

APPROVED AS TO IMPACT ON STATE FACILITIES AND CONFORMANCE WITH APPLICABLE STATE STANDARDS AND PRACTICES AND THAT TECHNICAL OVERSIGHT WAS PERFORMED.
 DATE SIGNED 09-30-11
 LICENSE EXP DATE 6-30-2013
 REGISTRATION No. C59019
 CALTRANS DESIGN OVERSIGHT APPROVAL
 SHAFTOUL ISLAM
 CONSULTANT DESIGN ENGINEER
 MARC DIONNE

INDEX OF PLANS

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THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN LOS ANGELES COUNTY
IN PARAMOUNT
AT 0.1 MILE WEST OF
FACADE AVENUE OVERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

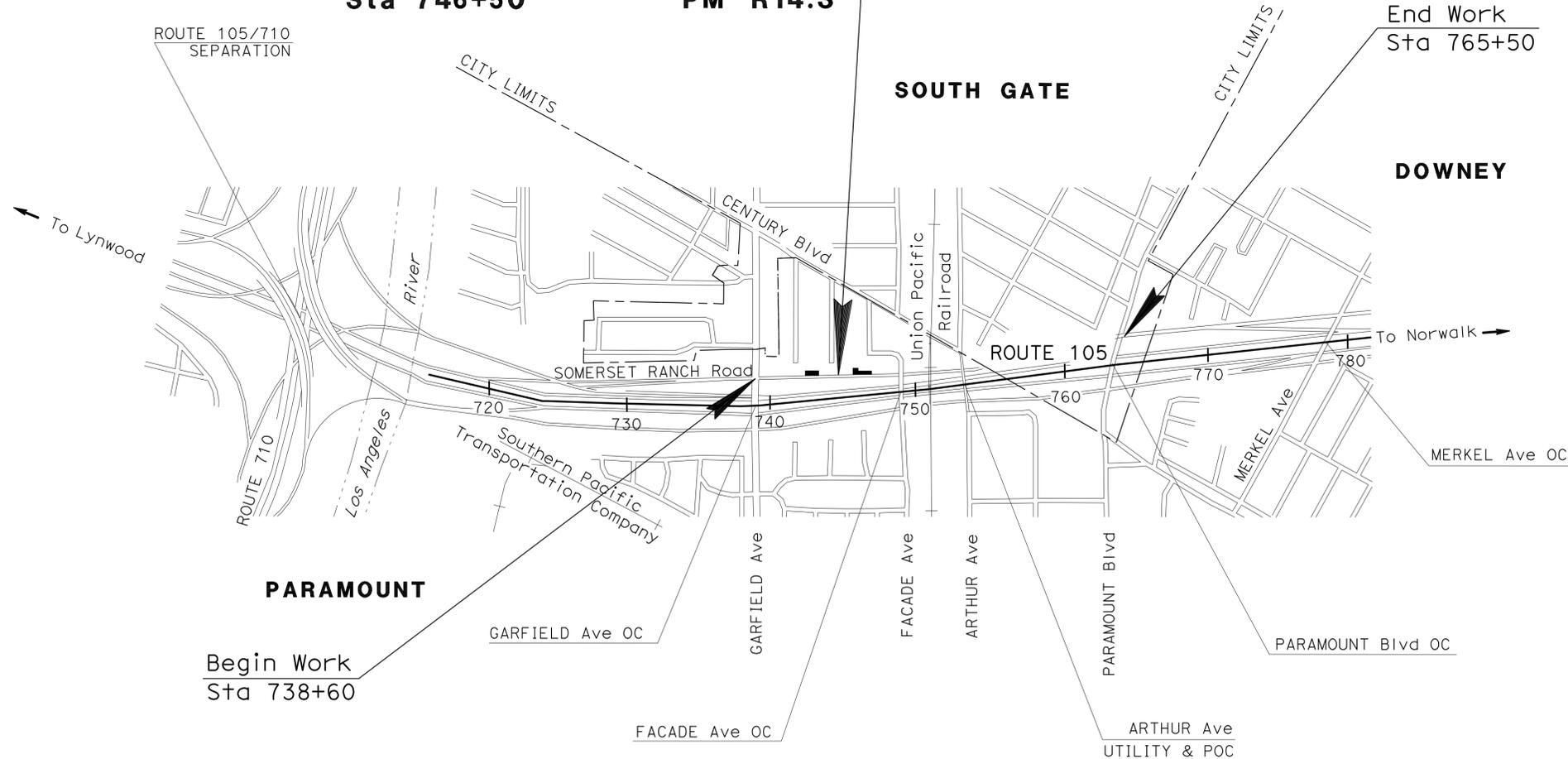
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R14.3	1	43





LOCATION MAP

LOCATION OF CONSTRUCTION
Sta 746+50 PM R14.3



THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS"

NO SCALE

 11-02-11
 PROJECT ENGINEER DATE
 REGISTERED CIVIL ENGINEER
February 6, 2012
 PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER

Joshua H. Howard

No. C76859

Exp. 12-31-12

CIVIL

STATE OF CALIFORNIA

AMEC GEOMATRIX, INC. 2000 SOUTH COLORADO BOULEVARD, SUITE 2-1000 DENVER, CO 80222	
CONTRACT No.	07-4S8404
PROJECT ID	07 00001000

LAST REVISION | DATE PLOTTED => 08-FEB-2012
 TIME PLOTTED => 10:52

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 CONSULTANT - FUNCTIONAL SUPERVISOR: MARC DIONNE
 CALCULATED/DESIGNED BY: JOSHUA HOWARD
 CHECKED BY: MARC DIONNE
 REVISED BY: JOSHUA HOWARD
 DATE REVISED: MARC DIONNE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R14.3	2	43

11-02-11
 REGISTERED CIVIL ENGINEER DATE
 2-6-12
 PLANS APPROVAL DATE

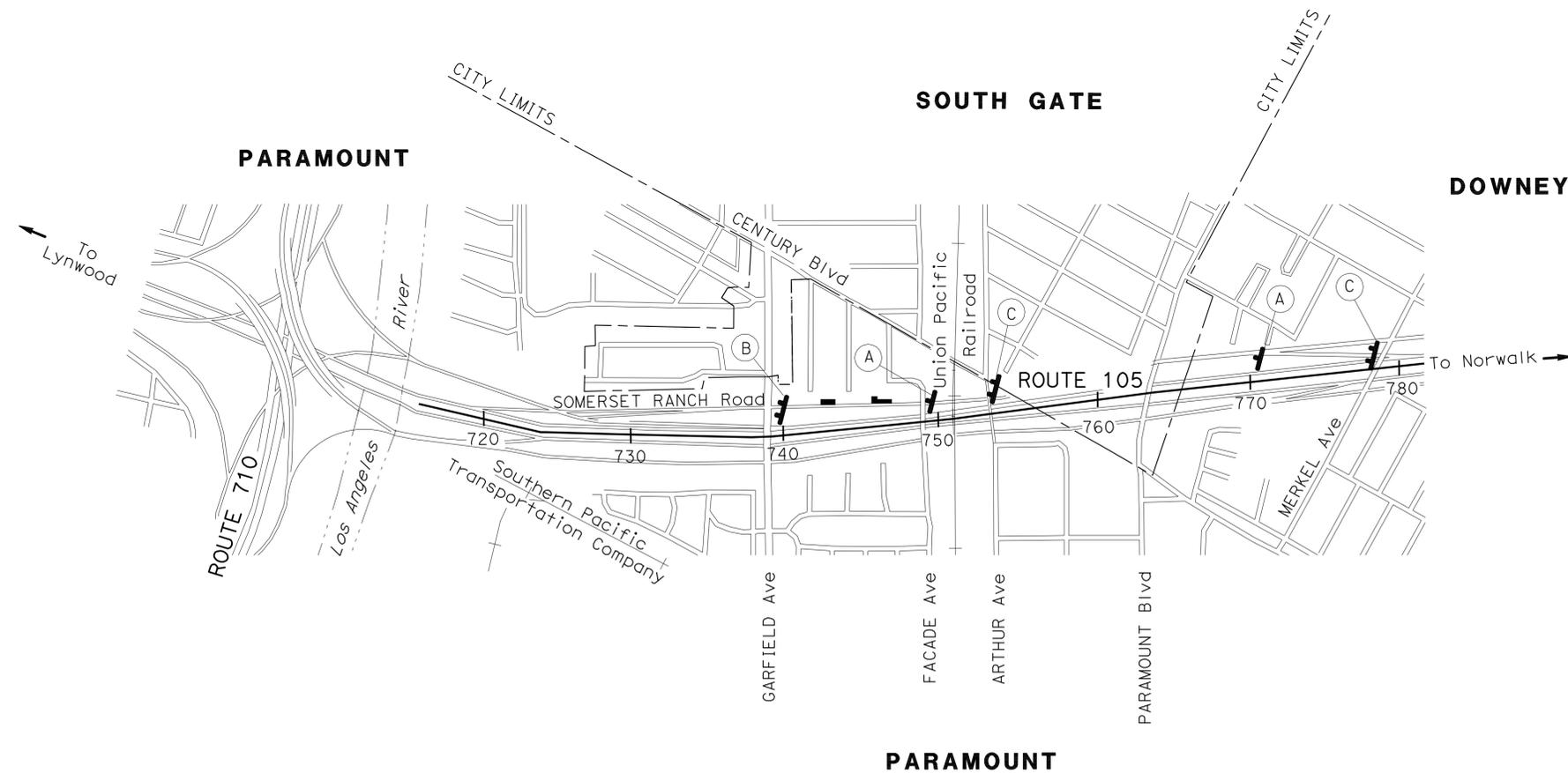
Joshua H. Howard
 No. C76859
 Exp. 12-31-12
 CIVIL
 STATE OF CALIFORNIA

AMEC Geomatrix 2000 SOUTH COLORADO BOULEVARD, SUITE 2-1000 DENVER, CO 80222

NOTES:

- "TRAFFIC FINES DOUBLED IN WORK ZONES" SIGNS SHALL BE PLACED APPROXIMATELY 500 FEET IN ADVANCE OF "ROAD WORK AHEAD" SIGNS OR AS DETERMINED BY THE ENGINEER.
- LOCATIONS OF CONSTRUCTION AREA SIGNS AS SHOWN ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS					
SIGN No.	SIGN CODE	PANEL SIZE	QUANTITY	NUMBER OF POSTS AND SIZE	SIGN MESSAGE
(A)	W20-1	48" x 48"	2	1 - 4" x 6"	ROAD WORK AHEAD
(B)	G20-2	60" x 24"	1	2 - 4" x 4"	END ROAD WORK
(C)	C40A(CA)	72" x 36"	2	2 - 4" x 4"	TRAFFIC FINES DOUBLED IN WORK ZONES

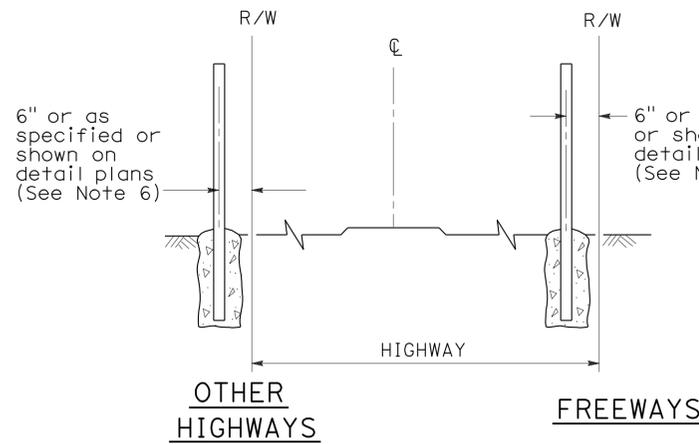


CONSTRUCTION AREA SIGNS
 NO SCALE

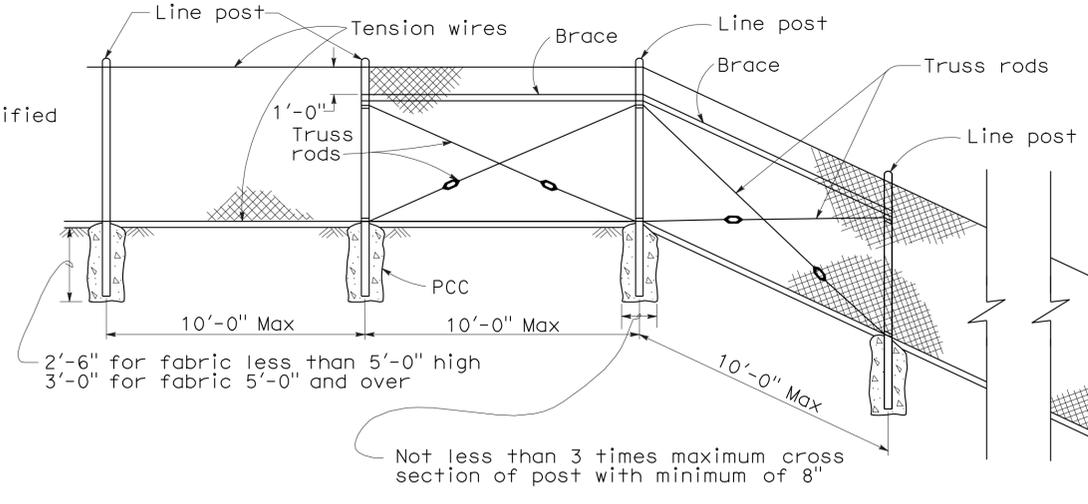
CS-1

APPROVED FOR CONSTRUCTION AREA SIGN WORK ONLY

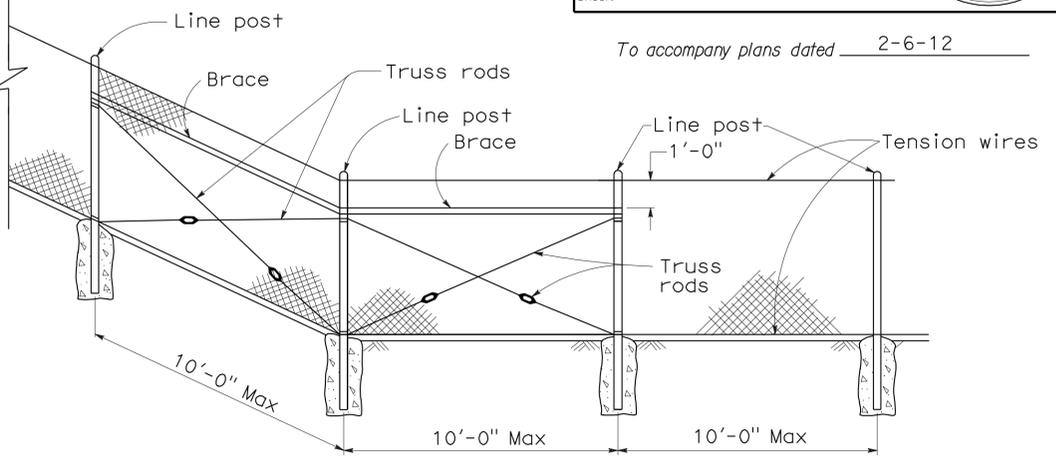




FENCE LOCATION

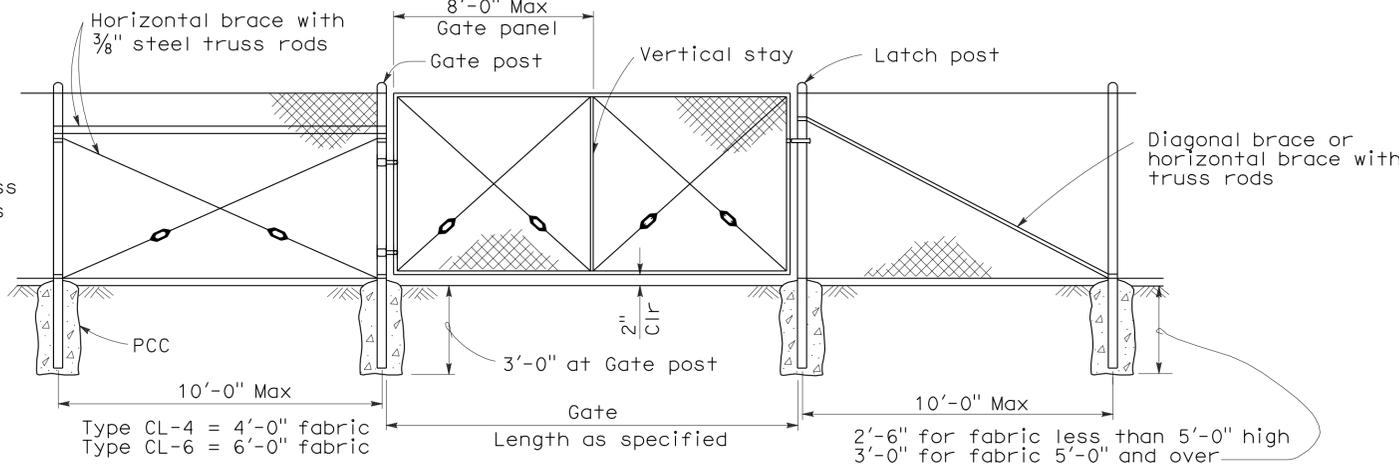
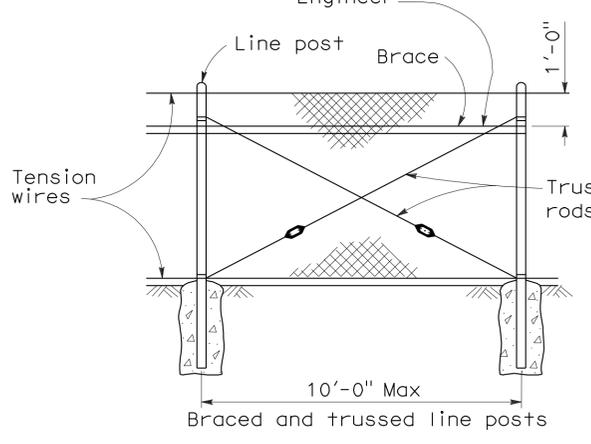


CHAIN LINK FENCE ON SHARP BREAK IN GRADE



To accompany plans dated 2-6-12

Brace to be removed after all other fence construction is completed unless otherwise directed by the Engineer



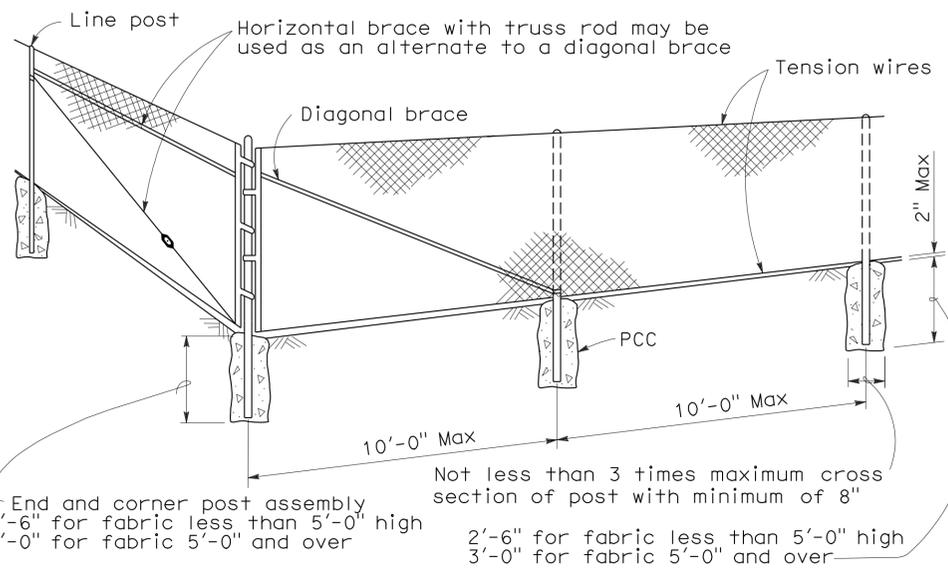
CHAIN LINK GATE INSTALLATION

NOTES:

- The below table shows examples of post and brace sections which may comply with the Specifications.
- Sections shown in the tables must also comply with the strength requirements and other provisions of the Specifications.
- Other sections which comply with the strength requirements and other provisions of the Specifications may be used on approval of the Engineer.
- Options exercised shall be uniform on any one project.
- Dimensions shown are nominal.
- Offset to be 2'-0" at monument locations, measured at right angles to R/W lines. Taper to achieve offset to be at least 20'-0" long.

GATE POST			
FENCE HEIGHT	GATE WIDTHS	NOMINAL ID	WEIGHT PER FOOT
6'-0" and Less	Up thru 6'-0"	2 1/2"	4.95 LB
	Over 6'-0" thru 12'-0"	4"	10.79 LB
	Over 12'-0" thru 18'-0"	5"	14.62 LB
	Over 18'-0" to 24'-0" Max	6"	18.97 LB
Over 6'-0"	Up thru 6'-0"	3"	7.58 LB
	Over 6'-0" thru 12'-0"	5"	14.62 LB
	Over 12'-0" thru 18'-0"	6"	18.97 LB
	Over 18'-0" to 24'-0" Max	8"	28.55 LB

Above post dimensions and weights are minimums. Larger sizes may be used on approval of the Engineer.



CORNER POST

FENCE HEIGHT	TYPICAL MEMBER DIMENSIONS (See Notes)									
	LINE POSTS			END, LATCH & CORNER POSTS			BRACES			
	ROUND ID	H	ROLL FORMED	ROUND ID	ROLL FORMED		ROUND ID	H	ROLL FORMED	
6' & less	1 1/2"	1 7/8" x 1 5/8"	1 7/8" x 1 5/8"	2"	3 1/2" x 3 1/2"	2" x 1 3/4"	1 1/4"	1 1/2" x 1 5/16"	1 5/8" x 1 1/4"	1 3/4" x 1 1/4"
Over 6'	2"	2 1/4" x 2"	2" x 1 3/4"	2 1/2"	3 1/2" x 3 1/2"	2 1/2" x 2 1/2"	1 1/4"	1 1/2" x 1 5/16"	1 5/8" x 1 1/4"	1 3/4" x 1 1/4"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CHAIN LINK FENCE

NO SCALE

RSP A85 DATED JUNE 5, 2009 SUPERSEDES STANDARD PLAN A85
DATED MAY 1, 2006 - PAGE 111 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A85

2006 REVISED STANDARD PLAN RSP A85

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	4	43

Glenn DeCou
 REGISTERED CIVIL ENGINEER
 No. C34547
 Exp. 9-30-09
 CIVIL
 STATE OF CALIFORNIA

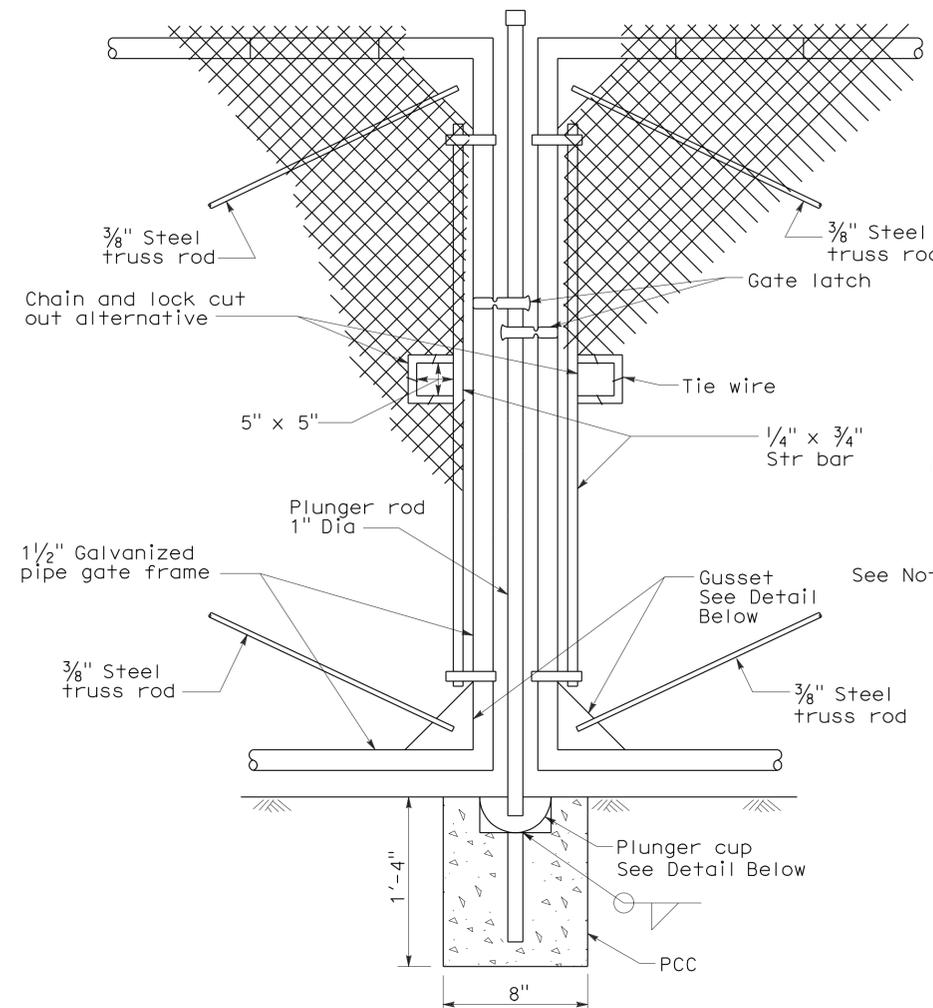
June 5, 2009
 PLANS APPROVAL DATE

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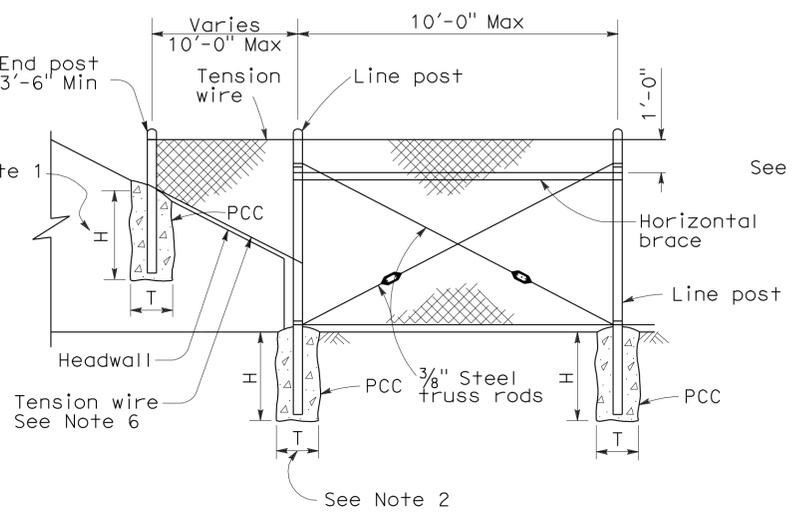
To accompany plans dated 2-6-12

NOTES:

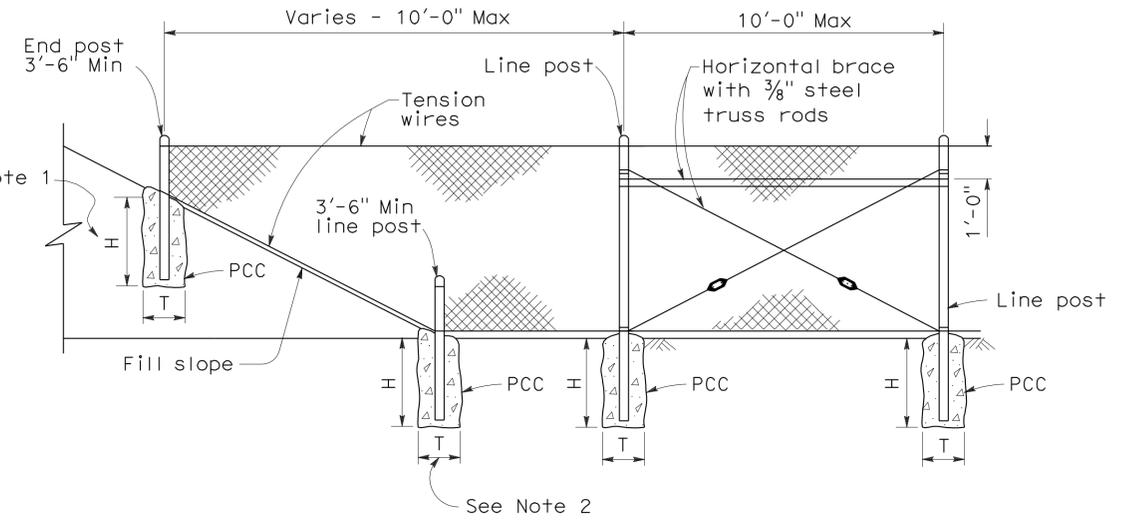
- H is 2'-6" for fabric less than 5'-0" high.
H is 3'-0" for fabric 5'-0" and over.
- T is not less than 3 times maximum cross section of post with minimum of 8".
- Arms with barbed wire to be used where shown on plans.
- See Revised Standard Plan RSP A85 for Chain Link Fencing dimensions.
- Reinforcing must comply with ASTM A 706.
- See Detail A on New Standard Plan NSP A86B for connection at headwall.



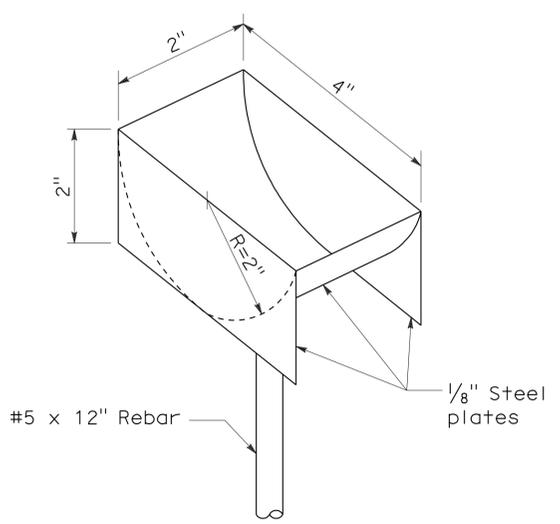
**TYPICAL DOUBLE GATE
REMOVABLE CENTER POST**



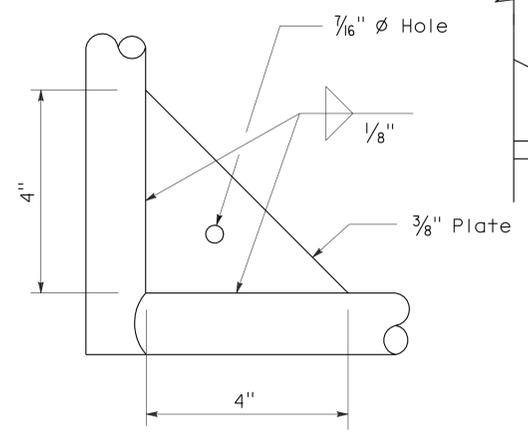
METHOD OF TYING FENCE TO HEADWALL



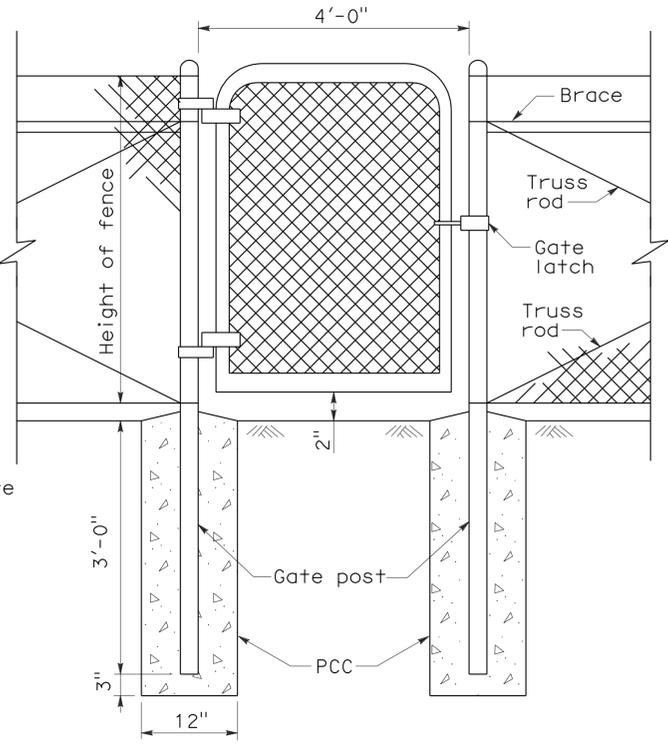
METHOD OF ERECTING FENCE FOR FILL SLOPE



PLUNGER CUP DETAIL



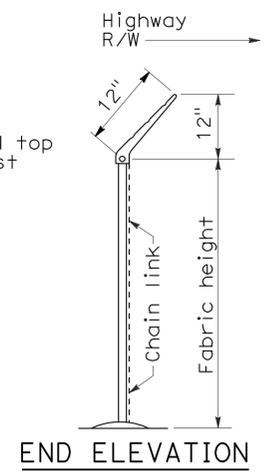
GUSSET DETAIL



WALK GATE



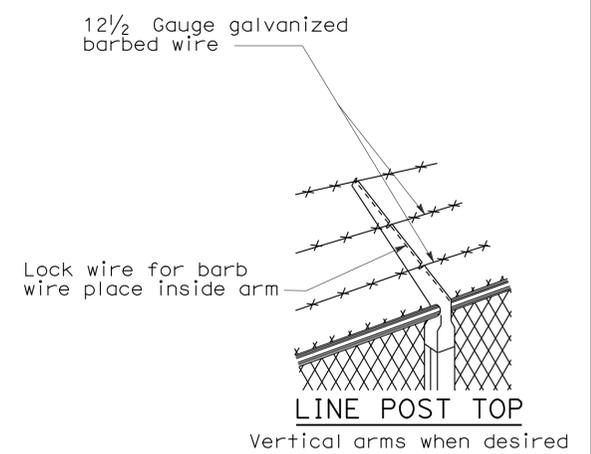
POST TOP END



END ELEVATION

BARBED WIRE POST TOP

See Note 3



LINE POST TOP

Vertical arms when desired

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
CHAIN LINK FENCE DETAILS
 NO SCALE

NSP A85A DATED JUNE 5, 2009 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP A85A

2006 NEW STANDARD PLAN NSP A85A

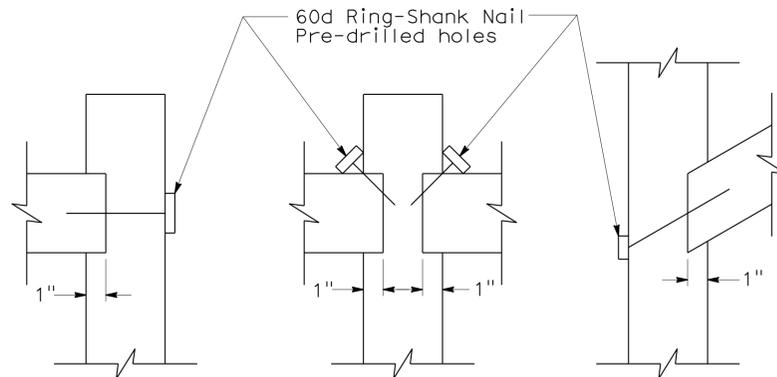
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	5	43

Glenn DeCou
 REGISTERED CIVIL ENGINEER
 June 5, 2009
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 Glenn DeCou
 No. C34547
 Exp. 9-30-09
 CIVIL
 STATE OF CALIFORNIA

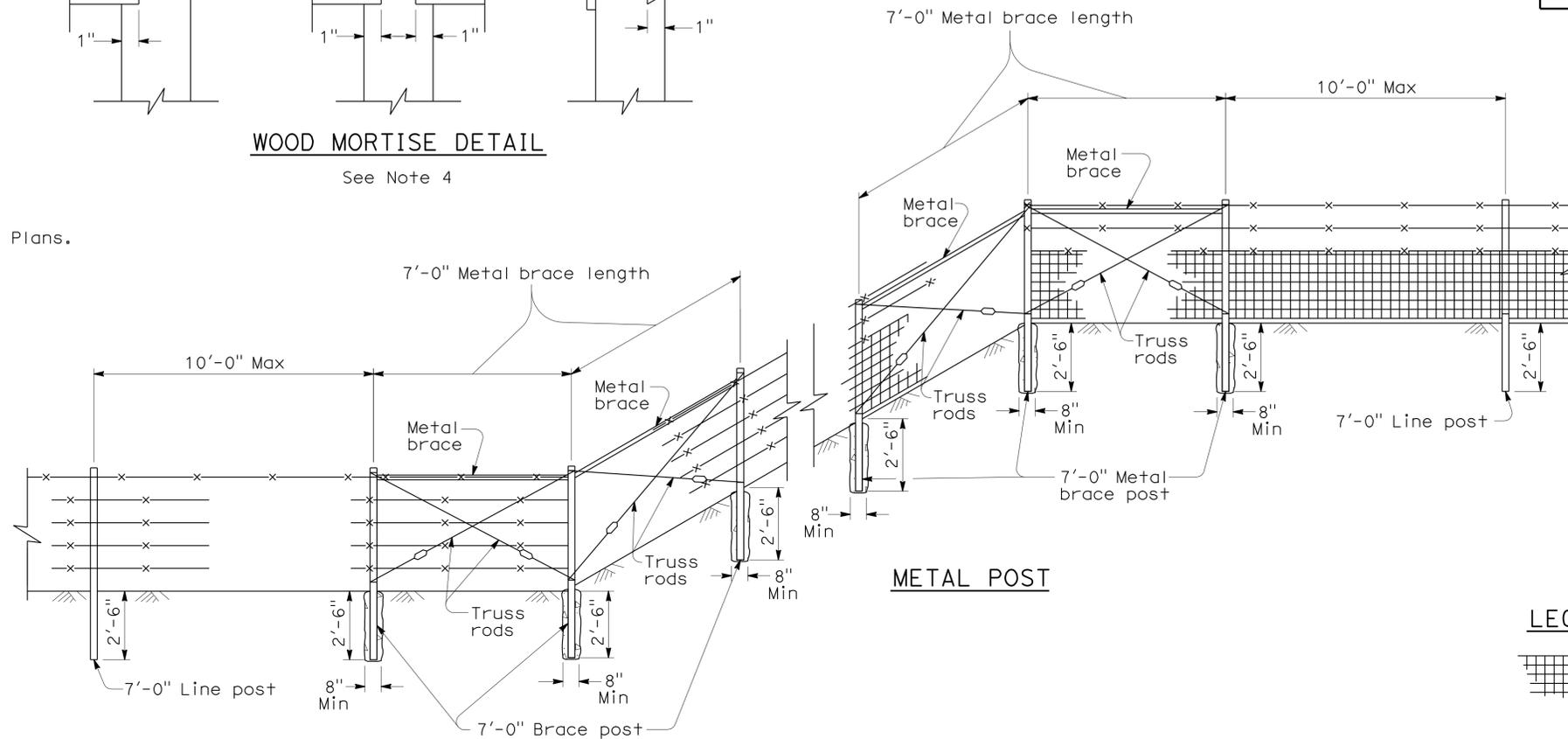
NOTES:

1. Offset to be 2'-0" at monument locations, measured at right angles to R/W lines. Taper to achieve offset to be at least 20'-0" long.
2. Line post spacing for wood post equals 12'-0" maximum. Line post spacing for metal post equals 10'-0" maximum.
3. See Standard Plan A86 for Barbed Wire and Wire Mesh dimensions and for steel post and wood post dimensions and weight.
4. Use wood posts when specified in the Special Provisions or shown on the Project Plans.



