

KY 86 SCOPING STUDY
BRECKINRIDGE AND HARDIN COUNTIES
KYTC ITEM NO. 4-8901.00

APPENDIX A – KY 86 GEOMETRIC ANALYSIS FROM AS-BUILTS

Functional Classification = Rural Minor Arterial
 e max = 8%

Vd = 35mph therefore
 Vd = 55 mph therefore

Rmin = 250
 Rmin = 965

Source: KYTC Highway Design Manual Exhibit 700-03
 Source: KYTC Highway Design Manual Exhibit 700-03

County	As-Built Plan Set	Existing Horizontal Curve				Does the Radius Meet a 55-mph Design Speed?	Notes
		Road	P.I. Station Number	Derived Milepoint	Radius (ft)		
Breckinridge	pj01818	KY 86	62+62.6	17.100	5,729.7	Yes	As-Built Start at US 60
Breckinridge	pj00429	KY 86	86+63.4	17.554	2,864.9	Yes	
Breckinridge	pj00429	KY 86	103+69.1	17.877	716.8	No	
Breckinridge	pj00429	KY 86	108+60.1	17.970	1,432.7	Yes	
Breckinridge	pj00429	KY 86	114+20.	18.076	1,910.1	Yes	
Breckinridge	pj00429	KY 86	127+64.8	18.331	478.3	No	
Breckinridge	pj00429	KY 86	147+34.5	18.704	716.8	No	
Breckinridge	pj00429	KY 86	187+69.9	19.468	955.4	No	
Breckinridge	pj00429	KY 86	195+54.5	19.617	955.4	No	
Breckinridge	pj00429	KY 86	219+68.4	20.074	2,864.9	Yes	
Breckinridge	pj00433	KY 86	234+34.3	20.352	1,432.7	Yes	
Breckinridge	pj00429	KY 86	262+92.8	20.893	2,864.9	Yes	
Breckinridge	pj01815	KY 86	312+51.9	21.832	1,432.7	Yes	Posted Speed Limit Reduced to 35 mph
Breckinridge	pj01815	KY 86	320+66.6	21.987	955.4	No	Posted Speed Limit Reduced to 35 mph
Breckinridge	pj01815	KY 86	332+99.9	22.220	5,729.6	Yes	
Breckinridge	pj01815	KY 86	346+93.4	22.484	1,432.7	Yes	
Breckinridge	pj01815	KY 86	359+60.2	22.724	716.8	No	
Breckinridge	pj01815	KY 86	376+15.	23.038	955.6	No	
Breckinridge	pj01815	KY 86	391+05.7	23.320	2,864.5	Yes	
Breckinridge	pj01815	KY 86	421+54.1	23.897	637.3	No	
Breckinridge	pj01815	KY 86	460+22.7	24.630	573.0	No	
Breckinridge	pj01815	KY 86	476+20.1	24.932	637.3	No	
Breckinridge	pj01815	KY 86	482+46.3	25.051	637.3	No	
Breckinridge	pj01815	KY 86	496+65.4	25.320	359.3	No	Posted Speed Limit Reduced to 35 mph
Breckinridge	pj01815	KY 86	524+56.5	25.848	1,432.7	Yes	
Hardin	pj07045	KY 86	539+99.8	0.004	955.4	No	
Hardin	pj07045	KY 86	553+96.5	0.268	716.8	No	
Hardin	pj07045	KY 86	571+19.4	0.595	1,432.7	Yes	
Hardin	pj07045	KY 86	620+16.7	1.522	2,864.9	Yes	
Hardin	pj07045	KY 86	638+00.	1.860	2,864.9	Yes	
Hardin	pj07045	KY 86	653+14.2	2.147	5,726.7	Yes	
Hardin	pj07045	KY 86	660+01.3	2.277	1,432.7	Yes	
Hardin	pj07045	KY 86	666+93.7	2.408	1,432.7	Yes	
Hardin	pj07045	KY 86	715+99.	3.337	5,729.7	Yes	
Hardin	pj07045	KY 86	745+87.9	3.903	2,864.9	Yes	
Hardin	pj07045	KY 86	787+07.5	4.683	2,864.9	Yes	As-Built End at Bridge over Rough River just West of KY 920
Hardin	Developed from Aerial	KY 86	855+28.8	Did not Calculate	1,875.0	Yes	No As-Built available. Begin HA development over aerials.
Hardin	Developed from Aerial	KY 86	871+75.8	Did not Calculate	2,150.0	Yes	
Hardin	Developed from Aerial	KY 86	881+46.4	Did not Calculate	2,050.0	Yes	
Hardin	Developed from Aerial	KY 86	890+75.3	Did not Calculate	53,463.9	Yes	
Hardin	Developed from Aerial	KY 86	906+37.6	Did not Calculate	87,323.6	Yes	
Hardin	Developed from Aerial	KY 86	957+18.5	Did not Calculate	1,942.0	Yes	
Hardin	Developed from Aerial	KY 86	960+92.4	Did not Calculate	1,575.1	Yes	
Hardin	Developed from Aerial	KY 86	964+48.8	Did not Calculate	2,513.7	Yes	
Hardin	Developed from Aerial	KY 86	981+52.7	Did not Calculate	6,000.0	Yes	
Hardin	Developed from Aerial	KY 86	987+83.9	Did not Calculate	4,350.0	Yes	
Hardin	Developed from Aerial	KY 86	994+19.9	Did not Calculate	2,250.0	Yes	
Hardin	Developed from Aerial	KY 86	1010+99.	Did not Calculate	6,000.0	Yes	
Hardin	Developed from Aerial	KY 86	1035+65.1	9.410	741.3	No	
Hardin	Developed from Aerial	KY 86	1038+97.3	Did not Calculate	1,493.5	Yes	
Hardin	Developed from Aerial	KY 86	1046+24.3	Did not Calculate	6,445.6	Yes	
Hardin	Developed from Aerial	KY 86	1055+05.8	Did not Calculate	36,292.8	Yes	
Hardin	Developed from Aerial	KY 86	1064+04.7	Did not Calculate	54,905.2	Yes	
Hardin	Developed from Aerial	KY 86	1073+68.	10.120	864.2	No	
Hardin	Developed from Aerial	KY 86	1094+56.3	Did not Calculate	2,926.6	Yes	
Hardin	Developed from Aerial	KY 86	1109+99.1	Did not Calculate	4,913.7	Yes	
Hardin	Developed from Aerial	KY 86	1116+66.4	Did not Calculate	2,751.0	Yes	
Hardin	Developed from Aerial	KY 86	1156+95.1	Did not Calculate	1,688.6	Yes	
Hardin	Developed from Aerial	KY 86	1162+78.5	Did not Calculate	1,000.0	Yes	
Hardin	Developed from Aerial	KY 86	1167+00.4	Did not Calculate	8,642.2	Yes	
Hardin	Developed from Aerial	KY 86	1170+36.8	Did not Calculate	10,000.0	Yes	
Hardin	Developed from Aerial	KY 86	1173+61.5	Did not Calculate	13,000.0	Yes	
Hardin	Developed from Aerial	KY 86	1184+28.	Did not Calculate	39,721.4	Yes	

