

WHITLEY BURCHETT
& ASSOCIATES
Walnut Creek, California
(925) 945-6850

DESIGN CP
DRAWN CP
CHECKED MB

JOB NUMBER
SMC 07-01
DATE
MAY 2008

LINE IS 2 INCHES AT
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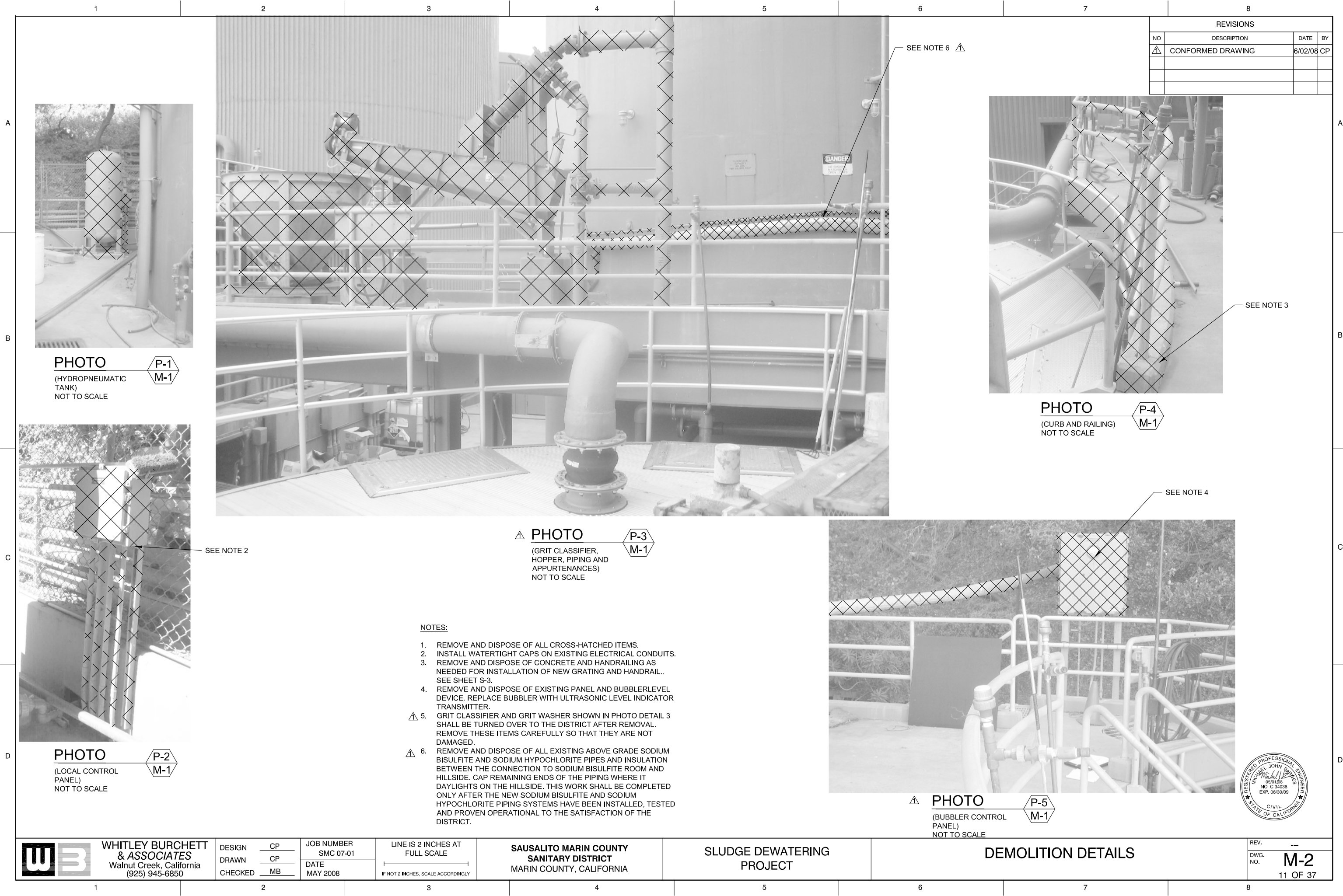
SAUSALITO MARIN COUNTY
SANITARY DISTRICT
MARIN COUNTY, CALIFORNIA

SLUDGE DEWATERING
PROJECT

MECHANICAL PLAN

REV. ---
DWG. NO. M-1
10 OF 37





REVISIONS			
NO	DESCRIPTION	DATE	BY
1	CONFORMED DRAWING	6/02/08	CP



PHOTO
(HYDROPNEUMATIC TANK)
NOT TO SCALE

P-1
M-1



PHOTO
(LOCAL CONTROL PANEL)
NOT TO SCALE

P-2
M-1



PHOTO
(GRIT CLASSIFIER, HOPPER, PIPING AND APPURTENANCES)
NOT TO SCALE

P-3
M-1

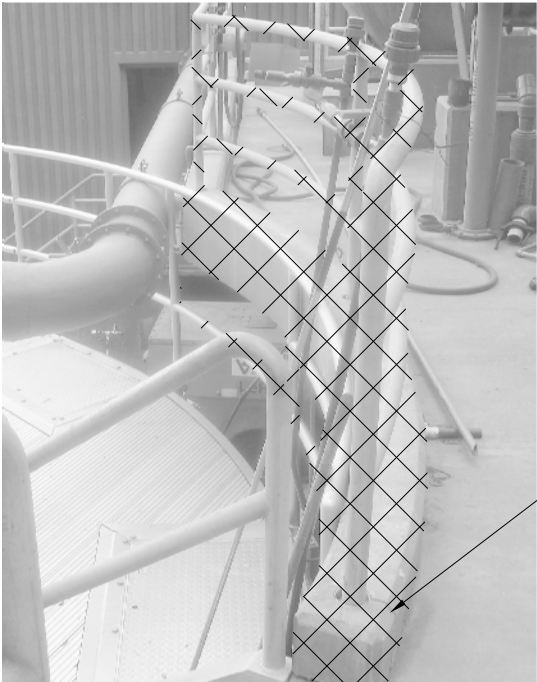


PHOTO
(CURB AND RAILING)
NOT TO SCALE

P-4
M-1



PHOTO
(BUBBLER CONTROL PANEL)
NOT TO SCALE

P-5
M-1

NOTES:

