

**FRONTAGE RD A / MERGE LN**

**FRONTAGE RD B / MERGE LN**

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Curve Data

Curve E\_FRONT\_A-1  
 P.I. Station = 485+12.61 N 1,896,397.7157 E 1,099,376.9553  
 Delta = 15° 56' 01.53" (RT)  
 Degree = 3° 00' 39.59"  
 Tangent = 266.3111  
 Length = 529.1852  
 Radius = 1,902.8831  
 External = 18.5449  
 Long Chord = 527.4816  
 Mid. Ord. = 18.3660  
 P.C. Station = 482+46.30 N 1,896,248.4745 E 1,099,156.3907  
 P.T. Station = 487+75.49 N 1,896,480.6723 E 1,099,630.0162  
 C.C. = N 1,894,672.4665 E 1,100,222.7691  
 Back = N 55° 54' 59.18" E  
 Ahead = N 71° 51' 00.71" E  
 Chord Bear = N 63° 52' 59.94" E

Curve Data

Curve E\_FRONT\_A-2  
 P.I. Station = 489+92.44 N 1,896,548.2530 E 1,099,836.1728  
 Delta = 17° 17' 21.43" (RT)  
 Degree = 4° 00' 54.44"  
 Tangent = 216.9509  
 Length = 430.6044  
 Radius = 1,427.0000  
 External = 16.3976  
 Long Chord = 428.9725  
 Mid. Ord. = 16.2113  
 P.C. Station = 487+75.49 N 1,896,480.6723 E 1,099,630.0162  
 P.T. Station = 492+06.09 N 1,896,551.5112 E 1,100,053.0992  
 C.C. = N 1,895,124.6722 E 1,100,074.5303  
 Back = N 71° 51' 00.71" E  
 Ahead = N 89° 08' 22.14" E  
 Chord Bear = N 80° 29' 41.43" E

Course from PT E\_FRONT\_A-2 to PC E\_FRONT\_A-3 N 89° 08' 22.14" E Dist 244.8538

Curve Data

Curve E\_FRONT\_A-3  
 P.I. Station = 496+26.39 N 1,896,557.8234 E 1,100,473.3503  
 Delta = 14° 11' 08.10" (LT)  
 Degree = 4° 03' 48.71"  
 Tangent = 175.4447  
 Length = 349.0951  
 Radius = 1,410.0000  
 External = 10.8733  
 Long Chord = 348.2041  
 Mid. Ord. = 10.7901  
 P.C. Station = 494+50.94 N 1,896,555.1885 E 1,100,297.9254  
 P.T. Station = 498+00.04 N 1,896,603.3682 E 1,100,642.7802  
 C.C. = N 1,897,965.0295 E 1,100,276.7497  
 Back = N 89° 08' 22.14" E  
 Ahead = N 74° 57' 14.04" E  
 Chord Bear = N 82° 02' 48.09" E

Course from PT E\_FRONT\_A-3 to PC E\_FRONT\_A-4 N 74° 57' 14.04" E Dist 308.2017

Curve Data

Curve E\_FRONT\_A-4  
 P.I. Station = 503+60.80 N 1,896,748.9392 E 1,101,184.3156  
 Delta = 17° 30' 33.89" (RT)  
 Degree = 3° 29' 37.12"  
 Tangent = 252.5581  
 Length = 501.1790  
 Radius = 1,640.0000  
 External = 19.3329  
 Long Chord = 499.2311  
 Mid. Ord. = 19.1076  
 P.C. Station = 501+08.24 N 1,896,683.3761 E 1,100,940.4159  
 P.T. Station = 506+09.42 N 1,896,738.0844 E 1,101,436.6403  
 C.C. = N 1,895,099.5998 E 1,101,366.1536  
 Back = N 74° 57' 14.04" E  
 Ahead = S 87° 32' 12.07" E  
 Chord Bear = N 83° 42' 30.99" E

