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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 **IM-STPI-010-4(061)161E**
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY
IN RIVERSIDE COUNTY
NEAR COACHELLA
FROM 1 MILE WEST OF AQUEDUCT WASH BRIDGE
TO 0.1 MILE WEST OF ROUTE 177 JUNCTION

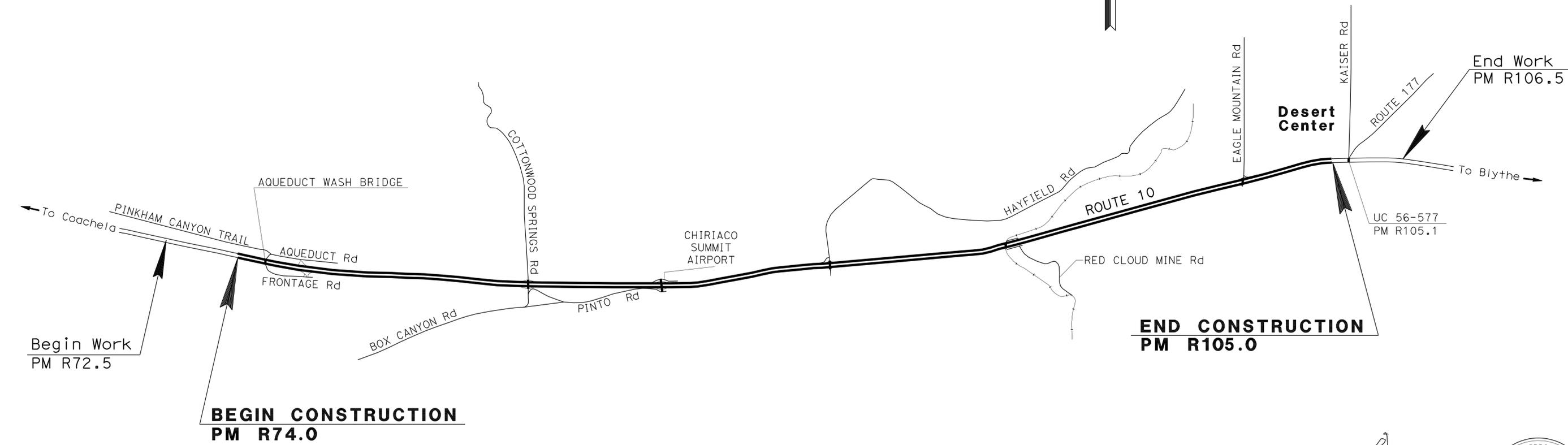
TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	R74.0/R105.0	1	11





LOCATION MAP



NO SCALE

PROJECT MANAGER
 CATALINO PINING III
 DESIGN ENGINEER
 KEVIN H. CHEN

PROJECT ENGINEER *Kevin H. Chen* DATE 5-27-10
 REGISTERED CIVIL ENGINEER
 KEVIN H. CHEN
 No. 70017
 Exp. 9-30-10
 CIVIL
 STATE OF CALIFORNIA

July 19, 2010
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

CONTRACT No. **08-OH3104**
 PROJECT ID **0800020006**

DATE PLOTTED => 15-SEP-2010
 TIME PLOTTED => 05:57
 LAST REVISION 05-27-10

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	R74.0/R105.0	2	11

REGISTERED CIVIL ENGINEER	DATE
6-22-10	
PLANS APPROVAL DATE	
7-19-10	

REGISTERED PROFESSIONAL ENGINEER
KEVIN H. CHEN
No. 70017
Exp. 9-30-10
CIVIL
STATE OF CALIFORNIA

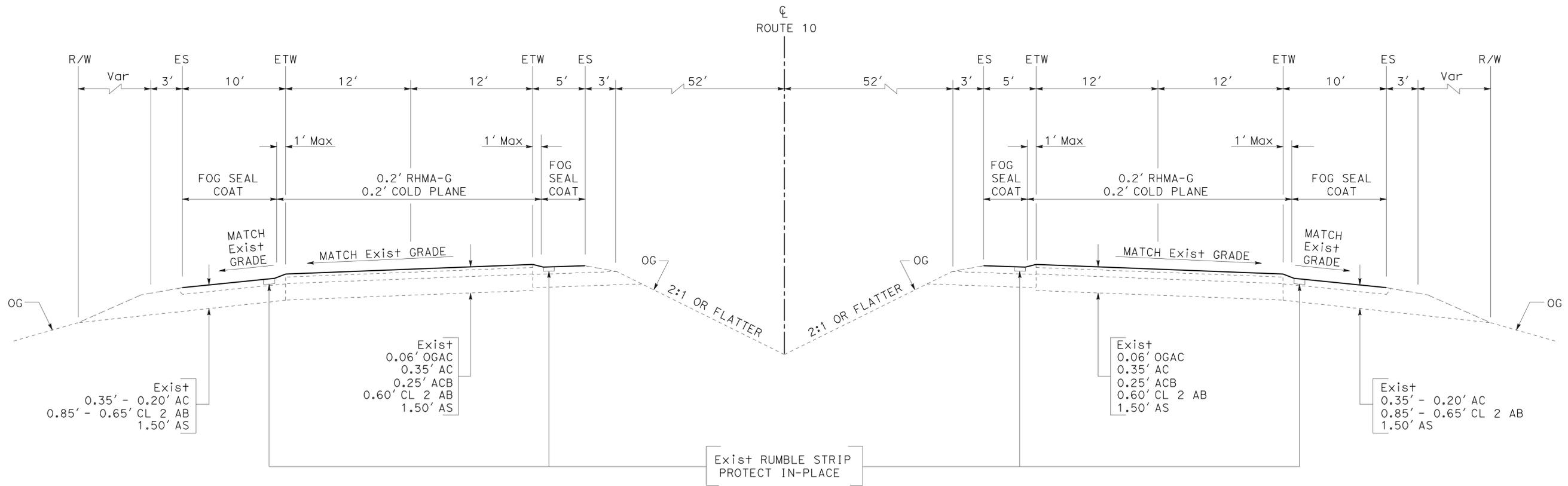
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. DIMENSIONS OF THE PAVEMENT STRUCTURE ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS
2. SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
3. SEE SHEET C-1 FOR LIMITS OF WORK.

