


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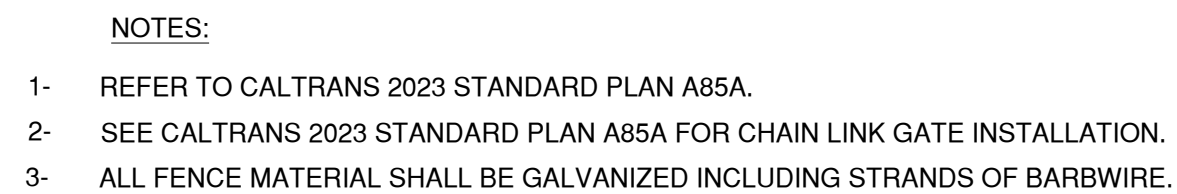
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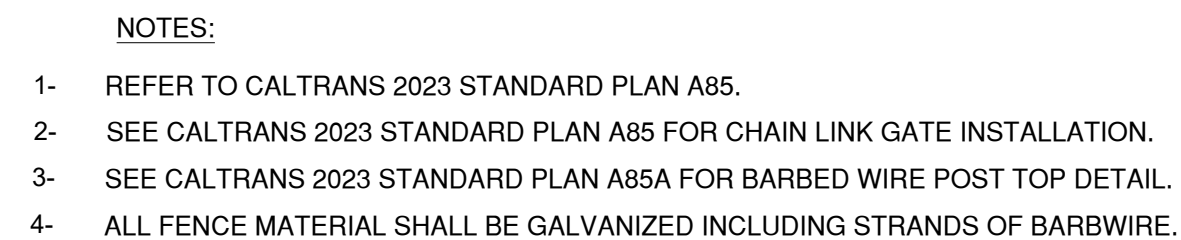




SCALE: 1/2" = 1'-0"



NTS



NTS



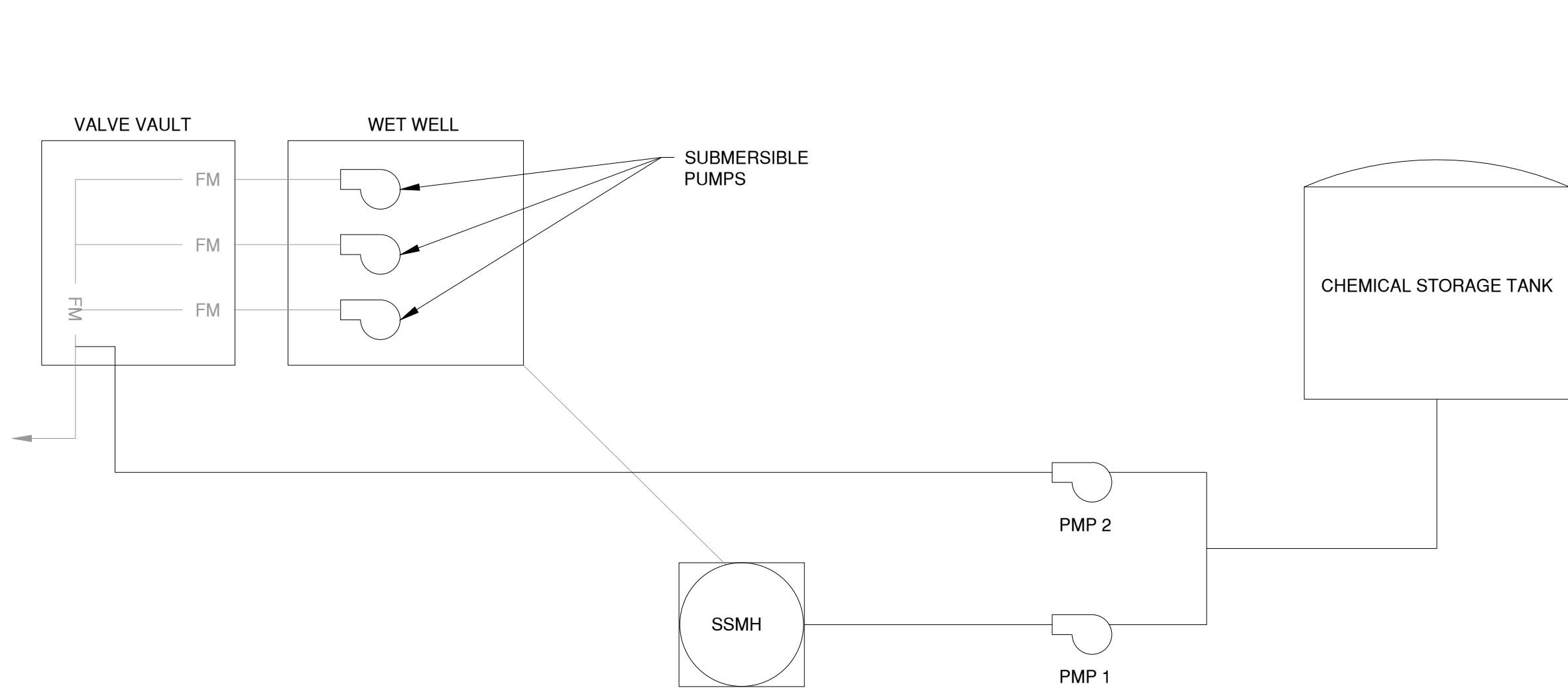
- NOTES:**
1. CONCRETE ENCASEMENT PER MOWD STD. PLAN S-8 SHALL BE USED WHERE THE TRENCH WIDTH AT THE UPPER LIMIT OF THE PIPE ZONE EXCEEDS THE MAX. WIDTH SPECIFIED ABOVE.
  2. IF UNSTABLE SOIL IS ENCOUNTERED, DISTRICT REPRESENTATIVE SHALL DETERMINE DEPTH OF REMOVAL AND SIZE OF EXCAVATION. MAXIMUM ROCK REFRILL MATERIAL SHALL BE 12" MAX.
  3. OVERWIDT BEDDING SHALL BE USED WHERE THE TRENCH WIDTH AT THE UPPER LIMITS OF THE PIPE ZONE EXCEEDS THE MAXIMUM SPECIFIED ABOVE. MAXIMUM OVERWIDT BEDDING TO BE DETERMINED IN THE FIELD BY THE DISTRICT REPRESENTATIVE ON THE BASIS OF OVERWIDT EXCAVATED.
  4. NO NATIVE BACKFILL SHALL BE ALLOWED IN THE PIPE ZONE.
  5. PIPE INSTALLED MORE THAN 2' 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.



## PIPE PENETRATION

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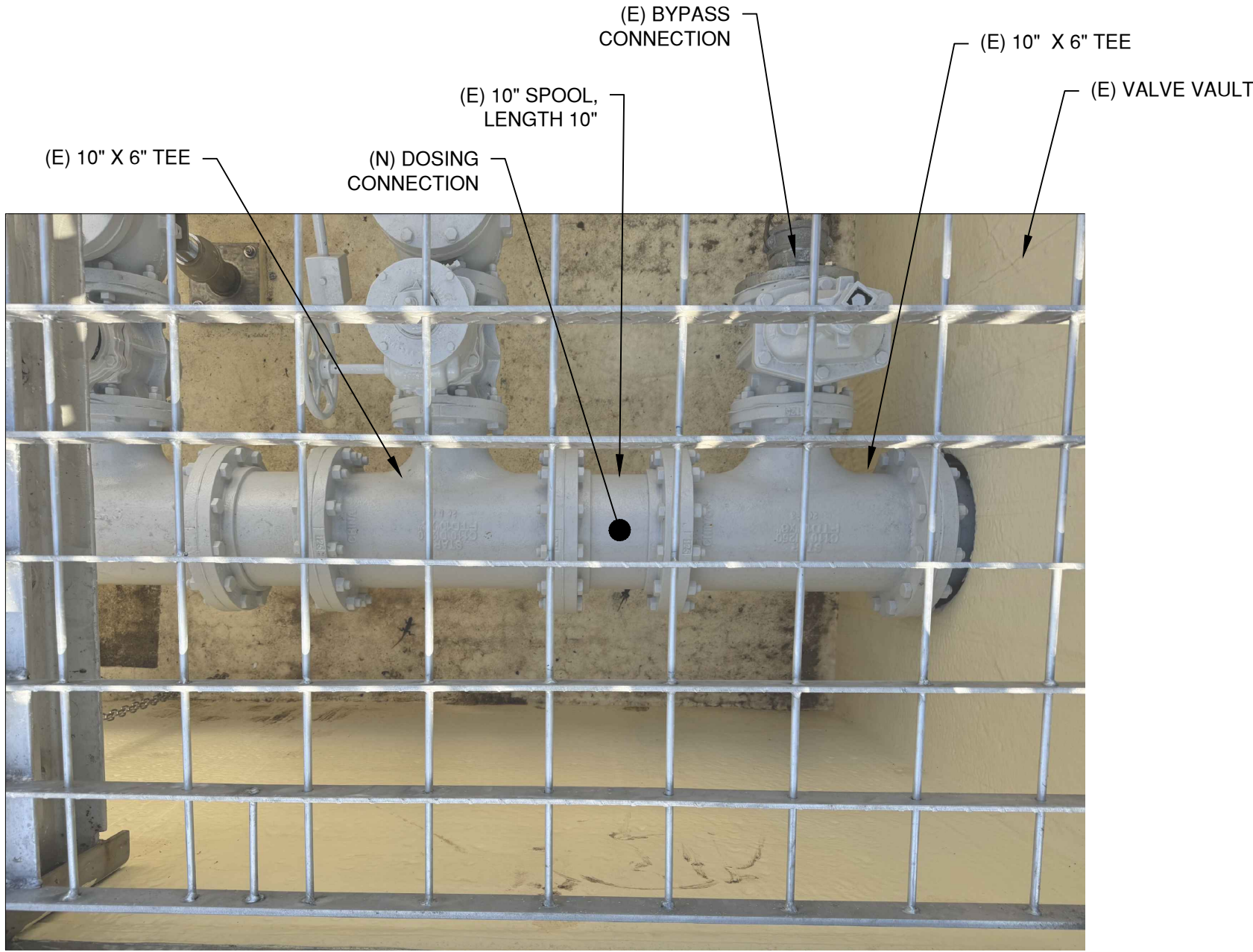


