

RAMP E_MANN_C

Curve Data

Curve E_MANN_C-1
 P.I. Station 0+59.62 N 1,895,373.4814 E 1,107,209.1470
 Delta = 19° 16' 37.51" (RT)
 Degree = 16° 19' 16.68"
 Tangent = 59.6185
 Length = 118.1100
 Radius = 351.0491
 External = 5.0265
 Long Chord = 117.5537
 Mid. Ord. = 4.9555
 P.C. Station 0+00.00 N 1,895,369.0843 E 1,107,149.6909
 P.T. Station 1+18.11 N 1,895,358.0034 E 1,107,266.7212
 C.C. N 1,895,018.9913 E 1,107,175.5826
 Back = N 85° 46' 13.07" E
 Ahead = S 74° 57' 09.42" E
 Chord Bear = S 84° 35' 28.18" E

Curve Data

Curve E_MANN_C-2
 P.I. Station 1+51.31 N 1,895,349.3852 E 1,107,298.7788
 Delta = 21° 25' 08.33" (RT)
 Degree = 32° 38' 33.42"
 Tangent = 33.1958
 Length = 65.6166
 Radius = 175.5245
 External = 3.1115
 Long Chord = 65.2352
 Mid. Ord. = 3.0573
 P.C. Station 1+18.11 N 1,895,358.0034 E 1,107,266.7212
 P.T. Station 1+83.73 N 1,895,329.6553 E 1,107,325.4751
 C.C. N 1,895,188.4974 E 1,107,221.1519
 Back = S 74° 57' 09.42" E
 Ahead = S 53° 32' 01.09" E
 Chord Bear = S 64° 14' 35.25" E

Curve Data

Curve E_MANN_C-3
 P.I. Station 2+94.09 N 1,895,264.0634 E 1,107,414.2262
 Delta = 96° 32' 33.91" (RT)
 Degree = 58° 12' 45.44"
 Tangent = 110.3588
 Length = 165.8451
 Radius = 98.4250
 External = 49.4484
 Long Chord = 146.9103
 Mid. Ord. = 32.9130
 P.C. Station 1+83.73 N 1,895,329.6553 E 1,107,325.4751
 P.T. Station 3+49.57 N 1,895,183.3641 E 1,107,338.9489
 C.C. N 1,895,250.5013 E 1,107,266.9761
 Back = S 53° 32' 01.09" E
 Ahead = S 43° 00' 32.82" W
 Chord Bear = S 5° 15' 44.14" E

Curve Data

Curve E_MANN_C-4
 P.I. Station 5+40.90 N 1,895,043.4578 E 1,107,208.4425
 Delta = 88° 22' 10.00" (RT)
 Degree = 29° 06' 22.76"
 Tangent = 191.3261
 Length = 303.6091
 Radius = 196.8500
 External = 77.6598
 Long Chord = 274.3986
 Mid. Ord. = 55.6895
 P.C. Station 3+49.57 N 1,895,183.3641 E 1,107,338.9489
 P.T. Station 6+53.18 N 1,895,169.9303 E 1,107,064.8794
 C.C. N 1,895,317.6384 E 1,107,195.0033
 Back = S 43° 00' 32.82" W
 Ahead = N 48° 37' 17.18" W
 Chord Bear = S 87° 11' 37.82" W

RAMP E_MANN_C

Curve Data

Curve E_MANN_C-5
 P.I. Station 6+85.75 N 1,895,191.4604 E 1,107,040.4399
 Delta = 27° 52' 36.49" (RT)
 Degree = 43° 39' 33.97"
 Tangent = 32.5704
 Length = 63.8506
 Radius = 131.2334
 External = 3.9814
 Long Chord = 63.2227
 Mid. Ord. = 3.8641
 P.C. Station 6+53.18 N 1,895,169.9303 E 1,107,064.8794
 P.T. Station 7+17.03 N 1,895,221.9191 E 1,107,028.9034
 C.C. N 1,895,268.4025 E 1,107,151.6287
 Back = N 48° 37' 17.18" W
 Ahead = N 20° 44' 40.69" W
 Chord Bear = N 34° 40' 58.94" W

