SAR Exhibit B

Kirkland Appraisals, LLC

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March 15, 2022

Chad Martin
Cardno
76 San Marcos Street
Austin, TX 78702

RE: Hummingbird Solar Project, Fleming County, KY

Mr. Martin,

At your request, I have considered the impact of a 200 MW solar farm proposed to be constructed on a portion of a 3,115-acre assemblage of land off Poplar Grove Road, located near Flemingsburg, Fleming County, Kentucky. Specifically, I have been asked to give my professional opinion on whether the proposed solar farm will have any impact on adjoining property value and whether "the location and character of the use, if developed according to the plan as submitted and approved, will be in harmony with the area in which it is to be located."

To form an opinion on these issues, I have researched and visited existing and proposed solar farms in Kentucky as well as other states, researched articles through the Appraisal Institute and other studies, and discussed the likely impact with other real estate professionals. I have not been asked to assign any value to any specific property.

This letter is a limited report of a real property appraisal consulting assignment and subject to the limiting conditions attached to this letter. My client is Cardno represented to me by Chad Martin. My findings support the Kentucky Siting Board Application. The effective date of this consultation is March 15, 2021.

While based in NC, I am also a Kentucky State Certified General Appraiser #5522.

Conclusion

The adjoining properties are well set back from the proposed solar panels and supplemental vegetation is proposed to enhance the areas where the existing trees do not currently provide a proper screen. The closest home will be 500 feet from the nearest panel and the average distance will be 963 feet.

The matched pair analysis shows no impact on home values due to abutting or adjoining a solar farm as well as no impact to abutting or adjacent vacant residential or agricultural land where the solar farm is properly screened and buffered. The criteria that typically correlates with downward adjustments on property values such as noise, odor, and traffic all indicate that a solar farm is a compatible use for rural/residential transition areas and that it would function in a harmonious manner with this area.

Data from the university studies, broker commentary, and other appraisal studies support a finding of no impact on property value adjoining a solar farm with proper setbacks and landscaped buffers.

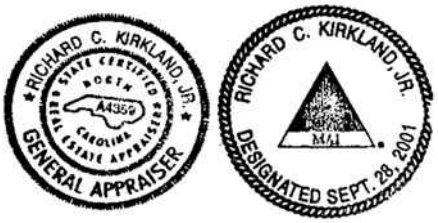
Very similar solar farms in very similar areas have been found by hundreds of towns and counties not to have a substantial negative effect to abutting or adjoining properties, and many of those

findings of no impact have been upheld by appellate courts. Similar solar farms have been approved with adjoining agricultural uses, schools, churches, and residential developments.

Based on the data and analysis in this report, it is my professional opinion that the solar farm proposed at the subject property will have no impact on the value of adjoining or abutting properties and that the proposed use is in harmony with the area in which it is located. I note that some of the positive implications of a solar farm that have been expressed by people living next to solar farms include protection from future development of residential developments or other more intrusive uses, reduced dust, odor and chemicals from former farming operations, protection from light pollution at night, it's quiet, and there is minimal traffic.

If you have any questions please contact me.

Sincerely,



Richard C. Kirkland, Jr., MAI
Kentucky Certified General Appraiser #5522

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I. Proposed Project and Adjoining Uses

Proposed Use Description

This 200 MW solar farm is proposed to be constructed on a portion of a 3,115-acre assemblage of land located off Poplar Grove Road, Flemingsburg, Fleming County, Kentucky. Adjoining land is a mix of residential and agricultural uses, which is very typical of solar farm sites.

Adjoining Properties

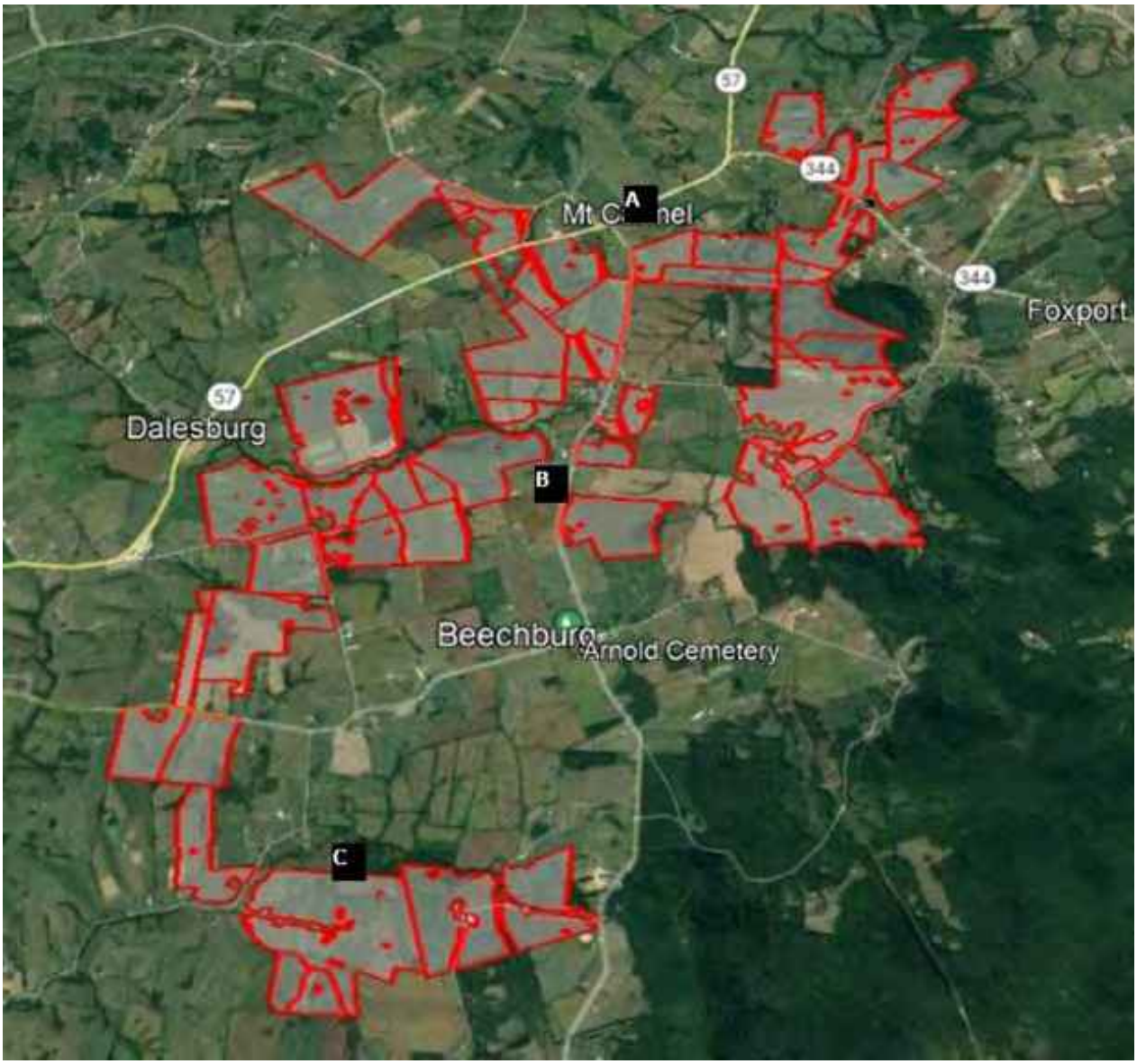
I have considered adjoining uses and included a map to identify each parcel's location. Based on the current site plan the closest adjoining home will be 500 feet from the closest solar panel and the average distance to adjoining homes will be 963 feet to the nearest solar panel. These setbacks are much larger than what is typically found and will go beyond what is needed to protect adjoining

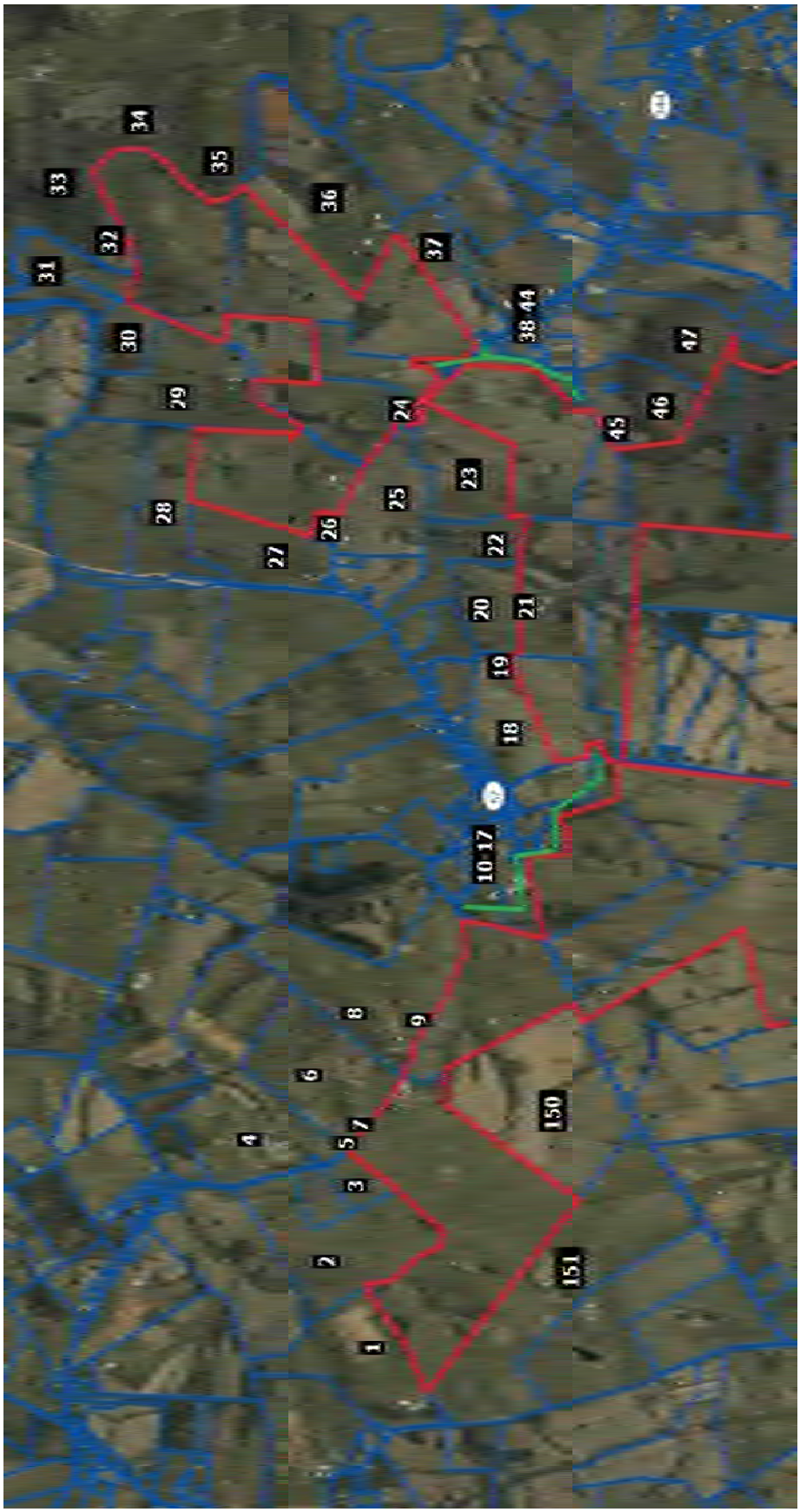
The breakdown of those uses by acreage and number of parcels is summarized below.

Adjoining Use Breakdown

	Acreage	**Parcels**
Residential	4.64%	46.71%
Agricultural	37.40%	25.00%
Agri/Res	57.94%	27.63%
Cemetery	0.02%	0.66%
Total	**100.00%**	**100.00%**

Tax Parcel Map

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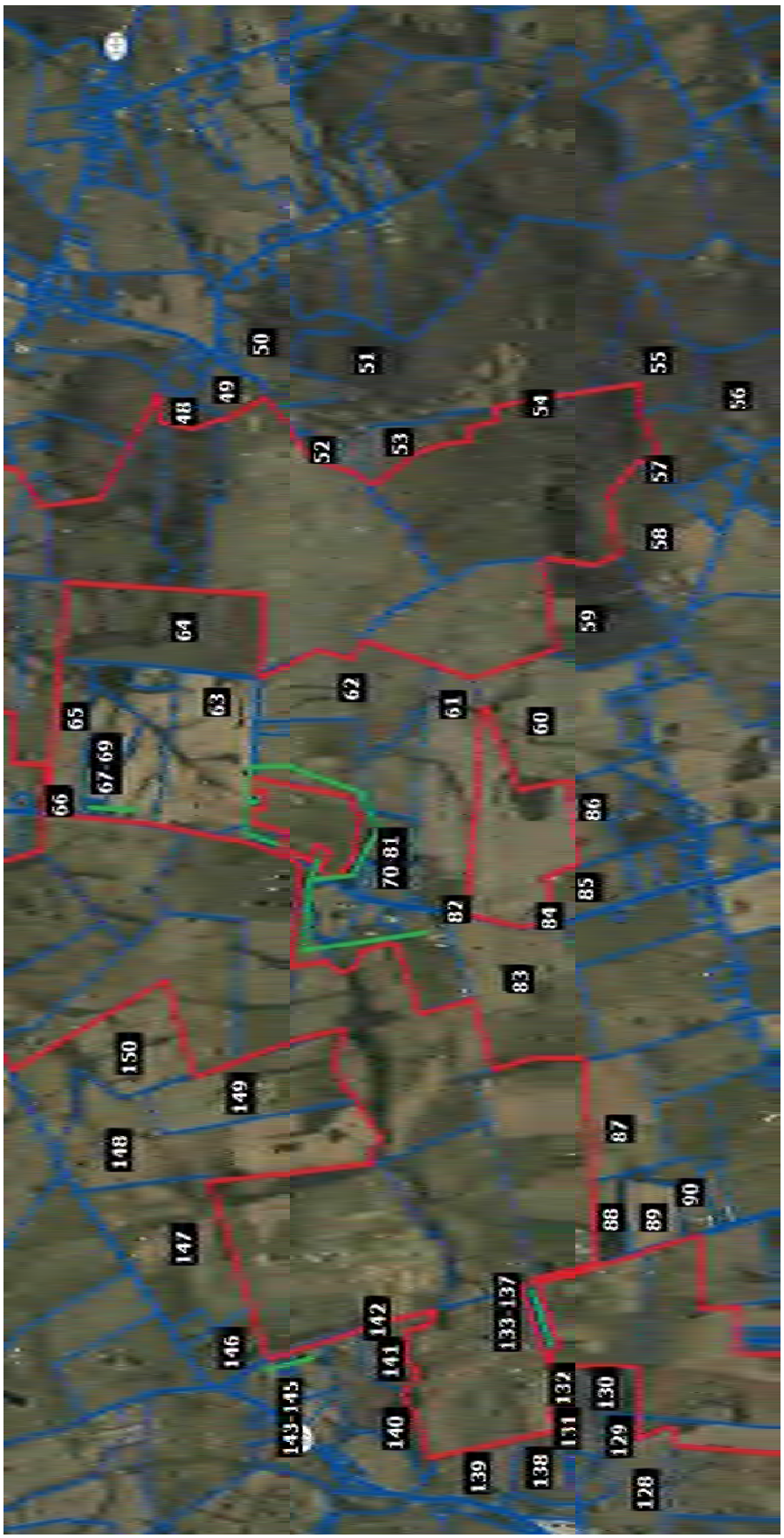
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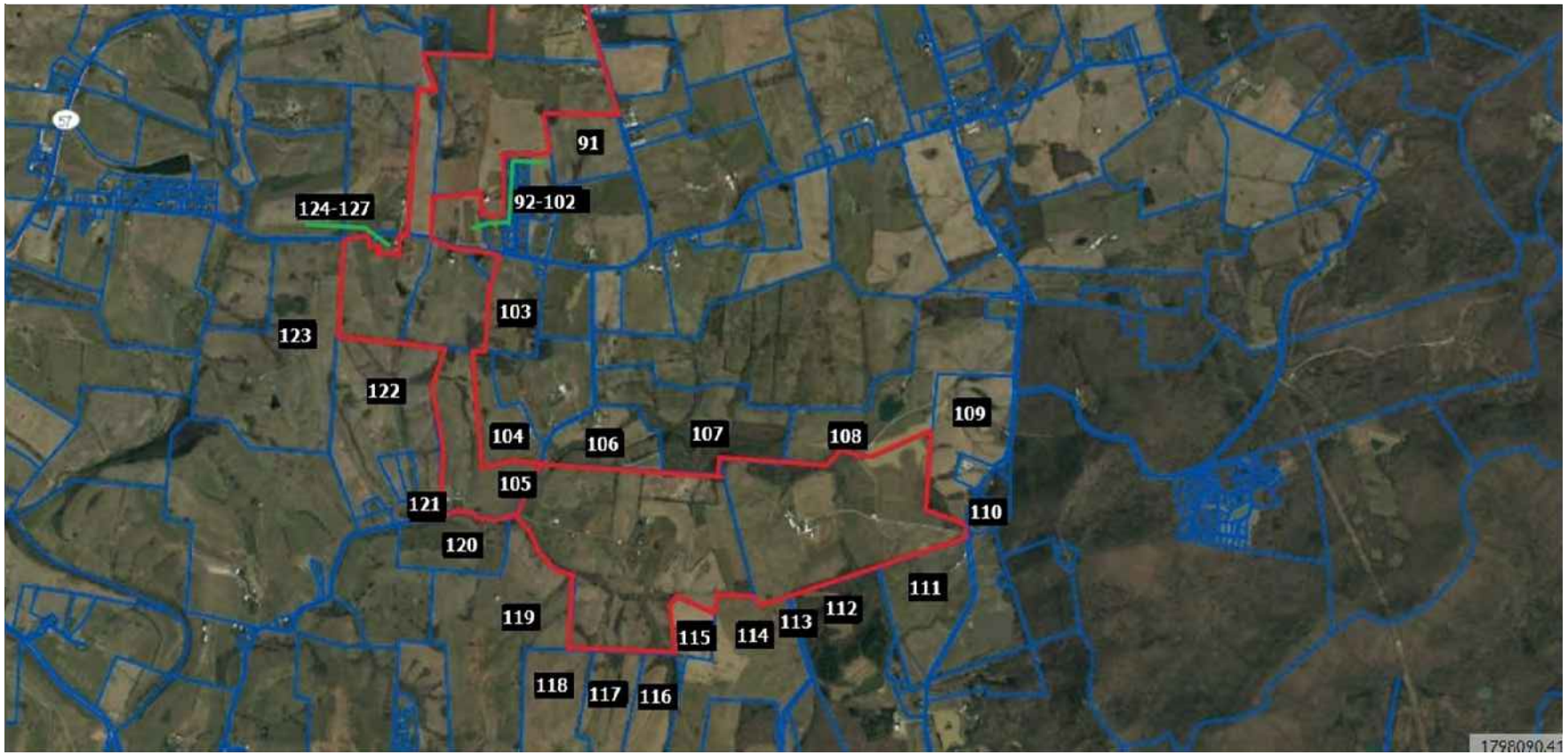
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Surrounding Uses

#	MAP ID	Owner	GIS Data Acres	Present Use	Adjoin Acres	Distance (ft) Home/Panel	LF Adjacency
1	057-00-00-037.00	Schwartz	86.13	Agri/Res	1.23%	500	2,175
2	057-00-00-007.00	Eicher	95.83	Agricultural	1.37%	N/A	2875
3	057-00-00-007.02	Lengacher	15.11	Residential	0.22%	N/A	1130
4	057-00-00-006.00	Triple A Farm	141.88	Agri/Res	2.03%	2,015	1
5	057-00-00-008.00	Reid	0.50	Residential	0.01%	1,620	155
6	057-00-00-008.00	Reid	87.90	Agri/Res	1.26%	1,130	1,250
7	057-00-00-008.01	Reid	0.59	Residential	0.01%	1,180	140
8	069-00-00-019.00	Humphries	174.00	Agri/Res	2.49%	500	2750
9	069-00-00-018.00	Kearns	1.50	Residential	0.02%	500	220
10	069-00-00-021.01	Graber	13.66	Residential	0.20%	650	775
11	069-00-00-021.00	Lengacher	25.06	Agri/Res	0.36%	500	2,140
12	069-00-00-020.00	Mers	0.58	Residential	0.01%	500	50
13	069-00-00-025.00	Mers	5.41	Residential	0.08%	500	1,570
14	069-00-00-027.0	Meadows	9.11	Residential	0.13%	565	695
15	069-00-00-028.00	Crump	20.20	Agri/Res	0.29%	885	200
16	069-00-00-028.01	Rucker	7.21	Residential	0.10%	765	1050
17	069-00-00-029.00	Utterback	1.88	Residential	0.03%	N/A	Easement
18	069-00-00-029.01	Utterback	46.82	Agricultural	0.67%	N/A	Easement
19	069-40-00-054.00	Utterback	1.33	Residential	0.02%	2,750	Easement
20	069-00-00-007.00	Mineer	41.08	Agricultural	0.59%	N/A	Easement
21	069-00-00-011.00	Mineer	0.98	Residential	0.01%	1,770	Easement
22	069-00-00-007.03	Suarez	45.03	Agricultural	0.64%	N/A	Easement
23	069-00-00-001.00	Miller	60.00	Agricultural	0.86%	N/A	3000
24	080-00-00-011.00	Applegate	1.00	Residential	0.01%	N/A	590
25	069-00-00-004.00	Applegate	56.75	Agri/Res	0.81%	1,140	1910
26	069-00-00-003.00	Ratliff	4.95	Residential	0.07%	860	855
27	069-00-00-005.00	Foxworthy	150.00	Agri/Res	2.15%	1,165	2110
28	068-00-00-013.00	White	65.50	Agri/Res	0.94%	1,510	1275
29	080-00-00-004.00	Meadows	128.19	Agri/Res	1.84%	650	4880
30	080-00-00-004.01	Hughes	25.31	Agricultural	0.36%	N/A	645
31	080-00-00-002.00	Applegate	49.50	Agri/Res	0.71%	1,220	555
32	104647	Applegate	10.40	Residential	0.15%	N/A	1315
33	012-00-00-048.00	Unknown	209.30	Agricultural	3.00%	N/A	1040
34	105270	Applegate	69.80	Agricultural	1.00%	N/A	1525
35	104208	Burberry	113.80	Agricultural	1.63%	N/A	1790
36	080-00-00-009.00	Schwartz	121.00	Agri/Res	1.73%	500	4210
37	081-00-00-010.00	Schwartz	38.03	Agricultural	0.54%	N/A	2230
38	081-00-00-002.00	Beckett	0.50	Residential	0.01%	500	215
39	081-00-00-004.02	Skaggs	6.06	Residential	0.09%	N/A	1255
40	080-00-00-012.00	Skaggs	0.87	Residential	0.01%	N/A	610
41	080-00-00-006.00	May	2.29	Residential	0.03%	500	635
42	081-00-00-001.02	Palmer	0.77	Residential	0.01%	500	295
43	081-00-00-001.01	Palmer	3.52	Residential	0.05%	530	490
44	081-00-00-006.00	Mers	2.85	Residential	0.04%	500	490

#	MAP ID	Owner	GIS Data Acres	Present Use	Adjoin Acres	Distance (ft) Home/Panel	LF Adjacency
45	081-00-00-009.00	Spann	2.59	Residential	0.04%	500	25
46	081-00-00-008.00	Schwartz	43.23	Agricultural	0.62%	N/A	315
47	081-00-00-012.00	Graber	69.93	Agricultural	1.00%	N/A	Easement
48	081-00-00-045.00	Graber	10.00	Residential	0.14%	N/A	1680
49	081-00-00-039.00	Smith	30.00	Agri/Res	0.43%	500	825
50	081-00-00-040.00	Doyle	72.92	Agricultural	1.04%	N/A	250
51	081-00-00-041.00	Garrett	335.55	Agri/Res	4.80%	845	2640
52	081-00-00-041.01	Steele	5.54	Residential	0.08%	N/A	920
53	070-00-00-002.01	Graber	30.70	Agricultural	0.44%	N/A	3000
54	070-00-00-003.00	Rolph Family	1.38	Cemetery	0.02%	N/A	215
55	082-00-00-005.00	New Direction	70.12	Agricultural	1.00%	N/A	1265
56	082-00-00-032.00	Taylor Trust	285.25	Agri/Res	4.08%	5,110	775
57	070-00-00-028.02	Holt	7.59	Residential	0.11%	N/A	340
58	070-00-00-028.05	Schwartz	81.43	Agri/Res	1.17%	1,785	1855
59	070-00-00-026.00	Marshall	66.41	Agri/Res	0.95%	1,215	2970
60	070-00-00-023.00	Marshall	110.96	Agricultural	1.59%	1,110	3970
61	070-00-00-009.00	Marshall	96.68	Agricultural	1.38%	N/A	705
62	069-00-00-039.00	Caudill	85.38	Agricultural	1.22%	N/A	3220
63	069-00-00-037.00	Williams	95.06	Agri/Res	1.36%	500	980
64	069-00-00-048.00	Turner	107.21	Agricultural	1.53%	N/A	3155
65	069-00-00-033.00	Lewis	35.62	Agricultural	0.51%	1,085	Easement
66	069-00-00-031.00	Swim	1.11	Residential	0.02%	1,055	Easement
67	069-00-00-034.01	Ripato	0.93	Residential	0.01%	1,210	Easement
68	069-00-00-034.02	Ripato	1.83	Residential	0.03%	1,330	Easement
69	069-00-00-036.00	Williams	52.31	Agri/Res	0.75%	1,080	Easement
70	069-00-00-042.00	Esh	1.94	Residential	0.03%	500	755
71	069-00-00-041.00	Kegley	2.81	Residential	0.04%	500	650
72	069-00-00-040.00	Kegley	0.86	Residential	0.01%	500	605
73	069-00-00-047.02	Kegley	52.48	Agricultural	0.75%	N/A	1865
74	069-00-00-045.00	Caudill	29.36	Agricultural	0.42%	N/A	895
75	069-00-00-044.00	Mik	4.75	Residential	0.07%	500	575
76	070-00-00-006.01	Esh	14.95	Residential	0.21%	515	1
77	070-00-00-004.00	McKisson	5.00	Residential	0.07%	625	430
78	069-00-00-047.01	Hickerson	1.90	Residential	0.03%	500	950
79	070-00-00-005.00	Helmuth	12.66	Residential	0.18%	500	1705
80	070-00-00-006.02	Norton	16.81	Residential	0.24%	665	1580
81	070-00-00-010.00	Peachey	36.07	Agri/Res	0.52%	880	2165
82	070-00-00-011.00	Marshall	1.21	Residential	0.02%	500	175
83	070-00-00-014.00	Marshall	110.00	Agricultural	1.57%	N/A	4325
84	070-00-00-013.00	Gardner	1.30	Residential	0.02%	500	485
85	070-00-00-015.00	Marshall	70.86	Agricultural	1.01%	N/A	1145
86	070-00-00-016.00	Caudill	38.46	Agricultural	0.55%	N/A	1525
87	070-00-00-016.00	Marshall	57.75	Agricultural	0.83%	N/A	2205
88	058-00-00-034.00	Holland	17.00	Residential	0.24%	795	1455

#	MAP ID	Owner	GIS Data Acres	Present Use	Adjoin Acres	Distance (ft) Home/Panel	LF Adjacency
89	058-00-00-034.01	Peachey	26.69	Agricultural	0.38%	N/A	720
90	058-00-00-036.00	Coblentz	19.00	Residential	0.27%	500	315
91	058-00-00-037.00	Prater	39.75	Agricultural	0.57%	N/A	2120
92	058-00-00-040.00	Fearin	13.55	Residential	0.19%	N/A	405
93	058-00-00-040.28	Harmon	0.70	Residential	0.01%	500	175
94	058-00-00-040.26	Conn	1.21	Residential	0.02%	500	490
95	058-00-00-040.22	Soule	1.10	Residential	0.02%	500	220
96	058-00-00-040.20	Ballard	0.55	Residential	0.01%	500	110
97	058-00-00-040.18	Ballard	0.55	Residential	0.01%	N/A	125
98	058-00-00-040.14	Stacy	1.33	Residential	0.02%	500	295
99	058-00-00-040.12	Williams	0.57	Residential	0.01%	500	120
100	058-00-00-040.10	McCleese	0.57	Residential	0.01%	500	1
101	058-00-00-041.03	Utterback	5.00	Residential	0.07%	500	405
102	058-00-00-041.00	Brewer	21.03	Agri/Res	0.30%	695	1280
103	059-00-00-005.01	Harvey	38.15	Agricultural	0.55%	N/A	Easement
104	059-00-00-009.02	Lunsford	34.47	Agricultural	0.49%	500	2730
105	059-00-00-012.01	Williams	1.72	Residential	0.02%	500	1215
106	059-00-00-009.01	Mazelin	45.00	Agri/Res	0.64%	835	2250
107	059-00-00-008.00	Wills	100.30	Agricultural	1.44%	N/A	2770
108	070-00-00-039.00	Fearin	127.44	Agri/Res	1.82%	500	3060
109	071-00-00-003.00	Williams	80.07	Agri/Res	1.15%	1,425	2240
110	071-00-00-003.01	Williams	9.13	Residential	0.13%	525	150
111	071-00-00-005.00	Salyers	119.60	Agri/Res	1.71%	500	1810
112	071-00-00-010.01	Lengacher	130.47	Agri/Res	1.87%	2,635	1760
113	059-00-00-028.01	Jones	0.86	Residential	0.01%	N/A	20
114	059-00-00-028.00	Jones	112.25	Agri/Res	1.61%	2,975	1710
115	059-00-00-027.00	Jones	18.28	Residential	0.26%	N/A	1880
116	059-00-00-026.00	Strausbaugh	45.65	Agri/Res	0.65%	2,835	620
117	059-00-00-023.00	Borders	50.00	Agri/Res	0.72%	2,140	940
118	059-00-00-022.00	Gooding	68.00	Agri/Res	0.97%	2,180	460
119	059-00-00-021.00	Himes	169.00	Agri/Res	2.42%	2,705	3090
120	059-00-00-011.00	Bedore	40.00	Agri/Res	0.57%	500	1315
121	059-00-00-014.00	Mitchell	3.33	Residential	0.05%	500	270
122	059-00-00-013.00	Doyle	125.32	Agri/Res	1.79%	850	4785
123	059-00-00-001.00	Kaenzig	170.60	Agri/Res	2.44%	2,825	2830
124	058-00-00-043.00	Colgan	87.05	Agricultural	1.25%	N/A	Easement
125	058-00-00-042.00	Colgan	76.75	Agri/Res	1.10%	880	Easement
126	059-00-00-003.00	Colgan	0.34	Residential	0.00%	1,450	Easement
127	059-00-00-004.00	Galbreath	4.39	Residential	0.06%	1,225	Easement
128	058-00-00-019.00	Morris	100.00	Agri/Res	1.43%	2,015	Easement
129	058-00-00-022.00	Lindberg	5.43	Residential	0.08%	500	Easement
130	058-00-00-023.02	Hill	35.57	Agricultural	0.51%	N/A	1450
131	058-00-00-023.00	Lamar	0.24	Residential	0.00%	500	100
132	058-00-00-023.01	Spencer	3.26	Residential	0.05%	670	545

#	MAP ID	Owner	GIS Data Acres	Present Use	Adjoin Acres	Distance (ft) Home/Panel	LF Adjacency
133	058-00-00-025.00	Cox	1.27	Residential	0.02%	500	390
134	058-00-00-026.00	Earls	0.77	Residential	0.01%	500	335
135	058-00-00-028.00	Spencer	0.32	Residential	0.00%	500	120
136	058-00-00-029.00	Schwartz	0.34	Residential	0.00%	500	100
137	058-00-00-030.00	Arthur	0.61	Residential	0.01%	500	345
138	058-00-00-020.00	Graham	26.37	Agricultural	0.38%	N/A	645
139	058-00-00-020.01	Strode	32.42	Agri/Res	0.46%	875	1575
140	058-00-00-017.00	Gilliam	41.93	Agri/Res	0.60%	500	1935
141	058-00-00-018.00	Dillon	24.50	Agri/Res	0.35%	500	2725
142	058-00-00-016.00	Utterback	0.70	Residential	0.01%	500	3060
143	058-00-00-012.03	Caskey	12.48	Residential	0.18%	N/A	575
144	058-00-00-012.05	Hawkins	2.00	Residential	0.03%	575	260
145	058-00-00-012.00	Gilkerson	12.47	Residential	0.18%	N/A	140
146	058-00-00-014.00	Utterback	25.83	Agricultural	0.37%	N/A	960
147	057-00-00-016.00	Conrad	110.00	Agri/Res	1.57%	1,690	2400
148	057-00-00-013.00	Reeder	149.97	Agricultural	2.15%	N/A	4220
149	057-00-00-013.00	Reeder	80.03	Agricultural	1.15%	N/A	4240
150	057-00-00-011.00	Johnson	93.33	Agri/Res	1.34%	1,120	4965
151	057-00-00-012.00	Reeder	141.78	Agricultural	2.03%	N/A	5870
152	057-00-00-015.00	Humphries	175.93	Agri/Res	2.52%	940	4265
		Total	**6985.389**		**100.00%**	963	

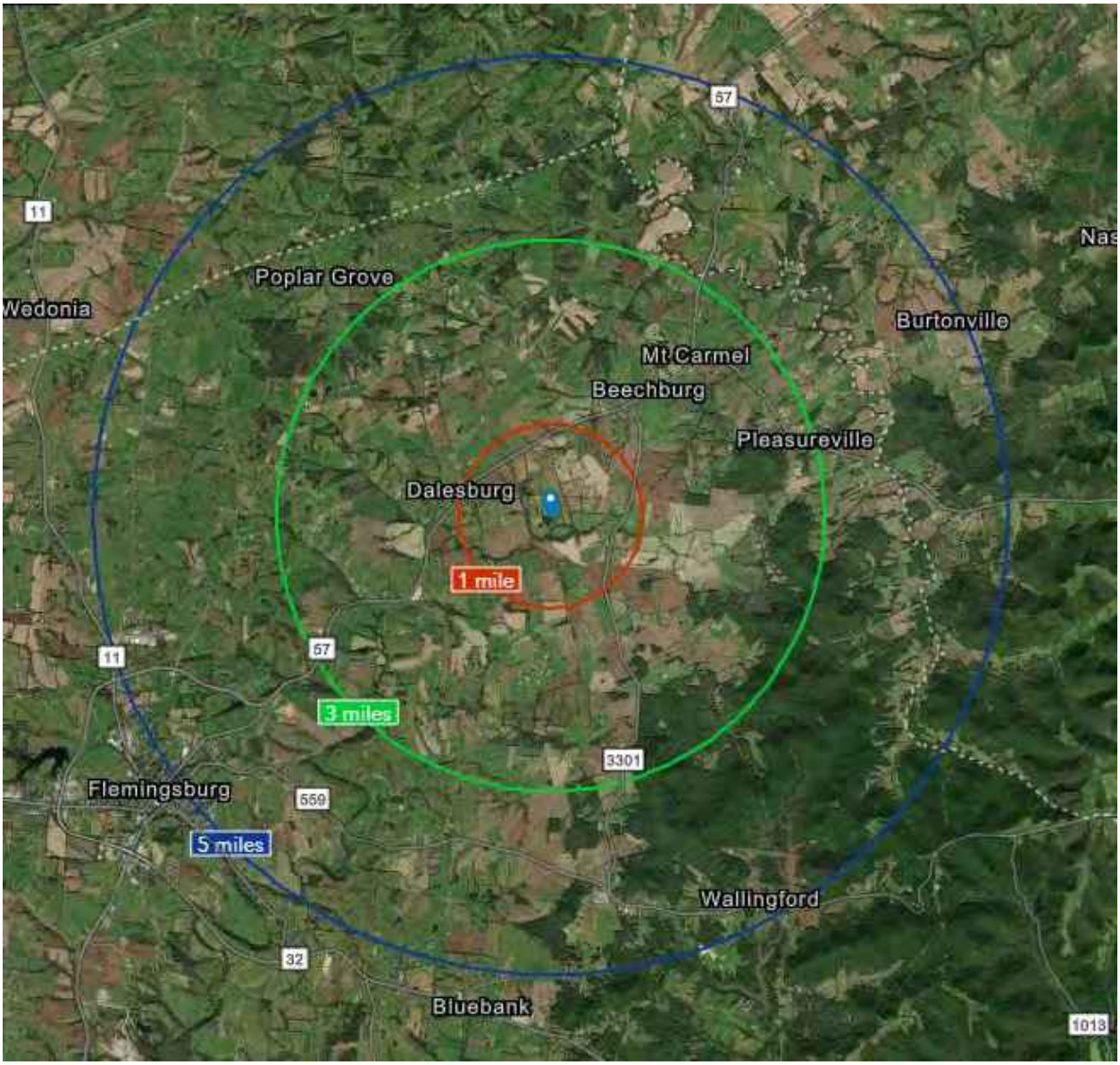
N/A indicates that there is no adjoining home to which to measure.

Linear feet of adjacency listed in red means that the property is across a right of way from the subject property.

Linear feet of adjacency of 1 foot is assigned where properties meet at a corner.

II. Demographics

I have pulled the following demographics for a 1-mile, 3-mile and 5-mile radius around the proposed solar farm project.



Housing Profile

41041, Flemingsburg, Kentucky 2
41041, Flemingsburg, Kentucky
Ring: 1 mile radius

Prepared by Esri
Latitude: 38.46500
Longitude: -83.65440

Population		Households	
2010 Total Population	118	2021 Median Household Income	$59,840
2021 Total Population	110	2026 Median Household Income	$59,840
2026 Total Population	109	2021-2026 Annual Rate	0.00%
2021-2026 Annual Rate	-0.18%		

	Census 2010		2021		2026	
Housing Units by Occupancy Status and Tenure	Number	Percent	Number	Percent	Number	Percent
Total Housing Units	40	100.0%	38	100.0%	38	100.0%
Occupied	34	85.0%	32	84.2%	32	84.2%
Owner	28	70.0%	25	65.8%	25	65.8%
Renter	6	15.0%	7	18.4%	7	18.4%
Vacant	6	15.0%	6	15.8%	6	15.8%

	2021		2026	
Owner Occupied Housing Units by Value	Number	Percent	Number	Percent
Total	25	100.0%	24	100.0%
<$50,000	3	12.0%	2	8.3%
$50,000-$99,999	5	20.0%	4	16.7%
$100,000-$149,999	5	20.0%	4	16.7%
$150,000-$199,999	3	12.0%	3	12.5%
$200,000-$249,999	0	0.0%	0	0.0%
$250,000-$299,999	1	4.0%	1	4.2%
$300,000-$399,999	5	20.0%	6	25.0%
$400,000-$499,999	0	0.0%	0	0.0%
$500,000-$749,999	2	8.0%	3	12.5%
$750,000-$999,999	1	4.0%	1	4.2%
$1,000,000-$1,499,999	0	0.0%	0	0.0%
$1,500,000-$1,999,999	0	0.0%	0	0.0%
$2,000,000+	0	0.0%	0	0.0%
Median Value	$145,000		$183,333	
Average Value	$230,000		$270,833	

Census 2010 Housing Units	Number	Percent
Total	40	100.0%
In Urbanized Areas	0	0.0%
In Urban Clusters	1	2.5%
Rural Housing Units	39	97.5%

Data Note: Persons of Hispanic Origin may be of any race.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2021 and 2026.

March 15, 2022

Housing Profile

41041, Flemingsburg, Kentucky 2
41041, Flemingsburg, Kentucky
Ring: 3 mile radius

Prepared by Esri
Latitude: 38.46500
Longitude: -83.65440

Population		Households	
2010 Total Population	1,078	2021 Median Household Income	$54,492
2021 Total Population	1,088	2026 Median Household Income	$56,791
2026 Total Population	1,077	2021-2026 Annual Rate	0.83%
2021-2026 Annual Rate	-0.20%		

	Census 2010		2021		2026	
Housing Units by Occupancy Status and Tenure	Number	Percent	Number	Percent	Number	Percent
Total Housing Units	421	100.0%	428	100.0%	433	100.0%
Occupied	382	90.7%	388	90.7%	386	89.1%
Owner	319	75.8%	303	70.8%	303	70.0%
Renter	63	15.0%	85	19.9%	83	19.2%
Vacant	39	9.3%	40	9.3%	47	10.9%

	2021		2026	
Owner Occupied Housing Units by Value	Number	Percent	Number	Percent
Total	304	100.0%	302	100.0%
<$50,000	36	11.8%	26	8.6%
$50,000-$99,999	69	22.7%	53	17.5%
$100,000-$149,999	54	17.8%	48	15.9%
$150,000-$199,999	43	14.1%	44	14.6%
$200,000-$249,999	17	5.6%	19	6.3%
$250,000-$299,999	10	3.3%	11	3.6%
$300,000-$399,999	36	11.8%	47	15.6%
$400,000-$499,999	0	0.0%	0	0.0%
$500,000-$749,999	19	6.2%	27	8.9%
$750,000-$999,999	17	5.6%	24	7.9%
$1,000,000-$1,499,999	3	1.0%	3	1.0%
$1,500,000-$1,999,999	0	0.0%	0	0.0%
$2,000,000+	0	0.0%	0	0.0%
Median Value	$143,519		$177,273	
Average Value	$230,345		$277,152	

Census 2010 Housing Units	Number	Percent
Total	421	100.0%
In Urbanized Areas	0	0.0%
In Urban Clusters	98	23.3%
Rural Housing Units	323	76.7%

Data Note: Persons of Hispanic Origin may be of any race.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2021 and 2026.

March 15, 2022

Housing Profile

41041, Flemingsburg, Kentucky 2
41041, Flemingsburg, Kentucky
Ring: 5 mile radius

Prepared by Esri
Latitude: 38.46500
Longitude: -83.65440

Population		Households	
2010 Total Population	4,142	2021 Median Household Income	$48,754
2021 Total Population	4,181	2026 Median Household Income	$51,387
2026 Total Population	4,152	2021-2026 Annual Rate	1.06%
2021-2026 Annual Rate	-0.14%		

	Census 2010		2021		2026	
Housing Units by Occupancy Status and Tenure	Number	Percent	Number	Percent	Number	Percent
Total Housing Units	1,803	100.0%	1,825	100.0%	1,846	100.0%
Occupied	1,607	89.1%	1,631	89.4%	1,624	88.0%
Owner	1,233	68.4%	1,159	63.5%	1,161	62.9%
Renter	374	20.7%	472	25.9%	463	25.1%
Vacant	196	10.9%	194	10.6%	222	12.0%

	2021		2026	
Owner Occupied Housing Units by Value	Number	Percent	Number	Percent
Total	1,159	100.0%	1,161	100.0%
<$50,000	156	13.5%	120	10.3%
$50,000-$99,999	318	27.4%	269	23.2%
$100,000-$149,999	176	15.2%	160	13.8%
$150,000-$199,999	161	13.9%	167	14.4%
$200,000-$249,999	84	7.2%	94	8.1%
$250,000-$299,999	44	3.8%	49	4.2%
$300,000-$399,999	107	9.2%	143	12.3%
$400,000-$499,999	2	0.2%	3	0.3%
$500,000-$749,999	51	4.4%	74	6.4%
$750,000-$999,999	51	4.4%	71	6.1%
$1,000,000-$1,499,999	8	0.7%	10	0.9%
$1,500,000-$1,999,999	1	0.1%	1	0.1%
$2,000,000+	0	0.0%	0	0.0%
Median Value	$129,972		$159,431	
Average Value	$203,214		$242,076	

Census 2010 Housing Units	Number	Percent
Total	1,803	100.0%
In Urbanized Areas	0	0.0%
In Urban Clusters	594	32.9%
Rural Housing Units	1,209	67.1%

Data Note: Persons of Hispanic Origin may be of any race.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2021 and 2026.

March 15, 2022

III. Methodology and Discussion of Issues

Standards and Methodology

I conducted this analysis using the standards and practices established by the Appraisal Institute and that conform to the Uniform Standards of Professional Appraisal Practice. The analyses and methodologies contained in this report are accepted by all major lending institutions, and they are used in Kentucky and across the country as the industry standard by certified appraisers conducting appraisals, market analyses, or impact studies and are considered adequate to form an opinion of the impact of a land use on neighboring properties. These standards and practices have also been accepted by the courts at the trial and appellate levels and by federal courts throughout the country as adequate to reach conclusions about the likely impact a use will have on adjoining or abutting properties.

