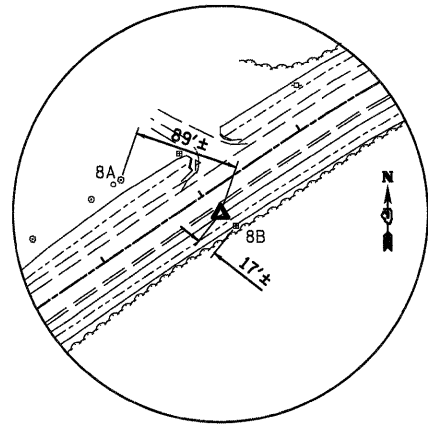
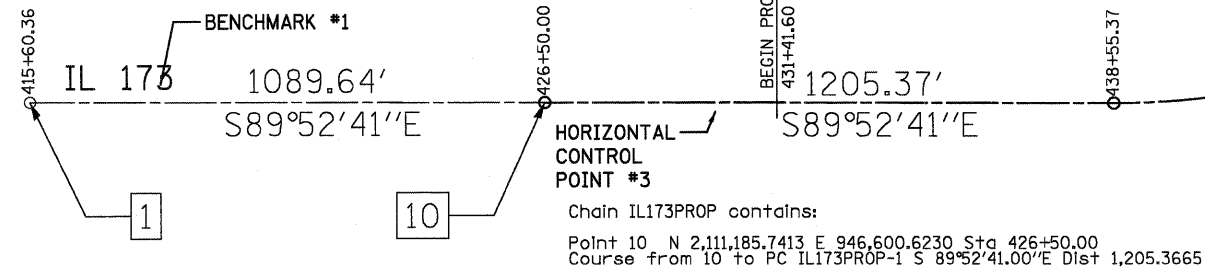


HORIZONTAL CONTROL POINT NO. 3



HORIZONTAL CONTROL POINT NO. 8

HORIZONTAL CONTROL POINTS							
POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
3	2111163.8394	946961.4353	963.013	IL173	430+10.86	21.13 RT	
8	2111654.2368	949046.9576	955.684	IL173	452+04.58	20.75 RT	



**DATUM NOTE:**  
THE HORIZONTAL CONTROL AND VERTICAL BENCHMARKS WERE PROVIDED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION FOR THIS PROJECT.

**PERMANENT SURVEY MARKERS**  
POINT 11 STA. 438+55.37 0.00' OFFSET 1 EACH  
POINT 14 STA. 448+44.54 0.00' OFFSET 1 EACH

Chain IL173PROP contains:  
Point 10 N 2,111,185.7413 E 946,600.6230 Sta 426+50.00  
Course from 10 to PC IL173PROP-1 S 89°52'41.00"E Dist 1,205.3665

Curve Data  
Curve IL173PROP-1  
P.I. Station 443+65.32 N 2,111,182.0906 E 948,315.9357  
Delta = 34°20'44.28" (LT)  
Degree = 3°28'19.74"  
Tangent = 509.9500  
Length = 989.1752  
Radius = 1,650.1534  
External = 76.9990  
Long Chord = 974.4314  
Mid. Ord. = 73.5662  
P.C. Station 438+55.37 N 2,111,183.1759 E 947,805.9868  
P.T. Station 448+44.54 N 2,111,468.8994 E 948,737.5869  
C.C. Station 443+50.00 N 2,112,833.3255 E 947,809.4989  
Back = S89°52'41.00"E  
Ahead = N55°46'34.72"E  
Chord Bear = N72°56'56.86"E  
Course from PT IL173PROP-1 to PC IL173PROP-2 N55°46'34.72"E Dist 412.6746

Curve Data  
Curve IL173PROP-2  
P.I. Station 454+03.96 N 2,111,783.5322 E 949,200.1435  
Delta = 95°15'03" (RT)  
Degree = 3°21'57.03"  
Tangent = 146.7469  
Length = 292.7701  
Radius = 1,702.2722  
External = 6.3136  
Long Chord = 292.4094  
Mid. Ord. = 6.2902  
P.C. Station 452+57.22 N 2,111,700.9980 E 949,078.8060  
P.T. Station 455+49.99 N 2,111,844.0829 E 949,333.8158  
C.C. Station 454+03.96 N 2,110,293.4775 E 950,036.2070  
Back = N55°46'34.72"E  
Ahead = N89°36'41.20"E  
Chord Bear = N60°42'12.23"E

