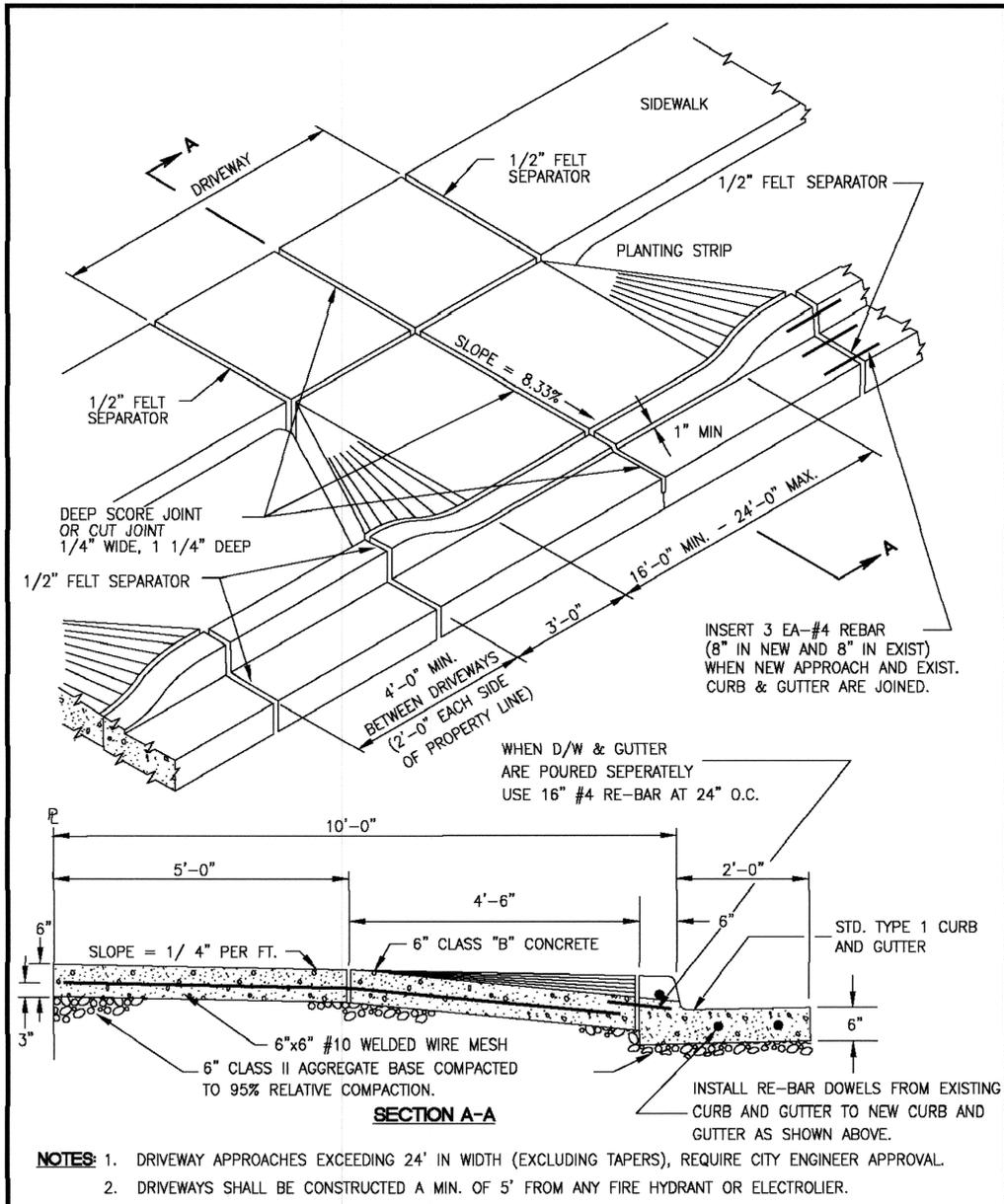
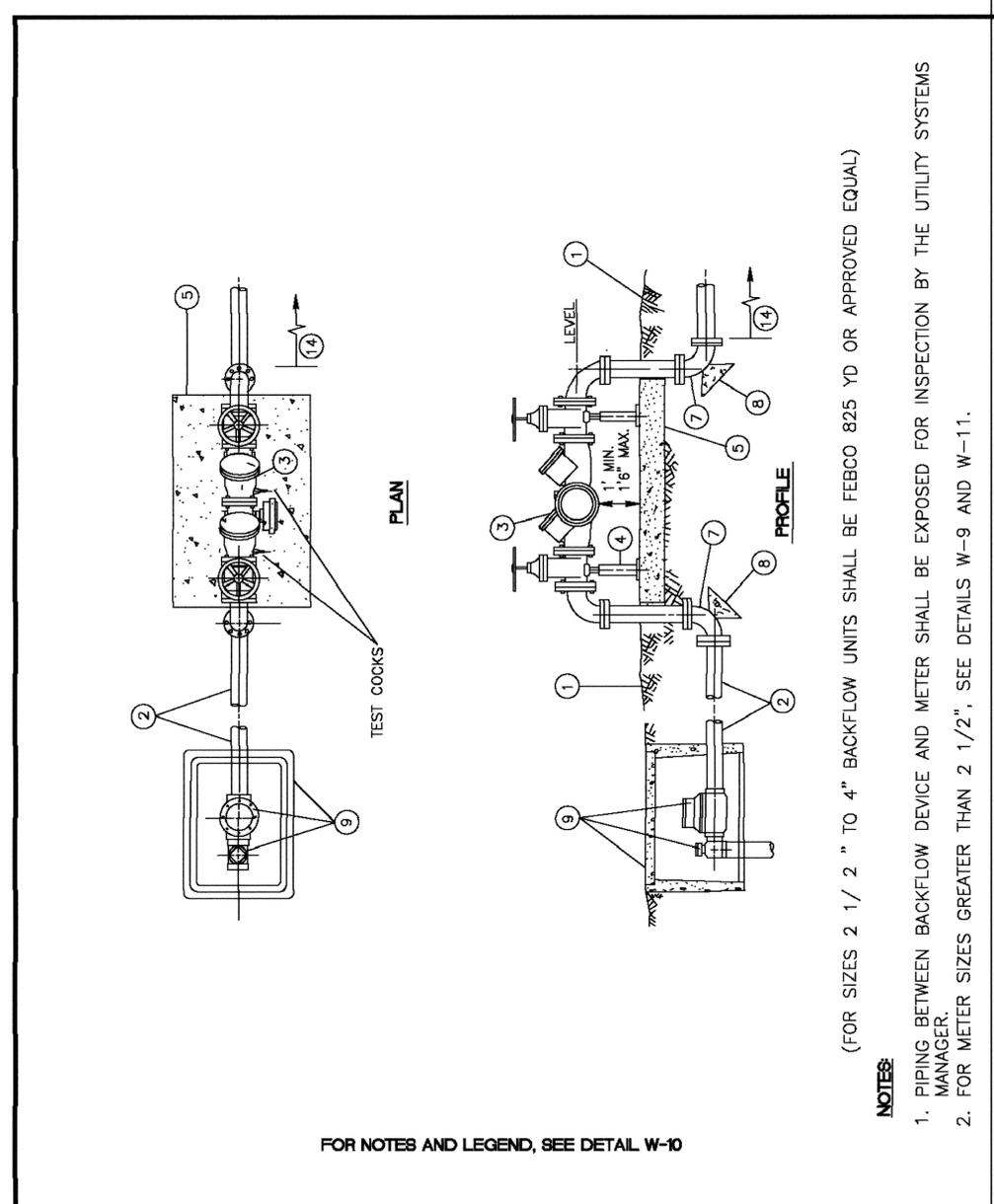


