

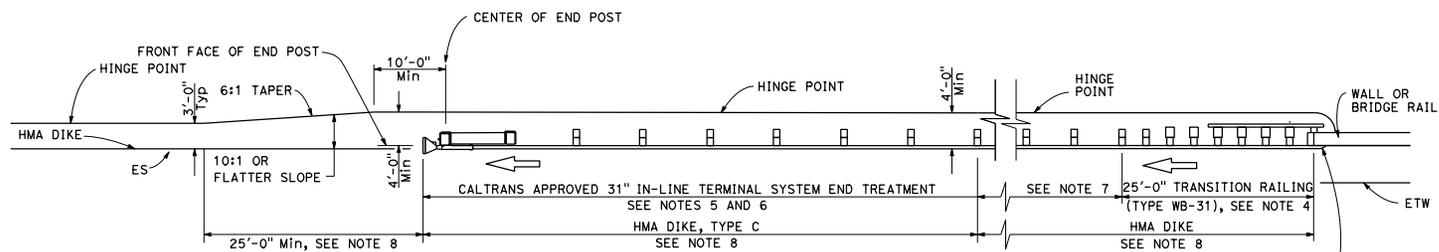
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

**Randell D. Hiatt**  
REGISTERED CIVIL ENGINEER

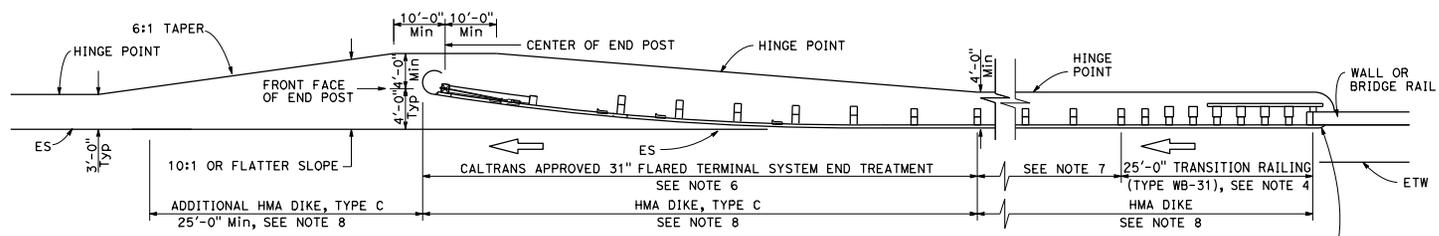
October 30, 2015  
PLANS APPROVAL DATE

**Randell D. Hiatt**  
No. C50200  
Exp. 6-30-17  
CIVIL  
STATE OF CALIFORNIA

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**TYPE 12AA LAYOUT**  
(MGS installation at structure departure with 31" in-line end treatment at trailing end of railing)  
See Notes 8 and 9



**TYPE 12BB LAYOUT**  
(MGS installation at structure departure with 31" flared end treatment at trailing end of railing)  
See Notes 8 and 9

**NOTES:**

- Line post, blocks and hardware to be used are shown on Standard Line Plans A77L1, A77L2, A77M1, A77N1 and A77N2.
- MGS post spacing to be 6'-3" center to center, except as otherwise noted.
- Except as noted, line posts are 6" x 8" x 6'-0" wood with 6" x 12" x 1'-2" wood blocks, W6 x 8.5 or W6 x 9 steel posts, 6'-0" in length, with 6" x 12" x 1'-2" notched wood blocks or notched recycled plastic blocks may be used for 6" x 8" x 6'-0" wood posts with 6" x 12" x 1'-2" wood blocks where applicable and when specified.
- For Transition Railing (Type WB-31) details for Types 12AA and 12BB Layouts, see Standard Plan A77U4.
- 31" in-line terminal system treatments are used where site conditions will not accommodate a 31" flared end treatment.
- The type of 31" terminal system to be used will be shown on the Project Plans.
- Dependent on site conditions (embankment height, side slopes, other fixed objects), it may be advisable to construct additional MGS (a length equal to multiples of 12'-6" with 6'-3" post spacing) between the transition railing and 31" end treatments.
- Where placement of dike is required with MGS installations, see Standard Plan A77N4 for dike positioning details.
- Type 12AA or Type 12BB Layouts are typically used to the right of traffic departing a structure on two-way conventional highways where the roadbed width across the structure is less than 40 feet.
- For additional details of typical connections to bridge rail, see Connection Detail CC on Standard Plan A77U2 and Connection Detail HH on Standard Plan A77V2.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**MIDWEST GUARDRAIL SYSTEM  
TYPICAL LAYOUTS FOR  
STRUCTURE DEPARTURE**

NO SCALE

**A77Q4**