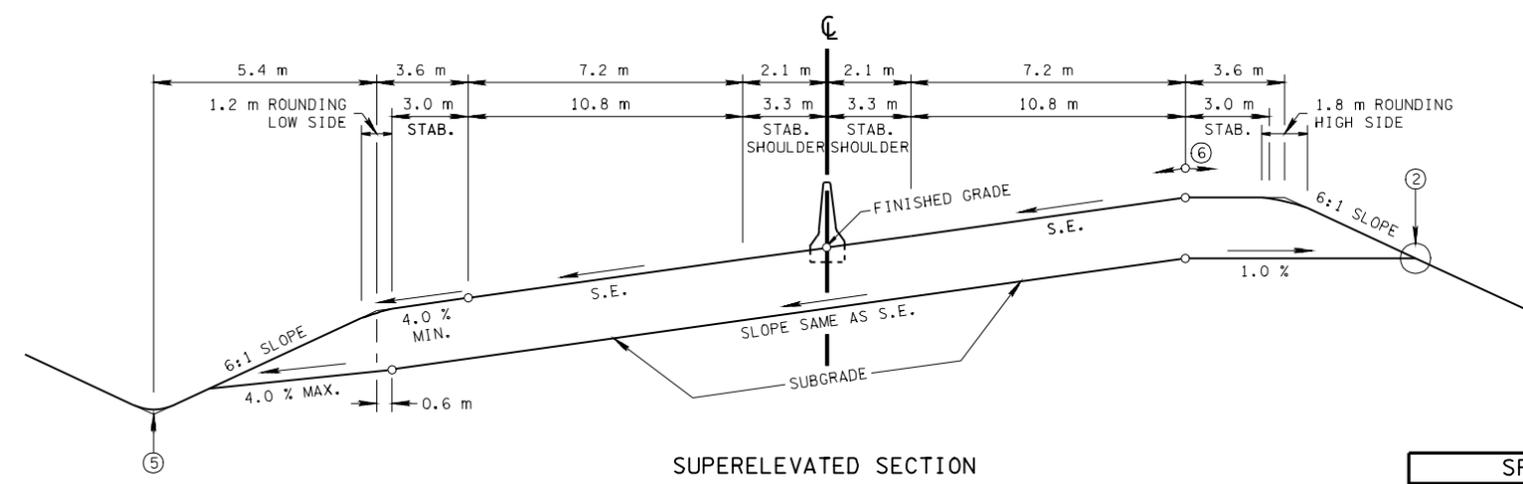
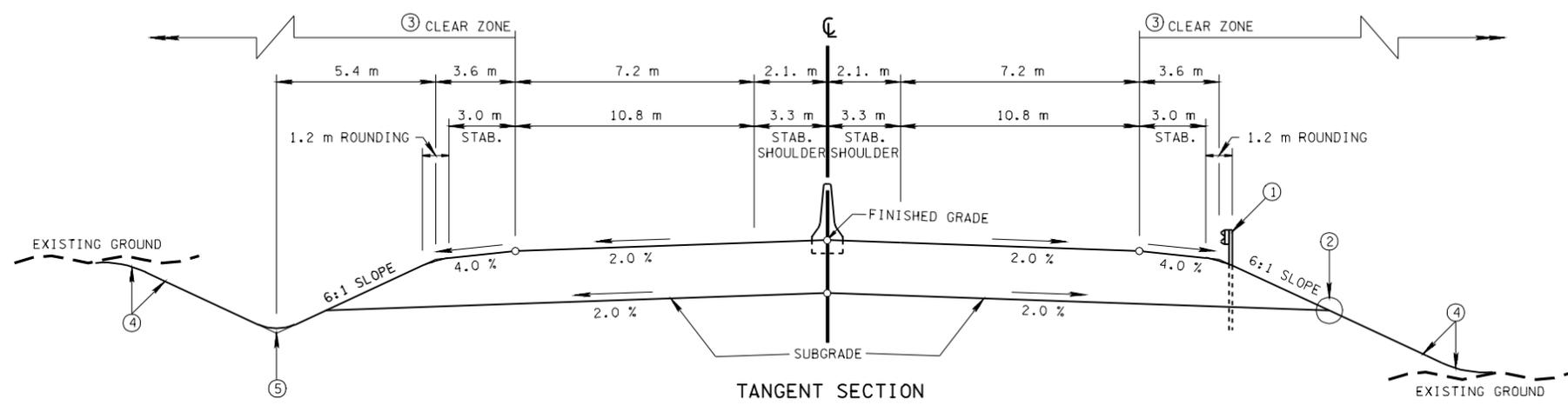
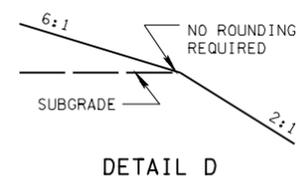
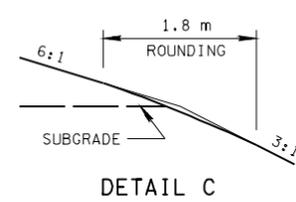
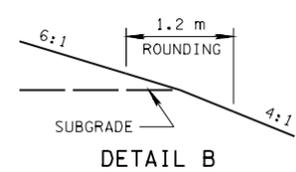
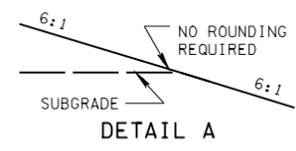


REV. 11-1-95: CHANGED TO METRIC.
 REV. 3-20-02: ADDED SPECIAL NOTE.
 REV. 3-31-03: CHANGED EFFECTIVE DATE IN SPECIAL NOTE.



SPECIAL NOTE
THIS DRAWING IS NOT TO BE UTILIZED FOR NEW DESIGN PROJECTS BEGUN AFTER OCTOBER 1, 2002.

- GENERAL NOTES**
- (A) FOR SPECIFIC CONDITIONS NOT COVERED ON THIS SHEET, REFERENCE SHOULD BE MADE TO "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS" 1994.
 - (B) PAGE NUMBERS REFERRED TO ON THIS DRAWING ARE FROM THE ABOVE REFERENCE.
 - (C) REFERENCE SHOULD ALSO BE MADE TO THE AASHTO "ROADSIDE DESIGN GUIDE".
 - (D) MINIMUM RIGHT-OF-WAY IS THAT REQUIRED TO ACCOMMODATE SLOPES. (4.5 m TO 6.0 m OUTSIDE THE SLOPE LINES IS DESIRABLE IN RURAL AREAS).
 - (E) ALL NEW AND REHABILITATED BRIDGES SHALL BE DESIGNED FOR MS-18 LOADING. THE MINIMUM CLEAR WIDTH FOR NEW AND REHABILITATED BRIDGES SHALL BE EQUAL TO THE FULL WIDTH OF THE APPROACH ROADWAY, CURB-TO-CURB OR FULL SHOULDER WIDTH AS APPLICABLE.
 - (F) BRIDGES TO REMAIN IN PLACE SHOULD HAVE ADEQUATE STRENGTH AND AT LEAST THE WIDTH OF THE TRAVELED WAY PLUS 0.6 m CLEARANCE ON EACH SIDE, BUT SHOULD BE CONSIDERED FOR ULTIMATE WIDENING OR REPLACEMENT IF THEY DO NOT PROVIDE AT LEAST 1.0 m CLEARANCE ON EACH SIDE OR ARE NOT CAPABLE OF MS-18 LOADINGS. AS AN INTERIM MEASURE, ALL BRIDGES THAT ARE LESS THAN FULL WIDTH SHOULD BE CONSIDERED FOR SPECIAL NARROW BRIDGE TREATMENTS SUCH AS SIGNING AND PAVEMENT MARKING.
 - (G) FOR INTERSTATE, SEE AASHTO'S "A POLICY ON DESIGN STANDARDS-INTERSTATE SYSTEM" JULY 1991.