The aforementioned standards compare property uses in the same market and generally within the same calendar year so that fluctuating markets do not alter study results. Although these standards do not require a linear study that examines adjoining property values before and after a new use (e.g. a solar farm) is developed, some of these studies do in fact employ this type of analysis. Comparative studies, as used in this report, are considered an industry standard.

The type of analysis employed is a Matched Pair Analysis or Paired Sales Analysis. This methodology is outlined in **The Appraisal of Real Estate**, Twelfth Edition by the Appraisal Institute pages 438-439. It is further detailed in **Real Estate Damages**, Third Edition, pages 33-36 by Randall Bell PhD, MAI. Paired sales analysis is used to support adjustments in appraisal work for factors ranging from the impact of having a garage, golf course view, or additional bedrooms. It is an appropriate methodology for addressing the question of impact of an adjoining solar farm. The paired sales analysis is based on the theory that when two properties are in all other respects equivalent, a single difference can be measured to indicate the difference in price between them. Dr. Bell describes it as comparing a test area to control areas. In the example provided by Dr. Bell he shows five paired sales in the test area compared to 1 to 3 sales in the control areas to determine a difference. I have used 3 sales in the control areas in my analysis for each sale developed into a matched pair.

Determining what is an External Obsolescence

An external obsolescence is a use of property that, because of its characteristics, might have a negative impact on the value of adjacent or nearby properties because of identifiable impacts. Determining whether a use would be considered an external obsolescence requires a study that isolates that use, eliminates any other causing factors, and then studies the sales of nearby versus distant comparable properties. The presence of one or a combination of key factors does not mean the use will be an external obsolescence, but a combination of these factors tend to be present when market data reflects that a use is an external obsolescence.

External obsolescence is evaluated by appraisers based on several factors. These factors include but are not limited to:

1) Traffic. Solar Farms are not traffic generators.

2) Odor. Solar farms do not produce odor.

3) Noise. Solar farms generate no noise concerns and are silent at night.

4) Environmental. Solar farms do not produce toxic or hazardous waste. Grass is maintained underneath the panels so there is minimal impervious surface area.

5) Appearance/Viewshed. This is the one area that potentially applies to solar farms. However, solar farms are generally required to provide significant setbacks and landscaping buffers to address that concern. Furthermore, any consideration of appearance of viewshed impacts has to be considered in comparison with currently allowed uses on that site. For example if a residential subdivision is already an allowed use, the question becomes in what way does the appearance impact adjoining property owners above and beyond the appearance of that allowed subdivision or other similar allowed uses.

6) Other factors. I have observed and studied many solar farms and have never observed any characteristic about such facilities that prevents or impedes neighbors from fully using their homes or farms or businesses for the use intended.

Relative Solar Farm Sizes

Solar farms have been increasing in size in recent years. Much of the data collected is from existing, older solar farms of smaller size, but there are numerous examples of sales adjoining 75 to 80 MW facilities that show a similar trend as the smaller solar farms. This is understandable given that the primary concern relative to a solar farm is the appearance or view of the solar farm, which is typically addressed through setbacks and landscaping buffers. The relevance of data from smaller solar farms to larger solar farms is due to the primary question being one of appearance. If the solar farm is properly screened, then little of the solar farm would be seen from adjoining property regardless of how many acres are involved.

Larger solar farms are often set up in sections where any adjoining owner would only be able to see a small section of the project even if there were no landscaping screen. Once a landscaping screen is in place, the primary view is effectively the same whether you are adjoining a 5 MW, 20 MW or 100 MW facility.

I have split out the data for the matched pairs adjoining larger solar farms only to illustrate the similarities later in this report. I note that I have matched pairs adjoining solar farms up to 620 MWs in size showing no impact on property value.

Steps Involved in the Analysis

The paired sales analysis employed in this report follows the following process:

1. Identify sales of property adjoining existing solar farms.
2. Compare those sales to similar property that does not adjoin an existing solar farm.
3. Confirmation of sales are noted in the analysis write ups.
4. Distances from the homes to panels are included as a measure of the setbacks.
5. Topographic differences across the solar farms themselves are likewise noted along with demographic data for comparing similar areas.

There are a number of Sale/Resale comparables included in the write ups, but most of the data shown is for sales of homes after a solar farm has been announced (where noted) or after a solar farm has been constructed.

IV. Research on Solar Farms

A. Appraisal Market Studies

I have also considered a number of impact studies completed by other appraisers as detailed below.

CohnReznick – Property Value Impact Study: Adjacent Property Values Solar Impact Study: A Study of Eight Existing Solar Facilities

Patricia McGarr, MAI, CRE, FRICS, CRA and Andrew R. Lines, MAI with CohnReznick completed an impact study for a proposed solar farm in Cheboygan County, Michigan completed on June 10, 2020. I am familiar with this study as well as a number of similar such studies completed by CohnReznick. I have not included all of these studies but I submit this one as representative of those studies.

This study addresses impacts on value from eight different solar farms in Michigan, Minnesota, Indiana, Illinois, Virginia and North Carolina. These solar farms are 19.6 MW, 100 MW, 11.9 MW, 23 MW, 71 MW, 61 MW, 40 MW, and 19 MW for a range from 11.9 MW to 100 MW with an average of 31 MW and a median of 31.5 MW. They analyzed a total of 24 adjoining property sales in the Test Area and 81 comparable sales in the Control Area over a five-year period.

The conclusion of this study is that there is no evidence of any negative impact on adjoining property values based on sales prices, conditions of sales, overall marketability, potential for new development or rate of appreciation.

Christian P. Kaila & Associates – Property Impact Analysis – Proposed Solar Power Plant Guthrie Road, Stuarts Draft, Augusta County, Virginia

Christian P. Kaila, MAI, SRA and George J. Finley, MAI developed an impact study as referenced above dated June 16, 2020. This was for a proposed 83 MW facility on 886 acres.

Mr. Kaila interviewed appraisers who had conducted studies and reviewed university studies and discussed the comparable impacts of other development that was allowed in the area for a comparative analysis of other impacts that could impact viewshed based on existing allowed uses for the site. He also discussed in detail the various other impacts that could cause a negative impact and how solar farms do not have such characteristics.

Mr. Kaila also interviewed County Planners and Real Estate Assessor's in eight different Virginia counties with none of the assessor's identifying any negative impacts observed for existing solar projects.

Mr. Kaila concludes on a finding of no impact on property values adjoining the indicated solar farm.

Fred Beck, MAI, CCIM – Impact Analysis in Lincoln County 2013

Mr. Fred Beck, MAI, CCIM completed an impact analysis in 2013 for a proposed solar farm that concluded on a negative impact on value. That report relied on a single cancelled contract for an adjoining parcel where the contracted buyers indicated that the solar farm was the reason for the cancellation. It also relied on the activities of an assessment impact that was applied in a nearby county.

Mr. Beck was interviewed as part of the Christian Kalia study noted above. From that I quote "Mr. Beck concluded on no effect on moderate priced homes, and only a 5% change in his limited research of higher priced homes. His one sale that fell through is hardly a reliable sample. It also was misleading on Mr. Beck's part to report the lower re-assessments since the primary cause of the

re-assesments were based on the County Official, who lived adjacent to the solar farm, appeal to the assessor for reductions with his own home." In that Clay County Case study the noted lack of lot sales after announcement of the solar farm also coincided with the recession in 2008/2009 and lack of lot sales effectively defined that area during that time. I contacted the Clay County Assessor who indicated that there is no set downward adjustment for properties adjoining solar farms in the county at this time.

I further note, that I was present at the hearing where Mr. Beck presented these findings and the predominance of his argument before the Lincoln County Board of Commissioner's was based on the one cancelled sale as well as a matched pair analysis of high-end homes adjoining a four-story call center. He hypothesized that a similar impact from that example could be compared to being adjacent solar farm without explaining the significant difference in view, setbacks, landscaping, traffic, light, and noise. Furthermore, Mr. Beck did have matched pairs adjoining a solar farm in his study that he put in the back of his report and then ignored as they showed no impact on property value.

Also noted in the Christian Kalia interview notes is a response from Mr. Beck indicating that in his opinion "the homes were higher priced homes and had full view of the solar farm." Based on a description of screening so that "the solar farm would not be in full view to adjoining property owners. Mr. Beck said in that case, he would not see any drop in property value."

NorthStar Appraisal Company – Impact Analysis for Nichomus Run Solar, Pilesgrove, NJ, September 16, 2020

Mr. William J. Sapio, MAI with NorthStar Appraisal Company considered a matched pair analysis for the potential impact on adjoining property values to this proposed 150 MW solar farm. Mr. Sapio considered sales activity in a subdivision known as Point of Woods in South Brunswick Township and identified two recent new homes that were constructed and sold adjoining a 13 MW solar farm and compared them to similar homes in that subdivision that did not adjoin the solar farm. These homes sold in the $1,290,450 to $1,336,613 price range and these homes were roughly 200 feet from the closest solar panel.

Based on this analysis, he concluded that the adjoining solar farm had no impact on adjoining property value.

Mary McClinton Clay, MAI – McCracken County Solar Project Value Impact Report, July 10, 2021

Ms. Mary Clay, MAI reviewed a report by Kirkland Appraisals in this case and also provided a differing opinion of impact. She cites a number of other appraisal studies and interestingly finds fault with heavily researched opinions, while praising the results of poorly researched studies that found the opposing view.

Her analysis includes details from solar farms that show no impact on value, but she dismisses those.

She cites the University of Texas study noted later in this report, but she cites only isolated portions of that study to conclude the opposite of what that study specifically concludes.

She cites the University of Rhode Island study noted alter in this report, but specifically excludes the conclusion of that study that in rural areas they found no impact on property value.

She cites lot sales near Spotsylvania Solar without confirming the purchase prices with brokers as indicative of market impact and has made no attempt to compare lot prices that are contemporaneous. In her 5 lot sales that she identifies, all of the lot prices decline with time from 2015 through 2019. This includes the 3 lot sales prior to the approval of the solar farm. The lot sales she cites showing a drop are all related to the original developer of that subdivision 20+ years

ago liquidating all of their lots in that time period and shows significant drops on all of the lots due to it being a liquidation value. More recent lot sales show lot prices over $100,000 with the most recent land sale adjoining the solar farm having sold in December of 2021 for $140,000. I spoke with Chris Kalia, MAI out of VA about these lot sales and he confirmed along with two other appraisers in that market that he connected me with that the lot sales Ms. Clay identified were all related to that liquidation and not related to the solar farm. All three appraisers agreed that they had seen no negative impacts from Spotsylvania Solar and that lot prices among builders and home owners were going up and home prices in the neighborhood were likewise going up.

She considers data at McBride Place Solar Farm and does a sale/resale analysis based on Zillow Home Value Index, which is not a reliable indication for appreciation in the market. She then adjusted her initial sales prior to the solar farm over 7 years to determine what she believes the home should have appreciated by and then compares that to an actual sale. She has run no tests or any analysis to show that the appreciation rates she is using are consistent with the market but more importantly she has not attempted to confirm any of these sales with market participants. I have spoken with brokers active in the sales that she cites and they have all indicated that the solar farm was not a negative factor in marketing or selling those homes.

She has considered lot sales at Sunshine Farms in Grandy, NC. She indicates that the lots next to the solar farm are selling for less than lots not near the solar farm, but she is actually using lot sales next to the solar farm prior to the solar farm being approved. She also ignores recent home sales adjoining this solar farm after it was built that show no impact on property value.

She also notes a couple of situations where solar developers have purchased adjoining homes and resold them or where a neighbor agreement was paid as proof of a negative impact on property value. Given that there are over 2,500 solar farms in the USA as of 2018 according to the U.S. Energy Information Administration and there are only a handful of such examples, this is clearly not an industry standard but a business decision. Furthermore, solar developers are not in the business of flipping homes and are in a position very similar to a bank that acquires a home as OREO (Other Real Estate Owned), where homes are frequently sold at discounted prices, not because of any drop in value, but because they are not a typically motivated seller. Market value requires an analysis of a typically motivated buyer and seller. So these are not good indicators of market value impacts.

The comments throughout this study are heavy in adjectives, avoids stating facts contrary to the conclusion and shows a strong selection bias.

Conclusion of Impact Studies

Of the fives studies noted two included actual sales data to derive an opinion of no impact on value. The two studies to conclude on a negative impact includes the Fred Beck study based on no actual sales data, and he has since indicated that with landscaping screens he would not conclude on a negative impact. The other study by Mary Clay shows improper adjustments for time, a lack of confirmation of sales comparables, and exclusion of data that does not support her position.

I have relied on these studies as additional support for the findings in this impact analysis.

B. Articles

I have also considered a number of articles on this subject as well as conclusions and analysis as noted below.

Farm Journal Guest Editor, March 22, 2021 – Solar's Impact on Rural Property Values

Andy Ames, ASFMRA (American Society of Farm Managers and Rural Appraisers) published this article that includes a discussion of his survey of appraisers and studies on the question of property

value related to solar farms. He discusses the university studies that I have cited as well as Patricia McGarr, MAI.

He also discusses the findings of Donald A. Fisher, ARA, who served six years at the Chair of the ASFMRA's National Appraisal Review Committee. He is also the Executive Vice President of the CNY Pomeroy Appraiser and has conducted several market studies on solar farms and property impact. He is quoted in the article as saying, "Most of the locations were in either suburban or rural areas, and all of those studies found either a neutral impact, or ironically, a positive impact, where values on properties after installation of solar farms went up higher than time trends."

Howard Halderman, AFM, President and CEO of Halderman Real Estate and Farm Management attended the ASFMRA solar talk hosted by the Indiana Chapter of the ASFMRA and he concludes that other rural properties would likely see no impact and farmers and landowners shown even consider possible benefits. "In some cases, farmers who rent land to a solar company will insure the viability of their farming operation for a longer time period. This makes them better long-term tenants or land buyers so one can argue that higher rents and land values will follow due to the positive impact the solar leases offer."

National Renewable Energy Laboratory – Top Five Large-Scale Solar Myths, February 3, 2016

Megan Day reports form NREL regarding a number of concerns neighbors often express. Myth #4 regarding property value impacts addresses specifically the numerous studies on wind farms that show no impact on property value and that solar farms have a significantly reduced visual impact from wind farms. She highlights that the appearance can be addressed through mitigation measures to reduce visual impacts of solar farms through vegetative screening. Such mitigations are not available to wind farms given the height of the windmills and again, those studies show no impact on value adjoining wind farms.

North Carolina State University: NC Clean Energy Technology Center White Paper: Balancing Agricultural Productivity with Ground-Based Solar Photovoltaic (PV) Development (Version 2), May 2019

Tommy Cleveland and David Sarkisian wrote a white paper for NCSU NC Clean Energy Technology Center regarding the potential impacts to agricultural productivity from a solar farm use. I have interviewed Tommy Cleveland on numerous occasions and I have also heard him speak on these issues at length as well. He addresses many of the common questions regarding how solar farms work and a detailed explanation of how solar farms do not cause significant impacts on the soils, erosion and other such concerns. This is a heavily researched paper with the references included.

North Carolina State University: NC Clean Energy Technology Center White Paper: Health and Safety Impacts of Solar Photovoltaics, May 2017

Tommy Cleveland wrote a white paper for NCSU NC Clean Energy Technology Center regarding the health and safety impacts to address common questions and concerns related to solar farms. This is a heavily researched white paper addressing questions ranging from EMFs, fire safety, as well as vegetation control and the breakdown of how a solar farm works.

C. Broker Commentary

In the process of working up the matched pairs used later in this report, I have collected comments from brokers who have actually sold homes adjoining solar farms indicating that the solar farm had no impact on the marketing, timing, or sales price for the adjoining homes. I have comments from brokers noted within the solar farm write ups of this report including brokers from Kentucky, Virginia, Tennessee, and North Carolina. I have additional commentary from other states including New Jersey and Michigan that provide the same conclusion.

V. University Studies

I have also considered the following studies completed by four different universities related to solar farms and impacts on property values.

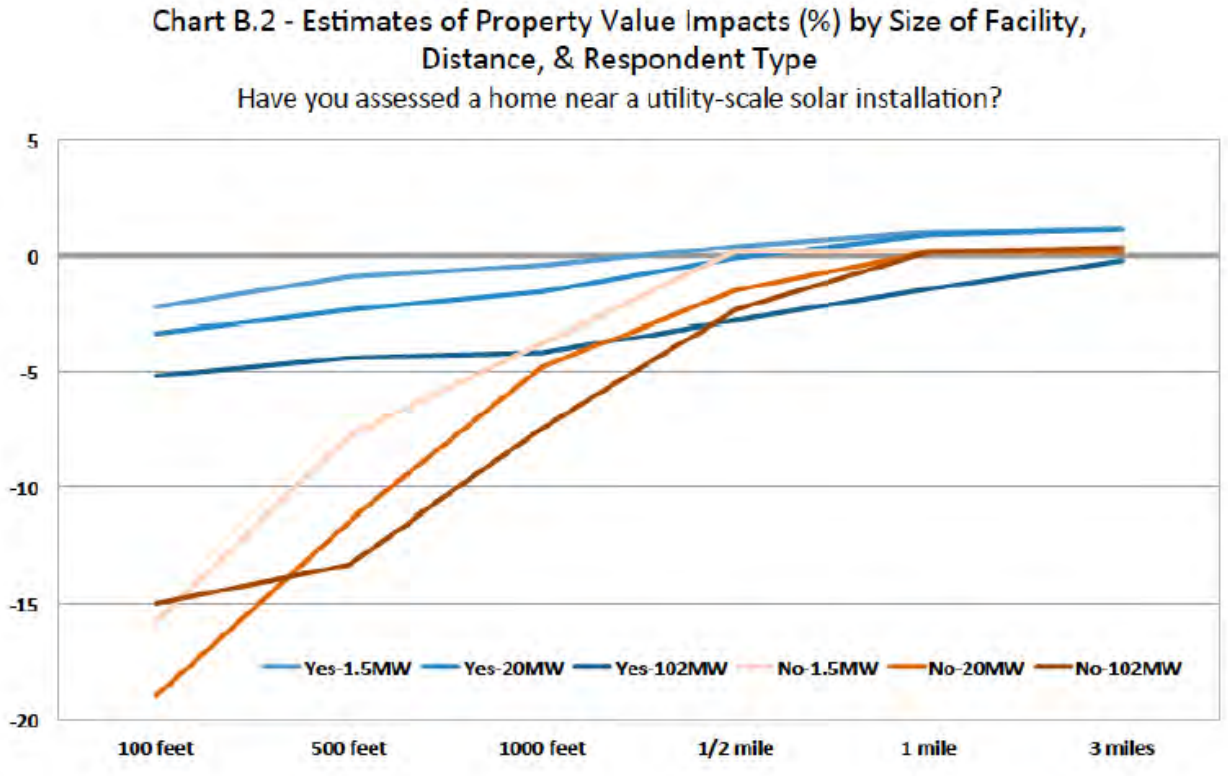
A. University of Texas at Austin, May 2018

An Exploration of Property-Value Impacts Near Utility-Scale Solar Installations

This study considers solar farms from two angles. First it looks at where solar farms are being located and concludes that they are being located primarily in low density residential areas where there are fewer homes than in urban or suburban areas.

The second part is more applicable in that they conducted a survey of appraisers/assessors on their opinions of the possible impacts of proximity to a solar farm. They consider the question in terms of size of the adjoining solar farm and how close the adjoining home is to the solar farm. I am very familiar with this part of the study as I was interviewed by the researchers multiple times as they were developing this. One very important question that they ask within the survey is very illustrative. They asked if the appraiser being surveyed had ever appraised a property next to a solar farm. There is a very noticeable divide in the answers provided by appraisers who have experience appraising property next to a solar farm versus appraisers who self-identify as having no experience or knowledge related to that use.

On Page 16 of that study they have a chart showing the responses from appraisers related to proximity to a facility and size of the facility, but they separate the answers as shown below with appraisers with experience in appraising properties next to a solar farm shown in blue and those inexperienced shown in brown. Even within 100 feet of a 102 MW facility the response from experienced appraisers were -5% at most on impact. While inexperienced appraisers came up with significantly higher impacts. This chart clearly shows that an uninformed response widely diverges from the sales data available on this subject.



Furthermore, the question cited above does not consider any mitigating factors such as landscaping buffers or screens which would presumably reduce the minor impacts noted by experienced appraisers on this subject.

The conclusion of the researchers is shown on Page 23 indicated that "Results from our survey of residential home assessors show that the majority of respondents believe that proximity to a solar installation has either no impact or a positive impact on home values."

This analysis supports the conclusion of this report that the data supports no impact on adjoining property values. The only impact suggested by this study is -5% if a home was within 100 feet of a 100 MW solar farm with little to no landscaping screening. The proposed project has a landscaping screening, is much further setback than 100 feet from adjoining homes, and is less than 100 MW.

B. University of Rhode Island, September 2020

Property Value Impacts of Commercial-Scale Solar Energy in Massachusetts and Rhode Island

The University of Rhode Island published a study entitled **Property Value Impacts of Commercial-Scale Solar Energy in Massachusetts and Rhode Island** on September 29, 2020 with lead researchers being Vasundhara Gaur and Corey Lang. I have read that study and interviewed Mr. Corey Lang related to that study. This study is often cited by opponents of solar farms but the findings of that study have some very specific caveats according to the report itself as well as Mr. Lang from the interview.

While that study does state in the Abstract that they found depreciation of homes within 1-mile of a solar farm, that impact is limited to non-rural locations. On Pages 16-18 of that study under Section 5.3 Heterogeneity in treatment effect they indicate that the impact that they found was limited to non-rural locations with the impact in rural locations effectively being zero. For the study they defined "rural" as a municipality/township with less than 850 population per square mile.

They further tested the robustness of that finding and even in areas up to 2,000 population per square mile they found no statistically significant data to suggest a negative impact. They have not specifically defined a point at which they found negative impacts to begin, as the sensitivity study stopped checking at the 2,000-population per square mile.

Where they did find negative impacts was in high population density areas that was largely a factor of running the study in Massachusetts and Rhode Island which the study specifically cites as being the 2nd and 3rd most population dense states in the USA. Mr. Lang in conversation as well as in recorded presentations has indicated that the impact in these heavily populated areas may reflect a loss in value due to the scarce greenery in those areas and not specifically related to the solar farm itself. In other words, any development of that site might have a similar impact on property value.

Based on this study I have checked the population for the Flemingsburg CCD of Fleming County, which has a population of 7,522 population for 2021 based on HomeTownLocator using Census Data and a total area of 112.27 square miles. This indicates a population density of 67 people per square mile which puts this well below the threshold indicated by the Rhode Island Study.

I therefore conclude that the Rhode Island Study supports the indication of no impact on adjoining properties for the proposed solar farm project.

C. Master's Thesis: ECU by Zachary Dickerson July 2018

A Solar Farm in *My* Backyard? Resident Perspectives of Utility-Scale Solar in Eastern North Carolina

This study was completed as part of a Master of Science in Geography Master's Thesis by Zachary Dickerson in July 2018. This study sets out to address three questions:

1. Are there different aspects that affect resident satisfaction regarding solar farms?
2. Are there variations in satisfaction for residents among different geographic settings, e.g. neighborhoods adjacent to the solar farms or distances from the solar farms?
3. How can insight from both the utility and planning sectors, combined with knowledge gained from residents, fill gaps in communication and policy writing in regard to solar farms?

This was done through survey and interview with adjacent and nearby neighbors of existing solar farms. The positive to neutral comments regarding the solar farms were significantly higher than negative. The researcher specifically indicates on Page 46 "The results show that respondents generally do not believe the solar farms pose a threat to their property values."

The most negative comments regarding the solar farms were about the lack of information about the approval process and the solar farm project prior to construction.

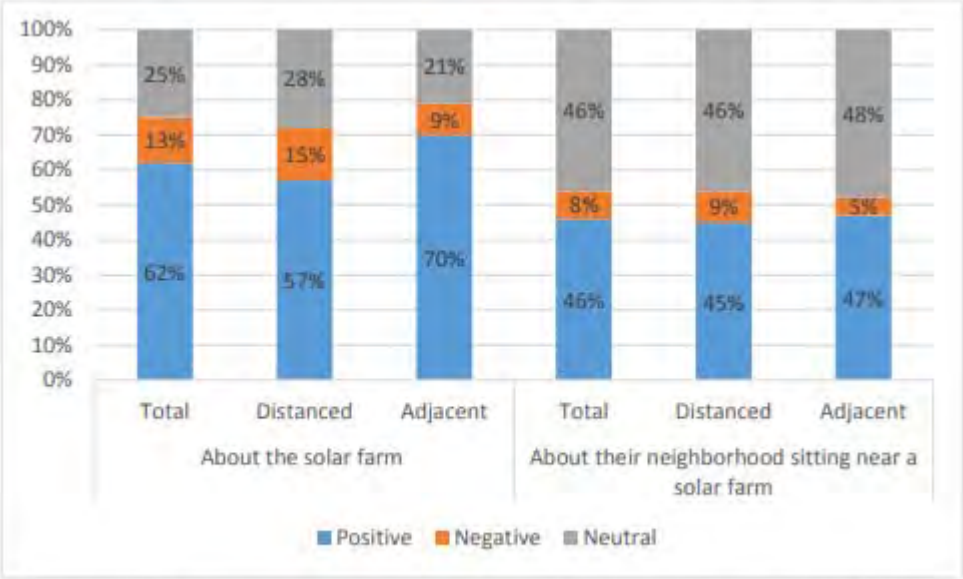


Figure 11: Residents' positive/negative word choices by geographic setting for both questions

D. Ernest Orlando Lawrence Berkeley National Laboratory, December, 2019

The Impact of Wind Power Projects on Residential Property Values in the United States: A Multi-Site Hedonic Analysis

This study addresses wind farms and not solar farms but it is a reasonable consideration. The activity on a wind farm is significantly different in terms of the mechanics and more particularly on the appearance or viewshed as wind farms cannot be screened from adjoining property owners. This study was commissioned by the Department of Energy and not by any developer. This study examined 7,500 home sales between 1996 and 2007 in order to track sales prices both before and after a wind energy facility was announced or built. This study specifically looked into possible stigma, nuisance, and scenic vista.

On page 17 of that study they conclude "Although the analysis cannot dismiss the possibility that individual homes or small numbers of homes have been or could be negatively impacted, it finds that if these impacts do exist, they are either too small and/or too infrequent to result in any widespread, statistically observable impact."

Given that solar farms are a similar use, but with a lower profile and therefore a lower viewshed than the wind farms, it is reasonable to translate these findings of no impact to solar farms.

VI. Assessor Surveys

I have attempted to contact all of the assessor departments in North Carolina to determine how local assessors are handling solar farms and adjoining property values. I have spoken personally with a number of assessors, but much of this data was obtained via email. I have 39 counties in NC that have both responded to these questions on property value and also have solar farms in that county. I have excluded responses from assessors from counties where there are no current solar farms.

As can be seen in the chart below, of the 39 responses all of the responses have indicated that they make no adjustment to properties adjoining solar farms. Several assessors indicated that it would require an adjoining property owner to appeal their property value with data showing a negative impact before they would make any adjustment and to date they have not had that happen.

I also point out specifically Clay County. I spoke with the assessor there specifically about adjustments that were applied to some properties near a solar farm back in 2008/2011. She was unaware of the details of that event as she was not in this position at that time. As discussed earlier in this report the lower re-assessments at that solar farm were based on a County Official, who owned property adjacent to the solar farm, who made an appeal to the assessor for reductions for his own property. The noted lack of lot sales after announcement of the solar farm however coincided with the recession in 2009 and lack of lot sales effectively defined that area during that time, but without relying on any data the assessor made that change in that time frame based on conversations with the assessor. Since then, Clay County has confirmed that they do not currently make any changes to adjoining property values and the current county assessor was not even aware that they had in the past done so.

NC Assessor Survey on Solar Farm Property Value Impacts

County	Assessor's Name	Number of Farms	Change in Adjacent Property Value
Alexander	Doug Fox	3	No
Buncombe	Lisa Kirbo	1	No
Burke	Daniel Isenhour	3, 2 on 1 parcel, 1 on 3 parcels	No
Cabarrus	Justin	less than 10, more in the works	No
Caldwell	Monty Woods	3 small	No, but will look at data in 2025
Catawba	Lori Ray	14	No
Chatham	Jenny Williams	13	No
Cherokee	Kathy Killian	9	No
Chowan	Melissa Radke	3, I almost operational	No
Clay	Bonnie L. Lyvers		No
Davidson	Libby	1	No
Duplin	Gary Rose	34, 2 more in planning	No
Franklin	Marion Cascone	11	No
Gaston	Traci Hovis	3	No
Gates	Chris Hill	3	No
Granville	Jenny Griffin	8	No
Halifax	C. Shane Lynch	Multiple	No
Hoke	Mandi Davis	4	No
Hyde	Donnie Shumate	1 to supplement egg processing plant	No
Iredell	Wes Long	2, 3 others approved	No
Lee	Lisa Faulkner	8	No
Lincoln	Susan Sain	2	No
Moore	Michael Howery	10	No
New Hanover	Rhonda Garner	35	No
Orange	Chad Phillip	2 or 7 depending on breakdown	No
Pender	Kayla Bolick Futrell	6	No
Person	Russell Jones	9	No
Pitt	Russell D. Hill	8, 1 in planning	No
Randolph	Mark Frick	19	No
Rockingham	Mark C McClintock	6	No
Rutherford	Kim Aldridge	20	No
Sampson	Jim Johnson	9, 1 in construction	No
Scotland	James Brown	15, 1 in process	No
Stokes	Richard Brim	2	No
Surry	Penny Harrison	4, 2 more in process	No
Union	Robin E. Merry	6	No
Vance	Cathy E. Renn	13	No
Warren	John Preston	7	No
Wayne	Alan Lumpkin	32	No
Wilson	William (Witt) Putney	~16	No, mass appraisal standards applied

Responses: 39
Negative Impact on Adjoining Value = Yes: 0
Negative Impact on Adjoining Value = No: 39

I have also been working on a survey of Virginia Assessors regarding property values related to solar farms and whether or not the local assessors have found any data to support any changes to value on property adjoining solar farms. In this process I have contacted every assessor's office by email and I have received responses by email and by phone from a number of these counties. Many of the counties in Virginia rely on outside firms to assist in gathering data for the assessments and where that is the case we have contacted the outside firms regarding the question of whether or not the assessors are currently making any adjustments to properties adjoining solar farms.

I currently have response from 16 counties that have solar farms in them and of those 16 responses none of the assessors are currently applying a negative impact on property value. One response suggested that adjoining values may go up.

I did speak with Randy Willis with Pearson Assessors. His company assists in the assessments in many of the counties south of Richmond. He indicated that they had found no data to suggest a negative impact on property value and they have looked as they were concerned about that issue. He indicated that they would make no negative impact adjustments and that he recognizes that

there are a number of agricultural adjoining uses that have a greater impact on adjoining properties in terms of noise, dust and odor than a solar farm would have. He did indicate that there could be situations where an individual home might have a greater visual impact and those should be looked at on a case-by-case basis, but he also agreed that many allowed agricultural uses could have similar visual impacts on such properties as well.

VIRGINIA Commissioner of the Revenue

County	Assessor Name	Number of Farms in Operation	Change in adjacent property value
Appomattox	Sara Henderson	1, plus one in process	No
Augusta	W. Jean Shrewsbury	no operational	No
Buckingham	Stephanie D. Love	1	No
Charlotte	Naisha Pridgen Carter	1, several others in the works	No
Clarke	Donna Peake	1	No
Frederick	Seth T. Thatcher	none, 2 appoved for 2022	No, assuming compatible with rural area
Goochland	Mary Ann Davis		No
Hanover	Ed Burnett	1	No
Louisa	Stacey C. Fletcher	2 operational by end of year	No, only if supported by market data
Mecklenburg	Joseph E. "Ed" Taylor		No
Nottoway	Randy Willis with Pearson Assessors		No
Powhatan	Charles Everest	2 approved, 1 built	Likely increase in value
Rockingham	Dan Cullers	no operational	Likely no
Southampton	Amy B. Carr	1	Not normally
Surry	Jonathan F. Judkins	1	None at this time
Westmoreland	William K. Hoover	4	No

Responses: 16
Negative Impact on Adjoining Value = Yes: 0
Negative Impact on Adjoining Value = No: 16

VII. Summary of Solar Projects in Kentucky

I have researched the solar projects in Kentucky. I identified the solar farms through the Solar Energy Industries Association (SEIA) Major Projects List and then excluded the roof mounted facilities. This leaves only six solar farms in Kentucky for analysis at this time.

One of these six solar farms has limited analysis potential: E.W. Brown near Harrodsburg in Mercer County. The E. W. Brown 10 MW solar farm was built in 2014 and adjoins three coal-fired units. Given that research studies that I have read regarding fossil fuel power plants including "The Effect of Power Plants on Local Housing Values and Rents" by Lucas W. Davis and published May 2010, it would not be appropriate to use any data from this solar farm due to the influence of the coal-fired power plant that could have an impact on up to a one-mile radius. I note that the closest home to a solar panel at this site is 565 feet and the average distance is 1,026 feet. The homes are primarily clustered at the Herrington Lake frontage. Recent sales in this area range from $164,000 to $212,000 for these waterfront homes. Again, no usable data can be derived from this solar farm due to the adjoining coal fired plant.

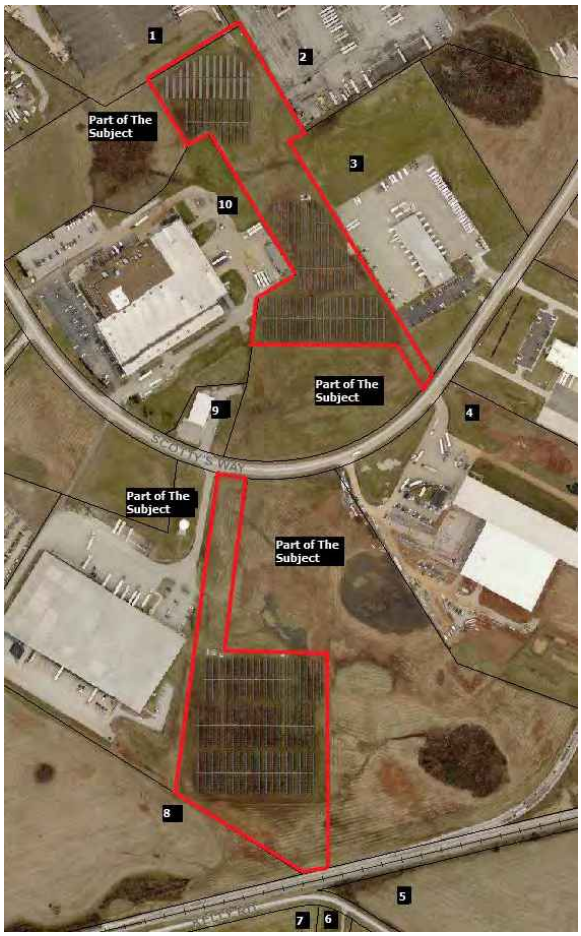
Furthermore, the Cooperative solar farm in Shelby County is a 0.5 MW facility on 35 acres built in 2020 that is proposed to eventually be 4 MW. This project is too new and there have been no home sales adjoining this facility. I also cannot determine how close the nearby homes are to the adjoining solar panels as the aerial imagery does not yet show these panels.

I have provided a summary of projects below and additional detailed information on the projects on the following pages. I specifically note the similarity in most of the sites in Kentucky in terms of mix of adjoining uses, topography, and distances to adjoining homes.

The number of solar farms currently in Kentucky is low compared to a number of other states and North Carolina in particular. I have looked at solar farms in Kentucky for sales activity, but the small number of sites coupled with the relatively short period of time these solar farms have been in place has not provided as many examples of sales adjoining a solar farm as I am able to pull from other places. I have therefore also considered sales in other states, but I have shown in the summary how the demographics around the solar farms in other locations relate to the demographics around the proposed solar farm to show that generally similar locations are being considered. The similarity of the sites in terms of adjoining uses and surrounding demographics makes it reasonable to compare the lack of significant impacts in other areas would translate into a similar lack of significant impacts at the subject site.

Parcel #	State	County	City	Name	Output (MW)	Total Acres	Used Acres	Avg. Dist to home	Closest Home	Adjoining Use by Acre					Adjoining Use by Number				
										Res	Agri	Agri/Res	Com		Reside	Agricul	Comm/Ind	%	
610	KY	Warren	Bowling Green	Bowling Green	2	17.36	17.36	720	720	1%	64%	0%	36%	100%	10%	30%	60%	100%	
611	KY	Clark	Winchester	Cooperative Solar I	8.5	181.47	63	2,110	2,040	0%	96%	3%	0%	100%	22%	78%	0%	100%	
612	KY	Kenton	Walton	Walton 2	2	58.03	58.03	891	120	21%	0%	60%	19%	100%	65%	0%	35%	100%	
613	KY	Grant	Crittenden	Crittenden	2.7	181.7	34.1	1,035	345	22%	27%	51%	0%	100%	96%	4%	0%	100%	
617	KY	Metcalfe	Summer Shade	Glover Creek		968.2	322.4	1,731	375	6%	25%	69%	0%	100%	83%	17%	0%	100%	
618	KY	Garrard	Lancaster	Turkey Creek		752.8	297.1	976	240	8%	36%	51%	5%	100%	73%	12%	15%	100%	
		Total Number of Solar Farms			6														
				Average	3.80	359.9	132.0	1244	640	9%	41%	39%	10%		58%	24%	18%		
				Median	2.35	181.6	60.5	1006	360	7%	32%	51%	3%		69%	14%	7%		
				High	8.50	968.2	322.4	2110	2040	22%	96%	69%	36%		96%	78%	60%		
				Low	2.00	17.4	17.4	720	120	0%	0%	0%	0%		3%	0%	0%		

610: Bowling Green Solar, Bowling Green, KY



This project was built in 2011 and located on 17.36 acres for a 2 MW project on Scotty's Way with the adjoining uses being primarily industrial. The closest dwelling is 720 feet from the nearest panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	0.58%	10.00%
Agricultural	63.89%	30.00%
Industrial	35.53%	60.00%
Total	**100.00%**	**100.00%**

611: Cooperative Solar I, Winchester, KY

This project was built in 2017 on 63 acres of a 181.47-acre parent tract for an 8.5 MW project with the closest home at 2,040 feet from the closest solar panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	0.15%	11.11%
Agricultural	96.46%	77.78%
Agri/Res	3.38%	11.11%
Total	**100.00%**	**100.00%**

612: Walton 2 Solar, Walton, KY

This project was built in 2017 on 58.03 acres for a 2 MW project with the closest home 120 feet from the closest panel.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	20.84%	47.06%
Agri/Res	59.92%	17.65%
Commercial	19.25%	35.29%
Total	**100.00%**	**100.00%**

613: Crittenden Solar, Crittenden, KY

This project was built in late 2017 on 34.10 acres out of a 181.70-acre tract for a 2.7 MW project where the closest home is 345 feet from the closest panel.

Adjoining Use Breakdown

	Acreage	**Parcels**
Residential	1.65%	32.08%
Agricultural	73.39%	39.62%
Agri/Res	23.05%	11.32%
Commercial	0.64%	9.43%
Industrial	0.19%	3.77%
Airport	0.93%	1.89%
Substation	0.15%	1.89%
Total	**100.00%**	**100.00%**

659: Cooperative Shelby Solar, Simpsonville, KY

This project was built in 2020 on 35 acres for a 0.5 MW project that is approved for expansion up to 4 MW.

Adjoining Use Breakdown

	Acreage	Parcels
Residential	6.04%	44.44%
Agricultural	10.64%	11.11%
Agri/Res	31.69%	33.33%
Institutional	51.62%	11.11%
Total	**100.00%**	**100.00%**

660: E.W. Brown Solar, Harrodsburg, KY

This project was built in 2016 on 50 acres for a 10 MW project. This solar facility adjoins three coal-fired units, which makes analysis of these nearby home sales problematic as it is impossible to extract the impact of the coal plant on the nearby homes especially given the lake frontage of the homes shown.

Adjoining Use Breakdown

	Acreage	**Parcels**
Residential	2.77%	77.27%
Agricultural	43.92%	9.09%
Agri/Res	28.56%	9.09%
Industrial	24.75%	4.55%
Total	**100.00%**	**100.00%**

VIII. Market Analysis of the Impact on Value from Solar Farms

I have researched hundreds of solar farms in numerous states to determine the impact of these facilities on the value of adjoining properties. This research has primarily been in North Carolina, but I have also conducted market impact analyses in Virginia, South Carolina, Tennessee, Texas, Oregon, Mississippi, Maryland, New York, California, Missouri, Florida, Montana, Georgia, Kentucky, and New Jersey.

I have derived a breakdown of the adjoining uses to show where solar farms are located. A summary showing the results of compiling that data over hundreds of solar farms is shown later in the Scope of Research section of this report.

I also consider whether the properties adjoining a solar farm in one location have characteristics similar to the properties abutting or adjoining the proposed site so that I can make an assessment of market impact on each proposed site. Notably, in most cases solar farms are placed in areas very similar to the site in question, which is surrounded by low density residential and agricultural uses. In my over 700 studies, I have found a striking repetition of that same typical adjoining property use mix in over 90% of the solar farms I have looked at. Matched pair results in multiple states are strikingly similar, and all indicate that solar farms – which generate very little traffic, and do not generate noise, dust or have other harmful effects – do not negatively impact the value of adjoining or abutting properties.

I have previously been asked by the Kentucky Siting Board about how the solar farms and the matched pair sets were chosen. This is the total of all the usable home sales adjoining the 900+ solar farms that I have looked at over the last 10 years. Most of the solar farms that I have looked at are only a few years old and have not been in place long enough for home or land sales to occur next to them for me to analyze. There is nothing unusual about this given the relatively rural locations of most of the solar farms where home and land sales occur much less frequently than they do in urban and suburban areas and the number of adjoining homes is relatively small.

I review the solar farms that I have looked at periodically to see if there are any new sales. If there is a sale I have to be sure it is not an inhouse sale or to a related family member. A great many of the rural sales that I find are from one family member to another, which makes analysis impossible given that these are not "arm's length" transactions. There are also numerous examples of sales that are "arm's length" but are still not usable due to other factors such as adjoining significant negative factors such as a coal fired plant or at a landfill or prison. I have looked at homes that require a driveway crossing a railroad spur, homes in close proximity to large industrial uses, as well as homes adjoining large state parks, or homes that are over 100 years old with multiple renovations. Such sales are not usable as they have multiple factors impacting the value that are tangled together. You can't isolate the impact of the coal fired plant, the industrial building, or the railroad unless you are comparing that sale to a similar property with similar impacts. Matched pair analysis requires that you isolate properties that only have one differential to test for, which is why the type of sales noted above is not appropriate for analysis.

After my review of all sales and elimination of the family transactions and those sales with multiple differentials, I am left with the matched pairs shown in this report to analyze. I do have additional matched pair data in other areas of the United States that were not included in this report due to being states less comparable to Kentucky than those shown. The only other sales that I have eliminated from the analysis are home sales under $100,000, which there haven't been many such examples, but at that price range it is difficult to identify any impacts through matched pair analysis. I have not cherry picked the data to include just the sales that support one direction in value, but I have included all of them both positive and negative with a preponderance of the evidence supporting no impact to mild positive impacts.

A. Kentucky and Adjoining States Data

1. Matched Pair – Crittenden Solar, Crittenden, KY

This solar farm was built in December 2017 on a 181.70-acre tract but utilizing only 34.10 acres. This is a 2.7 MW facility with residential subdivisions to the north and south.

I have identified five home sales to the north of this solar farm on Clairborne Drive and one home sale to the south on Eagle Ridge Drive since the completion of this solar farm. The home sale on Eagle Drive is for a $75,000 home and all of the homes along that street are similar in size and price range. According to local broker Steve Glacken with Cutler Real Estate these are the lowest price range/style home in the market. I have not analyzed that sale as it would unlikely provide significant data to other homes in the area.

Mr. Glacken is currently selling lots at the west end of Clairborne for new home construction. He indicated that the solar farm near the entrance of the development has been a complete non-factor and none of the home sales are showing any concern over the solar farm. Most of the homes are in the $250,000 to $280,000 price range. The vacant residential lots are being marketed for $28,000 to $29,000. The landscaping buffer is considered light, but the rolling terrain allows for distant views of the panels from the adjoining homes along Clairborne Drive.