- NOTES:**
1. DOSING PUMP AND DOSING RATES ARE BASED ON AN AVERAGE DAILY FLOW OF 99,600 GALLONS PER DAY (GPD) FOR FROM THE IMJIN LIFT STATION.
  2. DOSING PUMP 1 (PMP 1) DOSES DIRECTLY INTO THE UPSTREAM SS MANHOLE.  
2.1. DOSING PUMP SHALL DOSE 12-17 GPD OF CHEMICAL AT A CONSTANT RATE THROUGH A 24 HOUR PERIOD.
  3. DOSING PUMP 2 (PMP 2) DOSES DIRECTLY INTO THE FORCE MAIN AT THE VALVE VAULT AS SHOWN ON DETAIL 2.  
3.1. DOSING PUMP SHALL DOSE 12-17 GPD OF CHEMICAL SIMULTANEOUSLY WHILE THE SEWAGE PUMPS IN THE WET WELL ARE OPERATING. DOES PUMP SHALL OVER COME A FLOW RATE OF 1,200 GPM AT A TDH OF 40 PSI.

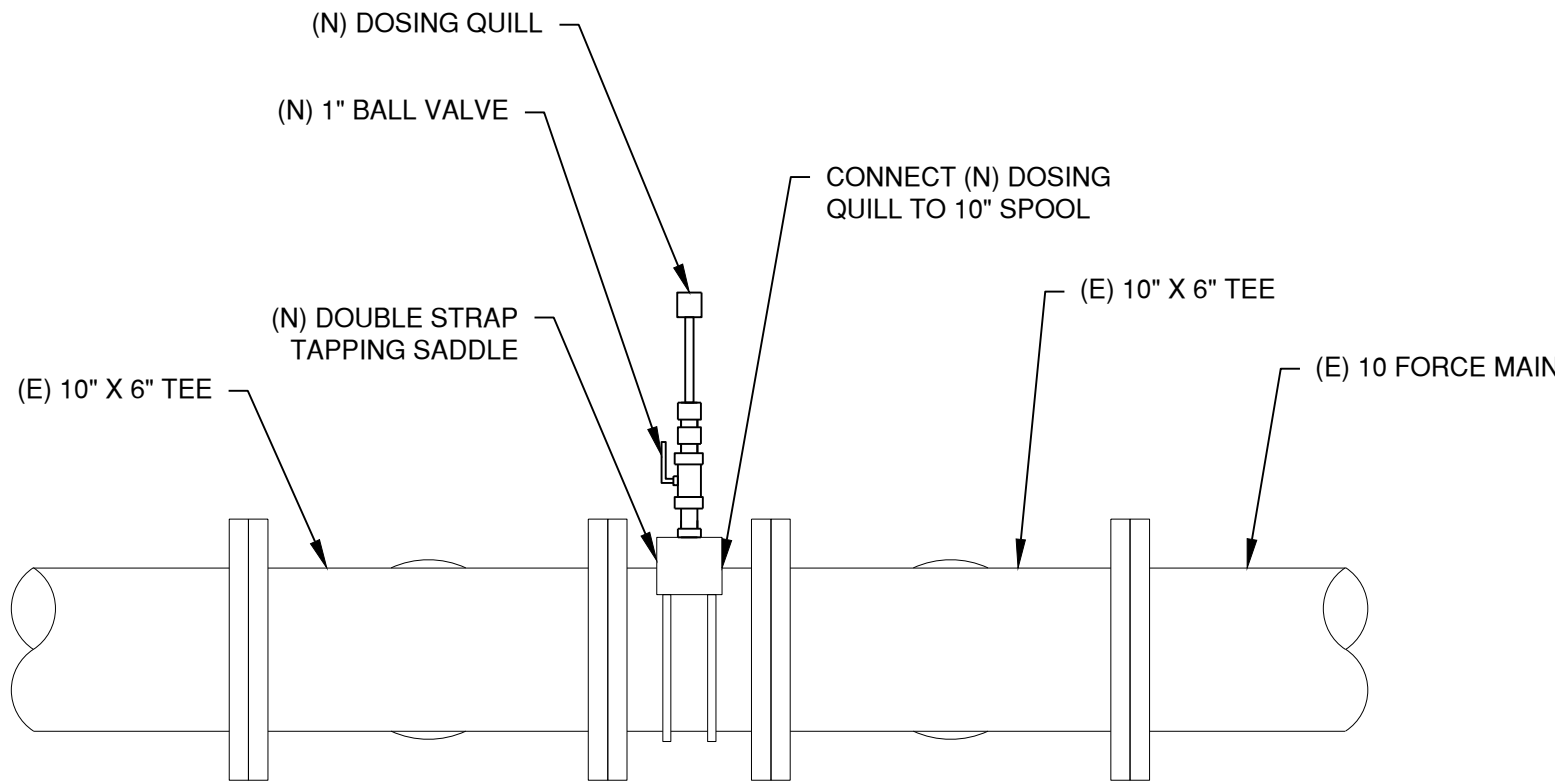
**DOSING SCHEMATIC**

SCALE: N.T.S.