Curve Data

Curve E_MANN_C-6
 P.I. Station 7+60.06 N 1,895,262.1596 E 1,107,013.6619
 Delta = 18° 37' 16.06" (RT)
 Degree = 21° 49' 47.12"
 Tangent = 43.0302
 Length = 85.3016
 Radius = 262.4664
 External = 3.5039
 Long Chord = 84.9267
 Mid. Ord. = 3.4578
 P.C. Station 7+17.03 N 1,895,221.9191 E 1,107,028.9034
 P.T. Station 8+02.33 N 1,895,305.1603 E 1,107,012.0675
 C.C. N 1,895,314.8857 E 1,107,274.3537
 Back = N 20° 44' 40.69" W
 Ahead = N 2° 07' 24.63" W
 Chord Bear = N 11° 26' 02.66" W

RAMP E_MANN_D

Curve Data

Curve E_MANN_D-1
 P.I. Station 1+05.43 N 1,895,420.4182 E 1,107,600.0502
 Delta = 39° 42' 18.74" (LT)
 Degree = 19° 37' 18.63"
 Tangent = 105.4294
 Length = 202.3521
 Radius = 292.0000
 External = 18.4503
 Long Chord = 198.3273
 Mid. Ord. = 17.3537
 P.C. Station 0+00.00 N 1,895,446.5035 E 1,107,702.2017
 P.T. Station 2+02.35 N 1,895,335.0916 E 1,107,538.1251
 C.C. N 1,895,163.5822 E 1,107,774.4481
 Back = S 75° 40' 30.54" W
 Ahead = S 35° 58' 11.79" W
 Chord Bear = S 55° 49' 21.17" W

Course from PT E_MANN_D-1 to PC E_MANN_D-2 S 35° 58' 11.79" W Dist 197.0383

Curve Data

Curve E_MANN_D-2
 P.I. Station 5+13.46 N 1,895,083.3078 E 1,107,355.3953
 Delta = 42° 40' 28.45" (RT)
 Degree = 19° 37' 18.63"
 Tangent = 114.0650
 Length = 217.4850
 Radius = 292.0000
 External = 21.4882
 Long Chord = 212.4927
 Mid. Ord. = 20.0152
 P.C. Station 3+99.39 N 1,895,175.6235 E 1,107,422.3926
 P.T. Station 6+16.88 N 1,895,060.8489 E 1,107,243.5632
 C.C. N 1,895,347.1328 E 1,107,186.0696
 Back = S 35° 58' 11.79" W
 Ahead = S 78° 38' 40.25" W
 Chord Bear = S 57° 18' 26.02" W

Course from PT E_MANN_D-2 to PC E_MANN_D-3 S 78° 38' 40.25" W Dist 121.3828

Curve Data

Curve E_MANN_D-3
 P.I. Station 7+83.42 N 1,895,028.0572 E 1,107,080.2800
 Delta = 25° 50' 30.97" (LT)
 Degree = 29° 06' 22.73"
 Tangent = 45.1605
 Length = 88.7846
 Radius = 196.8500
 External = 5.1138
 Long Chord = 88.0340
 Mid. Ord. = 4.9844
 P.C. Station 7+38.26 N 1,895,036.9491 E 1,107,124.5565
 P.T. Station 8+27.04 N 1,895,000.7549 E 1,107,044.3071
 C.C. N 1,894,843.9526 E 1,107,163.3154
 Back = S 78° 38' 40.25" W
 Ahead = S 52° 48' 09.27" W
 Chord Bear = S 65° 43' 24.76" W

FILE NAME =	DESIGNED - AJP	REVISED -	benesch	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ALIGNMENT PLAN I-290 RAMP CURVE DATA				F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
...\\explr\ABC_C2_290_R_Data\exel\gr_25.dgn	DRAWN - TMB	REVISED -			290	(30311, ETC., 3838RS-5	COOK	298	52				
USER NAME = tblank	CHECKED - JMM	REVISED -			CONTRACT NO. 60G52								
PLOT DATE = 11/12/2009	DATE = 10/16/09	REVISED -			SCALE: N.T.S.	SHEET NO. 25 OF 36 SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT				