DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	101	165

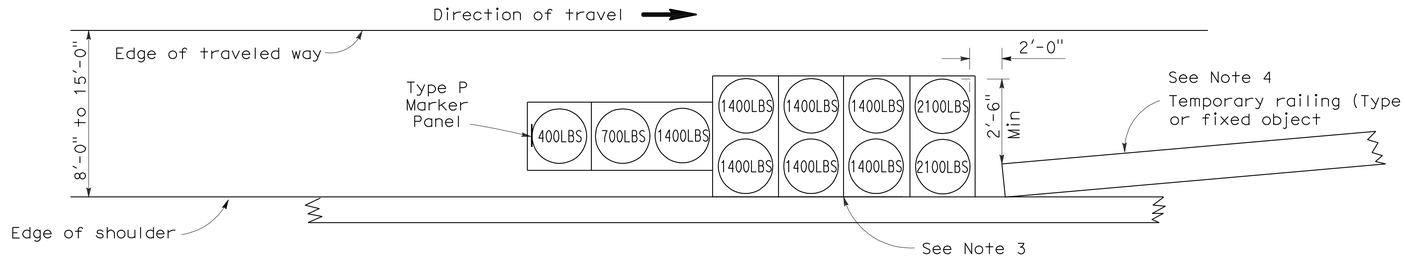
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

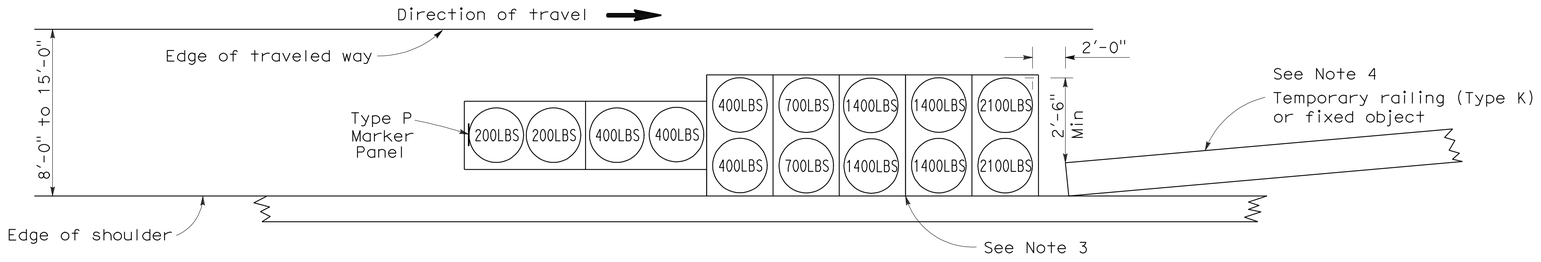
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 5-10-10



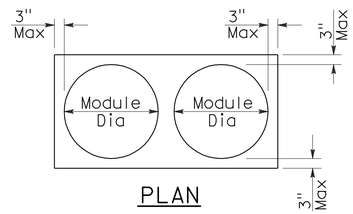
ARRAY 'TS11'

Approach speed less than 45 mph
See Note 9

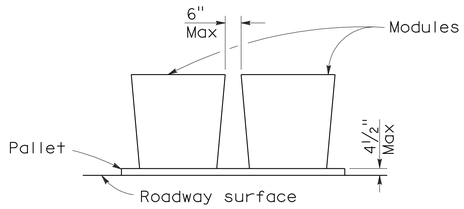


ARRAY 'TS14'

Approach speed 45 mph or more
See Note 9



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 11

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. 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.
4. 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.
5. Temporary crash cushion arrays shall not encroach on the traveled way.
6. Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
7. Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
8. Refer to Standard Plan A73B for marker details.
9. 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.
10. Approach speeds indicated conform to NCHRP 350 Report criteria.
11. 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

5-15-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	102	165

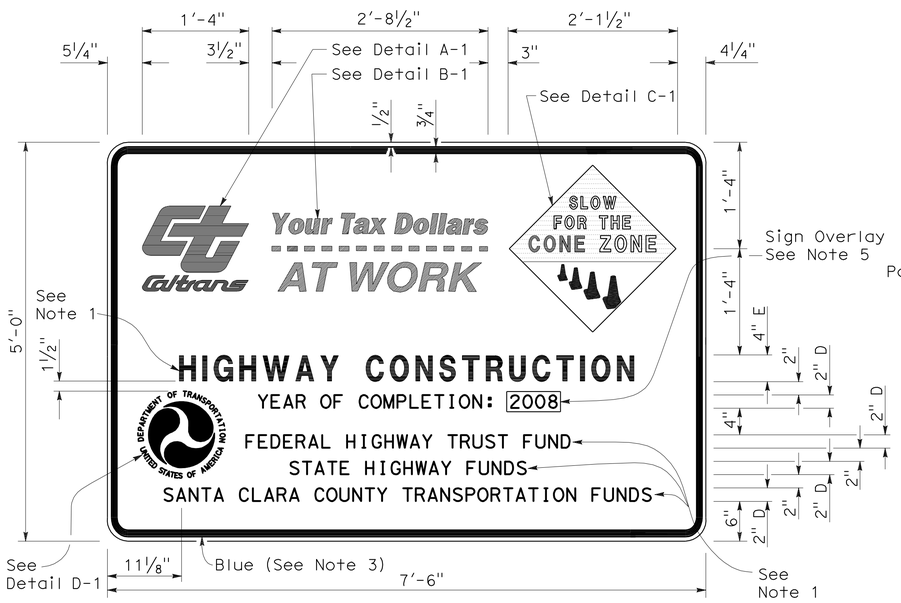
Greg W. Edwards
REGISTERED CIVIL ENGINEER

November 17, 2006
PLANS APPROVAL DATE

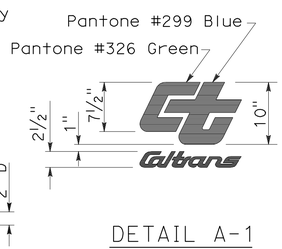
REGISTERED PROFESSIONAL ENGINEER — Greg W. Edwards — No. C36386 — Exp. 6-30-08 CIVIL — STATE OF CALIFORNIA

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.

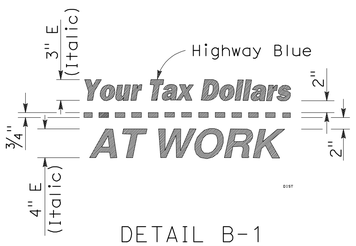
To accompany plans dated 5-10-10



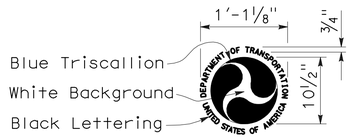
TYPE 1



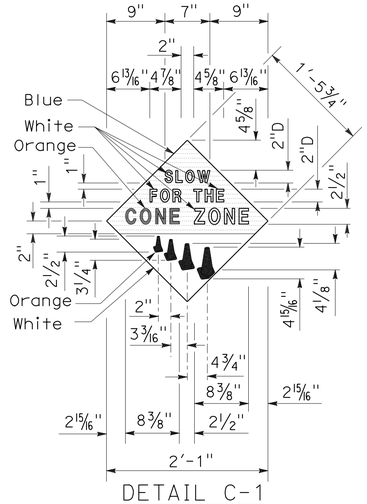
DETAIL A-1



DETAIL B-1
(See Note 3)



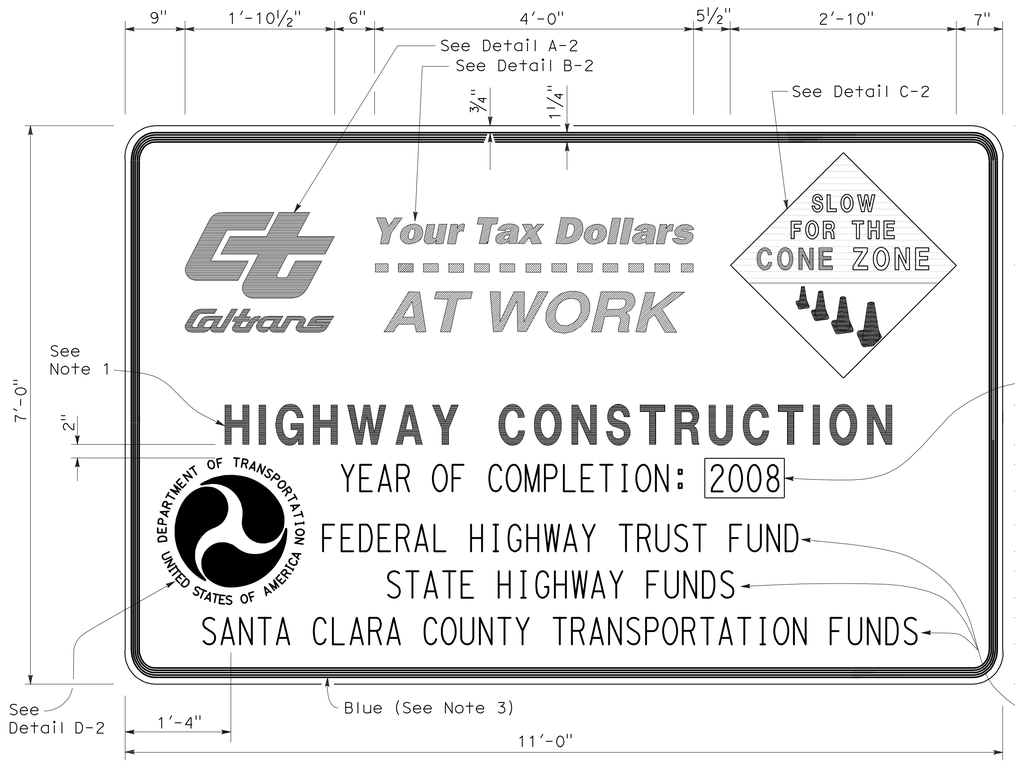
DETAIL D-1
(See Note 6)



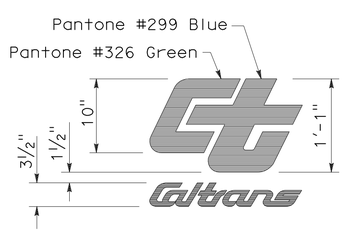
DETAIL C-1
(See Note 4)

NOTES:

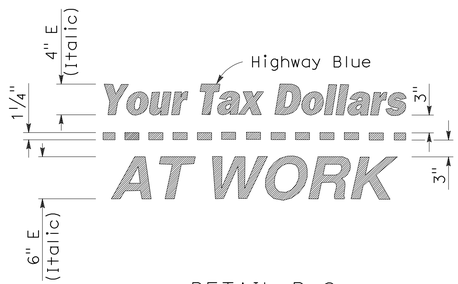
1. The sign messages shown for type of project and fund types are examples only. See the Special Provisions for the applicable type of project and fund type messages to be used.
2. Except as otherwise shown, the legend of sign shall be black on a white background (non-reflective).
3. The border of the signs and details "B-1" and "B-2" shall be blue (non-reflective).
4. The diamond in details "C-1" and "C-2" shall be blue for the background of message, " SLOW FOR THE CONE ZONE", and white background for the orange cones. The color and type of font for the "SLOW FOR THE CONE ZONE" message shall be: "SLOW" white D; "FOR THE" white D; "CONE" orange Arial font; "ZONE" white Arial font.
5. Year of completion of project construction shown on the overlay is an example only. See the Special Provisions.
6. Use when the Project involves Federal Highway Trust Fund.



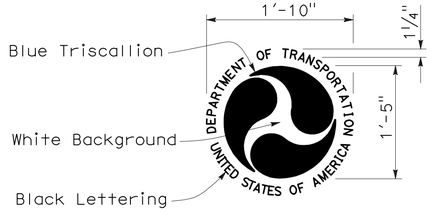
TYPE 2



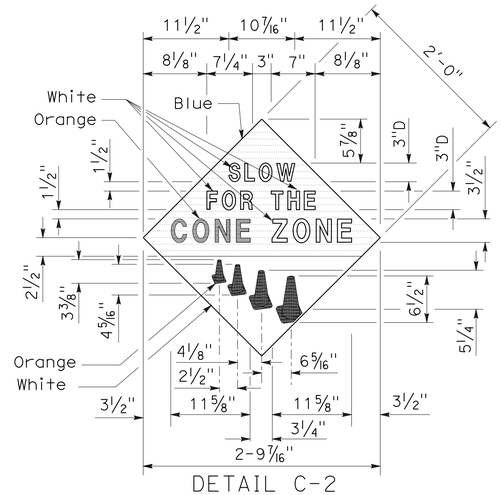
DETAIL A-2



DETAIL B-2
(See Note 3)



DETAIL D-2
(See Note 6)



DETAIL C-2
(See Note 4)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION PROJECT FUNDING IDENTIFICATION SIGNS

NO SCALE

RSP T7 DATED NOVEMBER 17, 2006 SUPERSEDES STANDARD PLAN T7
DATED MAY 1, 2006 - PAGE 217 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T7

2006 REVISED STANDARD PLAN RSP T7

9-7-06

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	103	165

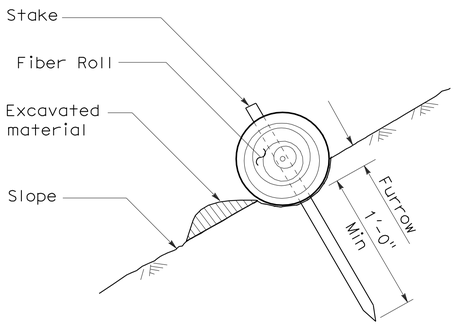
Robert B. Schott
LICENSED LANDSCAPE ARCHITECT

April 3, 2009
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.

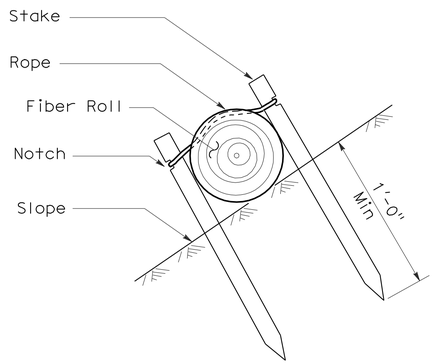
LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3035 — Registration Expiration Date 11-30-10 — Renewal Date 2-25-09 — Date — STATE OF CALIFORNIA

To accompany plans dated 5-10-10

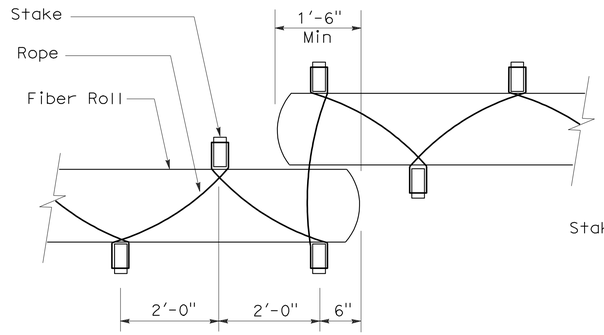


SECTION

TEMPORARY FIBER ROLL (TYPE 1)

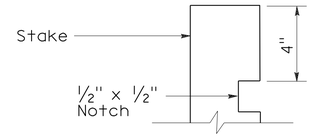


SECTION



PLAN

TEMPORARY FIBER ROLL (TYPE 2)

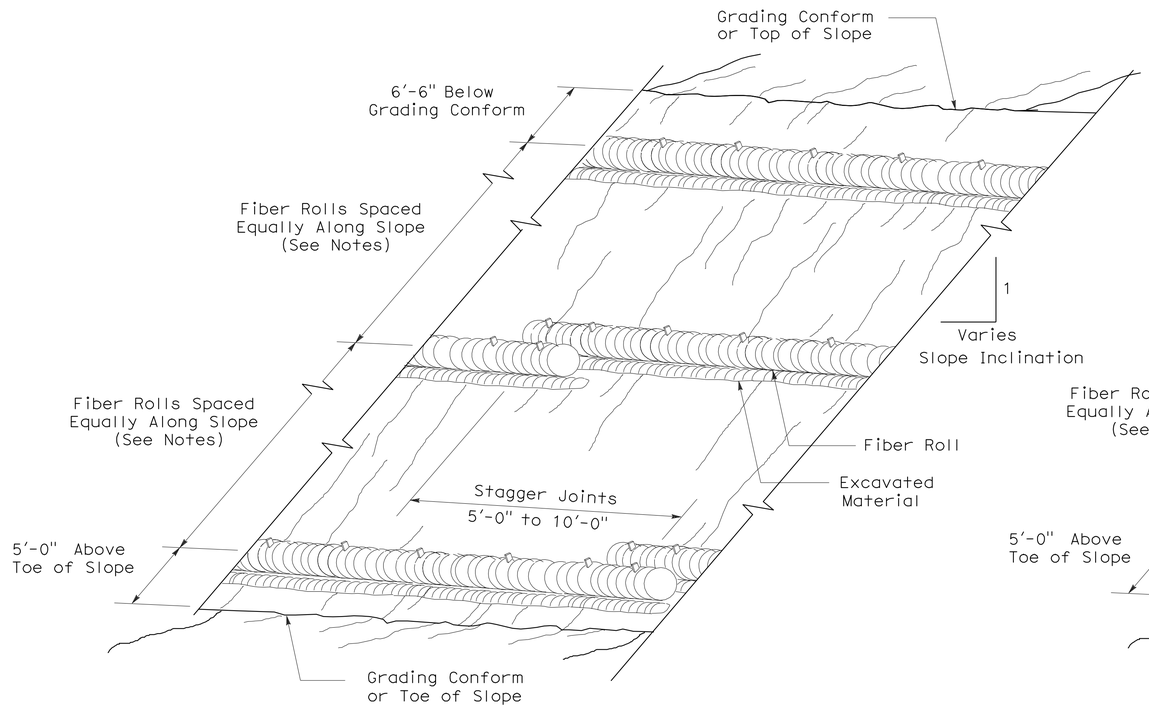


ELEVATION

STAKE NOTCH DETAIL

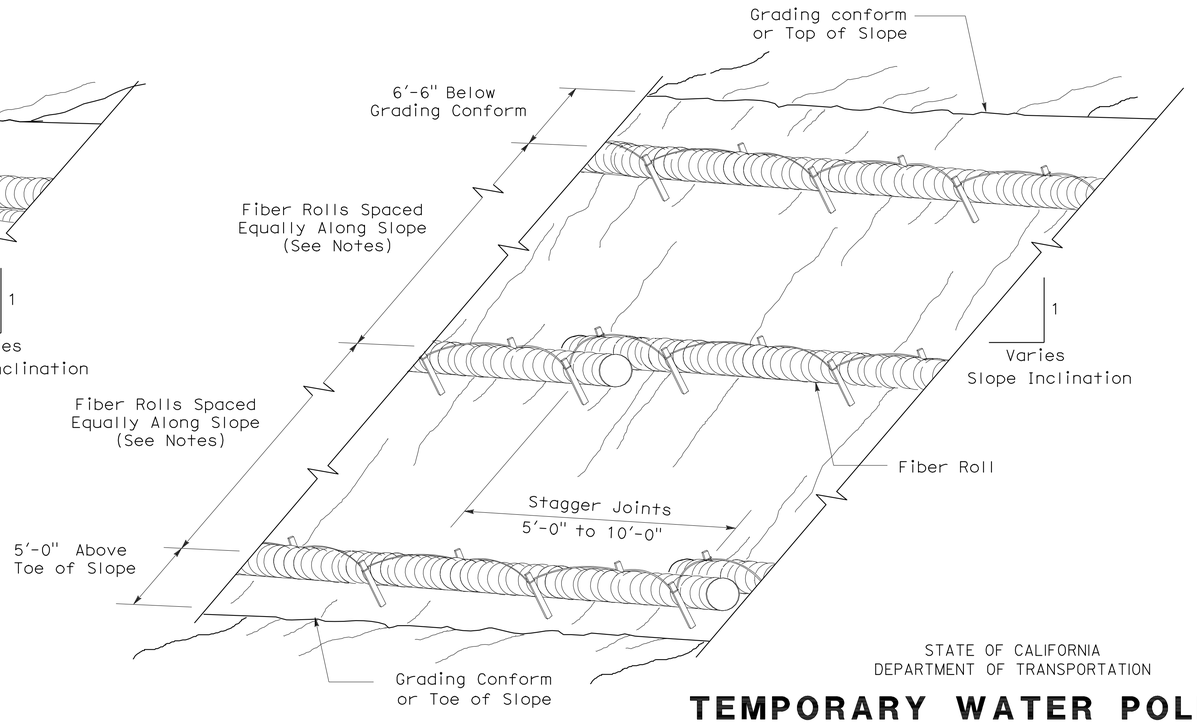
NOTES:

1. Temporary fiber roll spacing varies depending upon slope inclination.
2. Installations shown in the perspectives are for slope inclination of 10:1 and steeper.



PERSPECTIVE

TEMPORARY FIBER ROLL (TYPE 1)



PERSPECTIVE

TEMPORARY FIBER ROLL (TYPE 2)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY FIBER ROLL)

NO SCALE

RSP T56 DATED APRIL 3, 2009 SUPERSEDES STANDARD PLAN T56
DATED MAY 1, 2006 - PAGE 232 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T56

2006 REVISED STANDARD PLAN RSP T56

2-23-09

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	104	165

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS Approval DATE

LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3035 — Signature — 11-04-08 Renewal Date — 08-11-08 Date — STATE OF CALIFORNIA

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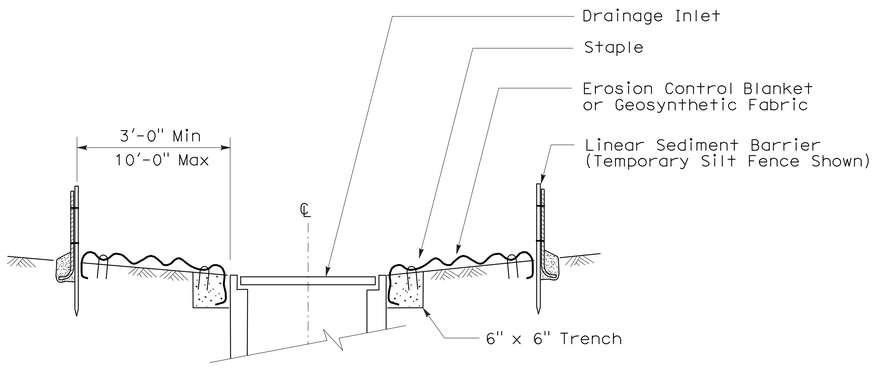
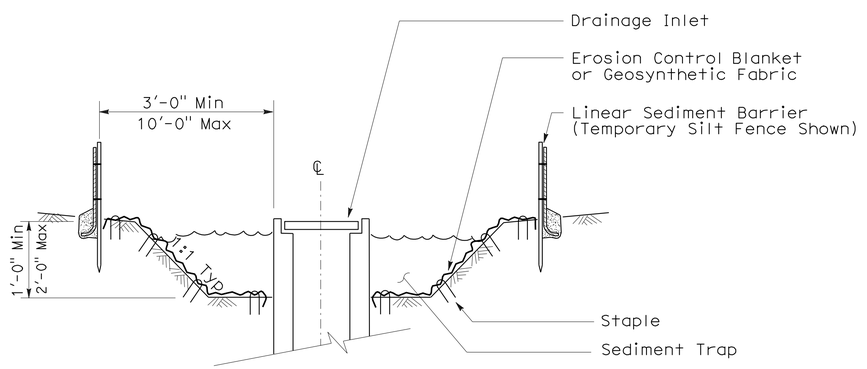
To accompany plans dated 5-10-10



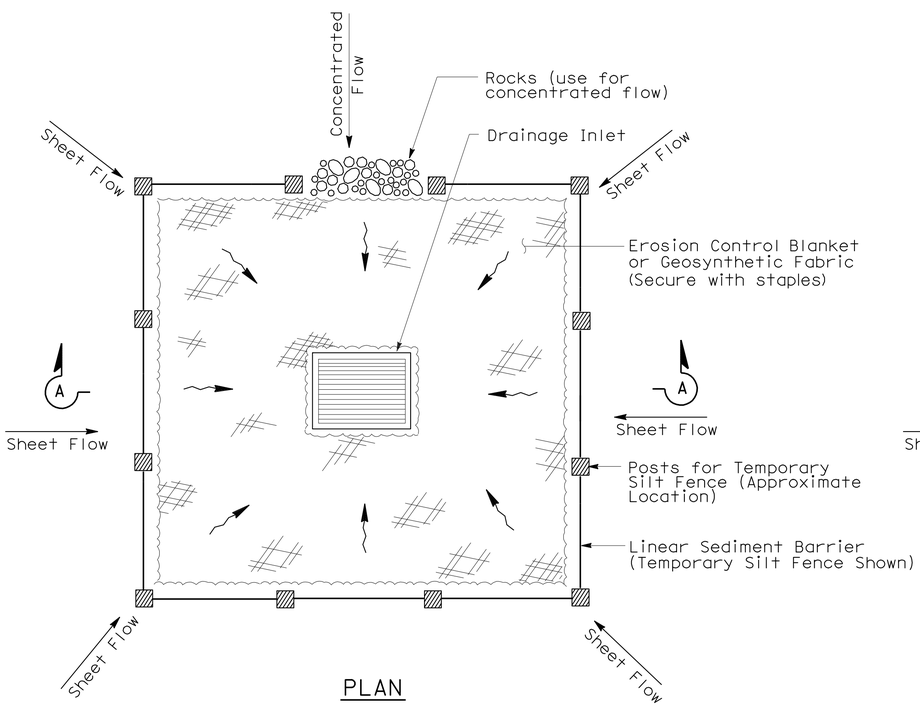
SECTION A-A



SECTION B-B

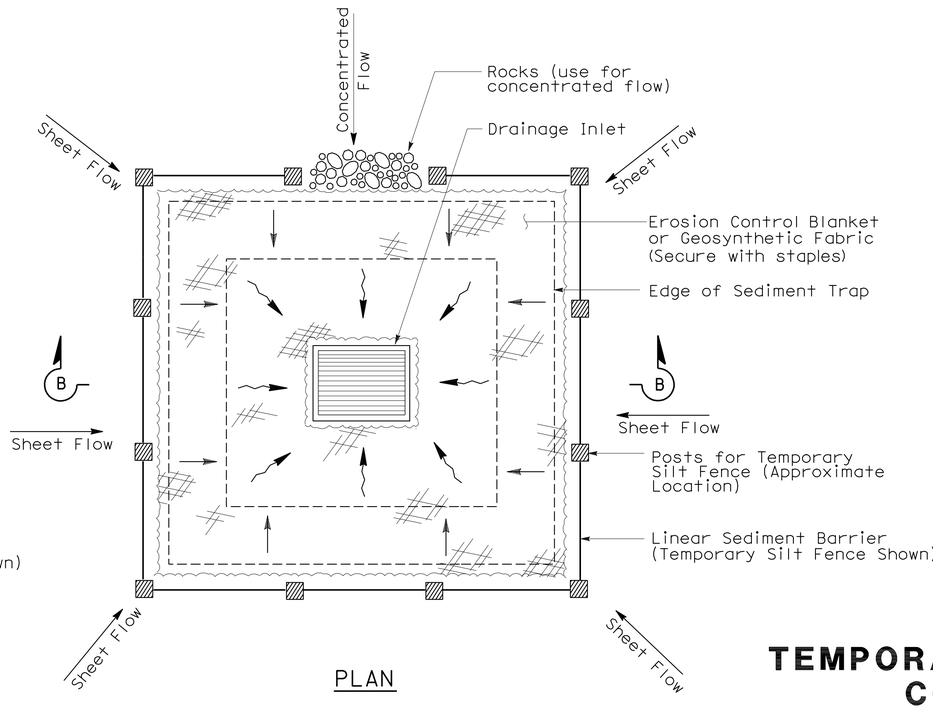
NOTES:

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



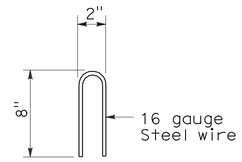
PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 1)



PLAN

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)

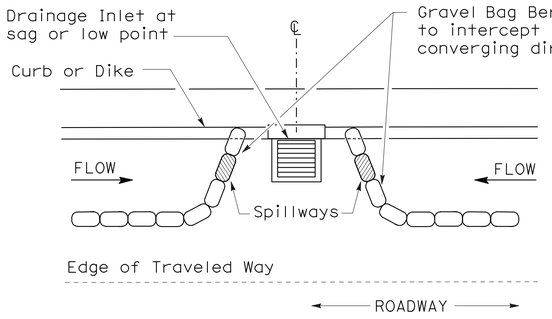
NO SCALE

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

NEW STANDARD PLAN NSP T61

2006 NEW STANDARD PLAN NSP T61

7-11-08



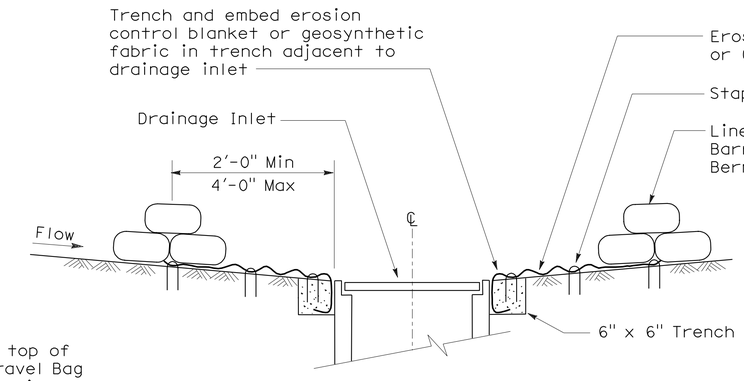
PLAN

CONFIGURATION FOR SAG POINT INLET (GRAVEL BAG BERM)

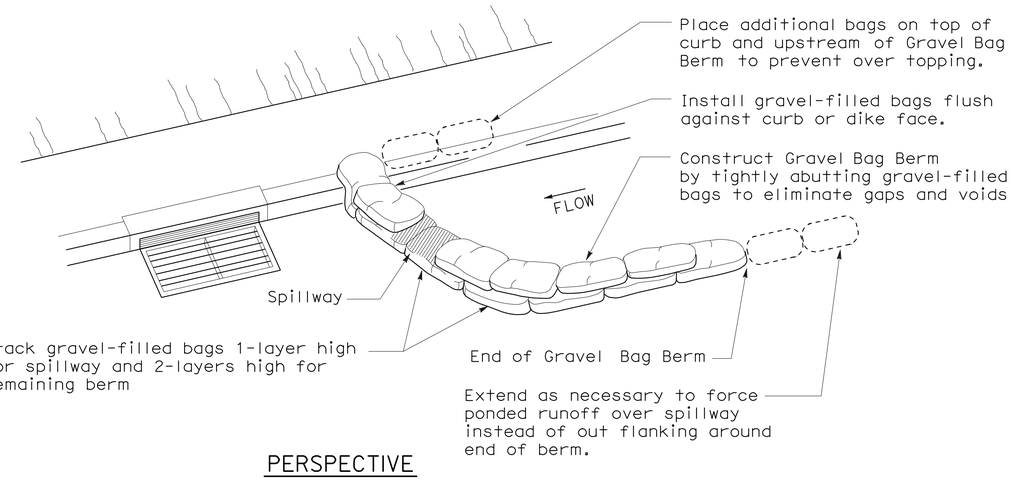
GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

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′

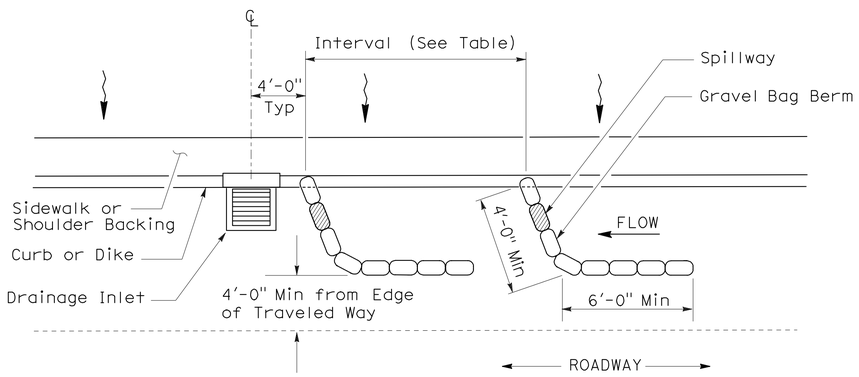
For slope of less than 1%, install barriers only if erosion/sediment is prevalent



SECTION A-A

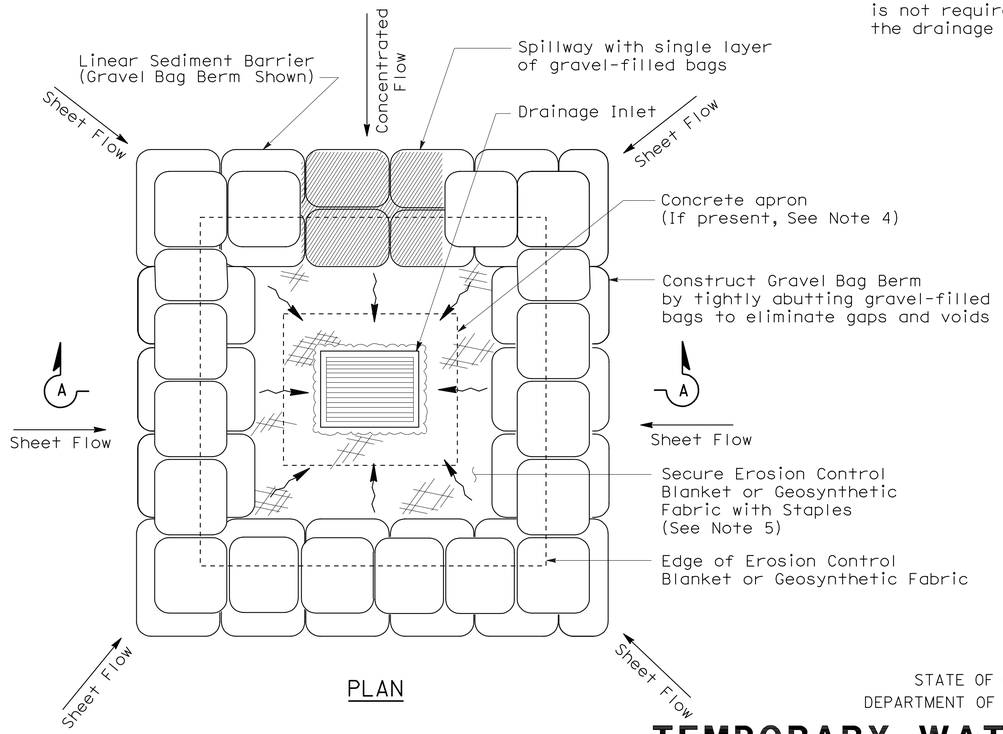


PERSPECTIVE



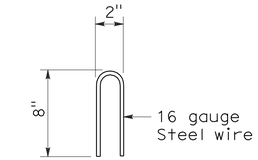
PLAN

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



PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 3B)



STAPLE DETAIL

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.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	105	165

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3035 — Signature 11-04-08 Renewal Date — 08-11-08 Date — STATE OF CALIFORNIA

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To accompany plans dated 5-10-10

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.

NEW STANDARD PLAN NSP T62

2006 NEW STANDARD PLAN NSP T62

7-11-08

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′

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	106	165

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3895 — Signature Date 11-04-08 — Renewal Date 08-11-08 — STATE OF CALIFORNIA

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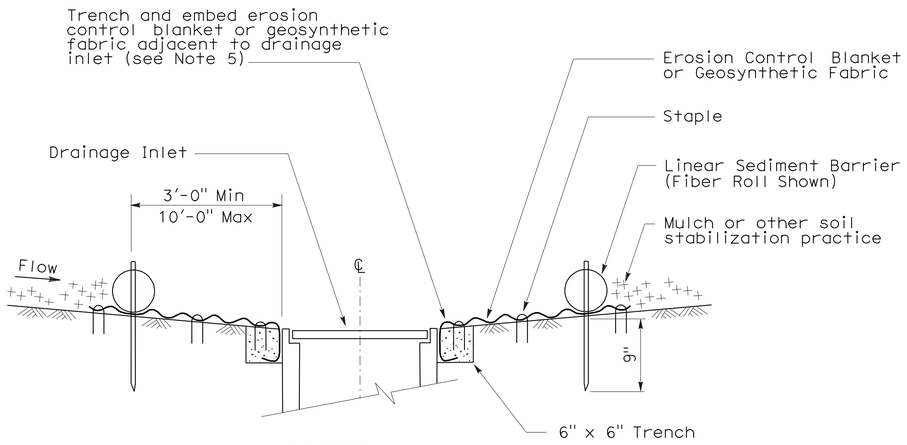
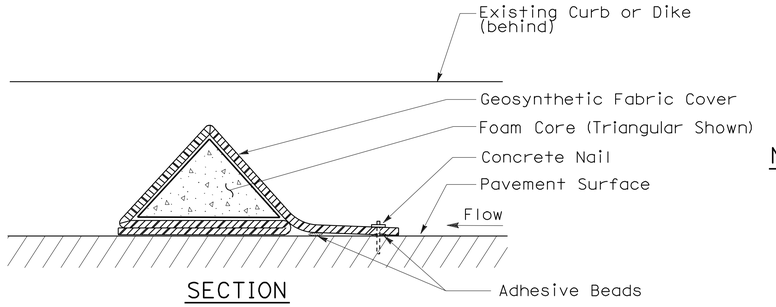
To accompany plans dated 5-10-10

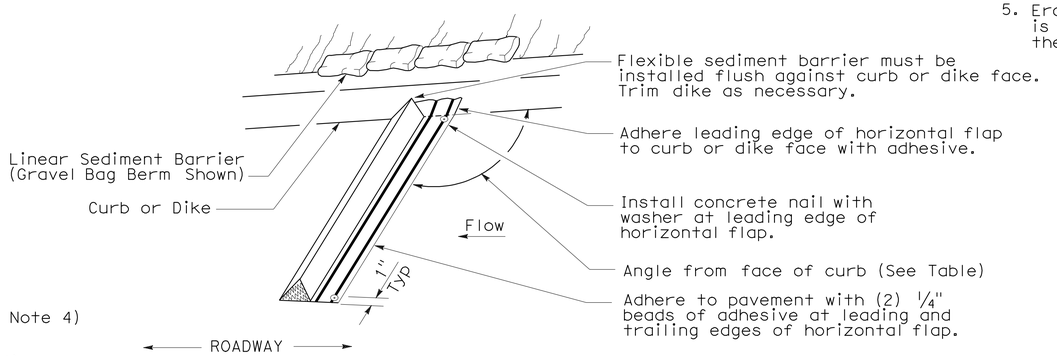


SECTION A-A



SECTION

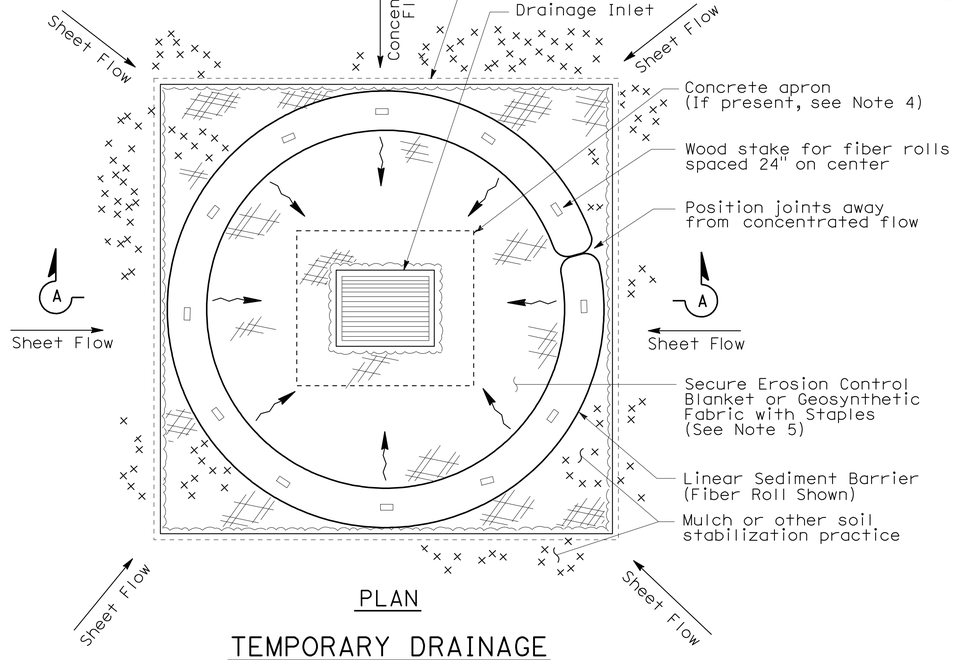
FLEXIBLE SEDIMENT BARRIER DETAIL (FOAM BARRIER SHOWN)



PERSPECTIVE

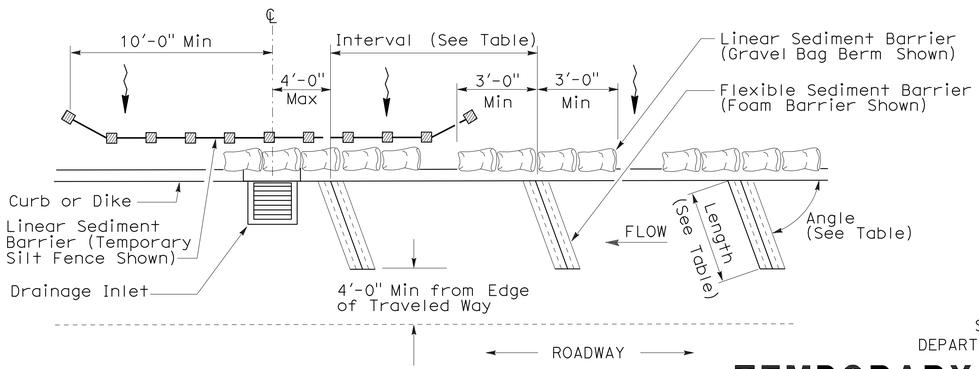
NOTES:

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 flexible sediment barriers 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.



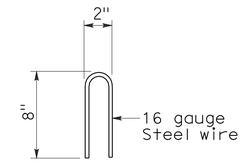
PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 4A)



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.

NEW STANDARD PLAN NSP T63

2006 NEW STANDARD PLAN NSP T63

7-11-08

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	107	165

Robert B Schott
LICENSED LANDSCAPE ARCHITECT

August 15, 2008
PLANS APPROVAL DATE

LICENSED LANDSCAPE ARCHITECT — Robert B. Schott 3035 — Signature — 11-04-08 Renewal Date — 08-11-08 Date — STATE OF CALIFORNIA

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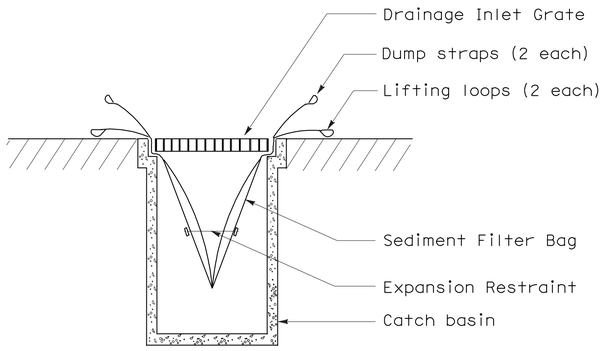
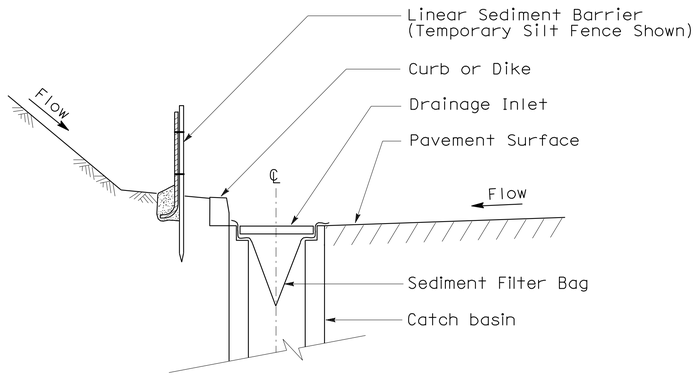
To accompany plans dated 5-10-10

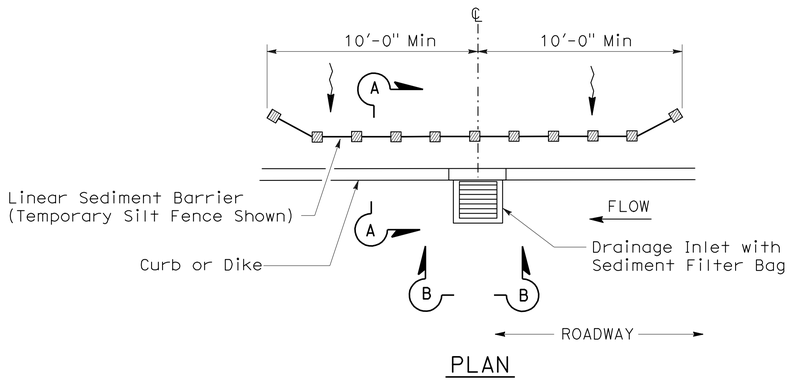


SECTION B-B

SEDIMENT FILTER BAG DETAIL

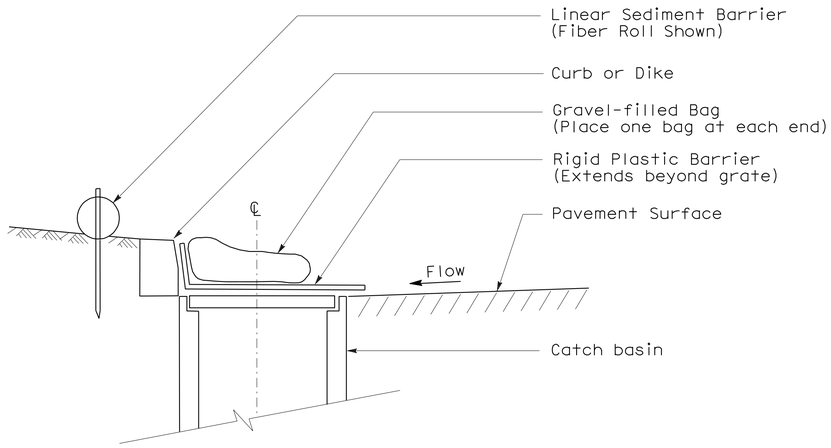


SECTION A-A



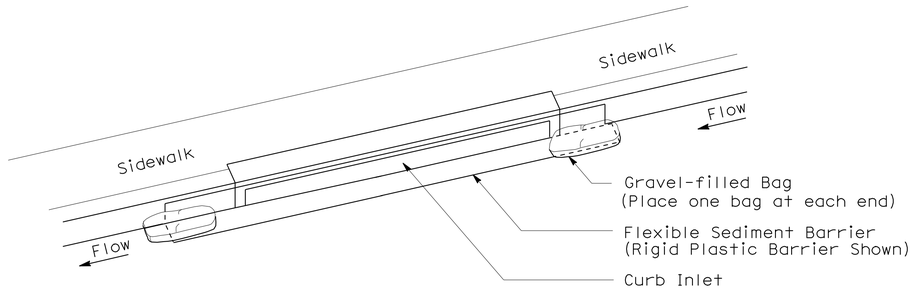
PLAN

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



SECTION

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



PERSPECTIVE

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

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)

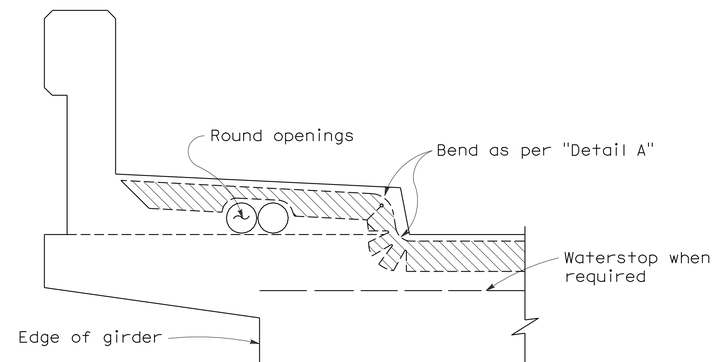
NO SCALE

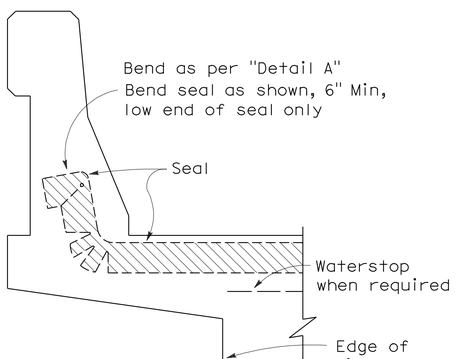
NSP T64 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T64

2006 NEW STANDARD PLAN NSP T64

7-11-08



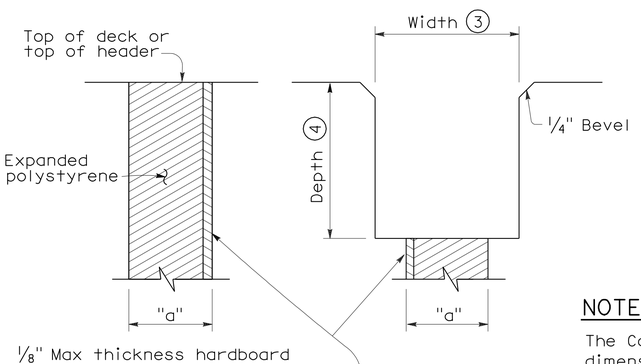


NOTE:

Type "B" seal shown. Type "A" seals to comform to the general path of seal shown, cuts for bending not required. Bend Type "A" seals 3" up into curb or barrier rail on only the low end of the seal.

CONCRETE BARRIER AND SIDEWALK

CONCRETE BARRIER



FORMING DETAIL

SAWCUT DETAIL

NOTE:

The Contractor shall verify all controlling field dimensions before ordering or fabricatiing any material.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	108	165

REGISTERED CIVIL ENGINEER

Efthymios Delis
No. C51434
Exp. 6-30-08
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

October 5, 2007
PLANS APPROVAL DATE

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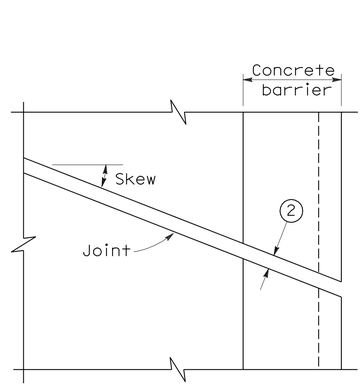
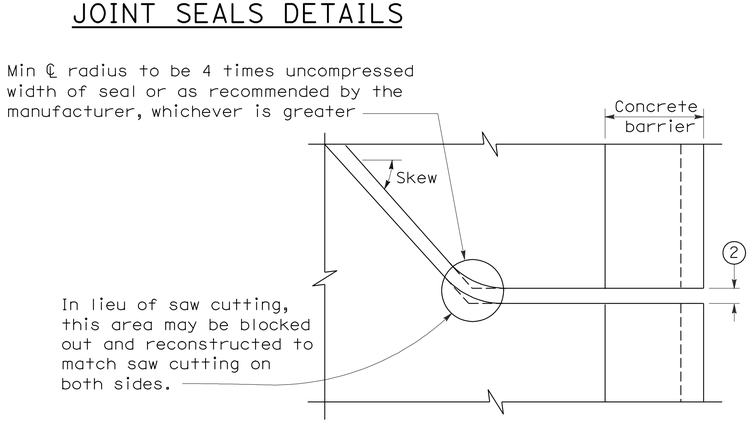
To accompany plans dated 5-10-10

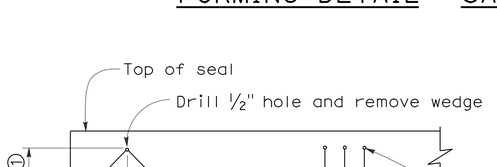
JOINT SEALS DETAILS

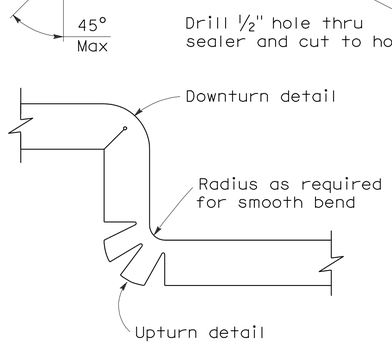


PLAN OF JOINT (SKEW ≤ 20°)



PLAN OF JOINT (SKEW > 20°)





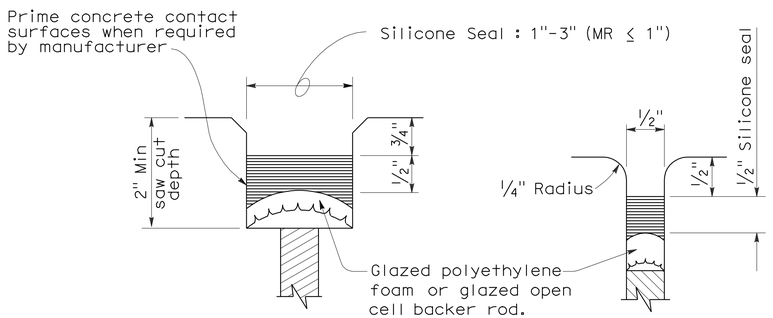
DETAIL A

NOTES:

1. Make smooth cuts from the bottom of seal to 1½" clear of top leaving at least one complete cell between the top of the cut and top of the seal. When necessary cut back of seal to clear conduit and round openings.
2. Opening in barrier to match width of sawn deck joint.
3. Sawcut groove widths shall be as ordered by the Engineer.
4. Depth of sawcut: Type A - Depth to be 2" minimum.
   Type B - Depth to be equal to or greater than the depth of seal measured along the contact surface, when compressed to minimum width position (W_2) plus dimensions shown.
5. MR (movement rating) as shown on other plan sheets.
6. Other depths must be approved by the Engineer.