1  
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EXISTING FORCE MAIN IN VALVE VAULT



PROPOSED CHEMICAL DOSING

**CHEMICAL DOSING DETAIL**

SCALE: N.T.S.

2  
-

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NO.	REVISION DESCRIPTION	DATE	APPR



**MARINA COAST WATER DISTRICT**  
11 RESERVATION ROAD  
MARINA, CA 93933  
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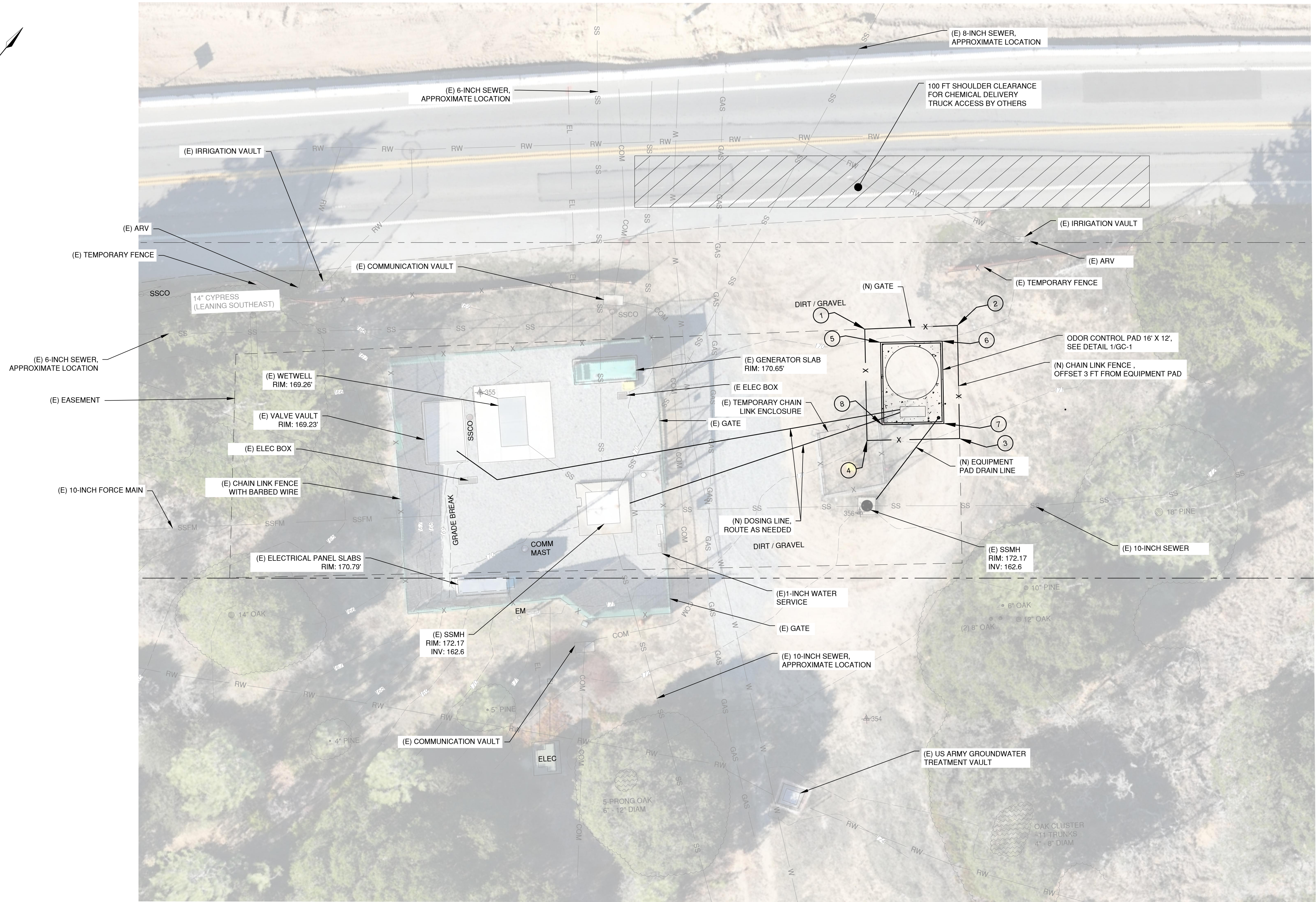
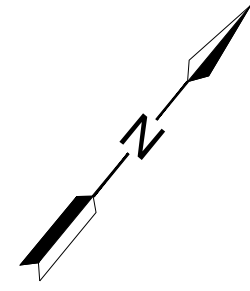
**IMJIN LIFT STATION ODOR CONTROL PROGRAM**