1. REMOVE AND DISPOSE OF ALL CROSS-HATCHED ITEMS.
2. INSTALL WATERTIGHT CAPS ON EXISTING ELECTRICAL CONDUITS.
3. REMOVE AND DISPOSE OF CONCRETE AND HANDRAILING AS NEEDED FOR INSTALLATION OF NEW GRATING AND HANDRAIL.. SEE SHEET S-3.
4. REMOVE AND DISPOSE OF EXISTING PANEL AND BUBBLERLEVEL DEVICE. REPLACE BUBBLER WITH ULTRASONIC LEVEL INDICATOR TRANSMITTER.
5. GRIT CLASSIFIER AND GRIT WASHER SHOWN IN PHOTO DETAIL 3 SHALL BE TURNED OVER TO THE DISTRICT AFTER REMOVAL. REMOVE THESE ITEMS CAREFULLY SO THAT THEY ARE NOT DAMAGED.
6. REMOVE AND DISPOSE OF ALL EXISTING ABOVE GRADE SODIUM BISULFITE AND SODIUM HYPOCHLORITE PIPES AND INSULATION BETWEEN THE CONNECTION TO SODIUM BISULFITE ROOM AND HILLSIDE. CAP REMAINING ENDS OF THE PIPING WHERE IT DAYLIGHTS ON THE HILLSIDE. THIS WORK SHALL BE COMPLETED ONLY AFTER THE NEW SODIUM BISULFITE AND SODIUM HYPOCHLORITE PIPING SYSTEMS HAVE BEEN INSTALLED, TESTED AND PROVEN OPERATIONAL TO THE SATISFACTION OF THE DISTRICT.



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MARIN COUNTY, CALIFORNIA

SLUDGE DEWATERING
PROJECT

DEMOLITION DETAILS

REV. ---
DWG. NO. M-2
11 OF 37



REVISIONS			
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1	CONFORMED DRAWING	6/02/08	CP



PHOTO

(GRIT CLASSIFIER
PIPING)
NOT TO SCALE



PHOTO

(GRIT CLASSIFIER
PIPING)
NOT TO SCALE



Notes:

1. HATCHED PIPING TO BE REMOVED.
2. GATE VALVE TO BE REMOVED AND RETURNED TO DISTRICT. REMAINING PIPE TO BE CAPPED.
3. REMOVE EXISTING PIPING FROM SLAB AND SEAL WITH NON-SHRINK GROUT.



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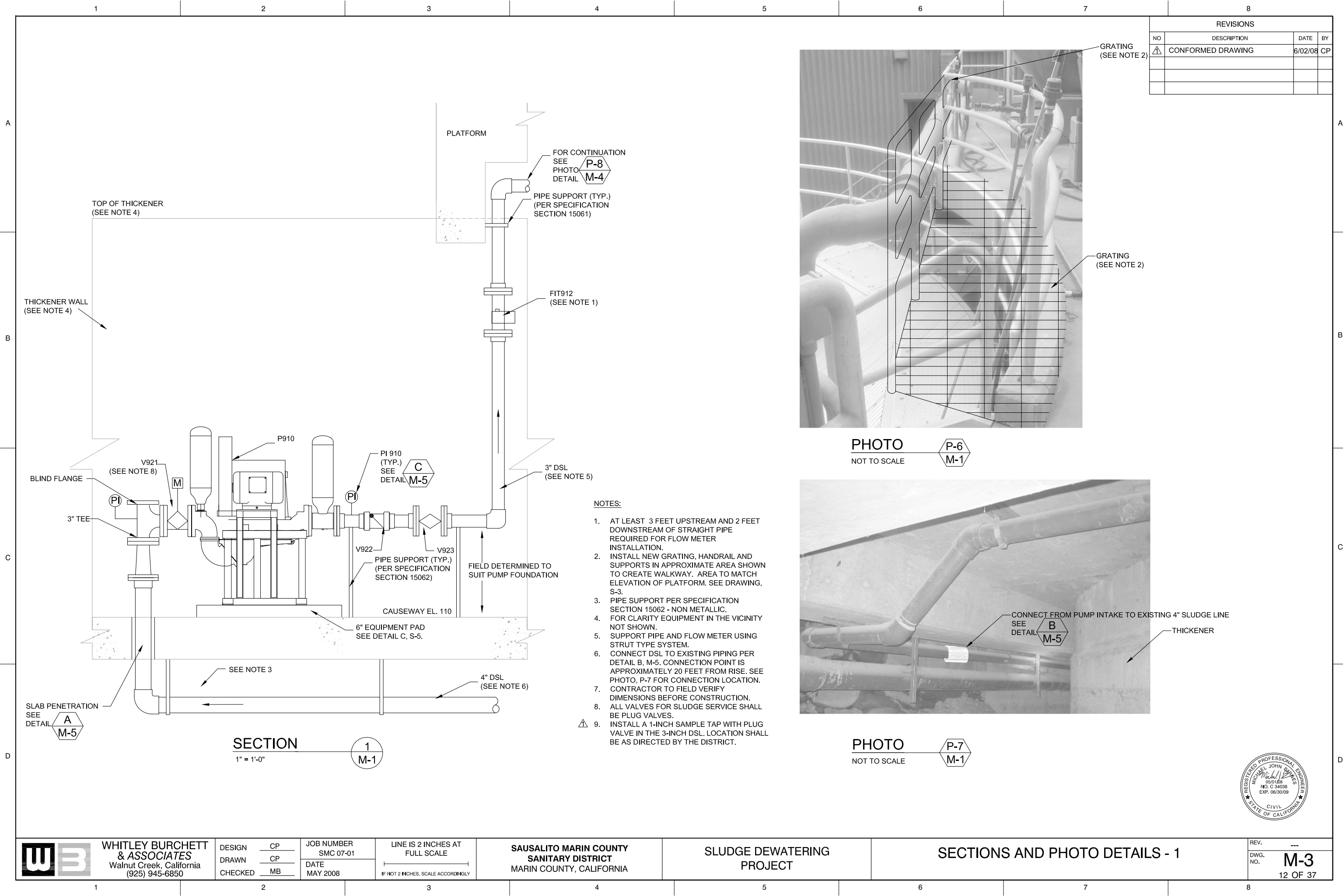
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SLUDGE DEWATERING
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DEMOLITION DETAILS