The first home considered is a bit of an anomaly for this subdivision in that it is the only manufactured home that was allowed in the community. It sold on January 3, 2019. I compared that sale to three other manufactured home sales in the area making minor adjustments as shown on the next page to account for the differences. After all other factors are considered the adjustments show a -1% to +13% impact due to the adjacency of the solar farm. The best indicator is 1250 Cason, which shows a 3% impact. A 3% impact is within the normal static of real estate transactions and therefore not considered indicative of a positive impact on the property, but it strongly supports an indication of no negative impact.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
	Adjoins	250 Claiborne	0.96	1/3/2019	$120,000	2000	2,016	$59.52	3/2	Drive	Manuf	
	Not	1250 Cason	1.40	4/18/2018	$95,000	1994	1,500	$63.33	3/2	2-Det	Manuf	Carport
	Not	410 Reeves	1.02	11/27/2018	$80,000	2000	1,456	$54.95	3/2	Drive	Manuf	
	Not	315 N Fork	1.09	5/4/2019	$107,000	1992	1,792	$59.71	3/2	Drive	Manuf	

Adjustments

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
Adjoins	250 Claiborne								$120,000			373
Not	1250 Cason	$2,081		$2,850	$26,144		-$5,000	-$5,000	$116,075	3%		
Not	410 Reeves	$249		$0	$24,615				$104,865	13%		
Not	315 N Fork	-$1,091		$4,280	$10,700				$120,889	-1%		
											5%	

I also looked at three other home sales on this street as shown below. These are stick-built homes and show a higher price range.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
	Adjoins	300 Claiborne	1.08	9/20/2018	$212,720	2003	1,568	$135.66	3/3	2-Car	Ranch	Brick
	Not	460 Claiborne	0.31	1/3/2019	$229,000	2007	1,446	$158.37	3/2	2-Car	Ranch	Brick
	Not	2160 Sherman	1.46	6/1/2019	$265,000	2005	1,735	$152.74	3/3	2-Car	Ranch	Brick
	Not	215 Lexington	1.00	7/27/2018	$231,200	2000	1,590	$145.41	5/4	2-Car	Ranch	Brick

Adjustments

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
Adjoins	300 Claiborne								$213,000			488
Not	460 Claiborne	-$2,026		-$4,580	$15,457	$5,000			$242,850	-14%		
Not	2160 Sherman	-$5,672		-$2,650	-$20,406				$236,272	-11%		
Not	215 Lexington	$1,072		$3,468	-$2,559	-$5,000			$228,180	-7%		
											-11%	

This set of matched pairs shows a minor negative impact for this property. I was unable to confirm the sales price or conditions of this sale. The best indication of value is based on 215 Lexington, which required the least adjusting and supports a -7% impact.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
	Adjoins	350 Claiborne	1.00	7/20/2018	$245,000	2002	1,688	$145.14	3/3	2-Car	Ranch	Brick
	Not	460 Claiborne	0.31	1/3/2019	$229,000	2007	1,446	$158.37	3/2	2-Car	Ranch	Brick
	Not	2160 Sherman	1.46	6/1/2019	$265,000	2005	1,735	$152.74	3/3	2-Car	R/FBsmt	Brick
	Not	215 Lexington	1.00	7/27/2018	$231,200	2000	1,590	$145.41	5/4	2-Car	Ranch	Brick

Adjustments

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
Adjoins	350 Claiborne								$245,000			720
Not	460 Claiborne	-$3,223		-$5,725	$30,660	$5,000			$255,712	-4%		
Not	2160 Sherman	-$7,057		-$3,975	-$5,743				$248,225	-1%		
Not	215 Lexington	-$136		$2,312	$11,400	-$5,000			$239,776	2%		
											-1%	

The following photograph shows the light landscaping buffer and the distant view of panels that was included as part of the marketing package for this property. The panels are visible somewhat on the left and somewhat through the trees in the center of the photograph. The first photograph is from the home, with the second photograph showing the view near the rear of the lot.

This set of matched pairs shows a no negative impact for this property. The range of adjusted impacts is -4% to +2%. The best indication is -1%, which as described above is within the typical market static and supports no impact on adjoining property value.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
	Adjoins	370 Claiborne	1.06	8/22/2019	$273,000	2005	1,570	$173.89	4/3	2-Car	2-Story	Brick
	Not	2160 Sherman	1.46	6/1/2019	$265,000	2005	1,735	$152.74	3/3	2-Car	R/FBsmt	Brick
	Not	2290 Dry	1.53	5/2/2019	$239,400	1988	1,400	$171.00	3/2.5	2-Car	R/FBsmt	Brick
	Not	125 Lexington	1.20	4/17/2018	$240,000	2001	1,569	$152.96	3/3	2-Car	Split	Brick

Adjustments

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
Adjoins	370 Claiborne								$273,000			930
Not	2160 Sherman	$1,831		$0	-$20,161				$246,670	10%		
Not	2290 Dry	$2,260		$20,349	$23,256	$2,500			$287,765	-5%		
Not	125 Lexington	$9,951		$4,800					$254,751	7%		
											4%	

This set of matched pairs shows a general positive impact for this property. The range of adjusted impacts is -5% to +10%. The best indication is +7%. I typically consider measurements of +/-5% to be within the typical variation in real estate transactions. This indication is higher than that and suggests a positive relationship.

The photograph from the listing shows panels visible between the home and the trampoline shown in the picture.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
Adjoins	330 Claiborne	1.00	12/10/2019	$282,500	2003	1,768	$159.79	3/3	2-Car	Ranch	Brick/pool
Not	895 Osborne	1.70	9/16/2019	$249,900	2002	1,705	$146.57	3/2	2-Car	Ranch	Brick/pool
Not	2160 Sherman	1.46	6/1/2019	$265,000	2005	1,735	$152.74	3/3	2-Car	R/FBsmt	Brick
Not	215 Lexington	1.00	7/27/2018	$231,200	2000	1,590	$145.41	5/4	2-Car	Ranch	Brick

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
Adjoins	330 Claiborne								$282,500			665
Not	895 Osborne	$1,790		$1,250	$7,387	$5,000		$0	$265,327	6%		
Not	2160 Sherman	$4,288		-$2,650	$4,032			$20,000	$290,670	-3%		
Not	215 Lexington	$9,761		$3,468	$20,706	-$5,000		$20,000	$280,135	1%		
											1%	

This set of matched pairs shows a general positive impact for this property. The range of adjusted impacts is -3% to +6%. The best indication is +6%. I typically consider measurements of +/-5% to be within the typical variation in real estate transactions. This indication is higher than that and suggests a positive relationship. The landscaping buffer on these is considered light with a fair visibility of the panels from most of these comparables and only thin landscaping buffers separating the homes from the solar panels.

The five matched pairs considered in this analysis includes two that show no impact on value, one that shows a negative impact on value, and two that show a positive impact. The negative indication supported by one matched pair is -7% and the positive impacts are +6% and +7%. The two neutral indications show impacts of -1% and +3%. The average indicated impact is +0% when all five of these indicators are blended.

Furthermore, the comments of the local real estate broker strongly support the data that shows no negative impact on value due to the proximity to the solar farm. This is further supported by the national data that is shown on the following pages.

2. Matched Pair – Mulberry, Selmer, TN

This 16 MW solar farm was built in 2014 on 208.89 acres with the closest home being 480 feet.

This solar farm adjoins two subdivisions with Central Hills having a mix of existing and new construction homes. Lots in this development have been marketed for $15,000 each with discounts offered for multiple lots being used for a single home site. I spoke with the agent with Rhonda Wheeler and Becky Hearnsberger with United County Farm & Home Realty who noted that they have seen no impact on lot or home sales due to the solar farm in this community.

I have included a map below as well as data on recent sales activity on lots that adjoin the solar farm or are near the solar farm in this subdivision both before and after the announced plan for this solar farm facility. I note that using the same method I used to breakdown the adjoining uses at the subject property I show that the predominant adjoining uses are residential and agricultural, which is consistent with the location of most solar farms.

Adjoining Use Breakdown

	Acreage	Parcels
Commercial	3.40%	0.034
Residential	12.84%	79.31%
Agri/Res	10.39%	3.45%
Agricultural	73.37%	13.79%
Total	**100.00%**	**100.00%**

I have run a number of direct matched comparisons on the sales adjoining this solar farm as shown below. These direct matched pairs include some of those shown above as well as additional more recent sales in this community. In each of these I have compared the one sale adjoining the solar farm to multiple similar homes nearby that do not adjoin a solar farm to look for any potential impact from the solar farm.

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
3	Adjoins	491 Dusty	6.86	10/28/2016	$176,000	2009	1,801	$97.72	3/2	2-Gar	Ranch	
	Not	820 Lake Trail	1.00	6/8/2018	$168,000	2013	1,869	$89.89	4/2	2-Gar	Ranch	
	Not	262 Country	1.00	1/17/2018	$145,000	2000	1,860	$77.96	3/2	2-Gar	Ranch	
	Not	35 April	1.15	8/16/2016	$185,000	2016	1,980	$93.43	3/2	2-Gar	Ranch	

Adjoining Sales Adjusted

Parcel	Solar	Address	Time	Site	YB	GLA	Park	Other	Total	% Diff	Distance
3	Adjoins	491 Dusty							$176,000		480
	Not	820 Lake Trail	-$8,324	$12,000	-$3,360	-$4,890			$163,426	7%	
	Not	262 Country	-$5,450	$12,000	$6,525	-$3,680			$154,396	12%	
	Not	35 April	$1,138	$12,000	-$6,475	-$13,380			$178,283	-1%	
									Average	6%	

The best matched pair is 35 April Loop, which required the least adjustment and indicates a -1% increase in value due to the solar farm adjacency.

Adjoining Residential Sales After Solar Farm Built

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
12	Adjoins	57 Cooper	1.20	2/26/2019	$163,000	2011	1,586	$102.77	3/2	2-Gar	1.5 Story	Pool
	Not	191 Amelia	1.00	8/3/2018	$132,000	2005	1,534	$86.05	3/2	Drive	Ranch	
	Not	75 April	0.85	3/17/2017	$134,000	2012	1,588	$84.38	3/2	2-Crprt	Ranch	
	Not	345 Woodland	1.15	12/29/2016	$131,000	2002	1,410	$92.91	3/2	1-Gar	Ranch	

Adjoining Sales Adjusted

Parcel	Solar	Address	Sales Price	Time	Site	YB	GLA	Park	Other	Total	% Diff	Distance
12	Adjoins	57 Cooper	$163,000							$163,000		685
	Not	191 Amelia	$132,000	$2,303		$3,960	$2,685	$10,000	$5,000	$155,947	4%	
	Not	75 April	$134,000	$8,029	$4,000	-$670	-$135	$5,000	$5,000	$155,224	5%	
	Not	345 Woodland	$131,000	$8,710		$5,895	$9,811		$5,000	$160,416	2%	
										Average	4%	

The best matched pair is 191 Amelia, which was most similar in time frame of sale and indicates a +4% increase in value due to the solar farm adjacency.

Adjoining Residential Sales After Solar Farm Built

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
15	Adjoins	297 Country	1.00	9/30/2016	$150,000	2002	1,596	$93.98	3/2	4-Gar	Ranch	
	Not	185 Dusty	1.85	8/17/2015	$126,040	2009	1,463	$86.15	3/2	2-Gar	Ranch	
	Not	53 Glen	1.13	3/9/2017	$126,000	1999	1,475	$85.42	3/2	2-Gar	Ranch	Brick

Adjoining Sales Adjusted

Parcel	Solar	Address	Sales Price	Time	Site	YB	GLA	Park	Other	Total	% Diff	Distance
15	Adjoins	297 Country	$150,000							$150,000		650
	Not	185 Dusty	$126,040	$4,355		-$4,411	$9,167	$10,000		$145,150	3%	
	Not	53 Glen	$126,000	-$1,699		$1,890	$8,269	$10,000		$144,460	4%	
										Average	3%	

The best matched pair is 53 Glen, which was most similar in time frame of sale and required less adjustment. It indicates a +4% increase in value due to the solar farm adjacency.

The average indicated impact from these three sets of matched pairs is +4%, which suggests a mild positive relationship due to adjacency to the solar farm. The landscaping buffer for this project is mostly natural tree growth that was retained as part of the development but much of the trees separating the panels from homes are actually on the lots for the homes themselves. I therefore consider the landscaping buffer to be thin to moderate for these adjoining homes.

I have also looked at several lot sales in this subdivision as shown below.

These are all lots within the same community and the highest prices paid are for lots one parcel off from the existing solar farm. These prices are fairly inconsistent, though they do suggest about a $3,000 loss in the lots adjoining the solar farm. This is an atypical finding and additional details suggest there is more going on in these sales than the data crunching shows. First of all Parcel 4 was purchased by the owner of the adjoining home and therefore an atypical buyer seeking to expand a lot and the site is not being purchased for home development. Moreover, using the SiteToDoBusiness demographic tools, I found that the 1-mile radius around this development is expecting a total population increase over the next 5 years of 3 people. This lack of growing demand for lots is largely explained in that context. Furthermore, the fact that finished home sales as shown above are showing no sign of a negative impact on property value makes this data unreliable and inconsistent with the data shown in sales to an end user. I therefore place little weight on this outlier data.

Parcel	Solar	Address	Acres	Date Sold	Sales Price	4/18/2019 Adj for Time	$/AC	4/18/2019 Adj for Time
4	Adjoins	Shelter	2.05	10/25/2017	$16,000	$16,728	$7,805	$8,160
10	Adjoins	Carter	1.70	8/2/2018	$14,000	$14,306	$8,235	$8,415
11	Adjoins	Cooper	1.28	9/17/2018	$12,000	$12,215	$9,375	$9,543
	Not	75 Dusty	1.67	4/18/2019	$20,000	$20,000	$11,976	$11,976
	Not	Lake Trl	1.47	11/7/2018	$13,000	$13,177	$8,844	$8,964
	Not	Lake Trl	1.67	4/18/2019	$20,000	$20,000	$11,976	$11,976

	Adjoins	Per Acre	Not Adjoins	Per Acre	% DIF/Lot	% DIF/AC
Average	$14,416	$8,706	$17,726	$10,972	19%	21%
Median	$14,306	$8,415	$20,000	$11,976	28%	30%
High	$16,728	$9,543	$20,000	$11,976	16%	20%
Low	$12,215	$8,160	$13,177	$8,964	7%	9%

3. Matched Pair – Grand Ridge Solar, Streator, IL

This solar farm has a 20 MW output and is located on a 160-acre tract. The project was built in 2012.

I have considered the recent sale of Parcel 13 shown above, which sold in October 2016 after the solar farm was built. I have compared that sale to a number of nearby residential sales not in proximity to the solar farm as shown below. Parcel 13 is 480 feet from the closest solar panel. The landscaping buffer is considered light.

Adjoining Residential Sales After Solar Farm Completed

#	TAX ID	Acres	Date Sold	Sales Price	Built	GBA	$/GBA
13	34-21-237-000	2	Oct-16	$186,000	1997	2,328	$79.90

Not Adjoining Residential Sales After Solar Farm Completed

#	TAX ID	Acres	Date Sold	Sales Price	Built	GBA	$/GBA
712 Columbus Rd	32-39-134-005	1.26	Jun-16	$166,000	1950	2,100	$79.05
504 N 2782 Rd	18-13-115-000	2.68	Oct-12	$154,000	1980	2,800	$55.00
7720 S Dwight Rd	11-09-300-004	1.14	Nov-16	$191,000	1919	2,772	$68.90
701 N 2050th Rd	26-20-105-000	1.97	Aug-13	$200,000	2000	2,200	$90.91
9955 E 1600th St	04-13-200-007	1.98	May-13	$181,858	1991	2,600	$69.95

TAX ID	Date Sold	Adjustments Time	Adjustments Total	$/Sf
34-21-237-000	Oct-16		$186,000	$79.90
32-39-134-005	Jun-16		$166,000	$79.05
18-13-115-000	Oct-12	$12,320	$166,320	$59.40
11-09-300-004	Nov-16		$191,000	$68.90
26-20-105-000	Aug-13	$12,000	$212,000	$96.36
04-13-200-007	May-13	$10,911	$192,769	$74.14

	Adjoins Solar Farm		Not Adjoin Solar Farm	
	Average	Median	Average	Median
Sales Price/SF	$79.90	$79.90	$75.57	$74.14
GBA	2,328	2,328	2,494	2,600

Based on the matched pairs I find no indication of negative impact due to proximity to the solar farm.

The most similar comparable is the home on Columbus that sold for $79.05 per square foot. This is higher than the median rate for all of the comparables. Applying that price per square foot to the subject property square footage indicates a value of $184,000.

There is minimal landscaping separating this solar farm from nearby properties and is therefore considered light.

4. Matched Pair – Portage Solar, Portage, IN

This solar farm has a 2 MW output and is located on a portion of a 56-acre tract. The project was built in 2012.

I have considered the recent sale of Parcels 5 and 12. Parcel 5 is an undeveloped tract, while Parcel 12 is a residential home. I have compared each to a set of comparable sales to determine if there was any impact due to the adjoining solar farm. This home is 1,320 feet from the closest solar panel. The landscaping buffer is considered light.

Adjoining Residential Sales After Solar Farm Completed

#	TAX ID	Acres	Date Sold	Sales Price	Built	GBA	$/GBA
12	64-06-19-326-007.000-015	1.00	Sep-13	$149,800	1964	1,776	$84.35

Nearby Residential Sales After Solar Farm Completed

#	TAX ID	Acres	Date Sold	Sales Price	Built	GBA	$/GBA
2501 Architect Dr	64-04-32-202-004.000-021	1.31	Nov-15	$191,500	1959	2,064	$92.78
336 E 1050 N	64-07-09-326-003.000-005	1.07	Jan-13	$155,000	1980	1,908	$81.24
2572 Pryor Rd	64-05-14-204-006.000-016	1.00	Jan-16	$216,000	1960	2,348	$91.99

Adjoining Land Sales After Solar Farm Completed

#	TAX ID	Acres	Date Sold	Sales Price	$/AC
5	64-06-19-200-003.000-015	18.70	Feb-14	$149,600	$8,000

Nearby Land Sales After Solar Farm Completed

#	TAX ID	Acres	Date Sold	Sales Price	$/AC
	64-07-22-401-001.000-005	74.35	Jun-17	$520,450	$7,000
	64-15-08-200-010.000-001	15.02	Jan-17	$115,000	$7,658

Residential Sale Adjustment Chart

		Adjustments		
TAX ID	Date Sold	Time	Total	$/Sf
64-06-19-326-007.000-015	Sep-13	$8,988	$158,788	$89.41
64-04-32-202-004.000-021	Nov-15	$3,830	$195,330	$94.64
64-07-09-326-003.000-005	Jan-13	$9,300	$164,300	$86.11
64-05-14-204-006.000-016	Jan-16		$216,000	$91.99

2% adjustment/year
Adjusted to 2017

	Adjoins Solar Farm		Not Adjoin Solar Farm	
	Average	Median	Average	Median
Sales Price/SF	$89.41	$89.41	$90.91	$91.99
GBA	1,776	1,776	2,107	2,064

After adjusting the price per square foot is 2.88% less for the home adjoining the solar farm versus those not adjoining the solar farm. This is within the typical range of variation to be anticipated in any real estate transaction and indicates no impact on property value.

Applying the price per square foot for the 336 E 1050 N sale, which is the most similar to the Parcel 12 sale, the adjusted price at $81.24 per square foot applied to the Parcel 12 square footage yields a value of $144,282.

The landscaping separating this solar farm from the homes is considered light.

Land Sale Adjustment Chart

TAX ID	Date Sold	Adjustments Time	Total	$/Acre
64-06-19-200-003.000-015	Feb-14	$8,976	$158,576	$8,480
64-07-22-401-001.000-005	Jun-17		$520,450	$7,000
64-15-08-200-010.000-001	Jan-17		$115,000	$7,658

2% adjustment/year
Adjusted to 2017

	Adjoins Solar Farm		Not Adjoin Solar Farm	
	Average	Median	Average	Median
Sales Price/Ac	$8,480	$8,480	$7,329	$7,329
Acres	18.70	18.70	44.68	44.68

After adjusting the price per acre is higher for the property adjoining the solar farm, but the average and median size considered is higher which suggests a slight discount. This set of matched pair supports no indication of negative impact due to the adjoining solar farm.

Alternatively, adjusting the 2017 sales back to 2014 I derive an indicated price per acre for the comparables at $6,580 per acre to $7,198 per acre, which I compare to the unadjusted subject property sale at $8,000 per acre.

5. Matched Pair – Dominion Indy III, Indianapolis, IN

This solar farm has an 8.6 MW output and is located on a portion of a 134-acre tract. The project was built in 2013.

There are a number of homes on small lots located along the northern boundary and I have considered several sales of these homes. I have compared those homes to a set of nearby not adjoining home sales as shown below. The adjoining homes that sold range from 380 to 420 feet from the nearest solar panel, with an average of 400 feet. The landscaping buffer is considered light.

Adjoining Residential Sales After Solar Farm Completed

#	TAX ID	Acres	Date Sold	Sales Price	Built	GBA	$/GBA
2	2013249	0.38	12/9/2015	$140,000	2006	2,412	$58.04
4	2013251	0.23	9/6/2017	$160,000	2006	2,412	$66.33
5	2013252	0.23	5/10/2017	$147,000	2009	2,028	$72.49
11	2013258	0.23	12/9/2015	$131,750	2011	2,190	$60.16
13	2013260	0.23	3/4/2015	$127,000	2005	2,080	$61.06
14	2013261	0.23	2/3/2014	$120,000	2010	2,136	$56.18

Nearby Not Adjoining Residential Sales After Solar Farm Completed

#	TAX ID	Acres	Date Sold	Sales Price	Built	GBA	$/GBA
5836 Sable Dr	2013277	0.14	Jun-16	$141,000	2005	2,280	$61.84
5928 Mosaic Pl	2013845	0.17	Sep-15	$145,000	2007	2,280	$63.60
5904 Minden Dr	2012912	0.16	May-16	$130,000	2004	2,252	$57.73
5910 Mosaic Pl	2000178	0.15	Aug-16	$146,000	2009	2,360	$61.86
5723 Minden Dr	2012866	0.26	Nov-16	$139,900	2005	2,492	$56.14

		Adjustments		
TAX ID	**Date Sold**	**Time**	**Total**	**$/Sf**
2013249	12/9/2015	$5,600	$145,600	$60.36
2013251	9/6/2017		$160,000	$66.33
2013252	5/10/2017		$147,000	$72.49
2013258	12/9/2015	$5,270	$137,020	$62.57
2013260	3/4/2015	$5,080	$132,080	$63.50
2013261	2/3/2014	$7,200	$127,200	$59.55
2013277	6/1/2016	$2,820	$143,820	$63.08
2013845	9/1/2015	$5,800	$150,800	$66.14
2012912	5/1/2016	$2,600	$132,600	$58.88
2000178	8/1/2016	$2,920	$148,920	$63.10
2012866	11/1/2016	$2,798	$142,698	$57.26

2% adjustment/year
Adjusted to 2017

	Adjoins Solar Farm		Not Adjoin Solar Farm	
	Average	**Median**	**Average**	**Median**
Sales Price/SF	$64.13	$63.03	$61.69	$63.08
GBA	2,210	2,163	2,333	2,280

This set of homes provides very strong indication of no impact due to the adjacency to the solar farm and includes a large selection of homes both adjoining and not adjoining in the analysis.

The landscaping screen is considered light in relation to the homes considered above.

6. Matched Pair – Clarke County Solar, Clarke County, VA

This project is a 20 MW facility located on a 234-acre tract that was built in 2017.

I have considered a recent sale or Parcel 3. The home on this parcel is 1,230 feet from the closest panel as measured in the second map from Google Earth, which shows the solar farm under construction.

I've compared this home sale to a number of similar rural homes on similar parcels as shown below. I have used multiple sales that bracket the subject property in terms of sale date, year built, gross living area, bedrooms and bathrooms. Bracketing the parameters insures that all factors are well balanced out in the adjustments. The trend for these sales shows a positive value for the adjacency to the solar farm.

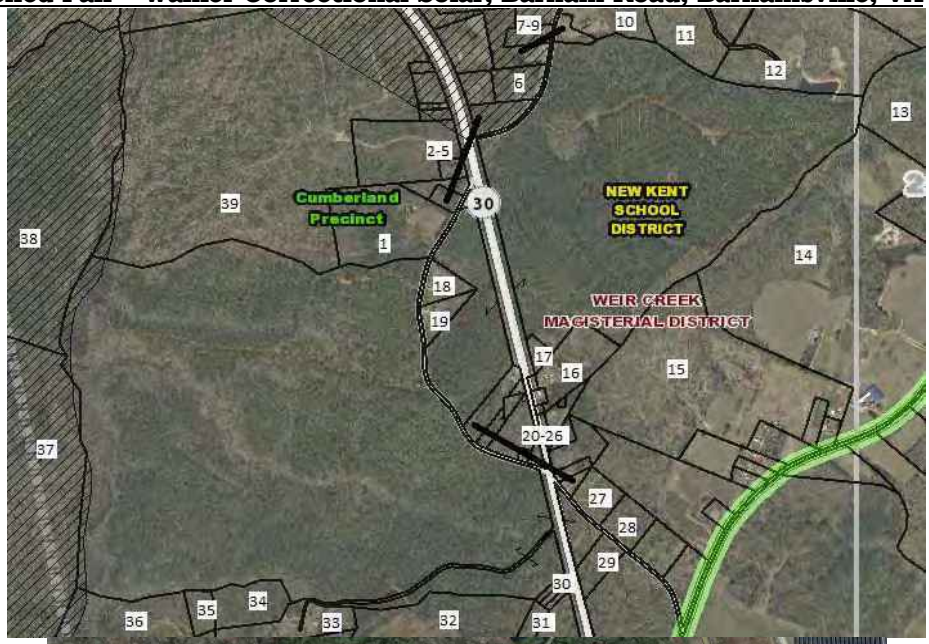
Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
Adjoins	833 Nations Spr	5.13	1/9/2017	$295,000	1979	1,392	$211.93	3/2	Det Gar	Ranch	Unfin bsmt
Not	85 Ashby	5.09	9/11/2017	$315,000	1982	2,333	$135.02	3/2	2 Gar	Ranch	
Not	541 Old Kitchen	5.07	9/9/2018	$370,000	1986	3,157	$117.20	4/4	2 Gar	2 story	
Not	4174 Rockland	5.06	1/2/2017	$300,000	1990	1,688	$177.73	3/2	3 Gar	2 story	
Not	400 Sugar Hill	1.00	6/7/2018	$180,000	1975	1,008	$178.57	3/1	Drive	Ranch	

Adjoining Residential Sales After Solar Farm Approved					Adjoining Sales Adjusted								
Solar	Address	Acres	Date Sold	Sales Price	Time	Acres	YB	GLA	BR/BA	Park	Other	Total	% Diff
Adjoins	833 Nations Spr	5.13	1/9/2017	$295,000								$295,000	
Not	85 Ashby	5.09	9/11/2017	$315,000	-$6,300		-$6,615	-$38,116		-$7,000	$15,000	$271,969	8%
Not	541 Old Kitchen	5.07	9/9/2018	$370,000	-$18,500		-$18,130	-$62,057		-$7,000	$15,000	$279,313	5%
Not	4174 Rockland	5.06	1/2/2017	$300,000			-$23,100	-$15,782		-$12,000	$15,000	$264,118	10%
Not	400 Sugar Hill	1.00	6/7/2018	$180,000	-$9,000	$43,000	$5,040	$20,571	$10,000	$3,000	$15,000	$267,611	9%
											Average		8%

The landscaping screen is primarily a newly planted buffer with a row of existing trees being maintained near the northern boundary and considered light.

7. Matched Pair – Walker-Correctional Solar, Barham Road, Barhamsville, VA



This project was built in 2017 and located on 484.65 acres for a 20 MW with the closest home at 110 feet from the closest solar panel with an average distance of 500 feet.

I considered the recent sale identified on the map above as Parcel 19, which is directly across the street and based on the map shown on the following page is 250 feet from the closest panel. A limited buffering remains along the road with natural growth being encouraged, but currently the panels are visible from the road. Alex Uminski, SRA with MGMiller Valuations in Richmond VA

confirmed this sale with the buying and selling broker. The selling broker indicated that the solar farm was not a negative influence on this sale and in fact the buyer noticed the solar farm and then discovered the listing. The privacy being afforded by the solar farm was considered a benefit by the buyer. I used a matched pair analysis with a similar sale nearby as shown below and found no negative impact on the sales price. Property actually closed for more than the asking price. The landscaping buffer is considered light.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
Adjoins	5241 Barham	2.65	10/18/2018	$264,000	2007	1,660	$159.04	3/2	Drive	Ranch	Modular
Not	17950 New Kent	5.00	9/5/2018	$290,000	1987	1,756	$165.15	3/2.5	3 Gar	Ranch	
Not	9252 Ordinary	4.00	6/13/2019	$277,000	2001	1,610	$172.05	3/2	1.5-Gar	Ranch	
Not	2416 W Miller	1.04	9/24/2018	$299,000	1999	1,864	$160.41	3/2.5	Gar	Ranch	

Adjoining Sales Adjusted

Solar	Address	Time	Ac/Loc	YB	GLA	BR/BA	Park	Other	Total	% Diff	Dist
Adjoins	5241 Barham								$264,000		250
Not	17950 New Kent		-$8,000	$29,000	-$4,756	-$5,000	-$20,000	-$15,000	$266,244	-1%	
Not	9252 Ordinary	-$8,310	-$8,000	$8,310	$2,581		-$10,000	-$15,000	$246,581	7%	
Not	2416 W Miller		$8,000	$11,960	-$9,817	-$5,000	-$10,000	-$15,000	$279,143	-6%	
								Average Diff		0%	

I also spoke with Patrick W. McCrerey of Virginia Estates who was marketing a property that sold at 5300 Barham Road adjoining the Walker-Correctional Solar Farm. He indicated that this property was unique with a home built in 1882 and heavily renovated and updated on 16.02 acres. The solar farm was through the woods and couldn't be seen by this property and it had no impact on marketing this property. This home sold on April 26, 2017 for $358,000. I did not set up any matched pairs for this property as it was such a unique property that any such comparison would be difficult to rely on. The broker's comments do support the assertion that the adjoining solar farm had no impact on value. The home in this case was 510 feet from the closest panel.

8. Matched Pair – Sappony Solar, Sussex County, VA

This project is a 30 MW facility located on a 322.68-acre tract that was built in the fourth quarter of 2017.

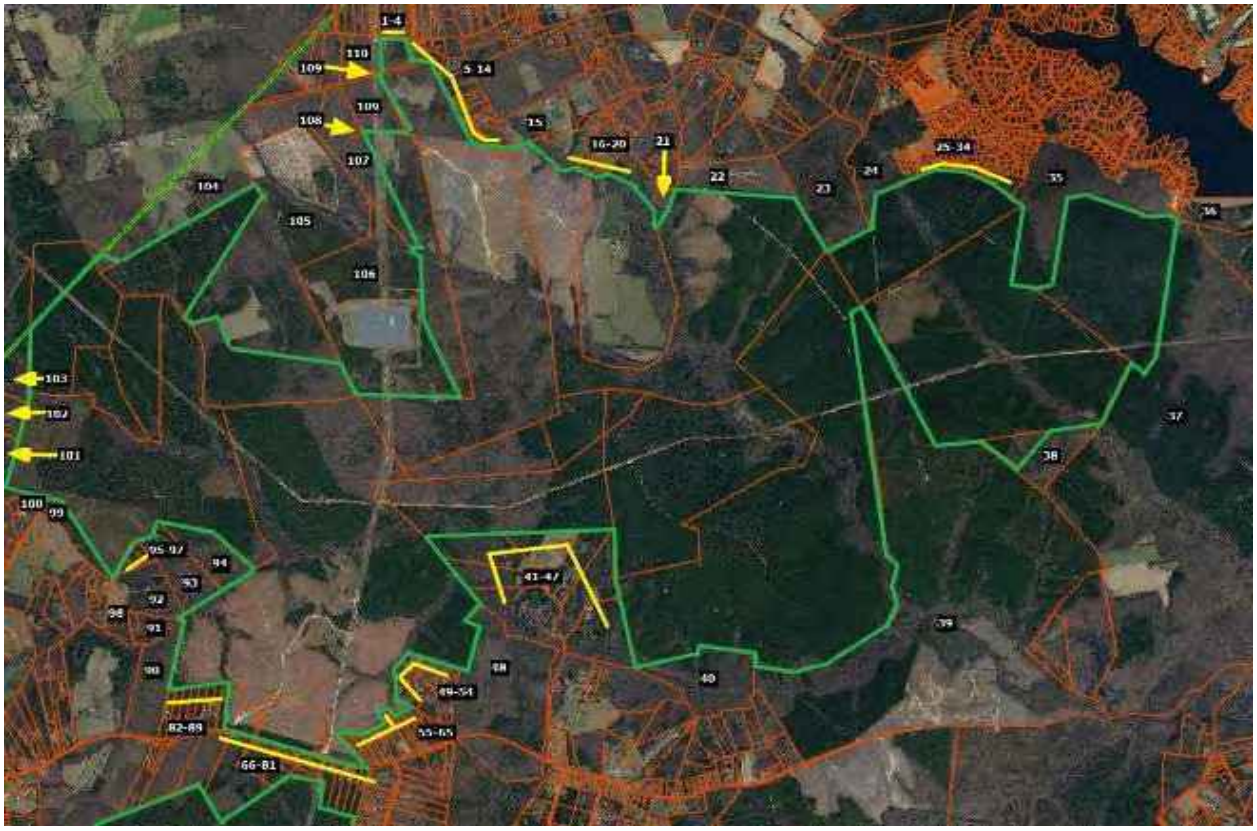
I have considered the 2018 sale of Parcel 17 as shown below. From Parcel 17 the retained trees and setbacks are a light to medium landscaped buffer.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GLA	BR/BA	Park	Style	Other
	Adjoins	12511 Palestine	6.00	7/31/2018	$128,400	2013	1,900	$67.58	4/2.5	Open	Manuf	
	Not	15698 Concord	3.92	7/31/2018	$150,000	2010	2,310	$64.94	4/2	Open	Manuf	Fence
	Not	23209 Sussex	1.03	7/7/2020	$95,000	2005	1,675	$56.72	3/2	Det Crpt	Manuf	
	Not	6494 Rocky Br	4.07	11/8/2018	$100,000	2004	1,405	$71.17	3/2	Open	Manuf	

Adjoining Sales Adjusted									Avg	
Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	% Diff	Distance
							$128,400			1425
$0		$2,250	-$21,299	$5,000			$135,951	-6%		
-$5,660	$13,000	$3,800	$10,209	$5,000	$1,500		$122,849	4%		
-$843		$4,500	$28,185				$131,842	-3%		
									-1%	

9. Matched Pair – Spotsylvania Solar, Paytes, VA



This solar farm is being built in four phases with the area known as Site C having completed construction in November 2020 after the entire project was approved in April 2019. Site C, also known as Pleinmont 1 Solar, includes 99.6 MW located in the southeast corner of the project and shown on the maps above with adjoining parcels 111 through 144. The entire Spotsylvania project totals 617 MW on 3500 acres out of a parent tract assemblage of 6,412 acres.

I have identified three adjoining home sales that occurred during construction and development of the site in 2020.

The first is located on the north side of Site A on Orange Plank Road. The second is located on Nottoway Lane just north of Caparthin Road on the south side of Site A and east of Site C. The third is located on Post Oak Road for a home that backs up to Site C that sold in September 2020 near the completion of construction for Site C.

Spotsylvania Solar Farm

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
Adjoins	12901 Orng Plnk	5.20	8/27/2020	$319,900	1984	1,714	$186.64	3/2	Drive	1.5	Un Bsmt
Not	8353 Gold Dale	3.00	1/27/2021	$415,000	2004	2,064	$201.07	3/2	3 Gar	Ranch	
Not	6488 Southfork	7.26	9/9/2020	$375,000	2017	1,680	$223.21	3/2	2 Gar	1.5	Barn/Patio
Not	12717 Flintlock	0.47	12/2/2020	$290,000	1990	1,592	$182.16	3/2.5	Det Gar	Ranch	

Adjoining Sales Adjusted

Address	Time	Ac/Loc	YB	GLA	BR/BA	Park	Other	Total	% Diff	Dist
12901 Orng Plnk								$319,900		1270
8353 Gold Dale	-$5,219	$20,000	-$41,500	-$56,298		-$20,000		$311,983	2%	
6488 Southfork	-$401	-$20,000	-$61,875	$6,071		-$15,000		$283,796	11%	
12717 Flintlock	-$2,312	$40,000	-$8,700	$17,779	-$5,000	-$5,000		$326,767	-2%	
							Average Diff		4%	

I contacted Keith Snider to confirm this sale. This is considered to have a medium landscaping screen.

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
Adjoins	9641 Nottoway	11.00	5/12/2020	$449,900	2004	3,186	$141.21	4/2.5	Garage	2-Story	Un Bsmt
Not	26123 Lafayette	1.00	8/3/2020	$390,000	2006	3,142	$124.12	3/3.5	Gar/DtG	2-Story	
Not	11626 Forest	5.00	8/10/2020	$489,900	2017	3,350	$146.24	4/3.5	2 Gar	2-Story	
Not	10304 Pny Brnch	6.00	7/27/2020	$485,000	1998	3,076	$157.67	4/4	2Gar/Dt2	Ranch	Fn Bsmt

Adjoining Sales Adjusted

Address	Time	Ac/Loc	YB	GLA	BR/BA	Park	Other	Total	% Diff	Dist
9641 Nottoway								$449,900		1950
26123 Lafayette	-$2,661	$45,000	-$3,900	$4,369	-$10,000	-$5,000		$417,809	7%	
11626 Forest	-$3,624		-$31,844	-$19,187		-$5,000		$430,246	4%	
10304 Pny Brnch	-$3,030		$14,550	$13,875	-$15,000	-$15,000	-$10,000	$470,396	-5%	
							Average Diff		2%	

I contacted Annette Roberts with ReMax about this transaction. This is considered to have a medium landscaping screen.

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
Adjoins	13353 Post Oak	5.20	9/21/2020	$300,000	1992	2,400	$125.00	4/3	Drive	2-Story	Fn Bsmt
Not	9609 Logan Hgt	5.86	7/4/2019	$330,000	2004	2,352	$140.31	3/2	2Gar	2-Story	
Not	12810 Catharpian	6.18	1/30/2020	$280,000	2008	2,240	$125.00	4/2.5	Drive	2-Story	Bsmt/Nd Pnt
Not	10725 Rbrt Lee	5.01	10/26/2020	$295,000	1995	2,166	$136.20	4/3	Gar	2-Story	Fn Bsmt

Adjoining Sales Adjusted

Address	Time	Ac/Loc	YB	GLA	BR/BA	Park	Other	Total	% Diff	Dist
13353 Post Oak								$300,000		1171
9609 Logan Hgt	$12,070		-$19,800	$5,388		-$15,000	$15,000	$327,658	-9%	
12810 Catharpian	$5,408		-$22,400	$16,000	$5,000		$15,000	$299,008	0%	
10725 Rbrt Lee	-$849		-$4,425	$25,496		-$10,000		$305,222	-2%	
							Average Diff		-4%	

I contacted Joy Pearson with CTI Real Estate about this transaction. This is considered to have a heavy landscaping screen.

All three of these homes are well set back from the solar panels at distances over 1,000 feet and are well screened from the project. All three show no indication of any impact on property value.

Conclusion

The solar farm matched pairs shown above have similar characteristics to each other in terms of population, but with several outliers showing solar farms in far more urban areas. The median income for the population within 1 mile of a solar farm among this subset of matched pairs is $65,695 with a median housing unit value of $186,463. Most of the comparables are under $300,000 in the home price, with $483,333 being the high end of the set, though I have matched pairs in other states over $1,000,000 in price adjoining large solar farms. The predominate adjoining uses are residential and agricultural. These figures are in line with the larger set of solar farms that I have looked at with the predominant adjoining uses being residential and agricultural and similar to the solar farm breakdown shown for Kentucky and adjoining states as well as the proposed subject property.

Based on the similarity of adjoining uses and demographic data between these sites and the subject property, I consider it reasonable to compare these sites to the subject property.

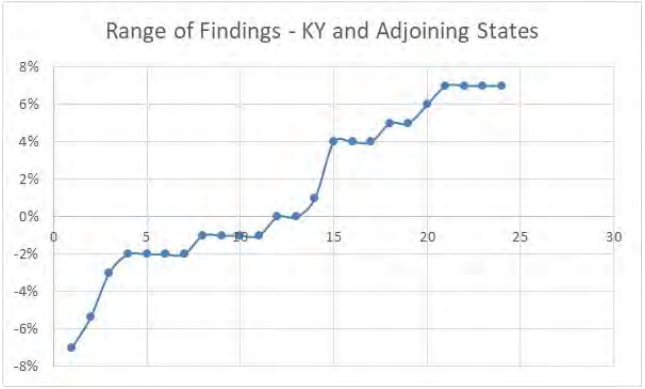
Matched Pair Summary							Adj. Uses By Acreage				1 mile Radius (2010-2020 Data)			
	Name	City	State	Acres	MW	Topo Shift	Res	Ag	Ag/Res	Com/Ind	Popl.	Med. Income	Avg. Housing Unit	Veg. Buffer
1	Crittenden	Crittenden	KY	34	2.70	40	22%	51%	27%	0%	1,419	$60,198	$178,643	Light
2	Mulberry	Selmer	TN	160	5.00	60	13%	73%	10%	3%	467	$40,936	$171,746	Lt to Med
3	Grand Ridge	Streator	IL	160	20.00	1	8%	87%	5%	0%	96	$70,158	$187,037	Light
4	Portage	Portage	IN	56	2.00	0	19%	81%	0%	0%	6,642	$65,695	$186,463	Light
5	Dominion	Indianapolis	IN	134	8.60	20	3%	97%	0%	0%	3,774	$61,115	$167,515	Light
6	Walker	Barhamsville	VA	485	20.00	N/A	12%	68%	20%	0%	203	$80,773	$320,076	Light
7	Clarke Cnty	White Post	VA	234	20.00	70	14%	39%	46%	1%	578	$81,022	$374,453	Light
8	Sappony	Stony Crk	VA	322	20.00	N/A	2%	98%	0%	0%	74	$51,410	$155,208	Medium
9	Spotyslvania	Paytes	VA	3,500	617.00	160	37%	52%	11%	0%	74	$120,861	$483,333	Med to Hvy
	Average			565	79.48	50	14%	72%	13%	0%	1,481	$70,241	$247,164	
	Median			160	20.00	40	13%	73%	10%	0%	467	$65,695	$186,463	
	High			3,500	617.00	160	37%	98%	46%	3%	6,642	$120,861	$483,333	
	Low			34	2.00	0	2%	39%	0%	0%	74	$40,936	$155,208	

Proposed Solar Farm at a 1-mile radius has 110 people with an average income of $59,840 and an average home price of $230,000.

Proposed Solar Farm at a 3-mile radius has 1,088 people with an average income of $54,492 and an average home price of $230,345.

These are very similar to the demographics shown around these comparable solar farms.

On the following page is a summary of the matched pairs for all of the solar farms noted above. They show a pattern of results from -7% to +7%. As can be seen in the chart of those results below, most of the data points are between -2% and +5%. This variability is common with real estate and consistent with market "static." I therefore conclude that these results strongly support an indication of no impact on property value due to the adjacent solar farm.



