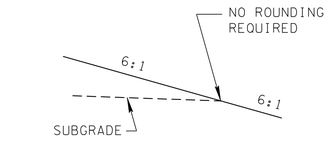
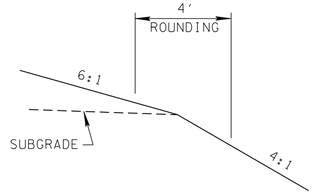
REV. 10-15-02: NEW SHEET.
REPLACES RD-TS-2A.



DETAIL A



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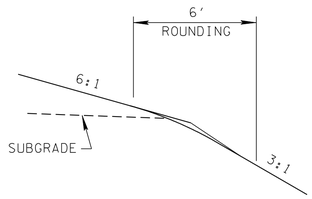

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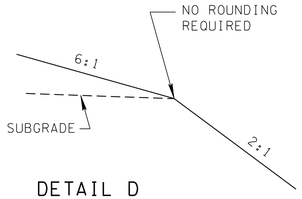
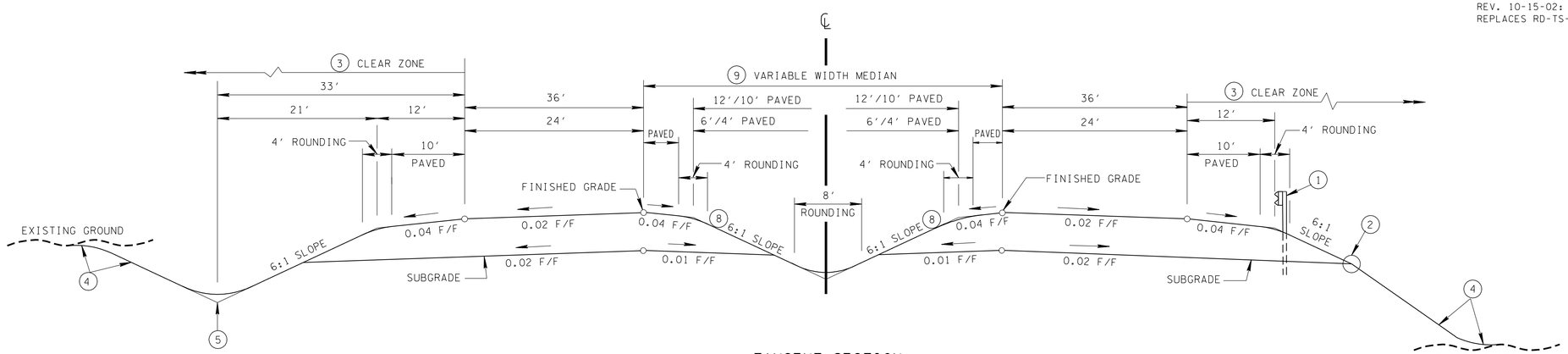
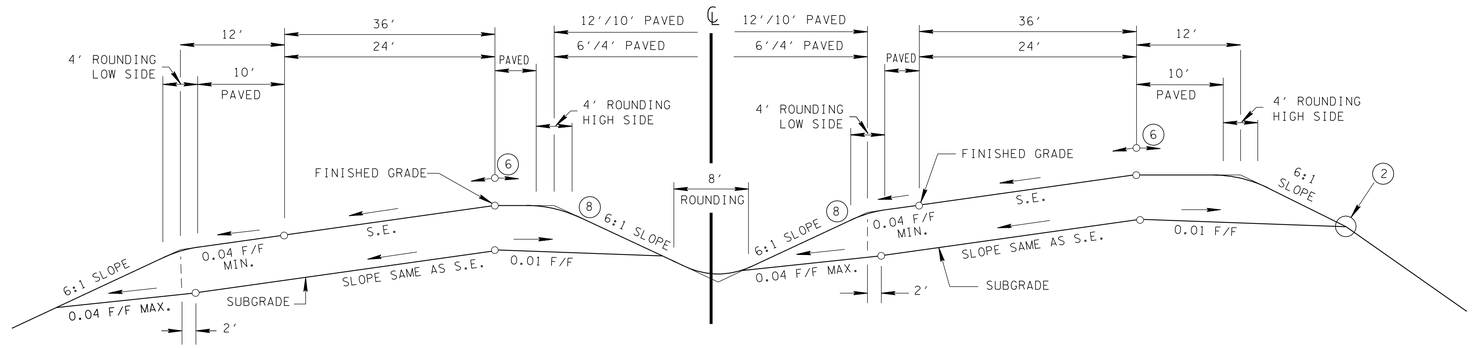


DETAIL D



TANGENT SECTION



SUPERELEVATED SECTION

TABLE I. MINIMUM DESIGN SPEEDS FOR RURAL COLLECTOR ROADS (SEE PAGE 426)	
TYPE OF TERRAIN	MINIMUM DESIGN SPEED (MPH)
LEVEL	60
ROLLING	50
MOUNTAINOUS	40