REV. ---
DWG. NO. **M-2a**
11a OF 37



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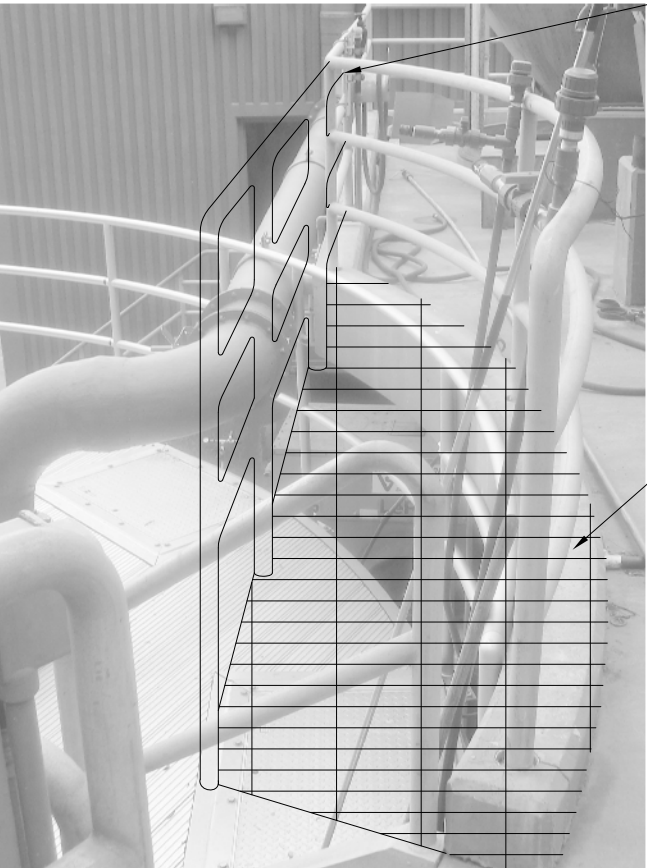