Functional Classification = Rural Minor Arterial

e max = 8%

Vd = 35mph therefore

Rmin = 250

Source: KYTC Highway Design Manual Exhibit 700-03

Vd = 55 mph therefore

Rmin = 965

Source: KYTC Highway Design Manual Exhibit 700-03

County	As-Built Plan Set	Existing Horizontal Curve				Does the Radius Meet a 55-mph Design Speed?	Notes
		Road	P.I. Station Number	Derived Milepoint	Radius (ft)		
Hardin	Developed from Aerial	KY 86	1188+01.8	Did not Calculate	13,653.7	Yes	
Hardin	Developed from Aerial	KY 86	1206+04.3	Did not Calculate	6,864.6	Yes	
Hardin	Developed from Aerial	KY 86	1219+11.9	12.861	775.0	No	
Hardin	Developed from Aerial	KY 86	1231+50.8	Did not Calculate	3,272.9	Yes	
Hardin	Developed from Aerial	KY 86	1238+16.6	Did not Calculate	3,242.7	Yes	
Hardin	Developed from Aerial	KY 86	1267+48.4	Did not Calculate	1,650.9	Yes	
Hardin	Developed from Aerial	KY 86	1272+51.5	Did not Calculate	6,382.9	Yes	End Rural Arterial. Begin Urban Arterial at Cecilia.

Total Number of HC's = 70

Archived As-Built Plans: *pj01818 (1935), pj01815 (1937), pj07045 (1937)*

Number of Deficient HC's = 18

26%

Breckinridge County Line at Sta. 539+80.0 = MP 26.137

Check:

Bridge over Vertress Creek at Sta. 681+27 in As-Built = MP 2.679 based on formula

Bridge over Vertress Creek at MP 2.677 in KYTC Bridge Data Miner

Functional Classification = Urban Minor Arterial

e max = 4%

Vd = 35mph

therefore

Rmin = 371

Source: AASHTO'S "A Policy on Geometric Design of Highways and Streets" Table 3-8

County	As-Built Plan Set	Existing Horizontal Curve				Does the Radius Meet a 35-mph Design Speed?	Notes
		Road	P.I. Station Number	Derived Milepoint	Radius (ft)		
Hardin	pj06837	KY 86	33+78.	14.863	2,291.8	Yes	As-Built Start just West of Rhudes Creek
Hardin	pj06837	KY 86	43+52.9	15.048	954.5	Yes	As-Built End just East of St. Ambrose Church Lane

Total Number of HC's = 2

Number of Deficient HC's = 0

0%

Archived As-Built Plans: pj006837 (1992)