CAD FILE: G:\Projects\City of Morgan Hill\15-5-068\Pump Station\C-5.dwg CFG FILE: LSCE2500.PCP_MFG DATE: 05-15-17 1:56pm



 City of Morgan Hill Public Works Department	NEW RESIDENTIAL DRIVEWAY APPROACH DETACHED SIDEWALK		DRAWING NO. A-9
	 CITY ENGINEER	4/1/96 DATE	3/15/07 REVISED



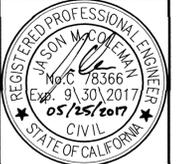
 City of Morgan Hill Public Works Department	REDUCED PRESSURE BACKFLOW PREVENTER (SIZES 2-1/2\"/> 		DRAWING NO. W-7
	 CITY ENGINEER	4/1/96 DATE	3/15/07 REVISED

(FOR SIZES 2 1/2" TO 4" BACKFLOW UNITS SHALL BE FEBCO 825 YD OR APPROVED EQUAL)

NOTES:

1. PIPING BETWEEN BACKFLOW DEVICE AND METER SHALL BE EXPOSED FOR INSPECTION BY THE UTILITY SYSTEMS MANAGER.
2. FOR METER SIZES GREATER THAN 2 1/2", SEE DETAILS W-9 AND W-11.

FOR NOTES AND LEGEND, SEE DETAIL W-10



STANDARD DETAILS II
 Construction of Pump Station
 East Main Ave Well No. 1
 City of Morgan Hill,
 Morgan Hill, California

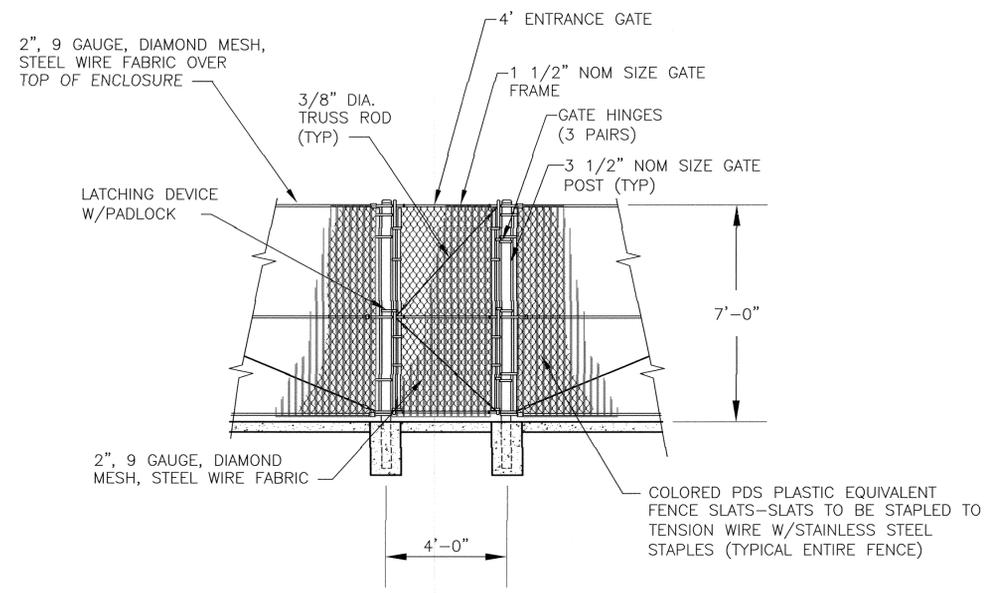
LUHDOFF & SCALMANINI
 CONSULTING ENGINEERS
 500 FIRST STREET
 WOODLAND, CALIFORNIA
 PHONE: (530) 661-0109

NO.	DATE	REVISIONS

DATE: MAY 2017
 JOB NO.: 15-5-068
 DESIGN BY: JMC
 DRAWN BY: DWT
 CHECKED BY: JDF
 FILE: C-5.dwg

SHEET:
C-5

CAD FILE: G:/Projects/City of Morgan Hill/15-5-068/Pump Station/C-6.dwg CFG FILE: LSCEZ500.PCF_MFG DATE: 06-08-17 8:42am



