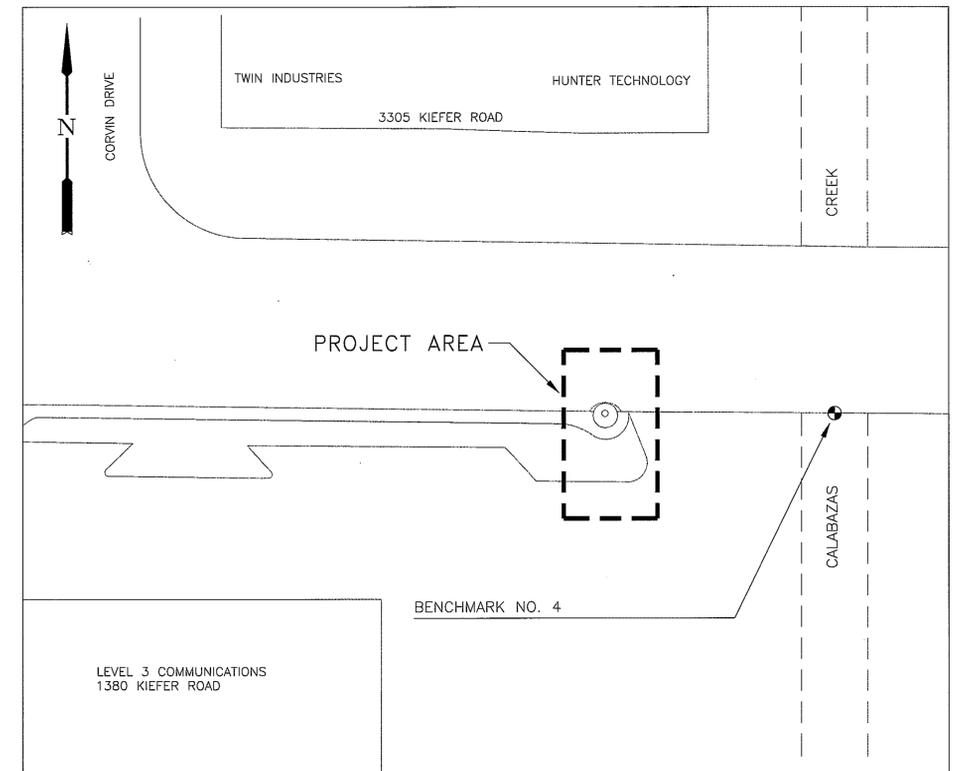
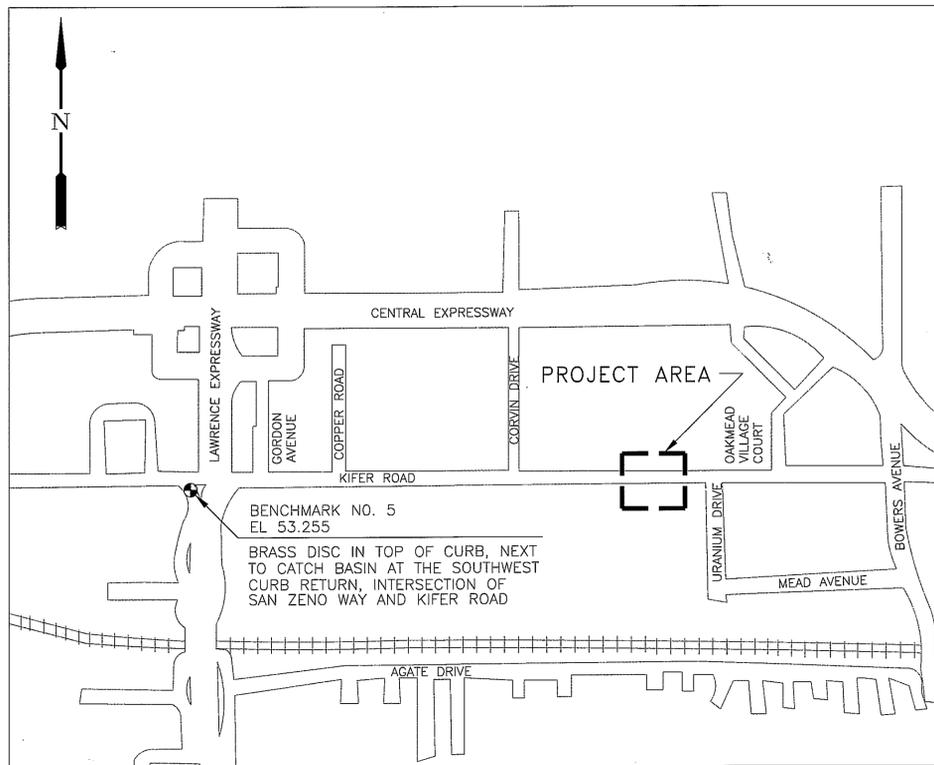


# CITY OF SUNNYVALE CALIFORNIA

## CONSTRUCTION OF NEW KIFER LIFT STATION PROJECT PROJECT NO. UY-97/01-98 VOLUME 2- DRAWINGS

### INDEX OF DRAWINGS

DWG	SHEET NO.	SHEET TITLE
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T-2	2	SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES
G-1	3	SITE UTILITIES PLAN
G-2	4	PHOTO REFERENCE, TYPICAL PAVEMENT REPAIR DETAIL, DEMOLITION PLAN AND ELEVATION
M-1	5	LIFT STATION INSTALLATION PLANS
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S-1	7	STRUCTURAL PLANS AND SECTION
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HIRA RAINA, P.E.  
ASSISTANT CITY ENGINEER  
CITY OF SUNNYVALE

DATE

JAMES G. CRAIG  
FIELD SERVICES SUPERINTENDENT  
CITY OF SUNNYVALE

DATE

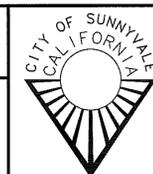
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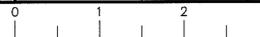
NEW KIFER LIFT STATION PROJECT  
LOCATION MAP, VICINITY MAP, BENCHMARKS  
AND INDEX OF DRAWINGS



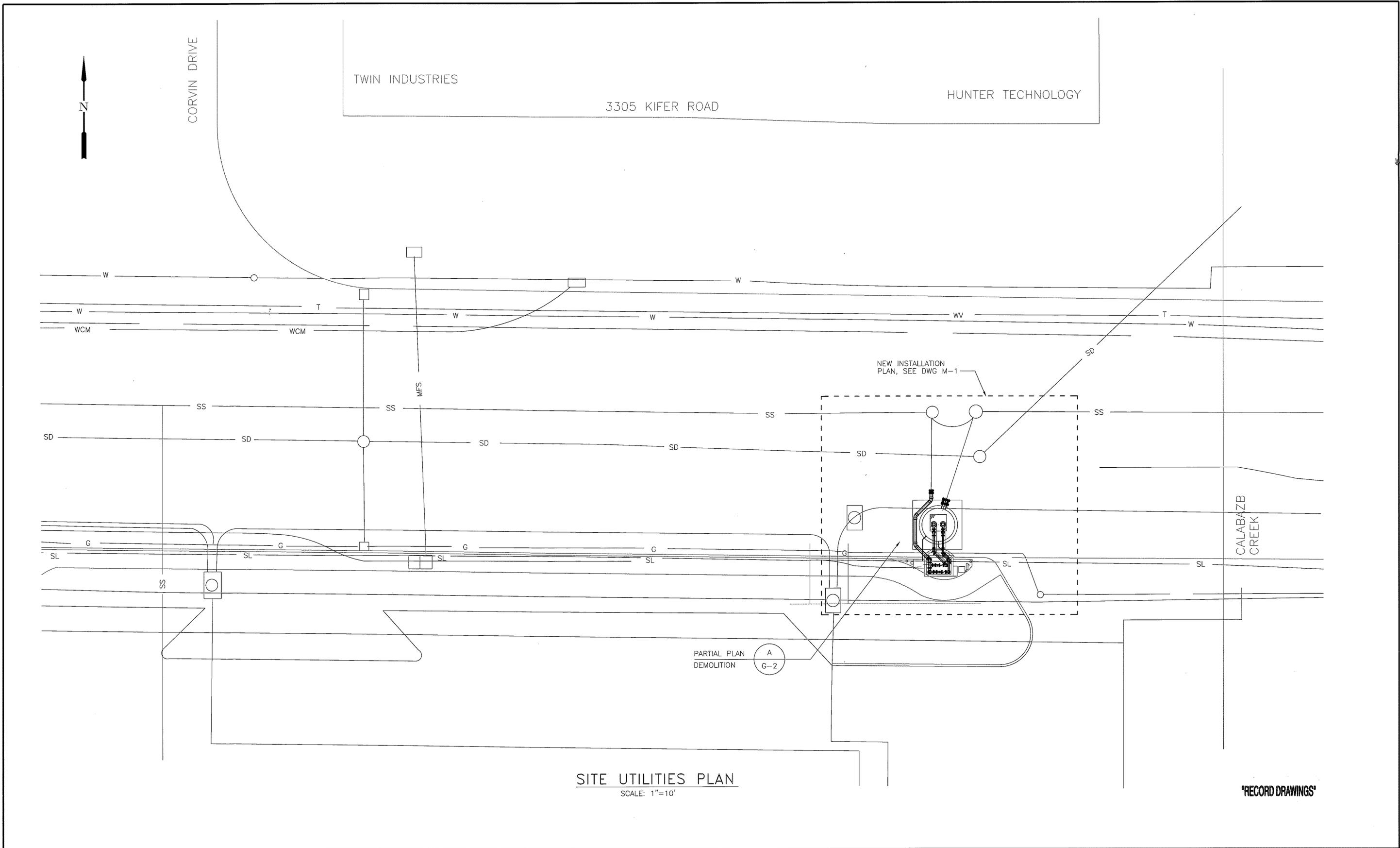
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California  
Department of Public Works  
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Drawing No.  
T-1  
Sheet 1 OF 12

