

INDEX OF PLANS

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

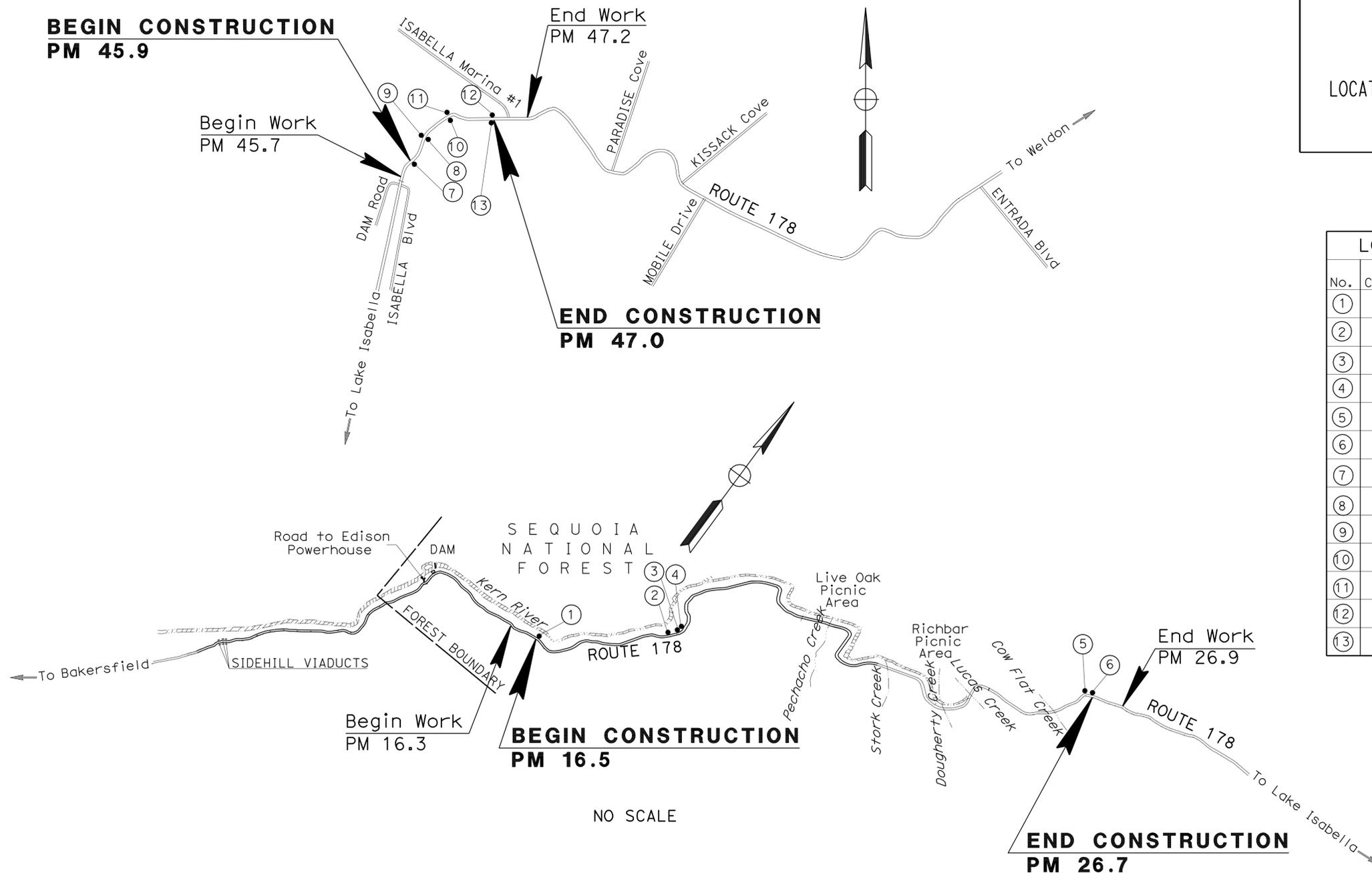
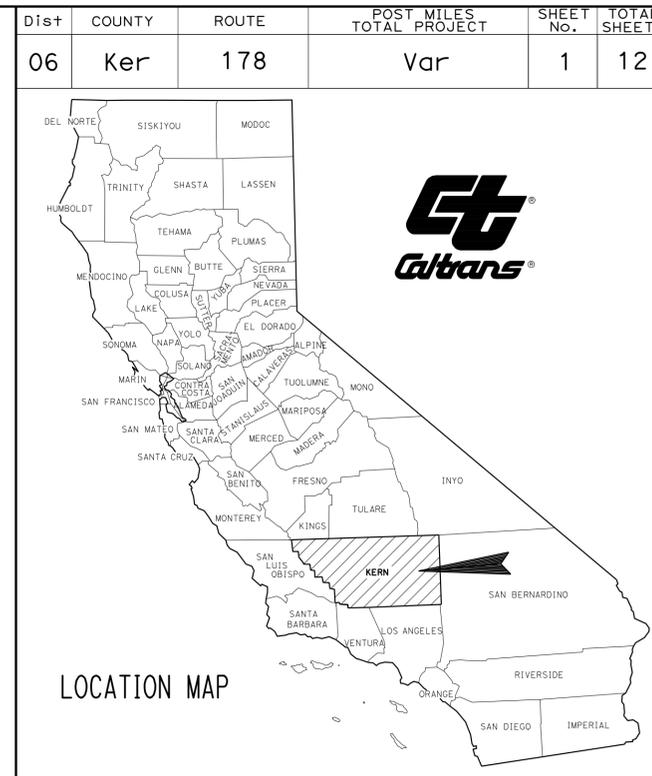
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

HSSTPG-P178(059)E

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN KERN COUNTY
NEAR BAKERSFIELD

FROM 1.2 MILES EAST OF ROAD TO EDISON
TO 3.4 MILES EAST OF COW FLAT CREEK AND
FROM 0.4 MILE WEST OF ISABELLA BOULEVARD TO 0.6 MILE EAST
OF ISABELLA MARINA #1 ROAD

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



No.	COUNTY	ROUTE	POST MILE	DIRECTION
①	Ker	178	16.50-16.66	WESTBOUND
②	Ker	178	19.34-19.55	WESTBOUND
③	Ker	178	19.75-19.89	WESTBOUND
④	Ker	178	20.08-20.23	WESTBOUND
⑤	Ker	178	26.03-26.12	WESTBOUND
⑥	Ker	178	26.31-26.72	WESTBOUND
⑦	Ker	178	45.90-45.96	EASTBOUND
⑧	Ker	178	46.37-46.44	EASTBOUND
⑨	Ker	178	46.37-46.50	WESTBOUND
⑩	Ker	178	46.61-46.65	EASTBOUND
⑪	Ker	178	46.61-46.65	WESTBOUND
⑫	Ker	178	46.80-47.04	WESTBOUND
⑬	Ker	178	46.94-47.03	EASTBOUND