- FOOTNOTES**
- ① SEE GUARDRAIL STANDARD DRAWINGS FOR TYPICAL GUARDRAIL PLACEMENT.
 - ② SEE DETAIL A, B, C, OR D ON THIS SHEET FOR ROUNDING.
 - ③ CLEAR ZONE WIDTHS SHALL BE DETERMINED FROM STANDARD DRAWING RDM-S-11.
 - ④ SEE STANDARD DRAWING RDM-S-11 FOR FILL AND CUT SLOPE TABLES, ROUNDING ON TOP OF CUT SLOPES AND TOE OF FILL SLOPES, AND SPECIAL ROCK CUT TREATMENT.
 - ⑤ SEE STANDARD DRAWING RDM-S-11A FOR ROUNDING OF ROADSIDE DITCH SLOPES.
 - ⑥ THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 7.0 %.
 - ⑦ "K" VALUE IS A COEFFICIENT BY WHICH THE ALGEBRAIC DIFFERENCE IN GRADE MAY BE MULTIPLIED TO DETERMINE THE LENGTH IN METERS OF THE VERTICAL CURVE.
 - ⑧ ANY LENGTH OF STOPPING SIGHT DISTANCE WITHIN THE RANGE OF VALUES ESTABLISHED ON PAGE 490, TABLE VII-3 IS ACCEPTABLE FOR A SPECIFIC SPEED. HOWEVER, VALUES APPROACHING OR EXCEEDING THE UPPER LIMIT OF THE RANGE SHOULD BE USED AS THE BASIS FOR DESIGN WHEREVER CONDITIONS PERMIT.
 - ⑨ IN URBAN AREAS, THE DESIGN SPEED SHALL BE AT LEAST 80 km/h.
 - ⑩ GRADES ONE PER CENT STEEPER THAN THE VALUE SHOWN MAY BE USED FOR EXTREME CASES IN URBAN AREAS WHERE DEVELOPMENT PRECLUDES THE USE OF FLATTER GRADES AND FOR ONE-WAY DOWNGRADES EXCEPT IN MOUNTAINOUS TERRAIN.

⑨ DESIGN SPEED (km/h)	
LEVEL TOPO	110
ROLLING TOPO	100
MOUNTAINOUS TOPO	80

DESIGN STANDARDS (FOR GIVEN DESIGN SPEED)	DESIGN SPEEDS (km/h)					
	80	90	100	110	120	
MINIMUM RADIUS (m) 4.0 % MAX. S.E.	280	375	490	635	870	
MINIMUM RADIUS (m) 6.0 % MAX. S.E.	250	335	435	560	755	
MINIMUM RADIUS (m) 8.0 % MAX. S.E.	230	305	395	500	655	
MINIMUM RADIUS (m) 10.0 % MAX. S.E.	210	275	360	455	595	
⑧ MINIMUM STOPPING SIGHT DISTANCE (m)	112.8-139.4	131.2-168.7	157.0-205.0	179.5-246.4	202.9-285.6	
⑦ MINIMUM "K" VALUE	CREST VERTICAL CURVE	32-49	43-71	62-105	80-151	-
	SAG VERTICAL CURVE	25-32	30-40	37-51	43-62	-
⑩ MAXIMUM GRADES (%) (PAGE 559; TABLE VIII-1)	LEVEL TOPO	4	4	3	3	3
	ROLLING TOPO	5	5	4	4	4
	MOUNTAINOUS TOPO	6	6	6	5	-
SUPERELEVATION	SEE STANDARD DRAWINGS RDM-SE-2 & RDM-SE-3					



ALL UNITS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DESIGN STANDARDS
FREEWAYS WITH
MEDIAN
BARRIER