DIMENSIONS "a" OF JOINT REQUIRED

Movement Rating (MR) (5)	Bridge Type	"a" Dimension Deck Concrete Placed		
		Winter	Fall-Spring	Summer
2"	All except CIP/PS	1½"	1¼"	¾"
	CIP/PS	1¼"	1"	½"
1½"	All except CIP/PS	1¼"	1"	½"
	CIP/PS	1"	¾"	½"
1"	All except CIP/PS	1"	¾"	½"
	CIP/PS	¾"	½"	½"
½"	All except CIP/PS	¾"	¾"	½"
	CIP/PS	½"	½"	½"

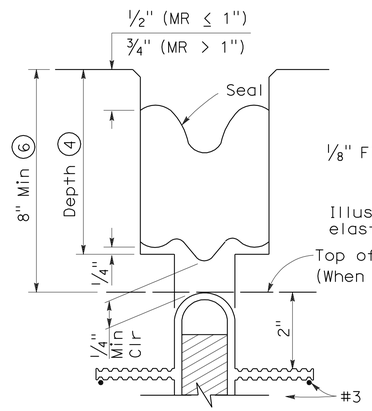


TYPE A SEAL

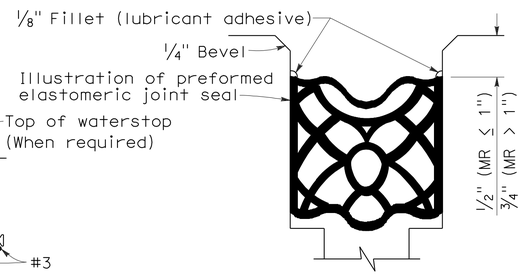
Movement rating : Silicone = 1" Max

TYPE AL SEAL

Longitudinal joints only



TYPE B JOINT SEAL
IN MINIMUM WIDTH POSITION (W_2)



TYPE B SEAL

Movement Rating ≤ 2"

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")

NO SCALE

RSP B6-21 DATED OCTOBER 5, 2007 SUPERSEDES STANDARD PLAN B6-21 DATED MAY 1, 2006 - PAGE 258 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP B6-21

2006 REVISED STANDARD PLAN RSP B6-21

5-8-07

ELECTROLIERS

STANDARD TYPES
15, 15D
15 STRUCTURE
21, 21D STRUCTURE
30
31
32
35
36-20A

High mast light pole

Double Arm lighting standard

Existing electrolier

Electrolier foundation (Future installation)

NOTES:

1. Luminaires shall be 310 W HPS when installed on Type 21, 21D, 30, 31, 32, 35 and 36-20A Standards, unless otherwise specified. Luminaires shall be 200 W HPS when installed on other type standards or poles, unless otherwise specified.
2. Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.
3. Variations noted adjacent to symbol on project plans.

Electrolier (see project notes or project plans)

Luminaire on wood pole

STANDARD NOTES:

- AB Abandon. If applied to conduit, remove conductors.
- BC Install pull box in existing conduit run.
- BP Pedestrian barricade, type as indicated on plan.
- CB Install conduit into existing pull box.
- CC Connect new and existing conduit. Remove existing conductors and install conductors as indicated.
- CF Conduit to remain for future use. Remove conductors. Install pull wire or rope.
- DH Detector handhole.
- FA Foundation to be abandoned.
- IS Install sign on signal mast arm.
- NS No slip base on standard.
- PEC Photoelectric control.
- PEU Photoelectric unit.
- RC Equipment or material to be removed and become the property of the Contractor.
- RE Remove electrolier, fuses and ballast. Tape ends of conductors.
- RL Relocate equipment.
- RR Remove and reuse equipment.
- RS Remove and salvage equipment.
- SC Splice new to existing conductors.
- SD Service disconnect.
- SF Standard to remain for future use. Remove luminaire, pole conductors, fuses and ballast.
- TSP Telephone service point.

ABBREVIATIONS AND EQUIPMENT DESIGNATIONS

PROPOSED	EXISTING	
BBS	bbs	Battery backup system
BC	bc	Bolt circle
C	C	Conduit
CCTV	cctv	Closed circuit television
CKT	ckt	Circuit
CMS	cms	Changeable message sign
DLC	dlc	Loop detector lead-in cable
EMS	ems	Extinguishable message sign
EVC	evc	Emergency vehicle cable
EVD	evd	Emergency vehicle detector
FB	fb	Flashing beacon
FBCA	fbca	Flashing beacon control assembly
FBS	fbs	Flashing beacon with slip base
FO	fo	Fiber optic
G	G	Ground (Equipment Grounding Conductor)
GFCI	GFCI	Ground fault circuit interrupt
HAR	har	Highway advisory radio
HEX	hex	Hexagonal
HPS	hps	High pressure sodium
IISNS	iisns	Internally illuminated street name sign
ISL	isl	Induction sign lighting
LED	led	Light emitting diode
LMA	lma	Luminaire mast arm
LPS	lps	Low pressure sodium
LTG	ltg	Lighting
LUM	lum	Luminaire
MAT	mat	Mast arm mounting vehicle signal faces, top attachment
MAS	mas	Mast arm mounting vehicle signal faces, side attachment
MAS-4A	mas-4A	Mast arm mounting vehicle signal faces,
MAS-4B	mas-4B	side attachment - 4 signal section
MAS-4C	mas-4C	
MAS-5A	mas-5A	Mast arm mounting vehicle signal faces,
MAS-5B	mas-5B	side attachment - 5 signal section
MC	mc	Mercury contactor
M/M	m/m	Multiple to multiple transformer
MT	mt	Conduit with pull wire or rope only
MTG	mtg	Mounting
	mv	Mercury vapor lighting fixture
N	N	Neutral (Grounded Conductor)
NC	NC	Normally closed
NO	NO	Normally open
PB	pb	Pull box
PEC	pec	Photoelectric control (Type I, II, III, IV or V as shown)
PED	ped	Pedestrian
PEU	peu	Photoelectric unit
PPB	ppb	Pedestrian push button
RL		Relocated equipment
RM	rm	Ramp metering
SB	sb	Slip base
SIC	sic	Signal interconnect cable
SIG	sig	Signal
SMA	sma	Signal mast arm
SNS	sns	Street name sign
SP	sp	Service point
TDC	tdc	Telephone demarcation cabinet
TMS	tms	Traffic monitoring station
TOS	tos	Traffic Operations System
VEH	veh	Vehicle
XFMR	xfmr	Transformer
COMM	comm	Communication
RWIS	rwis	Roadway weather information system

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	109	165

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jeffery G. McRae — No. E14512 — Exp. 6-30-08 — ELECTRICAL — STATE OF CALIFORNIA

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To accompany plans dated 5-10-10

SOFFIT AND WALL MOUNTED LUMINAIRES

- Pendant, 70 W HPS unless otherwise specified.
- Flush, 70 W HPS unless otherwise specified.
- Wall surface, 70 W HPS unless otherwise specified.
- Existing soffit or wall luminaire to remain unmodified.
- (M) Existing soffit or wall luminaire to be modified as specified.

NOTE:
Arrow indicates "street side" of luminaire.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1A DATED OCTOBER 5, 2007 SUPERSEDES STANDARD PLAN ES-1A
DATED MAY 1, 2006 - PAGE 400 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1A

2006 REVISED STANDARD PLAN RSP ES-1A

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	110	165

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jeffery G. McRae — No. E14512 — Exp. 6-30-08 — ELECTRICAL — STATE OF CALIFORNIA

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To accompany plans dated 5-10-10

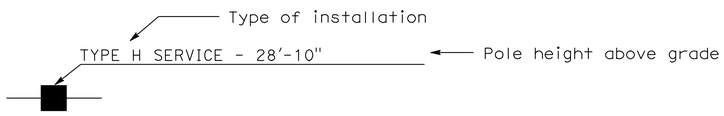
CONDUIT

PROPOSED	EXISTING	
— — —	— — —	Lighting Conduit, unless otherwise indicated or noted
— - — - —	— - — - —	Traffic signal conduit
—C— —	—c— —	Communication conduit
—T— —	—t— —	Telephone conduit
—F— —	—f— —	Fire alarm conduit
—FO— —	—fo— —	Fiber optic conduit
— — —]	— — —]	Conduit termination (RSP ES-9A C)
R	r	Conduit riser in/on structure or service pole

SERVICE EQUIPMENT

PROPOSED	EXISTING	
—OH—	—oh—	Overhead lines
U	U	Wood pole "U" indicates utility owned
		Pole guy with anchor
		Utility transformer - ground mounted
III		Service equipment enclosure type
		Service equipment enclosure door indicates front of enclosure
T	t	Telephone demarcation cabinet

POLE-MOUNTED SERVICE DESIGNATION



ILLUMINATED OVERHEAD SIGN

PROPOSED	EXISTING	
		Overhead sign - Single post
		Overhead sign - Two post
		Overhead sign - Mounted on structure
		Overhead sign with electrolier

SIGNAL EQUIPMENT

PROPOSED	EXISTING	
		Pedestrian signal face
		Pedestrian push button post
		Pedestrian barricade
		Vehicle signal face (with backplate, 3-Section: red, yellow and green)
		Vehicle signal face with angle visors
PV	PV	Modifications of basic symbols: "L" Indicates all non-arrow sections louvered "LG" Indicates louvered green section only "PV" indicates 12" programmed visibility sections "8" indicates all 8" sections (only when specified)
		Type 15TS and Vehicle signal face
		Vehicle signal face with red, yellow and green left arrow sections
		Vehicle signal face with red and yellow sections and up green arrow
		Vehicle signal face (5 Section) with red, yellow and green sections and yellow and green right arrows
		Type 1 Standard and attached vehicle signal faces
		Standard with signal mast arm only and attached vehicle signal faces and internally illuminated street name sign
		Type 33 Standard, Left-turn vehicle signal face and sign
		Standard with luminaire and signal mast arms and attached vehicle signal faces
		Cantilever flashing beacon Type 9 Frame, with a sign unless otherwise specified or indicated
		Type 15-FBS Standard with two vehicle signal face sections with lens, backplate and visor with a sign
R	Y	Flashing beacon. One vehicle signal face section with lens, backplate and visor. "R" indicates red indication, "Y" indicates yellow indication
		Controller assembly. Door indicates front of cabinet

SIGNAL EQUIPMENT Cont

PROPOSED	EXISTING	
		Guard post
		Type 1 Standard with "Meter On" sign
		Emergency Vehicle detector

NOTES:

1. All signal sections shall be 12" unless shown otherwise.
2. Signal heads shall be provided with backplates unless shown otherwise.
3. Signal indication shall be LED.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B
DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1B

2006 REVISED STANDARD PLAN RSP ES-1B

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	111	165

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

Jeffery G. McRae
No. E14512
Exp. 6-30-08
ELECTRICAL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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To accompany plans dated 5-10-10

EQUIPMENT IDENTIFICATION

ILLUMINATED SIGN IDENTIFICATION NUMBER:

Sign No. 12345 — Sign number - Place on post or structure

10 ISL SCI 1.0
- 1.0 — Transformer rating (kVA)
- SCI — Lighting control type
- ISL — Number and type of fixtures

} Do NOT place on standard or structure

ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:

12345 - 15'-0"
- 15'-0" — Mast arm length, if shown. Do not place on standard or structure.
- 12345 — Equipment number - Place on standard or structure. Existing equipment numbers are shown in parenthesis

CONDUIT AND CONDUCTOR IDENTIFICATION:

1½"C, 2#10, 15#14, 2 DLC
- 2#10, 15#14, 2 DLC — Number and size of conductors and cables
- 1½"C — Size of conduit in inches

Ø1, Ø2, Ø2P, etc.	Traffic phase identification for signal faces, detectors and phase diagrams
1 2 3	Project note numbers
A B C	Equipment description, installation or item numbers
1 2 3	Conduit run numbers

SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):

19A - 3 - 100
- 100 — Wind velocity = 100 mph
- 3 — Case 3 arm loading
- 19A — Standard type
- Standard Plan sheet number
- Detail number or letter

MISCELLANEOUS EQUIPMENT

PROPOSED	EXISTING	
CMS	cms	Changeable message sign
		Closed circuit television camera
		Highway advisory radio pole and antenna
EMS	ems	Extinguishable message sign
M V	m v	Detection device M = Microwave sensor V = Video image sensor

WIRING DIAGRAM LEGEND

P	Pole
CB	Circuit breaker
A	Ampere
V	Volt
M	Metered
UM	Unmetered
NB	Neutral bus
GB	Ground bus
G	Equipment grounding conductor
N	Grounded conductor (Neutral)

- External conductor
- Conductor or bus
- Tie point
- Contactor coil
- Contactor, Contact NO
- Terminal blocks
- Contactor, Contact NC
- Enclosure bond
- Grounding electrode
- Circuit breaker
- Receptacle

PULL BOXES

PROPOSED	EXISTING
3	9A(21)

Pull box-No. 5 unless otherwise indicated or noted.

Pull box-Additional designations or descriptions

- (C) = Communications pull box
- (E) = Pull box with extension
- (S) = Sprinkler control pull box
- (21) = Anchor bolts and conduit for future installation of Type 21 Standard
- (T) = Traffic pull box

- 3 = No. 3½ pull box
- 5 = No. 5 pull box
- 6 = No. 6 pull box
- 7 = No. 7 (Ceiling pull box)
- 8 = No. 8 (Pendant soffit pull box)
- 9 = No. 9 pull box
- 9A = No. 9A pull box

VEHICLE DETECTORS

5 J 9 U
- 5 — Vehicle detector designation
- J — Input file (I or J)
- 9 — Slot number in input file
- U — U = Upper, L = Lower
- Phase

PROPOSED	EXISTING	
		Type A detector loop. Outline of sawcut shown.
		Type B detector loop. Outline of sawcut shown.
		Type C detector loop. Outline of sawcut shown.
		Type D detector loop. Outline of sawcut shown.
		Type E detector loop. Outline of sawcut shown.
		Type Q detector loop. Outline of sawcut shown.
		Magnetic detector
DH	dh	Detector handhole
		Microwave or video detection zone

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SYMBOLS AND ABBREVIATIONS)

NO SCALE

RSP ES-1C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1C
DATED MAY 1, 2006 - PAGE 402 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-1C

2006 REVISED STANDARD PLAN RSP ES-1C

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	112	165

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

REGISTERED PROFESSIONAL ENGINEER
Jeffery G. McRae
No. E14512
Exp. 6-30-08
ELECTRICAL
STATE OF CALIFORNIA

October 5, 2007
PLANS APPROVAL DATE

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To accompany plans dated 5-10-10

NOTES-TYPE III SERVICE EQUIPMENT ENCLOSURES:

1. Service equipment enclosure and metering equipment shall meet the requirements of the service utility. The meter area shall have a sealable, lockable, weathertight cover that can be removed without the use of tools.

2. Service equipment enclosures shall be factory wired and conform to NEMA standards.

3. Dimensions of service equipment enclosures shall meet the requirements of the service utility.

4. The dead front panels on Type III service equipment enclosures shall have a continuous stainless steel or aluminum piano hinge. The panel in front of the breakers shall be secured with a latch or captive screws. No live parts shall be mounted on the dead front panel.

5. The exterior door shall have provisions for padlocking. The padlock hole shall be a minimum diameter of 7/16".

6. Enclosures housing transformers of more than one kVA shall have effective screened ventilation louver of not less than 50 square inches. Screen shall be stainless steel No. 304, with a No. 10 size mesh. Framed screen shall be secured with at least four bolts.

7. Fasteners on the exterior of the enclosure shall be vandal-resistant and shall not be removable from the exterior. Exterior screws, nuts, bolts and washers shall be stainless steel.

8. Landing lugs for incoming service conductors shall be compatible with either copper or aluminum conductors sized to suit the conductors shown on the plan. Landing lugs shall be copper or tin-plated aluminum. Neutral bus shall be rated for 125 A and be suitable for copper or aluminum conductors unless otherwise specified. The terminal shall include but not be limited to:

   a) Incoming terminals (landing lugs)
   b) Neutral lugs
   c) Solid neutral terminal strip

9. At least 6 standard single pole circuit breaker spaces, 3/4" nominal, shall be provided for branch circuits. Circuit breaker interiors shall be copper. Interiors of enclosure shall accept plug-in or cable-in/cable-out circuit breakers.

10. Control wiring shall be 600 V, 14 stranded machine tool wire. Where subject to flexing, 19 strand wire shall be used.

11. Main bus shall be rated for 125 A and shall be tin-plated copper.

12. A plastic laminated wiring diagram shall be provided with brass mounting eyelets and attached to the inside of the enclosure and the wiring diagram shall be affixed to the interior with a UL or ETL approved method.

13. An engraved phenolic nameplate on the dead front panel indicating the function of each circuit or device shall be installed with stainless steel rivets or stainless steel screws:

    a) Adjacent to the breaker or device with character size a minimum of 1/8".

    b) At the top of the exterior door panel indicating State system number, voltage level and number of phases with character size a minimum of 3/16".

14. The plan shows the approximate location of devices within the enclosure. Components may be rearranged, however, the "working" clearances within the service equipment enclosure shall be maintained.

15. In unpaved areas a raised portland cement concrete pad 2'-0" x 4" x width of foundation shall be constructed in front of new service equipment enclosure installation. Pad shall be set to elevation of foundation.

16. Foundation shall extend 2" minimum beyond edge of service equipment enclosure.

17. Internal bus, where shown, is typical only. Alternative design of proposed service equipment enclosure shall be submitted to the Engineer for approval.

18. Plug-in circuit breakers may be mounted in the vertical or horizontal position. Cable-in/cable-out circuit breakers shall be mounted in the vertical position.

19. Type III-AF and Type III-BF service equipment enclosures shall have the meter viewing windows located on the front side of the service equipment enclosures.

20. Type III-AR and Type III-BR service equipment enclosures shall be similarly constructed as Type III-AF and Type III-BF respectively, except the meter viewing windows shall be located on the back side of the service equipment enclosures.

21. Minimum clearance shall be required for front and back of service equipment enclosure per National Electrical Code, Article 110.26, "Spaces About Electric Equipment (600 Volts, Nominal, or Less)."

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SERVICE EQUIPMENT NOTES TYPE III SERIES)

NO SCALE

RSP ES-2C DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-2C
DATED MAY 1, 2006 - PAGE 405 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-2C

2006 REVISED STANDARD PLAN RSP ES-2C

7-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	113	165

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

Jeffery G. McRae
No. E14512
Exp. 6-30-08
ELECTRICAL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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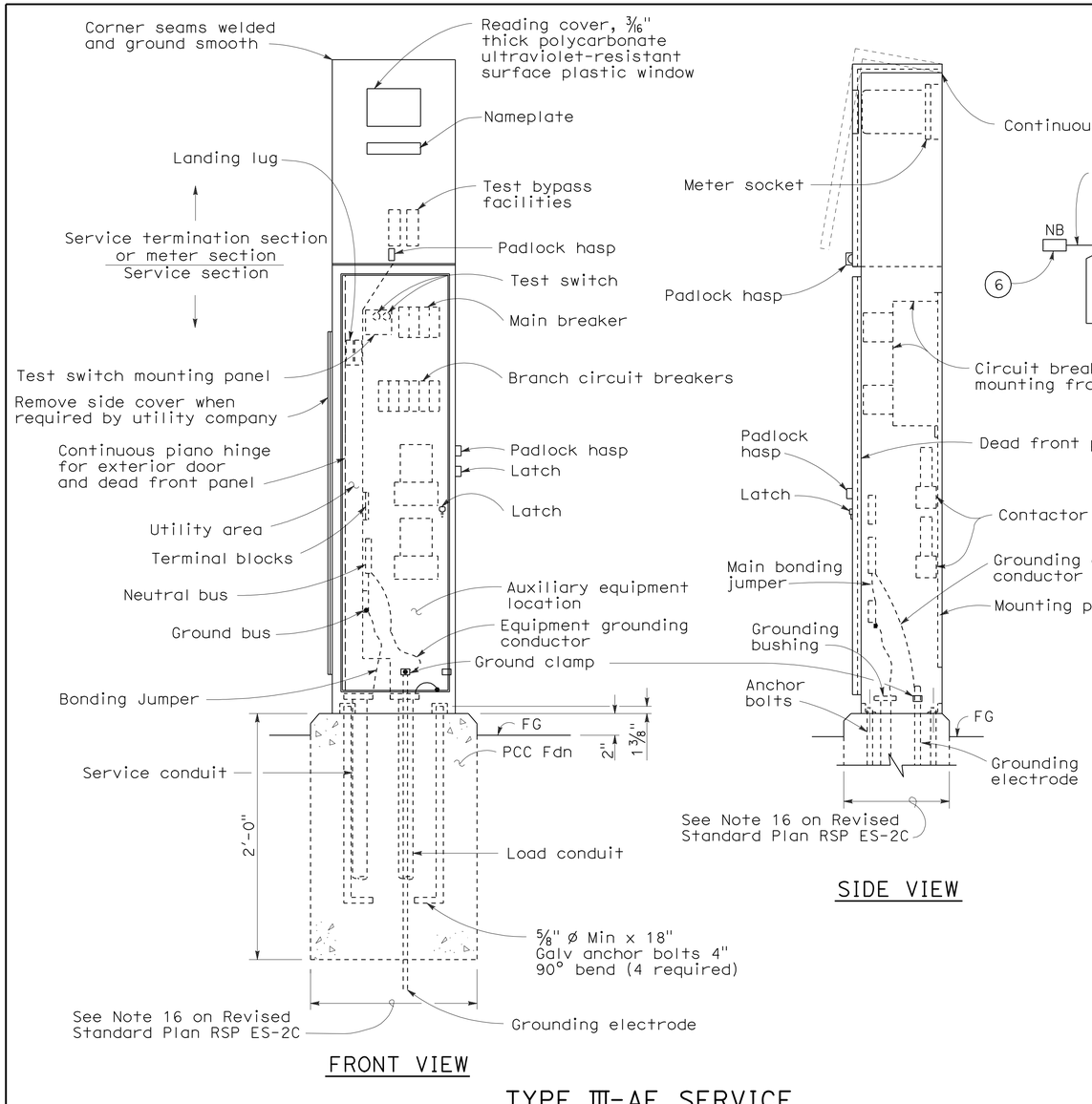
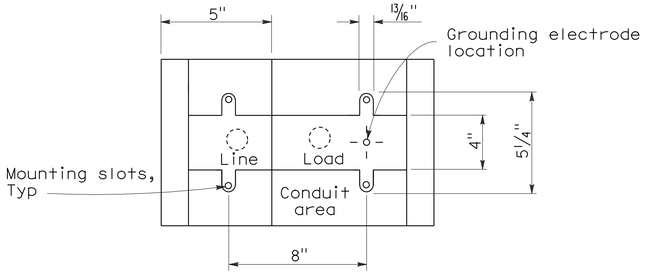
To accompany plans dated 5-10-10



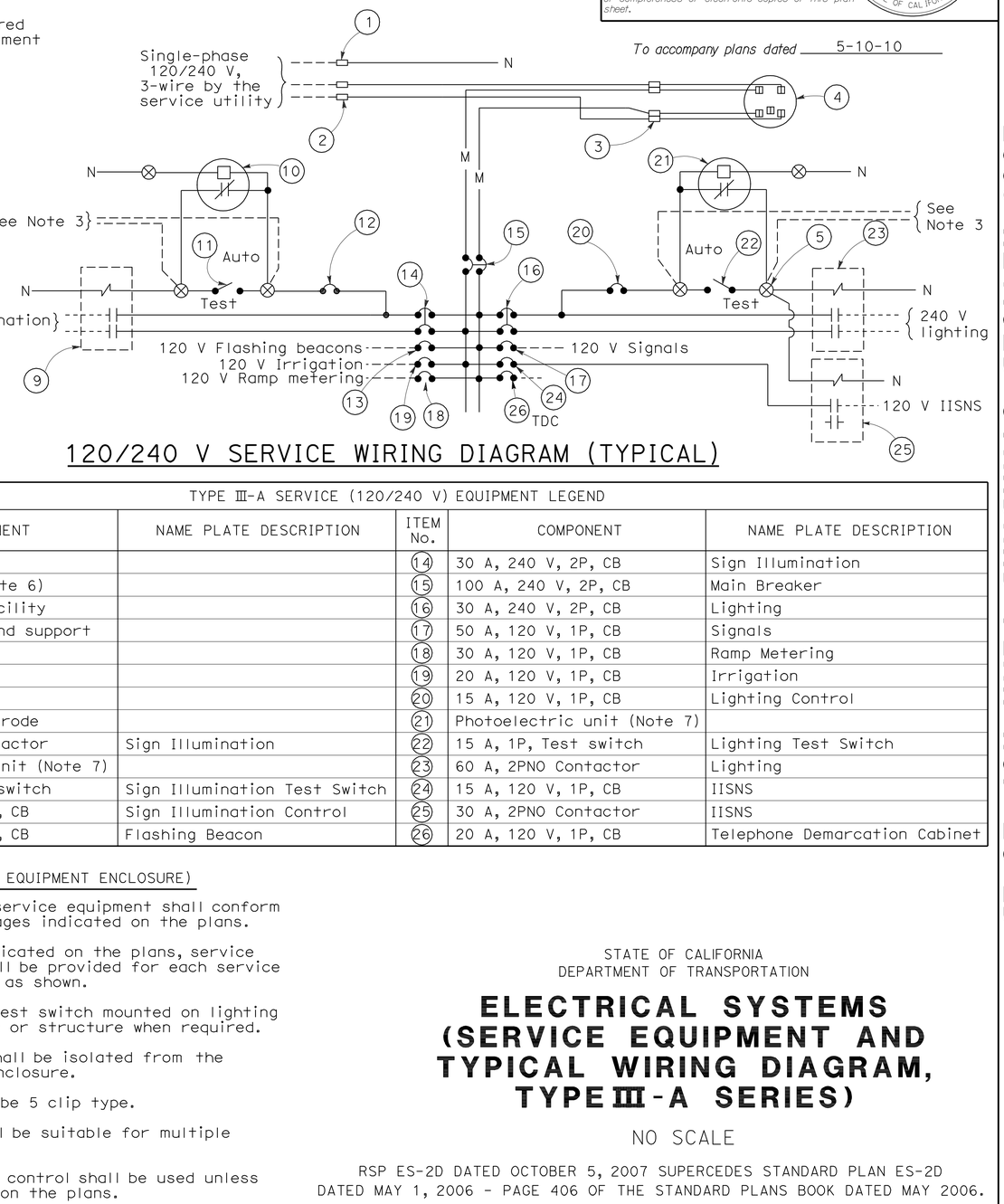
SIDE VIEW

FRONT VIEW

TYPE Ⅲ-AF SERVICE EQUIPMENT ENCLOSURE (TYPICAL)



BASE FOR TYPE Ⅲ-A SERVICE EQUIPMENT ENCLOSURE



120/240 V SERVICE WIRING DIAGRAM (TYPICAL)

TYPE Ⅲ-A SERVICE (120/240 V) EQUIPMENT LEGEND

ITEM No.	COMPONENT	NAME PLATE DESCRIPTION	ITEM No.	COMPONENT	NAME PLATE DESCRIPTION
(1)	Neutral lug		(14)	30 A, 240 V, 2P, CB	Sign Illumination
(2)	Landing lug (Note 6)		(15)	100 A, 240 V, 2P, CB	Main Breaker
(3)	Test bypass facility		(16)	30 A, 240 V, 2P, CB	Lighting
(4)	Meter socket and support		(17)	50 A, 120 V, 1P, CB	Signals
(5)	Terminal blocks		(18)	30 A, 120 V, 1P, CB	Ramp Metering
(6)	Neutral bus		(19)	20 A, 120 V, 1P, CB	Irrigation
(7)	Ground bus		(20)	15 A, 120 V, 1P, CB	Lighting Control
(8)	Grounding electrode		(21)	Photoelectric unit (Note 7)	
(9)	30 A, 2PNO Contactor	Sign Illumination	(22)	15 A, 1P, Test switch	Lighting Test Switch
(10)	Photoelectric unit (Note 7)		(23)	60 A, 2PNO Contactor	Lighting
(11)	15 A, 1P, Test switch	Sign Illumination Test Switch	(24)	15 A, 120 V, 1P, CB	IISNS
(12)	15 A, 120 V, 1P, CB	Sign Illumination Control	(25)	30 A, 2PNO Contactor	IISNS
(13)	15 A, 120 V, 1P, CB	Flashing Beacon	(26)	20 A, 120 V, 1P, CB	Telephone Demarcation Cabinet

NOTES: (FOR SERVICE EQUIPMENT ENCLOSURE)

1. Voltage ratings of service equipment shall conform to the service voltages indicated on the plans.
2. Unless otherwise indicated on the plans, service equipment items shall be provided for each service equipment enclosure as shown.
3. Connect to remote test switch mounted on lighting standards, sign post or structure when required.
4. Items No. (1) and (6) shall be isolated from the service equipment enclosure.
5. Meter sockets shall be 5 clip type.
6. The landing lug shall be suitable for multiple conductors.
7. Type Ⅴ photoelectric control shall be used unless otherwise indicated on the plans.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (SERVICE EQUIPMENT AND TYPICAL WIRING DIAGRAM, TYPE Ⅲ-A SERIES)

NO SCALE

RSP ES-2D DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-2D DATED MAY 1, 2006 - PAGE 406 OF THE STANDARD PLANS BOOK DATED MAY 2006.

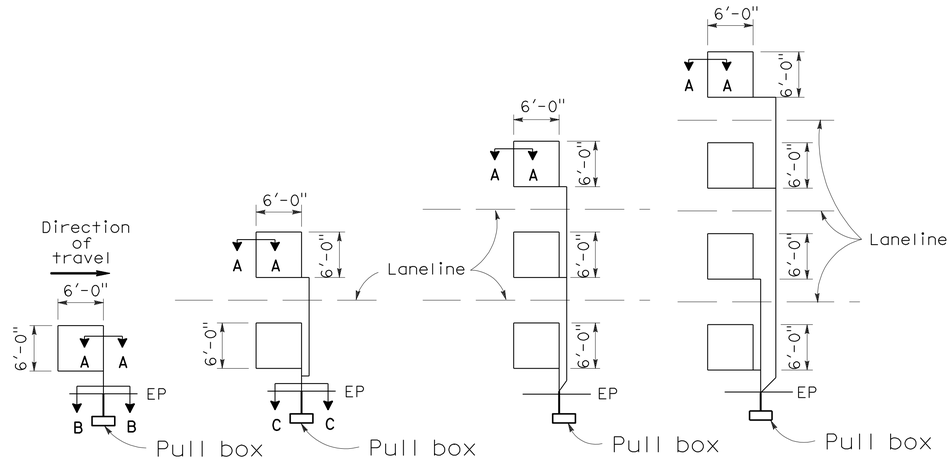
REVISED STANDARD PLAN RSP ES-2D

2006 REVISED STANDARD PLAN RSP ES-2D

7-10-07

LOOP INSTALLATION PROCEDURE

1. Loops shall be centered in lanes.
2. Saw slots in pavement for loop conductors as shown in details.
3. Distance between side of loop and a lead-in saw cut from adjacent detectors shall be 2'-0" minimum. Distance between lead-in saw cuts shall be 6" minimum.
4. Bottom of saw slot shall be smooth with no sharp edges.
5. Slots shall be washed until clean, blown out and thoroughly dried before installing loop conductors.
6. Adjacent loops on the same sensor unit channel shall be wound in opposite directions.
7. Identify and tag loop circuit pairs in the pull box with loop number, start (S) and finish (F) of conductor. Identify and tag lead-in-cable with sensor number and phase.
8. Install loop conductor in slot using a 3/16" to 1/4" thick wood paddle. Hold loop conductors with wood paddles (at the bottom of the sawed slot) during sealant placement.
9. No more than 2 twisted pairs shall be installed in one sawed slot.
10. Allow additional 5'-0" of slack length of conductor for the lead-in run to pull box.
11. The additional length of each conductor for each loop shall be twisted together into a pair (6 turns per 3'-4" minimum) before being placed in the slot and conduit leading to pull box.
12. Test each loop circuit for continuity, circuit resistance and insulation resistance at the pull box before filling slots.
13. Fill slots as shown in details.
14. Splice loop conductors to lead-in-cable. Splices shall be soldered.
15. End of lead-in-cable and Type 2 loop conductor shall be waterproofed prior to installing in conduit to prevent moisture from entering the cable.
16. Lead-in-cable shall not be spliced between the pull box and the controller cabinet terminals.
17. Test each loop circuit for continuity, circuit resistance and insulation resistance at the controller cabinet location.
18. Where loop conductors are not to be spliced to a lead-in-cable, the ends of the conductors shall be taped and waterproofed with electrical insulating coating.

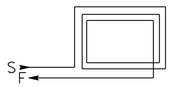


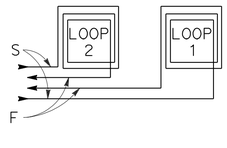
TYPE 1A INSTALLATION | TYPE 2A INSTALLATION | TYPE 3A INSTALLATION | TYPE 4A INSTALLATION

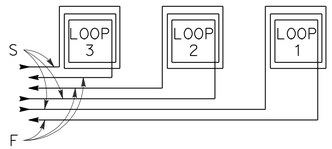
SAWCUT DETAILS

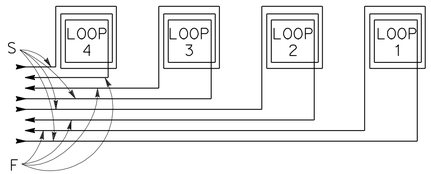
(Type A loop detector configurations illustrated)

1. 1A thru 4A = 1 Type A loop configuration in each lane.
2. 1B thru 4B = 1 Type B loop configuration in each lane.
3. 1C = 1 Type C loop configuration entering lanes as required.
4. 1D thru 4D = 1 Type D loop configuration in each lane.
5. 1E thru 4E = 1 Type E loop configuration in each lane.
6. 1Q thru 4Q = 1 Type Q loop configuration in each lane. (Use Type A, B, C, D, E or Q loop detector configurations only when specified or shown on plans)



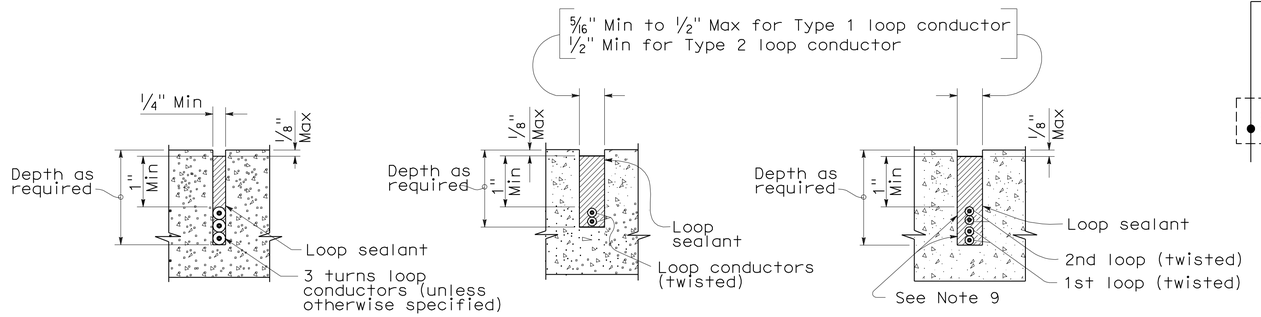






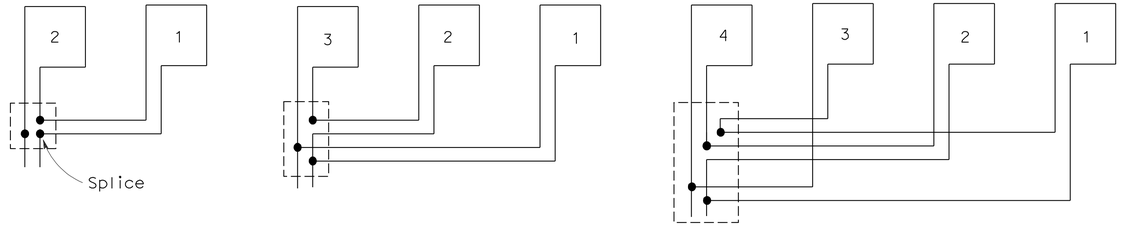
WINDING DETAILS

See Notes 6 and 7



SECTION A-A | SECTION B-B | SECTION C-C

SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR



TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	114	165

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jeffery G. McRae — No. E14512 — Exp. 6-30-08 — ELECTRICAL — STATE OF CALIFORNIA

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To accompany plans dated 5-10-10

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (DETECTORS)

NO SCALE

RSP ES-5A DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-5A
DATED MAY 1, 2006 - PAGE 423 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-5A

2006 REVISED STANDARD PLAN RSP ES-5A

8-17-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	115	165

REGISTERED CIVIL ENGINEER

January 18, 2008
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Stanley P. Johnson — No. C57793 — Exp. 03-31-08 — CIVIL — STATE OF CALIFORNIA

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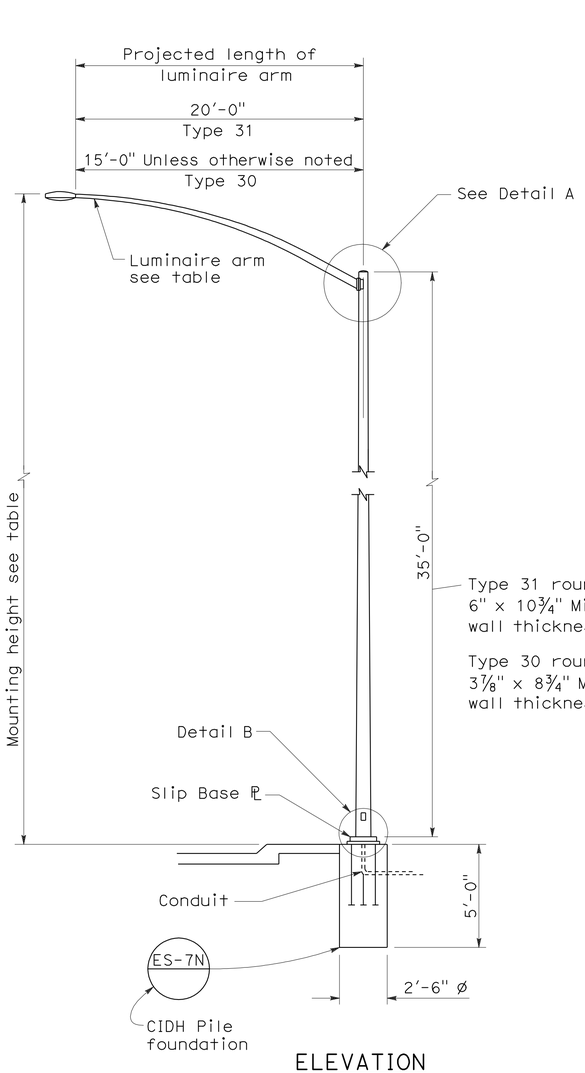
To accompany plans dated 5-10-10

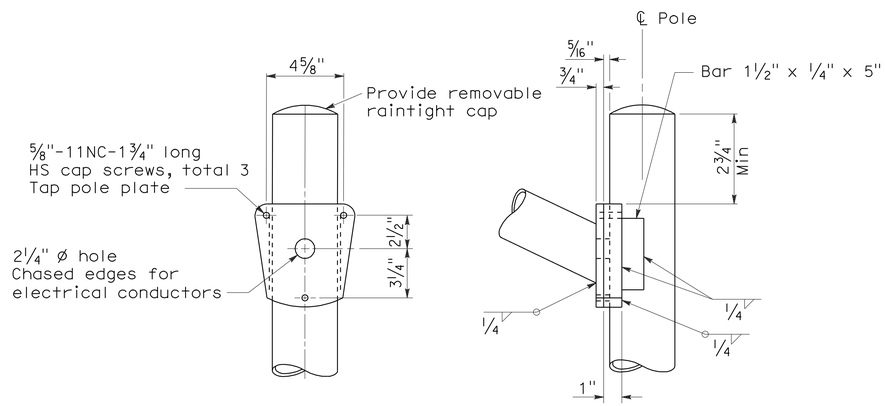
LUMINAIRE ARM DATA

PROJECTED LENGTH	THICKNESS	MINIMUM OD @ POLE	MOUNTING HEIGHT
* 6'-0"	0.1196"	3¼"	36'-9"±
8'-0"		3½"	37'-3"±
10'-0"		3¾"	38'-0"±
12'-0"		3¾"	39'-0"±
15'-0"		4¼"	39'-6"±
** 20'-0"	0.1793"	5"	37'-0"±

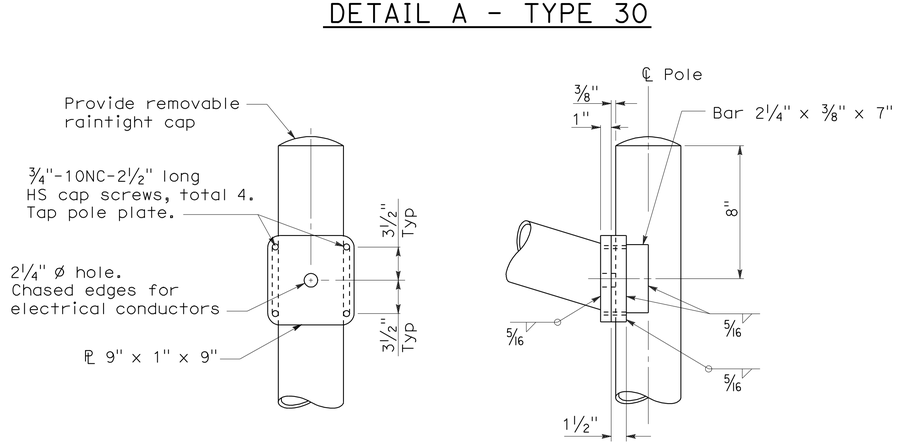
* Type 30 - arm length 6'-0" - 15'-0" maximum
** Type 31 - arm lengths 20'-0"



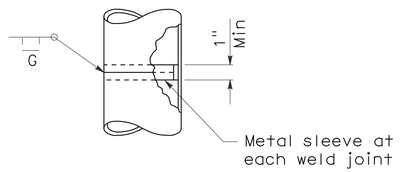
ELEVATION



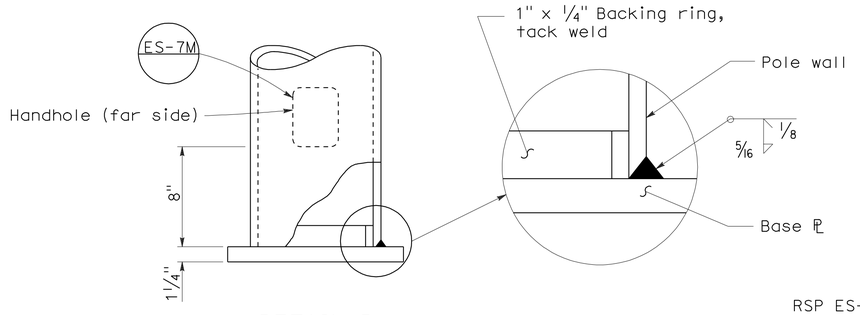
DETAIL A - TYPE 30



DETAIL A - TYPE 31



POLE SPLICE



DETAIL B

NOTES:

1. Sheet steel shall have a minimum yield of 48,000 psi.
2. For slip base details see Standard Plan ES-6F.
3. For Type 30 fixed base use Type 15 base plate, and foundation shown on Revised Standard Plan RSP ES-6A. Use 1¼" Dia x 3'-6" x 4" anchor bolts.
4. For Type 31 fixed base use Type 32 base plate, anchor bolts and foundation on Standard Plan ES-6G.
5. Handhole shall be located on downstream side of traffic unless noted otherwise on plans.
6. For additional general notes refer to Standard Plan ES-7M.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LIGHTING STANDARD TYPES 30 AND 31)

NO SCALE

RSP ES-6E DATED JANUARY 18, 2008 SUPERCEDES STANDARD PLAN ES-6E
DATED MAY 1, 2006 - PAGE 430 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-6E

2006 REVISED STANDARD PLAN RSP ES-6E

11-19-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	116	165

Jeffery G. McRae
REGISTERED ELECTRICAL ENGINEER

October 5, 2007
PLANS APPROVAL DATE

Jeffery G. McRae
No. E14512
Exp. 6-30-08
ELECTRICAL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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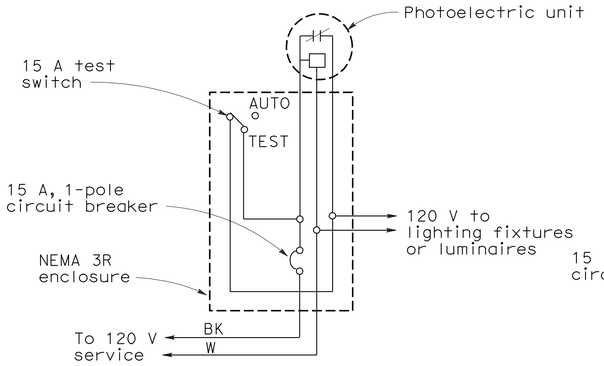
To accompany plans dated 5-10-10

2006 REVISED STANDARD PLAN RSP ES-15D

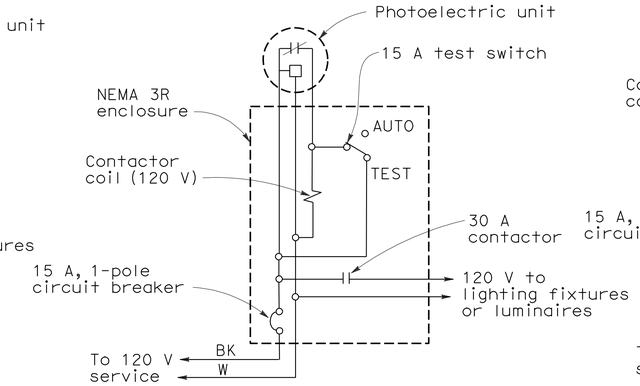
NOTES: (FOR LIGHTING AND SIGN ILLUMINATION CONTROL)

1. The ballast voltages of lighting fixtures and luminaires shall match line service voltages.
2. Voltage rating of photoelectric controls shall conform to the service voltage indicated on the plans.
3. Terminal strip shall be provided for wiring to fixtures.
4. Type SC1A, SC2A, SC3A controls are similar to Types SC1, SC2 and SC3 controls respectively except test switch and wiring are not required.



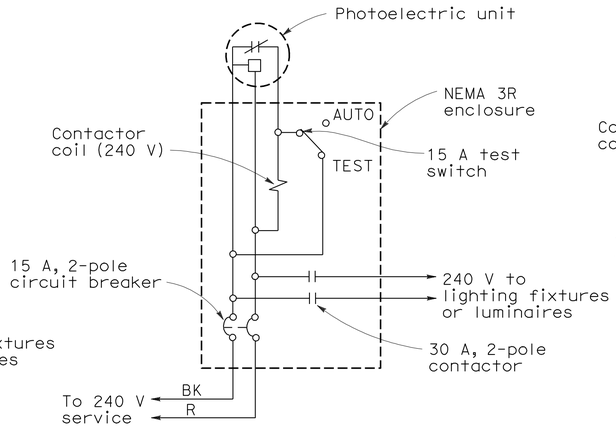
TYPE LC1 CONTROL

For 120 V unswitched circuit with no more than 800 W load.



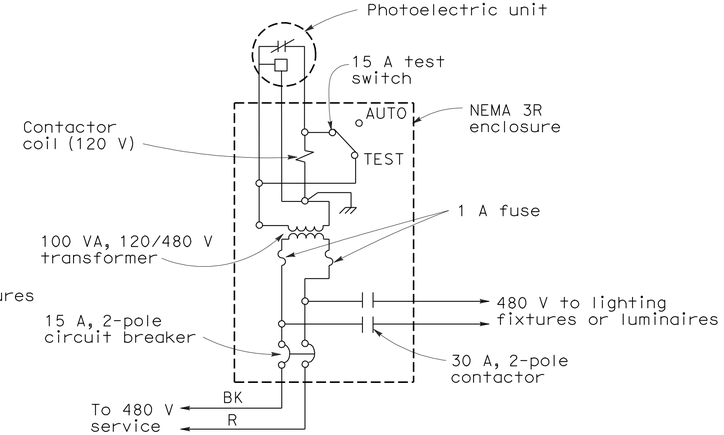
TYPE LC2 CONTROL

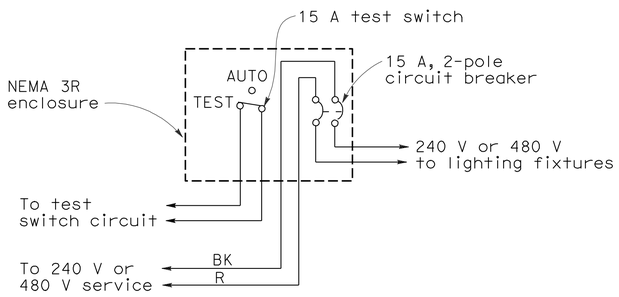
For 120 V unswitched circuit



TYPE LC3 CONTROL

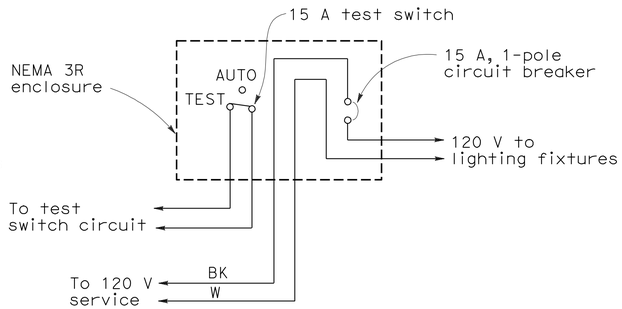
For 240 V and 480 V unswitched circuits





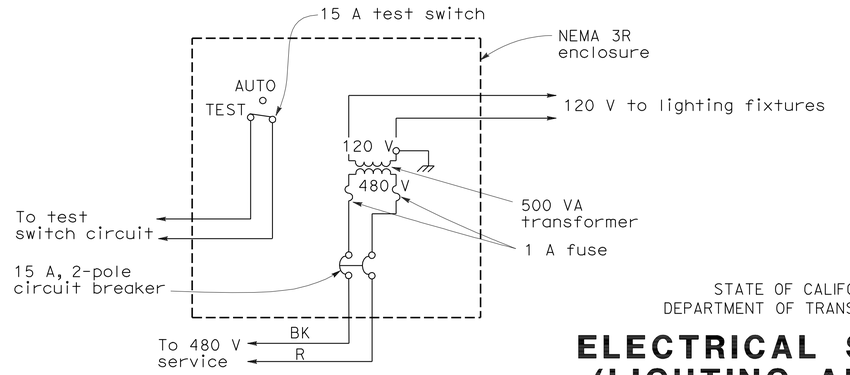
TYPE SC1 CONTROL

For 240 V or 480 V switched circuit, see Note 4 for Type SC1A



TYPE SC2 CONTROL

For 120 V switched circuit, see Note 4 for Type SC2A



TYPE SC3 CONTROL

For 480 V switched sign circuit, see Note 4 for Type SC3A

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

ELECTRICAL SYSTEMS (LIGHTING AND SIGN ILLUMINATION CONTROL)

NO SCALE

RSP ES-15D DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-15D DATED MAY 1, 2006 - PAGE 472 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP ES-15D

9-10-07

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	117	165

Jose M. Aquino III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

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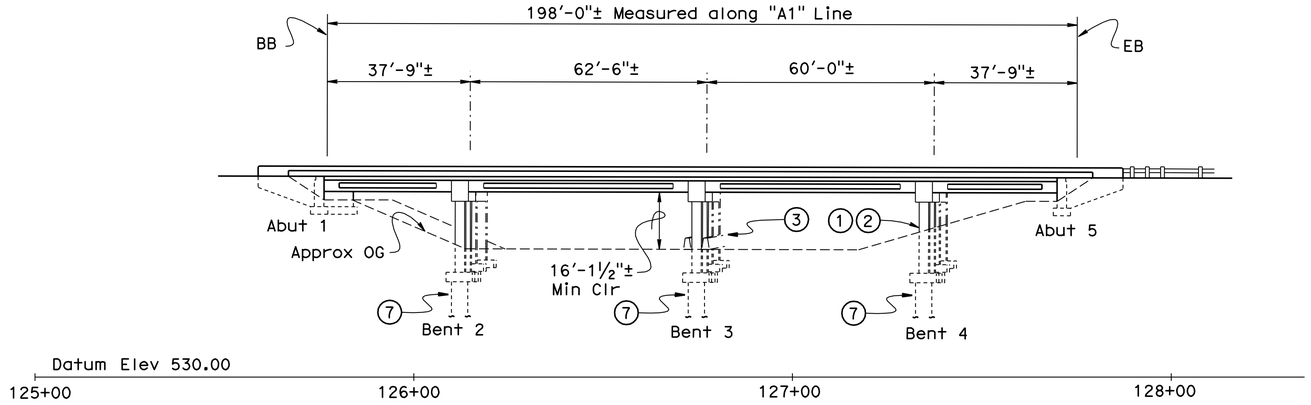
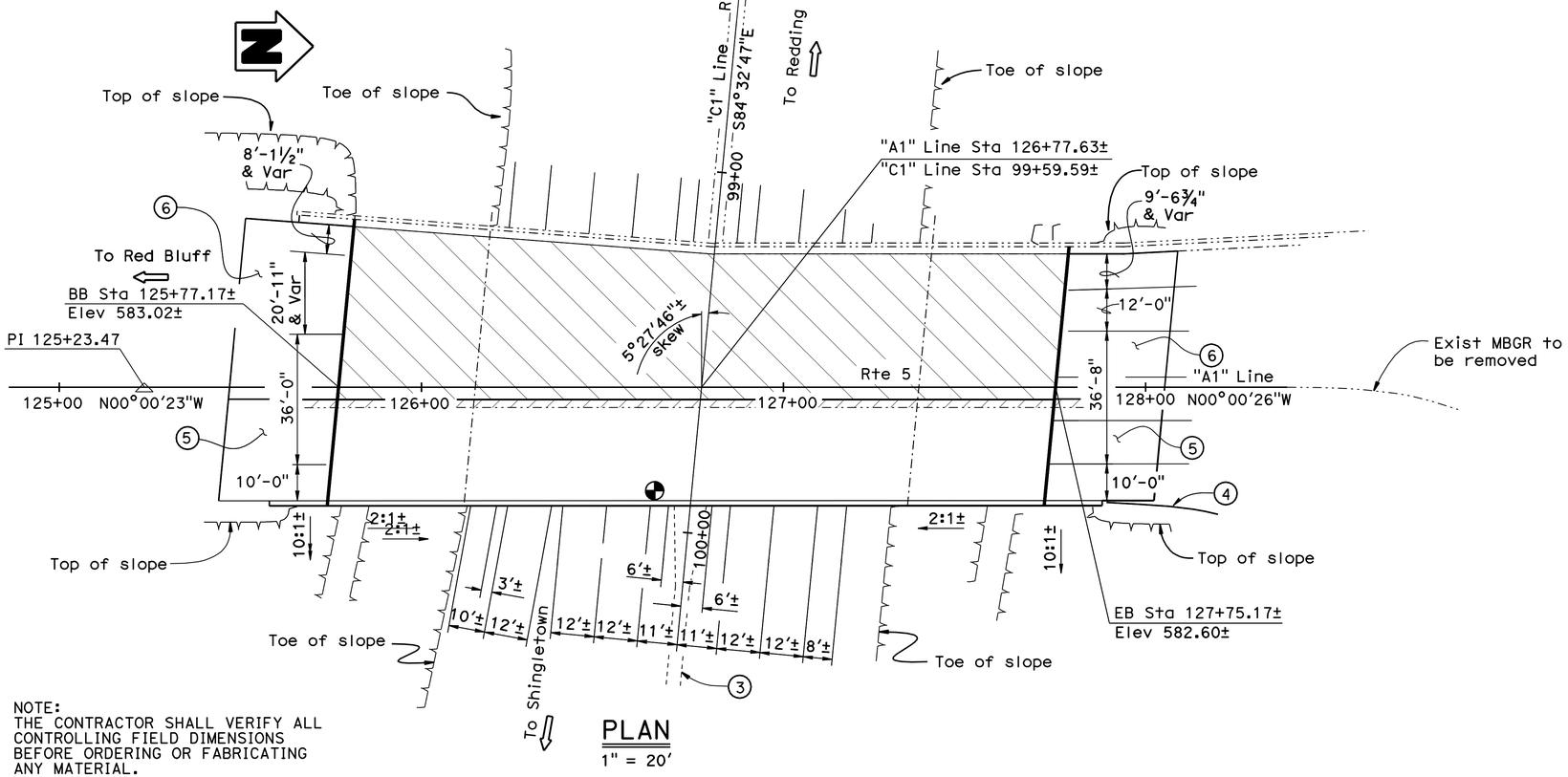
REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA



ELEVATION
1" = 20'



PLAN
1" = 20'

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

QUANTITIES

REMOVE ASPHALT CONCRETE SURFACING	8,680	SQFT
SALVAGE METAL BRIDGE RAILING	229	LF
REMOVE UNSOUND CONCRETE	27	CF
PREPARE CONCRETE BRIDGE DECK SURFACE	14,184	SQFT
BRIDGE REMOVAL (PORTION), LOCATION B	LUMP	SUM
STRUCTURE EXCAVATION (BRIDGE)	319	CY
STRUCTURE BACKFILL (BRIDGE)	215	CY
AGGREGATE BASE (APPROACH SLAB)	10	CY
TIEDOWN ANCHOR	24	EA
STRUCTURAL CONCRETE, BRIDGE FOOTING	72	CY
STRUCTURAL CONCRETE, BRIDGE	269	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	66	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	104	CY
PAVING NOTCH EXTENSION	71	CF
DRILL AND BOND DOWEL	29	LF
RAPID SETTING CONCRETE (PATCH)	27	CF
FURNISH PRECAST PRESTRESSED CONCRETE GIRDER (30'-40')	10	EA
FURNISH PRECAST PRESTRESSED CONCRETE GIRDER (50'-60')	5	EA
FURNISH PRECAST PRESTRESSED CONCRETE GIRDER (60'-70')	5	EA
ERECT PRECAST PRESTRESSED CONCRETE GIRDER	20	EA
FURNISH POLYESTER CONCRETE OVERLAY	1,026	CF
PLACE POLYESTER CONCRETE OVERLAY	14,184	SQFT
JOINT SEAL (MR = ½")	156	LF
BAR REINFORCING STEEL (BRIDGE)	113,485	LB
CONCRETE BARRIER (TYPE 732)	229	LF

NOTE:
Lane widths shown are for information only, see "ROAD PLANS"

LEGEND:
- Indicates Limits of Existing AC & Membrane Seal Removal
- Indicates Existing Concrete and Barrier Rail Removal
- Indicates Existing Structure
- Indicates New Structure
- Indicates Joint Seal MR = ½"
- (1) Paint "EAST REDDING SEPARATION"
- (2) Paint "BR. NO. 06-0126L"
- (3) Concrete Barrier Type 60E, see "ROAD PLANS"
- (4) MBGR, see "ROAD PLANS"
- (5) Structure Approach Type N(30D)
- (6) Structure Approach Type R(30D)
- (7) Tie Down Anchors
- Point of Minimum Vertical Clearance

For "GENERAL NOTES" and "INDEX TO PLANS", see "INDEX TO PLANS" sheet
For "TYPICAL SECTION" see "GENERAL PLAN NO. 2" sheet

Joseph E Downing
DESIGN ENGINEER

DESIGN	BY Mufeed Khalaf	CHECKED Binayak Sharma	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE	
DETAILS	BY Jay Reid	CHECKED Binayak Sharma	LAYOUT	BY Mufeed Khalaf	CHECKED Joey Aquino
QUANTITIES	BY Quang Nguyen	CHECKED Joey Aquino	SPECIFICATIONS	BY Iwa Huang	PLANS AND SPECS COMPARED Iwa Huang

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 3

CU 03247
EA 3C0001

BRIDGE NO. 06-0126L
POST MILE R15.43

EAST REDDING SEPARATION (WIDEN)
GENERAL PLAN NO. 1

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 3-13-08 | 8-12-09 | 9-30-09 | 10-5-09 | 10-22-09 | 1-11-10 | 1-19-10 | | 6-26-09 | 7-2-09

SHEET 1 OF 26

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV.07-24-06)

FILE => 06-0126l-a-gp-01.dgn

USERNAME => jfriehard DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 12:49

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	118	165

Jose M. Aquino S III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

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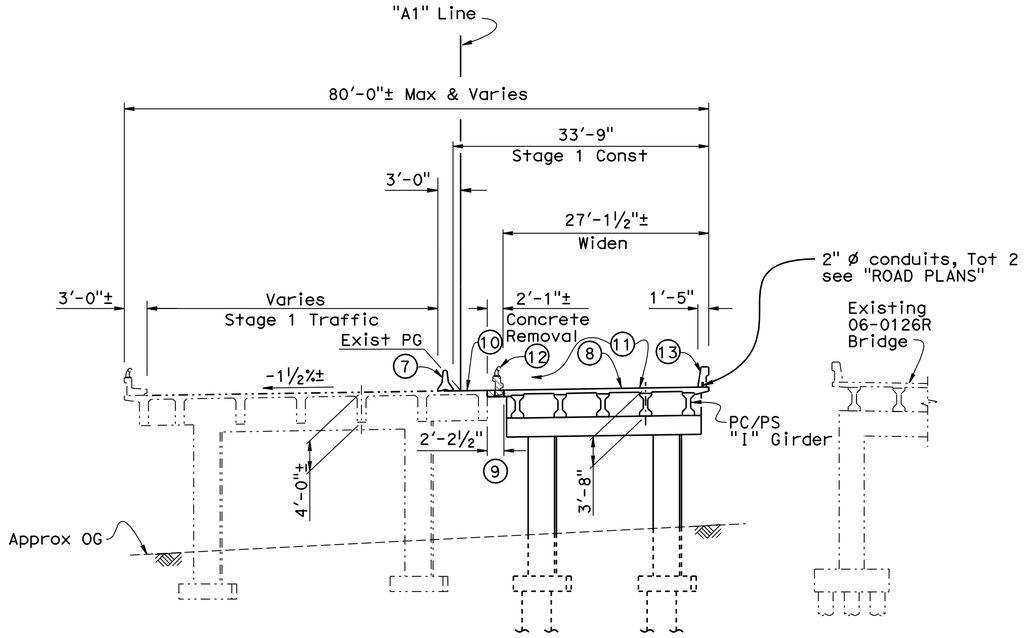
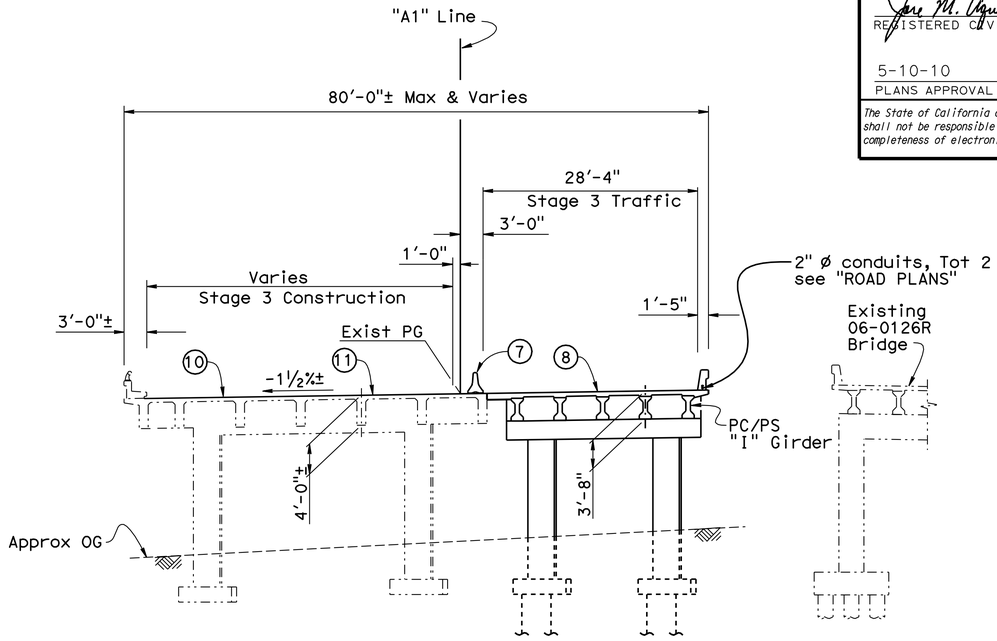
REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA



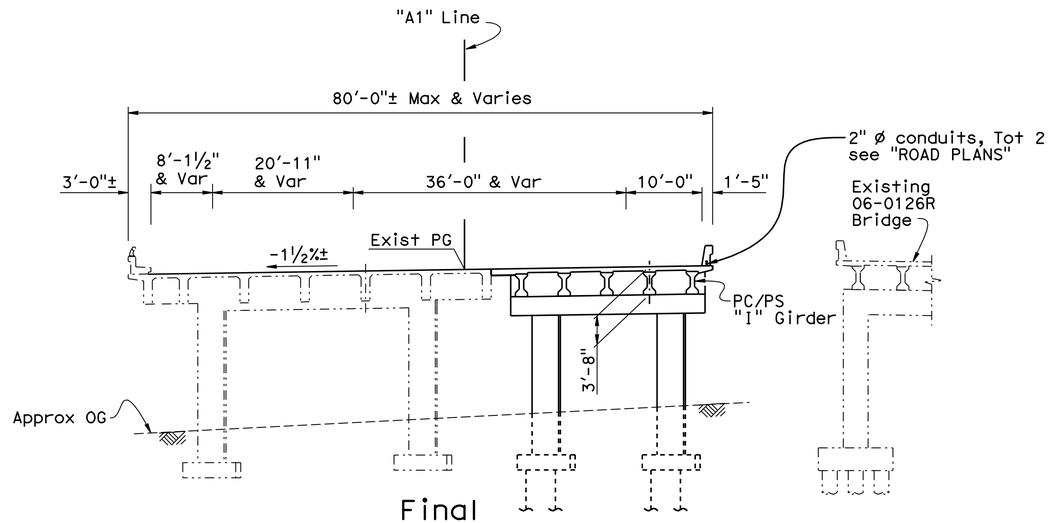
Stage 1
TYPICAL SECTION
1" = 10'

NOTE:

Stage 2 Traffic & Construction - Median Work, see "ROAD PLANS"



Stage 3
TYPICAL SECTION
1" = 10'



Final
TYPICAL SECTION
1" = 10'

LEGEND:

- Indicates Concrete and Existing Barrier Rail removal
- Indicates Existing Structure
- Indicates New Structure
- (7) Temporary Railing (Type K), see "ROAD PLANS"
- (8) Match existing cross slope
- (9) Closure Pour
- (10) Remove Existing AC Overlay
- (11) ¾"± Minimum Polyester Concrete Overlay
- (12) Salvage Existing Metal Railing
- (13) Concrete Barrier Type 732

For "GENERAL NOTES" and "INDEX TO PLANS", see "INDEX TO PLANS" sheet

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

NOTE:
For Notes and Items not shown see "GENERAL PLAN NO. 1" sheet

Joseph E Downing
DESIGN ENGINEER

	BY	CHECKED
DESIGN	Mufeed Khalaf	Binayak Sharma
DETAILS	Jay Reid	Binayak Sharma
QUANTITIES	Quang Nguyen	Joey Aquino

LOAD & RESISTANCE FACTOR DESIGN — LIVE LOADING: HL-93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE

	BY	CHECKED
LAYOUT	Mufeed Khalaf	Joey Aquino
SPECIFICATIONS	Iwa Huang	PLANS AND SPECS COMPARED Iwa Huang

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 3

CU 03247
EA 3C0001

BRIDGE NO. 06-0126L
POST MILE R15.43

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 8-12-09 | 8-20-09 | 9-30-09 | 10-12-09 | 10-13-09 | 10-14-09 | 10-22-09

EAST REDDING SEPARATION (WIDEN)
GENERAL PLAN NO. 2

SHEET 2 OF 26

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV.07-24-06)

FILE => 06-0126l-a-gp-02.dgn

USERNAME => Hleonard DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 12:49

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	119	165

Jose M. Aquino III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

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GENERAL NOTES
LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:

AASHTO LRFD Bridge Design Specifications, 3 edition with the 2005, 2006 Interims and the California Amendments v3.06.01; except that the abutments were designed using Bridge Design Specifications ('96 AASHTO w/Revisions by Caltrans)

SEISMIC DESIGN:

Caltrans Seismic Design Criteria (SDC), Version 1.4 dated JUNE 2006

DEAD LOAD:

Includes 35 psf for future wearing surface.

LIVE LOADING:

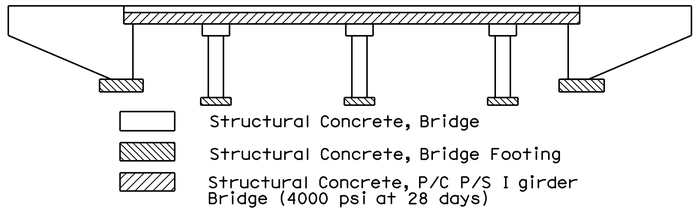
HL93 and permit design load.

SEISMIC LOADING:

Peak Rock Acceleration = 0.2g
SDC ARS Curve For Soil Profile C (M=6.5± .25)

CONCRETE:

fy = 60 ksi
f'c = 3.6 ksi (except as shown on "CONCRETE STRENGTH AND TYPE LIMITS")
n = 8



CONCRETE STRENGTH AND TYPE LIMITS
No Scale

SPREAD FOOTING DATA TABLE

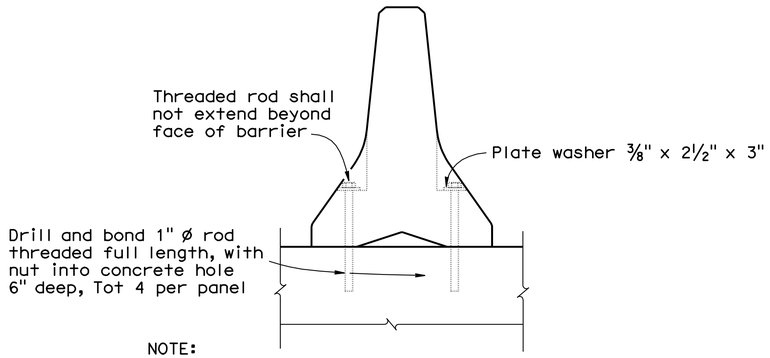
Support Location	Working Stress Design (WSD)		Load and Resistance Factor Design (LRFD)		
			Service	Strength	Extreme Event
	Permissible Gross Contact Stress(ksf)	Allowable Gross Bearing Capacity (ksf)	Net Permissible Contact Stress, (ksf)	Factored Gross Nominal Bearing Resistance, (ksf)	Factored Gross Nominal Bearing Resistance, (ksf)
Abut 1	3.5	5.0	N/A	N/A	N/A
Bent 2	N/A	N/A	7.0	24.75	55.0
Bent 3	N/A	N/A	7.0	24.75	55.0
Bent 4	N/A	N/A	7.0	24.75	55.0
Abut 5	3.5	5.0	N/A	N/A	N/A

INDEX TO PLANS

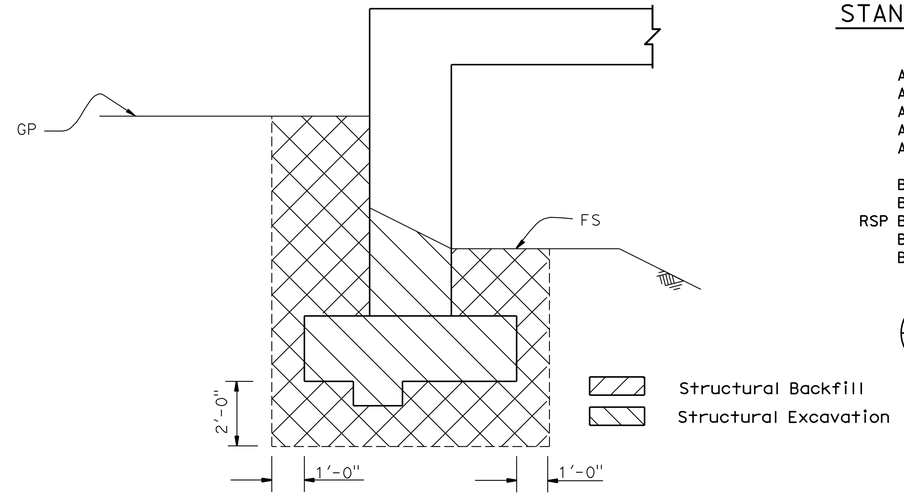
STANDARD PLANS DATED MAY 2006

A10A	ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
A10B	ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
A10C	SYMBOLS (SHEET 1 OF 2)
A10D	SYMBOLS (SHEET 2 OF 2)
A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL BRIDGE
B0-1	BRIDGE DETAILS
B0-5	BRIDGE DETAILS
RSP B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
B11-55	CONCRETE BARRIER TYPE 732
B14-3	COMMUNICATION AND SPRINKLER CONTROL CONDUITS

STANDARD PLAN SHEET NO.
DETAIL NO.



TYPE K RAILING ATTACHMENT
No Scale



LIMITS OF STRUCTURE EXCAVATION AND BACKFILL FOR ABTMENT
No Scale

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN	BY Mufeed Khalaf	CHECKED Binayak Sharma	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 3	BRIDGE NO. 06-0126L
DETAILS	BY Jay Reid	CHECKED Binayak Sharma			POST MILE R15.43
QUANTITIES	BY Quang Nguyen	CHECKED Joey Aquino		CU 03247 EA 3C0001	

EAST REDDING SEPARATION (WIDEN)
INDEX TO PLANS

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
12-17-07	6-29-09	7-2-09	7-6-09	7-14-09	7-16-09	9-30-09	10-22-09	1-11-10		3	26

FILE => 06-0126l-b-index.dgn

USERNAME => Trrichard DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 12:49

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	120	165

Jose M. Aquino III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

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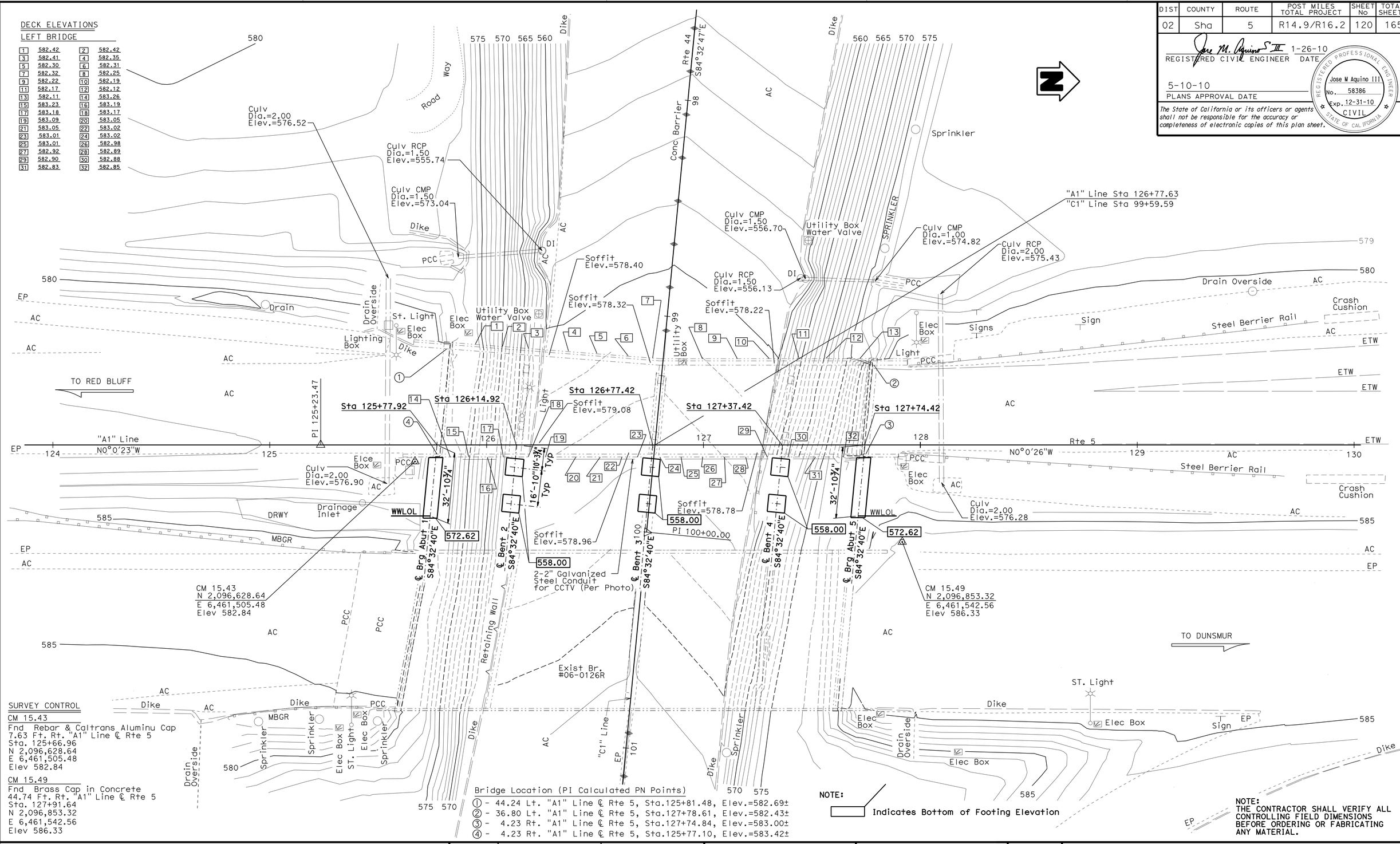
REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

DECK ELEVATIONS
LEFT BRIDGE

1	582.42	2	582.42
3	582.41	4	582.35
5	582.30	6	582.31
7	582.32	8	582.25
9	582.22	10	582.19
11	582.17	12	582.12
13	582.11	14	583.26
15	583.23	16	583.19
17	583.18	18	583.17
19	583.09	20	583.05
21	583.05	22	583.02
23	583.01	24	583.02
25	583.01	26	582.98
27	582.92	28	582.89
29	582.90	30	582.88
31	582.83	32	582.85



SURVEY CONTROL

CM 15.43
Fnd Rebar & Caltrans Aluminu Cap
7.63 Ft. Rt. "A1" Line ℄ Rte 5
Sta. 125+66.96
N 2,096,628.64
E 6,461,505.48
Elev 582.84

CM 15.49
Fnd Brass Cap in Concrete
44.74 Ft. Rt. "A1" Line ℄ Rte 5
Sta. 127+91.64
N 2,096,853.32
E 6,461,542.56
Elev 586.33

Bridge Location (PI Calculated PN Points)
① - 44.24 Lt. "A1" Line ℄ Rte 5, Sta.125+81.48, Elev.=582.69±
② - 36.80 Lt. "A1" Line ℄ Rte 5, Sta.127+78.61, Elev.=582.43±
③ - 4.23 Rt. "A1" Line ℄ Rte 5, Sta.127+74.84, Elev.=583.00±
④ - 4.23 Rt. "A1" Line ℄ Rte 5, Sta.125+77.10, Elev.=583.42±

NOTE: Indicates Bottom of Footing Elevation

NOTE: THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

PRELIMINARY INVESTIGATION SECTION							
SCALE	VERT.DATUM NAVD88	PHOTOGRAMMETRY AS OF: X					
1"=20'	HORZ.DATUM NAD83(92)1991.35	SURVEYED	BY	Tom Gillett 05/2008	CHECKED	BY	Lawrence Lew 05/2008
ALIGNMENT TIES Dist. Traverse Sheet		DRAFTED	BY	S. Zheng 05/2008	CHECKED	BY	T. Zolnikova 05/2008

DESIGN	BY Mufeed Khalaf	CHECKED	Binayak Sharma
DETAILS	BY Jay Reid	CHECKED	Binayak Sharma
QUANTITIES	BY Quang Nguyen	CHECKED	Joey Aquino

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 3

CU 02247
EA 3C0001

BRIDGE NO. 06-0126L
POST MILE R15.43

EAST REDDING SEPARATION (WIDEN)
FOUNDATION PLAN

STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
6/2/08	6/11/08	2-3-09	6-26-09	6-30-09	9-30-09	10-24-09				4	26

FILE => 06-01261-e-fp101 .dgn

USERNAME => frlenord DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 12:49

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	121	165

Jose M. Aquino III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

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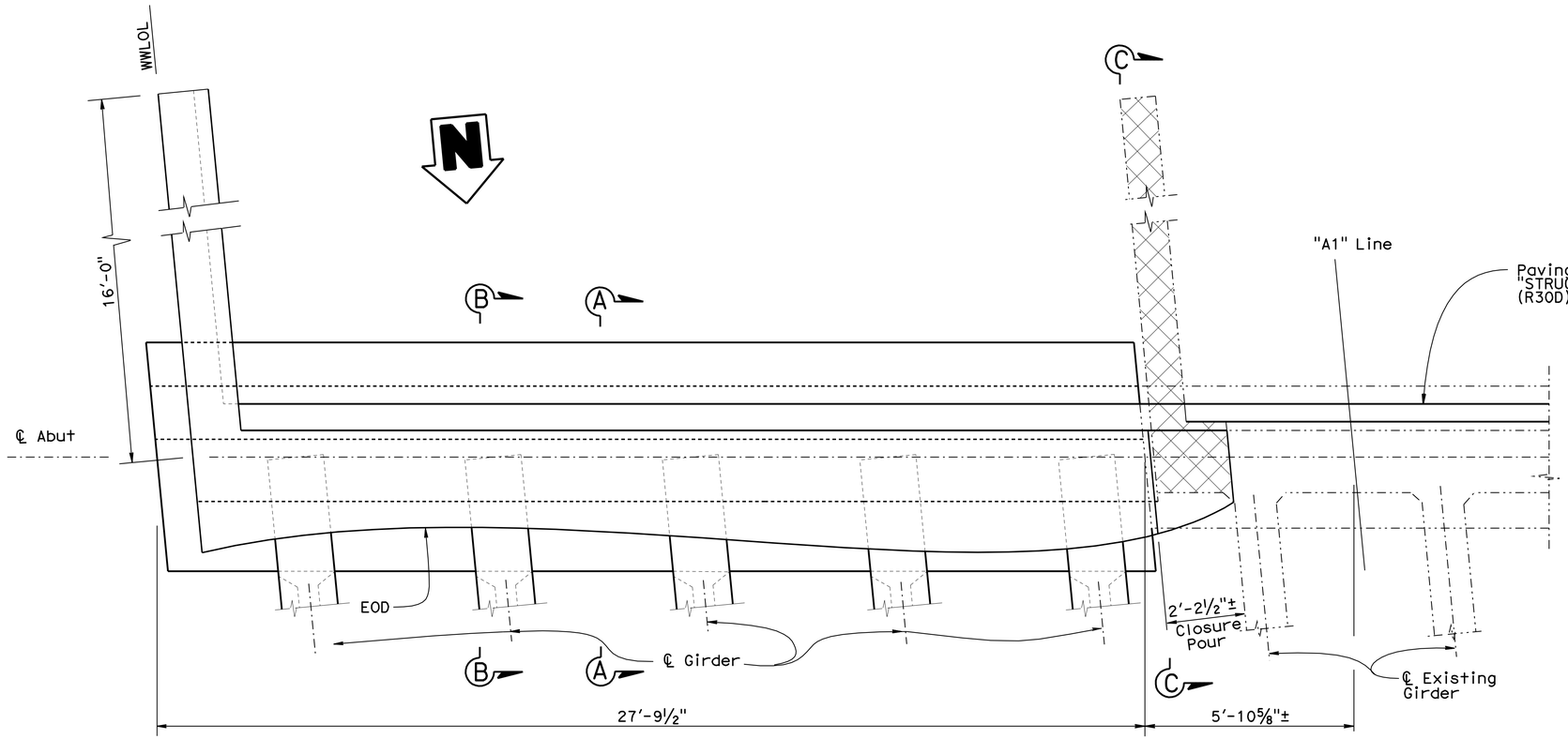
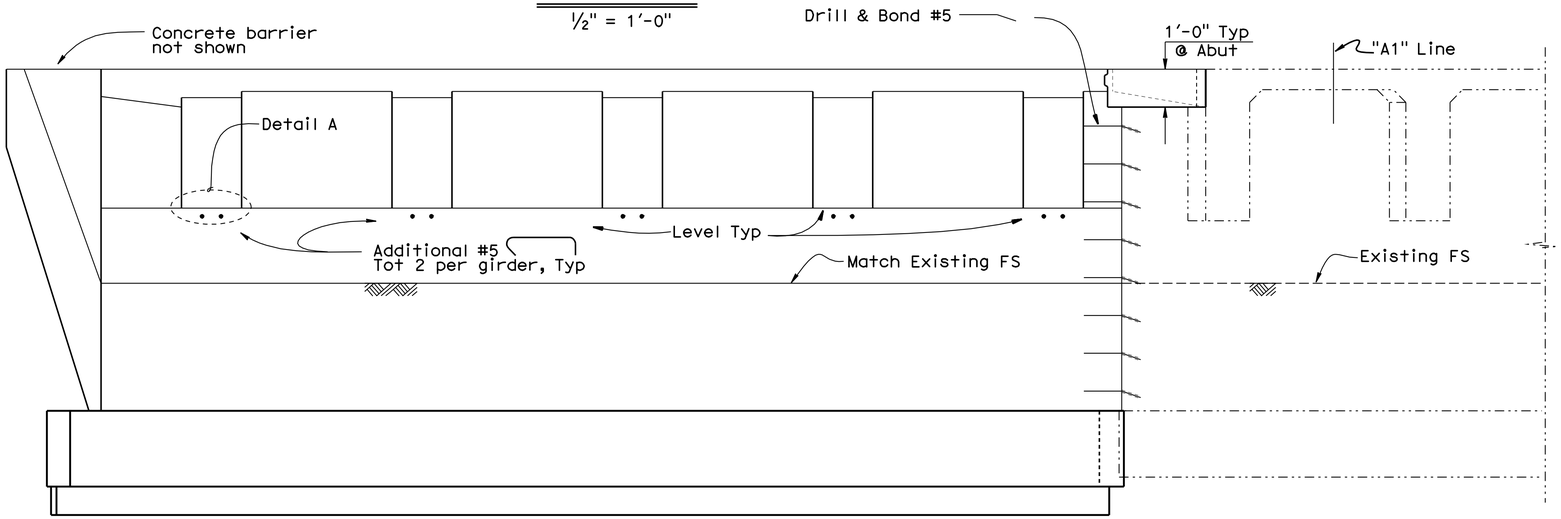
REGISTERED PROFESSIONAL ENGINEER
Jose M Aquino III
No. 58386
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA



PART PLAN
½" = 1'-0"



PART ELEVATION
½" = 1'-0"

NOTES:

Indicates Concrete Removal

For "SECTION A-A", "SECTION B-B" AND "DETAIL A", see "ABUTMENT DETAILS NO. 1" sheet

For "SECTION C-C", see "ABUTMENT DETAILS NO. 2" sheet

Abutment 1 shown, Abutment 5 similar

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN	BY Mufeed Khalaf	CHECKED Binayak Sharma	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 3	BRIDGE NO. 06-0126L
DETAILS	BY Jay Reid	CHECKED Binayak Sharma			POST MILE R15.43
QUANTITIES	BY Quang Nguyen	CHECKED Joey Aquino			

EAST REDDING SEPARATION (WIDEN)
ABUTMENT LAYOUT

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
6-26-09	7-2-09	7-6-09	9-30-09	10-23-09	1-11-10					5	26

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USERNAME => tfriehard DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 12:49

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	122	165

Jose M. Aquino S III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

Jose M Aquino III
No. 58386
Exp. 12-31-10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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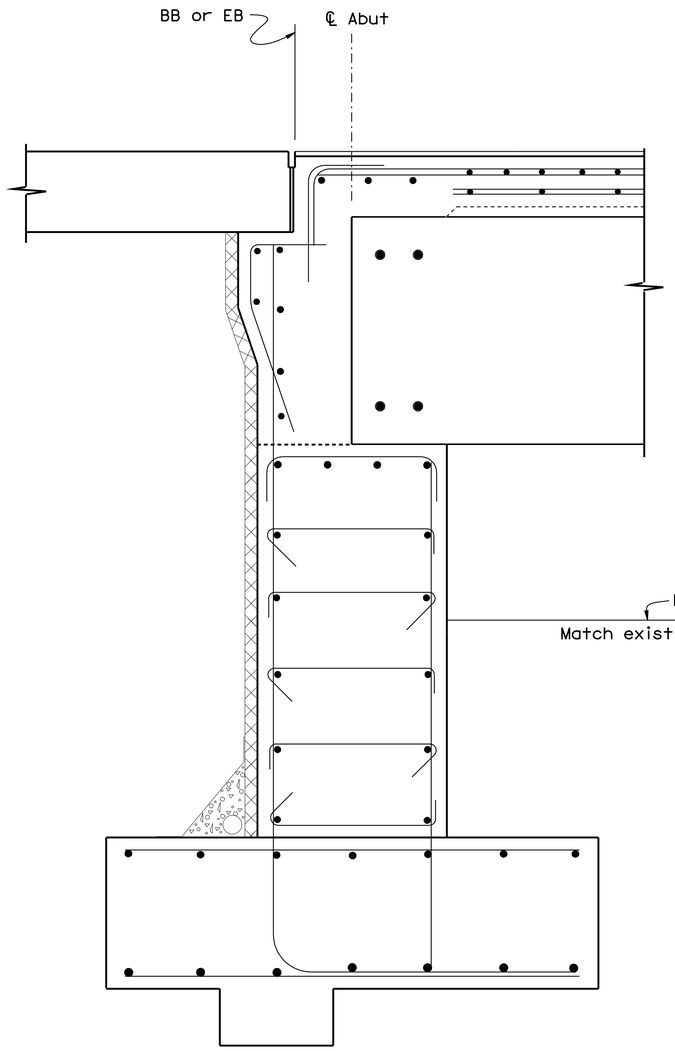
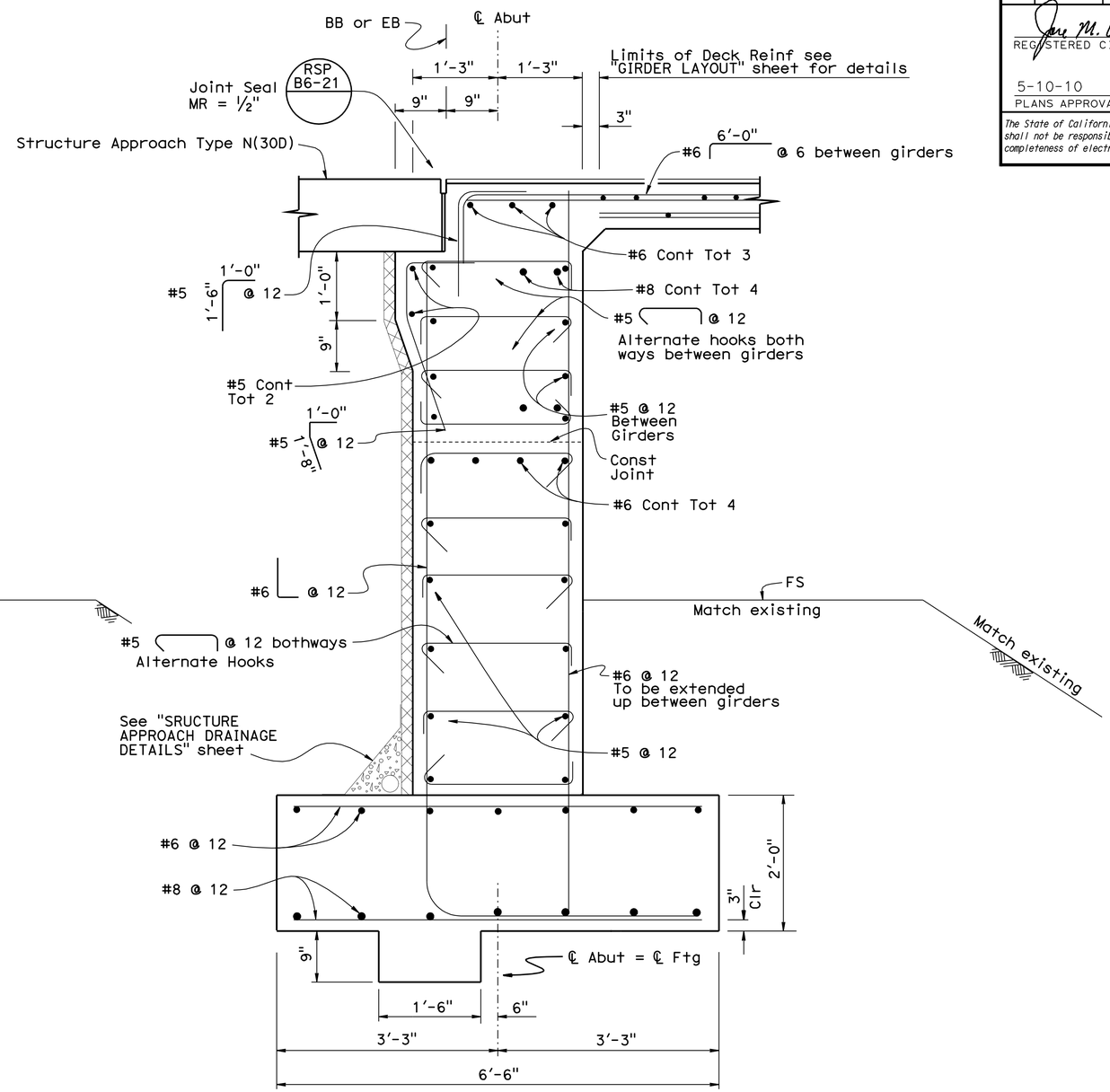


NOTE:

For details not shown see "SECTION A-A"

SECTION B-B
1" = 1'-0"



SECTION A-A
1" = 1'

NOTES:

For location of "SECTION A-A" and "SECTION B-B", see "ABUTMENT LAYOUT" sheet

Paving notch depth to match existing

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN	BY Mufeed Khalaf	CHECKED Binayak Sharma	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY Jay Reid	CHECKED Binayak Sharma	
QUANTITIES	BY Quang Nguyen	CHECKED Joey Aquino	

DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN
DESIGN BRANCH 3

CU 03247
EA 3C0001

BRIDGE NO. 06-0126L
POST MILE R15.43

EAST REDDING SEPARATION (WIDEN)
ABUTMENT DETAILS NO. 1

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 6-29-09 | 7-2-09 | 7-14-09 | 9-30-09 | 10-23-09

SHEET 6 OF 26

FILE => 06-0126l-g-abut-01.dgn

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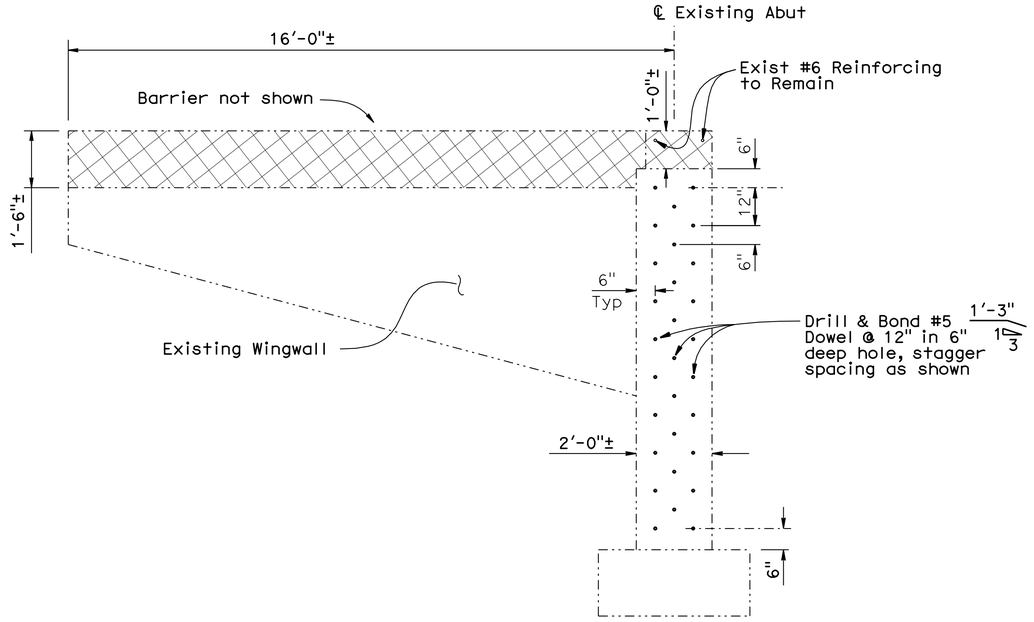
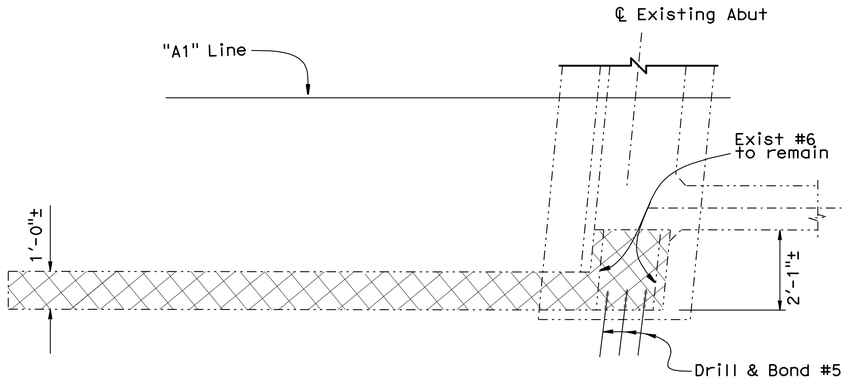


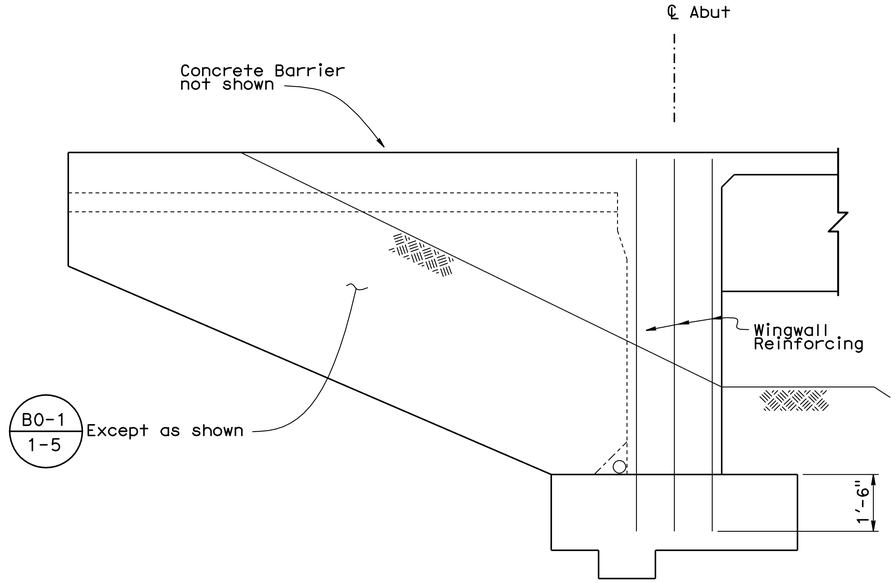
SECTION C-C

½" = 1'-0"



PLAN

½" = 1'-0"



WINGWALL ELEVATION

½" = 1'-0"

NOTES:

Indicates concrete removal limits

For location of "SECTION C-C", see "ABUTMENT LAYOUT" sheet

For location of Wingwall, see "ABUTMENT LAYOUT" sheet

NOTE:
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	123	165

Jose M. Aquino S III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

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DESIGN	BY Mufeed Khalaf	CHECKED Binayak Sharma	
DETAILS	BY Jay Reid	CHECKED Binayak Sharma	
QUANTITIES	BY Quang Nguyen	CHECKED Joey Aquino	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 3

BRIDGE NO. 06-0126L
POST MILE R15.43

EAST REDDING SEPARATION (WIDEN)

ABUTMENT DETAILS NO. 2

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

FILE => 06-0126l-g-abut-02.dgn

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
6-29-09	7-2-09	7-6-09	7-14-09	9-30-09	10-23-09	1-11-10				7	26

USERNAME => ttrienard DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 12:49

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	124	165

Jose M. Aquino III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

Jose M Aquino III
No. 58386
Exp. 12-31-10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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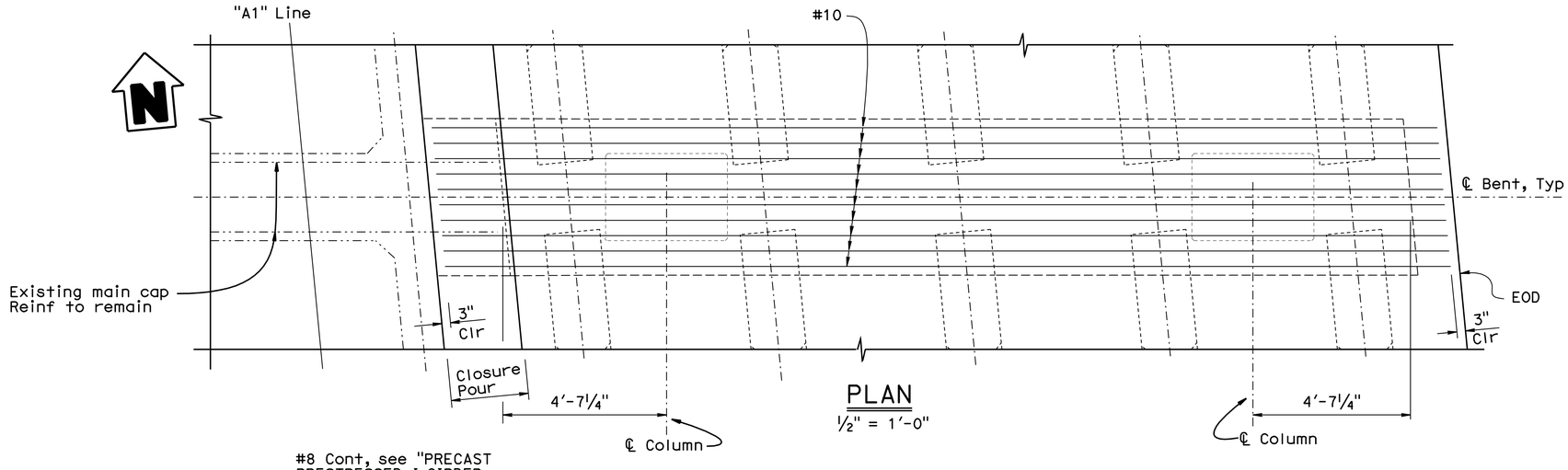
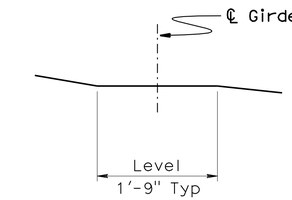
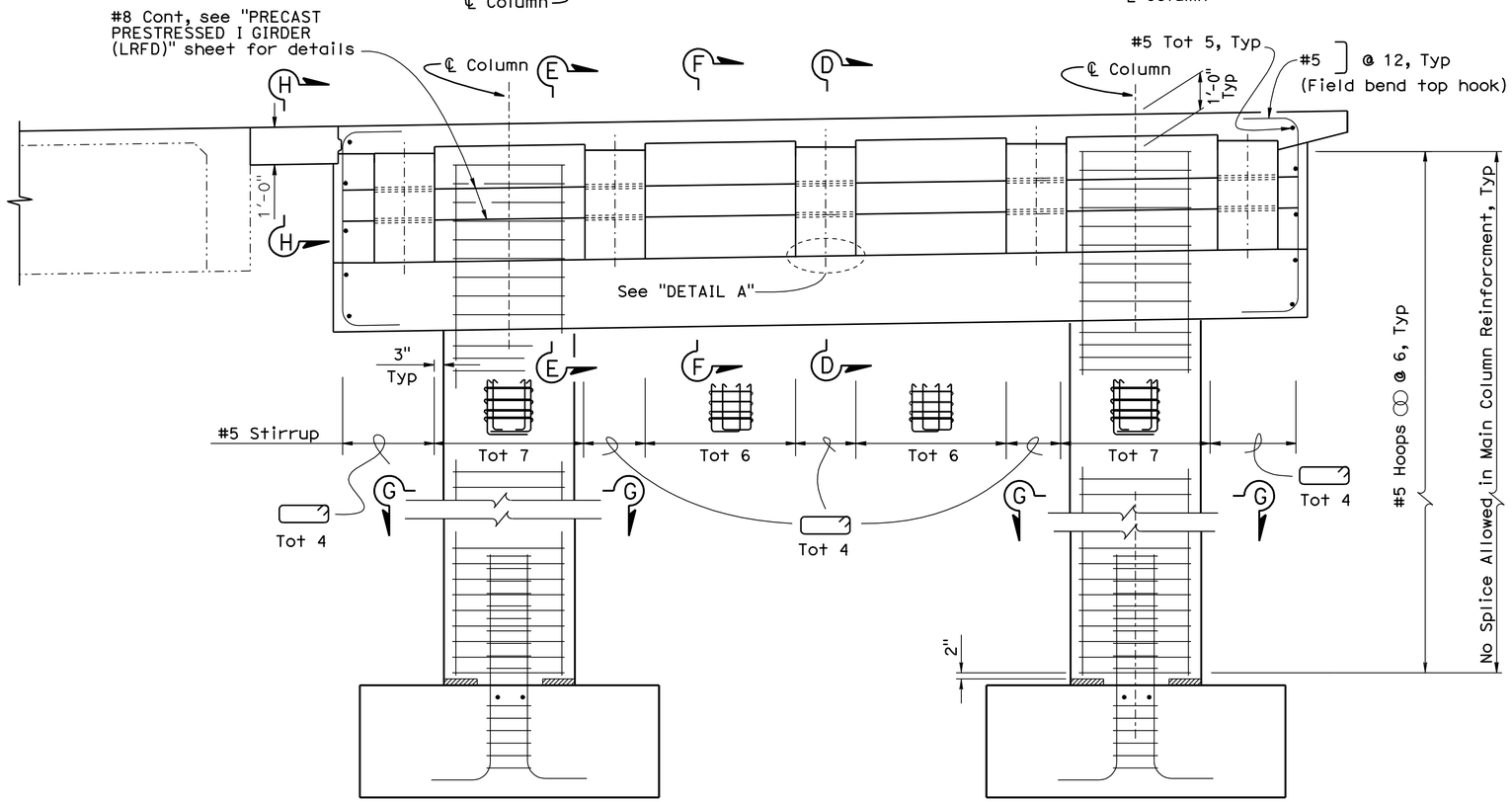


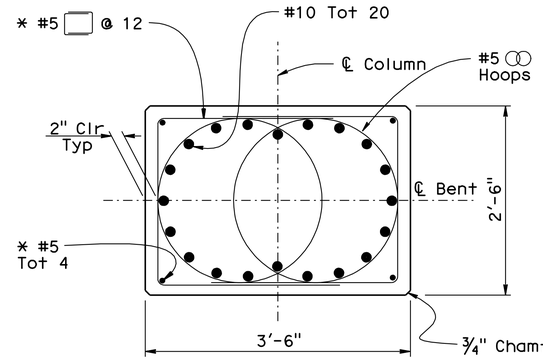
PLAN
½" = 1'-0"



DETAIL A
No Scale



ELEVATION
½" = 1'-0"



SECTION G-G
1" = 1'-0"

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

NOTES:

Indicates Existing Structure

Indicates New Structure

For "SECTION D-D", "SECTION E-E" and "SECTION F-F" see "BENT DETAILS NO. 2" sheet

For footing details, see "BENT FOOTING DETAILS" sheet

* These bars do not extend into the Cap nor the Footing

DESIGN	BY Mufeed Khalaf	CHECKED Binayak Sharma	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY Jay Reid	CHECKED Binayak Sharma	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 3
QUANTITIES	BY Quang Nguyen	CHECKED Joey Aquino	BRIDGE NO. 06-0126L POST MILE R15.43

EAST REDDING SEPARATION (WIDEN)
BENT DETAILS NO. 1

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES										SHEET	OF
7-2-09	7-6-09	7-14-09	9-30-09	10-23-09	1-11-10					8	26

FILE => 06-0126l-h-bent-01.dgn

USERNAME => rtreybord DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 12:49

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	125	165

Jose M. Aquino III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

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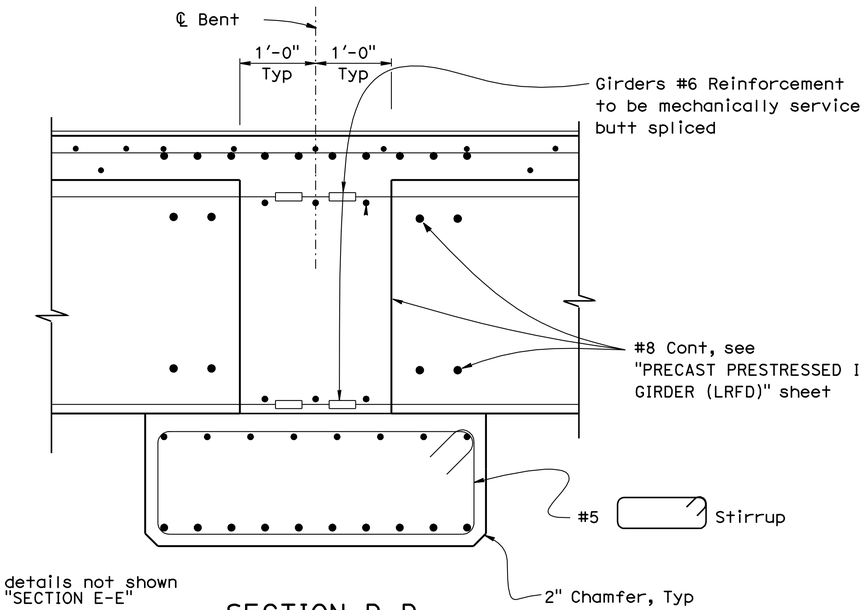
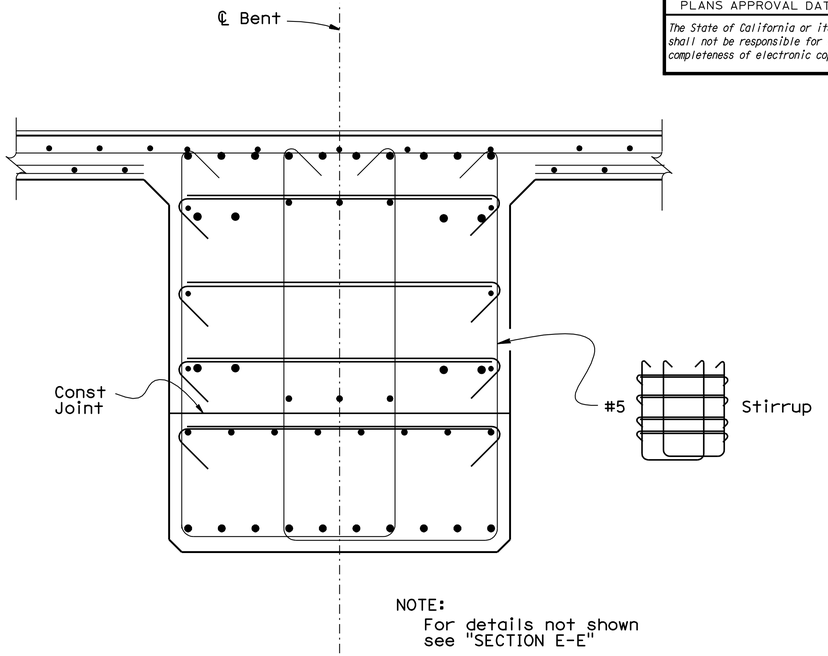


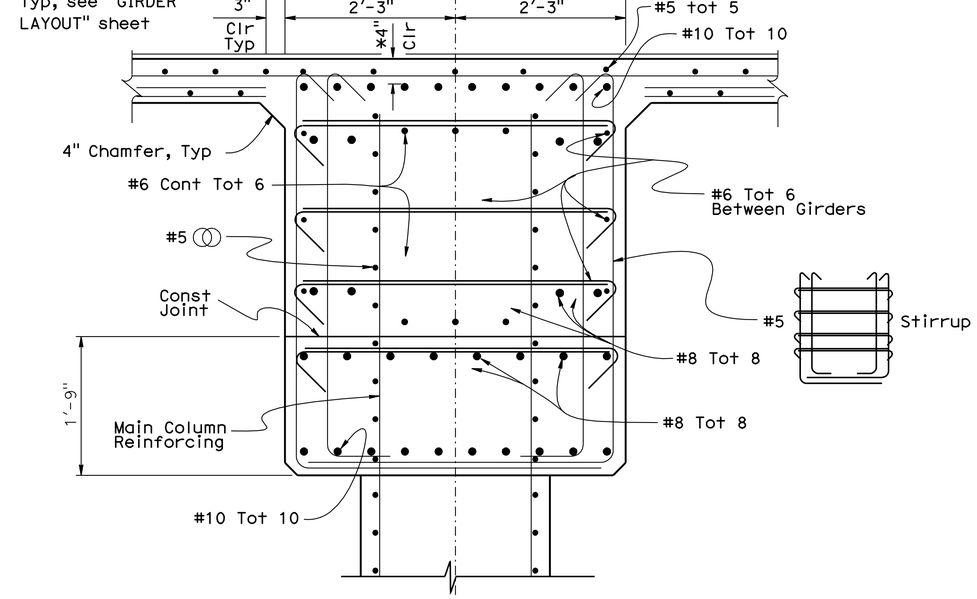
NOTE:
For details not shown see "SECTION E-E"

SECTION D-D
1" = 1'-0"

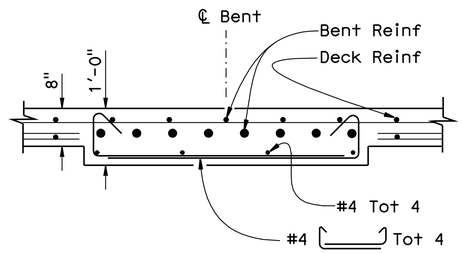


NOTE:
For details not shown see "SECTION E-E"

SECTION F-F
1" = 1'-0"



SECTION E-E
1" = 1'-0"



NOTE:
For details not shown see "SECTION E-E"

SECTION H-H
¾" = 1'-0"

NOTES:
For location of "SECTION D-D", "SECTION E-E" "SECTION F-F", and "SECTION F-F"see "BENT DETAILS NO. 1" sheet

Horizontal stirrup ties to hook around vertical stirrup legs

⁎ Clr to main cap reinforcment

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN	BY Mufeed Khalaf	CHECKED Binayak Sharma	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY Jay Reid	CHECKED Binayak Sharma	
QUANTITIES	BY Quang Nguyen	CHECKED Joey Aquino	

DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN
DESIGN BRANCH 3

BRIDGE NO. 06-0126L
POST MILE R15.43

EAST REDDING SEPARATION (WIDEN)
BENT DETAILS NO. 2

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
7-2-09	7-6-09	7-14-09	10-1-09	10-23-09	10-29-09	1-11-10				9	26

FILE => 06-0126l-h-bent-02.dgn

USERNAME => trlenard DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 12:50

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	126	165

Jose M. Aquino S III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

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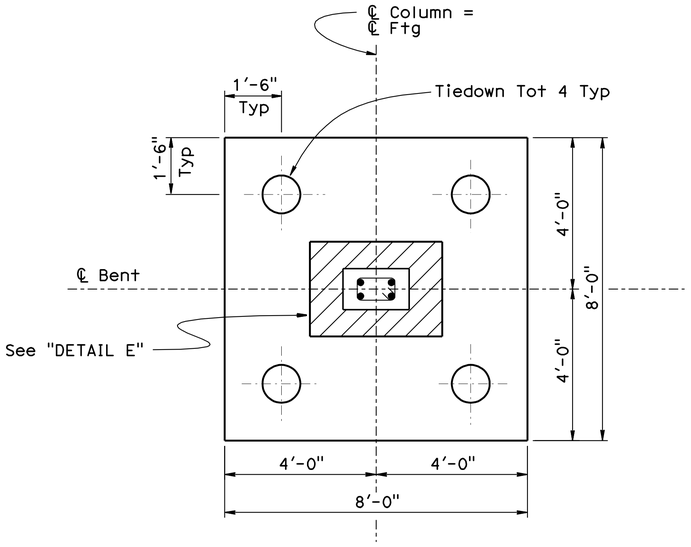
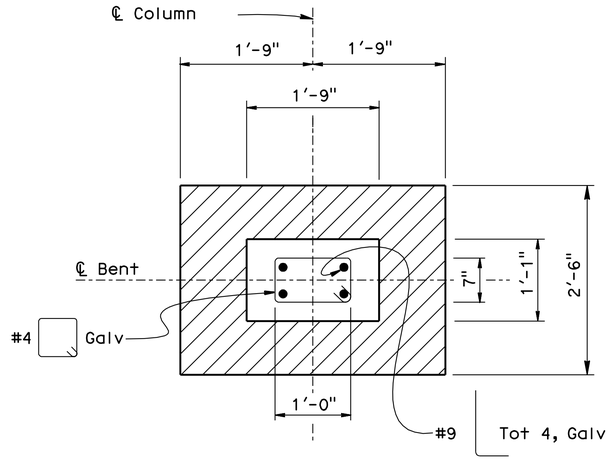


FOOTING PLAN
½" = 1'-0"



DETAIL E
1" = 1'-0"

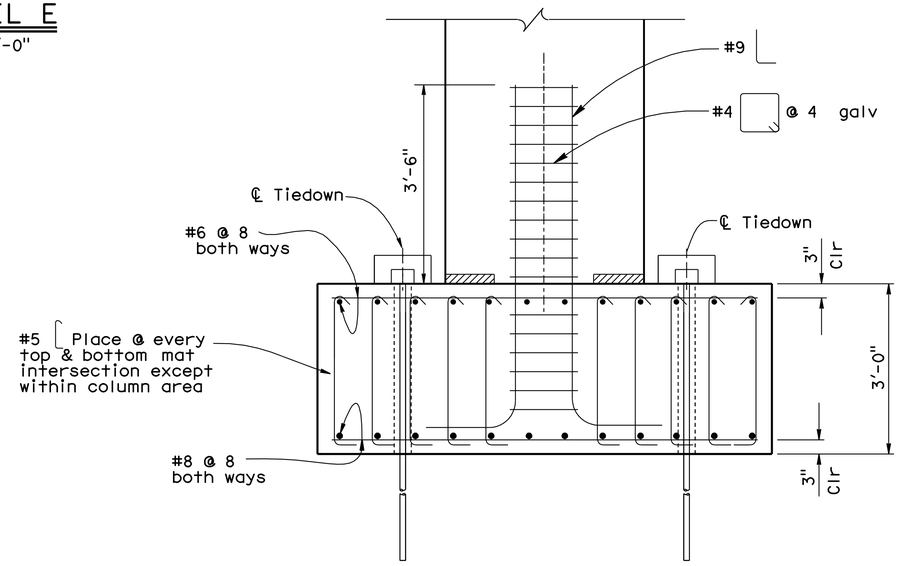
NOTES:

For details not shown see "BENT DETAILS NO. 1" sheet.