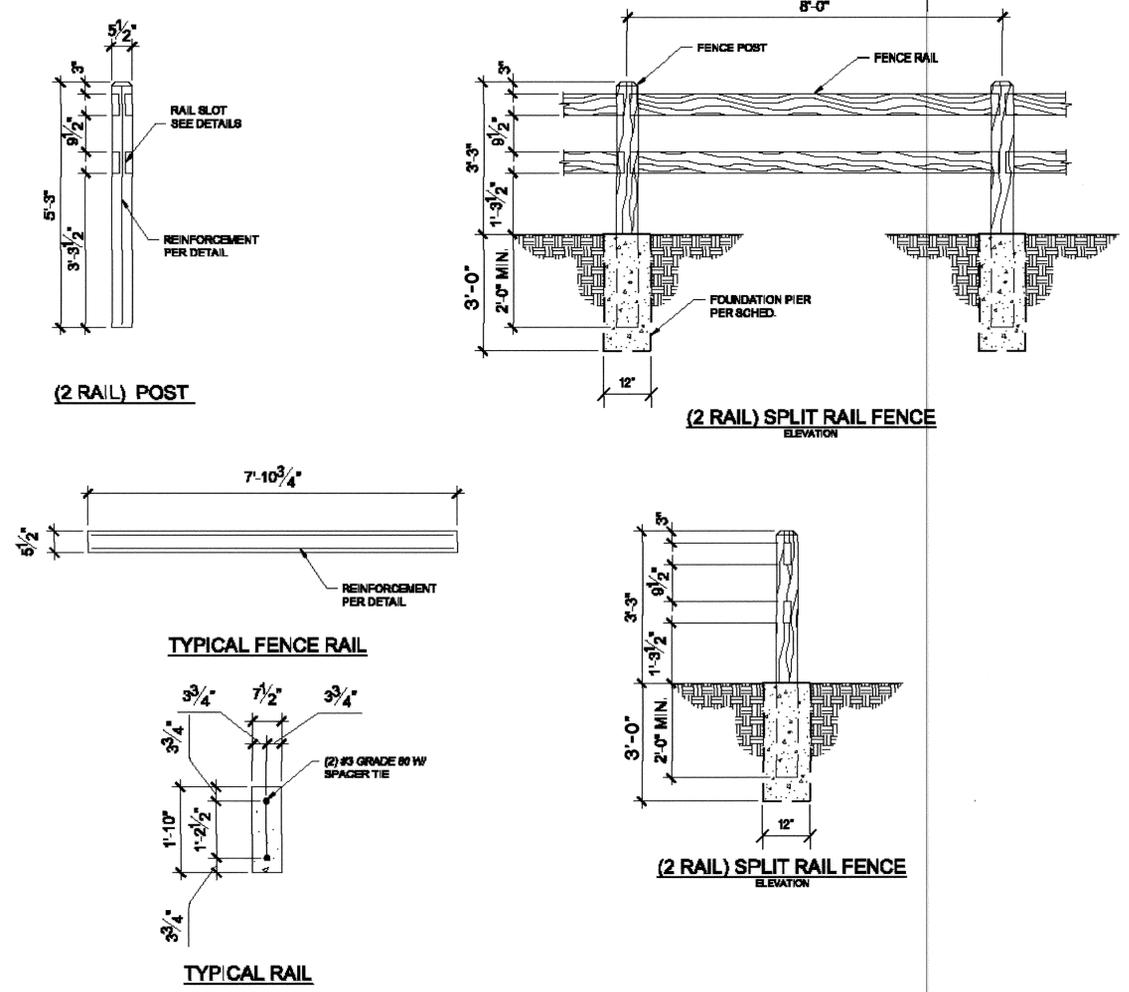
CHAINLINK FENCE AROUND STORM DRAIN OVERBOARD
N.T.S. A
C-1

GENERAL NOTES:

1. ALL CONSTRUCTION TO MEET LOCAL CODES AND AMENDMENTS
2. ALL CONCRETE FOOTINGS SHALL USE TYPE III CEMENT.
3. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60.
4. ALL PIER FOUNDATIONS ARE TO BE LOCATED IN UNDISTURBED SOIL, UNLESS APPROVED BY A GEOTECHNICAL ENGINEER.
5. FENCE WALL PANEL STANDARD DESIGN IS FOR A WIND LOAD OF 140 MPH (ULTIMATE). WIND PRESSURE IS BASED ON IBC WIND PRESSURES.
6. APPROVAL OF THE ENGINEER IS REQUIRED WHEN FENCE IS USED UNDER A CONDITION WHERE THE SPECIFICATIONS ARE DIFFERENT THAN SHOWN.
7. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AT THE JOB SITE.
8. THE POSTS, PANELS AND CAPS ARE MADE OF CONCRETE AND ARE MANUFACTURED BY A NATIONAL READY MIX CONCRETE ASSOCIATION APPROVED MANUFACTURER.
9. A FULLY DIMENSIONED PLOT PLAN IS REQUIRED FOR A BUILDING PERMIT AND MUST BE PROVIDED WITH EACH STANDARD PLAN.
10. LOCATION AND FENCE HEIGHT SHALL COMPLY WITH CITY/COUNTY FENCING CODES AND CURRENT CONDITIONS.
11. ALL WORK SHALL COMPLY WITH CITY/COUNTY GRADING ORDINANCES.
12. EPOXY SHALL BE SIKAFLEX-1a (175 PSI TENSILE STRENGTH) OR APPROVED EQUIVALENT. CONTRACTOR SHALL USE EPOXY ON ALL ADJOINING SURFACES OF COLUMN SEGMENTS.

SPECIFICATION DATA

1. PRODUCT NAMES:
SPLIT RAIL FENCE
2. MANUFACTURER:
SIGNATURE STONE LLC.
211 20 TH STREET
GREELY, CO 80631
(OR APPROVED EQUAL)
3. PRODUCTS DESCRIPTION:
PRODUCTS ARE INTENDED FOR RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL EXTERIOR FENCING, SCREENING WALLS AND NOISE BARRIERS.
4. COMPOSITION AND MATERIALS:
A MIX OF HIGH STRENGTH PORTLAND CEMENT CONCRETE W/ FIBER MESH REINFORCING, MEETING OR EXCEEDING THE REQUIREMENTS OF ASTM C150, NATURAL AGGREGATES, AND IRON OXIDE COLORS PLACED AND CAST WITHIN FACTORY MOLDS. FILLED MOLDS ARE VIBRATED AFTER SETUP OF MIX, CURED, AND PACKAGED FOR SHIPMENT.
5. SIZES:
FENCE POSTS ARE TYPICALLY PLACED AT 90.0 IN. CENTERS WITH THE FENCE PANELS BEING 12.0 IN. HEIGHT AND APPROXIMATELY 2.0 IN. THICKNESS. HEIGHT OF THE FENCE SYSTEM SHOULD NOT EXCEED THAT SHOWN. CONTACT MANUFACTURER FOR ENGINEERING NOT INCLUDED IN THESE SPECIFICATIONS.
6. LIMITATIONS:
FENCE SYSTEM IS DESIGNED FOR TYPICAL CONDITIONS AND APPLICATIONS. SIGNATURE STONE RECOMMENDS FENCE SYSTEM APPLICATION AND FOUNDATION INSTALLATION BE APPROVED BY LOCAL PROFESSIONAL ENGINEER ON EVERY PROJECT. FENCE SYSTEM SHOULD NOT BE USED AS AN EARTH RETENTION SYSTEM UNLESS MODIFICATIONS IN DESIGN AND CONSTRUCTION ARE DONE BY A REGISTERED PROFESSIONAL ENGINEER AND APPROVED BY THE MANUFACTURER.
7. TECHNICAL DATA FOR CONCRETE MIX:
PRE-CAST FENCE POSTS AND PANELS:
MIN. 28 DAY COMPRESSIVE STRENGTH = 5,000 psi
CAST-IN-PLACE FOUNDATION PIERS:
MIN. 28 DAY COMPRESSIVE STRENGTH = 3,000 psi
8. BUILDING CODES:
DESIGN OF FENCE POSTS, PANELS AND FOUNDATION PIERS IS BASED ON 2016 VERSION OF IBC, ACI, AND AASHTO CODES.
9. INSTALLATION:
THE POSTS ARE POSITIONED AND WET-SET INTO A DRILLED CONCRETE FOUNDATION PIER. THE PIER SIZE, DEPTH AND REINFORCEMENT SHALL BE AS SPECIFIED BY LOCAL ENGINEER OR AS SHOWN ON SCHEDULE. AFTER POSTS AND RAILS ARE ACCURATELY SPACED, PLUMBED AND LEVELLED, THEY ARE BRACED UNTIL PIER CONCRETE HAS OBTAINED ITS INITIAL STRENGTH.
10. COLOR
CONCRETE SHALL BE COLORED BY MANUFACTURER, OWNER SHALL SELECT CONCRETE COLOR.