WOOD MORTISE DETAIL

See Note 4

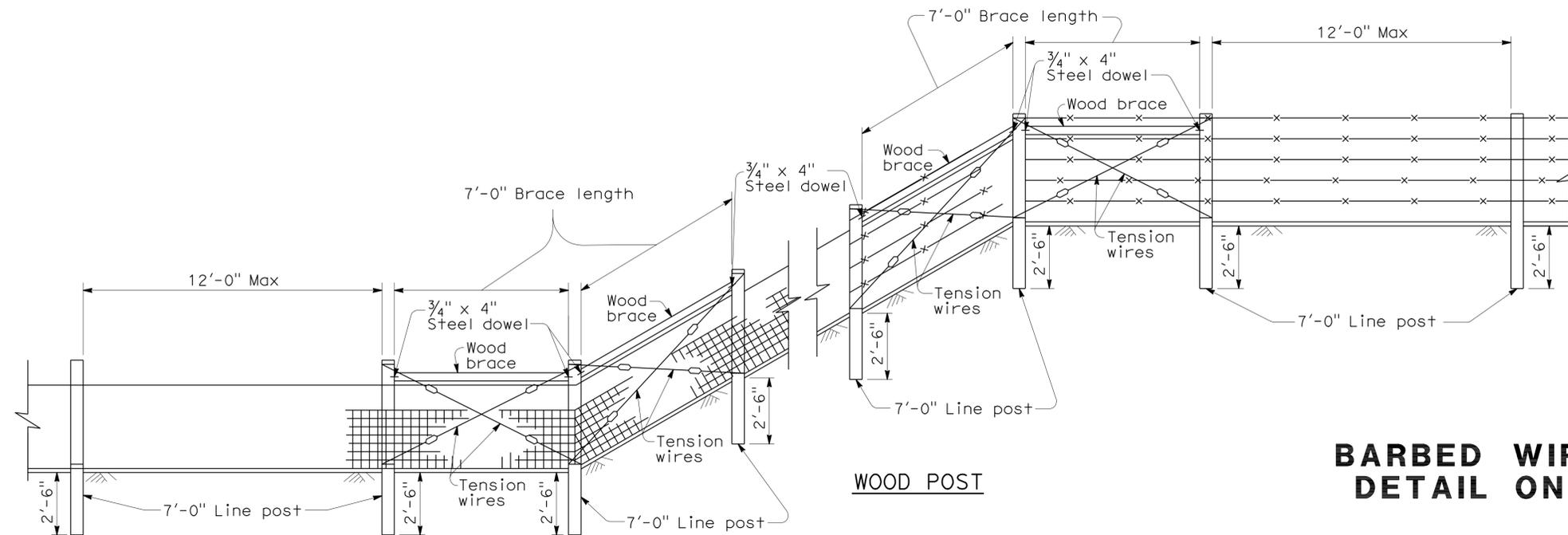


METAL POST

To accompany plans dated 2-6-12

LEGEND

-  Wire Mesh fencing
-  Barbed Wire fencing



WOOD POST

FENCE ON SHARP BREAK IN GRADE

**BARBED WIRE AND WIRE MESH FENCE
DETAIL ON SHARP BREAK IN GRADE**

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

NO SCALE

NSP A86A DATED JUNE 5, 2009 SUPPLEMENTS THE
STANDARD PLANS BOOK DATED MAY 2006.

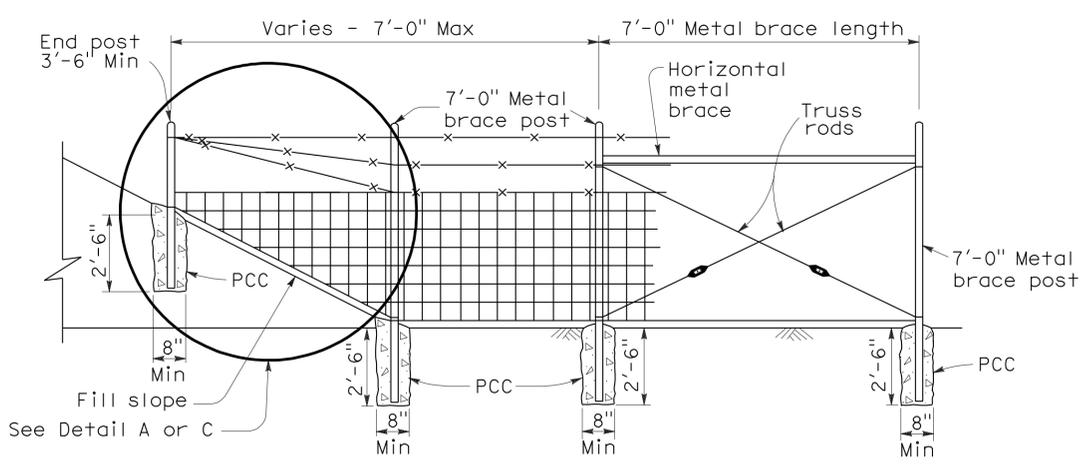
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	6	43

REGISTERED CIVIL ENGINEER
 Glenn DeCou
 No. C34547
 Exp. 9-30-09
 STATE OF CALIFORNIA

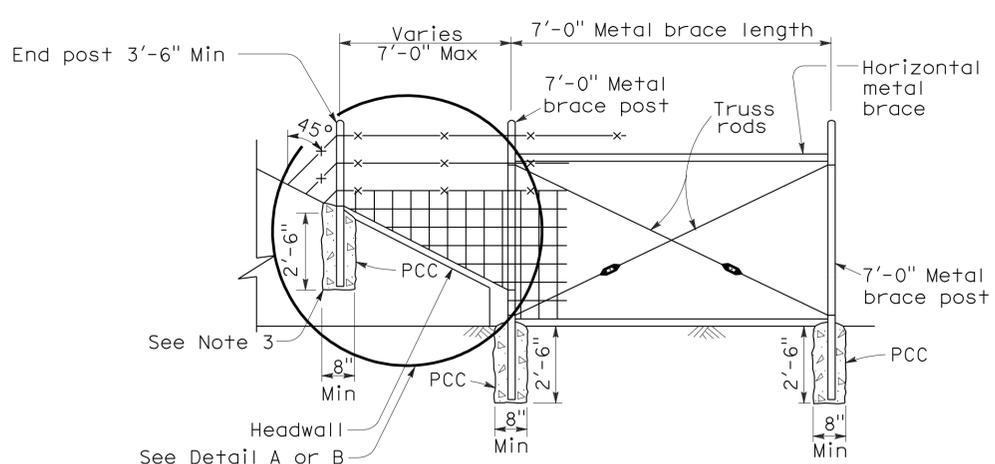
June 5, 2009
 PLANS APPROVAL DATE

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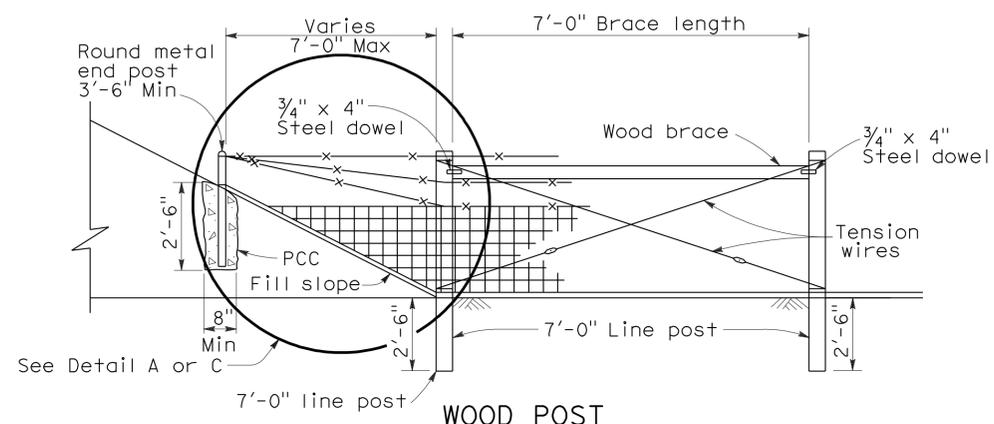
To accompany plans dated 2-6-12



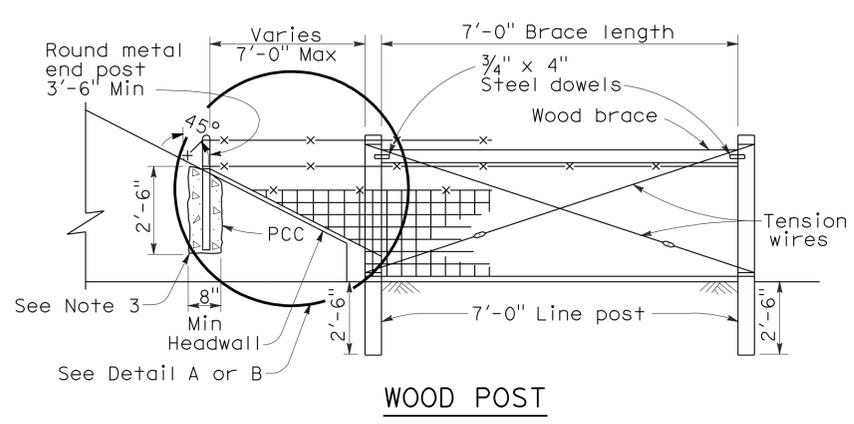
METAL POST



METAL POST



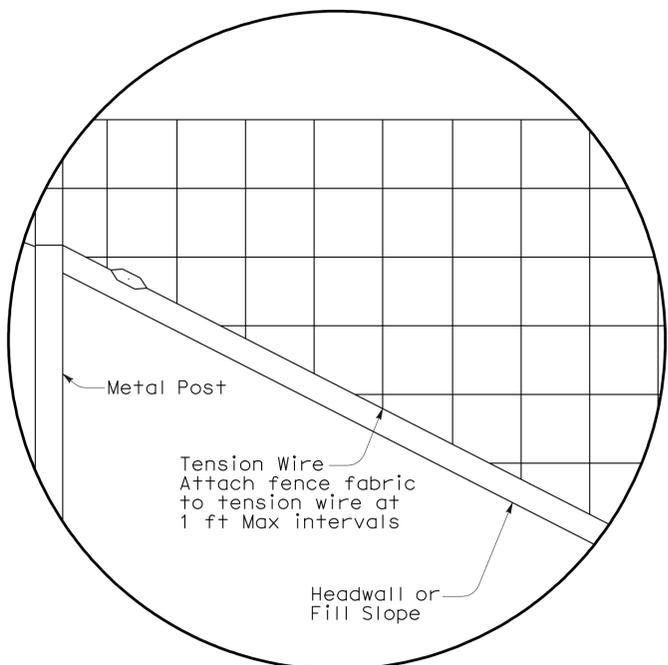
WOOD POST



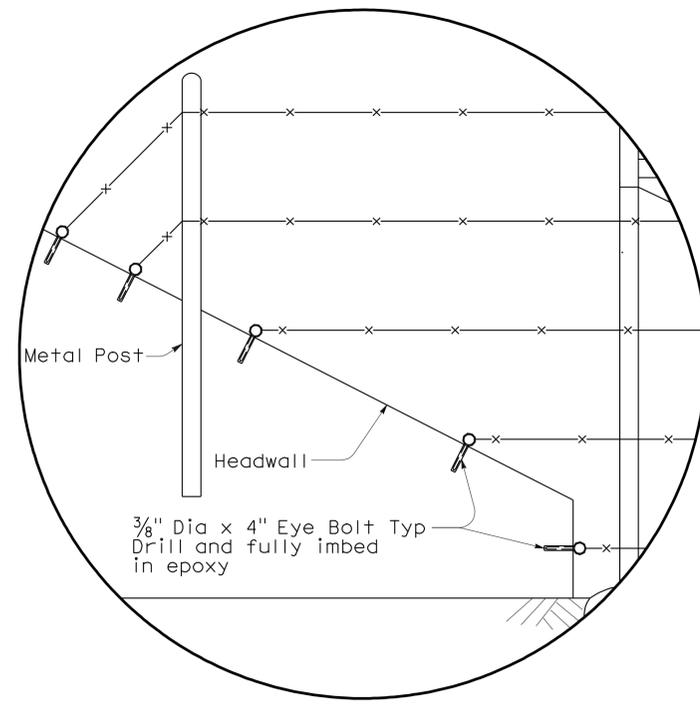
WOOD POST

METHOD OF ERECTING FENCE FOR FILL SLOPE

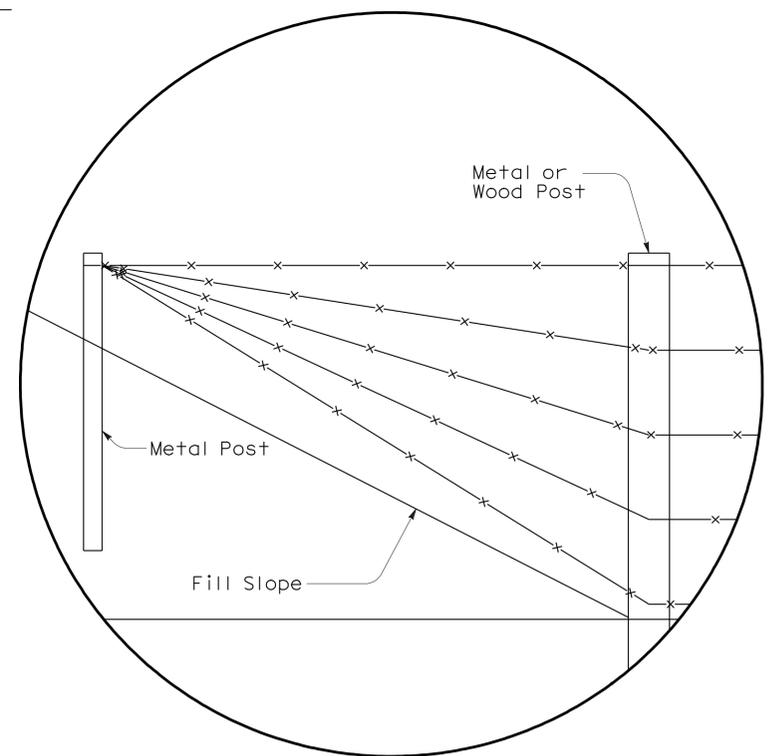
METHOD OF TYING FENCE TO HEADWALL



DETAIL A



DETAIL B



DETAIL C

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**BARBED WIRE AND WIRE MESH
 FENCE DETAILS**

NSP A86B DATED JUNE 5, 2009 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

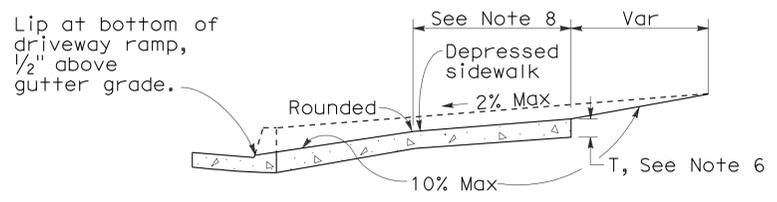
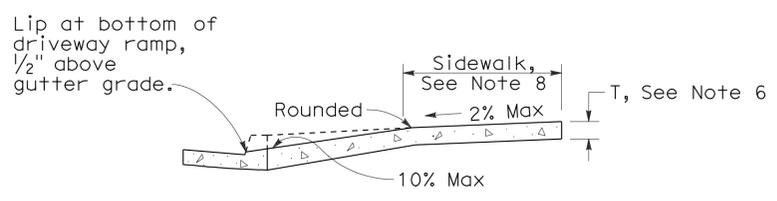
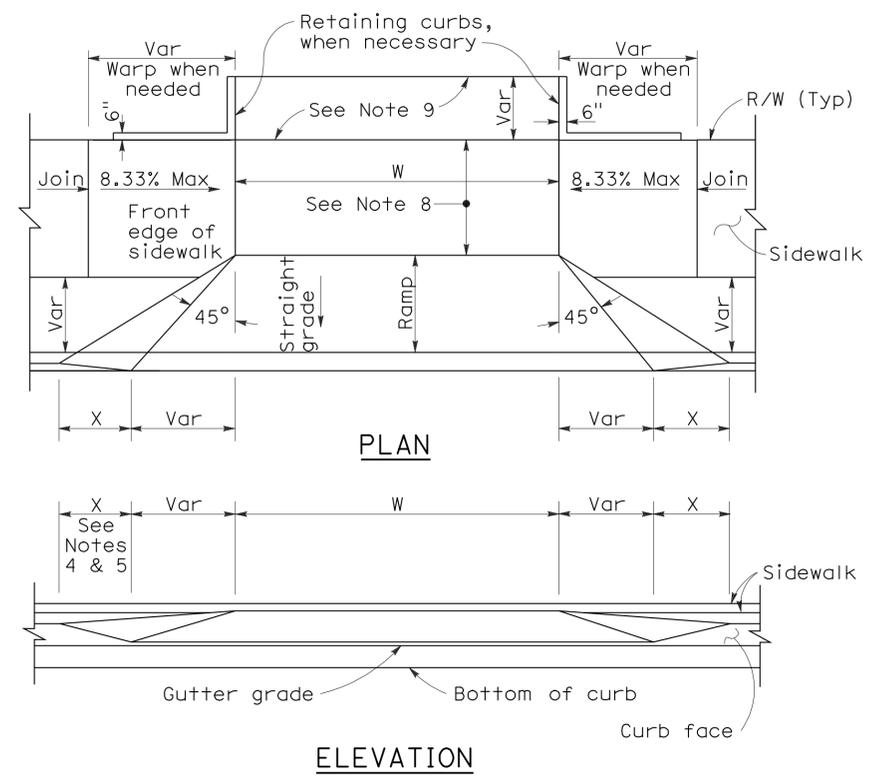
NEW STANDARD PLAN NSP A86B

2006 NEW STANDARD PLAN NSP A86B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	7	43

REGISTERED CIVIL ENGINEER
 November 17, 2006
 PLANS APPROVAL DATE
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REGISTERED PROFESSIONAL ENGINEER
 Michael Janzen
 No. 44788
 Exp. 03-31-08
 CIVIL
 STATE OF CALIFORNIA



CASE A

Typical driveway, sidewalk not depressed

CASE B

Driveway with depressed sidewalk

SECTIONS

CURB QUANTITIES

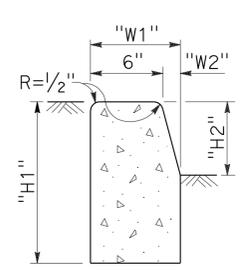
TYPE	CUBIC YARDS PER LINEAR FOOT
A1-6	0.02585
A1-8	0.03084
A2-6	0.05903
A2-8	0.06379
A3-6	0.01036
A3-8	0.01435
B1-4	0.02185
B1-6	0.02930
B2-4	0.05515
B2-6	0.06171
B3-4	0.00641
B3-6	0.01074
B4	0.05709
D-4	0.04083
D-6	0.06804
E	0.06661

TABLE A

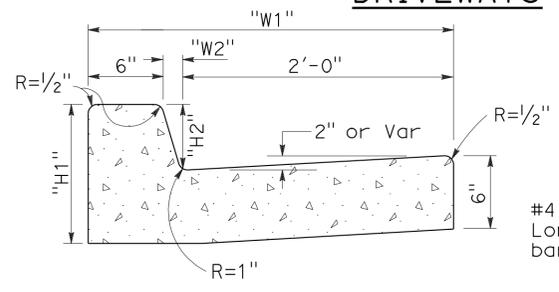
CURB TYPE	DIMENSIONS			
	"H1"	"H2"	"W1"	"W2"
A1-6	1'-2"	6"	7 1/2"	1 1/2"
A1-8	1'-4"	8"	8"	2"
A2-6	1'-0"	6"	2'-7 1/2"	1 1/2"
A2-8	1'-2"	8"	2'-8"	2"
A3-6	6"	5"	7 1/4"	1 1/4"
A3-8	8"	7"	7 3/4"	1 3/4"
B1-4	1'-0"	4"	7 1/2"	2 1/2"
B1-6	1'-2"	6"	9"	4"
B2-4	10"	4"	2'-7 1/2"	2 1/2"
B2-6	1'-0"	6"	2'-9"	4"
B3-4	4"	3"	7"	2"
B3-6	6"	5"	8 1/2"	3 1/2"
D-4	10"	4"	1'-6"	1'-1"
D-6	1'-0"	6"	2'-2"	1'-8"

To accompany plans dated 2-6-12

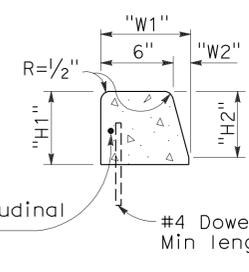
DRIVEWAYS



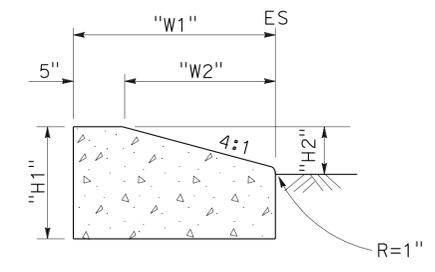
TYPE A1 CURBS
See Table A



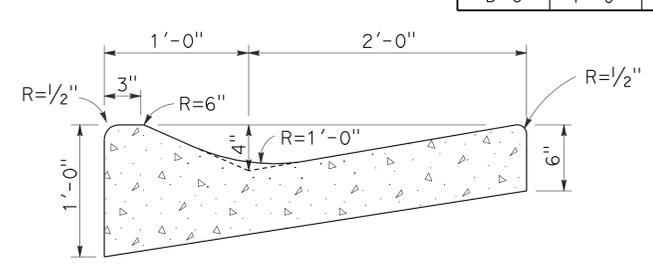
TYPE A2 CURBS
See Table A



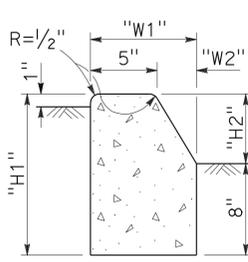
TYPE A3 CURBS
Superimposed on existing pavement
See Table A



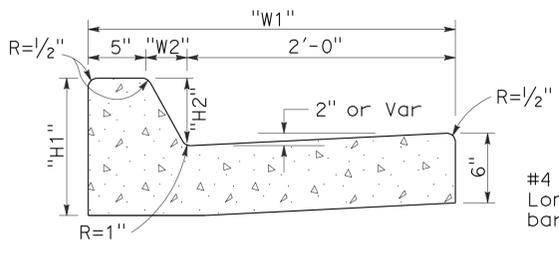
TYPE D CURBS
See Table A



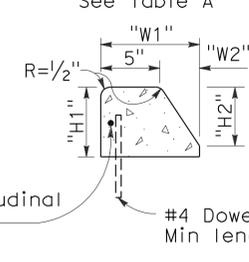
TYPE E CURB



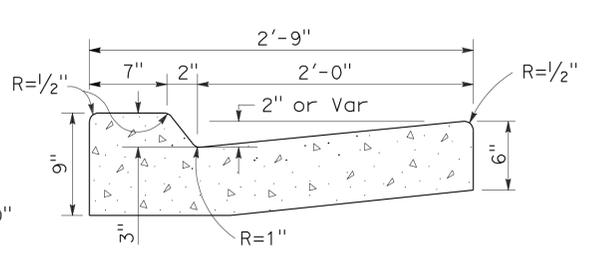
TYPE B1 CURBS
See Table A



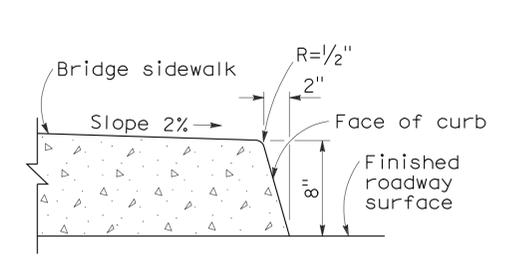
TYPE B2 CURBS
See Table A



TYPE B3 CURBS
Superimposed on existing pavement
See Table A



TYPE B4 CURBS



TYPE H CURB
On Bridges

NOTES:

- Case A driveway section typically applies.
- Use Case B driveway section when ramp slopes would exceed 10% in Case A.
- Use Case B driveway section when sidewalk cross slope would exceed 2% in Case A.
- X=3'-0" except for curb heights over 10" where 4:1 slopes shall be used on curb slope.
- X is a variable when sidewalk is located where wheelchairs may traverse the surface. Slopes shall not exceed 8.33%.
- Sidewalk and ramp thickness "T" at driveway shall be 4" for residential and 6" for commercial.
- Difference in slope of the driveway ramp and the slope of a line between the gutter and a point on the roadway 5'-0" from gutter line shall not exceed 15%. Reduce driveway ramp slope, not gutter slope, where required.
- Minimum width of clear passageway for sidewalk shall be 4'-0".
- Retaining curbs and acquisition of construction easement may be necessary for narrow sidewalks or curb heights in excess of 6".
- Across the pedestrian route at curb ramp locations, the gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.

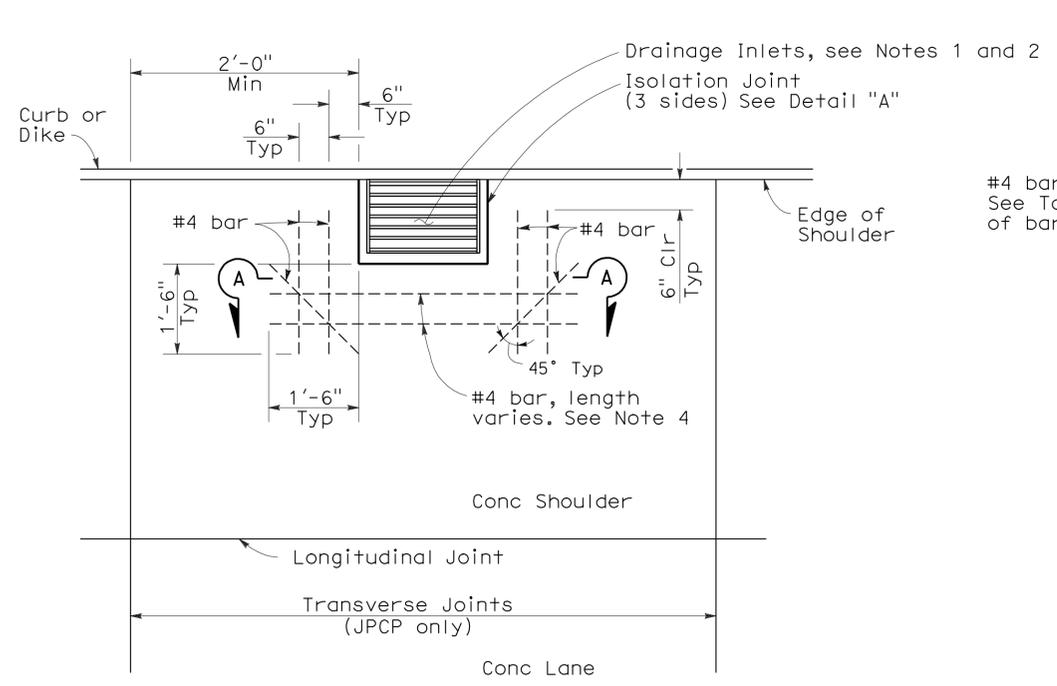
CURBS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CURBS AND DRIVEWAYS

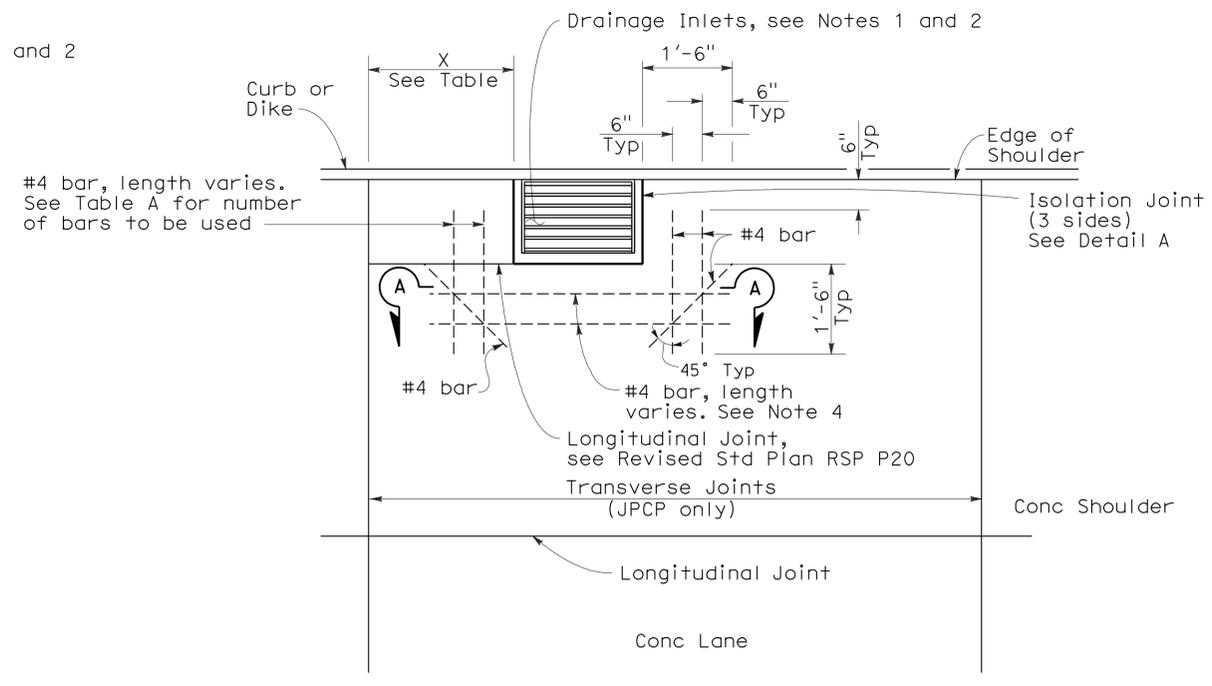
NO SCALE

2006 REVISED STANDARD PLAN RSP A87A



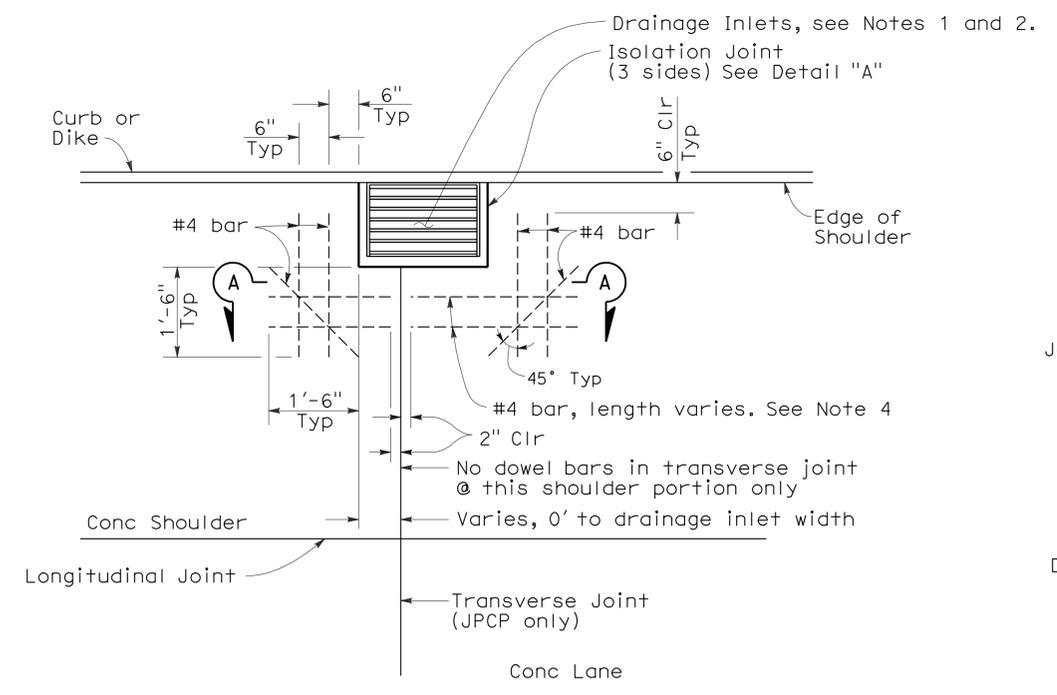
CASE 1

Transverse joint more than 2'-0" clear of drainage inlet wall or no transverse joint



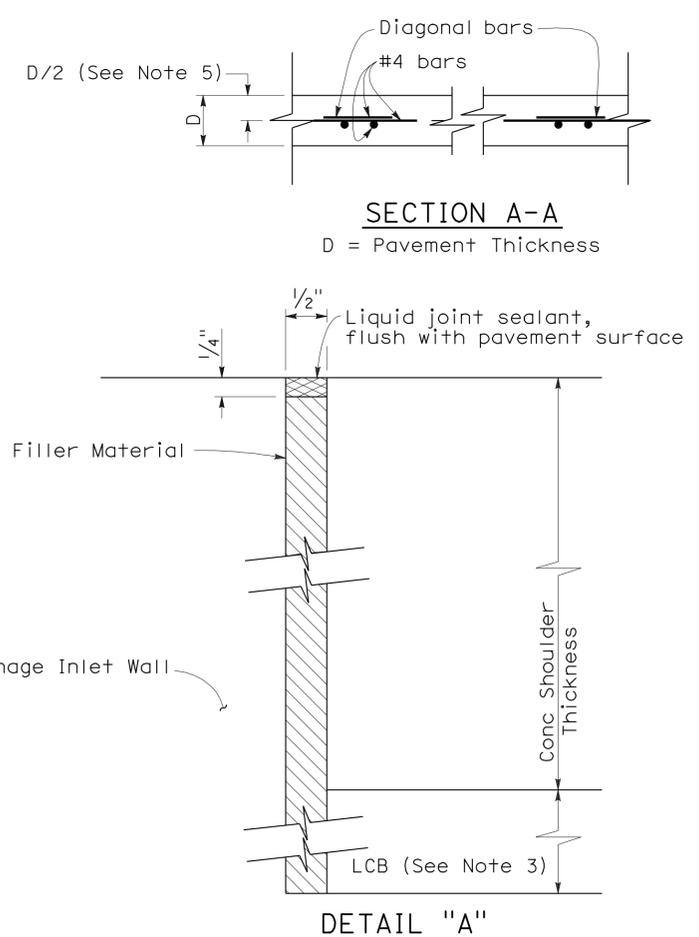
CASE 3

Transverse joint within 2'-0" of drainage inlet wall, or matches drainage inlet wall.



CASE 2

Transverse joint intersects drainage inlet, or matches drainage inlet wall.



DETAIL "A"

ISOLATION JOINT AROUND DRAINAGE INLET

NOTES:

1. Refer to Project Plans for location and Type of drainage inlets.
2. Top of inlet shall be flush with shoulder surface.
3. Extend joint filler material to bottom of Lean Concrete Base. Where Lean Concrete Base is not used as base material, the joint filler material shall only extend to the bottom of the new concrete pavement.
4. For Jointed Plain Concrete Pavement only. For Continuously Reinforced Concrete Pavement, terminate pavement steel reinforcement 2" clear from all outside edges of isolation joint.
5. For Jointed Plain Concrete Pavement only. For Continuously Reinforced Concrete Pavement, see New Standard Plan NSP P4.
6. Dowel and tie bars not shown, see Revised Standard Plan RSP P1.