Residential Dwelling Matched Pairs Adjoining Solar Farms

Pair	Solar Farm	City	State	MW	Approx Distance	Tax ID/Address	Date	Sale Price	Adj. Sale Price	% Diff	Veg. Buffer
1	Crittenden	Crittenden	KY	2.7	373	250 Claiborne	Jan-19	$120,000			Light
						315 N Fork	May-19	$107,000	$120,889	-1%	
2	Crittenden	Crittenden	KY	2.7	488	300 Claiborne	Sep-18	$213,000			Light
						1795 Bay Valley	Dec-17	$231,200	$228,180	-7%	
3	Crittenden	Crittenden	KY	2.7	720	350 Claiborne	Jul-18	$245,000			Light
						2160 Sherman	Jun-19	$265,000	$248,225	-1%	
4	Crittenden	Crittenden	KY	2.7	930	370 Claiborne	Aug-19	$273,000			Light
						125 Lexington	Apr-18	$240,000	$254,751	7%	
5	Mulberry	Selmer	TN	5	400	0900A011	Jul-14	$130,000			Light
						099CA043	Feb-15	$148,900	$136,988	-5%	
6	Mulberry	Selmer	TN	5	400	099CA002	Jul-15	$130,000			Light
						0990NA040	Mar-15	$120,000	$121,200	7%	
7	Mulberry	Selmer	TN	5	480	491 Dusty	Oct-16	$176,000			Light
						35 April	Aug-16	$185,000	$178,283	-1%	
8	Mulberry	Selmer	TN	5	650	297 Country	Sep-16	$150,000			Medium
						53 Glen	Mar-17	$126,000	$144,460	4%	
9	Mulberry	Selmer	TN	5	685	57 Cooper	Feb-19	$163,000			Medium
						191 Amelia	Aug-18	$132,000	$155,947	4%	
10	Grand Ridge	Streator	IL	20	480	1497 E 21st	Oct-16	$186,000			Light
						712 Columbus	Jun-16	$166,000	$184,000	1%	
11	Dominion	Indianapolis	IN	8.6	400	2013249 (Tax ID)	Dec-15	$140,000			Light
						5723 Minden	Nov-16	$139,900	$132,700	5%	
12	Dominion	Indianapolis	IN	8.6	400	2013251 (Tax ID)	Sep-17	$160,000			Light
						5910 Mosaic	Aug-16	$146,000	$152,190	5%	
13	Dominion	Indianapolis	IN	8.6	400	2013252 (Tax ID)	May-17	$147,000			Light
						5836 Sable	Jun-16	$141,000	$136,165	7%	
14	Dominion	Indianapolis	IN	8.6	400	2013258 (Tax ID)	Dec-15	$131,750			Light
						5904 Minden	May-16	$130,000	$134,068	-2%	
15	Dominion	Indianapolis	IN	8.6	400	2013260 (Tax ID)	Mar-15	$127,000			Light
						5904 Minden	May-16	$130,000	$128,957	-2%	
16	Dominion	Indianapolis	IN	8.6	400	2013261 (Tax ID)	Feb-14	$120,000			Light
						5904 Minden	May-16	$130,000	$121,930	-2%	
17	Clarke Cnty	White Post	VA	20	1230	833 Nations Spr	Jan-17	$295,000			Light
						6801 Middle	Dec-17	$249,999	$296,157	0%	
18	Walker	Barhamsville	VA	20	250	5241 Barham	Oct-18	$264,000			Light
						9252 Ordinary	Jun-19	$277,000	$246,581	7%	
19	Clarke Cnty	White Post	VA	20	1230	833 Nations Spr	Aug-19	$385,000			Light
						2393 Old Chapel	Aug-20	$330,000	$389,286	-1%	
20	Sappony	Stony Creek	VA	20	1425	12511 Palestine	Jul-18	$128,400			Medium
						6494 Rocky Branch	Nov-18	$100,000	$131,842	-3%	
21	Spotsylvania	Paytes	VA	617	1270	12901 Orange Plnk	Aug-20	$319,900			Medium
						12717 Flintlock	Dec-20	$290,000	$326,767	-2%	
22	Spotsylvania	Paytes	VA	617	1950	9641 Nottoway	May-20	$449,900			Medium
						11626 Forest	Aug-20	$489,900	$430,246	4%	
23	Spotsylvania	Paytes	VA	617	1171	13353 Post Oak	Sep-20	$300,000			Heavy
						12810 Catharpin	Jan-20	$280,000	$299,008	0%	

	MW	Avg. Distance
	106.72	738
	8.60	480
	617.00	1,950
	5.00	250

	Indicated Impact
Average	1%
Median	0%
High	7%
Low	-5%

I have further broken down these results based on the MWs, Landscaping, and distance from panel to show the following range of findings for these different categories.

This breakdown shows no homes between 100-200 homes. Solar farms up to 75 MW show homes between 201 and 500 feet with no impact on value. Most of the findings are for homes between 201 and 500 feet.

Light landscaping screens are showing no impact on value at any distances, though solar farms over 75.1 MW only show Medium and Heavy landscaping screens in the 3 examples identified. Light landscaping is 20-foot wide or less landscaping and is often a planted mix by the solar farm developer. Medium landscaping is 20 to 100 feet of landscaped buffer and is generally a retained existing wooded area. Heavy landscaping is over 100 feet of wooded buffer.

MW Range 4.4 to 10									
Landscaping	**Light**	**Light**	**Light**	**Medium**	**Medium**	**Medium**	**Heavy**	**Heavy**	**Heavy**
Distance	**100-200**	**201-500**	**500+**	**100-200**	**201-500**	**500+**	**100-200**	**201-500**	**500+**
#	0	11	2	0	0	2	0	0	0
Average	N/A	1%	N/A	N/A	N/A	4%	N/A	N/A	N/A
Median	N/A	-1%	N/A	N/A	N/A	4%	N/A	N/A	N/A
High	N/A	7%	N/A	N/A	N/A	4%	N/A	N/A	N/A
Low	N/A	-5%	N/A	N/A	N/A	4%	N/A	N/A	N/A

10.1 to 30									
Landscaping	**Light**	**Light**	**Light**	**Medium**	**Medium**	**Medium**	**Heavy**	**Heavy**	**Heavy**
Distance	**100-200**	**201-500**	**500+**	**100-200**	**201-500**	**500+**	**100-200**	**201-500**	**500+**
#	0	2	2	0	0	1	0	0	0
Average	N/A	4%	-1%	N/A	N/A	-3%	N/A	N/A	N/A
Median	N/A	4%	-1%	N/A	N/A	-3%	N/A	N/A	N/A
High	N/A	7%	0%	N/A	N/A	-3%	N/A	N/A	N/A
Low	N/A	1%	-1%	N/A	N/A	-3%	N/A	N/A	N/A

30.1 to 75									
Landscaping	**Light**	**Light**	**Light**	**Medium**	**Medium**	**Medium**	**Heavy**	**Heavy**	**Heavy**
Distance	**100-200**	**201-500**	**500+**	**100-200**	**201-500**	**500+**	**100-200**	**201-500**	**500+**
#	0	0	0	0	0	0	0	0	0
Average	N/A	1%	0%	N/A	N/A	0%	N/A	N/A	N/A
Median	N/A	1%	0%	N/A	N/A	0%	N/A	N/A	N/A
High	N/A	2%	2%	N/A	N/A	9%	N/A	N/A	N/A
Low	N/A	1%	-2%	N/A	N/A	-7%	N/A	N/A	N/A

75.1+									
Landscaping	**Light**	**Light**	**Light**	**Medium**	**Medium**	**Medium**	**Heavy**	**Heavy**	**Heavy**
Distance	**100-200**	**201-500**	**500+**	**100-200**	**201-500**	**500+**	**100-200**	**201-500**	**500+**
#	0	0	0	0	0	2	0	0	1
Average	N/A	N/A	N/A	N/A	N/A	1%	N/A	N/A	0%
Median	N/A	N/A	N/A	N/A	N/A	1%	N/A	N/A	0%
High	N/A	N/A	N/A	N/A	N/A	4%	N/A	N/A	0%
Low	N/A	N/A	N/A	N/A	N/A	-2%	N/A	N/A	0%

B. Southeastern USA Data – Over 5 MW

1. Matched Pair – AM Best Solar Farm, Goldsboro, NC

This 5 MW solar farm adjoins Spring Garden Subdivision which had new homes and lots available for new construction during the approval and construction of the solar farm. The recent home sales have ranged from $200,000 to $250,000. This subdivision sold out the last homes in late 2014. The solar farm is clearly visible particularly along the north end of this street where there is only a thin line of trees separating the solar farm from the single-family homes.

Homes backing up to the solar farm are selling at the same price for the same floor plan as the homes that do not back up to the solar farm in this subdivision. According to the builder, the solar farm has been a complete non-factor. Not only do the sales show no difference in the price paid for the various homes adjoining the solar farm versus not adjoining the solar farm, but there are actually more recent sales along the solar farm than not. There is no impact on the sellout rate, or time to sell for the homes adjoining the solar farm.

I spoke with a number of owners who adjoin the solar farm and none of them expressed any concern over the solar farm impacting their property value.

The data presented on the following page shows multiple homes that have sold in 2013 and 2014 adjoining the solar farm at prices similar to those not along the solar farm. These series of sales indicate that the solar farm has no impact on the adjoining residential use.

The homes that were marketed at Spring Garden are shown below.

The homes adjoining the solar farm are considered to have a light landscaping screen as it is a narrow row of existing pine trees supplemented with evergreen plantings.

Matched Pairs
As of Date: 9/3/2014

Adjoining Sales After Solar Farm Completed

TAX ID	Owner	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	Style
3600195570	Helm	0.76	Sep-13	$250,000	2013	3,292	$75.94	2 Story
3600195361	Leak	1.49	Sep-13	$260,000	2013	3,652	$71.19	2 Story
3600199891	McBrayer	2.24	Jul-14	$250,000	2014	3,292	$75.94	2 Story
3600198632	Foresman	1.13	Aug-14	$253,000	2014	3,400	$74.41	2 Story
3600196656	Hinson	0.75	Dec-13	$255,000	2013	3,453	$73.85	2 Story
	Average	1.27		$253,600	2013.4	3,418	$74.27	
	Median	1.13		$253,000	2013	3,400	$74.41	

Adjoining Sales After Solar Farm Announced

TAX ID	Owner	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	Style
0	Feddersen	1.56	Feb-13	$247,000	2012	3,427	$72.07	Ranch
0	Gentry	1.42	Apr-13	$245,000	2013	3,400	$72.06	2 Story
	Average	1.49		$246,000	2012.5	3,414	$72.07	
	Median	1.49		$246,000	2012.5	3,414	$72.07	

Adjoining Sales Before Solar Farm Announced

TAX ID	Owner	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	Style
3600183905	Carter	1.57	Dec-12	$240,000	2012	3,347	$71.71	1.5 Story
3600193097	Kelly	1.61	Sep-12	$198,000	2012	2,532	$78.20	2 Story
3600194189	Hadwan	1.55	Nov-12	$240,000	2012	3,433	$69.91	1.5 Story
	Average	1.59		$219,000	2012	2,940	$74.95	
	Median	1.59		$219,000	2012	2,940	$74.95	

Nearby Sales After Solar Farm Completed

TAX ID	Owner	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	Style
3600193710	Barnes	1.12	Oct-13	$248,000	2013	3,400	$72.94	2 Story
3601105180	Nackley	0.95	Dec-13	$253,000	2013	3,400	$74.41	2 Story
3600192528	Mattheis	1.12	Oct-13	$238,000	2013	3,194	$74.51	2 Story
3600198928	Beckman	0.93	Mar-14	$250,000	2014	3,292	$75.94	2 Story
3600196965	Hough	0.81	Jun-14	$224,000	2014	2,434	$92.03	2 Story
3600193914	Preskitt	0.67	Jun-14	$242,000	2014	2,825	$85.66	2 Story
3600194813	Bordner	0.91	Apr-14	$258,000	2014	3,511	$73.48	2 Story
3601104147	Shaffer	0.73	Apr-14	$255,000	2014	3,453	$73.85	2 Story
	Average	0.91		$246,000	2013.625	3,189	$77.85	
	Median	0.92		$249,000	2014	3,346	$74.46	

Nearby Sales Before Solar Farm Announced

TAX ID	Owner	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	Style
3600191437	Thomas	1.12	Sep-12	$225,000	2012	3,276	$68.68	2 Story
3600087968	Lilley	1.15	Jan-13	$238,000	2012	3,421	$69.57	1.5 Story
3600087654	Burke	1.26	Sep-12	$240,000	2012	3,543	$67.74	2 Story
3600088796	Hobbs	0.73	Sep-12	$228,000	2012	3,254	$70.07	2 Story
	Average	1.07		$232,750	2012	3,374	$69.01	
	Median	1.14		$233,000	2012	3,349	$69.13	

Matched Pair Summary

	Adjoins Solar Farm		Nearby Solar Farm	
	Average	**Median**	**Average**	**Median**
Sales Price	$253,600	$253,000	$246,000	$249,000
Year Built	2013	2013	2014	2014
Size	3,418	3,400	3,189	3,346
Price/SF	$74.27	$74.41	$77.85	$74.46

Percentage Differences

Median Price	-2%
Median Size	-2%
Median Price/SF	0%

I note that 2308 Granville Drive sold again in November 2015 for $267,500, or $7,500 more than when it was purchased new from the builder two years earlier (Tax ID 3600195361, Owner: Leak). The neighborhood is clearly showing appreciation for homes adjoining the solar farm.

The Median Price is the best indicator to follow in any analysis as it avoids outlying samples that would otherwise skew the results. The median sizes and median prices are all consistent throughout the sales both before and after the solar farm whether you look at sites adjoining or nearby to the solar farm. The average size for the homes nearby the solar farm shows a smaller building size and a higher price per square foot. This reflects a common occurrence in real estate where the price per square foot goes up as the size goes down. So even comparing averages the indication is for no impact, but I rely on the median rates as the most reliable indication for any such analysis.

I have also considered four more recent resales of homes in this community as shown on the following page. These comparable sales adjoin the solar farm at distances ranging from 315 to 400 feet. The matched pairs show a range from -9% to +6%. The range of the average difference is -2% to +1% with an average of 0% and a median of +0.5%. These comparable sales support a finding of no impact on property value.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other	Distance
	Adjoins	103 Granville Pl	1.42	7/27/2018	$265,000	2013	3,292	$80.50	4/3.5	2-Car	2-Story		385
	Not	2219 Granville	1.15	1/8/2018	$260,000	2012	3,292	$78.98	4/3.5	2-Car	2-Story		
	Not	634 Friendly	0.96	7/31/2019	$267,000	2018	3,053	$87.45	4/4.5	2-Car	2-Story		
	Not	2403 Granville	0.69	4/23/2019	$265,000	2014	2,816	$94.11	5/3.5	2-Car	2-Story		

	Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
	Adjoins	103 Granville Pl								$265,000		-2%
	Not	2219 Granville	$4,382		$1,300	$0				$265,682	0%	
	Not	634 Friendly	-$8,303		-$6,675	$16,721	-$10,000			$258,744	2%	
	Not	2403 Granville	-$6,029		-$1,325	$31,356				$289,001	-9%	

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other	Distance
	Adjoins	104 Erin	2.24	6/19/2017	$280,000	2014	3,549	$78.90	5/3.5	2-Car	2-Story		315
	Not	2219 Granville	1.15	1/8/2018	$260,000	2012	3,292	$78.98	4/3.5	2-Car	2-Story		
	Not	634 Friendly	0.96	7/31/2019	$267,000	2018	3,053	$87.45	4/4.5	2-Car	2-Story		
	Not	2403 Granville	0.69	4/23/2019	$265,000	2014	2,816	$94.11	5/3.5	2-Car	2-Story		

	Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
	Adjoins	104 Erin								$280,000		0%
	Not	2219 Granville	-$4,448		$2,600	$16,238				$274,390	2%	
	Not	634 Friendly	-$17,370		-$5,340	$34,702	-$10,000			$268,992	4%	
	Not	2403 Granville	-$15,029		$0	$48,285				$298,256	-7%	

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other	Distance
	Adjoins	2312 Granville	0.75	5/1/2018	$284,900	2013	3,453	$82.51	5/3.5	2-Car	2-Story		400
	Not	2219 Granville	1.15	1/8/2018	$260,000	2012	3,292	$78.98	4/3.5	2-Car	2-Story		
	Not	634 Friendly	0.96	7/31/2019	$267,000	2018	3,053	$87.45	4/4.5	2-Car	2-Story		
	Not	2403 Granville	0.69	4/23/2019	$265,000	2014	2,816	$94.11	5/3.5	2-Car	2-Story		

	Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
	Adjoins	2312 Granville								$284,900		1%
	Not	2219 Granville	$2,476		$1,300	$10,173				$273,948	4%	
	Not	634 Friendly	-$10,260		-$6,675	$27,986	-$10,000			$268,051	6%	
	Not	2403 Granville	-$7,972		-$1,325	$47,956				$303,659	-7%	

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other	Distance
	Adjoins	2310 Granville	0.76	5/14/2019	$280,000	2013	3,292	$85.05	5/3.5	2-Car	2-Story		400
	Not	2219 Granville	1.15	1/8/2018	$260,000	2012	3,292	$78.98	4/3.5	2-Car	2-Story		
	Not	634 Friendly	0.96	7/31/2019	$267,000	2018	3,053	$87.45	4/4.5	2-Car	2-Story		
	Not	2403 Granville	0.69	4/23/2019	$265,000	2014	2,816	$94.11	5/3.5	2-Car	2-Story		

	Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
	Adjoins	2310 Granville								$280,000		1%
	Not	2219 Granville	$10,758		$1,300	$0				$272,058	3%	
	Not	634 Friendly	-$1,755		-$6,675	$16,721	-$10,000			$265,291	5%	
	Not	2403 Granville	$469		-$1,325	$31,356				$295,500	-6%	

I have also considered the original sales prices in this subdivision relative to the recent resale values as shown in the chart below. This rate of appreciation is right at 2.5% over the last 6 years. Zillow indicates that the average home value within the 27530 zip code as of January 2014 was $101,300 and as of January 2020 that average is $118,100. This indicates an average increase in the market of 2.37%. I conclude that the appreciation of the homes adjoining the solar farm are not impacted by the presence of the solar farm based on this data.

	Address	Initial Sale Date	Price	Second Sale Date	Price	Year Diff	Apprec.	% Apprec.	Apprec. %/Year
1	103 Granville Pl	4/1/2013	$245,000	7/27/2018	$265,000	5.32	$20,000	8.16%	1.53%
2	105 Erin	7/1/2014	$250,000	6/19/2017	$280,000	2.97	$30,000	12.00%	4.04%
3	2312 Granville	12/1/2013	$255,000	5/1/2015	$262,000	1.41	$7,000	2.75%	1.94%
4	2312 Granville	5/1/2015	$262,000	5/1/2018	$284,900	3.00	$22,900	8.74%	2.91%
5	2310 Granville	8/1/2013	$250,000	5/14/2019	$280,000	5.79	$30,000	12.00%	2.07%
6	2308 Granville	9/1/2013	$260,000	11/12/2015	$267,500	2.20	$7,500	2.88%	1.31%
7	2304 Granville	9/1/2012	$198,000	6/1/2017	$225,000	4.75	$27,000	13.64%	2.87%
8	102 Erin	8/1/2014	$253,000	11/1/2016	$270,000	2.25	$17,000	6.72%	2.98%
								Average	2.46%
								Median	2.47%

2. Matched Pair – Mulberry, Selmer, TN

This 16 MW solar farm was built in 2014 on 208.89 acres with the closest home being 480 feet.

This solar farm adjoins two subdivisions with Central Hills having a mix of existing and new construction homes. Lots in this development have been marketed for $15,000 each with discounts offered for multiple lots being used for a single home site. I spoke with the agent with Rhonda Wheeler and Becky Hearnsberger with United County Farm & Home Realty who noted that they have seen no impact on lot or home sales due to the solar farm in this community.

I have included a map below as well as data on recent sales activity on lots that adjoin the solar farm or are near the solar farm in this subdivision both before and after the announced plan for this solar farm facility. I note that using the same method I used to breakdown the adjoining uses at the subject property I show that the predominant adjoining uses are residential and agricultural, which is consistent with the location of most solar farms.

Adjoining Use Breakdown

	Acreage	Parcels
Commercial	3.40%	0.034
Residential	12.84%	79.31%
Agri/Res	10.39%	3.45%
Agricultural	73.37%	13.79%
Total	**100.00%**	**100.00%**

I have run a number of direct matched comparisons on the sales adjoining this solar farm as shown below. These direct matched pairs include some of those shown above as well as additional more recent sales in this community. In each of these I have compared the one sale adjoining the solar farm to multiple similar homes nearby that do not adjoin a solar farm to look for any potential impact from the solar farm.

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
3	Adjoins	491 Dusty	6.86	10/28/2016	$176,000	2009	1,801	$97.72	3/2	2-Gar	Ranch	
	Not	820 Lake Trail	1.00	6/8/2018	$168,000	2013	1,869	$89.89	4/2	2-Gar	Ranch	
	Not	262 Country	1.00	1/17/2018	$145,000	2000	1,860	$77.96	3/2	2-Gar	Ranch	
	Not	35 April	1.15	8/16/2016	$185,000	2016	1,980	$93.43	3/2	2-Gar	Ranch	

Adjoining Sales Adjusted

Parcel	Solar	Address	Time	Site	YB	GLA	Park	Other	Total	% Diff	Distance
3	Adjoins	491 Dusty							$176,000		480
	Not	820 Lake Trail	-$8,324	$12,000	-$3,360	-$4,890			$163,426	7%	
	Not	262 Country	-$5,450	$12,000	$6,525	-$3,680			$154,396	12%	
	Not	35 April	$1,138	$12,000	-$6,475	-$13,380			$178,283	-1%	
									Average	6%	

The best matched pair is 35 April Loop, which required the least adjustment and indicates a -1% increase in value due to the solar farm adjacency.

Adjoining Residential Sales After Solar Farm Built

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
12	Adjoins	57 Cooper	1.20	2/26/2019	$163,000	2011	1,586	$102.77	3/2	2-Gar	1.5 Story	Pool
	Not	191 Amelia	1.00	8/3/2018	$132,000	2005	1,534	$86.05	3/2	Drive	Ranch	
	Not	75 April	0.85	3/17/2017	$134,000	2012	1,588	$84.38	3/2	2-Crprt	Ranch	
	Not	345 Woodland	1.15	12/29/2016	$131,000	2002	1,410	$92.91	3/2	1-Gar	Ranch	

Adjoining Sales Adjusted

Parcel	Solar	Address	Sales Price	Time	Site	YB	GLA	Park	Other	Total	% Diff	Distance
12	Adjoins	57 Cooper	$163,000							$163,000		685
	Not	191 Amelia	$132,000	$2,303		$3,960	$2,685	$10,000	$5,000	$155,947	4%	
	Not	75 April	$134,000	$8,029	$4,000	-$670	-$135	$5,000	$5,000	$155,224	5%	
	Not	345 Woodland	$131,000	$8,710		$5,895	$9,811		$5,000	$160,416	2%	
										Average	4%	

The best matched pair is 191 Amelia, which was most similar in time frame of sale and indicates a +4% increase in value due to the solar farm adjacency.

Adjoining Residential Sales After Solar Farm Built

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
15	Adjoins	297 Country	1.00	9/30/2016	$150,000	2002	1,596	$93.98	3/2	4-Gar	Ranch	
	Not	185 Dusty	1.85	8/17/2015	$126,040	2009	1,463	$86.15	3/2	2-Gar	Ranch	
	Not	53 Glen	1.13	3/9/2017	$126,000	1999	1,475	$85.42	3/2	2-Gar	Ranch	Brick

Adjoining Sales Adjusted

Parcel	Solar	Address	Sales Price	Time	Site	YB	GLA	Park	Other	Total	% Diff	Distance
15	Adjoins	297 Country	$150,000							$150,000		650
	Not	185 Dusty	$126,040	$4,355		-$4,411	$9,167	$10,000		$145,150	3%	
	Not	53 Glen	$126,000	-$1,699		$1,890	$8,269	$10,000		$144,460	4%	
										Average	3%	

The best matched pair is 53 Glen, which was most similar in time frame of sale and required less adjustment. It indicates a +4% increase in value due to the solar farm adjacency.

The average indicated impact from these three sets of matched pairs is +4%, which suggests a mild positive relationship due to adjacency to the solar farm. The landscaping buffer for this project is mostly natural tree growth that was retained as part of the development but much of the trees separating the panels from homes are actually on the lots for the homes themselves. I therefore consider the landscaping buffer to be thin to moderate for these adjoining homes.

I have also looked at several lot sales in this subdivision as shown below.

These are all lots within the same community and the highest prices paid are for lots one parcel off from the existing solar farm. These prices are fairly inconsistent, though they do suggest about a $3,000 loss in the lots adjoining the solar farm. This is an atypical finding and additional details suggest there is more going on in these sales than the data crunching shows. First of all Parcel 4 was purchased by the owner of the adjoining home and therefore an atypical buyer seeking to expand a lot and the site is not being purchased for home development. Moreover, using the SiteToDoBusiness demographic tools, I found that the 1-mile radius around this development is expecting a total population increase over the next 5 years of 3 people. This lack of growing demand for lots is largely explained in that context. Furthermore, the fact that finished home sales as shown above are showing no sign of a negative impact on property value makes this data unreliable and inconsistent with the data shown in sales to an end user. I therefore place little weight on this outlier data.

Parcel	Solar	Address	Acres	Date Sold	Sales Price	4/18/2019 Adj for Time	$/AC	4/18/2019 Adj for Time
4	Adjoins	Shelter	2.05	10/25/2017	$16,000	$16,728	$7,805	$8,160
10	Adjoins	Carter	1.70	8/2/2018	$14,000	$14,306	$8,235	$8,415
11	Adjoins	Cooper	1.28	9/17/2018	$12,000	$12,215	$9,375	$9,543
	Not	75 Dusty	1.67	4/18/2019	$20,000	$20,000	$11,976	$11,976
	Not	Lake Trl	1.47	11/7/2018	$13,000	$13,177	$8,844	$8,964
	Not	Lake Trl	1.67	4/18/2019	$20,000	$20,000	$11,976	$11,976

	Adjoins	Per Acre	Not Adjoins	Per Acre	% DIF/Lot	% DIF/AC
Average	$14,416	$8,706	$17,726	$10,972	19%	21%
Median	$14,306	$8,415	$20,000	$11,976	28%	30%
High	$16,728	$9,543	$20,000	$11,976	16%	20%
Low	$12,215	$8,160	$13,177	$8,964	7%	9%

3. Matched Pair – Leonard Road Solar Farm, Hughesville, MD

This 5 MW solar farm is located on 47 acres and mostly adjoins agricultural and residential uses to the west, south and east as shown above. The property also adjoins retail uses and a church. I looked at a 2016 sale of an adjoining home with a positive impact on value adjoining the solar farm of 2.90%. This is within typical market friction and supports an indication of no impact on property value.

I have shown this data below. The landscaping buffer is considered heavy.

Leonardtown Road Solar Farm, Hughesville, MD

Nearby Residential Sale After Solar Farm Construction

Address	Solar Farm	Acres	Date Sold	Sales Price*	Built	GBA	$/GBA	Style	BR/BA	Bsmt	Park	Upgrades	Other
14595 Box Elder Ct	Adjoins	3.00	2/12/2016	$291,000	1991	2,174	$133.85	Colonial	5/2.5	No	2 Car Att	N/A	Deck
15313 Bassford Rd	Not	3.32	7/20/2016	$329,800	1990	2,520	$130.87	Colonial	3/2.5	Finished	2 Car Att	Custom	Scr Por/Patio

*$9,000 concession deducted from sale price for Box Elder and $10,200 deducted from Bassford

Adjoining Sales Adjusted			Adjustments					
Address	Date Sold	Sales Price	Time	GLA	Bsmt	Upgrades	Other	Total
14595 Box Elder Ct	2/12/2016	$291,000						$291,000
15313 Bassford Rd	7/20/2016	$329,800	-$3,400	-$13,840	-$10,000	-$15,000	-$5,000	$282,560

Difference Attributable to Location $8,440
2.90%

This is within typical market friction and supports an indication of no impact on property value.

4. Matched Pair – Gastonia SC Solar, Gastonia, NC

This 5 MW project is located on the south side of Neal Hawkins Road just outside of Gastonia. The property identified above as Parcel 4 was listed for sale while this solar farm project was going

through the approval process. The property was put under contract during the permitting process with the permit being approved while the due diligence period was still ongoing. After the permit was approved the property closed with no concerns from the buyer. I spoke with Jennifer Bouvier, the broker listing the property and she indicated that the solar farm had no impact at all on the sales price. She considered some nearby sales to set the price and the closing price was very similar to the asking price within the typical range for the market. The buyer was aware that the solar farm was coming and they had no concerns.

This two-story brick dwelling was sold on March 20, 2017 for $270,000 for a 3,437 square foot dwelling built in 1934 in average condition on 1.42 acres. The property has four bedrooms and two bathrooms. The landscaping screen is light for this adjoining home due to it being a new planted landscaping buffer.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GLA	BR/BA	Park	Style	Other
Adjoins	609 Neal Hawkins	1.42	3/20/2017	$270,000	1934	3,427	$78.79	4/2	Open	2-Brick	
Not	1418 N Modena	4.81	4/17/2018	$225,000	1930	2,906	$77.43	3/3	2-Crprt	2-Brick	
Not	363 Dallas Bess	2.90	11/29/2018	$265,500	1968	2,964	$89.57	3/3	Open	FinBsmt	
Not	1612 Dallas Chry	2.74	9/17/2018	$245,000	1951	3,443	$71.16	3/2	Open	2-Brick	Unfin bath

Adjoining Sales Adjusted

Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
609 Neal Hawkins								$270,000			225
1418 N Modena	$7,319		$2,700	$32,271		-$10,000		$257,290	5%		
363 Dallas Bess	$746		-$27,081	$33,179	-$10,000		$53,100	$262,456	3%		
1612 Dallas Chry	$4,110		-$12,495	-$911			$10,000	$235,704	13%		
										7%	

I also considered the newer adjoining home identified as Parcel 5 that sold later in 2017 and it likewise shows no negative impact on property value. This is also considered a light landscaping buffer.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GLA	BR/BA	Park	Style
Adjoins	611 Neal Hawkins	0.78	7/6/2017	$288,000	1991	2,256	$127.66	5/3	2-Gar	1.5 Brick
Not	1211 Still Frst	0.51	7/30/2018	$280,000	1989	2,249	$124.50	3/3	2-Gar	Br Rnch
Not	2867 Colony Wds	0.52	8/14/2018	$242,000	1990	2,006	$120.64	3/3	2-Gar	Br Rnch
Not	1010 Strawberry	1.00	10/4/2018	$315,000	2002	2,330	$135.19	3/2.5	2-Gar	1.5 Brick

Adjoining Sales Adjusted

Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
611 Neal Hawkins								$288,000			145
1211 Still Frst	$1,341		$2,800	$697				$284,838	1%		
2867 Colony Wds	$7,714		$1,210	$24,128				$275,052	4%		
1010 Strawberry	-$4,555		-$17,325	-$8,003	$5,000			$290,116	-1%		
										2%	

5. Matched Pair – Summit/Ranchlands Solar, Moyock, NC

This project is located at 1374 Caritoke Highway, Moyock, NC. This is an 80 MW facility on a parent tract of 2,034 acres. Parcels Number 48 and 53 as shown in the map above were sold in 2016. The project was under construction during the time period of the first of the matched pair sales and the permit was approved well prior to that in 2015.

I looked at multiple sales of adjoining and nearby homes and compared each to multiple comparables to show a range of impacts from -10% up to +11% with an average of +2% and a median of +3%. These ranges are well within typical real estate variation and supports an indication of no impact on property value.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other	Distance
48	Adjoins	129 Pinto	4.29	4/15/2016	$170,000	1985	1,559	$109.04	3/2	Drive	MFG		1,060
	Not	102 Timber	1.30	4/1/2016	$175,500	2009	1,352	$129.81	3/2	Drive	MFG		
	Not	120 Ranchland	0.99	10/1/2014	$170,000	2002	1,501	$113.26	3/2	Drive	MFG		

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
Adjoins	129 Pinto								$170,000		-3%
Not	102 Timber	$276	$10,000	-$29,484	$18,809				$175,101	-3%	
Not	120 Ranchland	$10,735	$10,000	-$20,230	$4,598				$175,103	-3%	

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GLA	BR/BA	Park	Style	Other
Adjoins	105 Pinto	4.99	12/16/2016	$206,000	1978	1,484	$138.81	3/2	Det G	Ranch	
Not	111 Spur	1.15	2/1/2016	$193,000	1985	2,013	$95.88	4/2	Gar	Ranch	
Not	103 Marshall	1.07	3/29/2017	$196,000	2003	1,620	$120.99	3/2	Drive	Ranch	
Not	127 Ranchland	0.00	6/9/2015	$219,900	1988	1,910	$115.13	3/2	Gar/3Det	Ranch	

Adjoining Sales Adjusted

Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
105 Pinto								$206,000			980
111 Spur	$6,747	$10,000	-$6,755	-$25,359				$177,633	14%		
103 Marshall	-$2,212	$10,000	-$24,500	-$8,227		$5,000		$176,212	14%		
127 Ranchland	$13,399	$10,000	-$10,995	-$24,523		-$10,000		$197,781	4%		
										11%	

Adjoining Residential Sales After Solar Farm Built

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other	Distance
15	Adjoins	318 Green View	0.44	9/15/2019	$357,000	2005	3,460	$103.18	4/4	2-Car	1.5 Brick		570
	Not	195 St Andrews	0.55	6/17/2018	$314,000	2002	3,561	$88.18	5/3	2-Car	2.0 Brick		
	Not	336 Green View	0.64	1/13/2019	$365,000	2006	3,790	$96.31	6/4	3-Car	2.0 Brick		
	Not	275 Green View	0.36	8/15/2019	$312,000	2003	3,100	$100.65	5/3	2-Car	2.0 Brick		

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
Adjoins	318 Green View								$357,000		4%
Not	195 St Andrews	$12,040		$4,710	-$7,125	$10,000			$333,625	7%	
Not	336 Green View	$7,536		-$1,825	-$25,425			-$5,000	$340,286	5%	
Not	275 Green View	$815		$3,120	$28,986	$10,000			$354,921	1%	

Adjoining Residential Sales After Solar Farm Built

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other	Distance
29	Adjoins	164 Ranchland	1.01	4/30/2019	$169,000	1999	2,052	$82.36	4/2	Gar	MFG		440
	Not	150 Pinto	0.94	3/27/2018	$168,000	2017	1,920	$87.50	4/2	Drive	MFG		
	Not	105 Longhorn	1.90	10/10/2017	$184,500	2002	1,944	$94.91	3/2	Drive	MFG		
	Not	112 Pinto	1.00	7/27/2018	$180,000	2002	1,836	$98.04	3/2	Drive	MFG	Fenced	

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
Adjoins	164 Ranchland								$169,000		-10%
Not	150 Pinto	$5,649		-$21,168	$8,085			$5,000	$165,566	2%	
Not	105 Longhorn	$8,816	-$10,000	-$3,875	$7,175			$5,000	$191,616	-13%	
Not	112 Pinto	$4,202		-$3,780	$14,824			$5,000	$200,245	-18%	

Adjoining Residential Sales After Solar Farm Built

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other	Distance
	Adjoins	358 Oxford	10.03	9/16/2019	$478,000	2008	2,726	$175.35	3/3	2 Gar	Ranch		635
	Not	276 Summit	10.01	12/20/2017	$355,000	2006	1,985	$178.84	3/2	2 Gar	Ranch		
	Not	176 Providence	6.19	5/6/2019	$425,000	1990	2,549	$166.73	3/3	4 Gar	Ranch	Brick	
	Not	1601 B Caratoke	12.20	9/26/2019	$440,000	2016	3,100	$141.94	4/3.5	5 Gar	Ranch	Pool	

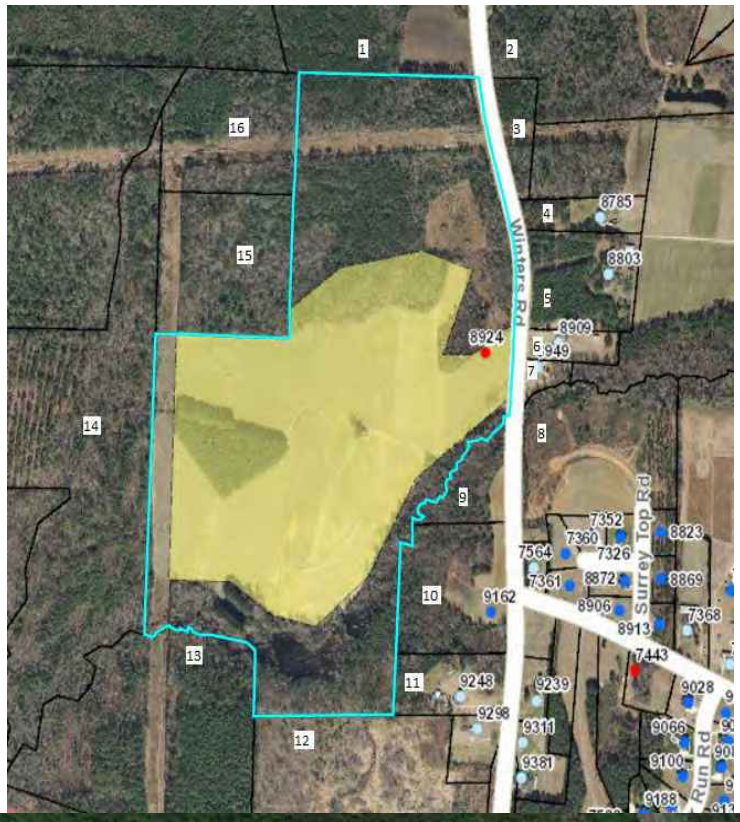
Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
Adjoins	358 Oxford								$478,000		5%
Not	276 Summit	$18,996		$3,550	$106,017	$10,000			$493,564	-3%	
Not	176 Providence	$4,763		$38,250	$23,609		-$10,000	-$25,000	$456,623	4%	
Not	1601 B Caratoke	-$371	$50,000	-$17,600	-$42,467	-$5,000	-$10,000		$414,562	13%	

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other	Distance
	Nearby	343 Oxford	10.01	3/9/2017	$490,000	2016	3,753	$130.56	3/3	2 Gar	1.5 Story	Pool	970
	Not	287 Oxford	10.01	9/4/2017	$600,000	2013	4,341	$138.22	5/4.5	8-Gar	1.5 Story	Pool	
	Not	301 Oxford	10.00	4/23/2018	$434,000	2013	3,393	$127.91	5/3	2 Gar	1.5 Story		
	Not	218 Oxford	10.01	4/4/2017	$525,000	2006	4,215	$124.56	4/3	4 Gar	1.5 Story	VG Barn	

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
Adjoins	343 Oxford								$490,000		3%
Not	287 Oxford	-$9,051		$9,000	-$65,017	-$15,000	-$25,000		$494,932	-1%	
Not	301 Oxford	-$14,995	-$10,000	$6,510	$36,838				$452,353	8%	
Not	218 Oxford	-$1,150		$26,250	-$46,036		-$10,000	-$10,000	$484,064	1%	

6. Matched Pair – Tracy Solar, Bailey, NC



This project is located in rural Nash County on Winters Road with a 5 MW facility that was built in 2016 on 50 acres. A local builder acquired parcels 9 and 10 following construction as shown below

at rates comparable to other tracts in the area. They then built a custom home for an owner and sold that at a price similar to other nearby homes as shown in the matched pair data below. The retained woods provide a heavy landscaped buffer for this homesite.

Adjoining Land Sales After Solar Farm Completed

#	Solar Farm	TAX ID	Grantor	Grantee	Address	Acres	Date Sold	Sales Price	$/AC	Other
9 &10	Adjoins	316003 & 316004	Cozart	Kingsmill	9162 Winters	13.22	7/21/2016	$70,000	$5,295	
	Not	6056	Billingsly		427 Young	41	10/21/2016	$164,000	$4,000	
	Not	33211	Fulcher	Weikel	10533 Cone	23.46	7/18/2017	$137,000	$5,840	Doublewide, structures
	Not	106807	Perry	Gardner	Claude Lewis	11.22	8/10/2017	$79,000	$7,041	Gravel drive for sub, cleared
	Not	3437	Vaughan	N/A	11354 Old Lewis Sch	18.73	Listing	$79,900	$4,266	Small cemetery,wooded

Adjoining Sales Adjusted

Time	Acres	Location	Other	Adj $/Ac	% Diff
				$5,295	
$0	$400	$0	$0	$4,400	17%
-$292	$292	$0	-$500	$5,340	-1%
-$352	$0	$0	-$1,000	$5,689	-7%
-$213	$0	$0	$213	$4,266	19%
				Average	7%

Adjoining Residential Sales After Solar Farm Completed

#	Solar Farm	n	Address	Acres	Date Sold	Sales Price	Built	GLA	$/GLA	BR/BA	Style	Other
9 &10	Adjoins	gs	9162 Winters	13.22	1/5/2017	$255,000	2016	1,616	$157.80	3/2	Ranch	1296 sf wrkshp
	Not	w	7352 Red Fox	0.93	6/30/2016	$176,000	2010	1,529	$115.11	3/2	2-story	

Adjoining Sales Adjusted

Time	Acres	YB	GLA	Style	Other	Total	% Diff
						$255,000	
$0	$44,000	$7,392	$5,007	$5,000	$15,000	$252,399	1%

The comparables for the land show either a significant positive relationship or a mild negative relationship to having and adjoining solar farm, but when averaged together they show no negative impact. The wild divergence is due to the difficulty in comping out this tract of land and the wide variety of comparables used. The two comparables that show mild negative influences include a property that was partly developed as a residential subdivision and the other included a doublewide with some value and accessory agricultural structures. The tax assessed value on the improvements were valued at $60,000. So both of those comparables have some limitations for comparison. The two that show significant enhancement due to adjacency includes a property with a cemetery located in the middle and the other is a tract almost twice as large. Still that larger tract after adjustment provides the best matched pair as it required the least adjustment. I therefore conclude that there is no negative impact due to adjacency to the solar farm shown by this matched pair.

The dwelling that was built on the site was a build-to-suit and was compared to a nearby homesale of a property on a smaller parcel of land. I adjusted for that differenced based on a $25,000 value for a 1-acre home site versus the $70,000 purchase price of the larger subject tract. The other adjustments are typical and show no impact due to the adjacency to the solar farm.

The closest solar panel to the home is 780 feet away.

I note that the representative for Kingsmill Homes indicated that the solar farm was never a concern in purchasing the land or selling the home. He also indicated that they had built a number of nearby homes across the street and it had never come up as an issue.

7. Matched Pair – Manatee Solar Farm, Parrish, FL

This solar farm is located near Seminole Trail, Parrish, FL. The solar farm has a 74.50 MW output and is located on a 1,180.38 acre tract and was built in 2016. The tract is owned by Florida Power & Light Company.

I have considered the recent sale of 13670 Highland Road, Wimauma, Florida. This one-story, concrete block home is located just north of the solar farm and separated from the solar farm by a railroad corridor. This home is a 3 BR, 3 BA 1,512 s.f. home with a carport and workshop. The property includes new custom cabinets, granite counter tops, brand new stainless steel appliances, updated bathrooms and new carpet in the bedrooms. The home is sitting on 5 acres. The home was built in 1997.

I have compared this sale to several nearby homesales as part of this matched pair analysis as shown below. The landscaping separating the home from the solar farm is considered heavy.

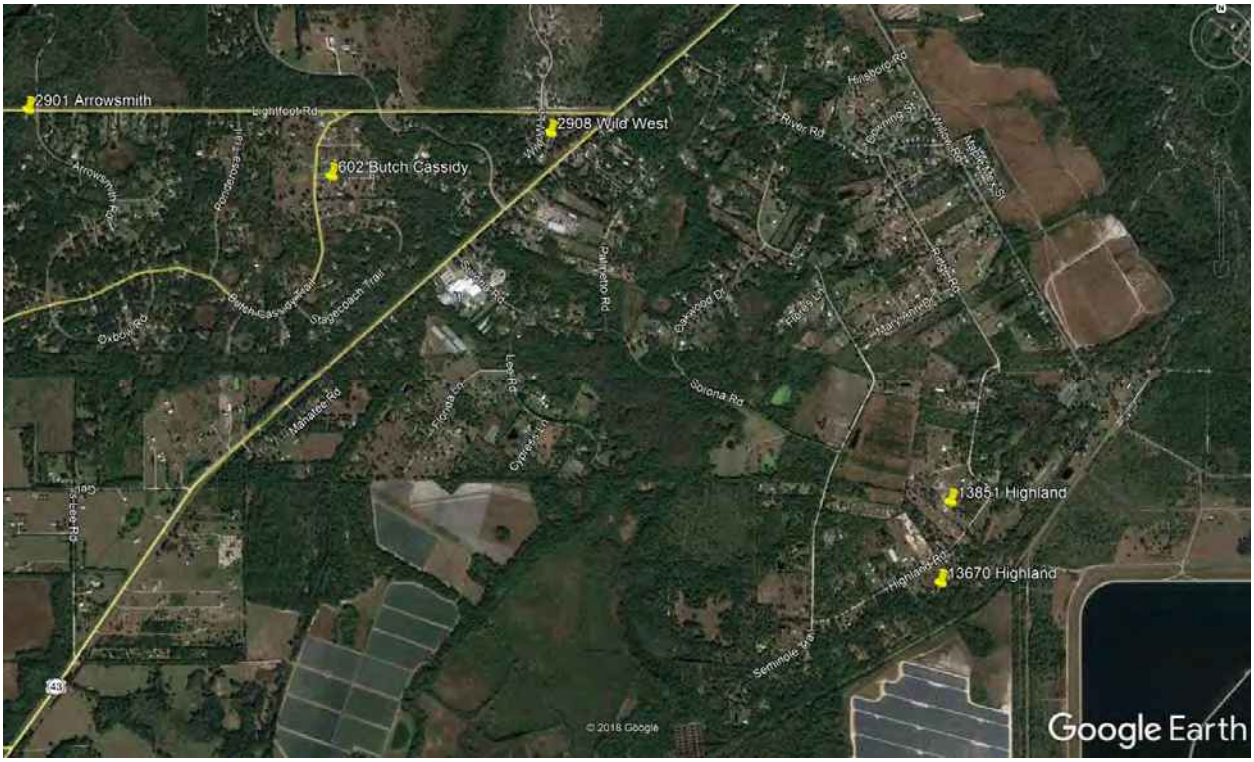
Solar	TAX ID/Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Note
Adjoins	13670 Highland	5.00	8/21/2017	$255,000	1997	1,512	$168.65	3/3	Carport/Wrkshp	Ranch	Renov.
Not	2901 Arrowsmith	1.91	1/31/2018	$225,000	1979	1,636	$137.53	3/2	2 Garage/Wrkshp	Ranch	
Not	602 Butch Cassidy	1.00	5/5/2017	$220,000	2001	1,560	$141.03	3/2	N/A	Ranch	Renov.
Not	2908 Wild West	1.23	7/12/2017	$254,000	2003	1,554	$163.45	3/2	2 Garage/Wrkshp	Ranch	Renov.
Not	13851 Highland	5.00	9/13/2017	$240,000	1978	1,636	$146.70	4/2	3 Garage	Ranch	Renov.