DESIGN DESIGNATION

2010 ADT = 24,200 D = 39.0%
 2010 DHV = 3,020 T = 19.0%
 2020 ADT = 31,500 D = 40.0%
 2020 DHV = 3,150 T = 19.0%
 2030 ADT = 41,000 D = 40.0%
 2030 DHV = 3,280 T = 18.0%
 TI₂₀ = 15.5



WESTBOUND

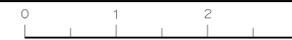
EASTBOUND

ROUTE 10
 FROM PM R74.0 TO PM R105.0

TYPICAL CROSS SECTIONS

NO SCALE

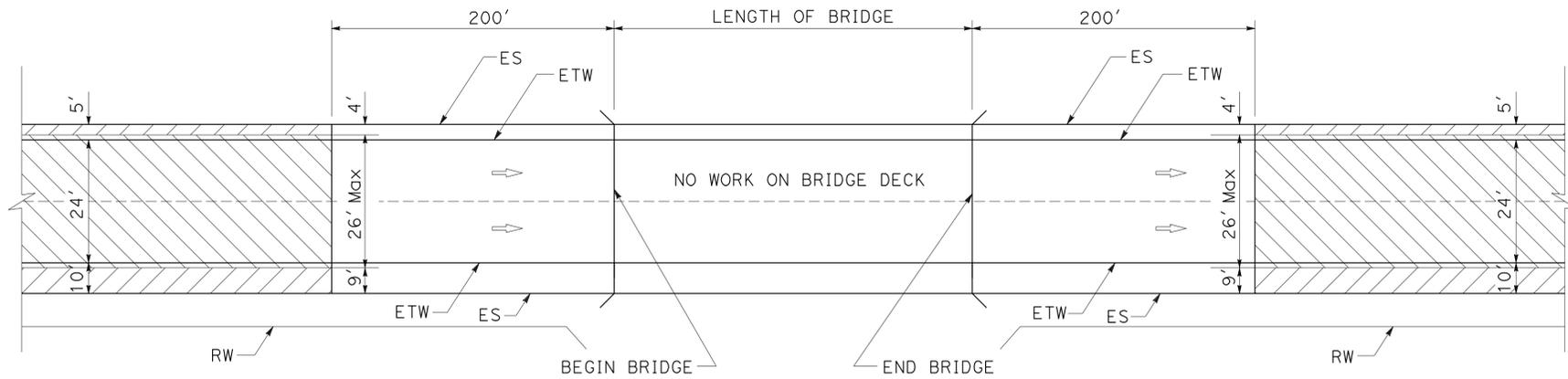
X-1



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	R74.0/R105.0	3	11

REGISTERED CIVIL ENGINEER DATE 6-22-10
 PLANS APPROVAL DATE 7-19-10
 KEVIN H. CHEN
 No. 70017
 Exp. 9-30-10
 CIVIL
 STATE OF CALIFORNIA

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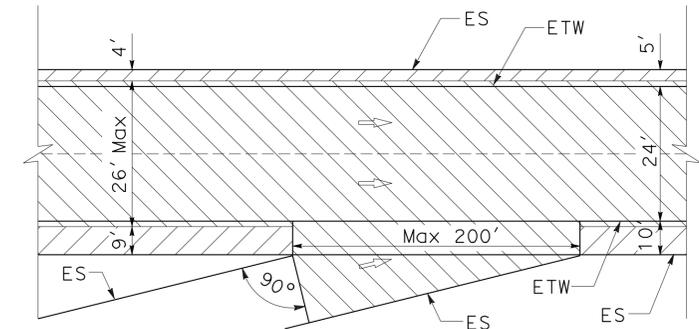
LIMITS OF WORK (TYPE I)
(FOR BRIDGES LISTED IN TABLE)

LEGEND:

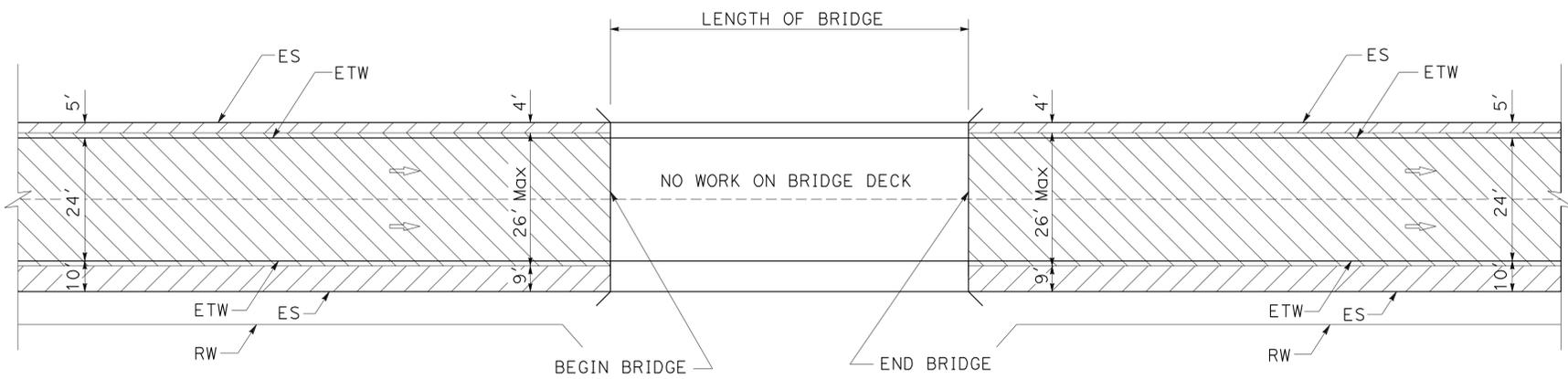
- FOG SEAL COAT
- 0.2' COLD PLANE
0.2' RHMA (GAP GRADED)