PROJECT MANAGER
STEVEN MILTON

DESIGN ENGINEER
GURBHAY BRAR

Gurbhay Brar 03-16-09
PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

July 13, 2009
PLANS APPROVAL DATE

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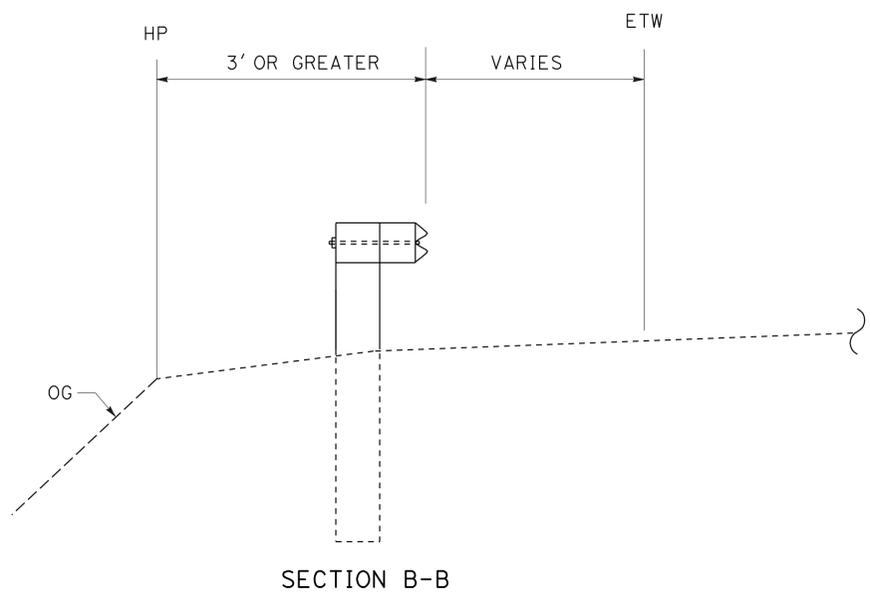


THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

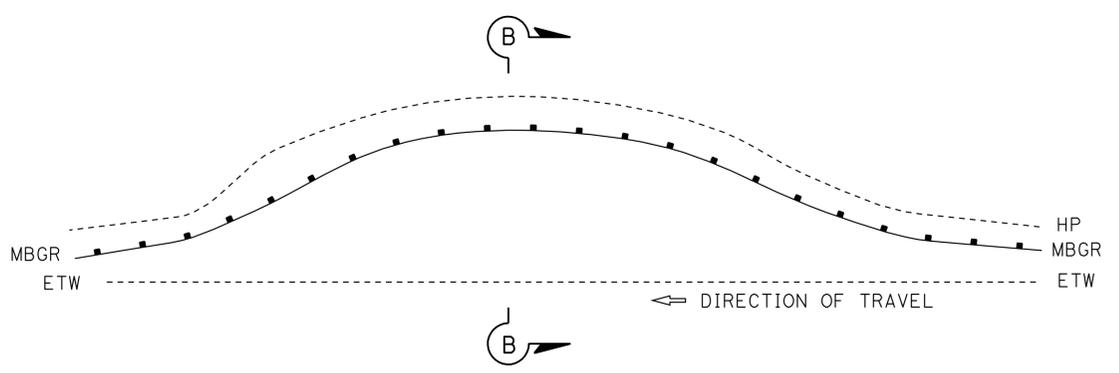
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	178	Var	2	12
Gurbhay Brar			3-16-09	DATE	
REGISTERED CIVIL ENGINEER			No. 52104		
7-13-09			Exp. 12-31-10		
PLANS APPROVAL DATE			CIVIL		
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN
 Et Caltrans®
 FUNCTIONAL SUPERVISOR: GURBHAY BRAR
 CALCULATED/DESIGNED BY: GURDEEP BRAR
 CHECKED BY: UDAYA SHANKAR
 REVISED BY: GURDEEP BRAR
 DATE REVISED: UDAYA SHANKAR

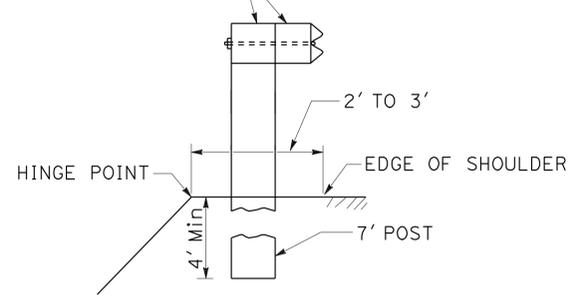


SECTION B-B

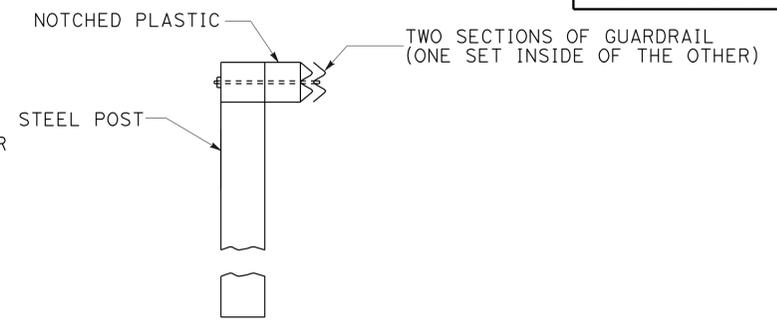


TYPICAL MBGR PLACEMENT DETAIL

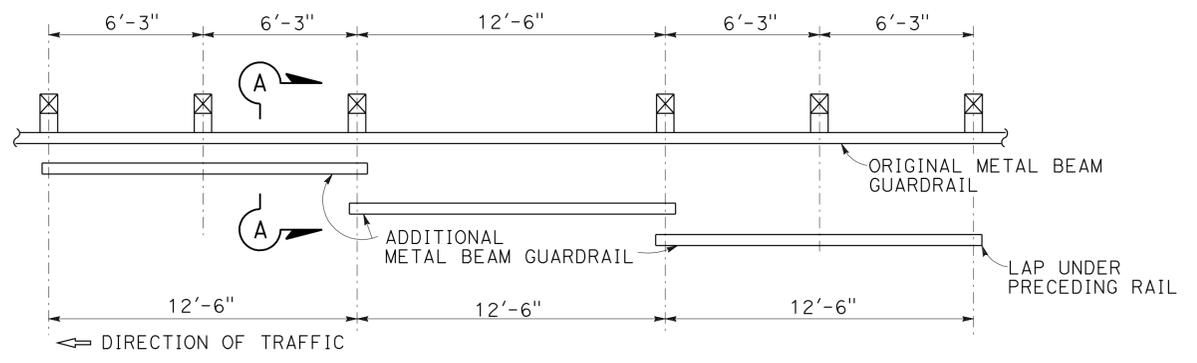
STEEL POST & PLASTIC BLOCK



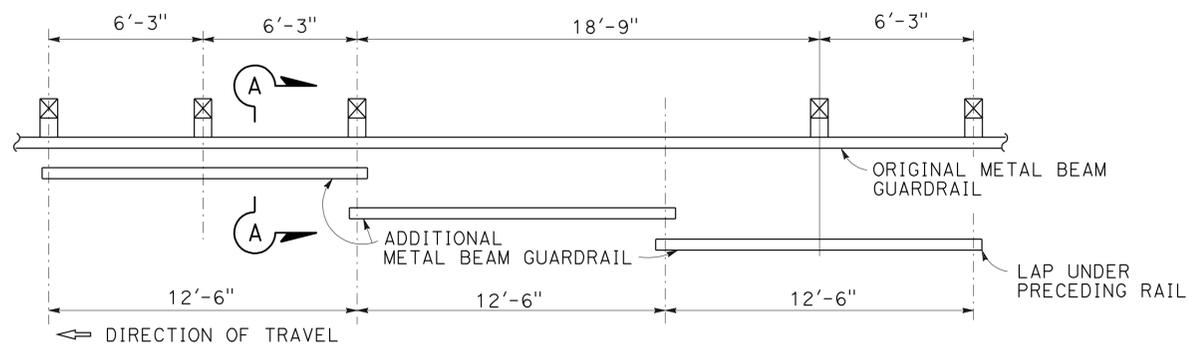
NARROW EMBANKMENT



SECTION A-A



TYPICAL FOR ONE POST OMITTED (SPlice AT POSTS)