SCHEDULE OF RECOMMENDED FOUNDATION PIER MIN. SIZES

		SPLIT RAIL FENCE W/ 2 RAILS MIN. FOUNDATION SIZES												
		Bedrock			Gravel			Sand			Clay			Unknown Fill / Organics
		Friction Angle, $\phi = 40^\circ$ (min)			Friction Angle, $\phi = 35^\circ$ (min)			Friction Angle, $\phi = 30^\circ$ (min)			Friction Angle, $\phi = 0^\circ$ (min)			Poorly-Characterized
		Cohesion, $c = 10,000$ psf (min)			Cohesion, $c = 0$ psf (min)			Cohesion, $c = 0$ psf (min)			Cohesion, $c = 1000$ psf (min)			
		Bearing = 3000 psf			Bearing = 2000 psf			Bearing = 2000 psf			Bearing = 1500 psf			
		Total Density $\gamma_t = 130$ pcf (min)			Total Density $\gamma_t = 120$ pcf (min)			Total Density $\gamma_t = 115$ pcf (min)			Total Density $\gamma_t = 110$ pcf (min)			REQUIRES SITE SPECIFIC ENGINEERED FOUNDATION
Exposure	Wind Speed (mph)	Pier Diameter (in)			Pier Diameter (in)			Pier Diameter (in)			Pier Diameter (in)			
		Pier Depth (in)			Pier Depth (in)			Pier Depth (in)			Pier Depth (in)			
		Pier Steel			Pier Steel			Pier Steel			Pier Steel			
		Pier Steel			Pier Steel			Pier Steel			Pier Steel			
B	110	12	30	NIL	12	30	NIL	12	36	NIL	12	30	NIL	
	130	12	30	NIL	12	30	NIL	12	36	NIL	12	30	NIL	
	140	12	30	NIL	12	30	NIL	12	36	NIL	12	30	NIL	
C	110	12	30	NIL	12	30	NIL	12	36	NIL	12	30	NIL	
	130	12	30	NIL	12	30	NIL	12	36	NIL	12	30	NIL	
	140	12	30	NIL	12	30	NIL	12	36	NIL	12	30	NIL	

Note: Foundation pier minimum depth shall exceed depth required locally for frost protection.

(2 RAIL) SPLIT RAIL FENCE

DETAIL B
C-1

SCALE: NONE



FENCING DETAILS
Construction of Pump Station
East Main Ave, Well No. 1
City of Morgan Hill
Morgan Hill, California

LUHDOFF & SCALMANINI
CONSULTING ENGINEERS
500 FIRST STREET
WOODLAND, CALIFORNIA
PHONE: (530) 661-0109

REVISIONS		NO.	DATE	REVISION

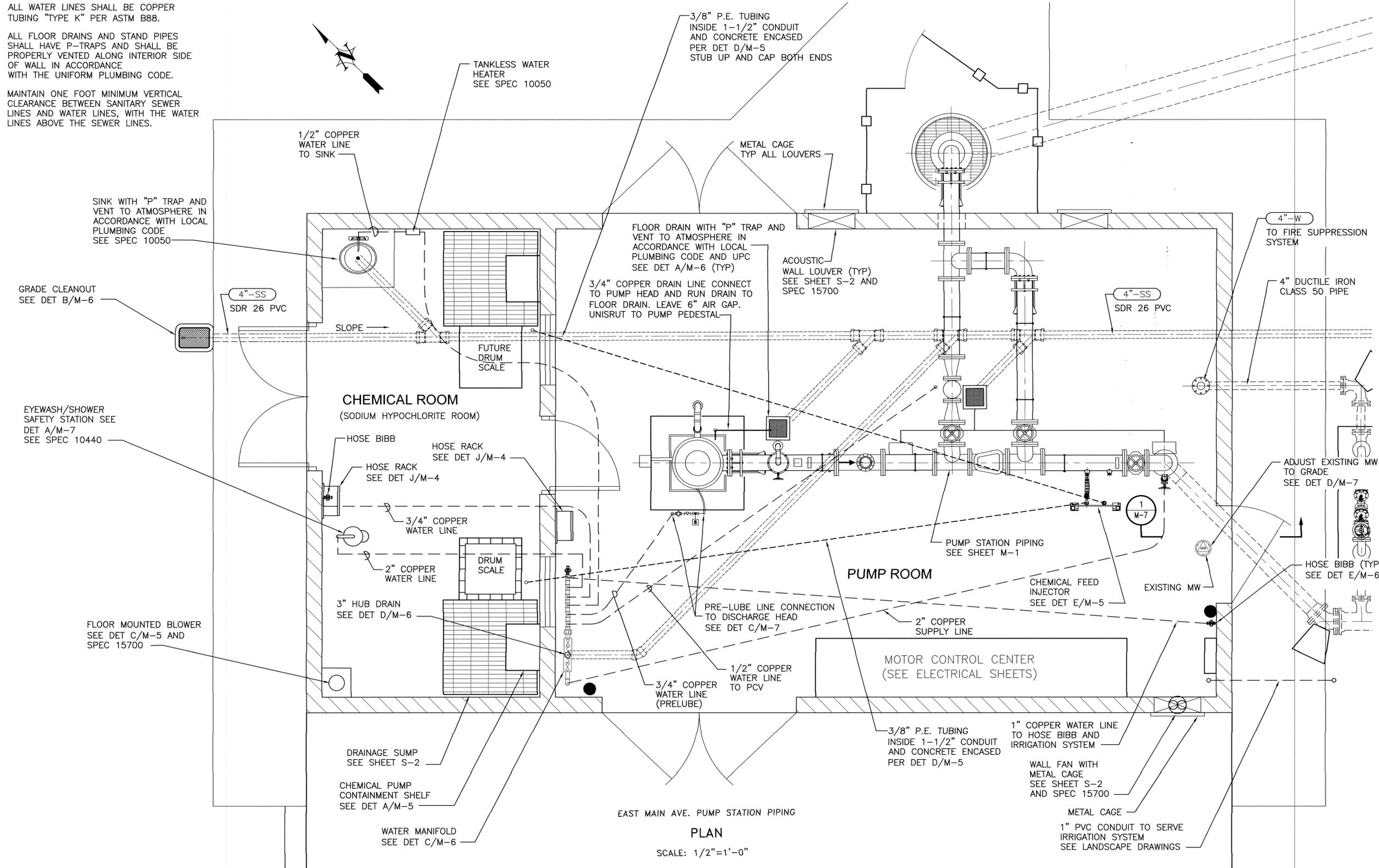
DATE: MAY 2017
JOB NO.: 15-5-068
DESIGN BY: JMC
DRAWN BY: DWT
CHECKED BY: JDF
FILE: C-6.dwg

SHEET:

C-6

NOTES:

- 1.) ALL WATER LINES SHALL BE COPPER TUBING "TYPE K" PER ASTM B88.
- 2.) ALL FLOOR DRAINS AND STAND PIPES SHALL HAVE P-TRAPS AND SHALL BE PROPERLY VENTED ALONG INTERIOR SIDE OF WALL IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE.
- 3.) MAINTAIN ONE FOOT MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWER LINES AND WATER LINES, WITH THE WATER LINES ABOVE THE SEWER LINES.