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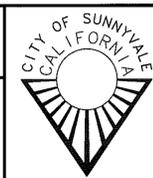
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SITE UTILITIES PLAN



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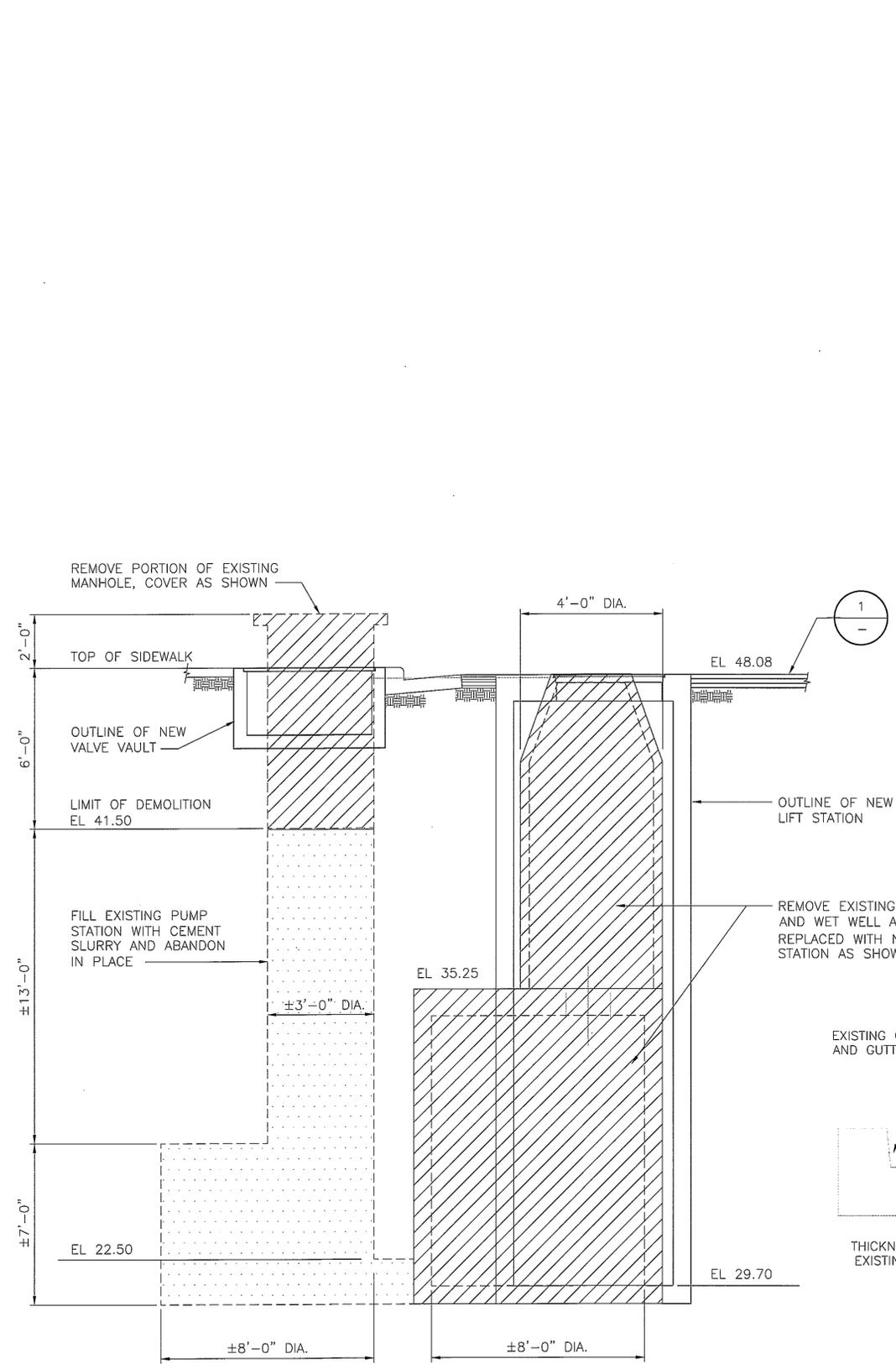
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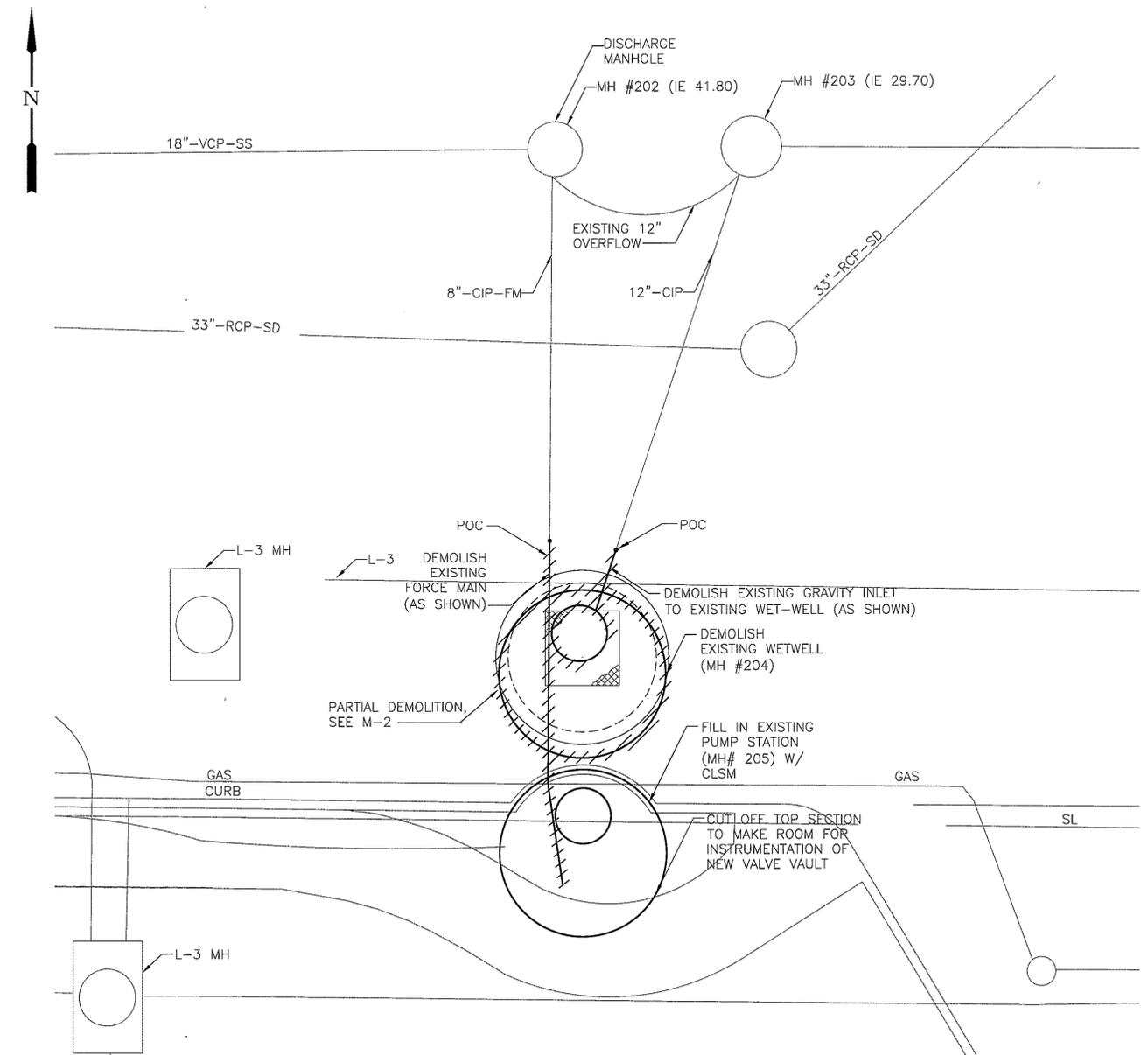
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G-1