TABLE A

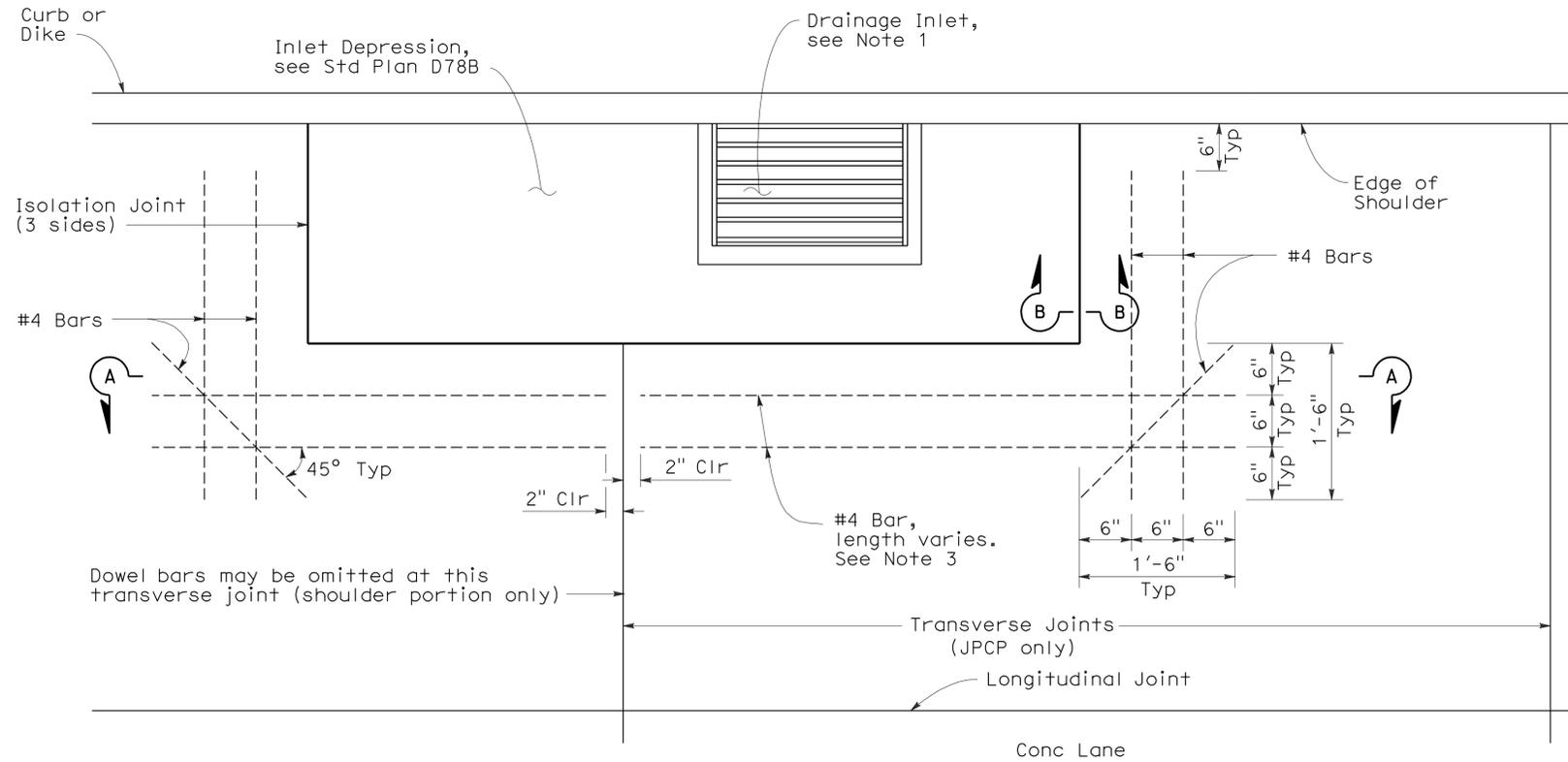
DISTANCE X	BARS REQUIRED
2'-0" to 1'-6"	2
1'-6" to 9"	1 @ X/2
9" or less	None

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**CONCRETE PAVEMENT-
 DRAINAGE INLET
 DETAILS No. 1**
 NO SCALE

RSP P45 DATED MAY 15, 2009 SUPERSEDES STANDARD PLAN P45
 DATED MAY 1, 2006 - PAGE 132 OF THE STANDARD PLANS BOOK DATED MAY 2006.

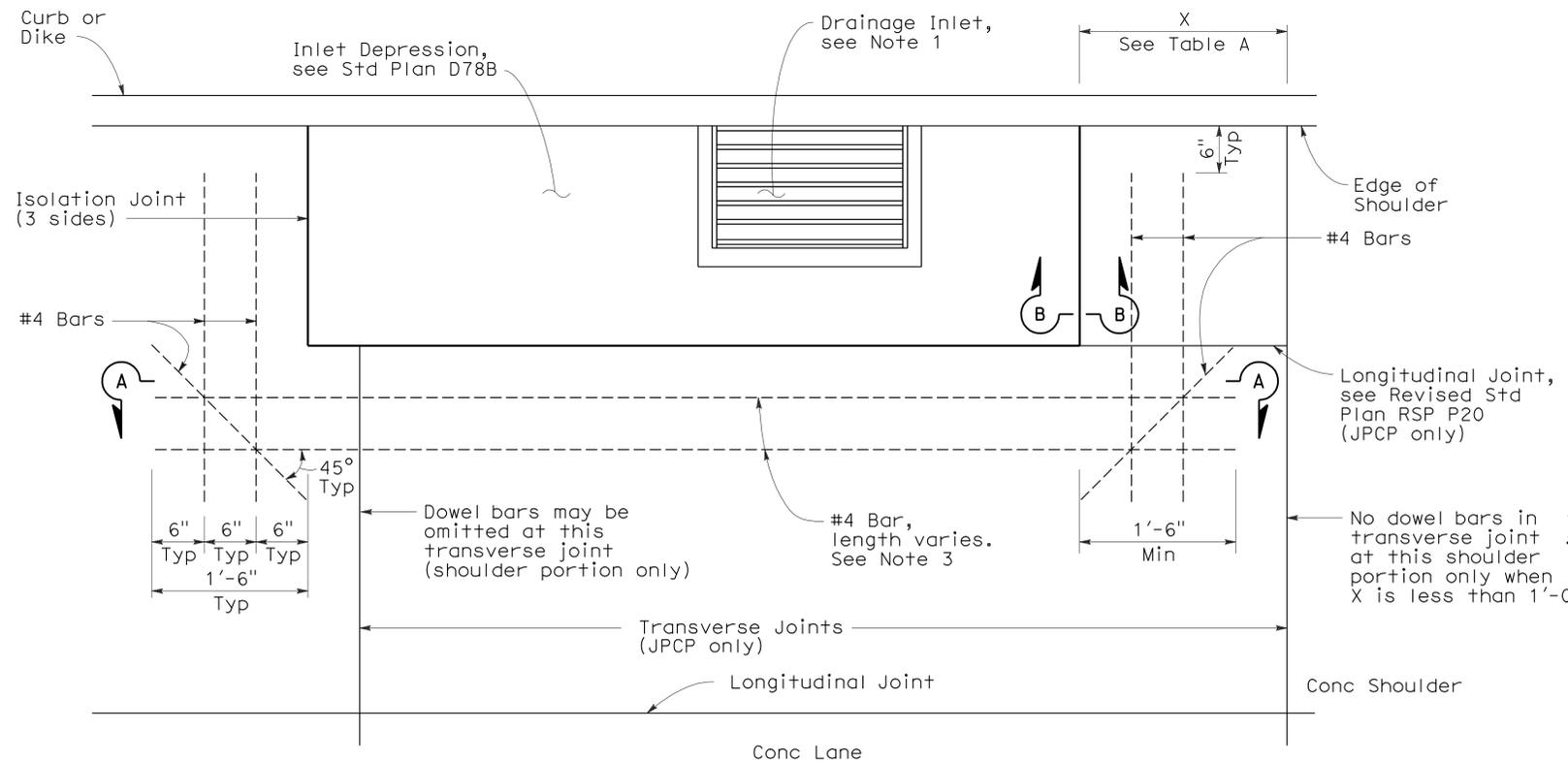
REVISED STANDARD PLAN RSP P45

To accompany plans dated 2-6-12



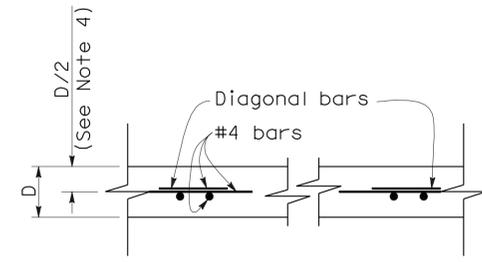
CASE A

Transverse Joint intersects inlet depression or no transverse joints.



CASE B

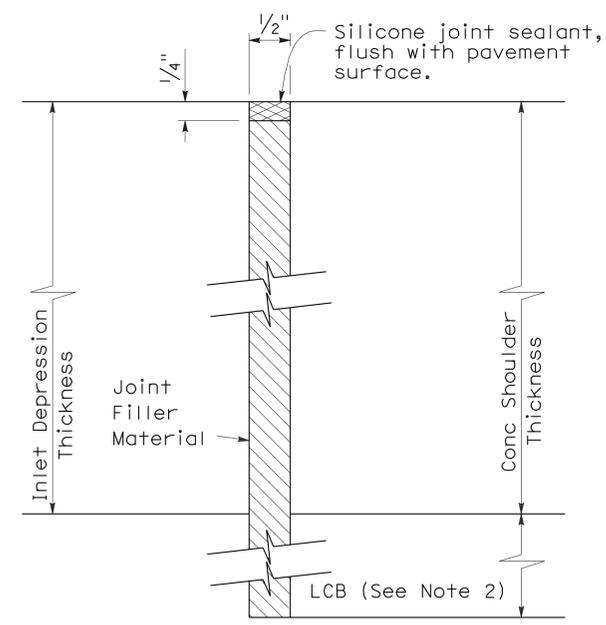
Transverse Joint within 2'-0" of edge of inlet depression.



SECTION A-A
D = Pavement Thickness

TABLE A

DISTANCE X	BARS REQUIRED
2'-0" to 1'-6"	2
1'-6" to 1'-0"	1
1'-0" or less	None



SECTION B-B

NOTES:

1. Refer to Project Plans for location and type of drainage inlets.
2. Extend joint filler material to bottom of Lean Concrete Base. Where Lean Concrete Base is not used as base material, the joint filler material shall only extend to the bottom of the new concrete pavement.
3. For Jointed Plain Concrete Pavement only. For Continuously Reinforced Concrete Pavement, terminate pavement steel reinforcement 2" clear from all outside edges of isolation joint.
4. For Jointed Plain Concrete Pavement only. For Continuously Reinforced Concrete Pavement, see New Standard Plan NSP P4.

ISOLATION JOINT AROUND INLET DEPRESSION

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**CONCRETE PAVEMENT-
DRAINAGE INLET
DETAILS No. 2**
NO SCALE

RSP P46 DATED MAY 15, 2009 SUPERSEDES STANDARD PLAN P46
DATED MAY 1, 2006 - PAGE 133 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP P46

2006 REVISED STANDARD PLAN RSP P46

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	10	43

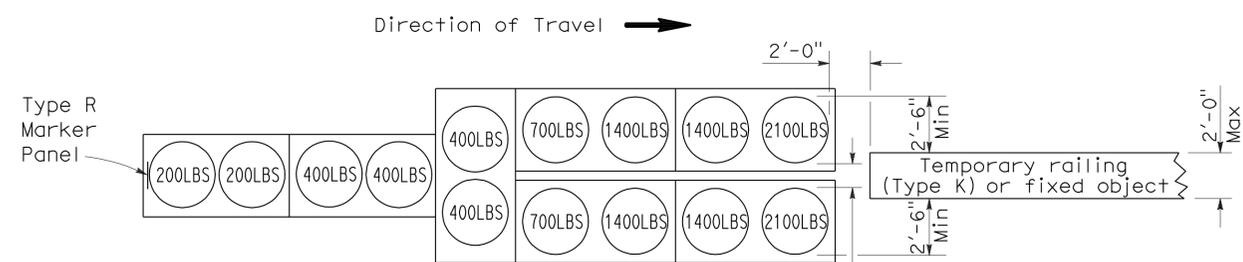
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

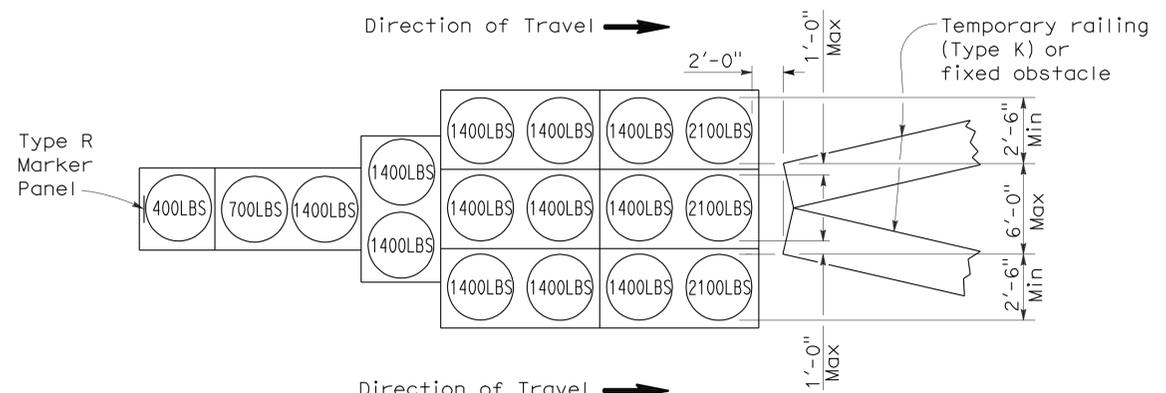
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 2-6-12



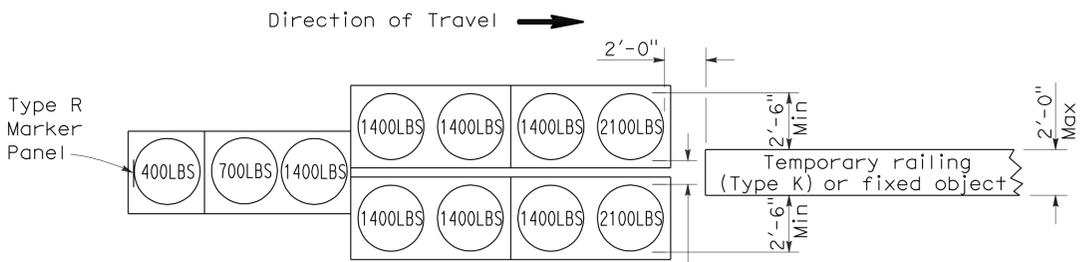
ARRAY 'TU14'

Approach speed 45 mph or more



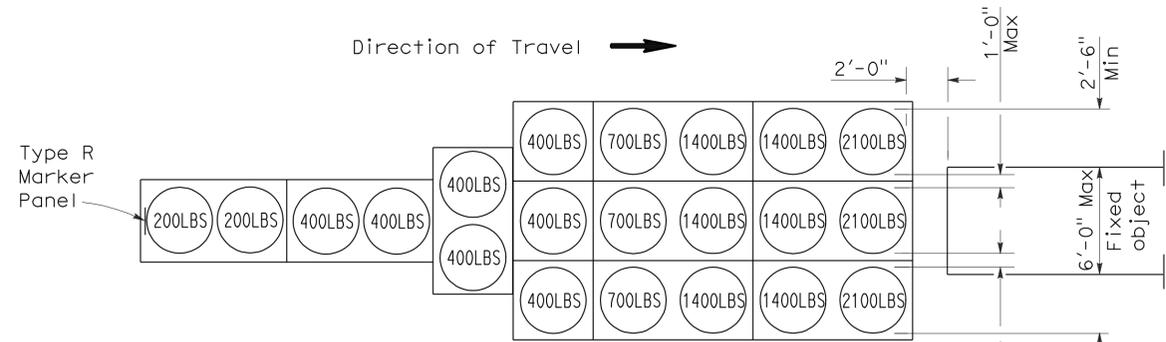
ARRAY 'TU17'

Approach speed less than 45 mph



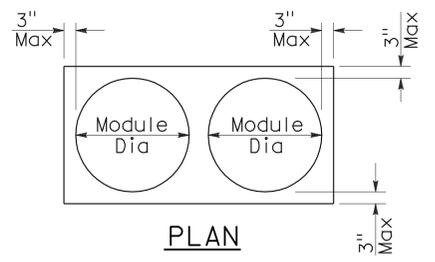
ARRAY 'TU11'

Approach speed less than 45 mph

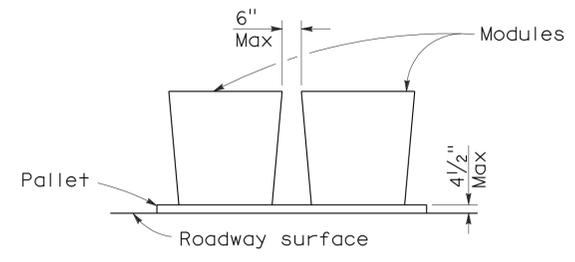


ARRAY 'TU21'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the top of Type R marker panel 1" below the module lid.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,
SAND FILLED
(UNIDIRECTIONAL)**

NO SCALE

RSP T1A DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1A
DATED MAY 1, 2006 - PAGE 211 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1A

2006 REVISED STANDARD PLAN RSP T1A

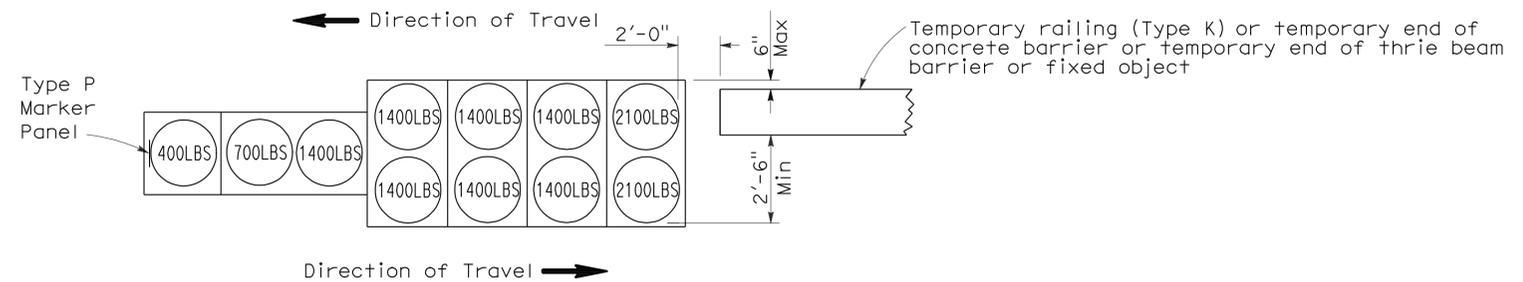
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	11	43

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

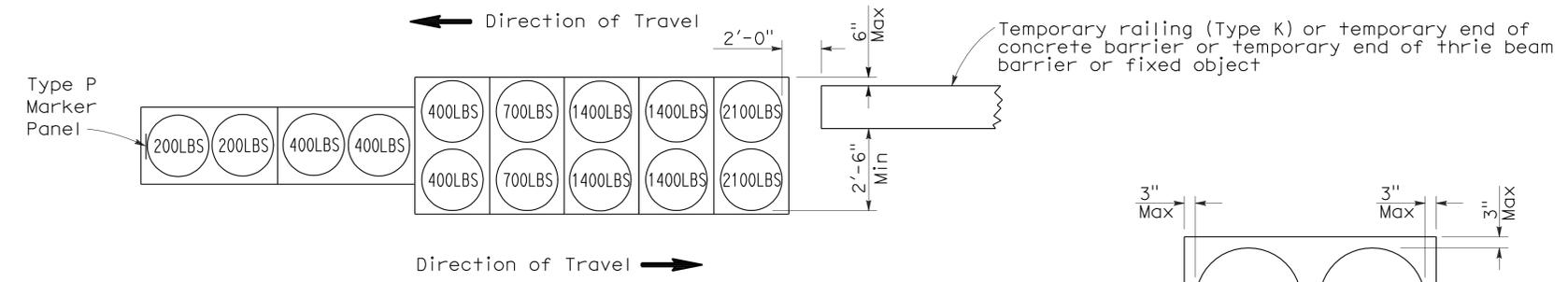
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 2-6-12



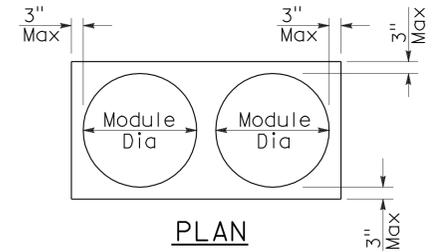
ARRAY 'TB11'

Approach speed less than 45 mph

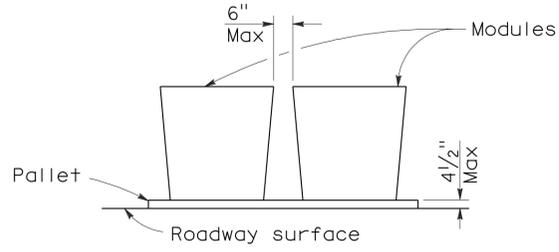


ARRAY 'TB14'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the Type P marker panel so that the bottom of the panel rests upon the pallet.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,
SAND FILLED
(BIDIRECTIONAL)**

NO SCALE

RSP T1B DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1B
DATED MAY 1, 2006 - PAGE 212 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	12	43

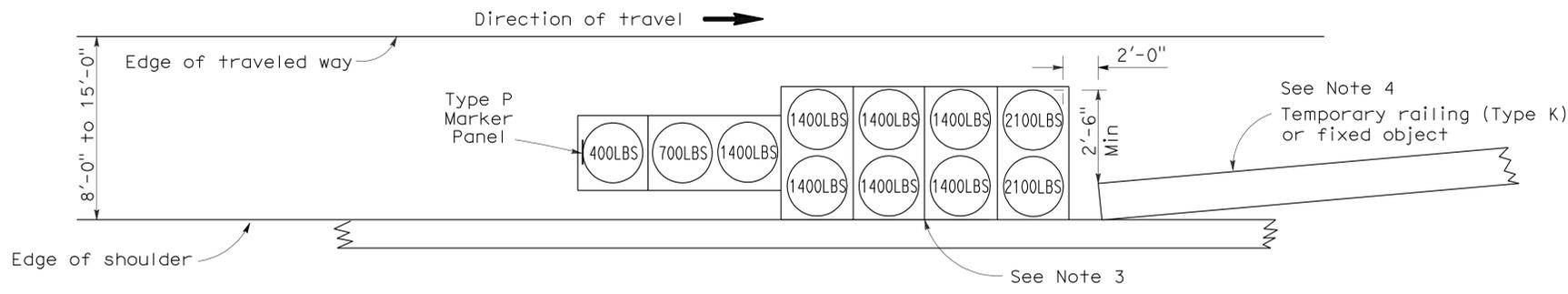
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

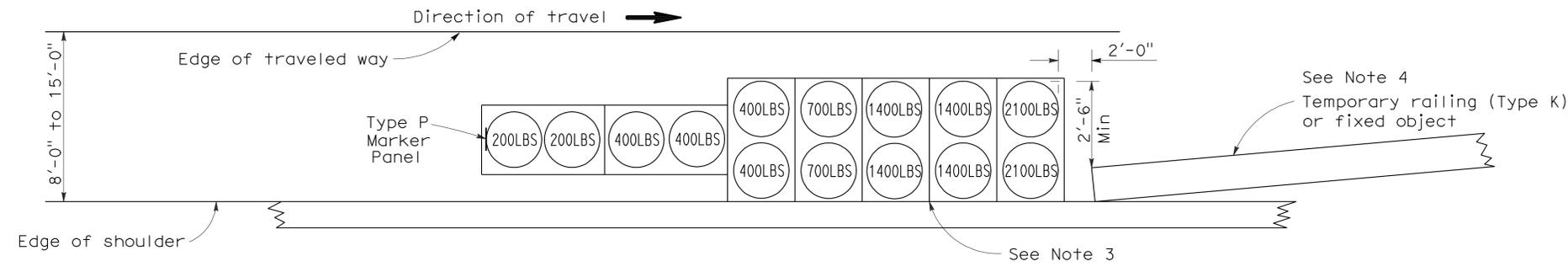
Randell D. Hiatt
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

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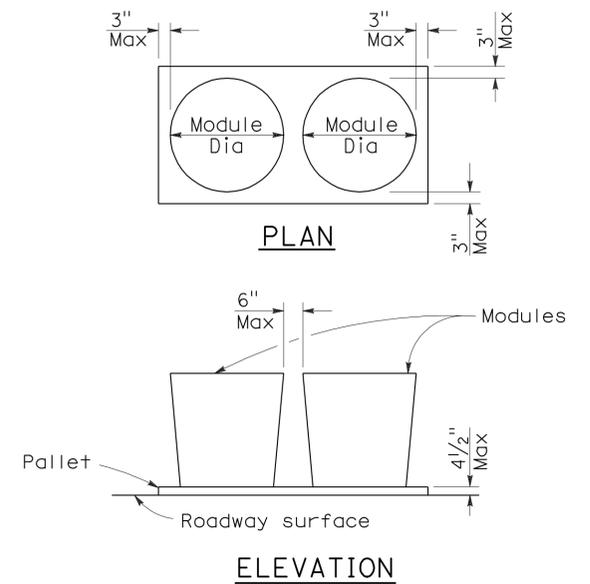
To accompany plans dated 2-6-12



ARRAY 'TS11'
Approach speed less than 45 mph
See Note 9



ARRAY 'TS14'
Approach speed 45 mph or more
See Note 9



CRASH CUSHION PALLET DETAIL
See Note 11

NOTES:

- ⊙(XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
- All sand weights are nominal.
- The temporary crash cushion arrays shown on this plan shall be used only in locations where there will be traffic on one side of the temporary crash cushion array.
- If the fixed object or approach end of the temporary railing is less than 15'-0" from the edge of traveled way, a temporary crash cushion is required in a construction or work zone.
- Temporary crash cushion arrays shall not encroach on the traveled way.
- Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
- Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
- Refer to Standard Plan A73B for marker details.
- For shoulder widths less than 8'-0", appropriate approved crash cushion protection, other than sand filled modules, shall be provided at fixed objects and at approach ends of temporary railing. The specific type of crash cushion shall be as shown on the project plans or as specified in the Special Provisions, or if not shown on the project plans or specified in the Special Provisions, shall be as approved by the Engineer.
- Approach speeds indicated conform to NCHRP 350 Report criteria.
- Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY CRASH CUSHION,
SAND FILLED
(SHOULDER INSTALLATIONS)**

NO SCALE
RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

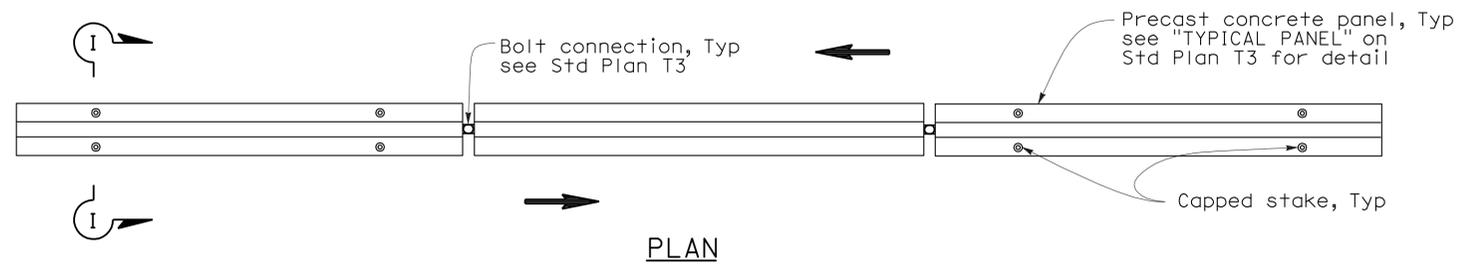
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
07	LA	105	R14.3	13	43

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

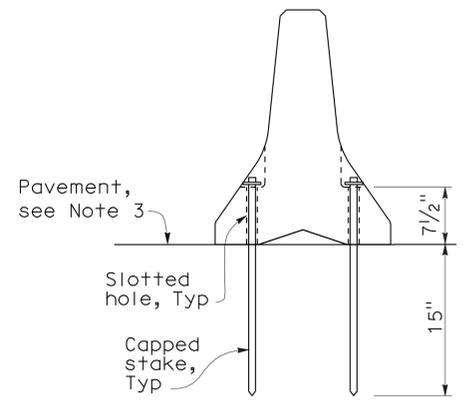
May 20, 2011
PLANS APPROVAL DATE

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To accompany plans dated 2-6-12



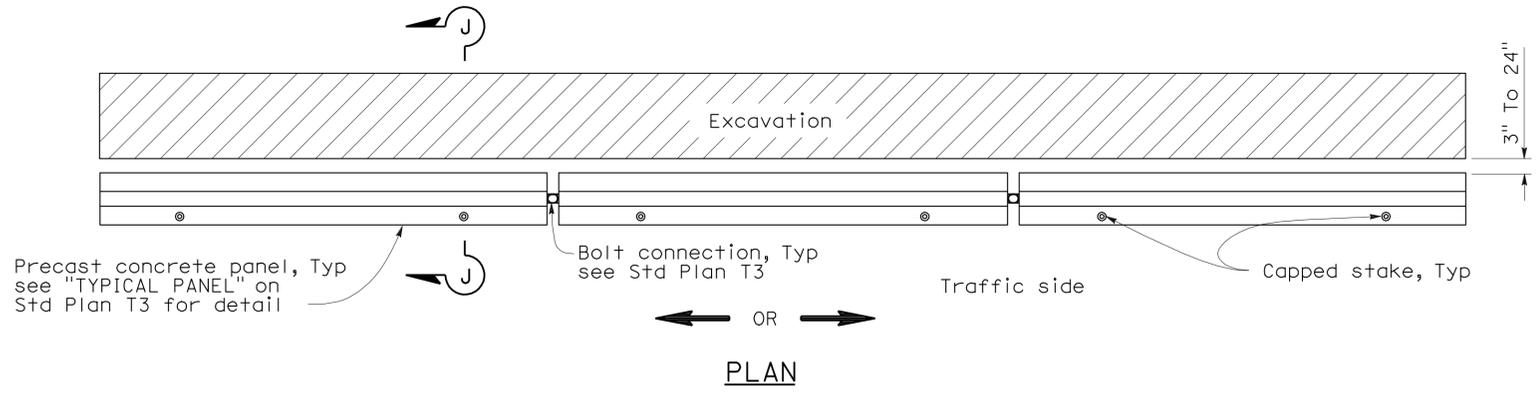
RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC
See Note 1



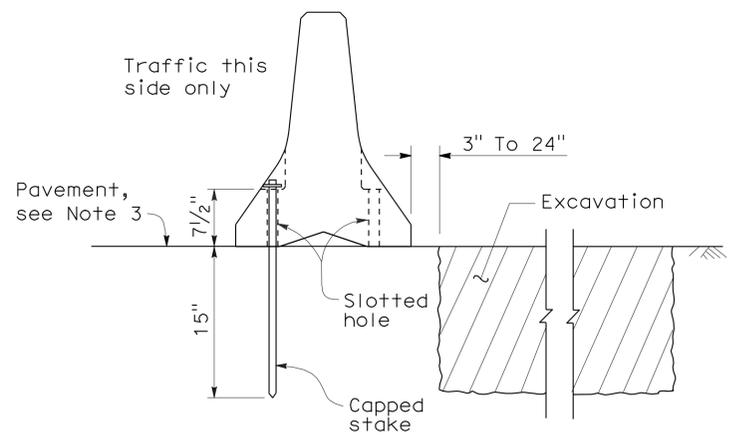
SECTION I-I

NOTES:

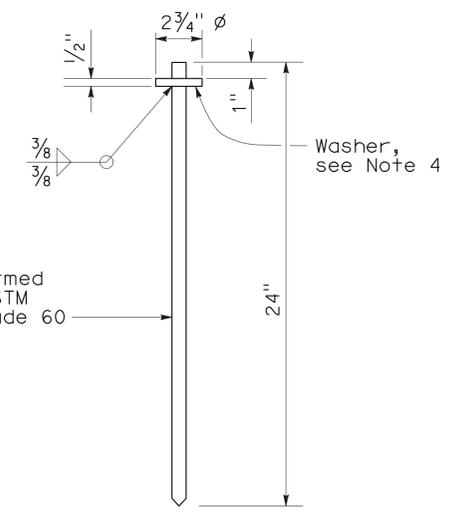
1. Where Type K Temporary Railing is placed as a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
2. Where Type K Temporary Railing is placed 3" to 24" from the edge of an excavation on highways, use two capped stakes per panel along the traffic side.
3. Staked Type K Temporary Railing must be supported by at least 4" thick concrete, hot mix asphalt or existing asphalt concrete pavement.
4. The minimum yield strength for the washer must be 60,000 psi.
5. Direction of adjacent traffic indicated by \Rightarrow .



RAILING STAKING CONFIGURATION ADJACENT TO AN EXCAVATION
See Note 2



SECTION J-J



CAPPED STAKE DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY RAILING
(TYPE K)**
NO SCALE

NSP T3A DATED MAY 20, 2011 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T3A

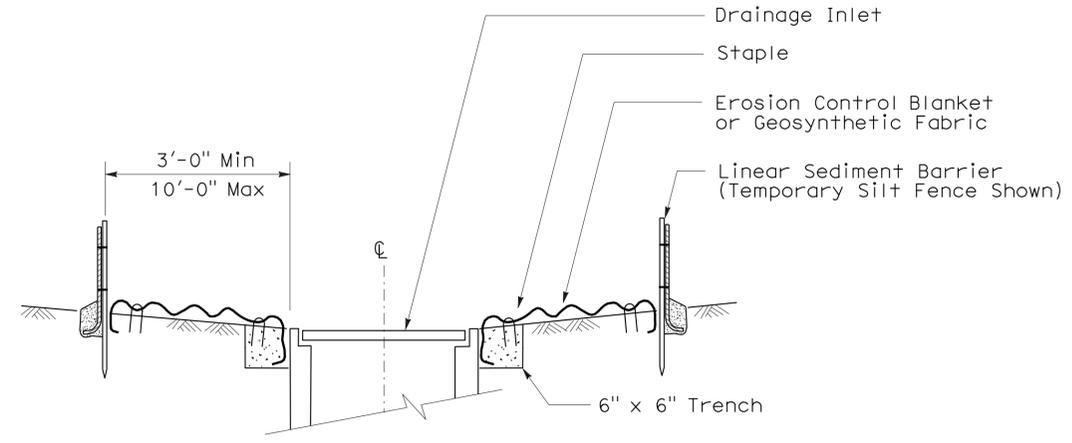
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	14	43

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS Approval DATE
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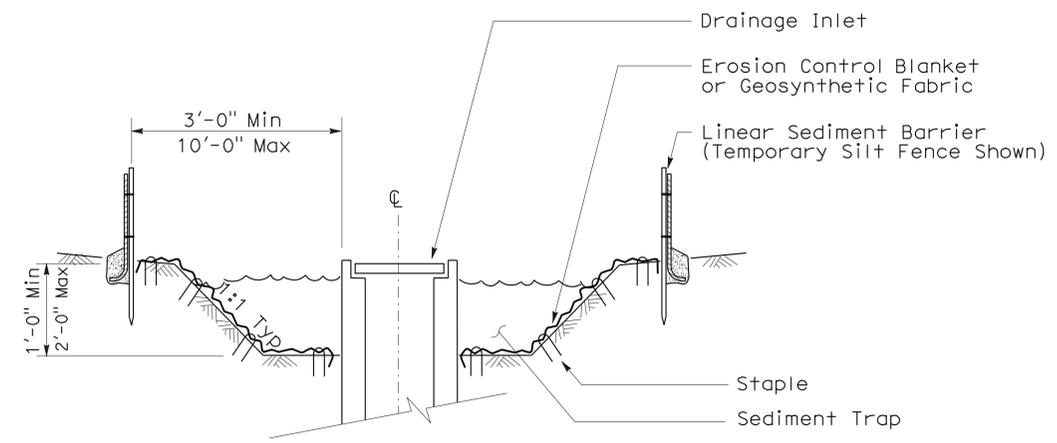


To accompany plans dated 2-6-12

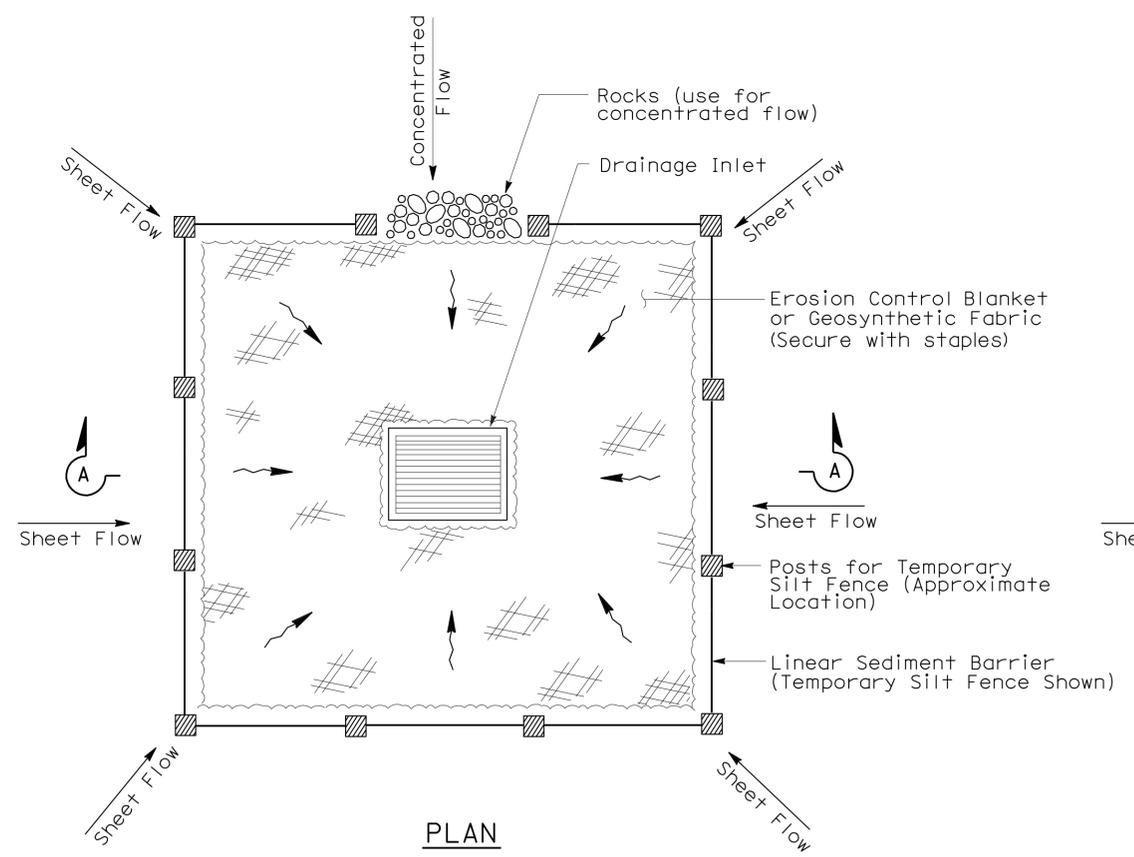
- NOTES:**
- See Standard Plan T51 for Temporary Silt Fence.
 - Dimensions may vary to fit field conditions.