Bridge over Rhudes Creek = Sta. 28+95 = Milepoint 14.772

Functional Classification = Rural Minor Arterial

Terrain = Rolling

Vd = 35 mph

Vd = 35 mph

Vd = 55 mph

Vd = 55 mph

therefore

therefore

therefore

therefore

Minimum Stopping Sight Distance = 250 ft

Maximum Grade = %

Minimum Stopping Sight Distance = 495 ft

Maximum Grade = 5 %

Source: KYTC Highway Design Manual Exhibit 700-03

Source: KYTC Highway Design Manual Exhibit 700-03

Source: KYTC Highway Design Manual Exhibit 700-03

Source: KYTC Highway Design Manual Exhibit 700-03

Crest Vertical Curves

County	As-Built Plan Set	Existing Vertical Curve						SSD < L ¹			SSD ≥ L ²			Notes
		Road	VPI Station Number	Derived Milepoint	G1 (%)	G2 (%)	Length of Curve (ft)	SSD	Is SSD<L	Meet SSD Req.	SSD	Is SSD≥L	Meet SSD Req.	
Breckinridge	pj01818	KY 86	3+50.	15.980	0.863	-6.000	300.00	307.14	No	N/A	307.22	Yes	No	
Breckinridge	pj01818	KY 86	13+00.	16.160	-3.500	-8.000	200.00	309.70	No	N/A	339.78	Yes	No	
Breckinridge	pj01818	KY 86	27+50.	16.434	1.500	-7.600	500.00	344.34	Yes	No	368.57	No	N/A	
Breckinridge	pj01818	KY 86	52+50.	16.908	7.240	-2.560	400.00	296.79	Yes	No	310.10	No	N/A	
Breckinridge	pj01818	KY 86	63+25.	17.111	2.660	-8.000	500.00	318.15	Yes	No	351.22	No	N/A	
Breckinridge	pj01818	KY 86	87+25.	17.566	8.000	-0.900	400.00	311.43	Yes	No	321.24	No	N/A	
Breckinridge	pj01818	KY 86	99+50.	17.798	6.660	1.360	300.00	349.50	No	N/A	353.58	Yes	No	
Breckinridge	pj01818	KY 86	106+50.	17.931	8.000	-1.520	400.00	301.12	Yes	No	313.34	No	N/A	
Breckinridge	pj01818	KY 86	116+00.	18.110	-1.520	-8.000	300.00	316.08	No	N/A	316.51	Yes	No	
Breckinridge	pj01818	KY 86	126+25.	18.305	7.600	-8.000	650.00	299.86	Yes	No	394.17	No	N/A	
Breckinridge	pj01818	KY 86	146+50.	18.688	-0.918	-3.091	200.00	445.67	No	N/A	596.55	Yes	Yes	
Breckinridge	pj01818	KY 86	158+50.	18.915	-1.000	-4.000	300.00	464.54	No	N/A	509.67	Yes	Yes	
Breckinridge	pj01818	KY 86	169+50.	19.124	2.180	-4.460	300.00	312.25	No	N/A	312.50	Yes	No	
Breckinridge	pj01818	KY 86	177+00.	19.266	4.360	-7.160	300.00	237.06	Yes	No	243.66	No	N/A	
Breckinridge	pj01818	KY 86	187+50.	19.465	8.000	-1.560	400.00	300.49	Yes	No	312.87	No	N/A	
Breckinridge	pj01818	KY 86	199+00.	19.682	3.880	0.836	200.00	376.55	No	N/A	454.47	Yes	No	
Breckinridge	pj01818	KY 86	214+50.	19.976	1.292	0.000	200.00	577.98	No	N/A	935.14	Yes	Yes	
Breckinridge	pj01818	KY 86	222+50.	20.128	3.040	1.160	200.00	479.14	No	N/A	673.94	Yes	Yes	
Breckinridge	pj01818	KY 86	229+50.	20.260	6.580	1.740	200.00	298.62	No	N/A	322.93	Yes	No	
Breckinridge	pj01818	KY 86	233+00.	20.326	1.740	-5.060	300.00	308.55	No	N/A	308.68	Yes	No	
Breckinridge	pj01818	KY 86	243+00.	20.516	3.900	0.820	200.00	374.34	No	N/A	450.32	Yes	No	
Breckinridge	pj01818	KY 86	252+00.	20.686	0.820	-7.120	300.00	285.55	Yes	No	285.89	No	N/A	
Breckinridge	pj01818	KY 86	272+00.	21.065	0.692	0.842	200.00	#NUM!	#NUM!	N/A	-7,098.13	No	Yes	
Breckinridge	pj01818	KY 86	289+00.	21.387	3.820	-5.000	500.00	349.77	Yes	No	372.34	No	N/A	
Breckinridge	pj01818	KY 86	298+00.	21.557	5.032	-1.100	300.00	324.93	No	N/A	325.96	Yes	No	
Breckinridge	pj01815	KY 86	303+00.	21.652	-1.100	-5.600	200.00	309.70	No	N/A	339.78	Yes	No	
Breckinridge	pj01815	KY 86	320+50.	21.984	1.420	0.320	200.00	626.39	No	N/A	1,080.91	Yes	Yes	35 mph
Breckinridge	pj01815	KY 86	326+00.	22.088	0.320	-4.080	300.00	383.58	No	N/A	395.23	Yes	No	35 mph
Breckinridge	pj01815	KY 86	338+50.	22.325	2.360	-1.600	200.00	330.14	No	N/A	372.47	Yes	No	
Breckinridge	pj01815	KY 86	356+50.	22.665	3.620	-1.000	200.00	305.65	No	N/A	333.55	Yes	No	
Breckinridge	pj01815	KY 86	377+25.	23.058	5.877	-2.820	500.00	352.23	Yes	No	374.06	No	N/A	
Breckinridge	pj01815	KY 86	389+75.	23.295	-2.820	-6.880	200.00	326.05	No	N/A	365.76	Yes	No	
Breckinridge	pj01815	KY 86	397+50.	23.442	-2.195	-5.000	400.00	554.74	No	N/A	584.67	Yes	Yes	
Breckinridge	pj01815	KY 86	426+50.	23.991	2.640	-0.354	200.00	379.68	No	N/A	460.39	Yes	No	
Breckinridge	pj01815	KY 86	436+50.	24.181	-0.354	-3.091	300.00	486.37	No	N/A	544.26	Yes	Yes	
Breckinridge	pj01815	KY 86	455+50.	24.540	3.060	-8.000	600.00	342.16	Yes	No	397.56	No	N/A	
Breckinridge	pj01815	KY 86	476+50.	24.938	6.520	0.140	300.00	318.55	No	N/A	319.12	Yes	No	
Breckinridge	pj01815	KY 86	496+50.	25.317	2.120	-0.540	200.00	402.81	No	N/A	505.64	Yes	Yes	35 mph
Breckinridge	pj01815	KY 86	510+00.	25.573	3.283	-5.120	500.00	358.34	Yes	No	378.41	No	N/A	
Breckinridge	pj01815	KY 86	536+00.	26.065	8.000	-3.570	500.00	305.38	Yes	No	343.26	No	N/A	
Hardin	pj07045	KY 86	543+00.	0.061	-0.357	-8.000	300.00	291.04	Yes	No	291.17	No	N/A	
Hardin	pj07045	KY 86	557+00.	0.326	-1.000	-3.300	200.00	433.19	No	N/A	569.13	Yes	Yes	
Hardin	pj07045	KY 86	570+50.	0.581	1.540	0.200	200.00	567.53	No	N/A	905.22	Yes	Yes	
Hardin	pj07045	KY 86	578+75.	0.738	0.200	-3.300	400.00	496.62	No	N/A	508.29	Yes	Yes	
Hardin	pj07045	KY 86	588+00.	0.913	4.000	0.000	300.00	402.31	No	N/A	419.75	Yes	No	
Hardin	pj07045	KY 86	610+50.	1.339	1.820	0.858	300.00	820.14	No	N/A	1,271.04	Yes	Yes	
Hardin	pj07045	KY 86	622+50.	1.566	8.000	-6.700	600.00	296.79	Yes	No	373.40	No	N/A	
Hardin	pj07045	KY 86	637+25.	1.846	2.985	-7.000	400.00	294.02	Yes	No	308.06	No	N/A	
Hardin	pj07045	KY 86	648+50.	2.059	-2.250	-7.250	400.00	415.50	No	N/A	415.80	Yes	No	
Hardin	pj07045	KY 86	652+50.	2.134	-7.250	-8.500	200.00	587.61	No	N/A	963.20	Yes	Yes	
Hardin	pj07045	KY 86	666+50.	2.400	1.750	-7.300	500.00	345.29	Yes	No	369.23	No	N/A	
Hardin	pj07045	KY 86	700+00.	3.034	-0.150	-1.250	200.00	626.39	No	N/A	1,080.91	Yes	Yes	
Hardin	pj07045	KY 86	707+50.	3.176	2.000	-2.100	400.00	458.84	No	N/A	463.17	Yes	No	
Hardin	pj07045	KY 86	727+50.	3.555	8.500	-8.438	500.00	252.40	Yes	No	313.70	No	N/A	
Hardin	pj07045	KY 86	751+50.	4.009	6.000	-3.250	500.00	341.54	Yes	No	366.65	No	N/A	
Hardin	pj07045	KY 86	770+00.	4.360	2.000	-3.250	400.00	405.49	No	N/A	405.52	Yes	No	
Hardin	pj07045	KY 86	779+50.	4.540	1.300	-1.000	200.00	433.19	No	N/A	569.13	Yes	Yes	
Hardin	pj07045	KY 86	790+00.	4.739	2.733	-5.000	450.00	354.37	Yes	No	364.53	No	N/A	
Hardin	pj07045	KY 86	803+50.	4.994	4.400	0.400	400.00	464.54	No	N/A	469.75	Yes	No	
Hardin	pj07045	KY 86	819+00.	5.288	3.280	1.000	400.00	615.30	No	N/A	673.25	Yes	Yes	As-Built End at Bridge over Rough River just West of KY 920