PHOTO
NOT TO SCALE

P-6
M-1

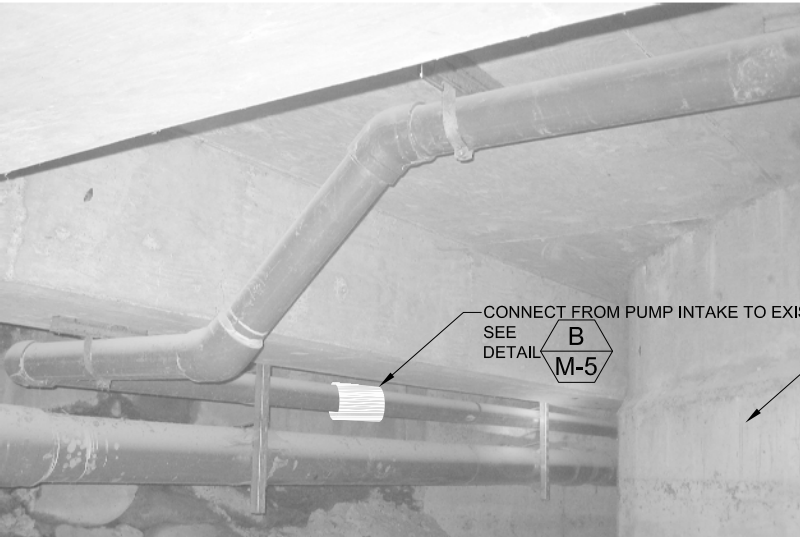


PHOTO
NOT TO SCALE

P-7
M-1



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PROJECT

SECTIONS AND PHOTO DETAILS - 1

REV. ---
DWG. NO. **M-3**
12 OF 37

REVISIONS			
NO	DESCRIPTION	DATE	BY
1	ADDENDUM NO. 1 - REISSUANCE	3/21/08	CP

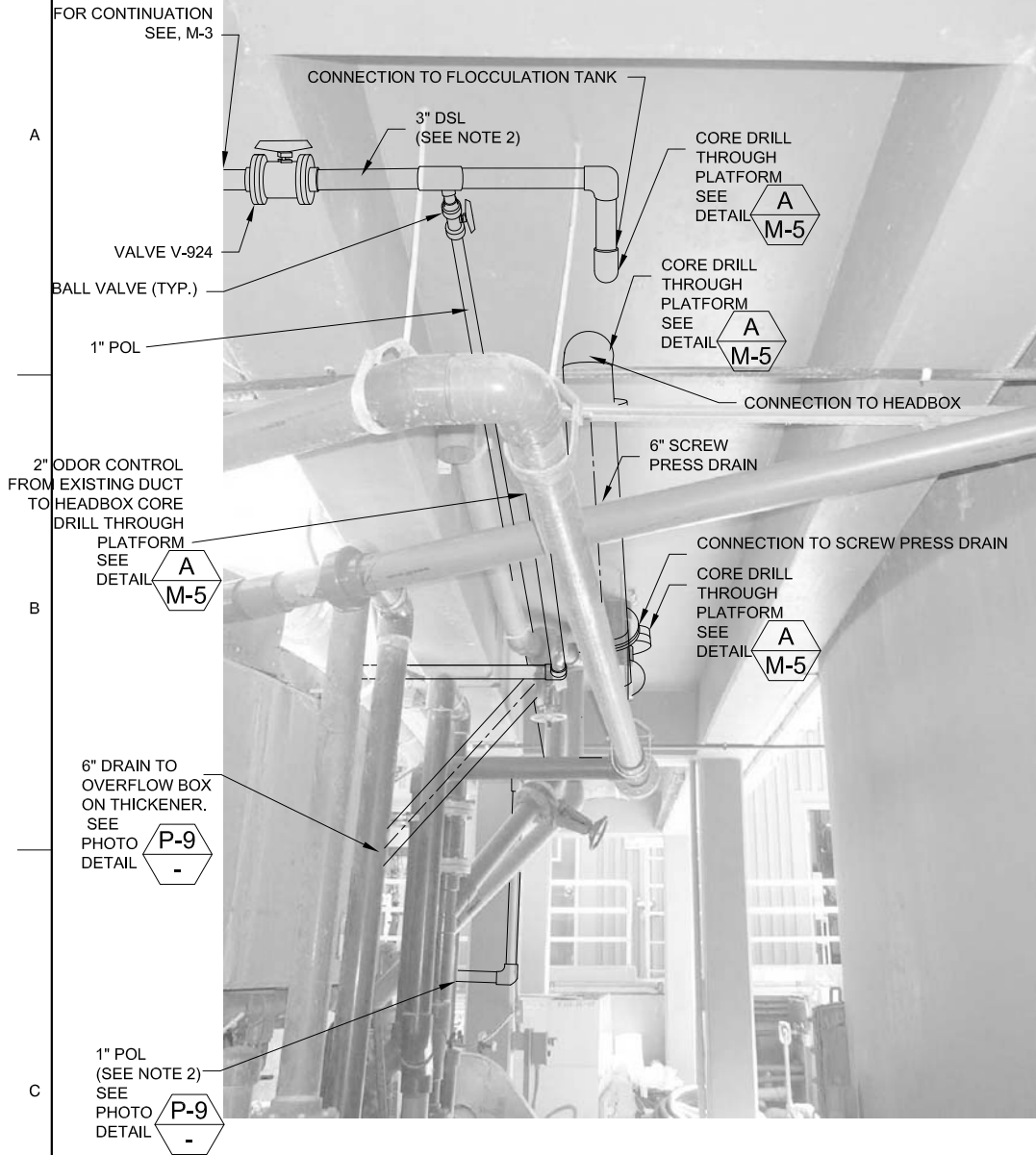


PHOTO
NOT TO SCALE

P-8
M-1

NOTES:

- PIPE SHALL BE SUPPORTED OFF CONCRETE COLUMN AND ALONG THE SIDE OF CONCRETE BEAM - SEE SECTION 15062.
- STRUT TYPE PIPE SUPPORTS, ANCHORS AND BOLTS NOT SHOWN - SEE SECTION 15062.
- INSTALL PIPE AROUND CURVED WALL USING 22.5° ELBOWS AS NEEDED. PIPE TO BE SUPPORTED UNDERNEATH THICKENER OVERHANG PER SECTION 15062.
- EXISTING DUMPSTER WILL BE REMOVED BY DISTRICT BEFORE CONSTRUCTION BEGINS.
- EXACT LOCATION OF POLYMER FEED SYSTEM AND TOTE SHALL BE DETERMINED IN THE FIELD BY THE OWNER.
- CONNECT 1" PW LINE TO EXISTING PW LINE UNDER CAUSEWAY PER DETAIL B. M-5.
- INSTALL ELBOW AND SPOOL PIECE AS NEEDED TO PENETRATE THICKENER OVERFLOW BOX STRAIGHT THROUGH WALL.
- INSTALL TUBING, VALVES, STRAINER AND QUICK CONNECT COUPLING BETWEEN POLYMER FEED SYSTEM AND TOTE. SUPPORT SO TUBING IS A MINIMUM OF 4 INCHES ABOVE GRADE. SEE I-2, FOR SCHEMATIC REPRESENTATION OF REQUIRED TUBING ARRANGEMENT.