		Adjoining Sales Adjusted								
Solar	**TAX ID/Address**	**Time**	**Acres**	**YB**	**GLA**	**BR/BA**	**Park**	**Note**	**Total**	**% Diff**
Adjoins	13670 Highland								$255,000	
Not	2901 Arrowsmith	$2,250	$10,000	$28,350	-$8,527	$5,000	-$10,000	$10,000	$262,073	-3%
Not	602 Butch Cassidy	-$2,200	$10,000	-$6,160	-$3,385	$5,000	$2,000		$225,255	12%
Not	2908 Wild West	$0	$10,000	-$10,668	-$3,432	$5,000	-$10,000		$244,900	4%
Not	13851 Highland	$0	$0	$31,920	-$9,095	$3,000	-$10,000		$255,825	0%
									Average	3%

The sales prices of the comparables before adjustments range from $220,000 to $254,000. After adjustments they range from $225,255 to $262,073. The comparables range from no impact to a strong positive impact. The comparables showing -3% and +4% impact on value are considered within a typical range of value and therefore not indicative of any impact on property value.

This set of matched pair data falls in line with the data seen in other states. The closest solar panel to the home at 13670 Highland is 1,180 feet. There is a wooded buffer between these two properties.

I have included a map showing the relative location of these properties below.



8. Matched Pair – McBride Place Solar Farm, Midland, NC

This project is located on Mount Pleasant Road, Midland, North Carolina. The property is on 627 acres on an assemblage of 974.59 acres. The solar farm was approved in early 2017 for a 74.9 MW facility.

I have considered the sale of 4380 Joyner Road which adjoins the proposed solar farm near the northwest section. This property was appraised in April of 2017 for a value of $317,000 with no consideration of any impact due to the solar farm in that figure. The property sold in November

2018 for $325,000 with the buyer fully aware of the proposed solar farm. The landscaping buffer relative to Joyner Road, Hayden Way, Chanel Court and Kristi Lane is considered medium, while the landscaping for the home at the north end of Chanel Court is considered very light.

I have considered the following matched pairs to the subject property.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
Adjoins	4380 Joyner	12.00	11/22/2017	$325,000	1979	1,598	$203.38	3/2	2xGar	Ranch	Outbldg
Not	3870 Elkwood	5.50	8/24/2016	$250,000	1986	1,551	$161.19	3/2.5	Det 2xGar	Craft	
Not	8121 Lower Rocky	18.00	2/8/2017	$355,000	1977	1,274	$278.65	2/2	2xCarprt	Ranch	Eq. Fac.
Not	13531 Cabarrus	7.89	5/20/2016	$267,750	1981	2,300	$116.41	3/2	2xGar	Ranch	

Adjoining Sales Adjusted

Time	Acres	YB	Condition	GLA	BR/BA	Park	Other	Total	% Diff
								$325,000	
$7,500	$52,000	-$12,250	$10,000	$2,273	-$2,000	$2,500	$7,500	$317,523	2%
$7,100	-$48,000	$4,970		$23,156	$0	$3,000	-$15,000	$330,226	-2%
$8,033	$33,000	-$3,749	$20,000	-$35,832	$0	$0	$7,500	$296,702	9%
								Average	3%

The home at 4380 Joyner Road is 275 feet from the closest solar panel.

I also considered the recent sale of a lot at 5800 Kristi Lane that is on the east side of the proposed solar farm. This 4.22-acre lot sold in December 2017 for $94,000. A home was built on this lot in 2019 with the closest point from home to panel at 689 feet. The home site is heavily wooded and their remains a wooded buffer between the solar panels and the home. I spoke with the broker, Margaret Dabbs, who indicated that the solar farm was considered a positive by both buyer and seller as it insures no subdivision will be happening in that area. Buyers in this market are looking for privacy and seclusion.

The breakdown of recent lot sales on Kristi are shown below with the lowest price paid for the lot with no solar farm exposure, though that lot has exposure to Mt Pleasant Road South. Still the older lot sales have exposure to the solar farm and sold for higher prices than the front lot and adjusting for time would only increase that difference.

Adjoining Lot Sales After Solar Farm Built

Parcel	Solar	Address	Acres	Date Sold	Sales Price	$/AC	$/Lot
	Adjoins	5811 Kristi	3.74	5/1/2018	$100,000	$26,738	$100,000
	Adjoins	5800 Kristi	4.22	12/1/2017	$94,000	$22,275	$94,000
	Not	5822 Kristi	3.43	2/24/2020	$90,000	$26,239	$90,000

The lot at 5811 Kristi Lane sold in May 2018 for $100,000 for a 3.74-acre lot. The home that was built later in 2018 is 505 feet to the closest solar panel. This home then sold to a homeowner for $530,000 in April 2020. I have compared this home sale to other properties in the area as shown below.

Adjoining Residential Sales After Solar Farm Built

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
Adjoins	5811 Kristi	3.74	3/31/2020	$530,000	2018	3,858	$137.38	5/3.5	2 Gar	2-story	Cement Ext
Not	3915 Tania	1.68	12/9/2019	$495,000	2007	3,919	$126.31	3/3.5	2 Gar	2-story	3Det Gar
Not	6782 Manatee	1.33	3/8/2020	$460,000	1998	3,776	$121.82	4/2/2h	2 Gar	2-story	Water
Not	314 Old Hickory	1.24	9/20/2019	$492,500	2017	3,903	$126.18	6/4.5	2 Gar	2-story	

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
Adjoins	5811 Kristi								$530,000		5%
Not	3915 Tania	$6,285		$27,225	-$3,852		-$20,000		$504,657	5%	
Not	6782 Manatee	$1,189		$46,000	$4,995	$5,000			$517,183	2%	
Not	314 Old Hickory	$10,680		$2,463	-$2,839	-$10,000			$492,803	7%	

After adjusting the comparables, I found that the average adjusted value shows a slight increase in value for the subject property adjoining a solar farm. As in the other cases, this is a mild positive impact on value but within the typical range of real estate transactions.

I also looked at 5833 Kristi Lane that sold on 9/14/2020 for $625,000. This home is 470 feet from the closest panel.

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GLA	BR/BA	Park	Style	Other
Nearby	5833 Kristi	4.05	9/14/2020	$625,000	2008	4,373	$142.92	5/4	3-Car	2-Brick	
Not	4055 Dakeita	4.90	12/30/2020	$629,000	2005	4,427	$142.08	4/4	4-Car	2-Brick	4DetGar/Stable
Not	9615 Bales	2.16	6/30/2020	$620,000	2007	4,139	$149.79	4/5	3-Car	2-Stone	2DetGar
Not	9522 Bales	1.47	6/18/2020	$600,000	2007	4,014	$149.48	4/4.5	3-Car	2-Stone	

Adjoining Sales Adjusted

Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
5833 Kristi								$625,000			470
4055 Dakeita	-$9,220		$5,661	-$6,138		-$25,000		$594,303	5%		
9615 Bales	$6,455		$1,860	$28,042	-$10,000	-$15,000		$631,356	-1%		
9522 Bales	$7,233		$1,800	$42,930	-$5,000			$646,963	-4%		
										0%	

The average difference is 0% impact and the differences are all within a close range with this set of comparables and supports a finding of no impact on property value.

I have also looked at 4504 Chanel Court. This home sold on January 1, 2020 for $393,500 for this 3,010 square foot home built in 2004 with 3 bedroooms, 3.5 bathrooms, and a 3-car garage. This home includes a full partially finished basement that significantly complicates comparing this to other sales. This home previously sold on January 23, 2017 for $399,000. This was during the time that the solar farm was a known factor as the solar farm was approved in early 2017 and public discussions had already commenced. I spoke with Rachelle Killman with Real Estate Realty, LLC the buyer's agent for this transaction and she indicated that the solar farm was not a factor or consideration for the buyer. She noted that you could see the panels sort of through the trees, but it wasn't a concern for the buyer. She was not familiar with the earlier 2017 sale, but indicated that it was likely too high. This again goes back to the partially finished basement issue. The basement has a fireplace, and an installed 3/4 bathroom but otherwise bare studs and concrete floors with different buyers assigning varying value to that partly finished space. I also reached out to Don Gomez with Don Anthony Realty, LLC as he was the listing agent.

I also looked at the recent sale of 4599 Chanel Court. This home is within 310 feet of solar panels but notably does not have a good landscaping screen in place as shown in the photo below. The plantings appear to be less than 3-feet in height and only a narrow, limited screen of existing hardwoods were kept. The photograph is from the listing.

According to Scott David with Better Homes and Gardens Paracle Realty, this property was under contract for $550,000 contingent on the buyer being able to sell their former home. The former home was apparently overpriced and did not sell and the contract stretched out over 2.5 months.

The seller was in a bind as they had a home they were trying to buy contingent on this closing and were about to lose that opportunity. A cash buyer offered them a quick close at $500,000 and the seller accepted that offer in order to not lose the home they were trying to buy. According to Mr. David, the original contracted buyer and the actual cash buyer never considered the solar farm as a negative. In fact Mr. David noted that the actual buyer saw it as a great opportunity to purchase a home where a new subdivision could not be built behind his house. I therefore conclude that this property supports a finding of no impact on adjoining property, even where the landscaping screen still requires time to grow in for a year-round screen.

I also considered a sale/resale analysis on this property. This same home sold on September 15, 2015 for $462,000. Adjusting this upward by 5% per year for the five years between these sales dates suggests a value of $577,500. Comparing that to the $550,000 contract that suggests a 5% downward impact, which is within a typical market variation. Given that the broker noted no negative impact from the solar farm and the analysis above, I conclude this sale supports a finding of no impact on value.

9. Matched Pair – Mariposa Solar, Gaston County, NC

This project is a 5 MW facility located on 35.80 acres out of a parent tract of 87.61 acres at 517 Blacksnake Road, Stanley that was built in 2016.

I have considered a number of recent sales around this facility as shown below.

The first is identified in the map above as Parcel 1, which is 215 Mariposa Road. This is an older dwelling on large acreage with only one bathroom. I've compared it to similar nearby homes as shown below. The landscaping buffer for this home is considered light.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style
Adjoins	215 Mariposa	17.74	12/12/2017	$249,000	1958	1,551	$160.54	3/1	Garage	Br/Rnch
Not	249 Mariposa	0.48	3/1/2019	$153,000	1974	1,792	$85.38	4/2	Garage	Br/Rnch
Not	110 Airport	0.83	5/10/2016	$166,000	1962	2,165	$76.67	3/2	Crprt	Br/Rnch
Not	1249 Blacksnake	5.01	9/20/2018	$242,500	1980	2,156	$112.48	3/2	Drive	1.5
Not	1201 Abernathy	27.00	5/3/2018	$390,000	1970	2,190	$178.08	3/2	Crprt	Br/Rnch

Adjoining Residential Sales After Solar Farm Approved **Adjoining Sales Adjusted**

Solar	Address	Acres	Date Sold	Sales Price	Time	YB	Acres	GLA	BR/BA	Park	Other	Total	% Diff
Adjoins	215 Mariposa	17.74	12/12/2017	$249,000								$249,000	
Not	249 Mariposa	0.48	3/1/2019	$153,000	-$5,583	-$17,136	$129,450	-$20,576	-$10,000			$229,154	8%
Not	110 Airport	0.83	5/10/2016	$166,000	$7,927	-$4,648	$126,825	-$47,078	-$10,000			$239,026	4%
Not	1249 Blacksnake	5.01	9/20/2018	$242,500	-$5,621	-$37,345	$95,475	-$68,048	-$10,000	$5,000		$221,961	11%
Not	1201 Abernathy	27.00	5/3/2018	$390,000	-$4,552	-$32,760	-$69,450	-$60,705	-$10,000			$212,533	15%
												Average	9%

The average difference after adjusting for all factors is +9% on average, which suggests an enhancement due to the solar farm across the street. Given the large adjustments for acreage and size, I will focus on the low end of the adjusted range at 4%, which is within the typical deviation and therefore suggests no impact on value.

I have also considered Parcel 4 that sold after the solar farm was approved but before it had been constructed in 2016. The landscaping buffer for this parcel is considered light.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
Adjoins	242 Mariposa	2.91	9/21/2015	$180,000	1962	1,880	$95.74	3/2	Carport	Br/Rnch	Det Wrkshop
Not	249 Mariposa	0.48	3/1/2019	$153,000	1974	1,792	$85.38	4/2	Garage	Br/Rnch	
Not	110 Airport	0.83	5/10/2016	$166,000	1962	2,165	$76.67	3/2	Crprt	Br/Rnch	
Not	1249 Blacksnake	5.01	9/20/2018	$242,500	1980	2,156	$112.48	3/2	Drive	1.5	

Adjoining Residential Sales After Solar Farm Approved **Adjoining Sales Adjusted**

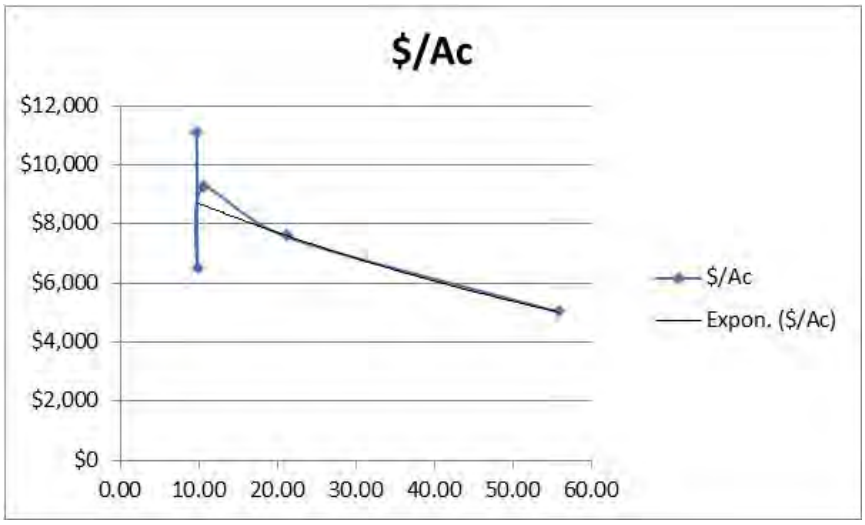
Solar	Address	Acres	Date Sold	Sales Price	Time	YB	Acres	GLA	BR/BA	Park	Other	Total	% Diff
Adjoins	242 Mariposa	2.91	9/21/2015	$180,000								$180,000	
Not	249 Mariposa	0.48	3/1/2019	$153,000	-$15,807	-$12,852	$18,468	$7,513		-$3,000	$25,000	$172,322	4%
Not	110 Airport	0.83	5/10/2016	$166,000	-$3,165	$0	$15,808	-$28,600			$25,000	$175,043	3%
Not	1249 Blacksnake	5.01	9/20/2018	$242,500	-$21,825	-$30,555	-$15,960	-$40,942		$2,000	$25,000	$160,218	11%
												Average	6%

The average difference after adjusting for all factors is +6%, which is again suggests a mild increase in value due to the adjoining solar farm use. The median is a 4% adjustment, which is within a standard deviation and suggests no impact on property value.

I have also considered the recent sale of Parcel 13 that is located on Blacksnake Road south of the project. I was unable to find good land sales in the same 20-acre range, so I have considered sales of larger and smaller acreage. I adjusted each of those land sales for time. I then applied the price per acre to a trendline to show where the expected price per acre would be for 20 acres. As can be seen in the chart below, this lines up exactly with the purchase of the subject property. I therefore conclude that there is no impact on Parcel 13 due to proximity to the solar farm.

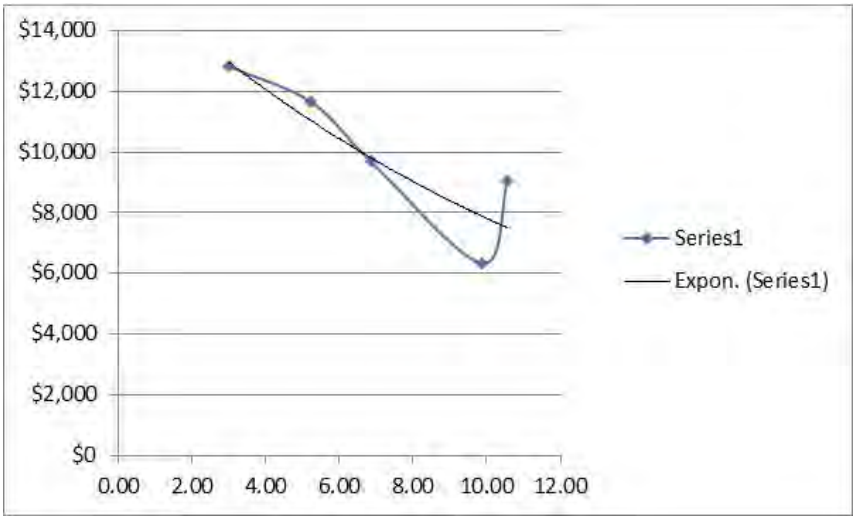
Adjoining Residential Land Sales After Solar Farm Approved **Adjoining Sales Adjusted**

Solar	Tax/Street	Acres	Date Sold	Sales Price	$/Ac	Time	$/Ac
Adjoins	174339/Blacksnake	21.15	6/29/2018	$160,000	$7,565		$7,565
Not	227852/Abernathy	10.57	5/9/2018	$97,000	$9,177	$38	$9,215
Not	17443/Legion	9.87	9/7/2018	$64,000	$6,484	-$37	$6,447
Not	164243/Alexis	9.75	2/1/2019	$110,000	$11,282	-$201	$11,081
Not	176884/Bowden	55.77	6/13/2018	$280,000	$5,021	$7	$5,027



Finally, I have considered the recent sale of Parcel 17 that sold as vacant land. I was unable to find good land sales in the same 7 acre range, so I have considered sales of larger and smaller acreage. I adjusted each of those land sales for time. I then applied the price per acre to a trendline to show where the expected price per acre would be for 7 acres. As can be seen in the chart below, this lines up with the trendline running right through the purchase price for the subject property. I therefore conclude that there is no impact on Parcel 13 due to proximity to the solar farm. I note that this property was improved with a 3,196 square foot ranch built in 2018 following the land purchase, which shows that development near the solar farm was unimpeded.

Adjoining Residential Land Sales After Solar Farm Approved						**Adjoining Sales Adjusted**		
Solar	**Tax/Street**	**Acres**	**Date Sold**	**Sales Price**	**$/Ac**	**Time**	**Location**	**$/Ac**
Adjoins	227039/Mariposa	6.86	12/6/2017	$66,500	$9,694			$9,694
Not	227852/Abernathy	10.57	5/9/2018	$97,000	$9,177	-$116		$9,061
Not	17443/Legion	9.87	9/7/2018	$64,000	$6,484	-$147		$6,338
Not	177322/Robinson	5.23	5/12/2017	$66,500	$12,715	$217	-$1,272	$11,661
Not	203386/Carousel	2.99	7/13/2018	$43,500	$14,548	-$262	-$1,455	$12,832



10. Matched Pair – Clarke County Solar, Clarke County, VA

This project is a 20 MW facility located on a 234-acre tract that was built in 2017.

I have considered two recent sales of Parcel 3. The home on this parcel is 1,230 feet from the closest panel as measured in the second map from Google Earth, which shows the solar farm under construction. This home sold in January 2017 for $295,000 and again in August 2019 for $385,000. I show each sale below and compare those to similar home sales in each time frame. The significant increase in price between 2017 and 2019 is due to a major kitchen remodel, new roof, and related upgrades as well as improvement in the market in general. The sale and later resale of the home with updates and improvements speaks to pride of ownership and increasing overall value as properties perceived as diminished are less likely to be renovated and sold for profit.

I note that 102 Tilthammer includes a number of barns that I did not attribute any value in the analysis. The market would typically give some value for those barns but even without that adjustment there is an indication of a positive impact on value due to the solar farm. The landscaping buffer from this home is considered light.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GLA	BR/BA	Park	Style	Other
3	Adjoins	833 Nations Spr	5.13	8/18/2019	$385,000	1979	1,392	$276.58	3/2	Det Gar	Ranch	UnBsmt
	Not	167 Leslie	5.00	8/19/2020	$429,000	1980	1,665	$257.66	3/2	Det2Gar	Ranch	
	Not	2393 Old Chapel	2.47	8/10/2020	$330,000	1974	1,500	$220.00	3/1.5	Det Gar	Ranch	
	Not	102 Tilthammer	6.70	5/7/2019	$372,000	1970	1,548	$240.31	3/1.5	Det Gar	Ranch	UnBsmt

Adjoining Sales Adjusted

Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
							$385,000			1230
-$13,268		-$2,145	-$56,272		-$5,000	$50,000	$402,315	-4%		
-$9,956	$25,000	$8,250	-$19,008	$5,000		$50,000	$389,286	-1%		
$3,229		$16,740	-$29,991	$5,000			$366,978	5%		
									0%	

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GLA	BR/BA	Park	Style	Other
3	Adjoins	833 Nations Spr	5.13	1/9/2017	$295,000	1979	1,392	$211.93	3/2	Det Gar	Ranch	UnBsmt
	Not	6801 Middle	2.00	12/12/2017	$249,999	1981	1,584	$157.83	3/2	Open	Ranch	
	Not	4174 Rockland	5.06	1/2/2017	$300,000	1990	1,688	$177.73	3/2	2 Gar	2-story	
	Not	400 Sugar Hill	1.00	6/7/2018	$180,000	1975	1,008	$178.57	3/1	Open	Ranch	

Adjoining Sales Adjusted

Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
							$295,000			1230
-$7,100	$25,000	-$2,500	-$24,242		$5,000	$50,000	$296,157	0%		
$177		-$16,500	-$42,085		-$10,000	$50,000	$281,592	5%		
-$7,797		$3,600	$54,857	$10,000	$5,000	$50,000	$295,661	0%		
									1%	

11. Matched Pair – Simon Solar, Social Circle, GA

This 30 MW solar farm is located off Hawkins Academy Road and Social Circle Fairplay Road. I identified three adjoining sales to this tract after development of the solar farm. However, one of those is shown as Parcel 12 in the map above and includes a powerline easement encumbering over a third of the 5 acres and adjoins a large substation as well. It would be difficult to isolate those impacts from any potential solar farm impact and therefore I have excluded that sale. I also excluded the recent sale of Parcel 17, which is a farm with conservation restrictions on it that similarly would require a detailed examination of those conservation restrictions in order to see if there was any impact related to the solar farm. I therefore focused on the recent sale of Parcel 7 and the adjoining parcel to the south of that. They are technically not adjoining due to the access road for the flag-shaped lot to the east. Furthermore, there is an apparent access easement serving the two rear lots that encumber these two parcels which is a further limitation on these sales. This analysis assumes that the access easement does not negatively impact the subject property, though it may.

The landscaping buffer relative to this parcel is considered medium.

Adjoining Land Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	$/AC	Type	Other
7+	Adjoins	4514 Hawkins	36.86	3/31/2016	$180,000	$4,883	Pasture	Esmts
	Not	HD Atha	69.95	12/20/2016	$357,500	$5,111	Wooded	N/A
	Not	Pannell	66.94	11/8/2016	$322,851	$4,823	Mixed	*
	Not	1402 Roy	123.36	9/29/2016	$479,302	$3,885	Mixed	**

* Adjoining 1 acre purchased by same buyer in same deed. Allocation assigned on the County Tax Record.

** Dwelling built in 1996 with a 2016 tax assessed value of $75,800 deducted from sales price to reflect land value

Adjoining Sales Adjusted						Avg
Time	Size	Type	Other	Total/Ac	% Diff	% Diff
				$4,883		
$89	$256			$5,455	-12%	
-$90	$241			$4,974	-2%	
-$60	$389			$4,214	14%	
						0%

The range of impact identified by these matched pairs are -12% to +14%, with an average of 0% impact due to the solar farm. The best matched pair with the least adjustment supports a -2% impact due to the solar farm. I note again that this analysis considers no impact for the existing access easements that meander through this property and it may be having an impact. Still at -2% impact as the best indication for the solar farm, I consider that to be no impact given that market fluctuations support +/- 5%.

12. Matched Pair – Candace Solar, Princeton, NC

This 5 MW solar farm is located at 4839 US 70 Highway just east of Herring Road. This solar farm was completed on October 25, 2016.

I identified three adjoining sales to this tract after development of the solar farm with frontage on US 70. I did not attempt to analyze those sales as they have exposure to an adjacent highway and railroad track. Those homes are therefore problematic for a matched pair analysis unless I have similar homes fronting on a similar corridor.

I did consider a land sale and a home sale on adjoining parcels without those complications.

The lot at 499 Herring Road sold to Paradise Homes of Johnston County of NC, Inc. for $30,000 in May 2017 and a modular home was placed there and sold to Karen and Jason Toole on September 29, 2017. I considered the lot sale first as shown below and then the home sale that followed. The landscaping buffer relative to this parcel is considered medium.

Adjoining Land Sales After Solar Farm Approved							**Adjoining Sales Adjusted**				
Parcel	**Solar**	**Address**	**Acres**	**Date Sold**	**Sales Price**	**Other**	**Time**	**Site**	**Other**	**Total**	**% Diff**
16	Adjoins	499 Herring	2.03	5/1/2017	$30,000					$30,000	
	Not	37 Becky	0.87	7/23/2019	$24,500	Sub/Pwr	-$1,679	$4,900		$27,721	8%
	Not	5858 Bizzell	0.88	8/17/2016	$18,000		$390	$3,600		$21,990	27%
	Not	488 Herring	2.13	12/20/2016	$35,000		$389			$35,389	-18%
										Average	5%

Following the land purchase, the modular home was placed on the site and sold. I have compared this modular home to the following sales to determine if the solar farm had any impact on the purchase price.

Adjoining Residential Sales After Solar Farm Approved

Parcel	**Solar**	**Address**	**Acres**	**Date Sold**	**Sales Price**	**Built**	**GBA**	**$/GBA**	**BR/BA**	**Park**	**Style**	**Other**
16	Adjoins	499 Herring	2.03	9/27/2017	$215,000	2017	2,356	$91.26	4/3	Drive	Modular	
	Not	678 WC	6.32	3/8/2019	$226,000	1995	1,848	$122.29	3/2.5	Det Gar	Mobile	Ag bldgs
	Not	1810 Bay V	8.70	3/26/2018	$170,000	2003	2,356	$72.16	3/2	Drive	Mobile	Ag bldgs
	Not	1795 Bay V	1.78	12/1/2017	$194,000	2017	1,982	$97.88	4/3	Drive	Modular	

Adjoining Residential Sales Af			**Adjoining Sales Adjusted**									**Avg**	
Parcel	**Solar**	**Address**	**Time**	**Site**	**YB**	**GLA**	**BR/BA**	**Park**	**Other**	**Total**	**% Diff**	**% Diff**	**Distance**
16	Adjoins	499 Herring								$215,000			488
	Not	678 WC	-$10,037	-$25,000	$24,860	$37,275	-$5,000	-$7,500	-$20,000	$220,599	-3%		
	Not	1810 Bay V	-$2,579	-$20,000	$11,900	$0				$159,321	26%		
	Not	1795 Bay V	-$1,063		$0	$21,964				$214,902	0%		
												8%	

The best comparable is 1795 Bay Valley as it required the least adjustment and was therefore most similar, which shows a 0% impact. This signifies no impact related to the solar farm.

The range of impact identified by these matched pairs ranges are therefore -3% to +26% with an average of +8% for the home and an average of +4% for the lot, though the best indicator for the lot shows a $5,000 difference in the lot value due to the proximity to the solar farm or a -12% impact.

13. Matched Pair – Walker-Correctional Solar, Barham Road, Barhamsville, VA

This project was built in 2017 and located on 484.65 acres for a 20 MW with the closest home at 110 feet from the closest solar panel with an average distance of 500 feet.

I considered the recent sale identified on the map above as Parcel 19, which is directly across the street and based on the map shown on the following page is 250 feet from the closest panel. A

limited buffering remains along the road with natural growth being encouraged, but currently the panels are visible from the road. Alex Uminski, SRA with MGMiller Valuations in Richmond VA confirmed this sale with the buying and selling broker. The selling broker indicated that the solar farm was not a negative influence on this sale and in fact the buyer noticed the solar farm and then discovered the listing. The privacy being afforded by the solar farm was considered a benefit by the buyer. I used a matched pair analysis with a similar sale nearby as shown below and found no negative impact on the sales price. Property actually closed for more than the asking price. The landscaping buffer is considered light.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
Adjoins	5241 Barham	2.65	10/18/2018	$264,000	2007	1,660	$159.04	3/2	Drive	Ranch	Modular
Not	17950 New Kent	5.00	9/5/2018	$290,000	1987	1,756	$165.15	3/2.5	3 Gar	Ranch	
Not	9252 Ordinary	4.00	6/13/2019	$277,000	2001	1,610	$172.05	3/2	1.5-Gar	Ranch	
Not	2416 W Miller	1.04	9/24/2018	$299,000	1999	1,864	$160.41	3/2.5	Gar	Ranch	

Adjoining Sales Adjusted

Solar	Address	Time	Ac/Loc	YB	GLA	BR/BA	Park	Other	Total	% Diff	Dist
Adjoins	5241 Barham								$264,000		250
Not	17950 New Kent		-$8,000	$29,000	-$4,756	-$5,000	-$20,000	-$15,000	$266,244	-1%	
Not	9252 Ordinary	-$8,310	-$8,000	$8,310	$2,581		-$10,000	-$15,000	$246,581	7%	
Not	2416 W Miller		$8,000	$11,960	-$9,817	-$5,000	-$10,000	-$15,000	$279,143	-6%	
								Average Diff		0%	

I also spoke with Patrick W. McCrerey of Virginia Estates who was marketing a property that sold at 5300 Barham Road adjoining the Walker-Correctional Solar Farm. He indicated that this property was unique with a home built in 1882 and heavily renovated and updated on 16.02 acres. The solar farm was through the woods and couldn't be seen by this property and it had no impact on marketing this property. This home sold on April 26, 2017 for $358,000. I did not set up any matched pairs for this property since it is a unique property that any such comparison would be difficult to rely on. The broker's comments do support the assertion that the adjoining solar farm had no impact on value. The home in this case was 510 feet from the closest panel.

14. Matched Pair – Innovative Solar 46, Roslin Farm Rd, Hope Mills, NC

This project was built in 2016 and located on 532 acres for a 78.5 MW solar farm with the closest home at 125 feet from the closest solar panel with an average distance of 423 feet.

I considered the recent sale of a home on Roslin Farm Road just north of Running Fox Road as shown below. This sale supports an indication of no impact on property value. The landscaping buffer is considered light.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other	Distance
Adjoins	6849 Roslin Farm	1.00	2/18/2019	$155,000	1967	1,610	$96.27	3/3	Drive	Ranch	Brick	435
Not	6592 Sim Canady	2.43	9/5/2017	$185,000	1974	2,195	$84.28	3/2	Gar	Ranch	Brick	
Not	1614 Joe Hall	1.63	9/3/2019	$145,000	1974	1,674	$86.62	3/2	Det Gar	Ranch	Brick	
Not	109 Bledsoe	0.68	1/17/2019	$150,000	1973	1,663	$90.20	3/2	Gar	Ranch	Brick	

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
Adjoins	6849 Roslin Farm								$155,000		5%
Not	6592 Sim Canady	$8,278		-$6,475	-$39,444	$10,000	-$5,000		$152,359	2%	
Not	1614 Joe Hall	-$2,407		-$5,075	-$3,881	$10,000	-$2,500		$141,137	9%	
Not	109 Bledsoe	$404	$10,000	-$4,500	-$3,346		-$5,000		$147,558	5%	

15. Matched Pair – Innovative Solar 42, County Line Rd, Fayetteville, NC

This project was built in 2017 and located on 413.99 acres for a 71 MW with the closest home at 135 feet from the closest solar panel with an average distance of 375 feet.

I considered the recent sales identified on the map above as Parcels 2 and 3, which is directly across the street these homes are 330 and 340 feet away. Parcel 2 includes an older home built in 1976, while Parcel 3 is a new home built in 2019. So the presence of the solar farm had no impact on new construction in the area.

The matched pairs for each of these are shown below. The landscaping buffer relative to these parcels is considered light.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other	Distance
Adjoins	2923 County Ln	8.98	2/28/2019	$385,000	1976	2,905	$132.53	3/3	2-Car	Ranch	Brick/Pond	340
Not	1928 Shaw Mill	17.00	7/3/2019	$290,000	1977	3,001	$96.63	4/4	2-Car	Ranch	Brick/Pond/Rental	
Not	2109 John McM.	7.78	4/25/2018	$320,000	1978	2,474	$129.35	3/2	Det Gar	Ranch	Vinyl/Pool,Stable	

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
Adjoins	2923 County Ln								$385,000		3%
Not	1928 Shaw Mill	-$3,055	$100,000	-$1,450	-$7,422	-$10,000			$368,074	4%	
Not	2109 John McM.	$8,333		-$3,200	$39,023	$10,000		$5,000	$379,156	2%	

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other	Distance
Adjoins	2935 County Ln	1.19	6/18/2019	$266,000	2019	2,401	$110.79	4/3	Gar	2-Story		330
Not	3005 Hemingway	1.17	5/16/2019	$269,000	2018	2,601	$103.42	4/3	Gar	2-Story		
Not	7031 Glynn Mill	0.60	5/8/2018	$255,000	2017	2,423	$105.24	4/3	Gar	2-Story		
Not	5213 Bree Brdg	0.92	5/7/2019	$260,000	2018	2,400	$108.33	4/3	3-Gar	2-Story		

Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff
Adjoins	2935 County Ln								$266,000		3%
Not	3005 Hemingway	$748		$1,345	-$16,547				$254,546	4%	
Not	7031 Glynn Mill	$8,724		$2,550	-$1,852				$264,422	1%	
Not	5213 Bree Brdg	$920		$1,300	$76			-$10,000	$252,296	5%	

Both of these matched pairs adjust to an average of +3% on impact for the adjoining solar farm, meaning there is a slight positive impact due to proximity to the solar farm. This is within the standard +/- of typical real estate transactions, which strongly suggests no impact on property value. I noted specifically that for 2923 County Line Road, the best comparable is 2109 John McMillan as it does not have the additional rental unit on it. I made no adjustment to the other sale for the value of that rental unit, which would have pushed the impact on that comparable downward – meaning there would have been a more significant positive impact.

16. Matched Pair – Sunfish Farm, Keenebec Rd, Willow Spring, NC

This project was built in 2015 and located on 49.6 acres (with an inset 11.25 acre parcel) for a 6.4 MW project with the closest home at 135 feet with an average distance of 105 feet.

I considered the 2017 sale identified on the map above, which is 205 feet away from the closest panel. The matched pairs for each of these are shown below followed by a more recent map showing the panels at this site. The average difference in the three comparables and the subject property is +3% after adjusting for differences in the sales date, year built, gross living area, and other minor differences. This data is supported by the comments from the broker Brian Schroepfer with Keller Williams that the solar farm had no impact on the purchase price. The landscaping screen is considered light.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style
	Adjoins	7513 Glen Willow	0.79	9/1/2017	$185,000	1989	1,492	$123.99	3/2	Gar	BR/Rnch
	Not	2968 Tram	0.69	7/17/2017	$155,000	1984	1,323	$117.16	3/2	Drive	BR/Rnch
	Not	205 Pine Burr	0.97	12/29/2017	$191,000	1991	1,593	$119.90	3/2.5	Drive	BR/Rnch
	Not	1217 Old Honeycutt	1.00	12/15/2017	$176,000	1978	1,558	$112.97	3/2.5	2Carprt	VY/Rnch

Adjustments											Avg
Solar	Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	% Diff
Adjoins	7513 Glen Willow								$185,000		
Not	2968 Tram	$601		$3,875	$15,840		$10,000		$185,316	0%	
Not	205 Pine Burr	-$1,915		-$1,910	-$9,688	-$5,000			$172,487	7%	
Not	1217 Old Honeycutt	-$1,557		$9,680	-$5,965	-$5,000		$5,280	$178,438	4%	
											3%

17. Matched Pair – Sappony Solar, Sussex County, VA

This project is a 30 MW facility located on a 322.68-acre tract that was built in the fourth quarter of 2017.

I have considered the 2018 sale of Parcel 17 as shown below. This was a 1,900 s.f. manufactured home on a 6.00-acre lot that sold in 2018. I have compared that to three other nearby manufactured homes as shown below. The range of impacts is within typical market variation with an average of -1%, which supports a conclusion of no impact on property value. The landscaping buffer is considered medium.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GLA	BR/BA	Park	Style	Other
	Adjoins	12511 Palestine	6.00	7/31/2018	$128,400	2013	1,900	$67.58	4/2.5	Open	Manuf	
	Not	15698 Concord	3.92	7/31/2018	$150,000	2010	2,310	$64.94	4/2	Open	Manuf	Fence
	Not	23209 Sussex	1.03	7/7/2020	$95,000	2005	1,675	$56.72	3/2	Det Crpt	Manuf	
	Not	6494 Rocky Br	4.07	11/8/2018	$100,000	2004	1,405	$71.17	3/2	Open	Manuf	

Adjoining Sales Adjusted									Avg	
Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	% Diff	Distance
							$128,400			1425
$0		$2,250	-$21,299	$5,000			$135,951	-6%		
-$5,660	$13,000	$3,800	$10,209	$5,000	$1,500		$122,849	4%		
-$843		$4,500	$28,185				$131,842	-3%		
									-1%	

18. Matched Pair – Camden Dam, Camden, NC

This 5 MW project was built in 2019 and located on a portion of 49.83 acres.

Parcel 1 noted above along with the home on the adjoining parcel to the north of that parcel sold in late 2018 after this solar farm was approved but prior to construction being completed in 2019. I have considered this sale as shown below. The landscaping screen is considered light.

The comparable at 548 Trotman is the most similar and required the least adjustment shows no impact on property value. The other two comparables were adjusted consistently with one showing significant enhancement and another as showing a mild negative. The best indication is the one requiring the least adjustment. The other two sales required significant site adjustments which make them less reliable. The best comparable and the average of these comparables support a finding of no impact on property value.

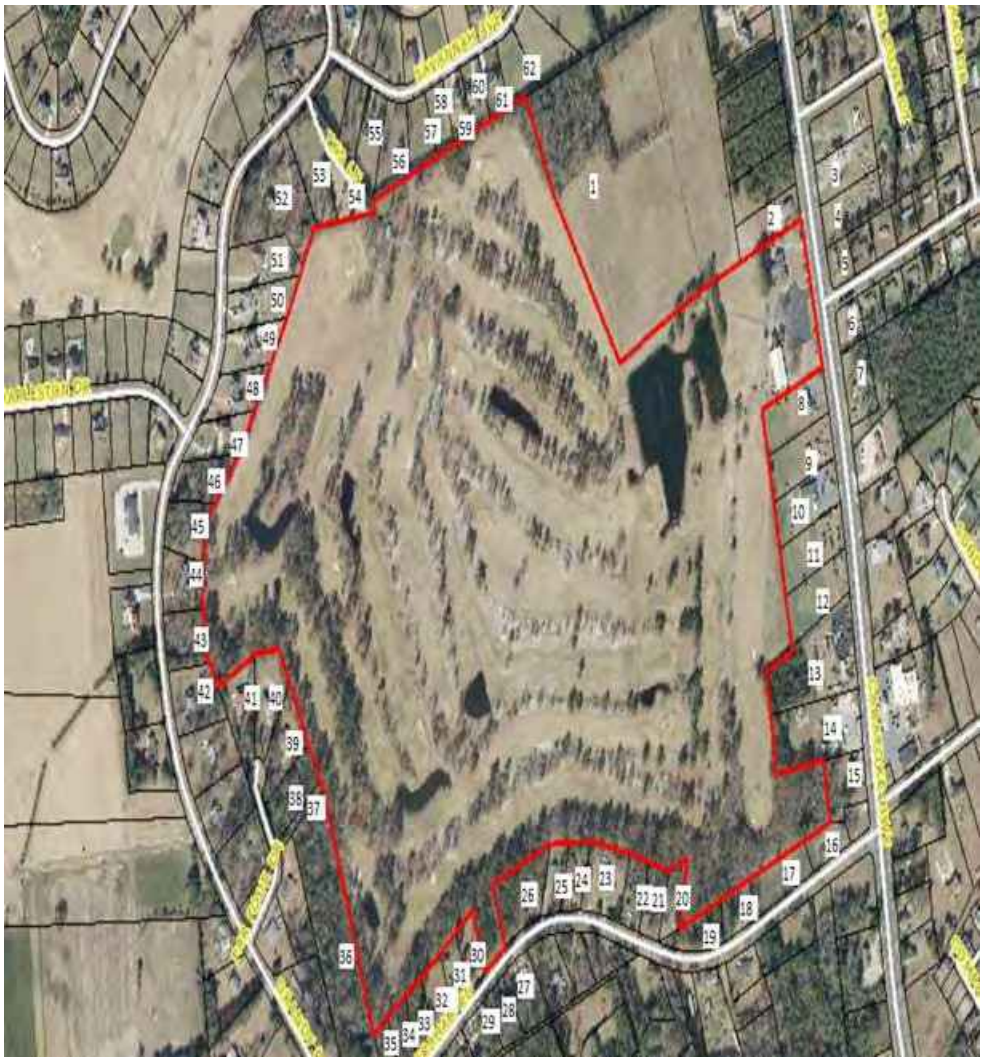
Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GLA	BR/BA	Park	Style	Other
Adjoins	122 N Mill Dam	12.19	11/29/2018	$350,000	2005	2,334	$149.96	3/3.5	3-Gar	Ranch	
Not	548 Trotman	12.10	5/31/2018	$309,000	2007	1,960	$157.65	4/2	Det2G	Ranch	Wrkshp
Not	198 Sand Hills	2.00	12/22/2017	$235,000	2007	2,324	$101.12	4/3	Open	Ranch	
Not	140 Sleepy Hlw	2.05	8/12/2019	$330,000	2010	2,643	$124.86	4/3	1-Gar	1.5 Story	

Adjoining Sales Adjusted

Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
122 N Mill Dam								$350,000			342
548 Trotman	$6,163		-$3,090	$35,377	$5,000			$352,450	-1%		
198 Sand Hills	$8,808	$45,000	-$2,350	$607		$30,000		$317,064	9%		
140 Sleepy Hlw	-$9,258	$45,000	-$8,250	-$23,149	$5,000	$30,000		$369,343	-6%		
										1%	

19. Matched Pair – Grandy Solar, Grandy, NC



This 20 MW project was built in 2019 and located on a portion of 121 acres.

Parcels 40 and 50 have sold since construction began on this solar farm. I have considered both in matched pair analysis below. I note that the marketing for Parcel 40 (120 Par Four) identified the lack of homes behind the house as a feature in the listing. The marketing for Parcel 50 (269 Grandy) identified the property as "very private." Landscaping for both of these parcels is considered light.

