

INDEX OF PLANS

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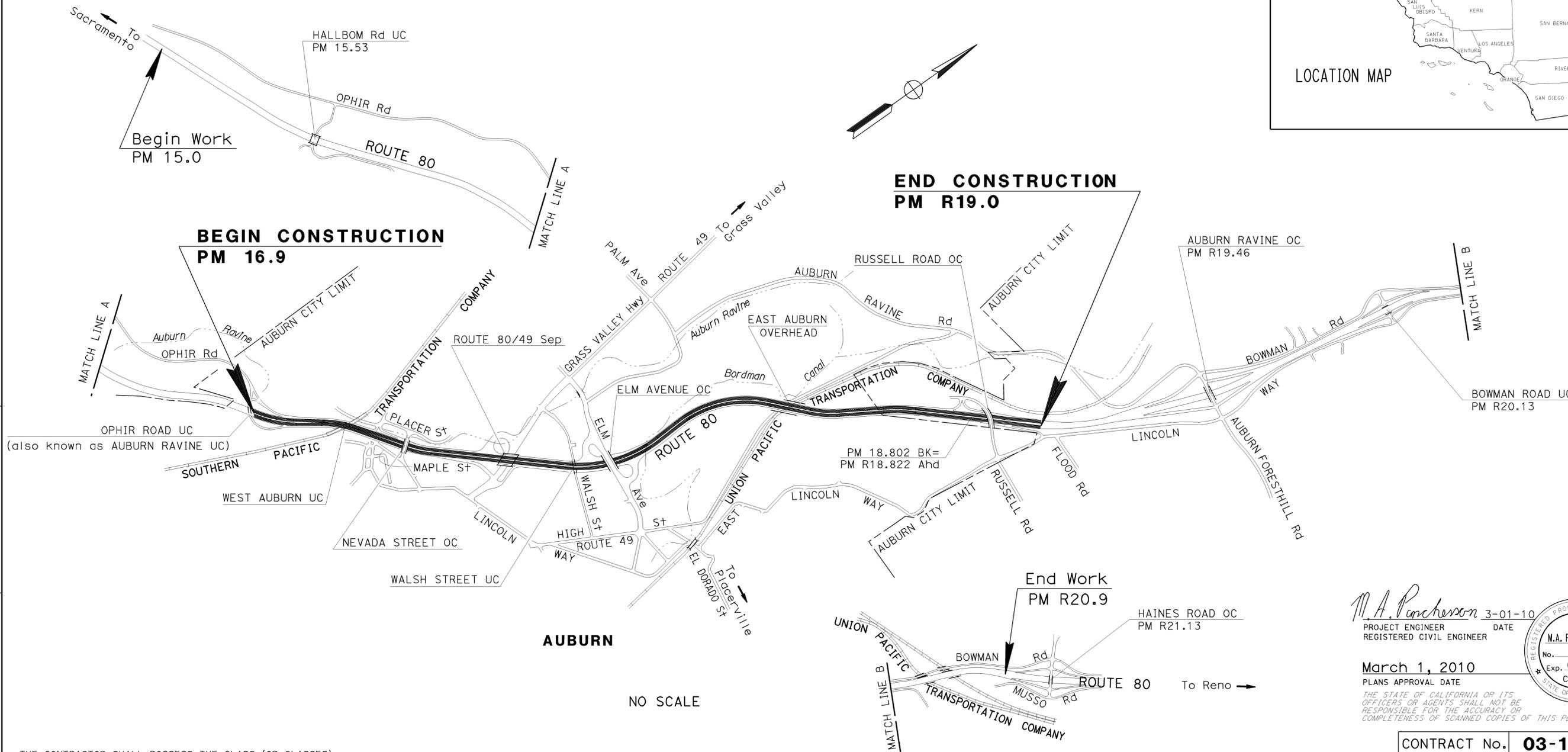
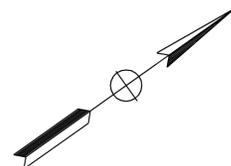
THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006

STATE OF CALIFORNIA  
**DEPARTMENT OF TRANSPORTATION**  
**PROJECT PLANS FOR CONSTRUCTION ON**  
**STATE HIGHWAY**  
**IN PLACER COUNTY IN AND NEAR AUBURN**  
**FROM OPHIR ROAD UNDERCROSSING TO**  
**0.1 MILE EAST OF RUSSELL ROAD OVERCROSSING**

**IM-0803(236)E**

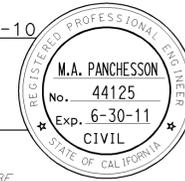
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 03   | Pla    | 80    | 16.9/R19.0               | 1         | 45           |



PROJECT MANAGER  
SAM JORDAN

DESIGN ENGINEER  
KEVIN ESPINOZA

*M.A. Panchesson* 3-01-10  
 PROJECT ENGINEER DATE  
 REGISTERED CIVIL ENGINEER  
 No. 44125  
 Exp. 6-30-11  
 CIVIL  
 STATE OF CALIFORNIA  
 March 1, 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. | <b>03-1F3604</b>  |
| PROJECT ID   | <b>0300001116</b> |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** PROJECT DEVELOPMENT

FUNCTIONAL SUPERVISOR: KEVIN ESPINOZA  
 CALCULATED/DESIGNED BY: [ ] CHECKED BY: [ ]  
 DAL BAINS: MIKE PANGCHESSON  
 REVISED BY: [ ] DATE REVISED: [ ]

**NOTES:**

- DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTIONS) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- SUPERELEVATION AS SHOWN OR AS DIRECTED BY THE ENGINEER.
- REGARDING FINISHED PAVED SURFACE, MAINTAIN 16' MINIMUM VERTICAL CLEARANCE UNDER ALL STRUCTURES. SEE CONSTRUCTION DETAILS.
- REMOVE EXISTING OPEN GRADED AC COMPLETELY BY COLD PLANING (Depth Approx 0.05').
- FOR DIKE AND GUARDRAIL LOCATIONS, SEE SUMMARY OF QUANTITY SHEETS. FOR IMPORTED MATERIAL (SHOULDER BACKING) DETAILS, SEE CONSTRUCTION DETAILS.
- RWMA-0 TO BE PLACED 2' OUTSIDE OF ETW ON MAINLINE ROUTE 80 OR AS DIRECTED BY THE ENGINEER. SEE CONSTRUCTION DETAILS FOR TAPERING RWMA-0.

**ABBREVIATIONS**

- CP - CATCH POINT  
 RWMA-0 - RUBBERIZED WARM MIX ASPHALT (OPEN GRADED)

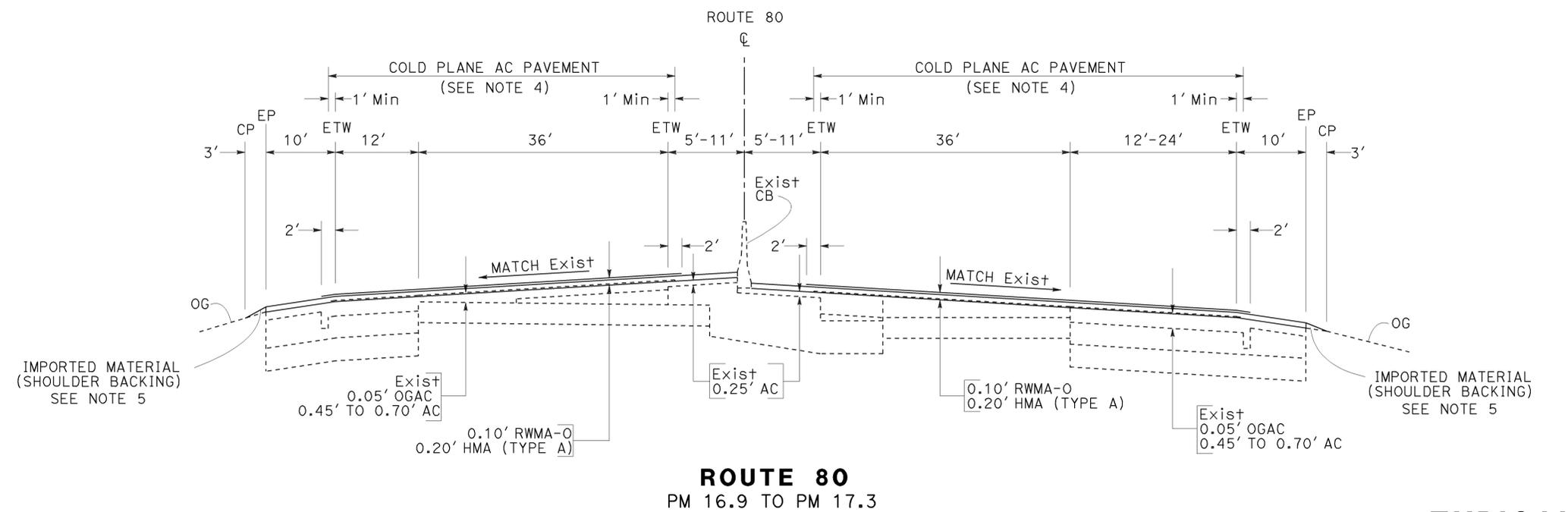
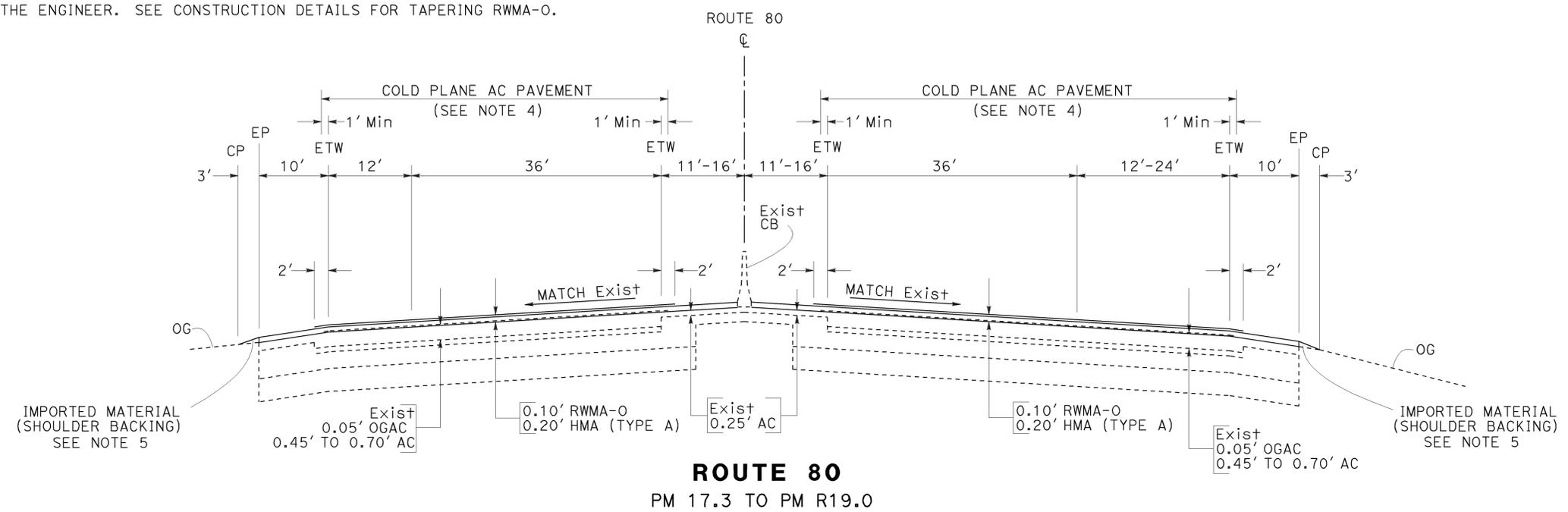
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|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0               | 2         | 45           |

3-01-10  
 REGISTERED CIVIL ENGINEER DATE

3-01-10  
 PLANS APPROVAL DATE

M.A. PANCHESSON  
 No. 44125  
 Exp. 06-30-11  
 CIVIL

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**TYPICAL CROSS SECTIONS**

NO SCALE  
**X-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** PROJECT DEVELOPMENT

FUNCTIONAL SUPERVISOR  
 KEVIN ESPINOZA

CALCULATED-DESIGNED BY  
 CHECKED BY

SUMAN SUDINI  
 MIKE PANGHESSON

REVISED BY  
 DATE REVISED

**NOTES:**

1. SEE CONSTRUCTION DETAILS FOR TAPERING RWMA-0.
2. RWMA-0 TO BE PLACED 2' OUTSIDE OF ETW OR AS DIRECTED BY THE ENGINEER.
3. REMOVE EXISTING OPEN GRADED AC COMPLETELY BY COLD PLANING (Depth Approx 0.05').
4. SEE CONSTRUCTION DETAILS FOR MORE INFORMATION REGARDING COLD PLANING.
5. FOR IMPORTED MATERIAL (SHOULDER BACKING) DETAILS, SEE CONSTRUCTION DETAILS.

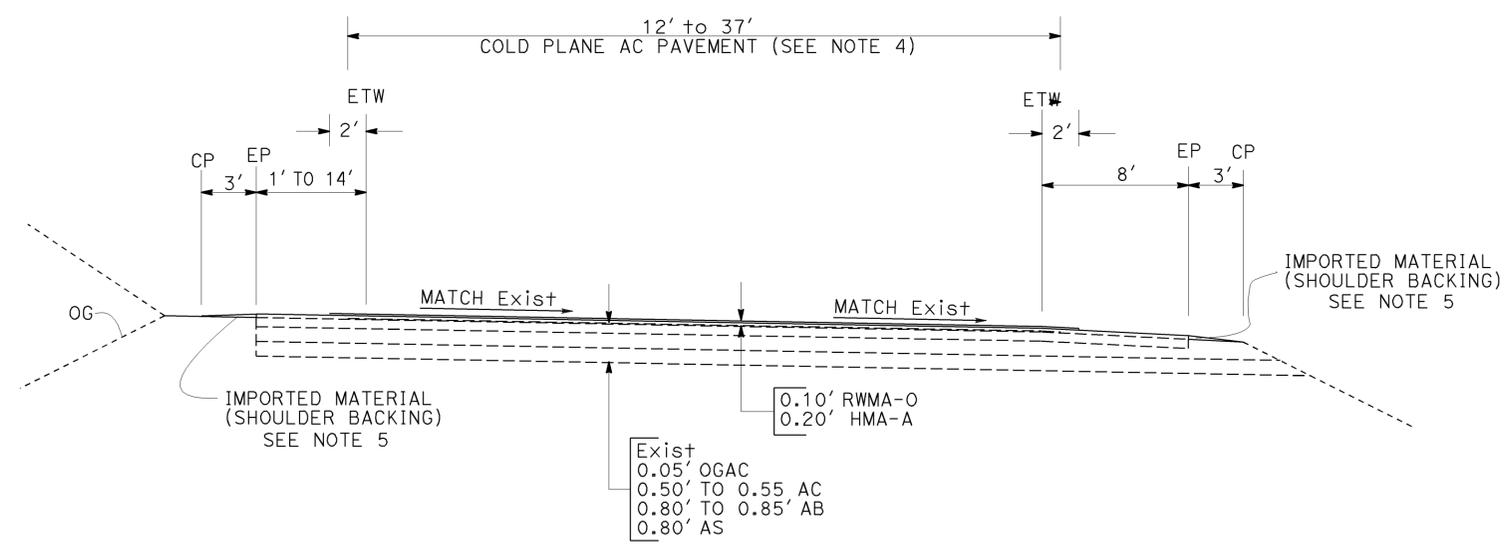
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| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0               | 3         | 45           |

*M.A. Panchesson* 3-01-10  
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3-01-10  
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**M.A. PANGHESSON**  
 No. 44125  
 Exp. 06-30-11  
 CIVIL

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**ON RAMPS AND OFF RAMPS**

**TYPICAL CROSS SECTIONS**

NO SCALE

**X-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** PROJECT DEVELOPMENT

FUNCTIONAL SUPERVISOR  
 KEVIN ESPINOZA

CALCULATED-DESIGNED BY  
 CHECKED BY

KARL DODGE  
 MIKE PANCHESSON

REVISOR BY  
 DATE REVISED

**NOTES:**

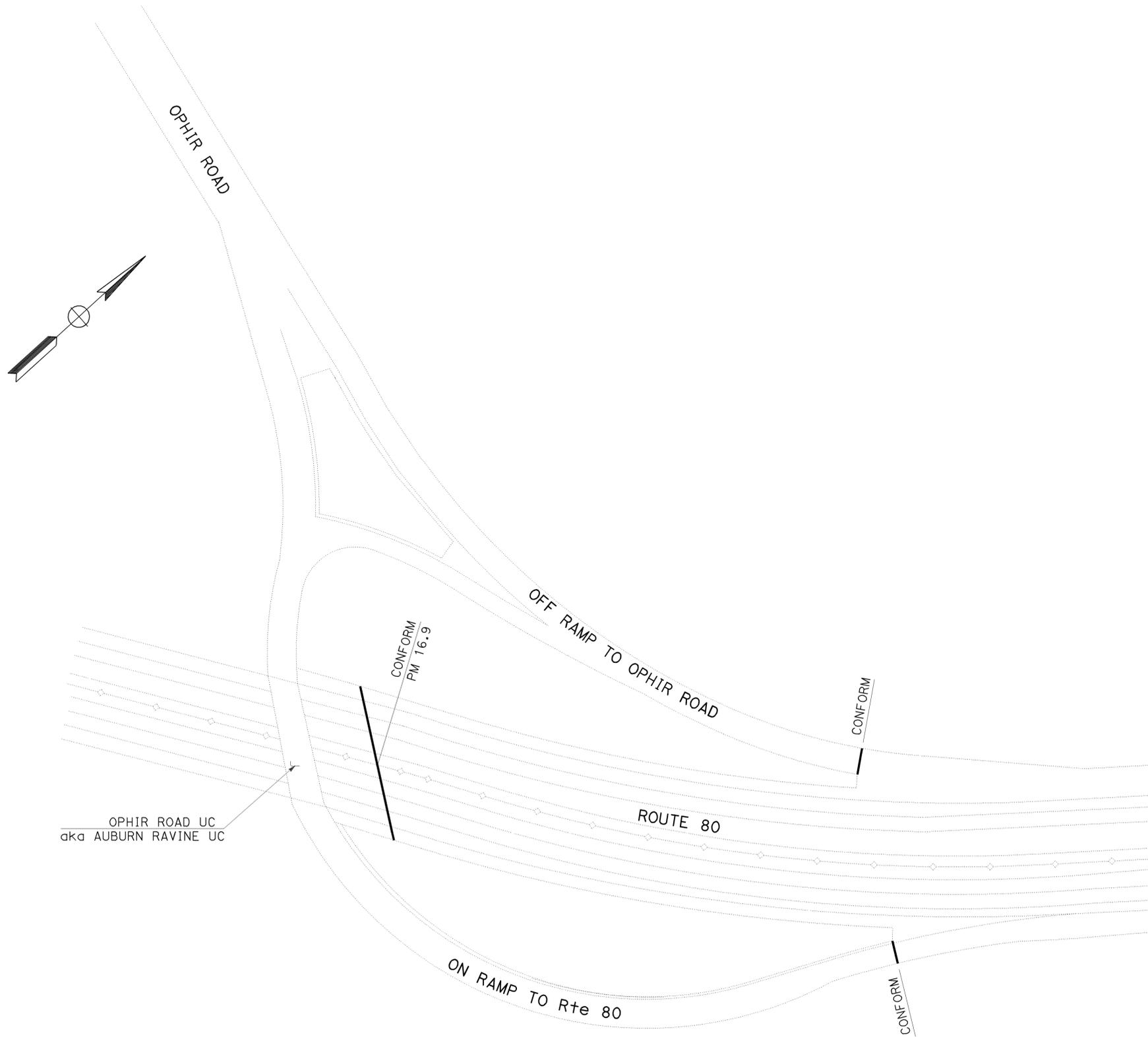
1. CONFORM LOCATION FOR PLACING HMA (TYPE A) AND RWMA-O OVERLAYS IS THE SAME UNLESS OTHERWISE SHOWN OR NOTED.
2. CONFORM LOCATIONS AS SHOWN OR AS DIRECTED BY THE ENGINEER.

**ABBREVIATIONS**

aka - ALSO KNOWN AS

**LEGEND**

— CONFORM LOCATION



|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0               | 4         | 45           |

M.A. Panchesson 3-01-10  
 REGISTERED CIVIL ENGINEER DATE  
 3-01-10  
 PLANS APPROVAL DATE  
 M.A. PANCHESSON  
 No. 44125  
 Exp. 06-30-11  
 CIVIL  
 STATE OF CALIFORNIA  
 REGISTERED PROFESSIONAL ENGINEER  
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CONFORMS  
**CONSTRUCTION DETAILS**  
 SCALE: 1" = 50'

**C-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** PROJECT DEVELOPMENT

FUNCTIONAL SUPERVISOR  
 KEVIN ESPINOZA

CALCULATED-DESIGNED BY  
 CHECKED BY

KARL DODGE  
 MIKE PANCHESSON

REVISED BY  
 DATE REVISED

**NOTES:**

1. CONFORM LOCATION FOR PLACING HMA (TYPE A) AND RWMA-O OVERLAYS IS THE SAME UNLESS OTHERWISE SHOWN OR NOTED.
2. CONFORM LOCATIONS AS SHOWN OR AS DIRECTED BY THE ENGINEER.

**LEGEND**

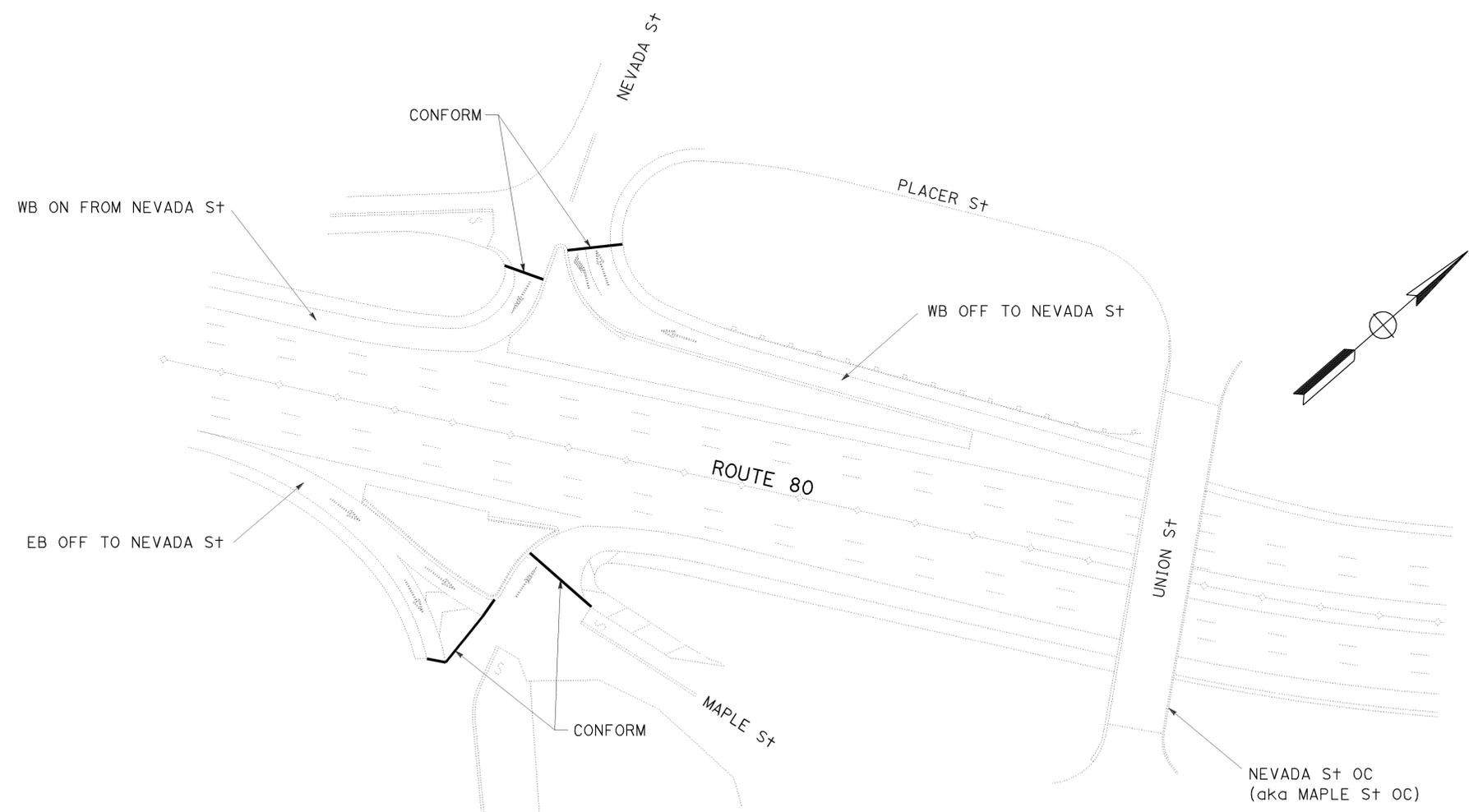
— CONFORM LOCATION

**ABBREVIATIONS**

aka - ALSO KNOWN AS

|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03   | Plac   | 80    | 16.9/R19.0               | 5         | 45           |

*M.A. Panchesson* 3-01-10  
 REGISTERED CIVIL ENGINEER DATE  
 3-01-10  
 PLANS APPROVAL DATE  
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CONFORMS  
**CONSTRUCTION DETAILS**  
 SCALE: 1" = 50'

**C-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** PROJECT DEVELOPMENT

FUNCTIONAL SUPERVISOR  
 KEVIN ESPINOZA

CALCULATED-DESIGNED BY  
 CHECKED BY

KARL DODGE  
 MIKE PANCHESSON

REVISED BY  
 DATE REVISED

**NOTES:**

1. CONFORM LOCATION FOR PLACING HMA (TYPE A) AND RWMA-O OVERLAYS IS THE SAME UNLESS OTHERWISE SHOWN OR NOTED. DO NOT PAVE ACROSS Sep STRUCTURE.
2. CONFORM LOCATIONS AS SHOWN OR AS DIRECTED BY THE ENGINEER.

**LEGEND**

- CONFORM LOCATION FOR HMA-A
- - - CONFORM LOCATION FOR RWMA-O

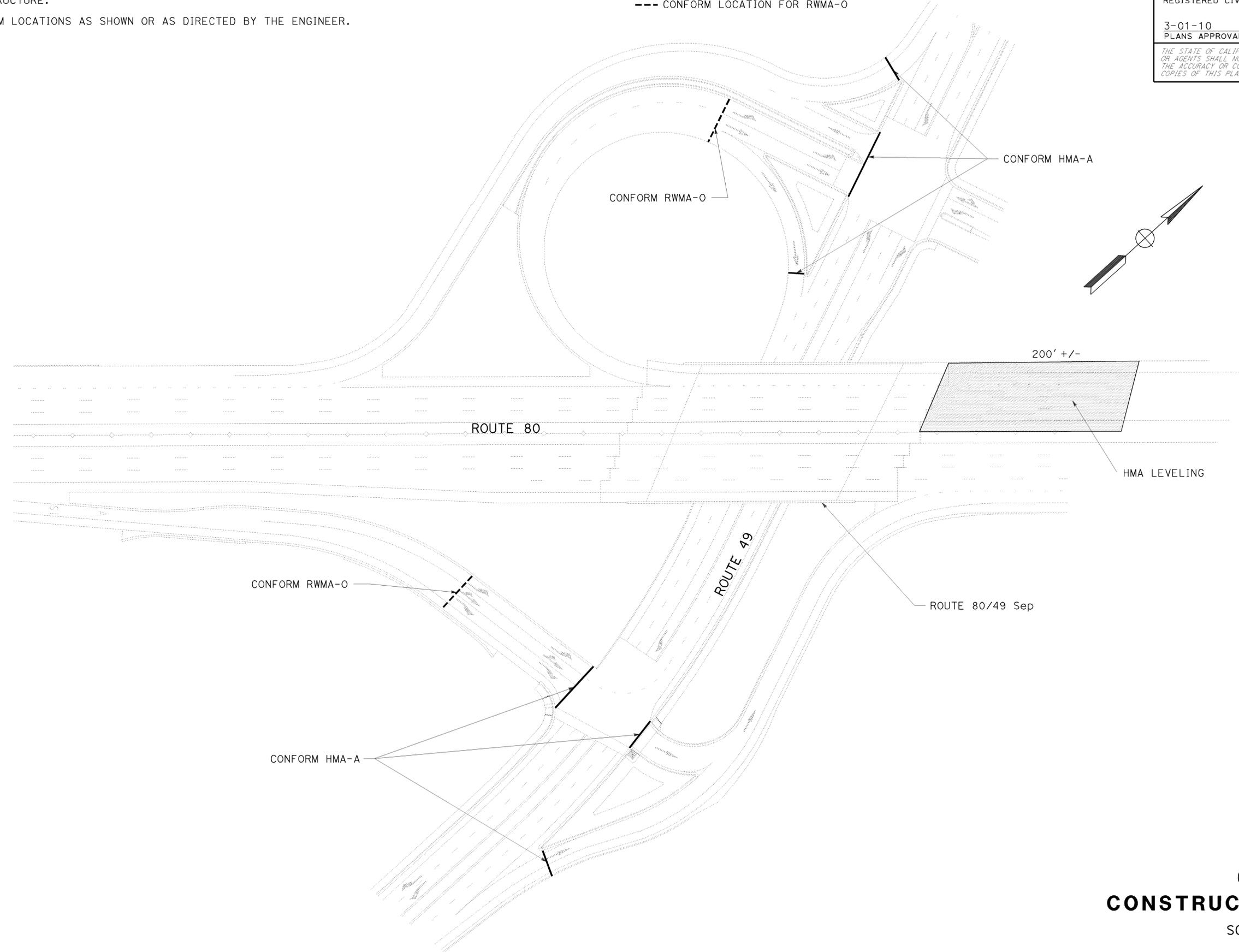
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| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0               | 6         | 45           |

*M.A. Panchesson* 3-01-10  
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3-01-10  
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER  
 M.A. PANCHESSON  
 No. 44125  
 Exp. 06-30-11  
 CIVIL  
 STATE OF CALIFORNIA



CONFORMS  
**CONSTRUCTION DETAILS**  
 SCALE: 1" = 50'

**C-3**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** PROJECT DEVELOPMENT

FUNCTIONAL SUPERVISOR  
 KEVIN ESPINOZA

CALCULATED/DESIGNED BY  
 CHECKED BY

KARL DODGE  
 MIKE PANCHESSON

REVISED BY  
 DATE REVISED

**NOTES:**

1. CONFORM LOCATION FOR PLACING HMA (TYPE A) AND RWMA-O OVERLAYS IS THE SAME UNLESS OTHERWISE SHOWN OR NOTED.
2. CONFORM LOCATIONS AS SHOWN OR AS DIRECTED BY THE ENGINEER.

**LEGEND**

- CONFORM LOCATION FOR HMA-A
- - - CONFORM LOCATION FOR RWMA-O

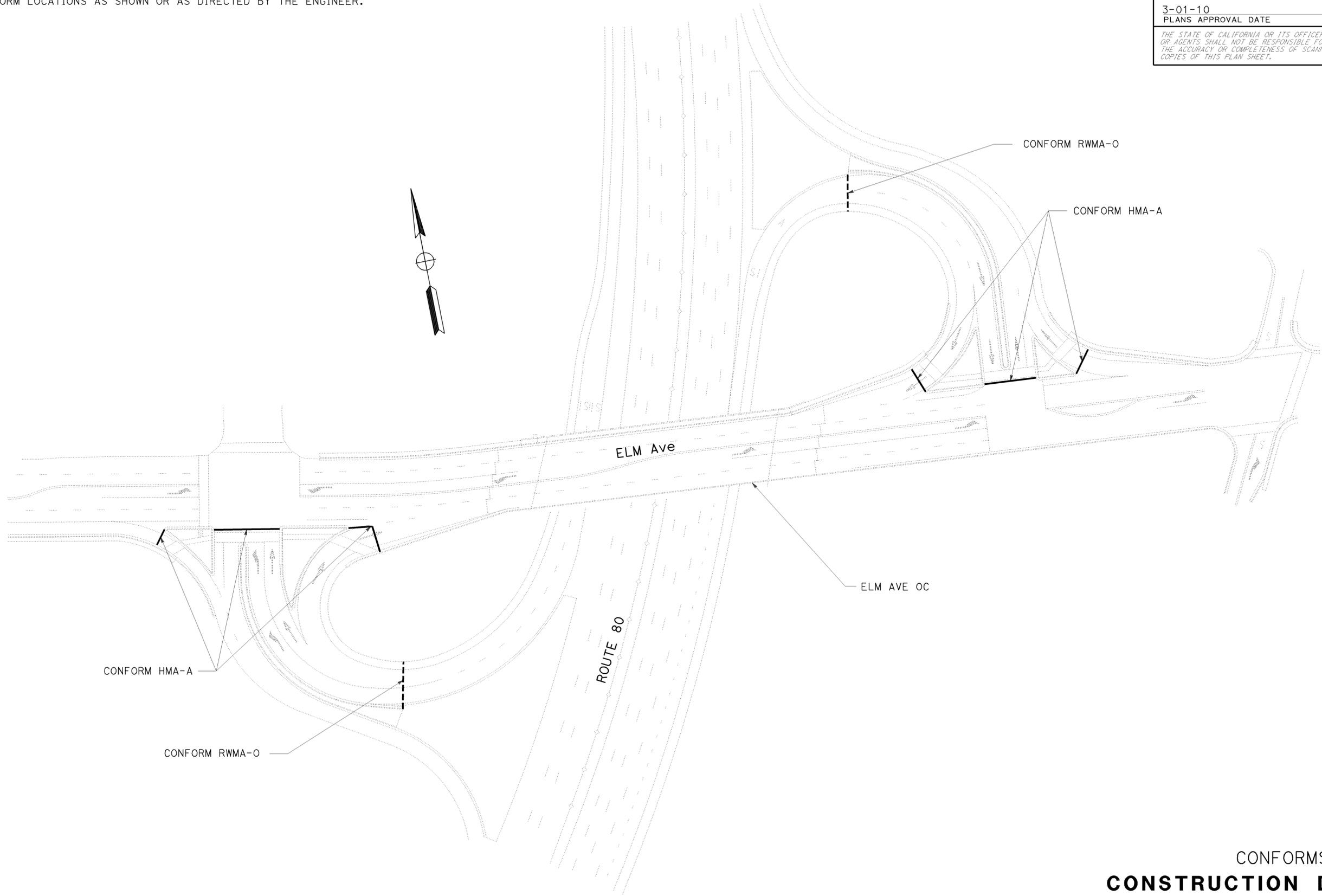
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|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0               | 7         | 45           |

*M.A. Panchesson* 3-01-10  
 REGISTERED CIVIL ENGINEER DATE

3-01-10  
 PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER  
 M.A. PANCHESSON  
 No. 44125  
 Exp. 06-30-11  
 CIVIL  
 STATE OF CALIFORNIA



CONFORMS  
**CONSTRUCTION DETAILS**  
 SCALE: 1" = 50'

**C-4**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** PROJECT DEVELOPMENT

FUNCTIONAL SUPERVISOR  
 KEVIN ESPINOZA

CALCULATED-DESIGNED BY  
 CHECKED BY

KARL DODGE  
 MIKE PANCHESSON

REVISED BY  
 DATE REVISED

**NOTES:**

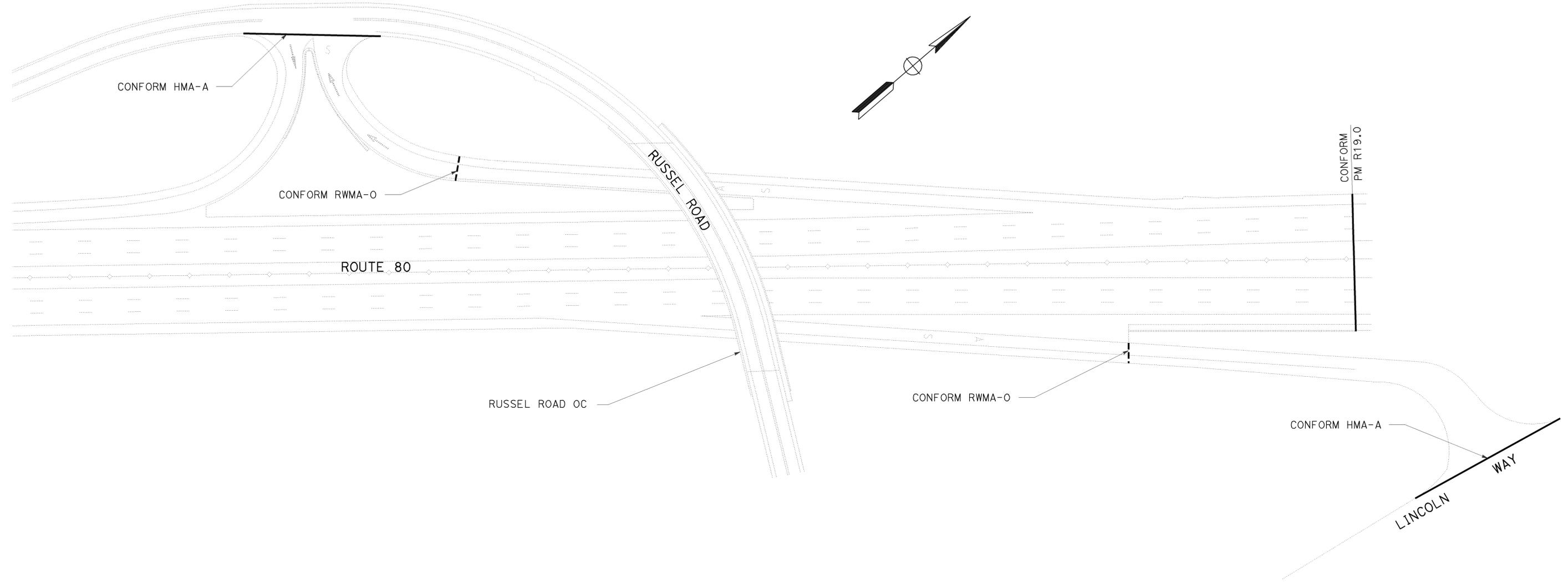
1. CONFORM LOCATION FOR PLACING HMA (TYPE A) AND RWMA-O OVERLAYS IS THE SAME UNLESS OTHERWISE SHOWN OR NOTED.
2. CONFORM LOCATIONS AS SHOWN OR AS DIRECTED BY THE ENGINEER.