Sheet 3 OF 12

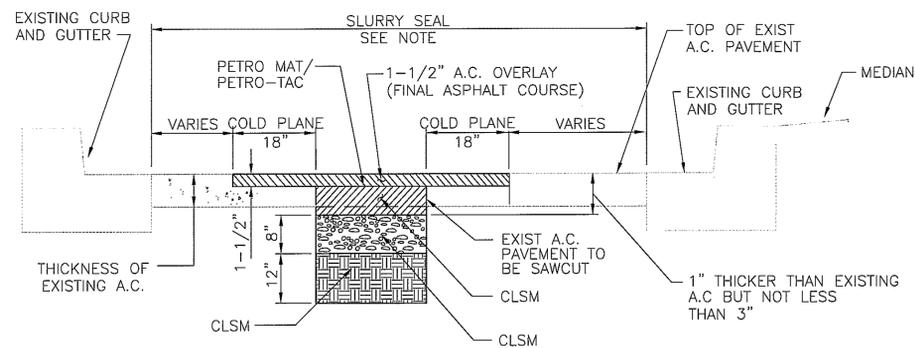




**DEMOLITION ELEVATION**  
SCALE: 3/8"=1'-0"  
B



**DEMOLITION PLAN**  
SCALE: 1/4"=1'-0"  
A



**TYPICAL PAVEMENT REPAIR DETAIL**  
NO SCALE  
1

NOTE: SLURRY SEAL (CALTRANS, TYPE 1) WITH AN APPLICATION RATE OF 12 POUNDS PER SQUARE YARD, THE ENTIRE WIDTH (GUTTER TO GUTTER) OF THE STREET TO COVER THE TOTAL AREA WHERE PAVEMENT REPAIR IS MADE.

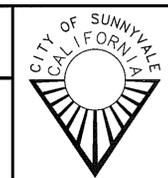
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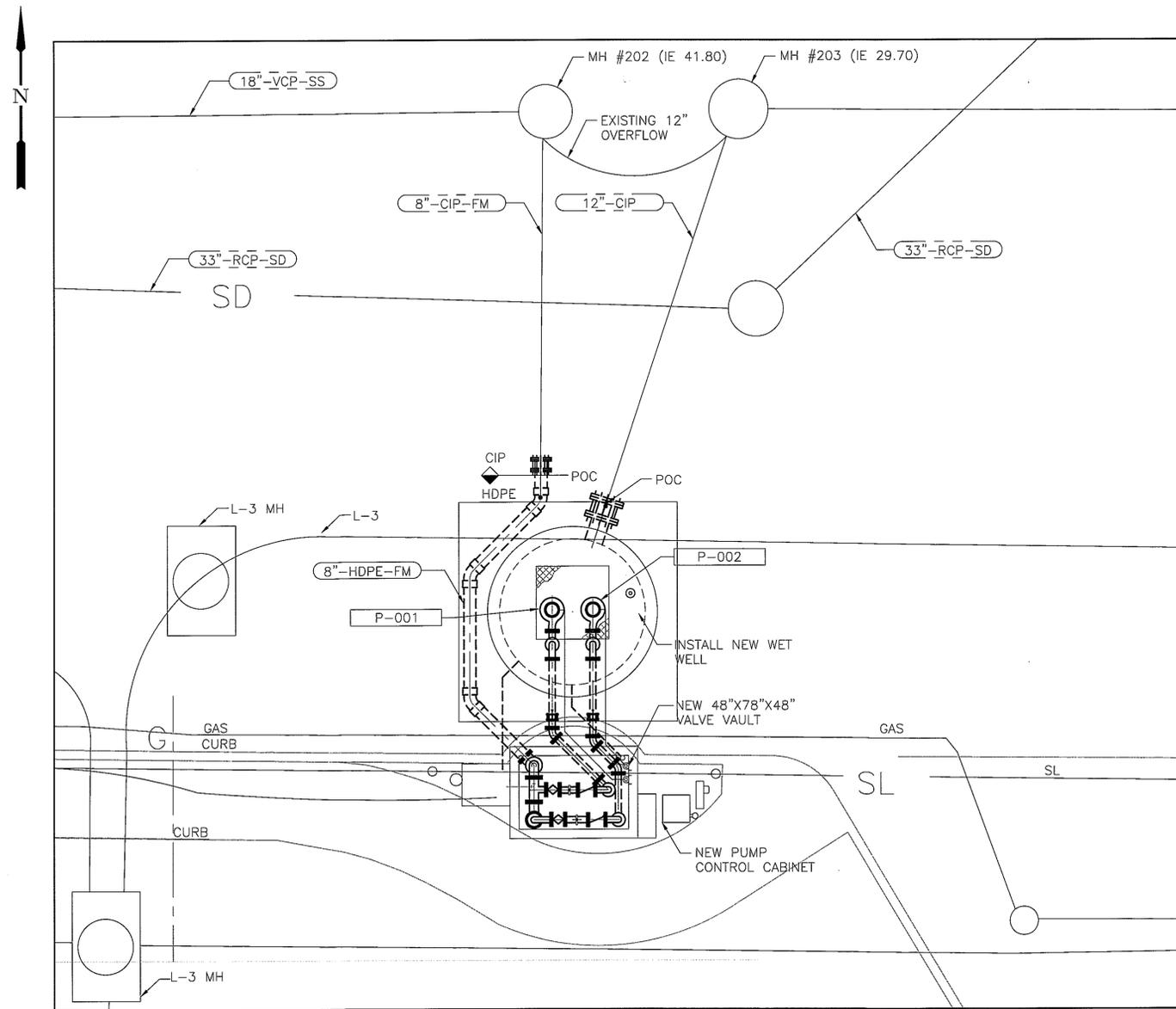


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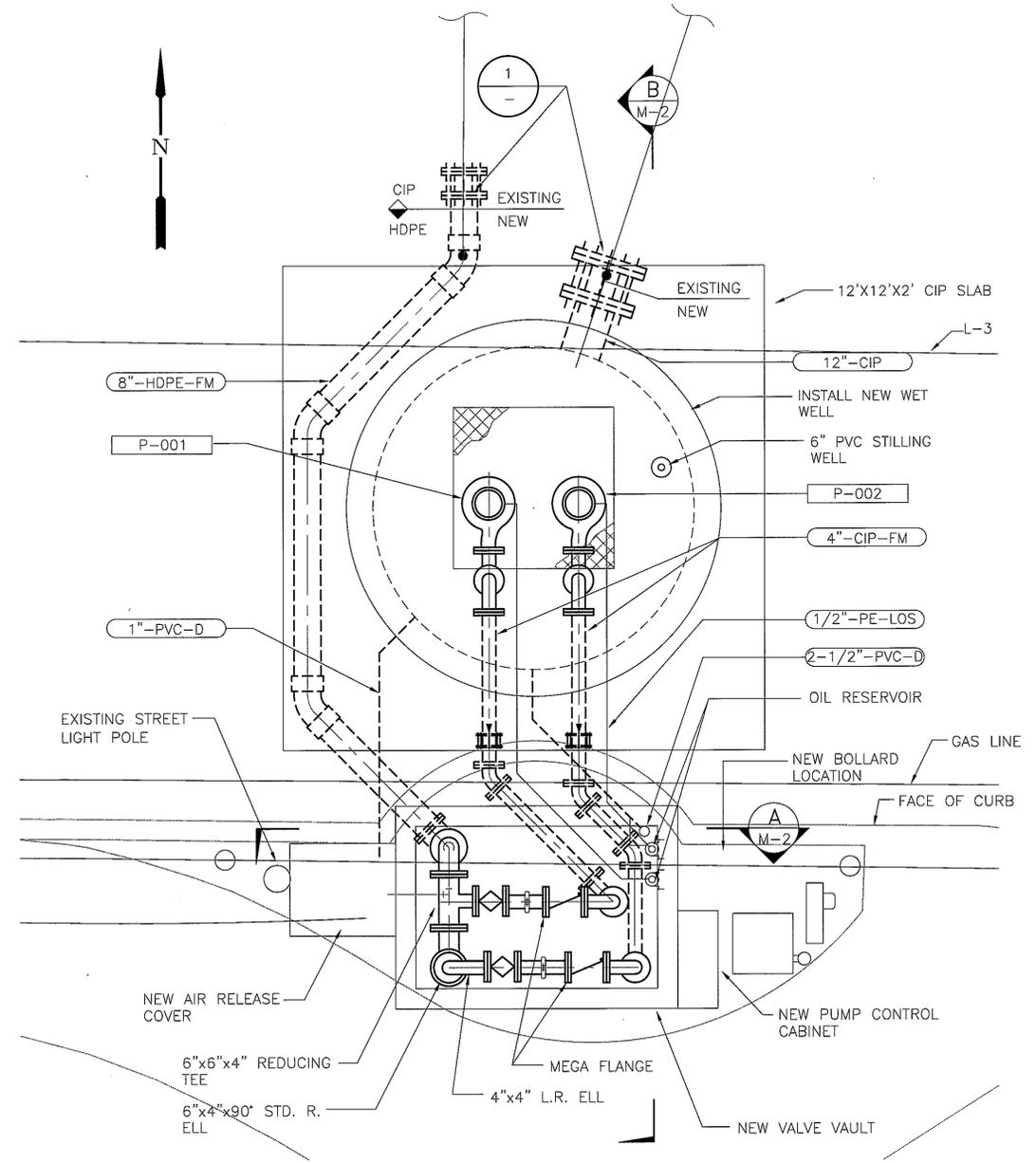
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**PHOTO REFERENCE, TYPICAL PAVEMENT REPAIR DETAIL, DEMOLITION PLAN & ELEVATION**