LIST OF BRIDGES WITH LIMIT OF WORK (TYPE I)

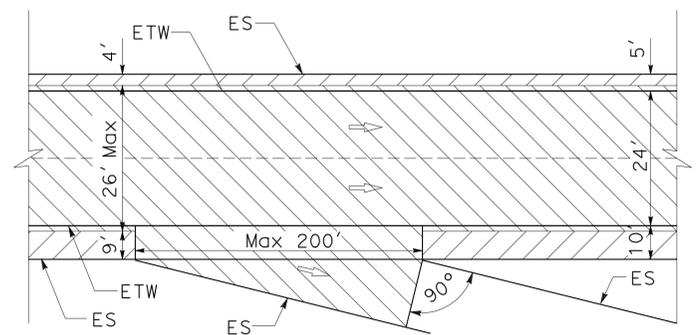
PM	STRUCTURE NAME	STRUCTURE NUMBER	LENGTH OF BRIDGE	PM	STRUCTURE NAME	STRUCTURE NUMBER	LENGTH OF BRIDGE
R90.98	DETERMINATION DITCH	56-0124 L/R	84'	R96.5	IROLO DITCH	56-0113 L/R	110'
R91.92	ORRIS DITCH	56-0123 L/R	78'	R96.8	AJAX DITCH	56-0112 L/R	93'
R92.90	KRUME DITCH	56-0122 L/R	100'	R97.3	SHANTY DITCH	56-0111 L/R	75'
R93.63	BETA DITCH	56-0120 L/R	66'	R97.8	UNION DITCH	56-0109 L/R	99'
R94.7	TECKA DITCH	56-0118 L/R	132'	R98.8	BULA DITCH	56-0105 L/R	68'
R95.0	EAGLE MOUNTAIN OH	56-0263 L/R	137'	R99.0	TARO DITCH	56-0104 L/R	108'



LIMITS OF WORK
(TYPICAL ENTRANCE RAMP)



LIMITS OF WORK (TYPE II)
(FOR BRIDGES NOT LISTED IN TABLE)



LIMITS OF WORK
(TYPICAL EXIT RAMP)

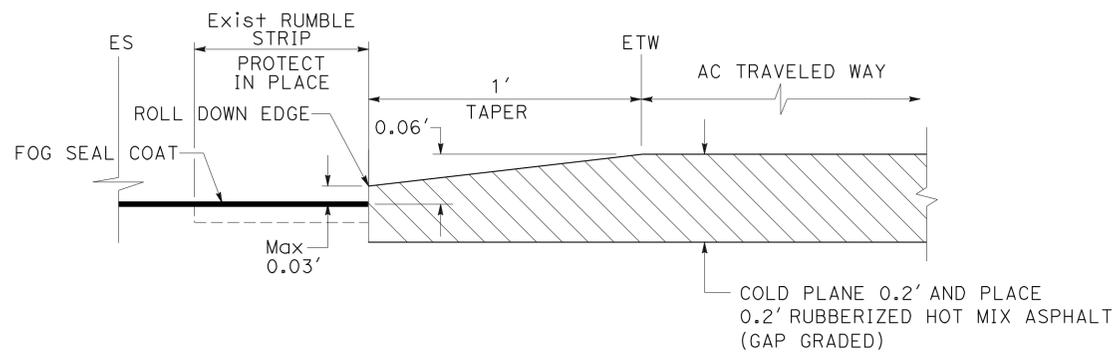
CONSTRUCTION DETAILS
NO SCALE **C-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
 Caltrans MAINTENANCE DESIGN
 FUNCTIONAL SUPERVISOR: KUANG H. CHEN
 CALCULATED/DESIGNED BY: KEVIN H. CHEN
 CHECKED BY: KUANG H. CHEN
 REVISED BY: KEVIN H. CHEN
 DATE REVISED:

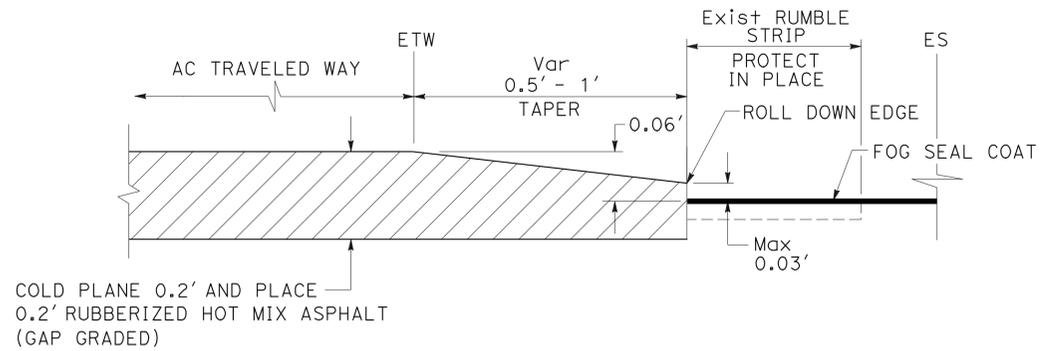
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	R74.0/R105.0	4	11
			6-22-10	REGISTERED CIVIL ENGINEER DATE	
			7-19-10	PLANS APPROVAL DATE	
<small>THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.</small>					

LEGEND:

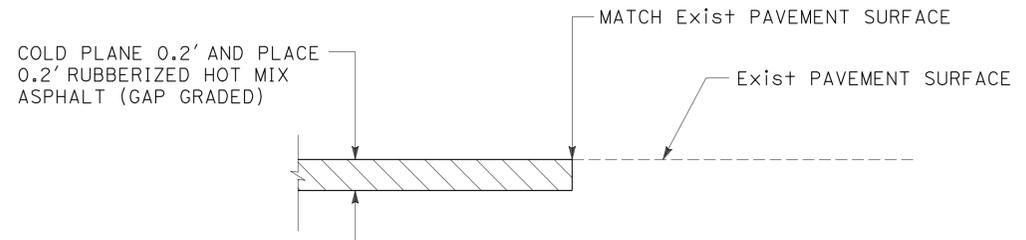
- FOG SEAL COAT
- 0.2' COLD PLANE
0.2' RHMA (GAP GRADED)
- REPLACE ASPHALT CONCRETE PAVEMENT
(LOCALIZED DIG-OUTS)
(HMA-A 3/4-INCH GRADING)