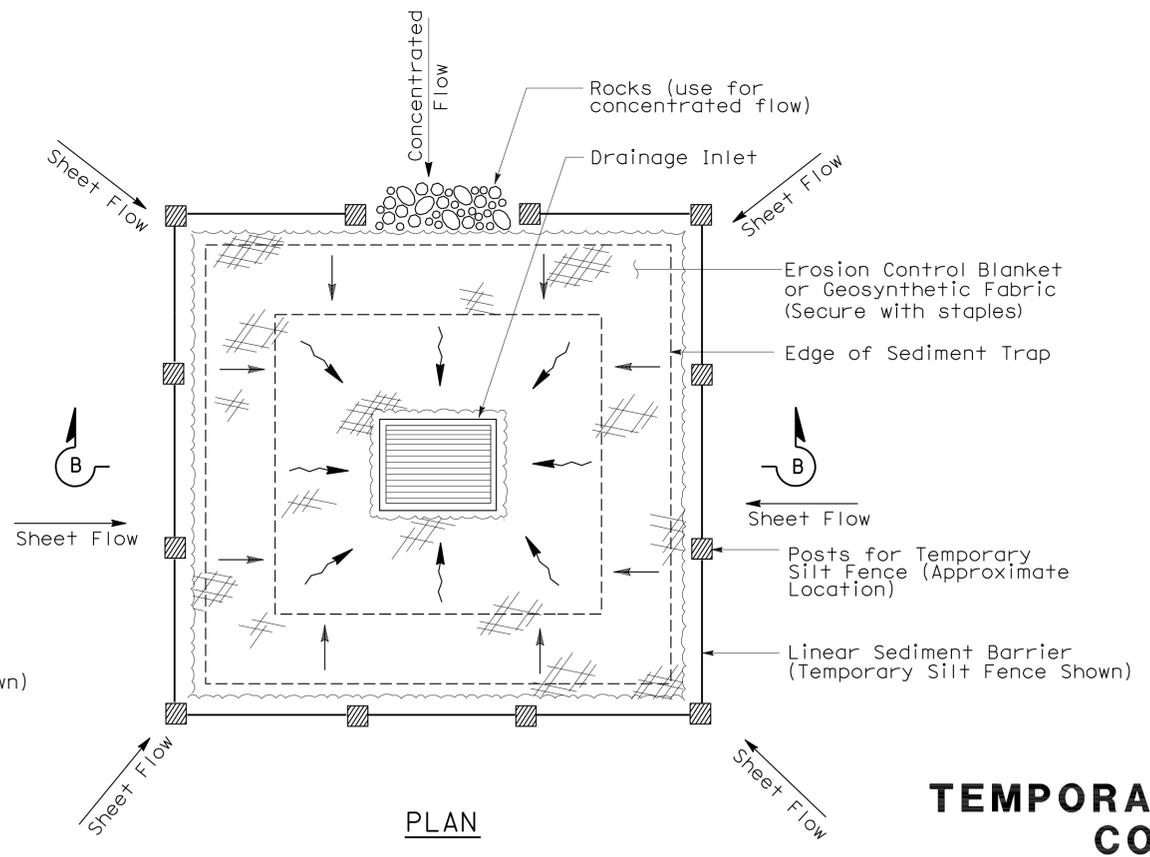
SECTION A-A



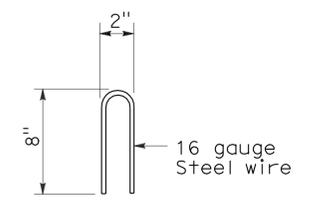
SECTION B-B



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 1)



TEMPORARY DRAINAGE INLET PROTECTION (TYPE 2) (EXCAVATED SEDIMENT TRAP)



STAPLE DETAIL

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS
(TEMPORARY DRAINAGE INLET PROTECTION)
 NO SCALE

NSP T61 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T61

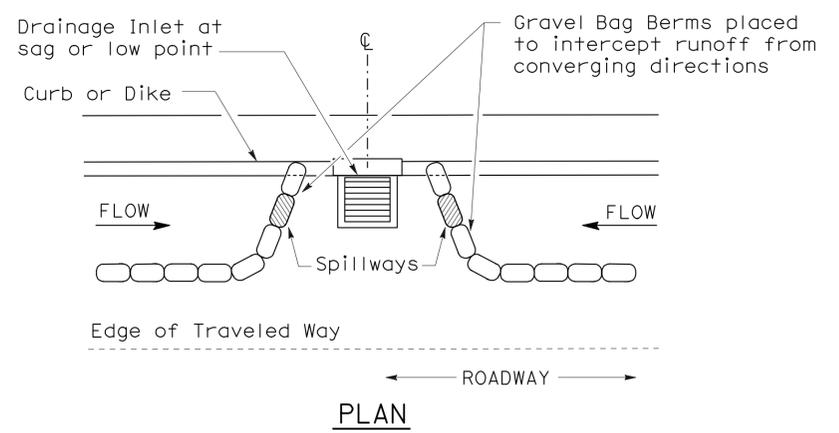


To accompany plans dated 2-6-12

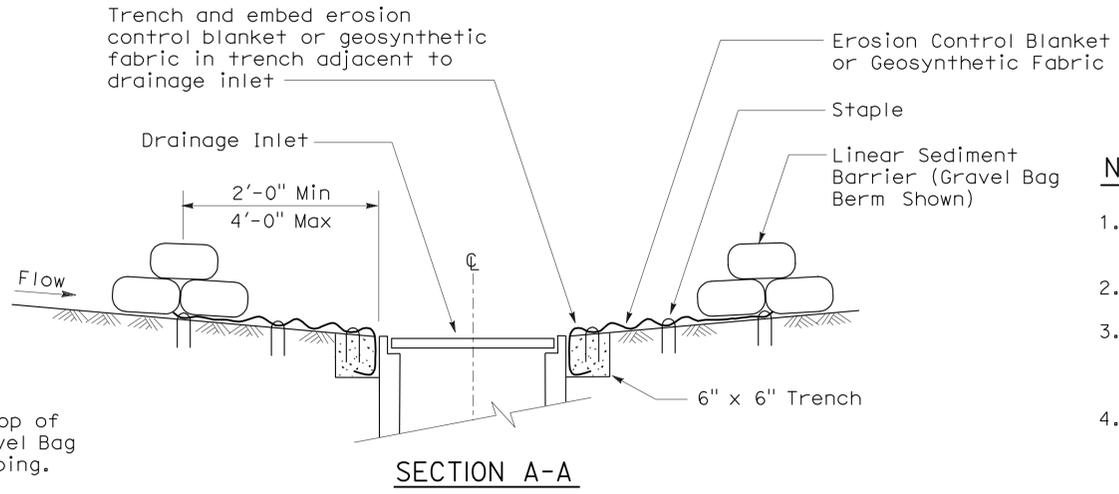
GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	1 to 3.9	4 to 5.9	6 to 7.9	8 to 10	10+
INTERVAL BETWEEN BERM	100'	75'	50'	25'	12'

For slope of less than 1%, install barriers only if erosion/sediment is prevalent



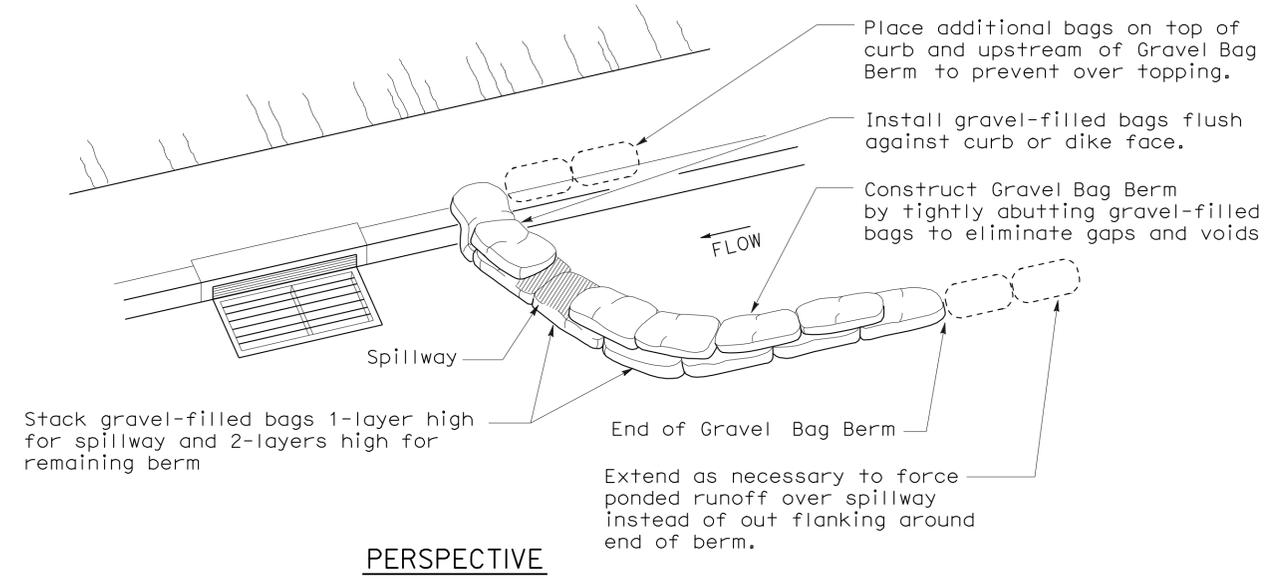
PLAN
CONFIGURATION FOR SAG POINT INLET
(GRAVEL BAG BERM)



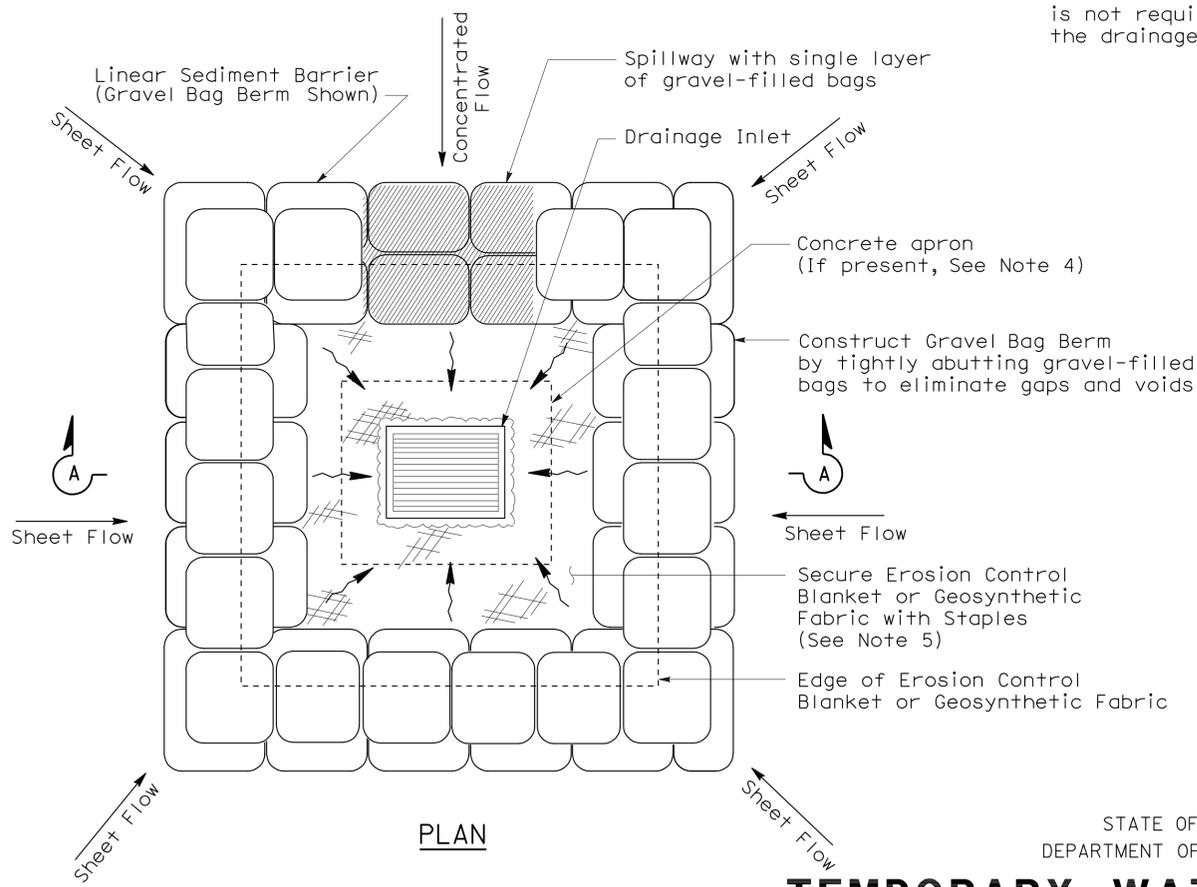
SECTION A-A

NOTES:

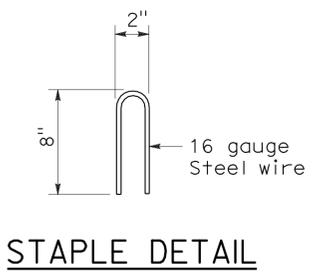
1. Place safety cones adjacent to drainage inlet protection.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 gravel bag berms upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
5. Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated or paved.



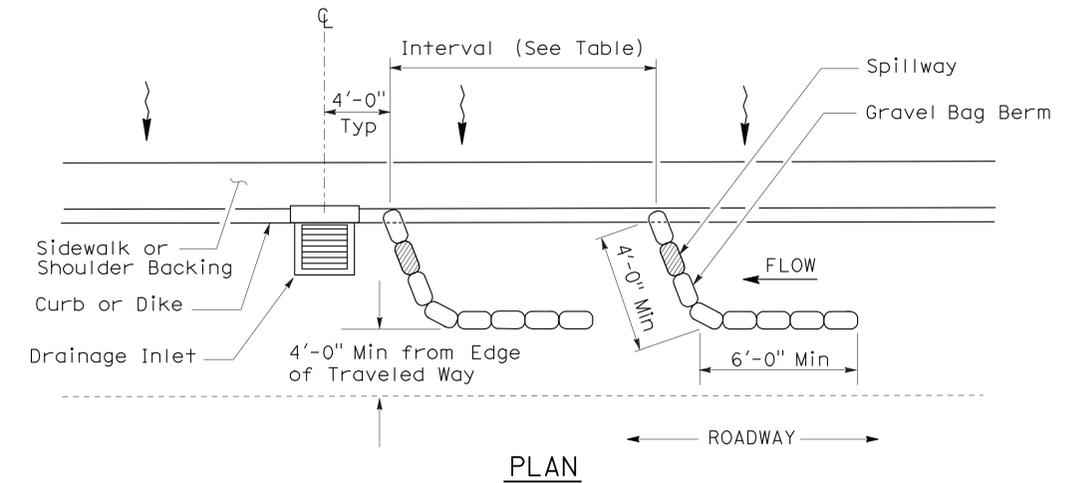
PERSPECTIVE



PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 3B)



STAPLE DETAIL



PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 3A)
(GRAVEL BAG BERM)

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS
(TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE
 NSP T62 DATED AUGUST 15, 2008 SUPPLEMENTS
 THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T62

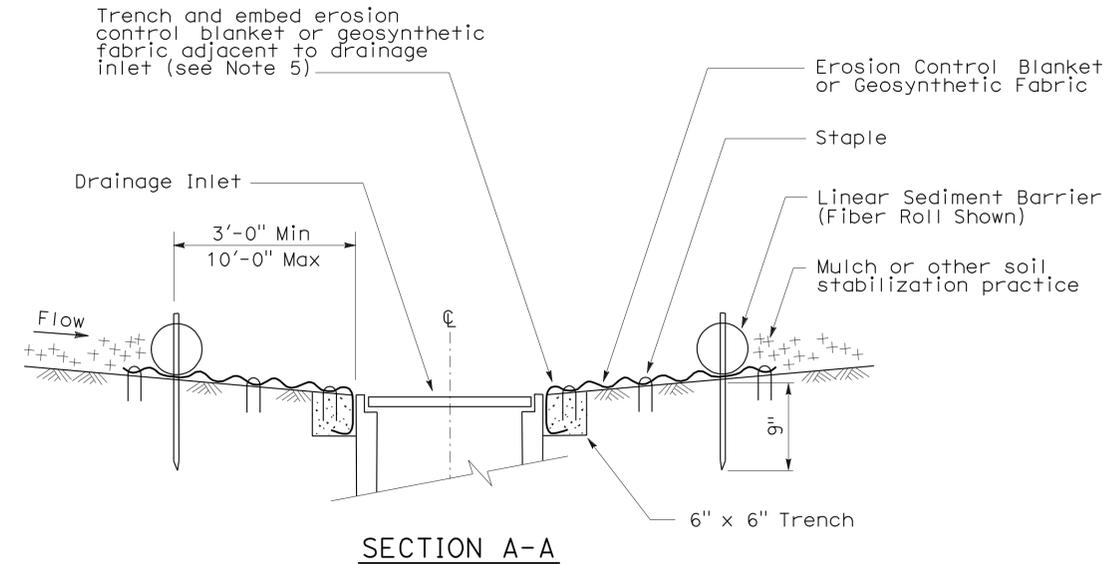
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	16	43

Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 August 15, 2008
 PLANS APPROVAL DATE
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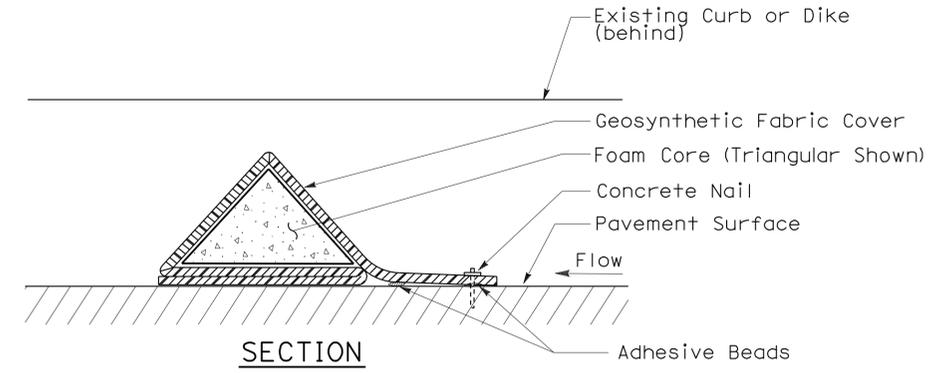
To accompany plans dated 2-6-12

FLEXIBLE SEDIMENT BARRIER SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	0 to 0.9	1 to 1.9	2 to 2.9	3 to 4	5+
INTERVAL BETWEEN BARRIERS	50'	35'	30'	25'	20'
ANGLE FROM FACE OF CURB	70°	70°	70°	45°	45°
SUGGESTED BARRIER LENGTH	6'	6'	6'	6'	6'



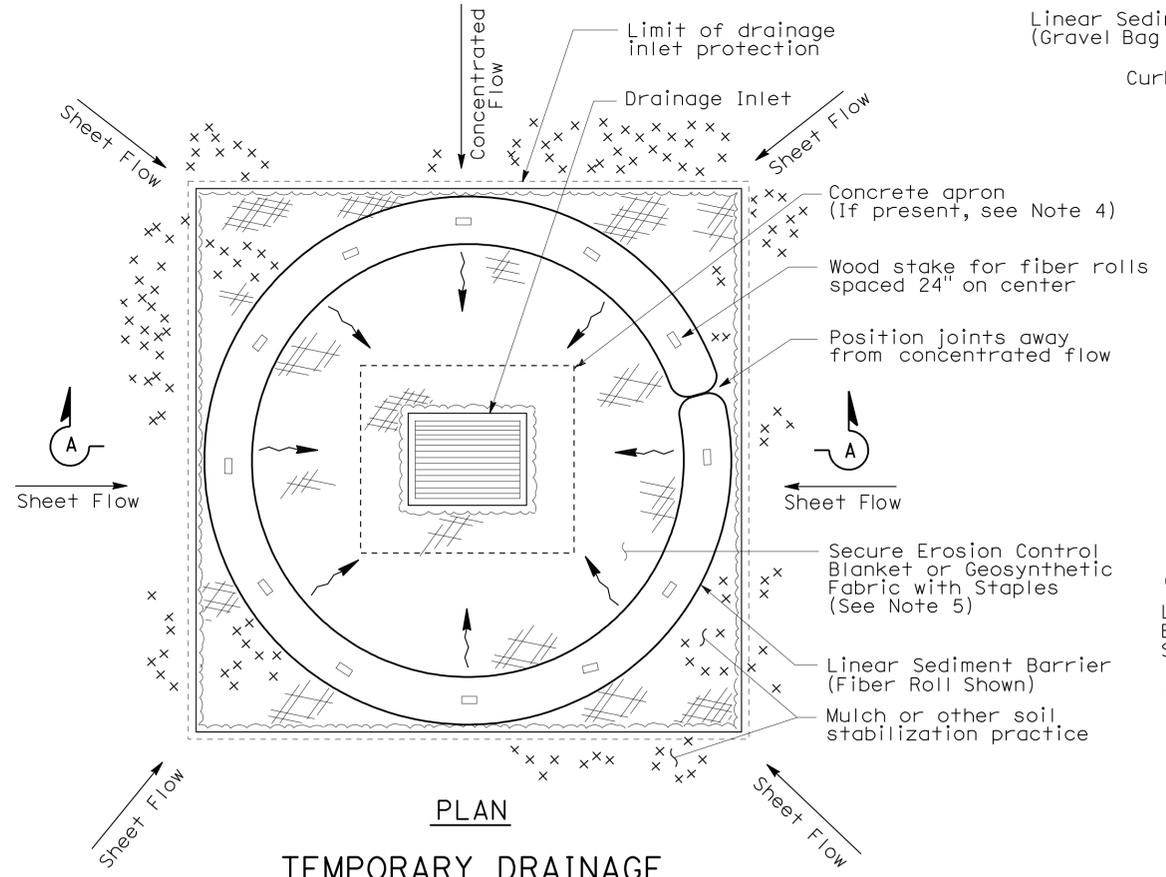
SECTION A-A



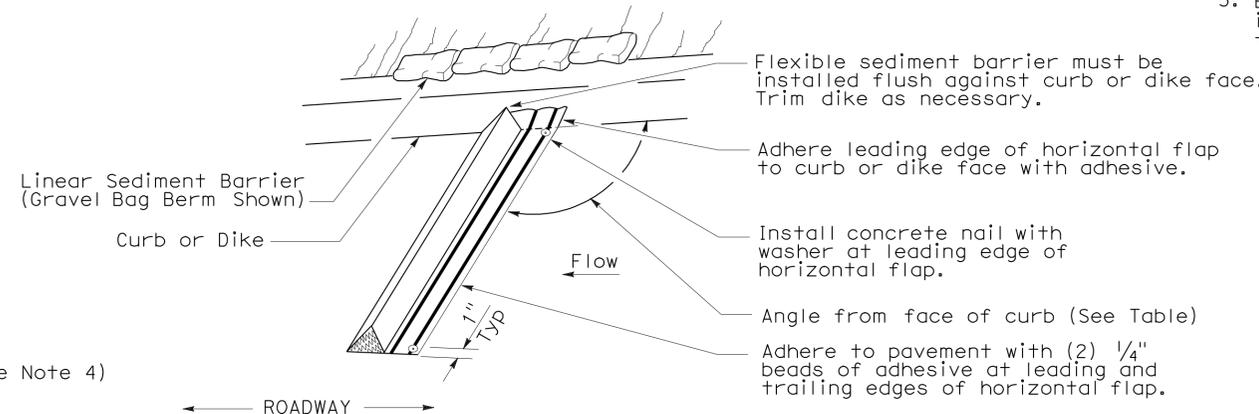
SECTION FLEXIBLE SEDIMENT BARRIER DETAIL (FOAM BARRIER SHOWN)

NOTES:

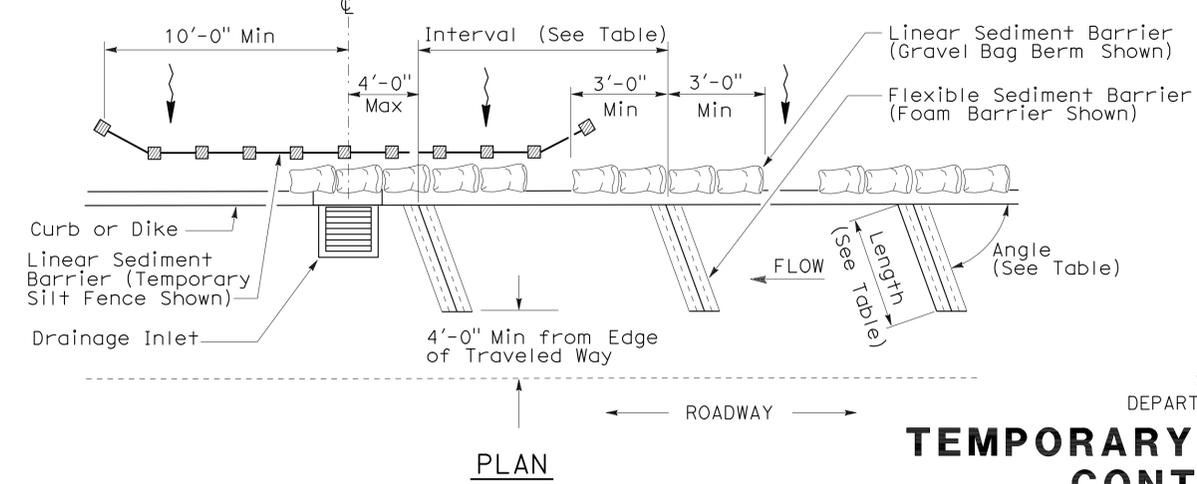
- See Standard Plan T51 for Temporary Silt Fence.
- Dimensions may vary to fit field conditions.
- Install a minimum of 3 flexible sediment barriers upstream of each drainage inlet to be protected.
- Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
- Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated.



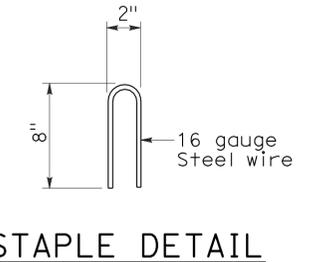
PLAN TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4A)



PERSPECTIVE



PLAN TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4B) FLEXIBLE SEDIMENT BARRIER



STAPLE DETAIL

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE
 NSP T63 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP T63

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	17	43

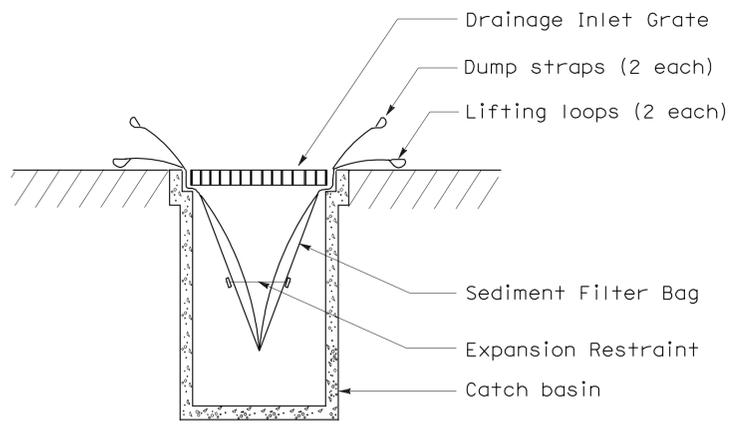
Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT

August 15, 2008
 PLANS APPROVAL DATE

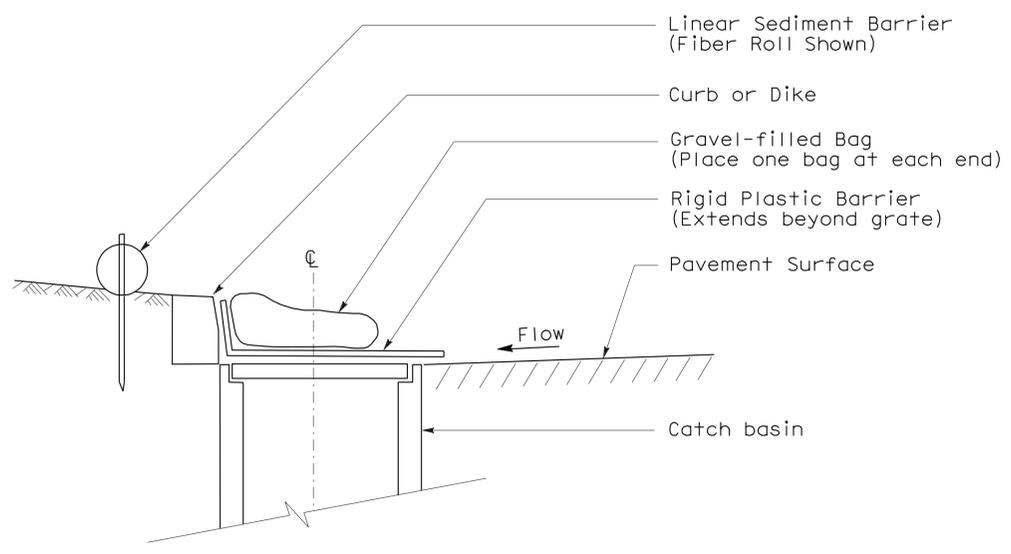
Robert B. Schott
 LICENSED LANDSCAPE ARCHITECT
 Signature
 11-04-08
 Renewal Date
 08-11-08
 Date

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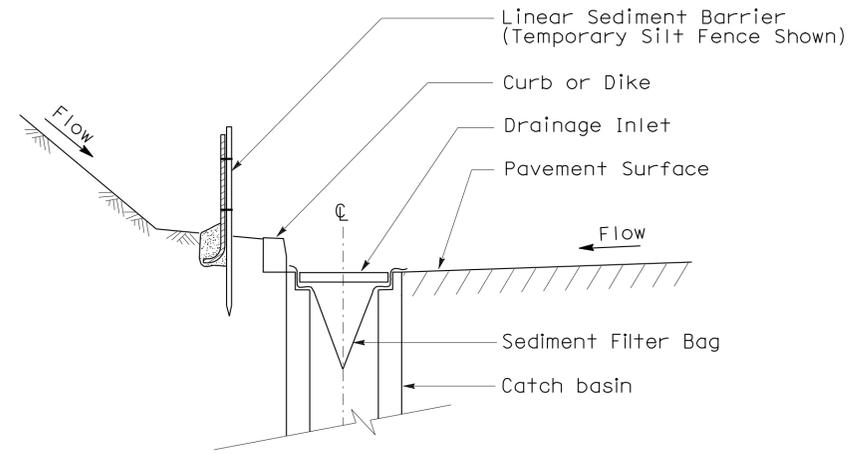
To accompany plans dated 2-6-12



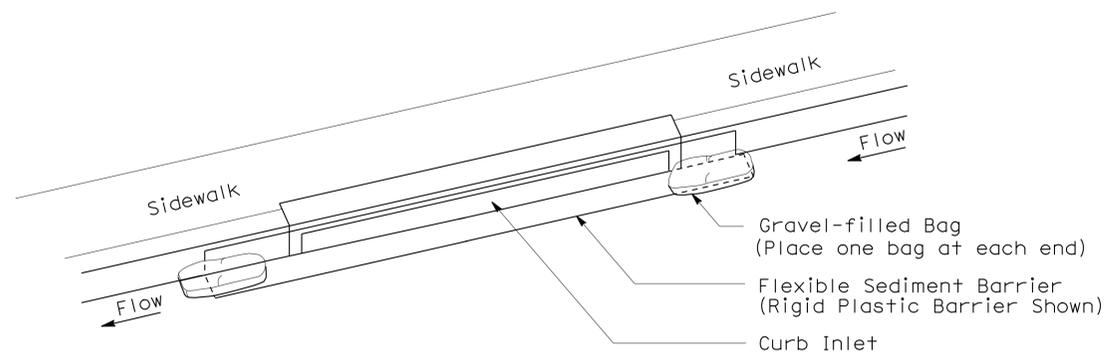
SECTION B-B
SEDIMENT FILTER BAG DETAIL



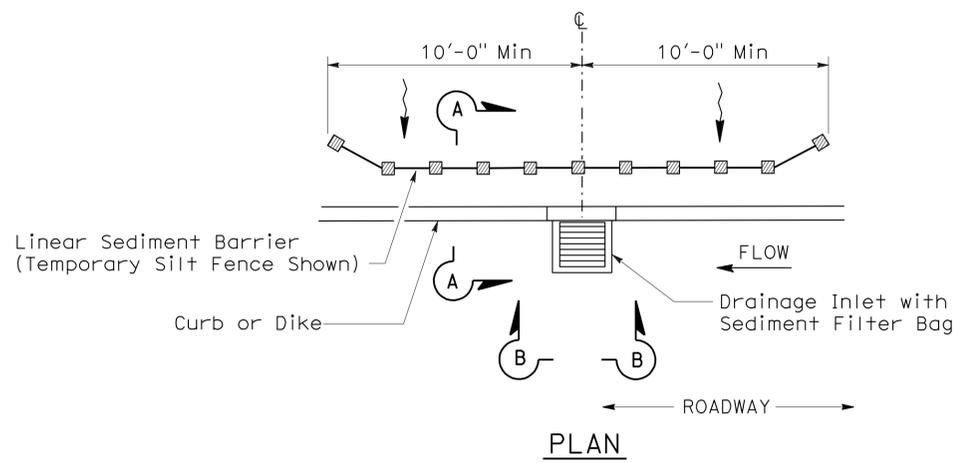
SECTION
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6A)
(CATCH BASIN WITH GRATE)



SECTION A-A



PERSPECTIVE
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6B)
(CURB INLET WITHOUT GRATE)



PLAN
TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 5)
(SEDIMENT FILTER BAG)

NOTES:

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE
NSP T64 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

ABBREVIATIONS

BF	BAG FILTER	MCP	MAIN CONTROL PANEL
C	CONDUIT	MIPT	MALE IRON DUCTILE PIPE
CPLG	COUPLING	MNPT	MALE NATIONAL PIPE THREAD
DIP	DUCTILE IRON PIPE	MW	MONITORING WELL
DP	DRAIN PIPE	NIC	NOT IN CONTRACT
E	ELECTRICAL	NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
EA	EACH	NPT	NATIONAL PIPE THREAD
ELEV	ELEVATION	OA	OVERALL
EQ	EQUAL	OC	ON CENTER
FF	FINISH FLOOR	PH	PHASE
FIPT	FEMALE IRON DUCTILE PIPE	REQ	REQUIRED
FLC	FLOW LINE CURB	rpm	REVOLUTIONS PER MINUTE
FNPT	FEMALE NATIONAL PIPE THREAD	S	SLOPE
FS	FLOW SWITCH	SCH	SCHEDULE
FT	FEET	SDR	STANDARD DIMENSION RATIO
GAC	GRANULAR ACTIVATED CARBON	SS	STAINLESS STEEL
GAL	GALLON	TBM	TEMPORARY BENCH MARK
GPM	GALLONS PER MINUTE	TOC	TOP OF CONCRETE
GV	GATE VALVE	USB	UNIVERSAL SERIAL BUS
HDPE	HIGH DENSITY POLYETHYLENE	VAC	VOLTS AC
HZ	HERTZ	W	WATT
IE	INVERT ELEVATION (IN FEET)	W/O	WITHOUT
IN	INCH		
I/O	INPUT/OUTPUT		
JB	JUNCTION BOX		
KW	KILOWATT		
LR	LONG RADIUS		
MCC	MOTOR CONTROL CENTER		

INDEX OF PLANS

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GP-3	GENERAL PLAN - SITE DEMOLITION PLAN (EAST)
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EE-2	GENERAL ARRANGEMENT/LIGHTING PLAN
EE-3	CONDUIT & CABLE SCHEDULE
EE-4	SUMP PUMP WIRING DIAGRAMS

LEGEND

	NEW ABOVEGRADE PIPING
	EXISTING ABOVEGRADE PIPING
	NEW SUBSURFACE PIPING
	EXISTING SUBSURFACE PIPING
	CONCRETE
	DEMOLITION
	DETAIL SHEET NUMBER
99.00	NEW GRADE IN FEET
X (100.00)	EXISTING SPOT GRADE IN FEET
	EXISTING DEWATERING WELL
	EXISTING CONTROL WELL
∅	DIAMETER
	SECTION / ELEVATION LETTER SHEET NUMBER
	TREE/VEGETATION
	DIRECTION OF NORMAL FLOW
	MANHOLE COVER
	ELECTRIC PULL BOX
	STANDARD PLAN SHEET NO.
	DETAIL NO.