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GLA	BR/BA	Park	Style	Other
Adjoins	120 Par Four	0.92	8/17/2019	$315,000	2006	2,188	$143.97	4/3	2-Gar	1.5 Story	Pool
Not	102 Teague	0.69	1/5/2020	$300,000	2005	2,177	$137.80	3/2	Det 3G	Ranch	
Not	112 Meadow Lk	0.92	2/28/2019	$265,000	1992	2,301	$115.17	3/2	Gar	1.5 Story	
Not	116 Barefoot	0.78	9/29/2020	$290,000	2004	2,192	$132.30	4/3	2-Gar	2 Story	

Adjoining Sales Adjusted

Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
120 Par Four								$315,000			405
102 Teague	-$4,636		$1,500	$910	$10,000		$20,000	$327,774	-4%		
112 Meadow Lk	$4,937		$18,550	-$7,808	$10,000	$10,000	$20,000	$320,679	-2%		
116 Barefoot	-$12,998		$2,900	-$318			$20,000	$299,584	5%		
										0%	

Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GLA	BR/BA	Park	Style	Other
Adjoins	269 Grandy	0.78	5/7/2019	$275,000	2019	1,535	$179.15	3/2.5	2-Gar	Ranch	
Not	307 Grandy	1.04	10/8/2018	$240,000	2002	1,634	$146.88	3/2	Gar	1.5 Story	
Not	103 Branch	0.95	4/22/2020	$230,000	2000	1,532	$150.13	4/2	2-Gar	1.5 Story	
Not	103 Spring Lf	1.07	8/14/2018	$270,000	2002	1,635	$165.14	3/2	2-Gar	Ranch	Pool

Adjoining Sales Adjusted

Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
269 Grandy								$275,000			477
307 Grandy	$5,550		$20,400	-$8,725	$5,000	$10,000		$272,225	1%		
103 Branch	-$8,847		$21,850	$270				$243,273	12%		
103 Spring Lf	$7,871		$22,950	-$9,908	$5,000		-$20,000	$275,912	0%		
										4%	

Both of these matched pairs support a finding of no impact on value. This is reinforced by the listings for both properties identifying the privacy due to no housing in the rear of the property as part of the marketing for these homes.

20. Matched Pair – Champion Solar, Lexington County, SC

This project is a 10 MW facility located on a 366.04-acre tract that was built in 2017.

I have considered the 2020 sale of an adjoining home located off 517 Old Charleston Road. Landscaping is considered light.

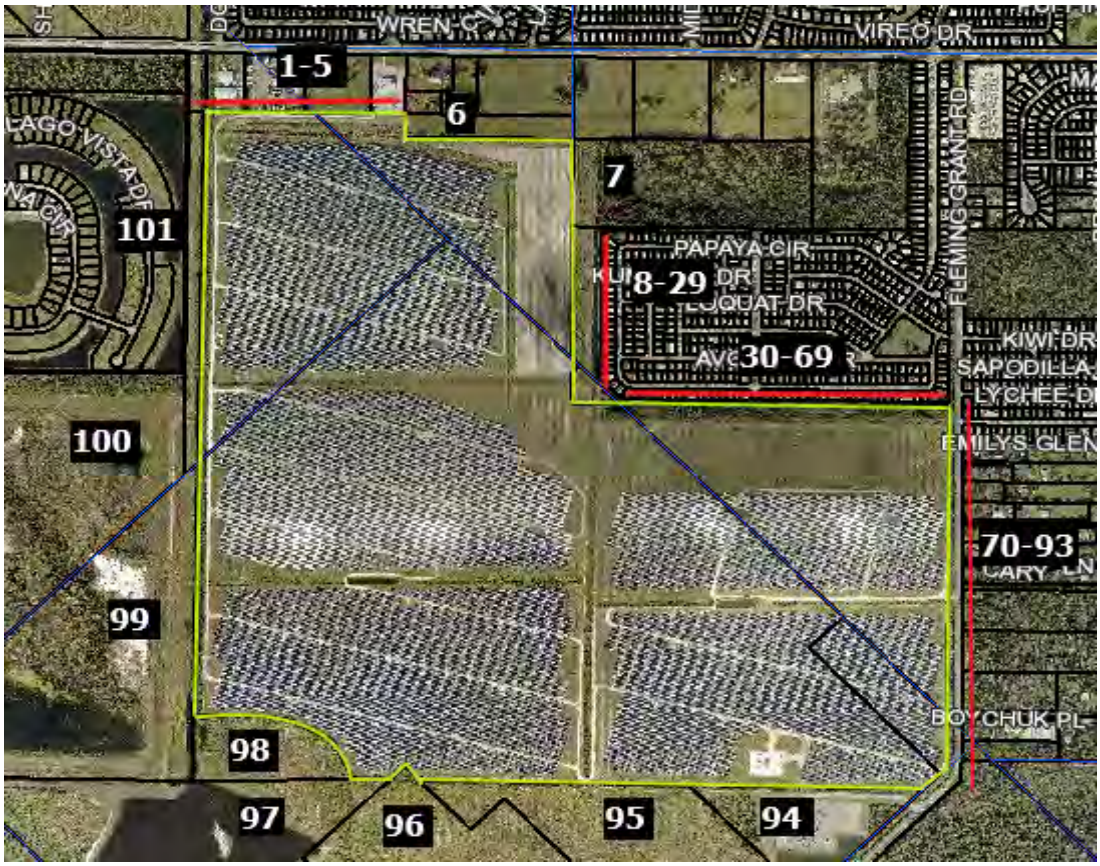
Adjoining Residential Sales After Solar Farm Approved

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
Adjoins	517 Old Charleston	11.05	8/25/2020	$110,000	1962	925	$118.92	3/1	Crport	Br Rnch	
Not	133 Buena Vista	2.65	6/21/2020	$115,000	1979	1,104	$104.17	2/2	Crport	Br Rnch	
Not	214 Crystal Spr	2.13	6/10/2019	$102,500	1970	1,025	$100.00	3/2	Crport	Rnch	
Not	1429 Laurel	2.10	2/21/2019	$126,000	1960	1,250	$100.80	2/1.5	Open	Br Rnch	3 Gar/Brn

Adjoining Sales Adjusted

Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
517 Old Charleston								$110,000			505
133 Buena Vista	$410	$17,000	-$9,775	-$14,917	-$10,000			$97,718	11%		
214 Crystal Spr	$2,482	$18,000	-$4,100	-$8,000	-$10,000		$10,000	$110,882	-1%		
1429 Laurel	$3,804	$18,000	$1,260	-$26,208	-$5,000	$5,000	-$15,000	$107,856	2%		
										4%	

21. Matched Pair – Barefoot Bay Solar Farm, Barefoot Bay, FL



This project is located on 504 acres for a 704.5 MW facility. Most of the adjoining uses are medium density residential with some lower density agricultural uses to the southwest. This project was built in 2018. There is a new subdivision under development to the west.

I have considered a number of recent home sales from the Barefoot Bay Golf Course in the Barefoot Bay Recreation District. There are a number of sales of these mobile/manufactured homes along the eastern boundary and the lower northern boundary. I have compared those home sales to other similar homes in the same community but without the exposure to the solar farm. Staying within the same community keeps location and amenity impacts consistent. I did avoid any comparison with home sales with golf course or lakefront views as that would introduce another variable.

The six manufactured/double wide homes shown below were each compared to three similar homes in the same community and are consistently showing no impact on the adjoining property values. Based on the photos from the listings, there is limited but some visibility of the solar farm to the east, but the canal and landscaping between are providing a good visual buffer and actually are commanding a premium over the non-canal homes.

Landscaping for these adjoining homes is considered light, though photographs from the listings show that those homes on Papaya that adjoin the solar farm from east/west have no visibility of the solar farm and is effectively medium density due to the height differential. The homes that adjoin the solar farm from north/south along Papaya have some filtered view of the solar farm through the trees.

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GLA	BR/BA	Park	Style	Other
14	Adjoins	465 Papaya Cr	0.12	7/21/2019	$155,000	1993	1,104	$140.40	2/2	Drive	Manuf	Canal
	Not	1108 Navajo	0.14	2/27/2019	$129,000	1984	1,220	$105.74	2/2	Crprt	Manuf	Canal
	Not	1007 Barefoot	0.11	9/3/2020	$168,000	2005	1,052	$159.70	2/2	Crprt	Manuf	Canal
	Not	1132 Waterway	0.11	7/10/2020	$129,000	1982	1,012	$127.47	2/2	Crprt	Manuf	Canal

Adjoining Sales Adjusted

Address	Time	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
465 Papaya Cr							$155,000			765
1108 Navajo	$1,565	$5,805	-$9,812				$126,558	18%		
1007 Barefoot	-$5,804	-$10,080	$6,643				$158,759	-2%		
1132 Waterway	-$3,859	$7,095	$9,382				$141,618	9%		
									8%	

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GLA	BR/BA	Park	Style	Other
19	Adjoins	455 Papaya	0.12	9/1/2020	$183,500	2005	1,620	$113.27	3/2	Crprt	Manuf	Canal
	Not	938 Waterway	0.11	2/12/2020	$160,000	1986	1,705	$93.84	2/2	Crprt	Manuf	Canal
	Not	719 Barefoot	0.12	4/14/2020	$150,000	1996	1,635	$91.74	3/2	Crprt	Manuf	Canal
	Not	904 Fir	0.17	9/27/2020	$192,500	2010	1,626	$118.39	3/2	Crprt	Manuf	Canal

Adjoining Sales Adjusted

Address	Time	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
455 Papaya							$183,500			750
938 Waterway	$2,724	$15,200	-$6,381				$171,542	7%		
719 Barefoot	$1,770	$6,750	-$1,101				$157,419	14%		
904 Fir	-$422	-$4,813	-$568				$186,697	-2%		
									6%	

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GLA	BR/BA	Park	Style	Other
37	Adjoins	419 Papaya	0.09	7/16/2019	$127,500	1986	1,303	$97.85	2/2	Crprt	Manuf	Green
	Not	865 Tamarind	0.12	2/4/2019	$133,900	1995	1,368	$97.88	2/2	Crprt	Manuf	Green
	Not	501 Papaya	0.10	6/15/2018	$109,000	1986	1,234	$88.33	2/2	Crprt	Manuf	
	Not	418 Papaya	0.09	8/28/2019	$110,000	1987	1,248	$88.14	2/2	Crprt	Manuf	

Adjoining Sales Adjusted

Address	Time	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
419 Papaya							$127,500			690
865 Tamarind	$1,828	-$6,026	-$5,090				$124,613	2%		
501 Papaya	$3,637	$0	$4,876			$5,000	$122,513	4%		
418 Papaya	-$399	-$550	$3,878			$5,000	$117,930	8%		
									5%	

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GLA	BR/BA	Park	Style	Other
39	Adjoins	413 Papaya	0.09	7/16/2020	$130,000	2001	918	$141.61	2/2	Crprt	Manuf	Grn/Upd
	Not	341 Loquat	0.09	2/3/2020	$118,000	1985	989	$119.31	2/2	Crprt	Manuf	Full Upd
	Not	1119 Pocatella	0.19	1/5/2021	$120,000	1993	999	$120.12	2/2	Crprt	Manuf	Green
	Not	1367 Barefoot	0.10	1/12/2021	$130,500	1987	902	$144.68	2/2	Crprt	Manuf	Green/Upd

Adjoining Sales Adjusted

Address	Time	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
413 Papaya							$130,000			690
341 Loquat	$1,631	$9,440	-$6,777				$122,294	6%		
1119 Pocatella	-$1,749	$4,800	-$7,784			$5,000	$120,267	7%		
1367 Barefoot	-$1,979	$9,135	$1,852				$139,507	-7%		
									2%	

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GLA	BR/BA	Park	Style	Other
48	Adjoins	343 Papaya	0.09	12/17/2019	$145,000	1986	1,508	$96.15	3/2	Crprt	Manuf	Gn/Fc/Upd
	Not	865 Tamarind	0.12	2/4/2019	$133,900	1995	1,368	$97.88	2/2	Crprt	Manuf	Green
	Not	515 Papaya	0.09	3/22/2018	$145,000	2005	1,376	$105.38	3/2	Crprt	Manuf	Green
	Not	849 Tamarind	0.15	6/26/2019	$155,000	1997	1,716	$90.33	3/2	Crprt	Manuf	Grn/Fnce

Adjoining Sales Adjusted

Address	Time	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
343 Papaya							$145,000			690
865 Tamarind	$3,566	-$6,026	$10,963				$142,403	2%		
515 Papaya	$7,759	-$13,775	$11,128				$150,112	-4%		
849 Tamarind	$2,273	-$8,525	-$15,030			$5,000	$138,717	4%		
									1%	

Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GLA	BR/BA	Park	Style	Other
52	Nearby	335 Papaya	0.09	4/17/2018	$110,000	1987	1,180	$93.22	2/2	Crprt	Manuf	Green
	Not	865 Tamarind	0.12	2/4/2019	$133,900	1995	1,368	$97.88	2/2	Crprt	Manuf	Green
	Not	501 Papaya	0.10	6/15/2018	$109,000	1986	1,234	$88.33	2/2	Crprt	Manuf	
	Not	604 Puffin	0.09	10/23/2018	$110,000	1988	1,320	$83.33	2/2	Crprt	Manuf	

Adjoining Sales Adjusted

Address	Time	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
335 Papaya							$110,000			710
865 Tamarind	-$3,306	-$5,356	-$14,721			$0	$110,517	0%		
501 Papaya	-$542	$545	-$3,816			$5,000	$110,187	0%		
604 Puffin	-$1,752	-$550	-$9,333			$5,000	$103,365	6%		
									2%	

I also identified a new subdivision being developed just to the west of this solar farm called The Lakes at Sebastian Preserve. These are all canal-lot homes that are being built with homes starting at $271,000 based on the website and closed sales showing up to $342,000. According to Monique, the onsite broker with Holiday Builders, the solar farm is difficult to see from the lots that back up to that area and she does not anticipate any difficulty in selling those future homes or lots or any impact on the sales price. The closest home that will be built in this development will be approximately 340 feet from the nearest panel.

Based on the closed home prices in Barefoot Bay as well as the broker comments and activity at The Lakes at Sebastian Preserve, the data around this solar farm strongly indicates no negative impact on property value.

22. Matched Pair – Miami-Dade Solar Farm, Miami, FL

This project is located on 346.80 acres for a 74.5 MW facility. All of the adjoining uses are agricultural and residential. This project was built in 2019.

I considered the recent sale of Parcel 26 to the south that sold for over $1.6 million dollars. This home is located on 4.2 acres with additional value in the palm trees according to the listing. The comparables include similar homes nearby that are all actually on larger lots and several include avocado or palm tree income as well. All of the comparables are in similar proximity to the subject and all have similar proximity to the Miami-Dade Executive airport that is located 2.5 miles to the east.

These sales are showing no impact on the value of the property from the adjoining solar farm. The landscaping is considered light.

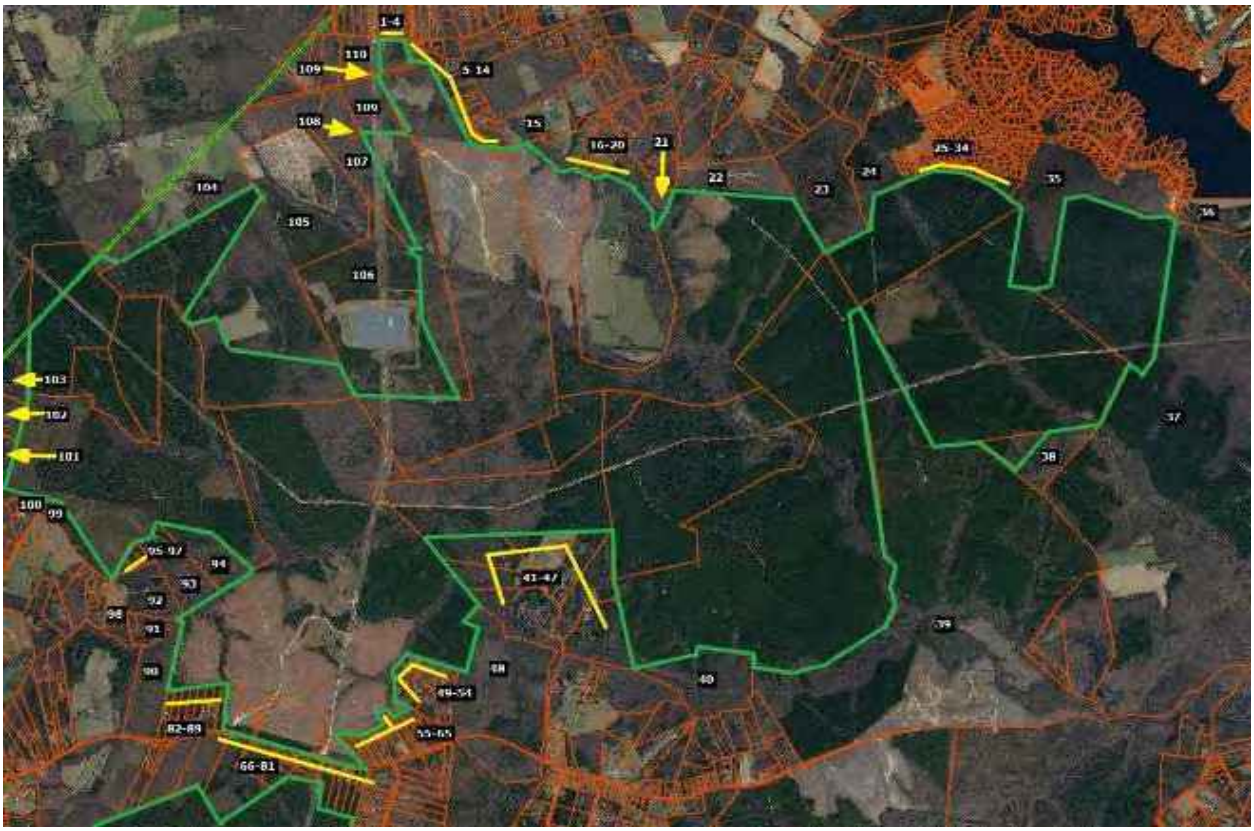
Adjoining Residential Sales After Solar Farm Approved

Parcel	Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GLA	BR/BA	Park	Style	Other
26	Adjoins	13600 SW 182nd	4.20	11/5/2020	$1,684,000	2008	6,427	$262.02	5/5.5	3 Gar	CBS Rnch	Pl/Guest
	Not	18090 SW 158th	5.73	10/8/2020	$1,050,000	1997	3,792	$276.90	5/4	3 Gar	CBS Rnch	
	Not	14311 SW 187th	4.70	10/22/2020	$1,100,000	2005	3,821	$287.88	6/5	3 Gar	CBS Rnch	Pool
	Not	17950 SW 158th	6.21	10/22/2020	$1,730,000	2000	6,917	$250.11	6/5.5	2 Gar	CBS Rnch	Pool

Adjoining Sales Adjusted

Address	Time	Site	YB	GLA	BR/BA	Park	Other	Total	% Diff	Avg % Diff	Distance
13600 SW 182nd								$1,684,000			1390
18090 SW 158th	$2,478		$57,750	$583,703	$30,000			$1,723,930	-2%		
14311 SW 187th	$1,298		$16,500	$600,178	$10,000			$1,727,976	-3%		
17950 SW 158th	$2,041		$69,200	-$98,043		$10,000		$1,713,199	-2%		
										-2%	

23. Matched Pair – Spotsylvania Solar, Paytes, VA



This solar farm is being built in four phases with the area known as Site C having completed construction in November 2020 after the entire project was approved in April 2019. Site C, also known as Pleinmont 1 Solar, includes 99.6 MW located in the southeast corner of the project and shown on the maps above with adjoining parcels 111 through 144. The entire Spotsylvania project totals 617 MW on 3500 acres out of a parent tract assemblage of 6,412 acres.

I have identified three adjoining home sales that occurred during construction and development of the site in 2020.

The first is located on the north side of Site A on Orange Plank Road. The second is located on Nottoway Lane just north of Caparthin Road on the south side of Site A and east of Site C. The third is located on Post Oak Road for a home that backs up to Site C that sold in September 2020 near the completion of construction for Site C.

Spotsylvania Solar Farm

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
Adjoins	12901 Orng Plnk	5.20	8/27/2020	$319,900	1984	1,714	$186.64	3/2	Drive	1.5	Un Bsmt
Not	8353 Gold Dale	3.00	1/27/2021	$415,000	2004	2,064	$201.07	3/2	3 Gar	Ranch	
Not	6488 Southfork	7.26	9/9/2020	$375,000	2017	1,680	$223.21	3/2	2 Gar	1.5	Barn/Patio
Not	12717 Flintlock	0.47	12/2/2020	$290,000	1990	1,592	$182.16	3/2.5	Det Gar	Ranch	

Adjoining Sales Adjusted

Address	Time	Ac/Loc	YB	GLA	BR/BA	Park	Other	Total	% Diff	Dist
12901 Orng Plnk								$319,900		1270
8353 Gold Dale	-$5,219	$20,000	-$41,500	-$56,298		-$20,000		$311,983	2%	
6488 Southfork	-$401	-$20,000	-$61,875	$6,071		-$15,000		$283,796	11%	
12717 Flintlock	-$2,312	$40,000	-$8,700	$17,779	-$5,000	-$5,000		$326,767	-2%	
							Average Diff		4%	

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
Adjoins	9641 Nottoway	11.00	5/12/2020	$449,900	2004	3,186	$141.21	4/2.5	Garage	2-Story	Un Bsmt
Not	26123 Lafayette	1.00	8/3/2020	$390,000	2006	3,142	$124.12	3/3.5	Gar/DtG	2-Story	
Not	11626 Forest	5.00	8/10/2020	$489,900	2017	3,350	$146.24	4/3.5	2 Gar	2-Story	
Not	10304 Pny Brnch	6.00	7/27/2020	$485,000	1998	3,076	$157.67	4/4	2Gar/Dt2	Ranch	Fn Bsmt

Adjoining Sales Adjusted

Address	Time	Ac/Loc	YB	GLA	BR/BA	Park	Other	Total	% Diff	Dist
9641 Nottoway								$449,900		1950
26123 Lafayette	-$2,661	$45,000	-$3,900	$4,369	-$10,000	-$5,000		$417,809	7%	
11626 Forest	-$3,624		-$31,844	-$19,187		-$5,000		$430,246	4%	
10304 Pny Brnch	-$3,030		$14,550	$13,875	-$15,000	-$15,000	-$10,000	$470,396	-5%	
							Average Diff		2%	

Solar	Address	Acres	Date Sold	Sales Price	Built	GBA	$/GBA	BR/BA	Park	Style	Other
Adjoins	13353 Post Oak	5.20	9/21/2020	$300,000	1992	2,400	$125.00	4/3	Drive	2-Story	Fn Bsmt
Not	9609 Logan Hgt	5.86	7/4/2019	$330,000	2004	2,352	$140.31	3/2	2Gar	2-Story	
Not	12810 Catharpian	6.18	1/30/2020	$280,000	2008	2,240	$125.00	4/2.5	Drive	2-Story	Bsmt/Nd Pnt
Not	10725 Rbrt Lee	5.01	10/26/2020	$295,000	1995	2,166	$136.20	4/3	Gar	2-Story	Fn Bsmt

Adjoining Sales Adjusted

Address	Time	Ac/Loc	YB	GLA	BR/BA	Park	Other	Total	% Diff	Dist
13353 Post Oak								$300,000		1171
9609 Logan Hgt	$12,070		-$19,800	$5,388		-$15,000	$15,000	$327,658	-9%	
12810 Catharpian	$5,408		-$22,400	$16,000	$5,000		$15,000	$299,008	0%	
10725 Rbrt Lee	-$849		-$4,425	$25,496		-$10,000		$305,222	-2%	
							Average Diff		-4%	

All three of these homes are well set back from the solar panels at distances over 1,000 feet and are well screened from the project. All three show no indication of any impact on property value.

Conclusion – SouthEast Over 5 MW

Southeast USA Over 5 MW
Matched Pair Summary

							Adj. Uses By Acreage				1 mile Radius (2010-2020 Data)			
	Name	City	State	Acres	MW	Topo Shift	Res	Ag	Ag/Res	Com/Ind	Pop.	Med. Income	Avg. Housing Unit	Veg. Buffer
1	AM Best	Goldsboro	NC	38	5.00	2	38%	0%	23%	39%	1,523	$37,358	$148,375	Light
2	Mulberry	Selmer	TN	160	5.00	60	13%	73%	10%	3%	467	$40,936	$171,746	Lt to Med
3	Leonard	Hughesville	MD	47	5.00	20	18%	75%	0%	6%	525	$106,550	$350,000	Light
4	Gastonia SC	Gastonia	NC	35	5.00	48	33%	0%	23%	44%	4,689	$35,057	$126,562	Light
5	Summit	Moyock	NC	2,034	80.00	4	4%	0%	94%	2%	382	$79,114	$281,731	Light
6	Tracy	Bailey	NC	50	5.00	10	29%	0%	71%	0%	312	$43,940	$99,219	Heavy
7	Manatee	Parrish	FL	1,180	75.00	20	2%	97%	1%	0%	48	$75,000	$291,667	Heavy
8	McBride	Midland	NC	627	75.00	140	12%	10%	78%	0%	398	$63,678	$256,306	Lt to Med
9	Mariposa	Stanley	NC	36	5.00	96	48%	0%	52%	0%	1,716	$36,439	$137,884	Light
10	Clarke Cnty	White Post	VA	234	20.00	70	14%	39%	46%	1%	578	$81,022	$374,453	Light
11	Simon	Social Circle	GA	237	30.00	71	1%	63%	36%	0%	203	$76,155	$269,922	Medium
12	Candace	Princeton	NC	54	5.00	22	76%	24%	0%	0%	448	$51,002	$107,171	Medium
13	Walker	Barhamsville	VA	485	20.00	N/A	12%	68%	20%	0%	203	$80,773	$320,076	Light
14	Innov 46	Hope Mills	NC	532	78.50	0	17%	83%	0%	0%	2,247	$58,688	$183,435	Light
15	Innov 42	Fayetteville	NC	414	71.00	0	41%	59%	0%	0%	568	$60,037	$276,347	Light
16	Sunfish	Willow Spring	NC	50	6.40	30	35%	35%	30%	0%	1,515	$63,652	$253,138	Light
17	Sappony	Stony Crk	VA	322	20.00	N/A	2%	98%	0%	0%	74	$51,410	$155,208	Light
18	Camden Dam	Camden	NC	50	5.00	0	17%	72%	11%	0%	403	$84,426	$230,288	Light
19	Grandy	Grandy	NC	121	20.00	10	55%	24%	0%	21%	949	$50,355	$231,408	Light
20	Champion	Pelion	SC	100	10.00	N/A	4%	70%	8%	18%	1,336	$46,867	$171,939	Light
21	Barefoot Bay	Barefoot Bay	FL	504	74.50	0	11%	87%	0%	3%	2,446	$36,737	$143,320	Lt to Med
22	Miami-Dade	Miami	FL	347	74.50	0	26%	74%	0%	0%	127	$90,909	$403,571	Light
23	Spotyslvania	Paytes	VA	3,500	617.00	160	37%	52%	11%	0%	74	$120,861	$483,333	Md to Hvy
	Average			485	57.04	38	24%	48%	22%	6%	923	$63,955	$237,700	
	Median			234	20.00	20	17%	59%	11%	0%	467	$60,037	$231,408	
	High			3,500	617.00	160	76%	98%	94%	44%	4,689	$120,861	$483,333	
	Low			35	5.00	0	1%	0%	0%	0%	48	$35,057	$99,219	

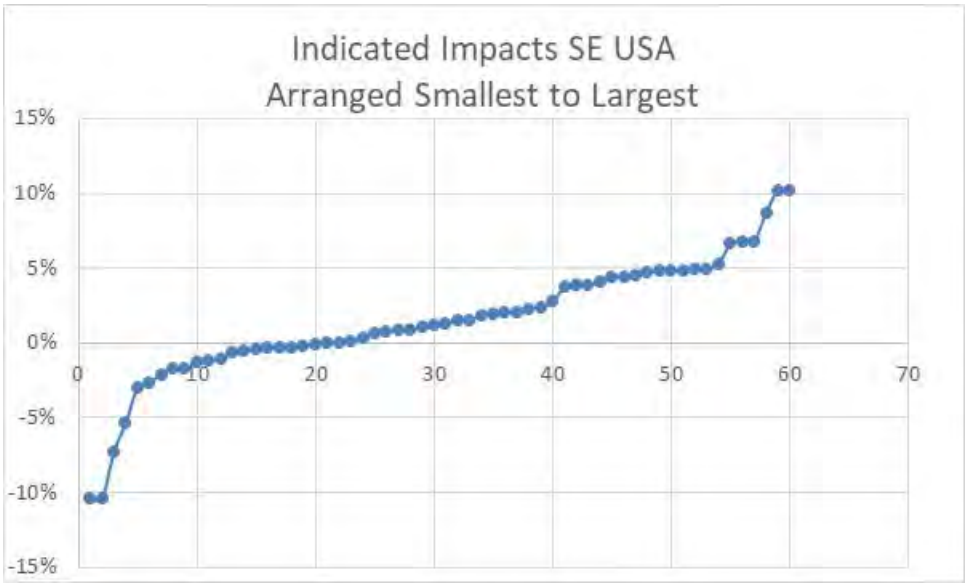
The solar farm matched pairs shown above have similar characteristics to each other in terms of population, but with several outliers showing solar farms in farm more urban areas. The median income for the population within 1 mile of a solar farm is $60,037 with a median housing unit value of $231,408. Most of the comparables are under $300,000 in the home price, with $483,333 being the high end of the set, though I have matched pairs in multiple states over $1,000,000 adjoining solar farms. The adjoining uses show that residential and agricultural uses are the predominant adjoining uses. These figures are in line with the larger set of solar farms that I have looked at with the predominant adjoining uses being residential and agricultural and similar to the solar farm breakdown shown for Virginia and adjoining states as well as the proposed subject property.

Based on the similarity of adjoining uses and demographic data between these sites and the subject property, I consider it reasonable to compare these sites to the subject property.

I have pulled 56 matched pairs from the above referenced solar farms to provide the following summary of home sale matched pairs and land sales next to solar farms. The summary shows that the range of differences is from -10% to +10% with an average of +1% and median of +1%. This means that the average and median impact is for a slight positive impact due to adjacency to a solar farm. However, this +1 to rate is within the typical variability I would expect from real estate. I therefore conclude that this data shows no negative or positive impact due to adjacency to a solar farm.

While the range is seemingly wide, the graph below clearly shows that the vast majority of the data falls between -5% and +5% and most of those are clearly in the 0 to +5% range. This data strongly supports an indication of no impact on adjoining residential uses to a solar farm.

I therefore conclude that these matched pairs support a finding of no impact on value at the subject property for the proposed project, which as proposed will include a landscaped buffer to screen adjoining residential properties.


Indicated Impacts SE USA
Arranged Smallest to Largest
15%
10%
5%
0%
-5%
-10%
-15%
0
10
20
30
40
50
60
70

Residential Dwelling Matched Pairs Adjoining Solar Farms

Pair	Solar Farm	City	State	MW	Approx Distance	Tax ID/Address	Date	Sale Price	Adj. Sale Price	% Diff	Veg. Buffer
1	AM Best	Goldsboro	NC	5	280	3600195570	Sep-13	$250,000			Light
						3600198928	Mar-14	$250,000	$250,000	0%	
2	AM Best	Goldsboro	NC	5	280	3600195361	Sep-13	$260,000			Light
						3600194813	Apr-14	$258,000	$258,000	1%	
3	AM Best	Goldsboro	NC	5	280	3600199891	Jul-14	$250,000			Light
						3600198928	Mar-14	$250,000	$250,000	0%	
4	AM Best	Goldsboro	NC	5	280	3600198632	Aug-14	$253,000			Light
						3600193710	Oct-13	$248,000	$248,000	2%	
5	AM Best	Goldsboro	NC	5	280	3600196656	Dec-13	$255,000			Light
						3601105180	Dec-13	$253,000	$253,000	1%	
6	AM Best	Goldsboro	NC	5	280	3600182511	Feb-13	$247,000			Light
						3600183905	Dec-12	$240,000	$245,000	1%	
7	AM Best	Goldsboro	NC	5	280	3600182784	Apr-13	$245,000			Light
						3600193710	Oct-13	$248,000	$248,000	-1%	
8	AM Best	Goldsboro	NC	5	280	3600195361	Nov-15	$267,500			Light
						3600195361	Sep-13	$260,000	$267,800	0%	
9	Mulberry	Selmer	TN	5	400	0900A011	Jul-14	$130,000			Light
						099CA043	Feb-15	$148,900	$136,988	-5%	
10	Mulberry	Selmer	TN	5	400	099CA002	Jul-15	$130,000			Light
						0990NA040	Mar-15	$120,000	$121,200	7%	
11	Mulberry	Selmer	TN	5	480	491 Dusty	Oct-16	$176,000			Light
						35 April	Aug-16	$185,000	$178,283	-1%	
12	Mulberry	Selmer	TN	5	650	297 Country	Sep-16	$150,000			Medium
						53 Glen	Mar-17	$126,000	$144,460	4%	
13	Mulberry	Selmer	TN	5	685	57 Cooper	Feb-19	$163,000			Medium
						191 Amelia	Aug-18	$132,000	$155,947	4%	
14	Leonard Rd	Hughesville	MD	5.5	230	14595 Box Elder	Feb-16	$291,000			Light
						15313 Bassford Rd	Jul-16	$329,800	$292,760	-1%	
15	Neal Hawkins	Gastonia	NC	5	225	609 Neal Hawkins	Mar-17	$270,000			Light
						1418 N Modena	Apr-18	$225,000	$242,520	10%	
16	Summit	Moyock	NC	80	1,060	129 Pinto	Apr-16	$170,000			Light
						102 Timber	Apr-16	$175,500	$175,101	-3%	
17	Summit	Moyock	NC	80	980	105 Pinto	Dec-16	$206,000			Light
						127 Ranchland	Jun-15	$219,900	$198,120	4%	
18	Tracy	Bailey	NC	5	780	9162 Winters	Jan-17	$255,000			Heavy
						7352 Red Fox	Jun-16	$176,000	$252,399	1%	
19	Manatee	Parrish	FL	75	1180	13670 Highland	Aug-18	$255,000			Heavy
						13851 Highland	Sep-18	$240,000	$255,825	0%	
20	McBride Place	Midland	NC	75	275	4380 Joyner	Nov-17	$325,000			Medium
						3870 Elkwood	Aug-16	$250,000	$317,523	2%	
21	McBride Place	Midland	NC	75	505	5811 Kristi	Mar-20	$530,000			Medium
						3915 Tania	Dec-19	$495,000	$504,657	5%	
22	Mariposa	Stanley	NC	5	1155	215 Mariposa	Dec-17	$249,000			Light
						110 Airport	May-16	$166,000	$239,026	4%	
23	Mariposa	Stanley	NC	5	570	242 Mariposa	Sep-15	$180,000			Light
						110 Airport	Apr-16	$166,000	$175,043	3%	
24	Clarke Cnty	White Post	VA	20	1230	833 Nations Spr	Jan-17	$295,000			Light
						6801 Middle	Dec-17	$249,999	$296,157	0%	
25	Candace	Princeton	NC	5	488	499 Herring	Sep-17	$215,000			Medium
						1795 Bay Valley	Dec-17	$194,000	$214,902	0%	
26	Walker	Barhamsville	VA	20	250	5241 Barham	Oct-18	$264,000			Light
						9252 Ordinary	Jun-19	$277,000	$246,581	7%	
27	AM Best	Goldsboro	NC	5	385	103 Granville Pl	Jul-18	$265,000			Light
						2219 Granville	Jan-18	$260,000	$265,682	0%	
28	AM Best	Goldsboro	NC	5	315	104 Erin	Jun-17	$280,000			Light
						2219 Granville	Jan-18	$265,000	$274,390	2%	
29	AM Best	Goldsboro	NC	5	400	2312 Granville	May-18	$284,900			Light
						2219 Granville	Jan-18	$265,000	$273,948	4%	

Residential Dwelling Matched Pairs Adjoining Solar Farms

Pair	Solar Farm	City	State	MW	Approx Distance	Tax ID/Address	Date	Sale Price	Adj. Sale Price	% Diff	Veg. Buffer
30	AM Best	Goldsboro	NC	5	400	2310 Granville	May-19	$280,000			Light
						634 Friendly	Jul-19	$267,000	$265,291	5%	
31	Summit	Moyock	NC	80	570	318 Green View	Sep-19	$357,000			Light
						336 Green View	Jan-19	$365,000	$340,286	5%	
32	Summit	Moyock	NC	80	440	164 Ranchland	Apr-19	$169,000			Light
						105 Longhorn	Oct-17	$184,500	$186,616	-10%	
33	Summit	Moyock	NC	80	635	358 Oxford	Sep-19	$478,000			Light
						176 Providence	Sep-19	$425,000	$456,623	4%	
34	Summit	Moyock	NC	80	970	343 Oxford	Mar-17	$490,000			Light
						218 Oxford	Apr-17	$525,000	$484,064	1%	
35	Innov 46	Hope Mills	NC	78.5	435	6849 Roslin Farm	Feb-19	$155,000			Light
						109 Bledsoe	Jan-19	$150,000	$147,558	5%	
36	Innov 42	Fayetteville	NC	71	340	2923 County Line	Feb-19	$385,000			Light
						2109 John McMillan	Apr-18	$320,000	$379,156	2%	
37	Innov 42	Fayetteville	NC	71	330	2935 County Line	Jun-19	$266,000			Light
						7031 Glynn Mill	May-18	$255,000	$264,422	1%	
38	Sunfish	Willow Sprng	NC	6.4	205	7513 Glen Willow	Sep-17	$185,000			Light
						205 Pine Burr	Dec-17	$191,000	$172,487	7%	
39	Neal Hawkins	Gastonia	NC	5	145	611 Neal Hawkins	Jun-17	$288,000			Light
						1211 Still Forrest	Jul-18	$280,000	$274,319	5%	
40	Clarke Cnty	White Post	VA	20	1230	833 Nations Spr	Aug-19	$385,000			Light
						2393 Old Chapel	Aug-20	$330,000	$389,286	-1%	
41	Sappony	Stony Creek	VA	20	1425	12511 Palestine	Jul-18	$128,400			Medium
						6494 Rocky Branch	Nov-18	$100,000	$131,842	-3%	
42	Camden Dam	Camden	NC	5	342	122 N Mill Dam	Nov-18	$350,000			Light
						548 Trotman	May-18	$309,000	$352,450	-1%	
43	Grandy	Grandy	NC	20	405	120 Par Four	Aug-19	$315,000			Light
						116 Barefoot	Sep-20	$290,000	$299,584	5%	
44	Grandy	Grandy	NC	20	477	269 Grandy	May-19	$275,000			Light
						103 Spring Leaf	Aug-18	$270,000	$275,912	0%	
45	Champion	Pelion	SC	10	505	517 Old Charleston	Aug-20	$110,000			Light
						1429 Laurel	Feb-19	$126,000	$107,856	2%	
46	Barefoot Bay	Barefoot Bay	FL	74.5	765	465 Papaya	Jul-19	$155,000			Medium
						1132 Waterway	Jul-20	$129,000	$141,618	9%	
47	Barefoot Bay	Barefoot Bay	FL	74.5	750	455 Papaya	Sep-20	$183,500			Medium
						904 Fir	Sep-20	$192,500	$186,697	-2%	
48	Barefoot Bay	Barefoot Bay	FL	74.5	690	419 Papaya	Jul-19	$127,500			Medium
						865 Tamarind	Feb-19	$133,900	$124,613	2%	
49	Barefoot Bay	Barefoot Bay	FL	74.5	690	413 Papaya	Jul-20	$130,000			Medium
						1367 Barefoot	Jan-21	$130,500	$139,507	-7%	
50	Barefoot Bay	Barefoot Bay	FL	74.5	690	343 Papaya	Dec-19	$145,000			Light
						865 Tamarind	Feb-19	$133,900	$142,403	2%	
51	Barefoot Bay	Barefoot Bay	FL	74.5	710	335 Papaya	Apr-18	$110,000			Light
						865 Tamarind	Feb-19	$133,900	$110,517	0%	
52	Miami-Dade	Miami	FL	74.5	1390	13600 SW 182nd	Nov-20	$1,684,000			Light
						17950 SW 158th	Oct-20	$1,730,000	$1,713,199	-2%	
53	Spotsylvania	Paytes	VA	617	1270	12901 Orange Plnk	Aug-20	$319,900			Medium
						12717 Flintlock	Dec-20	$290,000	$326,767	-2%	
54	Spotsylvania	Paytes	VA	617	1950	9641 Nottoway	May-20	$449,900			Medium
						11626 Forest	Aug-20	$489,900	$430,246	4%	
55	Spotsylvania	Paytes	VA	617	1171	13353 Post Oak	Sep-20	$300,000			Heavy
						12810 Catharpin	Jan-20	$280,000	$299,008	0%	
56	McBride Place	Midland	NC	75	470	5833 Kristi	Sep-20	$625,000			Light
						4055 Dakeita	Dec-20	$600,000	$594,303	5%	

MW	Avg. Distance
64.91	612
20.00	479
617.00	1,950
5.00	145

	Indicated Impact
Average	1%
Median	1%
High	10%
Low	-10%

I have further broken down these results based on the MWs, Landscaping, and distance from panel to show the following range of findings for these different categories.

Most of the findings are for homes between 201 and 500 feet. Most of the findings are for Light landscaping screens.

Light landscaping screens are showing no impact on value at any distances, including for solar farms over 75.1 MW.

MW Range 4.4 to 10									
Landscaping	**Light**	**Light**	**Light**	**Medium**	**Medium**	**Medium**	**Heavy**	**Heavy**	**Heavy**
Distance	**100-200**	**201-500**	**500+**	**100-200**	**201-500**	**500+**	**100-200**	**201-500**	**500+**
#	1	19	2	0	1	2	0	0	1
Average	5%	2%	3%	N/A	0%	4%	N/A	N/A	1%
Median	5%	1%	3%	N/A	0%	4%	N/A	N/A	1%
High	5%	10%	4%	N/A	0%	4%	N/A	N/A	1%
Low	5%	-5%	3%	N/A	0%	4%	N/A	N/A	1%

10.1 to 30									
Landscaping	**Light**	**Light**	**Light**	**Medium**	**Medium**	**Medium**	**Heavy**	**Heavy**	**Heavy**
Distance	**100-200**	**201-500**	**500+**	**100-200**	**201-500**	**500+**	**100-200**	**201-500**	**500+**
#	0	3	2	0	0	1	0	0	0
Average	N/A	4%	-1%	N/A	N/A	-3%	N/A	N/A	N/A
Median	N/A	5%	-1%	N/A	N/A	-3%	N/A	N/A	N/A
High	N/A	7%	0%	N/A	N/A	-3%	N/A	N/A	N/A
Low	N/A	0%	-1%	N/A	N/A	-3%	N/A	N/A	N/A

30.1 to 75									
Landscaping	**Light**	**Light**	**Light**	**Medium**	**Medium**	**Medium**	**Heavy**	**Heavy**	**Heavy**
Distance	**100-200**	**201-500**	**500+**	**100-200**	**201-500**	**500+**	**100-200**	**201-500**	**500+**
#	0	2	3	0	0	4	0	0	0
Average	N/A	1%	0%	N/A	N/A	0%	N/A	N/A	N/A
Median	N/A	1%	0%	N/A	N/A	0%	N/A	N/A	N/A
High	N/A	2%	2%	N/A	N/A	9%	N/A	N/A	N/A
Low	N/A	1%	-2%	N/A	N/A	-7%	N/A	N/A	N/A

75.1+									
Landscaping	**Light**	**Light**	**Light**	**Medium**	**Medium**	**Medium**	**Heavy**	**Heavy**	**Heavy**
Distance	**100-200**	**201-500**	**500+**	**100-200**	**201-500**	**500+**	**100-200**	**201-500**	**500+**
#	0	2	5	0	0	2	0	0	1
Average	N/A	-3%	2%	N/A	N/A	1%	N/A	N/A	0%
Median	N/A	-3%	4%	N/A	N/A	1%	N/A	N/A	0%
High	N/A	5%	5%	N/A	N/A	4%	N/A	N/A	0%
Low	N/A	-10%	-3%	N/A	N/A	-2%	N/A	N/A	0%

C. Summary of National Data on Solar Farms

I have worked in 19 states related to solar farms and I have been tracking matched pairs in most of those states. On the following pages I provide a brief summary of those findings showing 37 solar farms over 5 MW studied with each one providing matched pair data supporting the findings of this report.