TYPICAL FOR TWO POSTS OMITTED

**CONSTRUCTION DETAILS
C-1**

NO SCALE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	178	Var	3	12

Hassan Cohe 03/20/09
REGISTERED CIVIL ENGINEER DATE

7-13-09
PLANS APPROVAL DATE

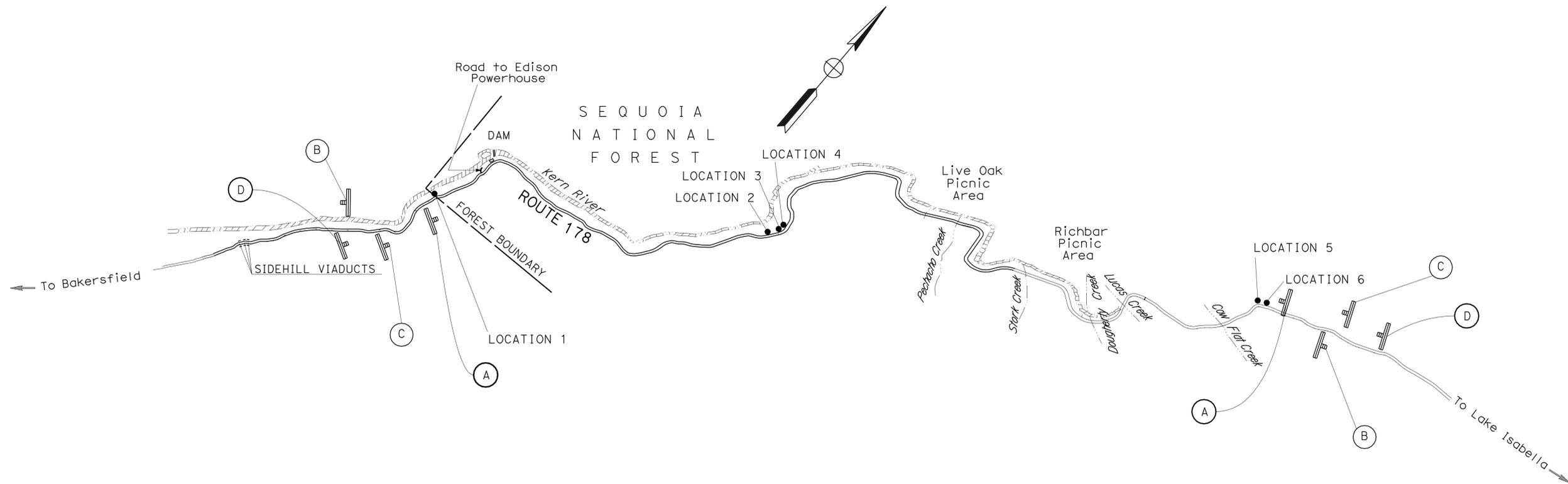
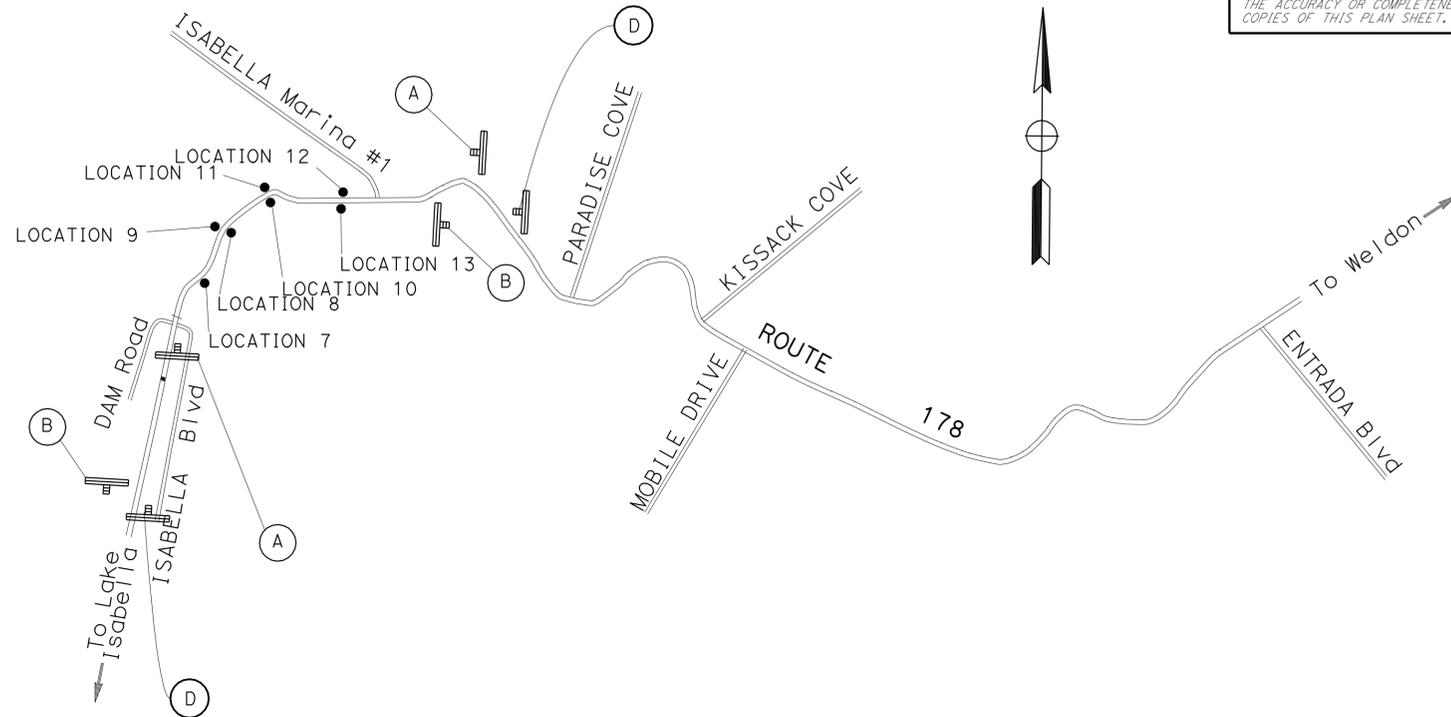
HASSAN M. TAHA
No. 60130
Exp. 06/30/10
CIVIL

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STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POST AND SIZE	NUMBER OF SIGNS
(A)	W20-1	48" x 48"	ROAD WORK AHEAD	1- 6" x 6"	4
(B)	G20-2	36" x 18"	END ROAD WORK	1- 4" x 4"	4
(C)	G20-1	36" x 18"	ROAD WORK NEXT 11 MILES	1- 4" x 4"	2
(D)	C40(ACA)	48" x 48"	TRAFFIC FINES ARE DOUBLED IN CONSTRUCTION ZONES	1- 6" x 6"	4

NOTE: SIGN LOCATIONS SHOWN ARE APPROXIMATE ONLY. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.