**LEGEND**

- CONFORM LOCATION FOR HMA-A
- - - CONFORM LOCATION FOR RWMA-O

|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0               | 8         | 45           |

*M.A. Panchesson* 3-01-10  
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 3-01-10  
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CONFORMS  
**CONSTRUCTION DETAILS**  
 SCALE: 1" = 50'

**C-5**

|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0               | 9         | 45           |

M.A. Panchesson 3-01-10  
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 3-01-10  
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REGISTERED PROFESSIONAL ENGINEER  
 M.A. PANCHESSON  
 No. 44125  
 Exp. 06-30-11  
 CIVIL  
 STATE OF CALIFORNIA

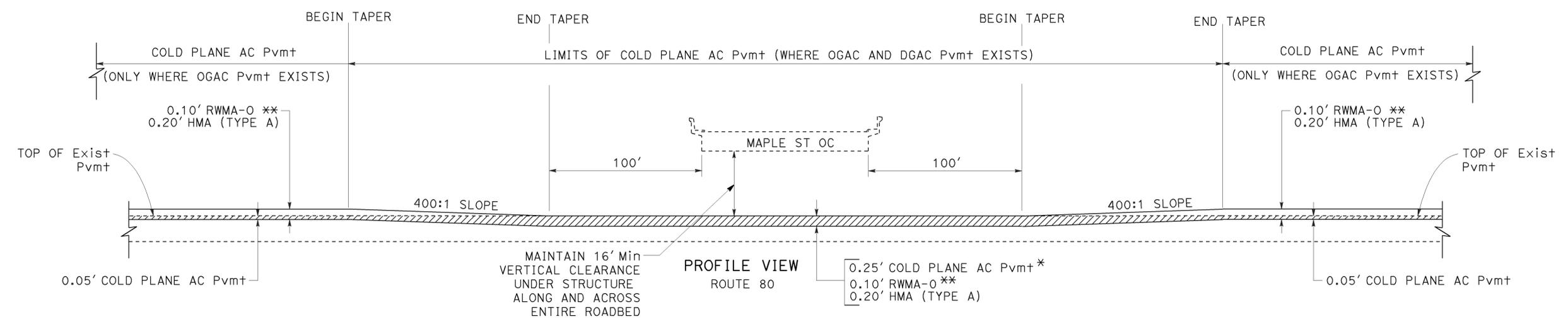
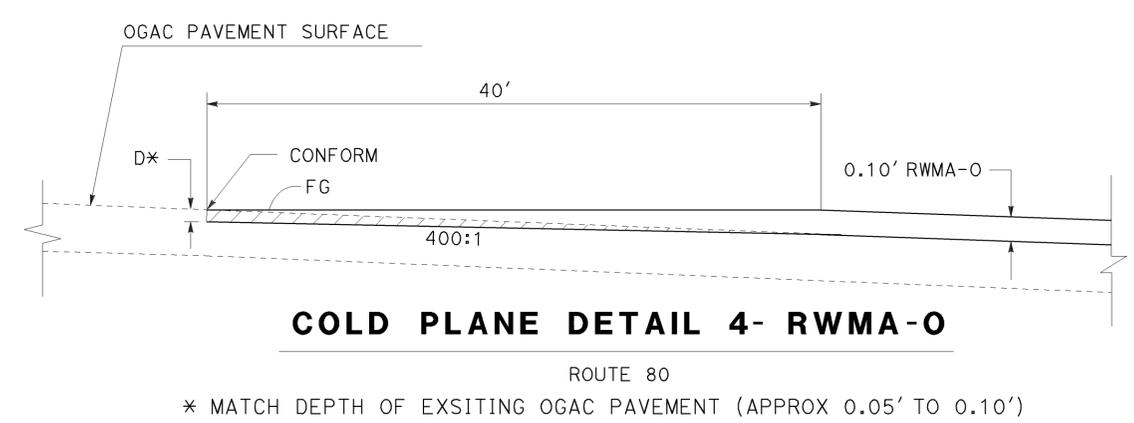
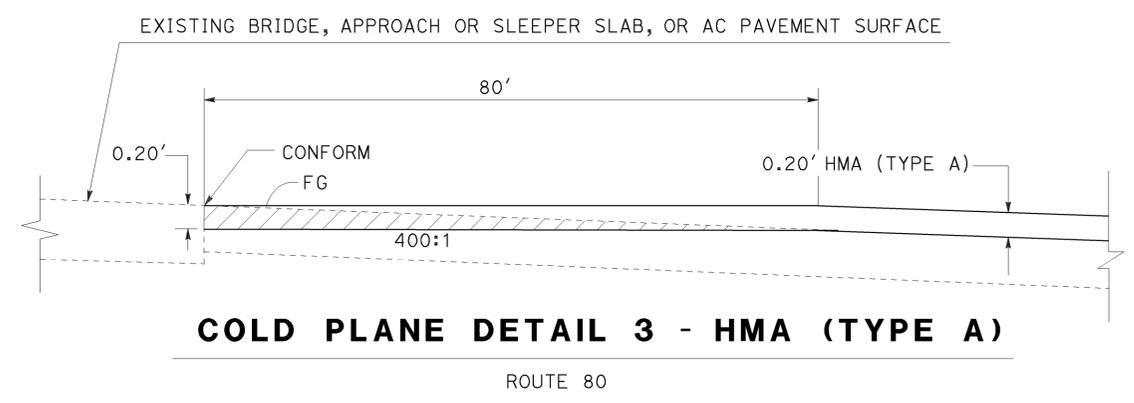
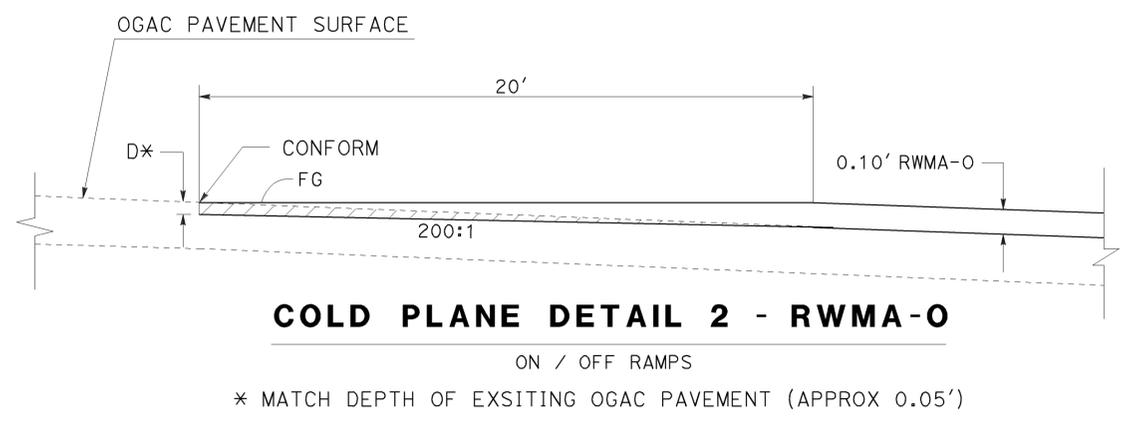
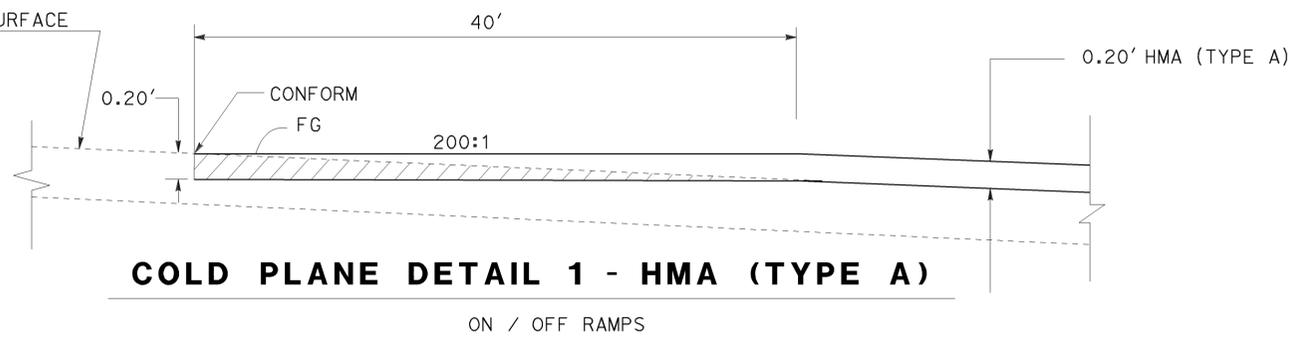
**NOTES:**

- USE THE FOLLOWING DETAILS WHERE APPLICABLE AS DIRECTED BY THE ENGINEER.
- CONFORM DETAILS SHOWN ASSUME EXISTING OGAC HAS BEEN REMOVED UNLESS OTHERWISE SHOWN.
- WHERE APPLICABLE, TAPER RWMA-O IF CONFORMING TO A DGAC PAVEMENT SURFACE.

EXCEPTION: IF A NON-OGAC CONFORMING SURFACE IS UPHILL FROM THE RWMA-O OVERLAY TERMINUS, THEN THE RWHMA-O CAN BE BUTTED (TRANSVERSE CONFORM) AGAINST THE NON-OGAC SURFACE BY COLD PLANING AS LONG AS WATER WILL NOT BE TRAPPED AND CAN DRAIN AWAY, OTHERWISE, SEE SHEET C-7 FOR TAPER DETAIL.

**ABBREVIATIONS**  
 DGAC - DENSE GRADE AC

**LEGEND**  
 - COLD PLANE AC PvmT



\* BEYOND EXIST OGAC PvmT WIDTH - 0.20' COLD PLANE AC PvmT  
 \*\* SEE SHEET X-1 FOR RWMA-O PAVING WIDTHS AND Exist Str Sections.

**CONSTRUCTION DETAILS**

NO SCALE

**C-6**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - PROJECT DEVELOPMENT  
 FUNCTIONAL SUPERVISOR: KEVIN ESPINOZA  
 CALCULATED/DESIGNED BY: JOSE L. VALDEZ  
 CHECKED BY: ERIC SOUZA  
 REVISED BY: DATE REVISIONS

|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0               | 10        | 45           |

*M.A. Panchesson* 3-01-10  
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 3-01-10  
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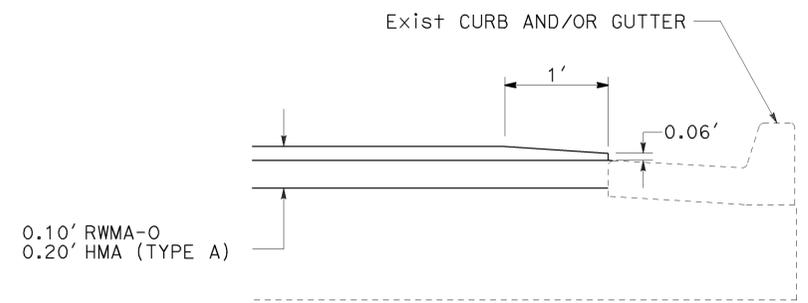
REGISTERED PROFESSIONAL ENGINEER  
**M.A. PANCHESSON**  
 No. 44125  
 Exp. 06-30-11  
 CIVIL  
 STATE OF CALIFORNIA

**NOTES:**

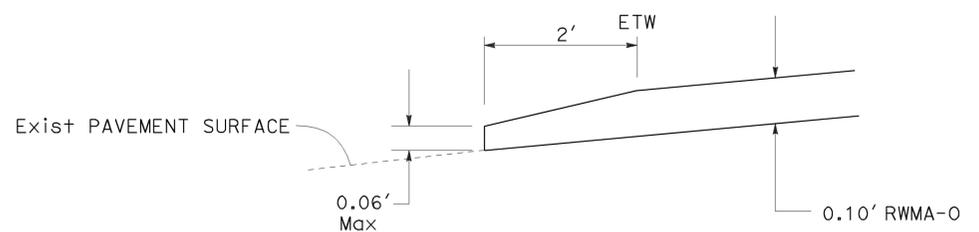
1. USE THE FOLLOWING DETAILS WHERE APPLICABLE AS DIRECTED BY THE ENGINEER.
2. DETAILS SHOWN ASSUME EXISTING OGAC HAS BEEN REMOVED UNLESS OTHERWISE SHOWN.
3. MAINTAIN EXISTING CROSS WALK GRADE AND CROSS SLOPE ALONG ITS ENTIRE LENGTH.

**LEGEND**

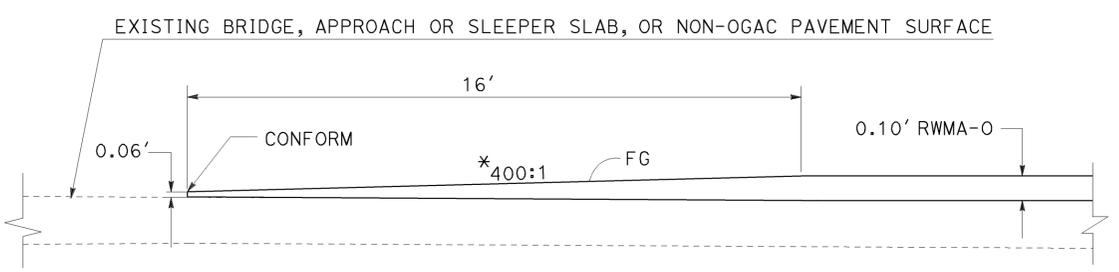
- COLD PLANE AC Pvm+



**TAPER DETAIL 1 - RAMP LOCATIONS**

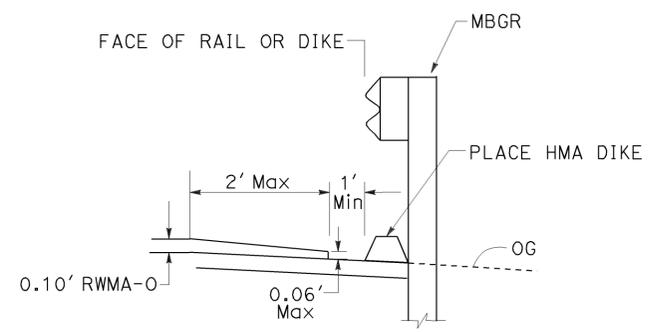


**TAPER DETAIL 2 - RWMA-0- MAINLINE**

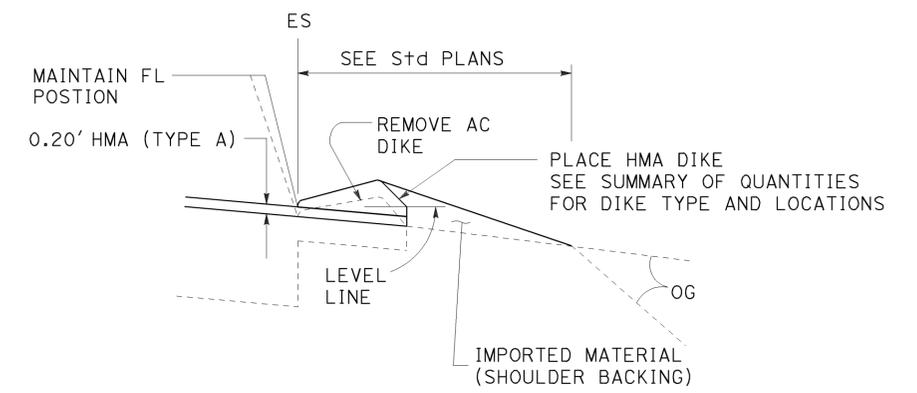


**TAPER DETAIL 4- RWMA-0**

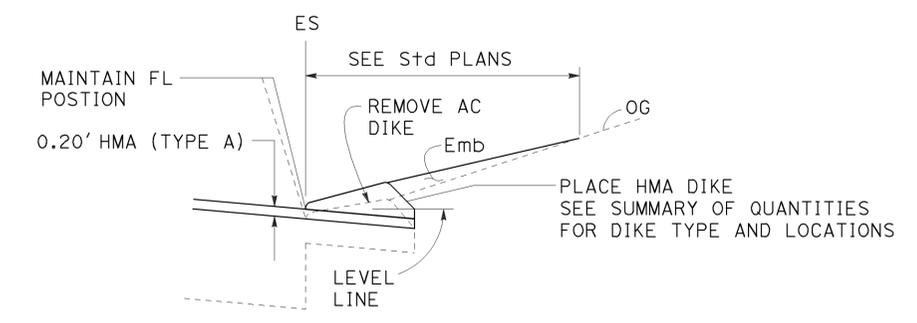
\* USE 400:1 FOR ROUTE 80, ELSEWHERE USE 200:1



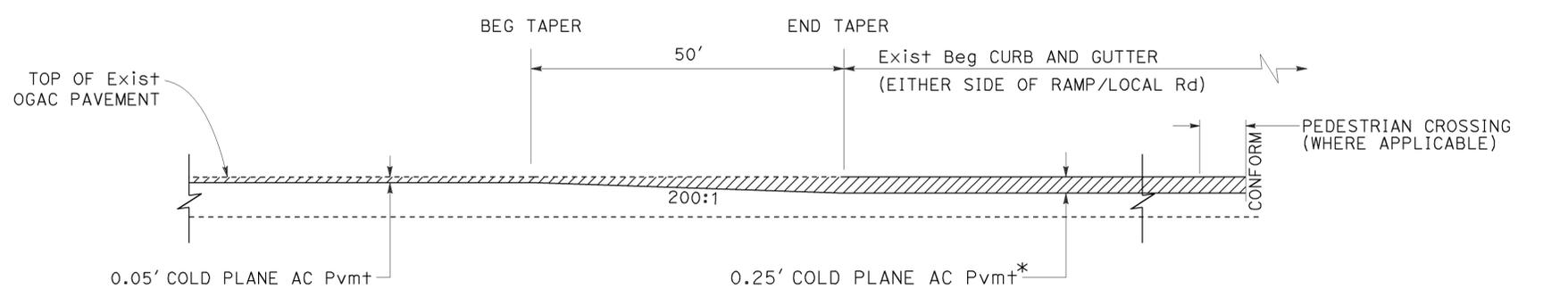
**TAPER DETAIL 3 - RAMP LOCATIONS**



**HMA DIKE DETAIL 1**



**HMA DIKE DETAIL 2**



**COLD PLANE DEPTH TRANSITION DETAIL**

0.05' COLD PLANE DEPTH FROM 0.05' TO 0.25' OVER FULL WIDTH OF ROADBED WHERE CURB AND/OR GUTTER EXISTS ON ONE OR BOTH SIDES.

\* WHERE CONC GUTTER EXIST, COLD PLANE 0.20' BELOW LIP OF GUTTER

**CONSTRUCTION DETAILS**

NO SCALE

**C-7**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - PROJECT DEVELOPMENT  
 FUNCTIONAL SUPERVISOR KEVIN ESPINOZA  
 CALCULATED/DESIGNED BY  
 CHECKED BY  
 DAL BAINS MIKE PANCHESSON  
 REVISED BY DATE REVISED  
 REVISIONS

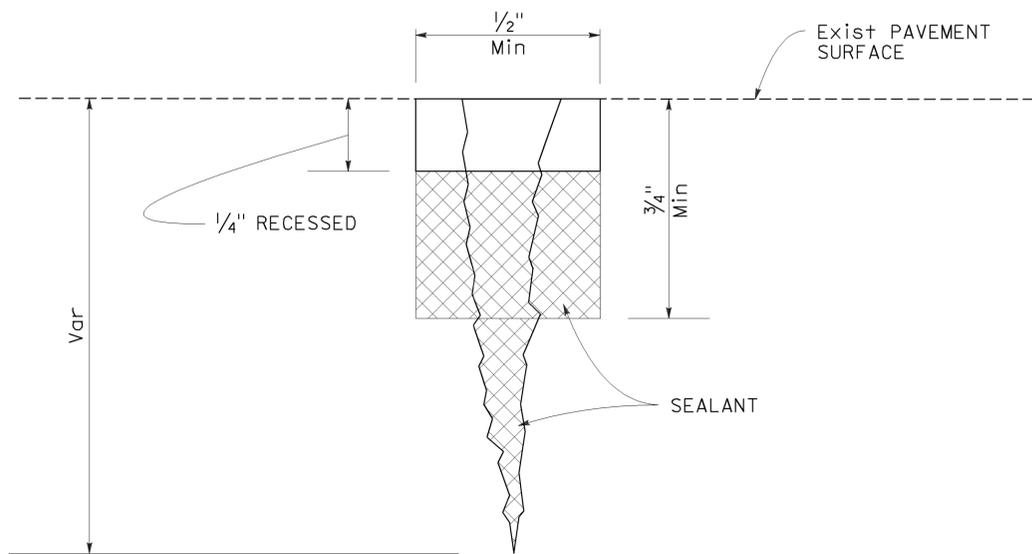
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|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES<br>TOTAL PROJECT | SHEET<br>No. | TOTAL<br>SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0                  | 11           | 45              |

*M.A. Panchesson* 3-01-10  
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 3-01-10  
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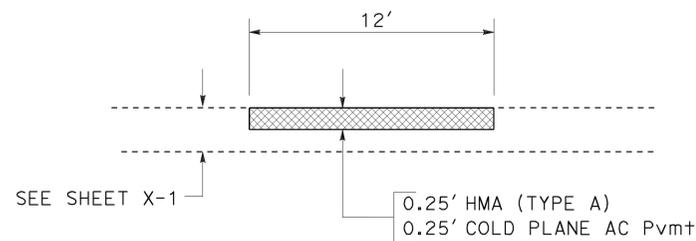
REGISTERED PROFESSIONAL ENGINEER  
**M.A. PANCHESSON**  
 No. 44125  
 Exp. 06-30-11  
 CIVIL  
 STATE OF CALIFORNIA

**NOTES:**

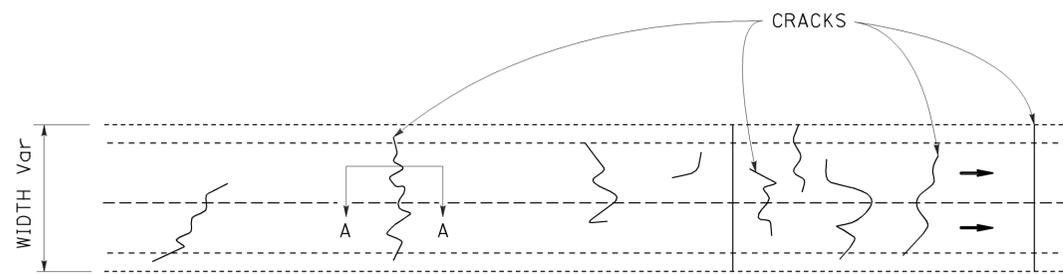
1. FOR DIMENSIONS NOT SHOWN, SEE 2006 STANDARD PLAN A87B.



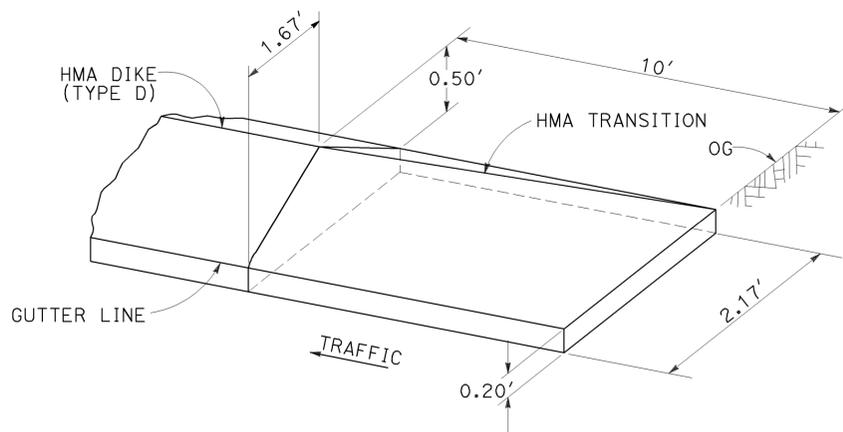
SECTION A-A  
**CRACK TREATMENT  
DETAIL**



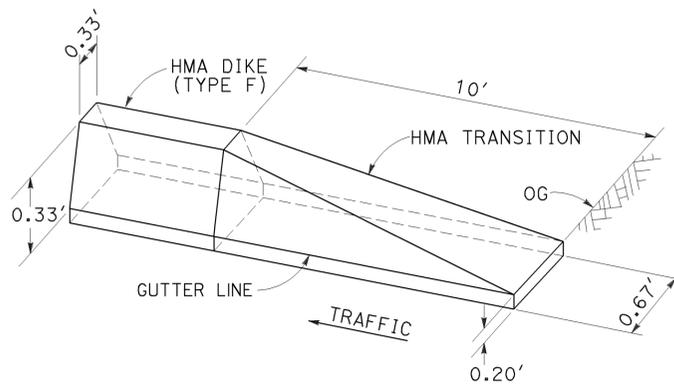
**REPLACE AC SURFACING  
MAINLINE**



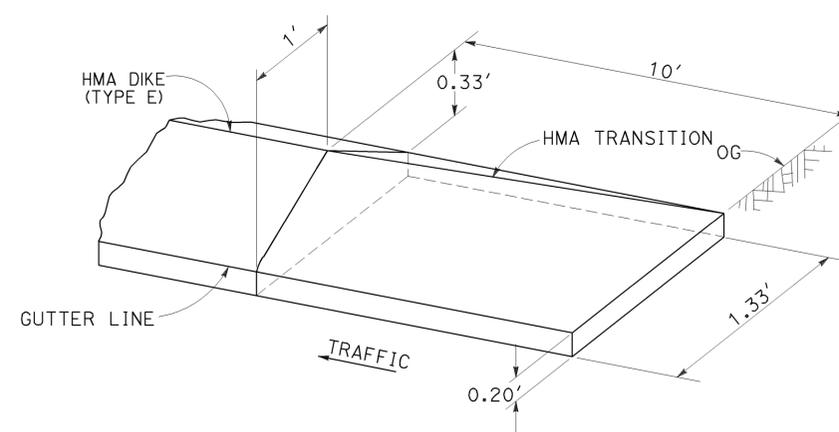
**CRACK TREATMENT  
PLAN**



**HMA DIKE (TYPE D)  
APPROACH TRANSITION**



**HMA DIKE (TYPE F)  
APPROACH TRANSITION**



**HMA DIKE (TYPE E)  
APPROACH TRANSITION**

**CONSTRUCTION DETAILS**

NO SCALE

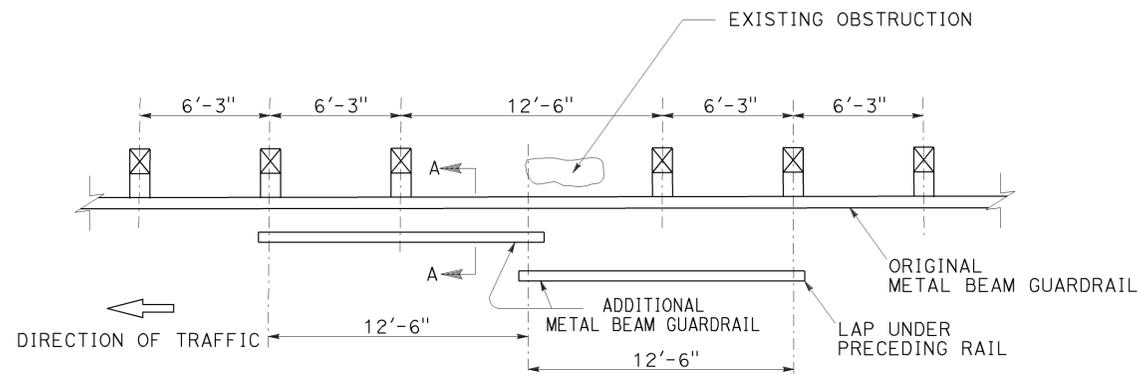
**C-8**

|  |        |       |  |           |              |
|--|--------|-------|--|-----------|--------------|
| Dist   | COUNTY | ROUTE | POST MILES TOTAL PROJECT   | SHEET No. | TOTAL SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0   | 12        | 45           |
| <i>M.A. Panchesson</i> 3-01-10<br>REGISTERED CIVIL ENGINEER DATE   |        |       | REGISTERED PROFESSIONAL ENGINEER<br>No. 44125<br>Exp. 06-30-11<br>CIVIL<br>STATE OF CALIFORNIA |           |              |
| 3-01-10<br>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> |        |       |  |           |              |

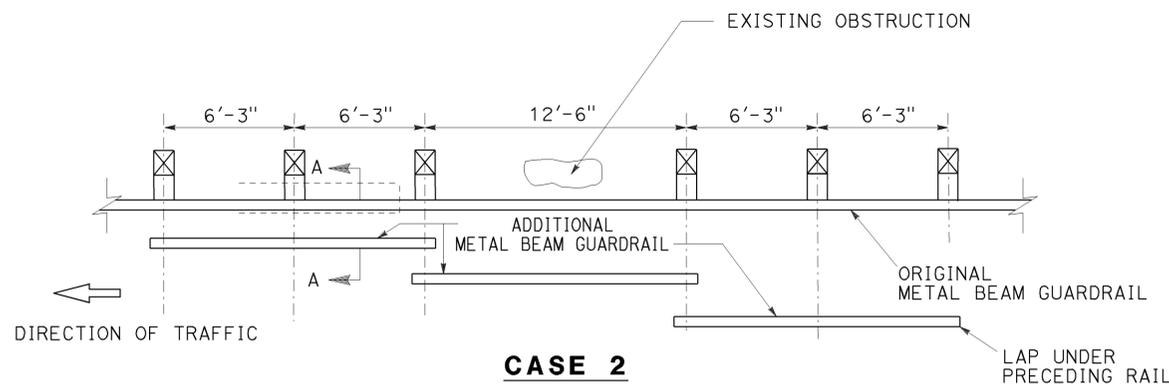
**NOTES:**

1. USE CASE 1 OR CASE 2 WHEN ONE POST IS OMITTED.
2. USE CASE 3 WHEN TWO POSTS ARE OMITTED.
3. FOR OTHER DETAILS, SEE STANDARD PLANS (MAY 2006).
4. NESTING OF MBGR IS NOT A SEPARATE PAY ITEM. IT IS FOR INFORMATION ONLY.
5. EXISTING UTILITY FACILITIES HAVE NOT BEEN POSITIVELY LOCATED.

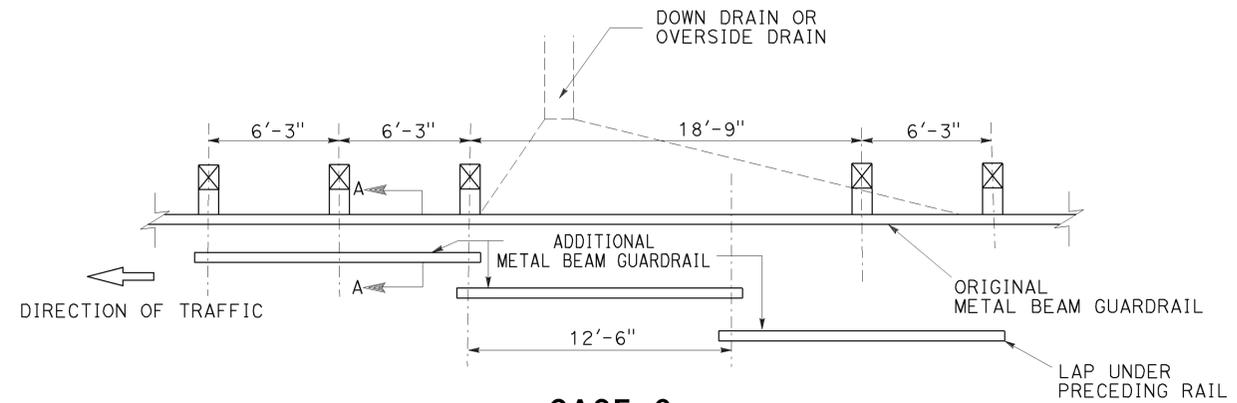
**LONG SPAN NESTED GUARDRAIL**



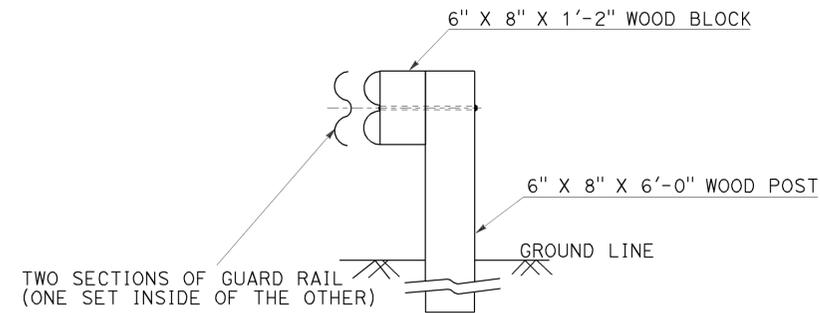
**CASE 1**  
**ONE POST OMITTED (SPLICE IN CENTER)**



**CASE 2**  
**ONE POST OMITTED (SPLICE AT POSTS)**



**CASE 3**  
**TWO POSTS OMITTED**



**SECTION A-A**

**CONSTRUCTION DETAILS**

NO SCALE

**C-9**

|      |        |       |                             |              |                 |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES<br>TOTAL PROJECT | SHEET<br>No. | TOTAL<br>SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0                  | 13           | 45              |

M.A. Panchesson 3-01-10  
 REGISTERED CIVIL ENGINEER DATE  
 3-01-10  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

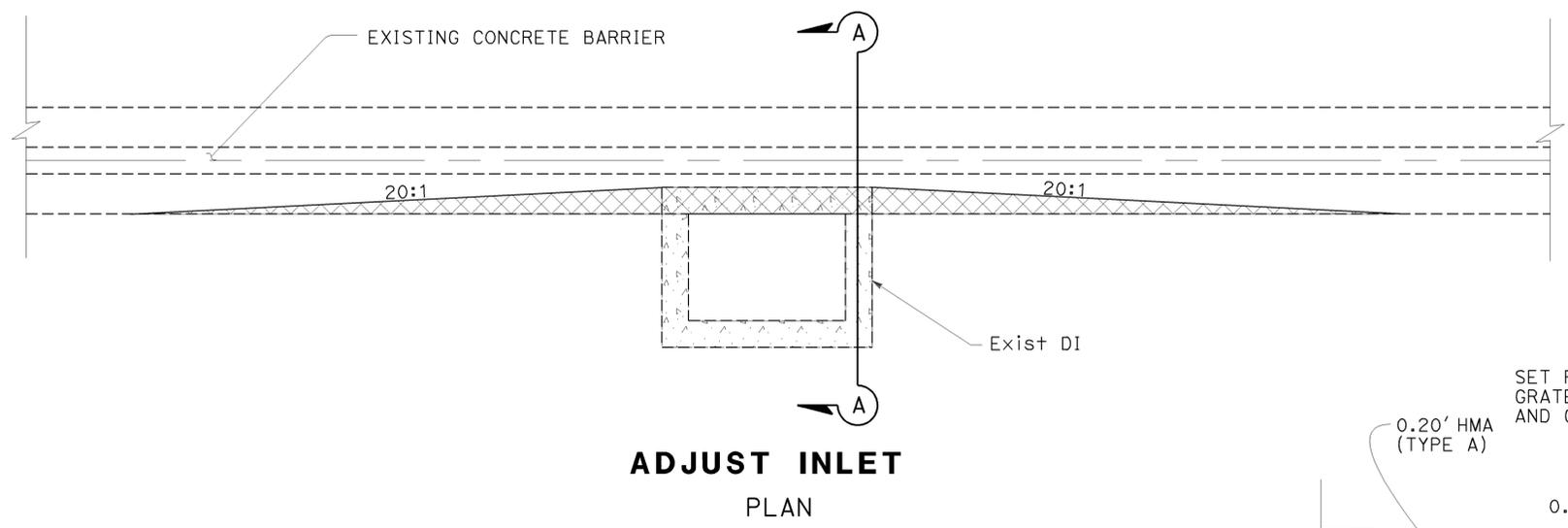
|                                  |
|----------------------------------|
| REGISTERED PROFESSIONAL ENGINEER |
| M.A. PANCHESSON                  |
| No. 44125                        |
| Exp. 06-30-11                    |
| CIVIL                            |
| STATE OF CALIFORNIA              |

**NOTES:**

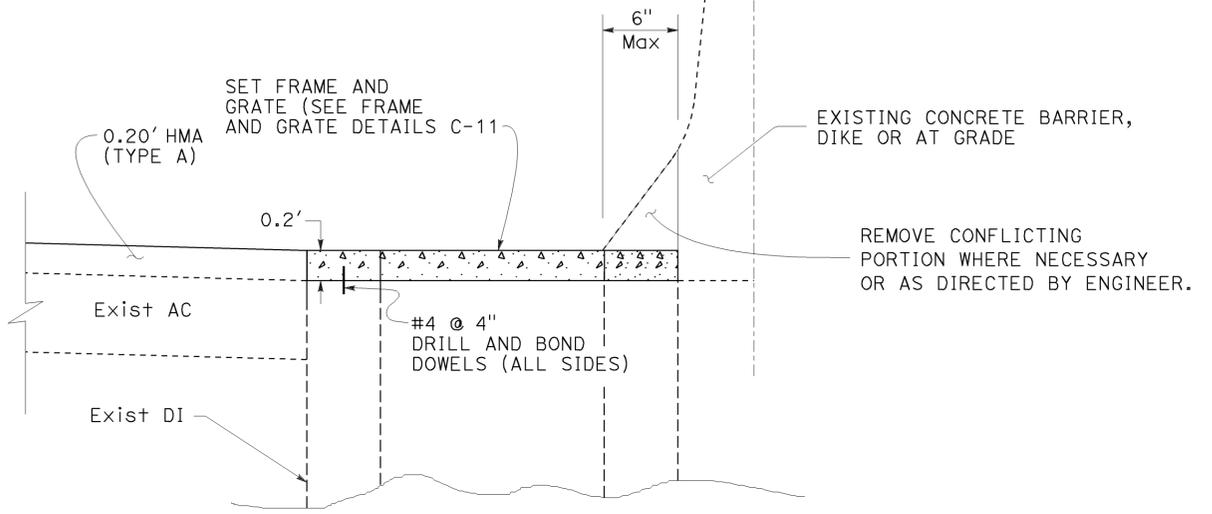
1. FOR DETAILS NOT SHOWN, SEE STANDARD PLANS.