6" SCREW PRESS
DRAIN PIPE

CORE DRILL
THROUGH
THICKENER
WALL
(SEE NOTE 7)
SEE
DETAIL **A**
M-5

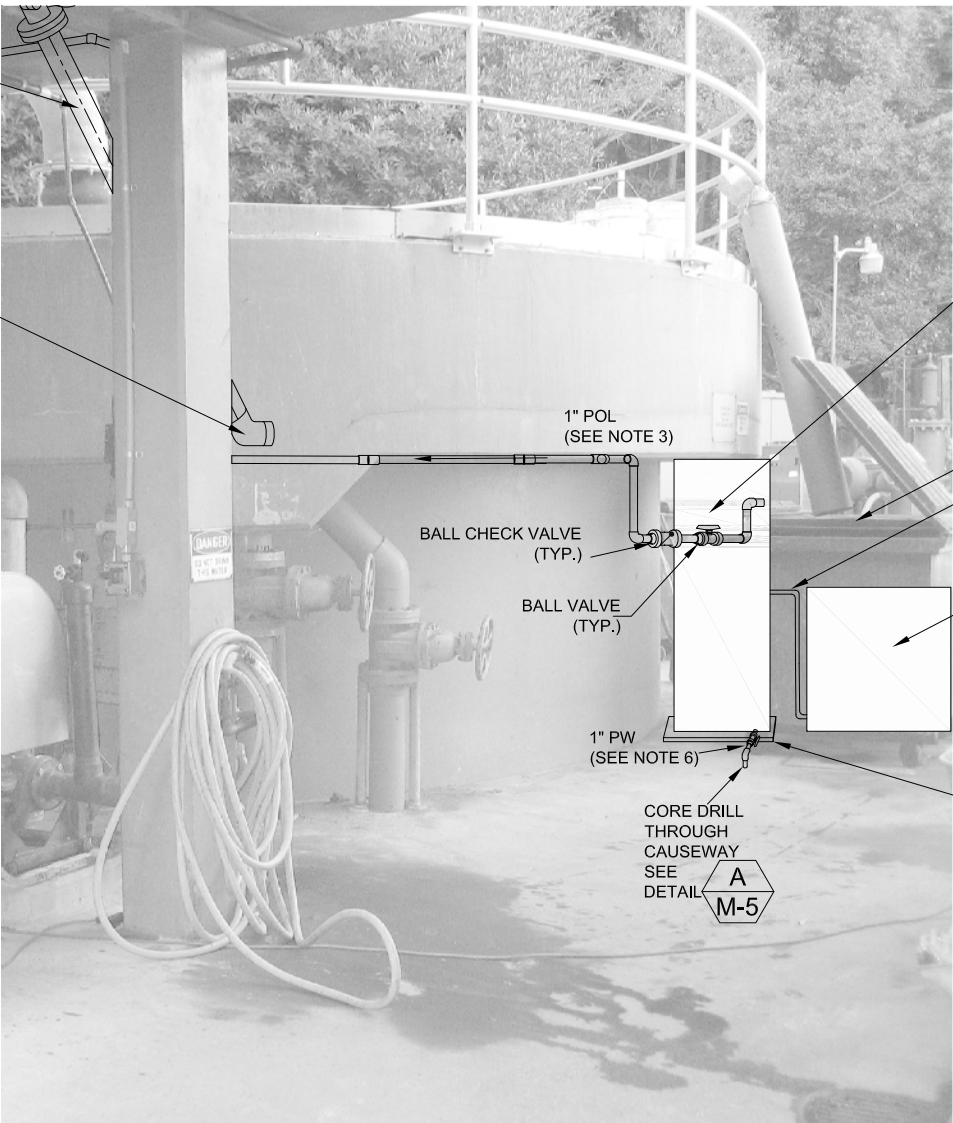


PHOTO
NOT TO SCALE

P-9
M-1



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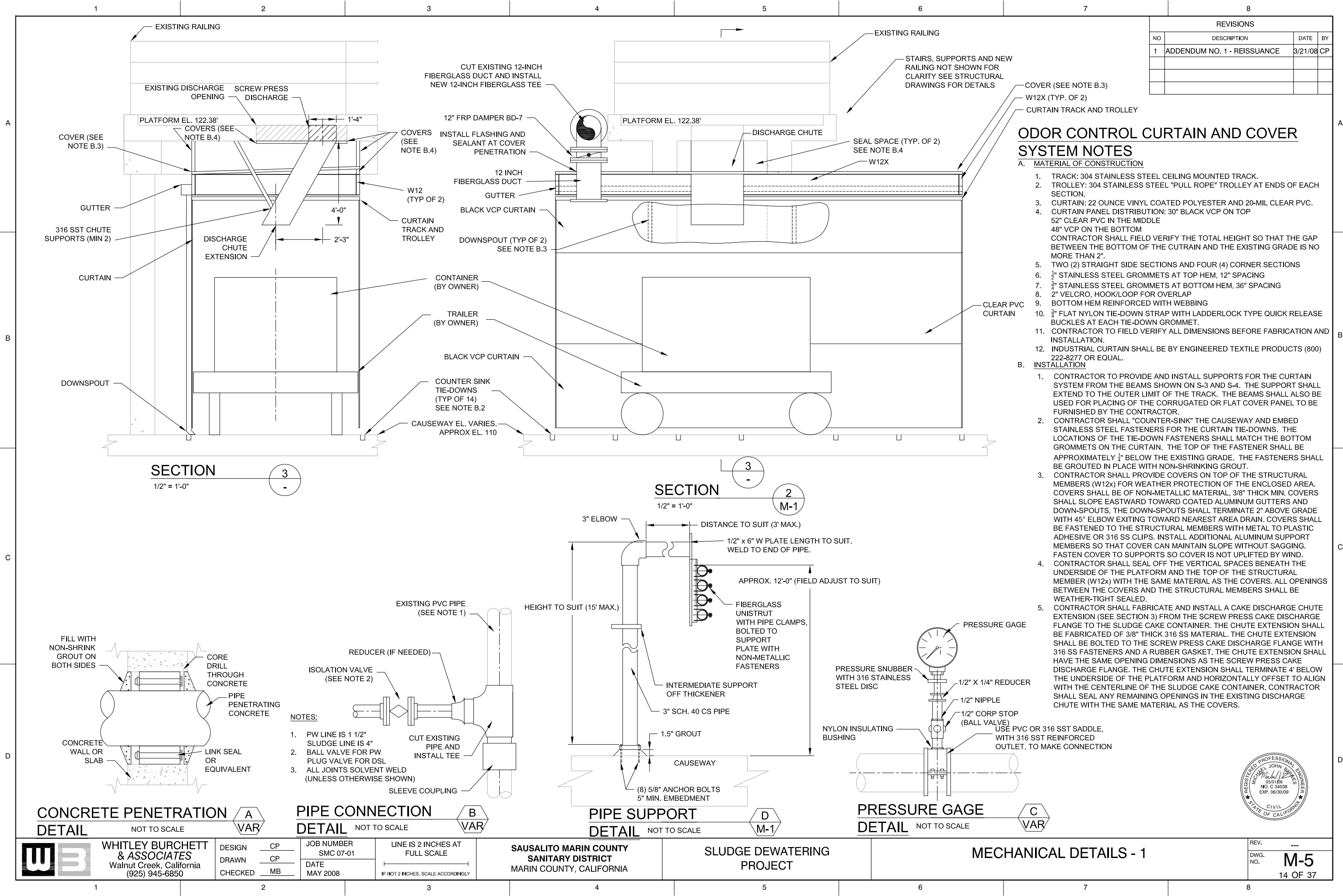
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SLUDGE DEWATERING
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SECTIONS AND PHOTO DETAILS - 2

REV. ---
DWG. NO. **M-4**
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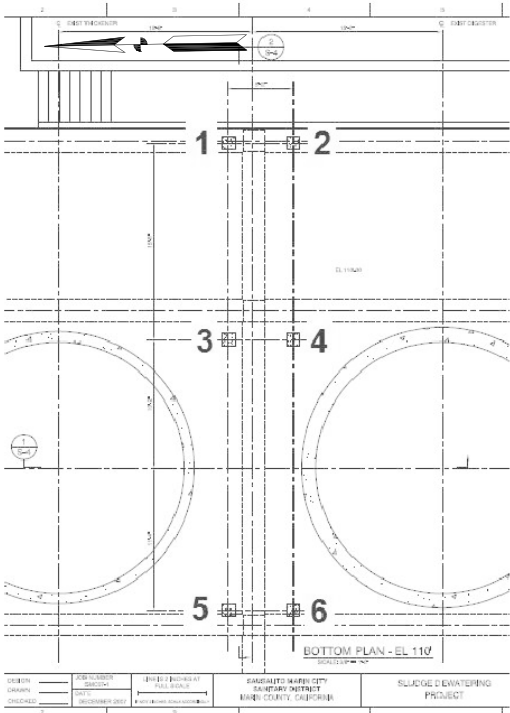
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SLUDGE DEWATERING
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MECHANICAL DETAILS - 1

REV. ---
DWG. NO. **M-5**
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PLAN - COLUMN LAYOUT
NOT TO SCALE



COLUMN 1 AND 2
WEST FACE
NOT TO SCALE



COLUMN 1
NORTH FACE
NOT TO SCALE



COLUMN 3
NORTH FACE
NOT TO SCALE

HOSE BIB AND AIR AND WATER LINES
(REROUTE TEMPORARILY AS NEEDED)

6" TRANSFER LINE
(MUST REMAIN IN SERVICE)



COLUMN 3
EAST FACE
NOT TO SCALE



COLUMN 3
WEST FACE
NOT TO SCALE



COLUMN 4
NORTH FACE
NOT TO SCALE



COLUMN 6
WEST FACE
NOT TO SCALE

STAIRCASE
APPROX. 1" FROM COLUMN

SHEET NOTES:

1. COMPLETE WORK SHOWN ON THIS SHEET TO CLEAR THE COLUMNS SO THAT THE FIBER REINFORCED POLYMER STRENGTHENING SYSTEM CAN BE INSTALLED PER SPECIFICATION SECTION 13900.