CONSTRUCTION AREA SIGNS
NO SCALE
CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN
FUNCTIONAL SUPERVISOR: MOHAMMED QATAMI
CALCULATED-DESIGNED BY: CHECKED BY:
AMIR KAZAMI MUNIR ASSAF
REVISED BY: DATE REVISED:

LEGEND:

-  DELINEATOR (CLASS 1)
-  OBJECT MARKER
-  DIRECTION OF TRAVEL

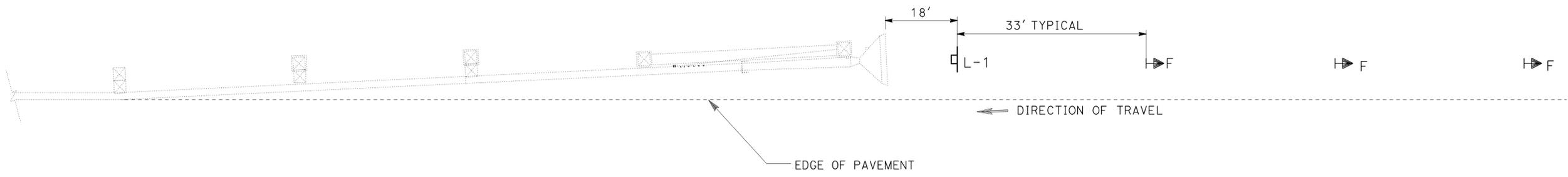
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN

FUNCTIONAL SUPERVISOR: MOHAMMED OATAMI

REVISOR: AMIR KAZAMI, MUNIR ASSAF

DESIGNER: AMIR KAZAMI, MUNIR ASSAF

CHECKED BY: MOHAMMED OATAMI

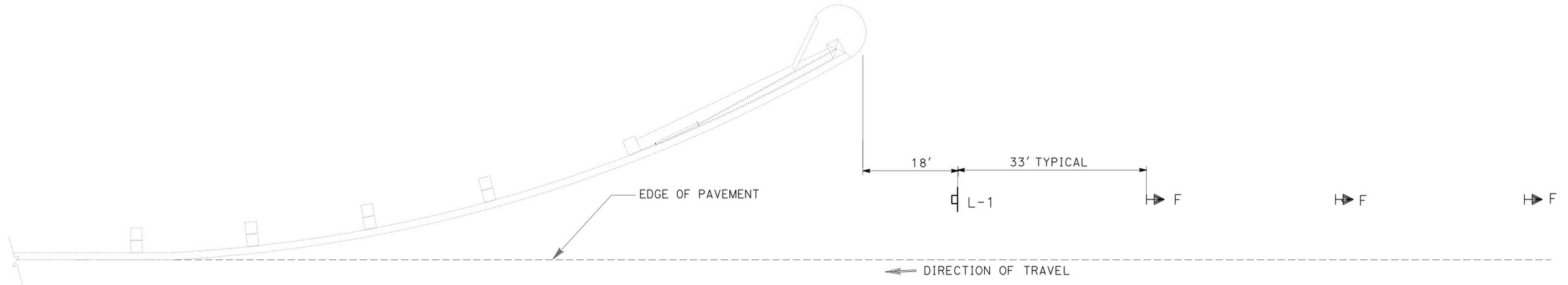


TYPICAL TERMINAL SYSTEM DELINEATION (IN-LINE)

REFER TO STANDARD PLANS MAY 2006 FOR ADDITIONAL DETAILS

DELINEATORS & OBJECT MARKERS

	DELINEATOR (CLASS 1)	GUARD RAILING DELINEATOR	OBJECT MARKER (TYPE L-1)
	(TYPE F)	(TYPE F)	(TYPE L-1)
	EA	EA	EA
	54	369	
			26
TOTAL	54	369	26



TYPICAL TERMINAL SYSTEM DELINEATION (FLARED)

REFER TO STANDARD PLANS MAY 2006 FOR ADDITIONAL DETAILS

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY

NO SCALE

**SIGN PLAN
(DELINATORS AND
OBJECT MARKERS)
S-1**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
06	Ker	178	Var	5	12

Gurbhay Brar 3-16-09
REGISTERED CIVIL ENGINEER DATE

7-13-09
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
GURBHAY S. BRAR
No. 52104
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 SCANNED COPIES OF THIS PLAN SHEET.

METAL BEAM GUARD RAILING

* LOCATION (PM TO PM)	DIRECTION (EB OR WB)	LAYOUT TYPE	MBGR (STEEL POST)	(N) ** COORDINATES AT BEGINNING OF MBGR	(N)* 7' POST	ALTERNATIVE FLARED TERMINAL SYSTEM	ALTERNATIVE INLINE TERMINAL SYSTEM	BURIED POST END ANCHOR	REMOVE TERMINAL SECTION	REMARKS
						EA	EA	EA	EA	
16.50 TO 16.66	WB	11E	862.50	NE 2355261, 6334706		1			1	REMOVE TERMINAL SECTION FROM EXISTING MBGR AND CONNECT NEW MBGR TO EXISTING MBGR
19.34 TO 19.55	WB	11E	1037.50	NE 2361521, 6343428	200	2				
19.75 TO 19.89	WB	11H	637.50	NE 2359768, 6344371	150	1	1			USE FLARED TERMINAL SYSTEM AT APPROACH, AND INLINE TERMINAL SYSTEM AT DEPARTURE.
20.08 TO 20.23	WB	11E	700.00	NE 2360211, 6345778		2				
26.03 TO 26.12	WB	11L	462.50	NE 2377589, 6362930		1		1		BURIED POST END ANCHOR AT APPROACH AND FLARED TERMINAL SYSTEM AT DEPARTURE.
26.31 TO 26.72	WB	11G	2087.50	NE 2378686, 6363843		1		1		FLARED TERMINAL SYSTEM AT APPROACH AND BURIED POST END ANCHOR AT DEPARTURE.
45.90 TO 45.96	EB	11L	112.50	NE 2422678, 6425666		1		1		BURIED POST END ANCHOR AT APPROACH AND FLARED TERMINAL SYSTEM AT DEPARTURE.
46.37 TO 46.44	EB	11F	362.50	NE 2424423, 6426686				2		
46.37 TO 46.50	WB	11E	625.00	NE 2424440, 6426653		2				
46.61 TO 46.65	EB	11G	175.00	NE 2425029, 6427821		1		1		FLARED TERMINAL SYSTEM AT APPROACH AND BURIED POST END ANCHOR AT DEPARTURE.
46.61 TO 46.65	WB	11E	137.50	NE 2425029, 6427821		2				
46.80 TO 47.04	WB	11E	1187.50	NE 2425746, 6428554		2				
46.94 TO 47.03	EB	11L	462.50	NE 2425524, 6429281		1		1		BURIED POST END ANCHOR AT APPROACH AND FLARED TERMINAL SYSTEM AT DEPARTURE.
TOTAL			8850.00			17	1		1	

- * LOCATIONS AND LENGTH OF MBGR ARE APPROXIMATE ONLY. EXACT LOCATION AND LENGTH OF MBGR TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
- ** COORDINATES PROVIDED FOR INFORMATION ONLY.
- (N) NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

SUMMARY OF QUANTITIES

Q-1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	Var	6	12

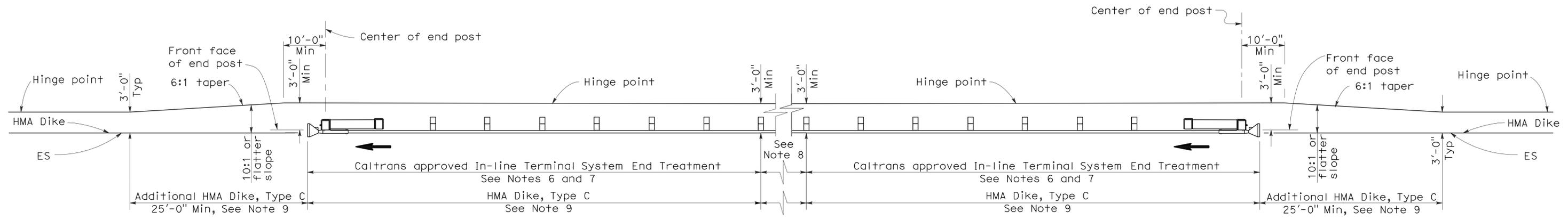
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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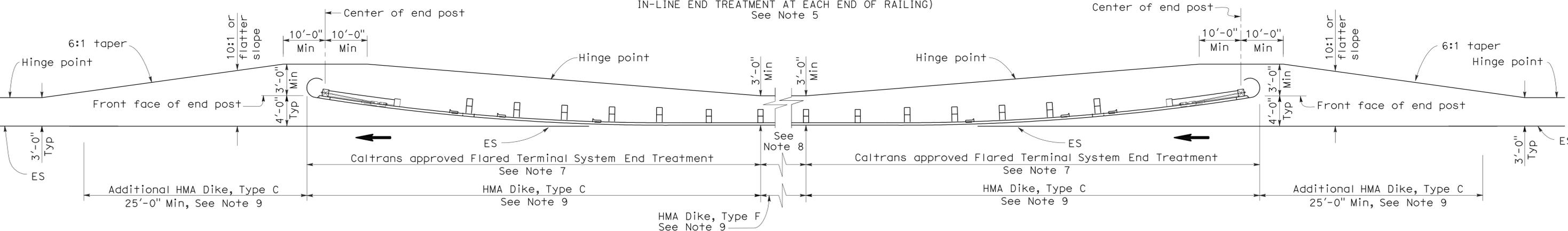
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 7-13-09