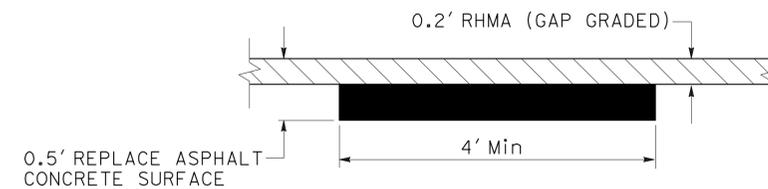
PAVEMENT CONFORM (TRANSVERSE)
LEFT OF DIRECTION OF TRAVEL



PAVEMENT CONFORM (TRANSVERSE)
RIGHT OF DIRECTION OF TRAVEL



PAVEMENT CONFORM (LONGITUDINAL)
BEGIN / END CONSTRUCTION
BEGIN / END STRUCTURE DECK
ENTRANCE / EXIT RAMP TO MAINLINE



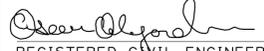
REPLACE ASPHALT CONCRETE SURFACE
(LOCALIZED DIG-OUTS)

CONSTRUCTION DETAILS
NO SCALE

C-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN
 FUNCTIONAL SUPERVISOR: KUANG H. CHEN
 CALCULATED/DESIGNED BY: KEVIN H. CHEN
 CHECKED BY: KUANG H. CHEN
 REVISED BY: KEVIN H. CHEN
 DATE REVISED: KUANG H. CHEN

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	R74.0/R105.0	6	11

 7-8-10
 REGISTERED CIVIL ENGINEER DATE

7-19-10
 PLANS APPROVAL DATE

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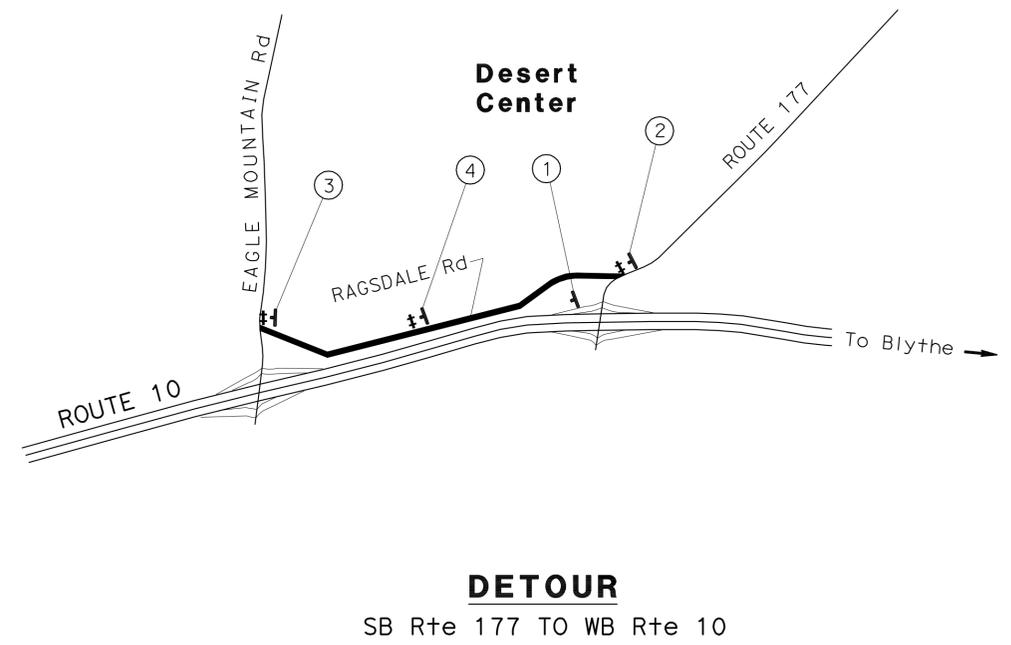
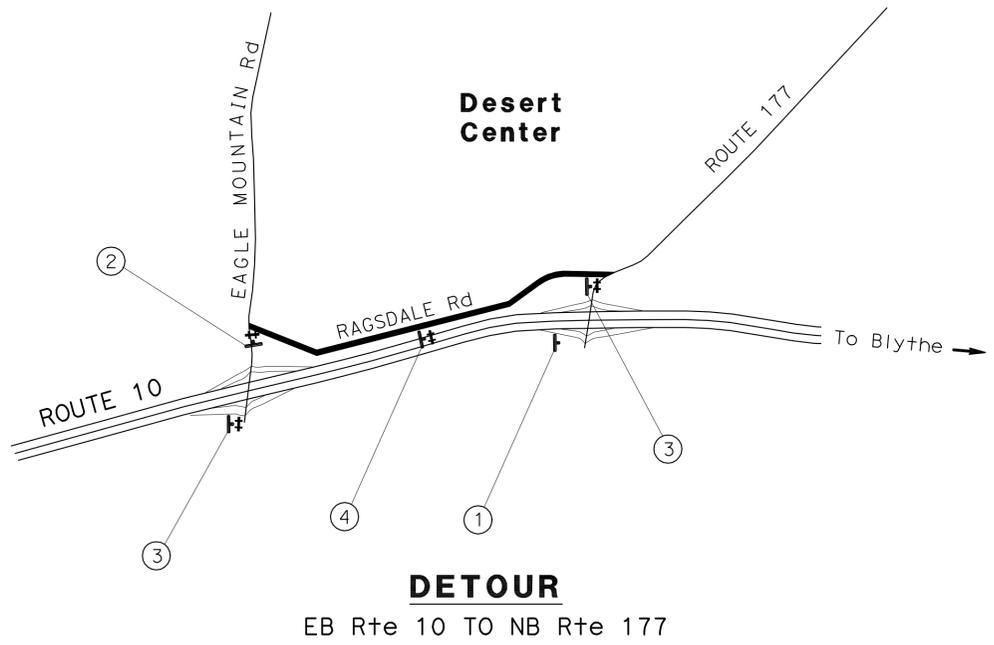
REGISTERED PROFESSIONAL ENGINEER
OSCAR ALEJANDRE
 No. 70863
 Exp. 6-30-11
 CIVIL
 STATE OF CALIFORNIA

