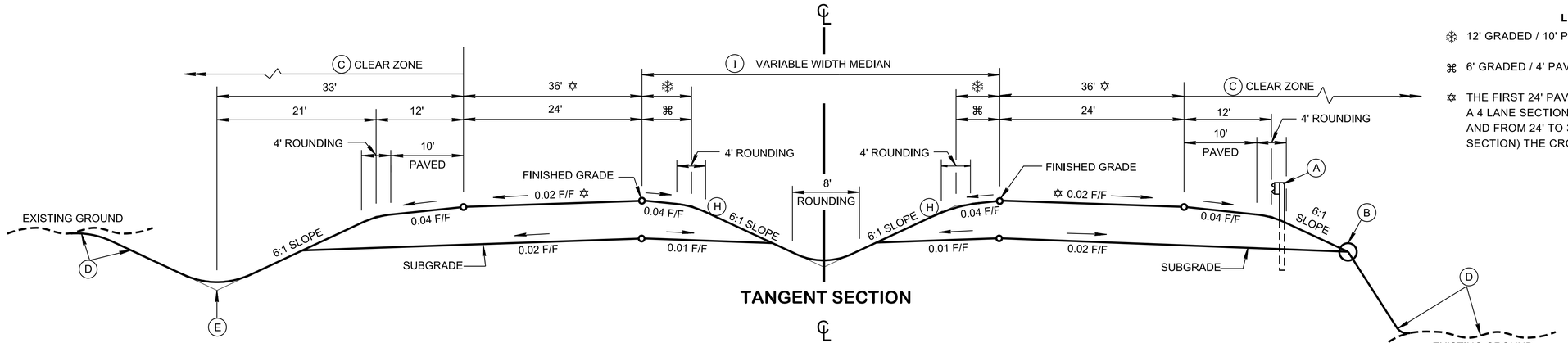
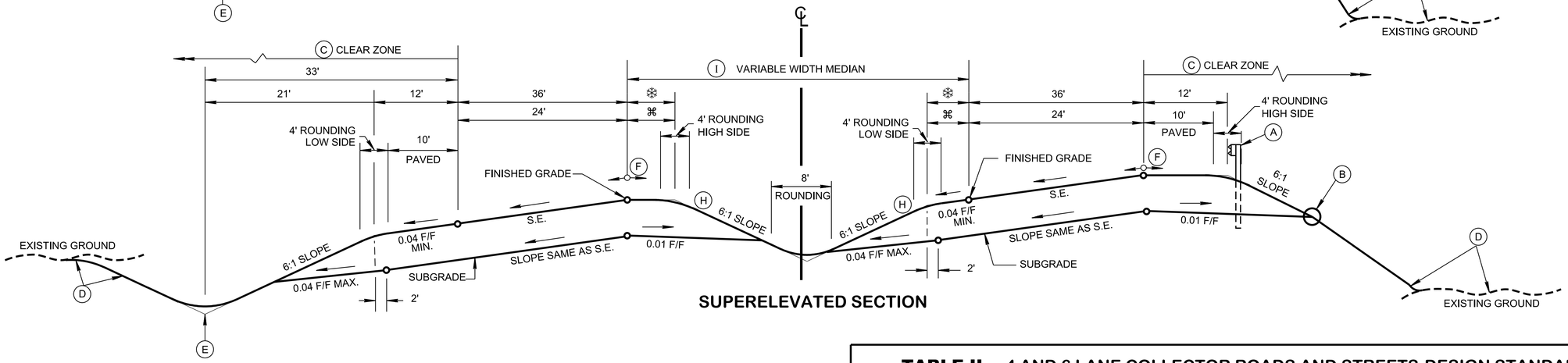


TANGENT SECTION



SUPERELEVATED SECTION

LEGEND

❄ 12' GRADED / 10' PAVED SHOULDER

⌘ 6' GRADED / 4' PAVED SHOULDER

✡ THE FIRST 24' PAVEMENT (FIRST & SECOND LANE ON A 4 LANE SECTION) THE CROSS-SLOPE IS -0.020 FT/FT AND FROM 24' TO 36' (THE THIRD LANE ON A 6 LANE SECTION) THE CROSS-SLOPE IS -0.025 FT/FT.