Functional Classification = Rural Minor Arterial

Terrain = Rolling

Vd = 35 mph therefore
 Vd = 35 mph therefore
 Vd = 55 mph therefore
 Vd = 55 mph therefore

Minimum Stopping Sight Distance = 250 ft
 Maximum Grade = - %
 Minimum Stopping Sight Distance = 495 ft
 Maximum Grade = 5 %

Source: KYTC Highway Design Manual Exhibit 700-03
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 Source: KYTC Highway Design Manual Exhibit 700-03

Crest Vertical Curves

County	As-Built Plan Set	Existing Vertical Curve						SSD < L ¹			SSD ≥ L ²			Notes
		Road	VPI Station Number	Derived Milepoint	G1 (%)	G2 (%)	Length of Curve (ft)	SSD	Is SSD<L	Meet SSD Req.	SSD	Is SSD≥L	Meet SSD Req.	
Hardin	Developed from Existing DTM Profile	KY 86	824+60.8		1.310	-2.770	300.00	398.34	No	N/A	414.46	Yes	No	No As-Builts available. Begin VA development over existing DTM profile.
Hardin	Developed from Existing DTM Profile	KY 86	834+57.		3.910	-0.190	300.00	397.37	No	N/A	413.17	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	847+15.2		4.330	0.470	300.00	409.54	No	N/A	429.53	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	860+39.3		4.360	0.040	200.00	316.08	No	N/A	349.77	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	870+52.3		3.610	0.110	200.00	351.16	No	N/A	408.29	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	878+29.1		1.410	-3.150	400.00	435.08	No	N/A	436.62	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	889+87.	6.625	3.380	-5.548	400.00	311.08	Yes	No	320.96	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	910+15.4	7.009	1.490	-2.060	500.00	551.31	No	N/A	553.94	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	927+40.7	7.336	2.030	-4.850	200.00	250.46	No	N/A	256.83	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	934+04.9	7.462	3.140	-1.800	200.00	295.58	No	N/A	318.42	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	941+78.4	7.608	3.310	-2.240	200.00	278.87	No	N/A	294.41	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	950+33.9	7.770	4.670	2.560	200.00	452.27	No	N/A	611.37	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	954+95.7	7.858	2.560	-3.860	300.00	317.55	No	N/A	318.07	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	965+28.3	8.053	4.050	-5.170	300.00	264.98	Yes	No	267.03	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	979+11.1	8.315	4.520	0.660	200.00	334.39	No	N/A	379.53	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	993+14.2	8.581	5.370	-4.360	600.00	364.79	Yes	No	410.89	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	1011+49.2	8.929	2.940	-2.660	400.00	392.61	Yes	No	392.68	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	1038+16.9	9.434	6.530	0.590	400.00	381.21	Yes	No	381.65	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	1047+13.3	9.604	0.590	-5.750	400.00	368.99	Yes	No	370.19	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	1058+50.9	9.819	2.120	0.190	200.00	472.89	No	N/A	659.07	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1073+77.	10.108	3.400	2.390	100.00	462.24	No	N/A	1,118.32	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1099+88.5	10.603	3.240	0.150	200.00	373.73	No	N/A	449.19	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1107+52.3	10.747	6.210	-4.770	200.00	198.26	Yes	No	198.27	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	1111+09.7	10.815	-0.600	-5.948	150.00	246.21	No	N/A	277.06	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1122+06.6	11.023	4.580	-4.270	300.00	270.47	Yes	No	271.92	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	1129+04.2	11.155	0.180	-1.440	200.00	516.16	No	N/A	766.05	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1142+75.6	11.415	4.720	-3.940	300.00	273.42	Yes	No	274.60	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	1154+03.7	11.628	3.040	-2.400	300.00	344.97	No	N/A	348.35	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1159+52.8	11.732	2.970	-2.480	200.00	281.41	No	N/A	297.98	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1170+65.2	11.943	2.800	-1.630	400.00	441.42	No	N/A	443.57	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1187+53.1	12.263	3.750	-0.230	200.00	329.31	No	N/A	371.11	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1191+66.4	12.341	1.950	-2.080	100.00	231.41	No	N/A	317.74	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1206+80.3	12.628	2.330	-1.730	200.00	326.05	No	N/A	365.76	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1213+89.9	12.762	-0.670	-1.480	200.00	729.96	No	N/A	1,432.10	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1220+47.1	12.886	1.030	-0.780	100.00	345.29	No	N/A	646.13	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1225+74.	12.986	1.230	0.000	200.00	592.36	No	N/A	977.24	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1244+41.9	13.340	2.380	-0.510	300.00	473.30	No	N/A	523.36	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1257+44.8	13.587	3.000	-2.490	250.00	313.48	No	N/A	321.54	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1264+09.6	13.713	-0.180	-2.650	300.00	511.96	No	N/A	586.84	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1276+06.5	13.939	2.010	-1.050	150.00	325.25	No	N/A	427.61	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1279+58.8	14.006	1.720	-1.400	150.00	322.10	No	N/A	420.83	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1286+24.4	14.132	1.220	-1.200	100.00	298.62	No	N/A	495.87	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1290+38.4	14.211	1.090	-1.410	150.00	359.83	No	N/A	506.60	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1296+60.8	14.328	0.240	-0.920	200.00	609.97	No	N/A	1,030.17	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1308+85.7	14.560	1.610	-4.810	200.00	259.28	No	N/A	268.07	Yes	No	End Rural Arterial. Begin Urban Arterial at Cecilia.
												Total Number of Crest VC's =	105	
												Number of Deficient Crest VC's =	75	71%