**LEGEND**

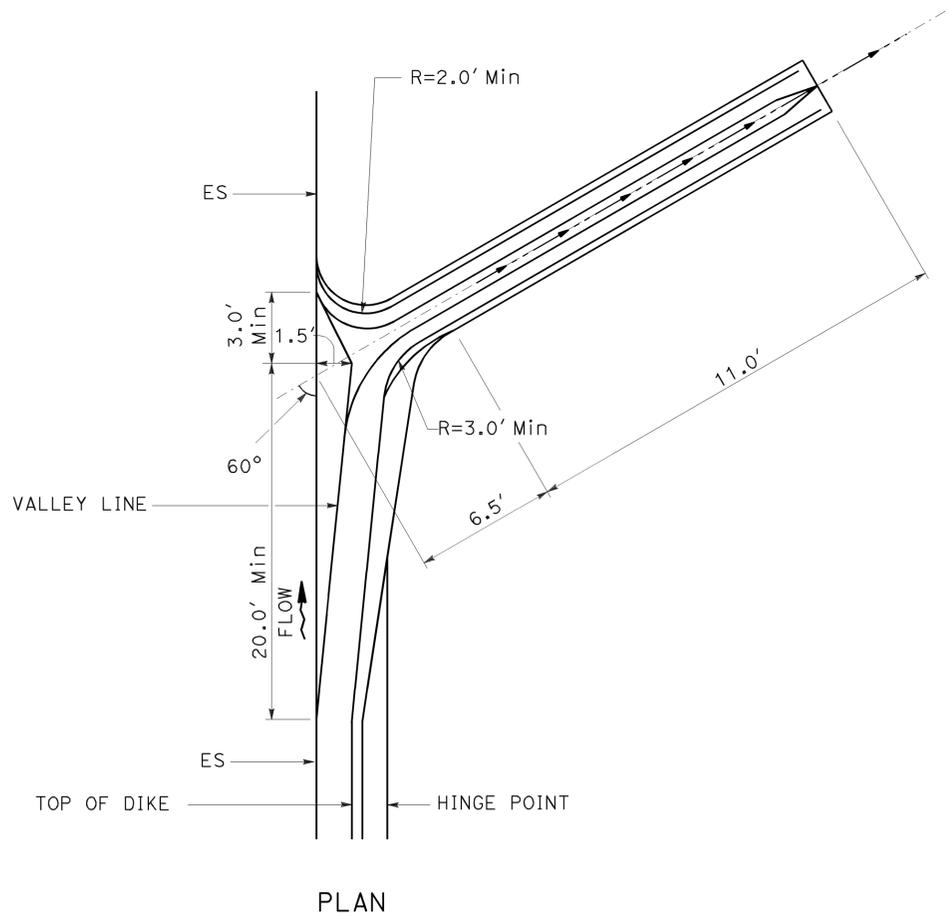
 - LIMITS OF BARRIER MODIFICATION



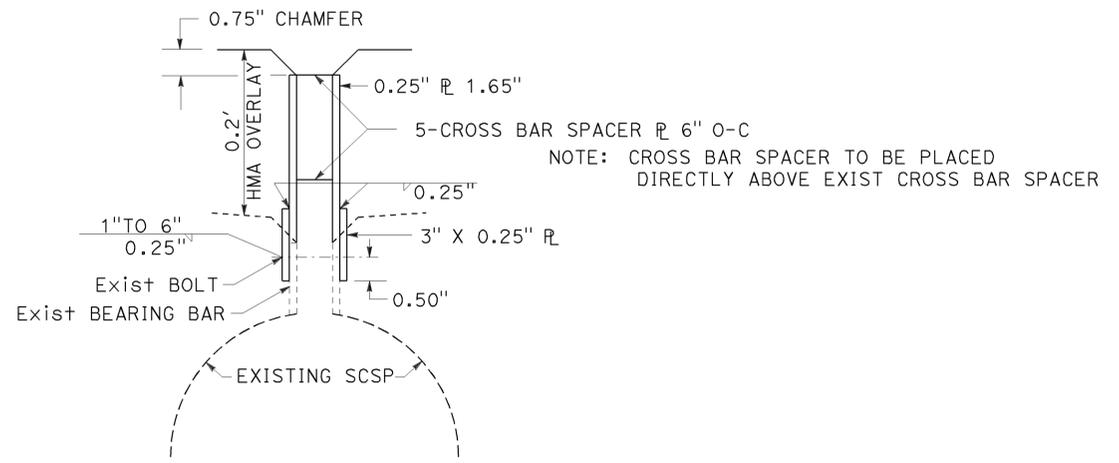
**ADJUST INLET  
PLAN**



SECTION A-A  
**ADJUST INLET  
DETAIL**



PLAN  
**OVERSIDE DRAIN**



**ADJUST SLOTTED DRAIN TO GRADE**

WESTBOUND ROUTE 80 (PM R18.97)  
SEE NOTE 1

**CONSTRUCTION DETAILS**

NO SCALE

**C-10**

|  |                     |
|--|---------------------|
| STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | PROJECT DEVELOPMENT |
| FUNCTIONAL SUPERVISOR                              | KEVIN ESPINOZA      |
| CALCULATED/DESIGNED BY                             | CHECKED BY          |
| JOSE L. VALDEZ                                     | MIKE PANCHESSON     |
| REVISED BY   | DATE REVISED        |

REVISOR BY DATE

PATRICK BISHOP  
MIKE PANCHESSON

CALCULATED-DESIGNED BY  
CHECKED BY

FUNCTIONAL SUPERVISOR  
KEVIN ESPINOZA

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 03   | Pla    | 80    | 16.9/R19.0               | 14        | 45           |

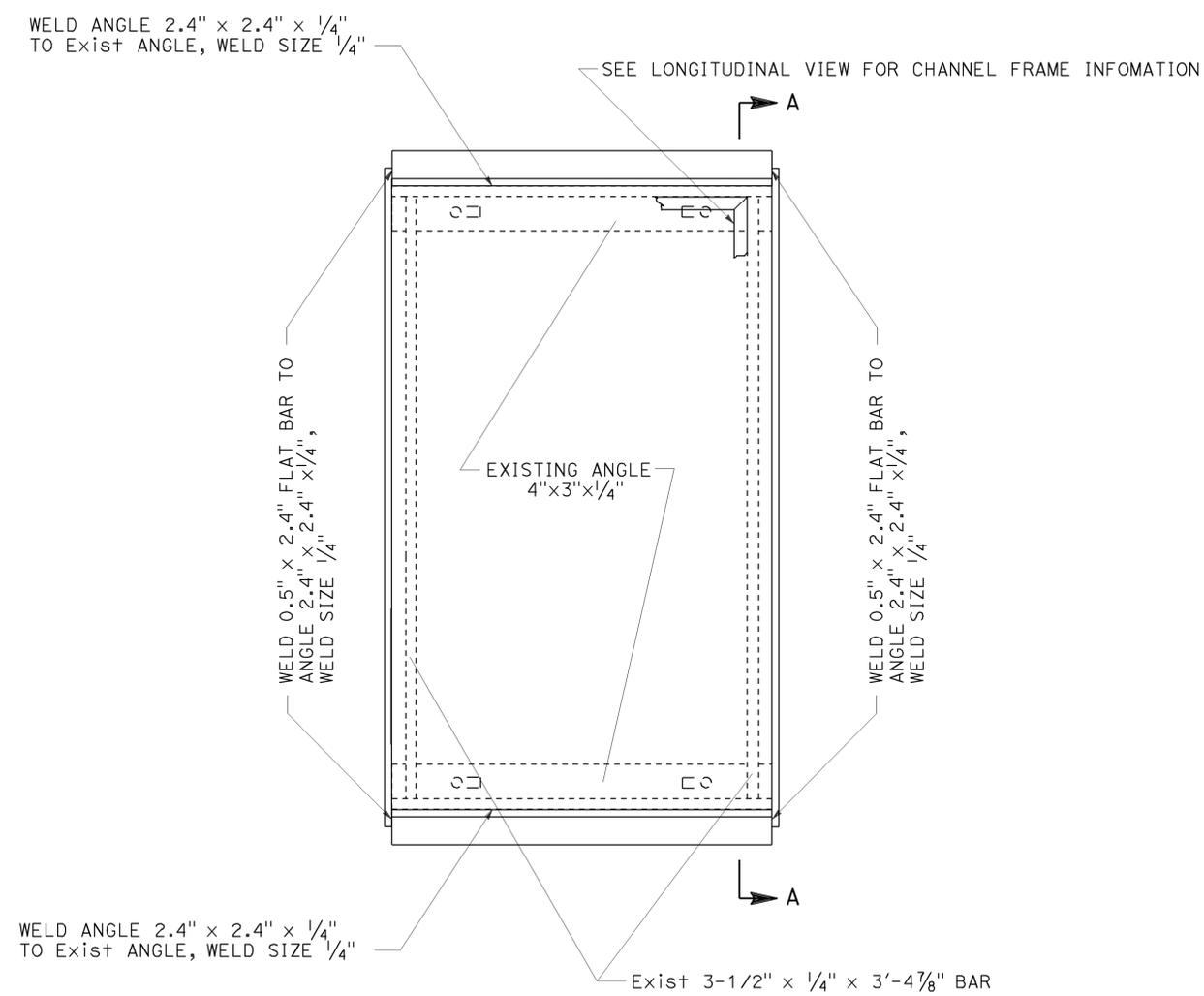
REGISTERED CIVIL ENGINEER M.A. PANCHESSON No. 44125 Exp. 06-30-11 CIVIL

3-01-10 PLANS APPROVAL DATE

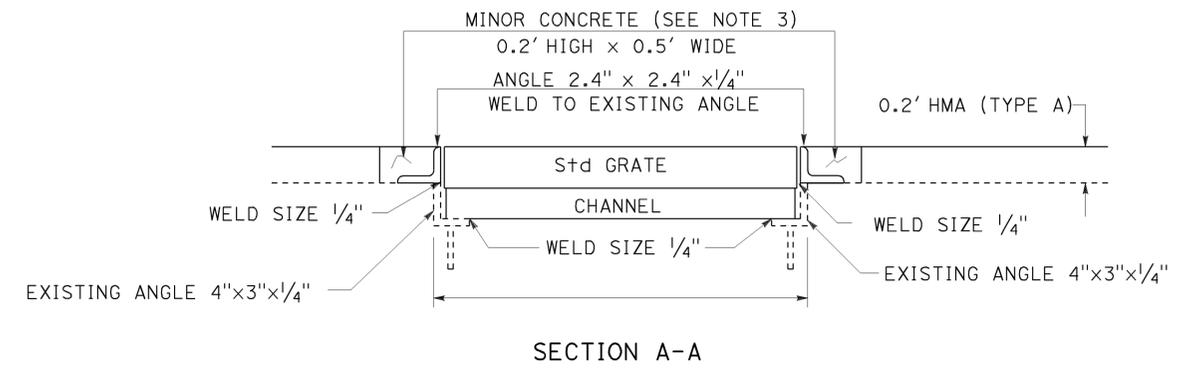
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**NOTES:**

- ALL STEEL TO BE USED WILL BE A36 MATERIAL CHIP EXISTING CONCRETE AND EXPOSE A MINIMUM 0.25" OF EXISTING ANGLE OR FLAT BAR THAT WILL BE WELDED TO NEW ANGLE.
- USE EXISTING GRATES UNLESS DAMAGED.
- ON ANY SIDE OF DI, WIDTH OF MINOR Conc TO BE NO GREATER THAN Exist DI WALL THICKNESS.
- FIELD VERIFY DIMENSIONMS "A" AND "B". SEE Std PLANS D73 and D77A FOR FRAME AND GRATE DETAILS.



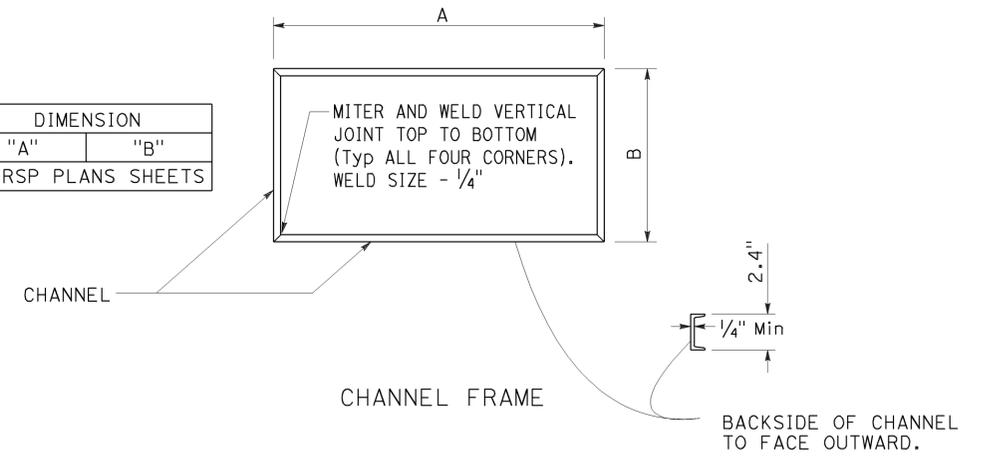
**TYPICAL FRAME**



**SECTION A-A**

| TYPE            | DIMENSION            |     |
|-----------------|----------------------|-----|
|                 | "A"                  | "B" |
| G0, G1, G2, GT3 | SEE RSP PLANS SHEETS |     |

SEE NOTE 4



**CHANNEL FRAME**

ADJUST FRAME AND GRATE TO GRADE  
**CONSTRUCTION DETAILS**

NO SCALE

**C-11**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** PROJECT DEVELOPMENT

SENIOR LANDSCAPE ARCHITECT  
 KEN MURRAY

CALCULATED-DESIGNED BY  
 CHECKED BY

JANE DONOHUE  
 JEFFREY PIETRZAK

REVISED BY  
 DATE REVISED

**LEGEND**



EROSION CONTROL (TYPE 1)

**ABBREVIATION**

RECP ROLLED EROSION CONTROL PRODUCT (BLANKET)

BFM EROSION CONTROL (BONDED FIBER MATRIX)



|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0               | 15        | 45           |

3-01-10  
 PLANS APPROVAL DATE

JEFFREY L. PIETRZAK  
 LICENSED LANDSCAPE ARCHITECT  
 No. 4457  
 Signature  
 12-31-11  
 Renewal Date  
 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.

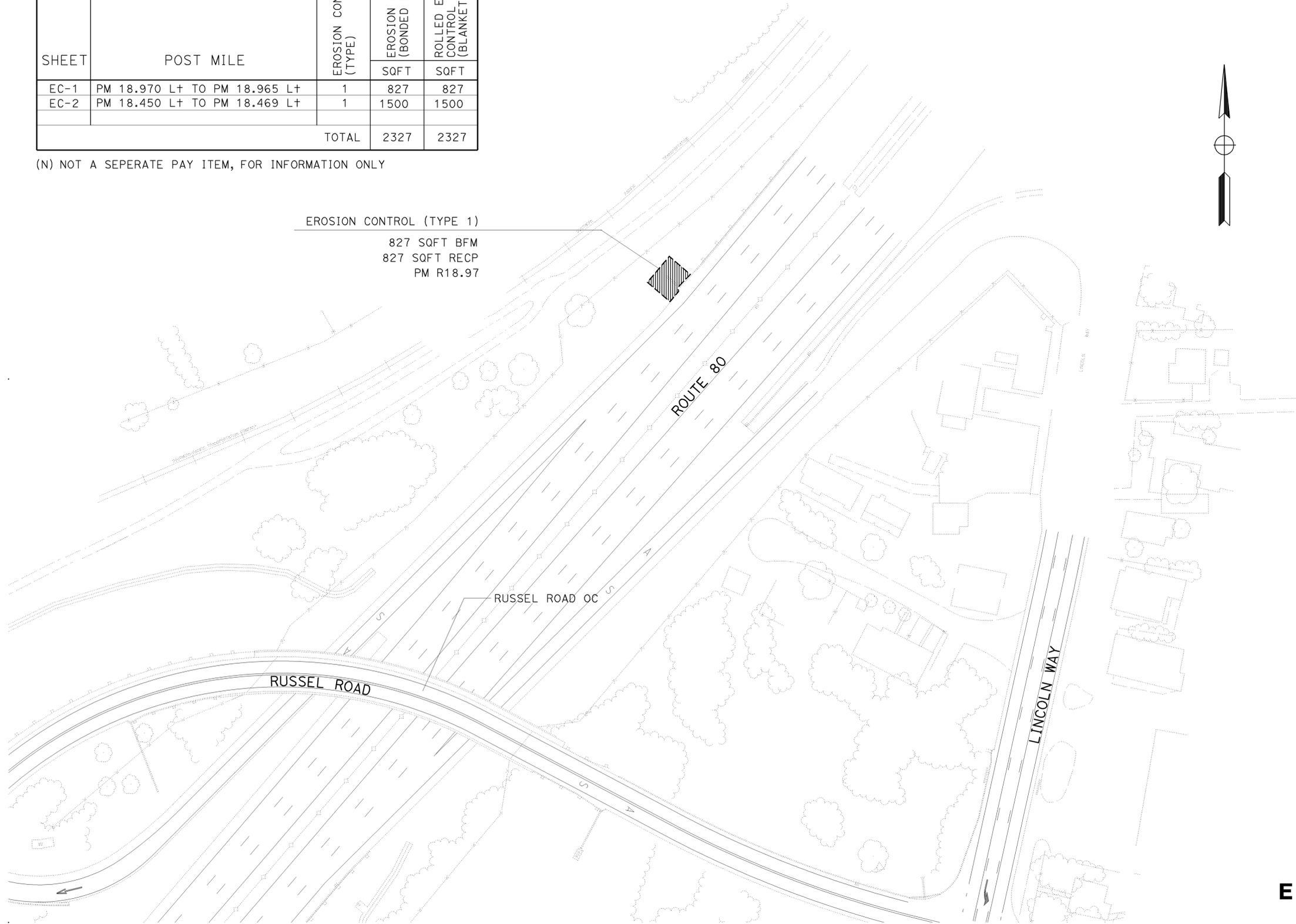
**EROSION CONTROL PLAN**  
 SCALE 1"=50'  
**EC-1**

# EROSION CONTROL QUANTITIES

| SHEET | POST MILE                    | EROSION CONTROL (TYPE) | (N) | EROSION CONTROL (BONDED FIBER MATRIX) | ROLLED EROSION CONTROL PRODUCT (BLANKET) |
|-------|------------------------------|------------------------|-----|---------------------------------------|--|
|       |                              |                        |     | SQFT                                  | SQFT                                     |
| EC-1  | PM 18.970 L+ TO PM 18.965 L+ | 1                      |     | 827                                   | 827                                      |
| EC-2  | PM 18.450 L+ TO PM 18.469 L+ | 1                      |     | 1500                                  | 1500                                     |
| TOTAL |                              |                        |     | 2327                                  | 2327                                     |

(N) NOT A SEPERATE PAY ITEM, FOR INFORMATION ONLY

EROSION CONTROL (TYPE 1)  
 827 SQFT BFM  
 827 SQFT RECP  
 PM R18.97



|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0               | 16        | 45           |

3-01-10  
 PLANS APPROVAL DATE

JEFFREY L. PIETRZAK  
 LICENSED LANDSCAPE ARCHITECT  
 No. 4457  
 Signature: [Signature]  
 Renewal Date: 12-31-11  
 Date: [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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** PROJECT DEVELOPMENT  
 SENIOR LANDSCAPE ARCHITECT: KEN MURRAY  
 CALCULATED/DESIGNED BY: JANE DONOHOE  
 CHECKED BY: JEFFREY PIETRZAK  
 REVISED BY: [Blank]  
 DATE REVISED: [Blank]

**EROSION CONTROL PLAN**  
 SCALE 1"=50'  
**EC-2**

LAST REVISION | DATE PLOTTED => 03-JUN-2010  
 02/25/10 TIME PLOTTED => 08:09

P:\proj\4\03\11F360\plans\pse\31f3601a001.dgn  
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 FUNCTIONAL SUPERVISOR: RONALD S. SYKES  
 JACK KEMMERLY  
 REVISOR: JOYCE LOFTUS  
 DATE: 3-01-10  
 CHECKED BY: [blank]  
 DESIGNED BY: [blank]

STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

| SIGN LETTER | SIGN CODE |                  | PANEL SIZE | SIGN MESSAGE                        | NUMBER OF POST AND SIZE | NUMBER OF SIGNS |
|-------------|-----------|------------------|------------|-------------------------------------|-------------------------|-----------------|
|             | FEDERAL   | CALIFORNIA       |            |                                     |                         |                 |
| (A)         |           | G20-1 [Spec] (2) | 84" x 42"  | ROAD WORK NEXT 2 MILES              | 2 - 4" x 6"             | 2               |
| (B)         |           | C40(Mod)         | 96" x 60"  | TRAFFIC FINES DOUBLED IN WORK ZONES | 2 - 6" x 6"             | 2               |
| (C)         |           | C14              | 48" x 24"  | END ROAD WORK                       | 1 - 4" x 6"             | 6               |
| (D)         | W20-1     | C23              | 36" x 36"  | ROAD WORK AHEAD                     | 1 - 4" x 6"             | 11              |
| (E)         | G20-2     | C14              | 36" x 18"  | END ROAD WORK                       | 1 - 4" x 4"             | 13              |
| (F)         | W20-1     | C23              | 48" x 48"  | ROAD WORK AHEAD                     | 1 - 6" x 6"             | 5               |

NOTES:

1. EXACT SIGN LOCATIONS TO BE DETERMINED BY THE ENGINEER.
2. THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY.

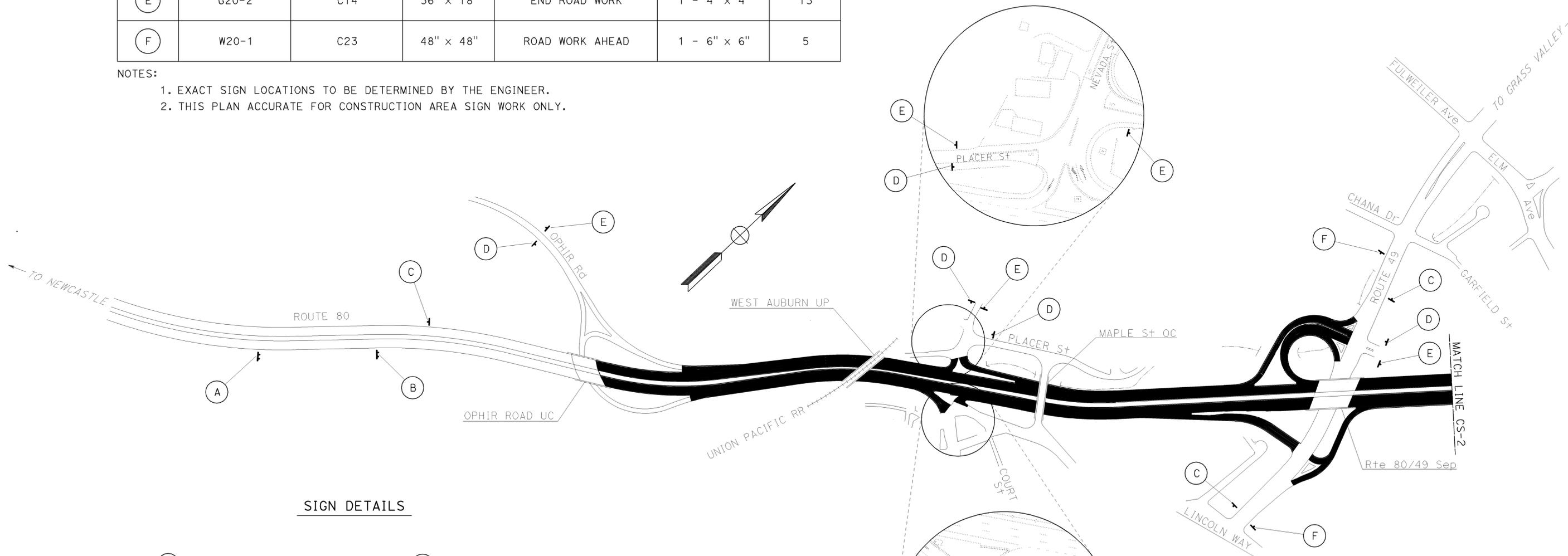
LEGEND

- (X) CONSTRUCTION AREA SIGN LETTER
- ↑ SIGN - SINGLE POST
- ↑↑ SIGN - TWO POSTS
- <CA> CALIFORNIA SIGN CODE

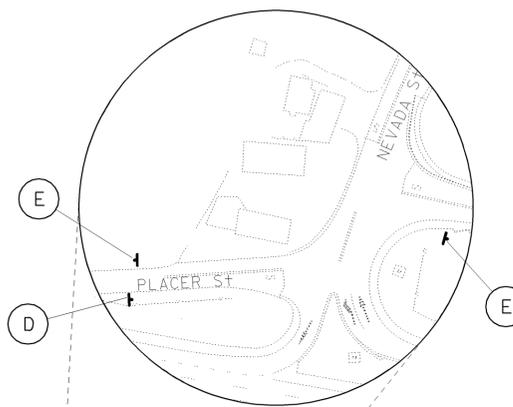
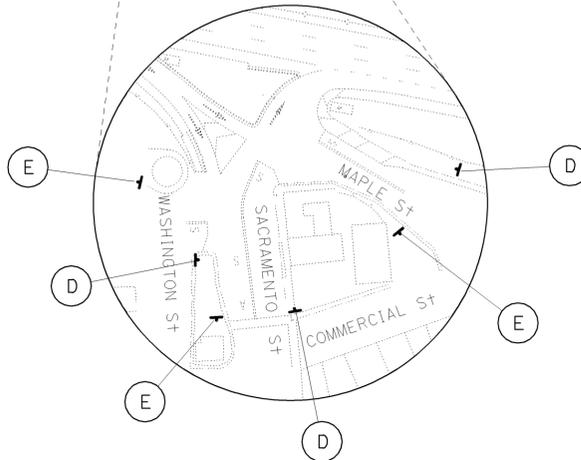
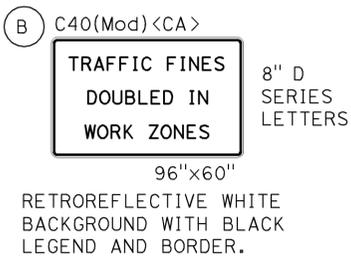
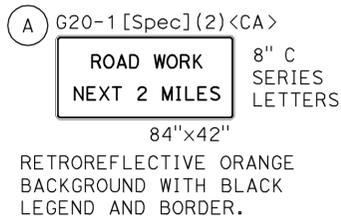
|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03   | Plac   | 80    | 16.9/R19.0               | 17        | 45           |

Joyce K. Loftus 3-01-10  
 REGISTERED CIVIL ENGINEER DATE  
 3-01-10  
 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.

REGISTERED PROFESSIONAL ENGINEER  
 Joyce K. Loftus  
 No. 38426  
 Exp. 3-31-11  
 CIVIL  
 STATE OF CALIFORNIA



SIGN DETAILS



**CONSTRUCTION AREA SIGNS**  
NO SCALE

**CS-1**



### DELINEATOR AND MARKER

| LOCATION                                      | DELINEATOR<br>(CLASS 1)<br>(EA) | OBJECT<br>MARKER<br>(TYPE K-1)<br>(EA) |
|---|---------------------------------|--|
| PM 16.9/R19.0<br>(EB, WB MAIN LINE AND RAMPS) | 125                             | 6                                      |
| FOR MBGR                                      | 137                             |  |
| TOTAL   | 262                             | 6                                      |

NOTE: LOCATIONS TO BE DETERMINED BY THE ENGINEER.

|      |        |       |                             |              |                 |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES<br>TOTAL PROJECT | SHEET<br>No. | TOTAL<br>SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0                  | 19           | 45              |

*M.A. Panchesson* 3-01-10  
REGISTERED CIVIL ENGINEER DATE

3-01-10  
PLANS APPROVAL DATE

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

REGISTERED PROFESSIONAL ENGINEER

M.A. PANCHESSON

No. 44125

Exp. 06-30-11

CIVIL

STATE OF CALIFORNIA

### PAVEMENT MARKER (RETROREFLECTIVE) AND THERMOPLASTIC TRAFFIC STRIPE

| LOCATION                        | 4" THERMOPLASTIC<br>TRAFFIC STRIPE<br>(BROKEN 17-7) | 4" THERMOPLASTIC<br>TRAFFIC STRIPE<br>(BROKEN 36-12) | 4" THERMOPLASTIC<br>TRAFFIC STRIPE |             |             | 8" THERMOPLASTIC<br>TRAFFIC STRIPE |             |            | 8" THERMOPLASTIC<br>TRAFFIC STRIPE<br>BROKEN (12-3) | PAVEMENT MARKER<br>(RETROREFLECTIVE) |        |        |
|---------------------------------|---|--|------------------------------------|-------------|-------------|------------------------------------|-------------|------------|---|--------------------------------------|--------|--------|
|                                 | DETAIL NUMBER                                       | DETAIL NUMBER  | DETAIL NUMBER                      |             |             | DETAIL NUMBER                      |             |            | DETAIL NUMBER                                       | TYPE C                               | TYPE G | TYPE H |
|                                 | 9<br>(LF)   | 12<br>(LF)   | 25<br>(LF)                         | 25A<br>(LF) | 27B<br>(LF) | 36<br>(LF)                         | 36B<br>(LF) | 38<br>(LF) | 37<br>(LF)  | (EA)                                 | (EA)   | (EA)   |
| EB ROUTE 80                     | 300   | 28,815   | 11,350                             |             | 10,000      |                                    |             |            | 3,395   | 100                                  | 878    | 238    |
| WB ROUTE 80                     | 340   | 22,700   | 11,350                             |             | 8,754       |                                    |             |            | 2,895   | 100                                  | 702    | 238    |
| EB ENTRANCE RAMP FROM OPHIR Rd  |   |  |                                    |             | 93          |                                    | 103         |            |   |                                      | 6      |        |
| EB EXIT RAMP TO NEVADA St       |   |  |                                    | 96          | 196         | 200                                |             | 161        |   |                                      | 19     | 6      |
| EB ENTRANCE RAMP FROM NEVADA St |   |  |                                    | 52          | 55          |                                    | 15          |            |   |                                      | 2      | 5      |
| EB EXIT RAMP TO Rte 49          |   |  |                                    | 543         | 833         | 580                                |             | 477        |   |                                      | 48     | 25     |
| EB ENTRANCE RAMP FROM Rte 49    |   |  |                                    | 437         | 616         |                                    |             | 36         |   |                                      | 4      | 21     |
| EB EXIT RAMP TO ELM Ave         | 170   |  |                                    | 374         | 486         | 280                                |             | 78         |   |                                      | 24     | 18     |
| EB ENTRANCE RAMP FROM ELM Ave   | 24  |  |                                    | 485         | 460         |                                    | 48          | 61         |   |                                      | 14     | 23     |
| EB EXIT RAMP TO LINCOLN WAY     | 167   |  |                                    | 405         | 1,310       | 780                                |             | 254        |   |                                      | 57     | 20     |
| WB EXIT RAMP TO OPHIR Rd        |   |  |                                    |             | 320         | 750                                |             |            |   |                                      | 34     |        |
| WB EXIT RAMP TO NEVADA St       | 17  |  |                                    | 273         | 633         | 720                                |             | 30         |   |                                      | 38     | 14     |
| WB ENTRANCE RAMP FROM NEVADA St |   |  |                                    | 48          | 64          |                                    | 16          |            |   |                                      | 2      | 3      |
| WB EXIT RAMP TO Rte 49          | 292   |  |                                    | 624         | 576         | 166                                |             | 242        |   |                                      | 29     | 28     |
| WB ENTRANCE RAMP FROM Rte 49    | 66  |  |                                    | 771         | 841         |                                    | 40          | 35         |   |                                      | 10     | 36     |
| WB EXIT RAMP TO ELM Ave         | 335   |  |                                    | 622         | 15          | 900                                |             | 504        |   |                                      | 70     | 28     |
| WB ENTRANCE RAMP FROM ELM Ave   |   |  |                                    | 465         | 480         |                                    |             | 18         |   |                                      | 3      | 22     |
| WB EXIT RAMP TO RUSSEL Rd       |   |  |                                    | 480         | 1,260       | 530                                | 165         |            |   |                                      | 33     | 22     |
| WB ENTRANCE RAMP FROM RUSSEL Rd |   |  |                                    | 195         | 360         |                                    |             |            |   |                                      |        | 11     |
| SUBTOTAL                        | 1,711   | 51,515   | 22,700                             | 5,870       | 27,352      | 4,906                              | 387         | 1,896      | 6,290   | 200                                  | 1,973  | 758    |
| TOTAL                           | 1,711   | 51,515   | 55,922                             |             |             | 7,189                              |             |            | 6,290   | 2,931                                |        |        |

## PAVEMENT DELINEATION QUANTITIES

**PDQ-1**

|      |        |       |                             |              |                 |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES<br>TOTAL PROJECT | SHEET<br>No. | TOTAL<br>SHEETS |
| 03   | Plg    | 80    | 16.9/R19.0                  | 20           | 45              |

*M.A. Panchesson* 3-01-10  
REGISTERED CIVIL ENGINEER DATE

3-01-10  
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER  
M.A. PANCHESSON  
No. 44125  
Exp. 06-30-11  
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.

### THERMOPLASTIC PAVEMENT MARKING

| LOCATION                        | THERMOPLASTIC PAVEMENT MARKING |                  |                   |                 |                  |        |         |          |                                 |
|---------------------------------|--------------------------------|------------------|-------------------|-----------------|------------------|--------|---------|----------|---------------------------------|
|                                 | TYPE I<br>ARROW                | TYPE II<br>ARROW | TYPE III<br>ARROW | TYPE V<br>ARROW | TYPE VI<br>ARROW | "STOP" | "AHEAD" | "SIGNAL" | CROSS WALK<br>AND<br>LIMIT LINE |
|                                 | (SQFT)                         | (SQFT)           | (SQFT)            | (SQFT)          | (SQFT)           | (SQFT) | (SQFT)  | (SQFT)   | (SQFT)                          |
| EB ROUTE 80                     |                                |                  |                   |                 | 126              |        |         |          |                                 |
| EB EXIT RAMP TO NEVADA St       |                                |                  |                   | 99              |                  |        |         |          |                                 |
| EB ENTRANCE RAMP FROM NEVADA St | 31                             |                  |                   |                 |                  |        |         |          |                                 |
| EB EXIT RAMP TO Rte 49          |                                | 90               | 168               |                 |                  |        | 31      | 32       | 56                              |
| EB ENTRANCE RAMP FROM Rte 49    | 124                            |                  |                   |                 |                  |        |         |          | 60                              |
| EB EXIT RAMP TO ELM Ave         |                                |                  |                   | 132             |                  |        | 31      | 32       | 94                              |
| EB ENTRANCE RAMP FROM ELM Ave   | 62                             |                  |                   |                 |                  |        |         |          | 96                              |
| EB EXIT RAMP TO LINCOLN WAY     |                                | 90               | 84                | 33              |                  | 66     | 31      |          | 80                              |
| WB ENTRANCE RAMP FROM NEVADA St | 31                             |                  |                   |                 |                  |        |         |          |                                 |
| WB EXIT RAMP TO NEVADA St       |                                |                  | 42                | 66              |                  |        |         |          |                                 |
| WB EXIT RAMP TO Rte 49          | 62                             |                  | 84                | 66              |                  |        | 31      | 32       | 31                              |
| WB ENTRANCE RAMP FROM Rte 49    | 31                             |                  |                   |                 |                  |        |         |          |                                 |
| WB EXIT RAMP TO ELM Ave         | 62                             |                  | 84                | 66              |                  |        | 62      | 64       | 130                             |
| WB ENTRANCE RAMP FROM ELM Ave   | 62                             |                  |                   |                 |                  |        |         |          | 66                              |
| WB EXIT RAMP TO RUSSEL Rd       |                                |                  |                   | 66              |                  | 44     | 31      |          | 55                              |
| WB ENTRANCE RAMP FROM RUSSEL Rd | 62                             |                  |                   |                 |                  |        |         |          |                                 |
| SUBTOTAL                        | 527                            | 180              | 462               | 528             | 126              | 110    | 217     | 160      | 668                             |
| TOTAL                           | 2978                           |                  |                   |                 |                  |        |         |          |                                 |

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** PROJECT DEVELOPMENT  
 FUNCTIONAL SUPERVISOR KEVIN ESPINOZA  
 CALCULATED/DESIGNED BY CHECKED BY  
 THIN SLOCUM ERIC SOUZA  
 REVISED BY DATE REVISED

## PAVEMENT DELINEATION QUANTITIES

**PDQ-2**

LAST REVISION | DATE PLOTTED => 03-JUN-2010  
 02/24/10 TIME PLOTTED => 08:09

|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0               | 21        | 45           |

3-01-10  
REGISTERED CIVIL ENGINEER DATE

3-01-10  
PLANS APPROVAL DATE

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M.A. PANCHESSON  
No. 44125  
Exp. 06-30-11  
CIVIL

### HOT MIX ASPHALT

| LOCATION                        | QUANTITY |
|---------------------------------|----------|
|                                 | TON      |
| ROUTE 80 WB PM 16.9 TO 17.6     | 3,876    |
| ROUTE 80 EB PM 16.9 TO 17.6     | 4,021    |
| WB ENTRANCE RAMP FROM NEVADA St | 28       |
| WB EXIT RAMP TO NEVADA St       | 130      |
| EB EXIT RAMP TO NEVADA ST       | 77       |
| EB ENTRANCE RAMP FROM NEVADA ST | 20       |
| WB ENTRANCE RAMP FROM Rte 49    | 375      |
| WB EXIT RAMP TO Rte 49          | 494      |
| EB EXIT RAMP TO Rte 49          | 347      |
| EB ENTRANCE RAMP FROM Rte 49    | 274      |
| ROUTE 80 WB PM 17.6 TO 18.4     | 4,192    |
| ROUTE 80 EB PM 17.6 TO 18.4     | 4,913    |
| WB ENTRANCE RAMP FROM ELM Ave   | 236      |
| WB EXIT RAMP TO ELM Ave         | 550      |
| EB EXIT RAMP TO ELM Ave         | 256      |
| EB ENTRANCE RAMP FROM ELM Ave   | 276      |
| ROUTE 80 WB PM 18.4 TO 19.0     | 3,410    |
| ROUTE 80 EB PM 18.4 TO 19.0     | 3,689    |
| WB ENTRANCE RAMP FROM RUSSEL Rd | 92       |
| WB EXIT RAMP TO RUSSEL Rd       | 207      |
| EB EXIT RAMP TO LINCOLN WAY     | 245      |
| TOTAL                           | 27,708   |

### RUBBERIZED WARM MIX ASPHALT (OPEN GRADED)

| LOCATION                        | QUANTITY |
|---------------------------------|----------|
|                                 | TON      |
| ROUTE 80 WB PM 16.9 TO 17.6     | 1,302    |
| ROUTE 80 EB PM 16.9 TO 17.6     | 1,293    |
| WB ENTRANCE RAMP FROM NEVADA St | 12       |
| WB EXIT RAMP TO NEVADA St       | 56       |
| EB EXIT RAMP TO NEVADA ST       | 33       |
| EB ENTRANCE RAMP FROM NEVADA ST | 9        |
| WB ENTRANCE RAMP FROM Rte 49    | 163      |
| WB EXIT RAMP TO Rte 49          | 215      |
| EB EXIT RAMP TO Rte 49          | 151      |
| EB ENTRANCE RAMP FROM Rte 49    | 119      |
| ROUTE 80 WB PM 17.6 TO 18.4     | 1,281    |
| ROUTE 80 EB PM 17.6 TO 18.4     | 1,696    |
| WB ENTRANCE RAMP FROM ELM Ave   | 103      |
| WB EXIT RAMP TO ELM Ave         | 239      |
| EB EXIT RAMP TO ELM Ave         | 111      |
| EB ENTRANCE RAMP FROM ELM Ave   | 120      |
| ROUTE 80 WB PM 18.4 TO 19.0     | 1,073    |
| ROUTE 80 EB PM 18.4 TO 19.0     | 1,153    |
| WB ENTRANCE RAMP FROM RUSSEL Rd | 40       |
| WB EXIT RAMP TO RUSSEL Rd       | 90       |
| EB EXIT RAMP TO LINCOLN WAY     | 107      |
| TOTAL                           | 9,366    |

### TACK COAT

| LOCATION                        | FOR HMA | FOR RWMA-0 |
|---------------------------------|---------|------------|
|                                 | TON     | TON        |
| ROUTE 80 WB PM 16.9 TO 17.6     | 4.30    | 3.32       |
| ROUTE 80 EB PM 16.9 TO 17.6     | 4.46    | 3.30       |
| WB ENTRANCE RAMP FROM NEVADA St | 0.03    | 0.03       |
| WB EXIT RAMP TO NEVADA St       | 0.14    | 0.14       |
| EB EXIT RAMP TO NEVADA ST       | 0.09    | 0.09       |
| EB ENTRANCE RAMP FROM NEVADA ST | 0.02    | 0.02       |
| WB ENTRANCE RAMP FROM Rte 49    | 0.42    | 0.42       |
| WB EXIT RAMP FROM Rte 49        | 0.55    | 0.55       |
| EB EXIT RAMP TO Rte 49          | 0.38    | 0.38       |
| EB ENTRANCE RAMP TO Rte 49      | 0.30    | 0.30       |
| ROUTE 80 WB PM 17.6 TO 18.4     | 4.65    | 3.27       |
| ROUTE 80 EB PM 17.6 TO 18.4     | 5.45    | 4.33       |
| WB ENTRANCE RAMP FROM ELM Ave   | 0.26    | 0.26       |
| WB EXIT RAMP TO ELM Ave         | 0.61    | 0.61       |
| EB EXIT RAMP TO ELM Ave         | 0.28    | 0.28       |
| EB ENTRANCE RAMP FROM ELM Ave   | 0.31    | 0.31       |
| ROUTE 80 WB PM 18.4 TO 19.0     | 3.79    | 2.74       |
| ROUTE 80 EB PM 18.4 TO 19.0     | 4.10    | 2.94       |
| WB ENTRANCE RAMP FROM RUSSEL Rd | 0.10    | 0.10       |
| WB EXIT RAMP TO RUSSEL Rd       | 0.23    | 0.23       |
| EB EXIT RAMP TO LINCOLN WAY     | 0.27    | 0.27       |
| SUBTOTAL                        | 30.74   | 23.89      |
| TOTAL                           |         | 54.63      |

### IMPORTED MATERIAL (SHOULDER BACKING)

| LOCATION                        | QUANTITY |
|---------------------------------|----------|
|                                 | TON      |
| EB ROUTE 80                     | 157.5    |
| WB ROUTE 80                     | 137.9    |
| SUBTOTAL                        | 295.4    |
| EB ENTRANCE RAMP FROM OPHIR Rd  | 1.5      |
| EB EXIT RAMP TO NEVADA St       | 3.1      |
| EB ENTRANCE RAMP FROM NEVADA St | 0.9      |
| EB EXIT RAMP TO Rte 49          | 13.1     |
| EB ENTRANCE RAMP FROM Rte 49    | 9.7      |
| EB EXIT RAMP TO ELM Ave         | 7.7      |
| EB ENTRANCE RAMP FROM ELM Ave   | 7.2      |
| EB EXIT RAMP TO LINCOLN WAY     | 20.6     |
| SUBTOTAL                        | 63.8     |
| WB EXIT RAMP TO RUSSEL Rd       | 19.8     |
| WB ENTRANCE RAMP FROM RUSSEL Rd | 5.7      |
| WB EXIT RAMP TO ELM Ave         | 0.2      |
| WB ENTRANCE RAMP FROM ELM Ave   | 7.6      |
| WB EXIT RAMP TO Rte 49          | 9.1      |
| WB ENTRANCE RAMP FROM Rte 49    | 13.2     |
| WB EXIT RAMP TO NEVADA St       | 10.0     |
| WB ENTRANCE RAMP FROM NEVADA St | 1.0      |
| WB EXIT RAMP TO OPHIR Rd        | 5.0      |
| SUBTOTAL                        | 71.6     |
| TOTAL                           | 430.8    |

### COLD PLANE ASPHALT CONCRETE PAVEMENT

| LOCATION                        | QUANTITY |
|---------------------------------|----------|
|                                 | SQYD     |
| ROUTE 80 WB PM 16.9 TO 17.6     | 20,382   |
| ROUTE 80 EB PM 16.9 TO 17.6     | 20,124   |
| WB ENTRANCE RAMP FROM NEVADA St | 185      |
| WB EXIT RAMP TO NEVADA St       | 845      |
| EB EXIT RAMP TO NEVADA ST       | 500      |
| EB ENTRANCE RAMP FROM NEVADA ST | 129      |
| WB ENTRANCE RAMP FROM Rte 49    | 2,444    |
| WB EXIT RAMP TO Rte 49          | 3,221    |
| EB EXIT RAMP TO Rte 49          | 2,261    |
| EB ENTRANCE RAMP FROM Rte 49    | 1,786    |
| ROUTE 80 WB PM 17.6 TO 18.4     | 19,215   |
| ROUTE 80 EB PM 17.6 TO 18.4     | 25,445   |
| WB ENTRANCE RAMP FROM ELM Ave   | 1,540    |
| WB EXIT RAMP TO ELM Ave         | 3,590    |
| EB EXIT RAMP TO ELM Ave         | 1,801    |
| EB ENTRANCE RAMP FROM ELM Ave   | 1,670    |
| ROUTE 80 WB PM 18.4 TO 19.0     | 16,096   |
| ROUTE 80 EB PM 18.4 TO 19.0     | 17,302   |
| WB ENTRANCE RAMP FROM RUSSEL Rd | 600      |
| WB EXIT RAMP TO RUSSEL Rd       | 1,350    |
| EB EXIT RAMP TO LINCOLN WAY     | 1,601    |
| TOTAL                           | 142,087  |

### REPLACE ASPHALT CONCRETE SURFACING

| LOCATION              | QUANTITY | (N)    |
|-----------------------|----------|--------|
|                       |          | LENGTH |
| WB ROUTE 80           |          |        |
| PM 17.12 (LANE No. 3) | 22.2     | 200.0  |
| PM 17.21 (LANE No. 3) | 13.9     | 125.0  |
| PM 17.27 (LANE No. 3) | 5.6      | 50.0   |
| SUBTOTAL              | 41.7     | 375.0  |
| EB ROUTE 80           |          |        |
| PM 17.33 (LANE No. 3) | 30.0     | 270.0  |
| PM 17.45 (LANE No. 3) | 2.8      | 25.0   |
| PM 17.48 (LANE No. 3) | 15.6     | 140.0  |
| PM 17.72 (LANE No. 3) | 6.7      | 60.0   |
| PM 17.75 (LANE No. 3) | 5.6      | 50.0   |
| PM 18.03 (LANE No. 3) | 5.6      | 50.0   |
| SUBTOTAL              | 66.3     | 595.0  |
| TOTAL                 | 108.0    | 970.0  |

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

### HMA LEVELING

| LOCATION                      | QUANTITY |
|-------------------------------|----------|
|                               | TON      |
| WB ROUTE 80 PM 18.47 to 18.51 | 315.8    |
| TOTAL                         | 315.8    |

### CRACK TREATMENT

| LOCATION                    | QUANTITY |
|-----------------------------|----------|
|                             | LNMI     |
| WB ROUTE 80                 | 6.6      |
| EB ROUTE 80                 | 8.8      |
| ALL ENTRANCE AND EXIT RAMPS | 1.7      |
| TOTAL                       | 17.1     |

## SUMMARY OF QUANTITIES

Q-1

|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0               | 22        | 45           |

*M.A. Panchesson* 3-01-10  
 REGISTERED CIVIL ENGINEER DATE

3-01-10  
 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.