For Tiedown Anchor details see "TIEDOWN ANCHOR DETAIL NO. 1" and "TIEDOWN ANCHOR DETAIL NO. 2" sheets

Adjust footing reinforcing to clear tiedown anchor locations

Indicates 2" Expanded Polystyrene



FOOTING ELEVATION
¾" = 1'-0"

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

	BY	CHECKED
DESIGN	Mufeed Khalaf	Binayak Sharma
DETAILS	Jay Reid	Binayak Sharma
QUANTITIES	Quang Nguyen	Joey Aquino

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 3

BRIDGE NO. 06-0126L
POST MILE R15.43

EAST REDDING SEPARATION (WIDEN)
BENT FOOTING DETAILS

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
7-2-09	7-6-09	7-14-09	10-01-09	10-26-09	1-11-10					10	26

FILE => 06-0126l-h-bent-03.dgn

USERNAME => rtriemond DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 12:50

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	127	165

Jose M. Aquino III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

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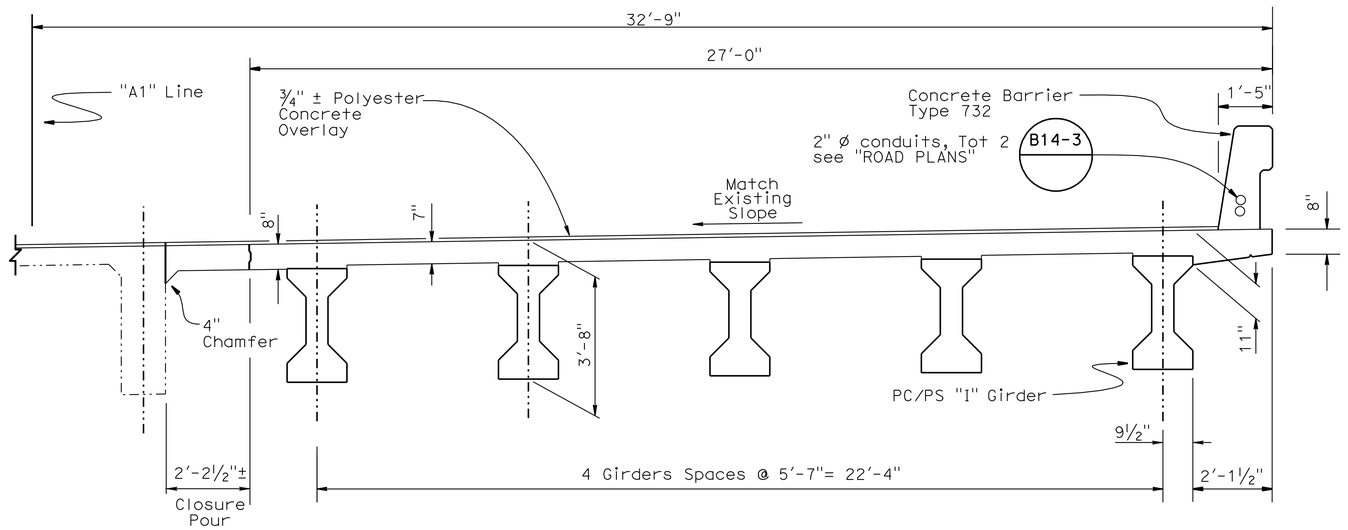
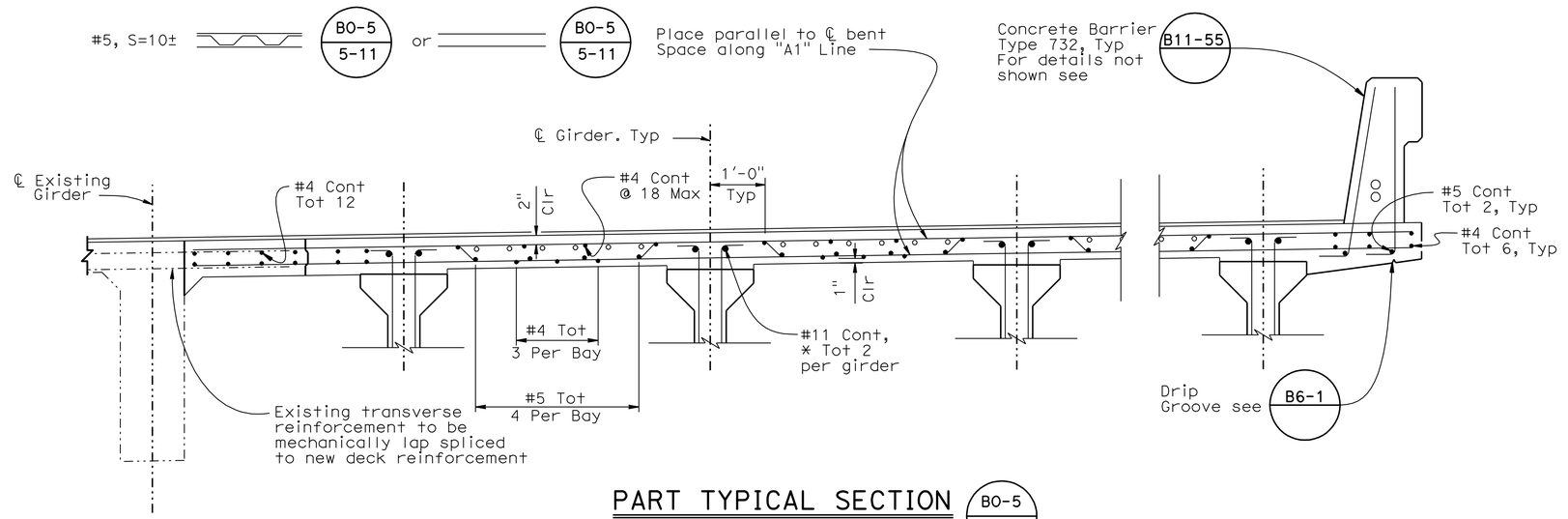
REGISTERED PROFESSIONAL ENGINEER
Jose M Aquino III
No. 58386
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA



TYPICAL SECTION

½" = 1'-0"



PART TYPICAL SECTION

¾" = 1'-0"

B0-5 5-2

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

NOTES:

See "GIRDER LAYOUT" sheet, for stirrup spacing

See "PRECAST PRESTRESSED I GIRDER (LRFD)" sheet for PC P/S I Girder reinforcement

Closure Pour shall not be placed until 15 days after deck pour

∘ Indicates additional slab reinforcement, see "GIRDER REINFORCEMENT" sheet

* See "GIRDER REINFORCEMENT" sheet for splice requirement

	BY	CHECKED
DESIGN	Mufeed Khalaf	Binayak Sharma
DETAILS	Jay Reid	Binayak Sharma
QUANTITIES	Quang Nguyen	Joey Aquino

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 3

BRIDGE NO. 06-0126L
POST MILE R15.43

EAST REDDING SEPARATION (WIDEN)
TYPICAL SECTION NO. 1

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES											SHEET	OF
10-28-08	7-2-09	7-6-09	7-14-09	10-01-09	10-26-09	10-29-09	10-30-09	1-11-10			11	26

FILE => 06-01261-i-typ01.dgn

USERNAME => trlenard DATE PLOTTED => 10-MAY-2010 TIME PLOTTED =>

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	128	165

Jose M. Aquino S III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jose M Aquino III
No. 58386
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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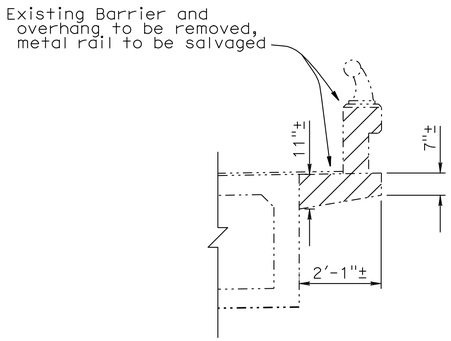
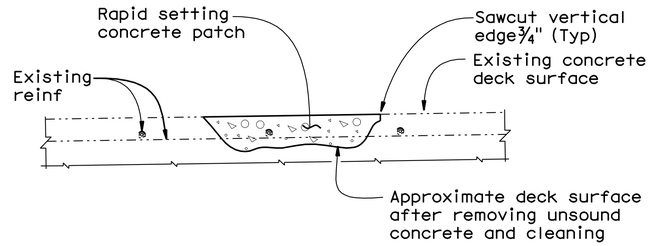


CONCRETE REMOVAL

½" = 1'-0"

NOTES:

Indicates concrete removal limits



DECK REPAIR DETAIL

NO SCALE

NOTE: Reinforcement may be encountered during deck concrete removal.

DECK REPAIR TABLE	
REMOVE UNSOUND CONCRETE AND RAPID SETTING CONCRETE (PATCH)	
APPROXIMATE DECK AREA DAMAGED (PERCENT)	APPROXIMATE DEPTH (INCHES)
1	3

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN	BY Mufeed Khalaf	CHECKED Binayak Sharma	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 3	BRIDGE NO. 06-0126L	EAST REDDING SEPARATION (WIDEN)
DETAILS	BY Jay Reid	CHECKED Binayak Sharma			POST MILE R15.43	TYPICAL SECTION NO. 2
QUANTITIES	BY Quang Nguyen	CHECKED Joey Aquino		CU 03247 EA 3C0001	DISREGARD PRINTS BEARING EARLIER REVISION DATES →	REVISION DATES: 10-30-09, 1-11-10

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

SHEET 12 OF 26

FILE => 06-0126I-i-typ02.dgn

USERNAME => tfrenard DATE PLOTTED => 10-MAY-2010 TIME PLOTTED =>

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	129	165

Jose M. Aquino III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

Jose M Aquino III
No. 58386
Exp. 12-31-10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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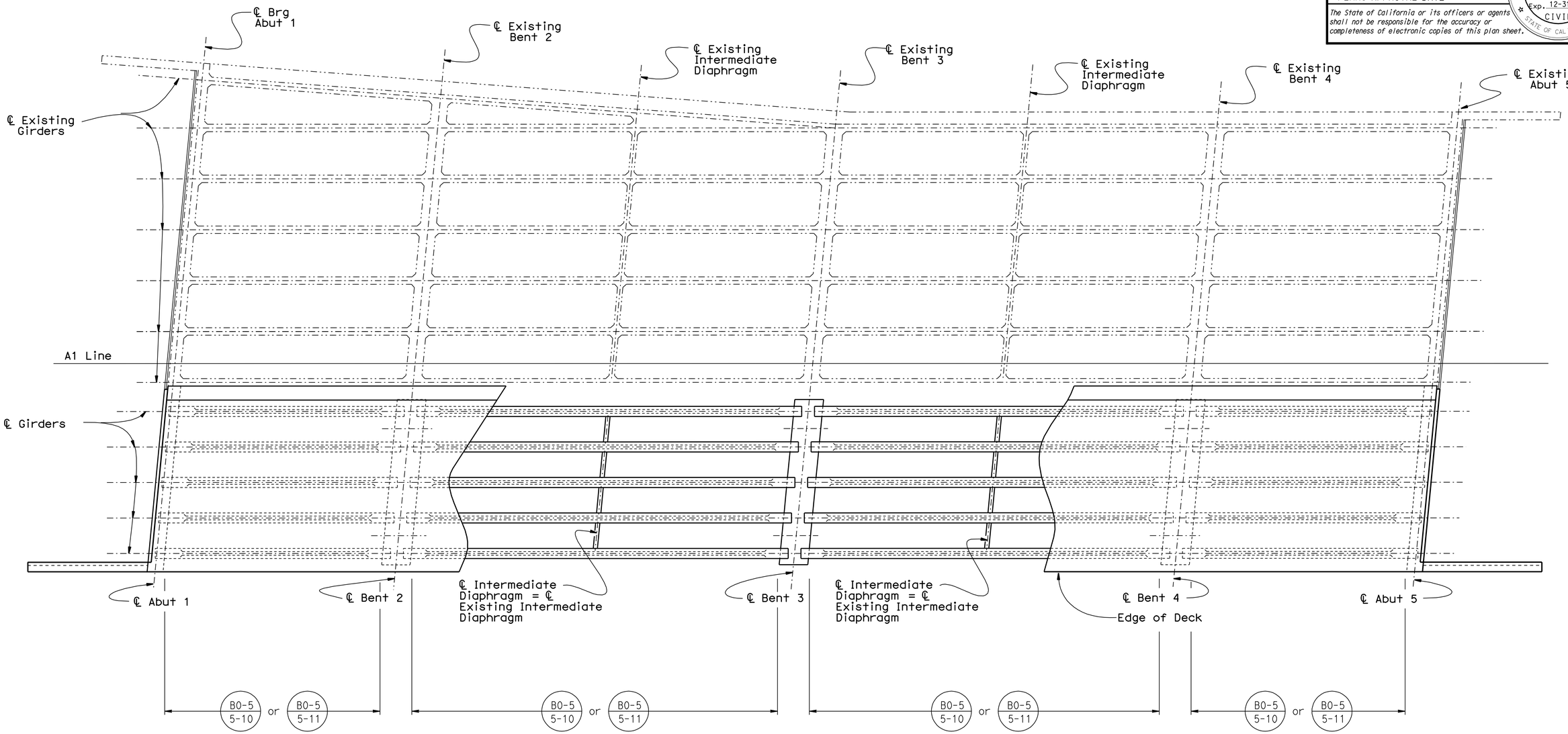

PLAN
1/8" = 1'-0"

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

NOTE:
For girder and diaphragm details not shown , see "PRECAST PRESTRESSED I GIRDER (LRFD)" sheet

DESIGN	BY Mufeed Khalaf	CHECKED Binayak Sharma	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 3	BRIDGE NO. 06-0126L
DETAILS	BY Jay Reid	CHECKED Binayak Sharma			POST MILE R15.43
QUANTITIES	BY Quang Nguyen	CHECKED Joey Aquino			

EAST REDDING SEPARATION (WIDEN)
GIRDER LAYOUT

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
10-28-08	7-2-09	7-14-09	10-01-09	10-26-09	1-11-10					13	26

FILE => 06-0126I-I-gI-01.dgn

USERNAME => rfriehard DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 12:50

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	130	165

Jose M. Aquino S III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jose M Aquino III
No. 58386
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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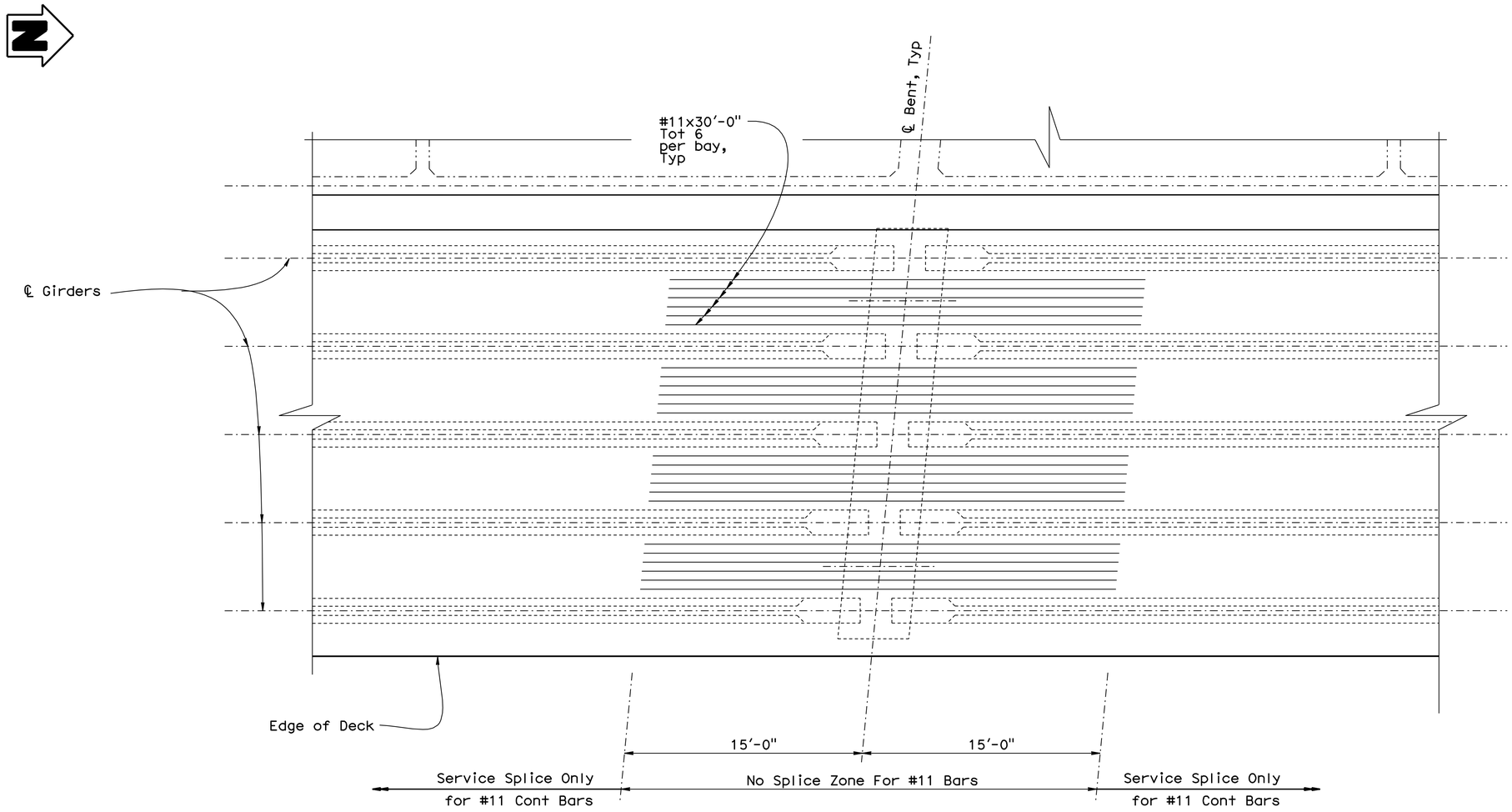

TOP SLAB REINFORCEMENT

1/4" = 1'-0"

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

NOTE:
Bent 3 shown, Bent 2 and 4 similar

DESIGN	BY Mufeed Khalaf	CHECKED Binayak Sharma	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 3	BRIDGE NO. 06-0126L
DETAILS	BY Jay Reid	CHECKED Binayak Sharma			POST MILE R15.43
QUANTITIES	BY Quang Nguyen	CHECKED Joey Aquino			

EAST REDDING SEPARATION (WIDEN)
GIRDER REINFORCEMENT

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
7-2-09	7-14-09	10-26-09	1-11-10							14	26

FILE => 06-0126l-m-gd-r.dgn

USERNAME => rriverord DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 12:50

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	131	165

Jose M. Aquino S III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

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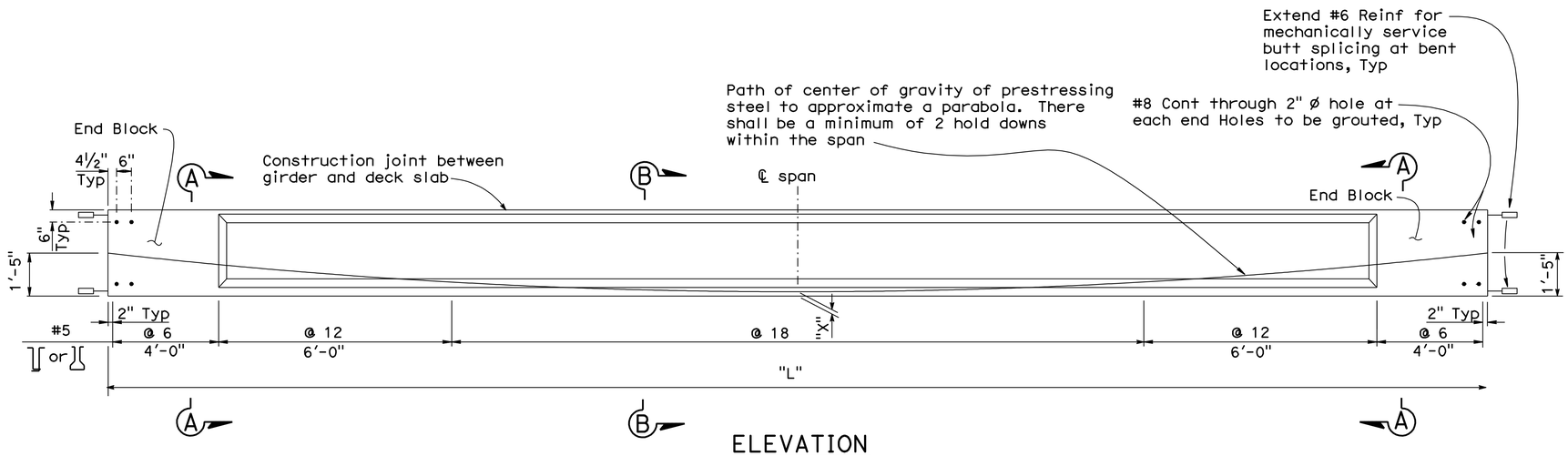


ELEVATION

PRESTRESSING NOTES

JACKING FORCE (P): The manufacture jacking force required at point of control along the span. The jacking force does not include any fabrication specific losses.

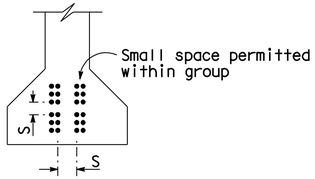
CONCRETE STRENGTH: f'ci (ksi) is at time of initial stressing.
f'c (ksi) is at 28 days

DEFLECTION COMPONENTS: Informational - to be used in setting screed line elevations.

Screed line elevations for deck concrete will be determined by the Engineer.

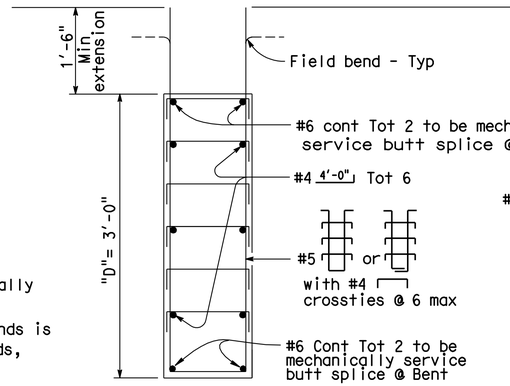
Contractor may interpolate "P" and "X" values between limits shown, as approved by the Engineer.

Girder location or designation and length	Jacking Force (P) in Kips "X"		Concrete Strength (Ksi) f'ci	Concrete Strength (Ksi) f'c	Deflection Components in Inches ① Deck DL	Deflection Components in Inches ② Rail DL
Span 1 & 4 girder Length =36'-0"	4"	250 k	3.5	4.0	1/8"	0
	6"	300 k				
Span 2 girder Length =60'-6"	4"	450 k	3.5	4.0	1¼"	0
	6"	500 k				
Span 3 girder Length =58'-0"	4"	450 k	3.5	4.0	1"	0
	6"	500 k				

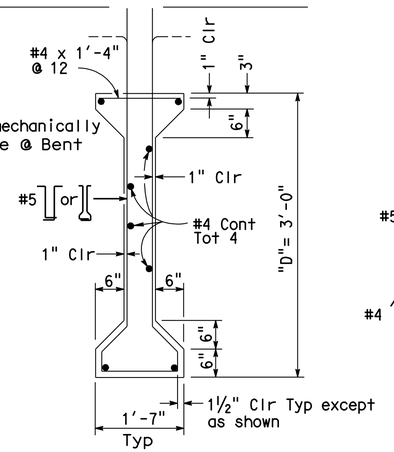


CLEARANCES FOR PRETENSIONED STRANDS

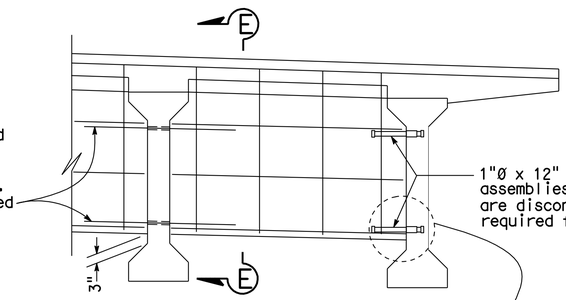
1. Strands may be bundled in groups consisting of 3 vertically 2 horizontally, and separated at the ends.
2. The min distance "S" between groups or individual strands is 1½" for ⅜" strands, 1¾" for 7/16" strands and ½" strands, 2" for 0.6" strands.
3. "S" is measured between centers of adjacent strands.
4. Approval of Engineer is required for deviation.



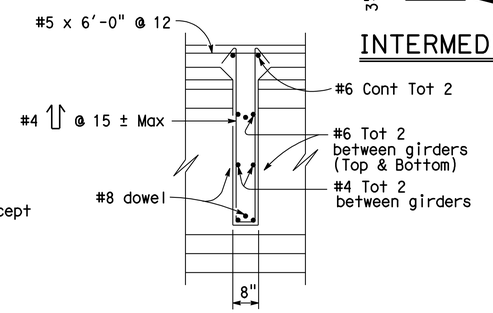
SECTION A-A



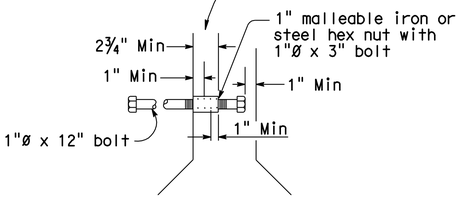
SECTION B-B



INTERMEDIATE DIAPHRAGM



SECTION E-E



INSERT ASSEMBLY

DESIGN	BY Mufeed Khalaf	CHECKED Binayak Sharma	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 3	BRIDGE NO. 06-0126L	EAST REDDING SEPARATION (WIDEN)
DETAILS	BY Jay Reid	CHECKED Binayak Sharma			POST MILE R15.43	PRECAST PRESTRESSED I GIRDER (LRFD)
QUANTITIES	BY Quang Nguyen	CHECKED Joey Aquino				

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
1-26-09	1-28-09	3-2-09	7-2-09	7-6-09	10-01-09	10-26-09	1-11-10			15	26

FILE => 06-0126I-n-gadt.dgn

USERNAME => rtenard DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:16

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	132	165

Jose M. Aquino III 1-26-10
REGISTERED ENGINEER - CIVIL

5-10-10
PLANS APPROVAL DATE

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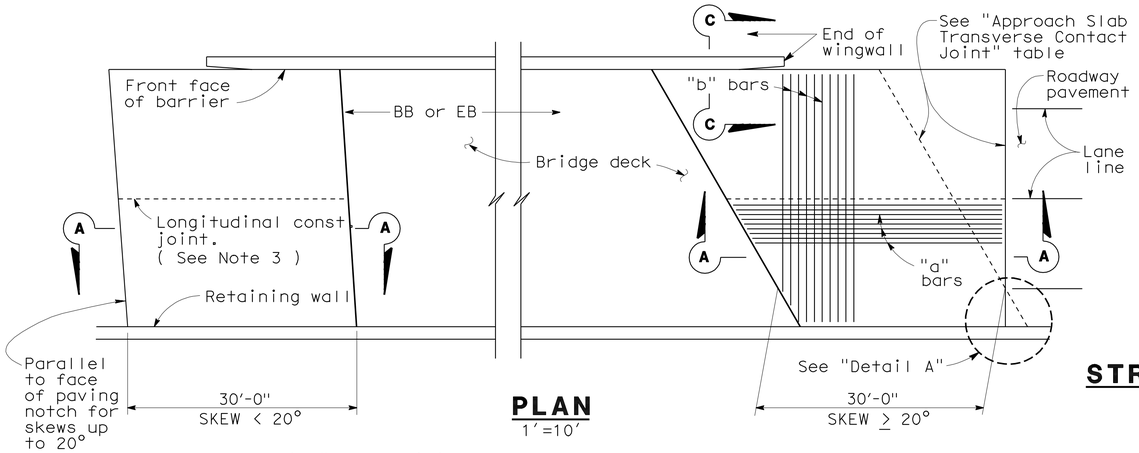
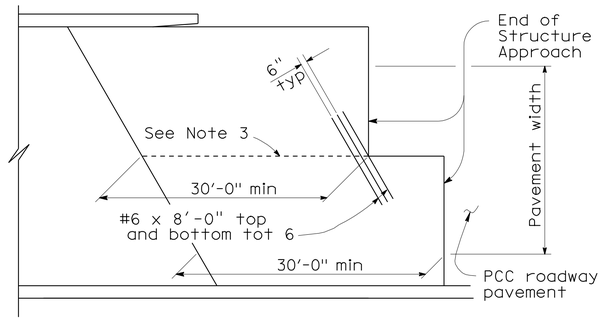
REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

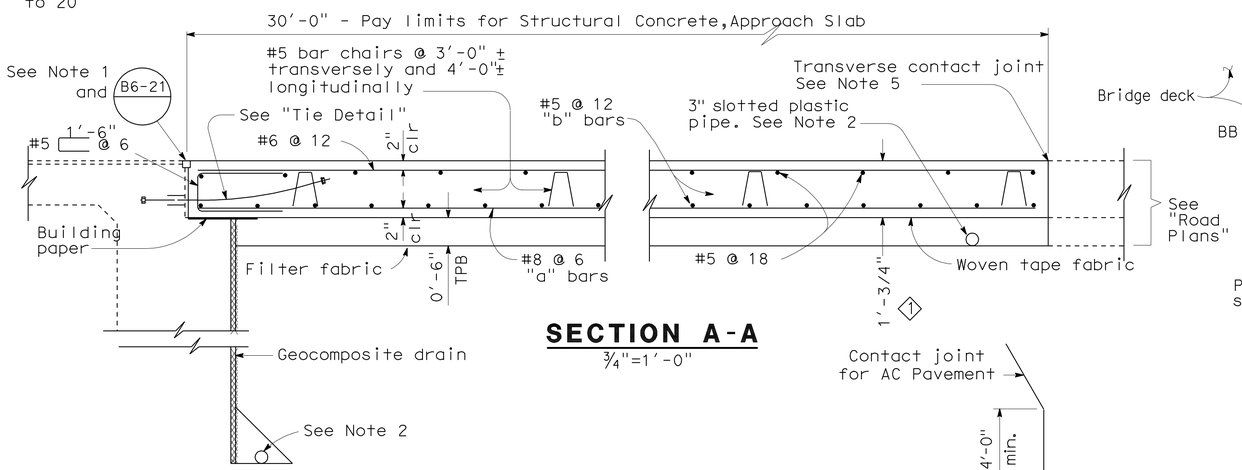


PLAN
1"=10'



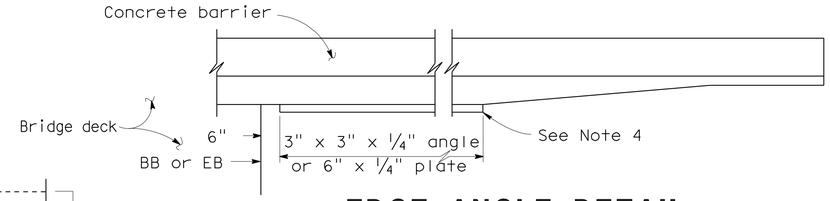
STRUCTURE APPROACH - END STAGGER DETAIL
No Scale

APPROACH SLAB TRANSVERSE CONTACT JOINT		
APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 20°	Parallel to face of paving notch	Parallel to face of paving notch
20°- 45°	Parallel to face of P N use (Detail A)	Stagger lines 24' to 36' apart
> 45°	Parallel to face of P N use (Detail A)	Stagger at each lane line

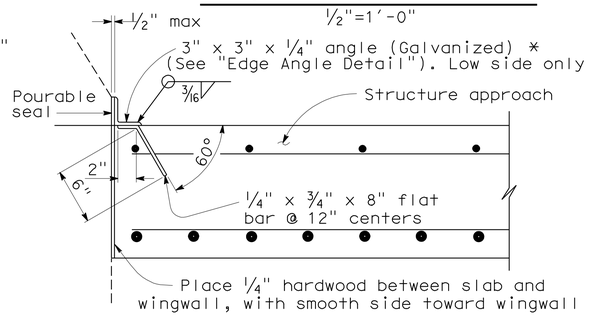


SECTION A-A
¾"=1'-0"

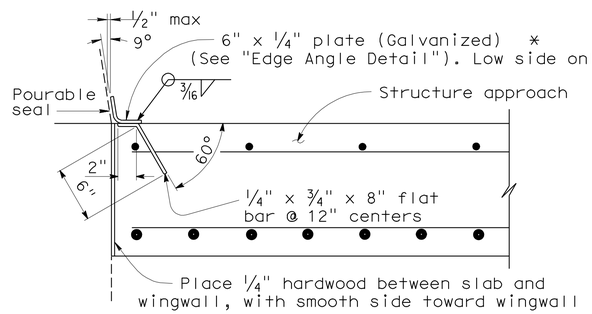
DETAIL A
No Scale



EDGE ANGLE DETAIL
½"=1'-0"

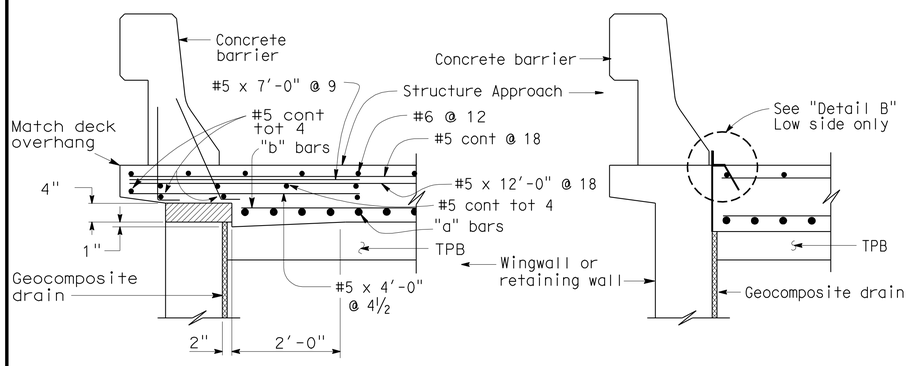


***(TO BE USED WITH TYPE 25 OR TYPE 27 CONCRETE BARRIER)**



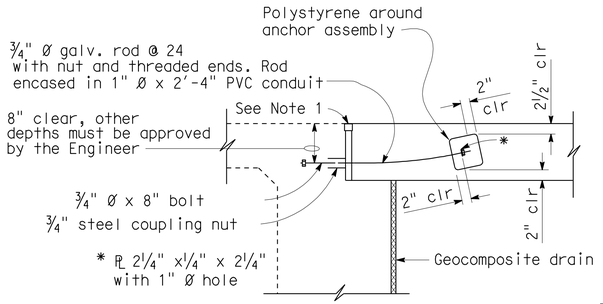
***(TO BE USED WITH TYPE 732 OR TYPE 736 CONCRETE BARRIER)**

DETAIL B
1½"=1'-0"

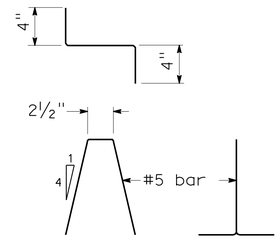


TYPE E-1 **TYPE E-2**

SECTION C-C
¾"=1'-0"
(Type E-1 to be used, unless otherwise shown on plans)



TIE DETAIL
¾"=1'-0"



BAR CHAIR DETAIL
1½"=1'-0"

NOTES:

1. For details not noted or shown, see Structure Plans.
2. For drainage details, see "Structure Approach Drainage Details" sheet.
3. Longitudinal construction joints, when permitted by the Engineer, shall be located on lane lines.
4. End angle or plate at beginning of barrier transition, end of wingwall or end of structure approach, as applicable.
5. For transverse contact joint with new PCC paving, refer to Standard Plan P10.
6. At the contractor's option, approach slab transverse reinforcement may be placed parallel to paving notch. Spacing of transverse reinforcement is measured along ℄ roadway.

▨ Polystyrene to be removed.

SPECIAL DETAIL

REVISED STANDARD DRAWING			
FILE NO. xs3-180e	APPROVED BY M. Ha (RESPONSIBLE TECHNICAL SPECIALIST)	RELEASED BY O. Alcantara (RESPONSIBLE OFFICE CHIEF)	
	APPROVAL DATE 8-12-08	RELEASE DATE 8-12-08	

① Dimensions revised

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

CU 03247
EA 3C0001

BRIDGE NO.	EAST REDDING SEPARATION (WIDEN)
06-0126L	
POST MILE R15.43	STRUCTURE APPROACH TYPE N(30D)

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY)										SHEET	OF
6-26-09	10-26-09									16	26

DS OSD 2147A (ENGLISH STANDARD DRAWING "XS" BORDER REV. 01/11/08)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

USERNAME => trlenard

06-0126l-t-san30d.dgn

DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:16

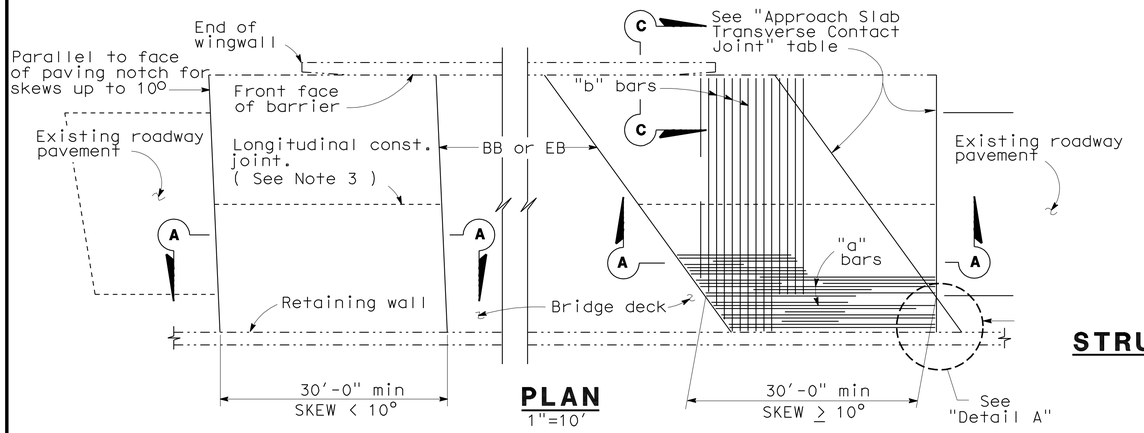
DIST.	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	133	165

Jose M. Aquino III 1-26-10
REGISTERED ENGINEER - CIVIL

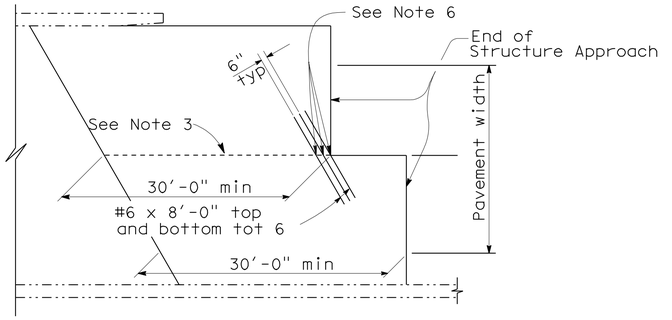
5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — 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.

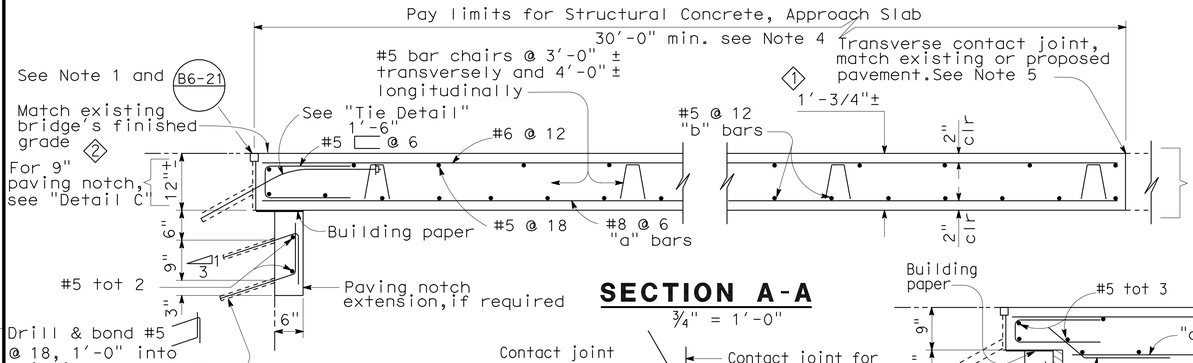


PLAN
1"=10'

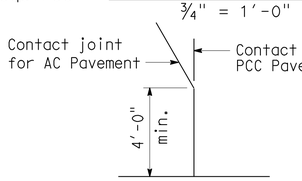


STRUCTURE APPROACH - END STAGGER DETAIL
No Scale

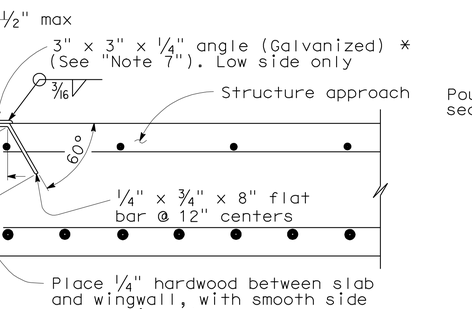
APPROACH SLAB TRANSVERSE CONTACT JOINT		
APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 10°	Parallel to face of paving notch	Parallel to face of paving notch
10° - 45°	Parallel to face of P N use (Detail A)	Stagger lines 24' to 36' apart
> 45°	Parallel to face of P N use (Detail A)	Stagger at each lane line



SECTION A-A
¾" = 1'-0"

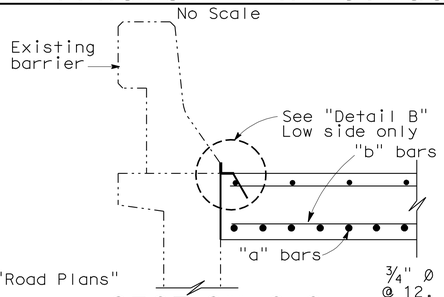


DETAIL A
No Scale

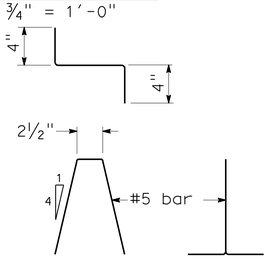


DETAIL C
¾" = 1'-0"

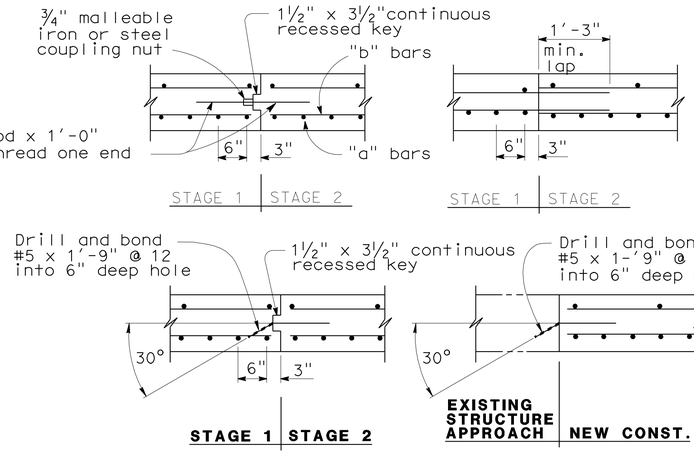
NOTE: For details not shown,see "Section A-A".



SECTION C-C
¾" = 1'-0"



BAR CHAIR DETAIL
1½" = 1'-0"

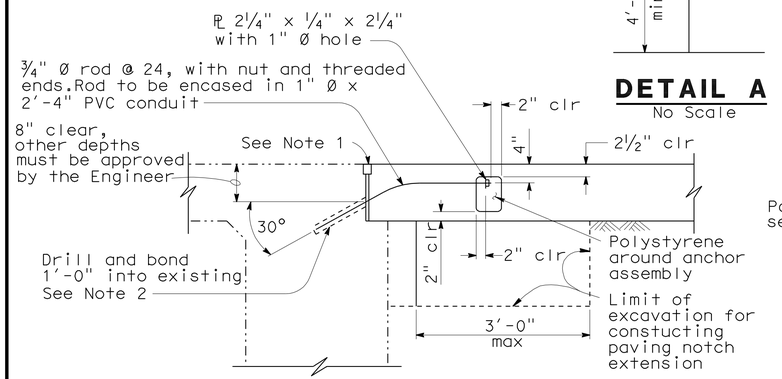


LONGITUDINAL CONSTRUCTION JOINT ALTERNATIVES
¾" = 1'-0"

NOTES:

1. For details not shown or noted,see Structure Plans. Adjust bar reinforcement to clear a sawcut for sealed joint,when required.
2. Space to avoid existing prestress anchorages and main reinforcement.
3. Longitudinal construction joints,when permitted by the Engineer,shall be located on lane lines.
4. Transverse contact joint shall be a minimum of 5'-0" from an existing or constructed weakened plane joint.
5. For transverse contact joint with new PCC paving. refer to Standard Plan P10.
6. Couplers are required for stage construction.
7. End angle or plate at beginning of barrier transition, end of wingwall or end of structure approach as applicable.