STANDARD PLANS DATED MAY 2006

AIOA	ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)	RSP TIA	TEMPORARY CRASH CUSHION, SAND FILLED (UNIDIRECTIONAL)
AIOB	ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)	RSP TIB	TEMPORARY CRASH CUSHION, SAND FILLED (BIDIRECTIONAL)
AIOC	SYMBOLS (SHEET 1 OF 2)	RSP T2	TEMPORARY CRASH CUSHION, SAND FILLED (SHOULDER INSTALLATIONS)
AIOD	SYMBOLS (SHEET 2 OF 2)	T3	TEMPORARY RAILING (TYPE K)
A62A	EXCAVATION AND BACKFILL MISCELLANEOUS DETAILS	NSP T3A	TEMPORARY RAILING (TYPE K)
A62B	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL	NSP T61	TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)
RSP A85	CHAIN LINK FENCE	NSP T62	TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)
NSP A85A	CHAIN LINK FENCE DETAILS	NSP T63	TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)
A86	BARBED WIRE AND WIRE MESH FENCES	NSP T64	TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)
NSP A86A	BARBED WIRE AND WIRE MESH FENCE DETAIL	B0-3	BRIDGE DETAILS
NSP A86B	BARBED WIRE AND WIRE MESH FENCE DETAILS	B3-1	RETAINING WALL TYPE 1 - H = 4' THROUGH 30'
RSP A87A	CURBS AND DRIVEWAYS	B3-8	RETAINING WALL DETAILS NO. 1
RSP P45	CONCRETE PAVEMENT - DRAINAGE INLET DETAILS NO. 1	B3-9	RETAINING WALL DETAILS NO. 2
RSP P46	CONCRETE PAVEMENT - DRAINAGE INLET DETAILS NO. 2	BII-7	CHAIN LINK RAILING
D77C	ALTERNATIVE HINGED COVER FOR TYPE OL AND OS	RS1	ROADSIDE SIGNS, TYPICAL INSTALLATION DETAILS NO. 1
D78B	INLETS AND TRASH RACK FOR TYPE OCP INLET	RS2	ROADSIDE SIGNS - WOOD POST, TYPICAL INSTALLATION DETAILS NO. 2
D98C	INLET DEPRESSIONS - CONCRETE SHOULDERS	RS4	ROADSIDE SIGNS, TYPICAL INSTALLATION DETAILS NO. 4
	GRATED LINE DRAIN DETAILS	S93	FRAMING DETAILS FOR FRAMED SINGLE SHEET ALUMINUM SIGNS, RECTANGULAR SHAPE
		S94	ROADSIDE FRAMED SINGLE SHEET ALUMINUM SIGNS, RECTANGULAR SHAPE
		S95	ROADSIDE SINGLE SHEET ALUMINUM SIGNS, DIAMOND SHAPE

GENERAL WORK NOTES

- The Contractor shall verify all controlling field dimensions and conditions before ordering or fabricating any materials.
- The Contractor shall verify exact location of all underground facilities and utilities prior to start of construction.
- E-01 through E-06 are 20,000 lb GAC vessels.
- W-01 through W-08 are 15,000 lb GAC vessels.
- All work shall be done in strict conformance with the current Caltrans Standard Specifications and standard drawings unless otherwise approved by the engineer.
- Any contractor performing work on this project shall familiarize himself/herself with the site and shall be solely responsible for any damage to existing facilities resulting directly or indirectly from his/her operations, whether or not the facility is shown on these plans.
- All obstructions within the area to be improved shall be removed and/or relocated at the direction of the engineer. Utilities are to be relocated by their respective owners unless noted otherwise.
- Subsurface piping locations were taken from available record data and were not located in the field, unless otherwise noted on the plan. Contractor shall field locate all buried utilities. All connection points shall be approved by the engineer.
- In case of any accidents involving safety matters covered by Section 6409(b) of the California Labor Code, the contractor shall immediately notify the State Division of Industrial Safety.
- All materials, testing, and inspection of pipe shall be in conformance with the requirements of Caltrans and the American Water Works Association (A.W.W.A) standards. Failure to meet any of these requirements will be cause for rejection.
- Test pressure shall be 150% of pipe class rating (i.e. class 150=225 psi test), shall be under continuous inspection, and shall be in accordance with A.W.W.A. standard procedures.
- All abovegrade piping and fittings shall be ductile iron unless otherwise stated. All belowgrade pipe shall be HDPE unless otherwise stated.
- All couplings and flanged coupling adapters shall be restrained type.
- Contractor to propose method/manufacturer of abovegrade ductile iron piping support.
- Elevations are based on vertical datum NAVD 1988.

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	18	43

	11-02-11	DATE
REGISTERED CIVIL ENGINEER		



2-6-12	PLANS APPROVAL DATE
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PIPING / INSTRUMENTATION

	FLOW INDICATING & TOTALIZING TRANSMITTER
	SAMPLE PORT
	PRESSURE INDICATOR
	LEVEL INDICATOR
	LEVEL ELEMENT
	LEVEL TRANSMITTER
	FLOW ELEMENT
BV-X	BALL VALVE
BFV-X	BUTTERFLY VALVE
CV-X	CHECK VALVE
GLV-I	GLOBE VALVE
GV-I	GATE VALVE
	REDUCER
FIQT-X	ELECTRO-MECHANICAL FLOW TRANSMITTER
	FLANGE
ARV-I	AIR RELIEF VALVE
	QUICK DISCONNECT

DESIGN	BY	MARC DIONNE	CHECKED	Joshua H. Howard
DETAILS	BY	STEVE WESSELS	CHECKED	Joshua H. Howard
QUANTITIES	BY	MARC DIONNE	CHECKED	Joshua H. Howard

PREPARED FOR THE
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT ENGINEER	MARC DIONNE
BRIDGE NO.	-
POST MILE	14.3

I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION PLAN		SHEET
GENERAL PLAN - INDEX, NOTES, LEGENDS & ABBREVIATIONS		GP-1
REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET	OF
10-19-09 10-20-09 10-22-09 10-30-09 11-17-09 04-30-10 07-27-10 10-15-10 01-19-11 09-16-11	1	7

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	19	43

REGISTERED CIVIL ENGINEER
 Joshua H. Howard
 No. C76859
 Exp. 12-31-12
 STATE OF CALIFORNIA

11-02-11
 DATE

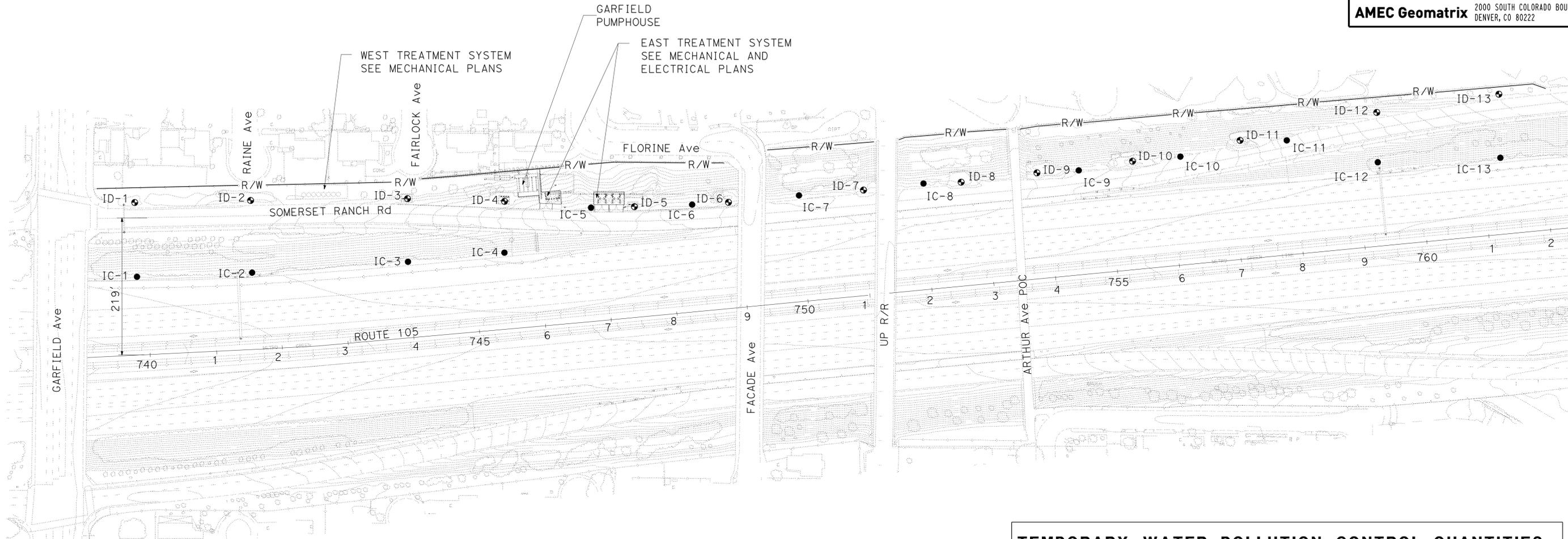
2-6-12
 PLANS APPROVAL DATE

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NOTES:

- FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- EXISTING UTILITY FACILITIES HAVE NOT BEEN PLOTTED ON THESE PLANS.



LEGEND

- ID-1 THROUGH ID-13 EXISTING GROUNDWATER DEWATERING WELLS
- IC-1 THROUGH IC-13 EXISTING GROUNDWATER CONTROL WELLS

TEMPORARY WATER POLLUTION CONTROL QUANTITIES		
	TEMPORARY GRAVEL BAG BERM	TEMPORARY DRAINAGE INLET PROTECTION
	LF	EA
TOTAL	600	4

SCALE: 1" = 80'



TAEMWW Imperial Rev. 7/10 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	DESIGN BY <i>MARC DIONNE</i> CHECKED <i>JOSHUA H. HOWARD</i>	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO. -	I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION PLAN GENERAL PLAN - SITE LOCATION PLAN	SHEET OF GP - 2 OF 7
	DETAILS BY <i>STEVE WESSELS</i> CHECKED <i>JOSHUA H. HOWARD</i>		PROJECT ENGINEER <i>MARC DIONNE</i>		
	QUANTITIES BY <i>MARC DIONNE</i> CHECKED <i>JOSHUA H. HOWARD</i>	UNIT PROJECT NUMBER & PHASE 1961 07000010001 EA 458401	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 10-19-09 10-20-09 10-22-09 10-30-09 11-17-09 04-30-10 07-27-10 10-15-10 01-19-11 09-16-11	SHEET OF 2 OF 7

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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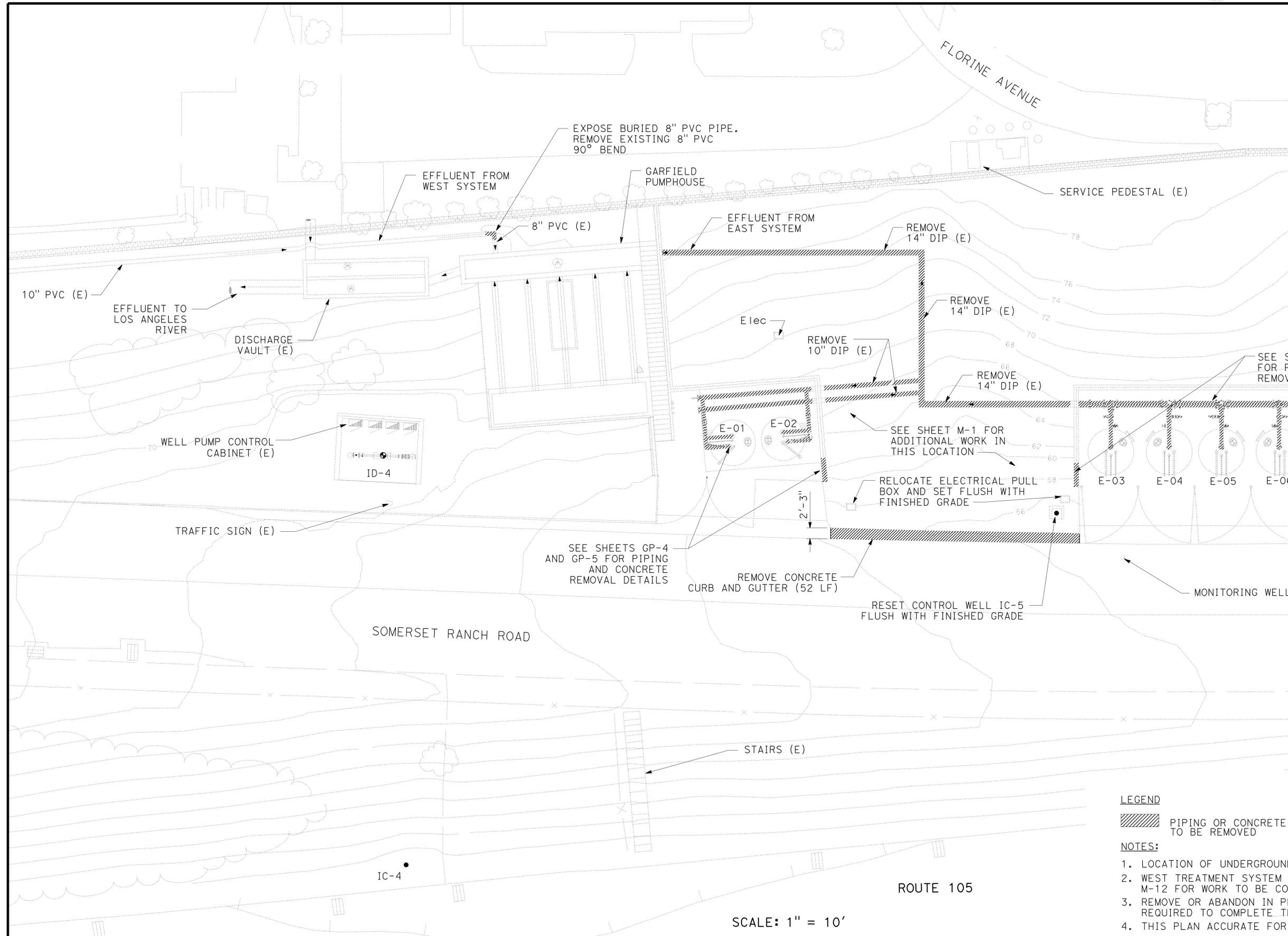
REGISTERED CIVIL ENGINEER
 Joshua H. Howard
 No. C76859
 Exp. 12-31-12
 STATE OF CALIFORNIA

11-02-11
 DATE

2-6-12
 PLANS APPROVAL DATE

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 DENVER, CO 80222



LEGEND

PIPING OR CONCRETE TO BE REMOVED

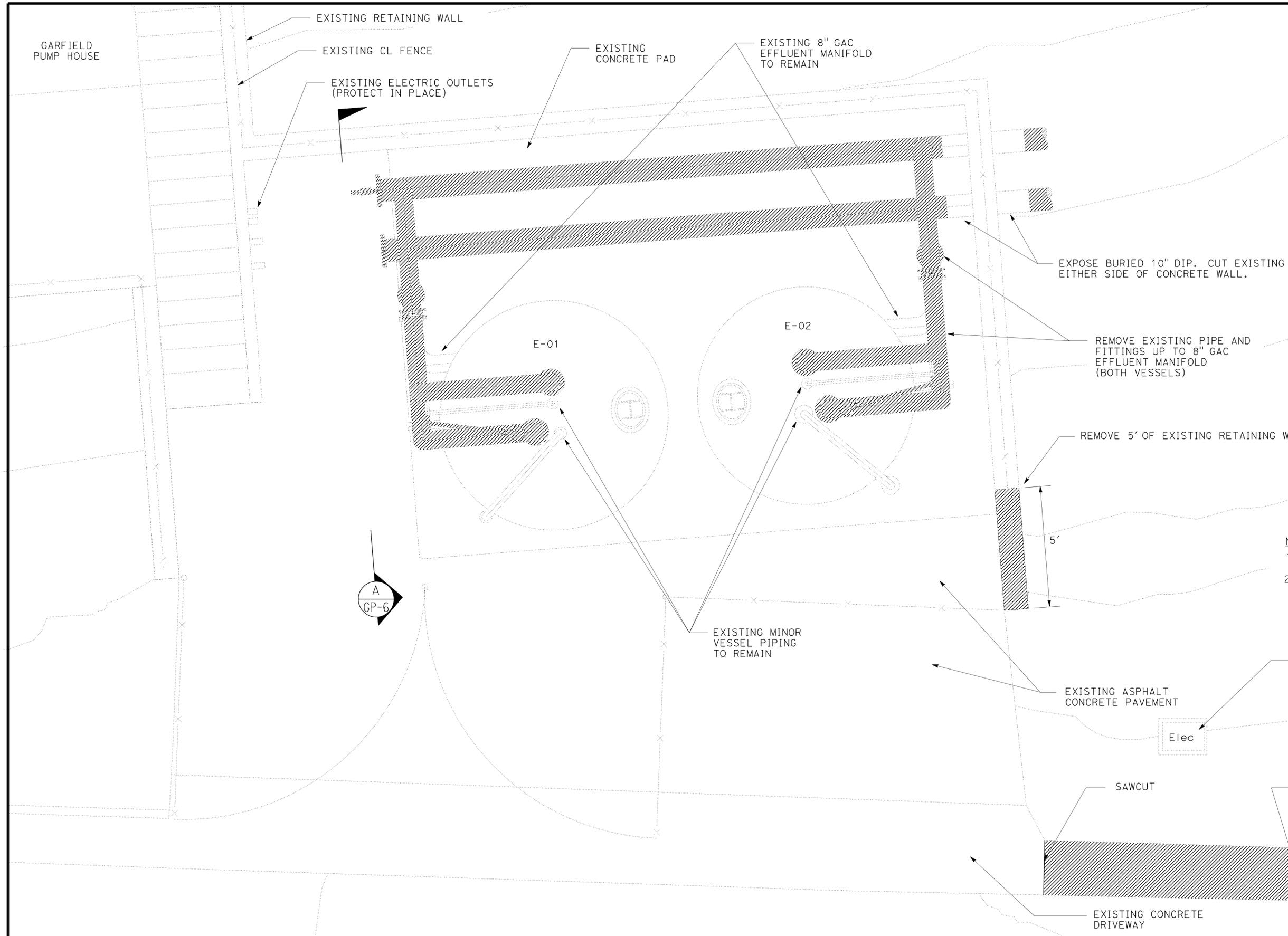
NOTES:

1. LOCATION OF UNDERGROUND PIPING TO BE FIELD VERIFIED.
2. WEST TREATMENT SYSTEM NOT SHOWN, SEE SHEETS GP-7 AND M-12 FOR WORK TO BE COMPLETED THERE.
3. REMOVE OR ABANDON IN PLACE ALL SUBSURFACE PIPING AS REQUIRED TO COMPLETE THIS WORK AS SHOWN ON THESE DRAWINGS.
4. THIS PLAN ACCURATE FOR EXISTING STRUCTURES ONLY.

SCALE: 1" = 10'

TAEMWW Imperial Rev. 7/10 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	DESIGN BY MARC DIONNE CHECKED JOSHUA H. HOWARD	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO. -	I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION PLAN GENERAL PLAN - SITE DEMOLITION PLAN (EAST)	SHEET OF GP-3 7	
	DETAILS BY STEVE WESSELS CHECKED JOSHUA H. HOWARD		PROJECT ENGINEER MARC DIONNE		POST MILE 14.3	REVISION DATES (PRELIMINARY STAGE ONLY) 10-19-09 10-20-09 10-22-09 10-30-09 11-17-09 04-30-10 07-27-10 10-15-10 01-19-11 09-16-11
	QUANTITIES BY MARC DIONNE CHECKED JOSHUA H. HOWARD		UNIT PROJECT NUMBER & PHASE 1961 07000010001		DISREGARD PRINTS BEARING EARLIER REVISION DATES	SHEET OF 3 7

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	21	43

REGISTERED CIVIL ENGINEER
 Joshua H. Howard
 No. C76859
 Exp. 12-31-12
 STATE OF CALIFORNIA

11-02-11 DATE
 2-6-12 PLANS APPROVAL DATE

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- NOTES:**
1. MINOR VESSEL PIPING AND SAMPLE PORTS TO REMAIN ON GAC VESSELS.
 2. THIS PLAN ACCURATE FOR EXISTING STRUCTURES ONLY.

SCALE: 1" = 2'

TAEMWW Imperial Rev. 7/10 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	DESIGN BY	MARC DIONNE	CHECKED	JOSHUA H. HOWARD	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	-	I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION GENERAL PLAN- E-01 & E-02 DEMOLITION PLAN	SHEET	OF		
	DETAILS BY	STEVE WESSELS	CHECKED	JOSHUA H. HOWARD		PROJECT ENGINEER	MARC DIONNE		POST MILE	14.3	4	7
	QUANTITIES BY	MARC DIONNE	CHECKED	JOSHUA H. HOWARD		PROJECT NUMBER & PHASE	07000010001		REVISION DATES (PRELIMINARY STAGE ONLY)	10-19-09 10-20-09 10-22-09 10-30-09 11-17-09 04-30-10 07-27-10 10-15-10 01-19-11 09-16-11		

UNIT: 1961
 DISREGARD PRINTS BEARING EARLIER REVISION DATES

EA 458401
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08-FEB-2012 11:04

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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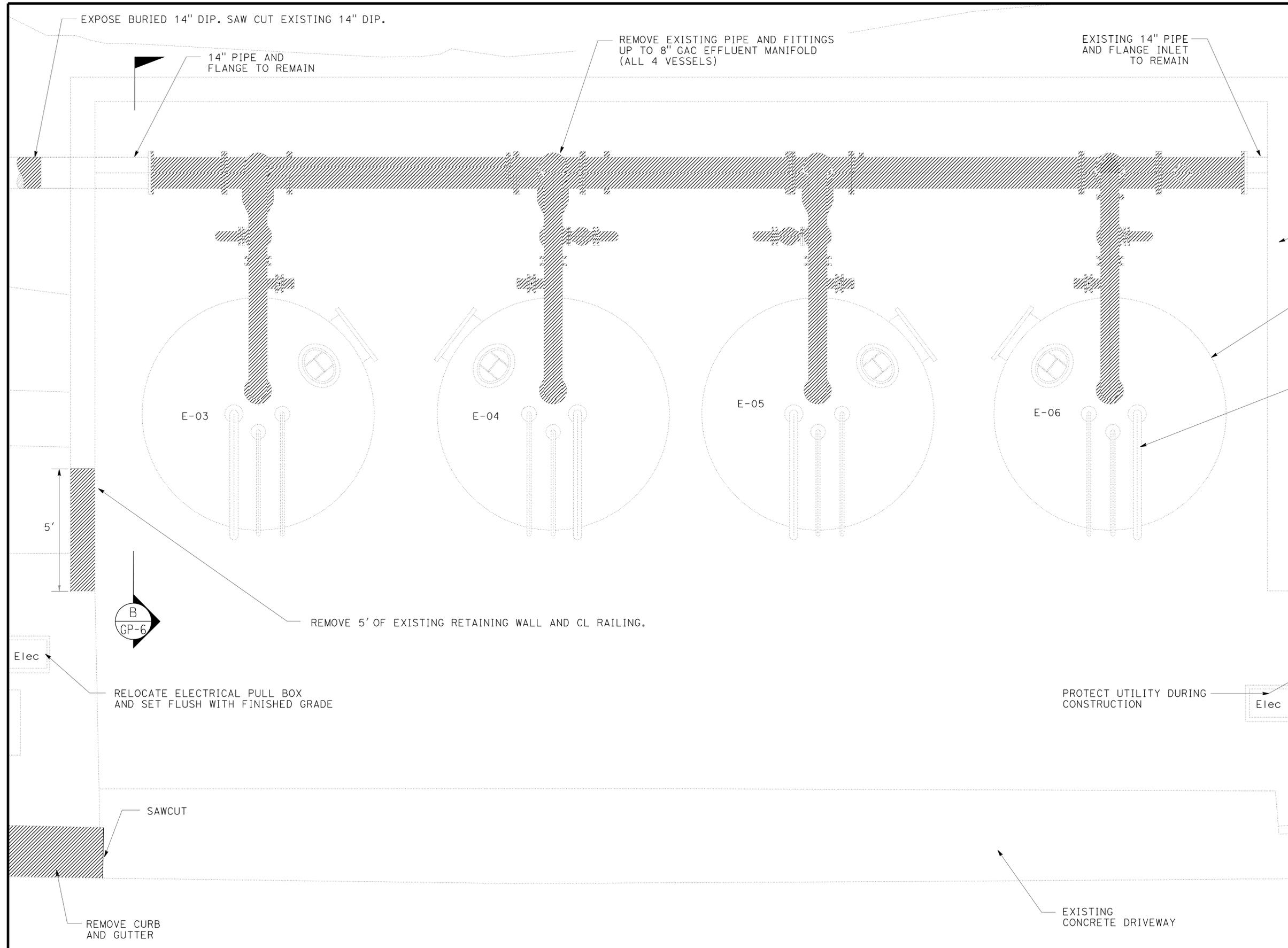
REGISTERED CIVIL ENGINEER
 Joshua H. Howard
 No. C76859
 Exp. 12-31-12
 STATE OF CALIFORNIA

11-02-11
 DATE

2-6-12
 PLANS APPROVAL DATE

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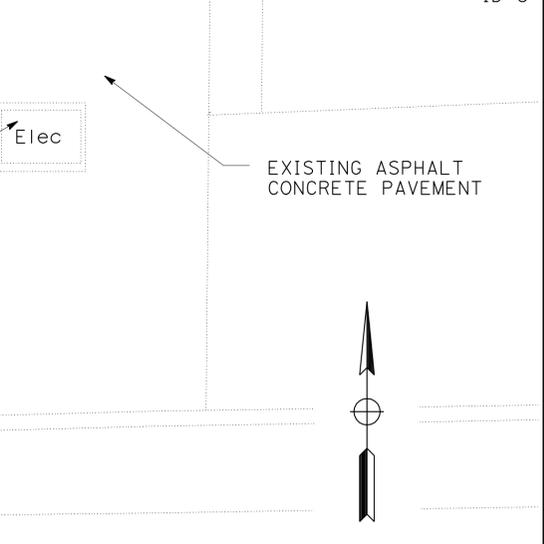
EXISTING CONCRETE PAD, RETAINING WALL, AND CL RAILING

EXISTING 8" GAC EFFLUENT MANIFOLD (BOTTOM OF VESSEL, NOT SHOWN) TO REMAIN (ALL 4 VESSELS), SEE SHEET GP-6

EXISTING MINOR VESSEL PIPING TO REMAIN (ALL 4 VESSELS)

NOTES:

- MINOR VESSEL PIPING AND SAMPLE PORTS TO REMAIN ON GAC VESSELS.
- THIS PLAN ACCURATE FOR EXISTING STRUCTURES ONLY.



SCALE: 1" = 2'

DESIGN BY <i>MARC DIONNE</i> CHECKED <i>JOSHUA H. HOWARD</i> DETAILS BY <i>STEVE WESSELS</i> CHECKED <i>JOSHUA H. HOWARD</i> QUANTITIES BY <i>MARC DIONNE</i> CHECKED <i>JOSHUA H. HOWARD</i>	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO. -	I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION	SHEET GP-5
	PROJECT ENGINEER <i>MARC DIONNE</i>	POST MILE 14.3	E-03 THROUGH E-06 DEMOLITION PLAN	
	UNIT PROJECT NUMBER & PHASE 1961 07000010001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 10-19-09 10-20-09 10-22-09 10-30-09 11-17-09 04-30-10 07-27-10 10-15-10 01-19-11 09-16-11	SHEET 5 OF 7

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS: 0 1 2 3

TAEMWW Imperial Rev. 7/10

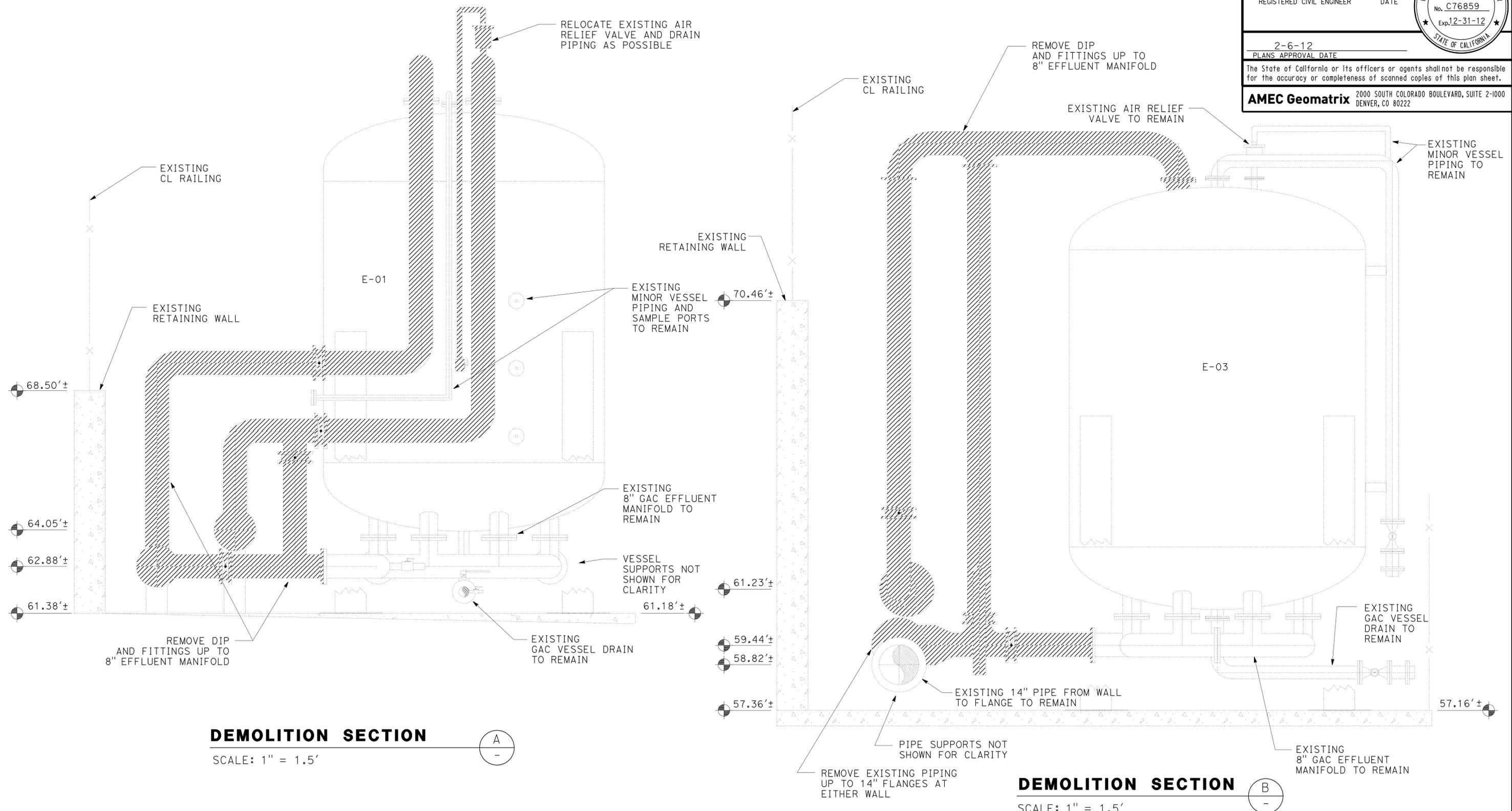
EA 458401

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08-FEB-2012 11:04

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	23	43

<i>Joshua H. Howard</i>	11-02-11	
REGISTERED CIVIL ENGINEER	DATE	
2-6-12 PLANS APPROVAL DATE		
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DEMOLITION SECTION

SCALE: 1" = 1.5'



DEMOLITION SECTION

SCALE: 1" = 1.5'



DESIGN	BY <i>MARC DIONNE</i>	CHECKED <i>JOSHUA H. HOWARD</i>
DETAILS	BY <i>STEVE WESSELS</i>	CHECKED <i>JOSHUA H. HOWARD</i>
QUANTITIES	BY <i>MARC DIONNE</i>	CHECKED <i>JOSHUA H. HOWARD</i>

PREPARED FOR THE
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT ENGINEER	<i>MARC DIONNE</i>
BRIDGE NO.	-
POST MILE	14.3

I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION
GENERAL PLAN-DEMOLITION SECTIONS (EAST)

SHEET	GP - 6
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REVISION DATES (PRELIMINARY STAGE ONLY)	10-19-09 10-20-09 10-22-09 10-30-09 11-17-09 04-30-10 07-27-10 10-15-10 01-19-11 09-16-11
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	24	43

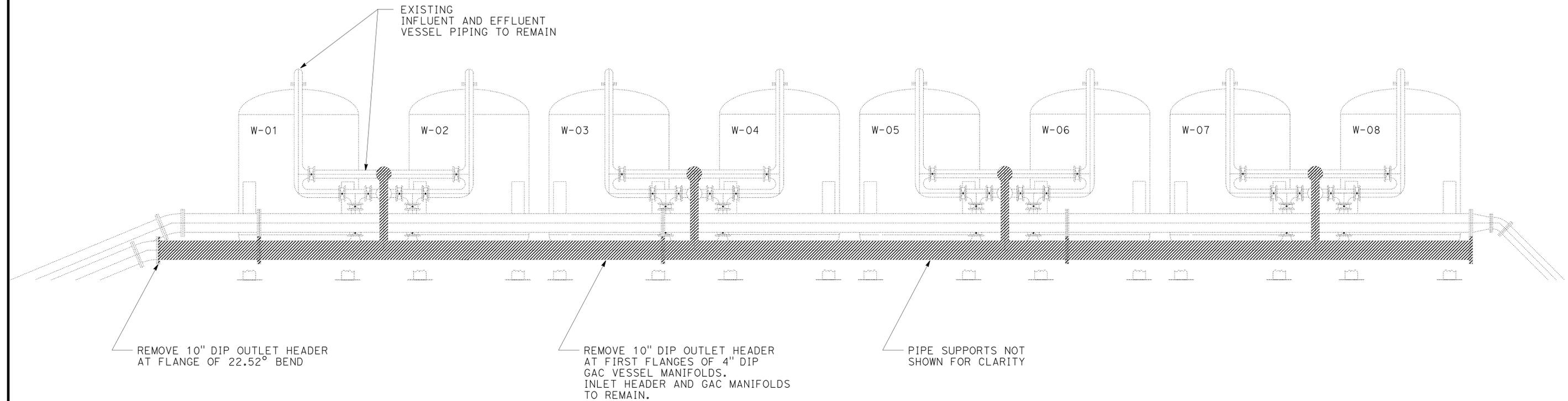

 REGISTERED CIVIL ENGINEER
 DATE 11-02-11

PLANS APPROVAL DATE 2-6-12

REGISTERED PROFESSIONAL ENGINEER
 Joshua H. Howard
 No. C76859
 Exp. 12-31-12
 STATE OF CALIFORNIA

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WEST TREATMENT SYSTEM DEMOLITION ELEVATION

SCALE: 1" = 2.5'

NOTE:

PIPE SUPPORTS TO BE SALVAGED AND REUSED AS POSSIBLE.