**CIVIL DETAILS II**

DATE:	APRIL 2024
SCALE:	NTS
DESIGN:	AAS
DRAWN:	ALJ
CHECK:	AAS

**SHEET**  
**GC-2**  
**5 of 7**





- NOTES:**
1. CONTRACTOR TO PROTECT ALL EXISTING STRUCTURES AND UTILITIES.
  2. CONTRACTOR TO VERIFY LOCATION OF EXISTING UNDERGROUND UTILITIES AS NEEDED.

**LOCAL BENCHMARK**  
SURVEY CONTROL POINT: 355  
ELEVATION: 169.26'  
NORTHING: 2137266.79  
SOUTHING: 5748372.14

**COORDINATES**

POINT	EASTING	NORTHING
1	5748421.53	2137324.22
2	5748434.85	2137336.33
3	5748449.32	2137319.76
4	5748435.77	2137307.92
5	5748425.53	2137324.20
6	5748434.56	2137332.10
7	5748445.09	2137320.05
8	5748436.05	2137312.15

**UNDERGROUND SERVICE ALERT**  
**CALL: TOLL FREE**

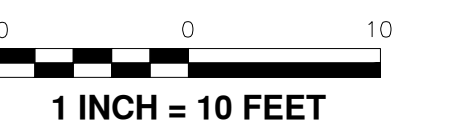


**1-800**  
**227-2600**

**TWO WORKING DAYS**  
**BEFORE YOU DIG**

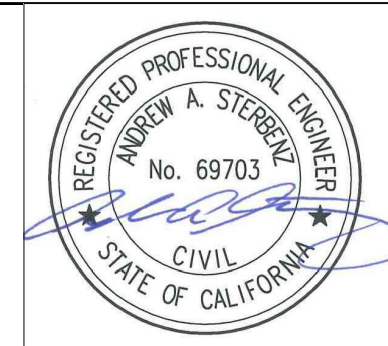
**SITE PLAN**

SCALE: 1" = 10'