LEGEND:

-  CONSTRUCTION AREA SIGN
-  DETOUR AREA
-  CONSTRUCTION AREA SIGN NUMBER
-  BARRICADE

NOTES:

1. LOCATIONS OF THE CONSTRUCTION AREA SIGNS ARE APPROXIMATE. THE EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.
2. ADVANCE DETOUR SIGNS ON PORTABLE CHANGEABLE MESSAGE SIGNS.
3. FOR BARRICADE DETAILS, SEE STANDARD PLAN A73C.



CONSTRUCTION AREA SIGNS

SIGN No. (X)	SIGN CODE	SIGN MESSAGE	PANEL SIZE	NUMBER OF POSTS AND SIZE	TYPE BARRICADE	No. OF SIGNS
1	SC6-3	RAMP CLOSED DATE-TIME	48" x 48"	1 - 6" x 6"	—	2
2	M4-10(R)	DETOUR	48" x 18"	—	TYPE II	2
3	M4-10(L)	DETOUR	48" x 18"	—	TYPE II	3
4	SC3(CA)	DETOUR	48" x 18"	—	TYPE II	2

TRAFFIC HANDLING PLAN
NO SCALE **TH-1**

THIS PLAN ACCURATE FOR TRAFFIC HANDLING WORK ONLY



USERNAME => trpierce
DGN FILE => 80h310md001.dgn

CU 08381

EA 0H3101

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN B
 LARRY SARTORI
 FUNCTIONAL SUPERVISOR
 CHECKED BY
 DESIGNED BY
 SHABBIR AHMED
 OSCAR ALEJANDRE
 REVISOR BY
 DATE REVISOR

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	R74.0/R105.0	7	11

5-27-10
 REGISTERED CIVIL ENGINEER DATE
 7-19-10
 PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
OSCAR ALEJANDRE
 No. 70863
 Exp. 6-30-11
 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.

LEGEND:

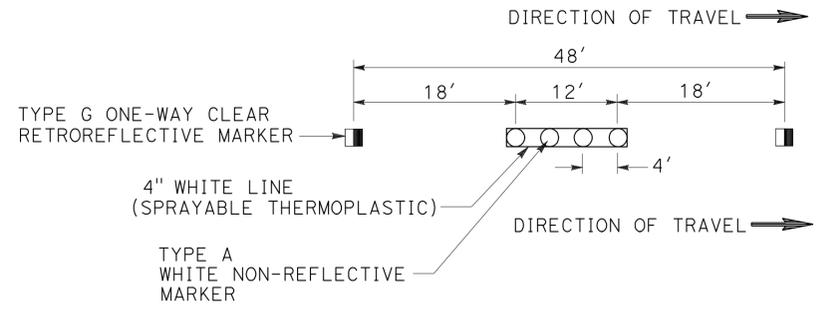


NOTE:

1. SPEED ENFORCED BY AIRCRAFT PAVEMENT MARKING TYPICALLY INSTALLED AT ONE MILE INTERVALS OR AS DIRECTED BY THE ENGINEER.

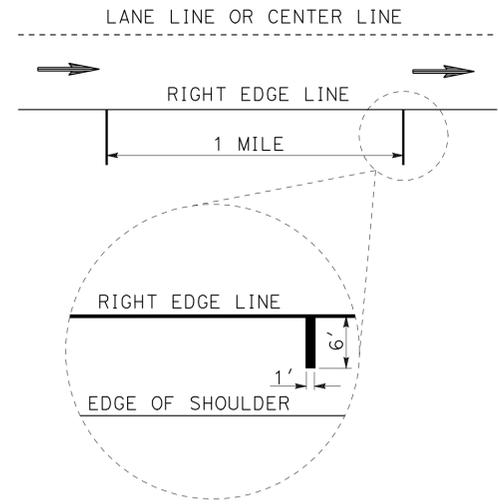
PAVEMENT DELINEATION QUANTITIES

POST MILE		DIRECTION	THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)				PAVEMENT MARKERS				THERMOPLASTIC PAVEMENT MARKING
FROM	TO		4" YELLOW	4" WHITE		8" WHITE	NON-REFLECTIVE	RETROREFLECTIVE			
			DETAIL 25	DETAIL 13 M	DETAIL 27B	DETAIL 36	TYPE	TYPE			
			LF	LF		LF	A	C	G	H	SF
74.0	105.0	EB	163000	163000	163000		13640	84	3330	3410	
74.0	105.0	EB				2100			100		
74.0	105.0	WB	163000	163000	163000		13640	72	3340	3410	
74.0	105.0	WB				2100			100		
74.0	105.0	EB/WB									384
SUBTOTAL			326000	326000	326000	4200		156	6870	6820	
TOTAL			982200				27280	13846			384



DETAIL 13 MODIFIED (13M)

INSTALL TYPE A NON-REFLECTIVE MARKER WITH STRIPING DETAIL 13M
 INSTALL TYPE A MARKER BEFORE STRIPING TO GET THE PROPER BONDING



SPEED ENFORCED BY AIRCRAFT PAVEMENT MARKING DETAIL

PAVEMENT DELINEATION QUANTITIES AND DETAILS

NO SCALE

PDQ-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans TRAFFIC DESIGN B
 LARRY SARTORI
 OSCAR ALEJANDRE
 SHABBIR AHMED
 REVISOR BY DATE
 DESIGNED BY CHECKED BY
 CALCULATED BY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans MAINTENANCE DESIGN