TYPE 11D LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH IN-LINE END TREATMENT AT EACH END OF RAILING)
See Note 5



TYPE 11E LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH FLARED END TREATMENT AT EACH END OF RAILING)
See Note 5

NOTES:

- Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
- Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or plastic blocks may be used for 6" x 8" x 6'-0" wood post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- Direction of adjacent traffic indicated by \rightarrow .
- Layout Types 11D through 11L, shown on the A77E Series of Revised Standard Plans, are typically used where guard railing is recommended to shield embankment slopes and a crashworthy end treatment is required for both directions of traffic.
- In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
- The type of terminal system end treatment to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height and side slope), construction of additional guard railing (length equal to multiples of 12'-6" with 6'-3" post spacing) may be advisable.
- Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**METAL BEAM GUARD RAILING
TYPICAL LAYOUTS FOR
EMBANKMENTS**

NO SCALE
RSP A77E2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77E2
DATED MAY 1, 2006 - PAGE 49 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP A77E2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	Var	7	12

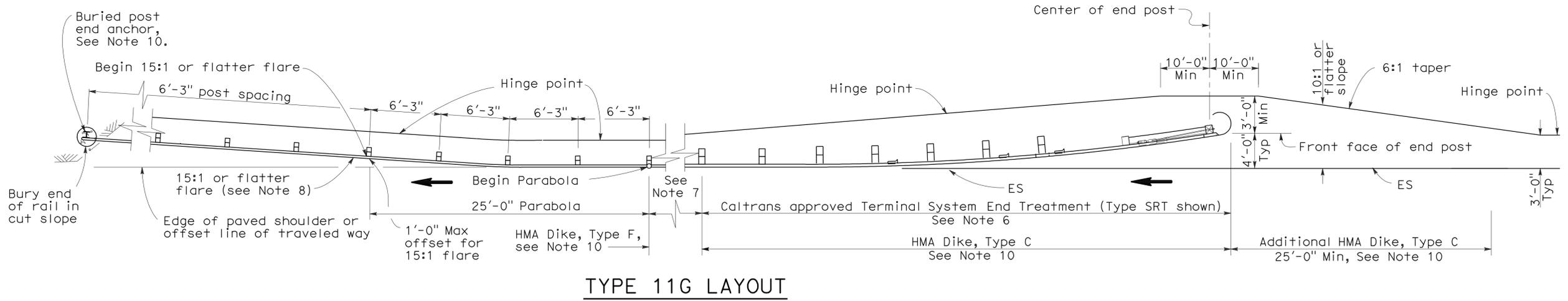
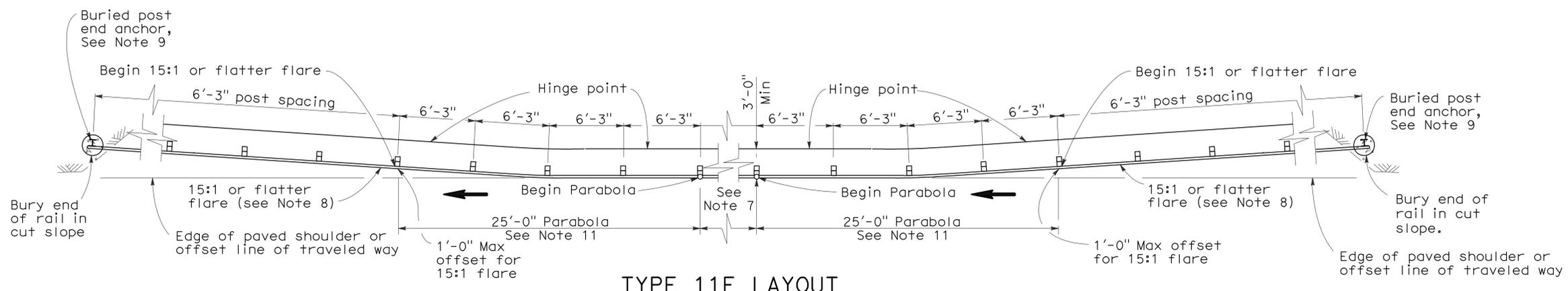
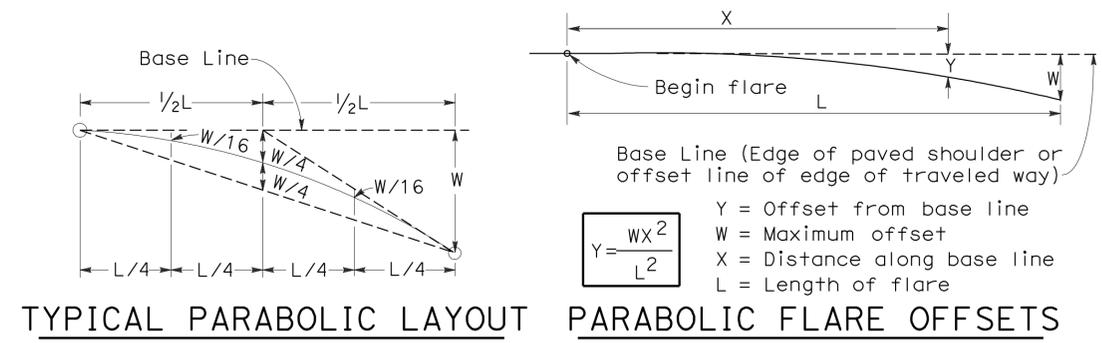
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

To accompany plans dated 7-13-09



NOTES:

- Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
- Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or plastic blocks may be used for 6" x 8" x 6'-0" wood post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- Direction of adjacent traffic indicated by \rightarrow .
- Layout Types 11D through 11L, shown on the A77E Series of Revised Standard Plans, are typically used where guard railing is recommended to shield embankment slopes and a crashworthy end treatment is required for both directions of traffic.
- The type of terminal system end treatment to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height and side slope), construction of additional guard railing (length equal to multiples of 12'-6" with 6'-3" post spacing) may be advisable.
- The 15:1 or flatter flare used with buried end anchors is based on the edge of the paved shoulder or offset line of edge of the traveled way. The length of guard railing within the 15:1 or flatter flare is based on site conditions and should be a length equal to multiples of 12'-6".
- For details of the buried post end anchor used with Type 11F and 11G Layouts, see Standard Plan A77I2.
- Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.
- For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard Plan RSP A77E1.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING
TYPICAL LAYOUTS FOR
EMBANKMENTS**

NO SCALE

RSP A77E3 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77E3
DATED MAY 1, 2006 - PAGE 50 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77E3