EAST MAIN AVE. PUMP STATION PIPING
PLAN
 SCALE: 1/2"=1'-0"



BUILDING & CONDUIT DETAILS
 EAST MAIN AVENUE
 Construction of Pump Station
 East Main Ave. Well No. 1
 City of Morgan Hill
 Morgan Hill, California

LUHDOFF & SCALMANINI
 CONSULTING ENGINEERS
 500 FIRST STREET
 WOODLAND, CALIFORNIA
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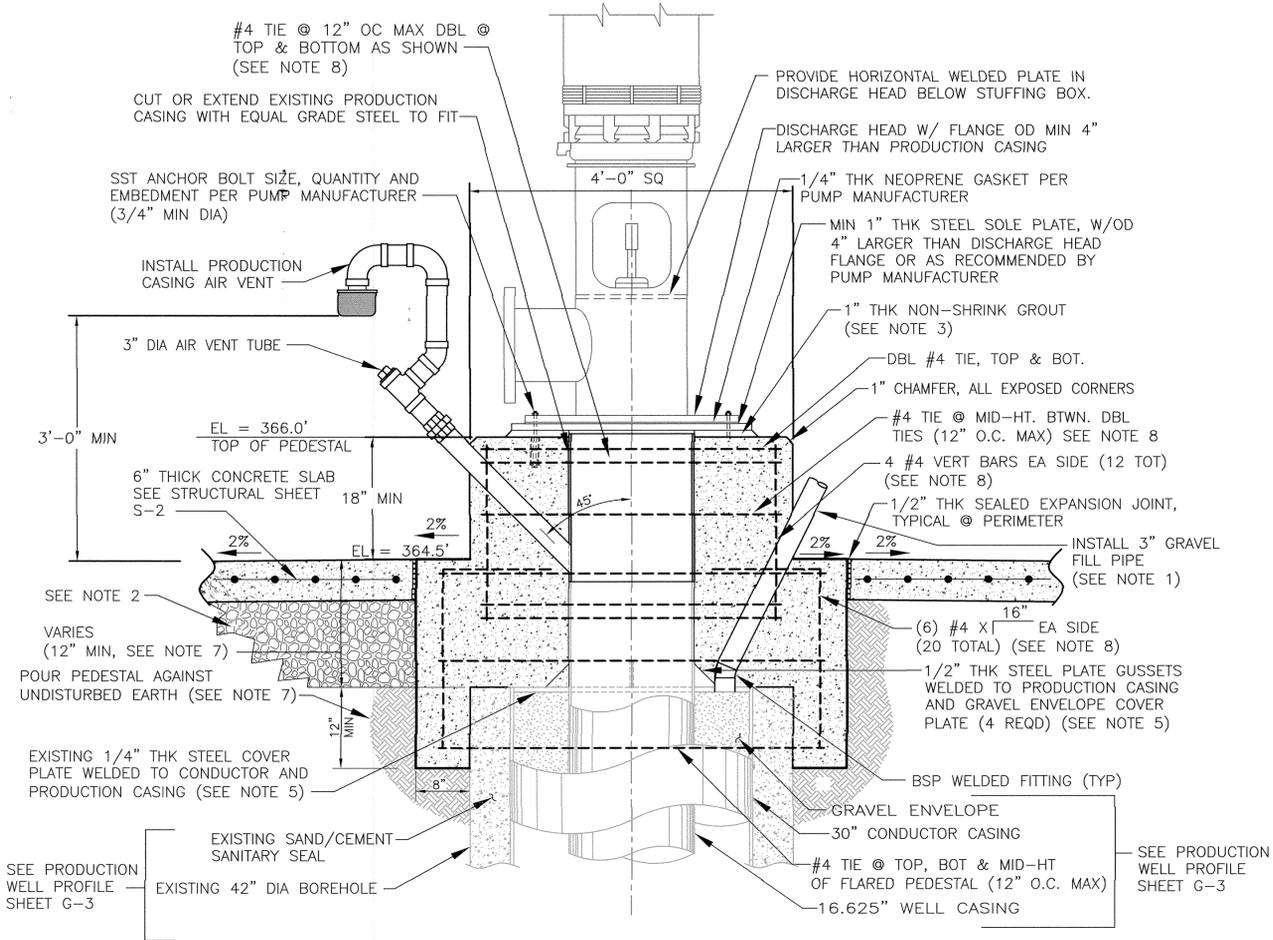
NO.	DATE	REVISION

DATE: MARCH 2017
 JOB NO.: 15-6-068
 DESIGN BY: JWC
 DRAWN BY: DWT
 CHECKED BY: JDF
 FILE: M-2.dwg

SHEET:
M-2

CAD FILE: G:/Projects/City of Morgan Hill/15-6-068/Pump Station/M-2.dwg CFG FILE: LSCE2500.PCP_MRG DATE: 05-24-17 9:42am

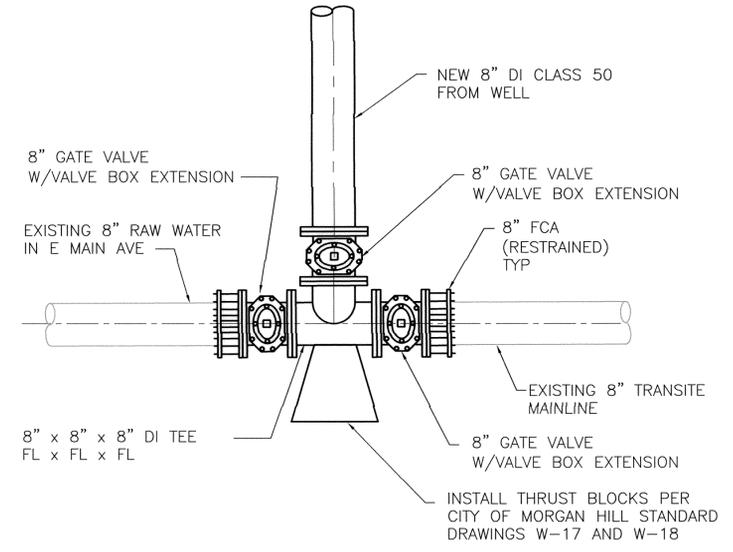
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**EAST MAIN AVENUE
PUMP PEDESTAL - MECHANICAL**
N.T.S. A
M-1