**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



**IMJIN LIFT STATION ODOR CONTROL PROGRAM**

**SITE PLAN**

DATE: APRIL 2024  
SCALE: AS SHOWN  
DESIGN: AAS  
DRAWN: ALJ  
CHECK: AAS

**SHEET**

**C-1**

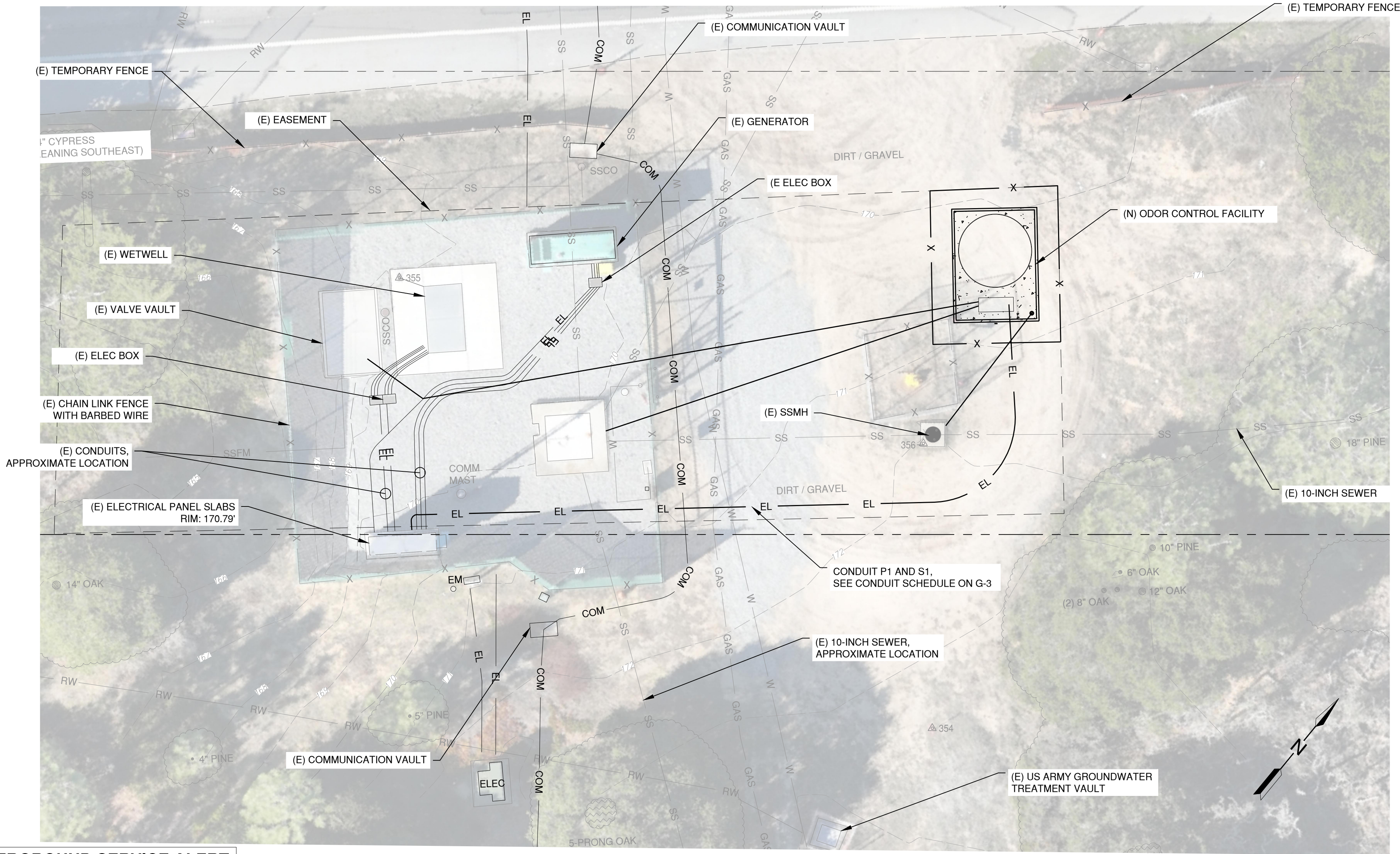
**6 of 7**

M:\MWD\2024\11-RESERVATION-ROAD-CAPAC-MOD-16-CAD\11-RESERVATION-ROAD-CAPAC-MOD-16-CAD.dwg, 4/10/2024, 10:53:40 AM, ALJ



PANEL SCHEDULE																										
PANEL NAME: A				VOLTAGE: 240/120				NEMA RATING:				MOUNTING:				NOTES:										
MAINS RATING: 30				PHASE: 1				AIC RATING:				LOCATION:														
BUS RATING: 125				WIRE: 3				DEMAND FACTOR: STD																		
CKT NO.	USE	DESCRIPTION	BKR SIZE	CKT KVA	CKT AMPS	WIRE SIZE	WIRE LENGTH (FT)	VOLTAGE DROP %	PHASE	VOLTAGE DROP %	WIRE LENGTH (FT)	WIRE SIZE	CKT AMPS	CKT KVA	BKR SIZE	DESCRIPTION	USE	CKT NO.								
1	O	SCADA	20/1	0.20	1.67	12	5	0.02	A	0.03	10	12	1.20	0.36	20/1	RECEPTACLE	R	2								
3	L	LIGHTING	20/1	0.15	1.25	12	40	0.14	B	0.23	75	12	1.10	0.36	20/1	BLOCK HEATER	R	4								
5		LEVEL CONTROL & ATS CONTROL	20/1						A	0.04	75	12	0.20	0.36	20/1	BATTERY CHARGER	R	6								
7		ODOR CONTROL (SSMH DOSING)	20/1			10	140		B						20/1	SPARE	R	8								
9		ODOR CONTROL (FORCE MAIN DOSING)	20/1			10	140		A							SPACE		10								
11		SPACE							B							SPACE		12								
CONNECTED KVA			DEMAND KVA		DEMAND AMPS		USE LEGEND				VOLTAGE DROP CALCULATION															
PHASE A:			0.9		7.7		ID	LOAD TYPE		ASSUMED PF		VOLTAGE DROP IS BASED ON THE IEEE RED BOOK AND 2011 NEC CHAPTER 9 TABLE 9 FORMULA: VD = 1 * ( R * PF + X * SIN(ACOS(PF)) ) * L WITH AN ADDITIONAL MULTIPLIER OF 2 FOR SINGLE PHASE AND 1.732 FOR 3-PHASE LOADS R AND X VALUES ARE TAKEN FROM 2011 NEC CHAPTER 9 TABLE 9. LENGTH IS IN 1000FT INCREMENTS														
PHASE B:			0.5		4.6		H	HVAC		0.85																
							L	LIGHTING		0.80																
							M	MOTOR		0.85																
							R	RECEPTACLE		0.80																
							P	PANEL		0.85																
							O	OTHER		0.85																
STD DEMAND LOAD BASED ON 125% OF THE LARGEST MOTOR AND 100% OF THE REMAINING MOTORS, 125% OF CONTINUOUS LOADS, 100% OF NONCONTINUOUS LOADS, AND 50% OF RECEPTACLE LOADS BEYOND THE FIRST 10KVA																			ASSUMPTIONS:							
																			POWER FACTOR			VARIES BY LOAD TYPE				
																	CONDUIT TYPE			RGS						
																	WIRE MATERIAL			CU						