FUNCTIONAL SUPERVISOR
 KUANG H. CHEN

CALCULATED/DESIGNED BY
 CHECKED BY

KEVIN H. CHEN
 KUANG H. CHEN

REVISED BY
 DATE REVISED

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	Riv	10	R74.0/R105.0	8	11

 6-22-10
 REGISTERED CIVIL ENGINEER DATE
 7-19-10
 PLANS APPROVAL DATE



THE STATE OF CALIFORNIA OR ITS OFFICERS
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 THE ACCURACY OR COMPLETENESS OF SCANNED
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NOTES:

1. EXACT LOCATION FOR REPLACE ASPHALT CONCRETE SURFACING TO BE DETERMINED BY ENGINEER.
2. EXACT LENGTH AND WIDTH OF REPLACE ASPHALT CONCRETE SURFACING TO BE DETERMINED BY ENGINEER.
3. WIDTH OF TRAVEL WAY AND SHOULDER ARE NOMINAL. MATCH EXISTING WIDTHS IN THE FIELD.

PAVEMENT QUANTITIES

DIRECTION	BEGIN	END	LENGTH	LANE WIDTH	SHOULDER WIDTH	RHMA-G	TACK COAT	COLD PLANE	FOG SEAL COAT
	PM	PM	LF	LF	LF	TONS	TONS	SQYD	TONS
EASTBOUND	R74.0	R105.0	157,730	26	15	61,515	190	455,665	131.4
WESTBOUND	R74.0	R105.0	157,730	26	15	61,515	190	455,665	131.4
RAMPS						1,512		11,200	
TOTAL						124,542	380	922,530	262.9

REPLACE ASPHALT CONCRETE SURFACING

DIRECTION	LOCATION	LENGTH	DEPTH	VOLUME
	PM	LF	LF	CY
EASTBOUND	R84.0-R85.1	5,701.5	0.5	1,267
WESTBOUND	R84.0-R85.1	5,701.5	0.5	1,267
EASTBOUND	R89.0-R90.1	5,701.5	0.5	1,267
WESTBOUND	R89.0-R90.1	5,701.5	0.5	1,267
EASTBOUND	R100.0-R101.1	5,701.5	0.5	1,267
WESTBOUND	R103.0-R104.1	5,701.5	0.5	1,267
TOTAL				7,602

SUMMARY OF QUANTITIES
Q-1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	10	R74.0/R105.0	9	11

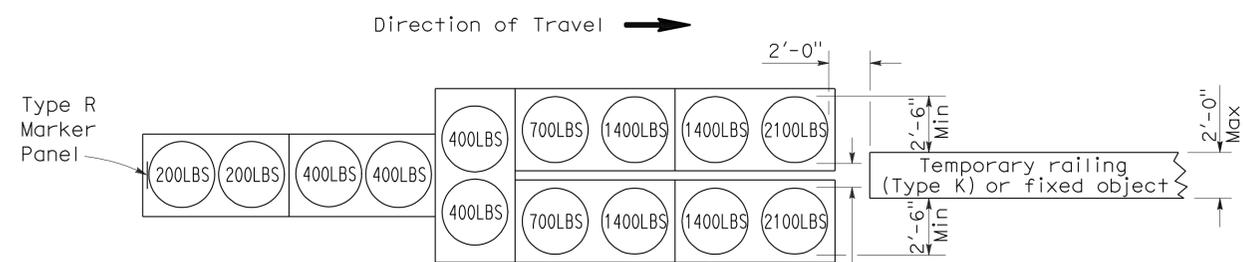
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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

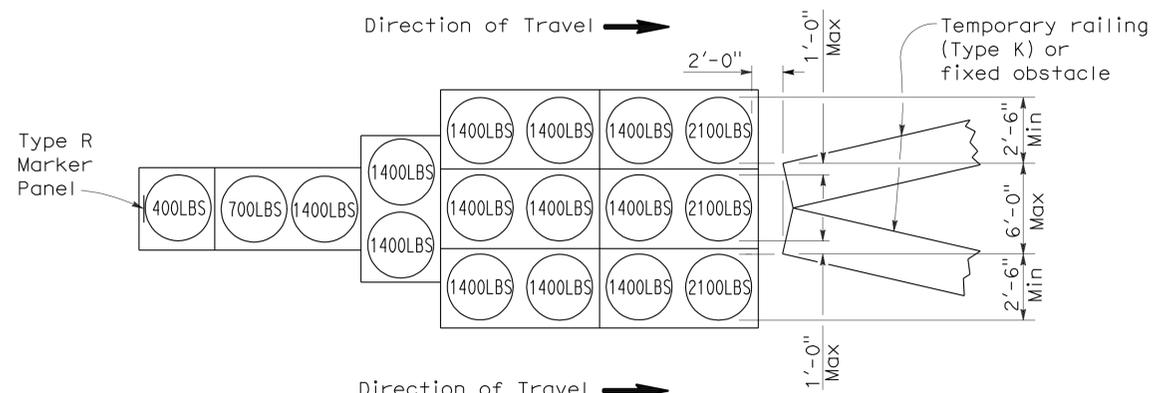
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To accompany plans dated 7-19-10