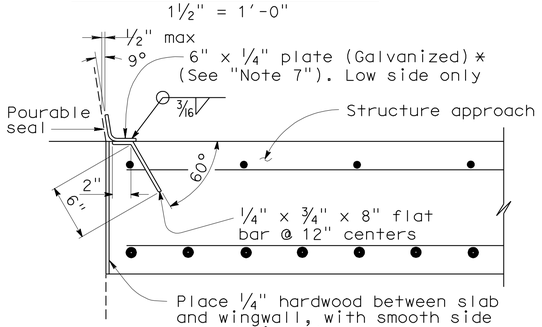
SPECAIL DETAIL



TIE DETAIL
¾" = 1'-0"

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

***(TO BE USED WITH TYPE 25 OR TYPE 27 CONCRETE BARRIER)**



***(TO BE USED WITH TYPE 732 OR TYPE 736 CONCRETE BARRIER)**

DETAIL B
1½" = 1'-0"

REVISED STANDARD DRAWING				
RELEASE DATE 3/14/05	DESIGN	BY M.TRAFFALIS	CHECKED E.THORKILDSEN	RELEASED BY
FILE NO. xs3-140e	DETAILS	BY R.YEE	CHECKED E.THORKILDSEN	OFFICE CHIEF
	SUBMITTED	BY M.HA	DRAWING DATE 8/92	

1 Dimensions revised
2 Notes revised

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

CU 03247
EA 3C0001

BRIDGE NO. 06-0126L
MILE POST R15.43

EAST REDDING SEPARATION (WIDEN)
STRUCTURE APPROACH TYPE R(30D)

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 6-26-09 | 10-01-09 | 10-26-09

SHEET 17 OF 26

DS OSD 2147A (ENGLISH) (REV. X/XX/XX)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

USERNAME => trienard

06-0126l-t-sar30d.dgn

DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:16

DIST.	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	134	165

Jose M. Aquino III 1-26-10
REGISTERED ENGINEER - CIVIL

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jose M Aquino III
No. 58386
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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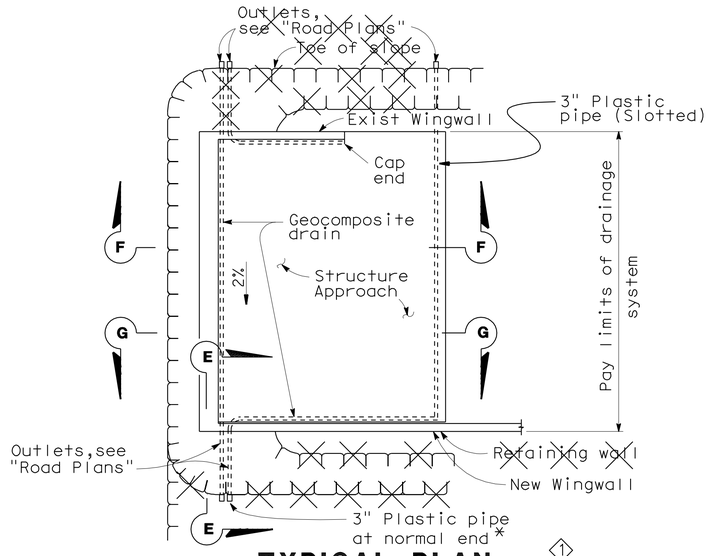
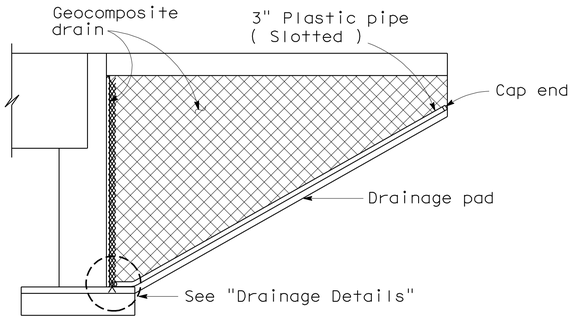
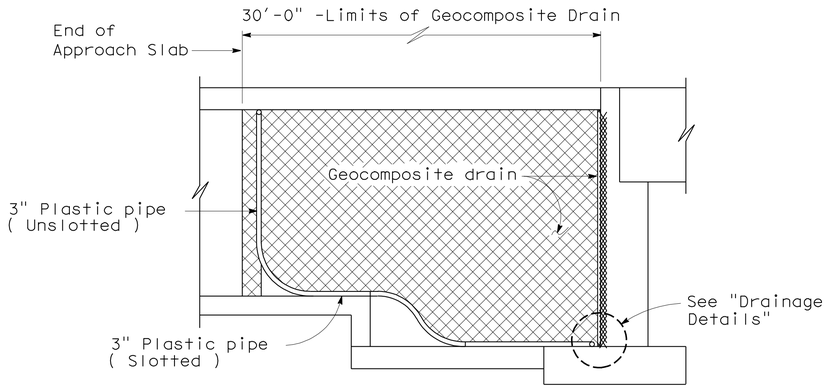


TYPICAL PLAN
1"=10'

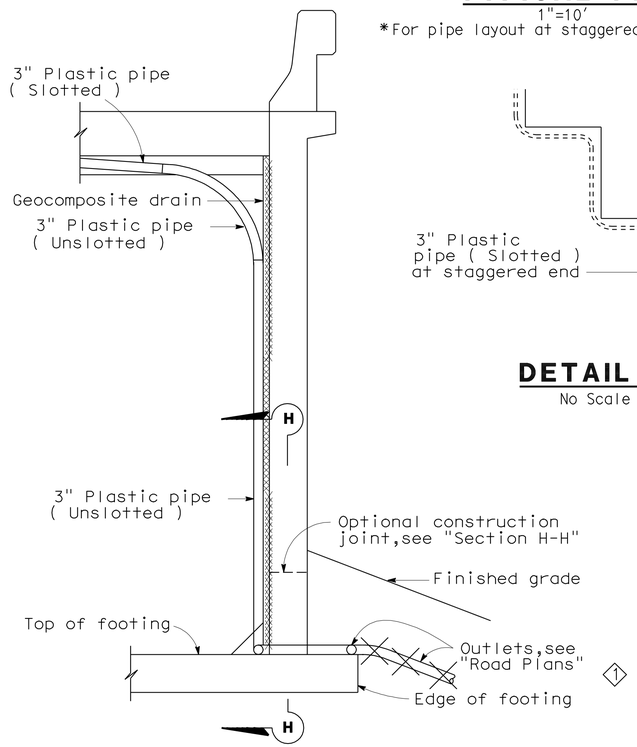
*For pipe layout at staggered end, see "Detail B".



CANTILEVER WINGWALL
SECTION F-F
1/4"=1'-0"



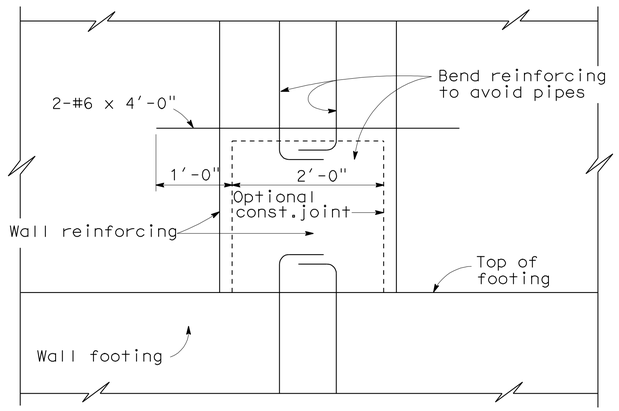
RETAINING WALL WINGWALL
SECTION G-G
1/4"=1'-0"



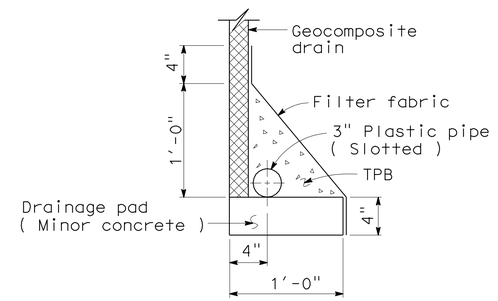
SECTION E-E
1/2"=1'-0"

NOTE: Bends and junctions in 3" plastic pipe are 30" radius min.

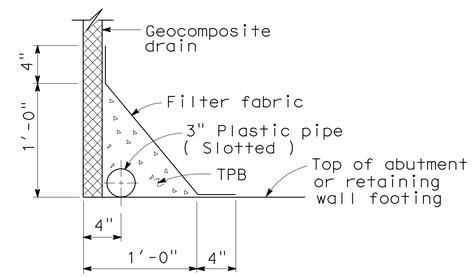
DETAIL B
No Scale



SECTION H-H
1"=1'-0"



WITHOUT FOOTING



WITH FOOTING

DRAINAGE DETAILS
1 1/2"=1'-0"

SPECAIL DETAIL

REVISED STANDARD DRAWING				
RELEASE DATE 4/23/98	DESIGN	BY M.TRAFFALIS	CHECKED E.THORKILDSEN	RELEASED BY
FILE NO. xs3-110e	DETAILS	BY R.YEE	CHECKED E.THORKILDSEN	OFFICE CHIEF
	SUBMITTED	BY M.HA	DRAWING DATE 4/98	

1 Detail Modified

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

CU 03247
EA 3C0001

BRIDGE NO. 06-0126L
MILE POST R15.43

EAST REDDING SEPARATION (WIDEN)
STRUCTURE APPROACH DRAINAGE DETAILS

DS OSD 2147A (ENGLISH) (REV. X/XX/XX)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY): 6-26-09 | 6-26-09 | 10-26-09 | 1-11-10

SHEET 18 OF 26

USERNAME => trienard

06-0126l-u-drain.dgn

DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:16

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	135	165

Jose M. Aquino S III 1-26-10
REGISTERED ENGINEER - CIVIL

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jose M Aquino III
No. 58386
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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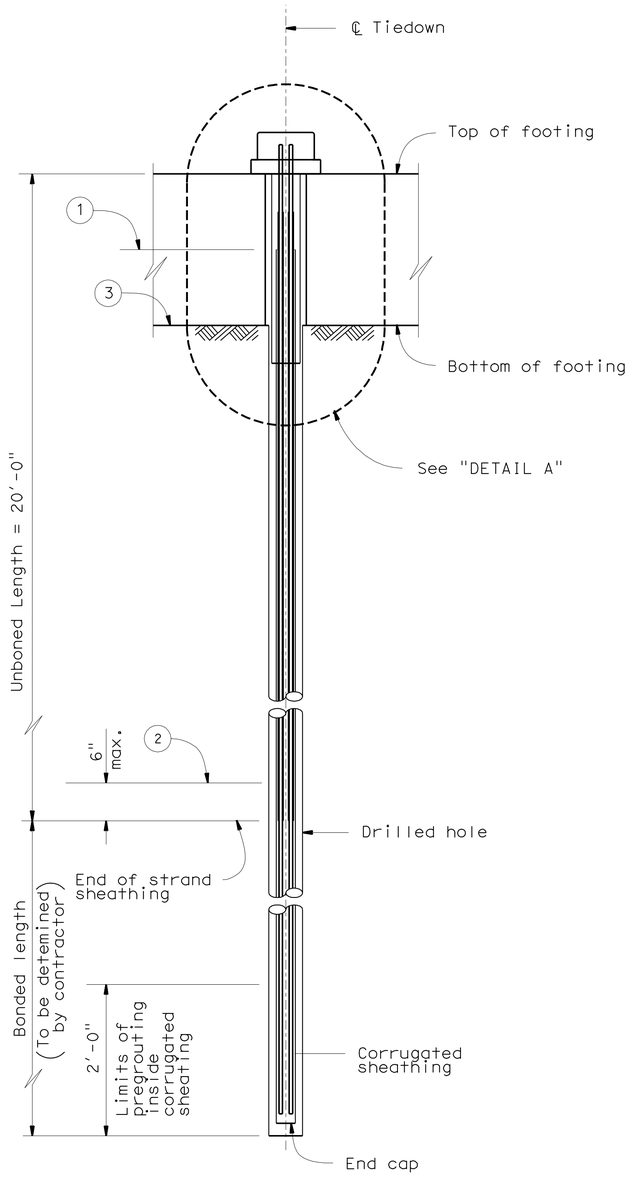
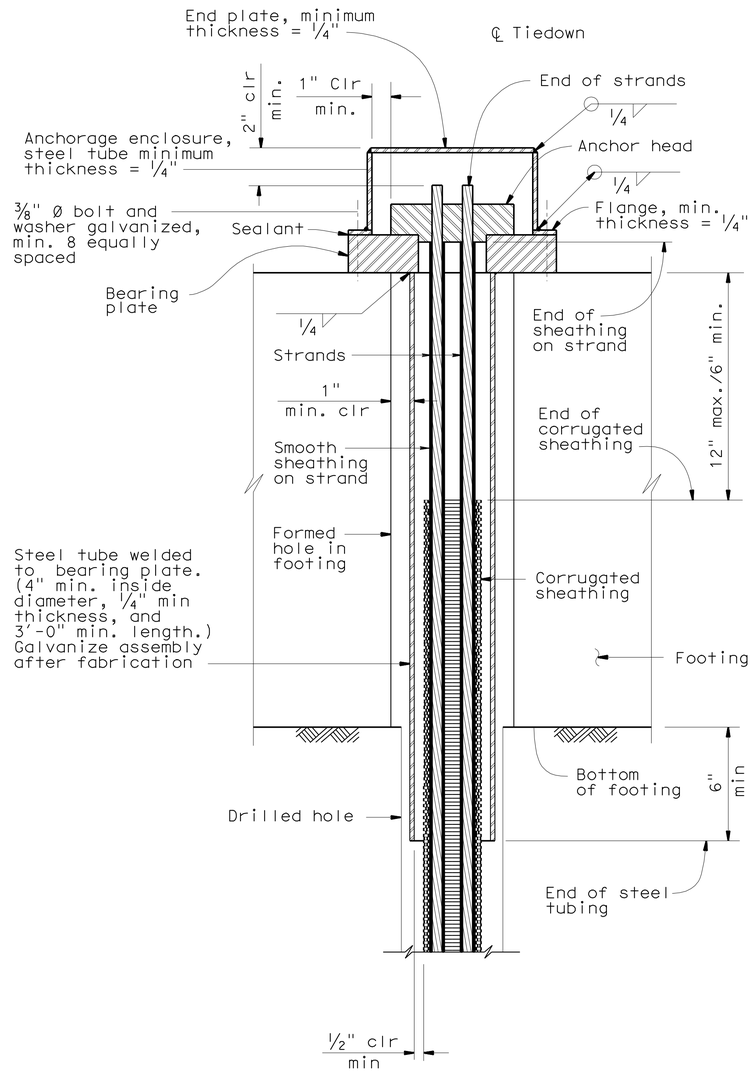


TIEDOWN TENDON DETAILS (STRANDS)

Scale 1"=1'



DETAIL A

Scale 3"= 1'

GENERAL NOTES-TIEDOWN ANCHOR

PRESTRESSING (TIEDOWNS):
BARS- ASTM Designation: A722 Type II
STRANDS-ASTM Designation: A416
T= DESIGN FORCE PER TIEDOWN (18 kips)
fpu= MINIMUM TENSILE STRENGTH OF PRESTRESSING STEEL (PSI)

As= MINIMUM CROSS SECTIONAL AREA OF PRESTRESSING STEEL IN TIEDOWN TENDON (square inches)

$$As\ (min) = \frac{1.5T}{0.75\ fpu}$$

NOTES:

1. Anchorage enclosure shall have provisions to allow injecting grout at low end and venting at high end. Galvanize enclosure after fabrication.
2. Alternative anchor enclosure shown on sheet "TIEDOWN ANCHOR DETAILS No.2" sheet

(1) Level of initial grouting inside corrugated sheathing

(2) Level of initial grouting in drilled hole.

(3) Level of secondary grouting in drilled hole.

STANDARD DRAWING

FILE NO. xs12-030-1e

APPROVED BY G. WANG — RESPONSIBLE TECHNICAL SPECIALIST
APPROVAL DATE 5-13-08

RELEASED BY ROBERTO LACALLE — RESPONSIBLE OFFICE CHIEF
RELEASE DATE 5-13-08

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

CU 03247
EA 3C0001

BRIDGE NO. 06-0126L
POST MILE R15.43

EAST REDDING SEPARATION (WIDEN)
TIEDOWN ANCHOR DETAIL NO. 1

DS OSD 2147A (ENGLISH STANDARD DRAWING "XS" BORDER REV. 01/11/08)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY)
10-26-09

SHEET 19 OF 26

USERNAME => trienard

06-0126l-v-tiedn01.dgn

DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:16

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	136	165

Jose M. Aquino III 1-26-10
REGISTERED ENGINEER - CIVIL

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jose M Aquino III
No. 58386
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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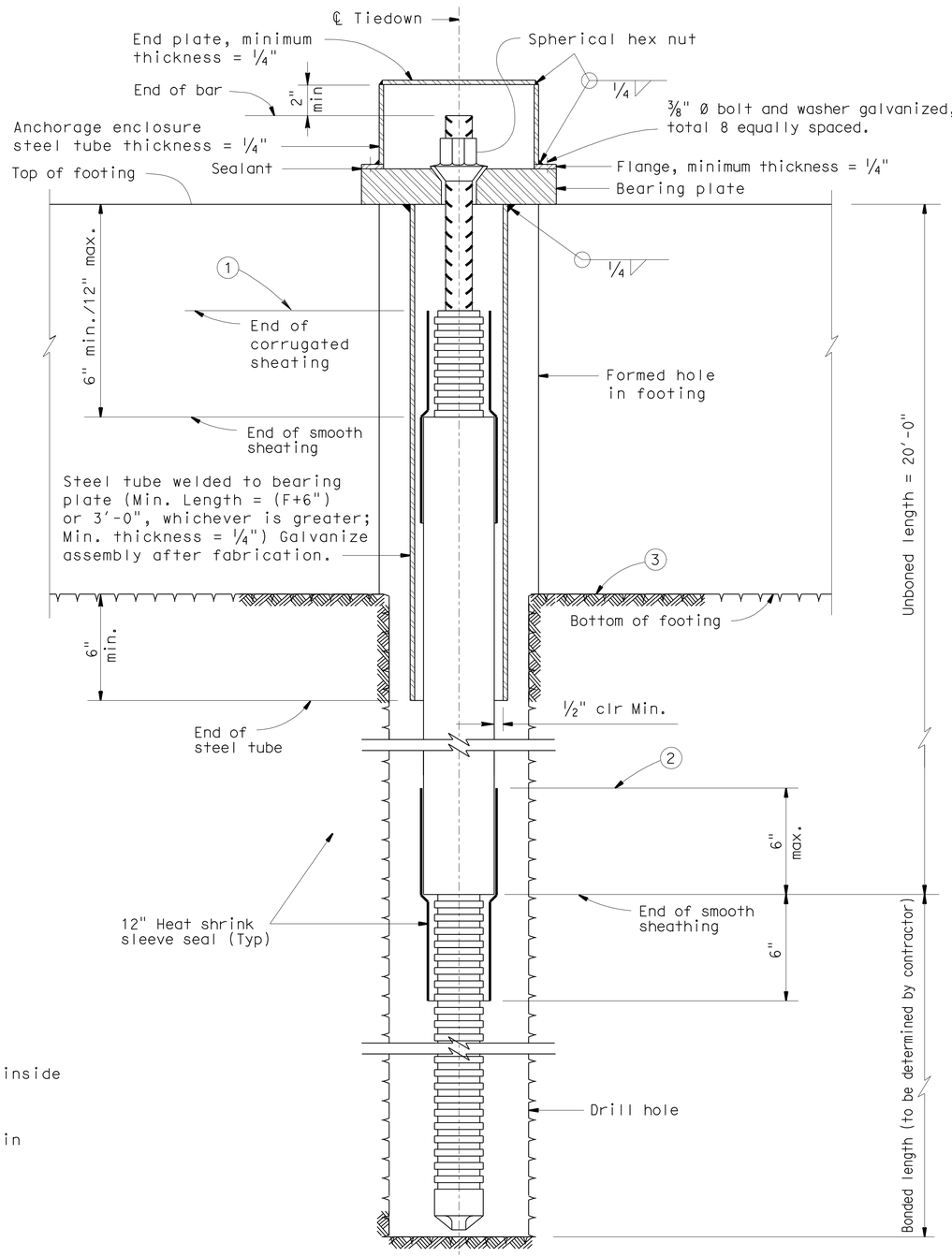


TIEDOWN TENDON DETAILS (BAR)

Scale 3"= 1'

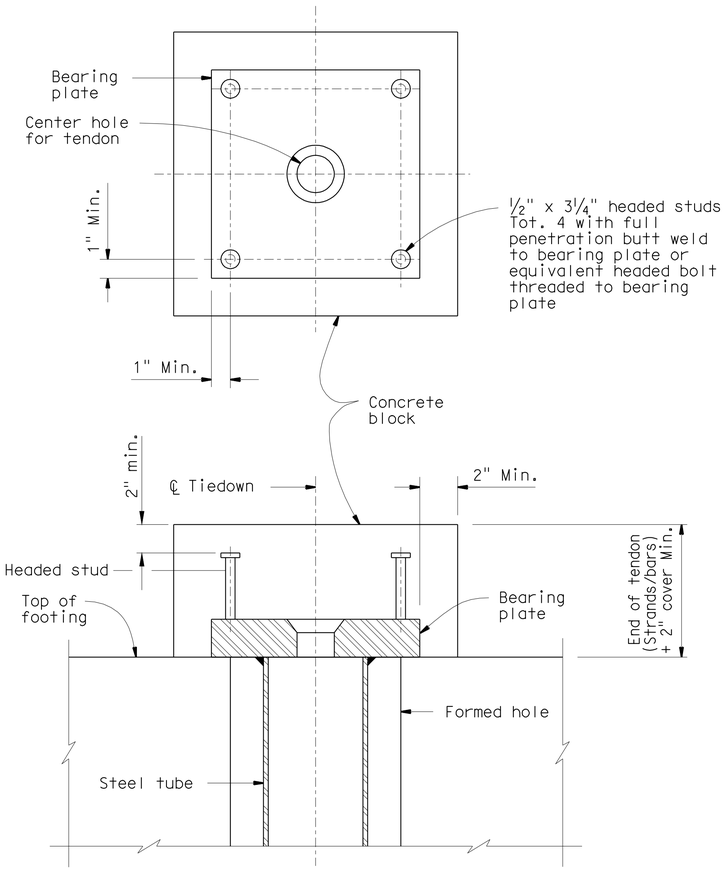
NOTE:

Anchorage enclosure shall have provision to allow injecting grout at low end and venting at high end. Galvanize enclosure after fabrication.

(1) Level of initial grouting inside corrugated sheathing.

(2) Level of initial grouting in drilled hole.

(3) Level of secondary grouting in drilled hole.



ANCHOR ENCLOSURE (ALTERNATIVE)

Scale 3"= 1'

STANDARD DRAWING					
FILE NO. xs12-030-2e	APPROVED BY G. WANG (RESPONSIBLE TECHNICAL SPECIALIST)	APPROVAL DATE 5-13-08	RELEASED BY ROBERTO LACALLE (RESPONSIBLE OFFICE CHIEF)	RELEASE DATE 5-13-08	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

CU 03247
EA 3C0001

BRIDGE NO. 06-0126L
POST MILE R15.43

EAST REDDING SEPARATION (WIDEN)
TIEDOWN ANCHOR DETAIL NO. 2

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY)										SHEET	OF
10-26-09										20	26

DS OSD 2147A (ENGLISH STANDARD DRAWING "XS" BORDER REV. 01/11/08)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

USERNAME => trienard

06-0126l-v-tiedn02.dgn

DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:16

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	137	165

Joseph M Kaump — PROFESSIONAL GEOLOGIST — 7-20-09 DATE

5-10-10 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.

PROFESSIONAL GEOLOGIST — Joseph Kaump — No. 7837 — Exp. 1-31-11 — STATE OF CALIFORNIA

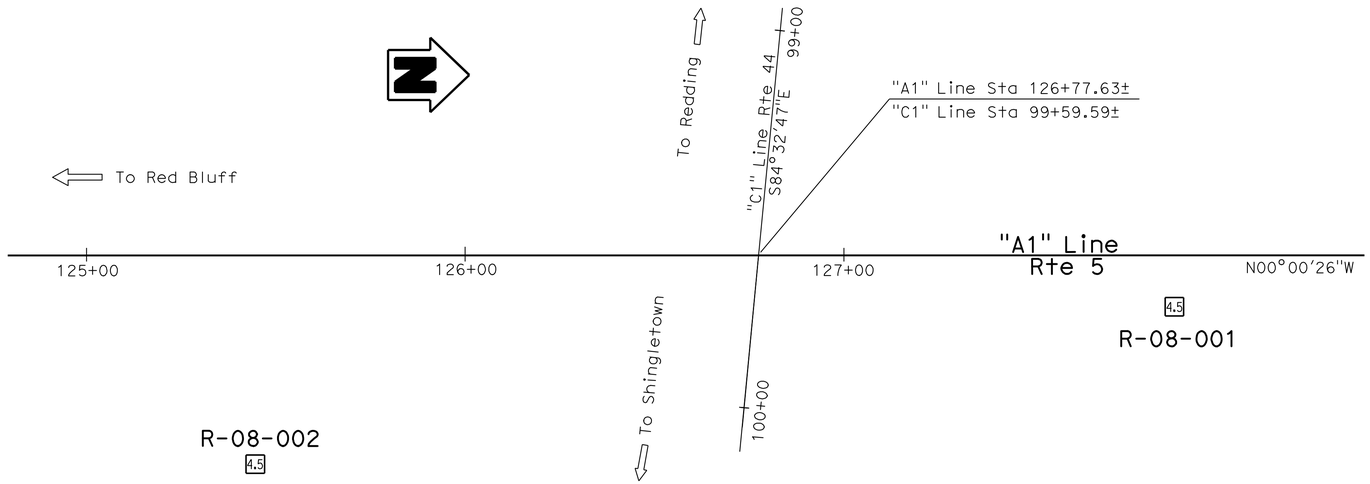
This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (June 2007). Section 2.4.18 was not fully implemented for this LOTB.

BENCH MARK

SURVEY CONTROL

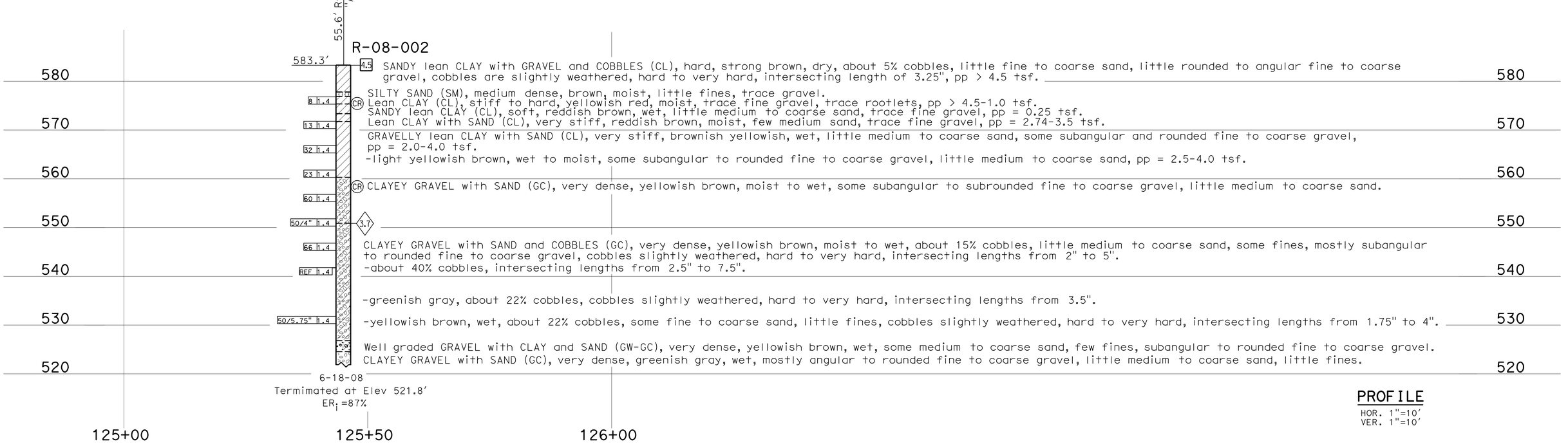
CM 15.43
Fnd Rebar & Caltrans Aluminu Cap
7.63 Ft. Rt. "A1" Line ℄ Rte 5
Sta. 125+66.96
N 2,096,628.64
E 6,461,505.48
Elev 582.84
Vert. Datum NAVD88

CM 15.49
Fnd Brass Cap in Concrete
44.74 Ft. Rt. "A1" Line ℄ Rte 5
Sta. 127+91.64
N 2,096,853.32
E 6,461,542.56
Elev 586.33
Vert. Datum NAVD88



PLAN
1"=20'

Notes:
1. pp = Unconfined Compressive Strength using a pocket penetrometer.
2. Groundwater was encountered but not measured at Boring R-08-002.



PROFILE
HOR. 1"=10'
VER. 1"=10'

ENGINEERING SERVICES	GEOTECHNICAL SERVICES		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO. 06-0126L	EAST REDDING SEPARATION (WIDEN)
FUNCTIONAL SUPERVISOR NAME: R. Buell	DRAWN BY: W. Tang 7/09	FIELD INVESTIGATION BY: J. Kaump		DESIGN BRANCH 3	POST MILES R15.4	LOG OF TEST BORINGS 1 OF 6
	CHECKED BY: C. Zhen					

OGS CIVIL LOG OF TEST BORINGS SHEET

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 07-08-09 | 07-16-09 | 10-26-09

SHEET 21 OF 26

FILE => 06-0126l-z-ltb-1of6.dgn

USERNAME => tfriemond DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:16

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	138	165

PROFESSIONAL GEOLOGIST — 7-20-09 DATE

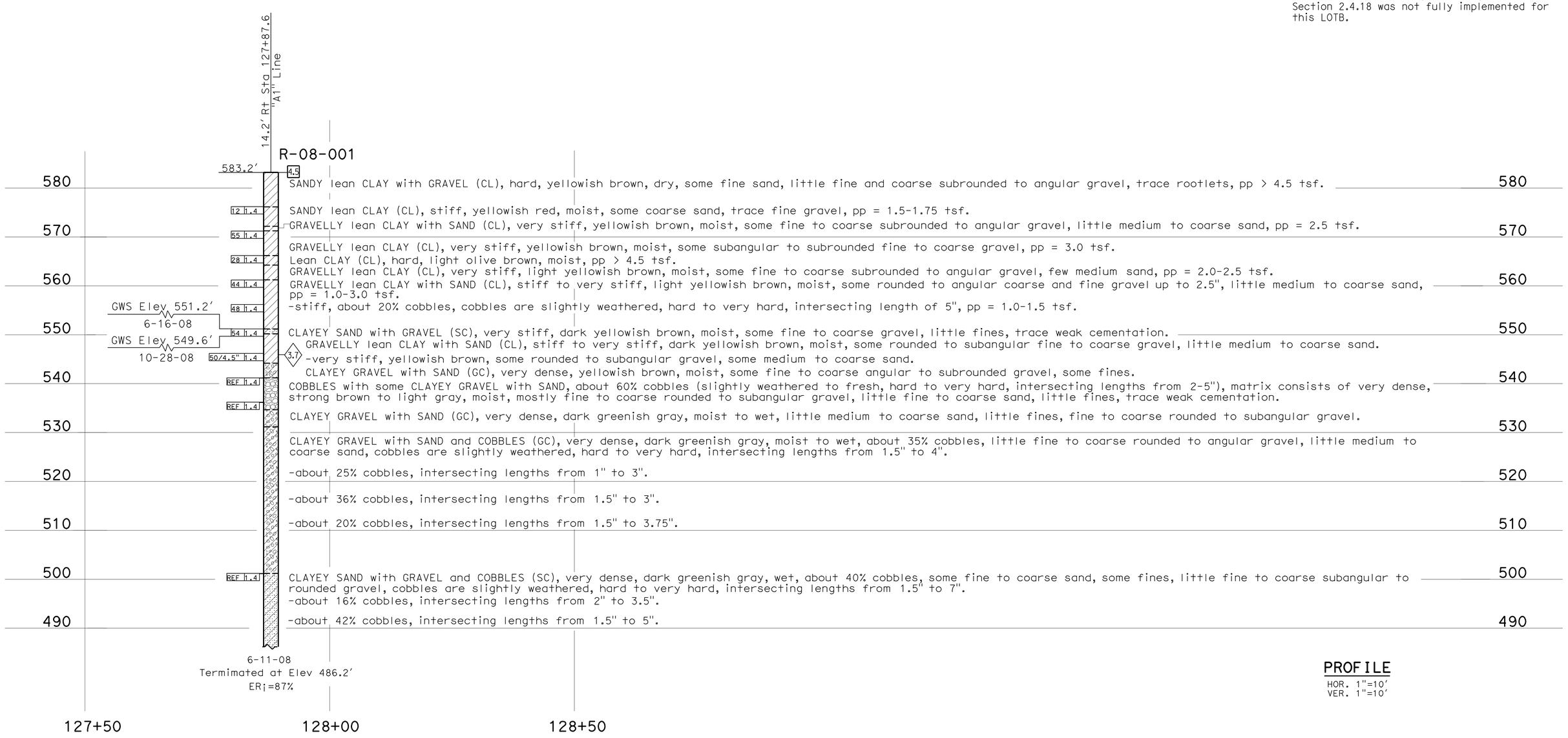
5-10-10
PLANS APPROVAL DATE

Joseph Kaump No. 7837 Exp. 1-31-11 PROFESSIONAL GEOLOGIST 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.

This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (June 2007).
Section 2.4.18 was not fully implemented for this LOTB.

FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS" 1 OF 6



4.5 SANDY lean CLAY with GRAVEL (CL), hard, yellowish brown, dry, some fine sand, little fine and coarse subrounded to angular gravel, trace rootlets, pp > 4.5 tsf.

SANDY lean CLAY (CL), stiff, yellowish red, moist, some coarse sand, trace fine gravel, pp = 1.5-1.75 tsf.

GRAVELLY lean CLAY with SAND (CL), very stiff, yellowish brown, moist, some fine to coarse subrounded to angular gravel, little medium to coarse sand, pp = 2.5 tsf.

GRAVELLY lean CLAY (CL), very stiff, yellowish brown, moist, some subangular to subrounded fine to coarse gravel, pp = 3.0 tsf.

Lean CLAY (CL), hard, light olive brown, moist, pp > 4.5 tsf.

GRAVELLY lean CLAY (CL), very stiff, light yellowish brown, moist, some fine to coarse subrounded to angular gravel, few medium sand, pp = 2.0-2.5 tsf.

GRAVELLY lean CLAY with SAND (CL), stiff to very stiff, light yellowish brown, moist, some rounded to angular coarse and fine gravel up to 2.5", little medium to coarse sand, pp = 1.0-3.0 tsf.

-stiff, about 20% cobbles, cobbles are slightly weathered, hard to very hard, intersecting length of 5", pp = 1.0-1.5 tsf.

CLAYEY SAND with GRAVEL (SC), very stiff, dark yellowish brown, moist, some fine to coarse gravel, little fines, trace weak cementation.

GRAVELLY lean CLAY with SAND (CL), stiff to very stiff, dark yellowish brown, moist, some rounded to subangular fine to coarse gravel, little medium to coarse sand.

-very stiff, yellowish brown, some rounded to subangular gravel, some medium to coarse sand.

CLAYEY GRAVEL with SAND (GC), very dense, yellowish brown, moist, some fine to coarse angular to subrounded gravel, some fines.

COBBLES with some CLAYEY GRAVEL with SAND, about 60% cobbles (slightly weathered to fresh, hard to very hard, intersecting lengths from 2-5"), matrix consists of very dense, strong brown to light gray, moist, mostly fine to coarse rounded to subangular gravel, little fine to coarse sand, little fines, trace weak cementation.

CLAYEY GRAVEL with SAND (GC), very dense, dark greenish gray, moist to wet, little medium to coarse sand, little fines, fine to coarse rounded to subangular gravel.

CLAYEY GRAVEL with SAND and COBBLES (GC), very dense, dark greenish gray, moist to wet, about 35% cobbles, little fine to coarse rounded to angular gravel, little medium to coarse sand, cobbles are slightly weathered, hard to very hard, intersecting lengths from 1.5" to 4".

-about 25% cobbles, intersecting lengths from 1" to 3".

-about 36% cobbles, intersecting lengths from 1.5" to 3".

-about 20% cobbles, intersecting lengths from 1.5" to 3.75".

CLAYEY SAND with GRAVEL and COBBLES (SC), very dense, dark greenish gray, wet, about 40% cobbles, some fine to coarse sand, some fines, little fine to coarse subangular to rounded gravel, cobbles are slightly weathered, hard to very hard, intersecting lengths from 1.5" to 7".

-about 16% cobbles, intersecting lengths from 2" to 3.5".

-about 42% cobbles, intersecting lengths from 1.5" to 5".

PROFILE
HOR. 1"=10'
VER. 1"=10'

ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO.	EAST REDDING SEPARATION (WIDEN)
FUNCTIONAL SUPERVISOR	DRAWN BY: W. Tang 7/09	FIELD INVESTIGATION BY:			DESIGN BRANCH 3	06-0126L	
NAME: R. Buell	CHECKED BY: C. Zhen	J. Kaump				POST MILES R15.4	LOG OF TEST BORINGS 2 OF 6

OGS CIVIL LOG OF TEST BORINGS SHEET

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 07-08-09 | 07-16-09 | 10-26-09

SHEET 22 OF 26

FILE => 06-0126l-z-ltb-2of6.dgn

USERNAME => friehard DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:17

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (JUNE 2007)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	139	165

Joseph M Kaump
PROFESSIONAL GEOLOGIST 7-20-09 DATE

PROFESSIONAL GEOLOGIST
Joseph Kaump
No. 7837
Exp. 1-31-11
PROFESSIONAL GEOLOGIST
STATE OF CALIFORNIA

5-10-10
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.

CEMENTATION

Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

BOREHOLE IDENTIFICATION

Symbol	Hole Type	Description
Size	A	Auger Boring
Size	R P	Rotary drilled boring Rotary percussion boring (air)
Size	R	Rotary drilled diamond core
Size	HD HA	Hand driven (1-inch soil tube) Hand Auger
●	D	Dynamic Cone Penetration Boring
▲	CPT	Cone Penetration Test (ASTM D 5778-95)
⬚	O	Other

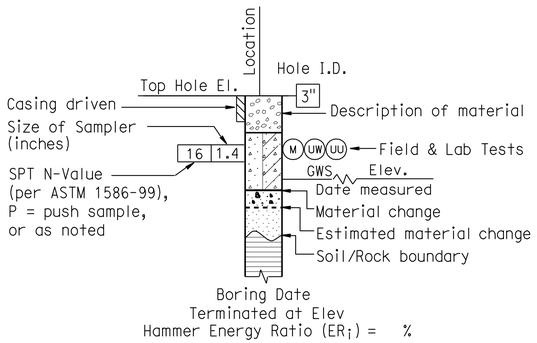
Note: Size in inches.

CONSISTENCY OF COHESIVE SOILS

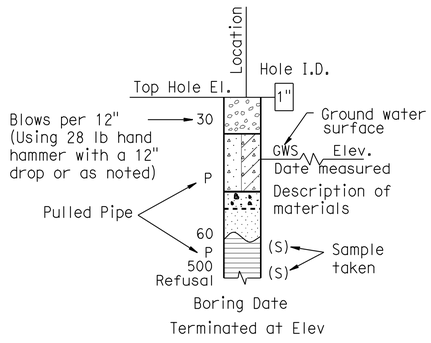
Description	Unconfined Compressive Strength (tsf)	Pocket Penetrometer Measurement (tsf)	Torvane Measurement (tsf)	Field Approximation
Very Soft	< 0.25	< 0.25	< 0.12	Easily penetrated several inches by fist
Soft	0.25 to 0.50	0.25 to 0.50	0.12 to 0.25	Easily penetrated several inches by thumb
Medium Stiff	0.50 to 1.0	0.50 to 1.0	0.25 to 0.50	Penetrated several inches by thumb with moderate effort
Stiff	1 to 2	1 to 2	0.50 to 1.0	Readily indented by thumb but penetrated only with great effort
Very Stiff	2 to 4	2 to 4	1.0 to 2.0	Readily indented by thumbnail
Hard	> 4.0	> 4.0	> 2.0	Indented by thumbnail with difficulty

PLASTICITY OF FINE-GRAINED SOILS

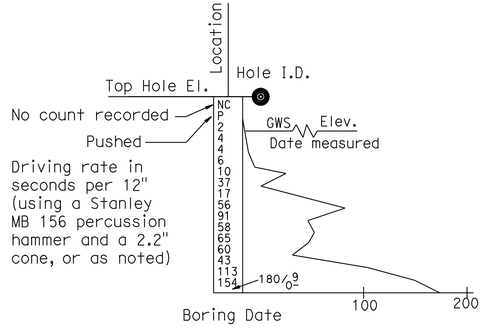
Description	Criteria
Nonplastic	A 1/8-inch thread cannot be rolled at any water content.
Low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.



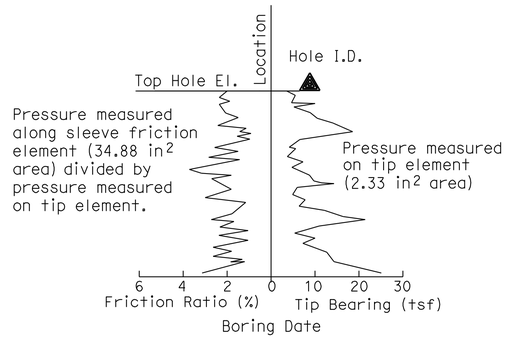
ROTARY BORING



HAND BORING



DYNAMIC CONE PENETRATION BORING



CONE PENETRATION TEST (CPT) SOUNDING

ENGINEERING SERVICES	GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO.	EAST REDDING SEPARATION (WIDEN)
	PREPARED BY: W. Tang 7/09		DESIGN BRANCH 3	06-0126L POST MILE R15.4	LOG OF TEST BORINGS 3 OF 6

GS LOTB SOIL LEGEND

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES	SHEET	OF
10-26-09	23	26

FILE => 06-0126l-z-ltb-3of6.dgn

USERNAME => ftriendord DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:17

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (JUNE 2007)

GROUP SYMBOLS AND NAMES

Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
GW	Well-graded GRAVEL Well-graded GRAVEL with SAND	CL	Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND
GP	Poorly graded GRAVEL Poorly graded GRAVEL with SAND		
GW-GM	Well-graded GRAVEL with SILT Well-graded GRAVEL with SILT and SAND	CL-ML	SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY with SAND
GW-GC	Well-graded GRAVEL with CLAY (or SILTY CLAY) Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GP-GM	Poorly graded GRAVEL with SILT Poorly graded GRAVEL with SILT and SAND	ML	SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND
GP-GC	Poorly graded GRAVEL with CLAY (or SILTY CLAY) Poorly graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GM	SILTY GRAVEL SILTY GRAVEL with SAND	OL	ORGANIC lean CLAY ORGANIC lean CLAY with SAND ORGANIC lean CLAY with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND
GC	CLAYEY GRAVEL CLAYEY GRAVEL with SAND		
GC-GM	SILTY, CLAYEY GRAVEL SILTY, CLAYEY GRAVEL with SAND	OL	ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND
SW	Well-graded SAND Well-graded SAND with GRAVEL		
SP	Poorly graded SAND Poorly graded SAND with GRAVEL	CH	Fat CLAY Fat CLAY with SAND Fat CLAY with GRAVEL SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND
SW-SM	Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL		
SW-SC	Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	MH	Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND
SP-SM	Poorly graded SAND with SILT Poorly graded SAND with SILT and GRAVEL		
SP-SC	Poorly graded SAND with CLAY (or SILTY CLAY) Poorly graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	OH	ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND
SM	SILTY SAND SILTY SAND with GRAVEL		
SC	CLAYEY SAND CLAYEY SAND with GRAVEL	OH	ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
SC-SM	SILTY, CLAYEY SAND SILTY, CLAYEY SAND with GRAVEL		
PT	PEAT	OL/OH	ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
	COBBLES COBBLES and BOULDERS BOULDERS		

FIELD AND LABORATORY TESTING

- (C) Consolidation (ASTM D 2435)
- (CL) Collapse Potential (ASTM D 5333)
- (CP) Compaction Curve (CTM 216)
- (CR) Corrosivity Testing (CTM 643, CTM 422, CTM 417)
- (CU) Consolidated Undrained Triaxial (ASTM D 4767)
- (DS) Direct Shear (ASTM D 3080)
- (EI) Expansion Index (ASTM D 4829)
- (M) Moisture Content (ASTM D 2216)
- (OC) Organic Content-% (ASTM D 2974)
- (P) Permeability (CTM 220)
- (PA) Particle Size Analysis (ASTM D 422)
- (PI) Plasticity Index (AASHTO T 90)
Liquid Limit (AASHTO T 89)
- (PL) Point Load Index (ASTM D 5731)
- (PM) Pressure Meter
- (PP) Pocket Penetrometer
- (R) R-Value (CTM 301)
- (SE) Sand Equivalent (CTM 217)
- (SG) Specific Gravity (AASHTO T 100)
- (SL) Shrinkage Limit (ASTM D 427)
- (SW) Swell Potential (ASTM D 4546)
- (TV) Pocket Torvane
- (UC) Unconfined Compression-Soil (ASTM D 2166)
Unconfined Compression-Rock (ASTM D 2938)
- (UU) Unconsolidated Undrained Triaxial (ASTM D 2850)
- (UW) Unit Weight (ASTM D 4767)
- (VS) Vane Shear (AASHTO T 223)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	140	165

Joseph M Kaump — PROFESSIONAL GEOLOGIST — 7-20-09 DATE

5-10-10 PLANS APPROVAL DATE

PROFESSIONAL GEOLOGIST — Joseph Kaump — No. 7837 — Exp. 1-31-11 — STATE OF CALIFORNIA

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APPARENT DENSITY OF COHESIONLESS SOILS

Description	SPT N_{60} (Blows / 12 inches)
Very loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	> 50

MOISTURE

Description	Criteria
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

PERCENT OR PROPORTION OF SOILS

Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5 to 10%
Little	15 to 25%
Some	30 to 45%
Mostly	50 to 100%

PARTICLE SIZE

Description		Size
Boulder		> 12"
Cobble		3" to 12"
Gravel	Coarse	3/4" to 3"
	Fine	No. 4 to 3/4"
Sand	Coarse	No. 10 to No. 4
	Medium	No. 40 to No. 10
	Fine	No. 200 to No. 40

ENGINEERING SERVICES	GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO.	EAST REDDING SEPARATION (WIDEN)
	PREPARED BY: W. Tang 7/09		DESIGN BRANCH 3	06-0126L POST MILE R15.4	LOG OF TEST BORINGS 4 OF 6

GS LOTB SOIL LEGEND

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247 EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
10-26-09										24	26

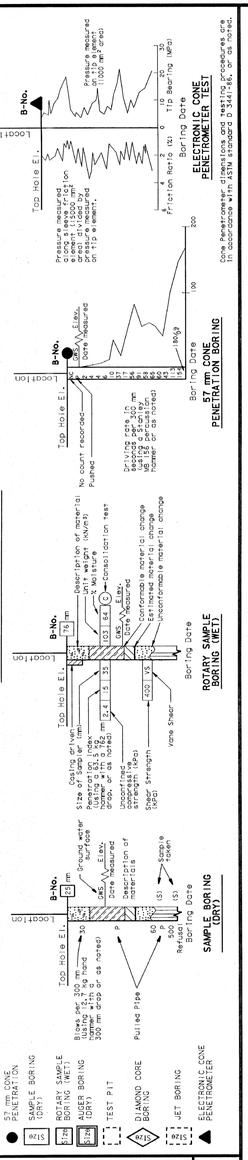
FILE => 06-0126I-z-ltb-4of6.dgn

USERNAME => ?rtreford DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:17

TRANSFER DATE: 06-02-2003
CONTRACT NO: 02-334804
FIELD CORRECTION DATE: 06-05-2002
FIELD CORRECTIONS BY:
DRAWN BY: C. Arace

NO AS BUILT CORRECTIONS

LEGEND OF BORING OPERATIONS



LEGEND OF EARTH MATERIALS

GRAVEL · SAND · SILT · CLAY · CLAYEY SILT · PEAT and/or ORGANIC MATTER · FILL MATERIAL · COBBLES AND/OR BOULDERS · IGNEOUS ROCK · SEDIMENTARY ROCK · METAMORPHIC ROCK · SANDY CLAY or CLAYEY SAND · SANDY SILT or SILTY SAND · SILTY CLAY

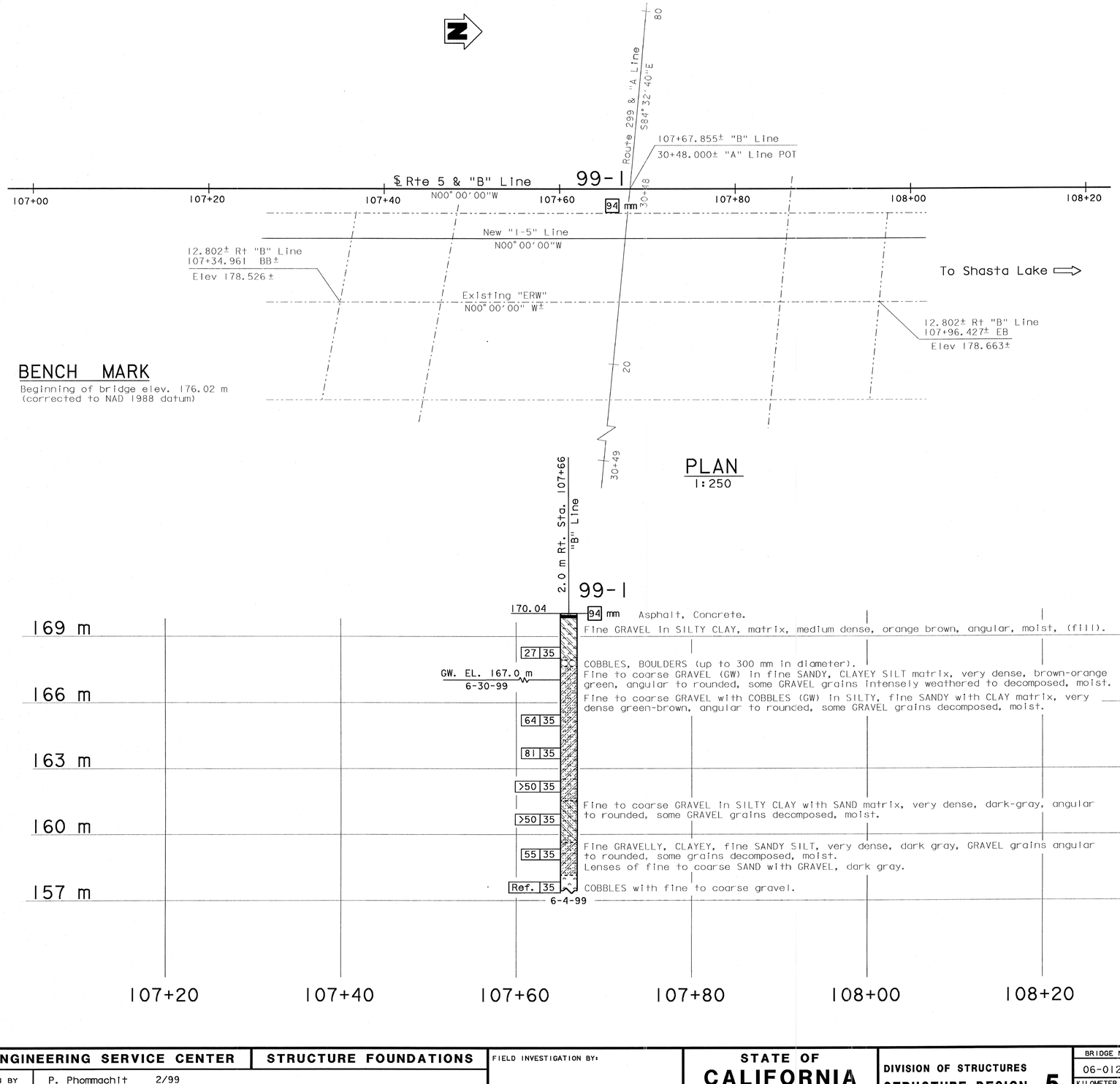
CONSISTENCY CLASSIFICATION FOR SOILS

According to the Standard Penetration Test

	SPT N-Value (Blows/0.3m)	Cohesive
	<2	Very Soft
	2-4	Soft
	5-8	Firm
	9-15	Stiff
	16-30	Very stiff
	>31	Hard

	SPT N-Value (Blows/0.3m)	Granular
	0-4	Very Loose
	5-10	Loose
	11-30	Medium Dense
	31-50	Dense
	>50	Very Dense

NOTE: Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.



BENCH MARK

Beginning of bridge elev. 176.02 m
(corrected to NAD 1988 datum)

PLAN
1:250

PROFILE
HOR. 1:250
VER. 1:100

Caltrans Metric

DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

CERTIFIED ENGINEERING GEOLOGIST

REGISTERED GEOLOGIST — Bogdan Komorniczak — No. 2094 — Exp. 3-31-01 — CERTIFIED ENGINEERING GEOLOGIST — STATE OF CALIFORNIA

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 5-10-10

DIVISION OF ENGINEERING SERVICES - GEOTECHNICAL SERVICES

As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.

DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	Sheet No.	Total Sheets
02	Sha	5	R14.9/R16.2	141	165

PROFESSIONAL GEOLOGIST — 7/14/09 DATE

PROFESSIONAL GEOLOGIST — Joseph Kaump — No. 7837 — Exp. 1-31-11 — STATE OF CALIFORNIA

EAST REDDING SEPARATION (WIDEN)

LOG OF TEST BORINGS 5 OF 6

NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA

CU: 02
EA: 3C0001

BRIDGE No. 06-0126L

Sheet 25 of 26

Revisions made to this Log of Test Borings from the original As-Built Log of Test Borings are the addition of the following table and notes:

Boring	Station	Offset from "A1" Line
99-1	126+67	43' Rt

Notes:

1. See the General Plan and/or Foundation Plan for current stationing.
2. The data in the table above, is the boring location for the As-Built Log of Test Borings referenced to the current "A1" Line. This table is presented on the As-Built Log of Test Boring sheet for the convenience of any bidder, contractor or other interested party.

ENGINEERING SERVICE CENTER	STRUCTURE FOUNDATIONS
DRAWN BY: P. Phommachit 2/99	
CHECKED BY: B. Komorniczak 8/99	

FIELD INVESTIGATION BY: B. Komorniczak

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF STRUCTURES
STRUCTURE DESIGN 5

BRIDGE NO. 06-0126R
KILOMETER POST 24.83(15.43)

EAST REDDING SEPARATION (WIDEN)
LOG OF TEST BORINGS 1 OF 2

CU 02
EA 334801

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 8-9-99

SHEET 17 OF 18

OSF GEOLOGIST LOG OF TEST BORINGS SHEET (METRIC) (REV. 1-29-99)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

FILENAME => 06-01261-z-1tb-5of6.tif

FED. ROAD DIV. No.	STATE	PROJ. No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS

DIST	COUNTY	ROUTE	SECTION	SHEET No.	TOTAL SHEETS

BRIDGE ENGINEER: _____ CIVIL ENGINEER—LICENSE 5585

DATE APPROVED: _____

BRIDGE DEPARTMENT

To accompany plans dated 5-10-10

DIVISION OF ENGINEERING SERVICES - GEOTECHNICAL SERVICES

As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.

DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	Sheet No.	Total Sheets
02	Sha	5	R14.9/R16.2	142	165

PROFESSIONAL GEOLOGIST _____ DATE 7/14/09

PROFESSIONAL GEOLOGIST — Joseph Kaump — No. 7837 — Exp. 1-31-11 — STATE OF CALIFORNIA

EAST REDDING SEPARATION (WIDEN)

LOG OF TEST BORINGS 6 OF 6

NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA

CU: 02
EA: 3C0001

BRIDGE No. 06-0126L

As-Built Vertical Datum: NGVD29
Datum conversion: NAVD88 = NGVD29 + 2.6 feet

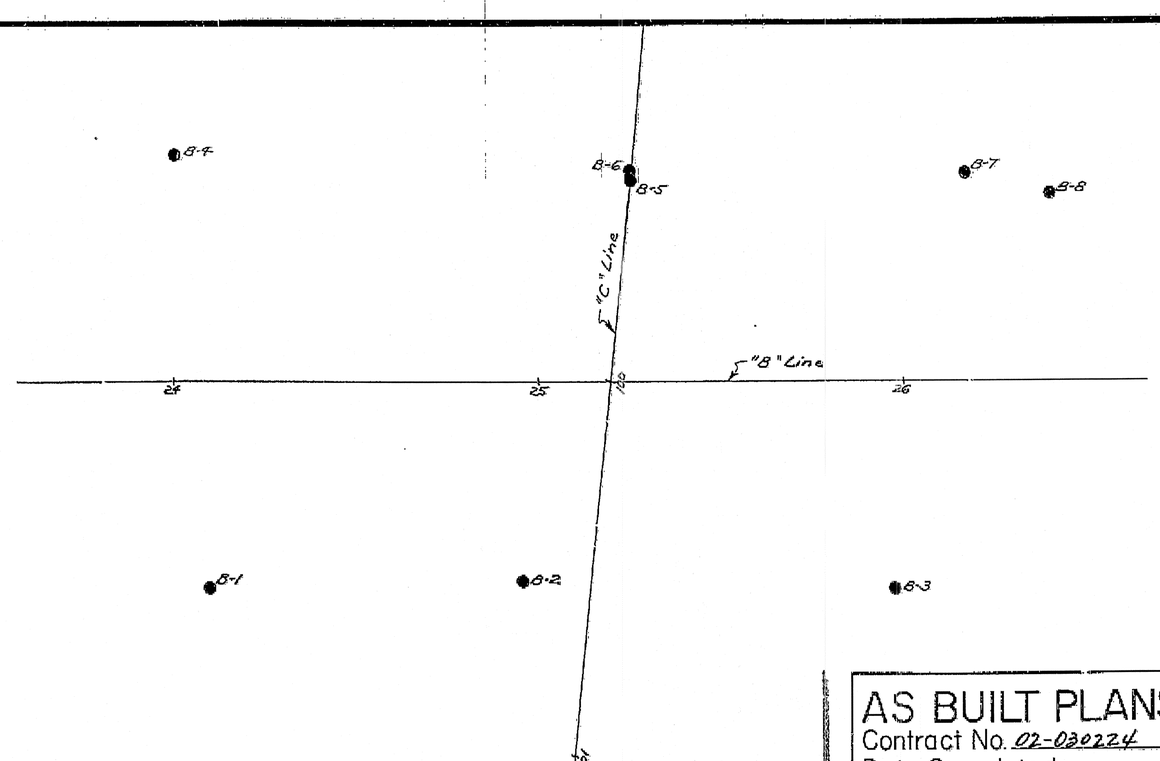
Sheet 26 of 26

Revisions made to this Log of Test Borings from the original As-Built Log of Test Borings are the addition of the following table and notes:

Boring	Station	Offset from "A1" Line
B-1	125+62	93.0' Rt
B-2	126+51	91.0' Rt
B-3	127+55	90.0' Rt
B-4	125+72	16.5' Lt
B-5	126+80	18.0' Lt
B-6	126+80	20.0' Lt
B-7	127+75	18.0' Lt
B-8	127+93	15.0' Lt

Notes:
1. See the General Plan and/or Foundation Plan for current stationing.
2. The data in the table above, are the boring locations for the As-Built Log of Test Borings referenced to the current "A1" Line. This table is presented on the As-Built Log of Test Boring sheet for the convenience of any bidder, contractor or other interested party.

BM #63 Hub & Tack
110' Lt. Sta. 22+08 "B"
Elev. 579.35



AS BUILT PLANS
Contract No. 02-030224
Date Completed _____
Document No. 2000 1023

CLASSIFICATION OF MATERIAL BASED ON STANDARD GRADE SIZE LIMITS

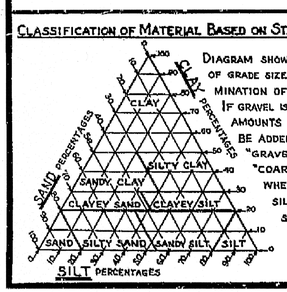


DIAGRAM SHOWING THE BASIS FOR ESTIMATES OF GRADE SIZE DISTRIBUTION USED IN DETERMINATION OF CLASS NAMES.

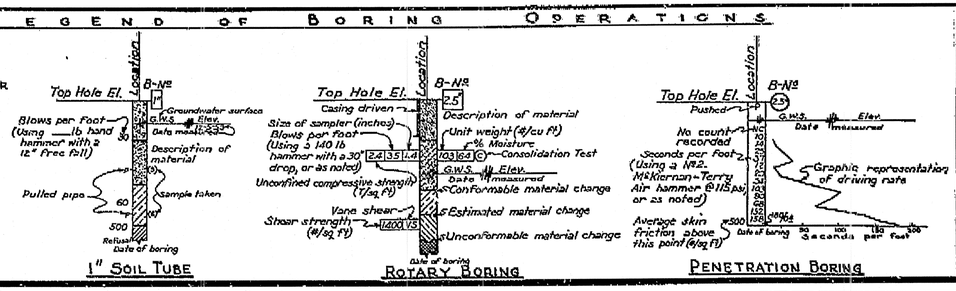
IF GRAVEL IS PRESENT IN APPRECIABLE AMOUNTS THE TERM "GRAVELLY" MAY BE ADDED TO THE CLASS NAME, VIZ, "GRAVELLY SAND." THE TERMS "COARSE", "MEDIUM" AND "FINE" WHEN USED TO DESCRIBE SAND, SILT AND GRAVEL REFER TO STANDARD GRADE SIZE LIMITS.

LEGEND OF EARTH MATERIALS

- GRAVEL
- SAND
- SILT
- CLAY
- SANDY CLAY OR CLAYEY SAND
- SANDY SILT OR SILTY SAND
- SILTY CLAY OR CLAYEY SILT
- PEAT AND/OR ORGANIC MATTER
- FILL MATERIAL
- IGNEOUS ROCK
- SEDIMENTARY ROCK
- METAMORPHIC ROCK

LEGEND OF BORING OPERATIONS

- PLAN OF ANY BORING
- PENETROMETER
- 2½" CONE PENETROMETER
- SAMPLER BORING (DRY)
- ROTARY BORING (WET)
- AUGER BORING (DRY)
- JET BORING
- CORE BORING
- TEST PIT



NOTE

Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

EAST REDDING
~~ROUTE~~ 3/20 SEPARATION

LOG OF TEST BORINGS

SCALE As Noted	BRIDGE 6-126R/L	FILE	DRAWING C-06126-24

PR-7160-9

FILENAME => 06-0126l-z-itb-6of6.tif

REL. DRAWING NO. Por/12-4 3/4 3/47

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	143	165

Jose M. Aquino III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

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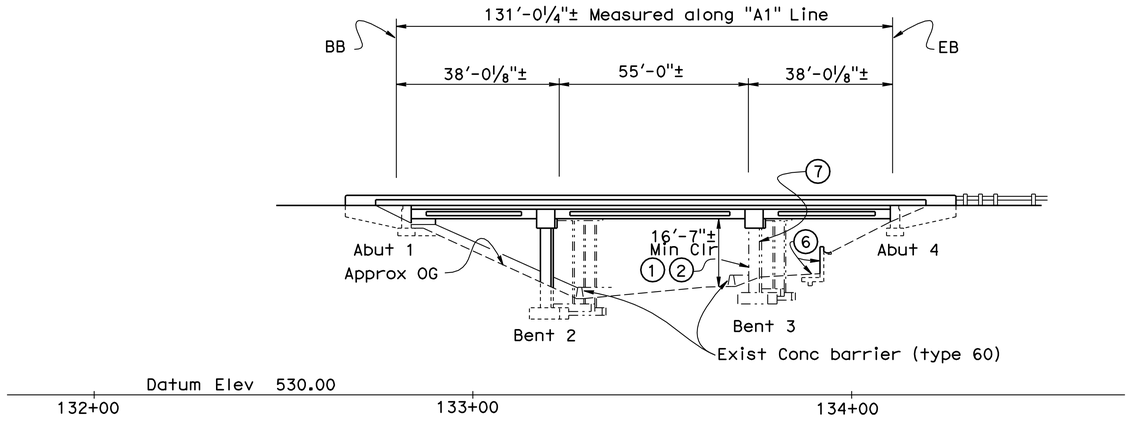
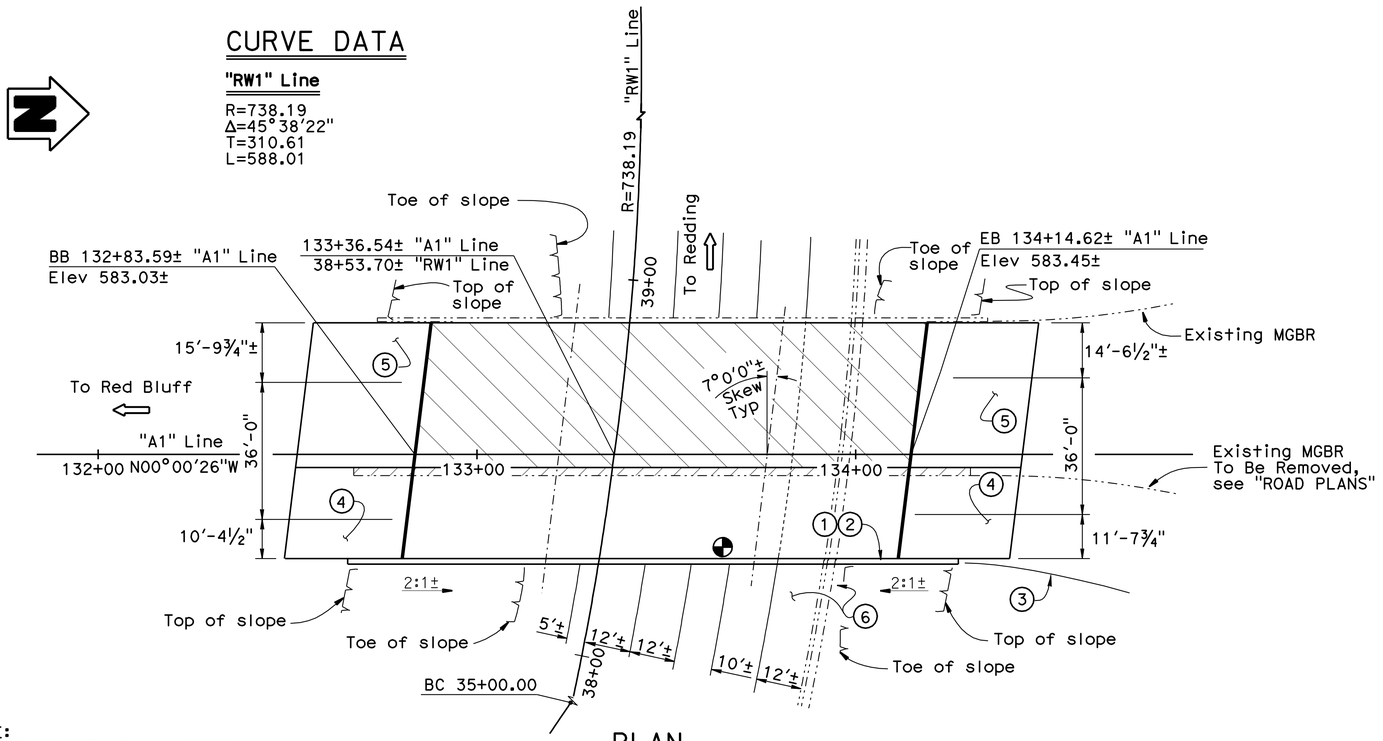


ELEVATION
1" = 20′

CURVE DATA

"RW1" Line

R=738.19
Δ=45°38′22"
T=310.61
L=588.01



PLAN
1" = 20′

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

QUANTITIES

REMOVE ASPHALT CONCRETE SURFACING	5,285	SQFT
SALVAGE METAL BRIDGE RAILING	162	LF
REMOVE UNSOUND CONCRETE	27	CF
PREPARE CONCRETE BRIDGE DECK SURFACE	8,152	SQFT
BRIDGE REMOVAL (PORTION), LOCATION A	LUMP	SUM
STRUCTURE EXCAVATION (BRIDGE)	267	CY
STRUCTURE BACKFILL (BRIDGE)	193	CY
AGGREGATE BASE (APPROACH SLAB)	10	CY
STRUCTURAL CONCRETE, BRIDGE FOOTING	43	CY
STRUCTURAL CONCRETE, BRIDGE	178	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE N)	52	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE R)	95	CY
PAVING NOTCH EXTENSION	61	CF
DRILL AND BOND DOWEL	24	LF
RAPID SETTING CONCRETE (PATCH)	27	CF
FURNISH PRECAST PRESTRESSED CONCRETE GIRDER (30′-40′)	8	EA
FURNISH PRECAST PRESTRESSED CONCRETE GIRDER (50′-60′)	4	EA
ERECT PRECAST PRESTRESSED CONCRETE GIRDER	12	EA
FURNISH POLYESTER CONCRETE OVERLAY	594	CF
PLACE POLYESTER CONCRETE OVERLAY	8,152	SQFT
JOINT SEAL (MR = ½")	128	LF
BAR REINFORCING STEEL (BRIDGE)	58,884	LB
CONCRETE BARRIER (TYPE 732)	162	LF

NOTE:
Lane widths shown are for information only, see "ROAD PLANS"

LEGEND:

- Indicates Limits of Existing AC & Membrane Seal Removal
- Indicates Existing Concrete and Barrier Rail Removal
- Indicates Existing Structure
- Indicates New Structure
- Indicates Joint Seal MR= ½"
- (1) Paint "WESTBOUND CONNECTOR UC"
- (2) Paint "BR. NO. 06-0127L"
- (3) MBGR, see "ROAD PLANS"
- (4) Structure Approach Type N(30D)
- (5) Structure Approach Type R(30D)
- (6) Existing Bike Path and Retaining Wall (by others)
- (7) Bent 3 Footings & Column by Others
- Point of Minimum Vertical Clearance

For "GENERAL NOTES" and "INDEX TO PLANS", see "INDEX TO PLANS" sheet
For "Typical Section" see "GENERAL PLAN NO. 2" sheet

Joseph E Downing
DESIGN ENGINEER

DESIGN	BY Art V Herrera	CHECKED Adriana Pimenta	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE	
DETAILS	BY Jay Reid	CHECKED Adriana Pimenta	LAYOUT	BY Art V Herrera	CHECKED Jose M Aquino III
QUANTITIES	BY Quang Nguyen	CHECKED Jose M Aquino III	SPECIFICATIONS	BY Iwa Huang	PLANS AND SPECS COMPARED Iwa Huang

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 3

CU 03247
EA 3C0001

BRIDGE NO. 06-0127L
POST MILE 15.6

WESTBOUND CONNECTOR UC (WIDEN)
GENERAL PLAN NO. 1

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
3-10-09	4-2-09	4-3-09	7-1-09	7-13-09	9-30-09	10-20-09	1-11-10	1-19-10		1	23

USERNAME => rtriveord DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:26

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV.07-24-06)

FILE => 06-0127l-a-gp01.dgn

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	144	165

Jose M. Aquino III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

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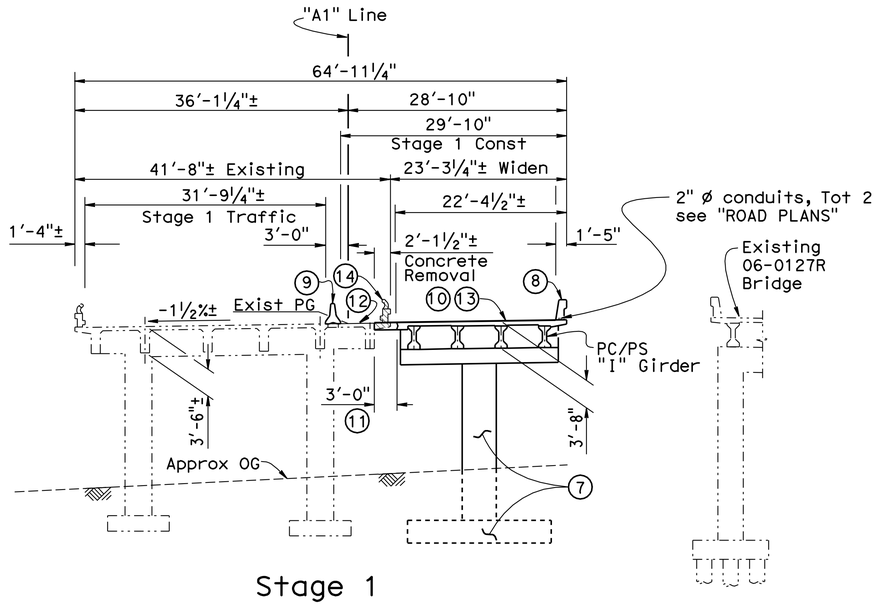
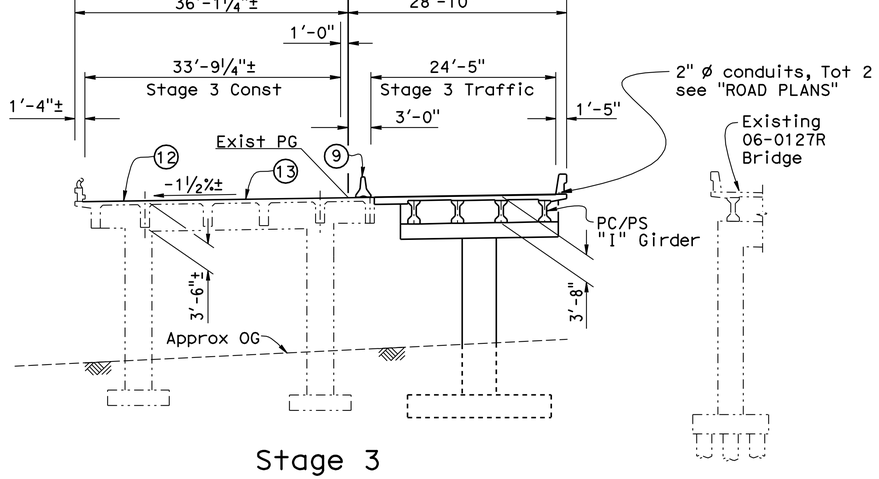


Stage 1
TYPICAL SECTION
1" = 10'

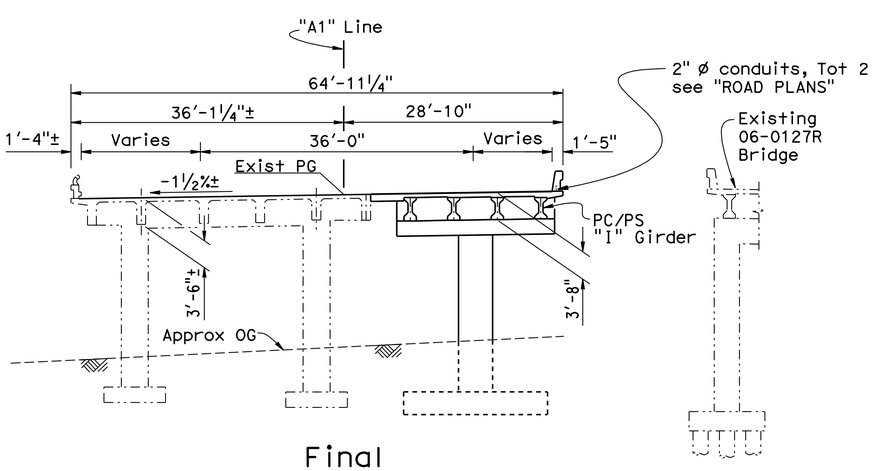


Stage 3
TYPICAL SECTION
1" = 10'

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

NOTE:

Stage 2 Traffic & Construction - Median Work, see "ROAD PLANS"



Final
TYPICAL SECTION
1" = 10'

LEGEND:

- Indicates Concrete and Existing Barrier Rail removal
- Indicates Existing Structure
- Indicates New Structure
- (7) Bent 3 Footing & Column By Other
- (8) Concrete Barrier Type 732
- (9) Temporary Railing (Type K), see "ROAD PLANS"
- (10) Match existing cross slope
- (11) Closure Pour
- (12) Remove Existing AC Overlay
- (13) ¾" Polyester Concrete Overlay. For overlay grades, see "ROAD PLANS'
- (14) Salvage Existing Metal Railing

For "GENERAL NOTES" and "INDEX TO PLANS", see "INDEX TO PLANS" sheet

NOTE:
For notes and Items not shown See "GENERAL PLAN NO. 1" sheet

Joseph E Downing
DESIGN ENGINEER

DESIGN	BY Art V Herrera	CHECKED Adriana Pimenta	LOAD & RESISTANCE FACTOR DESIGN	LIVE LOADING: HL93 W/"LOW-BOY"; PERMIT DESIGN VEHICLE	
DETAILS	BY Jay Reid	CHECKED Adriana Pimenta	LAYOUT BY Art V Herrera	CHECKED Jose M Aquino III	
QUANTITIES	BY Quang Nguyen	CHECKED Jose M Aquino III	SPECIFICATIONS BY Iwa Huang	PLANS AND SPECS COMPARED Iwa Huang	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 3

CU 03247
EA 3C0001

BRIDGE NO. 06-0127L
POST MILE 15.6

WESTBOUND CONNECTOR UC (WIDEN)
GENERAL PLAN NO. 2

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
8-12-09	8-20-09	9-30-09	10-14-09	10-21-09	1-11-10					2	23

STRUCTURES DESIGN GENERAL PLAN SHEET (ENGLISH) (REV.07-24-06)

FILE => 06-0127l-a-gp02.dgn

USERNAME => rfriend DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:26

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	145	165

REGISTERED CIVIL ENGINEER — 1-26-10 DATE

5-10-10
PLANS APPROVAL DATE

Jose M Aquino III
No. 58386
Exp. 12-31-10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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GENERAL NOTES
LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:

AASHTO LRFD Bridge Design Specifications, 3rd edition with the 2005, 2006 Interims and the California Amendments v3.06.01; except that the abutments were designed using Bridge Design Specifications ('96 AASHTO w/Revisions by Caltrans)

SEISMIC DESIGN:

Caltrans Seismic Design Criteria (SDC), Version 1.4 dated JUNE 2006

DEAD LOAD:

Includes 35 psf for future wearing surface.

LIVE LOADING:

HL93 and permit design load.

SEISMIC LOADING:

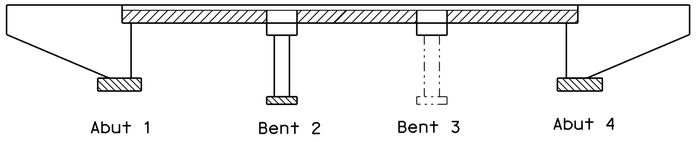
Peak Rock Acceleration = 0.2g
SDC ARS Curve For Soil Profile C (M=6.5± .25)

CONCRETE:

fy = 60 ksi
f'c = 3600 psi (except as shown on "CONCRETE STRENGTH AND TYPE LIMITS")
n = 8

SPREAD FOOTING DATA TABLE

Support Location	Working Stress Design (WSD)		Load and Resistance Factor Design (LRFD)		
			Service	Strength	Extreme Event
	Permissible Gross Contact Stress (Settlement) (ksf)	Allowable Gross Bearing Capacity (ksf)	Permissible Net Contact Stress (Settlement) (ksf)	Factored Gross Nominal Bearing Resistance (ksf)	Factored Gross Nominal Bearing Resistance (ksf)
Abut 1	4	4	N/A	N/A	N/A
Bent 2	N/A	N/A	5	21	46
Bent 3 By Others	N/A	N/A	5	21	46
Abut 4	4	4	N/A	N/A	N/A



Structural Concrete, Bridge

Structural Concrete, Bridge Footing

Structural Concrete P/C P/S I Girder, Bridge (4,000 psi at 28 days)

Bent 3 Column and Footing By Others

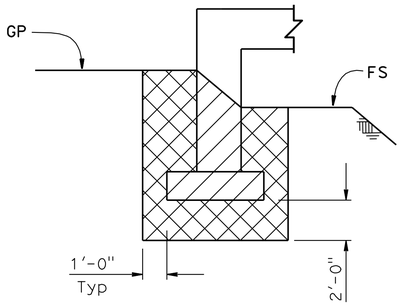
INDEX TO PLANS

STANDARD PLANS DATED MAY 2006

	A10A	ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
	A10B	ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
	A10C	SYMBOLS (SHEET 1 OF 2)
	A10D	SYMBOLS (SHEET 2 OF 2)
	A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL BRIDGE
	B0-1	BRIDGE DETAILS
	B0-5	BRIDGE DETAILS
RSP	B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
	B11-55	CONCRETE BARRIER TYPE 732
	B14-3	COMMUNICATION AND SPRINKLER CONTROL CONDUITS

STANDARD PLAN SHEET NO.

DETAIL NO.

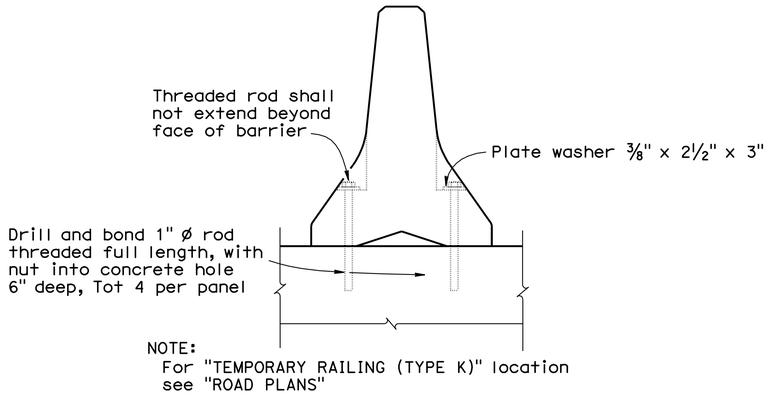


Structural Backfill

Structural Excavation

LIMITS OF ABUTMENT EXCAVATION & BACKFILL

No Scale



NOTE:
For "TEMPORARY RAILING (TYPE K)" location see "ROAD PLANS"

TYPE K RAILING ATTACHMENT

No Scale

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN	BY Art V Herrera	CHECKED Adriana Pimienta	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY Jay Reid	CHECKED Adriana Pimienta	
QUANTITIES	BY Quang Nguyen	CHECKED Jose M Aquino III	

DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN
DESIGN BRANCH 3

BRIDGE NO. 06-0127L
POST MILE 15.6

WESTBOUND CONNECTOR UC (WIDEN)
INDEX TO PLANS

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 2-26-09 | 3-10-09 | 4-2-09 | 7-1-09 | 7-13-09 | 7-16-09 | 9-30-09 | 10-21-09 | 1-11-10

SHEET 3 OF 23

FILE => 06-0127I-b-index.dgn

USERNAME => Trierord DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:26

CURVE DATA

No.	R	Δ	T	L
Ⓐ	738.19	45°38'22"	310.61	588.01

Note:
All dia. of trees is on construction class

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	146	165

Jose M. Aquino S III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

Jose M Aquino III
No. 58386
Exp. 12-31-10
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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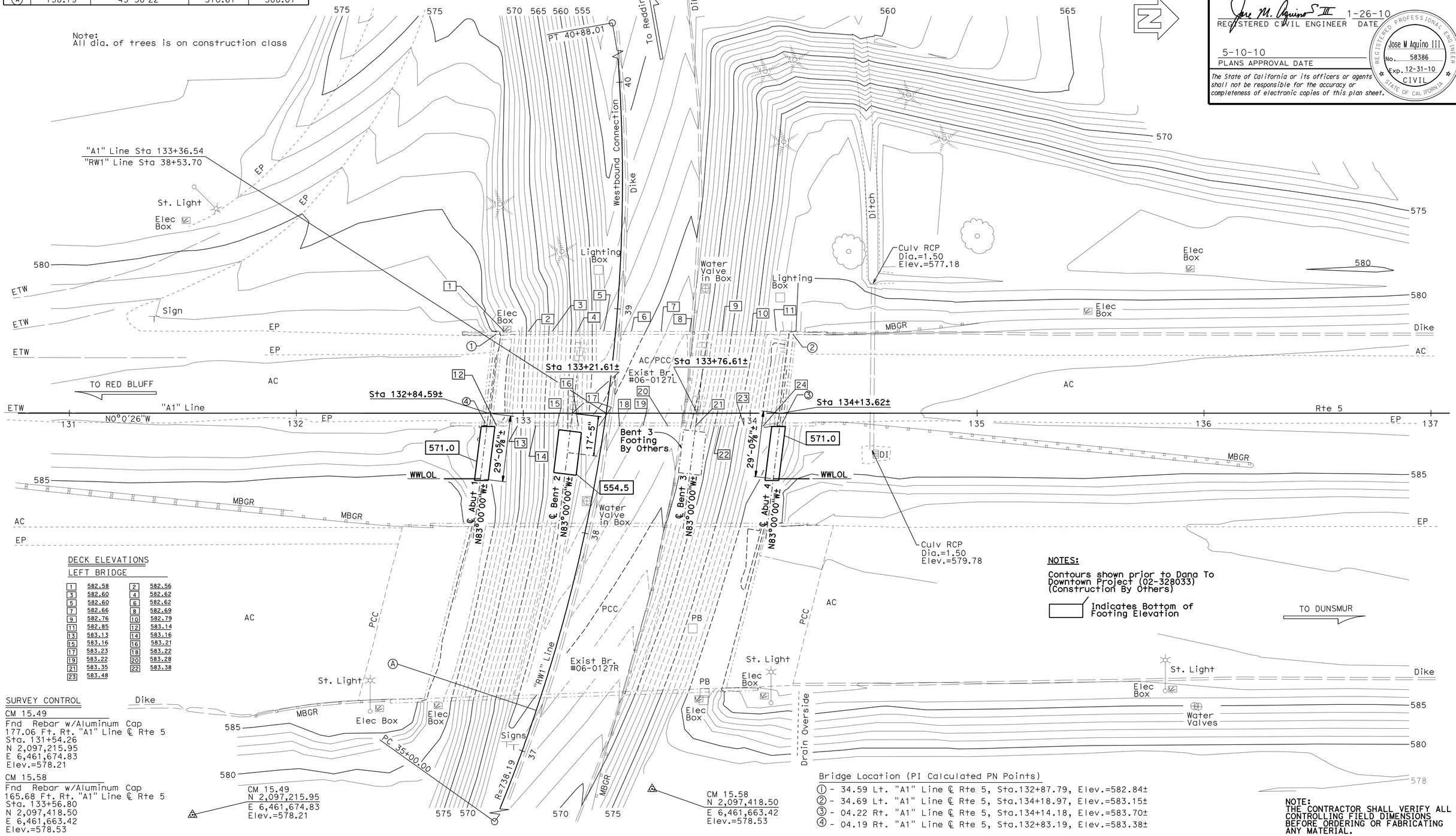

DECK ELEVATIONS
LEFT BRIDGE

1	582.58	2	582.56
3	582.60	4	582.62
5	582.60	6	582.62
7	582.66	8	582.69
9	582.76	10	582.79
11	582.85	12	583.14
13	583.13	14	583.16
15	583.16	16	583.21
17	583.23	18	583.22
19	583.22	20	583.28
21	583.35	22	583.38
23	583.48		

SURVEY CONTROL

CM 15.49
Fnd Rebar w/Aluminum Cap
177.06 Ft. Rt. "A1" Line ℄ Rte 5
Sta. 131+54.26
N 2,097,215.95
E 6,461,674.83
Elev.=578.21

CM 15.58
Fnd Rebar w/Aluminum Cap
165.68 Ft. Rt. "A1" Line ℄ Rte 5
Sta. 133+56.80
N 2,097,418.50
E 6,461,663.42
Elev.=578.53

CM 15.49
N 2,097,215.95
E 6,461,674.83
Elev.=578.21

CM 15.58
N 2,097,418.50
E 6,461,663.42
Elev.=578.53

NOTES:

Contours shown prior to Dana To Downtown Project (02-328033) (Construction By Others)

Indicates Bottom of Footing Elevation

Bridge Location (PI Calculated PN Points)
① - 34.59 Lt. "A1" Line ℄ Rte 5, Sta.132+87.79, Elev.=582.84±
② - 34.69 Lt. "A1" Line ℄ Rte 5, Sta.134+18.97, Elev.=583.15±
③ - 04.22 Rt. "A1" Line ℄ Rte 5, Sta.134+14.18, Elev.=583.70±
④ - 04.19 Rt. "A1" Line ℄ Rte 5, Sta.132+83.19, Elev.=583.38±

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

PRELIMINARY INVESTIGATION SECTION					
SCALE	VERT.DATUM NAVD88	PHOTOGRAMMETRY AS OF: X			
1"=20'	HORZ.DATUM NAD83(92)1991.35	SURVEYED	BY Tom Gillett 05/2008	CHECKED	BY Lawrence Lew 05/2008
ALIGNMENT TIES Dist. Traverse Sheet		DRAFTED	BY S. Zheng 05/2008	CHECKED	BY T. Zolnikova 05/2008

	BY	CHECKED
DESIGN	Art V Herrera	Adriana Pimienta
DETAILS	Jay Reid	Adriana Pimienta
QUANTITIES	Quang Nguyen	Jose M Aquino III

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 3

CU 03247
EA 3C0001

BRIDGE NO. 06-0127L
POST MILE 15.6

WESTBOUND CONNECTOR UC (WIDEN)
FOUNDATION PLAN

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 2/2/09 | 2/3/09 | 3-10-09 | 7-1-09 | 7-9-09 | 7-13-09 | 9-30-09 | 10-21-09 | 1-11-10

SHEET 4 OF 23

STRUCTURES FOUNDATION PLAN SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

FILE => 06-0127l-e-fp.dgn

USERNAME => jtriverd DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:26

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	147	165

Jose M. Aquino III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

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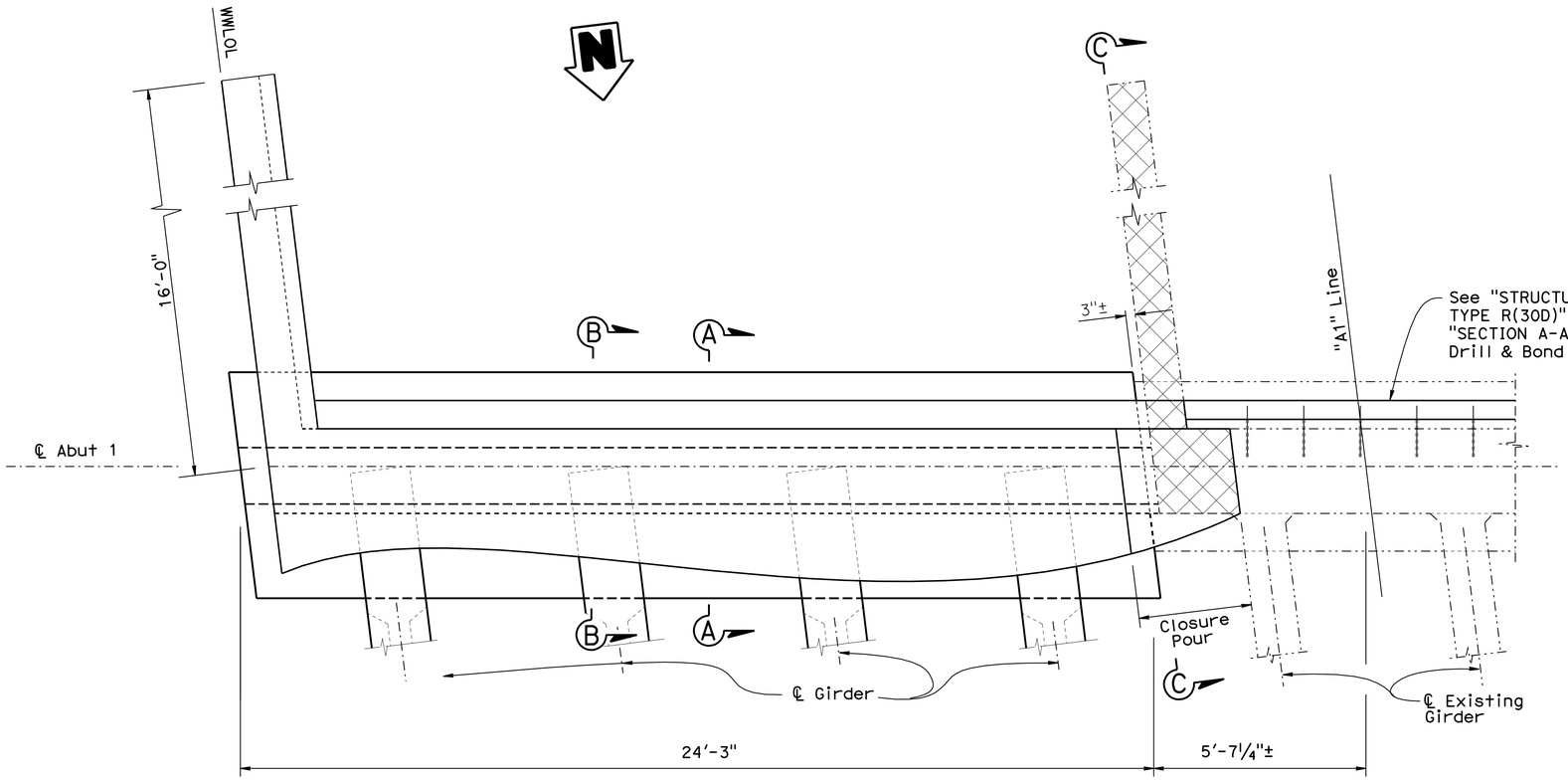
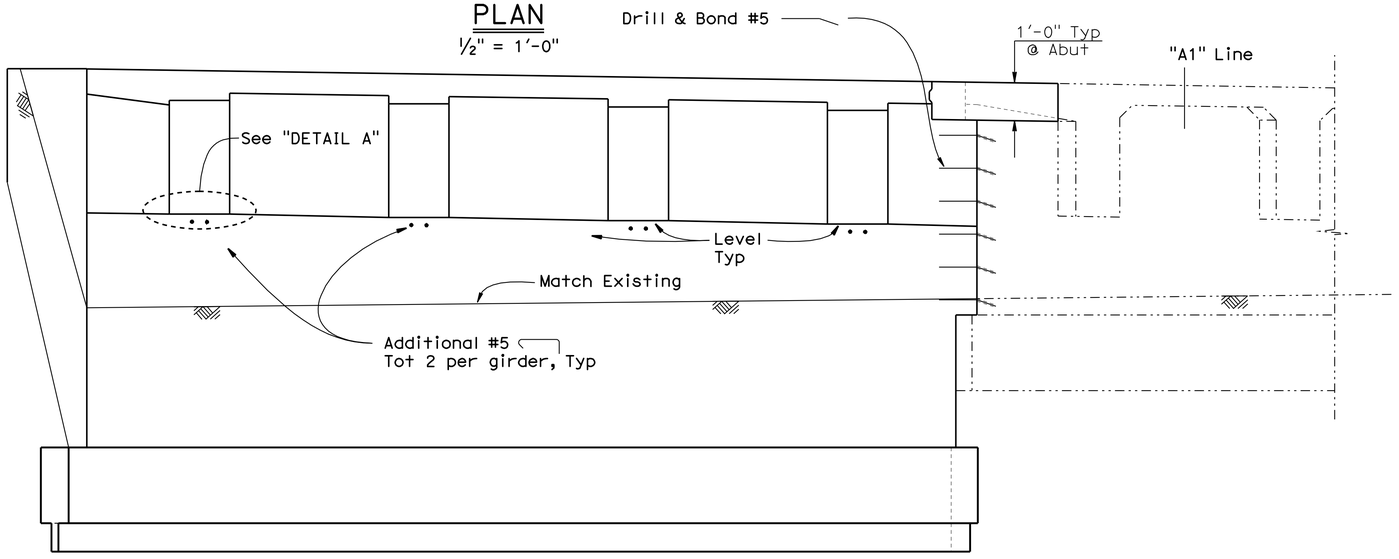
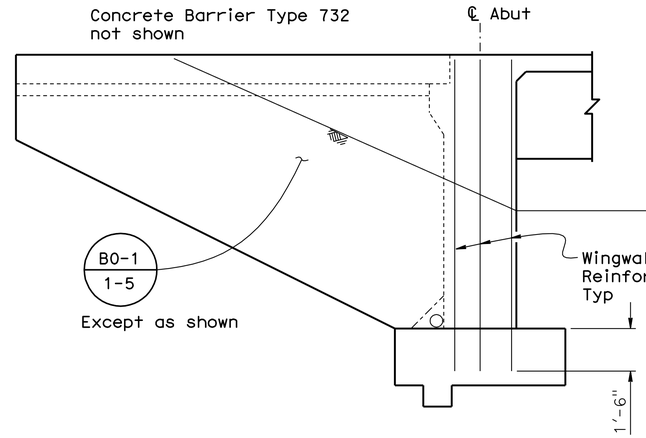


PLAN
½" = 1'-0"



ELEVATION
½" = 1'-0"



WINGWALL ELEVATION
⅜" = 1'-0"

NOTES:

Indicates Existing Concrete Removal

For "SECTION A-A", "SECTION B-B" and "DETAIL A", see "ABUTMENT DETAILS NO. 1" sheet

For "SECTION C-C", see "ABUTMENT DETAILS NO. 2" sheet

Abutment 1 shown
Abutment 4 similar

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

	BY	CHECKED
DESIGN	Art V Herrera	Adriana Pimenta
DETAILS	Jay Reid	Adriana Pimenta
QUANTITIES	Quang Nguyen	Jose M Aquino III

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 3

BRIDGE NO. 06-0127L
POST MILE 15.6

WESTBOUND CONNECTOR UC (WIDEN)
ABUTMENT LAYOUT

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
1-11-10		3-3-09	3-11-09	6-22-09	7-1-09	7-6-09	7-13-09	9-30-09	10-21-09	5	23

FILE => 06-0127l-f-abut1-lo.dgn

USERNAME => trlenard DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:26

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	148	165

Jose M. Aquino S III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

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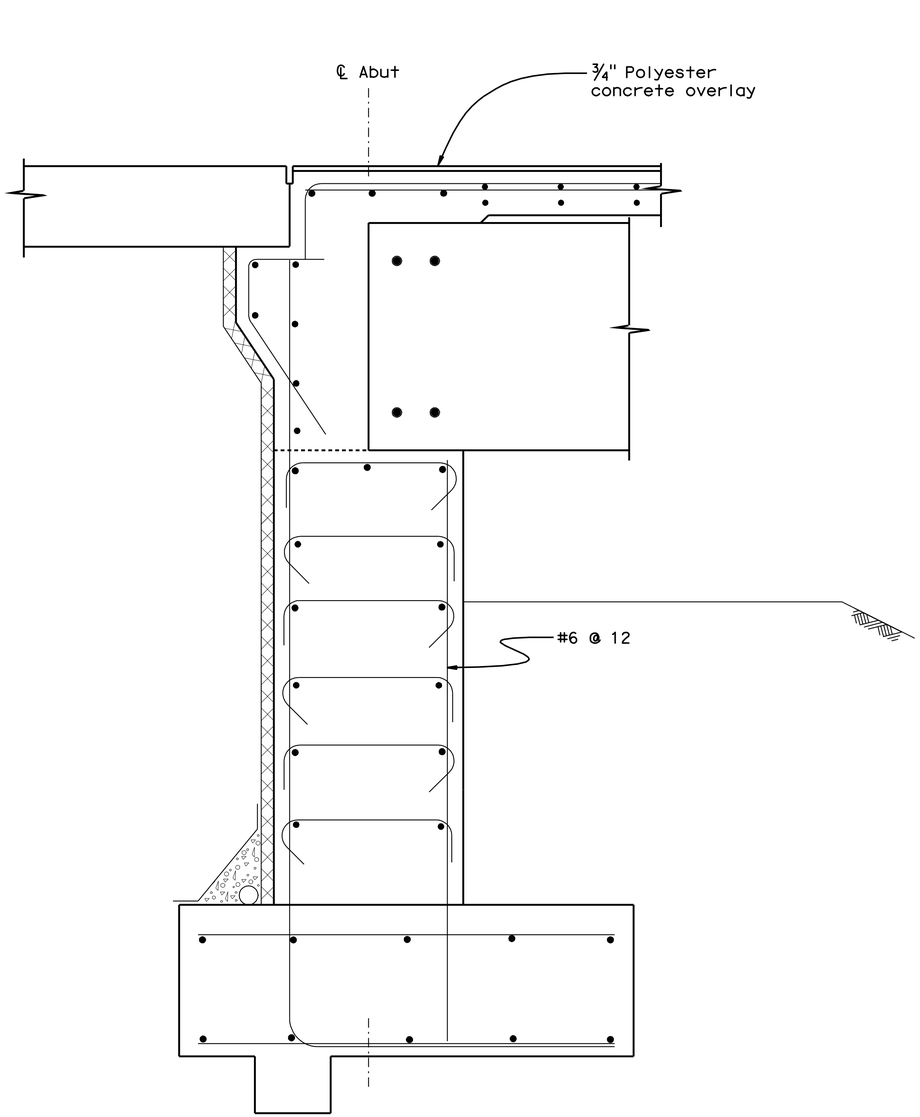
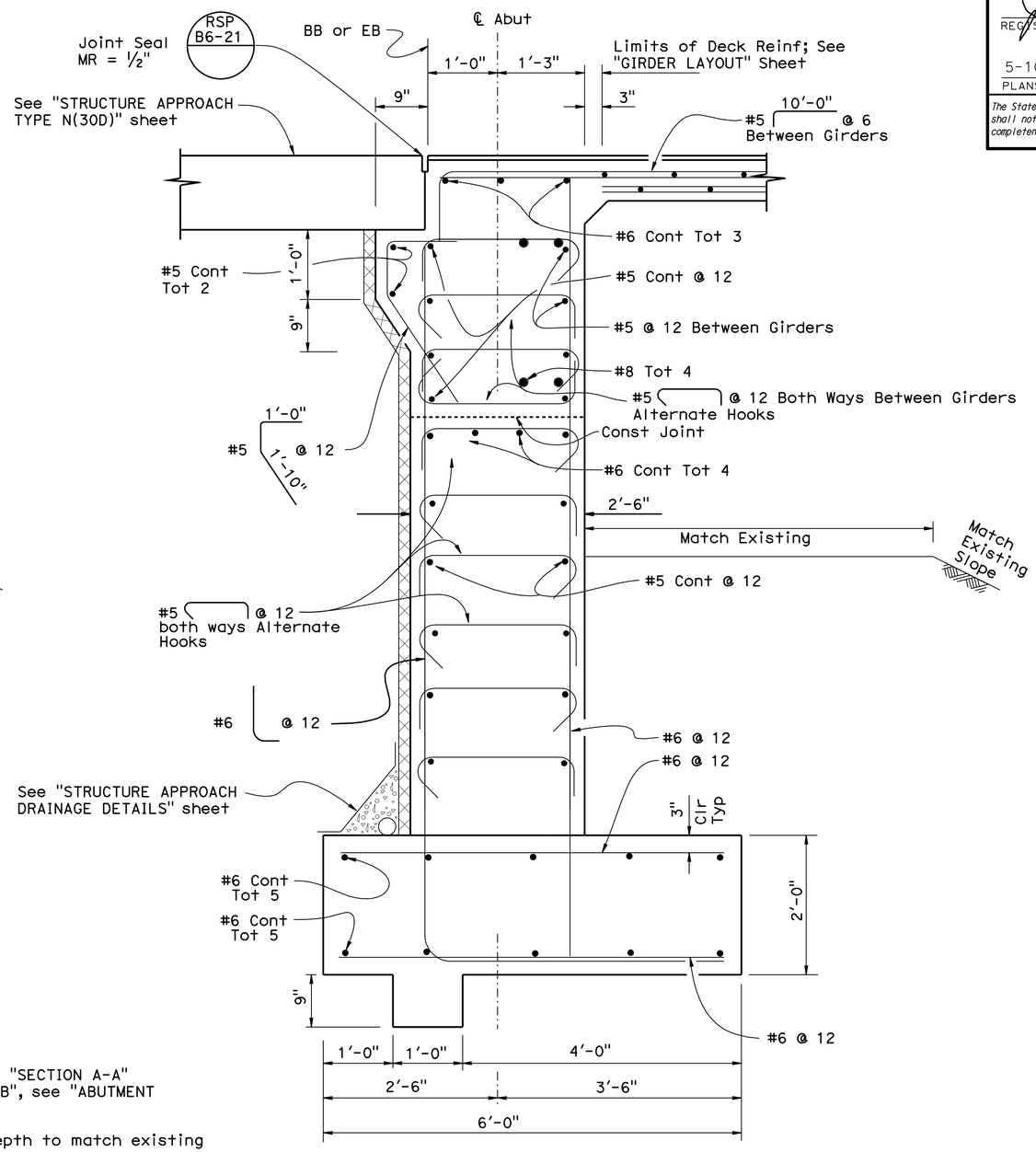


NOTE:

For details not shown see "SECTION A-A"

SECTION B-B
1" = 1'-0"



NOTE:

For location of "SECTION A-A" and "SECTION B-B", see "ABUTMENT LAYOUT" sheet

Paving notch depth to match existing

SECTION A-A
1" = 1'-0"

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

	BY	CHECKED
DESIGN	Art V Herrera	Adriana Pimienta
DETAILS	Jay Reid	Adriana Pimienta
QUANTITIES	Quang Nguyen	Jose M Aquino III

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 3

BRIDGE NO. 06-0127L
POST MILE 15.6

WESTBOUND CONNECTOR UC (WIDEN)
ABUTMENT DETAILS NO. 1

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES									SHEET	OF
1-29-09	2-26-09	3-11-09	4-2-09	7-1-09	7-13-09	9-30-09	10-21-09	1-11-10	6	23

FILE => 06-0127l-g-abut-01.dgn

USERNAME => trlenard DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:26

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	149	165

Jose M. Aquino S III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jose M Aquino III
No. 58386
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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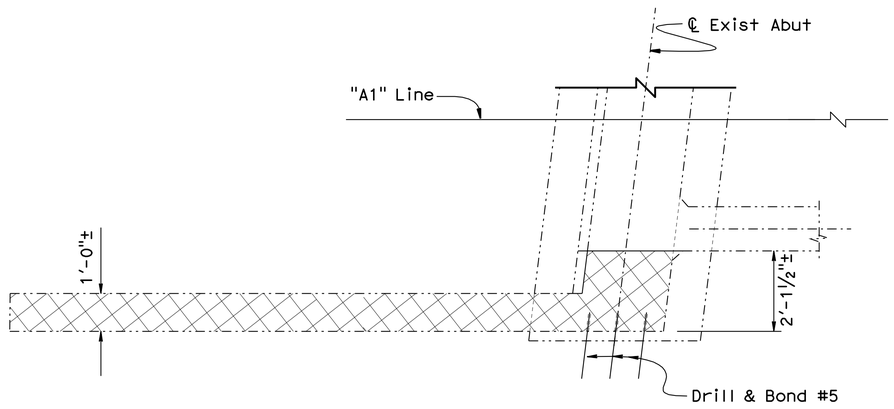
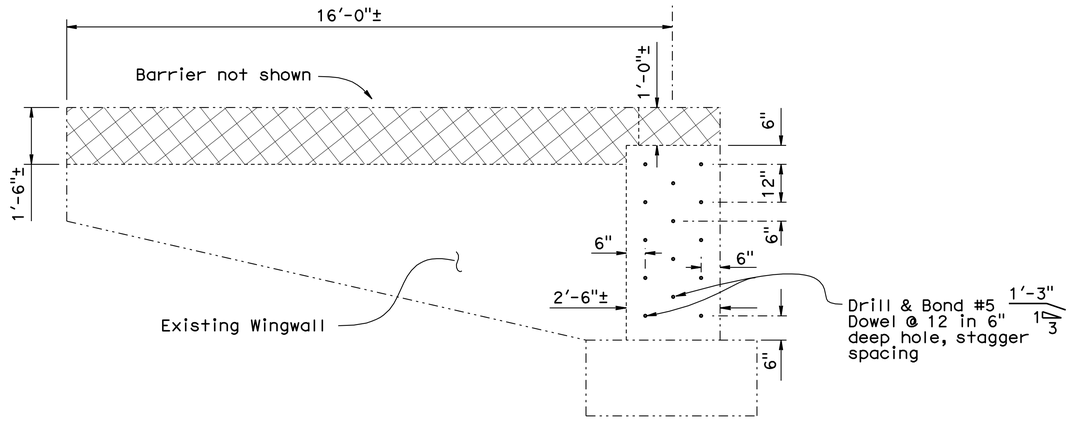


PART PLAN
½" = 1'



SECTION C-C
½" = 1'

NOTE:

Indicates concrete removal limits

For location of "SECTION C-C", see "ABUTMENT LAYOUT" sheet

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN	BY Art V Herrera	CHECKED Adriana Pimienta	
DETAILS	BY Jay Reid	CHECKED Adriana Pimienta	
QUANTITIES	BY Quang Nguyen	CHECKED Jose M Aquino III	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 3

BRIDGE NO. 06-0127L
POST MILE 15.6

WESTBOUND CONNECTOR UC (WIDEN)
ABUTMENT DETAILS NO. 2

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
12-15-08	1-29-09	2-26-09	7-1-09	7-13-09	9-30-09	10-21-09	1-11-10			7	23

FILE => 06-0127l-g-abut-02.dgn

USERNAME => ?rtrenord DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:26

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	150	165

Jose M. Aquino III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

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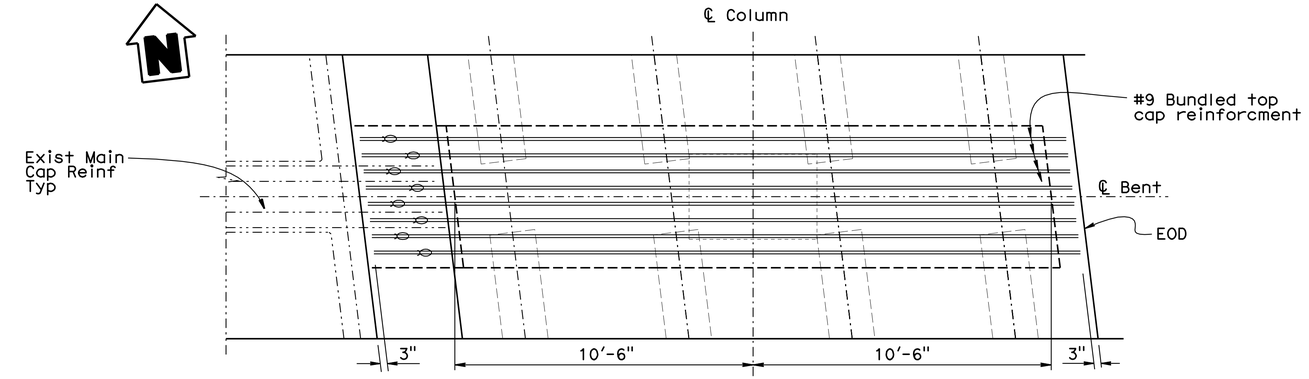
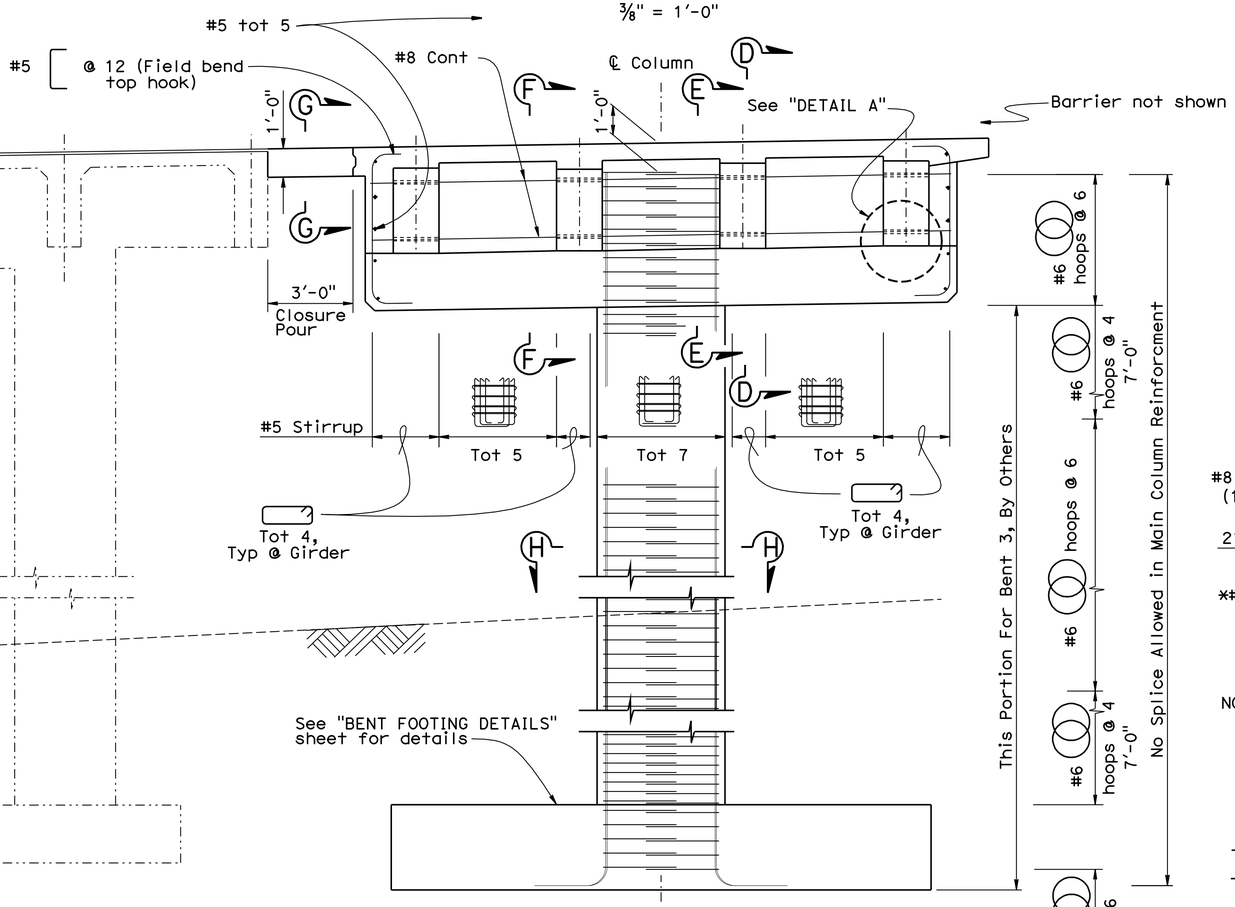
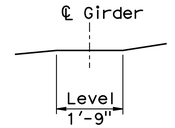