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SLUDGE DEWATERING
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MECHANICAL DETAILS - 2

REV. ---
DWG. NO. **M-6**
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REVISIONS			
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1	CONFORMED DRAWING	6/02/08	CP

NOTES:

1. SUPPORT PIPE AS DIRECTED BY THE DISTRICT.
2. INSTALL A SUN SHIELD OVER THE 2-1/2" PVC TUBING IN AREAS EXPOSED TO SUN FROM THE SOUTH AND WEST.
3. PAINT TUBING PER PVC PIPE REQUIREMENTS.

90 DEGREE DOUBLE
CONTAINMENT CONNECTION
DETAIL NOT TO SCALE



NOTES:

1. USE CONNECTION AT EVERY 90-DEGREE BEND.
2. USE CONNECTION AT PULL STATION AS NEEDED. AS A MINIMUM, INSTALL EVERY 200 FEET OF STRAIGHT RUN.
3. INSTALL A SUN SHIELD OVER THE 2-1/2" PVC HOSE.
4. INSTALL PIPE SUPPORTS AT THE END OF EACH CONTAINMENT PIPE JUST PRIOR TO THE CONNECTION TO THE 2-1/2" PVC HOSE.

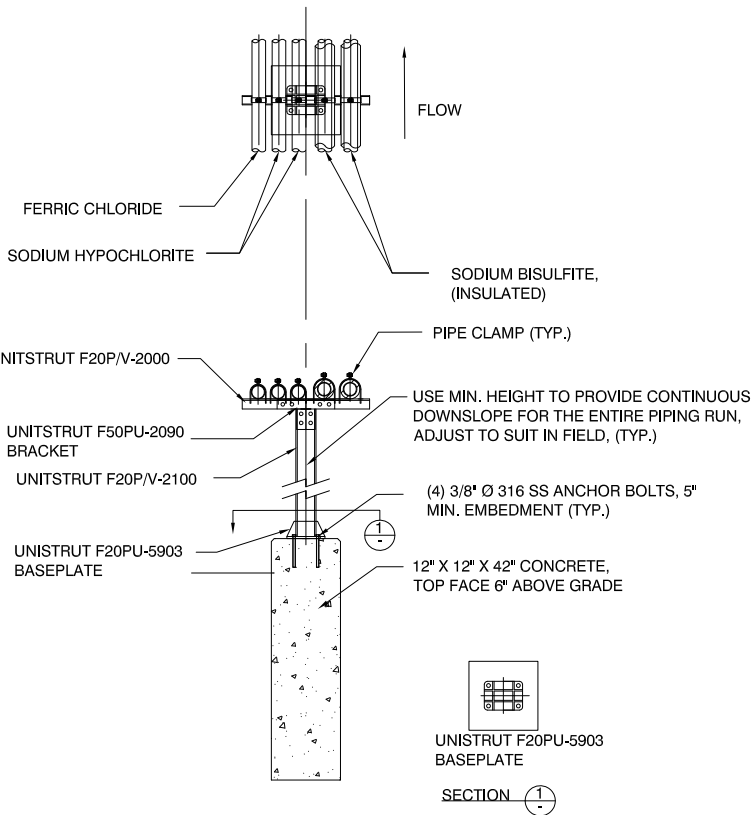
DOUBLE CONTAINMENT
CONNECTION DETAIL NOT TO SCALE



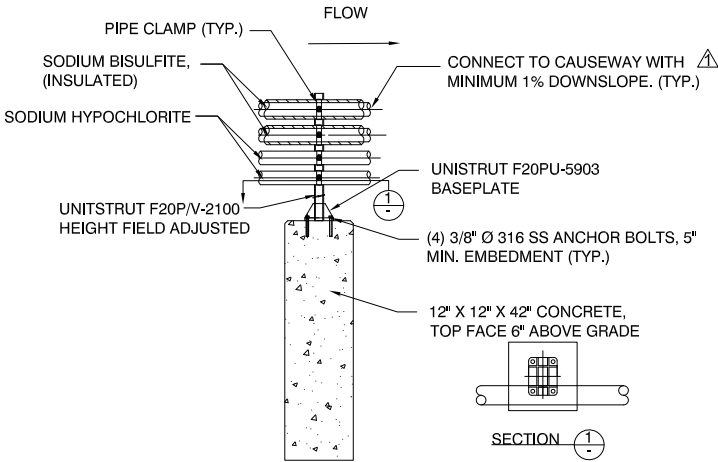
NOTES:

1. ROUTE CONTAINMENT PIPE TO EXTEND A MINIMUM OF 1 FEET INTO THE CONTAINMENT AREAS.
2. SEAL BETWEEN THE OPEN END OF TEE AND CHEMICAL TUBING WITH A SEALANT SUCH AS SIKAFLEX OR EQUAL.
3. CONTRACTOR SHALL INSTALL AND SUPPORT APPROXIMATELY 25 FEET OF PIPE TO THE TOP OF THE ADJACENT BULK STORAGE TANK FOR VENTING.