2006 REVISED STANDARD PLAN RSP A77E3

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	Var	8	12

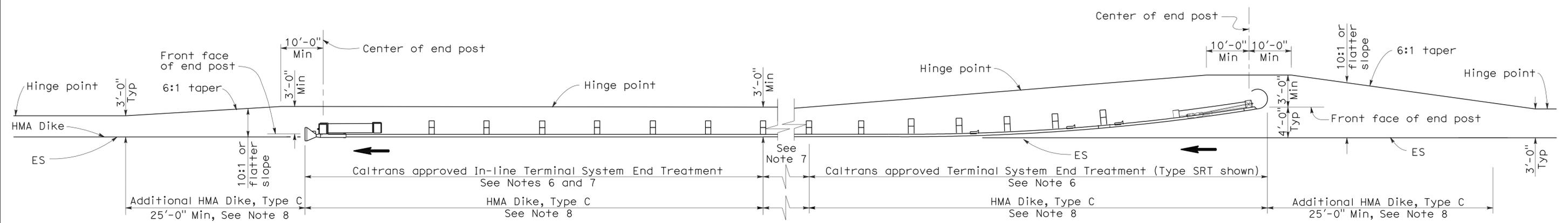
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

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To accompany plans dated 7-13-09



TYPE 11H LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH FLARED END TREATMENT AND AN IN-LINE TREATMENT AT THE ENDS OF RAILING)
See Notes 5 and 8

NOTES:

- Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
- Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or plastic blocks may be used for 6" x 8" x 6'-0" wood post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- Direction of adjacent traffic indicated by →.
- Layout Types 11D through 11L, shown on the A77E Series of Revised Standard Plans, are typically used where guard railing is recommended to shield embankment slopes and a crashworthy end treatment is required for both directions of traffic.
- The type of terminal system end treatment to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height and side slope), construction of additional guard railing (length equal to multiples of 12'-6" with 6'-3" post spacing) may be advisable.
- Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**METAL BEAM GUARD RAILING
TYPICAL LAYOUTS FOR
EMBANKMENTS**

NO SCALE

RSP A77E4 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77E4
DATED MAY 1, 2006 - PAGE 51 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77E4

2006 REVISED STANDARD PLAN RSP A77E4

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	Var	9	12

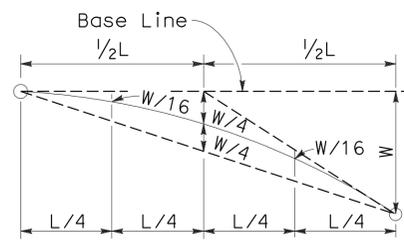
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

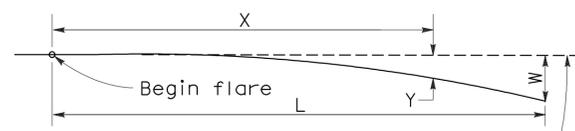
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REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 7-13-09



TYPICAL PARABOLIC LAYOUT

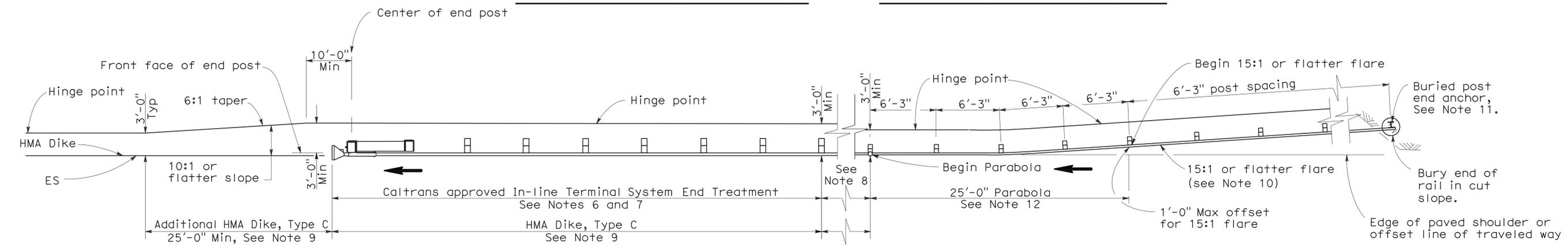


Base Line (Edge of paved shoulder or offset line of edge of traveled way)

$$Y = \frac{WX^2}{L^2}$$

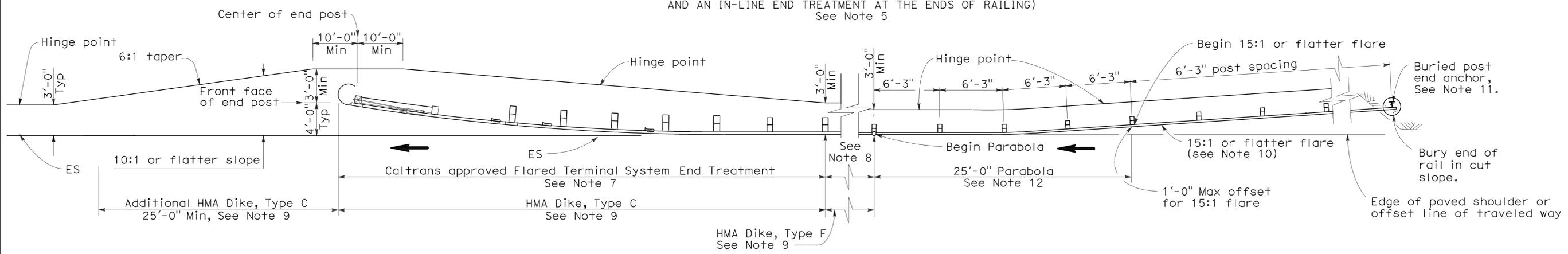
Y = Offset from base line
W = Maximum offset
X = Distance along base line
L = Length of flare

PARABOLIC FLARE OFFSETS



TYPE 11K LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH A BURIED END ANCHOR TREATMENT AND AN IN-LINE END TREATMENT AT THE ENDS OF RAILING)
See Note 5



TYPE 11L LAYOUT

(EMBANKMENT GUARD RAILING INSTALLATION WITH A BURIED END ANCHOR TREATMENT AND A FLARED END TREATMENT AT THE ENDS OF RAILING)
See Note 5

NOTES:

- Line post, blocks and hardware to be used are shown on Standard Plans A77A1, A77A2, A77B1, A77C1 and A77C2.
- Guard rail post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 8" x 1'-2" wood blocks. W6 x 9 steel posts, 6'-0" in length, with 6" x 8" x 1'-2" notched wood blocks or plastic blocks may be used for 6" x 8" x 6'-0" wood post with 6" x 8" x 1'-2" wood blocks where applicable and when specified.
- Direction of adjacent traffic indicated by \rightarrow .
- Layout Types 11D through 11L, shown on the A77E Series of Revised Standard Plans, are typically used where guard railing is recommended to shield embankment slopes and a crashworthy end treatment is required for both directions of traffic.
- In-line Terminal System End Treatments are used where site conditions will not accommodate a flared end treatment.
- The type of terminal system end treatment to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height and side slope), construction of additional guard railing (length equal to multiples of 12'-6" with 6'-3" post spacing) may be advisable.
- Where placement of dike is required with guard railing installations, see Revised Standard Plan RSP A77C4 for dike positioning details.
- The 15:1 or flatter flare used with buried end anchors is based on the edge of the paved shoulder or offset line of edge of the traveled way. The length of guard railing within the 15:1 or flatter flare is based on site conditions and should be a length equal to multiples of 12'-6".
- For details of the buried post end anchor used with Type 11K and 11L Layouts, see Standard Plan A77I2.
- For typical flare offsets for 25'-0" length parabola with maximum offset of 1'-0", see Revised Standard Plan RSP A77E1.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**METAL BEAM GUARD RAILING
TYPICAL LAYOUTS FOR
EMBANKMENTS**

