

# SAFETY EDGE, PAVEMENT CLIMATE REGION AND PAVEMENT STRUCTURE FOR SHOULDERS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
REGISTERED CIVIL ENGINEER			DATE		
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>					

### DESIGN DESIGNATION

ADT (2013)	XXX,XXX	D	XX%
ADT (2033)	XXX,XXX	T	XX%
DHV	XX,XXX	V	XX mph
ESAL	X,XXX,XXX	TI <sub>20</sub>	XX

PAVEMENT CLIMATE REGION: SOUTH MOUNTAIN

### PAVEMENT CLIMATE REGION

SOUTH MOUNTAIN

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For information on when the shoulder pavement structure depth is to be the same (or different) as the adjacent lane, refer to Highway Design Manual Topic 613.5 (2). For variable shoulder thickness options, see figures 613.5A and 613.5B.

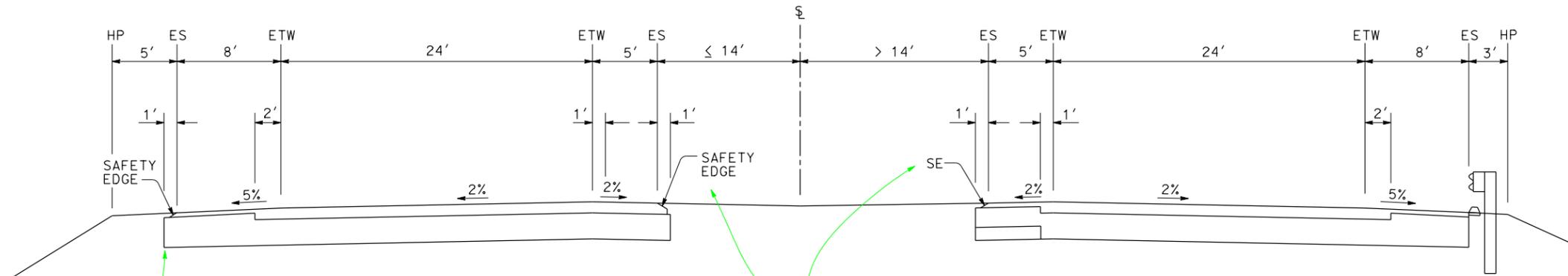
Regardless of the pavement structure of the shoulder, if the cross slope of the shoulder is different than the adjacent traveled way, the break is to occur at the edge of traveled way.

The grading plane for shoulders are to match the grading plane of the adjacent traveled way pavement structure.

AC = DDCLIM For showing both design designation and pavement climate region.

AC = CLIM1 For showing pavement climate region only.

AC = CLIM2 For adding pavement climate region to existing design designation.



In Topic 613.5 (2) of the Highway Design Manual, it recommends that bases and subbases for new or reconstructed shoulders should extend at least one foot beyond the edge of shoulder.

In Topic 613.5 (2) of the Highway Design Manual, it states that the total depth of new or reconstructed shoulder pavement structure shall match the adjacent traffic lane when:

- The shoulder width is less than 5 feet
- The median width is 14 feet or less
- On roads with less than two lanes in the direction of travel and there is a sustained (greater than 1 mile in length) grades of over 4 percent without a truck climbing lane
- The shoulders are adjacent to exclusive truck or bus only lanes, or weigh station ramps

For all other cases:

The total depth of shoulder shall match the adjacent traffic lane for the first 2 feet of the outside shoulder width and 1 foot of the inside shoulder measured from the edge of traveled way.

Label either as "SAFETY EDGE" or "SE." If using "SE" then include in abbreviations on the first sheet of the Typical Cross Sections.

For when, where and how to place safety edge, see Revised Standard Plans P74, P75 and P76. Topic 302.3 in the Highway Design Manual states safety edge shall be included on all projects except for the following locations:

- Next to curbs, dikes, guardrails, barriers, walls, or landscape paving.
- Where the distance from edge of shoulder to hinge point is less than 1' and there is not enough room for the safety edge.
- Within 3' of driveways or intersections.
- Pavement overlays that are less than 0.15' in thickness.

Safety edge is NOT to be shown on layout sheets or other plan view sheets. Locations for safety edge (both sheet number and stationing) is to be shown in a quantity table on the summary of quantities. The bid item for safety edge is to be added to the project's quantities for tons of HMA or cubic yards of concrete.

**GENERIC TYPICAL CROSS SECTION SHEET 2, ADDITIONAL BASIC REQUIRED INFORMATION**

**TYPICAL CROSS SECTIONS**

NO SCALE

**X-3**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



FUNCTIONAL SUPERVISOR

CALCULATED-DESIGNED BY  
CHECKED BY

REVISED BY  
DATE REVISED