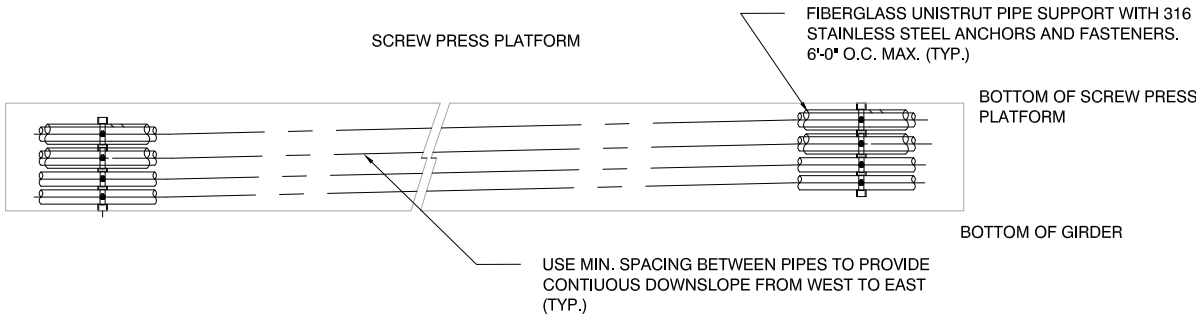
DOUBLE CONTAINMENT
TRANSITION DETAIL NOT TO SCALE



CHEMICAL PIPE SUPPORT "A"
DETAIL NOT TO SCALE



CHEMICAL PIPE SUPPORT "B"
DETAIL NOT TO SCALE



BELOW SCREW PRESS
PLATFORM DETAIL NOT TO SCALE



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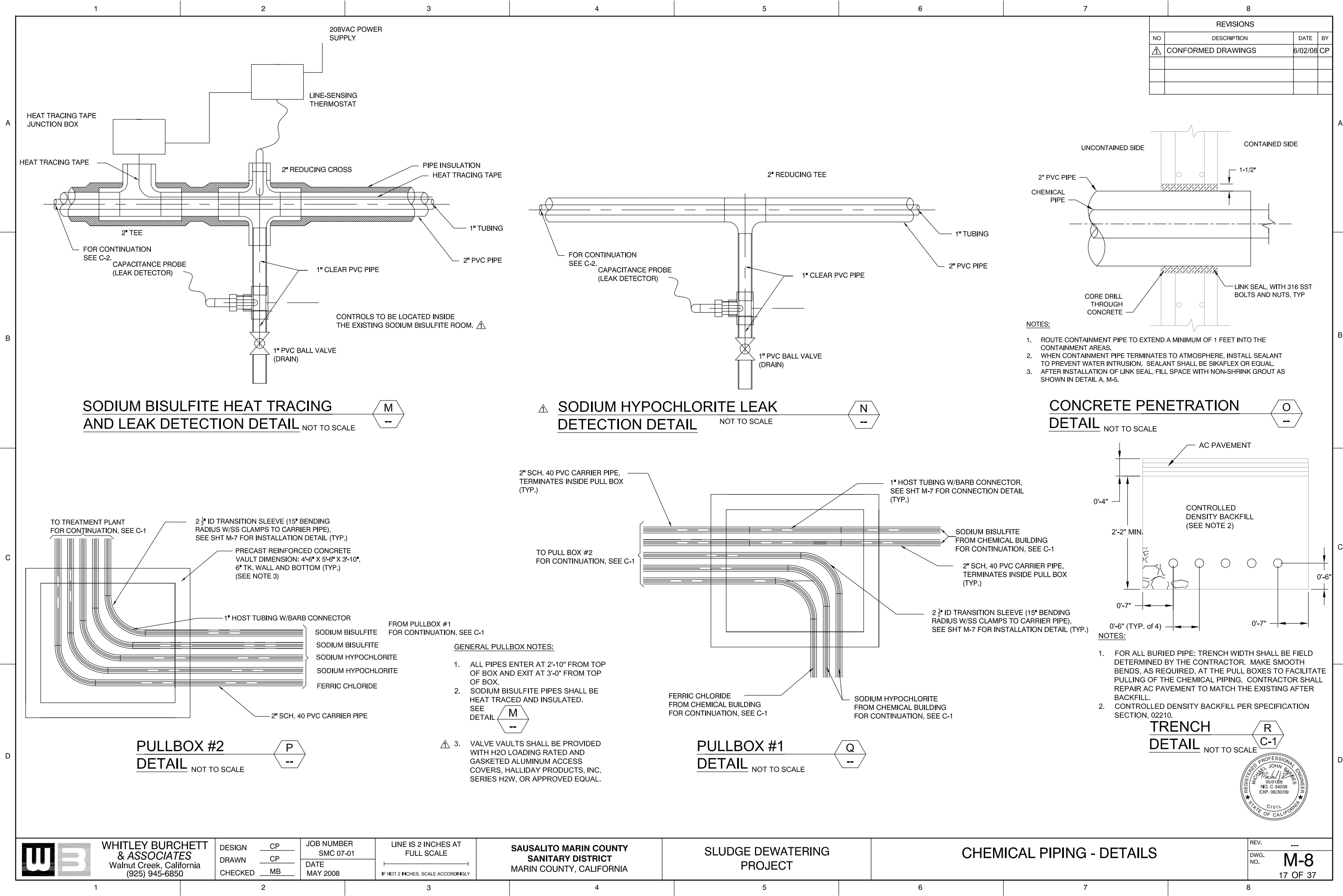
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SLUDGE DEWATERING
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CHEMICAL PIPE - DETAILS

