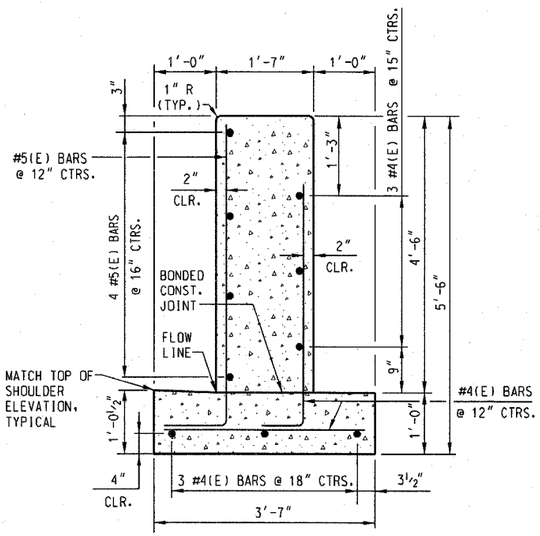
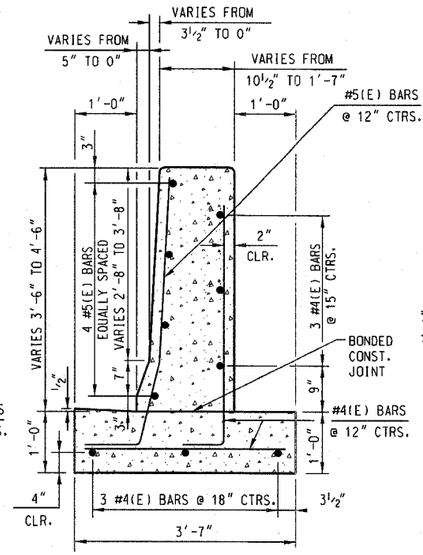
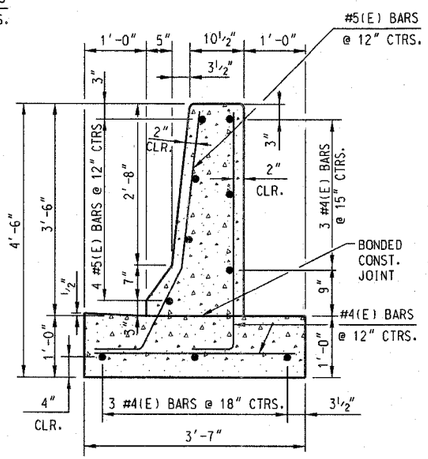


SECTION C-C

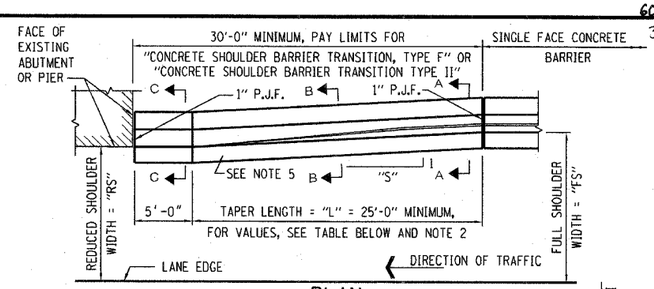


SECTION B-B

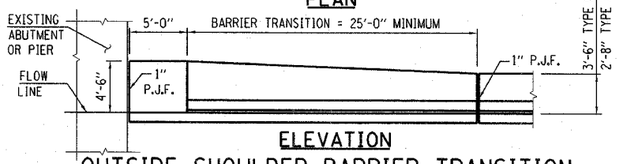


SECTION A-A

OUTSIDE SHOULDER BARRIER TRANSITION, TYPE F



PLAN

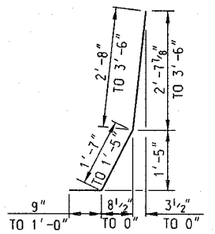


ELEVATION

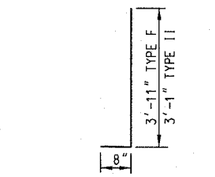
OUTSIDE SHOULDER BARRIER TRANSITION

TABLE FOR SHOULDER BARRIER TAPER LENGTH

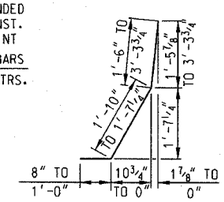
DESIGN SPEED MPH	REDUCED SHLDR. WIDTH, SEE PLAN "RS" (FT.)	TAPER RATE "S":1	TAPER LENGTH= "L" (SEE NOTE 4)
70	10' MINIMUM LESS THAN 10'	24:1 30:1	24 x (FS - RS) 30 x (FS - RS)
60	8' MINIMUM LESS THAN 8'	24:1 26:1	24 x (FS - RS) 26 x (FS - RS)
50	6.5' MINIMUM LESS THAN 6.5'	21:1 21:1	21 x (FS - RS) 21 x (FS - RS)