### DIKE

| LOCATION                                | REMOVE AC DIKE | PLACE HMA DIKE |            |              |              |
|---|----------------|----------------|------------|--------------|--------------|
|   |                | (TYPE D)       | (TYPE E)   | (TYPE F)     | MINOR HMA    |
|   | (LF)           | (LF)           | (LF)       | (LF)         | (TON)        |
| PM 18.31 TO PM 18.35 ON EB MAIN LINE R+ | 186            |                |            | 186          | 2.49         |
| PM 18.83 TO PM 18.88 ON EB MAIN LINE R+ | 250            |                |            | 250          | 3.35         |
| EB EXIT RAMP TO LINCOLN WAY R+          | 290            | 290            |            |              | 17.25        |
| EB EXIT RAMP TO LINCOLN WAY L+          | 110            |                | 110        |              | 1.47         |
| PM 18.43 TO PM 18.48 ON WB MAIN LINE R+ | 290            |                |            | 290          | 3.89         |
| PM 17.99 TO PM 18.01 ON WB MAIN LINE R+ | 85             |                |            | 85           | 1.14         |
| WB ENTRANCE RAMP FROM ELM Ave R+        | 214            |                |            | 214          | 2.87         |
| PM 17.62 TO PM 17.75 ON WB MAIN LINE R+ | 708            |                |            | 708          | 9.49         |
| WB EXIT RAMP TO Rte 49 R+               | 278            |                | 141        | 137          | 5.56         |
| WB ENTRANCE RAMP FROM Rte 49 R+         | 123            |                |            | 123          | 1.65         |
| PM 17.41 TO PM 17.46 ON WB MAIN LINE R+ | 250            |                |            | 250          | 3.35         |
| FROM HMA OVERSIDE DRAIN-SHEET Q-3       |                |                |            |              | 7.62         |
| <b>TOTAL</b>                            | <b>2,784</b>   | <b>290</b>     | <b>251</b> | <b>2,243</b> | <b>60.13</b> |

### MINOR CONCRETE (PATTERNED)

| LOCATION                       | QUANTITY     |
|--------------------------------|--------------|
|                                | SQYD         |
| WB Rte 80 PM 17.83 to 17.94 R+ | 1,016        |
| <b>TOTAL</b>                   | <b>1,016</b> |

### METAL BEAM GUARD RAILING

| LOCATION                                | REMOVE METAL BEAM GUARD RAILING | (N) POST DISPOSAL | (N) REMOVE CONCRETE POST ANCHORS | METAL BEAM GUARD RAILING | BURIED POST ANCHOR | AI+ FLARED TERMINAL SYSTEM | TRANSITION RAILING (TYPE WB) | END ANCHOR ASSEMBLY (TYPE SFT) | (N) ANCHOR BLOCK | MINOR CONCRETE (MINOR STRUCTURE) | END CAP (TYPE A) | (N) NESTING OMIT POSTS | (N) NESTING ADDITIONAL RAILS NEEDED | MARKER (TYPE L-1) | VEGETATION CONTROL (MINOR CONCRETE) |
|---|---------------------------------|-------------------|----------------------------------|--------------------------|--------------------|----------------------------|------------------------------|--------------------------------|------------------|----------------------------------|------------------|------------------------|-------------------------------------|-------------------|-------------------------------------|
|   | (LF)                            | (EA)              | (EA)                             | (LF)                     | (EA)               | (EA)                       | (EA)                         | (EA)                           | (EA)             | (CY)                             | (EA)             | (EA)                   | (EA)                                | (EA)              | (SQYD)                              |
| PM 17.11 TO PM 17.12 ON EB MAIN LINE R+ | 75.0                            | 11                | 1                                | 75.0                     | 1                  |                            |                              | 1                              |                  |                                  |                  |                        |                                     | 1                 | 39.6                                |
| PM 17.33 TO PM 17.35 ON EB MAIN LINE R+ | 125.0                           | 22                |                                  | 100.0                    | 1                  |                            | 1                            |                                |                  |                                  |                  | 1                      | 2                                   | 1                 | 52.8                                |
| PM 17.55 TO PM 17.56 ON EB MAIN LINE R+ | 62.5                            | 13                | 2                                |                          |                    | 1                          | 1                            |                                |                  |                                  |                  |                        |                                     | 1                 | 31.6                                |
| PM 17.64 TO PM 17.66 ON EB MAIN LINE R+ | 112.5                           | 18                | 1                                | 112.5                    |                    |                            |                              | 1                              |                  |                                  | 1                |                        |                                     |                   | 59.4                                |
| PM 17.73 TO PM 17.78 ON EB MAIN LINE R+ | 262.5                           | 43                | 3                                | 262.5                    |                    | 1                          |                              | 1                              |                  | 2.0                              |                  | 2                      | 6                                   | 1                 | 170.1                               |
| EB ENTRANCE RAMP FROM ELM Ave R+        | 62.5                            | 9                 |                                  | 37.5                     | 1                  |                            | 1                            |                                | 1                |                                  |                  |                        |                                     | 1                 | 19.8                                |
| PM 18.31 TO PM 18.35 ON EB MAIN LINE R+ | 237.5                           | 40                |                                  | 212.5                    | 1                  |                            | 1                            |                                |                  |                                  |                  | 1                      | 2                                   | 1                 | 112.2                               |
| PM 18.83 TO PM 18.88 ON EB MAIN LINE R+ | 250.0                           | 40                | 1                                | 250.0                    |                    |                            |                              | 1                              |                  |                                  | 1                | 1                      | 3                                   |                   | 131.9                               |
| PM 18.43 TO PM 18.50 ON WB MAIN LINE R+ | 350.0                           | 59                | 1                                | 287.5                    |                    | 1                          | 1                            |                                |                  |                                  |                  | 2                      | 4                                   | 1                 | 183.3                               |
| PM 18.05 TO PM 18.37 ON WB MAIN LINE R+ | 1,712.5                         | 276               |                                  | 1,675.0                  |                    |                            | 1                            |                                |                  |                                  | 1                |                        |                                     |                   | 884.0                               |
| PM 17.99 TO PM 18.01 ON WB MAIN LINE R+ | 100.0                           | 16                | 1                                | 112.5                    |                    |                            |                              | 1                              |                  |                                  | 1                | 1                      | 2                                   |                   | 59.4                                |
| WB ENTRANCE RAMP FROM ELM Ave R+        | 325.0                           | 55                | 2                                | 262.5                    |                    | 1                          | 1                            |                                |                  |                                  |                  |                        |                                     | 1                 | 170.1                               |
| PM 17.62 TO PM 17.75 ON WB MAIN LINE R+ | 708.0                           | 117               |                                  | 683.0                    |                    |                            | 1                            |                                |                  |                                  | 1                |                        |                                     |                   | 360.5                               |
| WB EXIT RAMP TO Rte 49 R+               | 137.5                           | 22                | 1                                | 137.5                    |                    |                            |                              | 1                              |                  |                                  | 1                |                        |                                     |                   | 72.6                                |
| WB ENTRANCE RAMP FROM Rte 49 R+         | 337.5                           | 53                | 1                                | 825.0                    | 1                  |                            |                              |                                |                  |                                  |                  |                        |                                     | 1                 | 435.4                               |
| PM 17.41 TO PM 17.42 ON WB MAIN LINE R+ | 75.0                            | 15                |                                  | 50.0                     |                    |                            | 1                            |                                |                  |                                  |                  |                        |                                     |                   | 26.4                                |
| WB EXIT RAMP TO NEVADA St R+            | 287.5                           | 45                | 1                                | 287.5                    | 1                  |                            |                              | 1                              |                  |                                  |                  |                        |                                     | 1                 | 151.7                               |
| PM 17.17 TO PM 17.19 ON WB MAIN LINE R+ | 125.0                           | 20                | 1                                | 125.0                    | 1                  |                            |                              | 1                              |                  |                                  |                  |                        |                                     | 1                 | 66.0                                |
| PM 16.90 TO PM 16.91 ON WB MAIN LINE R+ | 75.0                            | 15                | 2                                |                          |                    | 1                          | 1                            |                                |                  |                                  |                  |                        |                                     | 1                 | 31.6                                |
| <b>TOTAL</b>                            | <b>5,420.5</b>                  | <b>889</b>        | <b>21</b>                        | <b>5,495.5</b>           | <b>7</b>           | <b>5</b>                   | <b>10</b>                    | <b>8</b>                       | <b>1</b>         | <b>2.0</b>                       | <b>6</b>         | <b>8</b>               | <b>19</b>                           | <b>12</b>         | <b>3,058.4</b>                      |

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

## SUMMARY OF QUANTITIES

Q-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION - PROJECT DEVELOPMENT  
 FUNCTIONAL SUPERVISOR: KEVIN ESPINOZA  
 THHEN SLOCUM  
 JOSE L. VALDEZ  
 REVISOR: THHEN SLOCUM  
 DATE REVISOR: JOSE L. VALDEZ  
 CALCULATED/DESIGNED BY: THHEN SLOCUM  
 CHECKED BY: JOSE L. VALDEZ

LAST REVISION | DATE PLOTTED => 03-JUN-2010 | TIME PLOTTED => 08:09

|      |        |       |                             |              |                 |
|------|--------|-------|-----------------------------|--------------|-----------------|
| Dist | COUNTY | ROUTE | POST MILES<br>TOTAL PROJECT | SHEET<br>No. | TOTAL<br>SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0                  | 23           | 45              |

*M.A. Panchesson* 3-01-10  
REGISTERED CIVIL ENGINEER DATE

3-01-10  
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.

**MISCELLANEOUS QUANTITIES**

| POST MILE | LOCATION                         | REMOVE<br>AC<br>OVERSIDE<br>DRAIN | HMA<br>OVERSIDE<br>DRAIN |                                   | (N)<br>DI TYPE | ADJUST<br>INLET | ADJUST<br>FRAME<br>AND<br>GRATE | ADJUST<br>SLOTTED<br>DRAIN<br>TO GRADE |
|-----------|----------------------------------|-----------------------------------|--------------------------|-----------------------------------|----------------|-----------------|---------------------------------|--|
|           |                                  |                                   | * MINOR<br>HMA           | PLACE HMA<br>(MISCELLANEOUS AREA) |                |                 |                                 |  |
|           |                                  |                                   | (EA)                     | (SQYD)                            |                |                 |                                 |  |
| 17.00     | EB ROUTE 80 MEDIAN               |                                   |                          |                                   | G0             | 1               | 1                               |  |
| 17.06     | WB ROUTE 80 MEDIAN               |                                   |                          |                                   | G1             | 1               | 1                               | 80                                     |
| 17.12     | WB ROUTE 80 MEDIAN               |                                   |                          |                                   | G1             | 1               | 1                               |  |
| 17.25     | EB ROUTE 80 MEDIAN               |                                   |                          |                                   | G1             | 1               | 1                               |  |
| 17.25     | EB ROUTE 80 MEDIAN               |                                   |                          |                                   | G1             | 1               | 1                               | 60                                     |
| 17.41     | WB ROUTE 80 OUTSIDE SHOULDER R+  |                                   |                          |                                   | G1             | 1               | 1                               |  |
| 17.45     | EB ROUTE 80 MEDIAN               |                                   |                          |                                   | G1             | 1               | 1                               |  |
| 17.59     | EB ENTRANCE RAMP FROM Rte 49 R+  |                                   |                          |                                   | G1             | 1               | 1                               | 20                                     |
| 17.62     | WB ROUTE 80 OUTSIDE SHOULDER R+  |                                   |                          |                                   | G1             | 1               | 1                               | 20                                     |
| 17.68     | WB ROUTE 80 OUTSIDE SHOULDER R+  |                                   |                          |                                   | G1             | 1               | 1                               |  |
| 17.68     | EB ROUTE 80 MEDIAN               |                                   |                          |                                   | G1             | 1               | 1                               | 80                                     |
| 17.77     | EB ROUTE 80 MEDIAN               |                                   |                          |                                   | G1             | 1               | 1                               | 20                                     |
| 17.77     | WB ENTRANCE RAMP FROM ELM Ave R+ |                                   |                          |                                   | G1             | 1               | 1                               |  |
| 17.83     | WB EXIT RAMP TO ELM Ave R+       |                                   |                          |                                   | G1             | 1               | 1                               |  |
| 17.88     | EB ROUTE 80 MEDIAN               |                                   |                          |                                   | G1             | 1               | 1                               | 20                                     |
| 17.84     | WB EXIT RAMP TO ELM Ave R+       |                                   |                          |                                   | G1             | 1               | 1                               |  |
| 17.99     | WB ROUTE 80 OUTSIDE SHOULDER R+  |                                   |                          |                                   | G1             | 1               | 1                               |  |
| 18.00     | EB ROUTE 80 MEDIAN               |                                   |                          |                                   | G1             | 1               | 1                               |  |
| 18.04     | WB ROUTE 80 MEDIAN               |                                   |                          |                                   | G1             | 1               | 1                               |  |
| 18.05     | WB ROUTE 80 MEDIAN               |                                   |                          |                                   | G1             | 1               | 1                               | 20                                     |
| 18.24     | WB ROUTE 80 MEDIAN               |                                   |                          |                                   | G1             | 1               | 1                               | 20                                     |
| 18.30     | EB ROUTE 80 OUTSIDE SHOULDER R+  | 1                                 | 2.54                     | 5                                 |                |                 |                                 |  |
| 18.42     | EB ROUTE 80 MEDIAN               |                                   |                          |                                   | G1             | 1               | 1                               | 20                                     |
| 18.43     | WB ROUTE 80 OUTSIDE SHOULDER R+  |                                   |                          |                                   | G1             | 1               | 1                               |  |
| 18.47     | EB ROUTE 80 MEDIAN               |                                   |                          |                                   | GT3            | 1               | 2                               |  |
| 18.75     | WB ROUTE 80 MEDIAN               |                                   |                          |                                   | G1             | 1               | 1                               | 120                                    |
| R18.85    | EB ROUTE 80 OUTSIDE SHOULDER R+  |                                   |                          |                                   | G0             | 1               | 1                               |  |
| R18.96    | EB ROUTE 80 OUTSIDE SHOULDER R+  |                                   |                          |                                   | G1             | 1               | 1                               |  |
| R18.98    | EB ROUTE 80 OUTSIDE SHOULDER R+  |                                   |                          |                                   | G2             | 1               | 1                               |  |
| R18.98    | EB EXIT RAMP TO LINCOLN WAY      | 1                                 | 2.54                     | 5                                 |                |                 |                                 |  |
| R18.98    | EB ROUTE 80 MEDIAN               |                                   |                          |                                   | G1             | 1               | 1                               | 40                                     |
| R18.97    | WB ROUTE 80 OUTSIDE SHOULDER R+  | 1                                 | 2.54                     | 5                                 |                |                 |                                 |  |
| TOTAL     |                                  | 3                                 | 7.62                     | 15                                |                | 29              | 30                              | 520                                    |

(N) - NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.  
\* ADDED TO MINOR HMA ON SHEET Q-2. SEE Q-2 FOR MINOR HMA TOTAL.

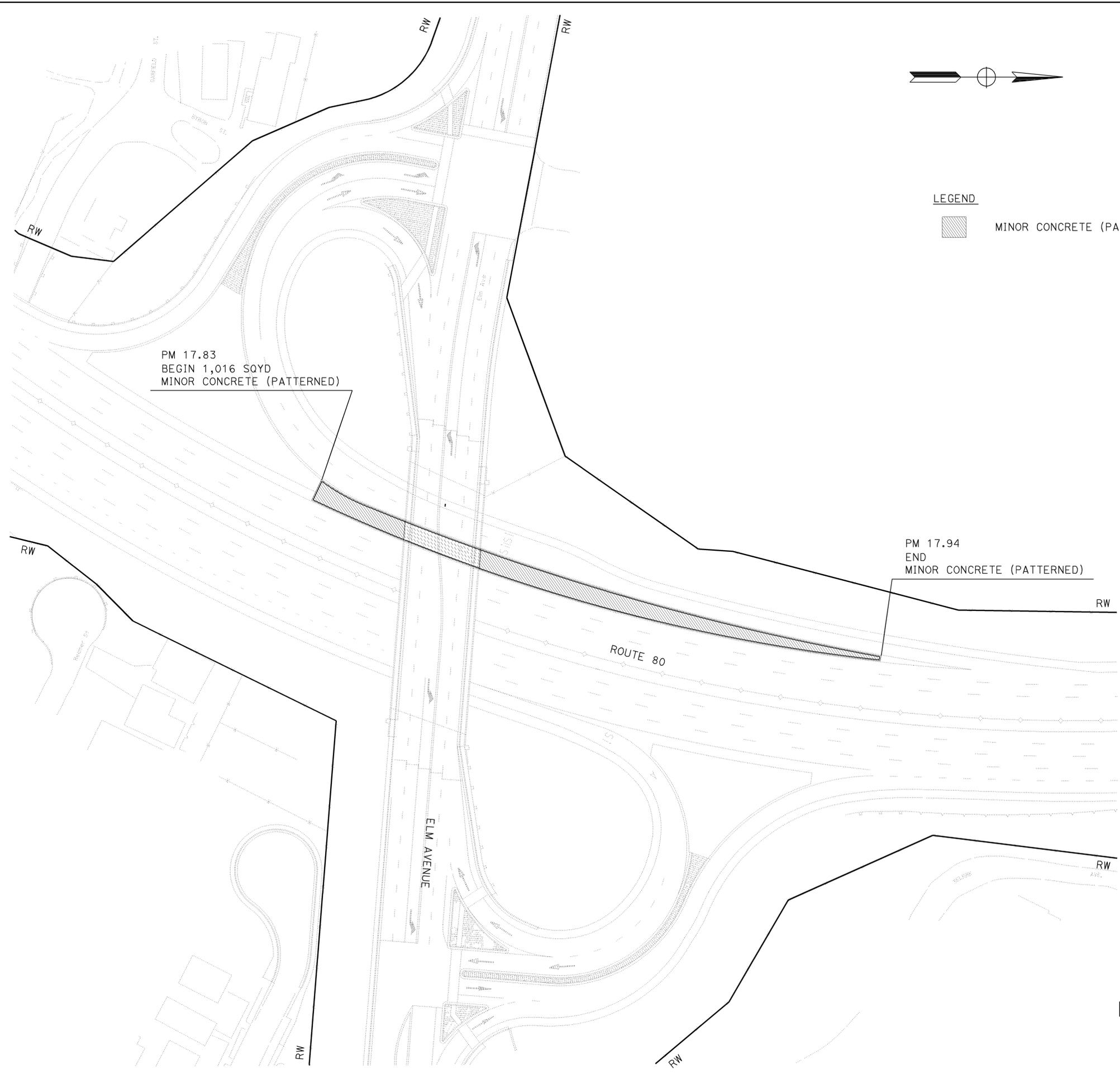
**SUMMARY OF QUANTITIES**

**Q-3**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** PROJECT DEVELOPMENT  
 FUNCTIONAL SUPERVISOR KEVIN ESPINOZA  
 CALCULATED/DESIGNED BY CHECKED BY  
 THIEN SLOCUM ERIC SOUZA  
 REVISED BY DATE REVISED

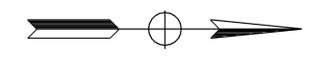
LAST REVISION | DATE PLOTTED => 03-JUN-2010  
 03/01/10 TIME PLOTTED => 08:09

|                            |              |
|----------------------------|--------------|
| SENIOR LANDSCAPE ARCHITECT | KEN MURRAY   |
| CALCULATED-DESIGNED BY     | CHECKED BY   |
| J. DONOHUE                 | J. PIETRZAK  |
| REVISED BY                 | DATE REVISED |



| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 03   | Plac   | 80    | 16.9/R19.0               | 24        | 45           |

Signature: *Jerry L. Pietrzak* 3-01-10  
 LICENSED LANDSCAPE ARCHITECT  
 3-01-10  
 PLANS APPROVAL DATE  
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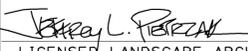


**LEGEND**  
 MINOR CONCRETE (PATTERNED)

PM 17.83  
 BEGIN 1,016 SQYD  
 MINOR CONCRETE (PATTERNED)

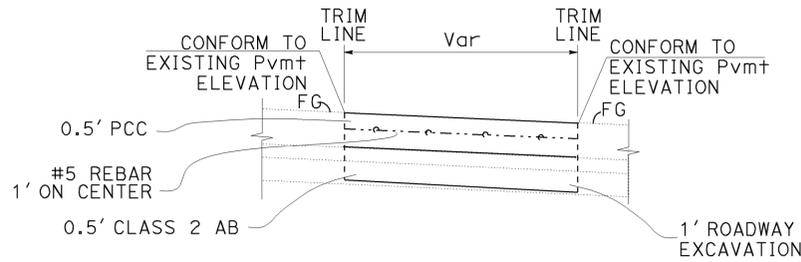
PM 17.94  
 END  
 MINOR CONCRETE (PATTERNED)

**LANDSCAPE DETAILS**  
 SCALE 1"=50'  
**LD-1**

|   |        |       |   |           |              |
|---|--------|-------|---|-----------|--------------|
| Dist  | COUNTY | ROUTE | POST MILES TOTAL PROJECT  | SHEET No. | TOTAL SHEETS |
| 03  | Pla    | 80    | 16.9/R19.0  | 25        | 45           |
|    |        |       | 3-01-10   |           |              |
| LICENSED LANDSCAPE ARCHITECT  |        |       |  |           |              |
| 3-01-10<br>PLANS APPROVAL DATE  |        |       |   |           |              |
| <small>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.</small> |        |       |   |           |              |

NOTES:

- $\square = 90^\circ$
- STRUCTURAL SECTION FOR MINOR CONCRETE (PATTERNED) SHALL BE 0.5' CLASS 2 AB AND 0.5' PCC WITH #5 REBAR AT 1' ON CENTER.



**TYPICAL SECTION  
MINOR CONCRETE (PATTERNED)**

PM 17.83  
BEGIN  
MINOR CONCRETE (PATTERNED)

1' MINOR CONCRETE (PATTERNED)  
BROOM FINISH  
PERIMETER BAND

PM 17.94  
END  
MINOR CONCRETE (PATTERNED)

1' MINOR CONCRETE (PATTERNED)  
BROOM FINISH  
PERIMETER BAND

**DELINEATION OF MINOR CONCRETE (PATTERNED)**

ALIGN WEAKENED PLANE JOINT WITH GROUT PATTERN OF MINOR CONCRETE (PATTERNED) RUNNING BOND COBBLESTONE

MINOR CONCRETE (PATTERNED) GROUT PATTERN DEPTH AND WIDTH =  $\frac{3}{4}$ "

STAGGER WEAKENED PLANE JOINT TO APPROXIMATE EQUAL SPACING 8' Min, 19' Max

PM 17.94  
END  
MINOR CONCRETE (PATTERNED)

SPACE WEAKENED PLANE JOINT EVERY 10' ALONG PERIMETER BANDING

**LAYOUT OF WEAKENEN PLANE JOINTS AND RUNNING BOND COBBLESTONE PATTERN FOR MINOR CONCRETE (PATTERNED)**

**LANDSCAPE DETAILS**

NO SCALE

**LD-2**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** PROJECT DEVELOPMENT  
SENIOR LANDSCAPE ARCHITECT  
KEN MURRAY  
J. DONOHOE  
J. PIETRZAK  
REVISOR BY  
DATE REVISOR  
CALCULATED-DESIGNED BY  
CHECKED BY



|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| Dist | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0               | 26        | 45           |

Mary Ann Hudspeth 3-01-10  
 REGISTERED ELECTRICAL ENGINEER DATE

3-01-10  
 PLANS APPROVAL DATE

MARY ANN HUDSPETH  
 No. 17245  
 Exp. 06-30-10  
 ELECTRICAL

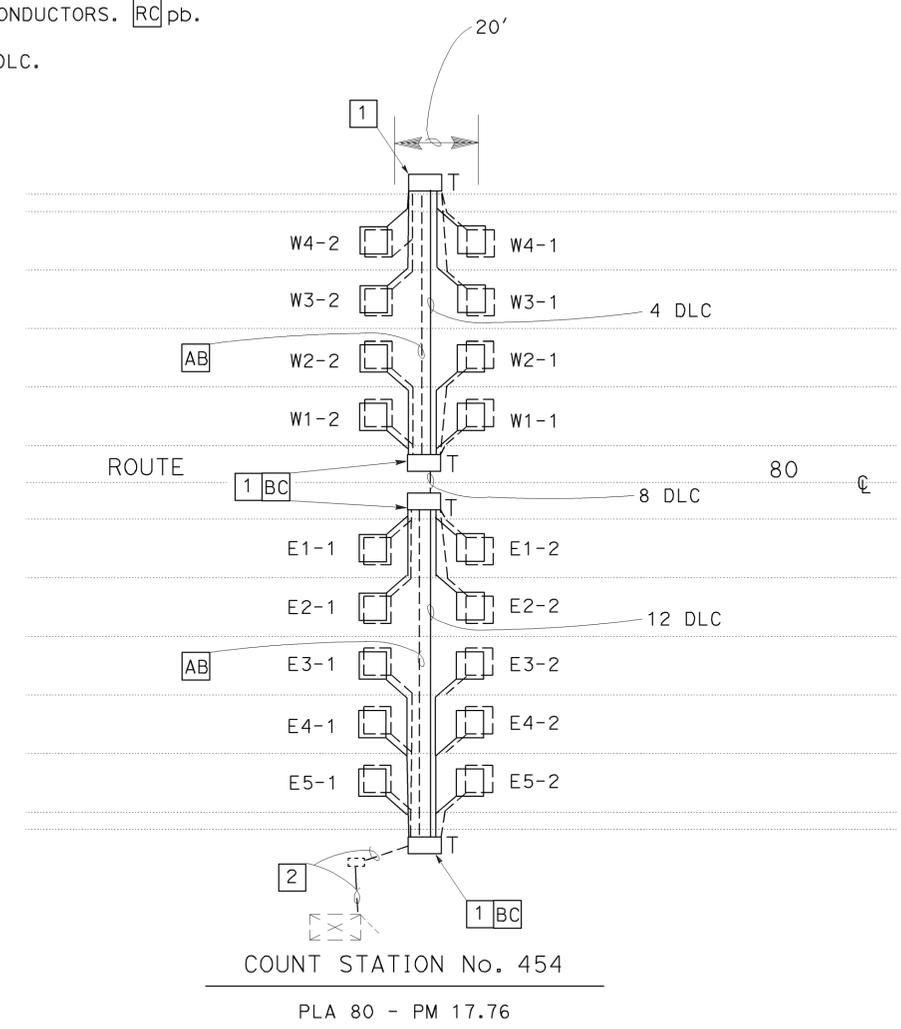
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**GENERAL NOTES:**

FA AND RC ABANDONED TRAFFIC MONITORING STATION (COUNT) CABINET AT APPROXIMATE POST MILE 18.85.

**PROJECT NOTES (THIS SHEET ONLY)**

- 1 AB EXISTING LOOP CONDUCTORS. RC pb.
- 2 RC 18 dlc, ADD 18 DLC.

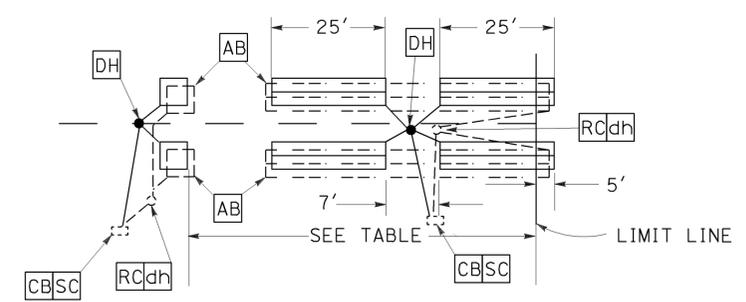


- DETECTOR IDENTIFICATION**
- N1-2
- 1 = ENTERING
  - 2 = LEAVING
  - LANE NUMBER
  - E = EASTBOUND
  - W = WESTBOUND
  - O = ONRAMP
  - F = OFFRAMP
- 1 = 1ST LANE FROM THE LEFT
  - 2 = 2ND LANE FROM THE LEFT
  - 3 = 3RD LANE FROM THE LEFT
  - 4 = 4TH LANE FROM THE LEFT
  - 5 = 5TH LANE FROM THE LEFT

**FREEWAY MAINLINE DETECTOR**  
**DETECTOR IDENTIFICATION**  
 NO SCALE

**TRAFFIC SIGNAL LOOP QUANTITY TABLE**

| LOCATION                      | TYPE C LOOP (2 PER LANE) | TYPE A LOOP (1 PER LANE)                    |
|-------------------------------|--------------------------|---|
| Rte 80 EB OFF RAMP AT Rte 49  | 3 LANES                  | 2 LANES (160' FROM LIMIT LINE)              |
| Rte 80 WB OFF RAMP AT Rte 49  | 2 LANES                  | 2 LANES (125' FROM LIMIT LINE)              |
| Rte 80 EB OFF RAMP AT ELM Ave | 1 LANE                   | 1 LANE (6'X10' LOOP - 125' FROM LIMIT LINE) |
| Rte 80 WB OFF RAMP AT ELM Ave | 2 LANES                  | NO ADVANCE LOOP                             |



**TYPICAL TRAFFIC SIGNAL LOOP INSTALLATION DETAIL**  
 NO SCALE

**MODIFY TRAFFIC MONITORING STATION (COUNT)**  
**MODIFY TRAFFIC SIGNAL**  
 NO SCALE

THIS PLAN IS ACCURATE FOR ELECTRICAL WORK ONLY.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**TRAFFIC ELECTRICAL DESIGN MARYSVILLE**  
 Et Caltrans

REVISIONS: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 03   | Pla    | 80    | 16.9/R19.0               | 27        | 45           |

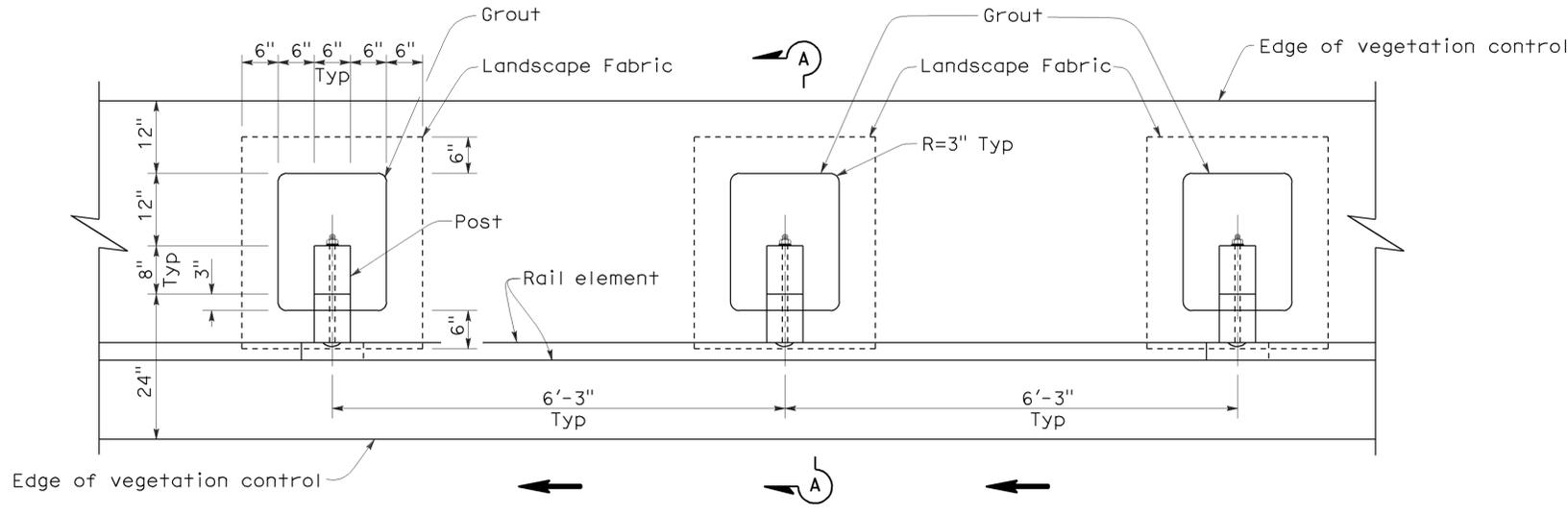
*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

October 20, 2006  
PLANS APPROVAL DATE

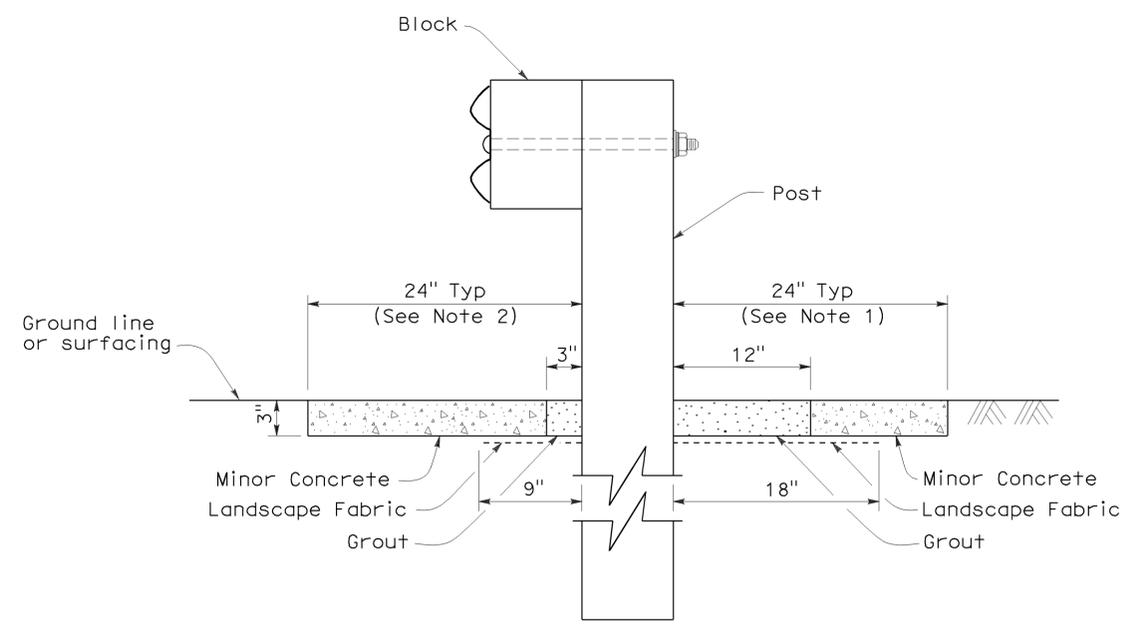
*Randell D. Hiatt*  
REGISTERED PROFESSIONAL ENGINEER  
No. C50200  
Exp. 6-30-07  
CIVIL  
STATE OF CALIFORNIA

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To accompany plans dated March 1, 2010



PLAN



SECTION A-A

NOTES:

1. Where the distance between back of post and hinge point is less than 24", vegetation control to be constructed flush with the back edge of the post.
2. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
3. Direction of adjacent traffic indicated by ← .