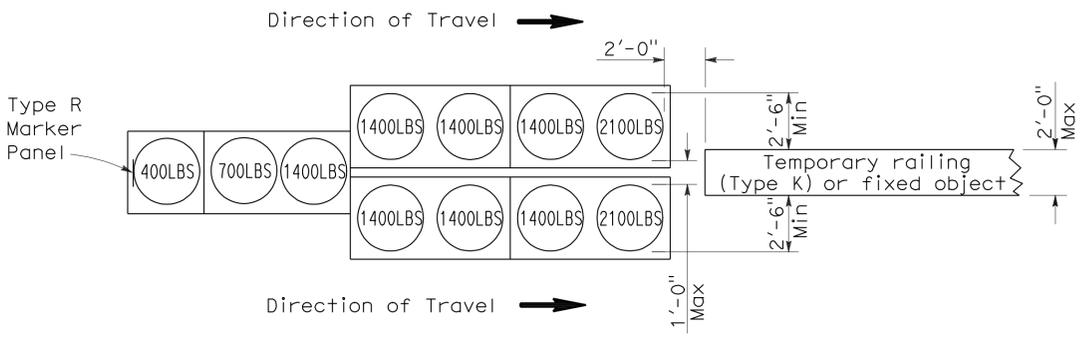
ARRAY 'TU14'

Approach speed 45 mph or more



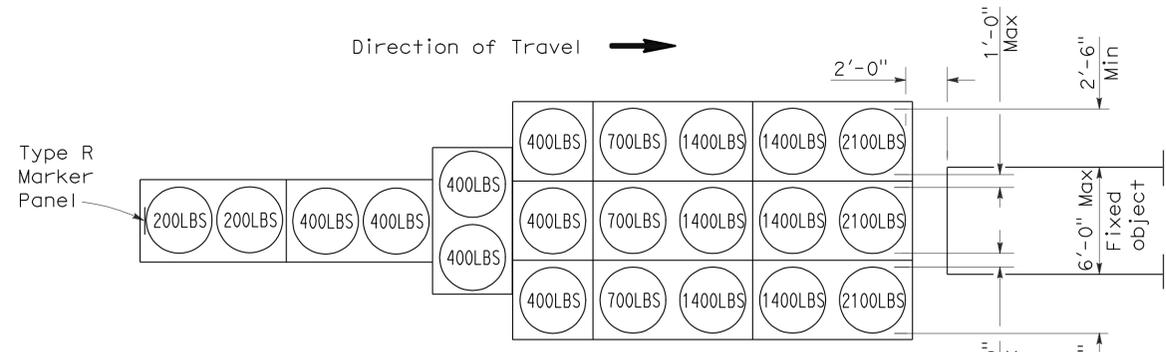
ARRAY 'TU17'

Approach speed less than 45 mph



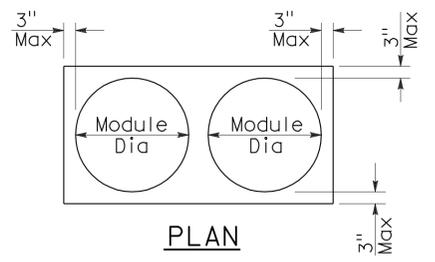
ARRAY 'TU11'

Approach speed less than 45 mph

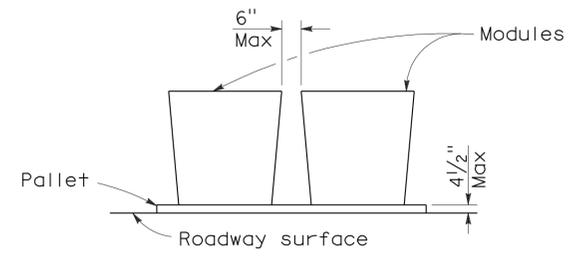


ARRAY 'TU21'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

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

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

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

NO SCALE

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

REVISED STANDARD PLAN RSP T1A

2006 REVISED STANDARD PLAN RSP T1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	10	R74.0/R105.0	10	11

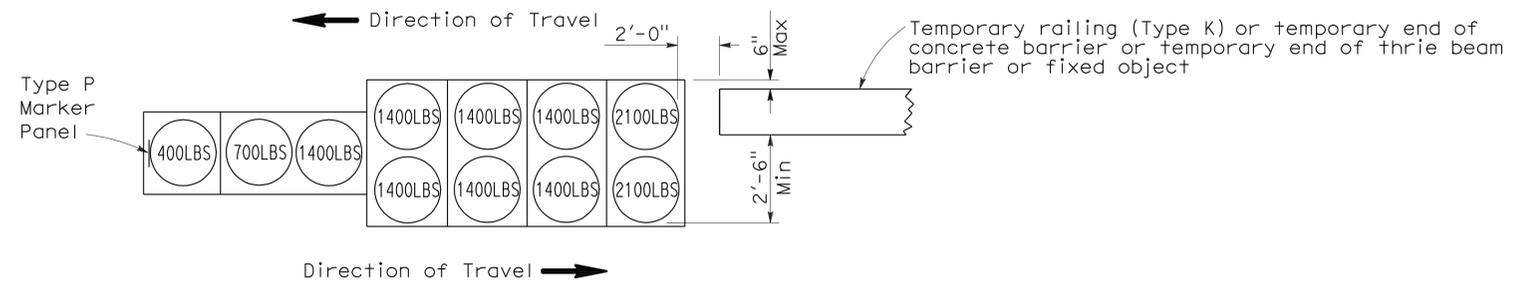
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

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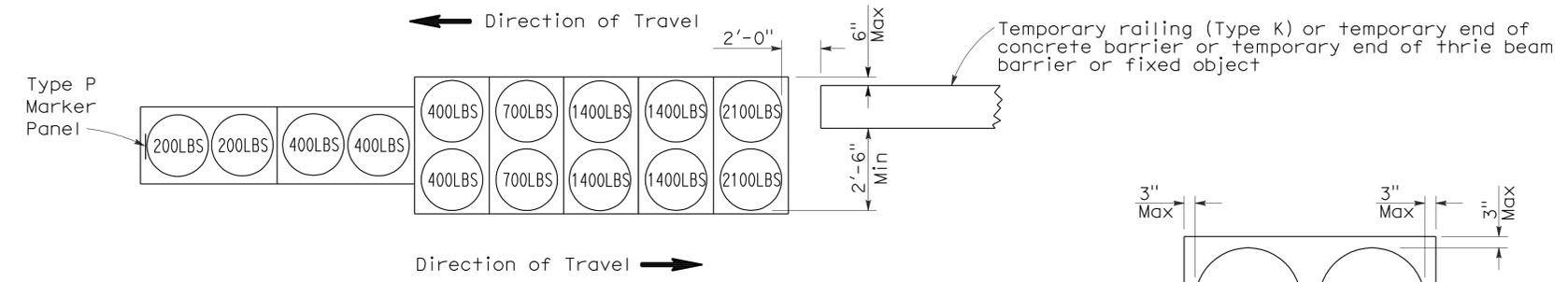
REGISTERED PROFESSIONAL ENGINEER
Randell D. Hiatt
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

