

REV. 5-15-08: REDRAWN SHEET, RENAMED TITLE BLOCK, REVISED GENERAL NOTES.

REV. 6-1-09: FORE SLOPE NOTE CORRECTED.

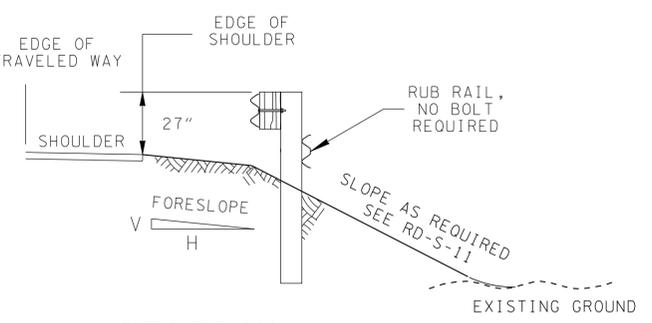
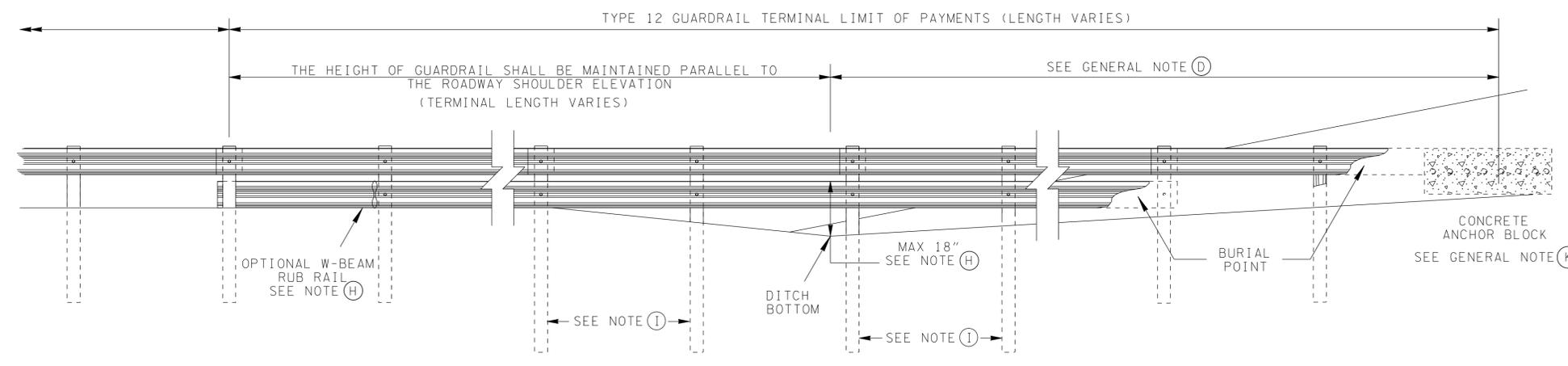
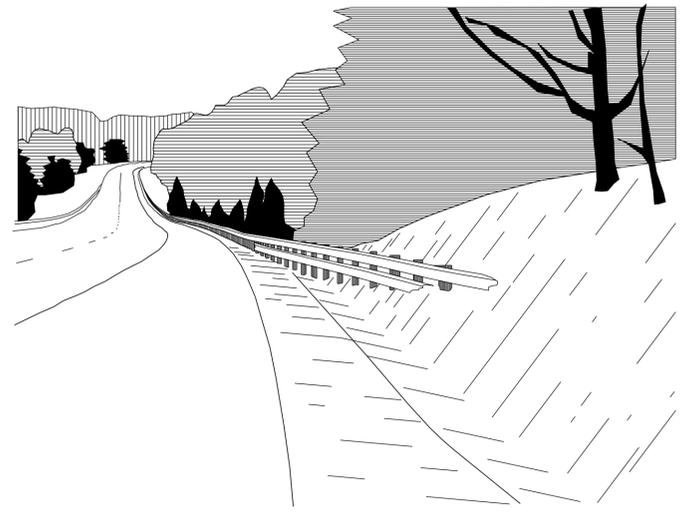
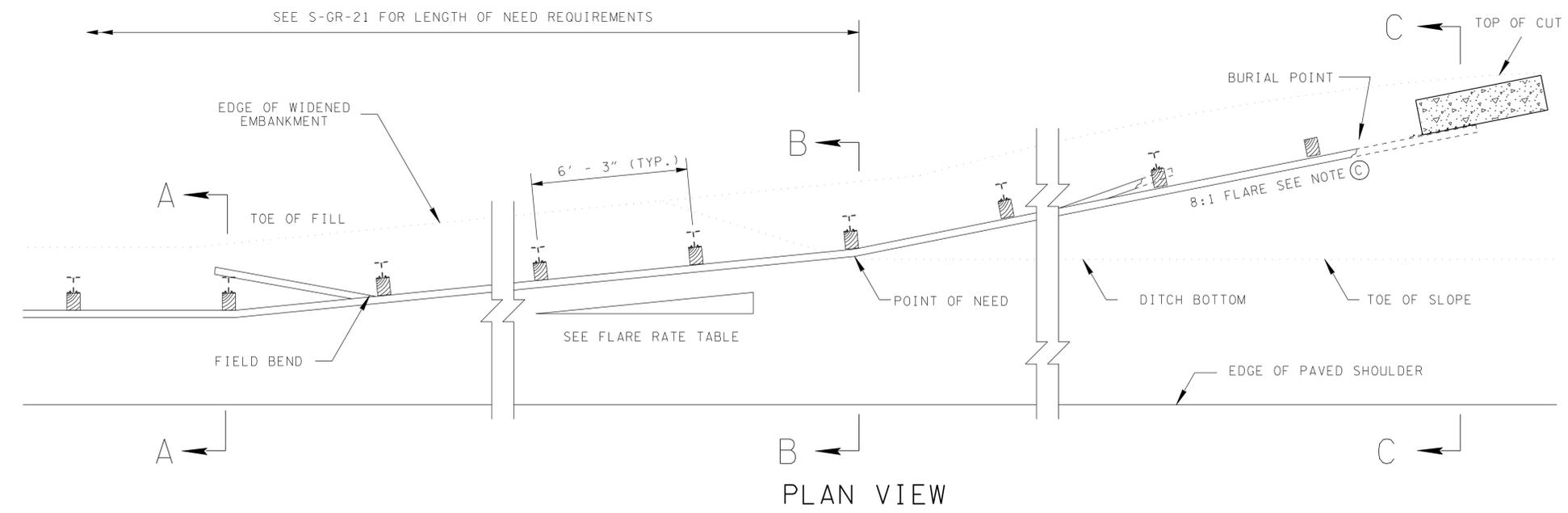
REV. 6-30-09: FORESLOPE NOTE CORRECTED, AND MODIFIED PLAN VIEW, ELEVATION VIEW, CHANGED GENERAL NOTES (C) AND (D).