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING  
TYPICAL VEGETATION CONTROL  
STANDARD RAILING SECTION**

NO SCALE

NSP A77C5 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD  
PLANS BOOK DATED MAY 2006.

**NEW STANDARD PLAN NSP A77C5**

2006 NEW STANDARD PLAN NSP A77C5

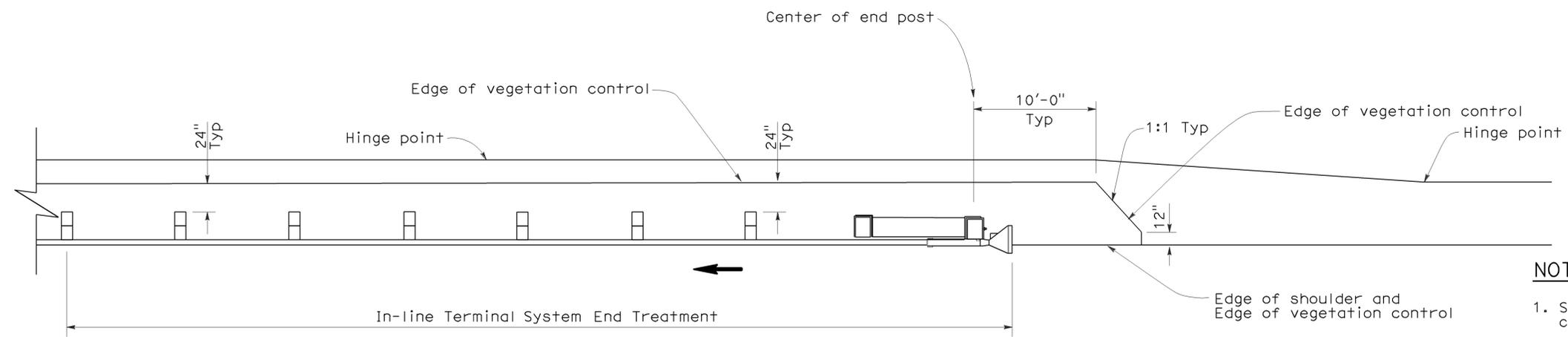
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 03   | Pla    | 80    | 16.9/R19.0               | 28        | 45           |

**Randell D. Hiatt**  
REGISTERED CIVIL ENGINEER

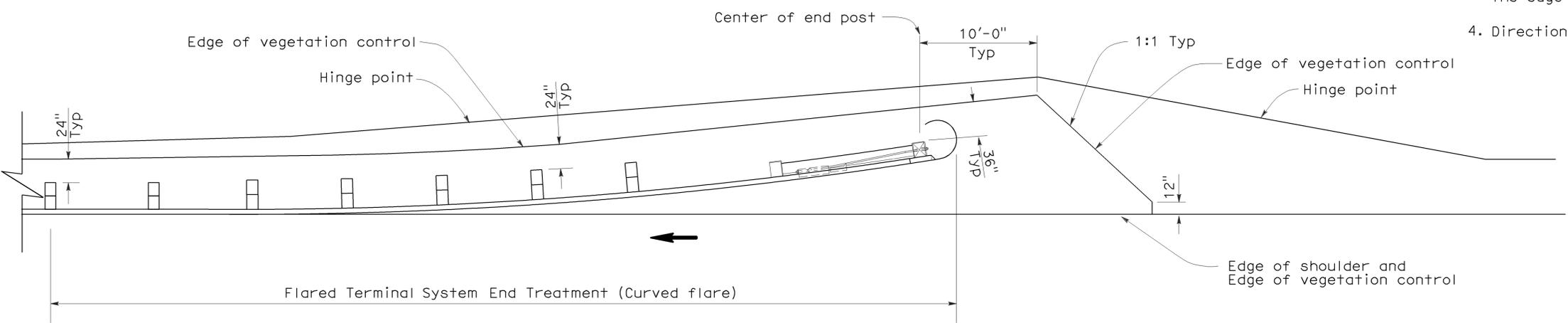
October 20, 2006  
PLANS APPROVAL DATE

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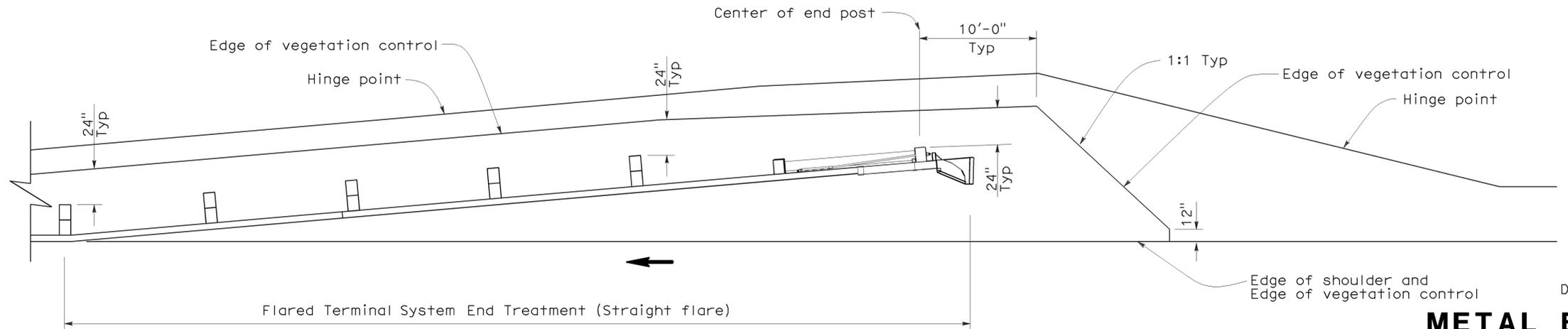
To accompany plans dated March 1, 2010



PLAN



PLAN



PLAN

**NOTES:**

1. See New Standard Plan NSP A77C5 for additional vegetation control details.
2. Where the distance between back of post and hinge point is less than 24", vegetation control to be constructed flush with the back edge of the post.
3. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
4. Direction of adjacent traffic indicated by ←.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING  
TYPICAL VEGETATION CONTROL  
FOR TERMINAL SYSTEM END TREATMENTS**

NO SCALE  
NSP A77C6 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD  
PLANS BOOK DATED MAY 2006.

**NEW STANDARD PLAN NSP A77C6**

2006 NEW STANDARD PLAN NSP A77C6

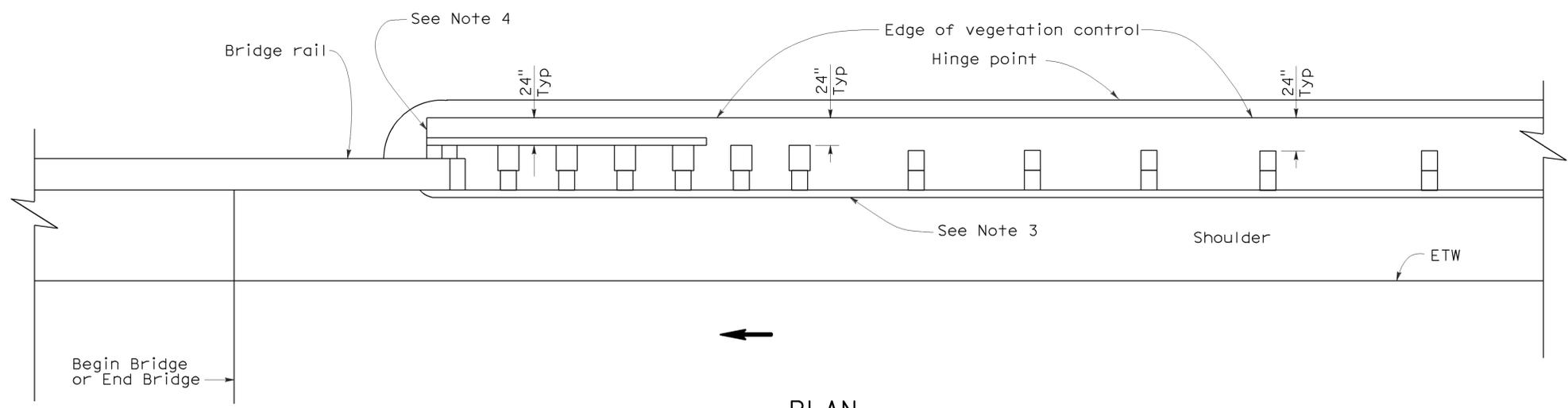
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|------|--------|-------|--------------------------|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0               | 29        | 45           |

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

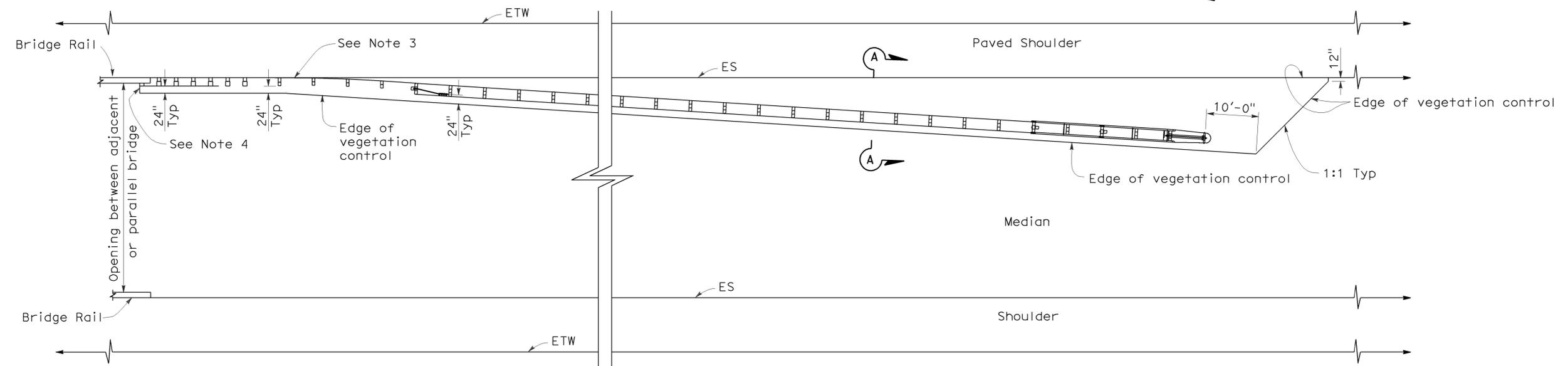
October 20, 2006  
PLANS APPROVAL DATE

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To accompany plans dated March 1, 2010



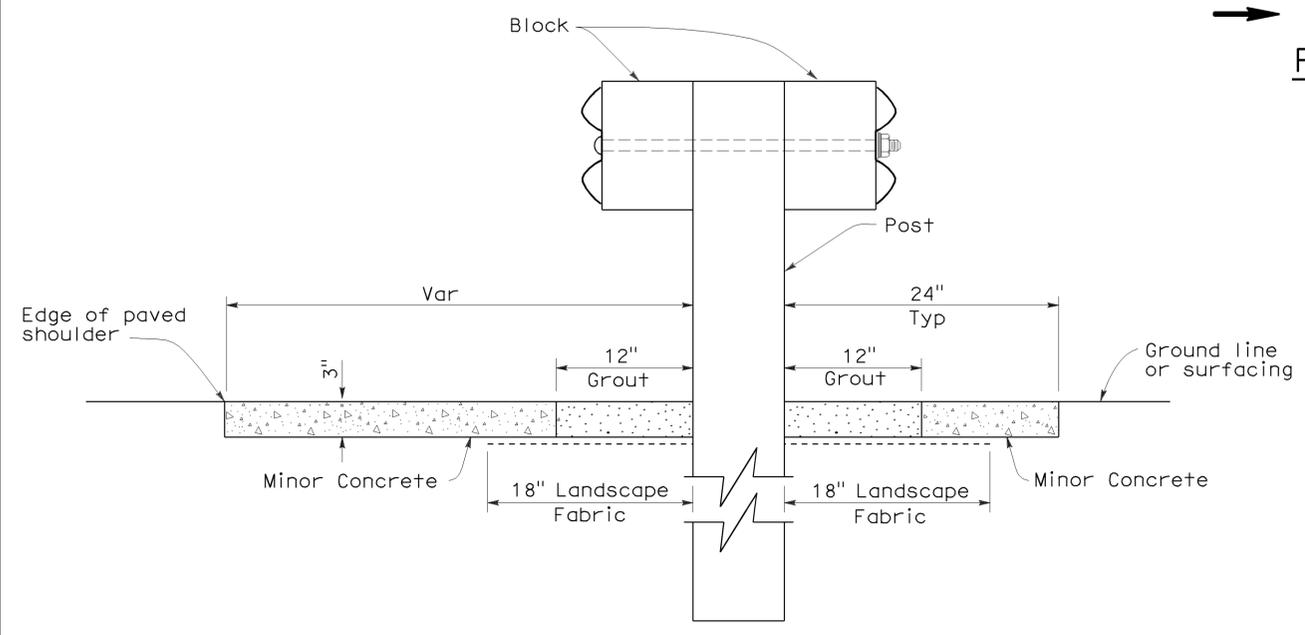
PLAN



PLAN

NOTES:

1. See New Standard Plan NSP A77C5 for additional vegetation control details.
2. Where the distance between back of post and hinge point is less than 24", vegetation control to be constructed flush with the back edge of the post.
3. Where dike is constructed under railing, construct vegetation control to back edge of dike. Where paved shoulder is constructed within 24" in front of the post, construct vegetation control to the edge of paved shoulder.
4. End vegetation control at end of backside rail element.
5. Direction of adjacent traffic indicated by ←.



SECTION A-A

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**METAL BEAM GUARD RAILING  
TYPICAL VEGETATION CONTROL  
AT STRUCTURE APPROACH  
AND DEPARTURE**

NO SCALE  
NSP A77C7 DATED OCTOBER 20, 2006 SUPPLEMENTS THE STANDARD  
PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP A77C7

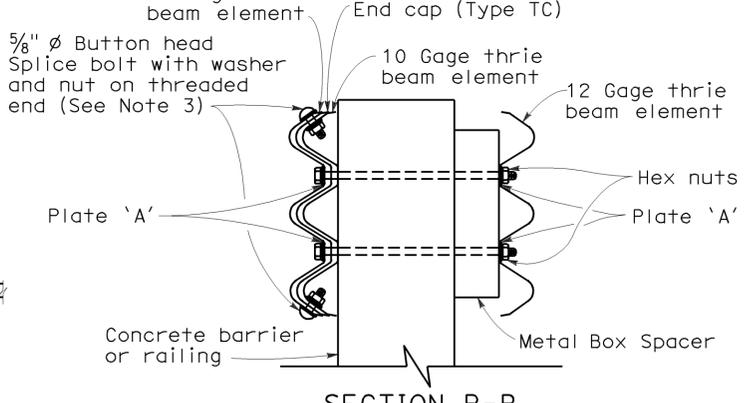
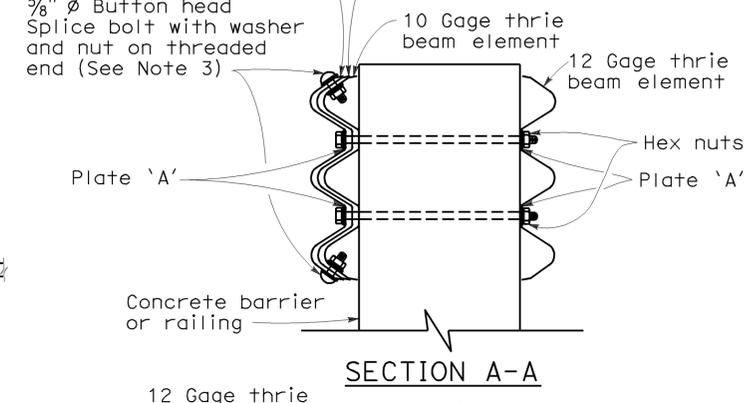
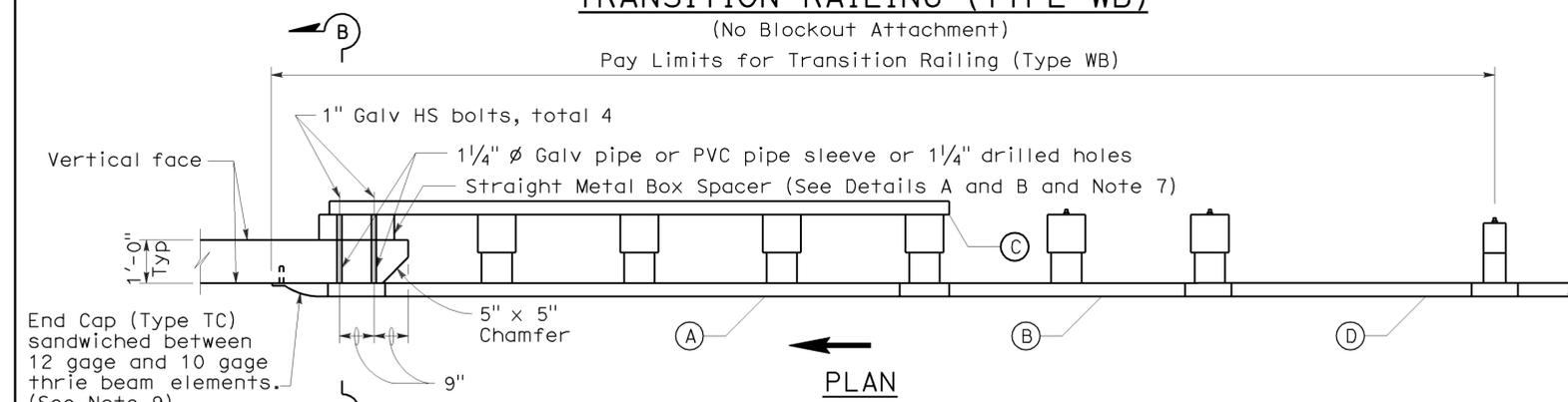
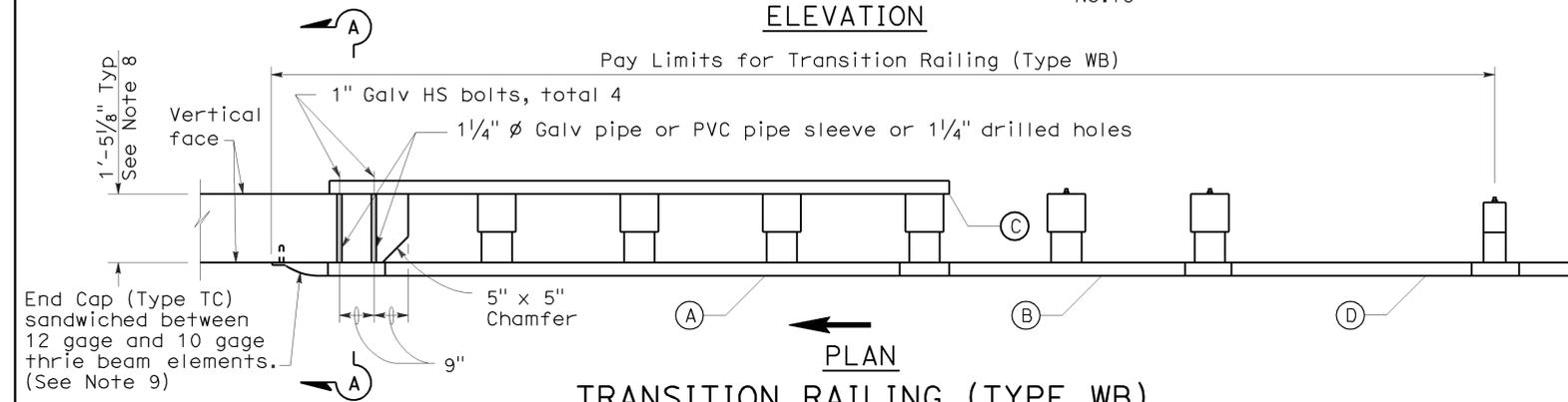
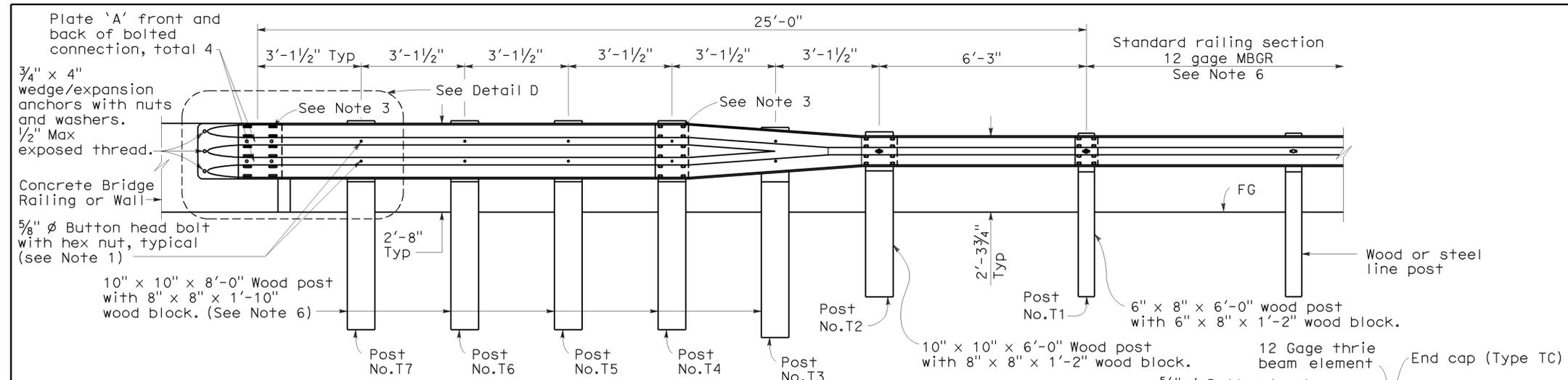
|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0               | 30        | 45           |

**Randell D. Hiatt**  
REGISTERED CIVIL ENGINEER

June 5, 2009  
PLANS APPROVAL DATE

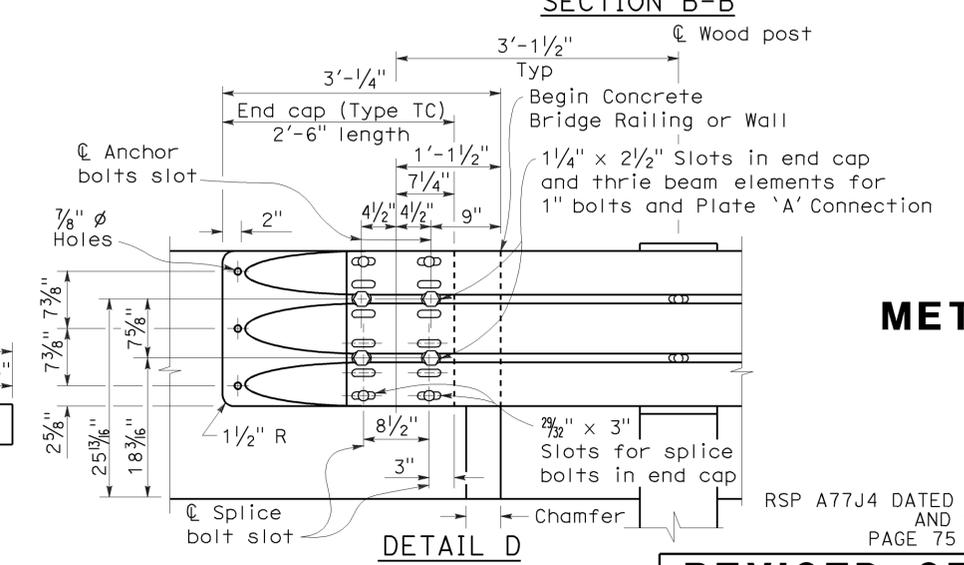
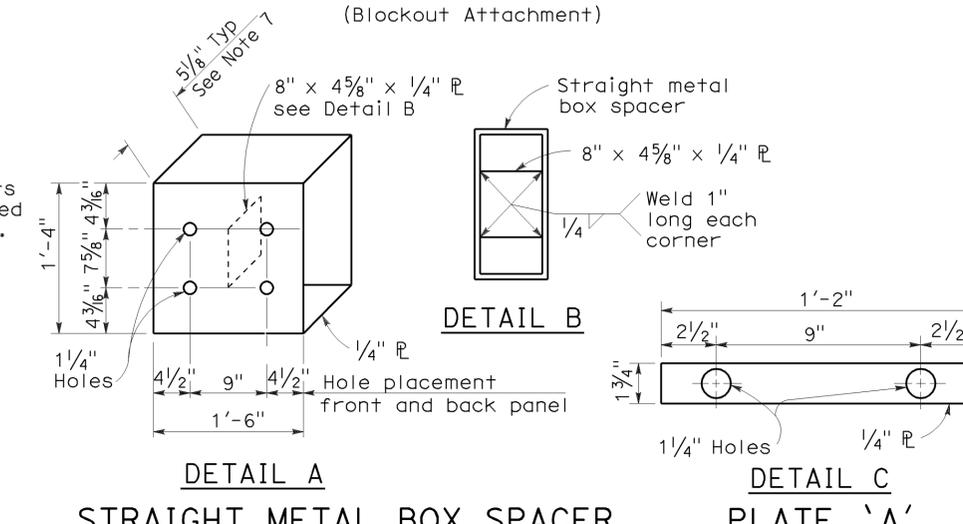
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REGISTERED PROFESSIONAL ENGINEER  
Randell D. Hiatt  
No. C50200  
Exp. 6-30-09  
CIVIL  
STATE OF CALIFORNIA



- NOTES:** To accompany plans dated March 1, 2010
- Use 5/8 "  $\phi$  Button head bolts and hex nuts for connections to posts. No washer on rail face for bolted connections to post.
  - The nested rail elements, end cap, and 'W' beam to thrie beam element may be spliced together prior to bolting the elements to the wood post and concrete barrier or railing.
  - Exterior splice bolt holes for rail element splices at Post No.T4 and the connection to the concrete barrier or railing shall be the standard 29/32 " x 1 1/8 " slot size. Interior splice bolt holes at these locations may be increased up to 1 1/4 "  $\phi$ . Only the top 2 and the bottom 2 splice bolts with washers and nuts are required for rail splices at Post No.T4 and the connection to the concrete barrier or railing.
  - Direction of adjacent traffic indicated by  $\rightarrow$ .
  - The top elevation of Post Nos.T2 through T7 shall not project more than 1" above the top elevation of the rail element.
  - Typically, the railing connected to Transition Railing (Type WB) will be either standard railing section of metal beam guard railing or an approved Caltrans end treatment attached to Post No.T1.
  - The depth of the metal box spacer varies from the 5 1/8 " to 1 1/2 " and is dependent on the width of the concrete railing or wall. The combined dimension for the depth of the metal box spacer plus the width of railing or wall is typically 17 1/8 ". Where the space between the backside of the concrete railing or wall and the rear thrie beam element is less than 1 1/2 ", metal plates similar to Plate 'A' are to be used as spacers.
  - Where the width of the concrete railing or wall is greater than 17 1/8 ", wood blocks are to be used to fill the space created between the backside of Posts No.4 through No.7 and the rear thrie beam element. These wood blocks shall be 8" in width and 1'-2" in length. The dimension between the front thrie beam element and the rear thrie beam element is to match the width of the concrete railing or wall.
  - End cap may be installed over 12 gage and 10 gage thrie beam elements where transition railing is installed on the departure end of bridge railing.

- LEGEND**
- (A) Nested thrie beam elements (one 12 gage element nested over one 10 gage element).
  - (B) One 10 gage "W" beam to thrie beam element.
  - (C) One 12 gage thrie beam element.
  - (D) One 10 gage "W" beam rail element (7'-3 1/2" length)
- 10 gage = 0.135" thick  
12 gage = 0.108" thick



STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

## METAL BEAM GUARD RAILING TRANSITION RAILING (TYPE WB)

NO SCALE

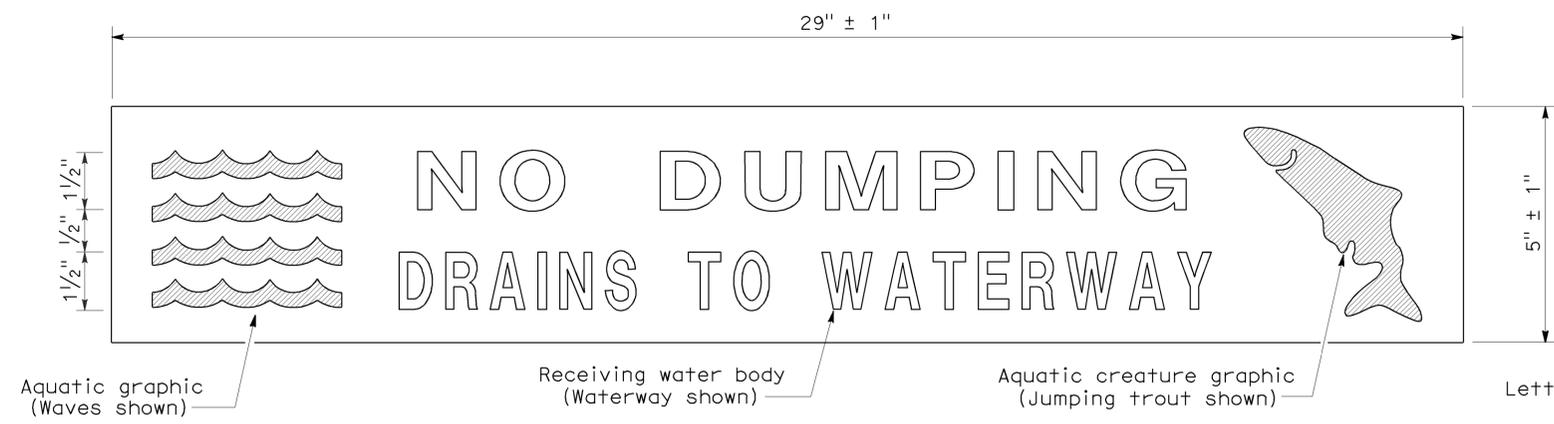
RSP A77J4 DATED JUNE 5, 2009 SUPERSEDES RSP A77J4 DATED JUNE 6, 2008  
AND STANDARD PLAN A77J4 DATED MAY 1, 2006 -  
PAGE 75 OF THE STANDARD PLANS BOOK DATED MAY 2006.

2006 REVISED STANDARD PLAN RSP A77J4

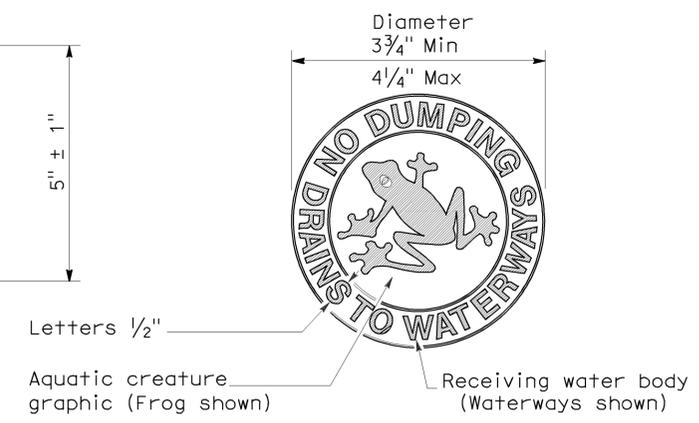
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 03   | Pla    | 80    | 16.9/R19.0               | 31        | 45           |

*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.

To accompany plans dated March 1, 2010



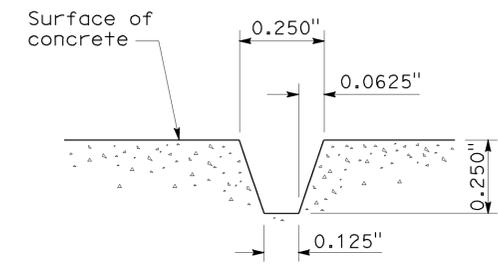
PLAN  
DRAINAGE INLET MARKER  
(PREFABRICATED THERMOPLASTIC)



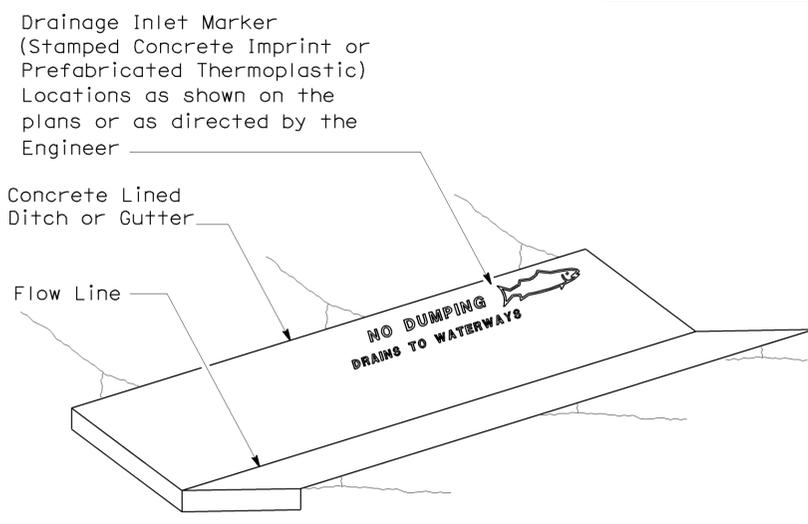
PLAN  
DRAINAGE INLET MARKER  
(MEDALLION)



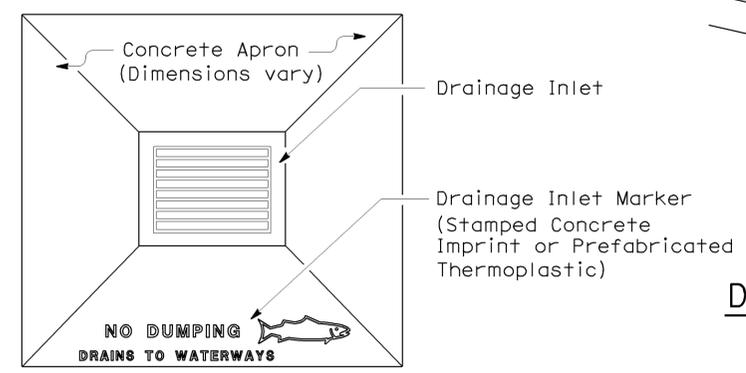
PLAN  
DRAINAGE INLET MARKER  
(STAMPED CONCRETE IMPRINT)



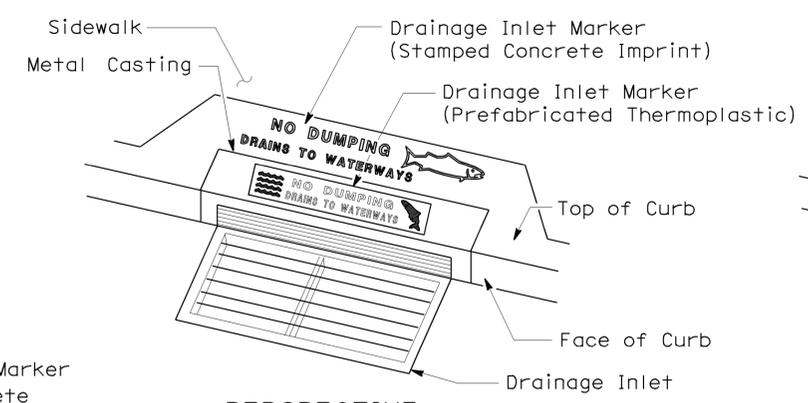
SECTION A-A  
STAMPED CONCRETE  
IMPRINT DETAIL



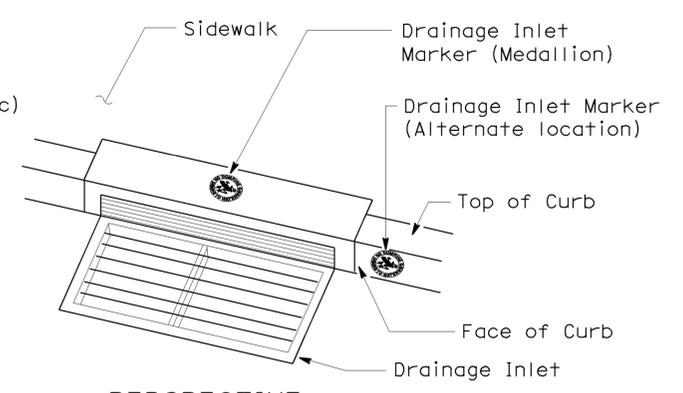
PERSPECTIVE  
DRAINAGE INLET MARKER ON  
CONCRETE LINED DITCH



PLAN  
DRAINAGE INLET MARKER ON  
DRAINAGE INLET APRON



PERSPECTIVE  
DRAINAGE INLET MARKER ON  
DRAINAGE INLET



PERSPECTIVE  
DRAINAGE INLET MARKER (MEDALLION)  
ON DRAINAGE INLET

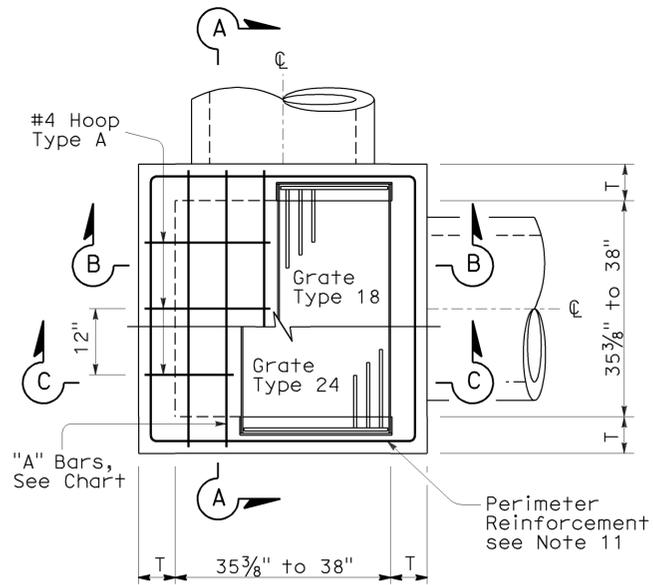
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**DRAINAGE INLET MARKERS**  
NO SCALE  
NSP D71 DATED APRIL 3, 2009 SUPPLEMENTS  
THE STANDARD PLANS BOOK DATED MAY 2006.