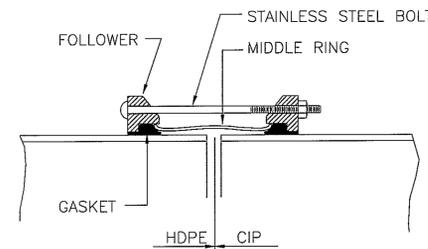
City of Sunnyvale Santa Clara County California	City of Sunnyvale Project No. UY-97/01-98
Department of Public Works 456 West Olive Avenue P.O. Box 3707 Sunnyvale 94088-3707	Drawing No. G-2
	Sheet 4 OF 12



**NEW LIFT STATION INSTALLATION PLAN**  
SCALE: 1/4"=1'-0"



**ENLARGED INSTALLATION PLAN**  
SCALE: 1/2"=1'-0"



**NOTES:**  
1. FLEXIBLE COUPLING TO BE JCM-210 WITH STAINLESS STEEL BOLTS OR EQUAL.

**DETAIL 1**  
NO SCALE

**'RECORD DRAWINGS'**

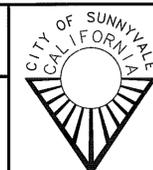
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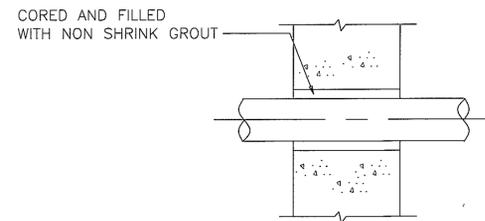
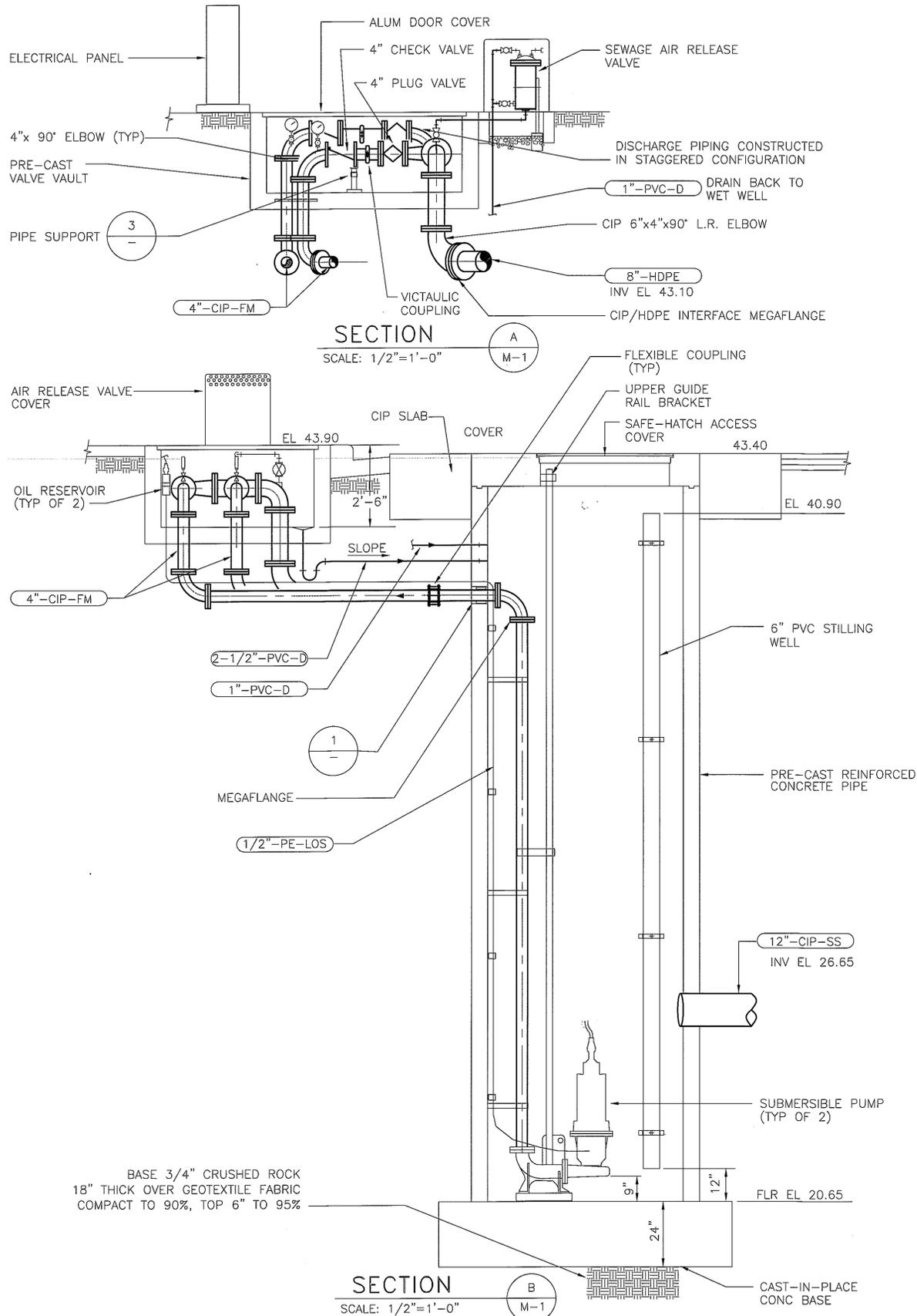
**LIFT STATION INSTALLATION PLANS**



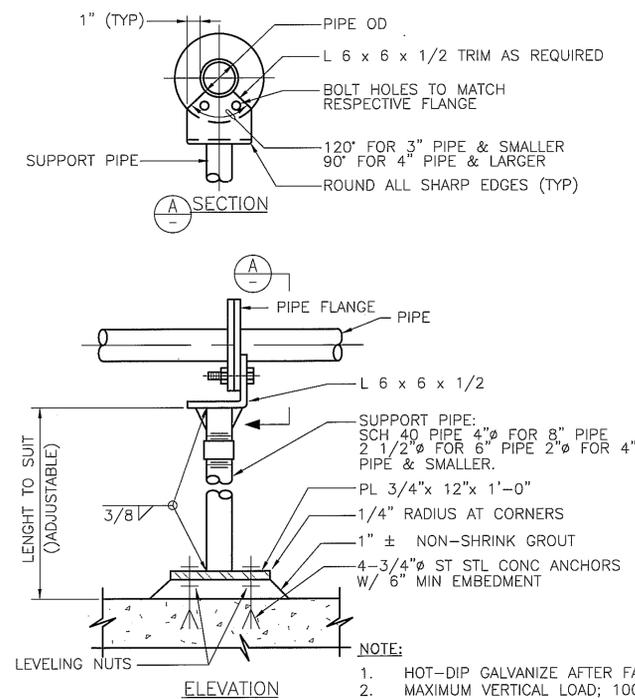
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Drawing No. M-1
Sheet 5 OF 12



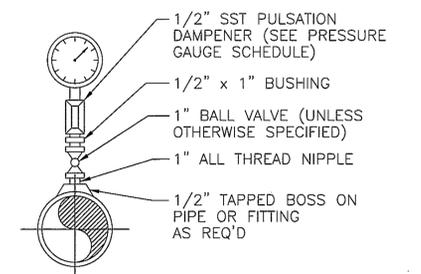


DETAIL 1  
NO SCALE



DETAIL 3  
SCALE: 1/4\"/>

**NOTE:**  
ALL GAUGES SHALL BE DUAL SCALE. SCALES ON THE GAUGE FACE SHALL BE MARKED IN PSIG AND EITHER FEET OF WATER FOR POSITIVE READINGS OR INCHES OF MERCURY (Hg) FOR VACUUM READINGS. MOUNT GAUGE ON GAUGE STAND WHERE SHOWN "YES" ON SCHEDULE.