REV.
DWG.
NO. M-7
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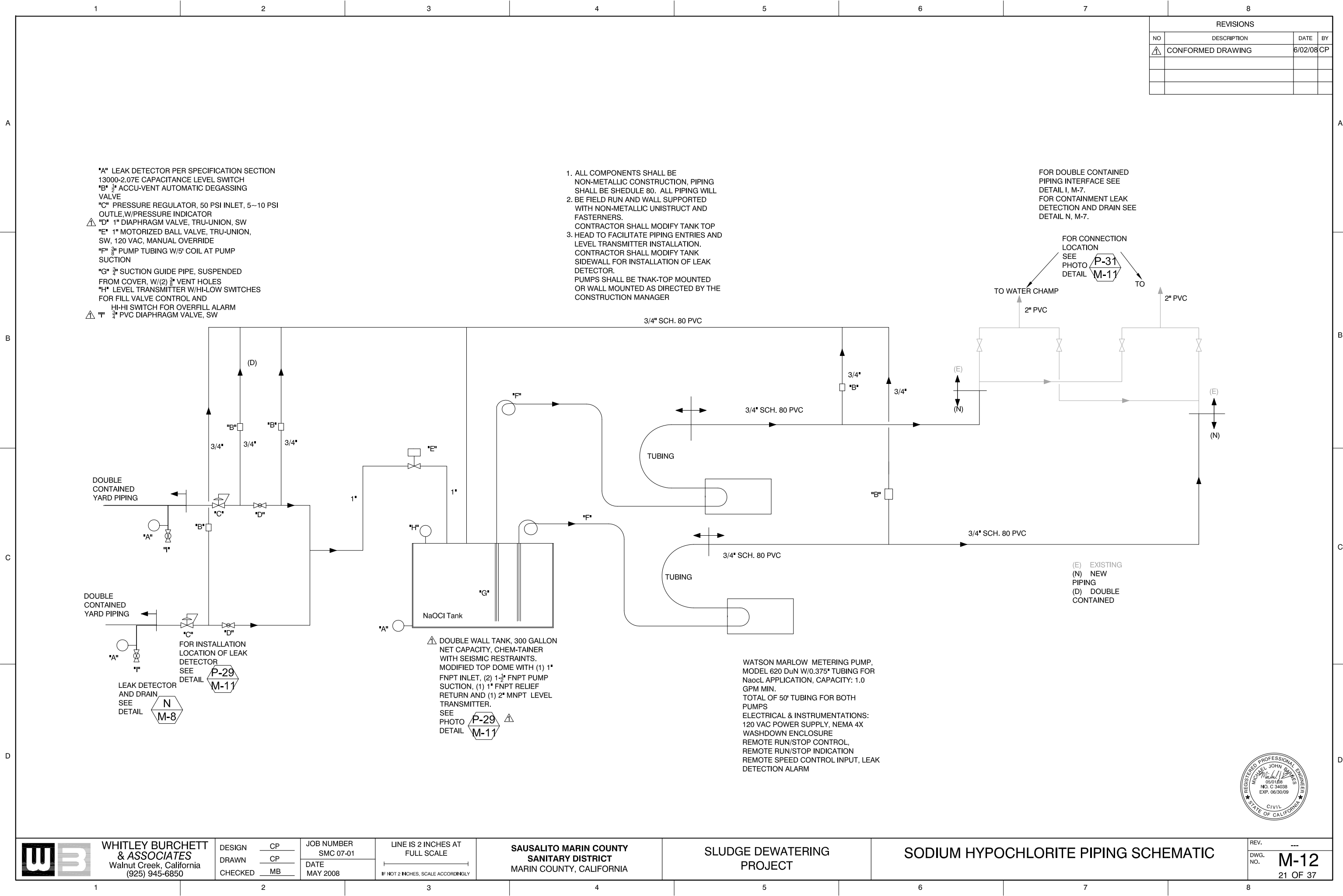
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**SLUDGE DEWATERING
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CHEMICAL PIPING - DETAILS

REV. ---
DWG. NO. **M-8**
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1	CONFORMED DRAWING	6/02/08	CP

- *A" LEAK DETECTOR PER SPECIFICATION SECTION 13000-2.07E CAPACITANCE LEVEL SWITCH
- *B" 1/2" ACCU-VENT AUTOMATIC DEGASSING VALVE
- *C" PRESSURE REGULATOR, 50 PSI INLET, 5~10 PSI OUTLE,W/PRESSURE INDICATOR
- "D" 1" DIAPHRAGM VALVE, TRU-UNION, SW
- *E" 1" MOTORIZED BALL VALVE, TRU-UNION, SW, 120 VAC, MANUAL OVERRIDE
- "F" 3/8" PUMP TUBING W/5' COIL AT PUMP SUCTION
- *G" 3/4" SUCTION GUIDE PIPE, SUSPENDED FROM COVER, W/(2) 3/8" VENT HOLES
- "H" LEVEL TRANSMITTER W/HI-LOW SWITCHES FOR FILL VALVE CONTROL AND HI-HI SWITCH FOR OVERFILL ALARM
- "I" 1/2" PVC DIAPHRAGM VALVE, SW

- 1. ALL COMPONENTS SHALL BE NON-METALLIC CONSTRUCTION, PIPING SHALL BE SHEDULE 80. ALL PIPING WILL
- 2. BE FIELD RUN AND WALL SUPPORTED WITH NON-METALLIC UNISTRUCT AND FASTERNERS. CONTRACTOR SHALL MODIFY TANK TOP
- 3. HEAD TO FACILITATE PIPING ENTRIES AND LEVEL TRANSMITTER INSTALLATION. CONTRACTOR SHALL MODIFY TANK SIDEWALL FOR INSTALLATION OF LEAK DETECTOR. PUMPS SHALL BE TNAK-TOP MOUNTED OR WALL MOUNTED AS DIRECTED BY THE CONSTRUCTION MANAGER

FOR DOUBLE CONTAINED PIPING INTERFACE SEE DETAIL I, M-7. FOR CONTAINMENT LEAK DETECTION AND DRAIN SEE DETAIL N, M-7.

FOR CONNECTION LOCATION SEE PHOTO DETAIL P-31 M-11

(E) EXISTING
(N) NEW PIPING
(D) DOUBLE CONTAINED

WATSON MARLOW METERING PUMP, MODEL 620 DuN W/0.375" TUBING FOR NaocL APPLICATION, CAPACITY: 1.0 GPM MIN. TOTAL OF 50' TUBING FOR BOTH PUMPS
ELECTRICAL & INSTRUMENTATIONS: 120 VAC POWER SUPPLY, NEMA 4X WASHDOWN ENCLOSURE REMOTE RUN/STOP CONTROL, REMOTE RUN/STOP INDICATION REMOTE SPEED CONTROL INPUT, LEAK DETECTION ALARM

DOUBLE WALL TANK, 300 GALLON NET CAPACITY, CHEM-TAINER WITH SEISMIC RESTRAINTS. MODIFIED TOP DOME WITH (1) 1" FNPT INLET, (2) 1-1/2" FNPT PUMP SUCTION, (1) 1" FNPT RELIEF RETURN AND (1) 2" MNPT LEVEL TRANSMITTER. SEE PHOTO DETAIL P-29 M-11

DOUBLE CONTAINED YARD PIPING

DOUBLE CONTAINED YARD PIPING

LEAK DETECTOR AND DRAIN SEE DETAIL N M-8

FOR INSTALLATION LOCATION OF LEAK DETECTOR SEE DETAIL P-29 M-11



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SODIUM HYPOCHLORITE PIPING SCHEMATIC

REV. ---
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