2006 NEW STANDARD PLAN NSP D71

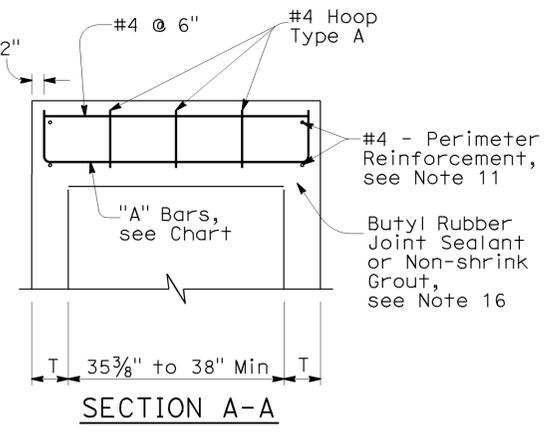
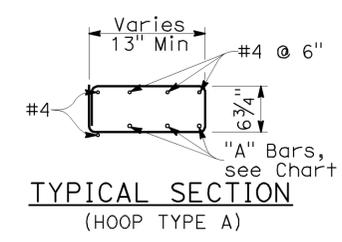
2006 NEW STANDARD PLAN NSP D73A

**NOTES:**

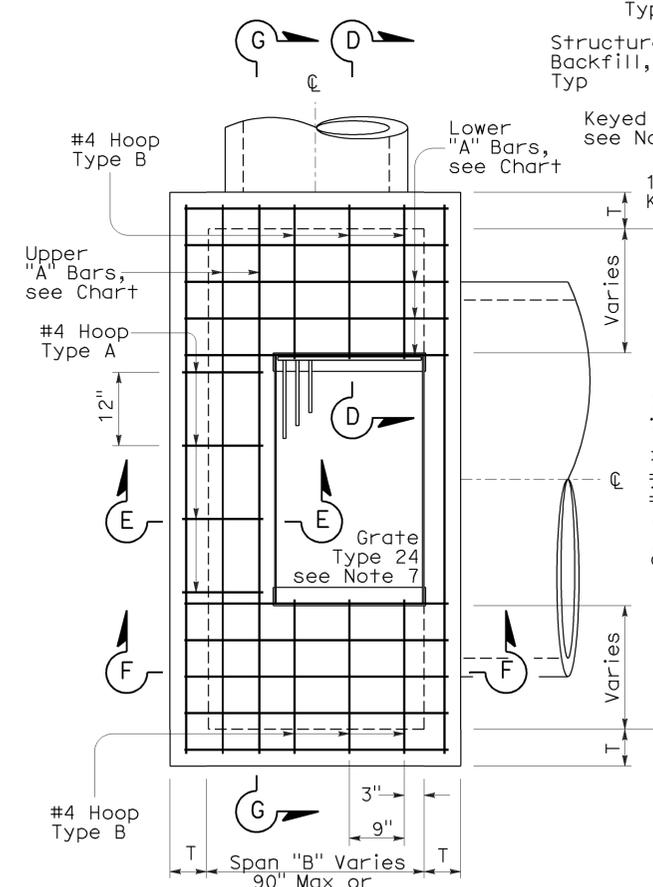
- "H" is the difference in elevation between the outlet pipe flow line and the normal gutter grade line undepressed.
- For "T" wall thickness: T=6" when "H" is 8' or less. T=8" when "H" is over 8'.
- Wall reinforcing not required when "H" is 8' or less, and the unsupported width or length is 6'-0" or less. Reinforce wall exceeding these limits with #4 bars @ 1'-6" ± centers placed 2" clear to the inside of inlet unless otherwise shown. Short independent wall sections or height adjustment rings 6" to 24" high must have a minimum of two #4 horizontal bars.
- Seal pre-cast inlets connection openings between wall and pipe with non-shrink grout or resilient connectors as specified in the Special Provisions.
- Steps - None required where "H" is less than 2'-6". Where "H" is 2'-6" or more, install steps with lowest rung 1'-0" above the floor and highest rung not more than 6" below bottom of lid. The distance between steps must not exceed 1'-0" and be uniform throughout the length of the wall. Place steps in the wall without an opening. Steps inserts may be substituted for the bar steps. Step inserts must comply with State Industrial Safety Requirements. See Standard Plan D74C for step details.
- Pipe(s) can be placed in any wall.
- Set inlet so that grate bars are parallel to direction of principal surface flow.
- Type G4 inlet can use Grate Type 18 or 24. Type G2 inlet uses Grate Type 24. See Revised Standard Plan RSP D77A and Standard Plan D77B for grate and frame details and weights of miscellaneous Iron and Steel.
- G4 inlet details are the same as the G2 with the addition of a curb and sloped grate that matches the adjacent curb and gutter depression. See Standard Plans D78A & D78B for gutter and inlet depression details. See Revised Standard Plan RSP A87A & Standard Plan A87B for Curb and Dike Details.
- Provide pre-cast inlets with separate top sections for final grade adjustment under Standard Specification Section 51-1.02. Provide keyed joints between the top and wall and multiple wall sections. Joint design may vary but must be 1" to 3" in depth.
- Perimeter reinforcement serves as a rigid frame to position and attach the required structural reinforcement and may be tack welded at outer corners when using ASTM A706 weldable bars.
- This dimension will vary with different grates, curbs types, box width and wall thickness.
- 2" unless inlet is expanded in the Span "A" direction, then clearance is 2" plus the diameter of the lower "A" bar.
- Place "A" Bars at an angle so hooked ends will maintain 2" clear coverage.
- Refer to Standard Plan D73, Table A for concrete quantities.
- Non-shrink grout can be used for upper most joint to facilitate final top grade adjustment.
- Slope inlet floors 4:1 towards the outlet pipe. Pre-cast inlets may have monolithic sloped floors, flat floors, or no floors in which case a sloped floor must be cast in the field. Inlet floors do not require reinforcing.
- Extend sand bedding under all structure backfill.



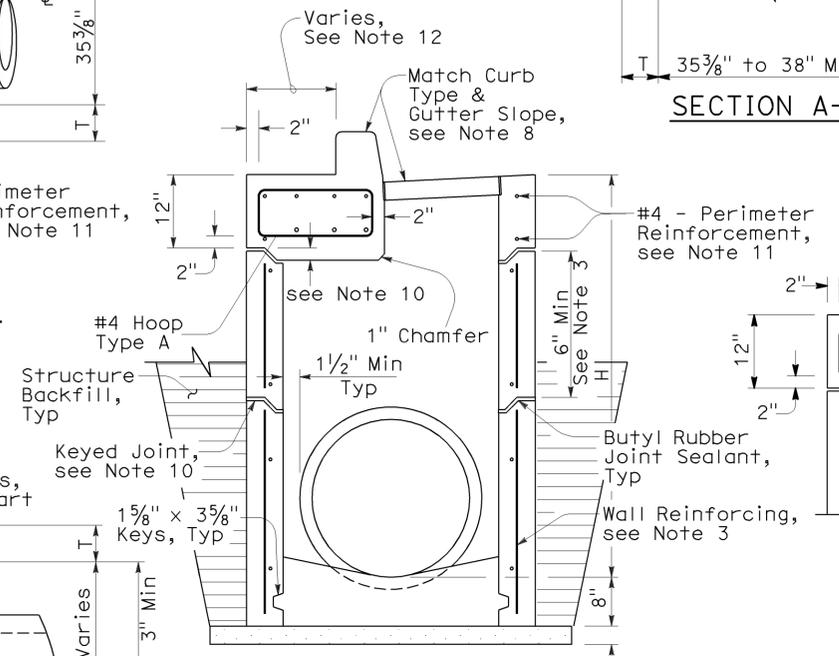
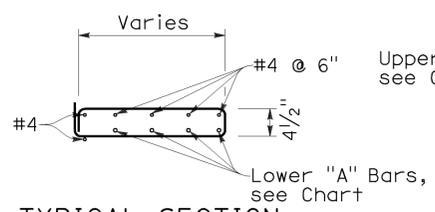
**STANDARD TYPE G2 OR G4**



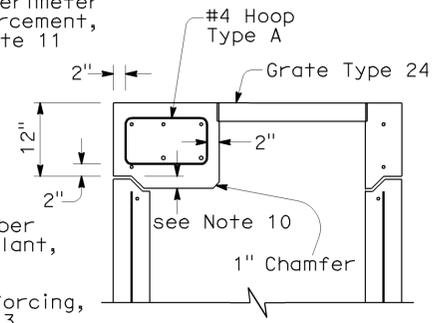
**SECTION A-A**



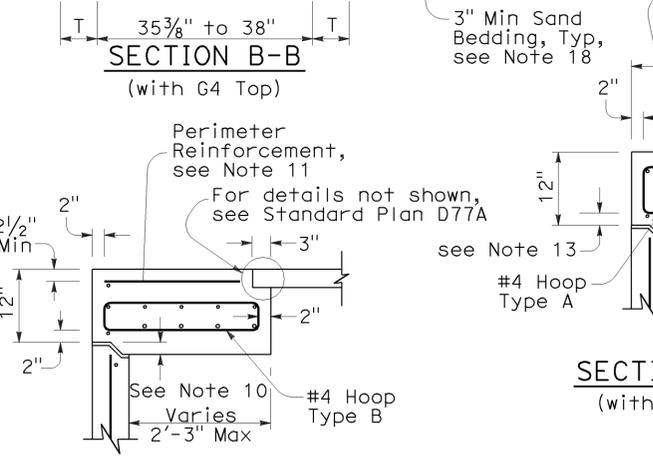
**EXPANDED TYPE G2 OR G4**  
(Top Rebar Not Shown)



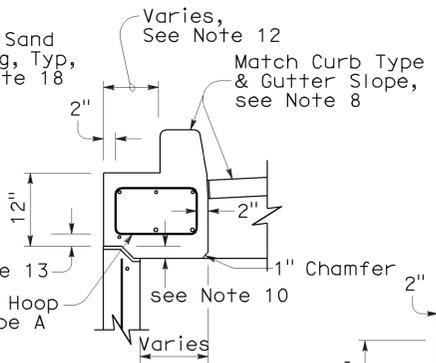
**SECTION B-B**  
(with G4 Top)



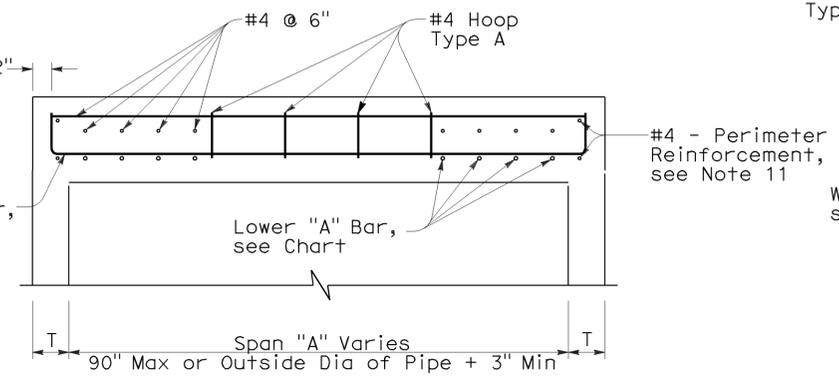
**SECTION C-C**  
(with G2 Top)



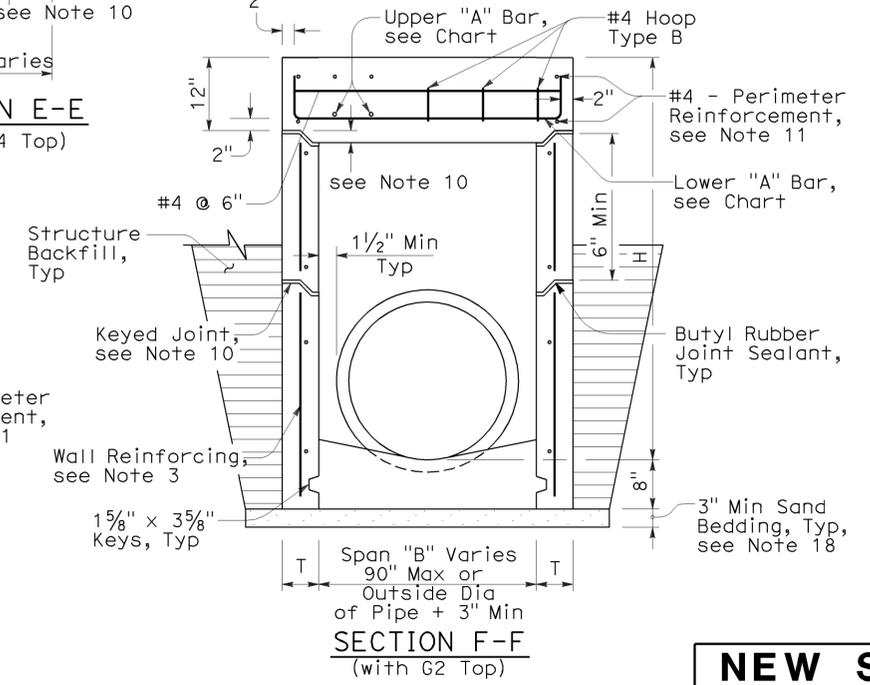
**SECTION D-D**



**SECTION E-E**  
(with G4 Top)



**SECTION G-G**



| TOP REINFORCEMENT CHART      |                         |  |
|------------------------------|-------------------------|--|
| 16 Bar Diameters             | "A" Bars                | See Note 14  |
|                              | Varies                  |  |
| Span                         | "A" Bars                | Required steel area per foot (in <sup>2</sup> /ft) |
| Under 38" with Type 24 Grate | #5 @ 7" C-C<br>2-#5 Min | 0.525  |
| Under 38" with Type 18 Grate | #5 @ 7" C-C<br>3-#5 Min | 0.525  |
| 38"-60"                      | #5 @ 6" C-C             | 0.621  |
| 61"-72"                      | #5 @ 5" C-C             | 0.744  |
| 73"-90"                      | #6 @ 6" C-C             | 0.811  |

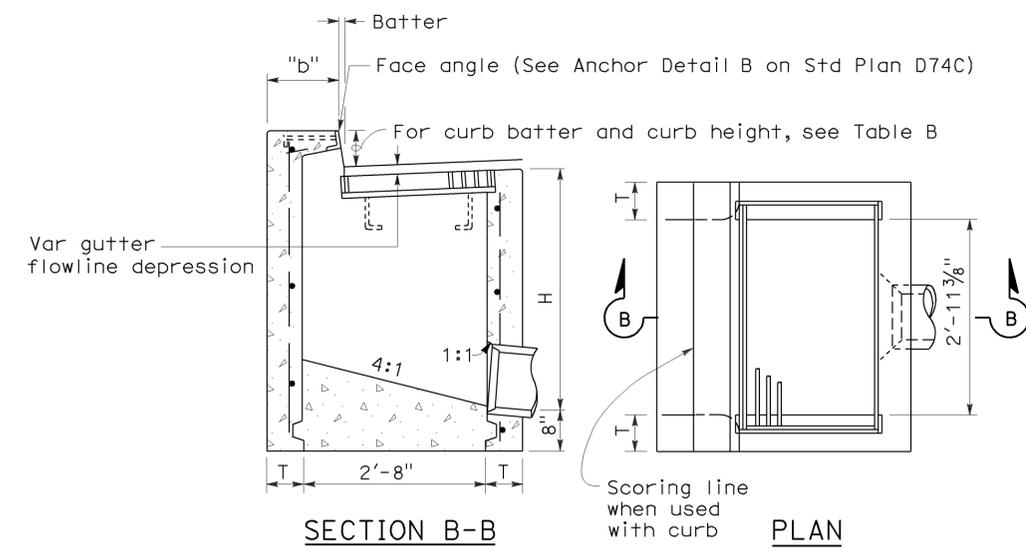
STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**DRAINAGE INLETS (PRECAST)**

NO SCALE

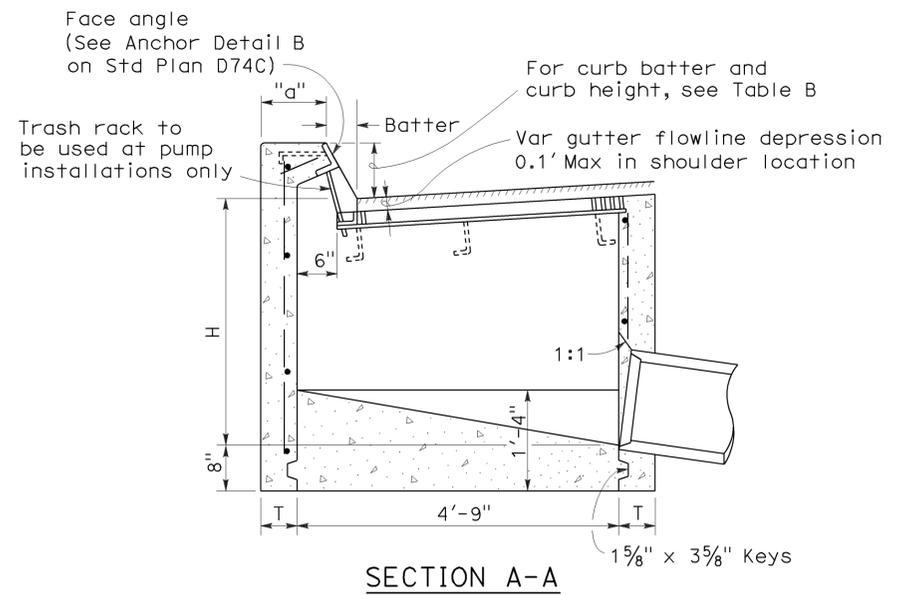
NSP D73A DATED JUNE 5, 2009 SUPPLEMENTS  
 THE STANDARD PLANS BOOK DATED MAY 2006.

To accompany plans dated March 1, 2010

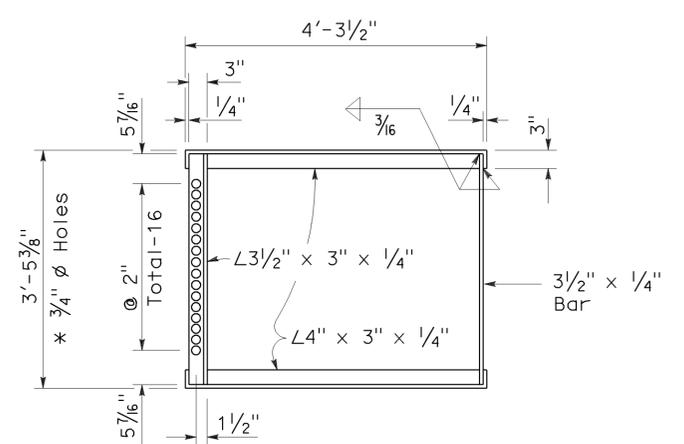
2006 REVISED STANDARD PLAN RSP D74B



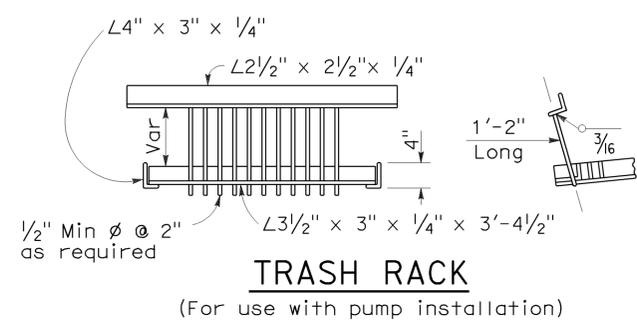
TYPE GO



SECTION A-A



GRATE FRAME FOR TYPE GDO INLET

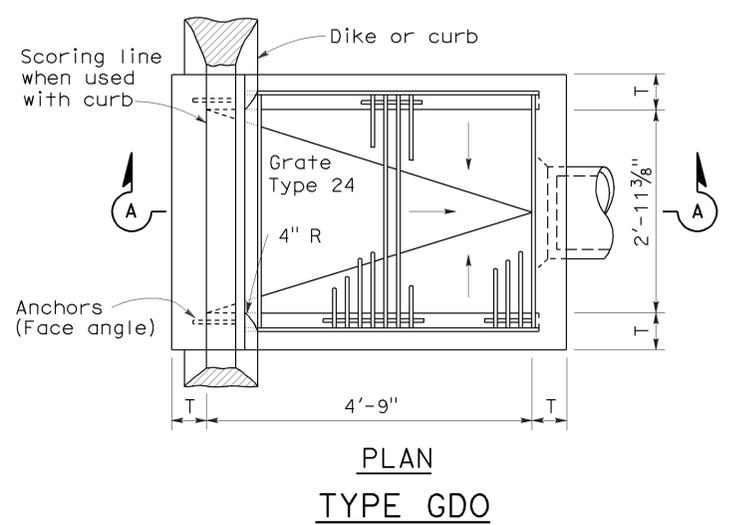


TRASH RACK  
(For use with pump installation)

TABLE A  
CONCRETE QUANTITIES

| TYPE | H=3'-0" TO 8'-0" (T=6")      | H=8'-1" TO 20'-0" (T=8") |                              |
|------|------------------------------|--------------------------|------------------------------|
|      | ADDITIONAL PCC PER FOOT (CY) | H=8'-1" (CY)             | ADDITIONAL PCC PER FOOT (CY) |
| GO   | 1.24                         | 3.39                     | 0.346                        |
| GDO  | 1.62                         | 4.36                     | 0.446                        |

Table based on 8" floor slab, no deduction for pipe openings, and curb type giving highest quantity of concrete. No deductions or adjustments are to be made to these quantities because of pipe openings, different floor alternatives or different curb type.



PLAN  
TYPE GDO

TABLE B

| CURB TYPE   | NORMAL CURB HEIGHT | CURB BATTER | "a" DIMENSION | "b" DIMENSION |
|-------------|--------------------|-------------|---------------|---------------|
| A1-6        | 6"                 | 1 1/2"      | T+7 1/2"      | T+6 1/2"      |
| A1-8        | 8"                 | 2"          | T+7"          | T+6"          |
| B1-6        | 6"                 | 4"          | T+5"          | T+4"          |
| Type A Dike | 6"                 | 3"          | T+6"          | T+5"          |

NOTES:

- "H" is the difference in elevation between the outlet pipe flow line and the normal gutter grade line undeepressed.
- For "T" wall thickness, see Table A below.
- Wall reinforcing not required when "H" is 8'-0" or less and the unsupported width or length is 7'-0" or less. Walls exceeding these limits shall be reinforced with #4 @ 18"± centers placed 1/2" clear to inside of box unless otherwise shown.
- Inlet bottom reinforcing not required. See Standard Plan D74C for alternative reinforced bottom.
- Steps - None required where "H" is less than 2'-6". Where "H" is 2'-6" or more, install steps with lowest rung 1'-0" above the floor and highest rung not more than 6" below top of inlet. The distance between steps shall not exceed 1'-0" and shall be uniform throughout the length of the wall. Place steps in the wall without an opening. Step inserts may be substituted for the bar steps. Step Inserts shall comply with State Industrial Safety requirements. See Standard Plan D74C for step details.
- When shown on the project plans, place a 3/4" plain round protection bar horizontally across the length of the opening and bend back 4" into the inlet wall on each side.
- Pipe(s) can be placed in any wall.
- Curb section shall match adjacent curb.
- Basin floors shall have wood trowel finish and shall slope toward the outlet pipe as shown.
- Galvanizing - See Standard Specifications or Special Provisions.
- See Standard Plan D77A and D77B for grate and frame details and weights of miscellaneous iron and Steel.
- See Standard Plan D78A for gutter depression details.
- Full penetration butt welds may be substituted for the fillet welds on all anchors.
- Standard square, hexagon, round or equivalent headed anchors may be substituted for the right angle hooks on the anchors shown on this plan.
- Cast-in-place or precast alternative is optional with contractor. See Standard Specifications.
- Cast-in-place inlets to be formed around all pipes/stubs intersecting the inlet and concrete poured in one continuous operation. Precast inlets shall have mortared pipe connections conforming to details for Type GCP inlets on Standard Plan D75B. See Standard Specifications for mortar composition.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**DRAINAGE INLETS**  
NO SCALE

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 03   | Pla    | 80    | 16.9/R19.0               | 34        | 45           |

Raymond Don Tsztso  
REGISTERED CIVIL ENGINEER

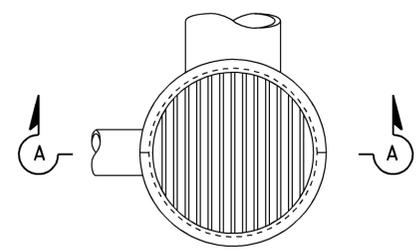
June 6, 2008  
PLANS APPROVAL DATE

Raymond Don Tsztso  
REGISTERED PROFESSIONAL ENGINEER  
No. C37332  
Exp. 6-30-08  
CIVIL  
STATE OF CALIFORNIA

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To accompany plans dated March 1, 2010

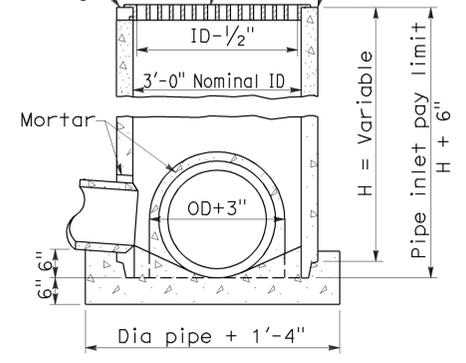
2006 REVISED STANDARD PLAN RSP D75B



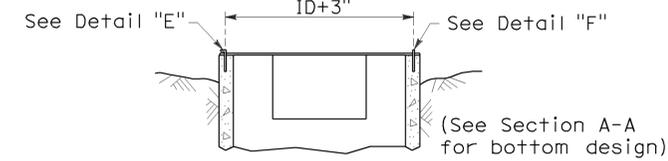
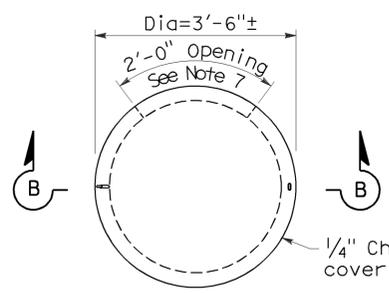
Cast 1" x 2 1/2" slot in pipe to receive lug

Type 36R grate (see Notes 5 and 9)

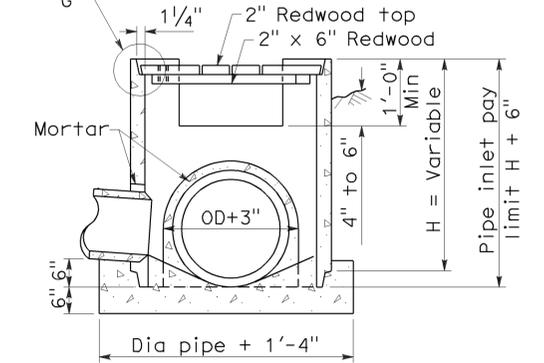
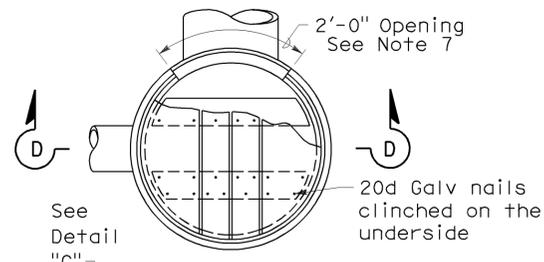
Squared end



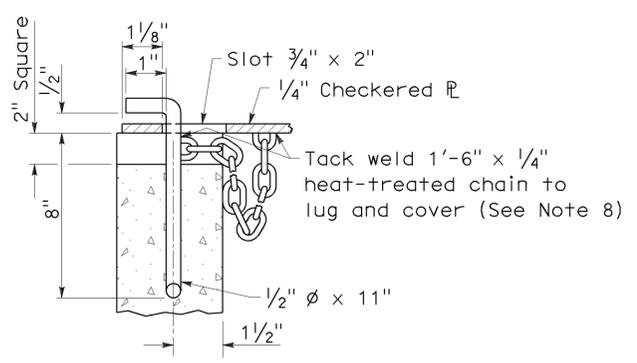
**SECTION A-A**  
**TYPE GCP**  
CONCRETE PIPE INLET WITH GRATE



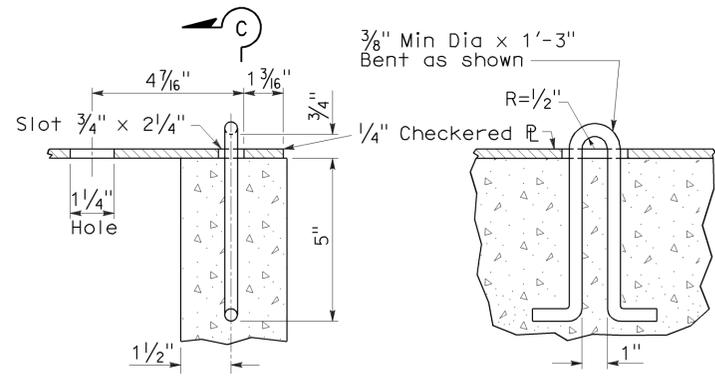
**SECTION B-B**  
**TYPE OCP or OCPI**  
CONCRETE PIPE INLET WITH STEEL COVER  
(See Note 6)



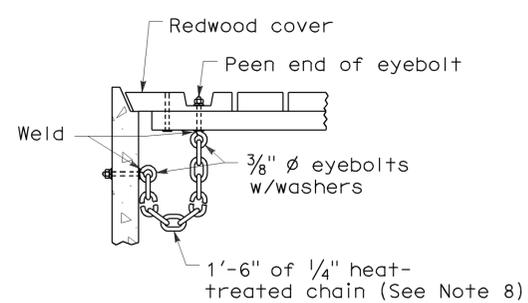
**SECTION D-D**  
**TYPE OCP or OCPI**  
CONCRETE PIPE INLET WITH REDWOOD COVER  
(See Notes 6 and 10)



**DETAIL "E"**



**SECTION C-C**  
**DETAIL "F"**



**DETAIL "G"**

**NOTES:**

- For details of steel pipe inlets, see Standard Plan D75A.
- For details of ladder and steps and when ladder or steps are required, see Standard Plan D75C.
- Inlet pipes shall not protrude into basin.
- Except for inlets used for junction boxes, basin floors shall have minimum slope of 4:1 from all directions toward outlet pipe, and a wood trowel finish.
- See Revised Standard Plan RSP D77A and Standard Plan D77B for Grate and Frame Details and Weights of Miscellaneous Iron and Steel.
- Designation of Type OCPI pipe inlets on plans indicates trash racks are to be furnished and installed on all side openings. See Standard Plan D75C for Trash Rack details.
- More than one side opening may be required. Location and number as ordered by the Engineer. Opening may be cast in pipe.
- Chain to be provided when specified.
- Place pipe so bars of grate will be parallel with main surface flow.
- Redwood covers shall only be placed at locations designated on the plans.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

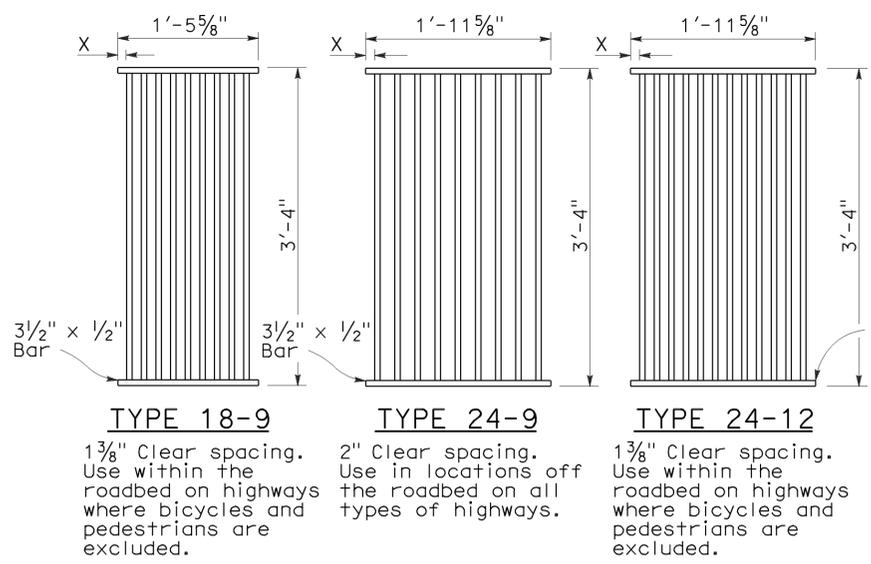
**CONCRETE PIPE INLETS**

NO SCALE

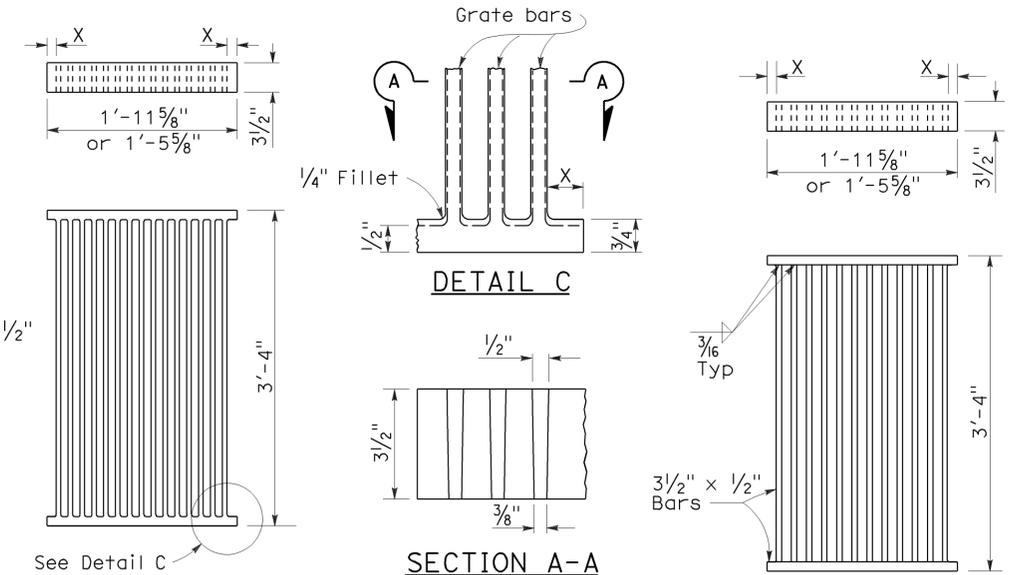
RSP D75B DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN D75B  
DATED MAY 1, 2006 - PAGE 153 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP D75B**

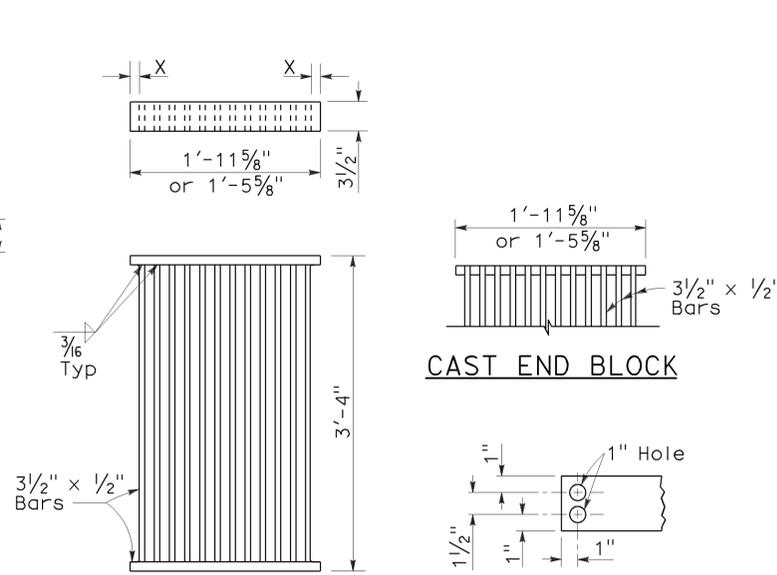
To accompany plans dated March 1, 2010



**RECTANGULAR GRATE DETAILS**  
(See table below)

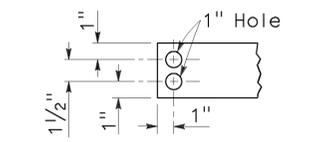


**ALTERNATIVE CAST NODULAR IRON GRATE OR CAST STEEL GRATE**

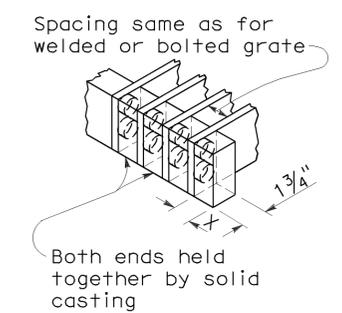


**ALTERNATIVE WELDED GRATE**

**CAST END BLOCK**



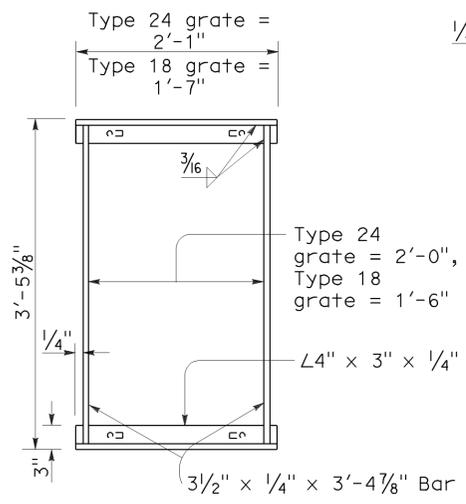
**END OF BAR**



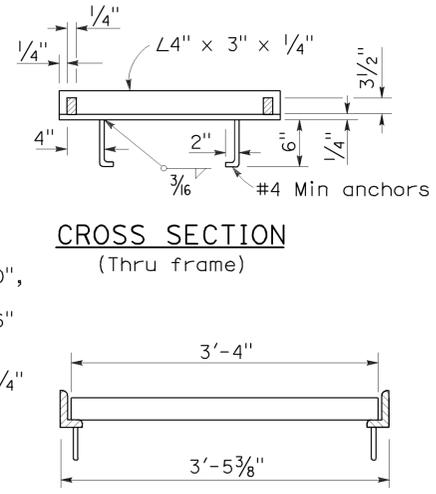
**ALTERNATIVE CAST NODULAR IRON OR CAST STEEL END BLOCK GRATE**

**NOTES:**

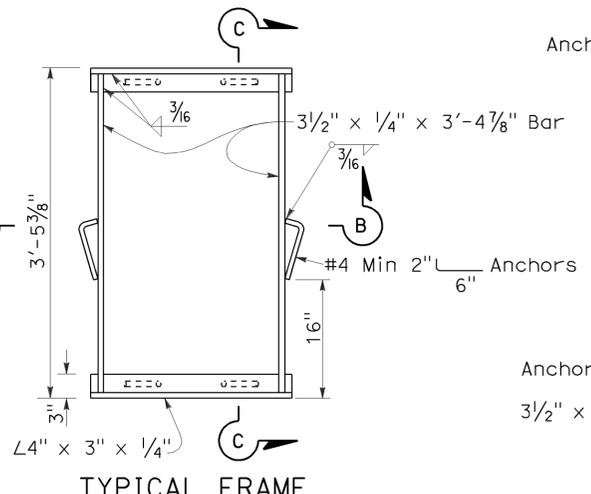
1. Grate type numbers refer to approximate width of grate in inches and number of bars, respectively.
2. Contractor has the option of using cast nodular iron, cast steel, welded, bolted, or cast end block grate.
3. See Special Provisions for requirements pertaining to galvanizing or asphalt dipping of grates and frames.
4. Rounded top of bars optional on all grates.
5. Pipe inlets with a grate shall be placed so that bars parallel direction of principle surface flow.
6. Full penetration butt welds may be substituted for the fillet welds on all anchors.
7. Standard square, hexagon, round or equivalent headed anchors may be substituted for the right angle hooks on the anchors shown on this plan.
8. Grate and frame weights are based on welded grates (weights of face angles, steps, protection bars, etc. are not included).