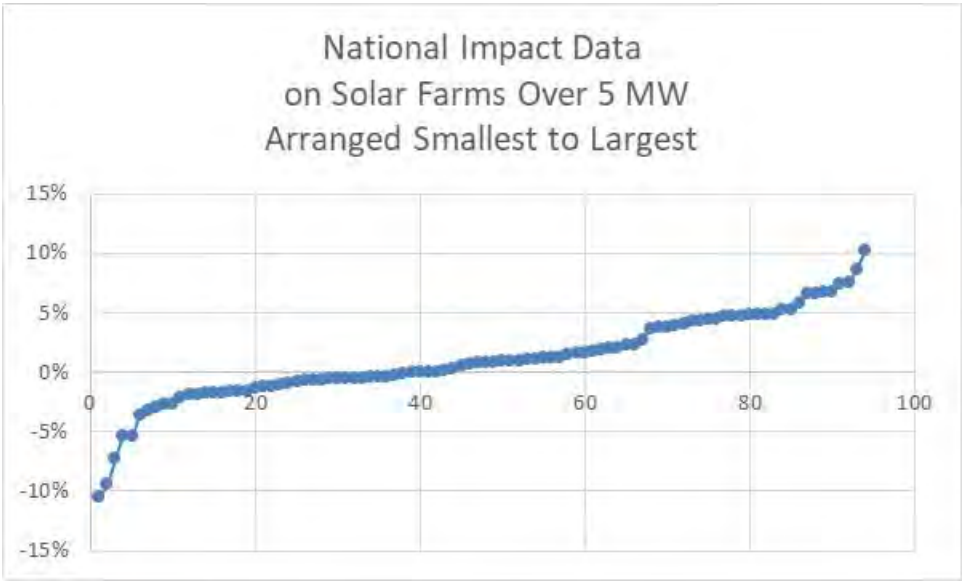
The solar farms summary is shown below with a summary of the matched pair data shown on the following page.

Matched Pair Summary							**Adj. Uses By Acreage**				**1 mile Radius (2010-2020 Data)**			
	Name	**City**	**State**	**Acres**	**MW**	**Topo Shift**	**Res**	**Ag**	**Ag/Res**	**Com/Ind**	**Popl.**	**Med. Income**	**Avg. Housing Unit**	**Veg. Buffer**
1	AM Best	Goldsboro	NC	38	5.00	2	38%	0%	23%	39%	1,523	$37,358	$148,375	Light
2	Mulberry	Selmer	TN	160	5.00	60	13%	73%	10%	3%	467	$40,936	$171,746	Lt to Med
3	Leonard	Hughesville	MD	47	5.00	20	18%	75%	0%	6%	525	$106,550	$350,000	Light
4	Gastonia SC	Gastonia	NC	35	5.00	48	33%	0%	23%	44%	4,689	$35,057	$126,562	Light
5	Summit	Moyock	NC	2,034	80.00	4	4%	0%	94%	2%	382	$79,114	$281,731	Light
7	Tracy	Bailey	NC	50	5.00	10	29%	0%	71%	0%	312	$43,940	$99,219	Heavy
8	Manatee	Parrish	FL	1,180	75.00	20	2%	97%	1%	0%	48	$75,000	$291,667	Heavy
9	McBride	Midland	NC	627	75.00	140	12%	10%	78%	0%	398	$63,678	$256,306	Lt to Med
10	Grand Ridge	Streator	IL	160	20.00	1	8%	87%	5%	0%	96	$70,158	$187,037	Light
11	Dominion	Indianapolis	IN	134	8.60	20	3%	97%	0%	0%	3,774	$61,115	$167,515	Light
12	Mariposa	Stanley	NC	36	5.00	96	48%	0%	52%	0%	1,716	$36,439	$137,884	Light
13	Clarke Cnty	White Post	VA	234	20.00	70	14%	39%	46%	1%	578	$81,022	$374,453	Light
14	Flemington	Flemington	NJ	120	9.36	N/A	13%	50%	28%	8%	3,477	$105,714	$444,696	Lt to Med
15	Frenchtown	Frenchtown	NJ	139	7.90	N/A	37%	35%	29%	0%	457	$111,562	$515,399	Light
16	McGraw	East Windsor	NJ	95	14.00	N/A	27%	44%	0%	29%	7,684	$78,417	$362,428	Light
17	Tinton Falls	Tinton Falls	NJ	100	16.00	N/A	98%	0%	0%	2%	4,667	$92,346	$343,492	Light
18	Simon	Social Circle	GA	237	30.00	71	1%	63%	36%	0%	203	$76,155	$269,922	Medium
19	Candace	Princeton	NC	54	5.00	22	76%	24%	0%	0%	448	$51,002	$107,171	Medium
20	Walker	Barhamsville	VA	485	20.00	N/A	12%	68%	20%	0%	203	$80,773	$320,076	Light
21	Innov 46	Hope Mills	NC	532	78.50	0	17%	83%	0%	0%	2,247	$58,688	$183,435	Light
22	Innov 42	Fayetteville	NC	414	71.00	0	41%	59%	0%	0%	568	$60,037	$276,347	Light
23	Demille	Lapeer	MI	160	28.40	10	10%	68%	0%	22%	2,010	$47,208	$187,214	Light
24	Turrill	Lapeer	MI	230	19.60	10	75%	59%	0%	25%	2,390	$46,839	$110,361	Light
25	Sunfish	Willow Spring	NC	50	6.40	30	35%	35%	30%	0%	1,515	$63,652	$253,138	Light
26	Picture Rocks	Tucson	AZ	182	20.00	N/A	6%	88%	6%	0%	102	$81,081	$280,172	None
27	Avra Valley	Tucson	AZ	246	25.00	N/A	3%	94%	3%	0%	85	$80,997	$292,308	None
28	Sappony	Stony Crk	VA	322	20.00	N/A	2%	98%	0%	0%	74	$51,410	$155,208	Medium
29	Camden Dam	Camden	NC	50	5.00	0	17%	72%	11%	0%	403	$84,426	$230,288	Light
30	Grandy	Grandy	NC	121	20.00	10	55%	24%	0%	21%	949	$50,355	$231,408	Light
31	Champion	Pelion	SC	100	10.00	N/A	4%	70%	8%	18%	1,336	$46,867	$171,939	Light
32	Eddy II	Eddy	TX	93	10.00	N/A	15%	25%	58%	2%	551	$59,627	$139,088	Light
33	Somerset	Somerset	TX	128	10.60	N/A	5%	95%	0%	0%	1,293	$41,574	$135,490	Light
34	DG Amp Piqua	Piqua	OH	86	12.60	2	26%	16%	58%	0%	6,735	$38,919	$96,555	Light
45	Barefoot Bay	Barefoot Bay	FL	504	74.50	0	11%	87%	0%	3%	2,446	$36,737	$143,320	Lt to Med
36	Miami-Dade	Miami	FL	347	74.50	0	26%	74%	0%	0%	127	$90,909	$403,571	Light
37	Spotyslvania	Paytes	VA	3,500	617.00	160	37%	52%	11%	0%	74	$120,861	$483,333	Med to Hvy
	Average			362	42.05	32	24%	52%	19%	6%	1,515	$66,292	$242,468	
	Median			150	17.80	10	16%	59%	7%	0%	560	$62,384	$230,848	
	High			3,500	617.00	160	98%	98%	94%	44%	7,684	$120,861	$515,399	
	Low			35	5.00	0	1%	0%	0%	0%	48	$35,057	$96,555	

From these 37 solar farms, I have derived 94 matched pairs. The matched pairs show no negative impact at distances as close as 105 feet between a solar panel and the nearest point on a home. The range of impacts is -10% to +10% with an average and median of +1%.

	MW	Avg. Distance		Indicated Impact
Average	44.80	569	**Average**	1%
Median	14.00	400	**Median**	1%
High	617.00	1,950	**High**	10%
Low	5.00	145	**Low**	-10%

While the range is broad, the two charts below show the data points in range from lowest to highest. There is only 3 data points out of 94 that show a negative impact. The rest support either a finding of no impact or 9 of the data points suggest a positive impact due to adjacency to a solar farm. As discussed earlier in this report, I consider this data to strongly support a finding of no impact on value as most of the findings are within typical market variation and even within that, most are mildly positive findings.



D. Larger Solar Farms

I have also considered larger solar farms to address impacts related to larger projects. Projects have been increasing in size and most of the projects between 100 and 1000 MW are newer with little time for adjoining sales. I have included a breakdown of solar farms with 20 MW to 80 MW facilities with one 617 MW facility.

Matched Pair Summary - @20 MW And Larger							Adj. Uses By Acreage				1 mile Radius (2010-2019 Data)			
	Name	City	State	Acres	MW	Topo Shift	Res	Ag	Ag/Res	Com/Ind	Popl.	Med. Income	Avg. Housing Unit	Veg. Buffer
1	Summit	Moyock	NC	2,034	80.00	4	4%	0%	94%	2%	382	$79,114	$281,731	Light
2	Manatee	Parrish	FL	1,180	75.00	20	2%	97%	1%	0%	48	$75,000	$291,667	Heavy
3	McBride	Midland	NC	627	75.00	140	12%	10%	78%	0%	398	$63,678	$256,306	Lt to Med
4	Grand Ridge	Streator	IL	160	20.00	1	8%	87%	5%	0%	96	$70,158	$187,037	Light
5	Clarke Cnty	White Post	VA	234	20.00	70	14%	39%	46%	1%	578	$81,022	$374,453	Light
6	Simon	Social Circle	GA	237	30.00	71	1%	63%	36%	0%	203	$76,155	$269,922	Medium
7	Walker	Barhamsville	VA	485	20.00	N/A	12%	68%	20%	0%	203	$80,773	$320,076	Light
8	Innov 46	Hope Mills	NC	532	78.50	0	17%	83%	0%	0%	2,247	$58,688	$183,435	Light
9	Innov 42	Fayetteville	NC	414	71.00	0	41%	59%	0%	0%	568	$60,037	$276,347	Light
10	Demille	Lapeer	MI	160	28.40	10	10%	68%	0%	22%	2,010	$47,208	$187,214	Light
11	Turrill	Lapeer	MI	230	19.60	10	75%	59%	0%	25%	2,390	$46,839	$110,361	Light
12	Picure Rocks	Tucson	AZ	182	20.00	N/A	6%	88%	6%	0%	102	$81,081	$280,172	Light
13	Avra Valley	Tucson	AZ	246	25.00	N/A	3%	94%	3%	0%	85	$80,997	$292,308	None
14	Sappony	Stony Crk	VA	322	20.00	N/A	2%	98%	0%	0%	74	$51,410	$155,208	None
15	Grandy	Grandy	NC	121	20.00	10	55%	24%	0%	21%	949	$50,355	$231,408	Medium
16	Barefoot Bay	Barefoot Bay	FL	504	74.50	0	11%	87%	0%	3%	2,446	$36,737	$143,320	Lt to Med
17	Miami-Dade	Miami	FL	347	74.50	0	26%	74%	0%	0%	127	$90,909	$403,571	Light
18	Spotyslvania	Paytes	VA	3,500	617.00	160	37%	52%	11%	0%	74	$120,861	$483,333	Med to Hvy
	Average			640	76.03		19%	64%	17%	4%	721	$69,501	$262,659	
	Median			335	29.20		12%	68%	2%	0%	293	$72,579	$273,135	
	High			3,500	617.00		75%	98%	94%	25%	2,446	$120,861	$483,333	
	Low			121	19.60		1%	0%	0%	0%	48	$36,737	$110,361	

The breakdown of adjoining uses, population density, median income and housing prices for these projects are very similar to those of the larger set. The matched pairs for each of these were considered earlier and support a finding of no negative impact on the adjoining home values.

I have included a breakdown of solar farms with 50 MW to 617 MW facilities adjoining.

Matched Pair Summary - @50 MW And Larger							Adj. Uses By Acreage				1 mile Radius (2010-2019 Data)			
	Name	City	State	Acres	MW	Topo Shift	Res	Ag	Ag/Res	Com/Ind	Popl.	Med. Income	Avg. Housing Unit	Veg. Buffer
1	Summit	Moyock	NC	2,034	80.00	4	4%	0%	94%	2%	382	$79,114	$281,731	Light
2	Manatee	Parrish	FL	1,180	75.00	20	2%	97%	1%	0%	48	$75,000	$291,667	Heavy
3	McBride	Midland	NC	627	75.00	140	12%	10%	78%	0%	398	$63,678	$256,306	Lt to Med
4	Innov 46	Hope Mills	NC	532	78.50	0	17%	83%	0%	0%	2,247	$58,688	$183,435	Light
5	Innov 42	Fayetteville	NC	414	71.00	0	41%	59%	0%	0%	568	$60,037	$276,347	Light
6	Barefoot Bay	Barefoot Bay	FL	504	74.50	0	11%	87%	0%	3%	2,446	$36,737	$143,320	Lt to Med
7	Miami-Dade	Miami	FL	347	74.50	0	26%	74%	0%	0%	127	$90,909	$403,571	Light
8	Spotyslvania	Paytes	VA	3,500	617.00	160	37%	52%	11%	0%	74	$120,861	$483,333	Med to Hvy
	Average			1,142	143.19		19%	58%	23%	1%	786	$73,128	$289,964	
	Median			580	75.00		15%	67%	0%	0%	390	$69,339	$279,039	
	High			3,500	617.00		41%	97%	94%	3%	2,446	$120,861	$483,333	
	Low			347	71.00		2%	0%	0%	0%	48	$36,737	$143,320	

The breakdown of adjoining uses, population density, median income and housing prices for these projects are very similar to those of the larger set. The matched pairs for each of these were considered earlier and support a finding of no negative impact on the adjoining home values.

The data for these larger solar farms is shown in the SE USA and the National data breakdowns with similar landscaping, setbacks and range of impacts that fall mostly in the +/-5% range as can be seen earlier in this report.

On the following page I show 81 projects ranging in size from 50 MW up to 1,000 MW with an average size of 111.80 MW and a median of 80 MW. The average closest distance for an adjoining home is 263 feet, while the median distance is 188 feet. The closest distance is 57 feet. The mix of adjoining uses is similar with most of the adjoining uses remaining residential or agricultural in nature. This is the list of solar farms that I have researched for possible matched pairs and not a complete list of larger solar farms in those states.

Parcel #	State	City	Name	Output (MW)	Total Acres	Used Acres	Avg. Dist to home	Closest Home	Adjoining Use by Acre			
									Res	Agri	Ag/R	Com
78	NC	Moyock	Summit/Ranchland	80	2034		674	360	4%	94%	0%	2%
133	MS	Hattiesburg	Hattiesburg	50	1129	479.6	650	315	35%	65%	0%	0%
179	SC	Ridgeland	Jasper	140	1600	1000	461	108	2%	85%	13%	0%
211	NC	Enfield	Chestnut	75	1428.1		1,429	210	4%	96%	0%	0%
222	VA	Chase City	Grasshopper	80	946.25				6%	87%	5%	1%
226	VA	Louisa	Belcher	88	1238.1			150	19%	53%	28%	0%
305	FL	Dade City	Mountain View	55	347.12		510	175	32%	39%	21%	8%
319	FL	Jasper	Hamilton	74.9	1268.9	537	3,596	240	5%	67%	28%	0%
336	FL	Parrish	Manatee	74.5	1180.4		1,079	625	2%	50%	1%	47%
337	FL	Arcadia	Citrus	74.5	640				0%	0%	100%	0%
338	FL	Port Charlotte	Babcock	74.5	422.61				0%	0%	100%	0%
353	VA	Oak Hall	Amazon East(ern sh	80	1000		645	135	8%	75%	17%	0%
364	VA	Stevensburg	Greenwood	100	2266.6	1800	788	200	8%	62%	29%	0%
368	NC	Warsaw	Warsaw	87.5	585.97	499	526	130	11%	66%	21%	3%
390	NC	Ellerbe	Innovative Solar 34	50	385.24	226	N/A	N/A	1%	99%	0%	0%
399	NC	Midland	McBride	74.9	974.59	627	1,425	140	12%	78%	9%	0%
400	FL	Mulberry	Alafia	51	420.35		490	105	7%	90%	3%	0%
406	VA	Clover	Foxhound	91	1311.8		885	185	5%	61%	17%	18%
410	FL	Trenton	Trenton	74.5	480		2,193	775	0%	26%	55%	19%
411	NC	Battleboro	Fern	100	1235.4	960.71	1,494	220	5%	76%	19%	0%
412	MD	Goldsboro	Cherrywood	202	1722.9	1073.7	429	200	10%	76%	13%	0%
434	NC	Conetoe	Conetoe	80	1389.9	910.6	1,152	120	5%	78%	17%	0%
440	FL	Debary	Debary	74.5	844.63		654	190	3%	27%	0%	70%
441	FL	Hawthorne	Horizon	74.5	684				3%	81%	16%	0%
484	VA	Newsoms	Southampton	100	3243.9		-	-	3%	78%	17%	3%
486	VA	Stuarts Draft	Augusta	125	3197.4	1147	588	165	16%	61%	16%	7%
491	NC	Misenheimer	Misenheimer 2018	80	740.2	687.2	504	130	11%	40%	22%	27%
494	VA	Shacklefords	Walnut	110	1700	1173	641	165	14%	72%	13%	1%
496	VA	Clover	Piney Creek	80	776.18	422	523	195	15%	62%	24%	0%
511	NC	Scotland Neck	American Beech	160	3255.2	1807.8	1,262	205	2%	58%	38%	3%
514	NC	Reidsville	Williamsburg	80	802.6	507	734	200	25%	12%	63%	0%
517	VA	Luray	Cape	100	566.53	461	519	110	42%	12%	46%	0%
518	VA	Emporia	Fountain Creek	80	798.3	595	862	300	6%	23%	71%	0%
525	NC	Plymouth	Macadamia	484	5578.7	4813.5	1,513	275	1%	90%	9%	0%
526	NC	Mooresboro	Broad River	50	759.8	365	419	70	29%	55%	16%	0%
555	FL	Mulberry	Durrance	74.5	463.57	324.65	438	140	3%	97%	0%	0%
560	NC	Yadkinville	Sugar	60	477	357	382	65	19%	39%	20%	22%
561	NC	Enfield	Halifax 80mw 2019	80	1007.6	1007.6	672	190	8%	73%	19%	0%
577	VA	Windsor	Windsor	85	564.1	564.1	572	160	9%	67%	24%	0%
579	VA	Paytes	Spotsylvania	500	6412	3500			9%	52%	11%	27%
582	NC	Salisbury	China Grove	65	428.66	324.26	438	85	58%	4%	38%	0%
583	NC	Walnut Cove	Lick Creek	50	1424	185.11	410	65	20%	64%	11%	5%
584	NC	Enfield	Sweetleaf	94	1956.3	1250	968	160	5%	63%	32%	0%
586	VA	Aylett	Sweet Sue	77	1262	576	1,617	680	7%	68%	25%	0%
593	NC	Windsor	Sumac	120	3360.6	1257.9	876	160	4%	90%	6%	0%
599	TN	Somerville	Yum Yum	147	4000	1500	1,862	330	3%	32%	64%	1%
602	GA	Waynesboro	White Oak	76.5	516.7	516.7	2,995	1,790	1%	34%	65%	0%
603	GA	Butler	Butler GA	103	2395.1	2395.1	1,534	255	2%	73%	23%	2%
604	GA	Butler	White Pine	101.2	505.94	505.94	1,044	100	1%	51%	48%	1%
605	GA	Metter	Live Oak	51	417.84	417.84	910	235	4%	72%	23%	0%
606	GA	Hazelhurst	Hazelhurst II	52.5	947.15	490.42	2,114	105	9%	64%	27%	0%
607	GA	Bainbridge	Decatur Parkway	80	781.5	781.5	1,123	450	2%	27%	22%	49%
608	GA	Leslie-DeSoto	Americus	1000	9661.2	4437	5,210	510	1%	63%	36%	0%
616	FL	Fort White	Fort White	74.5	570.5	457.2	828	220	12%	71%	17%	0%
621	VA	Spring Grove	Loblolly	150	2181.9	1000	1,860	110	7%	62%	31%	0%
622	VA	Scottsville	Woodridge	138	2260.9	1000	1,094	170	9%	63%	28%	0%
625	NC	Middlesex	Phobos	80	754.52	734	356	57	14%	75%	10%	0%
628	MI	Deerfield	Carroll Road	200	1694.8	1694.8	343	190	12%	86%	0%	2%
633	VA	Emporia	Brunswick	150.2	2076.4	1387.3	1,091	240	4%	85%	11%	0%
634	NC	Elkin	Partin	50	429.4	257.64	945	155	30%	25%	15%	30%

Parcel #	State	City	Name	Output (MW)	Total Acres	Used Acres	Avg. Dist to home	Closest Home	Adjoining Use by Acre Res	Agri	Ag/R	Com
638	GA	Dry Branch	Twiggs	200	2132.7	2132.7	-	-	10%	55%	35%	0%
639	NC	Hope Mills	Innovative Solar 46	78.5	531.87	531.87	423	125	17%	83%	0%	0%
640	NC	Hope Mills	Innovative Solar 42	71	413.99	413.99	375	135	41%	59%	0%	0%
645	NC	Stanley	Hornet	75	1499.5	858.4	663	110	30%	40%	23%	6%
650	NC	Grifton	Grifton 2	56	681.59	297.6	363	235	1%	99%	0%	0%
651	NC	Grifton	Buckleberry	52.1	367.67	361.67	913	180	5%	54%	41%	0%
657	KY	Greensburg	Horseshoe Bend	60	585.65	395	1,394	63	3%	36%	61%	0%
658	KY	Campbellsville	Flat Run	55	429.76	429.76	408	115	13%	52%	35%	0%
666	FL	Archer	Archer	74.9	636.94	636.94	638	200	43%	57%	0%	0%
667	FL	New Smyrna Bea	Pioneer Trail	74.5	1202.8	900	1,162	225	14%	61%	21%	4%
668	FL	Lake City	Sunshine Gateway	74.5	904.29	472	1,233	890	11%	80%	8%	0%
669	FL	Florahome	Coral Farms	74.5	666.54	580	1,614	765	19%	75%	7%	0%
672	VA	Appomattox	Spout Spring	60	881.12	673.37	836	335	16%	30%	46%	8%
676	TX	Stamford	Alamo 7	106.4	1663.1	1050	-	-	6%	83%	0%	11%
677	TX	Fort Stockton	RE Roserock	160	1738.2	1500	-	-	0%	100%	0%	0%
678	TX	Lamesa	Lamesa	102	914.5	655	921	170	4%	41%	11%	44%
679	TX	Lamesa	Ivory	50	706	570	716	460	0%	87%	2%	12%
680	TX	Uvalde	Alamo 5	95	830.35	800	925	740	1%	93%	6%	0%
684	NC	Waco	Brookcliff	50	671.03	671.03	560	150	7%	21%	15%	57%
689	AZ	Arlington	Mesquite	320.8	3774.5	2617	1,670	525	8%	92%	0%	0%
692	AZ	Tucson	Avalon	51	479.21	352	-	-	0%	100%	0%	0%
				81								
			Average	111.80	1422.4	968.4	1031	263	10%	62%	22%	6%
			Median	80.00	914.5	646.0	836	188	7%	64%	17%	0%
			High	1000.00	9661.2	4813.5	5210	1790	58%	100%	100%	70%
			Low	50.00	347.1	185.1	343	57	0%	0%	0%	0%

IX. Distance Between Homes and Panels

I have measured distances at matched pairs as close as 105 feet between panel and home to show no impact on value. This measurement goes from the closest point on the home to the closest solar panel. This is a strong indication that at this distance there is no impact on adjoining homes.

However, in tracking other approved solar farms across Kentucky, North Carolina and other states, I have found that it is common for there to be homes within 100 to 150 feet of solar panels. Given the visual barriers in the form of privacy fencing or landscaping, there is no sign of negative impact.

I have also tracked a number of locations where solar panels are between 50 and 100 feet of single-family homes. In these cases the landscaping is typically a double row of more mature evergreens at time of planting. There are many examples of solar farms with one or two homes closer than 100-feet, but most of the adjoining homes are further than that distance.

X. Topography

As shown on the summary charts for the solar farms, I have been identifying the topographic shifts across the solar farms considered. Differences in topography can impact visibility of the panels, though typically this results in distant views of panels as opposed to up close views. The topography noted for solar farms showing no impact on adjoining home values range from as much as 160-foot shifts across the project. Given that appearance is the only factor of concern and that distance plus landscape buffering typically addresses up close views, this leaves a number of potentially distant views of panels. I specifically note that in Crittenden in KY there are distant views of panels from the adjoining homes that showed no impact on value.

General rolling terrain with some distant solar panel views are showing no impact on adjoining property value.

XI. Potential Impacts During Construction

I have previously been asked by the Kentucky Siting Board about potential impacts during construction. This is not a typical question I get as any development of a site will have a certain amount of construction, whether it is for a commercial agricultural use such as large-scale poultry operations or a new residential subdivision. Construction will be temporary and consistent with other development uses of the land and in fact dust from the construction will likely be less than most other construction projects given the minimal grading. I would not anticipate any impacts on property value due to construction on the site.

I note that in the matched pairs that I have included there have been a number of home sales that happened after a solar farm was approved but before the solar farm was built showing no impact on property value. Therefore the anticipated construction had no impact as shown by that data.

XII. Scope of Research

I have researched over 800 solar farms and sites on which solar farms are existing and proposed in Kentucky, Illinois, Tennessee, North Carolina, Virginia as well as other states to determine what uses are typically found in proximity with a solar farm. The data I have collected and provide in this report strongly supports the assertion that solar farms are having no negative consequences on adjoining agricultural and residential values.

Beyond these references, I have quantified the adjoining uses for a number of solar farm comparables to derive a breakdown of the adjoining uses for each solar farm. The chart below shows the breakdown of adjoining or abutting uses by total acreage.

Percentage By Adjoining Acreage

	Res	Ag	Res/AG	Comm	Ind	Avg Home	Closest Home	All Res Uses	All Comm Uses
Average	19%	53%	20%	2%	6%	887	344	91%	8%
Median	11%	56%	11%	0%	0%	708	218	100%	0%
High	100%	100%	100%	93%	98%	5,210	4,670	100%	98%
Low	0%	0%	0%	0%	0%	90	25	0%	0%

Res = Residential, Ag = Agriculture, Com = Commercial

Total Solar Farms Considered: 705

I have also included a breakdown of each solar farm by number of adjoining parcels to the solar farm rather than based on adjoining acreage. Using both factors provides a more complete picture of the neighboring properties.

Percentage By Number of Parcels Adjoining

	Res	Ag	Res/AG	Comm	Ind	Avg Home	Closest Home	All Res Uses	All Comm Uses
Average	61%	24%	9%	2%	4%	887	344	93%	6%
Median	65%	19%	5%	0%	0%	708	218	100%	0%
High	100%	100%	100%	60%	78%	5,210	4,670	105%	78%
Low	0%	0%	0%	0%	0%	90	25	0%	0%

Res = Residential, Ag = Agriculture, Com = Commercial

Total Solar Farms Considered: 705

Both of the above charts show a marked residential and agricultural adjoining use for most solar farms. Every single solar farm considered included an adjoining residential or residential/agricultural use.

XIII. Specific Factors Related To Impacts on Value

I have completed a number of Impact Studies related to a variety of uses and I have found that the most common areas for impact on adjoining values typically follow a hierarchy with descending levels of potential impact. I will discuss each of these categories and how they relate to a solar farm.

1. Hazardous material
2. Odor
3. Noise
4. Traffic
5. Stigma
6. Appearance

1. Hazardous material

A solar farm presents no potential hazardous waste byproduct as part of normal operation. Any fertilizer, weed control, vehicular traffic, or construction will be significantly less than typically applied in a residential development and even most agricultural uses.

The various solar farms that I have inspected and identified in the addenda have no known environmental impacts associated with the development and operation.

2. Odor

The various solar farms that I have inspected produced no odor.

3. Noise

Whether discussing passive fixed solar panels, or single-axis trackers, there is no negative impact associated with noise from a solar farm. The transformer reportedly has a hum similar to an HVAC that can only be heard in close proximity to this transformer and the buffers on the property are sufficient to make emitted sounds inaudible from the adjoining properties. No sound is emitted from the facility at night.

The various solar farms that I have inspected were inaudible from the roadways.

4. Traffic

The solar farm will have no onsite employee's or staff. The site requires only minimal maintenance. Relative to other potential uses of the site (such as a residential subdivision), the additional traffic generated by a solar farm use on this site is insignificant.

5. Stigma

There is no stigma associated with solar farms and solar farms and people generally respond favorably towards such a use. While an individual may express concerns about proximity to a solar farm, there is no specific stigma associated with a solar farm. Stigma generally refers to things such as adult establishments, prisons, rehabilitation facilities, and so forth.

Solar panels have no associated stigma and in smaller collections are found in yards and roofs in many residential communities. Solar farms are adjoining elementary, middle and high schools as well as churches and subdivisions. I note that one of the solar farms in this report not only adjoins a church, but is actually located on land owned by the church. Solar panels on a roof are often cited as an enhancement to the property in marketing brochures.

I see no basis for an impact from stigma due to a solar farm.

6. Appearance

I note that larger solar farms using fixed or tracking panels are a passive use of the land that is in keeping with a rural/residential area. As shown below, solar farms are comparable to larger greenhouses. This is not surprising given that a greenhouse is essentially another method for collecting passive solar energy. The greenhouse use is well received in residential/rural areas and has a similar visual impact as a solar farm.

The solar panels are all less than 15 feet high, which means that the visual impact of the solar panels will be similar in height to a typical greenhouse and lower than a single story residential dwelling. Were the subject property developed with single family housing, that development would have a much greater visual impact on the surrounding area given that a two-story home with attic could be three to four times as high as these proposed panels.

Whenever you consider the impact of a proposed project on viewshed or what the adjoining owners may see from their property it is important to distinguish whether or not they have a protected viewshed or not. Enhancements for scenic vistas are often measured when considering properties that adjoin preserved open space and parks. However, adjoining land with a preferred view today conveys no guarantee that the property will continue in the current use. Any consideration of the impact of the appearance requires a consideration of the wide variety of other uses a property already has the right to be put to, which for solar farms often includes subdivision development, agricultural business buildings such as poultry, or large greenhouses and the like.

Dr. Randall Bell, MAI, PhD, and author of the book **Real Estate Damages**, Third Edition, on Page 146 "Views of bodies of water, city lights, natural settings, parks, golf courses, and other amenities are considered desirable features, particularly for residential properties." Dr. Bell continues on Page 147 that "View amenities may or may not be protected by law or regulation. It is sometimes argued that views have value only if they are protected by a view easement, a zoning ordinance, or covenants, conditions, and restrictions (CC&Rs), although such protections are relatively

uncommon as a practical matter. The market often assigns significant value to desirable views irrespective of whether or not such views are protected by law."

Dr. Bell concludes that a view enhances adjacent property, even if the adjacent property has no legal right to that view. He then discusses a "borrowed" view where a home may enjoy a good view of vacant land or property beyond with a reasonable expectation that the view might be partly or completely obstructed upon development of the adjoining land. He follows that with "This same concept applies to potentially undesirable views of a new development when the development conforms to applicable zoning and other regulations. Arguing value diminution in such cases is difficult, since the possible development of the offending property should have been known." In other words, if there is an allowable development on the site then arguing value diminution with such a development would be difficult. This further extends to developing the site with alternative uses that are less impactful on the view than currently allowed uses.

This gets back to the point that if a property has development rights and could currently be developed in such a way that removes the viewshed such as a residential subdivision, than a less intrusive use such as a solar farm that is easily screened by landscaping would not have a greater impact on the viewshed of any perceived value adjoining properties claim for viewshed. Essentially, if there are more impactful uses currently allowed, then there is no viewshed enhancement to adjoining parcels.

7. Conclusion

On the basis of the factors described above, it is my professional opinion that the proposed solar farm will not negatively impact adjoining property values. The only category of impact of note is appearance, which is addressed through setbacks and landscaping buffers. The matched pair data supports that conclusion.

XIV. Conclusion

The matched pair analysis shows no negative impact in home values due to abutting or adjoining a solar farm as well as no impact to abutting or adjacent vacant residential or agricultural land. The proposed setbacks are further than those measured showing no impact for similar price ranges of homes and for areas with similar demographics to the subject area. The criteria that typically correlates with downward adjustments on property values such as noise, odor, and traffic all support a finding of no impact on property value.

Very similar solar farms in very similar areas have been found by hundreds of towns and counties not to have a substantial injury to abutting or adjoining properties, and many of those findings of no impact have been upheld by appellate courts. Similar solar farms have been approved adjoining agricultural uses, schools, churches, and residential developments.

I have found no difference in the mix of adjoining uses or proximity to adjoining homes based on the size of a solar farm and I have found no significant difference in the matched pair data adjoining larger solar farms versus smaller solar farms. The data in the Southeast is consistent with the larger set of data that I have nationally, as is the more specific data located in and around Kentucky.

Based on the data and analysis in this report, it is my professional opinion that the solar farm proposed at the subject property will have no negative impact on the value of adjoining or abutting property. I note that some of the positive implications of a solar farm that have been expressed by people living next to solar farms include protection from future development of residential developments or other more intrusive uses, reduced dust, odor and chemicals from former farming operations, protection from light pollution at night, it's quiet, and there is no traffic.

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Professional Experience

Kirkland Appraisals, LLC, Raleigh, N.C. — 2003 – Present
Commercial appraiser

Hester & Company, Raleigh, N.C.
Commercial appraiser — 1996 – 2003

Professional Affiliations

MAI (Member, Appraisal Institute) designation #11796 — 2001
NC State Certified General Appraiser # A4359 — 1999
VA State Certified General Appraiser # 4001017291
SC State Certified General Appraiser # 6209
FL State Certified General Appraiser # RZ3950
GA State Certified General Appraiser # 321885
MI State Certified General Appraiser # 1201076620
PA State Certified General Appraiser # GA004598
OH State Certified General Appraiser # 2021008689
IN State Certified General Appraiser # CG42100052

Education

Bachelor of Arts in English, University of North Carolina, Chapel Hill — 1993

Continuing Education

Uniform Standards of Professional Appraisal Practice Update	2022
Sexual Harassment Prevention Training	2021
Appraisal of Land Subject to Ground Leases	2021
Michigan Appraisal Law	2020
Uniform Standards of Professional Appraisal Practice Update	2020
Uniform Appraisal Standards for Federal Land Acquisitions (Yellow Book)	2019
The Cost Approach	2019
Income Approach Case Studies for Commercial Appraisers	2018
Introduction to Expert Witness Testimony for Appraisers	2018
Appraising Small Apartment Properties	2018
Florida Appraisal Laws and Regulations	2018
Uniform Standards of Professional Appraisal Practice Update	2018
Appraisal of REO and Foreclosure Properties	2017
Appraisal of Self Storage Facilities	2017
Land and Site Valuation	2017
NCDOT Appraisal Principles and Procedures	2017
Uniform Standards of Professional Appraisal Practice Update	2016
Forecasting Revenue	2015
Wind Turbine Effect on Value	2015
Supervisor/Trainee Class	2015

Business Practices and Ethics	2014
Subdivision Valuation	2014
Uniform Standards of Professional Appraisal Practice Update	2014
Introduction to Vineyard and Winery Valuation	2013
Appraising Rural Residential Properties	2012
Uniform Standards of Professional Appraisal Practice Update	2012
Supervisors/Trainees	2011
Rates and Ratios: Making sense of GIMs, OARs, and DCFs	2011
Advanced Internet Search Strategies	2011
Analyzing Distressed Real Estate	2011
Uniform Standards of Professional Appraisal Practice Update	2011
Business Practices and Ethics	2011
Appraisal Curriculum Overview (2 Days – General)	2009
Appraisal Review - General	2009
Uniform Standards of Professional Appraisal Practice Update	2008
Subdivision Valuation: A Comprehensive Guide	2008
Office Building Valuation: A Contemporary Perspective	2008
Valuation of Detrimental Conditions in Real Estate	2007
The Appraisal of Small Subdivisions	2007
Uniform Standards of Professional Appraisal Practice Update	2006
Evaluating Commercial Construction	2005
Conservation Easements	2005
Uniform Standards of Professional Appraisal Practice Update	2004
Condemnation Appraising	2004
Land Valuation Adjustment Procedures	2004
Supporting Capitalization Rates	2004
Uniform Standards of Professional Appraisal Practice, C	2002
Wells and Septic Systems and Wastewater Irrigation Systems	2002
Appraisals 2002	2002
Analyzing Commercial Lease Clauses	2002
Conservation Easements	2000
Preparation for Litigation	2000
Appraisal of Nonconforming Uses	2000
Advanced Applications	2000
Highest and Best Use and Market Analysis	1999
Advanced Sales Comparison and Cost Approaches	1999
Advanced Income Capitalization	1998
Valuation of Detrimental Conditions in Real Estate	1999
Report Writing and Valuation Analysis	1999
Property Tax Values and Appeals	1997
Uniform Standards of Professional Appraisal Practice, A & B	1997
Basic Income Capitalization	1996

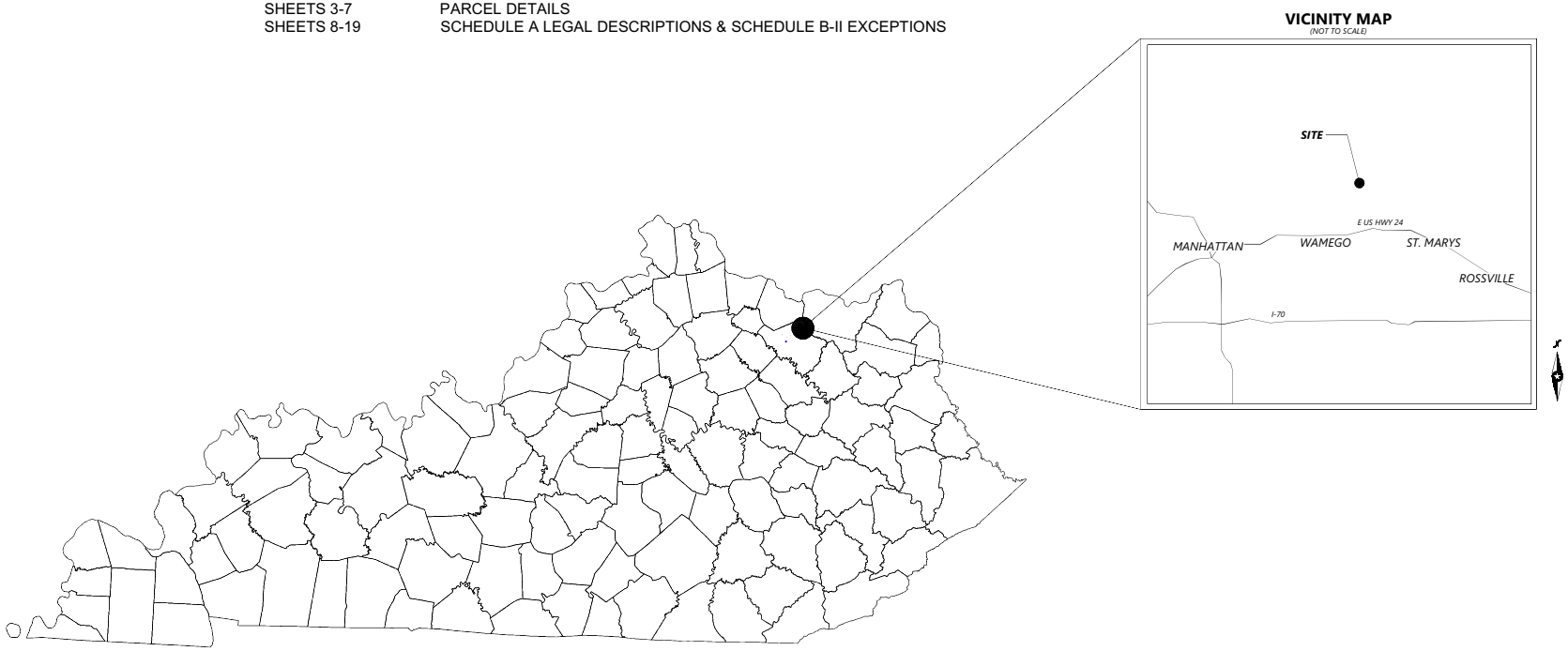
SAR Exhibit C

HUMMINGBIRD SOLAR PROJECT
PARCEL CONSTRAINTS MAP
FLEMING COUNTY, KENTUCKY

811 Know what's below. Call before you dig.

GENERAL DRAWINGS

DWG. NO.	TITLE
SHEET 1	COVER / VICINITY MAP
SHEET 2	INDEX, GENERAL NOTES (TABLE A ITEMS)
SHEETS 3-7	PARCEL DETAILS
SHEETS 8-19	SCHEDULE A LEGAL DESCRIPTIONS & SCHEDULE B-II EXCEPTIONS



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westwoodps.com
Westwood Professional Services, Inc.