PRESSURE GAUGE A

DETAIL 4  
SCALE: 1/4\"/>

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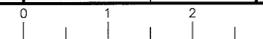
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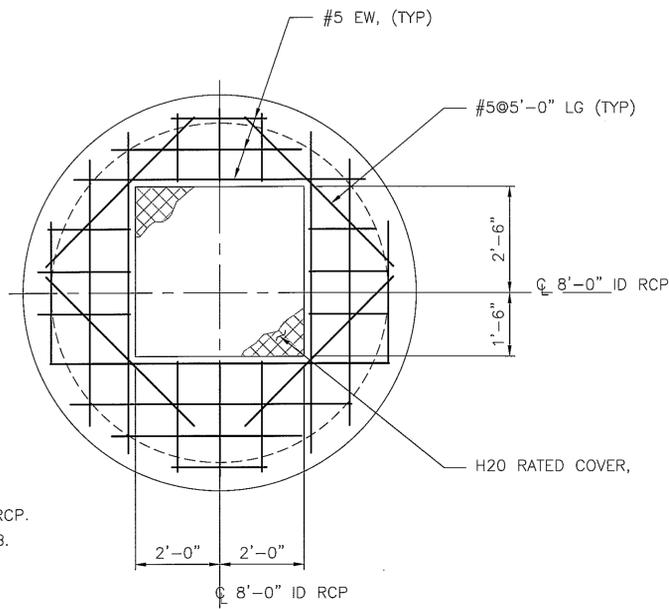


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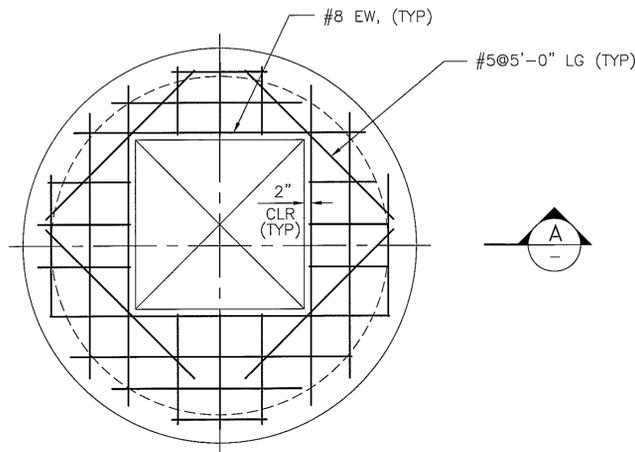
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Drawing No.  
M-2  
  
Sheet 6 OF 12

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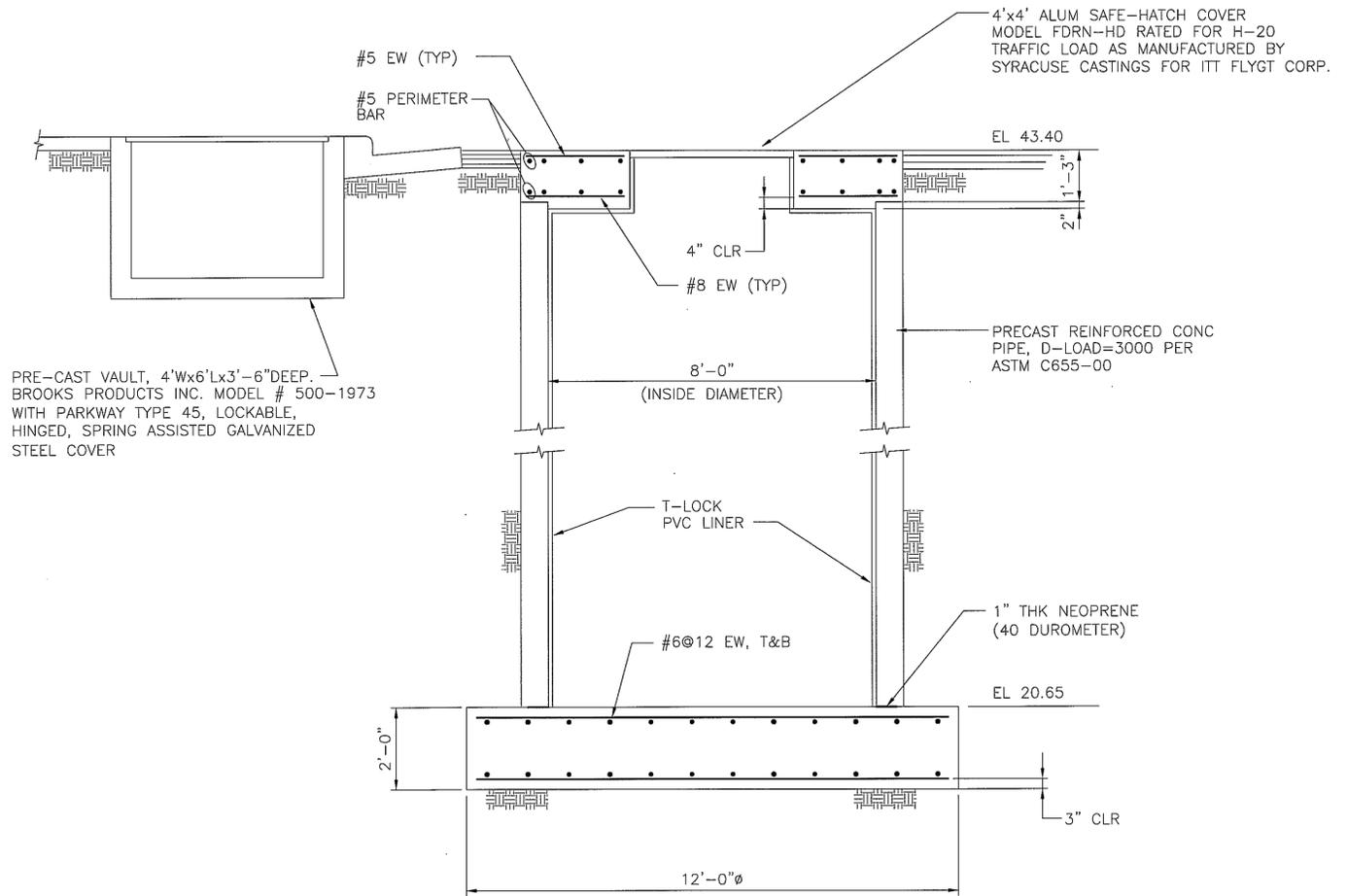
TOP REINFORCING SHOWN



BOTTOM REINFORCING SHOWN

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

- NOTES:
1. OD OF COVER TO MATCH OD OF RCP.
  2. PROVIDE #5 PERIMETER BARS, T&B. LAP 2'-6" (NOT SHOWN).



SECTION  
SCALE: 1/2"=1'-0" (A)