- NOTES:
- PANEL SCHEDULE FROM SHEET E-601 OF PLAN SET IMJIN LIFT STATION IMPROVEMENTS PROJECT (CIP OS-0205), BY GHD INC., OCTOBER 2019
  - CONDUIT ROUTED TOWARDS THE DOSING PUMPS WILL CONNECT INTO THE EXISTING PANEL AT CIRCUIT NO.7 AND NO.9 AS ENTERED ABOVE.
  - CIRCUIT NO.7 SHALL BE ALLOCATED TO THE DOSING PUMP (PMP 1) DOSING INTO THE UPSTREAM SSMH OF THE WET WELL.
  - CIRCUIT NO.9 SHALL BE ALLOCATED TO THE DOSING PUMP (PMP 2) DOSING INTO THE FORCE MAIN AT THE VALVE VAULT.
  - OWNER'S INTEGRATOR WILL LAND PUMP CONTROL CIRCUIT.



UNDERGROUND SERVICE ALERT  
CALL: TOLL FREE

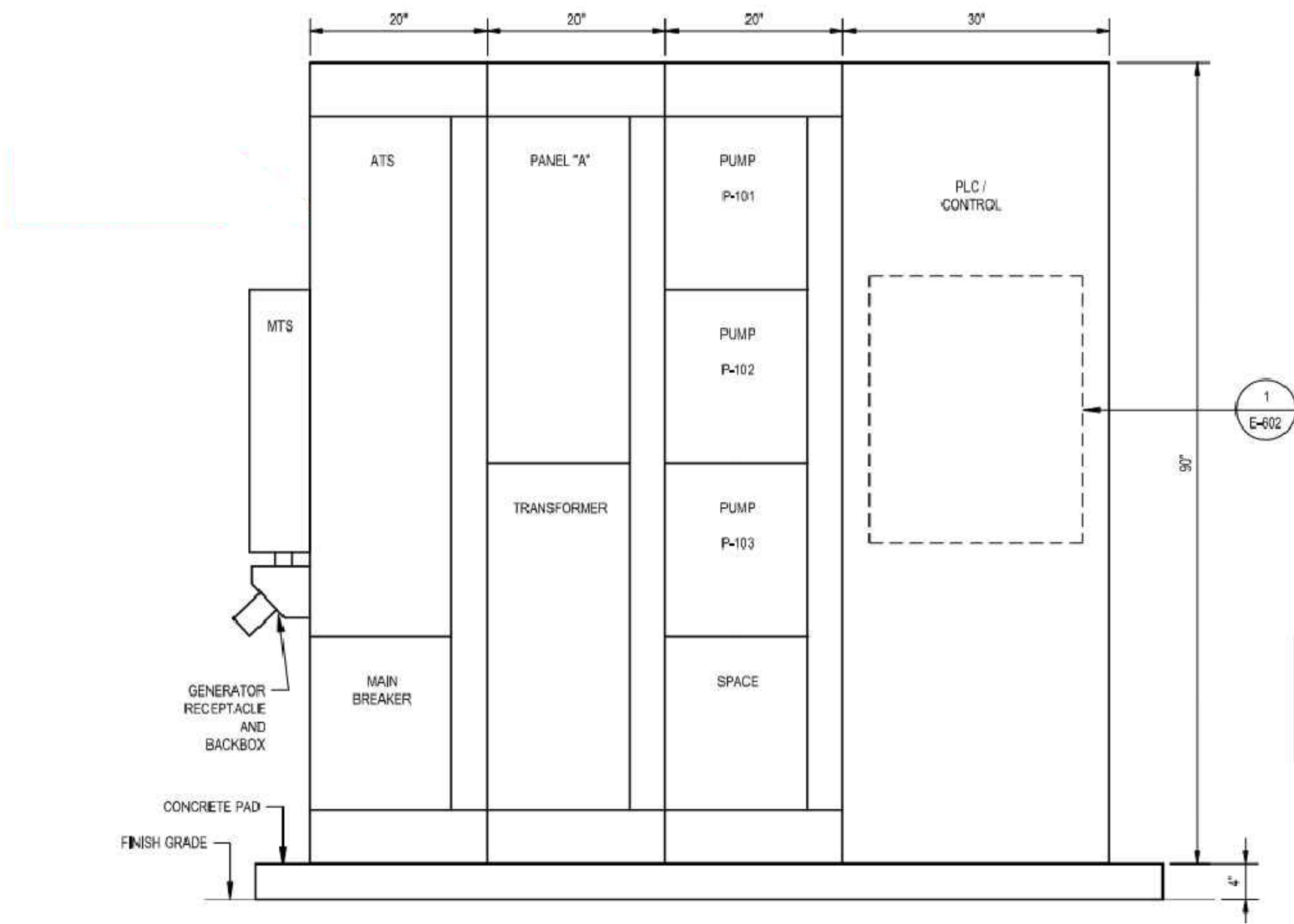


1-800  
227-2600

TWO WORKING DAYS  
BEFORE YOU DIG

SITE PLAN  
SCALE: 1" = 10'