NOTES:

- 1.) GRAVEL FILL PIPE AND AIR VENT TUBE ARE SHOWN IN A ROTATED POSITION FOR CLARITY. SEE SHEET M-1 FOR ORIENTATION. CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND PROVIDE OFF-SETS AS NECESSARY TO AVOID CONFLICTS WITH WELL HEAD AND STATION PIPING.
- 2.) 4" MINIMUM CLASS 2 AB COMPACTED TO 95% BENEATH CONCRETE SLAB. SLOPE CONCRETE SLAB MINIMUM OF 2% FROM PEDESTAL. CONCRETE PER CALTRANS SECTION 40, 3000 PSI.
- 3.) THE WELL MAY HAVE AN INCLINATION. ALIGN DISCHARGE HEAD AND PLACE SHIMS OR LEVELING WEDGES BETWEEN SOLE PLATE AND PEDESTAL, AS REQUIRED.
- 4.) EXTERIOR SURFACE OF PUMP PEDESTAL SHALL BE SMOOTH GROUT FINISHED.
- 5.) IF THE STEEL COVER PLATE IS NOT PRESENT, THE STEEL GUSSETS ARE NOT REQUIRED.
- 6.) CONTRACTOR TO INSURE ALL UNDERGROUND CONDUITS NEAR PEDESTAL ARE IN PLACE PRIOR TO POURING THE PEDESTAL. SEE ELECTRICAL DRAWINGS.
- 7.) THE CONTRACTOR SHALL LOCATE AND CLEAN THE EXISTING SANITARY SEAL AND EXTEND THE PEDESTAL BASE AS SHOWN. CONTRACTOR SHALL ASSUME THAT THE SURFACE SEAL EXISTS 2 TO 5 FEET BELOW GROUND SURFACE. CONTRACTOR SHALL BOND PUMP PEDESTAL TO EXISTING SANITARY SEAL WITH TWO PART EPOXY CONFORMING TO SECTION 95 OF THE CALTRANS STANDARD SPECIFICATIONS.
- 8.) MAINTAIN 3" CLEARANCE FROM OUTSIDE EDGE OF REBAR TO EDGE OF CONCRETE. TIES SHALL HAVE A 12" OVERLAP AND A 1 1/2" MIN VERTICAL CLEARANCE BETWEEN DOUBLE BARS.



MAINLINE CONNECTION
N.T.S. B
C-2



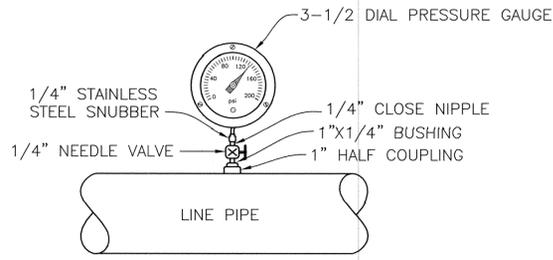
MECHANICAL DETAILS I
Construction of Pump Station
East Main Ave. Well No. 1
City of Morgan Hill
Morgan Hill, California

**LUHDOORFF & SCALMANINI
CONSULTING ENGINEERS**
500 FIRST STREET
WOODLAND, CALIFORNIA
PHONE: (530) 661-0109

NO.	DATE	REVISION

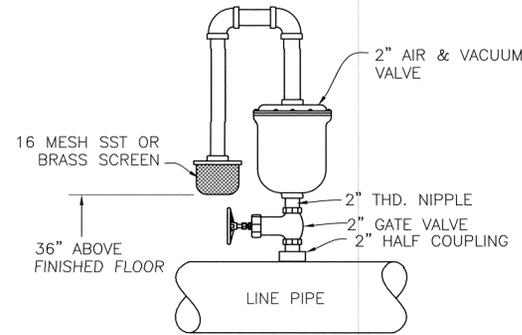
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JOB NO.: 15-5-068
DESIGN BY: JWC
DRAWN BY: DWT
CHECKED BY: JDF
FILE: M-3.dwg

SHEET:
M-3



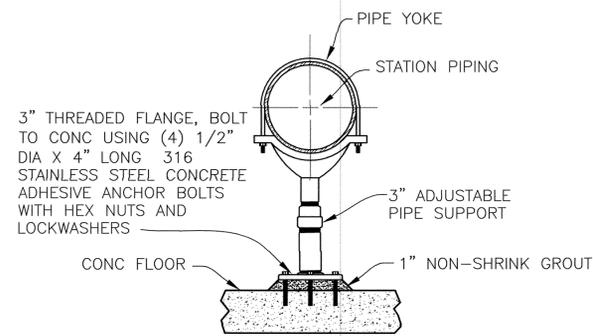
NOTE: ALL FITTINGS TO BE STAINLESS STEEL

PRESSURE GAUGE DETAIL (A)
N.T.S. (M-1)

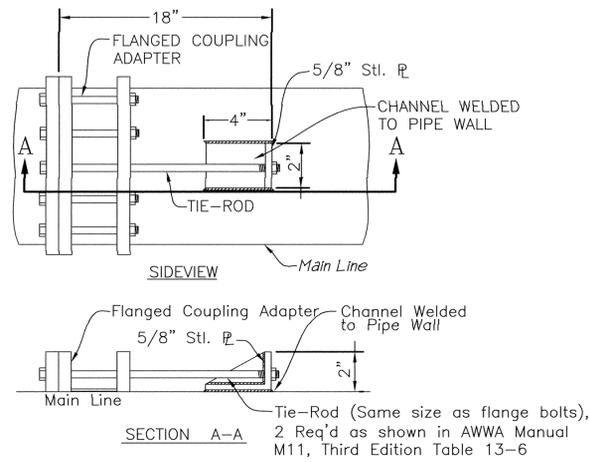


NOTE: ALL FITTINGS TO BE BSP

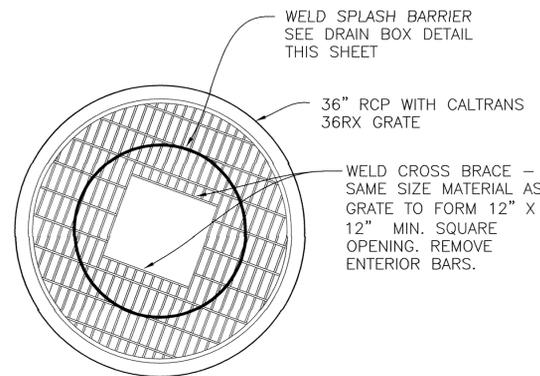
AIR RELEASE AND VACUUM VALVE DETAIL (B)
N.T.S. (M-1)