TAEMWW Imperial Rev. 7/10 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	DESIGN BY	MARC DIONNE	CHECKED	JOSHUA H. HOWARD	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	-	I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION GENERAL PLAN-DEMOLITION ELEVATION (WEST)	SHEET	7	OF	7								
	DETAILS BY	STEVE WESSELS	CHECKED	JOSHUA H. HOWARD		MARC DIONNE PROJECT ENGINEER	POST MILE		14.3	REVISION DATES (PRELIMINARY STAGE ONLY)	10-19-09	10-20-09	10-22-09	10-30-09	11-17-09	04-30-10	07-27-10	10-15-10	01-19-11	09-16-11
	QUANTITIES BY	MARC DIONNE	CHECKED	JOSHUA H. HOWARD		UNIT PROJECT NUMBER & PHASE	1961 07000010001		DISREGARD PRINTS BEARING EARLIER REVISION DATES	EA 458401	0700001000wa007.dgn									

08-FEB-2012 11:04

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	25	43

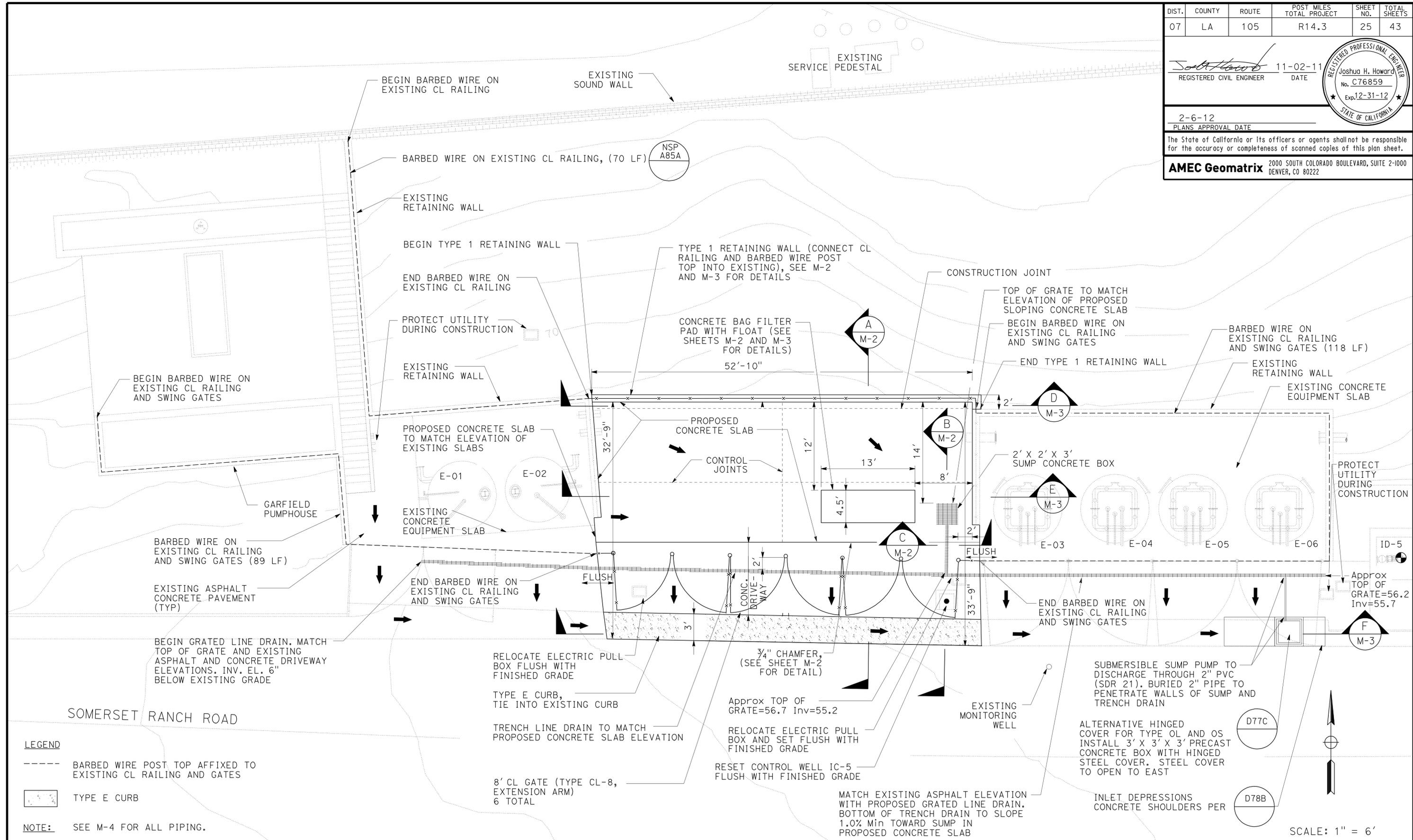
REGISTERED CIVIL ENGINEER
 Joshua H. Howard
 No. C76859
 Exp. 12-31-12
 STATE OF CALIFORNIA

11-02-11
 DATE

2-6-12
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LEGEND

----- BARBED WIRE POST TOP AFFIXED TO EXISTING CL RAILING AND GATES

[Symbol] TYPE E CURB

NOTE: SEE M-4 FOR ALL PIPING.

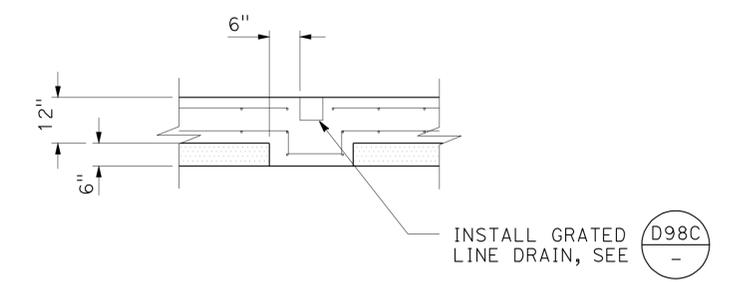
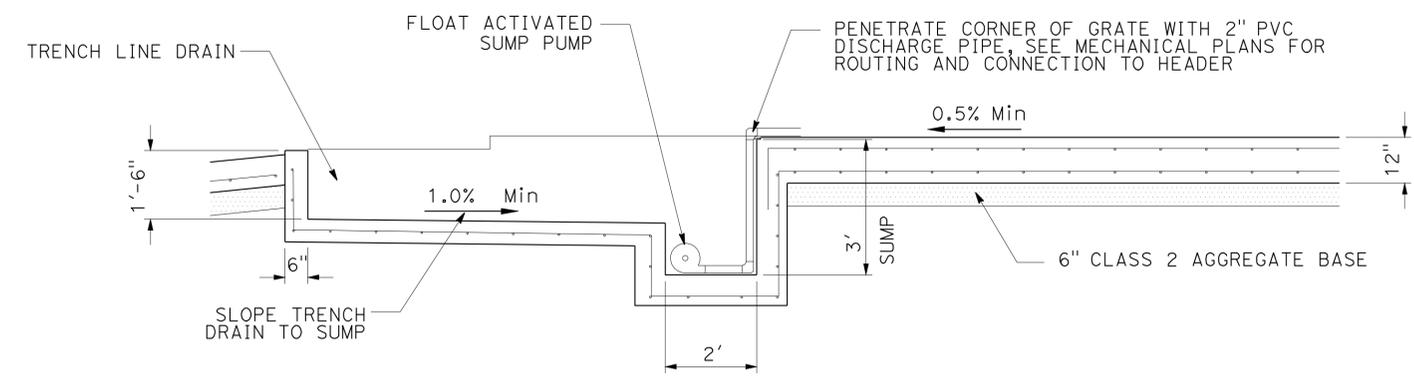
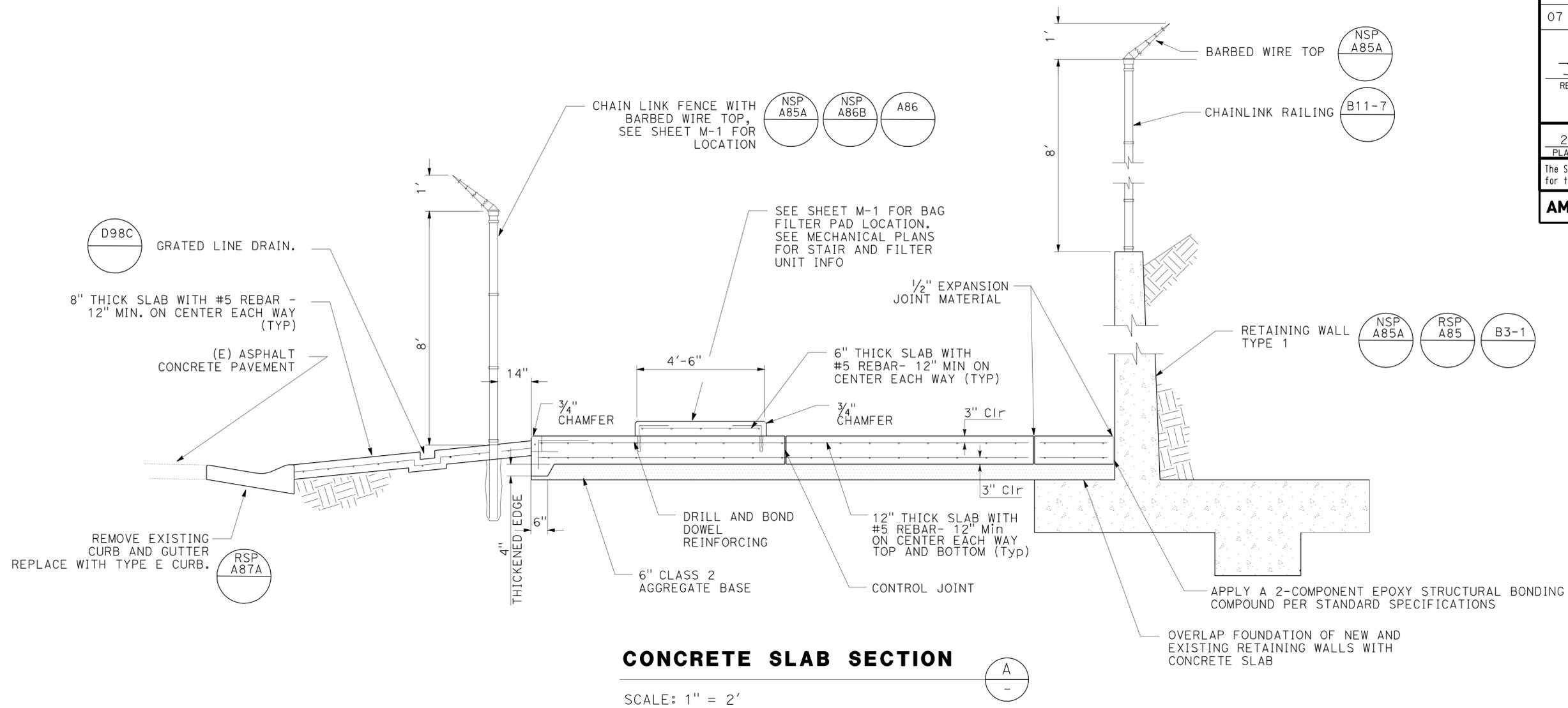
DESIGN BY	MARC DIONNE	CHECKED	JOSHUA H. HOWARD	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	-	I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION	SHEET	M-1	
DETAILS BY	STEVE WESSELS	CHECKED	JOSHUA H. HOWARD		PROJECT ENGINEER	MARC DIONNE		PROPOSED SITE CONCRETE PLAN (EAST)	OF	15
QUANTITIES BY	MARC DIONNE	CHECKED	JOSHUA H. HOWARD		POST MILE	14.3			REVISION DATES (PRELIMINARY STAGE ONLY)	1
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				0 1 2 3	UNIT PROJECT NUMBER & PHASE	1961 07000010001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	10-19-09 10-20-09 10-22-09 10-30-09 11-17-09 04-30-10 07-27-10 10-15-10 01-19-11 09-16-11		

08-FEB-2012 10:20

0700001000wd001.dgn

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	26	43

11-02-11 REGISTERED CIVIL ENGINEER DATE	2-6-12 PLANS APPROVAL DATE
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AMEC Geomatrix 2000 SOUTH COLORADO BOULEVARD, SUITE 2-1000 DENVER, CO 80222	



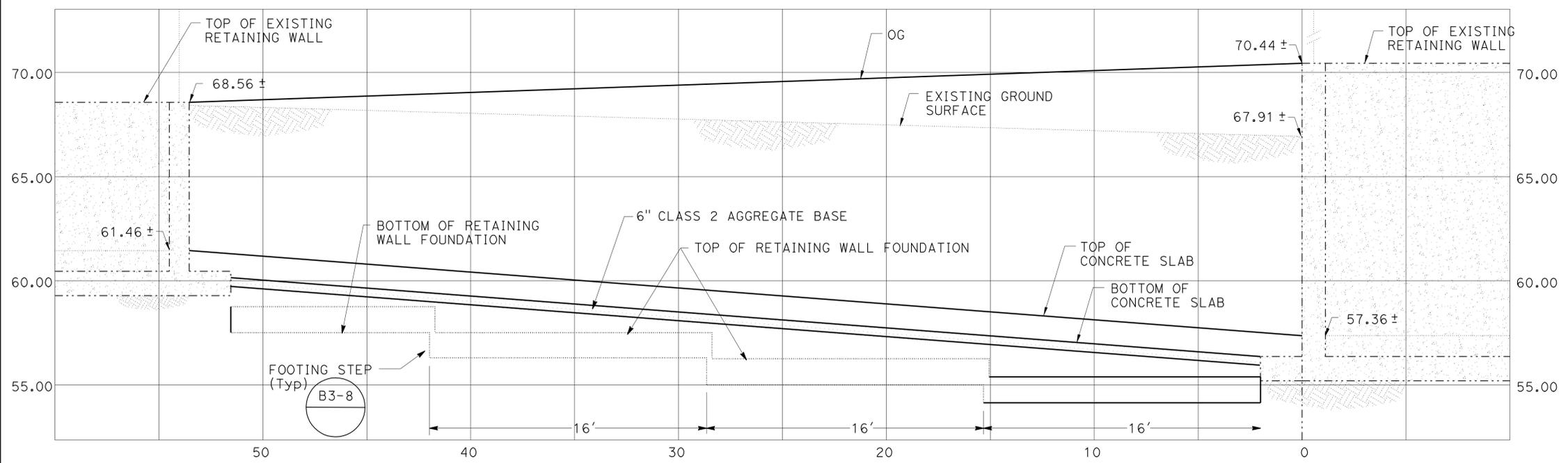
DESIGN BY MARC DIONNE CHECKED JOSHUA H. HOWARD DETAILS BY STEVE WESSELS CHECKED JOSHUA H. HOWARD QUANTITIES BY MARC DIONNE CHECKED JOSHUA H. HOWARD	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO. -	I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION	SHEET M - 2
		PROJECT ENGINEER MARC DIONNE		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT PROJECT NUMBER & PHASE 1961 07000010001	DISREGARD PRINTS BEARING EARLIER REVISION DATES 10-19-09 10-20-09 10-22-09 10-30-09 11-17-09 04-30-10 07-27-10 10-15-10 01-19-11 09-16-11	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF 2 15

EA 458401

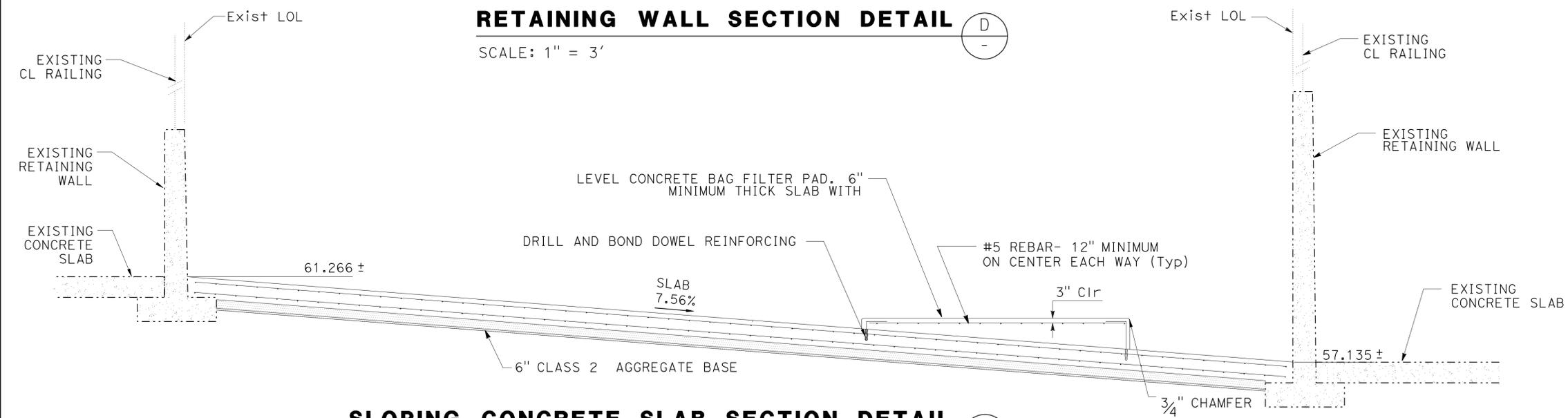
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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	27	43

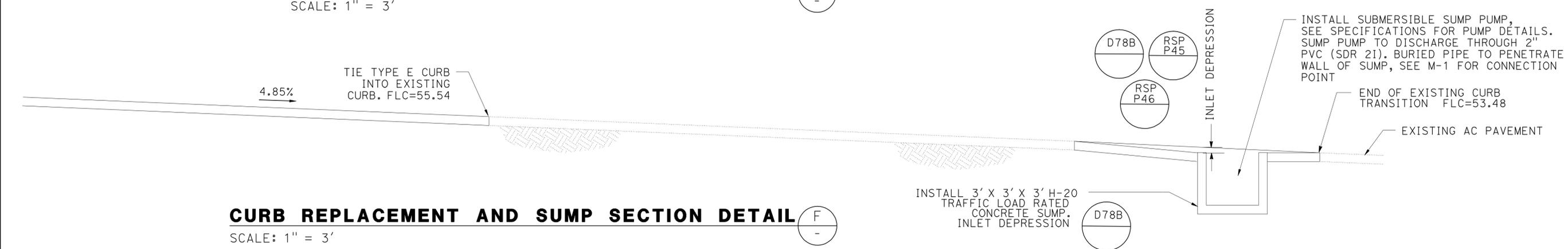
 REGISTERED CIVIL ENGINEER DATE 11-02-11	
2-6-12 PLANS APPROVAL DATE	
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RETAINING WALL SECTION DETAIL (D)
 SCALE: 1" = 3'



SLOPING CONCRETE SLAB SECTION DETAIL (E)
 SCALE: 1" = 3'



CURB REPLACEMENT AND SUMP SECTION DETAIL (F)
 SCALE: 1" = 3'

DESIGN BY MARC DIONNE CHECKED JOSHUA H. HOWARD DETAILS BY STEVE WESSELS CHECKED JOSHUA H. HOWARD QUANTITIES BY MARC DIONNE CHECKED JOSHUA H. HOWARD	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER MARC DIONNE	BRIDGE NO.	I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION	SHEET M-3
			POST MILE		
UNIT 1961 PROJECT NUMBER & PHASE 07000010001			14.3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 10-19-09 10-20-09 10-22-09 10-30-09 11-17-09 04-30-10 07-27-10 10-15-10 01-19-11 01-19-11
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3			EA 458401	SHEET OF 3 15	08-FEB-2012 10:20 0700001000wd003.dgn

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	28	43

11-02-11
DATE

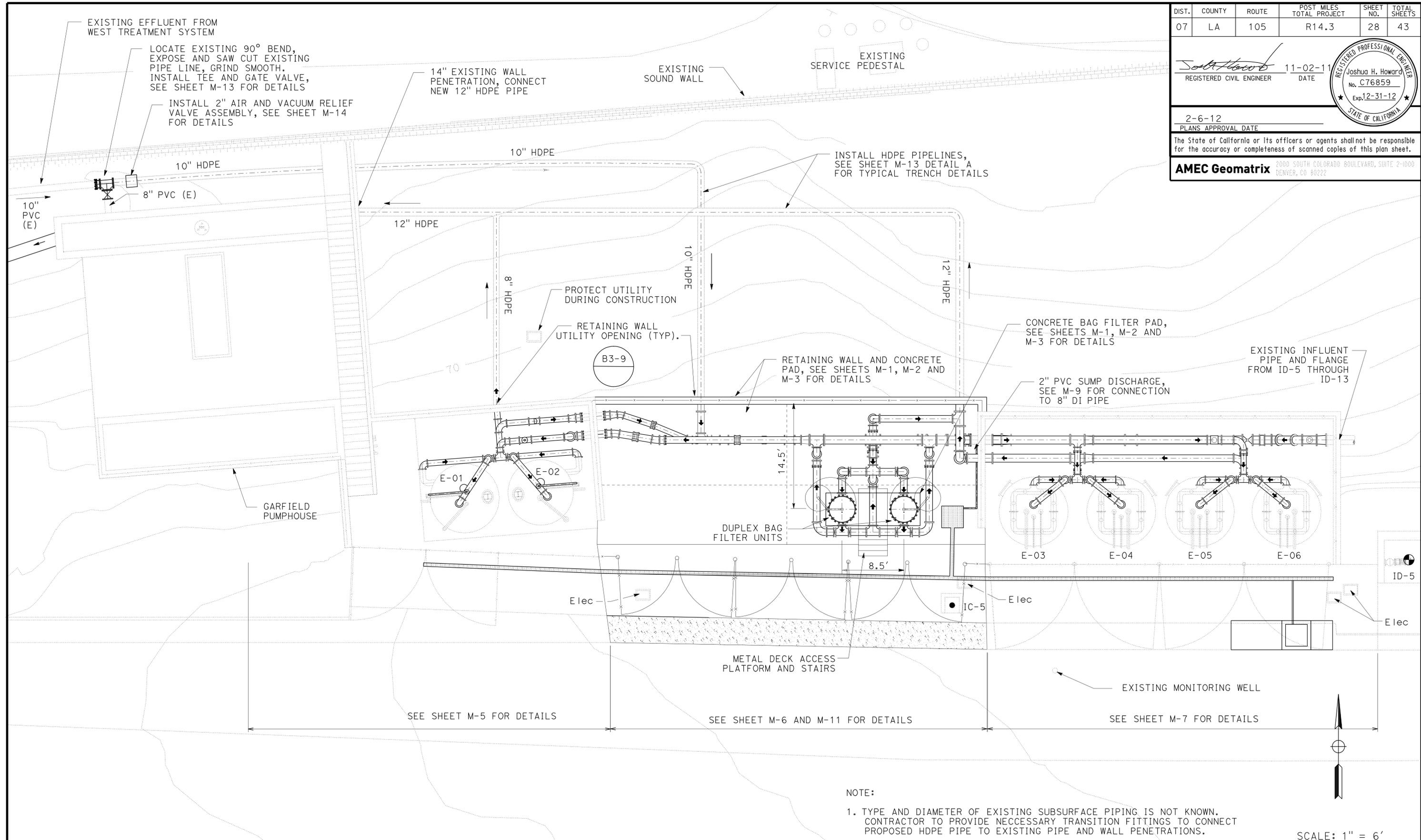
REGISTERED CIVIL ENGINEER

Joshua H. Howard
No. C76859
Exp. 12-31-12
STATE OF CALIFORNIA

2-6-12
PLANS APPROVAL DATE

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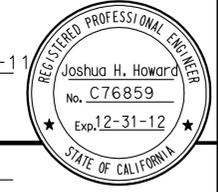
NOTE:
1. TYPE AND DIAMETER OF EXISTING SUBSURFACE PIPING IS NOT KNOWN. CONTRACTOR TO PROVIDE NECESSARY TRANSITION FITTINGS TO CONNECT PROPOSED HDPE PIPE TO EXISTING PIPE AND WALL PENETRATIONS.

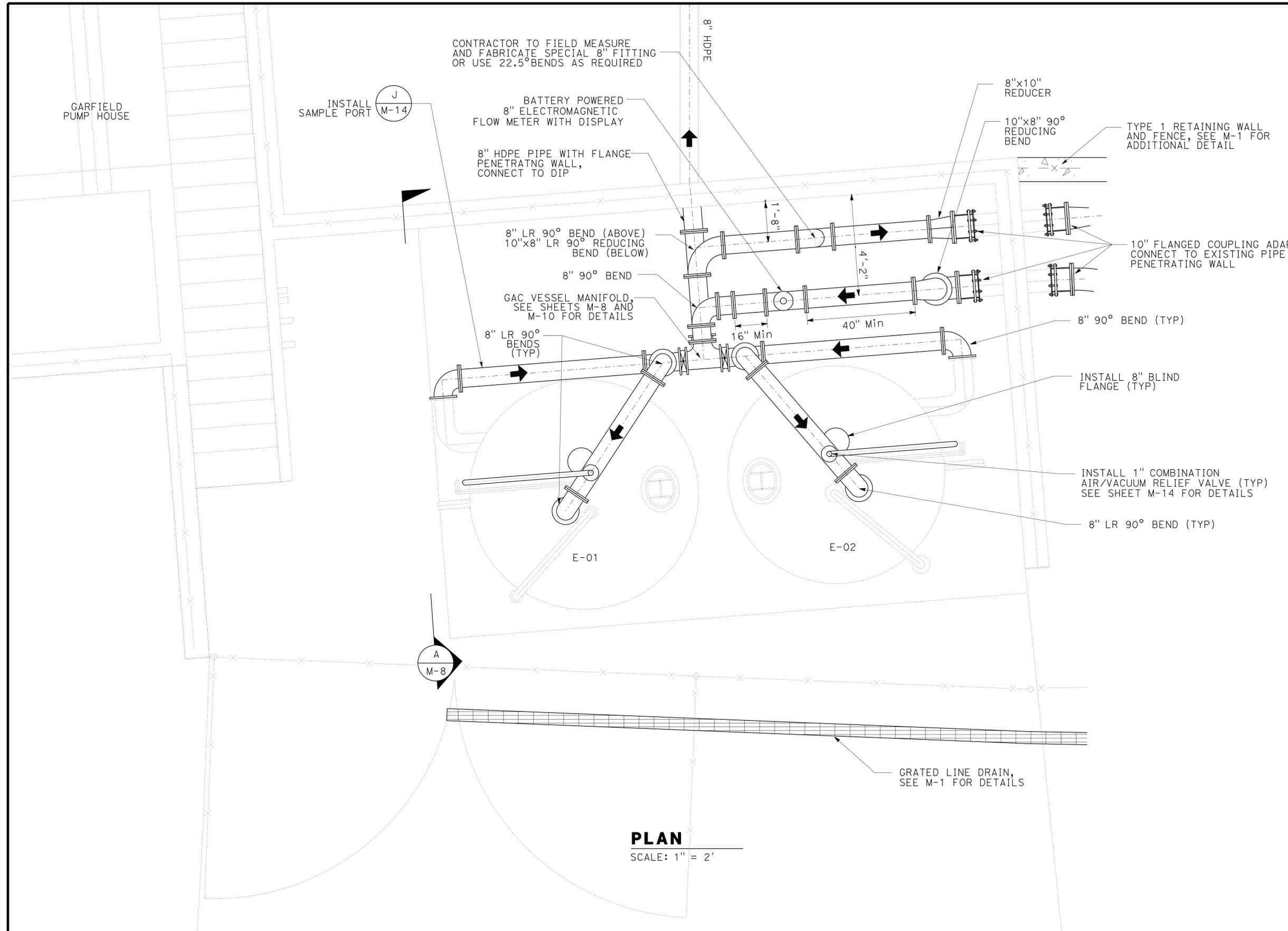
SCALE: 1" = 6'

TAEMWW Imperial Rev. 7/10	DESIGN BY	MARC DIONNE	CHECKED	JOSHUA H. HOWARD	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	-	I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION	SHEET M - 4	
	DETAILS BY	STEVE WESSELS	CHECKED	JOSHUA H. HOWARD		PROJECT ENGINEER	MARC DIONNE			PROPOSED SITE PIPING PLAN (EAST)
	QUANTITIES BY	MARC DIONNE	CHECKED	JOSHUA H. HOWARD		POST MILE	14.3			
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0	1	2	3	UNIT PROJECT NUMBER & PHASE	1961 07000010001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF	
								10-19-09 10-20-09 10-22-09 10-30-09 11-17-09 04-30-10 07-27-10 10-15-10 01-19-11 09-16-11	4 OF 15	

08-FEB-2012 10:20 0700001000wd004.dgn

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	29	43

 REGISTERED CIVIL ENGINEER DATE 11-02-11	
PLANS APPROVAL DATE 2-6-12	
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AMEC Geomatrix 2000 SOUTH COLORADO BOULEVARD, SUITE 2-1000 DENVER, CO 80222	



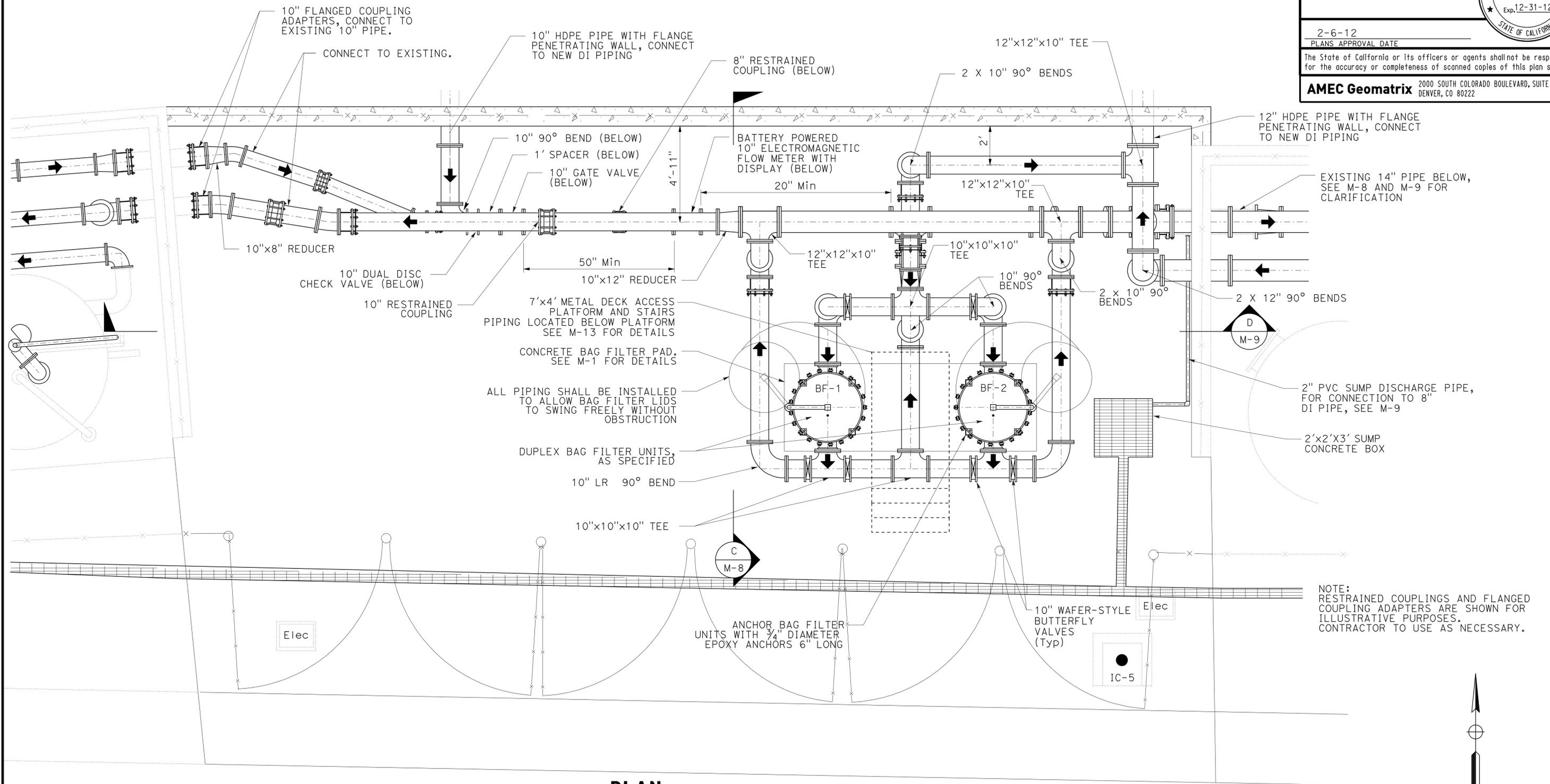
DESIGN BY MARC DIONNE	CHECKED JOSHUA H. HOWARD	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION	SHEET	
DETAILS BY STEVE WESSELS	CHECKED JOSHUA H. HOWARD		-		E-01 AND E-02 PIPING PLAN	M - 5
QUANTITIES BY MARC DIONNE	CHECKED JOSHUA H. HOWARD		POST MILE			OF
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3			14.3	DISREGARD PRINTS BEARING EARLIER REVISION DATES	5 15	
UNIT PROJECT NUMBER & PHASE 1961 07000010001			REVISION DATES (PRELIMINARY STAGE ONLY)			
EA 458401			10-19-09 10-20-09 10-22-09 10-30-09 11-17-09 04-30-10 07-27-10 10-15-10 01-19-11 09-16-11			

08-FEB-2012 10:21

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	30	43


 11-02-11
 REGISTERED CIVIL ENGINEER DATE
 2-6-12
 PLANS APPROVAL DATE

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NOTE:
 RESTRAINED COUPLINGS AND FLANGED COUPLING ADAPTERS ARE SHOWN FOR ILLUSTRATIVE PURPOSES. CONTRACTOR TO USE AS NECESSARY.

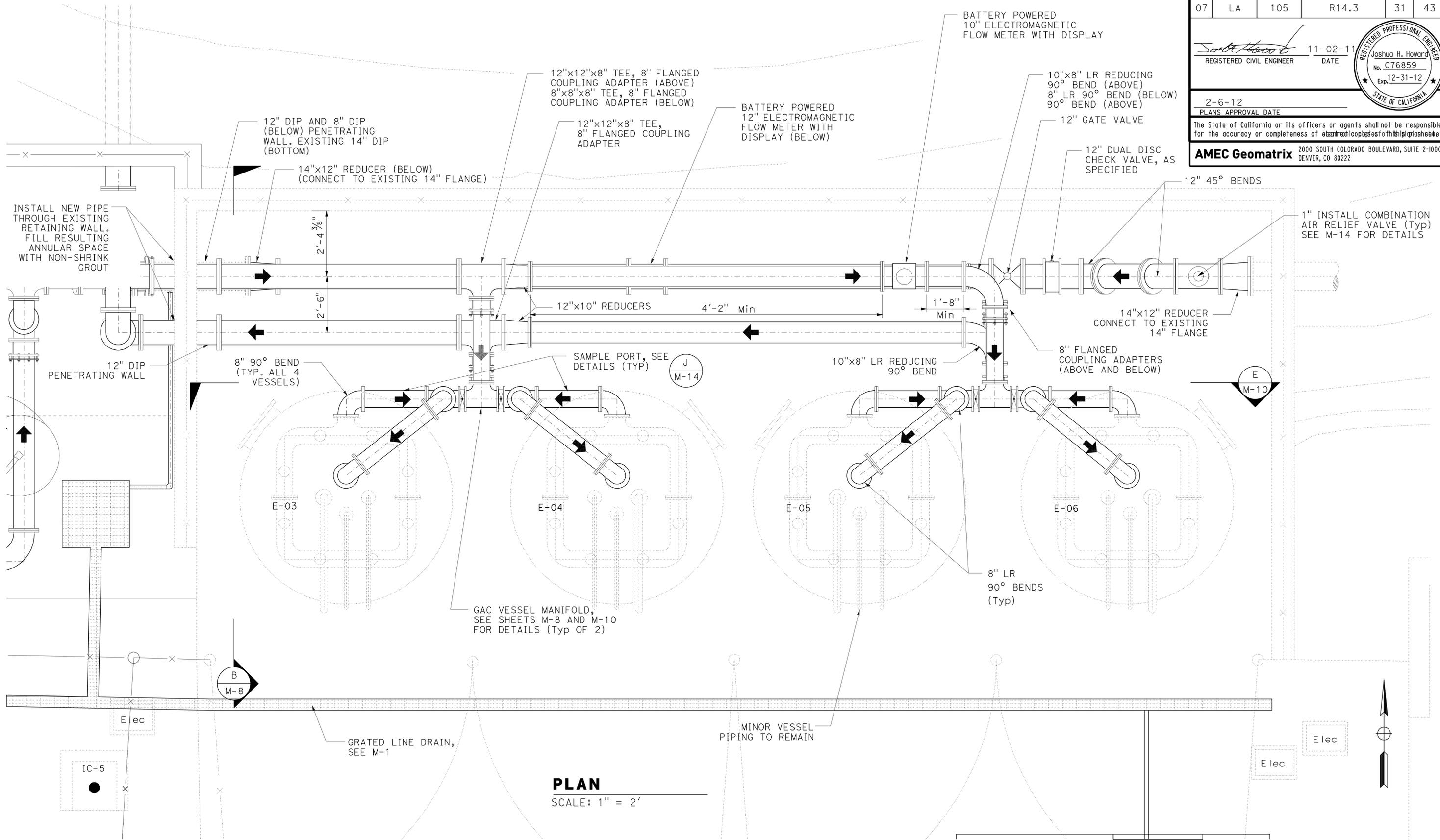
PLAN
 SCALE: 1" = 2.5'

TAEMWW Imperial Rev. 7/10 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	DESIGN BY MARC DIONNE CHECKED JOSHUA H. HOWARD	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO. -	I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION	SHEET 6 OF 15	
	DETAILS BY STEVE WESSELS CHECKED JOSHUA H. HOWARD		PROJECT ENGINEER MARC DIONNE		BAG FILTER PIPING PLAN	M-6
	QUANTITIES BY MARC DIONNE CHECKED JOSHUA H. HOWARD		PROJECT NUMBER & PHASE 1961 07000010001		POST MILE 14.3	REVISION DATES (PRELIMINARY STAGE ONLY) 10-19-09 10-20-09 10-22-09 10-30-09 11-17-09 04-30-10 07-27-10 10-15-10 01-19-11 09-16-11

08-FEB-2012 10:21

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	31	43

	
 REGISTERED CIVIL ENGINEER	11-02-11 DATE
2-6-12 PLANS APPROVAL DATE	
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AMEC Geomatrix 2000 SOUTH COLORADO BOULEVARD, SUITE 2-1000 DENVER, CO 80222	



PLAN
SCALE: 1" = 2'

DESIGN	BY MARC DIONNE	CHECKED JOSHUA H. HOWARD
DETAILS	BY STEVE WESSELS	CHECKED JOSHUA H. HOWARD
QUANTITIES	BY MARC DIONNE	CHECKED JOSHUA H. HOWARD

PREPARED FOR THE
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT ENGINEER	MARC DIONNE
------------------	--------------------

BRIDGE NO.	-
POST MILE	14.3

I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION
E-03 THROUGH E-06 PIPING PLAN

SHEET	M-7
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TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS



UNIT PROJECT NUMBER & PHASE
1961 07000010001

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY)									
10-19-09	10-20-09	10-22-09	10-30-09	11-17-09	04-30-10	07-27-10	10-15-10	01-19-11	09-16-11