NO SCALE

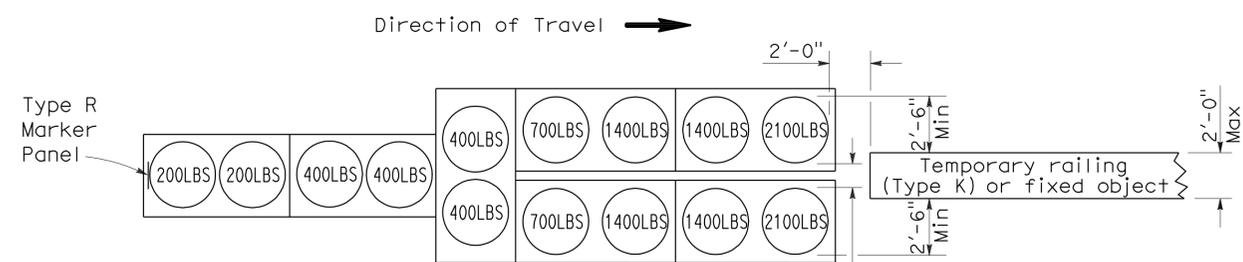
RSP A77E6 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN A77E6
DATED MAY 1, 2006 - PAGE 53 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP A77E6

2006 REVISED STANDARD PLAN RSP A77E6

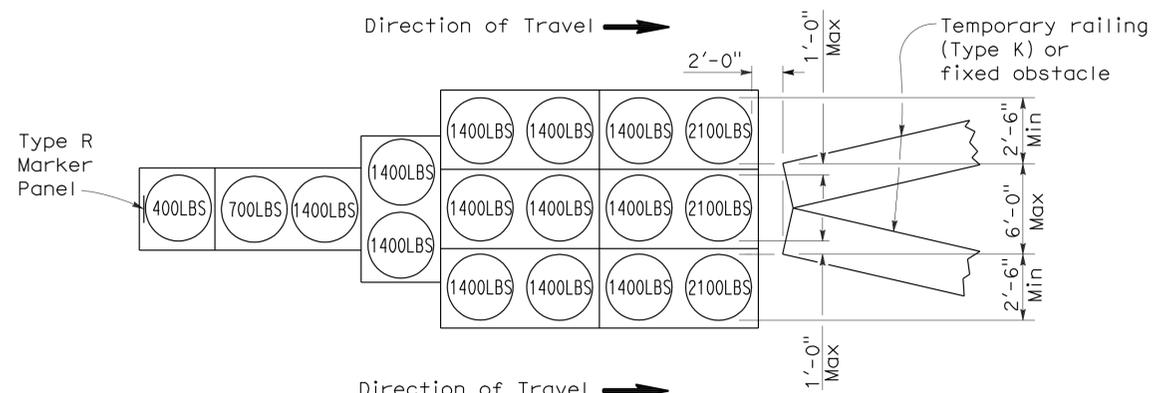
To accompany plans dated 7-13-09

2006 REVISED STANDARD PLAN RSP T1A



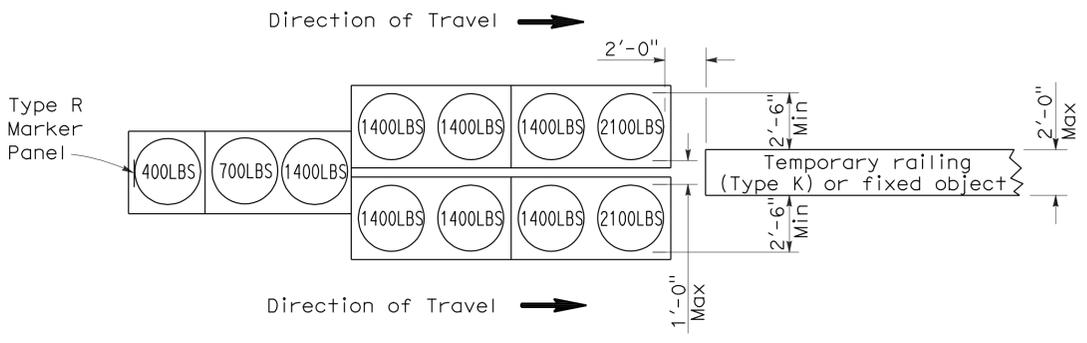
ARRAY 'TU14'

Approach speed 45 mph or more



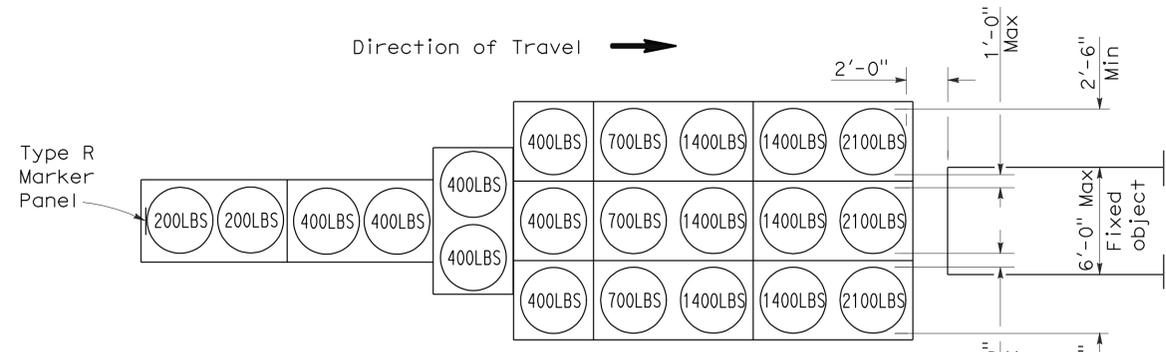
ARRAY 'TU17'

Approach speed less than 45 mph



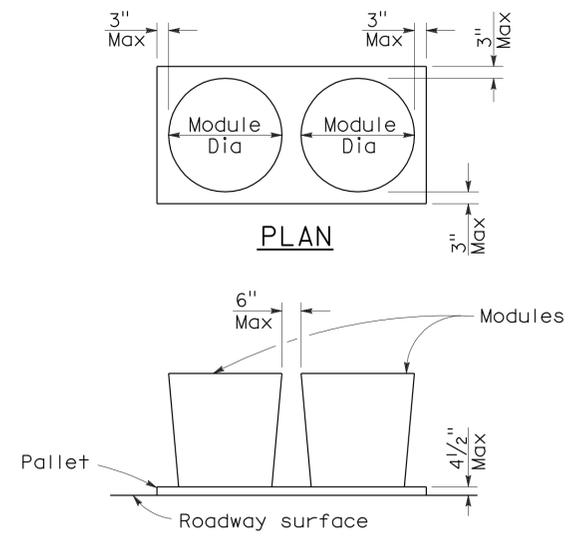
ARRAY 'TU11'

Approach speed less than 45 mph



ARRAY 'TU21'

Approach speed 45 mph or more



PLAN

ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP T1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	Var	11	12

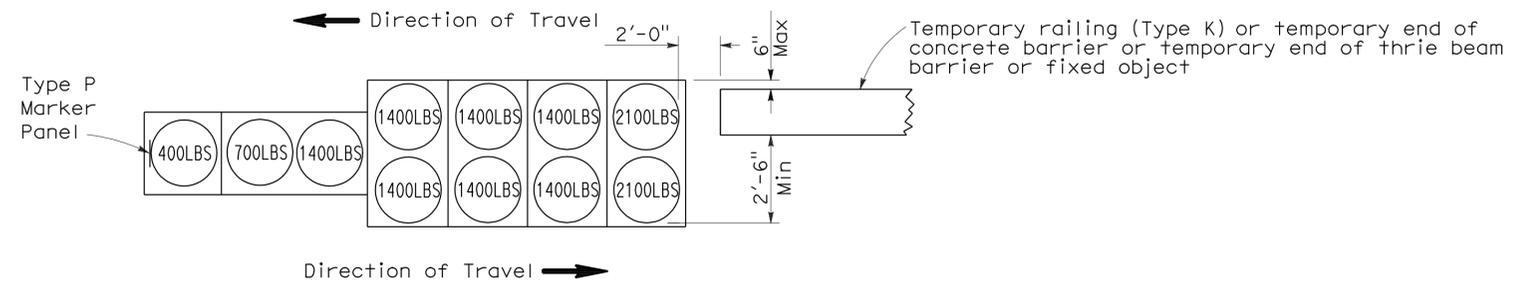
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

