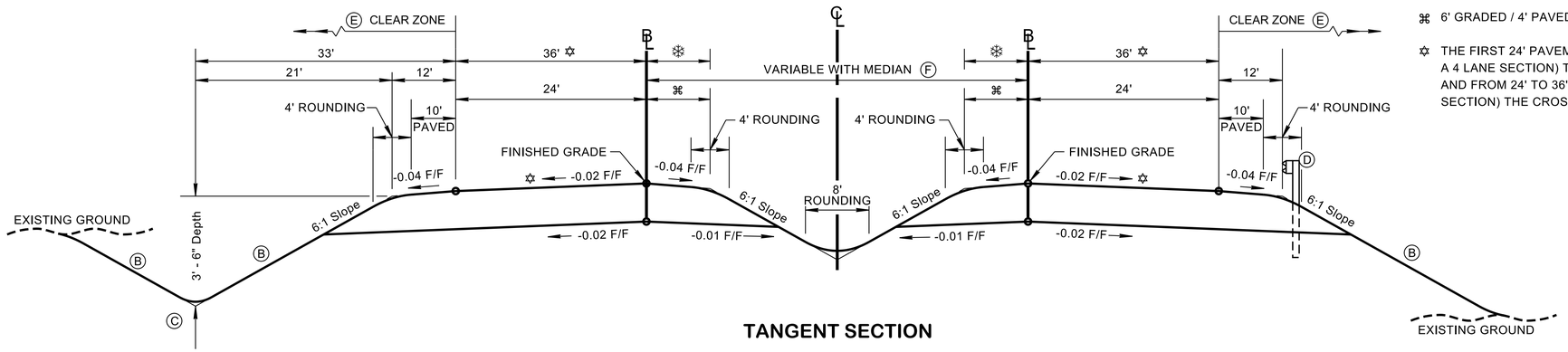
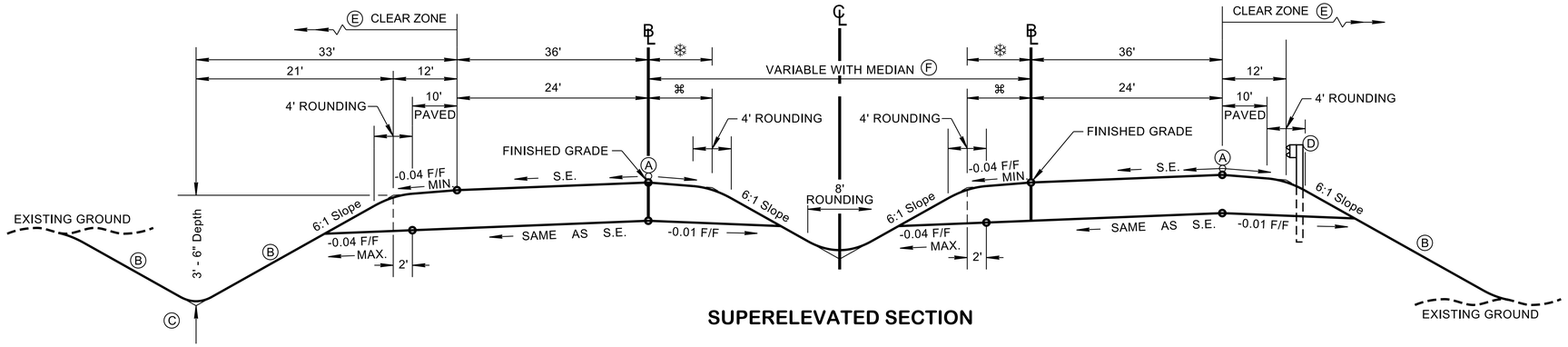
REV. 06-28-19: FIXED MEDIAN DIMENSION LOCATION.

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.



TANGENT SECTION



SUPERELEVATED SECTION

TABLE I
DESIGN SPEEDS FOR FREEWAYS (SEE PAGES 8-1 & 8-2)

LOCATION	MINIMUM DESIGN SPEED (MPH)
URBAN	50-60
RURAL	70
MOUNTAINOUS	50-60

TABLE II FREEWAY - DESIGN STANDARDS (H)

DESIGN STANDARDS (FOR GIVEN DESIGN SPEED)		DESIGN SPEEDS (MPH) 50	55	60	65	70	
MINIMUM RADIUS (FT.) 0.08 MAX. S.E.		758	960	1200	1480	1810	SEE PAGE 3-32
MINIMUM STOPPING SIGHT DISTANCE (FT.)		425	495	570	645	730	SEE PAGE 3-4
MINIMUM "K" VALUE	CREST VERTICAL CURVE	84	114	151	193	247	SEE PAGE 3-155
	SAG VERTICAL CURVE	96	115	136	157	181	SEE PAGE 3-161
MAXIMUM GRADES % (G)	LEVEL TERRAIN	4	4	3	3	3	SEE PAGE 8-4
	ROLLING TERRAIN	5	5	4	4	4	
	MOUNTAINOUS TERRAIN	6	6	6	5	5	
FOR SUPERELEVATION SEE STANDARD DRAWINGS RD11-SE SERIES							

DESIGN NOTES

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

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

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

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

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

(F) MINIMUM MEDIAN WIDTH IS TO BE 48 FEET WITH 52 FEET PREFERRED WHEN USING 6 FEET WIDE INSIDE SHOULDERS. MINIMUM MEDIAN WIDTH IS TO BE 64 FEET WITH 68 FEET PREFERRED WHEN USING 12 FOOT WIDE INSIDE SHOULDERS.

(G) GRADES ONE PERCENT STEEPER THAN THE VALUE SHOWN MAY BE USED FOR EXTREME CASES IN URBAN AREAS WITH RIGHT-OF-WAY CONSTRAINTS OR WHERE NEEDED IN MOUNTAINOUS TERRAIN.

(H) 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).

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 TWENTY FEET.
5. THE DESIGN OF BRIDGES, CULVERTS, WALLS, TUNNELS AND OTHER STRUCTURES SHALL BE IN ACCORDANCE WITH THE CURRENT AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. STRUCTURES CARRYING FREEWAY TRAFFIC SHOULD BE THE HL-93 CALIBRATED LIVE LOAD DESIGNATION.
6. 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, FOR NARROW BRIDGES, SPECIAL SIGNING AND DELINEATION TREATMENTS MAY BE CONSIDERED.
7. FOR INTERSTATES, SEE THE CURRENT EDITION OF AASHTO'S "A POLICY ON DESIGN STANDARDS-INTERSTATE SYSTEM, 2016."

NOT TO SCALE

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED

STATE OF TENNESSEE
STANDARD DRAWING
DEPARTMENT OF TRANSPORTATION

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

01-01-2019 | RD11-TS-5