SHEET	OF
7	15

08-FEB-2012 10:24

0700001000wd007.dgn

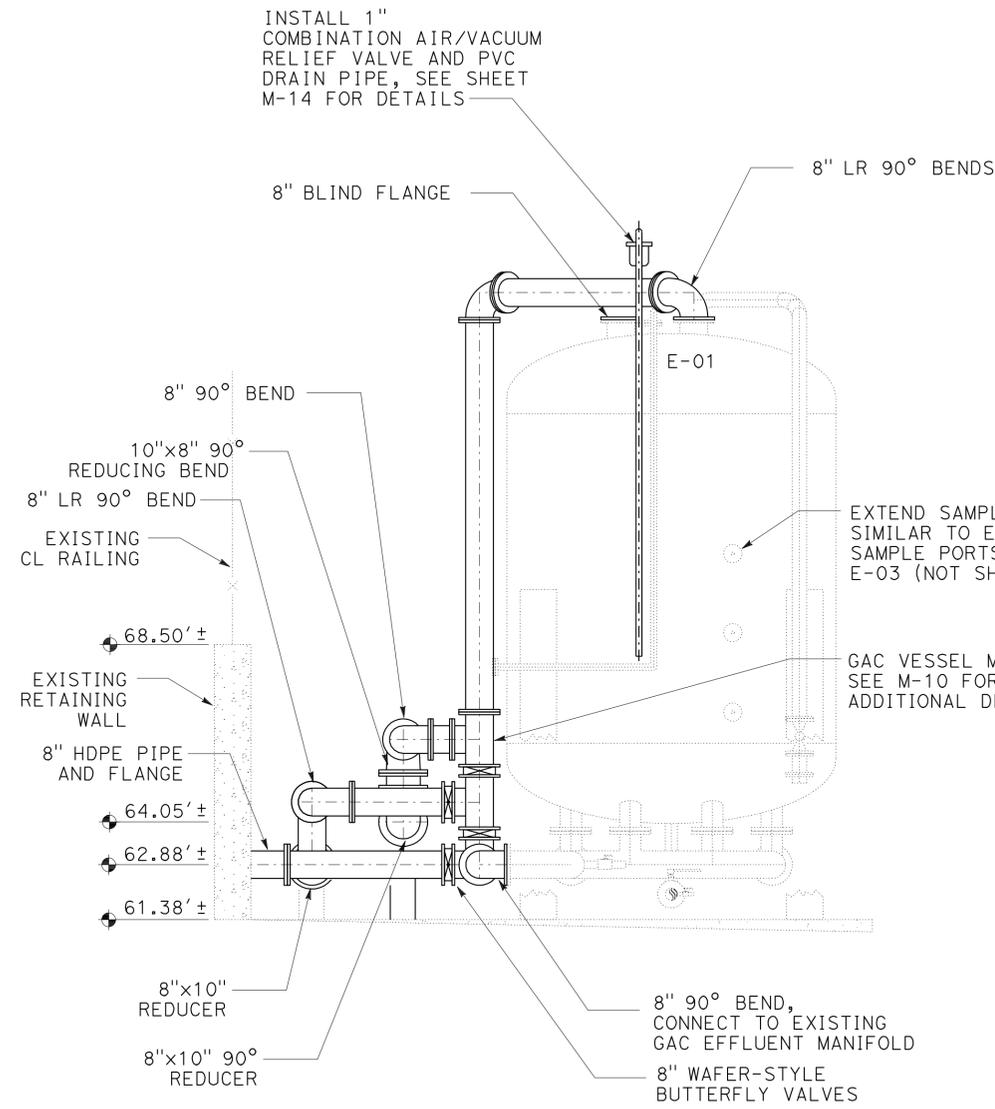
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	32	43

<i>Joshua H. Howard</i>		11-02-11
REGISTERED CIVIL ENGINEER	DATE	

2-6-12
PLANS APPROVAL DATE

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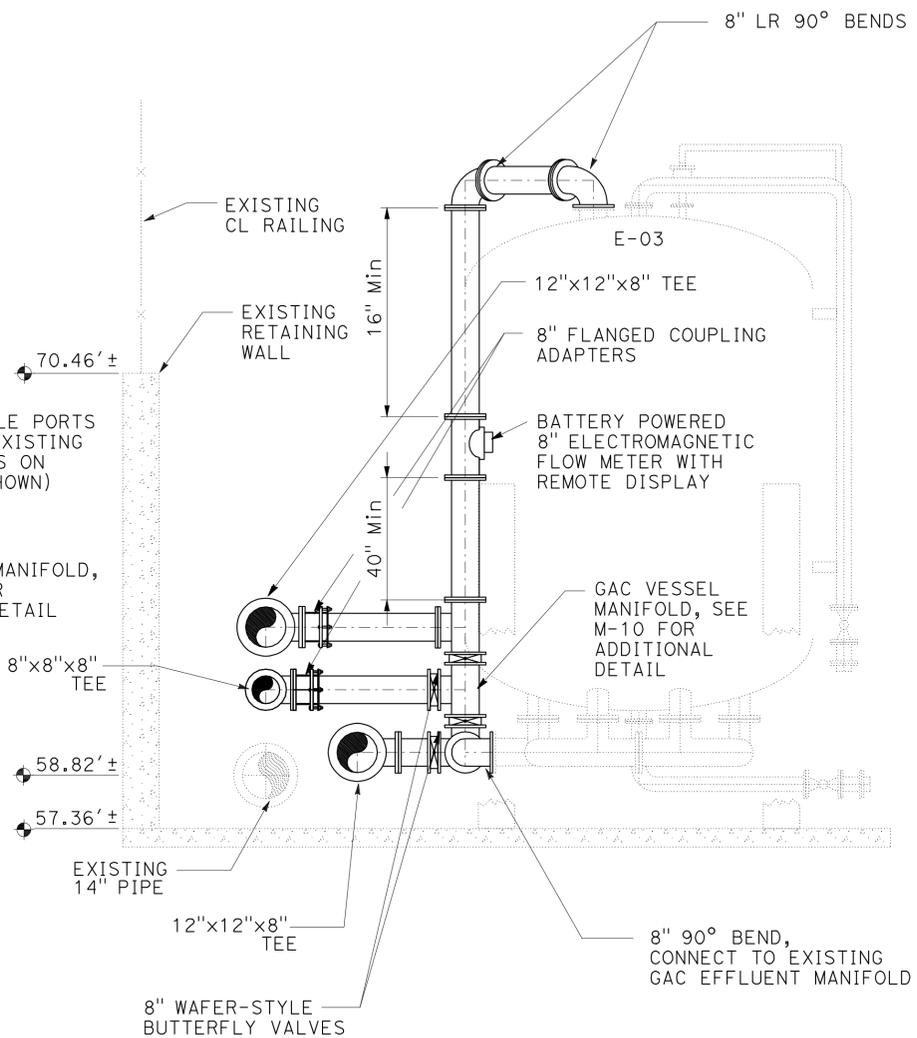
AMEC Geomatrix 2000 SOUTH COLORADO BOULEVARD, SUITE 2-1000 DENVER, CO 80222



GAC VESSEL E-01 PIPING CROSS-SECTION

SCALE: 1" = 2.5'

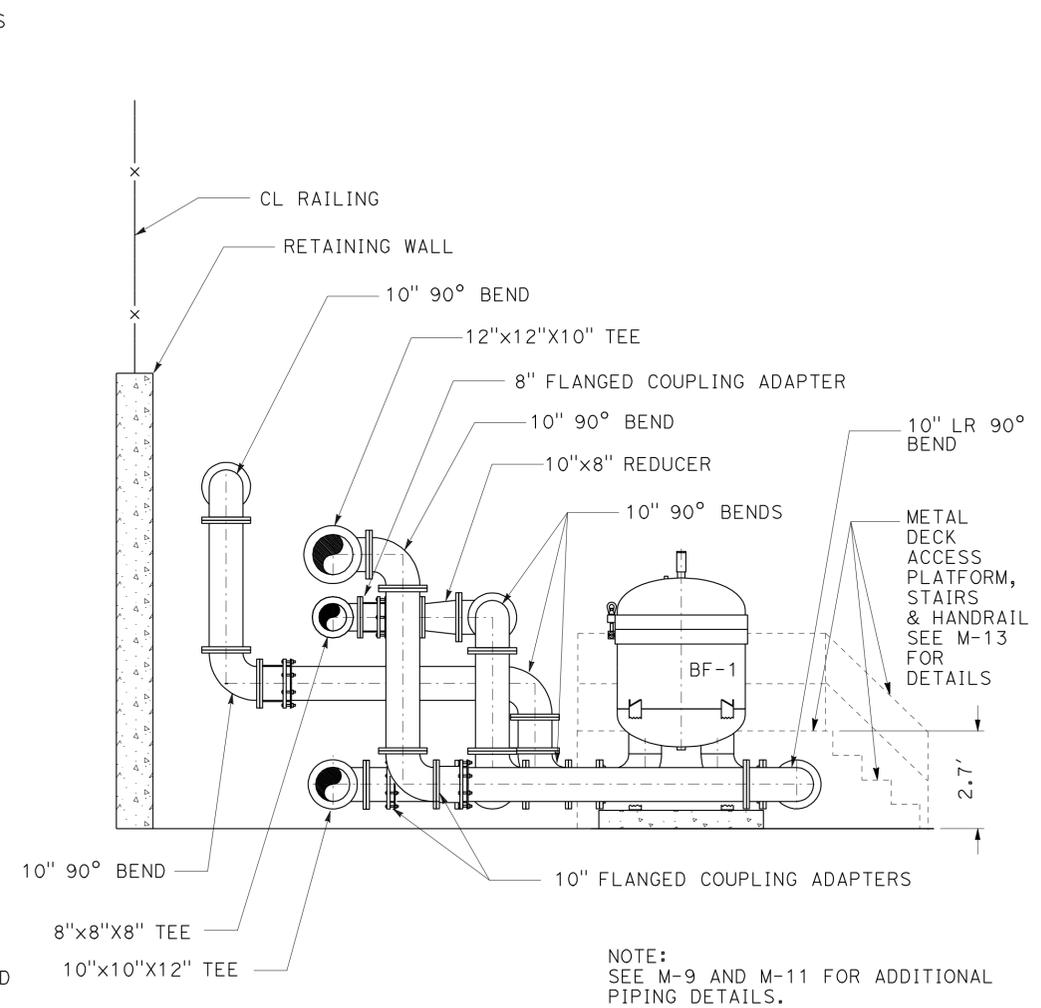
A



GAC VESSEL E-03 PIPING CROSS-SECTION

SCALE: 1" = 2.5'

B



BAG FILTER BF-1 PIPING CROSS-SECTION

SCALE: 1" = 2.5'

C

DESIGN BY MARC DIONNE	CHECKED JOSHUA H. HOWARD	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER MARC DIONNE	BRIDGE NO.	I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION	SHEET M - 8
				-		
DETAILS BY STEVE WESSELS	CHECKED JOSHUA H. HOWARD		POST MILE			
QUANTITIES BY MARC DIONNE	CHECKED JOSHUA H. HOWARD		14.3			
TAEMWW Imperial Rev. 7/10	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS	0 1 2 3	UNIT PROJECT NUMBER & PHASE 1961 07000010001	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF
					10-19-09 10-20-09 10-22-09 10-30-09 11-17-09 04-30-10 07-27-10 10-15-10 01-19-11 09-16-11	8 15

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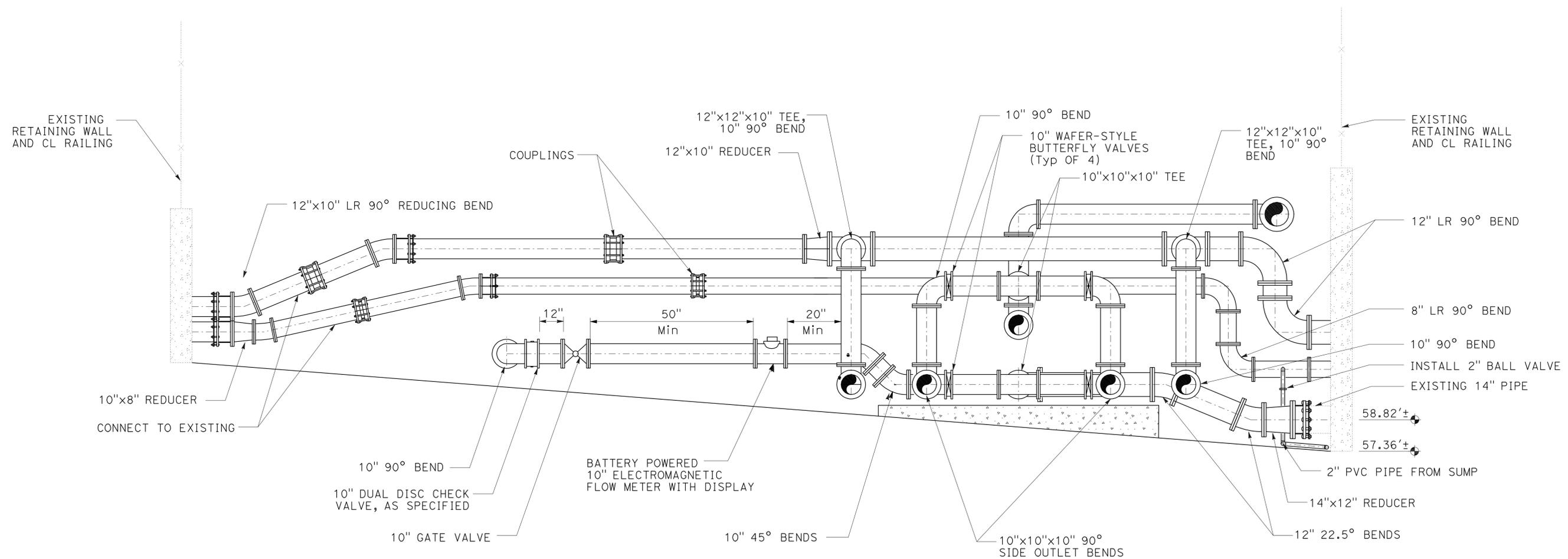
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	33	43


 REGISTERED CIVIL ENGINEER
 DATE 11-02-11


2-6-12
PLANS APPROVAL DATE

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AMEC Geomatrix 2000 SOUTH COLORADO BOULEVARD, SUITE 2-1000 DENVER, CO 80222



PIPING CROSS-SECTION

SCALE: 1" = 2.5'

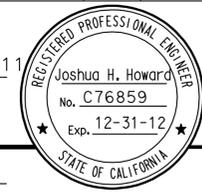


TAEMWW Imperial Rev. 7/10 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	DESIGN BY <i>MARC DIONNE</i>	CHECKED <i>JOSHUA H. HOWARD</i>	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO. -	I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION CARBON VESSEL MANIFOLD AND PIPING SECTIONS - 2	SHEET	
	DETAILS BY <i>STEVE WESSELS</i>	CHECKED <i>JOSHUA H. HOWARD</i>		PROJECT ENGINEER <i>MARC DIONNE</i>		POST MILE 14.3	M - 9
	QUANTITIES BY <i>MARC DIONNE</i>	CHECKED <i>JOSHUA H. HOWARD</i>		PROJECT NUMBER & PHASE 07000010001		DISREGARD PRINTS BEARING EARLIER REVISION DATES →	REVISION DATES (PRELIMINARY STAGE ONLY) 10-19-09 10-20-09 10-22-09 10-30-09 11-17-09 04-30-10 07-27-10 10-15-10 01-19-11 09-16-11

EA 458401 0700001000wd009.dgn

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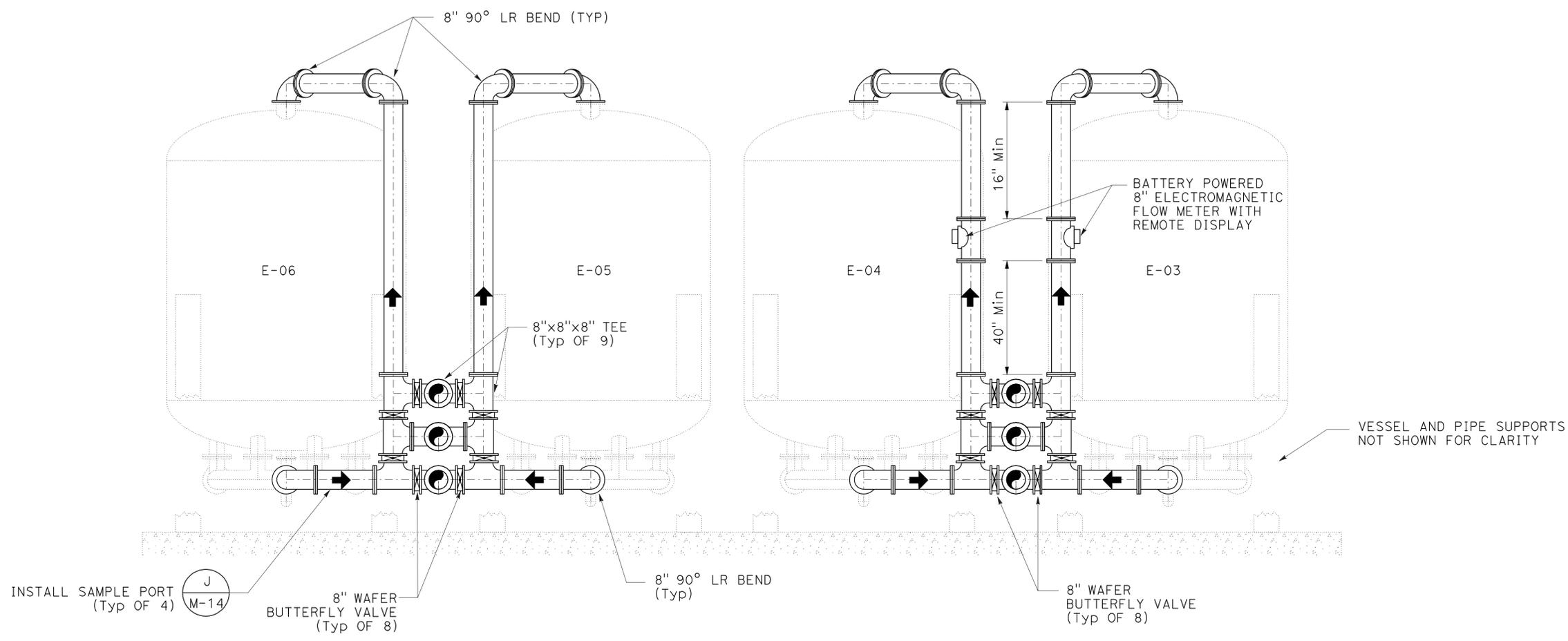
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	34	43


 REGISTERED CIVIL ENGINEER DATE 11-02-11


2-6-12
PLANS APPROVAL DATE

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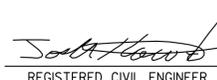
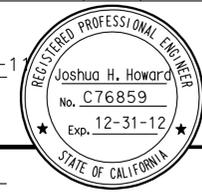
**GAC VESSELS E-03 THROUGH E-06
MANIFOLD PIPING CROSS-SECTION**

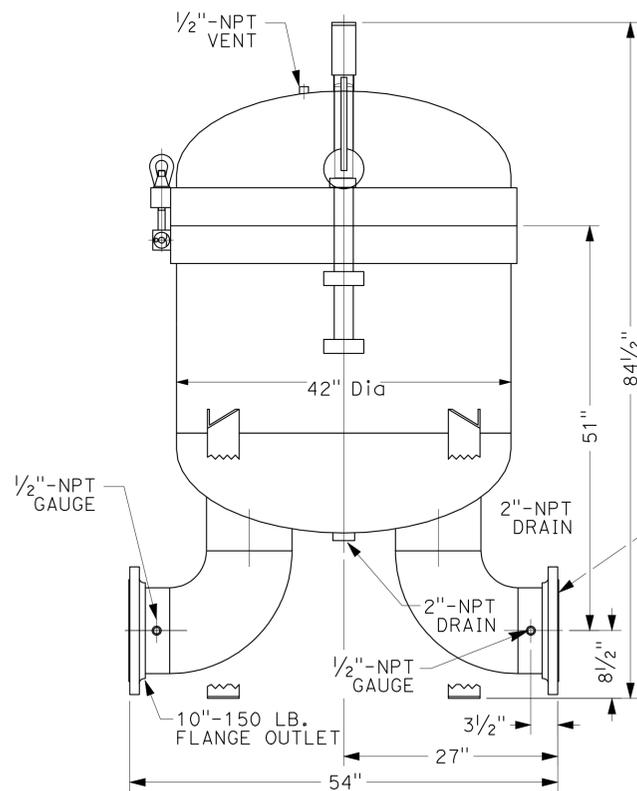
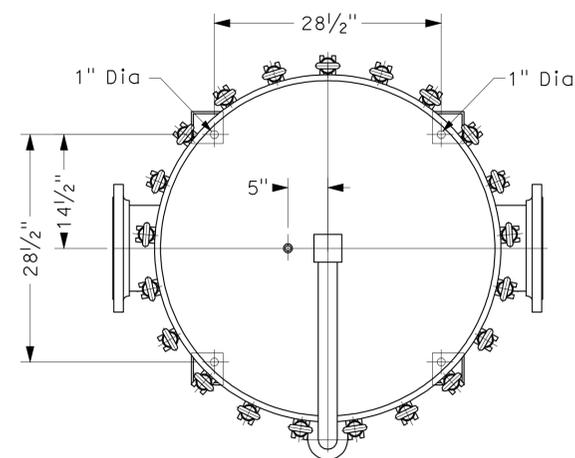
SCALE: 1" = 5'

NOTES:

- EXISTING MINOR VESSEL PIPING NOT SHOWN FOR CLARITY.
- WATER METERS AND PLATE STRAINERS ONLY ON INFLUENT PIPING FOR E-03 AND E-04.
- PROVIDE REMOTE CONVERTER AND DISPLAY FOR FLOW METERS. DISPLAY TO BE READABLE WHEN STANDING AT GROUND LEVEL.
- MANIFOLD ARRANGEMENT SAME FOR ALL 3 SETS OF CARBON VESSELS.

DESIGN BY <i>MARC DIONNE</i> CHECKED <i>JOSHUA H. HOWARD</i>	DETAILS BY <i>STEVE WESSELS</i> CHECKED <i>JOSHUA H. HOWARD</i>	QUANTITIES BY <i>MARC DIONNE</i> CHECKED <i>JOSHUA H. HOWARD</i>	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER <i>MARC DIONNE</i>	BRIDGE NO.	I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION CARBON VESSEL MANIFOLD AND PIPING SECTIONS - 3	SHEET											
					POST MILE 14.3		M-10											
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				UNIT PROJECT NUMBER & PHASE 1961 07000010001	DISREGARD PRINTS BEARING EARLIER REVISION DATES		REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET OF										
0 1 2 3					<table border="1"> <tr> <td>10-19-09</td> <td>10-20-09</td> <td>10-22-09</td> <td>10-30-09</td> <td>11-17-09</td> <td>04-30-10</td> <td>07-27-10</td> <td>10-15-10</td> <td>01-19-11</td> <td>09-16-11</td> </tr> </table>		10-19-09	10-20-09	10-22-09	10-30-09	11-17-09	04-30-10	07-27-10	10-15-10	01-19-11	09-16-11	10	15
10-19-09	10-20-09	10-22-09	10-30-09	11-17-09	04-30-10	07-27-10	10-15-10	01-19-11	09-16-11									

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	35	43
 REGISTERED CIVIL ENGINEER			11-02-11 DATE		
2-6-12 PLANS APPROVAL DATE					
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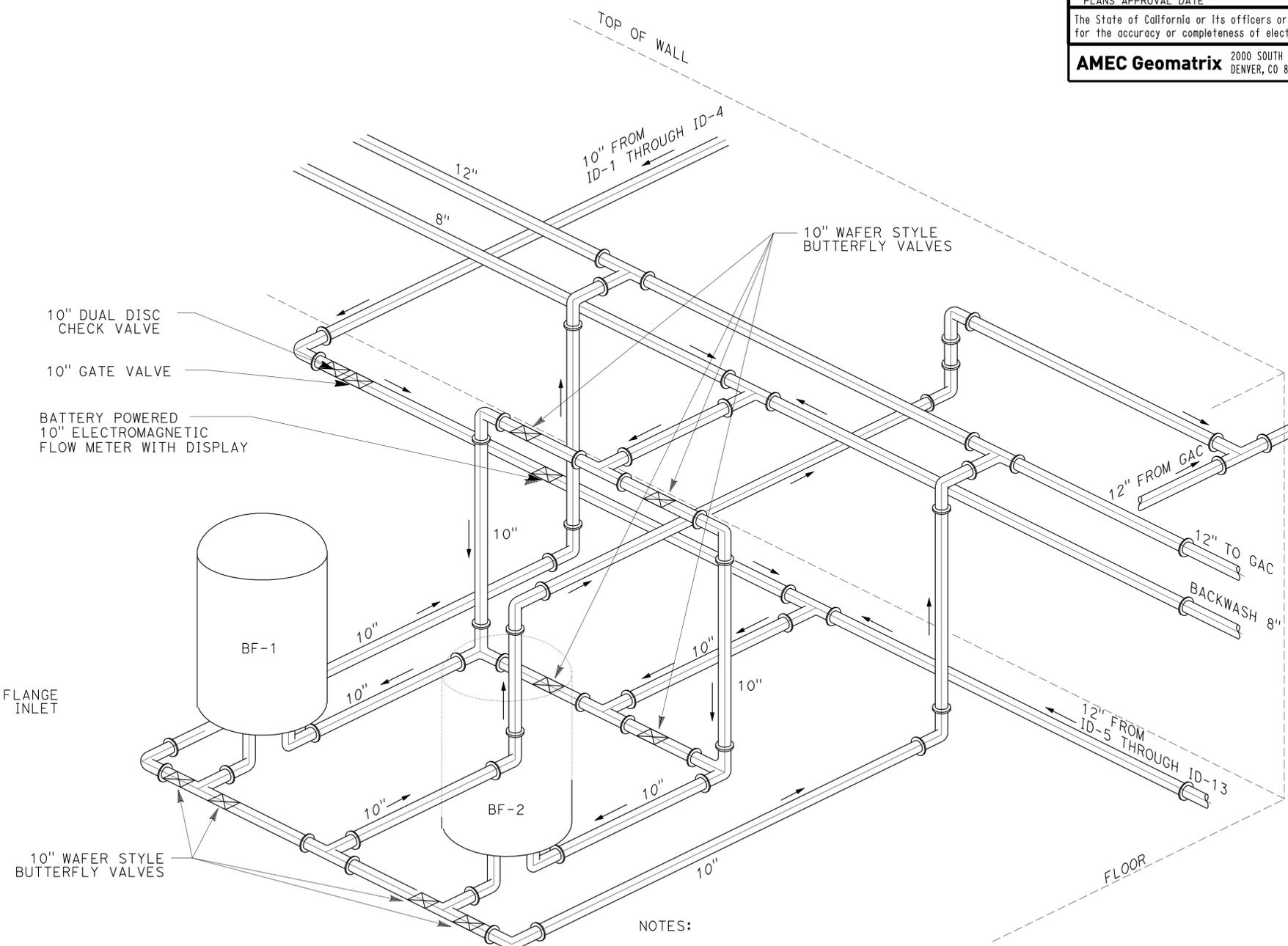


BAG FILTER VESSEL DETAIL

NTS

NOTES:

1. DIMENSIONS MAY VARY DEPENDING ON BAG FILTER MANUFACTURER
 INSTALL PRESSURE INDICATORS AT 1/2" NPT GAUGE HOLES (Typ 2 FOR EACH FILTER)
 SEE SHEET M-14 FOR DETAILS.

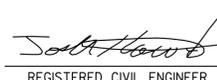


NOTES:

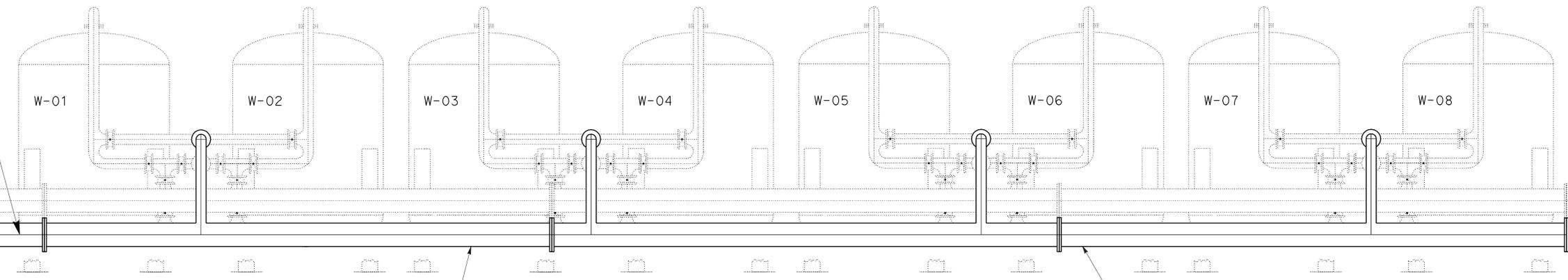
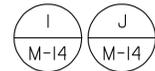
1. ISOMETRIC NOT TO SCALE.
2. ISOMETRIC DOES NOT SHOW REDUCERS, FLANGE COUPLING ADAPTERS, COUPLINGS, OR STEEL ACCESS PLATFORM. PIPE SIZES AND ELEVATIONS ARE NOT TO SCALE AND ARE ONLY INTENDED FOR RELATIVE LOCATIONS. SEE SECTIONS FOR ADDITIONAL DETAILS

DESIGN	BY	MARC DIONNE	CHECKED	JOSHUA H. HOWARD	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	-	I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION	SHEET	M-11										
	DETAILS	BY	STEVE WESSELS	CHECKED			JOSHUA H. HOWARD				POST MILE	14.3	11	15						
QUANTITIES	BY	MARC DIONNE	CHECKED	JOSHUA H. HOWARD	PROJECT NUMBER & PHASE	UNIT	1961	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY)	SHEET	OF									
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS					0	1	2	3	10-19-09	10-20-09	10-22-09	10-30-09	11-17-09	04-30-10	07-27-10	10-15-10	01-19-11	09-16-11	11	15
EA 458401					07000010001			070001000wd011.dgn												

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DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	36	43
 REGISTERED CIVIL ENGINEER			11-02-11 DATE		
2-6-12 PLANS APPROVAL DATE					
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AMEC Geomatrix 2000 SOUTH COLORADO BOULEVARD, SUITE 2-1000 DENVER, CO 80222					

INSTALL SAMPLE PORT
AND PRESSURE INDICATOR
BEFORE 22.5° BEND



CONTRACTOR TO FABRICATE AND INSTALL
NEW 10" DI EFFLUENT HEADER TO MATCH
EXISTING EFFLUENT HEADER, INCLUDING
4" FLANGED CONNECTION POINTS. CONTRACTOR
TO FIELD VERIFY HEADER DIMENSIONS

VESSEL AND PIPE SUPPORTS
NOT SHOWN FOR CLARITY

10" BLIND
FLANGE

WEST TREATMENT SYSTEM PIPING ELEVATION

SCALE: 1" = 2.5'

DESIGN	BY <i>MARC DIONNE</i>	CHECKED <i>JOSHUA H. HOWARD</i>
DETAILS	BY <i>STEVE WESSELS</i>	CHECKED <i>JOSHUA H. HOWARD</i>
QUANTITIES	BY <i>MARC DIONNE</i>	CHECKED <i>JOSHUA H. HOWARD</i>

PREPARED FOR THE
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT ENGINEER	<i>MARC DIONNE</i>
BRIDGE NO.	-
POST MILE	14.3

I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION		SHEET M-12
TREATMENT SYSTEM PIPING ELEVATION (WEST)		
REVISION DATES (PRELIMINARY STAGE ONLY)		

TAEMWW Imperial Rev. 7/10

ORIGINAL SCALE IN INCHES
FOR REDUCED PLANS



UNIT	1961
PROJECT NUMBER & PHASE	07000010001

DISREGARD PRINTS BEARING EARLIER REVISION DATES	10-19-09 10-20-09 10-22-09 10-30-09 11-17-09 04-30-10 07-27-10 10-15-10 01-19-11 09-16-11
SHEET	12
OF	15

09-FEB-2012 06:24

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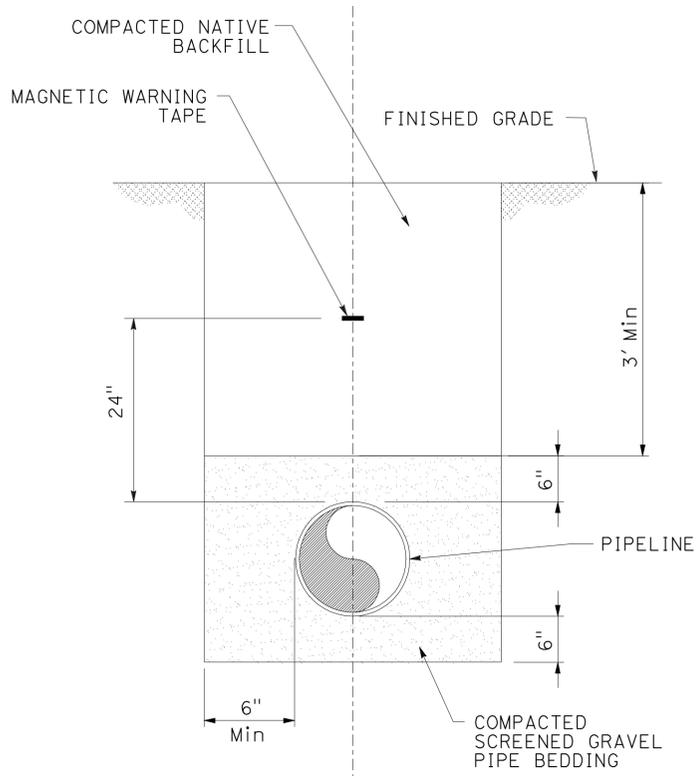
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	37	43

11-02-11 DATE
 REGISTERED CIVIL ENGINEER
 Joshua H. Howard
 No. C76859
 Exp. 12-31-12
 STATE OF CALIFORNIA

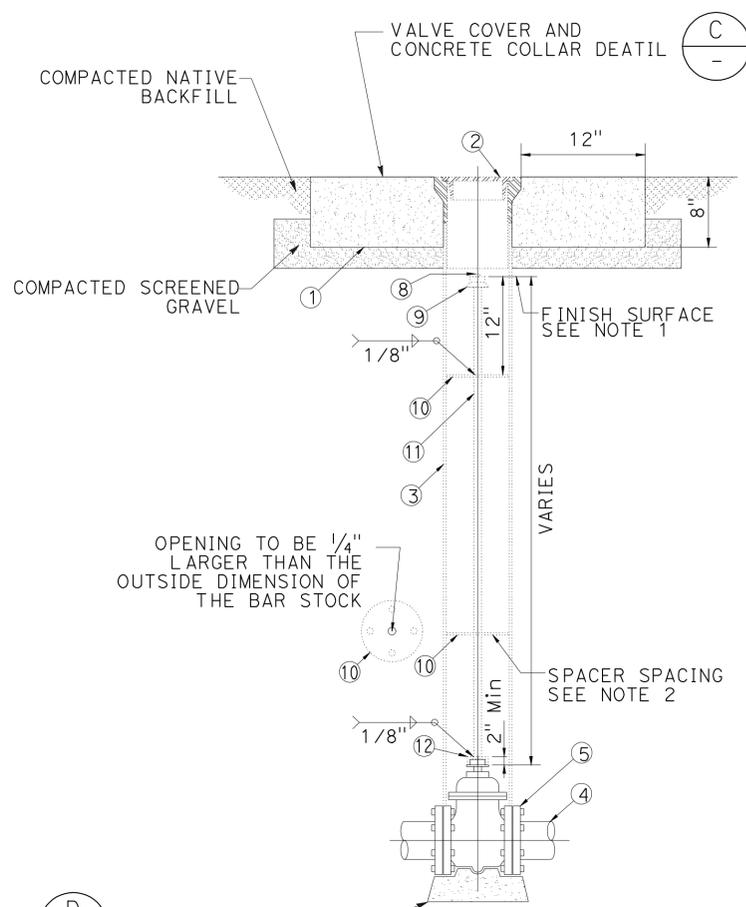
2-6-12
 PLANS APPROVAL DATE

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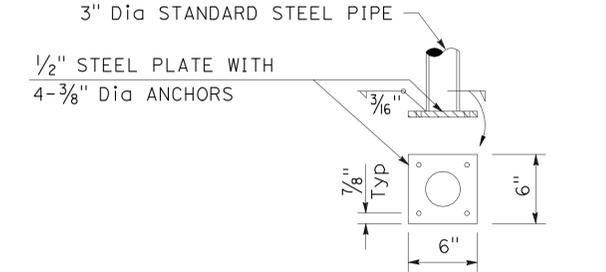
TYPICAL TRENCH DETAIL
NOT TO SCALE



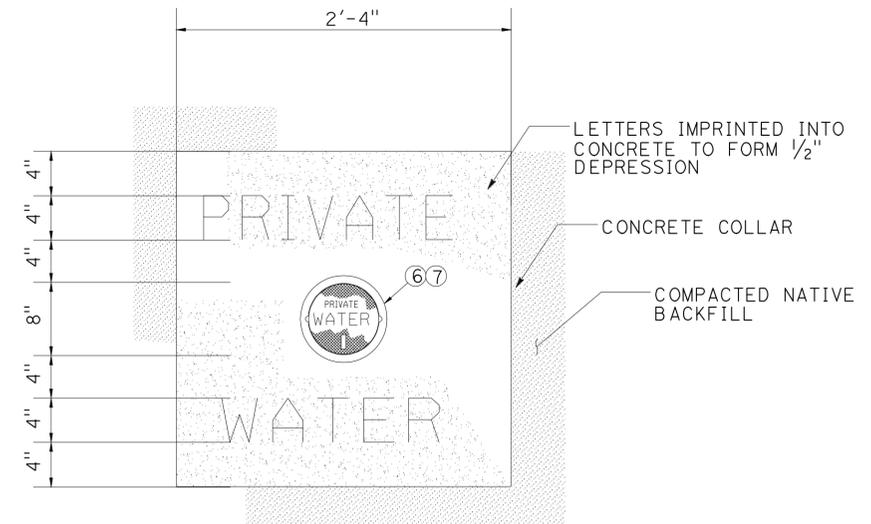
VALVE BOX DETAIL
NOT TO SCALE

- NOTES:
1. TERMINATE EXTENSION 24" TO 36" FROM FINISHED GRADE.
 2. PROVIDE ADDITIONAL SPACER PLATE(S) WHEN DISTANCE TO BOTTOM SOCKET EXCEEDS 5' BEYOND LOWEST PLATE.
 3. CONCRETE SHALL NOT EXTEND ONTO FLANGE OF ADJOINING PIPE.
 4. DO NOT COVER FITTING BOLTS WITH CONCRETE.
 5. WHEN VALVES ARE FLANGED TO FITTINGS AVOID PLACING CONCRETE ON ANY PART OF THE VALVE BONNET OR VALVE OPERATOR.
 6. COAT REBAR WITH 50 MILS OF COLD-APPLIED BITUMASTIC WATER-PROOFING COMPOUND. WRAP EXTERIOR OF VALVE, ACTUATOR, AND REBAR WITH 8 MIL POLYETHYLENE SHEETING AND TAPE PER STANDARD SPECIFICATIONS.
 7. MINIMUM CONCRETE COVER OVER REBAR SHALL BE 3".
 8. NO CONCRETE SHALL BE POURED ON PIPE JOINT.
 9. YIELD STRENGTH OF STEEL BARS IS ASSUMED TO BE 36 KSI.