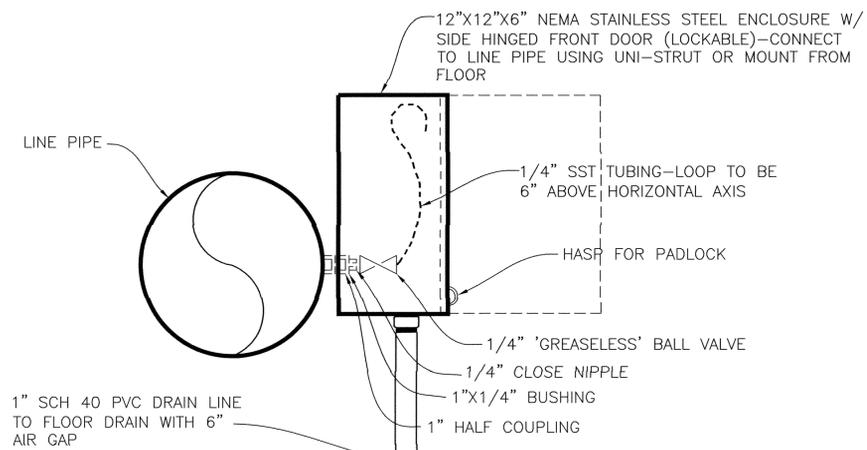
ADJUSTABLE PIPE SUPPORT ASSEMBLY (C)
N.T.S. (M-1)



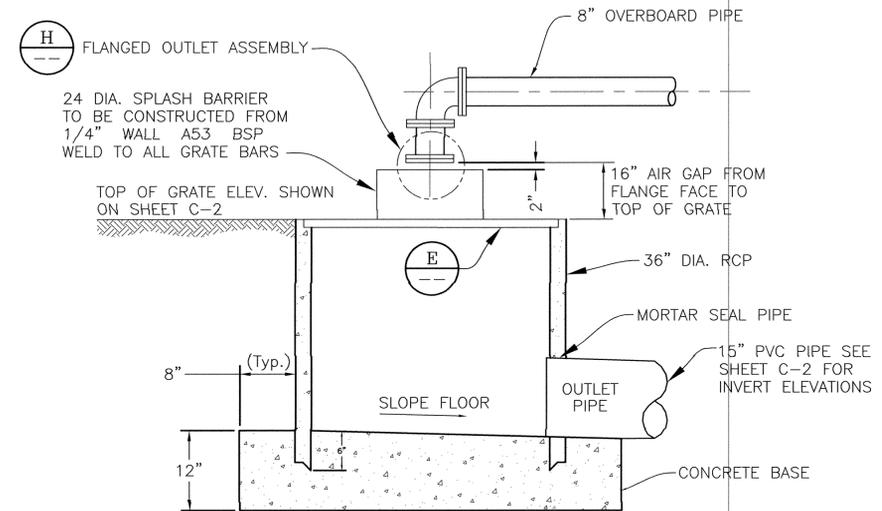
TIE-ROD ASSEMBLY DETAIL (D)
N.T.S. (M-1)



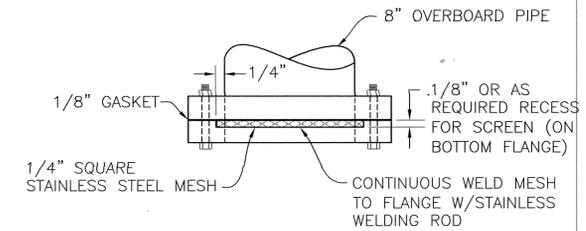
GRATE OPENING (E)
N.T.S. (M-1)



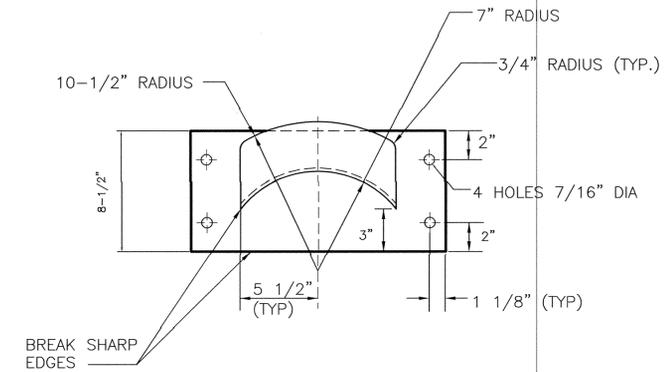
NOTE: ALL FITTINGS TO BE SST
SAMPLE TAP DETAIL (F)
N.T.S. (M-1)



DRAIN BOX DETAIL (G)
N.T.S. (C-2)



FLANGED OUTLET ASSEMBLY (H)



NOTE:

ALL MATERIAL TO BE 8 GAUGE GALVANIZED STEEL

HOSE RACK (J)
N.T.S. (M-2)



MECHANICAL DETAILS II
Construction of Pump Station
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City of Morgan Hill
Morgan Hill, California