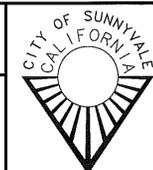
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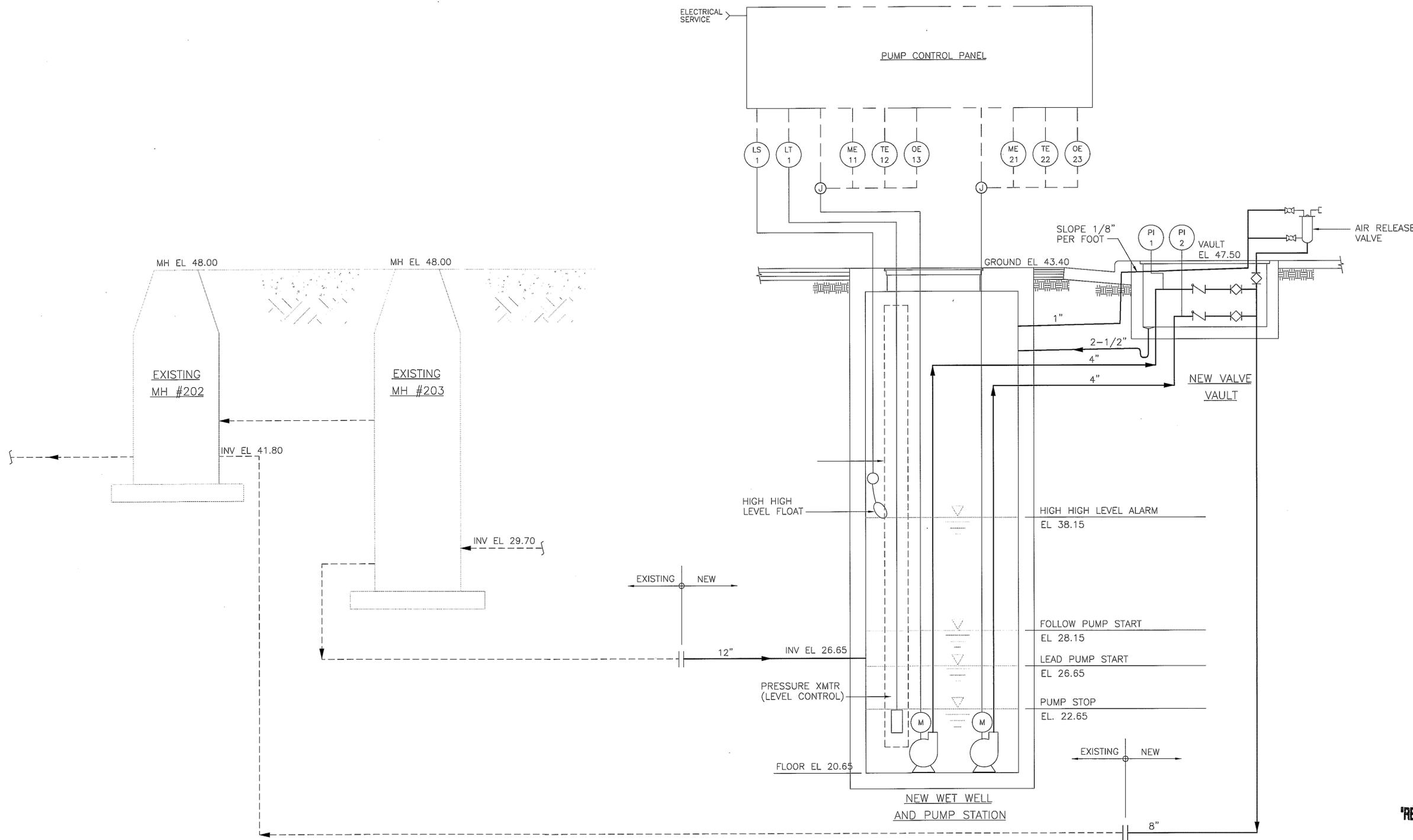
NEW KIFER LIFT STATION PROJECT  
STRUCTURAL PLANS, SECTION AND VALVE VAULT DETAIL



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Sheet	7 OF 12

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NEW KIFER LIFT STATION PROJECT

P&ID  
SYSTEM OPERATION & CONTROL  
SCHEMATIC DIAGRAM



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1-1  
Sheet 8 OF 12

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# ABBREVIATIONS

A	AMPERE
AWG	AMERICAN WIRE GAUGE
BSC	BARE STRANDED COPPER
CGB	CABLE GRIP BUSHING
DIA	DIAMETER
EL	ELEVATION
EXIST	EXISTING
G	GROUND WIRE
GA	GAUGE
GEN	GENERATOR
HPS	HIGH PRESSURE SODIUM
KK	KIRK-KEY INTERLOCK
KVA	KILOVOLT-AMPS
KW	KILO WATTS
LS	LEVEL SWITCH
LT	PRESSURE TRANSMITTER
LTG	LIGHTING
ME	MOISTURE DETECTOR
MIN	MINIMUM
MIS	MISCELLANEOUS
MV	MERCURY VAPOR
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
OC	ON CENTER
OE	LOW OIL DETECTOR
P	POLE
PI	PRESSURE INDICATOR
PNL	PANEL
PSI	POUNDS PER SQUARE INCH
RECP	RECEPTACLE
SCE	SOUTHERN CALIFORNIA EDISON
SST,SS	STAINLESS STEEL
SW	SWITCH
TE	HIGH TEMPERATURE DETECTOR
TEL	TELEPHONE
TYP	TYPICAL
TSP	TWISTED SHIELDED PAIR CABLE
V	VOLTS
VERT	VERTICAL
W/	WITH
WP	WEATHERPROOF
XMTR	TRANSMITTER
#	NUMBER
∅	PHASE

# ELECTRICAL SYMBOLS

## SINGLE LINE DIAGRAMS

	TRANSFORMER
	CIRCUIT BREAKER, 3 POLE UNLESS OTHERWISE INDICATED
	MAGNETIC MOTOR STARTER. "1" INDICATES SIZE 1.
	CONTROL STATION, PUSH-BUTTON STATION OR SELECTOR SWITCH. SEE CONTROL WIRING DIAGRAMS FOR REQUIREMENTS
	MOTOR, 10 HORSEPOWER
	WATT-HOUR METER
	CONDUIT NUMBER 12. SEE CONDUIT AND WIRING SCHEDULE FOR SIZES AND QUANTITIES OF CONDUIT AND WIRES.
	GROUND
	HASHMARKS INDICATE REMOVAL OR RELOCATION AS INDICATED
	INDICATES TO REFER TO NOTE 1 ON DRAWING

## CONTROL WIRING DIAGRAMS

NORMALLY OPEN	NORMALLY CLOSED	DEVICE
		CONTACT
		LIQUID LEVEL SWITCH
		GROUND
		FUSE
		THREE POSITION SELECTOR SWITCH.
		CONTROL RELAY
		MOTOR STARTER COIL
		TIME DELAY RELAY. TIMING RANGE AS INDICATED
		MOTOR STARTER OVERLOAD RELAY CONTACTS
		MOTOR STARTER OVERLOAD AUXILIARY (ALARM) NORMALLY OPEN CONTACT.
		CONTROL POWER TRANSFORMER.

**NOTES:** ANY OF ABOVE SYMBOLS MAY BE SHOWN WITH HORIZONTAL BAR(S) TO INDICATE PANEL MOUNTING AND/OR OPERATOR ACCESSIBLE

## PLANS

	CONDUIT RUN UNDERGROUND
	CONDUIT RUN EXPOSED UNLESS OTHERWISE NOTED
	EXISTING CONDUIT
	FLEXIBLE, LIQUIDTIGHT CONDUIT
	HASH MARKS INDICATE QUANTITY OF #12 WIRES IN CONDUIT (PLUS 1#12 GROUND WIRE) EXCEPT NO HASH MARKS=3/4", 2#12(PPLUS 1#12 GROUND WIRE) UNLESS NOTED OTHERWISE.
	3/4", 3#12
	3/4", 4#12
	3/4", 5#12
	3/4", 6#12
	3/4", 7#12
	1", 8#12
	GROUND WIRE
	CONDUIT RUN TURNS TOWARD VIEWER (OUT TOP OF EQUIPMENT)
	CONDUIT RUN TURNS AWAY FROM VIEWER (OUT BOTTOM OF EQUIPMENT)
	LIGHTING FIXTURE MOUNTED ON POLE
	DUPLEX CONVENIENCE RECEPTACLE AT+48" OR AS NOTED
	STANCHION
	JUNCTION BOX OR CONDUIT FITTING AS APPROPRIATE FOR SITUATION, SIZE AS REQUIRED BY CODE OR AS INDICATED.
	SIREN
	CONTROL STATION: PUSHBUTTON OR SELECTOR SWITCH SEE CONTROL WIRING DIAGRAMS FOR REQUIREMENTS.
	MOTOR
	GROUND ROD
	DISCONNECT SWITCH.
	CONDUIT NUMBER 12. SEE CONDUIT AND WIRING SCHEDULE FOR SIZES AND QUANTITIES OF CONDUIT AND WIRES.
	INDICATES HEIGHT FROM FINISHED FLOOR OR GRADE TO CENTERLINE OF DEVICE.
	INDICATES TO REFER TO NOTE 1 ON DRAWING

## GENERAL NOTES

- 1 ALL POWER AND CONTROL CONDUCTORS SIZES #14 THRU #4/0 SHALL BE COPPER TYPE THWN-2.
- 2 ALL GROUND CONDUCTORS IN CONDUIT SHALL BE STRANDED COPPER TYPE THWN-2.
- 3 ALL GROUND CONDUCTORS EXPOSED, BURIED, OR IN CONCRETE SHALL BE BARE STRANDED COPPER PER ASTM SPECIFICATIONS B3 AND B8.
- 4 ALL CONDUIT BELOW GROUND SHALL BE PVC SCHEDULE 40
- 5 ALL CONDUIT ABOVE GROUND SHALL BE RIGID STEEL PVC COATED.