Chain IL173 contains:  
Point 1 N 2,111,188.0604 E 945,510.9865 Sta 415+60.36  
Course from 1 to PC IL173-1 S 89°52'41.00"E Dist 2,295.0055

Curve Data  
Curve IL173-1 Same as Curve IL173PROP-1

Curve Data  
Curve IL173-2  
P.I. Station 457+74.98 N 2,111,992.1993 E 949,506.9149  
Delta = 33°50'06.49" (RT)  
Degree = 3°21'57.03"  
Tangent = 517.7600  
Length = 1,005.2505  
Radius = 1,702.2722  
External = 76.9990  
Long Chord = 990.7073  
Mid. Ord. = 73.6668  
P.C. Station 452+57.22 N 2,111,700.9980 E 949,078.8060  
P.T. Station 462+62.47 N 2,111,995.7105 E 950,024.6630  
C.C. Station 457+74.98 N 2,110,293.4775 E 950,036.2070  
Back = N55°46'34.72"E  
Ahead = N89°36'41.20"E  
Chord Bear = N72°41'37.96"E  
Course from PT IL173-2 to 2 N89°36'41.20"E Dist 1,185.5029  
Point 2 N 2,112,003.7500 E 951,210.1386 Sta 474+47.97

CURVE POINT NUMBERS					
CHAIN	CURVE	PI	CC	PC	PT
IL173PROP	IL173PROP-1	13	12	11	14
IL173PROP	IL173PROP-2	17	16	15	18
IL173	IL173-2	19	16	15	20

REFERENCE TIES				
POINT	CHAIN	STATION	OFFSET	DESCRIPTION
3A	IL173	429+66.27	39.15 LT	UTILITY SPLICE BOX
3B	IL173	430+64.79	39.52 RT	UTILITY POWER POLE
8A	IL173	451+50.93	50.55 LT	10" DIA. TREE
8B	IL173	452+09.61	36.77 RT	UTILITY SPLICE BOX

SURVEY WORK POINTS							
POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
1	2111168.4551	945659.0744	979.040	IL173	417+08.49	19.29 RT	
2	2111166.4523	946102.8339	977.281	IL173	421+52.25	20.35 RT	
4	2111165.0454	947467.5134	942.217	IL173	435+16.93	18.85 RT	
5	2111170.9909	947990.5384	935.752	IL173	440+37.88	22.01 RT	
6	2111261.0524	948374.9048	939.798	IL173	444+28.53	20.69 RT	
7	2111457.4310	948619.1293	958.761	IL173	447+36.55	53.72 LT	
9	2112005.1543	949865.4055	945.876	IL173	461+04.71	17.91 LT	
10	2112027.2103	950578.0689	951.857	IL173	468+16.07	27.75 LT	

BENCH MARKS							
POINT	NORTH	EAST	ELEVATION	CHAIN	STATION	OFFSET	DESCRIPTION
BM#1	2111225.6520	945787.1510	976.88	IL173	418+36.44	38.18 LT	SPIKE IN P.P.
BM#2	2111195.9640	948135.2770	936.69	IL173	441+82.97	19.30 RT	SQ. CUT IN TOP OF SE WINGWALL OF RT 173 BRIDGE OVER NIPPERSINK CREEK
BM#3	2112032.7760	950567.2990	951.93	IL173	468+05.37	33.38 LT	SPIKE IN P.P.

FILE NAME = P:\CBBEL WEST Projects\2009\98-B147\_IL173\civil\98\Sh\0168129-16-11-B.dgn

**WILLS BURKE KELSEY ASSOCIATES LTD.**  
116 West Main Street, Suite 201  
St. Charles, Illinois 60174  
(630) 443-7755

USER NAME = #USER#	DESIGNED - SBP/KMA	REVISED -
PLOT SCALE =	DRAWN - NDP	REVISED -
PLOT DATE = 1/6/2011	CHECKED - PJF	REVISED -
	DATE - 12/14/10	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

ALIGNMENT, TIES AND BENCHMARKS			
SCALE:	SHEET NO. 16 OF 106 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
303	132 B-2	McHENRY	106	16
CONTRACT NO. 60129				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				