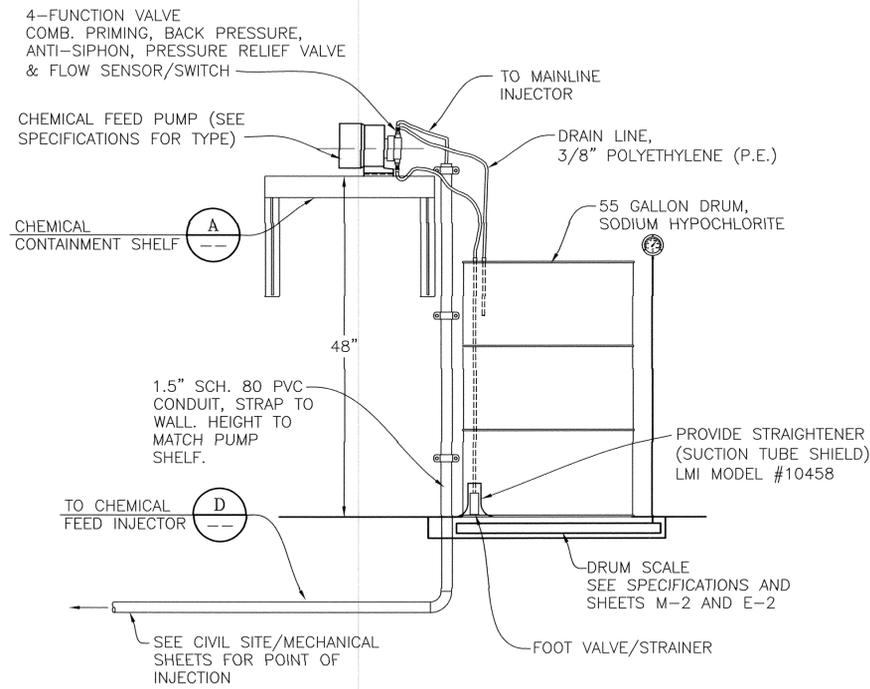
LUHDOFF & SCALMANINI CONSULTING ENGINEERS
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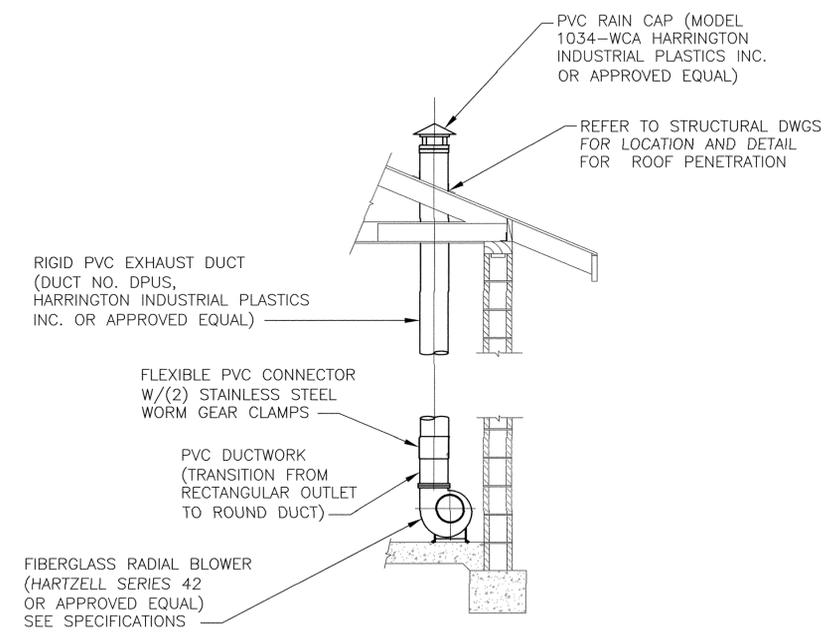
DATE: MARCH 2017
JOB NO.: 15-B-068
DESIGN BY: JMC
DRAWN BY: DWT
CHECKED BY: JDF
FILE: M-4.dwg

SHEET:
M-4

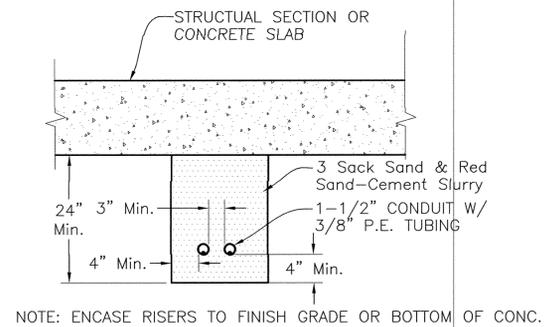
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TYPICAL LIQUID CHEMICAL DETAIL (B)
N.T.S. (M-2)



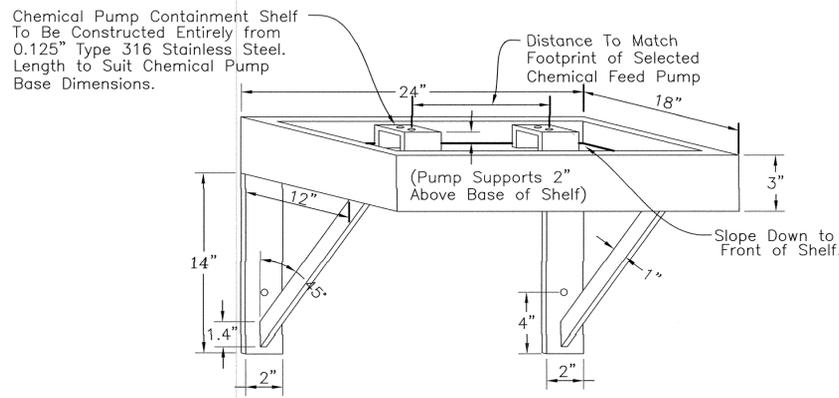
CHEMICAL ROOM BLOWER (C)
N.T.S. (M-2)



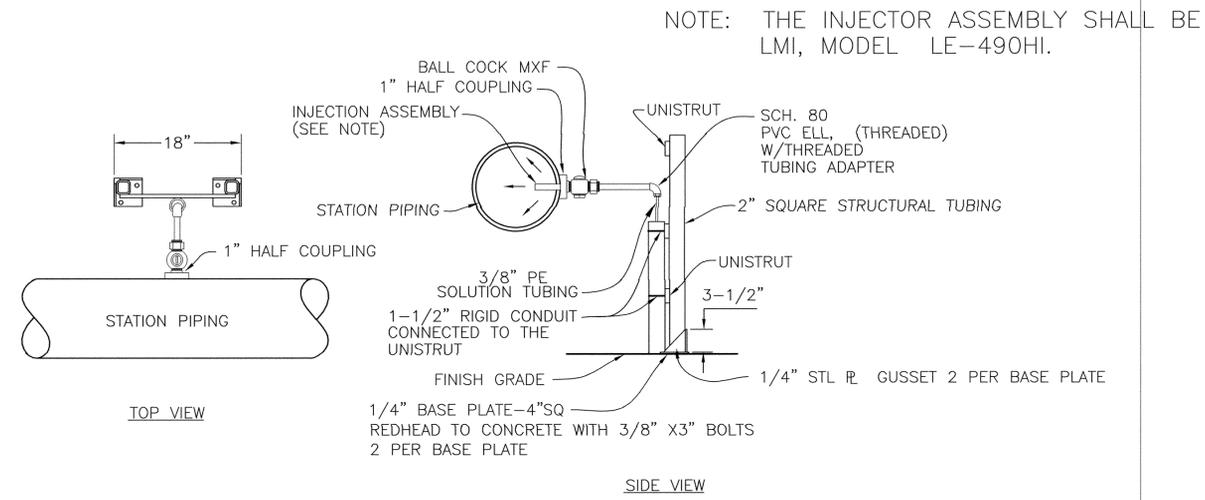
CEMENT ENCASEMENT OF ALL CHEMICAL CONDUITS (D)
N.T.S. (M-2)

NOTE:
Drill 1" Hole & Install 3" Long
Stainless
Conduit & Locking Nuts (w/electrical
Conduit Insulator Sleeve) for Discharge
& Return Flow Tubing Near Back of
Shelf.

Shelf to be Bolted to Chemical
Room Wall by Using 3/8" S. S.
Bolts, Nuts and Washers or Other
Approved Means. Locate as Shown.



CHEMICAL PUMP CONTAINMENT SHELF (A)
N.T.S. (M-2)



CHEMICAL FEED INJECTOR & PIPING SUPPORT (E)
N.T.S. (M-2)



CHEMICAL ROOM DETAILS
Construction of Pump Station
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DESIGN BY: JWC
DRAWN BY: DWT
CHECKED BY: JDF
FILE: M-5.dwg

SHEET:

M-5