¹ Source: 2011 Green Book Formula 3-43

² Source: 2011 Green Book Formula 3-44

Functional Classification = Rural Minor Arterial

Terrain = Rolling

Vd = 35 mph therefore
 Vd = 35 mph therefore
 Vd = 55 mph therefore
 Vd = 55 mph therefore

Minimum Stopping Sight Distance = 250 ft
 Maximum Grade = %
 Minimum Stopping Sight Distance = 495 ft
 Maximum Grade = 5 %

Source: KYTC Highway Design Manual Exhibit 700-03
 Source: KYTC Highway Design Manual Exhibit 700-03
 Source: KYTC Highway Design Manual Exhibit 700-03
 Source: KYTC Highway Design Manual Exhibit 700-03

Sag Vertical Curves

County	As-Built Plan Set	Existing Vertical Curve							HSSD < L ¹			HSSD >= L ²			Notes
		Road	VPI Station Number	Derived Milepoint	G1 (%)	G2 (%)	Existing Length (ft)	HSSD #1 (+)	HSSD #2 (-)	Is HSSD<L	Meet SSD Req.	HSSD*	Is HSSD>=L	Meet SSD Req.	
Breckinridge	pj01818	KY 86	7+00.	16.046	-6.000	-3.500	200	367.16	-87.16	No	N/A	600.00	Yes	Yes	
Breckinridge	pj01818	KY 86	18+50.	16.264	-8.000	-3.250	200	222.92	-75.55	No	N/A	225.00	Yes	No	
Breckinridge	pj01818	KY 86	21+50.	16.321	-3.250	1.500	400	382.74	-88.01	Yes	No	383.33	No	N/A	
Breckinridge	pj01818	KY 86	37+00.	16.614	-7.600	1.346	500	276.48	-80.86	Yes	No	338.59	No	N/A	
Breckinridge	pj01818	KY 86	42+00.	16.709	-1.346	-7.240	400	321.87	-84.34	Yes	No	332.72	No	N/A	
Breckinridge	pj01818	KY 86	55+75.	16.969	-2.560	2.650	200	208.13	-73.78	No	N/A	208.38	Yes	No	
Breckinridge	pj01818	KY 86	66+75.	17.178	-8.000	-1.260	200	172.62	-68.76	Yes	No	175.15	No	N/A	
Breckinridge	pj01818	KY 86	74+00.	17.315	-1.260	4.959	200	182.90	-70.34	Yes	No	183.91	No	N/A	
Breckinridge	pj01818	KY 86	83+00.	17.485	-4.959	8.000	200	313.97	-83.79	No	N/A	390.45	Yes	No	
Breckinridge	pj01818	KY 86	95+50.	17.722	-0.900	6.660	400	265.04	-79.85	Yes	No	294.66	No	N/A	
Breckinridge	pj01818	KY 86	102+25.	17.850	-1.360	8.880	250	205.18	-73.40	Yes	No	210.63	No	N/A	
Breckinridge	pj01818	KY 86	119+50.	18.177	-8.000	0.920	200	166.67	-67.80	Yes	No	170.36	No	N/A	
Breckinridge	pj01818	KY 86	122+00.	18.224	-0.920	-7.600	200	146.33	-64.17	Yes	No	155.39	No	N/A	
Breckinridge	pj01818	KY 86	136+00.	18.489	-8.000	-0.918	500	332.14	-85.03	Yes	No	369.56	No	N/A	
Breckinridge	pj01818	KY 86	151+00.	18.773	-3.091	-1.000	200	424.81	-90.06	No	N/A	1,199.38	Yes	Yes	
Breckinridge	pj01818	KY 86	163+50.	19.010	-4.000	2.180	200	183.73	-70.46	Yes	No	184.65	No	N/A	
Breckinridge	pj01818	KY 86	174+00.	19.209	-4.460	4.360	300	190.48	-71.43	Yes	No	215.42	No	N/A	
Breckinridge	pj01818	KY 86	182+25.	19.365	-7.160	8.000	400	158.81	-66.46	Yes	No	241.01	No	N/A	
Breckinridge	pj01818	KY 86	195+50.	19.616	-1.560	3.880	200	201.62	-72.94	No	N/A	201.63	Yes	No	
Breckinridge	pj01818	KY 86	204+00.	19.777	0.836	2.970	200	417.76	-89.74	No	N/A	1,076.56	Yes	Yes	
Breckinridge	pj01818	KY 86	217+50.	20.033	0.000	3.040	200	314.06	-83.79	No	N/A	390.70	Yes	No	
Breckinridge	pj01818	KY 86	224+75.	20.170	1.160	6.580	200	202.16	-73.01	No	N/A	202.18	Yes	No	
Breckinridge	pj01818	KY 86	238+00.	20.421	-5.060	3.900	300	188.31	-71.12	Yes	No	214.15	No	N/A	
Breckinridge	pj01818	KY 86	257+00.	20.781	-7.170	-0.700	200	177.75	-69.56	Yes	No	179.45	No	N/A	
Breckinridge	pj01818	KY 86	265+00.	20.932	-0.700	1.063	200	489.66	-92.66	No	N/A	28,509.09	Yes	Yes	
Breckinridge	pj01818	KY 86	282+50.	21.264	0.842	3.820	200	319.20	-84.16	No	N/A	405.35	Yes	No	
Breckinridge	pj01818	KY 86	293+00.	21.463	-5.000	5.033	200	130.76	-60.98	Yes	No	145.28	No	N/A	
Breckinridge	pj01815	KY 86	308+00.	21.747	-5.600	1.420	200	167.68	-67.96	Yes	No	171.16	No	N/A	35 mph
Breckinridge	pj01815	KY 86	331+50.	22.192	-4.080	2.360	300	240.52	-77.47	Yes	No	248.61	No	N/A	
Breckinridge	pj01815	KY 86	346+00.	22.467	-1.600	-0.260	200	618.86	-96.47	No	N/A	-814.63	No	Yes	
Breckinridge	pj01815	KY 86	351+00.	22.561	-0.260	3.520	200	265.04	-79.85	No	N/A	284.73	Yes	No	