Course from PT E\_FRONT\_A-4 to 1161 S 87° 47' 33.52" E Dist 72.5701

Point 1161 N 1,896,735.2892 E 1,101,509.1566 Sta 506+81.99

Curve Data

Curve E\_FRONT\_B-1  
 P.I. Station = 508+03.20 N 1,896,740.9988 E 1,101,630.8305  
 Delta = 3° 38' 41.99" (RT)  
 Degree = 1° 30' 15.13"  
 Tangent = 121.2013  
 Length = 242.3209  
 Radius = 3,809.0473  
 External = 1.9278  
 Long Chord = 242.2800  
 Mid. Ord. = 1.9268  
 P.C. Station = 506+82.00 N 1,896,750.0559 E 1,101,509.9680  
 P.T. Station = 509+24.32 N 1,896,724.2763 E 1,101,750.8726  
 C.C. = N 1,892,951.6587 E 1,101,225.3274  
 Back = S 85° 42' 51.96" E  
 Ahead = S 82° 04' 09.98" E  
 Chord Bear = S 83° 53' 30.97" E

Curve Data

Curve E\_FRONT\_B-2  
 P.I. Station = 510+29.96 N 1,896,709.7006 E 1,101,855.5041  
 Delta = 4° 04' 57.02" (RT)  
 Degree = 1° 55' 59.00"  
 Tangent = 105.6419  
 Length = 211.1943  
 Radius = 2,964.0000  
 External = 1.8820  
 Long Chord = 211.1497  
 Mid. Ord. = 1.8808  
 P.C. Station = 509+24.32 N 1,896,724.2763 E 1,101,750.8726  
 P.T. Station = 511+35.52 N 1,896,687.7129 E 1,101,958.8325  
 C.C. = N 1,893,788.6240 E 1,101,341.9210  
 Back = S 82° 04' 09.98" E  
 Ahead = S 77° 59' 12.96" E  
 Chord Bear = S 80° 01' 41.47" E

Curve Data

Curve E\_FRONT\_B-3  
 P.I. Station = 514+44.44 N 1,896,623.4157 E 1,102,260.9882  
 Delta = 6° 15' 00.02" (RT)  
 Degree = 1° 00' 45.33"  
 Tangent = 308.9211  
 Length = 617.2294  
 Radius = 5,658.3378  
 External = 8.4266  
 Long Chord = 616.9235  
 Mid. Ord. = 8.4141  
 P.C. Station = 511+35.52 N 1,896,687.7129 E 1,101,958.8325  
 P.T. Station = 517+52.74 N 1,896,526.6058 E 1,102,554.3483  
 C.C. = N 1,891,153.2917 E 1,100,781.1357  
 Back = S 77° 59' 12.96" E  
 Ahead = S 71° 44' 12.94" E  
 Chord Bear = S 74° 51' 42.95" E

Curve Data

Curve E\_FRONT\_B-4  
 P.I. Station = 521+23.71 N 1,896,410.3528 E 1,102,906.6263  
 Delta = 14° 56' 27.78" (RT)  
 Degree = 2° 01' 31.09"  
 Tangent = 370.9644  
 Length = 737.7198  
 Radius = 2,829.0000  
 External = 24.2185  
 Long Chord = 735.6313  
 Mid. Ord. = 24.0129  
 P.C. Station = 517+52.74 N 1,896,526.6058 E 1,102,554.3483  
 P.T. Station = 524+90.46 N 1,896,207.2040 E 1,103,217.0215  
 C.C. = N 1,893,840.1092 E 1,101,667.7949  
 Back = S 71° 44' 12.94" E  
 Ahead = S 56° 47' 45.16" E  
 Chord Bear = S 64° 15' 59.05" E

Course from PT E\_FRONT\_B-4 to PC E\_FRONT\_B-5 S 56° 47' 45.16" E Dist 467.7131

Curve Data

Curve E\_FRONT\_B-5  
 P.I. Station = 538+33.22 N 1,895,471.8808 E 1,104,340.5369  
 Delta = 25° 53' 20.27" (LT)  
 Degree = 1° 30' 17.98"  
 Tangent = 875.0404  
 Length = 1,720.2033  
 Radius = 3,807.0426  
 External = 99.2688  
 Long Chord = 1,705.6069  
 Mid. Ord. = 96.7462  
 P.C. Station = 529+58.18 N 1,895,951.0734 E 1,103,608.3688  
 P.T. Station = 546+78.38 N 1,895,360.4645 E 1,105,208.4551  
 C.C. = N 1,899,136.5208 E 1,105,693.1944  
 Back = S 56° 47' 45.16" E  
 Ahead = S 82° 41' 05.43" E  
 Chord Bear = S 69° 44' 25.30" E