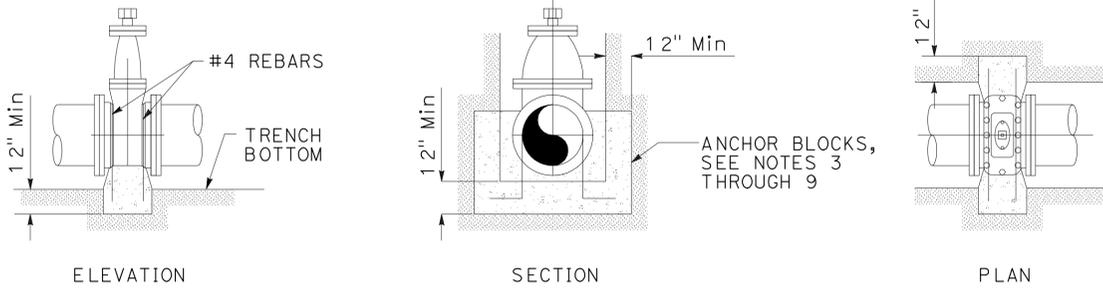
ITEM	MATERIALS
①	CLASS "B" CONCRETE COLLAR
②	VALVE BOX AND FRAME PER SPECIFICATION
③	ONE-PIECE 8" (SDR 35) PVC PIPE
④	WATER PIPELINE
⑤	VALVE
⑥	VALVE COVER TO BE IRON WITH LETTERS "PRIVATE WATER" CAST THEREON
⑦	VALVE COVER PER DETAIL HEREON. USE 6" LONG-SKIRTED CAST IRON LID FOR ROUND BOXES.
⑧	STAINLESS STEEL CAP SCREW
⑨	AWWA 2" SQUARE OPERATING NUT
⑩	6-1/2" DIA. X 3/16" SPACER PLATE
⑪	1-1/4" SOLID, ROUND OR SQUARE STEEL BAR STOCK (PINNED COUPLERS ARE NOT ALLOWED)
⑫	AWWA SOCKET FOR 2" SQUARE OPERATING NUT



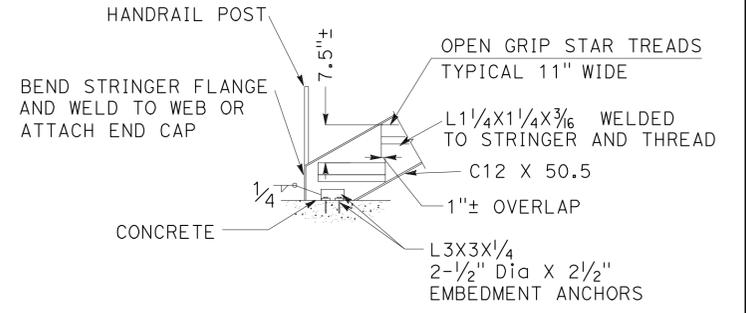
PLATFORM DETAIL
NOT TO SCALE



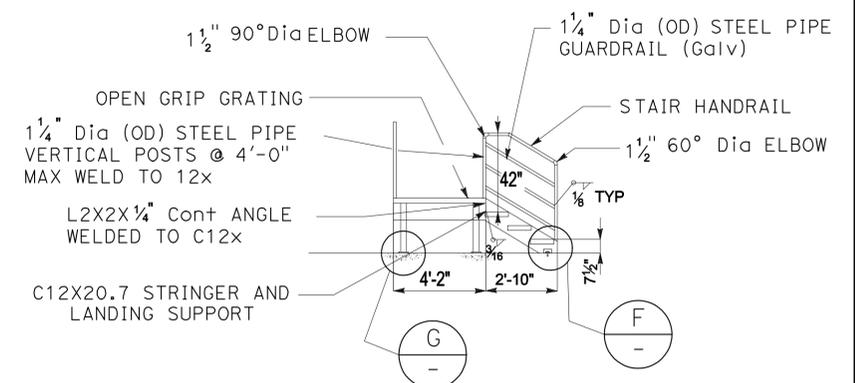
VALVE COVER AND CONCRETE COLLAR DETAIL
NOT TO SCALE



VALVE ANCHOR BLOCKS
NOT TO SCALE

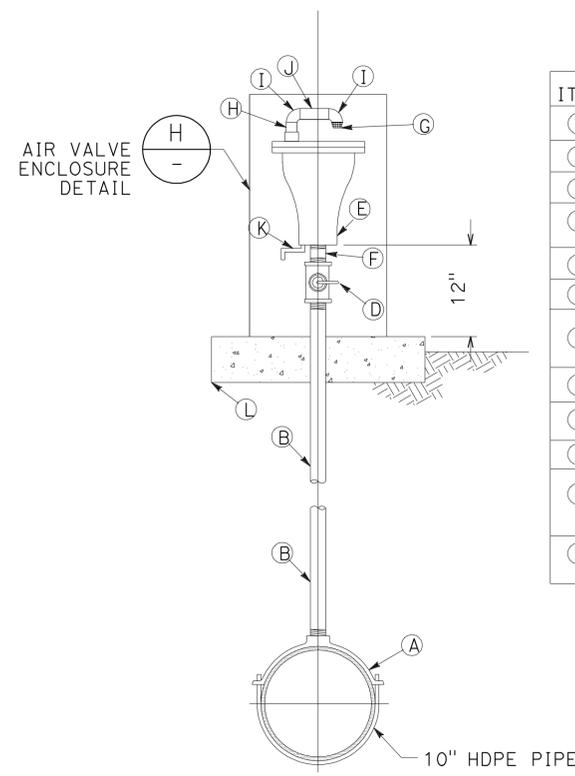


STAIR DETAIL
NOT TO SCALE



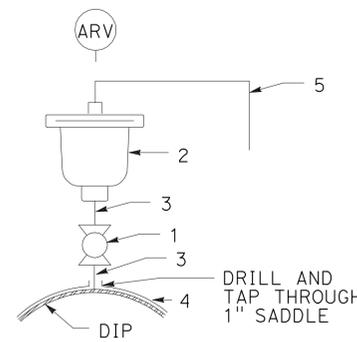
METAL DECK ACCESS PLATFORM STAIRS & HANDRAIL
NOT TO SCALE

DESIGN BY MARC DIONNE	CHECKED JOSHUA H. HOWARD	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO.	I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION	SHEET	
DETAILS BY STEVE WESSELS	CHECKED JOSHUA H. HOWARD		-		MECHANICAL DETAILS - 1	OF
QUANTITIES BY MARC DIONNE	CHECKED JOSHUA H. HOWARD		PROJECT MILE			13
UNIT PROJECT NUMBER & PHASE 1961 07000010001		EA 458401	14.3	REVISION DATES (PRELIMINARY STAGE ONLY)	08-FEB-2012 10:36	



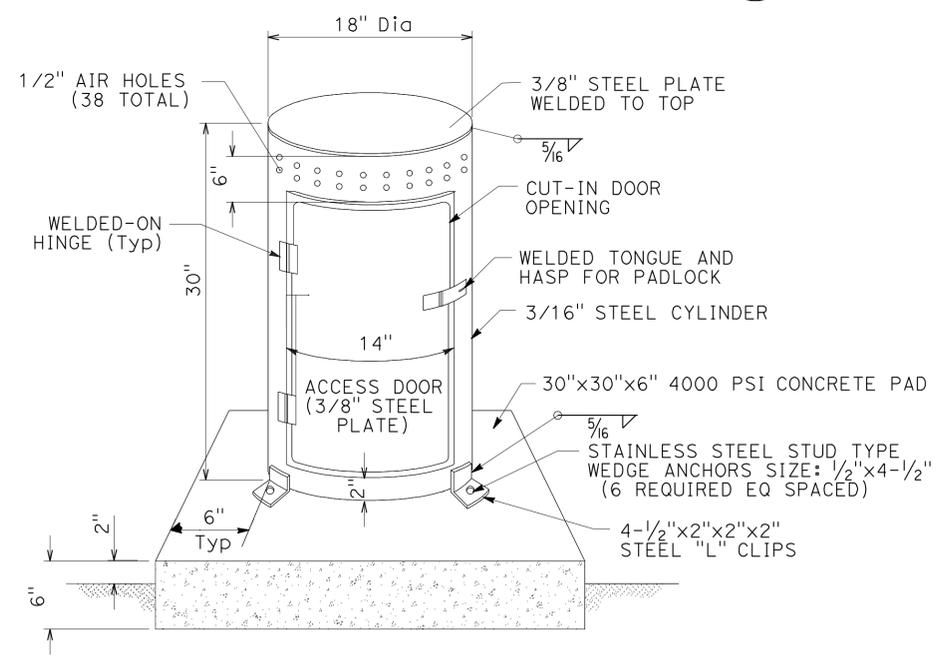
ITEM	MATERIALS
(A)	TAPPING SADDLE
(B)	2" DIAMETER PIPE
(C)	2" 90° ELBOW
(D)	2" BRONZE BALL VALVE WITH LEVER HANDLE
(E)	2" AIR & VACUUM RELIEF VALVE
(F)	2" DIAMETER PIPE NIPPLE
(G)	PRE-FAB PVC SCREEN OUTLET WITH RIGID STAINLESS STEEL SCREEN MIPT INLET
(H)	2" SCH 80 PVC NIPPLE - 2" LONG
(I)	2" SCH 80 PVC 90° ELBOW, SWEAT X FIPT
(J)	2" SCH 80 PVC NIPPLE, SLIP X SLIP
(K)	1/2" X 2" SCH 40 SST NIPPLE, 1/2" SST 90° ELL, AND 1/2" SST BALL VALVE
(L)	COLD JOINT STRIP WHEN ADJACENT TO SIDEWALK

AIR AND VACUUM RELIEF VALVE ASSEMBLY DETAIL
NOT TO SCALE



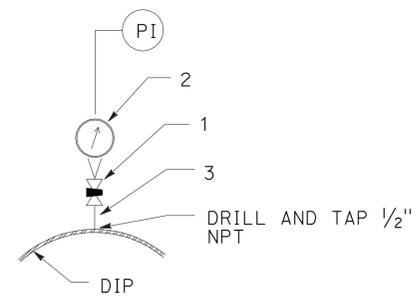
AIR AND VACUUM RELIEF
NOT TO SCALE

ITEM NO.	DESCRIPTION	SIZE	Qty
1	BALL VALVE, BRONZE, FNPT, 175 PSI	1"	1
2	AIR AND VACUUM RELIEF VALVE, CAST IRON, FNPT	1"	1
3	PIPE NIPPLE, SCH 80, ASTM A-276, 316SS, MNPT, 2 1/2" LONG	1"	2
4	PIPE SADDLE, EPOXY COATED, SS BAND AND BOLTS	1"	1
5	PVC PIPE	1"	1



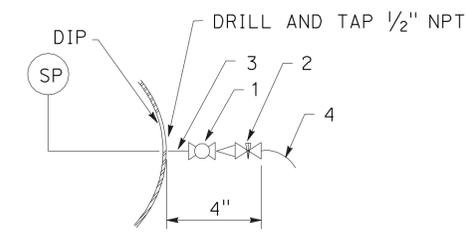
AIR VALVE ENCLOSURE DETAIL
NOT TO SCALE

NOTE: INSIDE AND OUTSIDE OF COVER PAINTED WITH PRIMER AND FINISH COAT PER SPECIFICATIONS.



PRESSURE INDICATOR
NOT TO SCALE

ITEM NO.	DESCRIPTION	SIZE	Qty
1	GAUGE COCK, FNPT	1/2"	1
2	PRESSURE GAUGE, MNPT	1/2"	1
3	PIPE NIPPLE, SCH 80, ASTM A-276, 316SS, MNPT, 2" LONG	1/2"	1



SAMPLE PORT
NOT TO SCALE

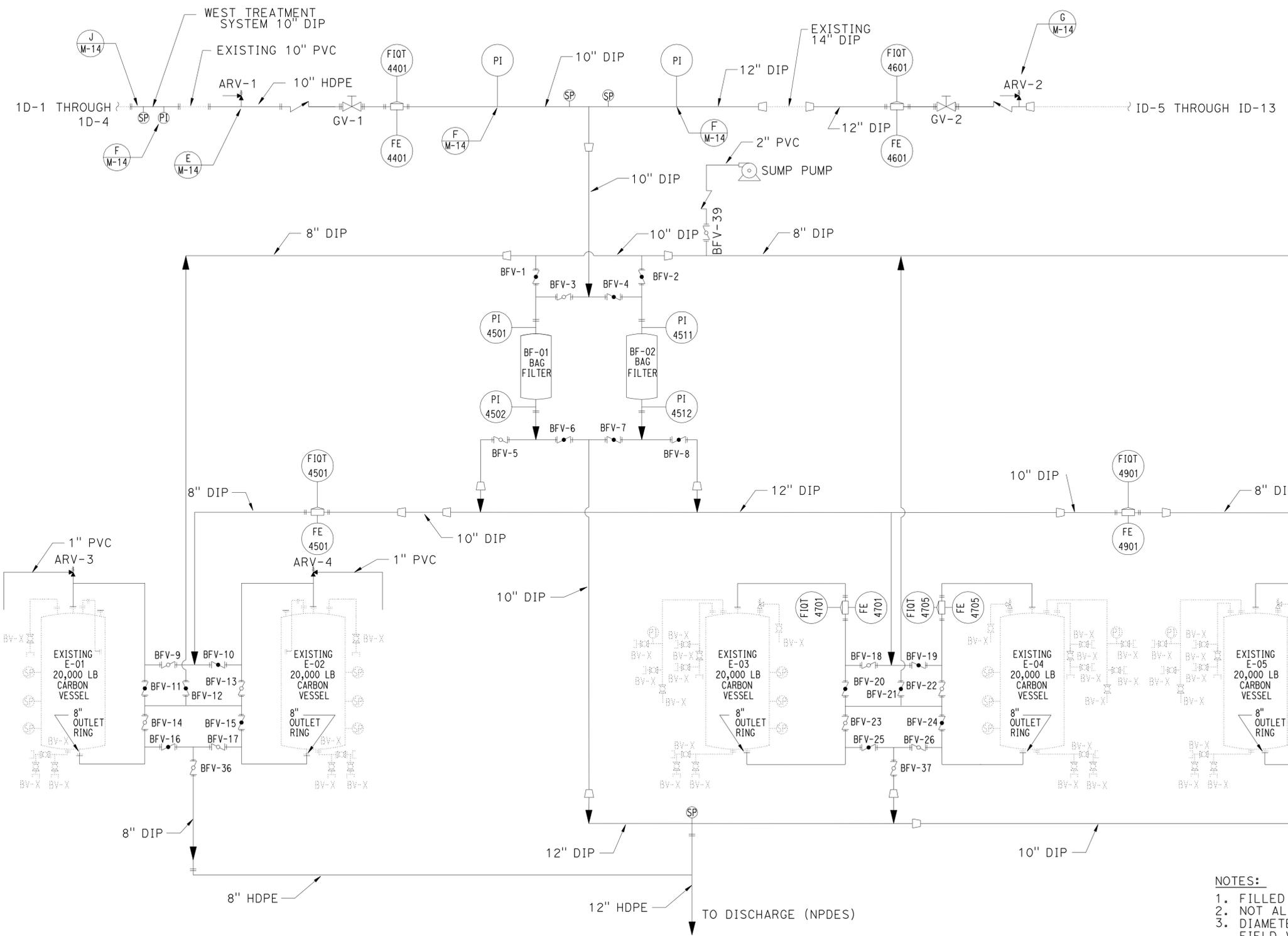
ITEM NO.	DESCRIPTION	SIZE	Qty
1	BALL VALVE, 316SS, FNPT	1/2"	1
2	NEEDLE VALVE, 316SS, MNPT X TUBE	1/2"	1
3	PIPE NIPPLE, SCH 80, ASTM A-276, 316SS, MNPT, 1" LONG	1/2"	1
4	TUBING, ASTM A-269, 316SS, 0.049" WALL		1

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	39	43


 REGISTERED CIVIL ENGINEER
 DATE 11-02-11


2-6-12
 PLANS APPROVAL DATE
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GENERAL INSTRUMENT OR FUNCTION	
DISCRETE INSTRUMENT	
FIELD MOUNTED	



- NOTES:**
1. FILLED IN VALVES ARE NORMALLY CLOSED.
 2. NOT ALL FLANGES AND REDUCERS ARE SHOWN.
 3. DIAMETER OF EXISTING SUBSURFACE PIPE TO BE FIELD VERIFIED BY CONTRACTOR.

TAEMWW Imperial Rev. 7/10 ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	DESIGN BY MARC DIONNE CHECKED JOSHUA H. HOWARD	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	BRIDGE NO. -	I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION PIPING AND INSTRUMENTATION DIAGRAM - 1	SHEET M - 15 OF 15	
	DETAILS BY STEVE WESSELS CHECKED JOSHUA H. HOWARD		PROJECT ENGINEER MARC DIONNE		POST MILE 14.3	REVISION DATES (PRELIMINARY STAGE ONLY) 10-19-09 10-20-09 10-22-09 10-30-09 11-17-09 04-30-10 07-27-10 10-15-10 01-19-11 09-30-11
	QUANTITIES BY MARC DIONNE CHECKED JOSHUA H. HOWARD		UNIT PROJECT NUMBER & PHASE 1961 07000010001		DISREGARD PRINTS BEARING EARLIER REVISION DATES	SHEET OF 15 15

08-FEB-2012 10:36 0700001000wd015.dgn

GENERAL NOTES:

1. CONDUIT ROUTING IS SHOWN DIAGRAMMATICALLY.
2. ALL CONDUIT SHALL BE RIGID STEEL.
3. CONDUITS TO INDIVIDUAL INSTRUMENTS FROM CONDUIT TEES NOT SHOWN FOR CLARITY. THE CONTRACTOR SHALL SUPPLY AND INSTALL PER NATIONAL ELECTRICAL CODE.

NOTE:

- 1 EXISTING EQUIPMENT
- XXXXXX CONDUIT NAME

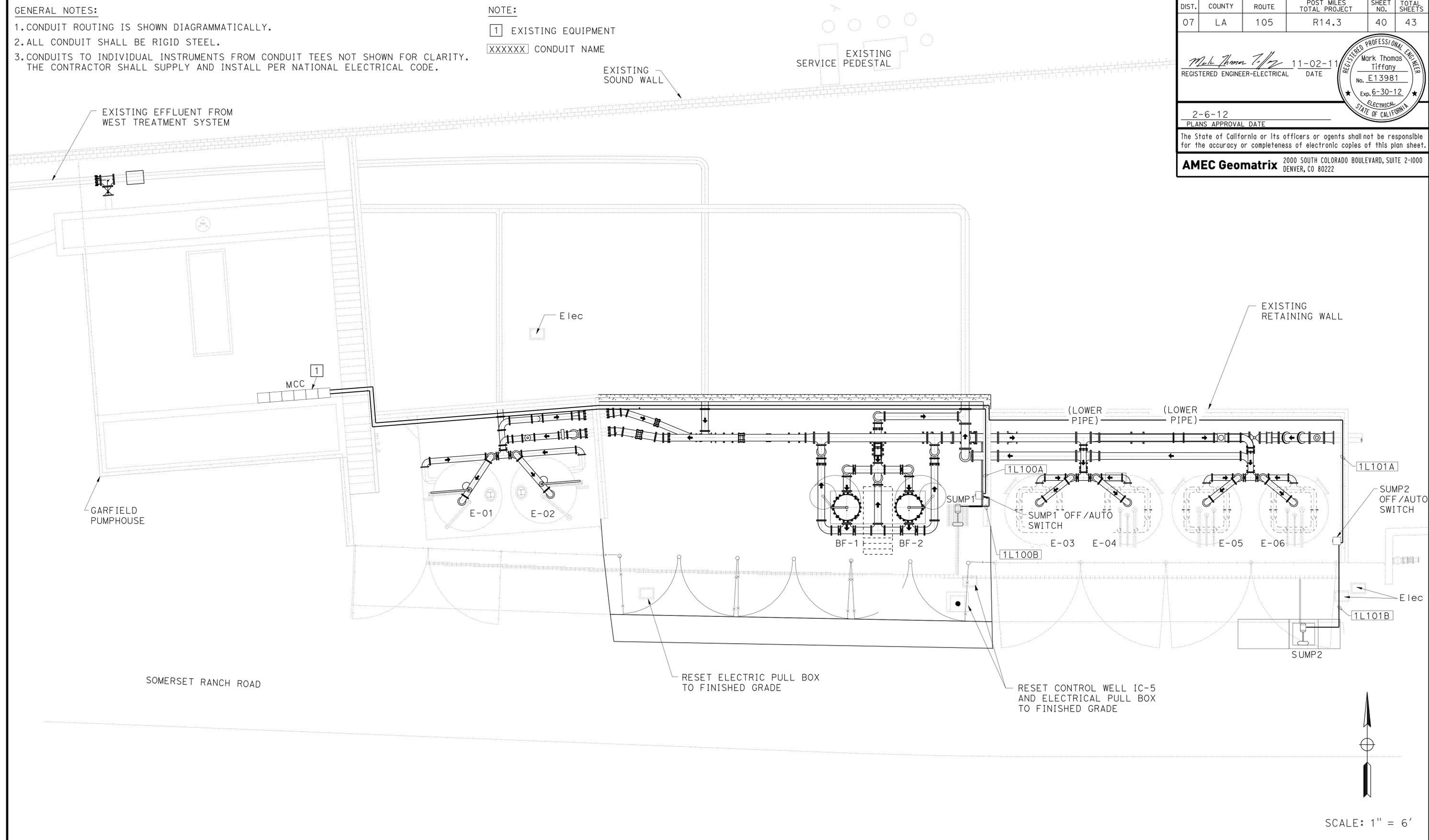
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	40	43

Mark Thomas Tiffany
 REGISTERED ENGINEER-ELECTRICAL DATE 11-02-11
 No. E13981
 Exp. 6-30-12
 ELECTRICAL ENGINEER
 STATE OF CALIFORNIA

2-6-12
 PLANS APPROVAL DATE

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DESIGN BY <i>NEIL HECKERMAN</i> CHECKED <i>MARK TIFFANY</i> DETAILS BY <i>KENDRA HATHAWAY</i> CHECKED <i>MARK TIFFANY</i> QUANTITIES BY <i>NEIL HECKERMAN</i> CHECKED <i>MARK TIFFANY</i>	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER <i>MARC DIONNE</i>	BRIDGE NO. -	I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION	SHEET EE - 1
	PROJECT NUMBER & PHASE 1961 07000010001	POST MILE 14.3	GENERAL ARRANGEMENT / CONDUIT PLAN	REVISION DATES (PRELIMINARY STAGE ONLY) 10-19-09 10-20-09 10-22-09 10-30-09 11-17-09 04-30-10 07-27-10 10-15-10 01-19-11 10-13-11	SHEET OF 1 4
	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT EA 458401	DISREGARD PRINTS BEARING EARLIER REVISION DATES	0700001000we001.dgn	08-FEB-2012 10:43

ITEM	Q+Y	UNIT	SYMBOL	VENDOR/MFG	PARTS/DASH NUMBER	NOMENCLATURE/DESCRIPTION
F1	5	EA				1-150 W CLEAR ED-17 METAL HALIDE, HORIZONTAL POSITION, WALL MOUNTED, WIDE THROW, FULL CUTOFF, NIGHTTIME FRIENDLY, UL
SS	1	EA				LIGHT SWITCH

NOTES:

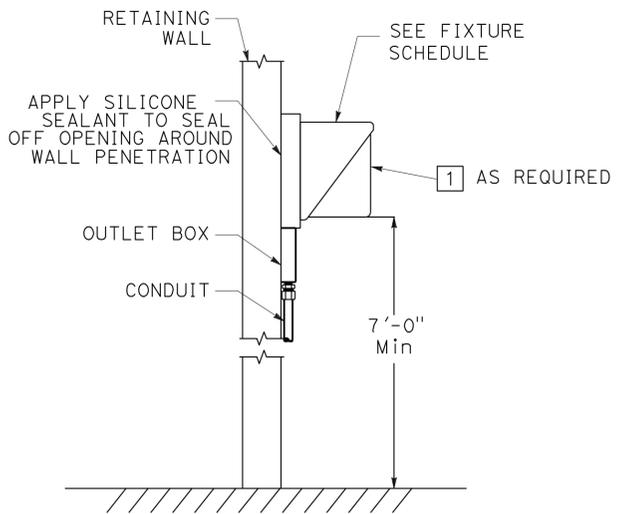
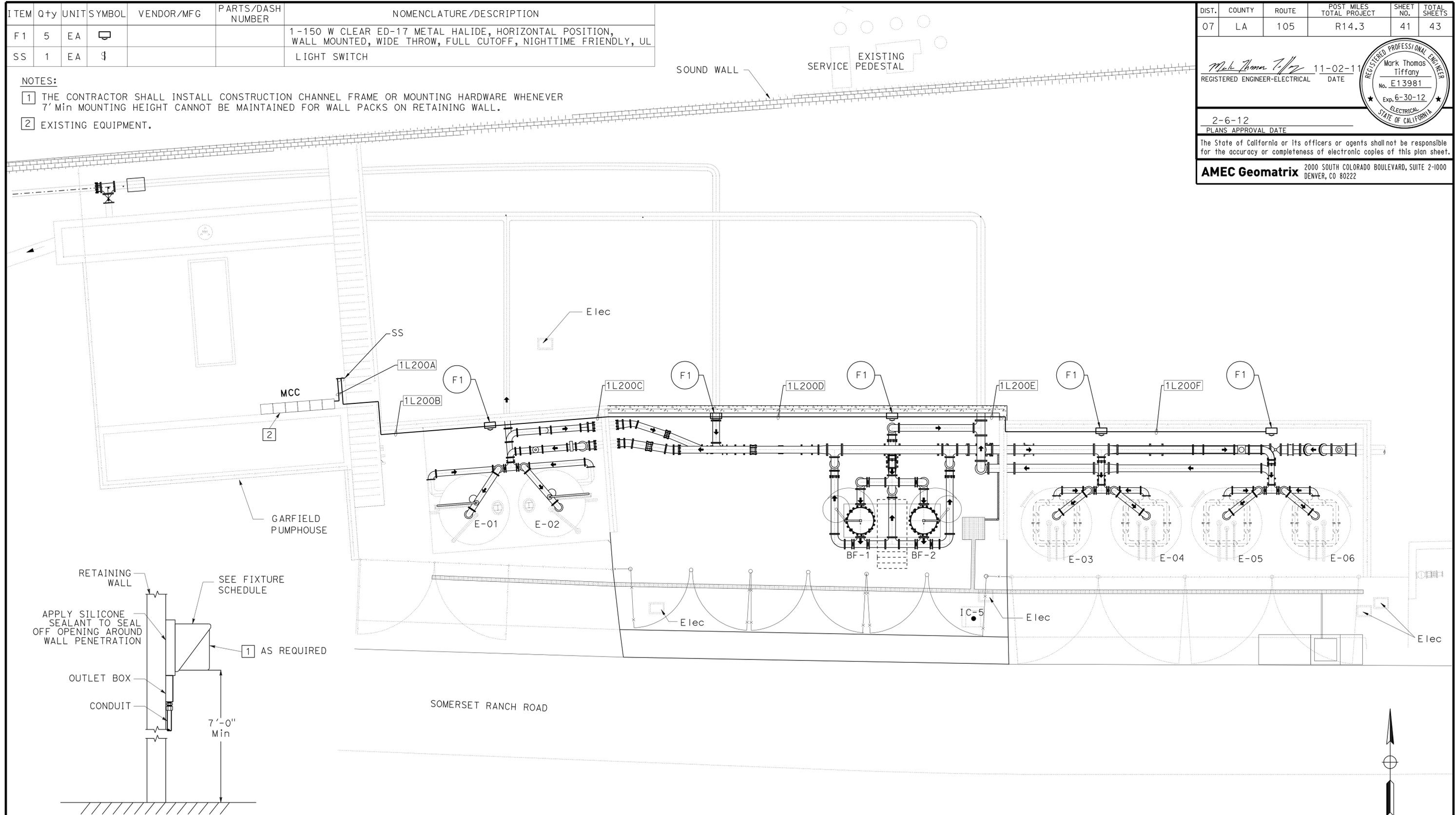
- THE CONTRACTOR SHALL INSTALL CONSTRUCTION CHANNEL FRAME OR MOUNTING HARDWARE WHENEVER 7' Min MOUNTING HEIGHT CANNOT BE MAINTAINED FOR WALL PACKS ON RETAINING WALL.
- EXISTING EQUIPMENT.

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	41	43

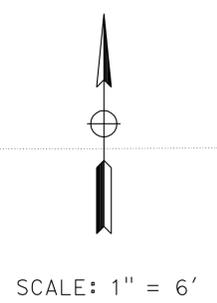
Mark Thomas Tiffany
 REGISTERED ENGINEER-ELECTRICAL
 DATE 11-02-11
 PLANS APPROVAL DATE 2-6-12

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F1 WALL FIXTURE
NTS



DESIGN BY NEIL HECKERMAN CHECKED MARK TIFFANY DETAILS BY KENDRA HATHAWAY CHECKED MARK TIFFANY QUANTITIES BY NEIL HECKERMAN CHECKED MARK TIFFANY	PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	MARC DIONNE PROJECT ENGINEER	BRIDGE NO. -	I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION	SHEET EE-2
	PROJECT NUMBER & PHASE EA 458401	PROJECT ENGINEER 1961	POST MILE 14.3	GENERAL ARRANGEMENT/LIGHTING PLAN	SHEET OF 2 4
	ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3	UNIT 1961	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES (PRELIMINARY STAGE ONLY) 10-19-09 10-20-09 10-22-09 10-30-09 11-17-09 04-30-10 07-27-10 10-15-10 01-19-11 10-04-11	OF 4

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NOTE:

1 MINIMUM CONDUIT SIZE. THE CONTRACTOR SHALL SIZE CONDUIT APPROPRIATELY PER NATIONAL ELECTRICAL CODE AND CONNECT TO DEVICES PER MANUFACTURER DIRECTIONS.

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	42	43

Mark Thomas Tiffany 11-02-11
 REGISTERED ENGINEER-ELECTRICAL DATE

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CONDUIT & CABLE SCHEDULE

CONDUIT NAME	1 CONDUIT SIZE	CONDUIT	SIZE OF WIRE/CABLE	# OF WIRES/CABLE	WIRE TYPE	CONDUIT FROM	CONDUIT TO	NOTES	3' Max LIQUIDTIGHT FLEXIBLE MC REQUIRED
1L100A	1"	TYPE 1	12 AWG	3	THWN	PUMPHOUSE MCC PANELBOARD	SUMP 1 OFF/AUTO SWITCH	120 V(ac)	NO
1L100B	1"	TYPE 1	12 AWG	3	THWN	SUMP 1 OFF/AUTO SWITCH	SUMP 1	120 V(ac)	YES
1L101A	1"	TYPE 1	12 AWG	3	THWN	PUMPHOUSE MCC PANELBOARD	SUMP 2 OFF/AUTO SWITCH	120 V(ac)	NO
1L101B	1"	TYPE 1	12 AWG	3	THWN	SUMP 2 OFF/AUTO SWITCH	SUMP 2	120 V(ac)	YES
1L200A	1"	TYPE 1	12 AWG	3	THWN	PUMPHOUSE MCC PANELBOARD	PUMPHOUSE LIGHT SWITCH	120 V(ac)	NO
1L200B	1"	TYPE 1	12 AWG	3	THWN	PUMPHOUSE LIGHT SWITCH	RETAINING WALL - WALL PACK FIXTURE	120 V(ac)	NO
1L200C	1"	TYPE 1	12 AWG	3	THWN	RETAINING WALL - WALL PACK FIXTURE	RETAINING WALL - WALL PACK FIXTURE	120 V(ac)	NO
1L200D	1"	TYPE 1	12 AWG	3	THWN	RETAINING WALL - WALL PACK FIXTURE	RETAINING WALL - WALL PACK FIXTURE	120 V(ac)	NO
1L200E	1"	TYPE 1	12 AWG	3	THWN	RETAINING WALL - WALL PACK FIXTURE	RETAINING WALL - WALL PACK FIXTURE	120 V(ac)	NO
1L200F	1"	TYPE 1	12 AWG	3	THWN	RETAINING WALL - WALL PACK FIXTURE	RETAINING WALL - WALL PACK FIXTURE	120 V(ac)	NO

DESIGN	BY	NEIL HECKERMAN	CHECKED	MARK TIFFANY
DETAILS	BY	KENDRA HATHAWAY	CHECKED	MARK TIFFANY
QUANTITIES	BY	NEIL HECKERMAN	CHECKED	MARK TIFFANY

PREPARED FOR THE
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

MARC DIONNE
PROJECT ENGINEER

BRIDGE NO.	-
POST MILE	14.3

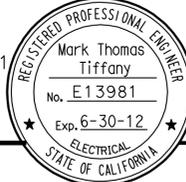
I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION
CONDUIT & CABLE SCHEDULE

SHEET
EE - 3

NOTES:

- 1 PUMP HAS INTEGRATED CONTROL FLOAT. REFERENCE GENERAL ARRANGEMENT FOR LOCAL STATION LOCATIONS.
- 2 MCC LIGHTING PANEL IN GARFIELD PUMPHOUSE IS EXISTING EQUIPMENT.

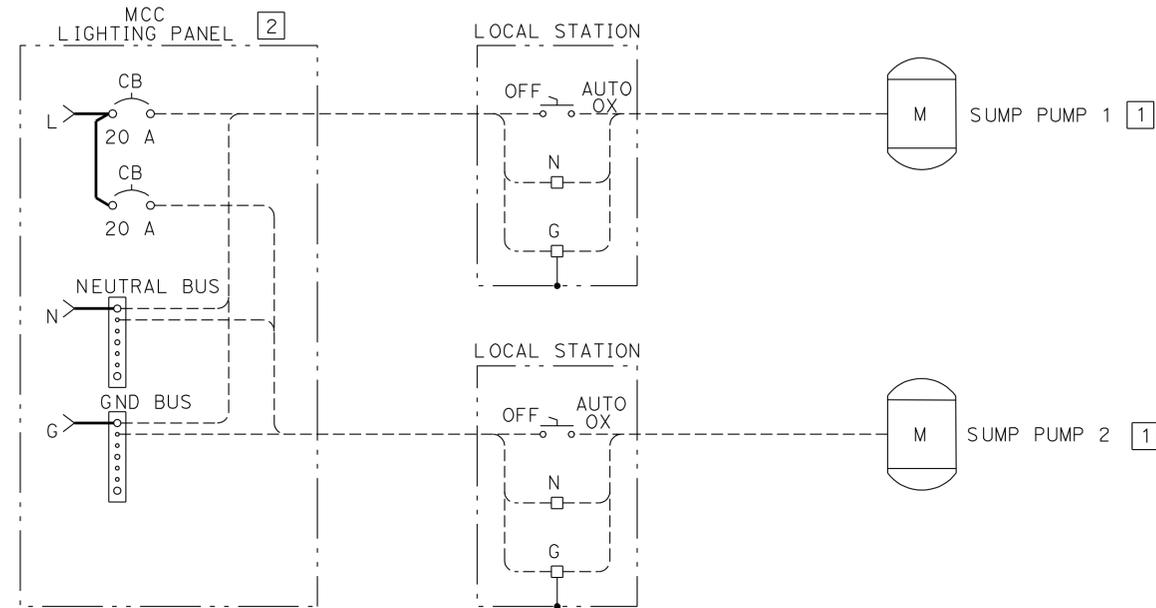
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
07	LA	105	R14.3	43	43


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DESIGN	BY NEIL HECKERMAN	CHECKED MARK TIFFANY
DETAILS	BY KENDRA HATHAWAY	CHECKED MARK TIFFANY
QUANTITIES	BY NEIL HECKERMAN	CHECKED MARK TIFFANY

PREPARED FOR THE
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

MARC DIONNE
PROJECT ENGINEER

BRIDGE NO.	-
POST MILE	14.3

I-105 GROUNDWATER TREATMENT SYSTEM MODIFICATION
SUMP PUMP WIRING DIAGRAMS

SHEET
EE-4