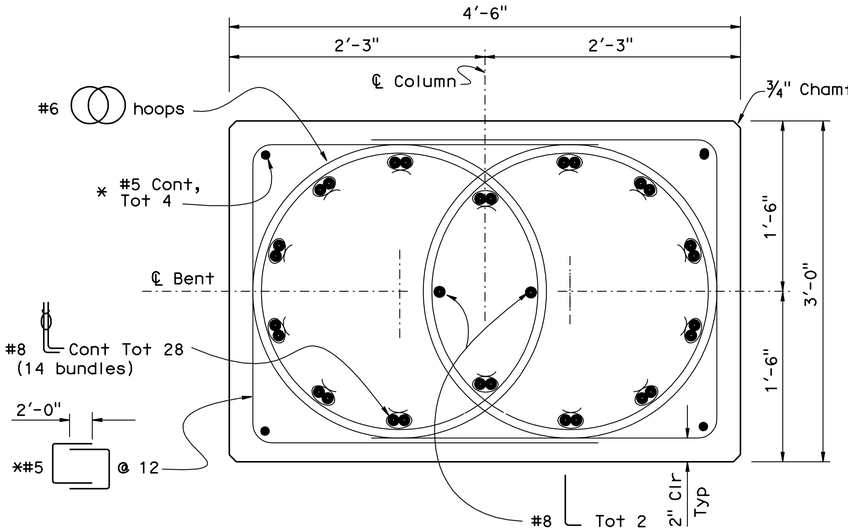
PLAN
3/8" = 1'-0"



ELEVATION
3/8" = 1'-0"



DETAIL A
No Scale



SECTION H-H
1½" = 1'-0"

NOTES:

All Hoops are Butt Spliced Cont

Bent 2 Shown; Bent 3 similar except footing and column by others

Indicates bundled bars

Indicates Existing Structure

Indicates New Structure

For "SECTION D-D", "SECTION E-E" and "SECTION F-F", see "BENT DETAILS NO. 2" sheet

* These bars do not extend into the cap nor the footing

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN	BY Art V Herrera	CHECKED Adriana Pimienta	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY Jay Reid	CHECKED Adriana Pimienta	
QUANTITIES	BY Quang Nguyen	CHECKED Jose M Aquino III	

DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN
DESIGN BRANCH 3

BRIDGE NO. 06-0127L
POST MILE 15.6

WESTBOUND CONNECTOR UC (WIDEN)
BENT DETAILS NO. 1

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 12-19-08 | 3-2-09 | 3-11-09 | 4-2-09 | 7-1-09 | 7-13-09 | 9-30-09 | 10-21-09 | 1-11-10

SHEET 8 OF 23

FILE => 06-0127l-h-bent-01.dgn

USERNAME => ttrenord DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:26

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	151	165

Jose M. Aquino S III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jose M Aquino III
No. 58386
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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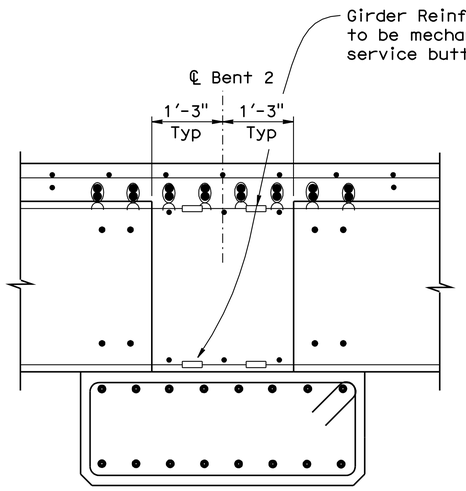
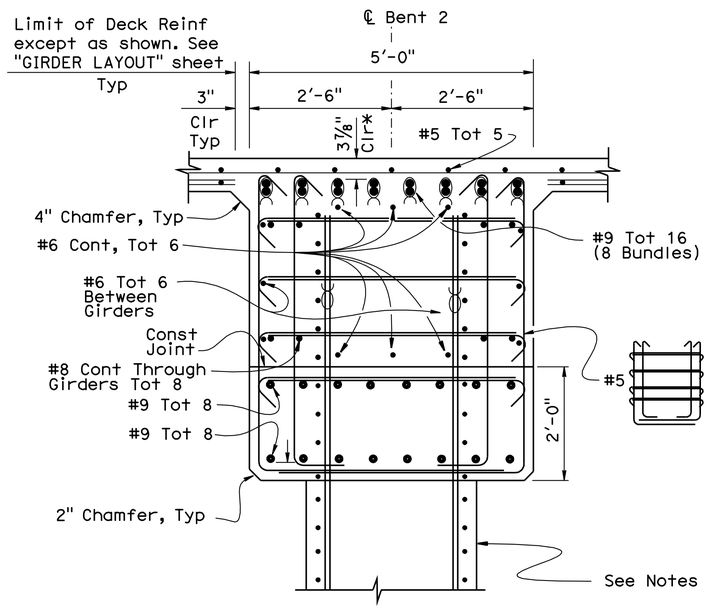
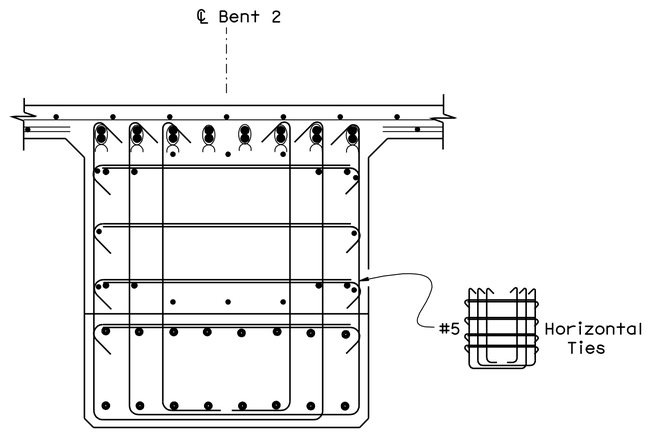


NOTE:
For details not shown, see "SECTION E-E"

SECTION D-D
¾" = 1'-0"

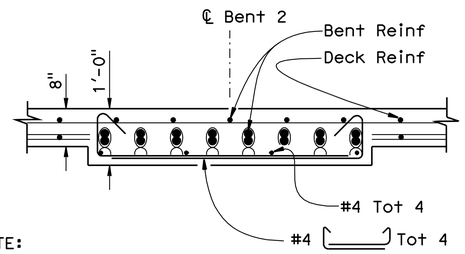


SECTION E-E
¾" = 1'-0"



NOTE:
For details not shown, see "SECTION E-E"

SECTION F-F
¾" = 1'-0"



NOTE:
For details not shown, see "SECTION E-E"

SECTION G-G
¾" = 1'-0"

NOTES:

Bent 2 Shown Bent 3 similar (except column and footing by others)

¾" polester concrete overlay not shown

⊂⊃ Indicates bundled bars

For location of "SECTION D-D", "SECTION E-E", "SECTION F-F" and "SECTION G-G"see "BENT DETAILS NO. 1" sheet

Horizontal stirrup ties to hook around vertical stirrup legs

✳ Clr to main cap reinforcement

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN	BY Art V Herrera	CHECKED Adriana Pimienta	
DETAILS	BY Jay Reid	CHECKED Adriana Pimienta	
QUANTITIES	BY Quang Nguyen	CHECKED Jose M Aquino III	

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 3

CU 03247
EA 3C0001

BRIDGE NO. 06-0127L
POST MILE 15.6

WESTBOUND CONNECTOR UC (WIDEN)
BENT DETAILS NO. 2

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
1-11-10		3-2-09	3-11-09	4-2-09	7-1-09	7-13-09	9-30-09	10-21-09	10-29-09	9	23

FILE => 06-0127l-h-bent-02.dgn

USERNAME => rtrenord DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:40

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	152	165

Jose M. Aquino III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jose M Aquino III
No. 58386
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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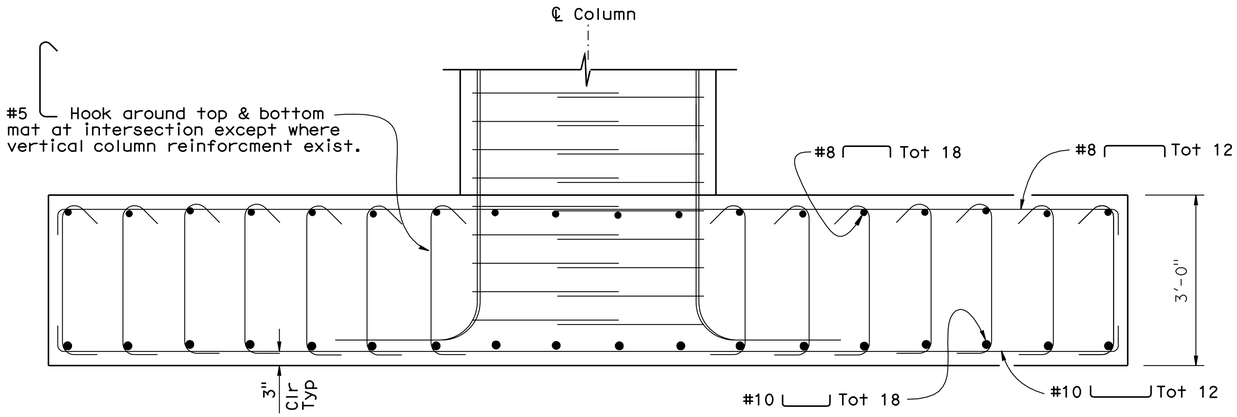
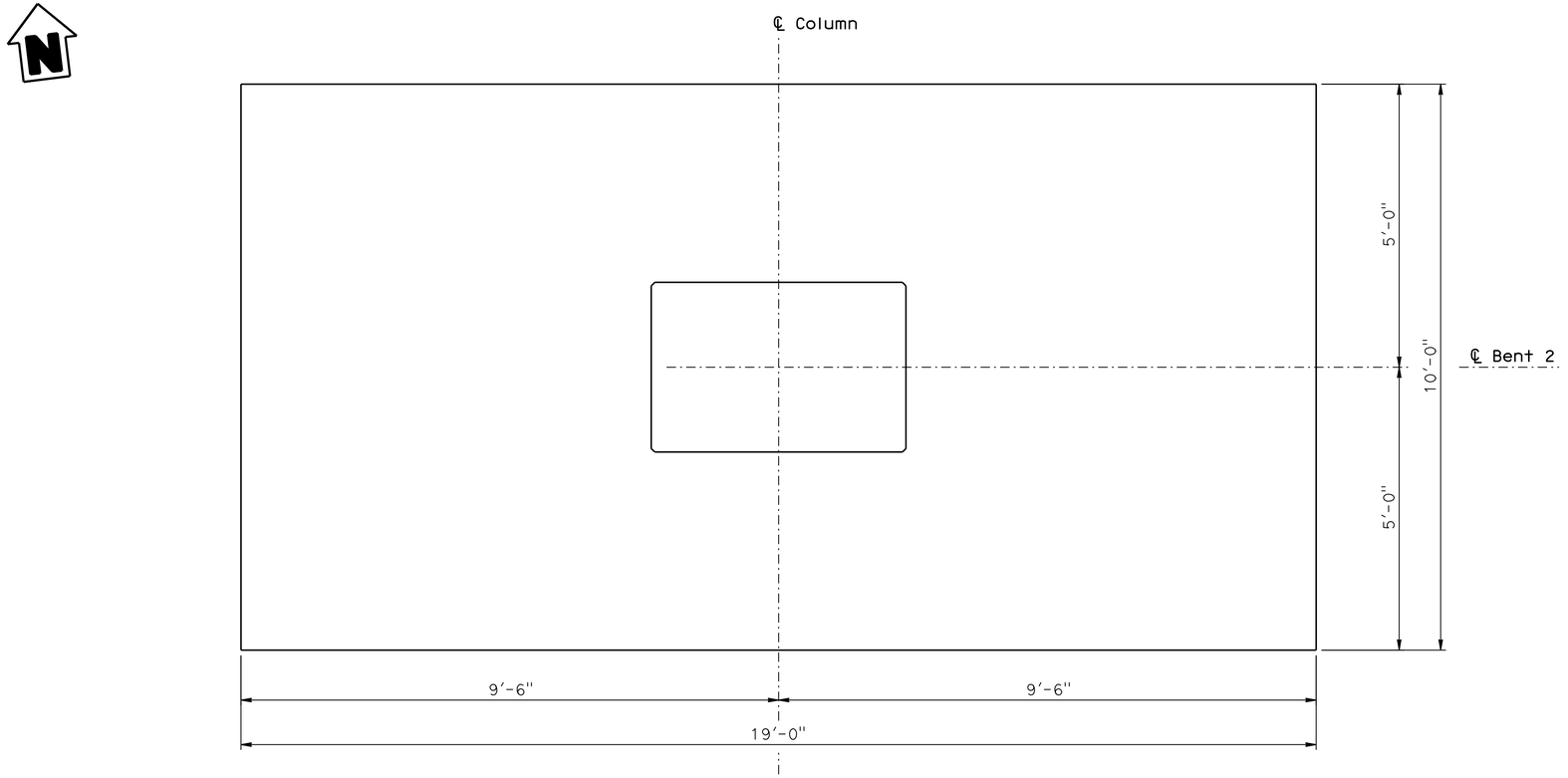


ELEVATION
3/4" = 1'-0"



FOOTING PLAN
3/4" = 1'-0"

NOTES:

Bent 3's column and footing by others

See "BENT DETAILS NO. 1" and "BENT DETAILS NO. 2" sheets for details not shown

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN	BY Art V Herrera	CHECKED Adriana Pimienta	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
DETAILS	BY Jay Reid	CHECKED Adriana Pimienta	
QUANTITIES	BY Quang Nguyen	CHECKED Jose M Aquino III	

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 3

BRIDGE NO. 06-0127L
POST MILE 15.6

WESTBOUND CONNECTOR UC (WIDEN)
BENT FOOTING DETAILS

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 7-1-09 | 7-8-09 | 7-13-09 | 9-30-09 | 10-21-09 | 1-11-10

SHEET 10 OF 23

FILE => 06-0127l-h-bent-ft-03.dgn

USERNAME => trleonard DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:40

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	153	165

Jose M. Aquino III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

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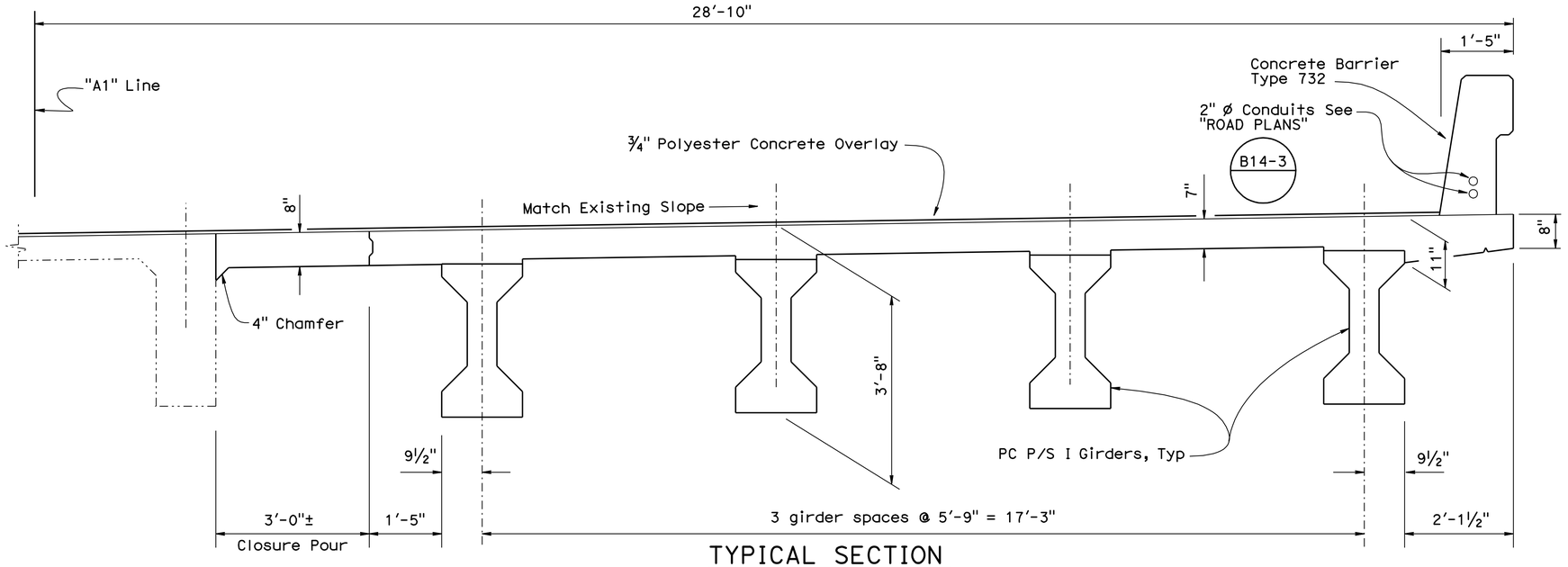
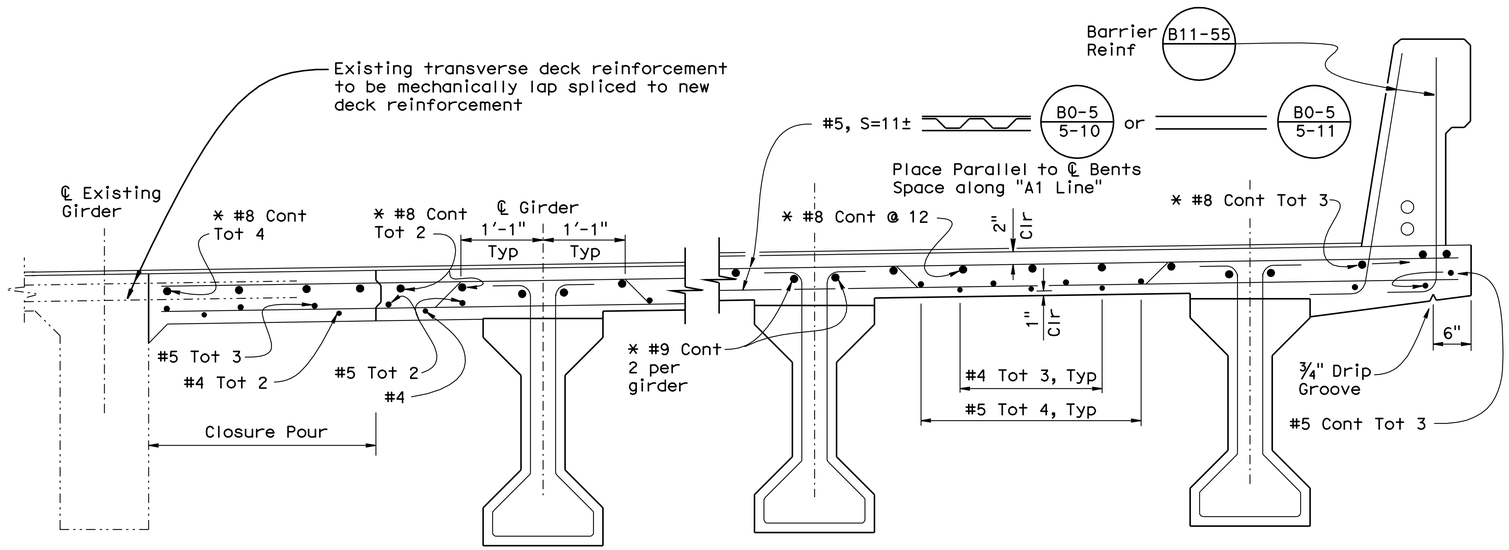
REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA



TYPICAL SECTION

¾" = 1'-0"



PART TYPICAL SECTION

1" = 1'-0"

B0-5 5-2

* Only service butt splice allowed see "DETAIL H" for no splice zones for these Bars, see "TYPICAL SECTION NO. 2" sheet

NOTES:

See "GIRDER LAYOUT" sheet, for stirrup spacing

See "PRECAST PRESTRESSED I GIRDER (LRFD)" sheet for PC P/S I Girder reinforcement

Closure Pour shall not be placed until 15 days after deck pour

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN	BY Art V Herrera	CHECKED Adriana Pimienta	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 3	BRIDGE NO. 06-0127L
DETAILS	BY Jay Reid	CHECKED Adriana Pimienta			POST MILE 15.6
QUANTITIES	BY Quang Nguyen	CHECKED Jose M Aquino III			

WESTBOUND CONNECTOR UC (WIDEN)

TYPICAL SECTION NO. 1

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										
1-6-09	3-2-09	4-2-09	7-1-09	9-30-09	10-21-09	10-29-09	10-30-09	1-11-10		

SHEET 11 OF 23

FILE => 06-0127I-i-typ01.dgn

USERNAME => trlenard DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:40

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	154	165

Jose M. Aquino III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

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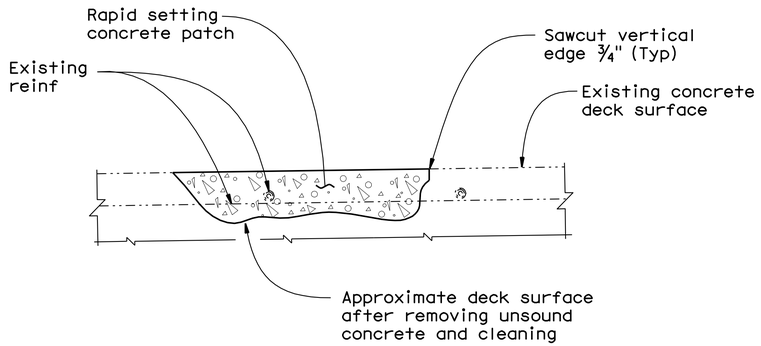
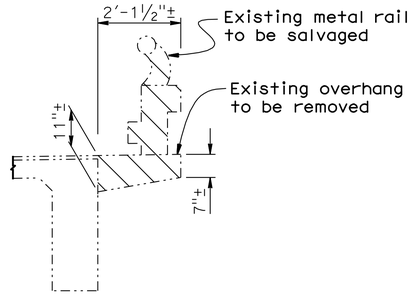


DECK REPAIR DETAIL

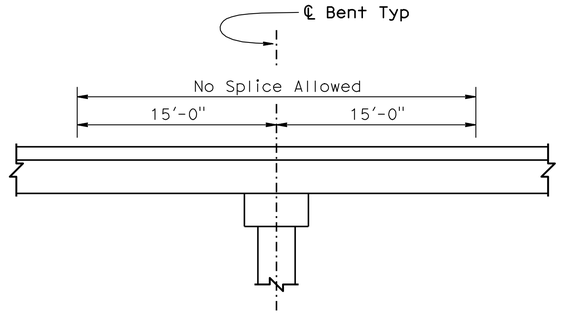
NO SCALE

NOTE: Reinforcement may be encountered during deck concrete removal.



CONCRETE REMOVAL

No Scale



DETAIL H

No Scale

DECK REPAIR TABLE	
REMOVE UNSOUND CONCRETE AND RAPID SETTING CONCRETE (PATCH)	
APPROXIMATE DECK AREA DAMAGED (PERCENT)	APPROXIMATE DEPTH (INCHES)
1	3

NOTES:

Indicates concrete removal

* Only service butt splice allowed see "DETAIL H" for no splice zones for these Bars

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

DESIGN	BY Art V Herrera	CHECKED Adriana Pimienta	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 3	BRIDGE NO. 06-0127L / POST MILE 15.6
DETAILS	BY Jay Reid	CHECKED Adriana Pimienta			
QUANTITIES	BY Quang Nguyen	CHECKED Jose M Aquino III			

WESTBOUND CONNECTOR UC (WIDEN)

TYPICAL SECTION NO. 2

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 10-30-09 | 1-11-10

SHEET 12 OF 23

FILE => 06-0127I-i-typ02.dgn

USERNAME => trlenard DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:40

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	155	165

Jose M. Aquino III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jose M Aquino III
No. 58386
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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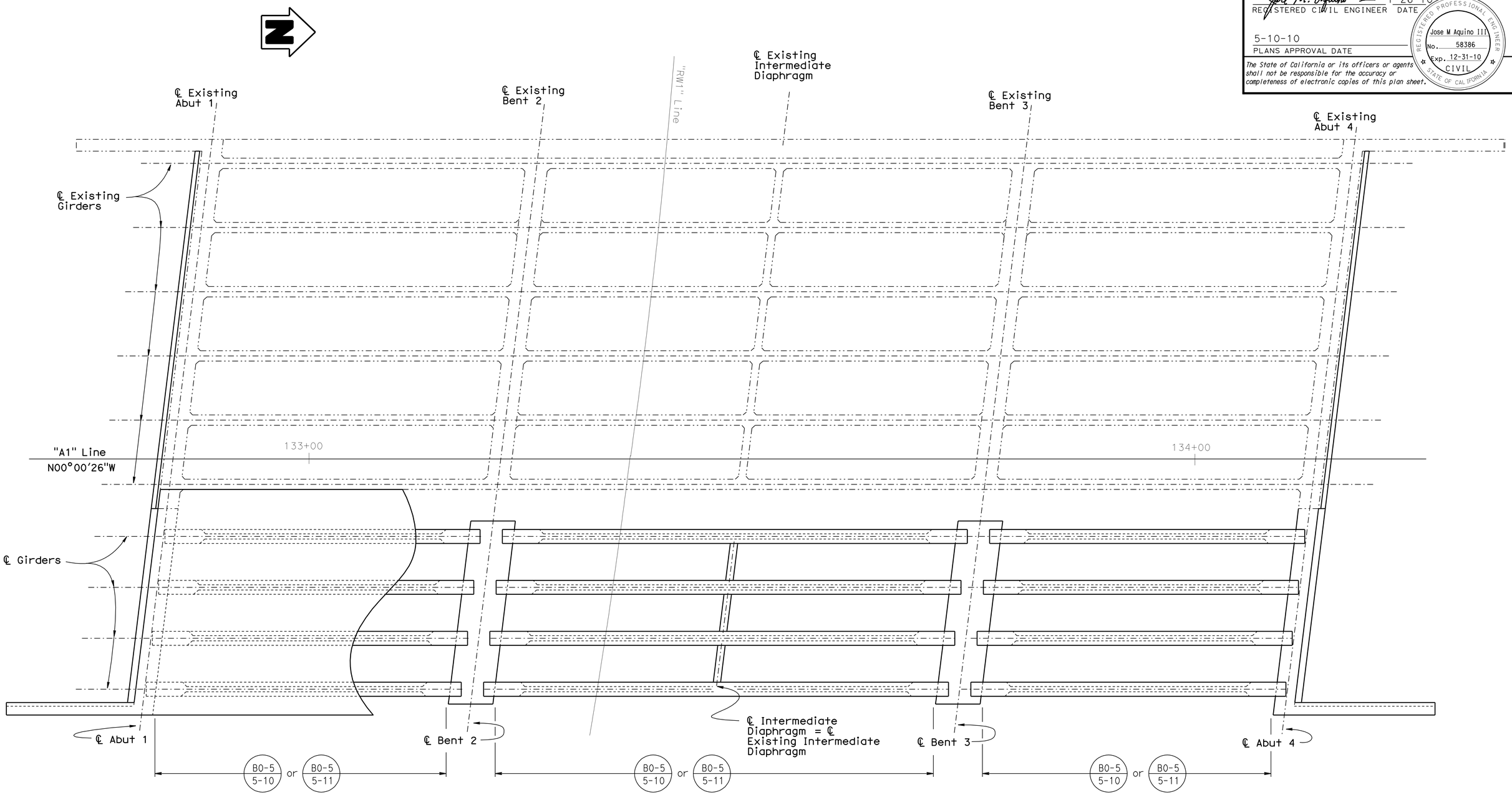

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

GIRDER LAYOUT

3/16" = 1'-0"

NOTE:

For "PRECAST PRESTRESSED I GIRDER (LRFD)" and "INTERMEDIATE DIAPHRAGM" details, see "PRECAST PRESTRESSED I GIRDER (LRFD)" sheet

	BY	CHECKED
DESIGN	Art V Herrera	Adriana Pimienta
DETAILS	Jay Reid	Adriana Pimienta
QUANTITIES	Quang Nguyen	Jose M Aquino III

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES
STRUCTURE DESIGN
DESIGN BRANCH 3

BRIDGE NO. 06-0127L
POST MILE 15.6

WESTBOUND CONNECTOR UC (WIDEN)
GIRDER LAYOUT

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
	1-28-09	3-2-09	3-3-09	3-11-09	4-2-09	7-1-09	9-30-09	10-21-09	1-11-10	13	23

FILE => 06-0127I-j-gl-01.dgn

USERNAME => rtrenord DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:40

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	156	165

Jose M. Aquino S III 1-26-10
REGISTERED CIVIL ENGINEER DATE

5-10-10
PLANS APPROVAL DATE

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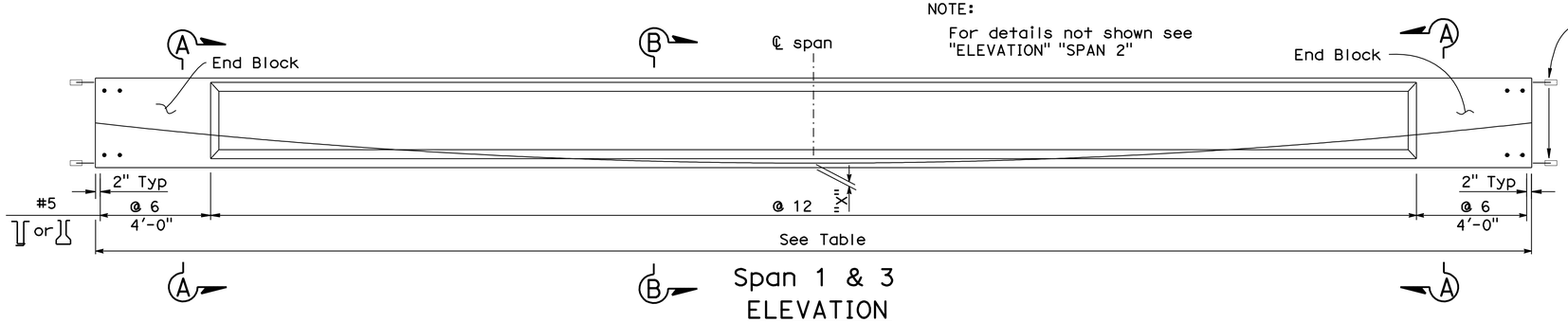
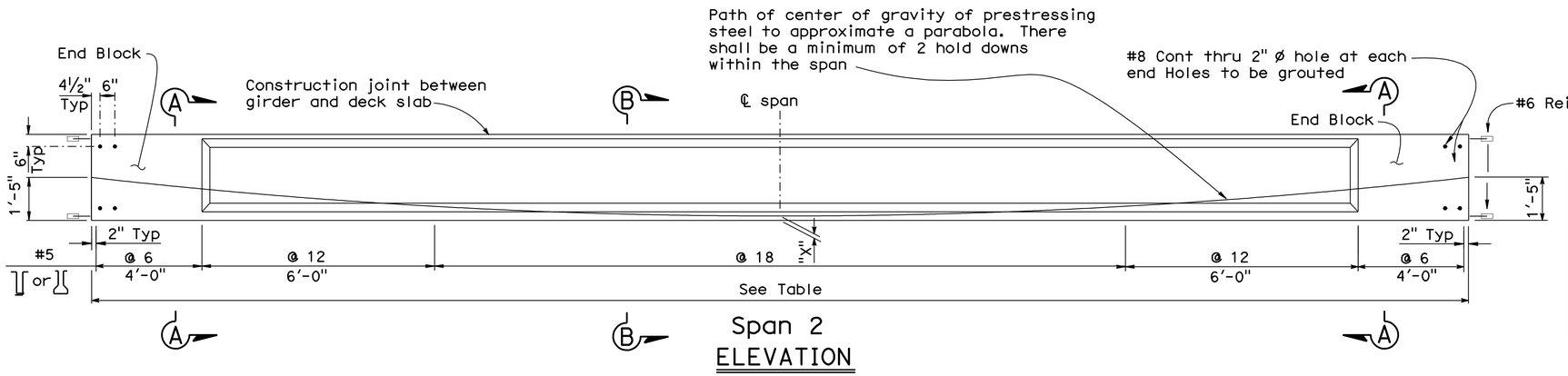
REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

NOTE:
For details not shown see "ELEVATION" "SPAN 2"



Span 1 & 3
ELEVATION



Span 2
ELEVATION

PRESTRESSING NOTES

JACKING FORCE (P): The manufacture jacking force required at point of control along the span. The jacking force does not include any fabrication specific losses.

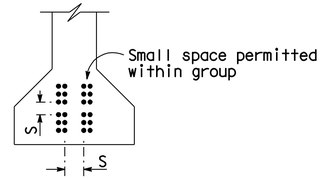
CONCRETE STRENGTH: f'ci (Ksi) is at time of initial stressing.
f'c (ksi) is at 28 days

DEFLECTION COMPONENTS: Informational - to be used in setting screed line elevations.

Screed line elevations for deck concrete will be determined by the Engineer.

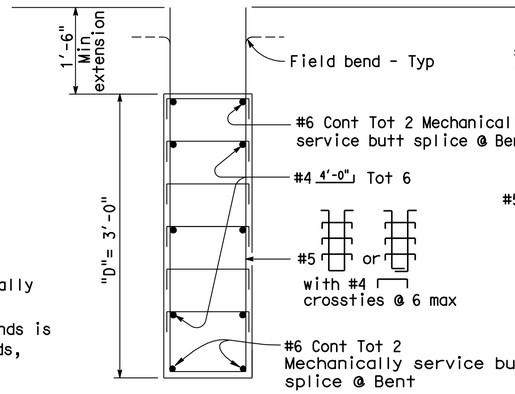
Contractor may interpolate "P" and "X" values between limits shown, as approved by the Engineer.

Girder location or designation and length	Jacking Force (P) in Kips "X"		Concrete Strength (Ksi) f'ci	Concrete Strength (Ksi) f'c	Deflection Components in Inches ① Deck DL	Deflection Components in Inches ② Rail DL
Span 1 & 3 L = 35'-9"	4"	420	3.5	4.0	3/16"	0
Span 2 L = 52'-6"	4"	400	3.5	4.0	3/4"	0

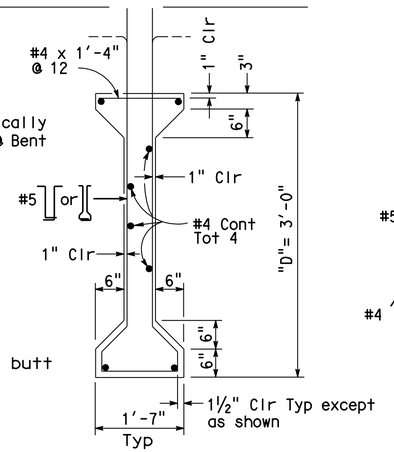


CLEARANCES FOR PRETENSIONED STRANDS

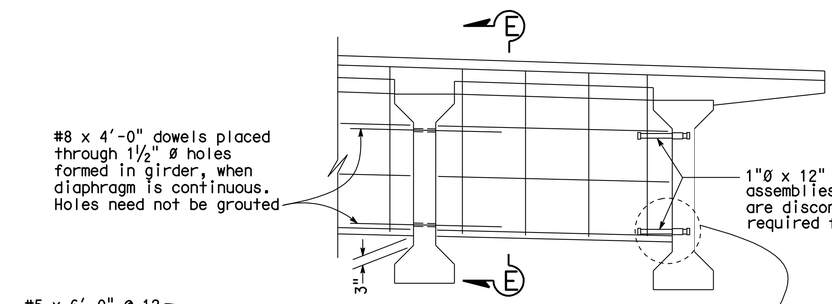
1. Strands may be bundled in groups consisting of 3 vertically 2 horizontally, and separated at the ends.
2. The min distance "S" between groups or individual strands is 1½" for ⅜" strands, 1¾" for 7/16" strands and ½" strands, 2" for 0.6" strands.
3. "S" is measured between centers of adjacent strands.
4. Approval of Engineer is required for deviation.



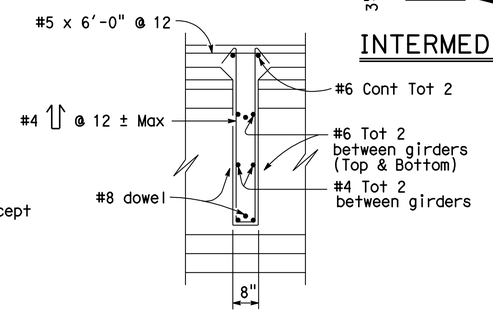
SECTION A-A



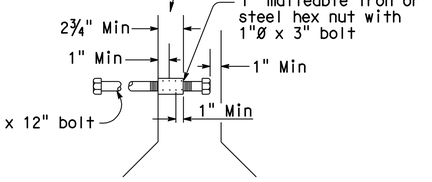
SECTION B-B



INTERMEDIATE DIAPHRAGM



SECTION E-E



INSERT ASSEMBLY

DESIGN	BY Art V Herrera	CHECKED Adriana Pimienta	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN DESIGN BRANCH 3	BRIDGE NO. 06-0127L	WESTBOUND CONNECTOR UC (WIDEN)
DETAILS	BY Jay Reid	CHECKED Adriana Pimienta			POST MILE 15.6	PRECAST PRESTRESSED I GIRDER (LRFD)
QUANTITIES	BY Quang Nguyen	CHECKED Jose M Aquino III				

STRUCTURES DESIGN DETAIL SHEET (ENGLISH) (REV. 10/25/05)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

FILE => 06-0127I-I-pc-ps-i.dgn

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES: 1-26-09 | 1-28-09 | 3-2-09 | 4-2-09 | 7-1-09 | 7-6-09 | 7-30-09 | 9-30-09 | 10-21-09 | 1-11-10

SHEET 14 OF 23

USERNAME => ttrenord DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:40

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	157	165

Jose M. Aquino III 1-26-10
REGISTERED ENGINEER - CIVIL

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

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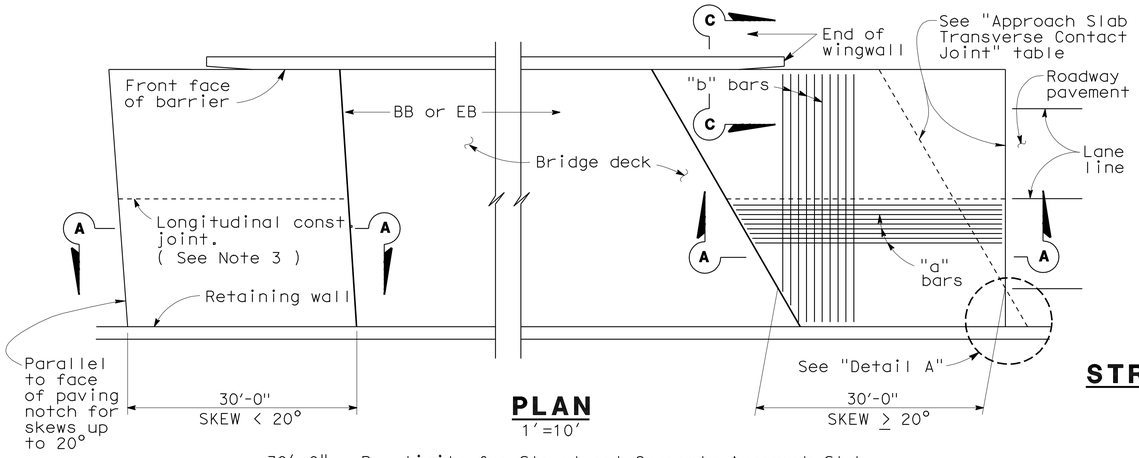
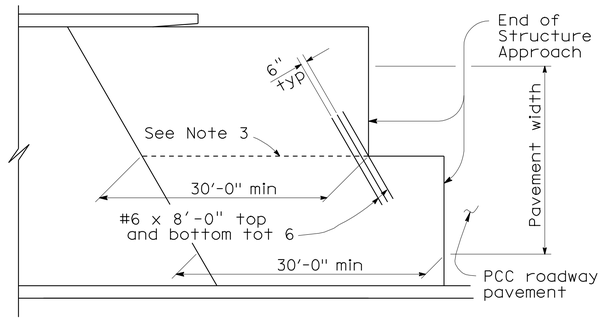
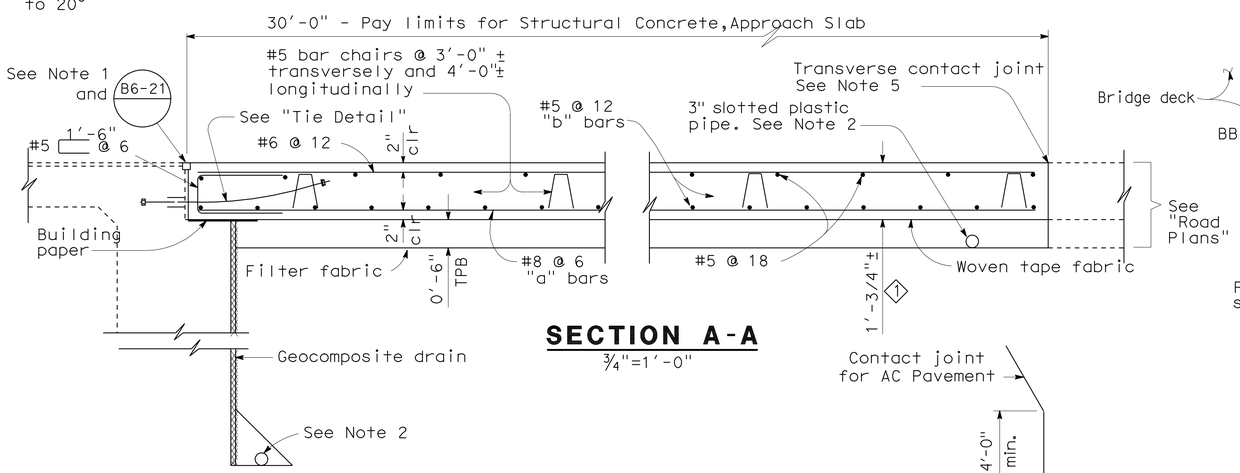


PLAN
1"=10'



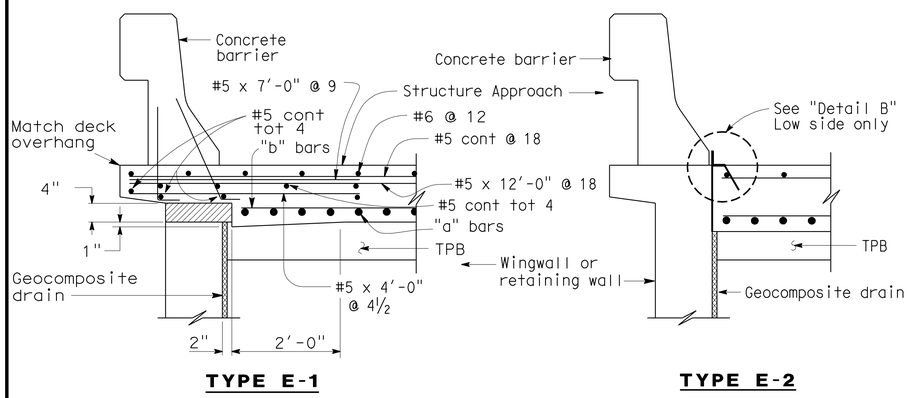
STRUCTURE APPROACH - END STAGGER DETAIL
No Scale

APPROACH SLAB TRANSVERSE CONTACT JOINT		
APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 20°	Parallel to face of paving notch	Parallel to face of paving notch
20°- 45°	Parallel to face of P N use (Detail A)	Stagger lines 24' to 36' apart
> 45°	Parallel to face of P N use (Detail A)	Stagger at each lane line



SECTION A-A
¾"=1'-0"

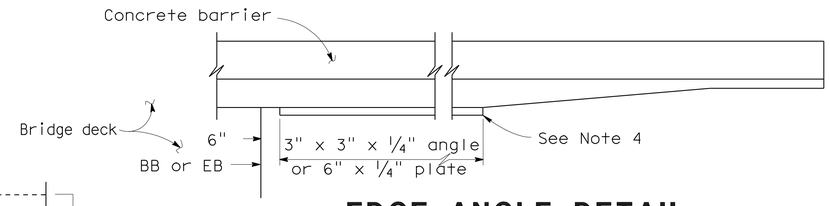
DETAIL A
No Scale



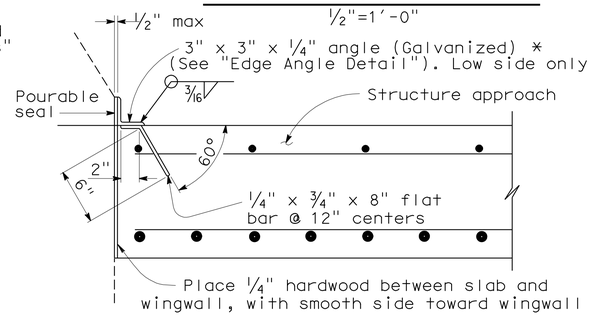
TYPE E-1 TYPE E-2

SECTION C-C
¾"=1'-0"

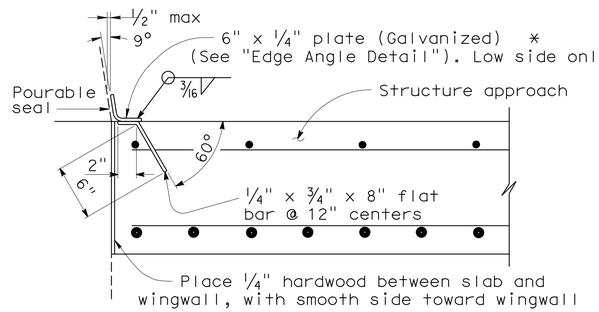
(Type E-1 to be used, unless otherwise shown on plans)



EDGE ANGLE DETAIL
½"=1'-0"

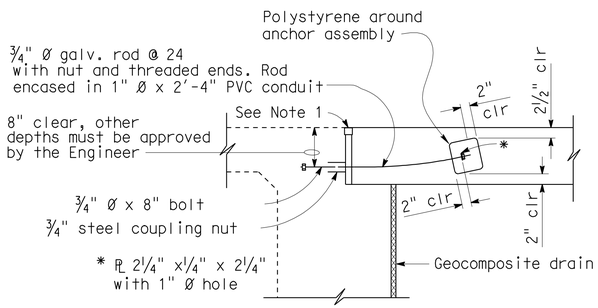


*(TO BE USED WITH TYPE 25 OR TYPE 27 CONCRETE BARRIER)

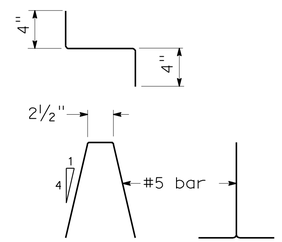


*(TO BE USED WITH TYPE 732 OR TYPE 736 CONCRETE BARRIER)

DETAIL B
1½"=1'-0"



TIE DETAIL
¾"=1'-0"



BAR CHAIR DETAIL
1½"=1'-0"

NOTES:

1. For details not noted or shown, see Structure Plans.
2. For drainage details, see "Structure Approach Drainage Details" sheet.
3. Longitudinal construction joints, when permitted by the Engineer, shall be located on lane lines.
4. End angle or plate at beginning of barrier transition, end of wingwall or end of structure approach, as applicable.
5. For transverse contact joint with new PCC paving, refer to Standard Plan P10.
6. At the contractor's option, approach slab transverse reinforcement may be placed parallel to paving notch. Spacing of transverse reinforcement is measured along ℄ roadway.

▨ Polystyrene to be removed.

SPECIAL DETAIL

REVISED STANDARD DRAWING

FILE NO. xs3-180e

APPROVED BY M. Ha — RESPONSIBLE TECHNICAL SPECIALIST
APPROVAL DATE 8-12-08

RELEASED BY O. Alcantara — RESPONSIBLE OFFICE CHIEF
RELEASE DATE 8-12-08

1 Dimension revised

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES 3

BRIDGE NO. 06-0127L
POST MILE 15.6

WESTBOUND CONNECTOR UC (WIDEN)
STRUCTURE APPROACH TYPE N(30D)

DS OSD 2147A (ENGLISH STANDARD DRAWING "XS" BORDER REV. 01/11/08)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 1-28-09 | 9-30-09 | 10-21-09

SHEET 15 OF 23

USERNAME => trienard

06-0127l-t-san30d.dgn

DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:40

DIST.	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	158	165

Jose M. Aquino III 1-26-10
REGISTERED ENGINEER - CIVIL

5-10-10
PLANS APPROVAL DATE

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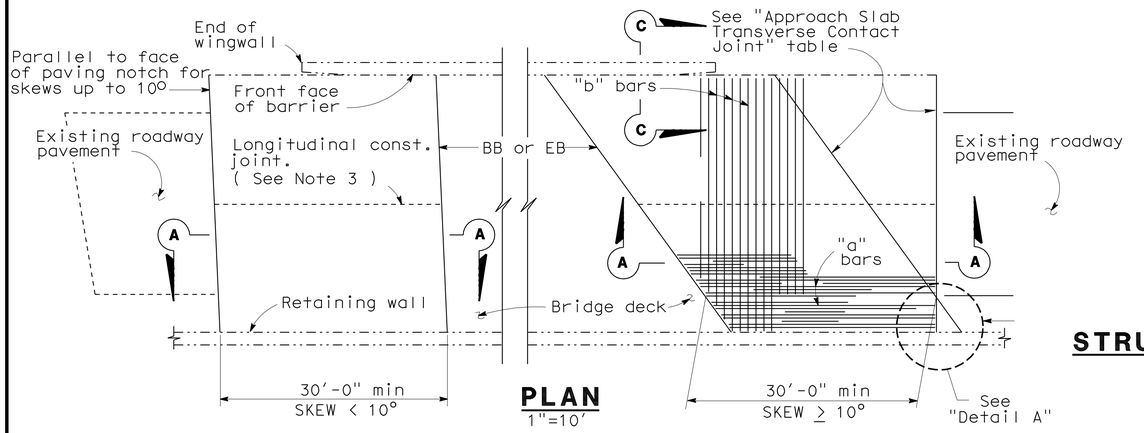
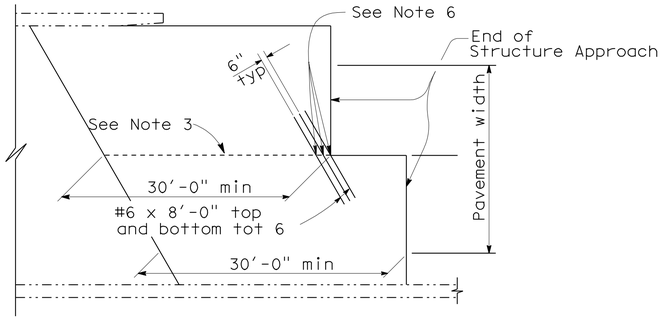
REGISTERED PROFESSIONAL ENGINEER — Jose M Aquino III — No. 58386 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

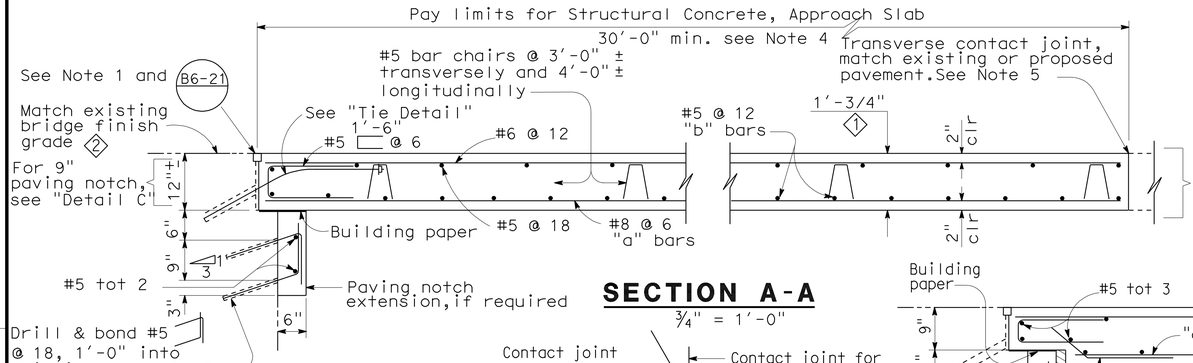


PLAN
1"=10'

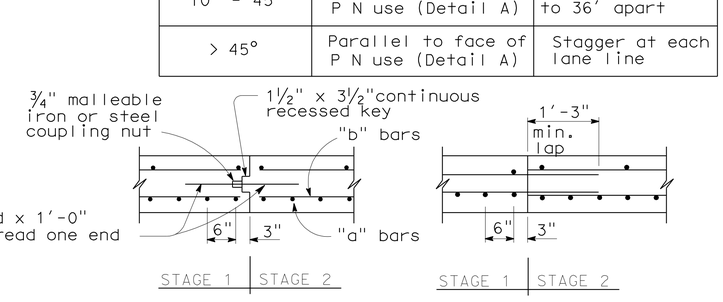


STRUCTURE APPROACH - END STAGGER DETAIL
No Scale

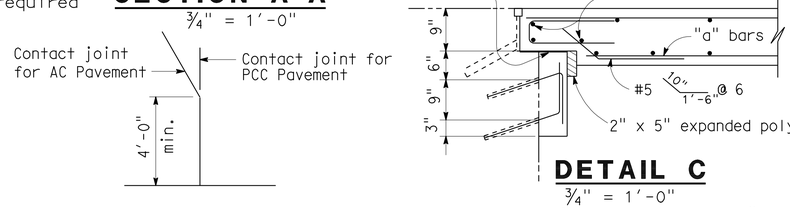
APPROACH SLAB TRANSVERSE CONTACT JOINT		
APPROACH SKEW	WITH AC ROADWAY PAVEMENT	WITH PCC ROADWAY PAVEMENT
< 10°	Parallel to face of paving notch	Parallel to face of paving notch
10° - 45°	Parallel to face of P N use (Detail A)	Stagger lines 24' to 36' apart
> 45°	Parallel to face of P N use (Detail A)	Stagger at each lane line



SECTION A-A
¾" = 1'-0"



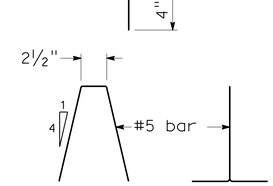
SECTION C-C
¾" = 1'-0"



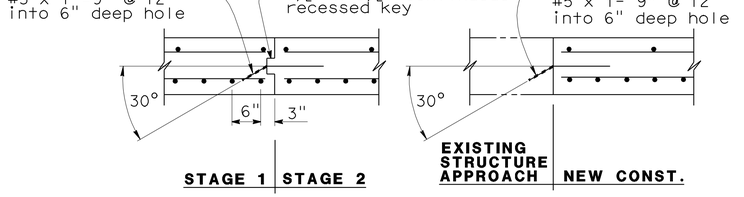
DETAIL A
No Scale

DETAIL C
¾" = 1'-0"

NOTE: For details not shown,see "Section A-A".