10 0 10  
1 INCH = 10 FEET

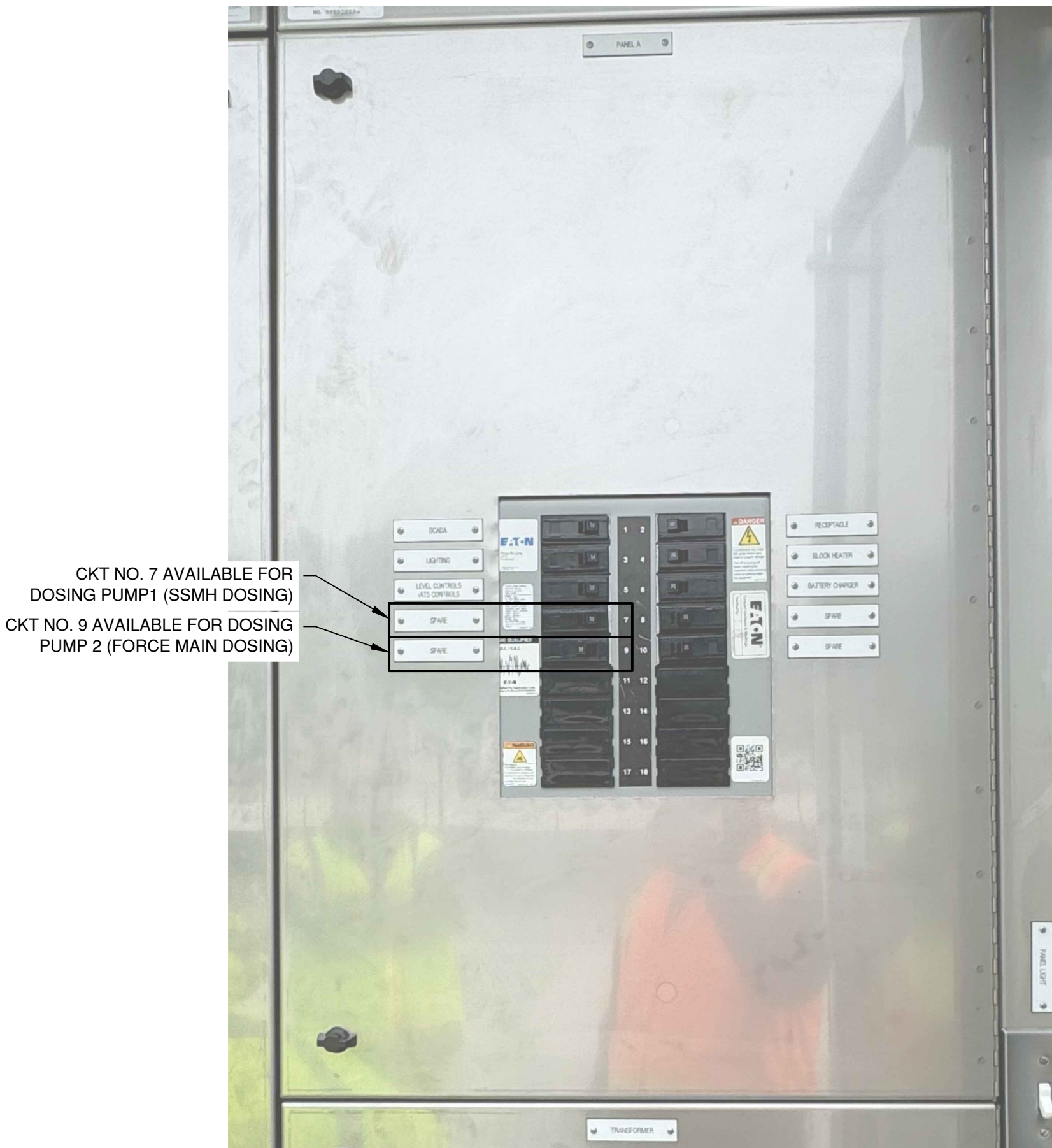


EXISTING MCC

SCALE: N.T.S.

1

- NOTES:
- MCC ELEVATION DETAIL FROM SHEET E-601 OF PLAN SET IMJIN LIFT STATION IMPROVEMENTS PROJECT (CIP OS-0205), BY GHD INC., OCTOBER 2019.



EXISTING PANEL A

SCALE: N.T.S.

2

- NOTES:
- CONTRACTOR SHALL VERIFY AVAILABILITY OF CIRCUIT NO.7 AND NO.9 AS REQUIRED BY THE NEW DOSING PUMPS.

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IMJIN LIFT STATION ODOR CONTROL PROGRAM

POWER AND WIRING

DATE: APRIL 2024  
SCALE: AS SHOWN  
DESIGN: AAS  
DRAWN: ALJ  
CHECK: AAS

SHEET

C-1

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