REV. 7-27-06: ADDED REFERENCE TO S-GR-19C GUARDRAIL TERMINAL ANCHOR, BURIED IN BACKSLOPE, TYPE 12 ALTERNATE. ADDED GENERAL NOTE (E).

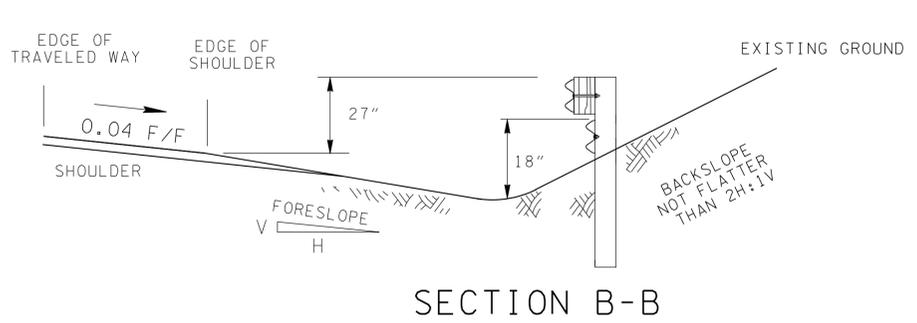
REV. 10-06-06: ADDED REFERENCE TO S-GR-19B ALTERNATE TYPE 12 GUARDRAIL TERMINAL.

REV. 5-27-04: PRODUCED AN ENLARGED MORE DETAILED VIEW FOR CONSTRUCTION OF TYPE 12 GUARDRAIL TERMINAL. SEE STANDARD DRAWING S-GR-21 FOR FURTHER DETAILS.