**TYPICAL FRAME**

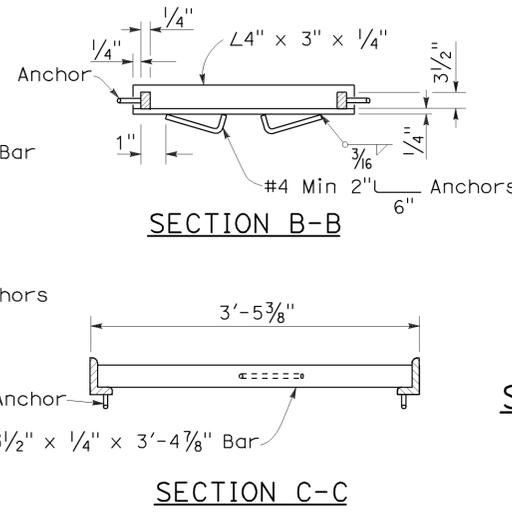


**CROSS SECTION (Thru frame)**  
**LONGITUDINAL SECTION (Thru frame and grate)**



**TYPICAL FRAME**

**ALTERNATIVE ANCHOR FOR RECTANGULAR FRAME**  
(For details not shown, See Rectangular Frame Details)



**SECTION B-B**

**SECTION C-C**

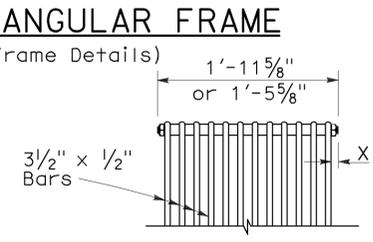
**RECTANGULAR FRAME DETAILS**  
(For all rectangular grates)

**GRATE BAR SPACING TABLE**

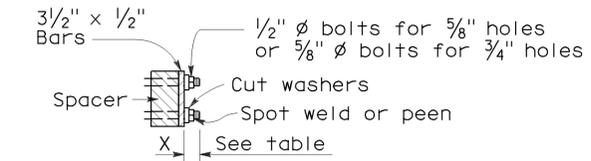
| TYPE  | NO. OF BARS | CLEAR BAR SPACING | X       |
|-------|-------------|-------------------|---------|
| 18-9  | 9           | 1 3/8"            | 1 1/16" |
| 24-9  | 9           | 2"                | 1 9/16" |
| 24-12 | 12          | 1 3/8"            | 1 1/4"  |

| INLET TYPE | COVER TYPE | WEIGHT LB |
|------------|------------|-----------|
| OS         | PLATE      | 174       |
| OL-7       | PLATE      | 170       |
| OL-10      | PLATE      | 170       |
| OL-14      | PLATE      | 170       |
| OL-21      | PLATE      | 170       |
| OCPI       | PLATE      | 112       |
| OCPI       | REDWOOD    | 42        |
| OMP        | PLATE      | 177       |
| OMPI       | PLATE      | 177       |

| INLET TYPE               | GRATE TYPE | NO. OF GRATES | WEIGHT LB |
|--------------------------|------------|---------------|-----------|
| GDO                      | 24-12      | 2             | 634       |
| GOL-7                    | 24-12      | 1             | 326       |
| GOL-10                   | 24-12      | 1             | 326       |
| G0,G1,G2,G3,G4 (TYPE 24) | 24-9       | 1             | 263       |
|                          | 24-12      | 1             | 326       |
| G4 (TYPE 18),G5,G6       | 18-9       | 1             | 249       |
|                          | 18-9       | 2             | 498       |
|                          | 18-9       | 2             | 498       |
|                          | 24-12      | 2             | 652       |
| GT4                      | 24-12      | 2             | 652       |
| TRASH RACK               |            |               | 22        |

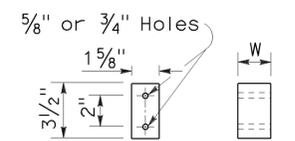


**BOLTED END BLOCK**

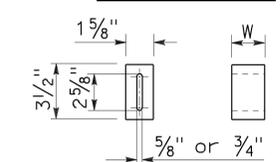


**BOLTING DETAIL**

**ALTERNATIVE BOLTED GRATE**



**BAR SPACER**



**ALTERNATIVE SPACER**

W = 1 3/8" or 2"

**BASIS FOR MISC IRON & STEEL FINAL PAY WEIGHTS FOR DRAINAGE INLETS**

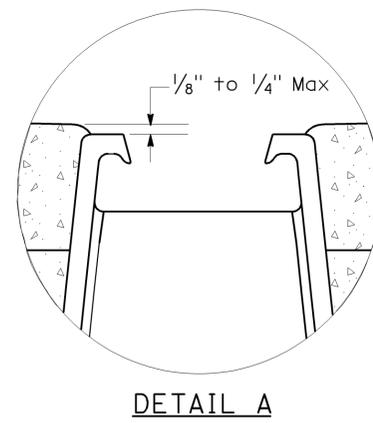
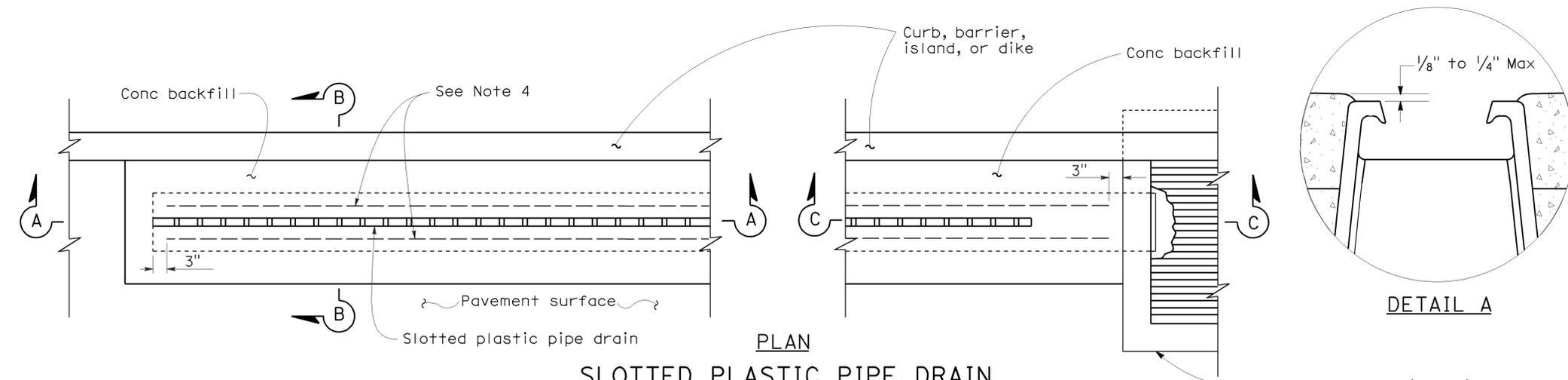
(See General Notes, No 8)

|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0               | 36        | 45           |

Raymond Don Tsztso  
 REGISTERED CIVIL ENGINEER  
 No. C37332  
 Exp. 6-30-08  
 CIVIL  
 STATE OF CALIFORNIA

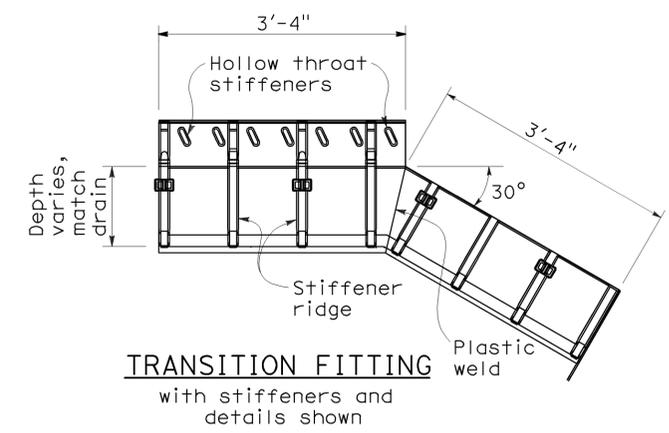
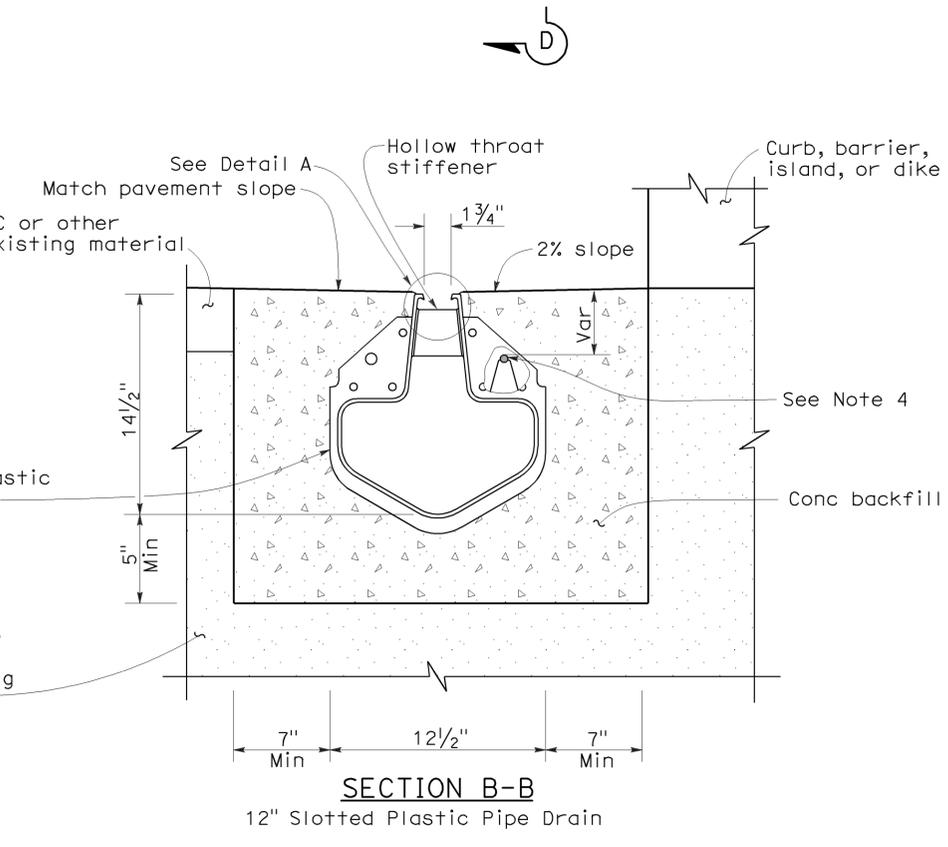
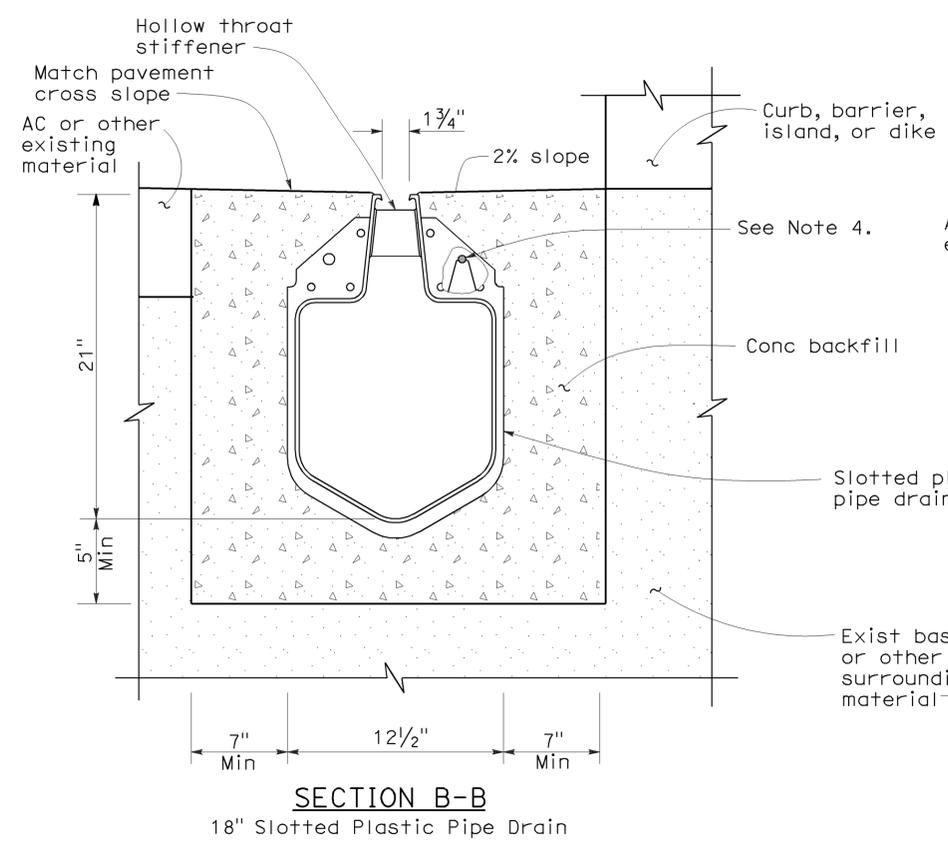
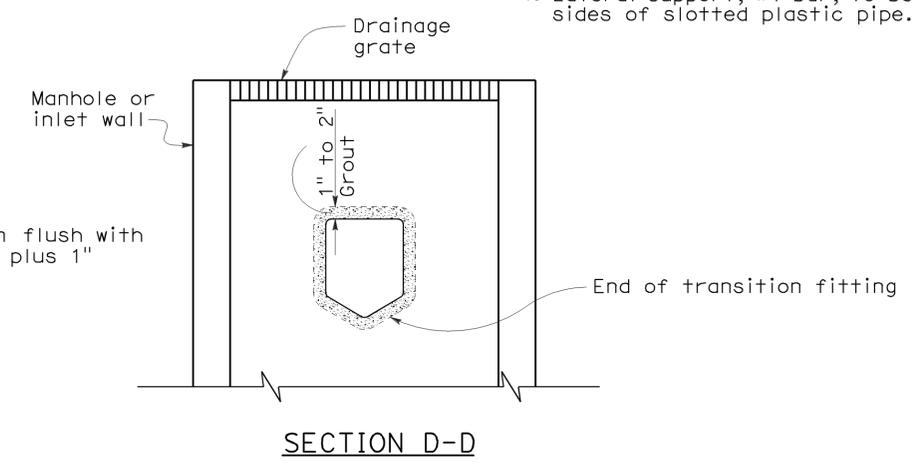
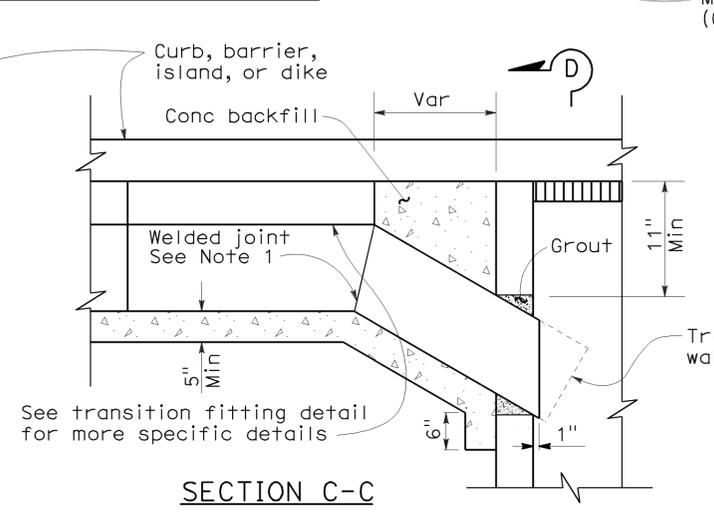
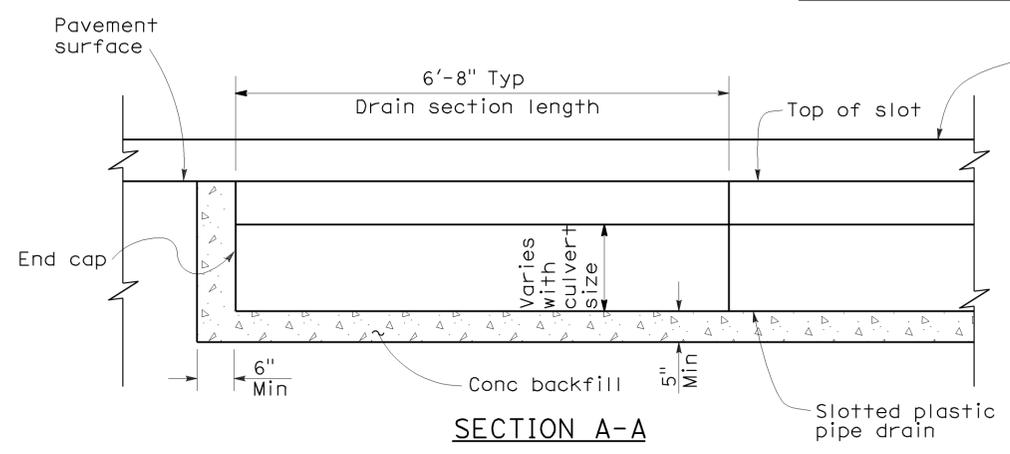
January 18, 2008  
 PLANS APPROVAL DATE  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated March 1, 2010



**NOTES:**

1. Plastic weld shall be factory fabricated.
2. When Heel Resistant Grate is to be used, see New Standard Plan NSP D98E for details.
3. Exterior wall stiffener ridges and details not shown on section views. See transition fitting detail for typical exterior ridges and throat stiffeners.
4. Lateral support, #4 bar, to be placed on both sides of slotted plastic pipe.



STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**SLOTTED PLASTIC PIPE DRAIN DETAILS**  
 NO SCALE

NSP D98D DATED JANUARY 18, 2008 SUPPLEMENTS  
 THE STANDARD PLANS BOOK DATED MAY 2006.

193A

2006 NEW STANDARD PLAN NSP D98D

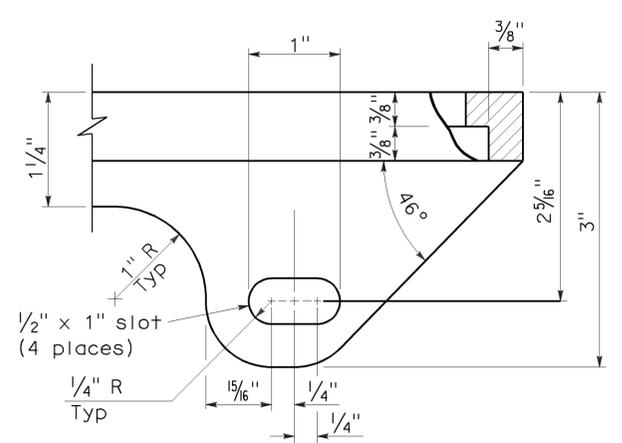
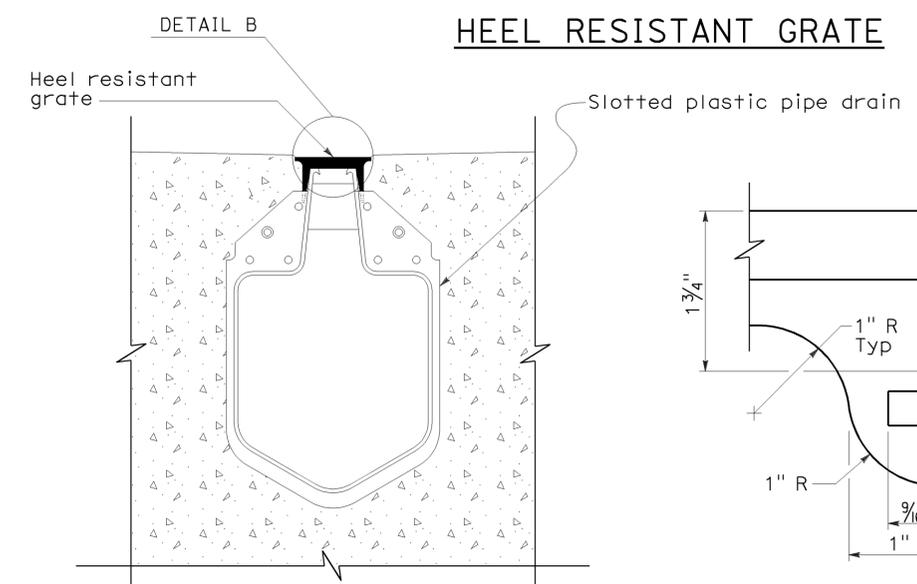
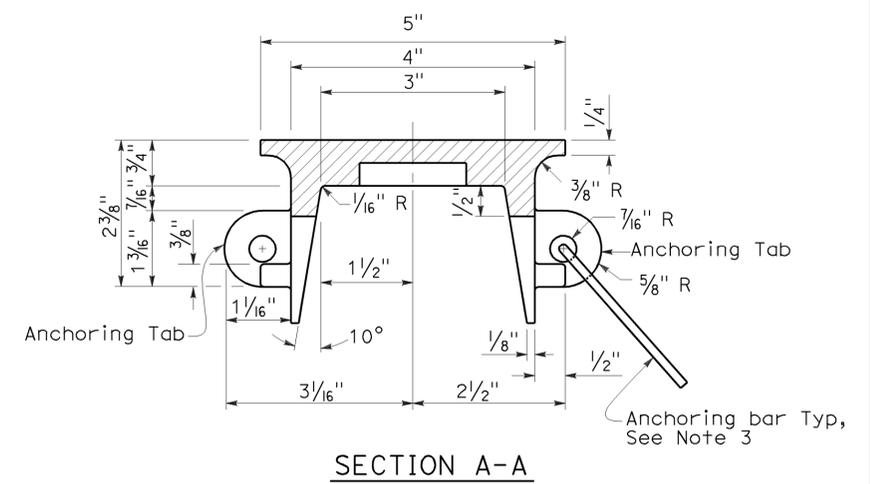
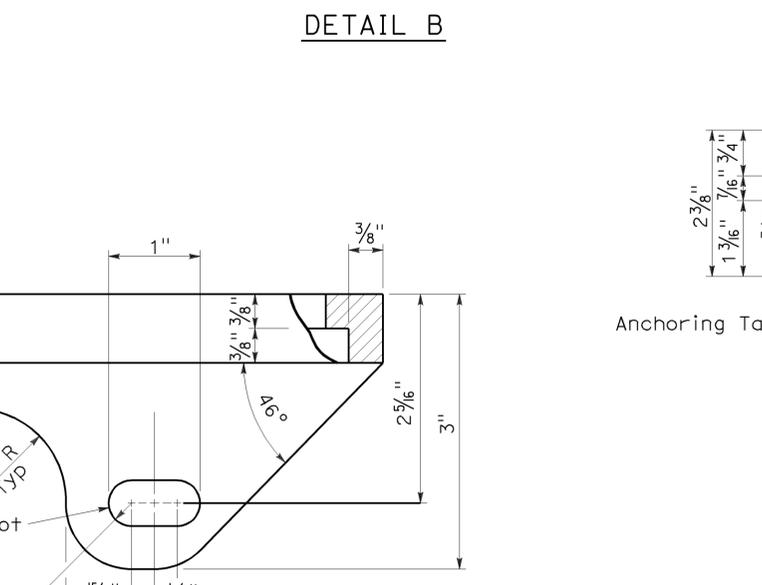
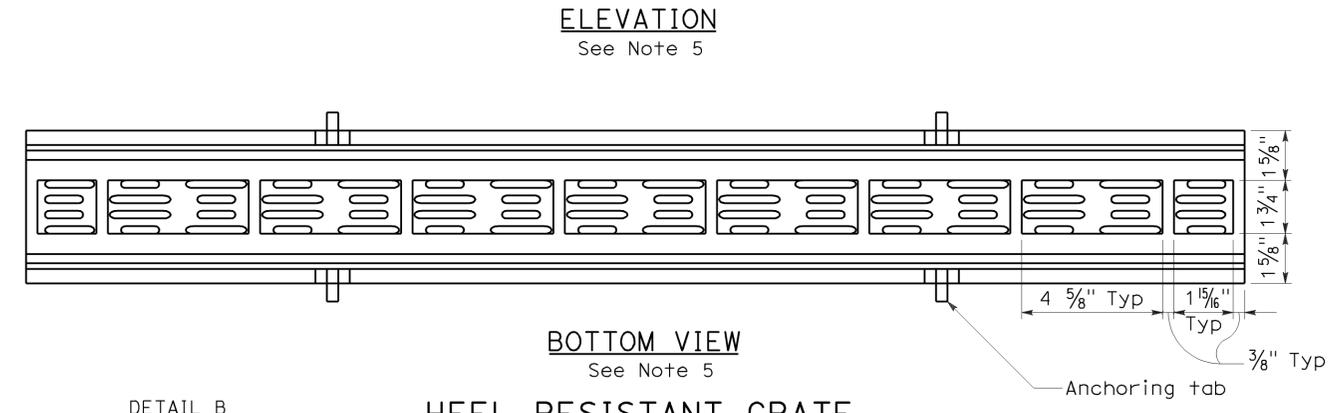
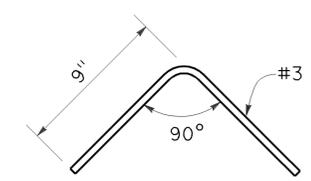
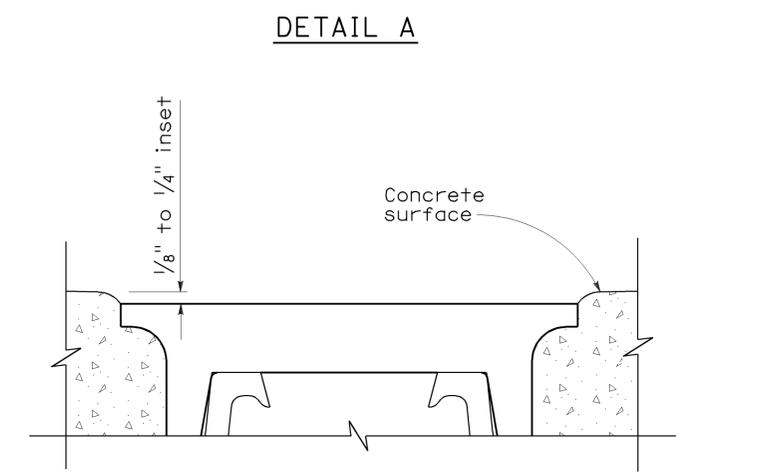
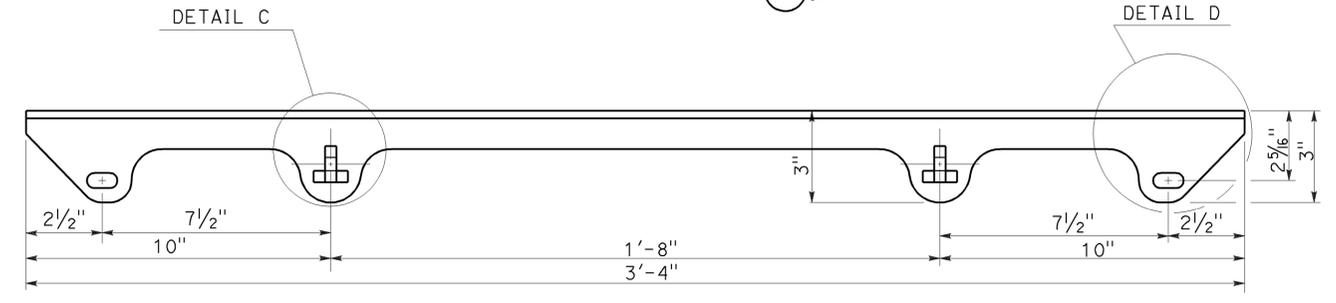
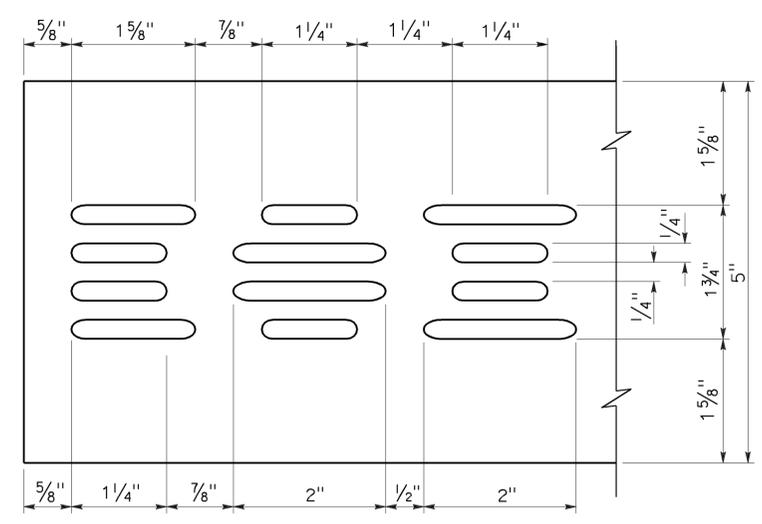
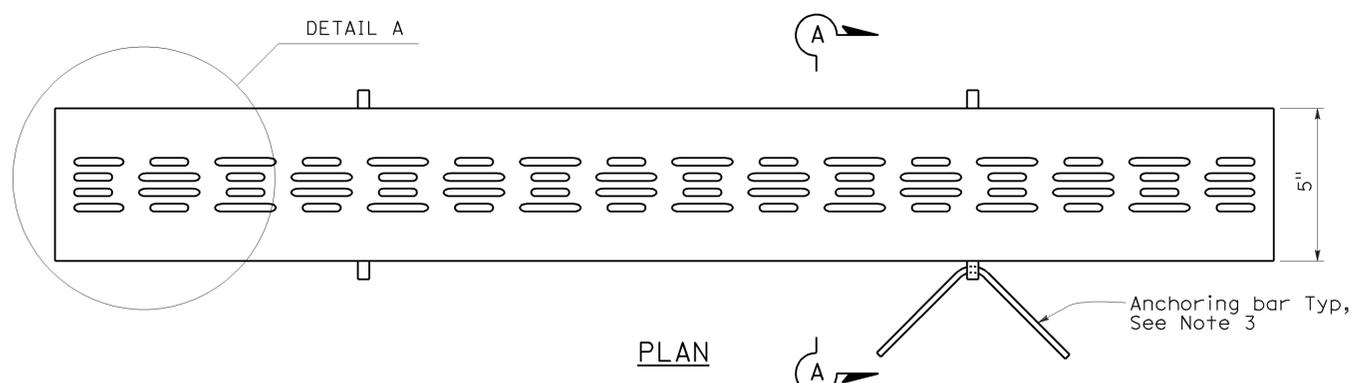
|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0               | 37        | 45           |

Raymond Don Tszoo  
 REGISTERED CIVIL ENGINEER  
 January 18, 2008  
 PLANS APPROVAL DATE  
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated March 1, 2010

**NOTES:**

1. Grate patterns may vary from detail shown. See special provisions for requirements.
2. 3/16" maximum gap between adjacent gratings.
3. Use anchoring bar through each anchoring tab to anchor heel resistant grate to concrete backfill. 4 locations for each grate section.
4. Use 3/8" diameter bolt, nut, and washer to hold grate to slotted drain, prior to backfilling with concrete. 4 locations.
5. Anchoring bars are not shown.



STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

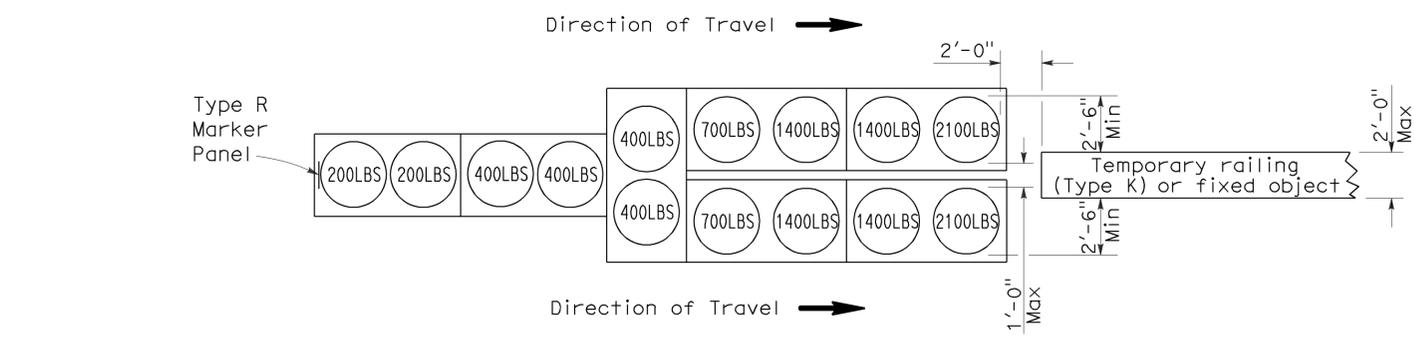
**HEEL RESISTANT GRATE FOR SLOTTED PLASTIC PIPE DRAIN**

NO SCALE  
NSP D98E DATED JANUARY 18, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

193B

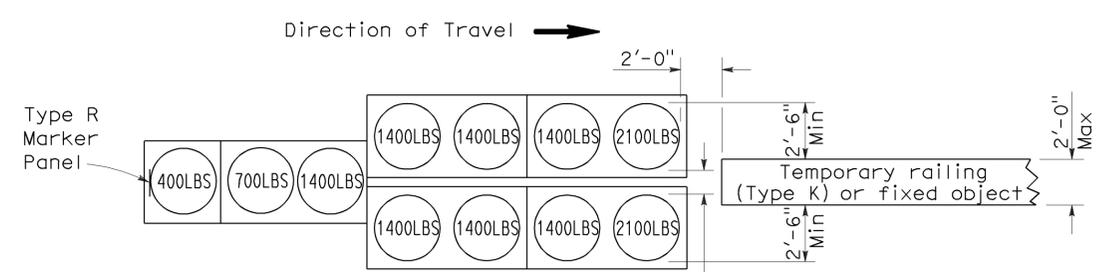
2006 NEW STANDARD PLAN NSP D98E

To accompany plans dated March 1, 2010



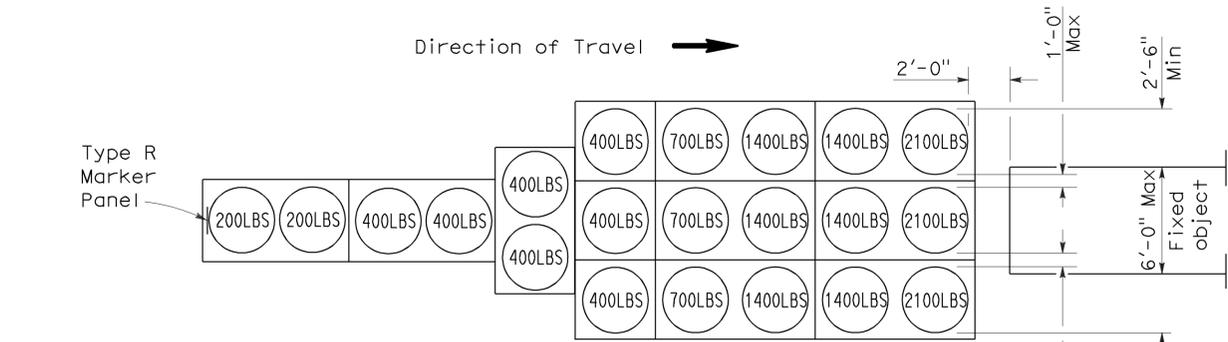
**ARRAY 'TU14'**

Approach speed 45 mph or more



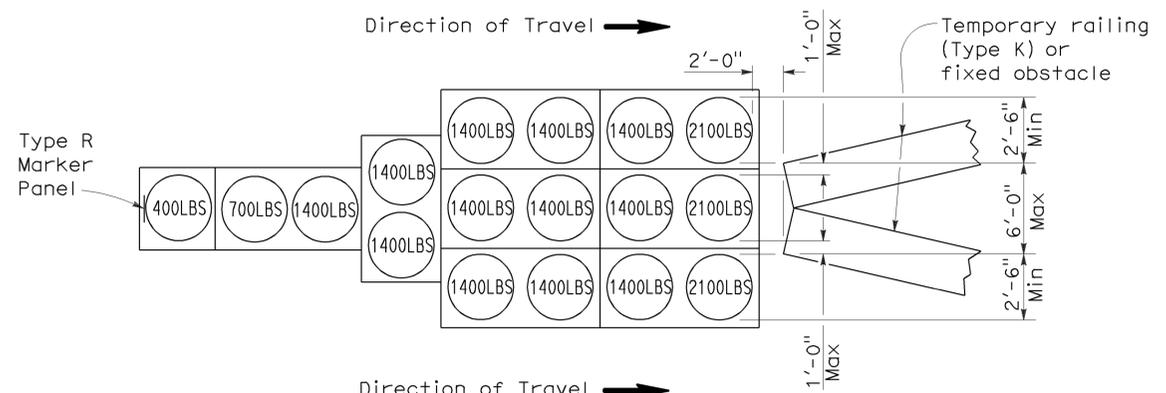
**ARRAY 'TU11'**

Approach speed less than 45 mph



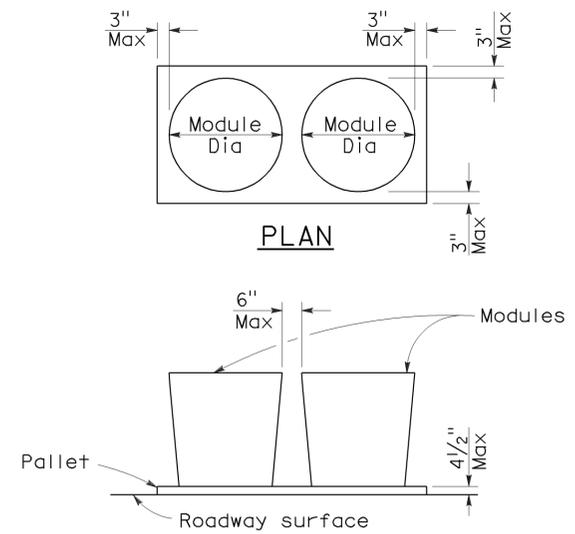
**ARRAY 'TU21'**

Approach speed 45 mph or more



**ARRAY 'TU17'**

Approach speed less than 45 mph



**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 |
| 03   | Pla    | 80    | 16.9/R19.0               | 39        | 45           |

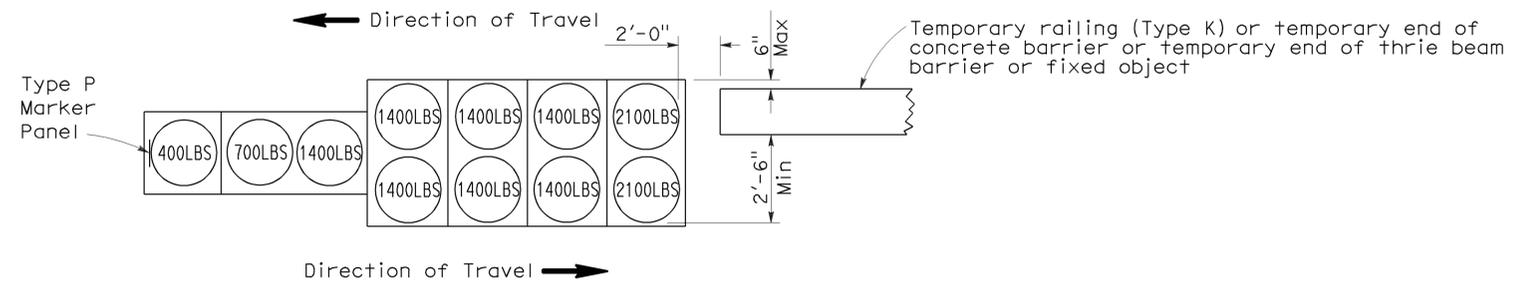
Randell D. Hiatt  
REGISTERED CIVIL ENGINEER

June 6, 2008  
PLANS APPROVAL DATE

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

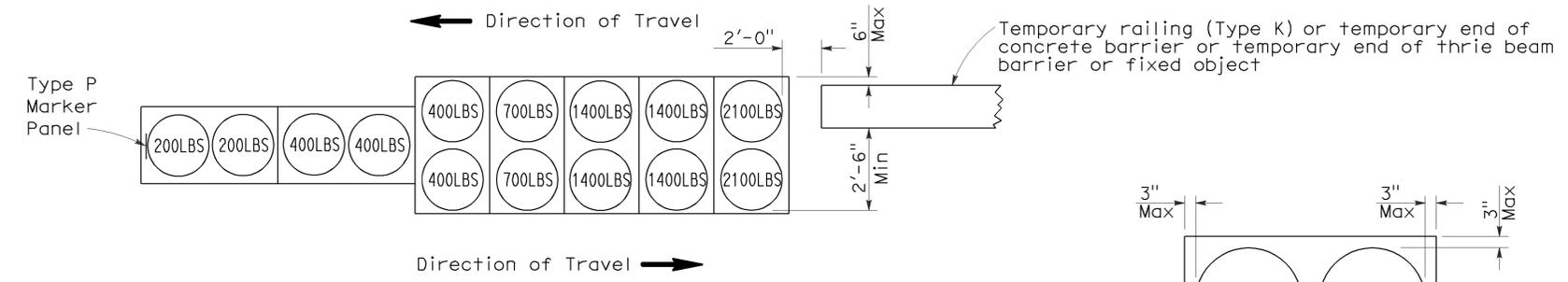
REGISTERED PROFESSIONAL ENGINEER  
Randell D. Hiatt  
No. C50200  
Exp. 6-30-09  
CIVIL  
STATE OF CALIFORNIA