TYPE F BARRIER BARS



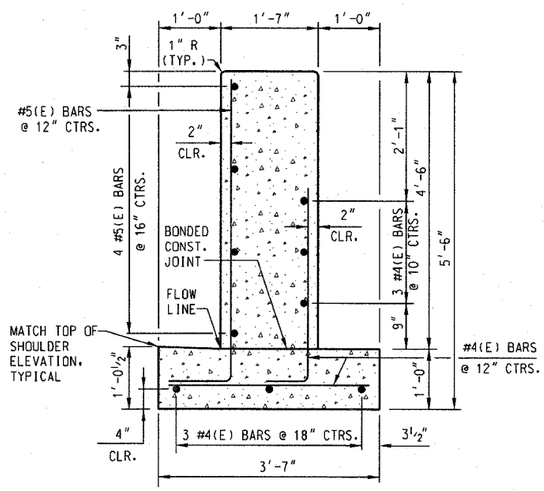
TYPES F & II BARRIER BARS



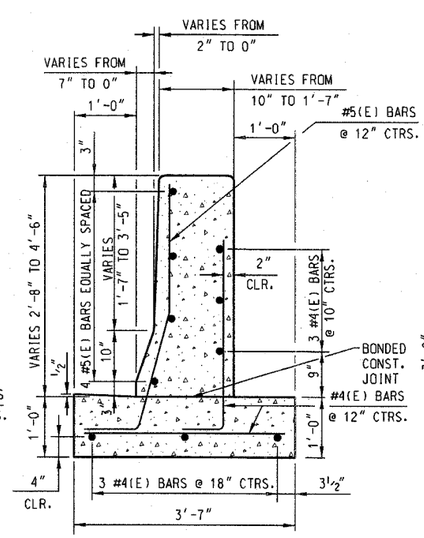
TYPE II BARRIER BARS

NOTES:

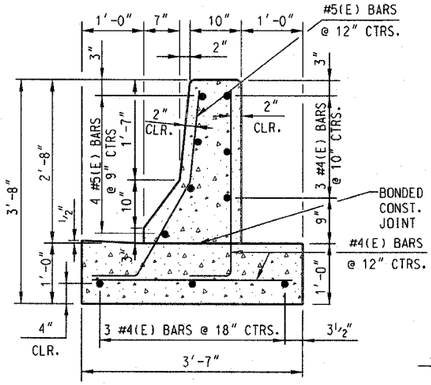
1. THE CONTRACT UNIT PRICE PER LINEAL FOOT FOR "CONCRETE SHOULDER BARRIER TRANSITION, TYPE F" AND FOR "CONCRETE SHOULDER BARRIER TRANSITION, TYPE II" SHALL BE PAID FOR THE OUTSIDE SHOULDER BARRIER TRANSITION, TYPE F OR TYPE II SHOWN, RESPECTIVELY, IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS.
2. TAPER LENGTH REQUIRED FOR THE WIDTH TRANSITION WILL BE 25'-0" MINIMUM. INCREASE TAPER RATE "S", AS REQUIRED TO OBTAIN THE LENGTH OF 25'-0".
3. TOP SHOULDER EDGE OF BARRIER BASE GUTTER SHALL MATCH THE TOP OF SHOULDER ELEVATION.
4. 1" DEEP CONTRACTION JOINTS SHALL BE CONSTRUCTED IN THE BARRIER WALL ONLY (NOT IN THE BARRIER BASE). THE LOCATION OF THE CONTRACTION JOINT SHALL MATCH CRACKS THAT HAVE ALREADY DEVELOPED IN THE BASE. CONTRACTION JOINTS SHALL ALSO BE CONSTRUCTED AT BOTH SIDES OF ALL DRAINAGE STRUCTURES. MAXIMUM JOINT SPACING SHALL BE 30 FEET.
5. THE FORMING OF CONTRACTION JOINTS SHALL BE DONE WITH AN APPROVED FINISHING TOOL AT THE DISCRETION OF THE ENGINEER SUBJECT TO THE SATISFACTORY CONTROL OF CRACKING. THE SAWING OF CONTRACTION JOINTS IN THE BARRIER WALL SHALL NOT BE PERMITTED.
6. REINFORCING BARS SHALL MEET THE REQUIREMENTS OF AASHTO M31 (ASTM A615), GRADE 60, AND SHALL CONFORM TO SECTION 508 OF THE STANDARD SPECIFICATIONS.
7. REINFORCING BARS DESIGNATED "(E)" SHALL BE EPOXY COATED.
8. REINFORCEMENT BENDING DETAILS SHALL BE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI)315, LATEST EDITION.
9. REINFORCEMENT BAR BENDING DIMENSIONS ARE OUT TO OUT.
10. TYPE F BARRIER SHALL BE USED WITH ALL NEW CONSTRUCTION, OR RECONSTRUCTION OF EXISTING BARRIERS.



SECTION C-C



SECTION B-B



SECTION A-A

OUTSIDE SHOULDER BARRIER TRANSITION, TYPE II (NOT FOR NEW CONSTRUCTION)

DOWEL BAR BENDING DIAGRAMS

APPROVED Jeff Daley CHIEF ENGINEER DATE 1-1-2007

DATE	REVISIONS

Illinois Tollway
Open Roads for a Faster Future

CONCRETE SHOULDER BARRIER TRANSITION

STANDARD C4-00