REV. 3-10-05: ELIMINATED REFERENCE TO 15 DEGREE EXIT ANGLE AND CHANGED GENERAL NOTE (A).

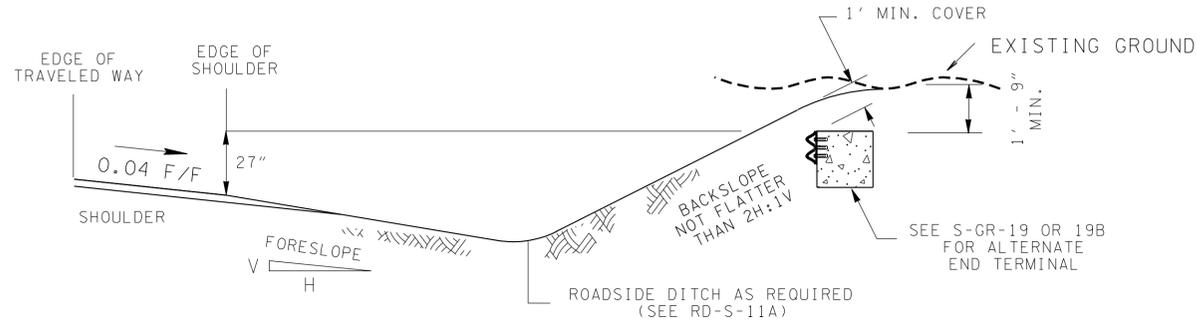


SECTION A-A



SECTION B-B

FORESLOPE THAN NOTE  
NOT STEEPER THAN 4:1  
10:1 IS RECOMMENDED  
SEE RD-S-11



SECTION C-C

FLARE RATE TABLE	
RATE	POSTED SPEED (mph)
15:1	70
14:1	60
11:1	50
8:1	40
7:1	30

- GENERAL NOTES**
- (A) THE TYPE 12 GUARDRAIL TERMINAL SHOULD BE USED ONLY WITH 2:1 BACK SLOPE. IF BACK SLOPE IS FLATTER, THE FULL DESIGN LENGTH OF NEED OF THE BARRIER MUST BE PROVIDED.
  - (B) THE FILL SLOPE MUST NOT BE ALLOWED TO SPILL UNDER THE RAIL THROUGHOUT THE LENGTH OF NEED BECAUSE THIS EFFECTIVELY DECREASES THE RAIL HEIGHT AND ALLOWED VEHICLE OVERRIDE RATHER THAN CONTAINMENT AND REDIRECTION.
  - (C) THE FLARE RATE OF THE GUARDRAIL MAY BE STEEPENED TO 8:1 AFTER CROSSING THE DITCH BOTTOM TO SHORTEN THE LENGTH OF THE TERMINAL.
  - (D) IF MIN. 1' COVER OVER THE CONCRETE BLOCK COULD NOT BE ACHIEVED THE ELEVATION OF GUARDRAIL MAY BE LOWERED 1:10 SLOPE RATE AFTER CROSSING THE DITCH BOTTOM.
  - (E) THE CONTRACTOR SHALL CONSTRUCT FOR SLOPES AS PART OF THE INITIAL GRADING OPERATIONS AS SHOWN ON THIS STANDARD DRAWING AFTER FIELD VERIFICATION OF HAZARD LOCATION AND ENGINEERS APPROVAL.
  - (F) FOR LENGTH OF NEED REQUIREMENTS SEE S-GR-21. FOR THE CONCRETE ANCHOR BLOCK DETAILS SEE S-GR-19.
  - (G) THE DESIGNER SHALL INCORPORATE THE DETAILS SHOWN ON THIS DRAWING IN THE RIGHT-OF-WAY AND CONSTRUCTION PLANS AS WELL AS THE ROADWAY CROSS-SECTION SHEETS.
  - (H) ADD W-BEAM RUB RAIL WHENEVER THE CLEARANCE FROM THE BOTTOM OF THE W-BEAM TO THE GROUND LINE EXCEEDS 18 INCHES.
  - (I) FOR THE RUB RAIL SECTION USE 8' LONG POSTS.
  - (J) UNIT PRICE FOR ITEM NO. 705-04.02 GUARDRAIL TERMINAL (TYPE 12) PER EACH SHALL INCLUDE COSTS OF FURNISHING AND INSTALLING ALL COMPONENTS AS SHOWN.
  - (K) SEE S-GR-19B FOR ALTERNATE.

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.