To accompany plans dated March 1, 2010



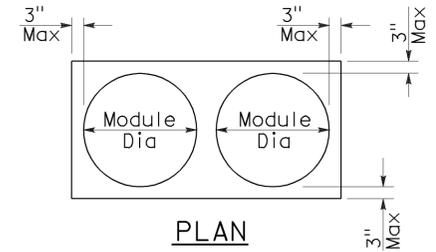
**ARRAY 'TB11'**

Approach speed less than 45 mph

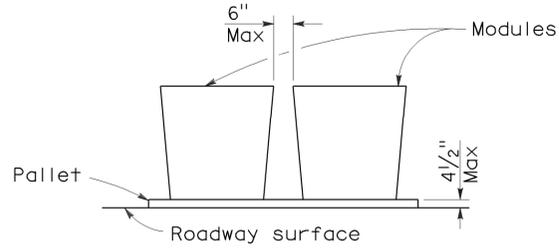


**ARRAY 'TB14'**

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

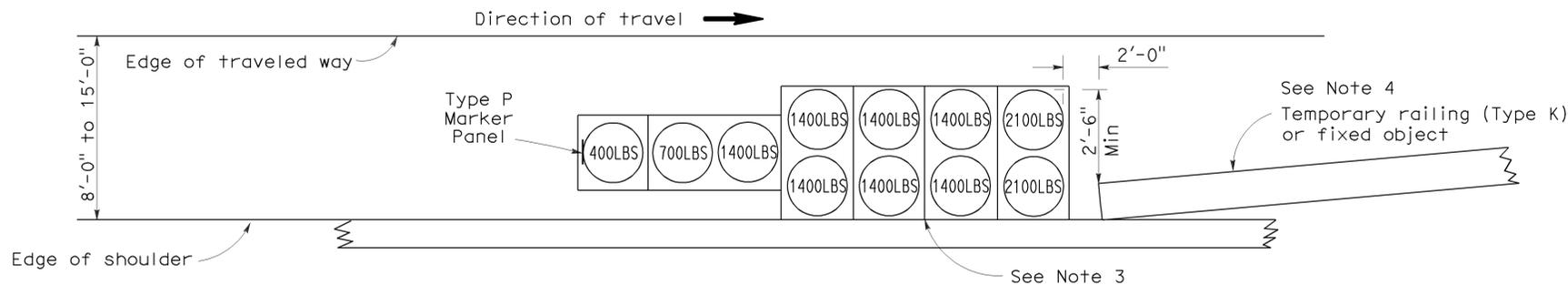
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|------|--------|-------|-----------------------------|--------------|-----------------|
| DIST | COUNTY | ROUTE | POST MILES<br>TOTAL PROJECT | SHEET<br>NO. | TOTAL<br>SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0                  | 40           | 45              |

*Randell D. Hiatt*  
REGISTERED CIVIL ENGINEER

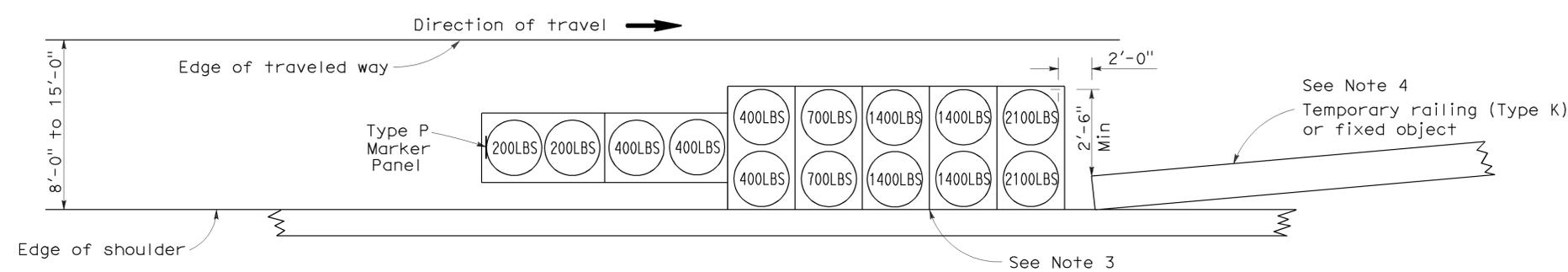
June 6, 2008  
PLANS APPROVAL DATE

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To accompany plans dated March 1, 2010



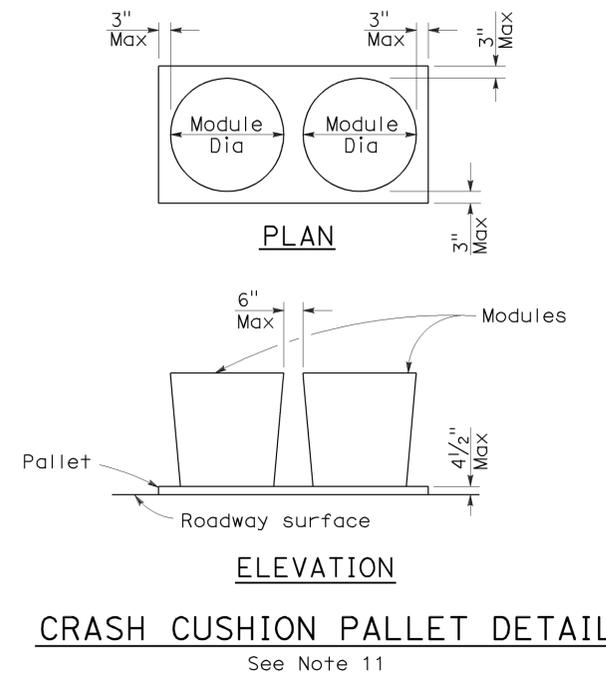
**ARRAY 'TS11'**  
Approach speed less than 45 mph  
See Note 9



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

**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.



**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

| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
|------|--------|-------|--------------------------|-----------|--------------|
| 03   | Pla    | 80    | 16.9/R19.0               | 41        | 45           |

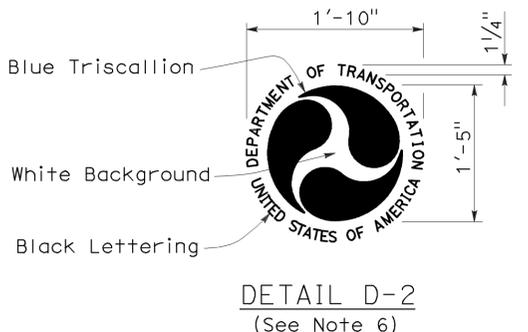
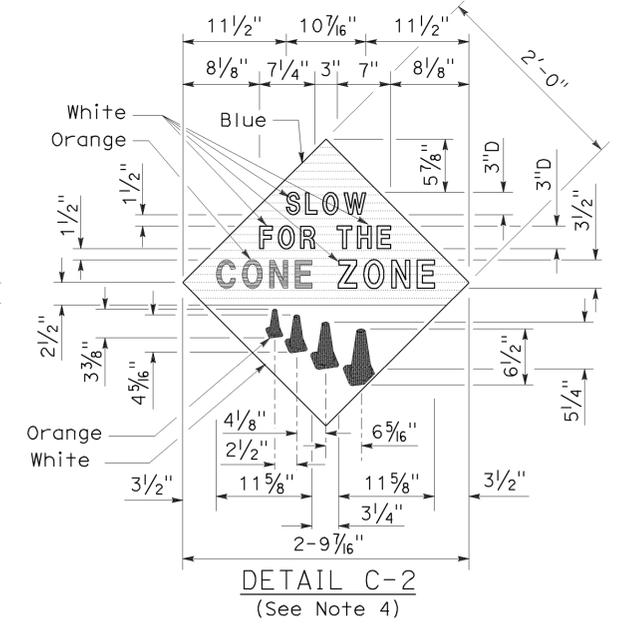
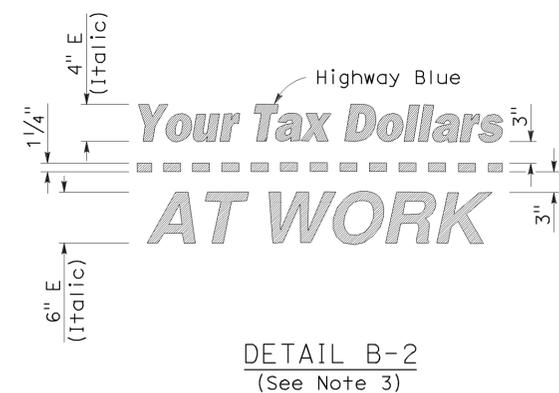
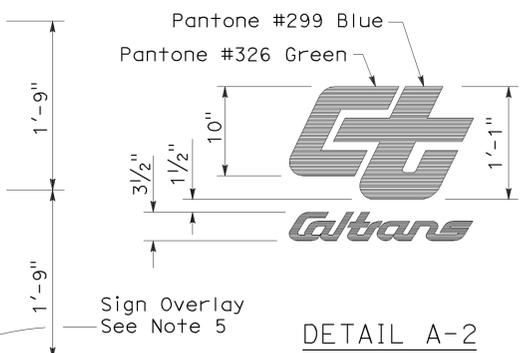
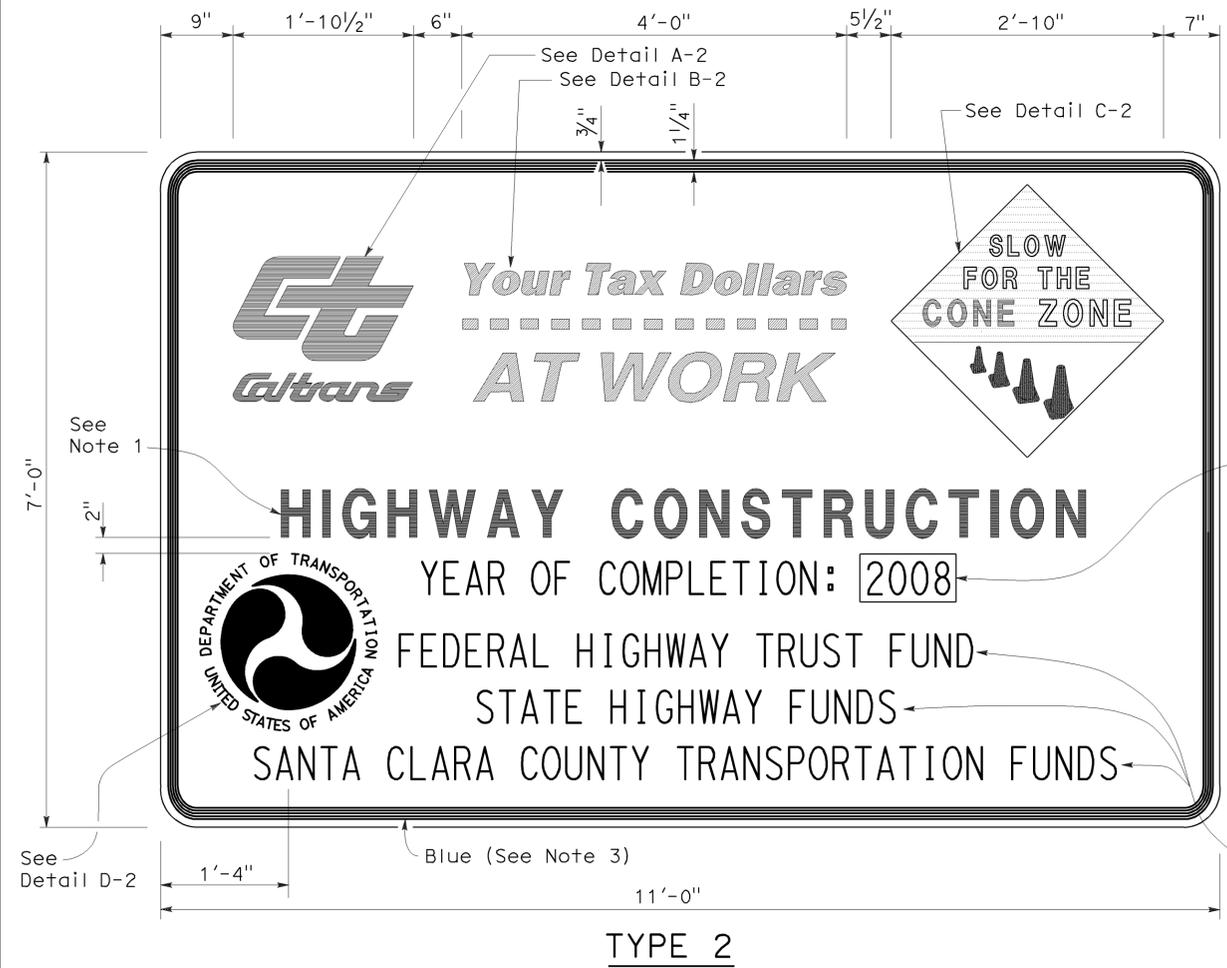
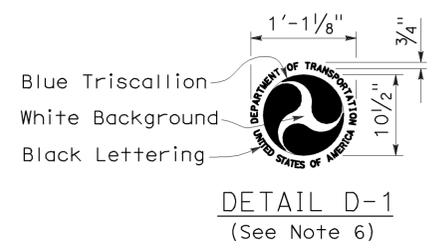
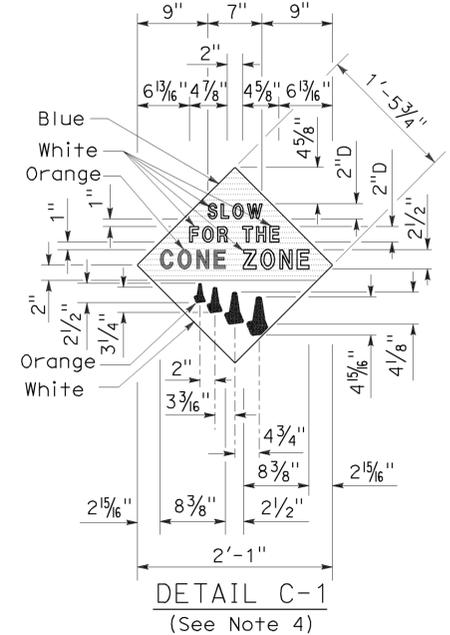
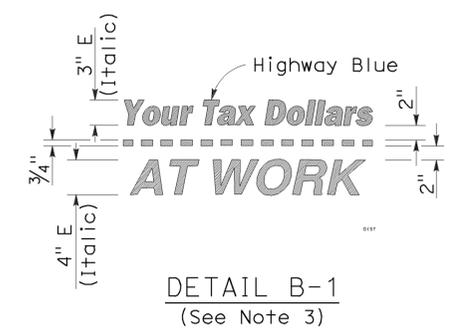
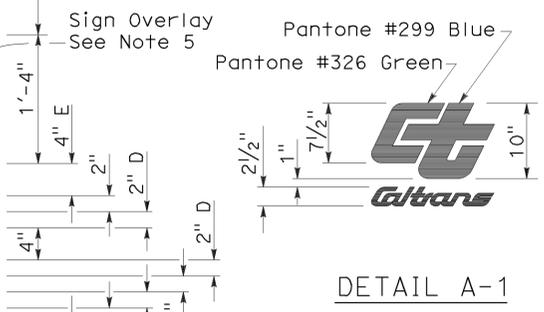
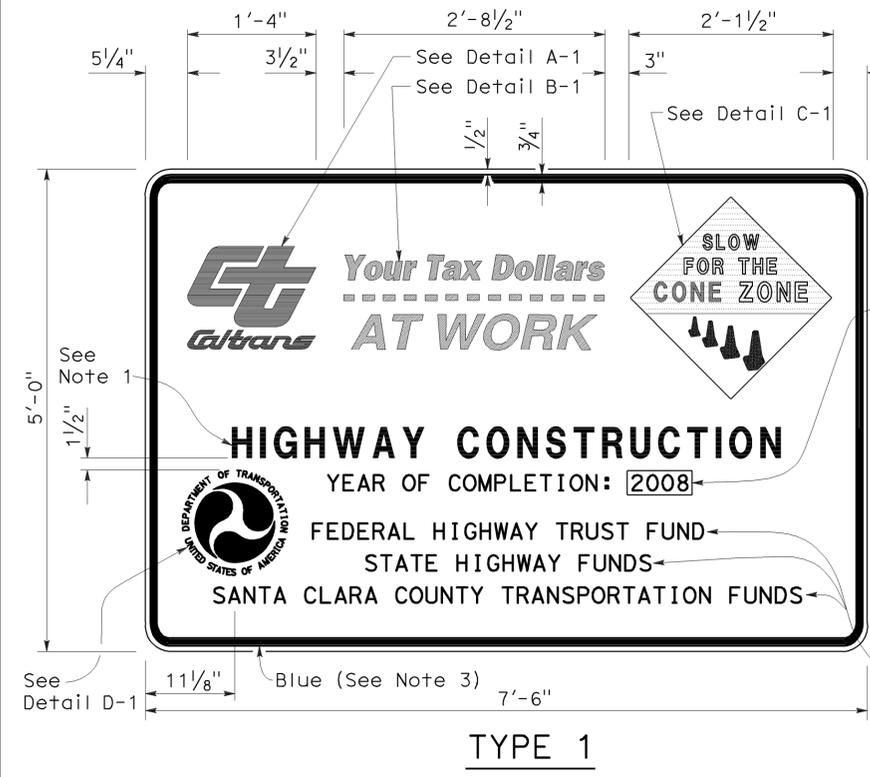
  
 REGISTERED CIVIL ENGINEER  
 November 17, 2006  
 PLANS APPROVAL DATE  
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

  
 STATE OF CALIFORNIA

To accompany plans dated March 1, 2010

**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.



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

# ELECTROLIERS

| STANDARD TYPES    | Symbol | Description                                  |
|-------------------|--------|--|
| 15, 15D           |        | High mast light pole                         |
| 15 STRUCTURE      |        | Double Arm lighting standard                 |
| 21, 21D STRUCTURE |        | Existing electrolier                         |
| 30                |        | Electrolier foundation (Future installation) |
| 31                |        |  |
| 32                |        |  |
| 35                |        |  |
| 36-20A            |        |  |

**NOTES:**

- 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.
- Luminaires shall be the cutoff type, ANSI Type III medium cutoff lighting distribution, unless otherwise specified.
- 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

| PROPOSED | EXISTING | Description  |
|----------|----------|--|
| 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, side attachment - 4 signal section |
| MAS-4B   | mas-4B   | Mast arm mounting vehicle signal faces, side attachment - 4 signal section |
| MAS-4C   | mas-4C   | Mast arm mounting vehicle signal faces, side attachment - 4 signal section |
| MAS-5A   | mas-5A   | Mast arm mounting vehicle signal faces, side attachment - 5 signal section |
| MAS-5B   | mas-5B   | Mast arm mounting vehicle signal faces, 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   |
| N        | N        | Mercury vapor lighting fixture   |
| NC       | NC       | Neutral (Grounded Conductor)   |
| NO       | NO       | Normally closed  |
| PB       | pb       | Normally open  |
| PEC      | pec      | 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       | 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 |
| 03   | Pla    | 80    | 16.9/R19.0               | 42        | 45           |

*Jeffrey B. McPae*  
REGISTERED ELECTRICAL ENGINEER

October 5, 2007  
PLANS APPROVAL DATE

*Jeffrey G. McRae*  
REGISTERED PROFESSIONAL ENGINEER  
No. E14512  
Exp. 6-30-08  
ELECTRICAL  
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 March 1, 2010

## 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.
- 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

|      |        |       |                             |              |                 |
|------|--------|-------|-----------------------------|--------------|-----------------|
| DIST | COUNTY | ROUTE | POST MILES<br>TOTAL PROJECT | SHEET<br>NO. | TOTAL<br>SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0                  | 43           | 45              |

*Jeffery G. McRae*  
 REGISTERED ELECTRICAL ENGINEER  
 October 5, 2007  
 PLANS APPROVAL DATE  
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REGISTERED PROFESSIONAL ENGINEER  
 Jeffrey G. McRae  
 No. E14512  
 Exp. 6-30-08  
 ELECTRICAL  
 STATE OF CALIFORNIA

### CONDUIT

| PROPOSED | EXISTING |   |
|----------|----------|---|
|          |          | Lighting Conduit, unless otherwise indicated or noted |
|          |          | Traffic signal conduit                                |
|          |          | Communication conduit                                 |
|          |          | Telephone conduit                                     |
|          |          | Fire alarm conduit                                    |
|          |          | Fiber optic conduit                                   |
|          |          | Conduit termination                                   |
|          |          | Conduit riser in/on structure or service pole         |

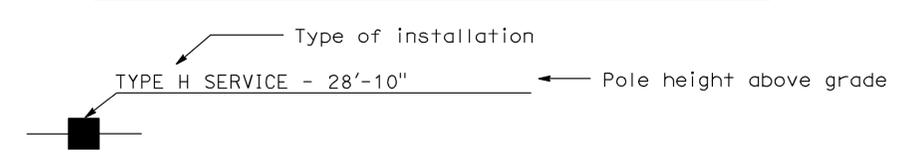
### SIGNAL EQUIPMENT

| 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  |
|          |          | Modifications of basic symbols:<br>"L" indicates all non-arrow sections louvered<br>"LG" indicates louvered green section only<br>"PV" indicates 12" programmed visibility sections<br>"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  |
|          |          | 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   |

### SERVICE EQUIPMENT

| PROPOSED | EXISTING |   |
|----------|----------|---|
|          |          | Overhead lines  |
|          |          | Wood pole "U" indicates utility owned                         |
|          |          | Pole guy with anchor  |
|          |          | Utility transformer - ground mounted                          |
|          |          | Service equipment enclosure type                              |
|          |          | Service equipment enclosure door indicates front of enclosure |
|          |          | 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 Cont

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

### NOTES:

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

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**ELECTRICAL SYSTEMS  
 (SYMBOLS AND ABBREVIATIONS)**  
 NO SCALE

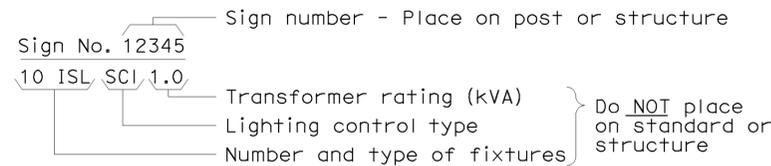
RSP ES-1B DATED OCTOBER 5, 2007 SUPERCEDES STANDARD PLAN ES-1B  
 DATED MAY 1, 2006 - PAGE 401 OF THE STANDARD PLANS BOOK DATED MAY 2006.

**REVISED STANDARD PLAN RSP ES-1B**

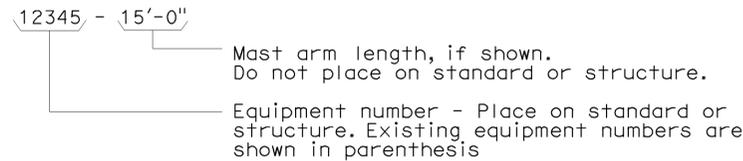
2006 REVISED STANDARD PLAN RSP ES-1B

### EQUIPMENT IDENTIFICATION

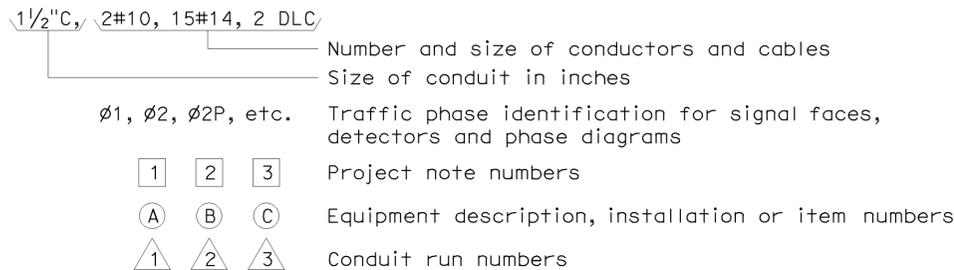
#### ILLUMINATED SIGN IDENTIFICATION NUMBER:



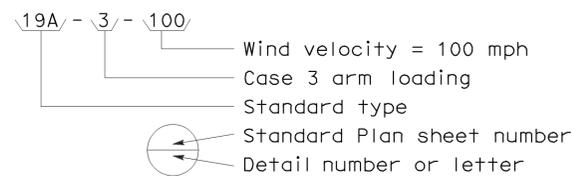
#### ELECTROLIER OR EQUIPMENT IDENTIFICATION NUMBER:



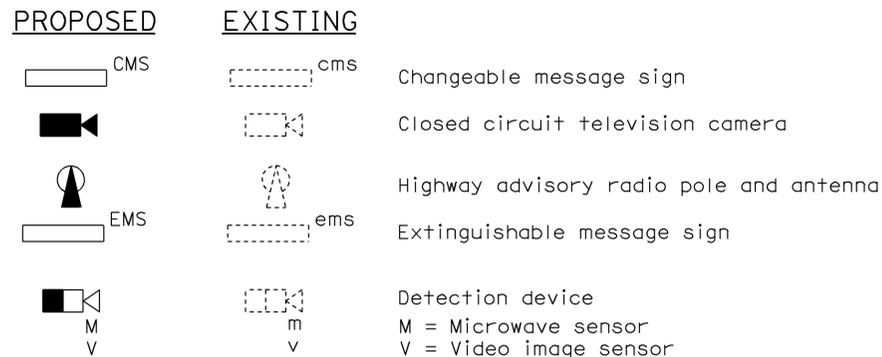
#### CONDUIT AND CONDUCTOR IDENTIFICATION:



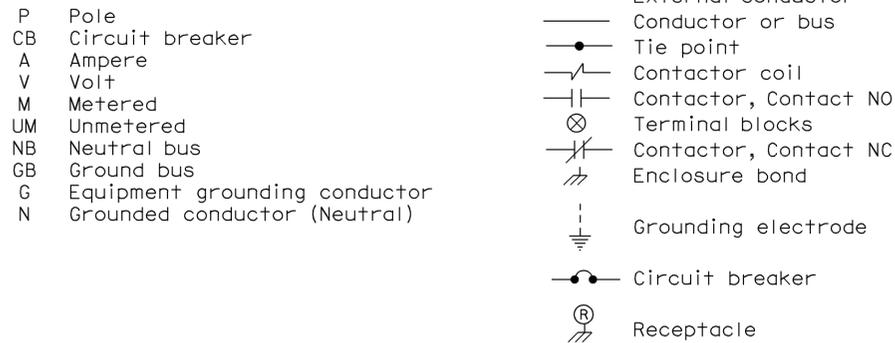
#### SIGNAL AND LIGHTING STANDARD (TYPICAL DESIGNATION):



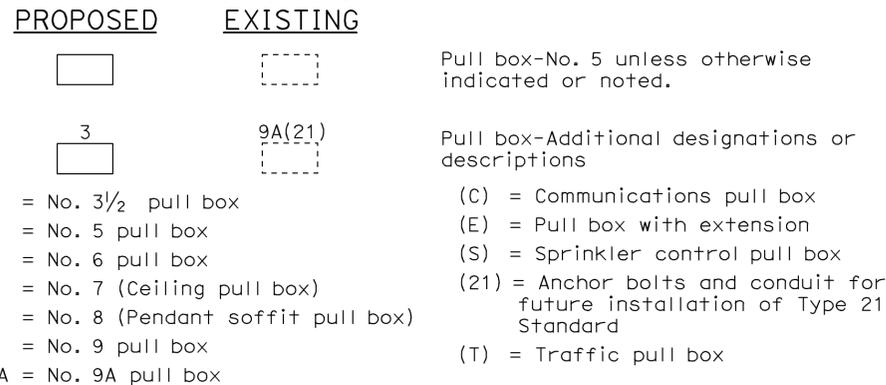
### MISCELLANEOUS EQUIPMENT



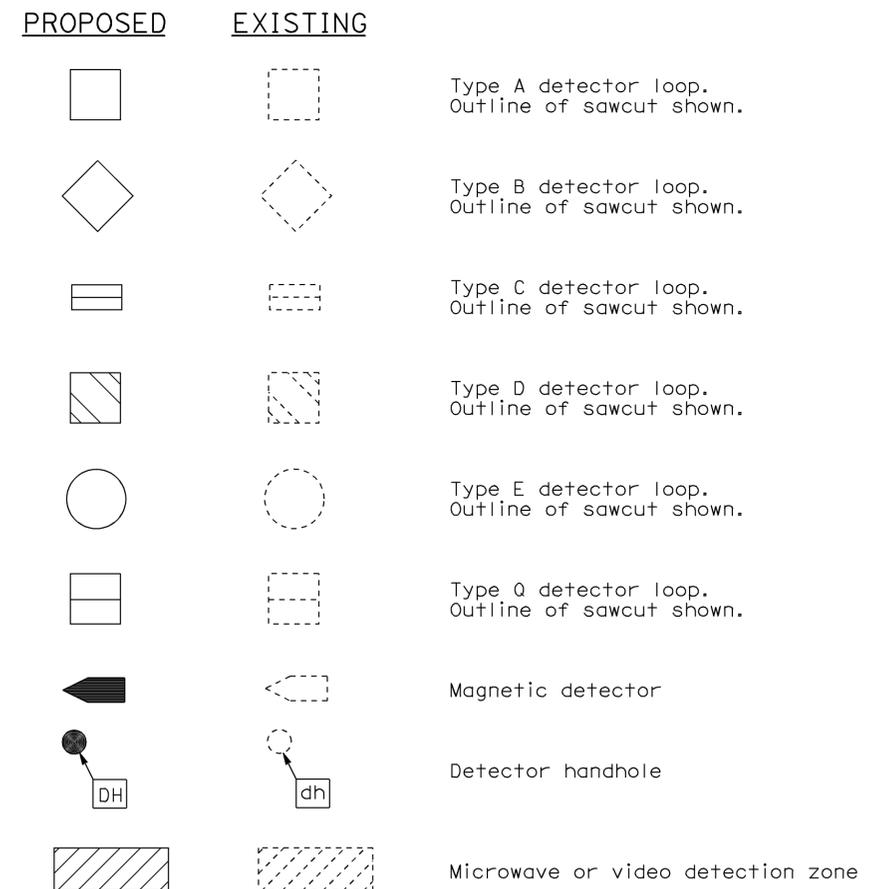
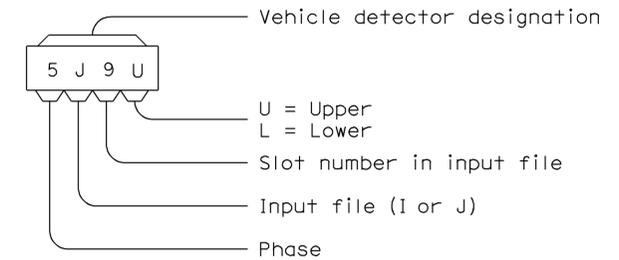
### WIRING DIAGRAM LEGEND



### PULL BOXES



### VEHICLE DETECTORS



STATE OF CALIFORNIA  
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## 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

|      |        |       |                          |           |              |
|------|--------|-------|--------------------------|-----------|--------------|
| DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET NO. | TOTAL SHEETS |
| 03   | Pla    | 80    | 16.9/R19.0               | 45        | 45           |

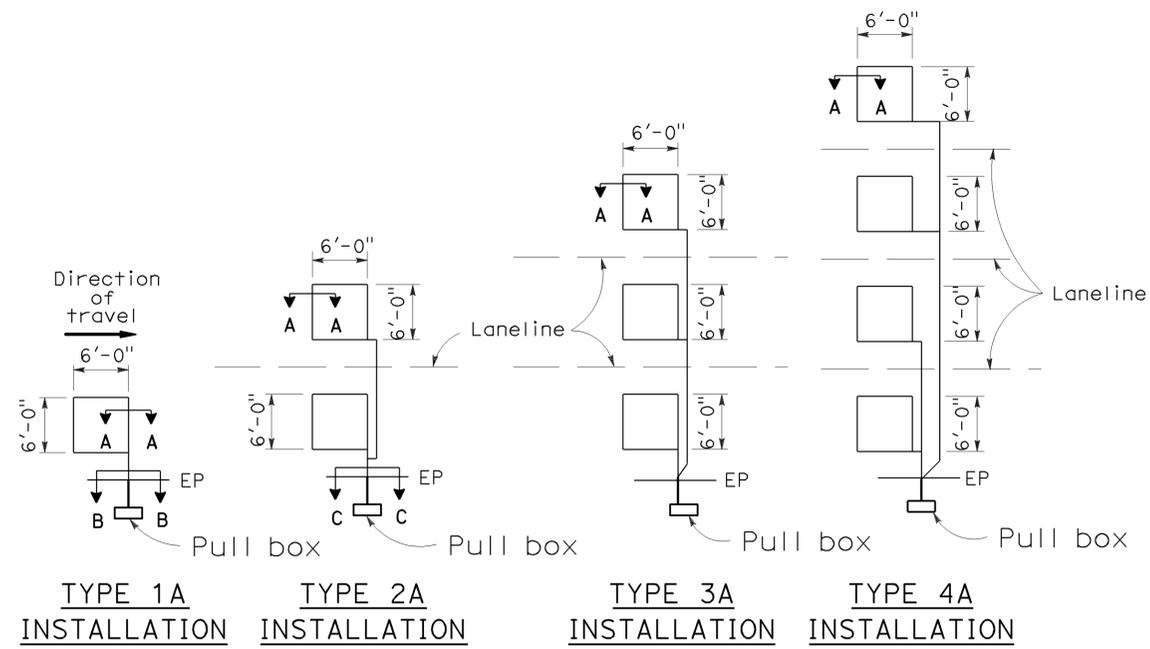
*Jeffery G. McRae*  
 REGISTERED ELECTRICAL ENGINEER  
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October 5, 2007  
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## LOOP INSTALLATION PROCEDURE

- Loops shall be centered in lanes.
- Saw slots in pavement for loop conductors as shown in details.
- 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.
- Bottom of saw slot shall be smooth with no sharp edges.
- Slots shall be washed until clean, blown out and thoroughly dried before installing loop conductors.
- Adjacent loops on the same sensor unit channel shall be wound in opposite directions.
- 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.
- 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.
- No more than 2 twisted pairs shall be installed in one sawed slot.
- Allow additional 5'-0" of slack length of conductor for the lead-in run to pull box.
- 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.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the pull box before filling slots.
- Fill slots as shown in details.
- Splice loop conductors to lead-in-cable. Splices shall be soldered.
- 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.
- Lead-in-cable shall not be spliced between the pull box and the controller cabinet terminals.
- Test each loop circuit for continuity, circuit resistance and insulation resistance at the controller cabinet location.
- 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.

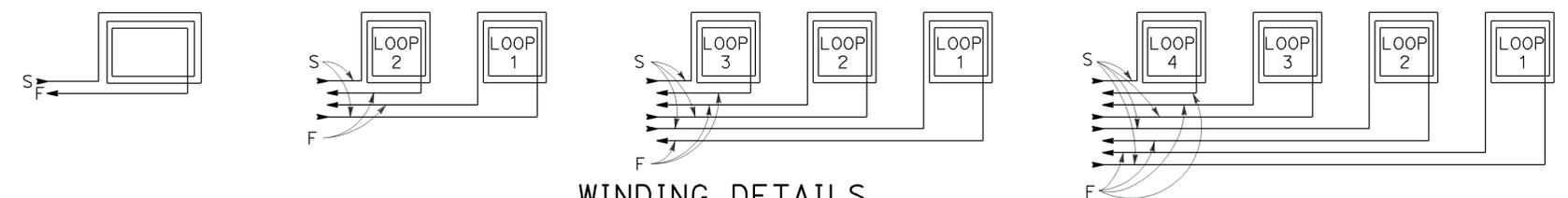


TYPE 1A INSTALLATION TYPE 2A INSTALLATION TYPE 3A INSTALLATION TYPE 4A INSTALLATION

### SAWCUT DETAILS

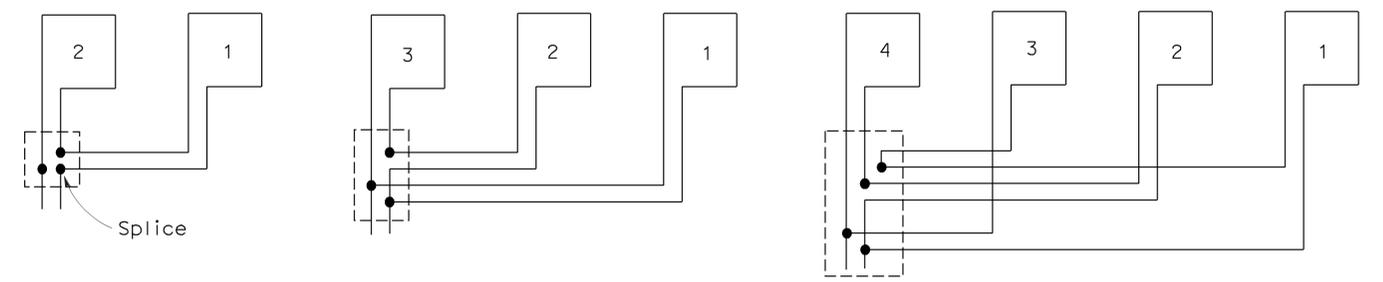
(Type A loop detector configurations illustrated)

- 1A thru 4A = 1 Type A loop configuration in each lane.
  - 1B thru 4B = 1 Type B loop configuration in each lane.
  - 1C = 1 Type C loop configuration entering lanes as required.
  - 1D thru 4D = 1 Type D loop configuration in each lane.
  - 1E thru 4E = 1 Type E loop configuration in each lane.
  - 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)



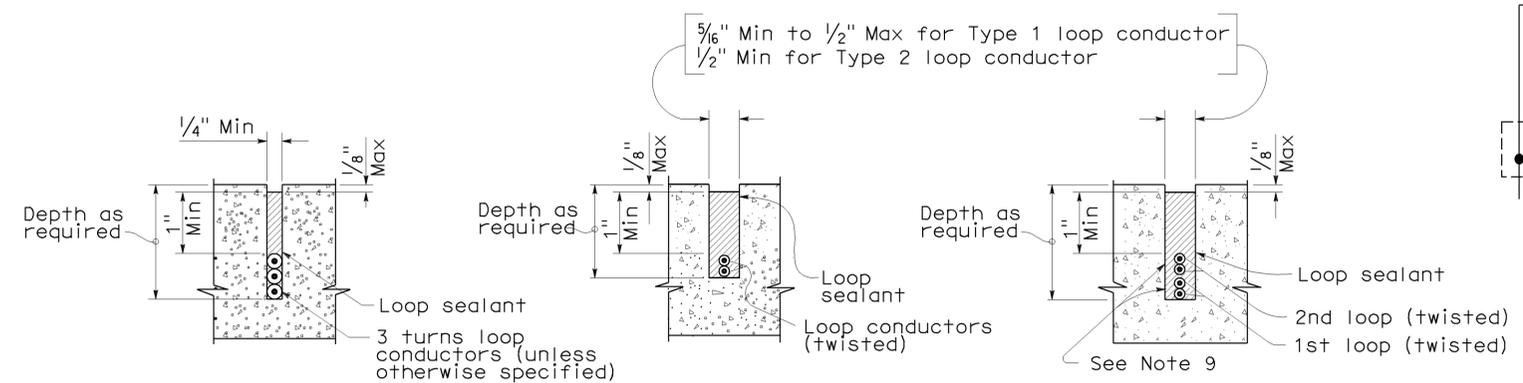
### WINDING DETAILS

See Notes 6 and 7



### TYPICAL LOOP CONNECTIONS

(Dashed lines represent the pull box)



SECTION A-A SECTION B-B SECTION C-C  
SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR

## ELECTRICAL SYSTEMS (DETECTORS)

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

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.

2006 REVISED STANDARD PLAN RSP ES-5A