Breckinridge	pj01815	KY 86	370+00.	22.921	-1.000	8.877	200	170.15	-68.37	Yes	No	173.14	No	N/A	
Breckinridge	pj01815	KY 86	393+50.	23.366	-6.880	-2.195	400	387.06	-88.23	Yes	No	387.39	No	N/A	
Breckinridge	pj01815	KY 86	406+50.	23.612	-5.000	-0.220	500	457.55	-91.44	Yes	No	460.40	No	N/A	
Breckinridge	pj01815	KY 86	413+00.	23.717	-0.220	2.640	200	329.62	-84.86	No	N/A	437.84	Yes	No	
Breckinridge	pj01815	KY 86	443+00.	24.304	-3.091	0.000	400	547.51	-94.55	No	N/A	610.20	Yes	Yes	
Breckinridge	pj01815	KY 86	447+00.	24.379	0.000	3.060	200	312.44	-83.68	No	N/A	386.26	Yes	No	
Breckinridge	pj01815	KY 86	465+75.	24.735	-8.000	6.620	600	219.82	-75.19	Yes	No	356.77	No	N/A	
Breckinridge	pj01815	KY 86	485+00.	25.099	0.140	2.120	200	444.44	-90.91	No	N/A	1,730.43	Yes	Yes	
Breckinridge	pj01815	KY 86	503+00.	25.440	-0.540	3.283	200	262.75	-79.64	No	N/A	280.91	Yes	No	35 mph
Breckinridge	pj01815	KY 86	517+00.	25.705	-5.120	-0.320	500	455.96	-91.38	Yes	No	459.02	No	N/A	
Breckinridge	pj01815	KY 86	521+75.	25.795	-0.320	6.048	300	242.55	-77.68	Yes	No	250.14	No	N/A	
Hardin	pj07045	KY 86	551+75.	0.226	-8.000	-1.000	300	225.89	-75.89	Yes	No	238.10	No	N/A	
Hardin	pj07045	KY 86	563+00.	0.439	-3.300	1.540	300	299.68	-82.73	Yes	No	299.68	No	N/A	
Hardin	pj07045	KY 86	584+50.	0.847	-3.300	4.000	300	218.92	-75.09	Yes	No	233.33	No	N/A	
Hardin	pj07045	KY 86	597+00.	1.083	0.000	1.820	200	476.80	-92.19	No	N/A	5,457.14	Yes	Yes	
Hardin	pj07045	KY 86	614+50.	1.415	0.858	8.000	300	222.51	-75.51	Yes	No	235.77	No	N/A	
Hardin	pj07045	KY 86	627+50.	1.661	-6.700	2.985	400	219.74	-75.18	Yes	No	269.31	No	N/A	
Hardin	pj07045	KY 86	643+50.	1.964	-7.000	-2.250	300	304.12	-83.07	No	N/A	304.17	Yes	No	
Hardin	pj07045	KY 86	661+50.	2.305	-8.500	1.750	400	210.68	-74.09	Yes	No	264.71	No	N/A	
Hardin	pj07045	KY 86	673+50.	2.532	-7.300	0.000	300	218.92	-75.09	Yes	No	233.33	No	N/A	
Hardin	pj07045	KY 86	704+00.	3.110	-1.250	2.000	300	412.57	-89.49	No	N/A	458.33	Yes	No	
Hardin	pj07045	KY 86	712+00.	3.261	-2.100	0.000	200	423.32	-89.99	No	N/A	1,171.43	Yes	Yes	
Hardin	pj07045	KY 86	722+25.	3.455	0.000	8.500	400	242.37	-77.66	Yes	No	281.48	No	N/A	
Hardin	pj07045	KY 86	733+50.	3.669	-0.438	0.000	400	3,310.47	-110.47	No	N/A	-219.05	No	Yes	
Hardin	pj07045	KY 86	739+00.	3.773	0.000	1.672	300	726.75	-98.76	No	N/A	-5,779.49	No	Yes	
Hardin	pj07045	KY 86	745+25.	3.891	1.672	6.000	350	370.38	-87.34	No	N/A	371.37	Yes	No	
Hardin	pj07045	KY 86	761+50.	4.199	-3.250	0.000	300	412.57	-89.49	No	N/A	458.33	Yes	No	
Hardin	pj07045	KY 86	764+00.	4.246	0.000	2.000	200	440.75	-90.75	No	N/A	1,600.00	Yes	Yes	
Hardin	pj07045	KY 86	777+00.	4.492	-3.250	1.300	300	314.60	-83.83	No	N/A	315.18	Yes	No	
Hardin	pj07045	KY 86	782+00.	4.587	-1.000	-0.170	200	945.33	-101.96	No	N/A	-307.61	No	Yes	
Hardin	pj07045	KY 86	786+00.	4.663	-0.170	2.734	200	325.67	-84.60	No	N/A	425.04	Yes	No	
Hardin	pj07045	KY 86	793+75.	4.810	-5.000	0.000	250	253.80	-78.80	No	N/A	253.85	Yes	No	
Hardin	pj07045	KY 86	800+00.	4.928	0.000	4.400	300	323.06	-84.42	No	N/A	324.53	Yes	No	
Hardin	pj07045	KY 86	814+00.	5.193	0.400	3.280	300	455.96	-91.38	No	N/A	559.29	Yes	Yes	As-Builts End at Bridge over Rough River just West of KY 920
Hardin	Developed from Existing DTM Profile	KY 86	830+57.3		-2.770	3.910	350	263.06	-79.67	Yes	No	277.69	No	N/A	No As-Builts available. Begin VA development over existing DTM profile.
Hardin	Developed from Existing DTM Profile	KY 86	841+30.5		-0.190	4.330	500	479.46	-92.29	Yes	No	480.14	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	856+96.2		0.470	4.360	300	356.46	-86.54	No	N/A	366.12	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	866+90.3		0.040	3.610	200	276.98	-80.90	No	N/A	306.04	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	874+63.1		0.110	1.410	200	635.32	-96.86	No	N/A	-733.33	No	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	884+98.4		-3.150	3.380	400	296.92	-82.52	Yes	No	315.06	No	N/A	