**RECORD DRAWINGS**

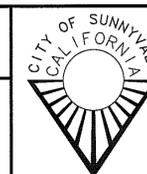
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NEW KIFER LIFT STATION PROJECT

ELECTRICAL SYMBOLS & ABBREVIATIONS



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California

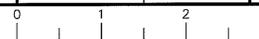
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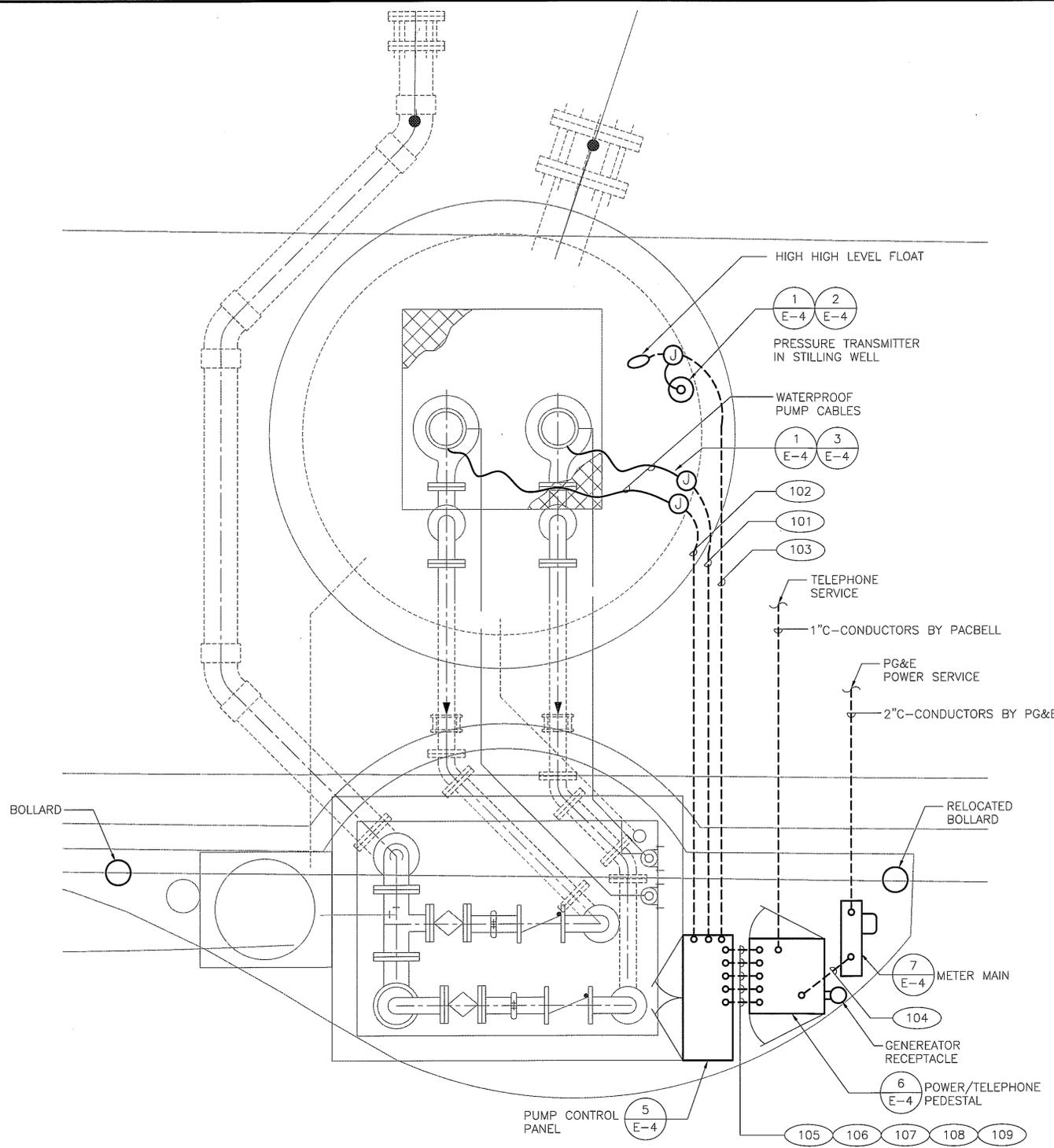
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E-1

Sheet 9 OF 12

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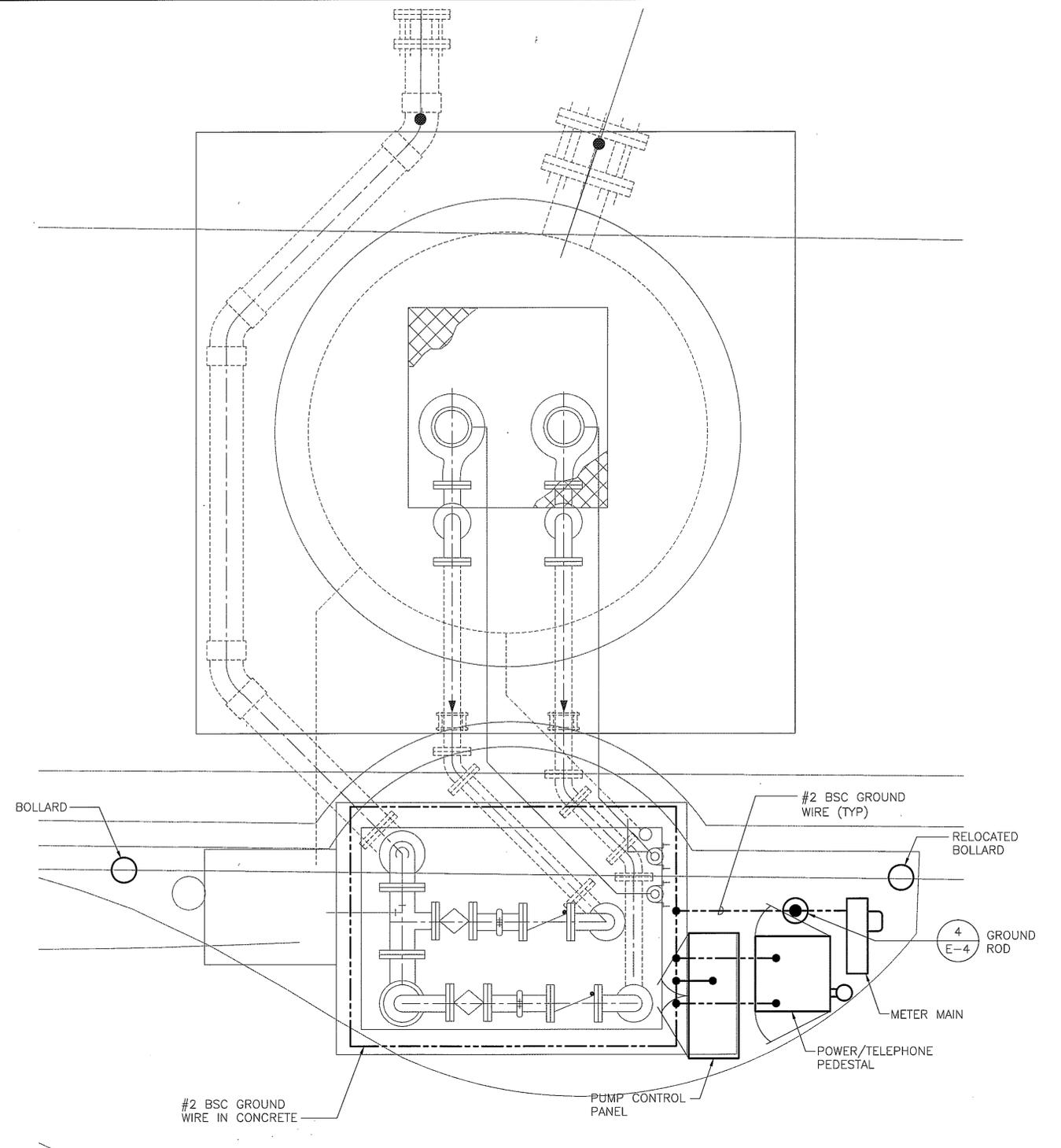






**ELECTRICAL POWER PLAN**

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



**ELECTRICAL GROUNDING PLAN**

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

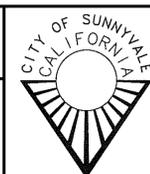
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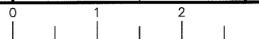
NEW KIFER LIFT STATION PROJECT  
LIFT STATION  
ELECTRICAL POWER & GROUNDING PLAN