TABLE I
MINIMUM DESIGN SPEEDS FOR RURAL COLLECTOR ROADS (SEE PAGE 6-2)

TYPE OF TERRAIN	DESIGN SPEED (MPH)
LEVEL	60
ROLLING	50
MOUNTAINOUS	40

GENERAL NOTES

1. FOR SPECIFIC CONDITIONS NOT COVERED ON THIS SHEET, REFERENCE SHOULD BE MADE TO "A POLICY OF GEOMETRIC DESIGN OF HIGHWAYS AND STREETS" AASHTO, 2011 (GREEN BOOK).
2. PAGE NUMBERS REFERRED TO ON THIS DRAWING ARE FROM "A POLICY OF GEOMETRIC DESIGN OF HIGHWAYS AND STREETS" AASHTO, 2011 (GREEN BOOK), UNLESS OTHERWISE NOTED.
3. REFERENCE SHOULD ALSO BE MADE TO THE AASHTO "ROADSIDE DESIGN GUIDE," AASHTO, 2011.
4. DESIRABLE RIGHT-OF-WAY IS SLOPE LINES PLUS FIFTEEN FEET.
5. IF NO ABOVE GROUND UTILITIES ARE INVOLVED, MINIMUM RIGHT-OF-WAY SHALL BE TRAVELED WAY PLUS CLEAR ZONE.
6. IF ABOVE GROUND UTILITIES ARE INVOLVED, MINIMUM RIGHT-OF-WAY SHALL BE SUFFICIENT TO ACCOMMODATE THE UTILITIES OUTSIDE THE CLEAR ZONE.
7. ALL NEW AND REHABILITATED BRIDGES SHALL BE DESIGNED FOR HL-93 DESIGN LIVE LOADS. 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.
8. 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 DO NOT PROVIDE HL-93 LIVE LOADING CAPACITY. 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.
9. FOR ADDITIONAL URBAN DESIGN GUIDANCE AND CRITERIA, SEE PAGES 6-11 THROUGH 6-20.

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

DESIGN STANDARDS (FOR GIVEN DESIGN SPEED)		DESIGN SPEEDS (MPH) 30	35	40	45	50	55	60	
MINIMUM RADIUS (FEET) 0.04 MAX. S.E.		250	371	533	711	926	1190	1500	SEE PAGE 3-32
MINIMUM RADIUS (FEET) 0.06 MAX. S.E.		231	340	485	643	833	1060	1330	
MINIMUM RADIUS (FEET) 0.08 MAX. S.E.		214	314	444	587	758	960	1200	
MAXIMUM RURAL GRADES %	LEVEL TERRAIN	7	7	7	7	6	6	5	SEE PAGE 6-3
	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 6-12
	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	
MINIMUM "K" VALUE	CREST VERTICAL CURVE	19	29	44	61	84	114	151	SEE PAGE 6-4
	SAG VERTICAL CURVE	37	49	64	79	96	115	136	
FOR SUPERELEVATION SEE STANDARD DRAWINGS RD11-SE SERIES									

DESIGN NOTES

(A) SEE STANDARD DRAWING S-PL-6 FOR TYPICAL GUARDRAIL PLACEMENT.

(B) SEE STANDARD DRAWING RD11-S-11 FOR ROUNDING DETAILS.

(C) SEE STANDARD DRAWING S-CZ-1 FOR CLEAR ZONE CRITERIA. SEE THE "ROADSIDE DESIGN GUIDE", AASHTO, 2011, FOR FURTHER INFORMATION REGARDING CLEAR ZONES.

(D) SEE STANDARD DRAWING RD11-S-11 FOR FILL AND CUT SLOPE TABLES, ROUNDING ON TOP OF CUT SLOPES AND TOE OF FILL SLOPES, AND SPECIAL ROCK CUT TREATMENT.

(E) SEE STANDARD DRAWING RD11-S-11A FOR ROUNDING OF ROADSIDE DITCH SLOPES.

(F) THE SLOPE OF THE SHOULDER AND THE ROADWAY PAVEMENT SHOULD NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 7%.

(G) 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 2-55).

(H) 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.

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

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

DESIGN STANDARDS FOR COLLECTOR HIGHWAYS WITH DEPRESSED MEDIAN (4 AND 6 LANE)

01-01-2019 | RD11-TS-2A

NOT TO SCALE