Curve Data

Curve E\_FRONT\_B-6  
 P.I. Station = 550+18.78 N 1,895,317.1219 E 1,105,546.0881  
 Delta = 9° 57' 37.14" (LT)  
 Degree = 1° 28' 00.16"  
 Tangent = 340.4036  
 Length = 679.0919  
 Radius = 3,906.4120  
 External = 14.8033  
 Long Chord = 678.2371  
 Mid. Ord. = 14.7474  
 P.C. Station = 546+78.38 N 1,895,360.4645 E 1,105,208.4551  
 P.T. Station = 553+57.47 N 1,895,332.8317 E 1,105,886.1290  
 C.C. = N 1,899,235.0814 E 1,105,705.8468  
 Back = S 82° 41' 05.43" E  
 Ahead = N 87° 21' 17.43" E  
 Chord Bear = S 87° 39' 54.00" E

Course from PT E\_FRONT\_B-6 to PC E\_FRONT\_B-7 N 87° 21' 17.43" E Dist 1,153.7087

Curve Data

Curve E\_FRONT\_B-7  
 P.I. Station = 569+37.33 N 1,895,405.7425 E 1,107,464.3015  
 Delta = 12° 16' 52.24" (LT)  
 Degree = 1° 26' 47.39"  
 Tangent = 426.1471  
 Length = 849.0285  
 Radius = 3,961.0000  
 External = 22.8577  
 Long Chord = 847.4041  
 Mid. Ord. = 22.7266  
 P.C. Station = 565+11.18 N 1,895,386.0757 E 1,107,038.6084  
 P.T. Station = 573+60.21 N 1,895,515.5082 E 1,107,876.0694  
 C.C. = N 1,899,342.8553 E 1,106,855.8070  
 Back = N 87° 21' 17.43" E  
 Ahead = N 75° 04' 25.18" E  
 Chord Bear = N 81° 12' 51.31" E

Course from PT E\_FRONT\_B-7 to PC E\_FRONT\_B-8 N 75° 04' 25.18" E Dist 369.6731

Curve Data

Curve E\_FRONT\_B-8  
 P.I. Station = 578+09.89 N 1,895,631.3360 E 1,108,310.5783  
 Delta = 2° 27' 36.95" (RT)  
 Degree = 1° 32' 15.82"  
 Tangent = 80.0090  
 Length = 159.9934  
 Radius = 3,726.0000  
 External = 0.8589  
 Long Chord = 159.9811  
 Mid. Ord. = 0.8587  
 P.C. Station = 577+29.88 N 1,895,610.7275 E 1,108,233.2690  
 P.T. Station = 578+89.88 N 1,895,648.6068 E 1,108,388.7010  
 C.C. = N 1,892,010.4510 E 1,109,193.0008  
 Back = N 75° 04' 25.18" E  
 Ahead = N 77° 32' 02.14" E  
 Chord Bear = N 76° 18' 13.66" E

Course from PT E\_FRONT\_B-8 to PC E\_FRONT\_B-9 N 77° 32' 02.14" E Dist 318.4558

FILE NAME =	DESIGNED - AJP	REVISED -	<b>benesch</b>	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ALIGNMENT PLAN I-290 RAMP CURVE DATA</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
...NexpIn_ABC.C2_290_R_Data.exalign_21.dgn	DRAWN - TMB	REVISED -				290	(3435, ETC., 3838)RS-5	COOK	264	37
USER NAME = tblank	CHECKED - JMM	REVISED -				CONTRACT NO. 60652				
PLOT DATE = 1/25/2010	DATE - 1/25/10	REVISED -				FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
			SCALE: N.T.S.	SHEET NO. 12 OF 22 SHEETS	STA. TO STA.					