Functional Classification = Rural Minor Arterial

Terrain = Rolling

Vd = 35 mph

Vd = 35 mph

Vd = 55 mph

Vd = 55 mph

therefore

therefore

therefore

therefore

Minimum Stopping Sight Distance = 250 ft

Maximum Grade = %

Minimum Stopping Sight Distance = 495 ft

Maximum Grade = 5 %

Source: KYTC Highway Design Manual Exhibit 700-03

Source: KYTC Highway Design Manual Exhibit 700-03

Source: KYTC Highway Design Manual Exhibit 700-03

Source: KYTC Highway Design Manual Exhibit 700-03

Sag Vertical Curves

County	As-Built Plan Set	Existing Vertical Curve			HSSD < L ¹					HSSD >= L ²			Notes		
		Road	VPI Station Number	Derived Milepoint	G1 (%)	G2 (%)	Existing Length (ft)	HSSD #1 (+)	HSSD #2 (-)	Is HSSD<L	Meet SSD Req.	HSSD*		Is HSSD>=L	Meet SSD Req.
Hardin	Developed from Existing DTM Profile	KY 86	898+45.2		-7.320	1.490	800	407.05	-89.23	Yes	No	527.48	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	922+62.6		-2.060	2.030	600	609.69	-96.24	No	N/A	609.83	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	931+01.7		-4.850	3.140	300	204.76	-73.35	Yes	No	224.12	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	939+55.7		-1.080	3.310	200	236.51	-77.05	No	N/A	242.05	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	944+51.1		-2.240	1.520	300	366.37	-87.11	No	N/A	380.10	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	947+13.6		1.520	4.670	200	305.39	-83.16	No	N/A	367.86	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	961+10.5		-3.860	4.050	400	256.00	-79.01	Yes	No	289.29	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	969+40.		-5.120	0.150	250	242.11	-77.64	Yes	No	242.30	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	975+11.4		0.150	4.520	200	237.32	-77.14	No	N/A	243.13	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	987+40.7		0.660	-5.970	300	306.15	-83.22	No	N/A	306.25	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	997+92.2		-4.360	-0.940	250	284.04	-81.50	No	N/A	287.94	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1004+57.4		-0.040	2.940	250	391.57	-87.94	No	N/A	465.45	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1026+18.6		-2.660	-6.580	1000	472.89	-92.04	Yes	No	644.49	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	1052+98.8		-5.750	2.120	500	305.54	-83.17	Yes	No	354.17	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	1069+10.		0.190	3.400	400	530.16	-94.02	No	N/A	576.71	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1088+12.7		-6.930	-0.710	400	308.47	-83.39	Yes	No	323.04	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	1095+21.4		-0.710	3.240	300	352.10	-86.28	No	N/A	360.23	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1103+58.		0.150	-6.210	200	186.35	-70.84	Yes	No	187.01	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	1110+51.4		-4.770	-0.600	150	198.42	-72.52	No	N/A	211.88	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1118+32.6		-5.940	4.580	350	187.44	-71.00	Yes	No	232.73	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	1125+85.9		-4.270	0.180	250	277.58	-80.96	No	N/A	280.09	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1139+22.2		-1.440	4.720	250	216.89	-74.85	Yes	No	219.95	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	1149+32.7		-3.940	3.040	500	336.00	-85.28	Yes	No	371.89	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	1156+85.8		-2.400	2.970	150	165.34	-67.58	No	N/A	166.51	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1167+11.		-2.480	2.800	300	280.03	-81.16	Yes	No	281.02	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	1170+31.7		-1.630	0.050	200	510.03	-93.36	No	N/A	-5,257.14	No	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1185+20.5		0.050	3.750	100	161.52	-66.93	No	N/A	197.44	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1190+52.2		-0.230	1.950	100	237.73	-77.18	No	N/A	718.60	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1193+49.1		-2.080	-0.060	200	437.13	-90.60	No	N/A	1,488.89	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1201+45.3		-0.060	2.330	400	683.69	-97.92	No	N/A	1,059.38	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1209+49.3		-1.730	-0.670	200	759.72	-99.34	No	N/A	-443.48	No	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1216+26.7		-1.480	-0.270	200	676.28	-97.76	No	N/A	-594.44	No	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1218+47.4		-0.270	1.030	200	635.32	-96.86	No	N/A	-733.33	No	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1222+83.1		-0.780	1.230	300	618.86	-96.47	No	N/A	1,928.85	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1235+40.9		0.000	0.810	100	525.98	-93.89	No	N/A	-255.85	No	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1241+08.5		0.810	2.380	200	540.19	-94.33	No	N/A	-1,983.33	No	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1252+31.7		-0.510	3.000	300	387.40	-88.25	No	N/A	412.79	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1260+79.9		-2.490	-0.180	200	391.49	-88.46	No	N/A	769.64	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1268+07.9		-2.650	-0.050	200	355.73	-86.50	No	N/A	541.18	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1273+42.		-0.050	2.010	200	430.10	-90.29	No	N/A	1,309.68	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1277+82.8		-1.050	1.720	150	269.81	-80.28	No	N/A	399.75	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1283+45.1		-1.400	1.220	200	353.54	-86.37	No	N/A	531.03	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1287+71.2		-1.200	1.090	150	312.97	-83.72	No	N/A	688.43	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1294+43.3		-1.410	0.240	150	407.43	-89.25	No	N/A	-3,237.50	No	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1302+27.2		-0.920	1.610	300	508.33	-93.31	No	N/A	742.95	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1312+47.9		-4.810	-1.880	200	323.35	-84.44	No	N/A	417.80	Yes	No	End Rural Arterial. Begin Urban Arterial at Cecilia.