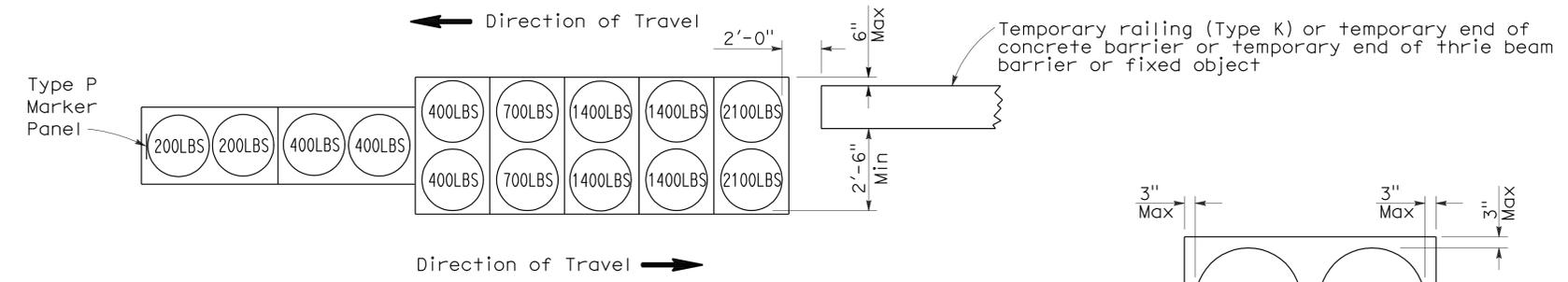
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To accompany plans dated 7-13-09



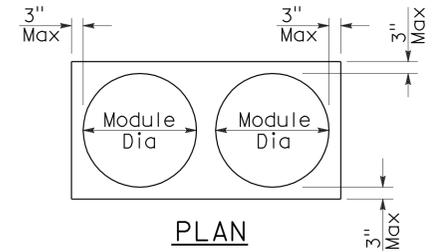
ARRAY 'TB11'

Approach speed less than 45 mph

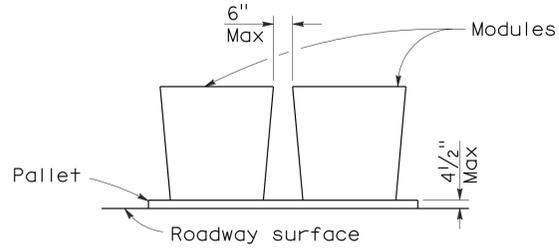


ARRAY 'TB14'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
06	Ker	178	Var	12	12

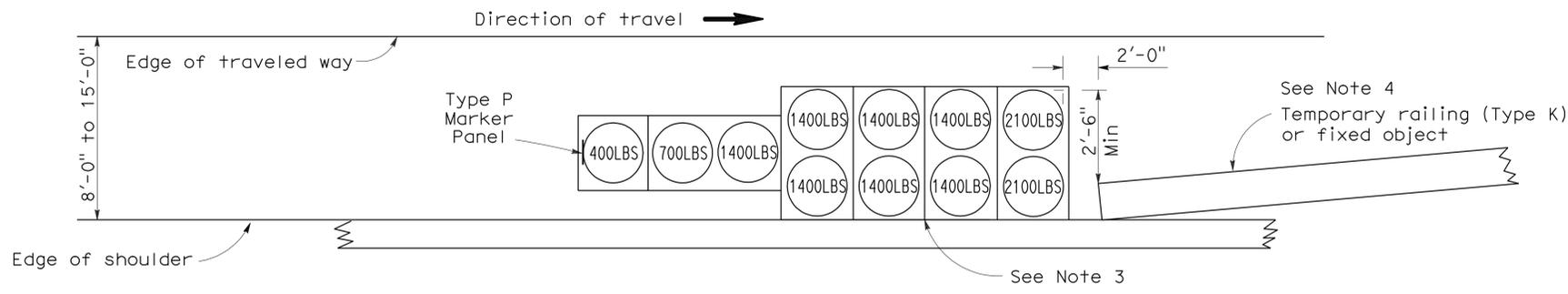
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

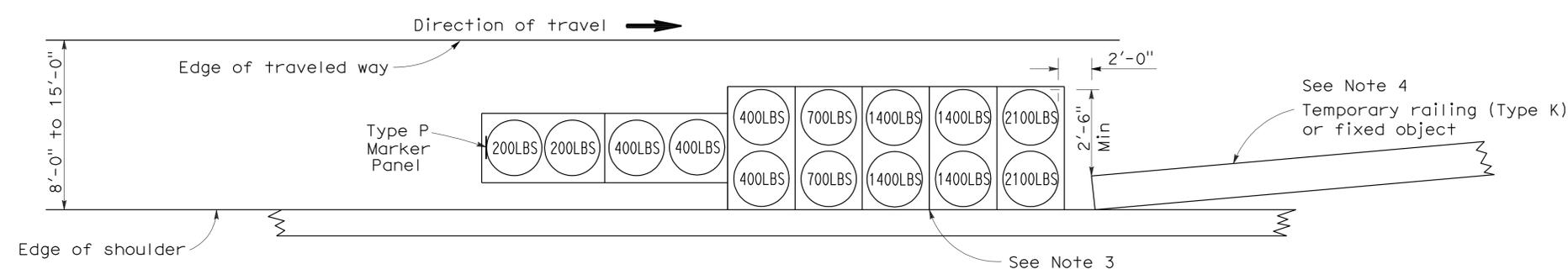
Randell D. Hiatt
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

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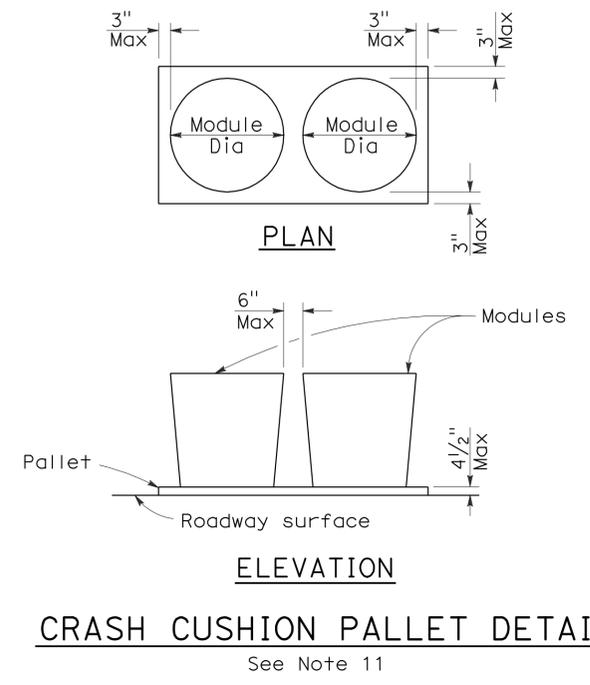
To accompany plans dated 7-13-09



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



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



NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,
SAND FILLED
(SHOULDER INSTALLATIONS)**

NO SCALE

RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2