To accompany plans dated 7-19-10



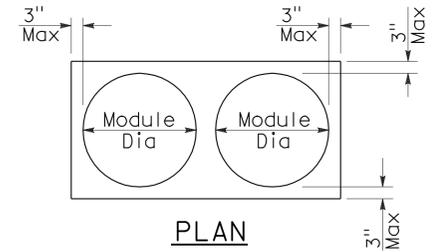
ARRAY 'TB11'

Approach speed less than 45 mph

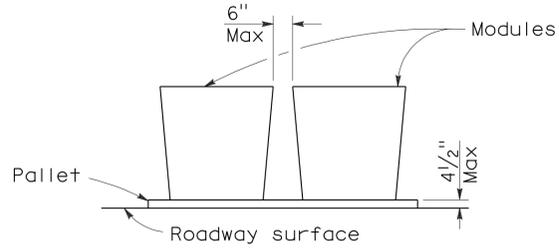


ARRAY 'TB14'

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

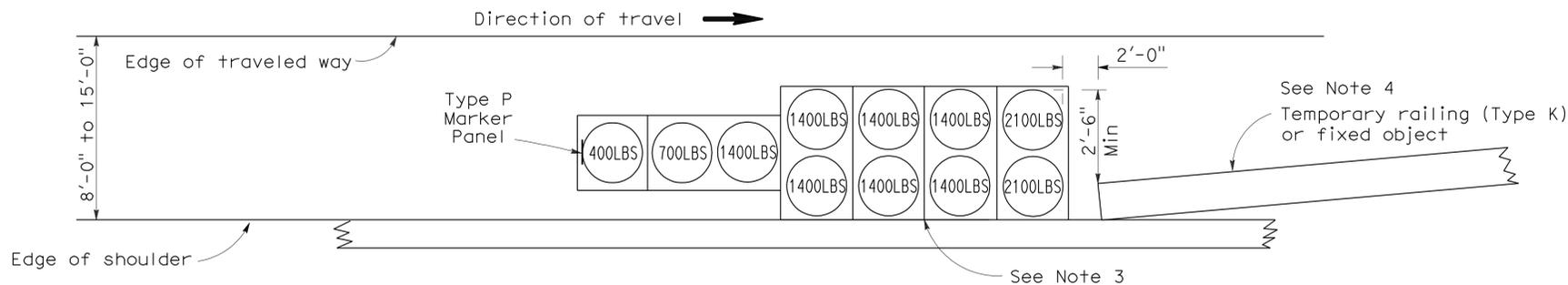
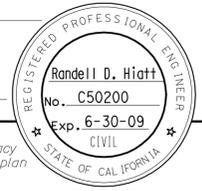
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	Riv	10	R74.0/R105.0	11	11

Randell D. Hiatt
REGISTERED CIVIL ENGINEER

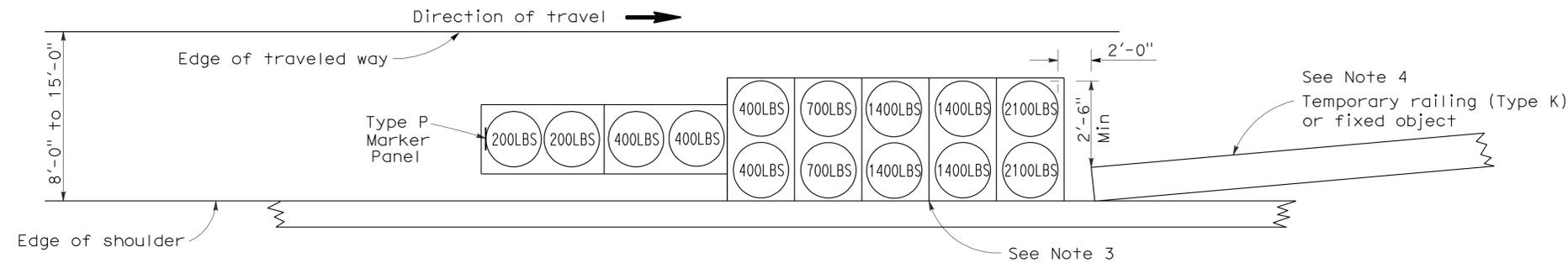
June 6, 2008
PLANS APPROVAL DATE

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To accompany plans dated 7-19-10



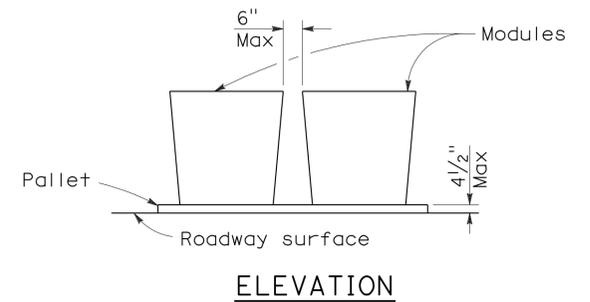
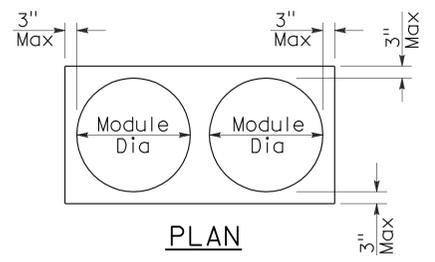
ARRAY 'TS11'
Approach speed less than 45 mph
See Note 9



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.



CRASH CUSHION PALLET DETAIL
See Note 11

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