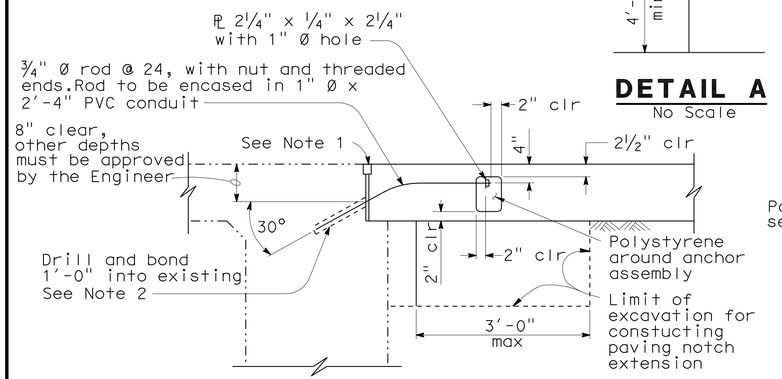
BAR CHAIR DETAIL
1½" = 1'-0"



LONGITUDINAL CONSTRUCTION JOINT ALTERNATIVES
¾" = 1'-0"

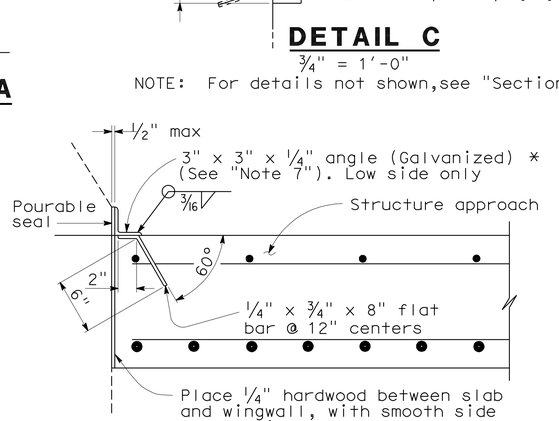
NOTES:

1. For details not shown or noted,see Structure Plans. Adjust bar reinforcement to clear a sawcut for sealed joint,when required.
2. Space to avoid existing prestress anchorages and main reinforcement.
3. Longitudinal construction joints,when permitted by the Engineer,shall be located on lane lines.
4. Transverse contact joint shall be a minimum of 5'-0" from an existing or constructed weakened plane joint.
5. For transverse contact joint with new PCC paving. refer to Standard Plan P10.
6. Couplers are required for stage construction.
7. End angle or plate at beginning of barrier transition, end of wingwall or end of structure approach as applicable.

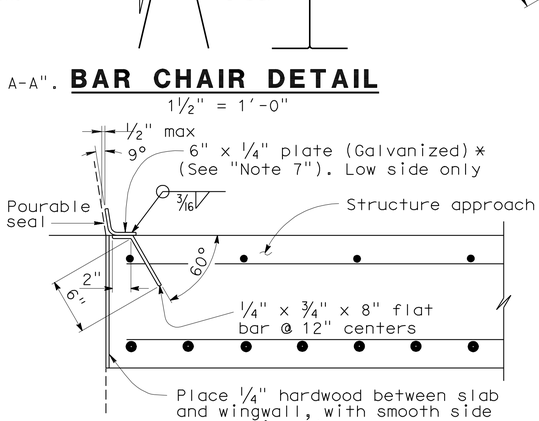


TIE DETAIL
¾" = 1'-0"

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



*(TO BE USED WITH TYPE 25 OR TYPE 27 CONCRETE BARRIER)



*(TO BE USED WITH TYPE 732 OR TYPE 736 CONCRETE BARRIER)

DETAIL B
1½" = 1'-0"

SPECIAL DETAIL

REVISED STANDARD DRAWING					
RELEASE DATE 3/14/05	DESIGN	BY M.TRAFFALIS	CHECKED E.THORKILDSEN	RELEASED BY	
FILE NO. xs3-140e	DETAILS	BY R.YEE	CHECKED E.THORKILDSEN		
	SUBMITTED	BY M.HA	DRAWING DATE 8/92	OFFICE CHIEF	

1 Dimension revised
2 Note revised

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES 3

BRIDGE NO.	WESTBOUND CONNECTOR UC (WIDEN)
06-0127L	
MILE POST 15.6	STRUCTURE APPROACH TYPE R(30D)

DS OSD 2147A (ENGLISH) (REV. X/XX/XX)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY): 1-28-09 | 9-30-09 | 10-21-09

SHEET 16 OF 23

USERNAME => trienard

06-0127l-u-sar30d.dgn

DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:40

DIST.	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	159	165

Jose M. Aquino III 1-26-10
REGISTERED ENGINEER - CIVIL

5-10-10
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
Jose M Aquino III
No. 58386
Exp. 12-31-10
CIVIL
STATE OF CALIFORNIA

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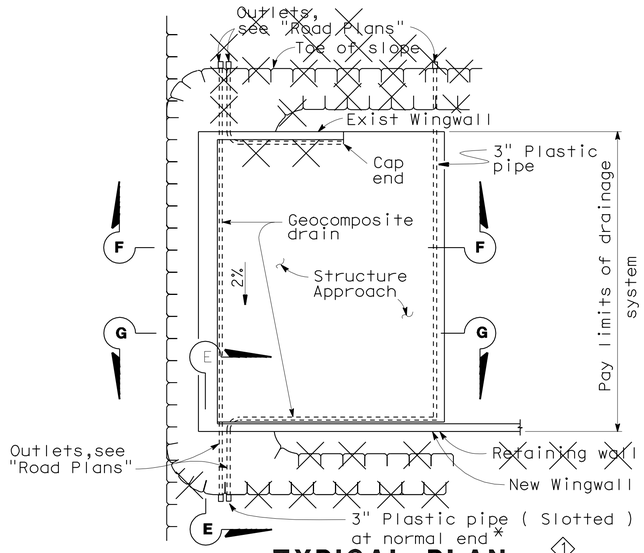
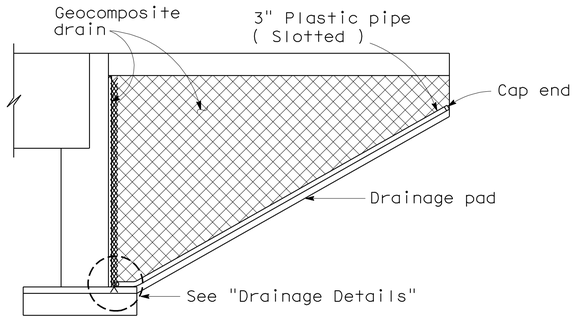


TYPICAL PLAN

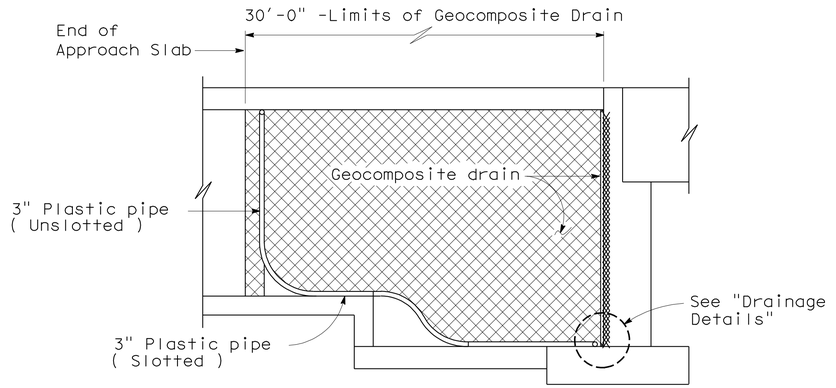
1"=10'

*For pipe layout at staggered end,see "Detail B".



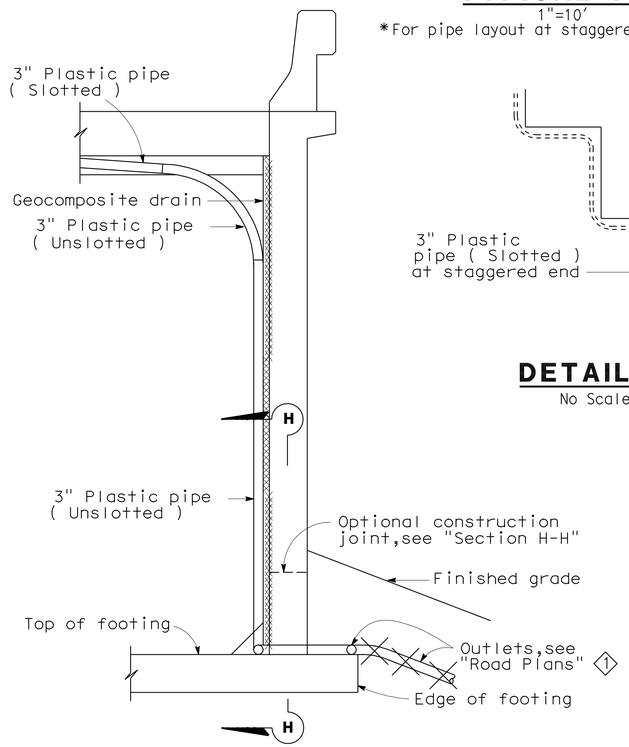
CANTILEVER WINGWALL
SECTION F-F

1/4"=1'-0"



RETAINING WALL WINGWALL
SECTION G-G

1/4"=1'-0"



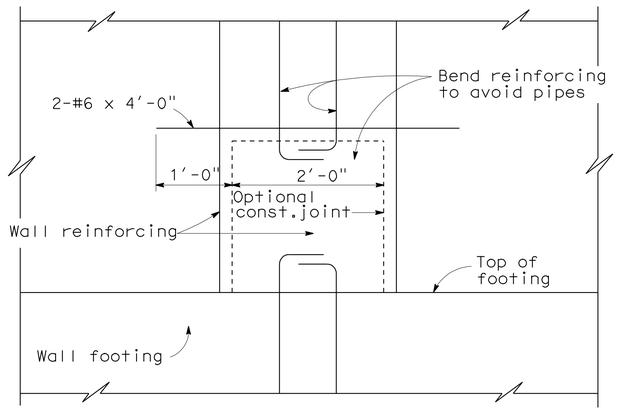
SECTION E-E

1/2"=1'-0"

NOTE: Bends and junctions in 3" plastic pipe are 30" radius min.

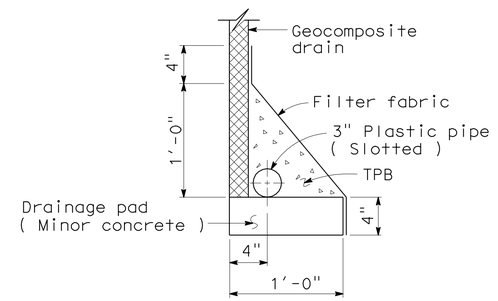
DETAIL B

No Scale

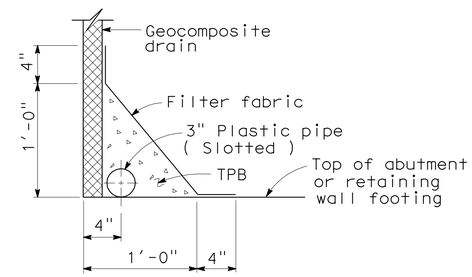


SECTION H-H

1"=1'-0"



WITHOUT FOOTING



WITH FOOTING

DRAINAGE DETAILS

1 1/2"=1'-0"

SPECIAL DETAIL

REVISED STANDARD DRAWING				
RELEASE DATE 4/23/98	DESIGN	BY M.TRAFFALIS	CHECKED E.THORKILDSEN	RELEASED BY
FILE NO. xs3-110e	DETAILS	BY R.YEE	CHECKED E.THORKILDSEN	
	SUBMITTED	BY M.HA	DRAWING DATE 4/98	OFFICE CHIEF

1 Detail Modified

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES 3

BRIDGE NO. 06-0127L
MILE POST 15.6

WESTBOUND CONNECTOR UC (WIDEN)
STRUCTURE APPROACH DRAINAGE DETAILS

DS OSD 2147A (ENGLISH) (REV. X/XX/XX)

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES (PRELIMINARY STAGE ONLY): 1-28-09 | 9-30-09 | 10-21-09 | 1-11-10

SHEET 17 OF 23

USERNAME => trienard

06-0127l-v-drain.dgn

DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:40

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	160	165

Joseph M Kaump 7-20-09
PROFESSIONAL GEOLOGIST

5-10-10
PLANS APPROVAL DATE

PROFESSIONAL GEOLOGIST
Joseph Kaump
No. 7837
Exp. 1-31-11
STATE OF CALIFORNIA

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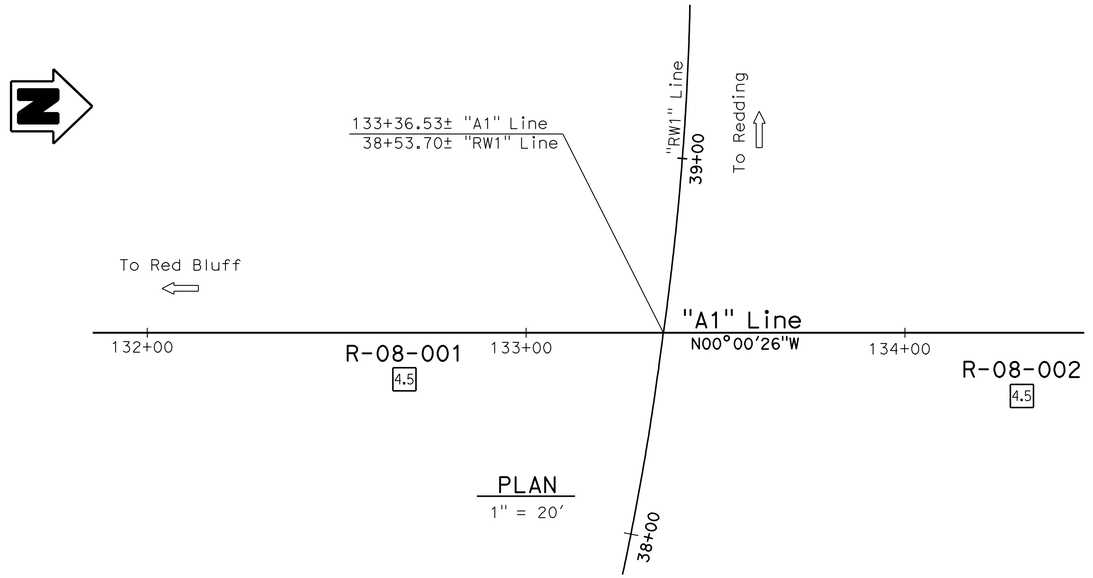
This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (June 2007). Section 2.4.18 was not fully implemented for this LOTB.

BENCH MARK

CM 15.57
Fnd Rebar w/ Aluminum Cap
7.97 Ft Rt "A1" Line ℄ Rte 5
Sta 132+70.67
N 2,097,332.341
E 6,461,505.732
Elev = 582.912′
Vert. datum: NAVD 88



PLAN
1" = 20′

NOTES:

1. pp= Unconfined compressive strength using a pocket penetrometer.
2. Ground water was encountered but was not measured at Boring R-08-001.

PROFILE
HOR. 1" = 10′
VER. 1" = 10′

ENGINEERING SERVICES	GEOTECHNICAL SERVICES		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO. 06-0127L	WESTBOUND CONNECTOR UC (WIDEN)
FUNCTIONAL SUPERVISOR	DRAWN BY: I.G-Remmen, 7/09	FIELD INVESTIGATION BY:		DESIGN BRANCH 3	POST MILES 15.6	LOG OF TEST BORINGS 1 OF 6
NAME: R. Buell	CHECKED BY: C. Zhen	J. Kaump				

OGS CIVIL LOG OF TEST BORINGS SHEET

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES: 07-07-09 | 07-08-09 | 07-14-09 | 1-11-10

SHEET 18 OF 23

FILE => 06-0127l-z-ltb-1of6.dgn

USERNAME => rtreiford DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:41

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	161	165

Joseph M Kaump 7-20-09
PROFESSIONAL GEOLOGIST

PROFESSIONAL GEOLOGIST
Joseph Kaump
No. 7837
Exp. 1-31-11
STATE OF CALIFORNIA

5-10-10
PLANS APPROVAL DATE

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This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (June 2007).
Section 2.4.18 was not fully implemented for this LOTB.

FOR PLAN VIEW, SEE
"LOG OF TEST BORINGS 1 OF 6"

Lean CLAY with GRAVEL (CL); hard; reddish brown; dry; little fine gravel; pp>4.5 tsf.

Lean CLAY (CL); stiff; yellowish red; moist; trace fine gravel; few coarse sand; rootlets; pp=1.0-2.0 tsf.

SANDY lean CLAY with GRAVEL (CL); very stiff to hard; strong brown; moist; few coarse to fine gravel; little coarse to medium sand; pp>4.5-2.5 tsf.

Lean CLAY with GRAVEL (CL); very stiff to hard; pale yellow; moist; coarse to fine gravel; pp=3.5-4.5 tsf.

SANDY lean CLAY (CL); hard; gray mottled with yellowish brown; moist; fine sand.

SANDY lean CLAY with GRAVEL and COBBLES (CL); very stiff to hard; yellowish brown; moist; 25% cobbles; coarse to fine gravel; coarse to fine sand; cobbles are slightly weathered, hard to very hard. Intersecting lengths of 2 to 5.5 inches; pp=2.5-4.0 tsf.

SILTY SAND with GRAVEL & COBBLES (SM); very dense; strong brown; moist; about 12% cobbles; subrounded to rounded coarse to fine gravel; coarse to fine sand; cobbles are slightly weathered, hard to very hard; intersecting lengths of 4 inches.

SILTY GRAVEL with SAND and COBBLES (GM); very dense; yellowish brown; wet; about 40% cobbles; rounded to subrounded coarse to fine gravel; coarse to medium sand; cobbles are slightly weathered, hard to very hard; intersecting lengths of 2.5 to 3 inches.

CLAYEY SAND with GRAVEL and COBBLES (SC); very dense; yellowish brown; wet; 25% cobbles; subrounded to rounded coarse to fine gravel; medium sand; cobbles are slightly weathered, hard to very hard; intersecting lenths from 2 to 3 inches.

CLAYEY GRAVEL with SAND and COBBLES (GC); very dense; dark yellowish brown; wet; 35% cobbles; subrounded to rounded coarse to fine gravel; coarse to medium sand; cobbles are slightly weathered, hard to very hard; intersecting lengths of 3-4 inches.

SILTY GRAVEL with SAND and COBBLES (GM); very dense; yellowish brown; wet; 15 to 20% cobbles; subrounded to rounded coarse to fine gravel; medium to fine sand; weak cementation; cobbles are slightly weathered, hard to very hard; intersecting lengths from 3 to 5.5 inches.

CLAYEY GRAVEL with SAND and COBBLES (GC); very dense; olive gray; wet; 15% cobbles; coarse to fine gravel; coarse to medium sand; cobbles are slightly weathered, hard to very hard; intersecting lengths of 2.5-3.5 inches.

CLAYEY SAND with GRAVEL and COBBLES (SC); very dense; greenish gray; wet; about 7% cobbles; coarse to fine gravel; coarse to fine sand; cobbles are slightly weathered, hard to very hard; intersecting lengths of 4 inches.

CLAYEY GRAVEL with SAND and COBBLES (GC); very dense; greenish gray; wet; 25% cobbles; subrounded to rounded coarse to fine gravel; coarse to medium sand; cobbles are slightly weathered, hard to very hard; intersecting lengths from 3 to 6 inches.

PROFILE
HOR. 1" = 10'
VER. 1" = 10'

ENGINEERING SERVICES		GEOTECHNICAL SERVICES		STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO.	WESTBOUND CONNECTOR UC (WIDEN)
FUNCTIONAL SUPERVISOR	DRAWN BY: I.G-Remmen, 7/09	FIELD INVESTIGATION BY:			DESIGN BRANCH 3	06-0127L	LOG OF TEST BORINGS 2 OF 6
NAME: R. Buell	CHECKED BY: C. Zhen	J. Kaump				POST MILES 15.6	

OGS CIVIL LOG OF TEST BORINGS SHEET

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES										SHEET	OF
07-07-09	07-08-09									19	23

FILE => 06-0127l-z-ltb-2of6.dgn

USERNAME => ttrenord DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:41

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (JUNE 2007)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	162	165

Joseph M Kaump 7-20-09
PROFESSIONAL GEOLOGIST

5-10-10
PLANS APPROVAL DATE

PROFESSIONAL GEOLOGIST Joseph Kaump No. 7837 Exp. 1-31-11 STATE OF CALIFORNIA

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CEMENTATION

Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure.
Moderate	Crumbles or breaks with considerable finger pressure.
Strong	Will not crumble or break with finger pressure.

BOREHOLE IDENTIFICATION

Symbol	Hole Type	Description
Size	A	Auger Boring
Size	R P	Rotary drilled boring Rotary percussion boring (air)
Size	R	Rotary drilled diamond core
Size	HD HA	Hand driven (1-inch soil tube) Hand Auger
●	D	Dynamic Cone Penetration Boring
▲	CPT	Cone Penetration Test (ASTM D 5778-95)
⬚	O	Other

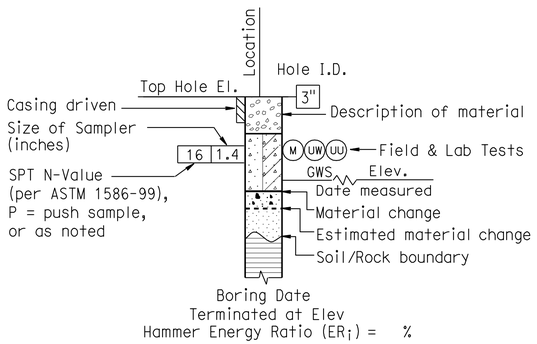
Note: Size in inches.

CONSISTENCY OF COHESIVE SOILS

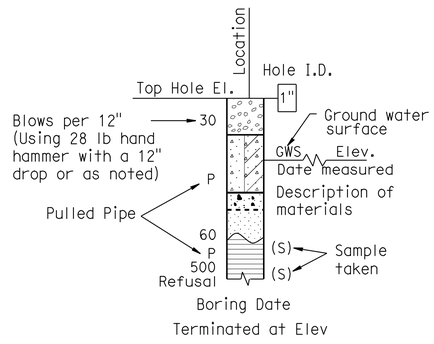
Description	Unconfined Compressive Strength (tsf)	Pocket Penetrometer Measurement (tsf)	Torvane Measurement (tsf)	Field Approximation
Very Soft	< 0.25	< 0.25	< 0.12	Easily penetrated several inches by fist
Soft	0.25 to 0.50	0.25 to 0.50	0.12 to 0.25	Easily penetrated several inches by thumb
Medium Stiff	0.50 to 1.0	0.50 to 1.0	0.25 to 0.50	Penetrated several inches by thumb with moderate effort
Stiff	1 to 2	1 to 2	0.50 to 1.0	Readily indented by thumb but penetrated only with great effort
Very Stiff	2 to 4	2 to 4	1.0 to 2.0	Readily indented by thumbnail
Hard	> 4.0	> 4.0	> 2.0	Indented by thumbnail with difficulty

PLASTICITY OF FINE-GRAINED SOILS

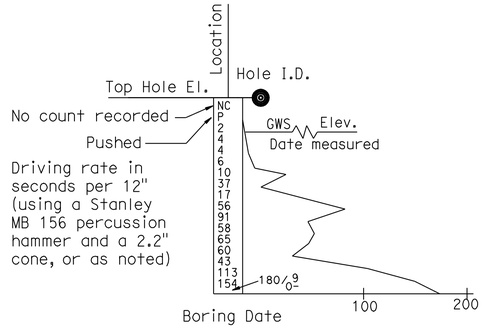
Description	Criteria
Nonplastic	A 1/8-inch thread cannot be rolled at any water content.
Low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.



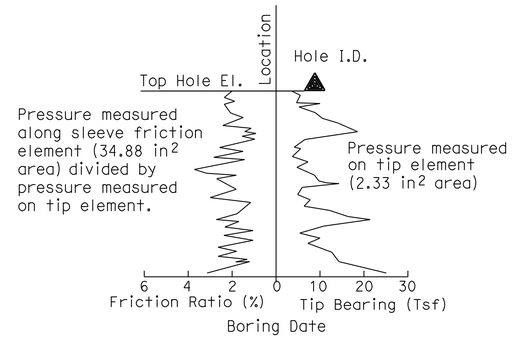
ROTARY BORING



HAND BORING



DYNAMIC CONE PENETRATION BORING



CONE PENETRATION TEST (CPT) SOUNDING

ENGINEERING SERVICES	GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO.	WESTBOUND CONNECTOR UC (WIDEN)
	PREPARED BY: I. G-Remmen, 7/09		DESIGN BRANCH 3	06-0127L POST MILE 15.6	LOG OF TEST BORINGS 3 OF 6

GS LOTB SOIL LEGEND

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES

SHEET	OF
20	23

FILE => 06-0127l-z-ltb-3of6.dgn

USERNAME => ftriebord DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:41

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (JUNE 2007)

GROUP SYMBOLS AND NAMES

Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
GW	Well-graded GRAVEL Well-graded GRAVEL with SAND	CL	Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND
GP	Poorly graded GRAVEL Poorly graded GRAVEL with SAND		
GW-GM	Well-graded GRAVEL with SILT Well-graded GRAVEL with SILT and SAND	CL-ML	SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY with SAND
GW-GC	Well-graded GRAVEL with CLAY (or SILTY CLAY) Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GP-GM	Poorly graded GRAVEL with SILT Poorly graded GRAVEL with SILT and SAND	ML	SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND
GP-GC	Poorly graded GRAVEL with CLAY (or SILTY CLAY) Poorly graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GM	SILTY GRAVEL SILTY GRAVEL with SAND	OL	ORGANIC lean CLAY ORGANIC lean CLAY with SAND ORGANIC lean CLAY with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND
GC	CLAYEY GRAVEL CLAYEY GRAVEL with SAND		
GC-GM	SILTY, CLAYEY GRAVEL SILTY, CLAYEY GRAVEL with SAND	OL	ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND
SW	Well-graded SAND Well-graded SAND with GRAVEL		
SP	Poorly graded SAND Poorly graded SAND with GRAVEL	CH	Fat CLAY Fat CLAY with SAND Fat CLAY with GRAVEL SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND
SW-SM	Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL		
SW-SC	Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	MH	Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND
SP-SM	Poorly graded SAND with SILT Poorly graded SAND with SILT and GRAVEL		
SP-SC	Poorly graded SAND with CLAY (or SILTY CLAY) Poorly graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	OH	ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND
SM	SILTY SAND SILTY SAND with GRAVEL		
SC	CLAYEY SAND CLAYEY SAND with GRAVEL	OH	ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
SC-SM	SILTY, CLAYEY SAND SILTY, CLAYEY SAND with GRAVEL		
PT	PEAT	OL/OH	ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
	COBBLES COBBLES and BOULDERS BOULDERS		

FIELD AND LABORATORY TESTING

- (C) Consolidation (ASTM D 2435)
- (CL) Collapse Potential (ASTM D 5333)
- (CP) Compaction Curve (CTM 216)
- (CR) Corrosivity Testing (CTM 643, CTM 422, CTM 417)
- (CU) Consolidated Undrained Triaxial (ASTM D 4767)
- (DS) Direct Shear (ASTM D 3080)
- (EI) Expansion Index (ASTM D 4829)
- (M) Moisture Content (ASTM D 2216)
- (OC) Organic Content-% (ASTM D 2974)
- (P) Permeability (CTM 220)
- (PA) Particle Size Analysis (ASTM D 422)
- (PI) Plasticity Index (AASHTO T 90) Liquid Limit (AASHTO T 89)
- (PL) Point Load Index (ASTM D 5731)
- (PM) Pressure Meter
- (PP) Pocket Penetrometer
- (R) R-Value (CTM 301)
- (SE) Sand Equivalent (CTM 217)
- (SG) Specific Gravity (AASHTO T 100)
- (SL) Shrinkage Limit (ASTM D 427)
- (SW) Swell Potential (ASTM D 4546)
- (TV) Pocket Torvane
- (UC) Unconfined Compression-Soil (ASTM D 2166) Unconfined Compression-Rock (ASTM D 2938)
- (UU) Unconsolidated Undrained Triaxial (ASTM D 2850)
- (UW) Unit Weight (ASTM D 4767)
- (VS) Vane Shear (AASHTO T 223)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
02	Sha	5	R14.9/R16.2	163	165

Joseph M Kaump 7-20-09
PROFESSIONAL GEOLOGIST

PROFESSIONAL GEOLOGIST
Joseph Kaump
No. 7837
Exp. 1-31-11
STATE OF CALIFORNIA

5-10-10
PLANS APPROVAL DATE

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APPARENT DENSITY OF COHESIONLESS SOILS

Description	SPT N_{60} (Blows / 12 inches)
Very loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	> 50

MOISTURE

Description	Criteria
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

PERCENT OR PROPORTION OF SOILS

Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5 to 10%
Little	15 to 25%
Some	30 to 45%
Mostly	50 to 100%

PARTICLE SIZE

Description		Size
Boulder		> 12"
Cobble		3" to 12"
Gravel	Coarse	3/4" to 3"
	Fine	No. 4 to 3/4"
Sand	Coarse	No. 10 to No. 4
	Medium	No. 40 to No. 10
	Fine	No. 200 to No. 40

ENGINEERING SERVICES	GEOTECHNICAL SERVICES	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF ENGINEERING SERVICES STRUCTURE DESIGN	BRIDGE NO.	WESTBOUND CONNECTOR UC (WIDEN)
	PREPARED BY: I. G-Remmen, 7/09		DESIGN BRANCH 3	06-0127L POST MILE 15.6	LOG OF TEST BORINGS 4 OF 6

GS LOTB SOIL LEGEND

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS 0 1 2 3

CU 03247
EA 3C0001

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES

SHEET 21 OF 23

FILE => 06-0127l-z-ltb-4of6.dgn

USERNAME => rtreford DATE PLOTTED => 10-MAY-2010 TIME PLOTTED => 13:41

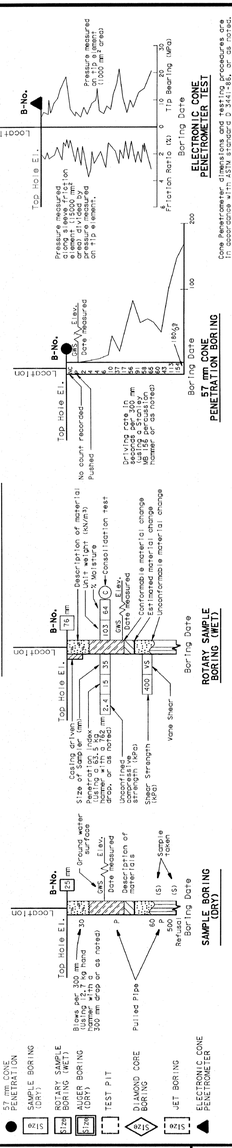
NO AS BUILT CORRECTIONS

CONNECTIONS TRANSFERED BY: MF
FIELD CORRECTIONS BY: C. Arace

TRANSFER DATE: 06-06-2003
FIELD CORRECTION DATE: 06-05-2002

CONTRACT NO: 02-334804

LEGEND OF BORING OPERATIONS



LEGEND OF EARTH MATERIALS

GRAVEL, SAND, SILT, CLAY, CLAYEY SILT, SILT OR CLAY, SANDY CLAY OR CLAYEY SAND, SANDY SILT OR SILTY SAND, SILTY CLAY, PEAT OR ORGANIC MATTER, FILL MATERIAL, COBBLES AND/OR BOULDERS, IGNEOUS ROCK, SEDIMENTARY ROCK, METAMORPHIC ROCK

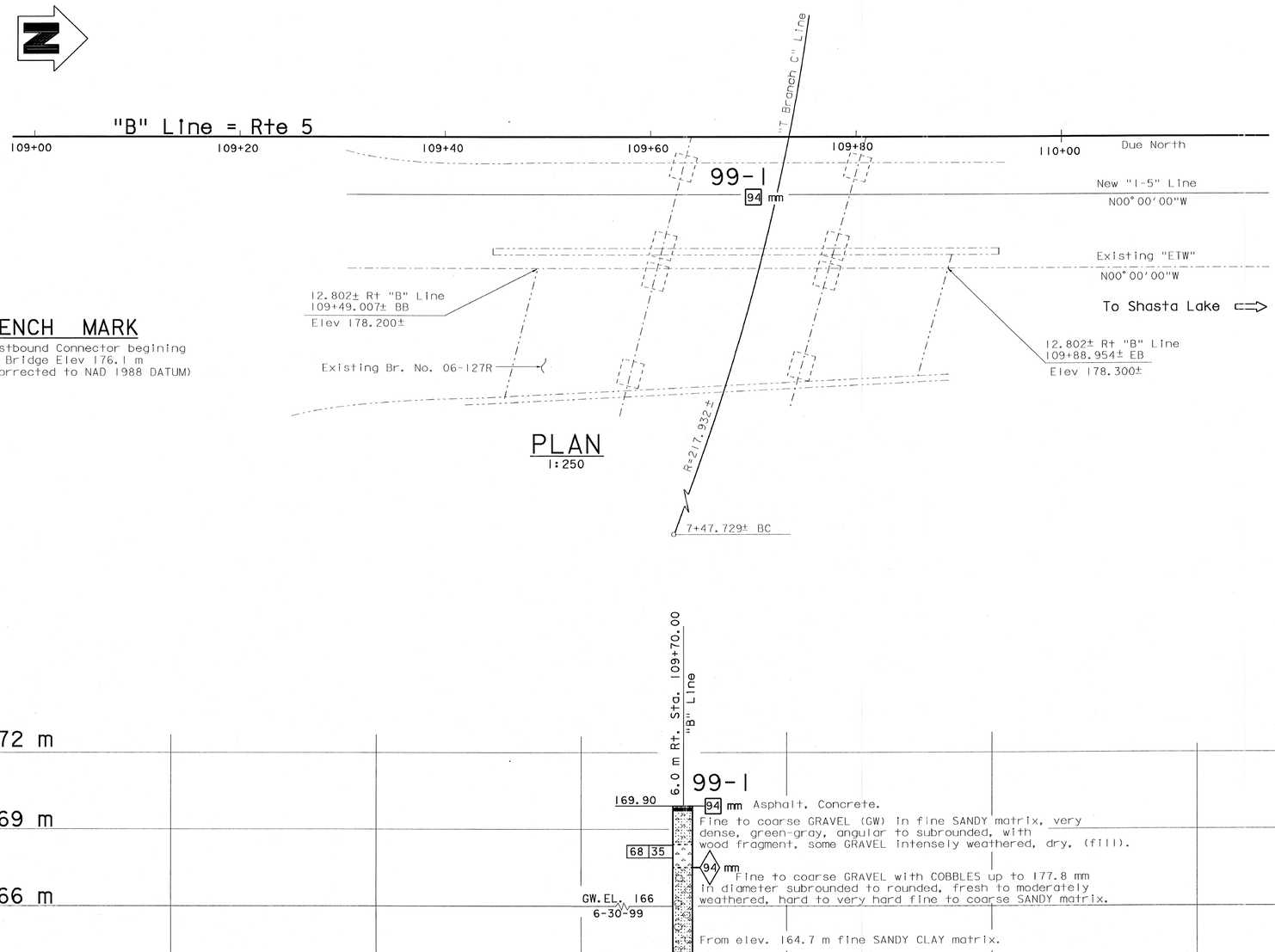
CONSISTENCY CLASSIFICATION FOR SOILS

According to the Standard Penetration Test

	SPT N-Value (Blows/ 0.3m)	Cohesive
		Very Soft
	<2	Soft
	2-4	Firm
	5-8	Stiff
	9-15	Very stiff
	16-30	Hard
	>31	

	SPT N-Value (Blows/ 0.3m)	Granular
	0-4	Very Loose
	5-10	Loose
	11-30	Medium Dense
	31-50	Dense
	>50	Very Dense

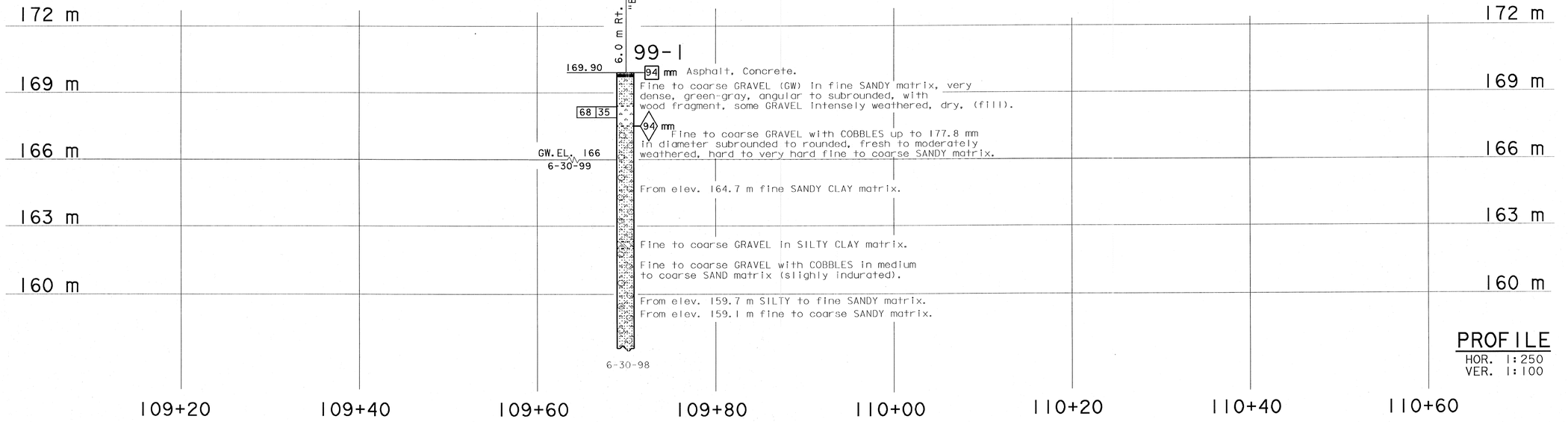
NOTE: Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.



BENCH MARK

Westbound Connector begining of Bridge Elev 176.1 m (Corrected to NAD 1988 DATUM)

PLAN
1:250



PROFILE
HOR. 1:250
VER. 1:100

Caltrans Metric

DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

CERTIFIED ENGINEERING GEOLOGIST

REGISTERED GEOLOGIST — Bogdan Komorniczak — No. 2094 — Exp. 3-31-01 — CERTIFIED ENGINEERING GEOLOGIST — STATE OF CALIFORNIA

PLANS APPROVAL DATE

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To accompany plans dated 5-10-10

DIVISION OF ENGINEERING SERVICES - GEOTECHNICAL SERVICES

As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.

DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	Sheet No.	Total Sheets
02	Sha	5	R14.9/R16.2	164	165

PROFESSIONAL GEOLOGIST — Joseph Kaump — No. 7837 — Exp. 1-31-11 — STATE OF CALIFORNIA

PROFESSIONAL GEOLOGIST — DATE 7/14/09

WESTBOUND CONNECTOR UC (WIDEN)

LOG OF TEST BORINGS 5 OF 6

NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA

CU: 02
EA: 3C0001

BRIDGE No. 06-0127L

Sheet 22 of 23

Revisions made to this Log of Test Borings from the original As-Built Log of Test Borings are the addition of the following table and notes:

Boring	Station	Offset from "A1" Line
99-1	133+38	43' Rt

Notes:

1. See the General Plan and/or Foundation Plan for current stationing.
2. The data in the table above, is the boring location for the As-Built Log of Test Borings referenced to the current "A1" Line. This table is presented on the As-Built Log of Test Boring sheet for the convenience of any bidder, contractor or other interested party.

ENGINEERING SERVICE CENTER	STRUCTURE FOUNDATIONS
DRAWN BY	P. Phommachit 2/99
CHECKED BY	

FIELD INVESTIGATION BY: B. Komorniczak

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF STRUCTURES
STRUCTURE DESIGN 5

BRIDGE NO. 06-0127R
KILOMETER POST 25.04 (15.6)

WESTBOUND CONNECTOR UC (WIDEN)
LOG OF TEST BORINGS 1 OF 2

OSF GEOLOGIST LOG OF TEST BORINGS SHEET (METRIC) (REV. 1-29-99)

ORIGINAL SCALE IN MILLIMETERS FOR REDUCED PLANS 0 10 20 30 40 50 60 70 80 90 100

CU 02
EA 334801

FILENAME => 06-0127l-z-ltb-5of6.tif

DISREGARD PRINTS BEARING EARLIER REVISION DATES →

REVISION DATES (PRELIMINARY STAGE ONLY)

9-1-99

SHEET 17 OF 18

BRIDGE DEPARTMENT

To accompany plans dated 5-10-10

DIVISION OF ENGINEERING SERVICES - GEOTECHNICAL SERVICES					
As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.					
DIST.	COUNTY	ROUTE	POST MILE-TOTAL PROJECT	Sheet No.	Total Sheets
02	Sha	5	R14.9/R16.2	165	165

PROFESSIONAL GEOLOGIST Joseph Kaump DATE 7/14/09

PROFESSIONAL GEOLOGIST — Joseph Kaump — No. 7837 — Exp. 1-31-11 — STATE OF CALIFORNIA

WESTBOUND CONNECTOR UC (WIDEN)

LOG OF TEST BORINGS 6 OF 6

NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE ANDINVESTIGATIONS, SACRAMENTO, CALIFORNIA

CU: 02
EA: 3C0001

BRIDGE No. 06-0127L

As-Built Vertical Datum: NGVD29
Datum conversion: NAVD88 = NGVD29 + 2.6 feet

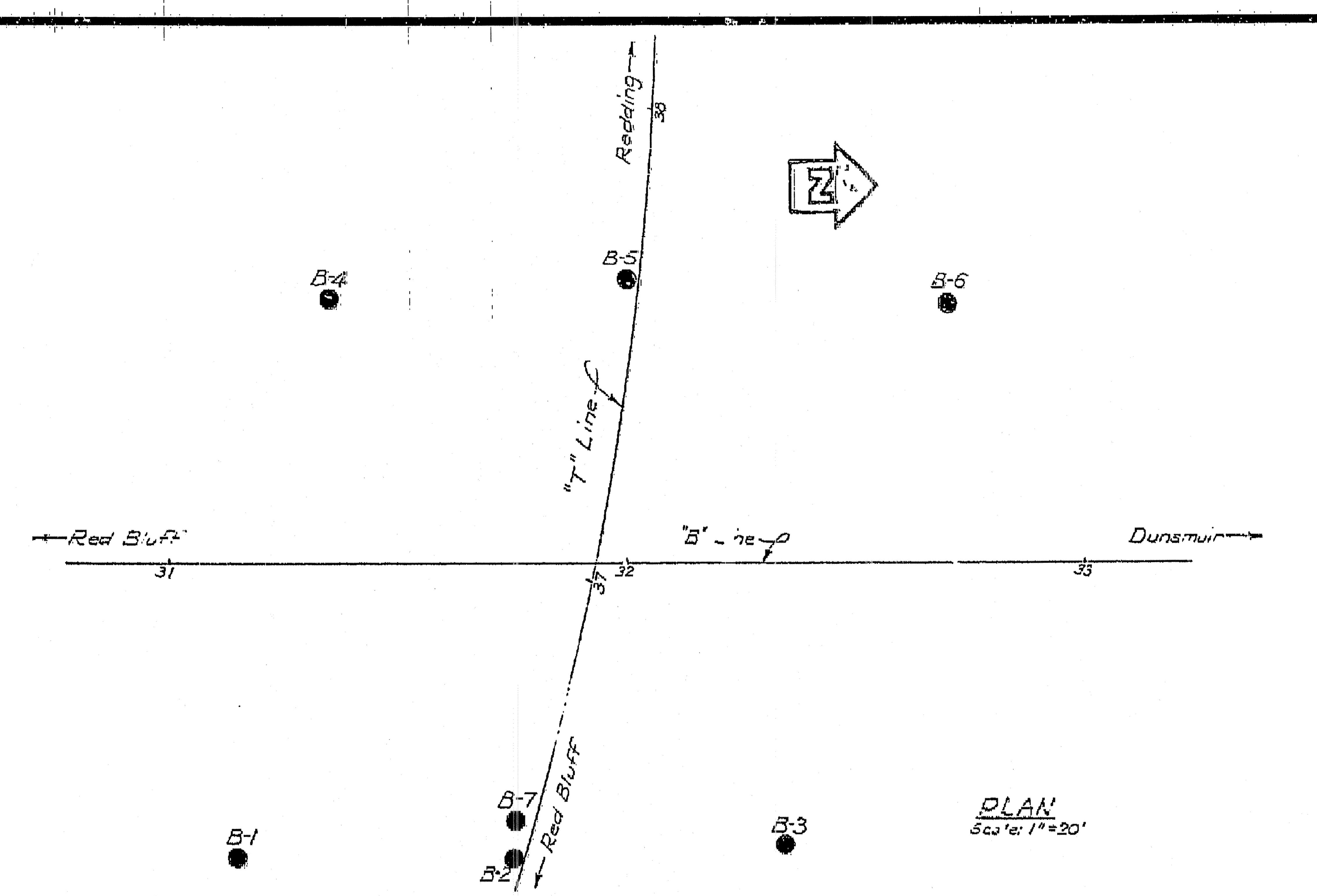
Sheet 23 of 23

Revisions made to this Log of Test Borings from the original As-Built Log of Test Borings are the addition of the following table and notes:

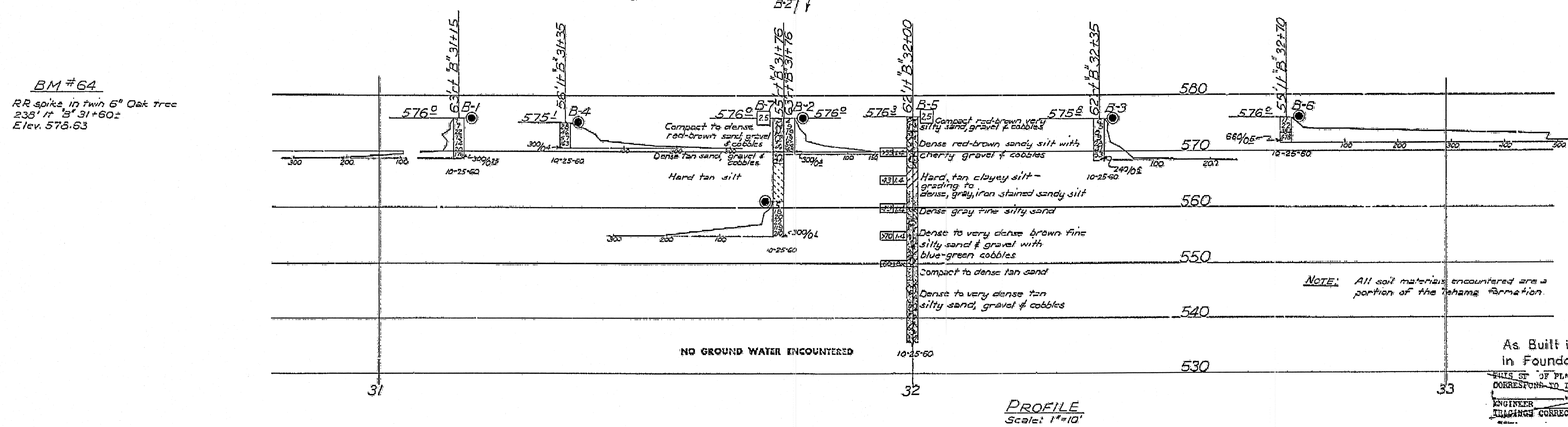
Boring	Station	Offset from "A1" Line
B-1	132+67	104.9' Rt
B-2	133+47	104.0' Rt
B-3	133+89	103.3' Rt
B-4	132+89	15.4' Lt
B-5	133+55	19.7' Lt
B-6	134+24	12.5' Lt
B-7	133+47	95.0' Rt

Notes:

1. See the General Plan and/or Foundation Plan for current stationing.
2. The data in the table above, are the boring locations for the As-Built Log of Test Borings referenced to the current "A1" Line. This table is presented on the As-Built Log of Test Boring sheet for the convenience of any bidder, contractor or other interested party.



PLAN
Scale: 1"=20'



PROFILE
Scale: 1"=10'

As Built information on file in Foundation Section.

THIS SHEET OF PLANS HAS BEEN CORRECTED TO CORRESPOND TO THE "AS BUILT" ... AS SUBMITTED BY RES... ENGINEER
TRACINGS CORRECTED BY: ____ DATE: ____

Classification of Material Based on Standard Grade Size Limits

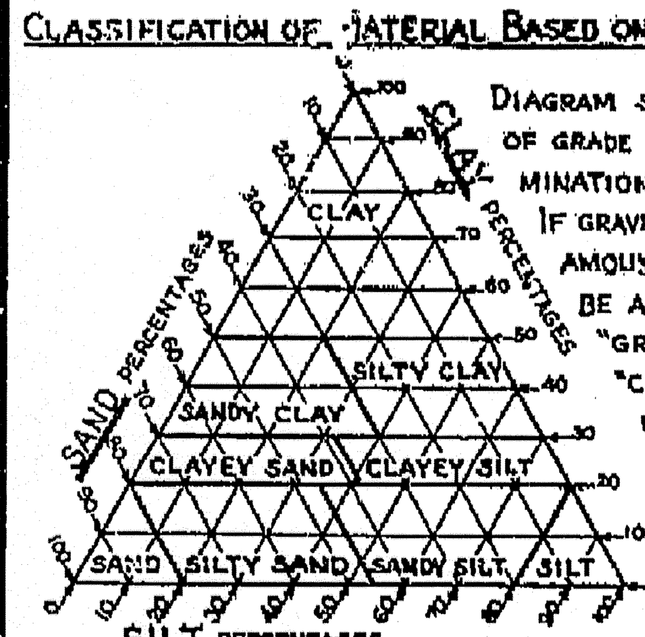


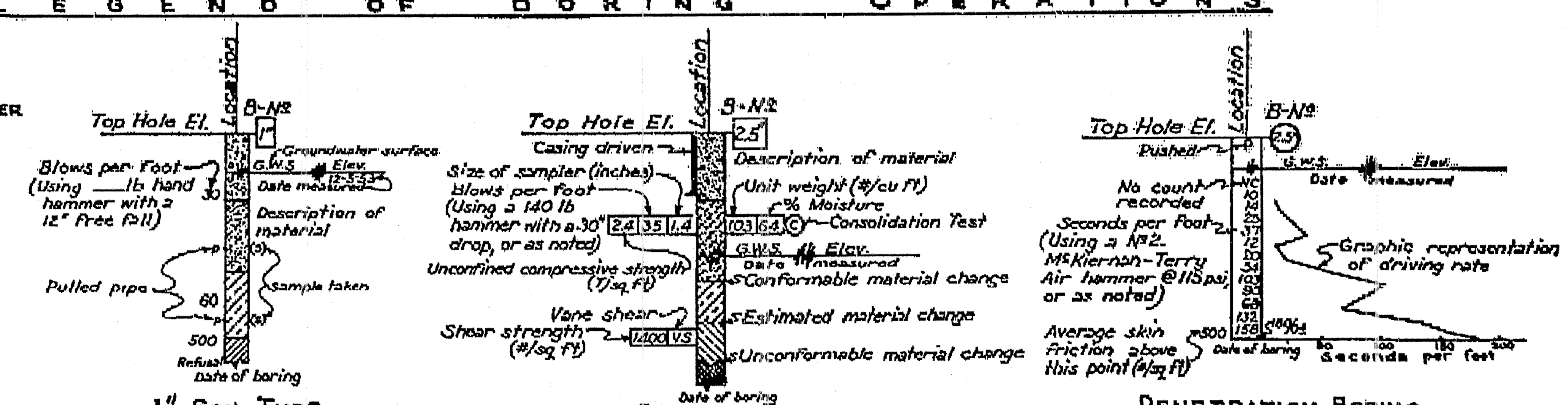
Diagram showing the basis for estimates of grade size distribution used in determination of class names.
If gravel is present in appreciable amounts the term "gravelly" may be added to the class name, viz. "gravelly sand." The terms "coarse", "medium" and "fine" when used to describe sand, silt and gravel refer to standard grade size limits.

Legend of Earth Materials

- Gravel
- Sand
- Silt
- Clay
- Sandy Clay or Clayey Sand
- Sandy Silt or Silty Sand
- Silty Clay or Clayey Silt
- Peat and/or Organic Matter
- Fill Material
- Igneous Rock
- Sedimentary Rock
- Metamorphic Rock

Legend of Boring Operations

- Plan of any boring
- Penetrometer
- 2¼" Cone Penetrometer
- Sampler boring (dry)
- Rotary boring (wet)
- Auger boring (dry)
- Jet boring
- Core boring
- Test pit



NOTE

Classification of earth material as shown on this sheet is based upon field inspection and is not to be construed to imply mechanical analysis.

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

WESTBOUND CONNECTOR UNDERCROSSING

LOG OF TEST BORINGS

SCALE As shown | BRIDGE 6-127 | FILE | DRAWING C-06127-12

FILENAME => 06-01271-z-ltb-6of6.tif

PR-7165-2

PREL. DRAWING NO. P-46/27