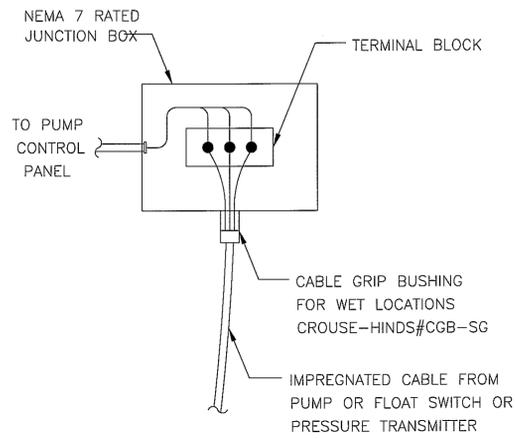


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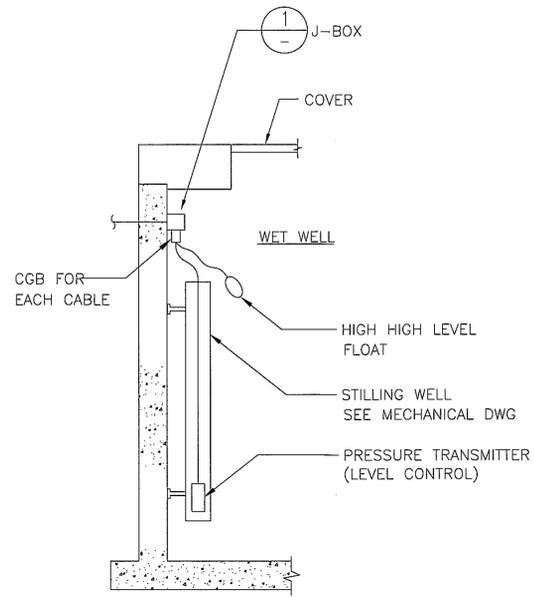
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Sheet 11 OF 12

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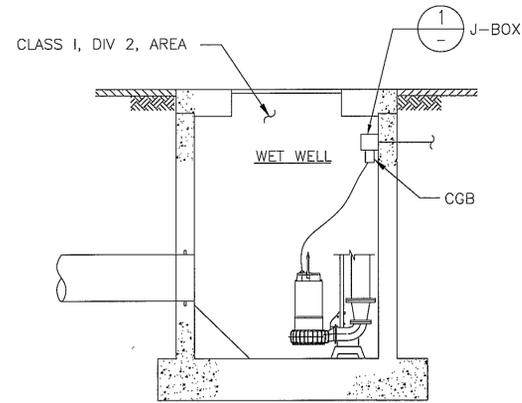


JUNCTION BOX IN WET WELL 1



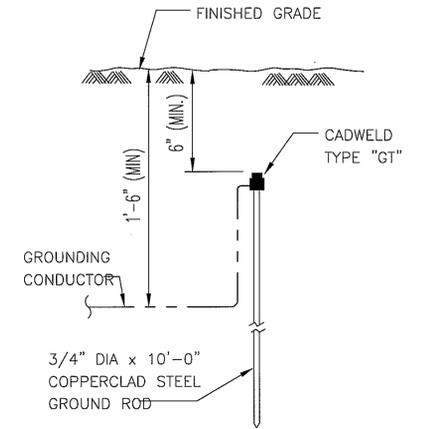
PRESSURE TRANSMITTER INSTALLATION IN WETWELL

DETAIL 2  
E2

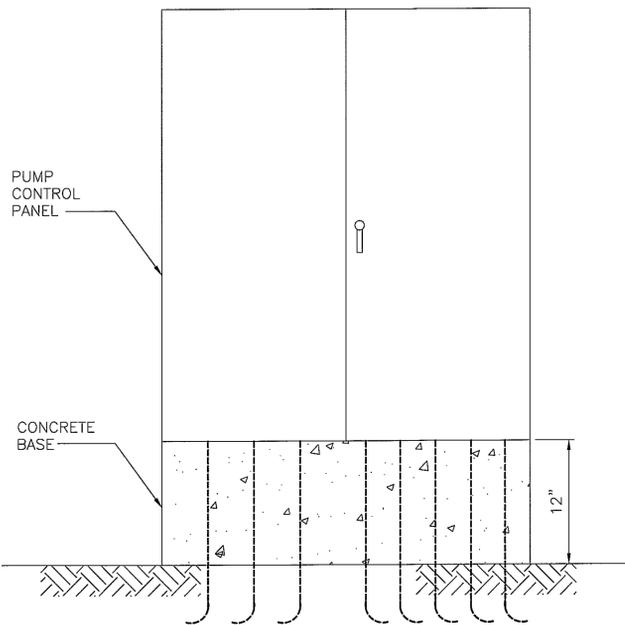


NOTE:  
INSIDE OF WET WELL IS CLASS 1, DIV 2. PROVIDE INSTALLATION AND MATERIAL PER NEC ARTICLE 500 THRU 504. PROVIDE SEALS ON ALL ITEMS THAT ARE NOT FACTORY SEALED. PROVIDE SEALS ON ALL CONDUITS.

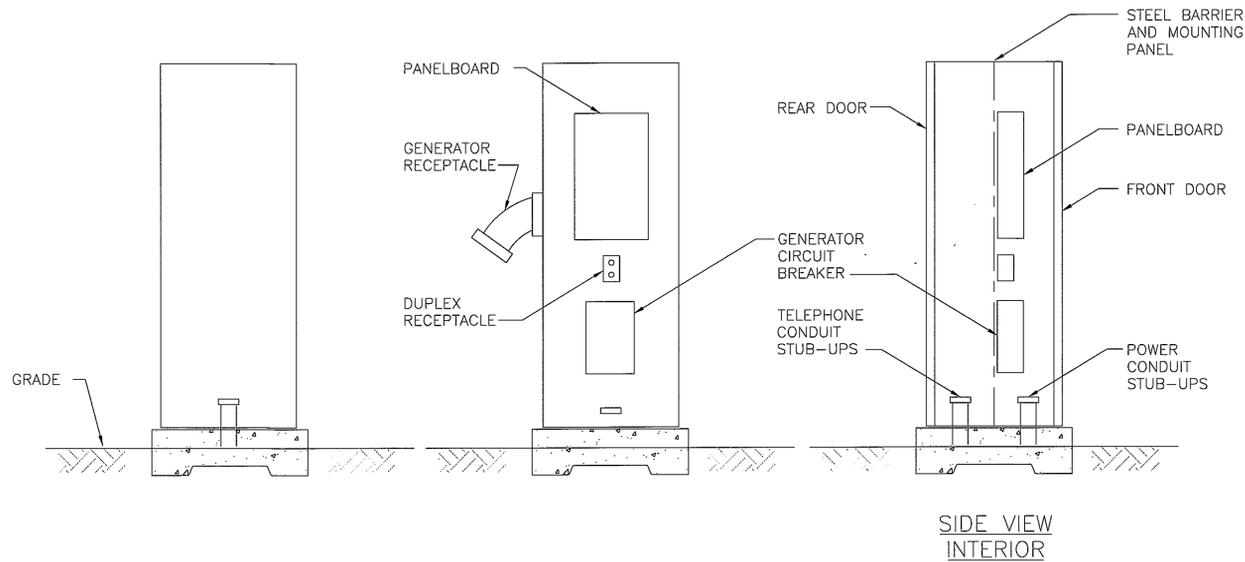
PUMP CABLE INSTALLATION 3  
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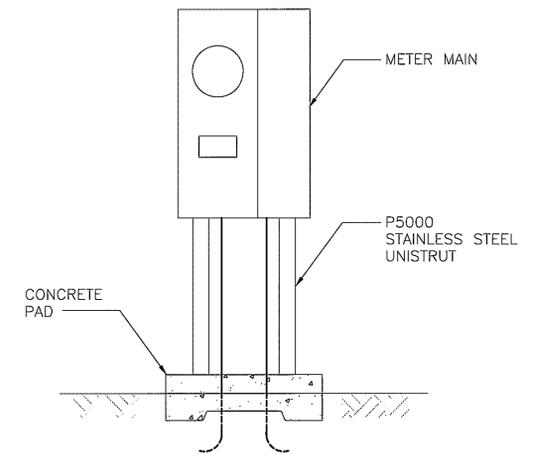
GROUND ROD INSTALLATION 4  
E4



PUMP CONTROL PANEL 5



POWER/TELEPHONE PEDESTAL 6



METER MAIN 7

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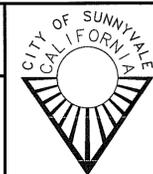
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Walnut Creek, California

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NEW KIFER LIFT STATION PROJECT

ELECTRICAL DETAILS



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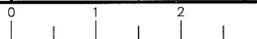
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