TABLE II. 4 AND 6 LANE COLLECTOR (7) ROADS AND STREETS-DESIGN STANDARDS

DESIGN STANDARDS (FOR GIVEN DESIGN SPEED)		DESIGN SPEEDS (MPH)							
		30	35	40	45	50	55	60	
MINIMUM RADIUS (FEET) 0.04 MAX. S.E.		300	420	565	730	930	1190	1505	SEE PAGE 145
MINIMUM RADIUS (FEET) 0.06 MAX. S.E.		275	380	510	660	835	1065	1340	
MINIMUM RADIUS (FEET) 0.08 MAX. S.E.		250	350	465	600	760	965	1205	
MAXIMUM RURAL GRADES %	LEVEL TERRAIN	7	7	7	7	6	6	5	SEE PAGE 427
	ROLLING TERRAIN	9	9	8	8	7	7	6	
	MOUNTAINOUS TERRAIN	10	10	10	10	9	9	8	
MAXIMUM URBAN GRADES %	LEVEL TERRAIN	9	9	9	8	7	7	6	SEE PAGE 436
	ROLLING TERRAIN	11	10	10	9	8	8	7	
	MOUNTAINOUS TERRAIN	12	12	12	11	10	10	9	
MINIMUM STOPPING SIGHT DISTANCE (FEET)		200	250	305	360	425	495	570	SEE PAGE 426
MINIMUM "K" VALUE	CREST VERTICAL CURVE	19	29	44	61	84	114	151	
	SAG VERTICAL CURVE	37	49	64	79	96	115	136	
SUPERELEVATION		SEE STANDARD DRAWINGS RDO1-SE-2 AND RDO1-SE-3							

FOOTNOTES

(1) SEE GUARDRAIL STANDARD DRAWINGS FOR TYPICAL GUARDRAIL PLACEMENT.

(2) SEE DETAILS A, B, C, OR D FOR ROUNDING.

(3) THE CLEAR ZONE WIDTH SHALL BE DETERMINED FROM STANDARD DRAWING RDO1-S-12 . SEE THE "ROADSIDE DESIGN GUIDE," AASHTO, 2002, FOR FURTHER INFORMATION ON CLEAR ZONES.

(4) SEE STANDARD DRAWINGS RDO1-S-11 AND RDO1-S-11B 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 RDO1-S-11A FOR ROUNDING OF ROADSIDE DITCH SLOPES.

(6) THE SLOPES OF THE SHOULDER AND ROADWAY PAVEMENT SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 0.07 FOOT PER FOOT.

(7) ALTHOUGH THE SELECTED DESIGN SPEED ESTABLISHES THE LIMITING VALUES OF CURVE RADIUS AND MINIMUM SIGHT DISTANCE THAT SHOULD BE USED IN DESIGN, THERE SHOULD BE NO RESTRICTION ON THE USE OF FLATTER HORIZONTAL CURVES OR GREATER SIGHT DISTANCES WHERE SUCH IMPROVEMENTS CAN BE PROVIDED AS A PART OF AN ECONOMICAL DESIGN (SEE PAGE 69).

(8) 6:1 SLOPES ARE DESIRABLE. SLOPES RANGING BETWEEN 6:1 AND 4:1 MAY BE USED UNDER SPECIFIC ADVERSE CONDITIONS SUCH AS TO FACILITATE DRAINAGE OR TO ESTABLISH A LEFT TURN LANE.

(9) 48 FEET MINIMUM. 64 FEET MINIMUM FOR A SIX LANE SECTION.

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," AASHTO, 2001.

(B) PAGE NUMBERS REFERRED TO ON THIS DRAWING ARE FROM "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS," AASHTO, 2001, UNLESS OTHERWISE NOTED.

(C) REFERENCE SHOULD ALSO BE MADE TO THE AASHTO "ROADSIDE DESIGN GUIDE," AASHTO, 2002.

(D) DESIRABLE RIGHT-OF-WAY IS SLOPE LINES PLUS FIFTEEN FEET.

(E) IF NO ABOVE GROUND UTILITIES ARE INVOLVED, MINIMUM RIGHT-OF-WAY SHALL BE TRAVELED WAY PLUS CLEAR ZONE.

(F) IF ABOVE GROUND UTILITIES ARE INVOLVED, MINIMUM RIGHT-OF-WAY SHALL BE SUFFICIENT TO ACCOMMODATE THE UTILITIES OUTSIDE THE CLEAR ZONE.

(G) ALL NEW AND REHABILITATED BRIDGES SHALL BE DESIGNED FOR HS-20 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.

(H) FOR EXISTING BRIDGES TO REMAIN IN PLACE, THEY SHOULD HAVE ADEQUATE STRUCTURAL STRENGTH AND A WIDTH AT LEAST EQUAL TO THE WIDTH OF THE TRAVELED WAY PLUS 2 FEET CLEARANCE ON EACH SIDE. BRIDGES SHOULD BE CONSIDERED FOR ULTIMATE WIDENING OR REPLACEMENT IF THEY DO NOT PROVIDE AT LEAST 3 FEET CLEARANCE ON EACH SIDE OR ARE NOT CAPABLE OF HS-20 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.

(I) FOR ADDITIONAL URBAN DESIGN AND CRITERIA, SEE PAGES 433-444.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

DESIGN STANDARDS 4 AND 6 LANE COLLECTOR HIGHWAYS WITH DEPRESSED MEDIANS

10-15-02 RDO1-TS-2A