* Note: A Negative Sign Indicates Unlimited Sight Distance

¹ Source: 2011 Green Book Formula 3-48

² Source: 2011 Green Book Formula 3-50

Total Number of Sag VC's =	117	
Number of Deficient Sag VC's =	83	71%

Total Number of VC's =	222	
Number of Deficient VC's =	158	71%

Functional Classification = Urban Minor Arterial
 Terrain = Rolling
 Vd = 35 mph therefore μ m Stopping Sight Distance = 250 ft Source: KYTC Highway Design Manual Exhibit 700-04
 Vd = 35 mph therefore Maximum Grade = 8 % Source: KYTC Highway Design Manual Exhibit 700-03

Crest Vertical Curves

County	As-Built Plan Set	Existing Vertical Curve						SSD < L ¹			SSD >= L ²			Notes
		Road	VPI Station Number	Derived Milepoint	G1 (%)	G2 (%)	Length of Curve (ft)	SSD	Is SSD<L	Meet SSD Req.	SSD	Is SSD>=L	Meet SSD Req.	
Hardin	pj06837	KY 86	29+00.	14.773	0.640	-1.600	200.00	438.95	No	N/A	581.70	Yes	Yes	As-Built Start just West of Rhudes Creek
Hardin	pj06837	KY 86	35+00.	14.887	2.000	-1.120	400.00	525.99	No	N/A	545.83	Yes	Yes	
Hardin	pj06837	KY 86	61+00.	15.379	5.195	2.570	400.00	573.44	No	N/A	611.05	Yes	Yes	As-Built End just East of St. Ambrose Church Lane
Hardin	Developed from Existing DTM Profile	KY 86	1345+98.6		2.950	1.840	100.00	440.92	No	N/A	1,022.07	Yes	Yes	No As-Built available. Begin VA development over existing DTM profile.
Hardin	Developed from Existing DTM Profile	KY 86	1351+88.8		5.190	-2.550	400.00	333.95	Yes	Yes	339.41	No	N/A	
Hardin	Developed from Existing DTM Profile	KY 86	1369+76.6		4.120	0.000	200.00	323.66	No	N/A	361.89	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1373+44.		0.000	-2.560	200.00	410.60	No	N/A	521.48	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1390+71.		2.820	-2.450	150.00	247.84	No	N/A	279.74	Yes	Yes	End Project at US 62 Intersection
											Total Number of Crest VC's =		8	
											Number of Deficient Crest VC's =		0	0%

¹ Source: 2011 Green Book Formula 3-43
² Source: 2011 Green Book Formula 3-44

Sag Vertical Curves

County	As-Built Plan Set	Existing Vertical Curve						HSSD < L ¹				HSSD >= L ²			Notes
		Road	VPI Station Number	Derived Milepoint	G1 (%)	G2 (%)	Existing Length (ft)	HSSD #1 (+)	HSSD #2 (-)	Is HSSD<L	Meet SSD Req.	HSSD*	Is HSSD>=L	Meet SSD Req.	
Hardin	pj06837	KY 86	26+50.	14.726	-1.000	0.640	200	520.54	-93.71	No	N/A	-3,309.09	No	Yes	As-Built Start just West of Rhudes Creek
Hardin	pj06837	KY 86	31+50.	14.820	-1.600	2.000	300	379.50	-87.83	No	N/A	400.00	Yes	Yes	
Hardin	pj06837	KY 86	39+50.	14.972	-1.120	0.640	300	694.73	-98.14	No	N/A	46,400.00	Yes	Yes	
Hardin	pj06837	KY 86	48+50.	15.142	0.640	5.195	100	139.70	-62.86	No	N/A	152.50	Yes	No	As-Built End just East of St. Ambrose Church Lane
Hardin	Developed from Existing DTM Profile	KY 86	1342+74.3		0.770	2.950	300	577.04	-95.39	No	N/A	1,225.58	Yes	Yes	No As-Built available. Begin VA development over existing DTM profile.
Hardin	Developed from Existing DTM Profile	KY 86	1348+07.9		1.840	5.190	100	173.36	-68.88	No	N/A	229.69	Yes	No	
Hardin	Developed from Existing DTM Profile	KY 86	1355+56.8		-2.550	-0.900	200	517.87	-93.62	No	N/A	-3,650.00	No	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1362+18.7		-0.900	-0.040	200	915.56	-101.60	No	N/A	-321.35	No	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1367+05.5		-0.040	4.120	200	246.34	-78.07	No	N/A	255.60	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1380+27.5		-2.560	0.340	300	453.34	-91.28	No	N/A	552.17	Yes	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1385+34.9		0.340	1.490	300	1,015.77	-102.73	No	N/A	-620.83	No	Yes	
Hardin	Developed from Existing DTM Profile	KY 86	1388+46.3		1.490	2.820	100	349.27	-86.11	No	N/A	-634.52	No	Yes	End Project at US 62 Intersection
											Total Number of Sag VC's =		12		
											Number of Deficient Sag VC's =		2	17%	

* Note: A Negative Sign Indicates Unlimited Sight Distance
¹ Source: 2011 Green Book Formula 3-48
² Source: 2011 Green Book Formula 3-50

Archived As-Built Plans: pj006837 (1992)
 Bridge over Rhudes Creek = Sta. 28+95 = Milepoint 14.772

Total Number of VC's =	20	
Number of Deficient VC's =	2	10%