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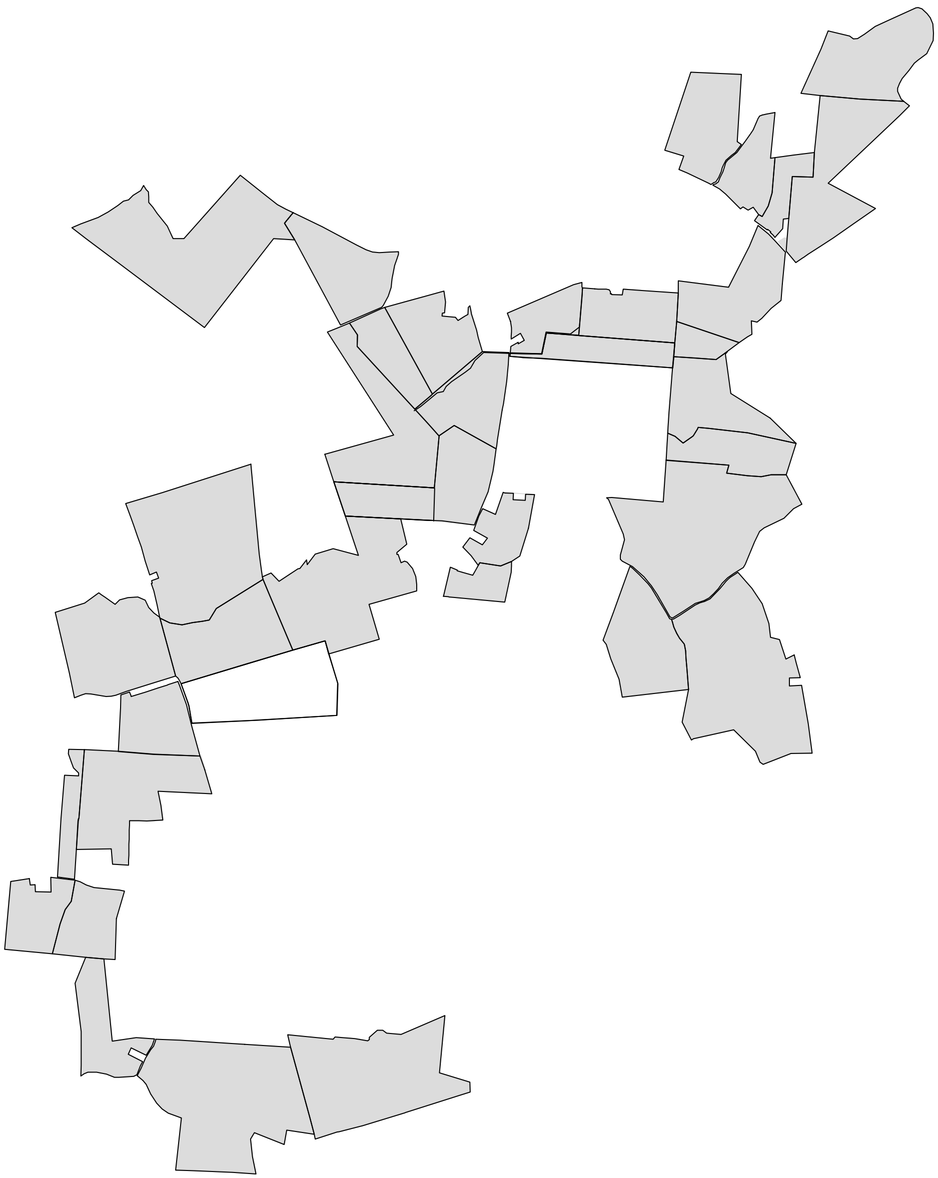
RECURRENT ENERGY
123 Mission Street, Fl 18
San Francisco, CA 94105

REVISIONS:
#	DATE	COMMENT

Hummingbird Solar Project
Fleming County, Kentucky

DATE: 04/03/2022
SHEET: 01 OF 19



GENERAL NOTES

1. THIS MAP WAS PREPARED USING TITLE FROM OLD REPUBLIC NATIONAL TITLE COMPANY COMMITMENT AND DATE NUMBERS: (COMMITMENT NO: 304387NCT-4, COMMITMENT DATE: DECEMBER 04, 2019), (COMMITMENT NO: 304387NCT-9, COMMITMENT DATE: DECEMBER 02, 2019), (COMMITMENT NO: 304387NCT-14, COMMITMENT DATE: DECEMBER 02, 2019), (COMMITMENT NO: 304387NCT-10, COMMITMENT DATE: DECEMBER 02, 2019), (COMMITMENT NO: 304387NCT-8, COMMITMENT DATE: DECEMBER 02, 2019), (COMMITMENT NO: 304387NCT-12, COMMITMENT DATE: DECEMBER 02, 2019), (COMMITMENT NO: 304387NCT-6, COMMITMENT DATE: DECEMBER 04, 2019), (COMMITMENT NO: 304387NCT-7, COMMITMENT DATE: DECEMBER 04, 2019), (COMMITMENT NO: 304387NCT-15, COMMITMENT DATE: DECEMBER 06, 2019), (COMMITMENT NO: 304387NCT-16, COMMITMENT DATE: DECEMBER 04, 2019), (COMMITMENT NO: 304387NCT-13, COMMITMENT DATE: DECEMBER 10, 2019), (COMMITMENT NO: 304387NCT-18, COMMITMENT DATE: DECEMBER 23, 2019), (COMMITMENT NO: 304387NCT-19, COMMITMENT DATE: DECEMBER 23, 2019), (COMMITMENT NO: 304387NCT-32, COMMITMENT DATE: JUNE 30, 2020), (COMMITMENT NO: 304387NCT-28, COMMITMENT DATE: JULY 1, 2020), (COMMITMENT NO: 304387NCT-20, COMMITMENT DATE: JULY 1, 2020), (COMMITMENT NO: 304387NCT-36, COMMITMENT DATE: JULY 1, 2020), (COMMITMENT NO: 304387NCT-29, COMMITMENT DATE: JULY 1, 2020), (COMMITMENT NO: 304387NCT-35, COMMITMENT DATE: JULY 1, 2020), (COMMITMENT NO: 304387NCT-22, COMMITMENT DATE: JULY 1, 2020), (COMMITMENT NO: 304387NCT-37, COMMITMENT DATE: JULY 1, 2020), (COMMITMENT NO: 304387NCT-27, COMMITMENT DATE: JULY 1, 2020), (COMMITMENT NO: 304387NCT-30, COMMITMENT DATE: JULY 1, 2020), (COMMITMENT NO: 304387NCT-25, COMMITMENT DATE: JULY 1, 2020), (COMMITMENT NO: 304387NCT-33, COMMITMENT DATE: JULY 1, 2020), (COMMITMENT NO: 304387NCT-23, COMMITMENT DATE: JULY 20, 2020), (COMMITMENT NO: 304387NCT-26, COMMITMENT DATE: JULY 1, 2020), (COMMITMENT NO: 304387NCT-39, COMMITMENT DATE: FEBRUARY 24, 2021), (COMMITMENT NO: 304387NCT-40, COMMITMENT DATE: FEBRUARY 24, 2021), (COMMITMENT NO: 304387NCT-41, COMMITMENT DATE: FEBRUARY 25, 2021), (COMMITMENT NO: 304387NCT-42, COMMITMENT DATE: MARCH 24, 2021). ALSO USING TITLE FROM FIRST AMERICAN TITLE INSURANCE COMPANY COMMITMENT NO: NCS-940046-01-CHAR, COMMITMENT DATE: JANUARY 29, 2019.
2. BEARING AND DISTANCES SHOWN HEREON ARE NSRS 2011 KENTUCKY STATE PLANE COORDINATE SYSTEM, NORTH ZONE, US SURVEY FOOT.
3. NO ADDRESSES WERE PROVIDED TO THE SURVEYOR. (TABLE A, ITEM 2).
4. SUBJECT PROPERTY APPEARS TO BE CLASSIFIED AS FOLLOWS, AS DEPICTED ON FLOOD INSURANCE RATE MAP COMMUNITY - MAP NUMBER(S) 21069C0125C DATED 05/20/2010, 21069C0150C DATED 5/20/2010, 21161C0195E DATED 05/20/2010. (TABLE A, ITEM 3)
   - 4.1. SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY 1% ANNUAL CHANCE FLOOD
     - 4.1.1. "ZONE A" - NO BASE FLOOD ELEVATION DETERMINED
5. GROSS AREA: ±148,880,385 SQ. FT., ±3,417.8 ACRES (TABLE A, ITEM 4)
6. BUILDING INFORMATION, ALL BUILDING FROM AERIAL PHOTOGRAPHY HAVE BEEN OUTLINED AND SHOWN HEREON (TABLE A, ITEM 7).
7. SUBSTANTIAL FEATURES SUCH AS ROADS, DRIVES, ACCESS, RIVERS, PONDS, OVERHEAD POWER, AND BUILDINGS HAVE BEEN DRAFTED FROM AERIAL PHOTOGRAPHY OR SOURCE FROM VIRGINIA CLEARING HOUSE, AND USGS NHD GIS DATA. NOTE: ANY GIS DATA THAT DIFFERED FROM THE AERAIL PHOTOGRAPHY WAS ADJUSTED TO MATCH AERIAL. (TABLE A, ITEM 8).
8. NO UTILITY MAPPING INFORMATION PROVIDED TO THE SURVEYOR. (TABLE A, ITEM 11).
9. AS OF THE DATE OF THIS SURVEY, THERE WAS NO INFORMATION PROVIDED TO THE SURVEYOR FOR PROPOSED CHANGES IN STREET RIGHT OF WAY LINES. ROAD IMPROVEMENTS ARE SHOWN TO BE TAKING PLACE ON THE 2019 AERIAL PHOTOGRAPHY USED TO COMPLETE THIS PROJECT (TABLE A, ITEM 17)

LIST OF POSSIBLE ENCROACHMENTS:

1. P.E. (1): OVERHEAD POWER LINES WITHOUT THE BENEFIT OF AN EASEMENT (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-28)
2. P.E. (2): OVERHEAD POWER LINES WITHOUT THE BENEFIT OF AN EASEMENT (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-33)
3. P.E. (3): OVERHEAD POWER LINES WITHOUT THE BENEFIT OF AN EASEMENT (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-42)
4. P.E. (4): DRIVEWAY EXTENDS BEYOND PROPERTY LINE (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-42)
5. P.E. (5): DRIVEWAY EXTENDS BEYOND PROPERTY LINE (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-42)
6. P.E. (6): DRIVEWAY EXTENDS BEYOND PROPERTY LINE (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-32)
7. P.E. (7): DRIVEWAY EXTENDS BEYOND PROPERTY LINE (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-16)
8. P.E. (8): DRIVEWAY EXTENDS BEYOND PROPERTY LINE (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-17)
9. P.E. (9): THREE GRAIN SILOS EXTENDS BEYOND PROPERTY LINE (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-13)
10. P.E. (10): DRIVEWAY EXTENDS BEYOND PROPERTY LINE (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-10)
11. P.E. (11): AGRICULTURAL USE EXTENDS BEYOND PROPERTY LINE (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-10)
12. P.E. (12): DRIVEWAY EXTENDS BEYOND PROPERTY LINE (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-10)
13. P.E. (13): DRIVEWAY EXTENDS BEYOND PROPERTY LINE (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-10)
14. P.E. (14): POLE BARN EXTENDS BEYOND PROPERTY LINE (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-10)
15. P.E. (15): OVERHEAD POWER LINES WITHOUT THE BENEFIT OF AN EASEMENT (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-9)
16. P.E. (16): OVERHEAD POWER LINES WITHOUT THE BENEFIT OF AN EASEMENT (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-36)
17. P.E. (17): OVERHEAD POWER LINES WITHOUT THE BENEFIT OF AN EASEMENT (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-35)
18. P.E. (18): POLE BARN EXTENDS BEYOND PROPERTY LINE (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-35)
19. P.E. (19): DRIVEWAY EXTENDS BEYOND PROPERTY LINE (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-37)
20. P.E. (20): DRIVE TO CEMETERY WITHOUT THE BENEFIT OF AN EASEMENT (SEE PARCEL - TITLE COMMITMENT NO. 304387NCT-6)

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Westwood Professional Services, Inc.

PREPARED FOR:

RECURRENT ENERGY

123 Mission Street, Fl 18
San Francisco, CA 94105

REVISIONS:

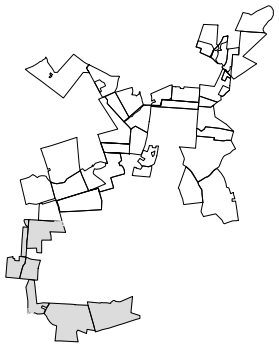
#	DATE	COMMENT

Hummingbird Solar Project

Fleming County, Kentucky

DATE: 04/03/2022

KEY MAP
(NOT TO SCALE)



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0' 500' 1000' 1500'

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LEGEND:

- BOUNDARY LINE
- EASEMENT LINE
- POH POWER OVERHEAD
- STREAM / RIVER CENTERLINE
- FEMA FLOOD ZONE 'A' HAZARD BOUNDARY
- NON-PARTICIPATING PROPERTY

Hummingbird Solar Project

Fleming County, Kentucky

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SHEET: 03 OF 19

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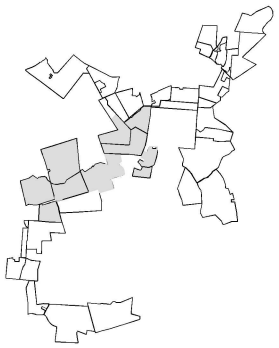

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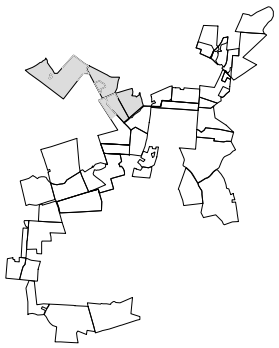

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Hummingbird Solar Project

Fleming County, Kentucky

DATE: 04/03/2022

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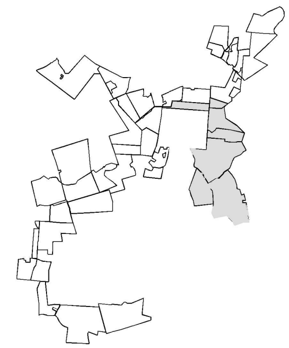

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Hummingbird Solar Project

Fleming County, Kentucky

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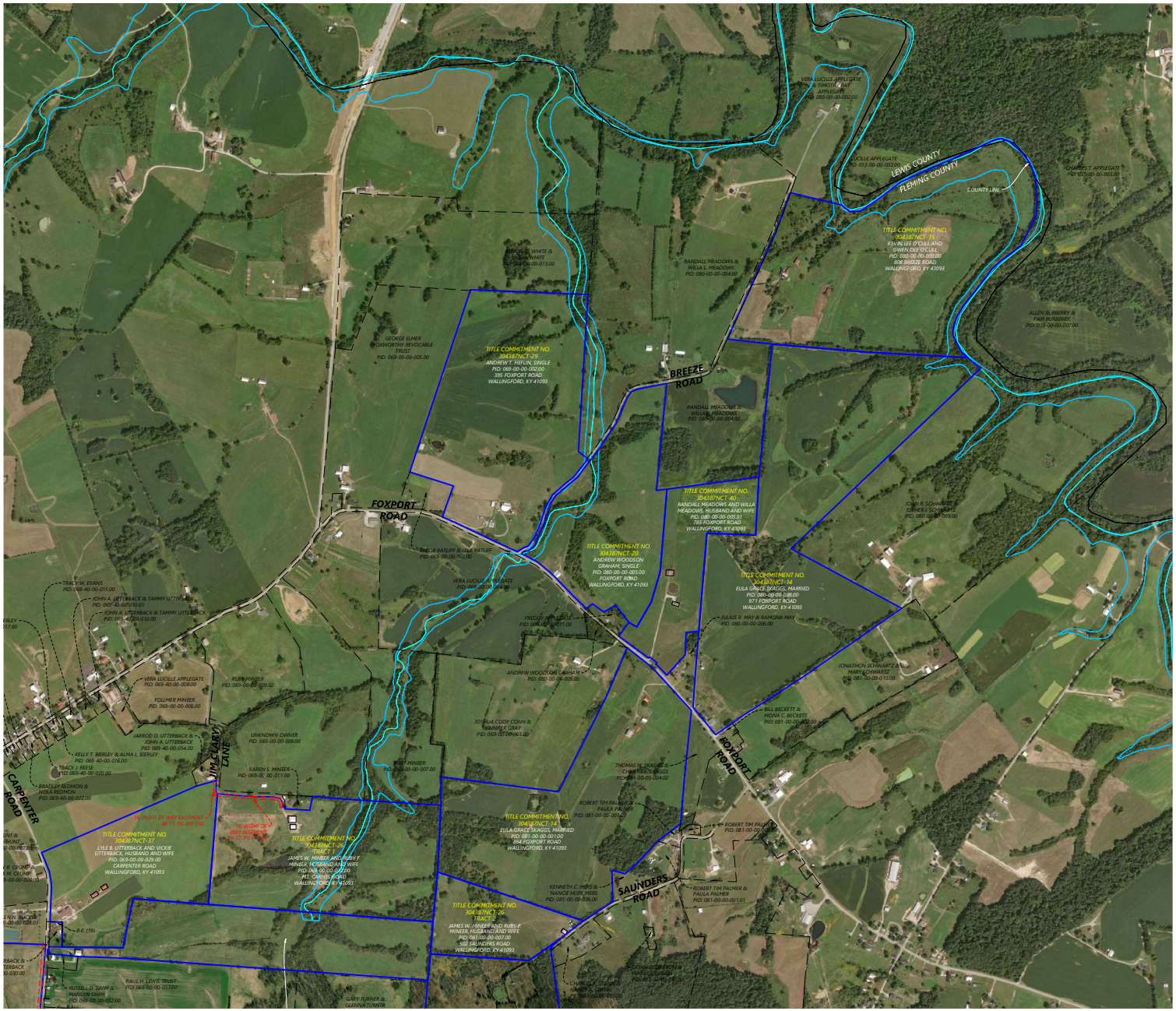

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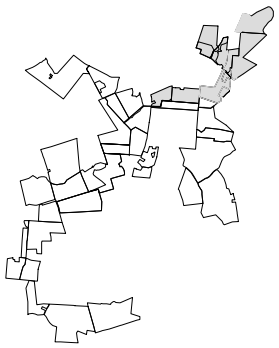

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Hummingbird Solar Project

Fleming County, Kentucky

DATE: 04/03/2022

SHEET: 07 OF 19

GENEVA EARLS

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-4, EFFECTIVE DATE: DECEMBER 4, 2019

OWNER: GENEVA EARLS, A WIDOW
TAX ID NO. 058-00-00-031.00

BEGINNING IN THE CENTER OF THE MATTOX TURNPIKE ROAD, AND CORNER TO OWEN TAYLOR; THENCE LEAVING ROAD WITH HIS LINE N 73 ½ E 3133 FEET TO A POST; CORNER TO TAYLOR IN THE ___DEBELL LAND; THENCE WITH THE DEBELL LINE N 25 ½ W 1962 FEET TO A POST, CORNER TO THE MARSHALL LAND; THENCE WITH A LINE OF SAME S 59 ¼ W 1071 FEET TO A POST; THENCE S 8 ½ E 113 FEET TO A POST; THENCE S 70 ½ W 59 FEET; S 52 W 200 FEET TO A POST; THENCE S 71 ½ W 184 FEET TO A POST; THENCE S 13 ½ W 163 FEET; S 31 W 66 FEET TO A HICKORY; THENCE S 78 ¼ W 841 FEET TO A HEDGE TREE; THENCE N 60 W 488 FEET TO A POST; THENCE S 19 W 157 FEET TO THE CENTER OF OLD ROAD; THENCE OUT SAME S 19 E 100 FEET; S 17 ¼ E 1507 FEET TO THE BEGINNING, CONTAINING 109.84 ACRES.

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
   TAX ID: 058-00-00-031.00
   DUE AND OWING: $953.99

2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)

3 DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)

4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)

5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)

6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)

7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)

8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)

ERIC CARPENTER AND AILEEN M. CARPENTER

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-9, EFFECTIVE DATE: DECEMBER 2, 2019

OWNER: ERIC CARPENTER AND AILEEN M. CARPENTER, HIS WIFE
TAX ID NO. 069-00-00-043.00

TRACT ONE:

BEGINNING AT AN OLD GATE POST IN THE OLD ABANDONED DIRT ROAD, CORNER TO MRS. TURNER AND PAD EMMONS' LINE; THENCE WITH HIS LINE S 19 E 14.30 CHS. TO A SET STONE IN SAID EMMONS' LINE;
THENCE S 86 1/2 E 49.76 CHS, TO A POINT IN THE CENTER OF THE MT. CARMEL AND BEECHBURG TURNPIKE;
THENCE DIVIDING THE PIKE ABOUT EQUALLY N 5 E 14.10 CHS. TO A POINT IN THE CENTER OF THE PIKE CORNER TO TRACT NO. 2 DESCRIBED HEREIN;
THENCE WITH A LINE OF TRACT NO. 2 S 86 5/8 W 19.88 CHS. AND CONTINUING THE SAME COURSE IN ALL 60.02 CHS. TO THE BEGINNING. CONTAINING 73 ACRES, 1 QUARTER AND 33 POLES.

TRACT TWO:

BEGINNING IN THE CENTER OF THE MT. CARMEL BEECHBURG TURNPIKE AND CORNER TO DELONG;
THENCE WITH HIS LINE N 59 W 73.12 RODS TO A SET STONE;
THENCE S 57 ½ W 29.88 RODS TO A TURN IN THE OLD DIRT ROAD;
THENCE S 5 W 79.28 RODS TO A POST AT END OF FENCE IN THE ABANDONED END OF A DIRT ROAD, CORNER TO MRS. TURNER, AND IN LINE OF TRACT ONE;
THENCE WITH TRACT ONE S 86 5/8 E 79.52 RODS TO CENTER OF PIKE;
THENCE N 13 ½ E 34.88 RODS; N 7 ½ E 31.96 RODS TO THE BEGINNING, CONTAINING 45 ACRES AND 8 POLES.

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE TRACTS DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
   TAX ID: 069-00-00-043.00
   POSTED PAID: $902.99

2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)

3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)

4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)

5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)

6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)

7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)

8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)

EULA GRACE SKAGGS

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-14, EFFECTIVE DATE: DECEMBER 2, 2019

OWNER: EULA GRACE SKAGGS, MARRIED

TRACT ONE:

BEING A 0.867 ACRE TRACT OF LAND LOCATED SOUTHEAST OF KY HWY 57 AND ON THE NORTHEAST SIDE OF KY HWY 344 (FOXPORT ROAD) IN FLEMING COUNTY, KENTUCKY AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON PIN & CAP SET NEAR THE NORTH RIGHT OF WAY OF KY HWY 344 CORNER TO ROSCOE N. MILLER DB 115 PG 162 AND CORNER TO JULIUS R. & RAMONA MAY DB 150 PG 16;
THENCE ALONG THE MAY LINE N 52-52-15 E 156.19' TO AN IRON PIN & CAP SET CORNER TO MILLER;
THENCE CONTINUING ALONG THE MAY LINE S 73-27-59 E 98.04' TO AN IRON PIN & CAP SET NEAR THE WEST SIDE OF A GRAVEL PASSWAY IN THE LINE OF GEORGE JR., & EULA P. SKAGGS DB 132 PG 40;
THENCE ALONG THE SKAGGS LINE S 07-14-45 W 303.17' TO A POINT CORNER TO MILLER AND SKAGGS AT THE NORTH RIGHT OF WAY OF KY HWY 344;
THENCE ALONG THE NORTH RIGHT OF WAY OF KY HWY 344 N 37-34-02 W (PASSING A REFERENCE IRON PIN & CAP SET AT 19.89') A TOTAL DISTANCE OF 295.68' TO THE POINT OF BEGINNING CONTAINING 0.867 ACRES ACCORDING TO THE SURVEY BY TRAVIS A. MCGLONE PLS 3919 OF BUFFALO TRACE SURVEYING LLC 5/30/2014. (FIELD SURVEY COMPLETED ON 5/16/14 WITH AN UNADJUSTED TRAVERSE CLOSURE OF 1:19,963) ALL IRON PIN & CAPS SET WERE 'A" X 18" REBAR WITH AN ORANGE PLASTIC CAP STAMPED "T. MCGLONE PLS 3919."

BEARINGS COORDINATED TO THE 'A" IRON PIN & CAPS FOUND (WRIGHT 2808) MICHAEL A. & HEATHER DAWN HUGHES DB 229 PG 187, 30.811 ACRE TRACT.

TAX ID NO.: 080-00-00-012.00

TRACT TWO:

THREE CERTAIN TRACTS OF LAND LYING AND BEING IN FLEMING COUNTY, KENTUCKY, ON THE WATERS OF TROTTERS BRANCH, NEAR MT. CARMEL, AND WHICH ARE MORE PARTICULARLY DESCRIBED AS FOLLOWS:

FIRST TRACT:
ADJOINING ELIZABETH ADAMS LANDS ON THE WEST AND SOUTH; BOUNDED ON THE EAST BY OAK STUMP BEING CORNER N.A. GLASCOCK AND J.P. LUKINS LAND ON THE NORTH BY DIRT ROAD CONTAINING TWO ACRES, MORE OR LESS.

SECOND TRACT:
ALSO ANOTHER TRACT OF LAND LYING IN FLEMING COUNTY, KENTUCKY, SITUATED ABOUT ONE MILE SOUTHEAST OF THE TOWN OF MT. CARMEL AND BOUNDED AS FOLLOWS, TO-WIT:

BEGINNING AT A STAKE CORNER TO L.D. TOLLE;
THENCE EAST 46 POLES TO A STAKE;
THENCE SOUTH 1 POLE TO A STAKE;
THENCE EAST 31 POLES TO A STAKE ONE POLE SOUTH WEST OF THE WIDOW POWER'S CORNER;
THENCE 1 POLE SOUTH 11 EAST PARALLEL WITH THEIR LINE 60 SOUTH POLES TO A RED OAK AND WHITE OAK;
THENCE EAST 27 POLES TO A STAKE;
THENCE SOUTH 7 ½ EAST 14 POLES TO A STAKE;
THENCE SOUTH 54 WEST 22 POLES TO A STAKE;
THENCE NORTH 74 ½ POLES WEST 102 POLES TO A STAKE IN G. CLARY'S LINE;
THENCE NORTH 60 POLES TO THE BEGINNING, CONTAINING 41 ACRES, 2 ROODS AND 38 POLES, MORE OR LESS.

THIRD TRACT:
ALSO ANOTHER TRACT OR PARCEL OF LAND LYING AND BEING IN THE COUNTY AND STATE AFORESAID AND BOUNDED AND DESCRIBED AS FOLLOWS, TO-WIT:

BEGINNING AT A SET STONE ON THE MT. CARMEL AND ESCALAPIA AND KINNICONICK TURNPIKE ABOUT 73 FEET SOUTH EAST FROM A WHITE LOCUST THE CORNER OF JOHN DAVIS IN J.S. WALLINGFORD'S LINE AND ACROSS THE TURNPIKE AND RUNNING NEARLY SOUTH TO A SET STONE IN THE LINE OF MARY L. LUKINS AND J.W. MILLER CORNER AND THENCE ALONG THE OLD ROAD TO J.S. WALLINGFORD'S LINE AND RUNNING ALONG WITH SAID WALLINGFORD'S LINE AND THE LINE OF THE MULCHEY LAND TO THE MT. CARMEL, ESCALAPIA AND KINNICONICK TURNPIKE AND WITH SAID TURNPIKE TO THE BEGINNING, CONTAINING 50 ACRES, MORE OR LESS.

THERE IS EXCEPTED AND NOT CONVEYED HEREBY THAT CERTAIN RIGHT OF PASSWAY RESERVED FOR TRAVELING AND HAULING OVER SAID LAND ON A STRIP NOT TO EXCEED 15 FEET WIDE RUNNING ALONG THE TRAVELED ROAD OR PORTION OVER WHICH IS ACCUSTOMED TO GO NEAREST THE LINE OF JOS. LIKINS.

AND EXCEPTING THEREFROM A CERTAIN TRACT OF LAND CONTAINING 3.527 ACRES AND MORE PARTICULARLY DESCRIBED ON THE PLAT OF SURVEY PERFORMED BY ROY A. WRIGHT ON DECEMBER 15, 2002.

BEING A PART OF THE SAME REAL ESTATE IN WHICH AN UNDIVIDED ONE-THIRD (1/3) INTEREST WAS CONVEYED TO JUNIOR SKAGGS, MARRIED, BY DEED FROM CYNTHIA SKAGGS, WIDOW, DATED THE 7TH DAY OF MAY, 1991, AND OF RECORD IN D.B. 171, PAGE 683; AND THE SAID JUNIOR SKAGGS HAVING ACQUIRED THE REMAINING UNDIVIDED TWO-THIRDS (2/3) INTEREST IN THE ABOVE-DESCRIBED PROPERTY BY DEED FROM MATTIE LANCASTER, ET ALS, DATED THE 7TH DAY OF MAY, 1991, AND OF RECORD IN D.B. 171, PAGE 686. ALSO BEING A PART OF THE SAME REAL ESTATE CONVEYED JUNIOR SKAGGS AND EULA SKAGGS, HUSBAND AND WIFE, JOINTLY AND EQUALLY FOR LIFE WITH REMAINDER IN FEE SIMPLE TO THE SURVIVOR OF THEM BY STRAW DEED FROM TOM MACDONALD, ET UX, DATED THE 7TH DAY OF MAY, 1991, AND OF RECORD IN D.B. 171, PAGE 689. JUNIOR SKAGGS DIED TESTATE ON OR ABOUT THE 16TH DAY OF JUNE, 2002 LEAVING EULA SKAGGS THE SOLE OWNER OF THE HEREIN DESCRIBED PROPERTY PURSUANT TO THE SURVIVORSHIP CLAUSE IN SAID DEED. ALL CITATIONS TO THE OFFICE OF THE FLEMING COUNTY CLERK.

ALSO EXCEPTING THEREFROM, A CERTAIN TRIANGULAR-SHAPED TRACT OF LAND LOCATED IN FLEMING COUNTY, KENTUCKY, ON THE SAUNDERS ROAD, AND WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN OAK TREE IN THE RIGHT-OF-WAY OF SAUNDERS ROAD, AND CORNER OF LANDS RETAINED BY SKAGGS;
THENCE ALONG THE LINE OF SKAGGS IN A GENERAL SOUTHEASTERLY DIRECTION FOR A DISTANCE OF 241.0 FT. TO A STEEL POST; THENCE CONTINUING ALONG THE LINE OF SAID SKAGGS IN A GENERAL NORTHWESTERLY DIRECTION A DISTANCE OF 330.0 FT TO AN OAK TREE CORNER OF LANDS OWNED BY VIRGINIA HATFIELD;
THENCE TURNING ALONG THE LINE OF SAID HATFIELD, AND THEN ROBERT PALMER, FOR A DISTANCE OF 182.0 FT. TO A CORNER POST IN THE RIGHT-OF-WAY OF SAUNDERS ROAD;
THENCE FOLLOWING THE RIGHT-OF-WAY OF SAUNDERS ROAD A DISTANCE OF 122.0 FT. TO THE POINT OF BEGINNING, AND SUPPOSED TO CONTAIN APPROXIMATELY 1.002 ACRES, MORE OR LESS.

TAX ID NO.: 081-00-00-001.00

TRACT THREE AND FOUR:

FIRST TRACT:

THE FOLLOWING PARCEL OF LAND, LYING ON THE WATERS OF NORTH FORK OF LICKING RIVER IN FLEMING COUNTY, KENTUCKY.

BEGINNING AT A SET STONE IN THE COUNTY ROAD AT JAMES WILLIAMS CORNER;
THENCE S WITH HIS LINE J. S. WALLINGFORD TO A CORNER OF THE LAND BELONGING TO JOHN CASSIDY;
THENCE WITH SAID LINE TO THE LINE OF WILLIAM HARNE'S;
THENCE WITH SAID HARNE'S LINE TO THE NORTH FORK CREEK;
THENCE DOWN SAID CREEK TO THE COUNTY ROAD;
THENCE DOWN SAID COUNTY ROAD TO THE BEGINNING, CONTAINING 69 ACRES, MORE OR LESS.

SECOND TRACT:

BEGINNING AT A CORNER OF THE LINE OF A. MCADOWS'S LINE;
THENCE S WITH LINE OF LAWSON'S POWER TO COUNTY ROAD;
THENCE WITH COUNTY ROAD TO MCADOW'S LINE;
THENCE WITH HIS LINE TO THE BEGINNING, CONTAINING 10 ACRES, MORE OR LESS.

TAX ID NO.: 081-40-00-001.00

TRACT FOUR:

A CERTAIN TRACT OR PARCEL OF LAND LOCATED ON THE MT. CARMEL-FOXPORT ROAD IN FLEMING COUNTY, KENTUCKY, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING IN THE CENTER OF THE MT. CARMEL-FOXPORT ROAD AND CENTER OF A PASSWAY, CORNER TO THE LANDS OF P. E. MILLION;
THENCE WITH HIS LINE N 56 ½ DEGREES E 150.16 RODS;
THENCE N 62 ¼ DEGREES W 80 RODS;
THENCE N 68 DEGREES W 26 RODS TO A GATEPOST AT A PASSWAY;
THENCE OUT SAID PASSWAY, WITH ITS APPROXIMATE CENTER, N 87 DEGREES W 33.04 RODS AND S 6 ¼ DEGREES W 117.64 RODS TO CENTER OF ABOVE NAMES ROAD;
THENCE UP SAID ROAD S 41 DEGREES E 22 RODS TO THE PLACE OF BEGINNING, CONTAINING 63.45 ACRES, MORE OR LESS, ACCORDING TO SURVEY OF MAY 5, 1949, BY C. H. EVANS, SURVEYOR, FLEMINGBURG, KENTUCKY.

TAX ID NO.: 080-00-00-008.00

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE TRACTS DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)

   PERMANENT PARCEL NUMBER: 080-00-00-012.00
   POSTED PAID: $49.89

   PERMANENT PARCEL NUMBER: 081-00-00-001.00
   POSTED PAID: $957.85

   PERMANENT PARCEL NUMBER: 081-40-00-001.00
   POSTED PAID: $149.91

   PERMANENT PARCEL NUMBER: 080-00-00-008.00
   POSTED PAID: $640.57

2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)

3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)

4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)

5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)

6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)

7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)

8. REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)

9. RESERVATION OF RIGHT OF PASSWAY FOR TRAVELING AND HAULING, AS DESCRIBED IN, DEED DATED FEBRUARY 11, 1948, GRANTED BY H. C. CARPENTER AND GERTRUDE CARPENTER, HUSBAND AND WIFE TO GEORGE SKAGGS AND CYNTHIA SKAGGS, JOINTLY AND EQUALLY, RECORDED MARCH 3, 1948 IN BOOK 105, PAGE 194, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY. (BLANKET IN NATURE, NOT PLOTTABLE)

JIMMY D. KEGLEY AND GERALDINE V. KEGELY

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-10, EFFECTIVE DATE: DECEMBER 2, 2019

OWNER: JIMMY D. KEGLEY AND GERALDINE V. KEGLEY, HUSBAND AND WIFE
TAX ID NO. 069-00-00-047.00

A CERTAIN TRACT OF LAND FRONTING ON COUNTY ROAD NO. 1027, THE MT. CARMEL BEECHBURG ROAD AND COUNTY ROAD NO. 1023, THE BLACK DIAMOND ROAD AND ALSO LYING UPON THE WATERS OF FLEMING CREEK IN FLEMING COUNTY, KENTUCKY AND MORE SPECIFICALLY DESCRIBED AS FOLLOWS:

BEGINNING AT A P.K. NAIL (SET) IN THE CENTER OF THE EXISTING BRIDGE OVER FLEMING CREEK ON THE MT. CARMEL-BEECHBURG ROAD, SAID POINT BEING THE NORTHWEST CORNER OF TRACT NO. 2;
THENCE ALONG THE CENTER OF SAID ROAD FOR THE FOLLOWING TEN (10) CALLS;BK 219 PG 622
(1)NORTH 44 DEG. 10 MIN. 08 SEC. EAST, 100.02 FT. TO A NAIL (SET);
(2)THENCE NORTH 41 DEG. 22 MIN. 13 SEC. EAST, 99.98 FT. TO A NAIL (SET);
(3)THENCE NORTH 39 DEG. 40 MIN. 45 SEC. EAST 100.00 FT TO A NAIL (SET);
(4)THENCE NORTH 37 DEG. 01 MIN. 31 SEC. EAST 49.95 FT. TO A NAIL (SET);
(5)THENCE NORTH 34 DEG. 16 MIN. 32 SEC. EAST 50.00 FT. TO A NAIL (SET);
(6)THENCE NORTH 26 DEG. 33 MIN. 55 SEC. EAST 49.95 FT. TO A NAIL (SET);
(7)THENCE NORTH 22 DEG. 50 MIN. 34 SEC. EAST 246.41 FT. TO A NAIL (SET);
(8)THENCE NORTH 25 DEG. 55 MIN. 00 SEC. EAST, 69.99 FT. TO A NAIL (SET);
(9)THENCE NORTH 26 DEG. 42 MIN. 59 SEC. EAST, 69.99 FT. TO A NAIL (SET);
(10)THENCE NORTH 28 DEG. 56 MIN. 44 SEC. EAST, 250.39 FT. TO A .35 INCH X 2.9 INCH STEEL NAIL MARKER (SET), SAID POINT BEING THE SOUTHWEST CORNER OF TRACT NO. 4;
THENCE WITH THE LINE OF TRACT NO. 4 AND ALONG THE EXISTING FENCE FOR THE FOLLOWING TWO (2) CALLS;

(1)SOUTH 62 DEG. 38 MIN. 15 SEC. EAST, 197.13 FT. TO A ½ INCH REBAR (SET);
(2)THENCE NORTH 21 DEG. 42 MIN. 35 SEC. EAST, 214.55 FT, TO A CORNER POST, SAID POINT BEING SOUTHEAST CORNER OF ELWOOD H. KEGLEY AND BARBARA KEGLEY (D.B. 162,P. 412);
THENCE ALONG THE LINE OF ELWOOD H. KEGLEY AND BARBARA KEGLEY FOR THE FOLLOWING TWO (2) CALLS:

(1)NORTH 20 DEG. 19 MIN. 55 SEC. EAST, 125.71 FT. TO A ½ INCH REBAR (SET);
(2)THENCE NORTH 14 DEG. 11 MIN. 37 SEC. EAST, 183.41 FT. TO A .35 INCH X 2.9 INCH STEEL NAIL MARKER (SET) IN THE CENTER OF THE BLACK DIAMOND ROAD;
THENCE ALONG THE CENTER OF BLACK DIAMOND ROAD FOR THE FOLLOWING TWO (2) CALLS:

(1)SOUTH 82 DEG. 13 MIN. 30 SEC. EAST, 381.87 FT. TO A NAIL (SET);
(2)THENCE SOUTH 83 DEG. 17 MIN. 20 SEC. EAST, 135.74 FT. TO A .35 INCH X 2.9 INCH STEEL NAIL MARKER (SET), SAID POINT BEING THE NORTHWEST CORNER OF JIMMIE KEGLEY AND GERALDINE KEGLEY (D.B. 159, P. 317);
THENCE WITH THE LINE OF JIMMIE AND GERALDINE KEGLEY FOR THE FOLLOWING THREE (3) CALLS:

(1)SOUTH 7 DEG. 00 MIN. 22 SEC. WEST, 150.00 FT. TO A POINT;
(2)THENCE SOUTH 82 DEG. 59 MIN. 38 SEC. EAST, 200.00 FT. TO A POINT;
(3)THENCE NORTH 7 DEG. 00 MIN. 22 SEC. EAST, 150.00 FT. TO A POINT IN THE CENTER OF SAID ROAD;
THENCE CONTINUING ALONG THE CENTER OF BLACK DIAMOND ROAD FOR THE FOLLOWING FOUR (4) CALLS;

(1)SOUTH 82 DEG. 59 MIN. 38 SEC. EAST, 92.52 FT. TO A .35 INCH X 2.9 INCH STEEL NAIL MARKER;
(2)THENCE SOUTH 82 DEG. 54 MIN. 20 SEC. EAST, 476.64 FT. TO A NAIL (SET);
(3)THENCE SOUTH 82 DEG. 12 MIN. 33 SEC. EAST, 439.39 FT. A NAIL (SET);
(4)THENCE SOUTH 81 DEG. 28 MIN. 51 SEC. EAST, 296.27 FT. TO A .35 INCH X 2.9 INCH STEEL NAIL MARKER (SET), SAID POINT BEING THE NORTHWEST CORNER OF TRACT NO. 5;

Westwood
Phone (720) 531-8350 10170 Church Ranch Way, Suite #201
Toll Free (888) 937-5150 Westminster, CO 80021
westwoodps.com
Westwood Professional Services, Inc.

PREPARED FOR:
RECURRENT ENERGY
123 Mission Street, Fl 18
San Francisco, CA 94105

REVISIONS:
DATE COMMENT

Hummingbird Solar Project

Fleming County, Kentucky

DATE: 04/03/2022

JIMMY D. KEGLEY AND GERALDINE V. KEGLEY (CONTINUED)

THENCE WITH THE LINE OF TRACT NO. 5 AND ALONG THE EXISTING FENCE FOR THE FOLLOWING EIGHT (8) CALLS:

(1)SOUTH 0 DEG. 07 MIN. 59 SEC. WEST, 163.26 FT. TO A POST;
(2)THENCE SOUTH 1 DEG. 14 MIN. 49 SEC. EAST, 35.54 FT. TO A POST;
(3)THENCE SOUTH 1 DEG. 26 MIN. 08 SEC. WEST, 75.47 FT. TO A POST;
(4)THENCE SOUTH 0 DEG. 29 MIN. 36 SEC. WEST, 350.28 FT. TO A POST;
(5)THENCE SOUTH 3 DEG. 30 MIN. 03 SEC. WEST, 151.24 FT. TO A POST;
(6)THENCE SOUTH 3 DEG. 46 MIN. 27 SEC. WEST, 253.26 FT. TO A POST;
(7)THENCE SOUTH 3 DEG. 39 MIN. 37 SEC. WEST, 249.92 FT. TO A POST;
(8)THENCE SOUTH 4 DEG. 21 MIN. 02 SEC. WEST, 446.79 FT. TO A CORNER/GATE POST, SAID POINT A CORNER TO TRACT NO. 6;
THENCE WITH THE LINE OF TRACT NO. 6 AND ALONG THE EXISTING FENCE FOR THE FOLLOWING FIVE (5) CALLS;

(1)SOUTH 83 DEG. 08 MIN. 30 SEC. WEST, 543.85 FT. TO A POST;
(2)THENCE SOUTH 87 DEG. 30 MIN. 53 SEC. WEST, 55.13 FT. TO A POST;
(3)THENCE SOUTH 83 DEG. 13 MIN. 38 SEC. WEST, 48.62 FT. TO A POST;
(4)THENCE NORTH 79 DEG. 36 MIN. 37 SEC. WEST, 28.77 FT. TO A POST ON THE EAST SIDE OF FLEMING CREEK;
(5)THENCE CROSSING FLEMING CREEK SOUTH 81 DEG. 54 MIN. 38 SEC. WEST, 50.93 FT. TO A POST, SAID POINT A CORNER TO TRACT NO. 1;
THENCE WITH THE LINE OF TRACT NO. 1 AND ALONG THE EXISTING FENCE FOR THE FOLLOWING ELEVEN (11) CALLS;

(1)SOUTH 88 DEG. 29 MIN. 33 SEC. WEST, 381.56 FT. TO A POST;
(2)THENCE SOUTH 87 DEG. 46 MIN. 48 SEC. WEST, 438.41 FT. TO A POST;
(3)THENCE SOUTH 83 DEG. 08 MIN. 46 SEC. WEST, 113.21 FT. TO A CORNER/GATE POST;
(4)THENCE NORTH 6 DEG. 37 MIN. 15 SEC. EAST, 159.07 FT. TO A POST ON THE SOUTH SIDE OF FLEMING CREEK;
(5)THENCE CROSSING FLEMING CREEK NORTH 4 DEG. 08 MIN. 22 SEC. EAST, 117.51 FT. TO A ½ INCH REBAR (SET);
(6)THENCE SOUTH 74 DEG. 09 MIN. 10 SEC. WEST, 179.84 FT. TO A POST;
(7)THENCE SOUTH 65 DEG. 33 MIN. 48 SEC. WEST, 175.27 FT. TO A POST;
(8)THENCE NORTH 74 DEG. 25 MIN. 35 SEC. WEST, 44.26 FT. TO A POST;
(9)THENCE NORTH 77 DEG. 41 MIN. 36 SEC. WEST, 128.52 FT. TO A POST;
(10)THENCE NORTH 68 DEG. 14 MIN. 02 SEC. WEST, 113.20 FT. TO A POST;
(11)THENCE NORTH 70 DEG. 10 MIN. 12 SEC. WEST, 215.86' TO A ½ INCH REBAR (SET);
THENCE LEAVING SAID FENCE SOUTH 36 DEG. 43 IN. 49 SEC. WEST, 54.67 FT. TO THE CENTER OF FLEMING CREEK, SAID POINT BEING THE NORTHEAST CORNER OF TRACT NO. 2;
THENCE WITH THE LINE OF TRACT NO. 2 AND GENERALLY ALONG THE CENTER OF FLEMING CREEK FOR THE FOLLOWING THREE (3) CALLS

(1)NORTH 40 DEG. 46 MIN. 09 SEC. WEST, 59.19 FT. TO A POINT AT THE WATER GAP;
(2)THENCE NORTH 27 DEG. 02 MIN. 59 SEC. WEST, 237.35 FT. TO A POINT;
(3)THENCE NORTH 39 DEG. 19 MIN. 31 SEC. WEST, 333.53 FT. TO A POINT OF BEGINNING; CONTAINING 107.3330 ACRES

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
   TAX ID: 069-00-00-047.00
   POSTED PAID: $645.57
2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)
3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)
4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)
5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)
6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)
7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)
8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)
9. EASEMENT DATED FEBRUARY 20, 1976, GRANTED BY ELWOOD KEGLEY AND GEORGIA KEGLEY TO EAST KENTUCKY POWER COOPERATIVE, INC., RECORDED AUGUST 21, 1976 IN BOOK 12, PAGE 389, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY. (SHOWN HEREON)

MARY LOU STEPHENS

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-8, EFFECTIVE DATE: DECEMBER 2, 2019

OWNER:MARY LOU STEPHENS, A WIDOW
TAX ID NO. 057-00-00-009.00

TRACT ONE:

A CERTAIN PARCEL OR TRACT OF LAND LYING ON SITUATED APPROXIMATELY 0.07 MILE SOUTHWEST OF COUNTY ROAD NO. 1041, THE MT. GILEAD ROAD, LOCATED APPROXIMATELY 1.5 MILE WEST OF MT. CARMEL, FLEMING COUNTY, KENTUCKY AND MORE SPECIFICALLY DESCRIBED AS FOLLOWS:

BEGINNING AT A ½ INCH REBAR AND CAP (SET) AT THE EXISTING COMMON CORNER OF LARRY MICHAEL COFFEY (D.B. 182, PAGE 135) AND ELMER FOXWORTHY, ET UX, THE PARENT TRACT (D.B. 181, PAGE 545), SAID POINT BEING IN THE LINE OF OWEN STEPHENS, JR., ET UX, (D.B. 133, PAGE 560),
THENCE WITH THE LINE OF COFFEY SOUTH 29 DEG. 27 MIN. 55 SEC. EAST, 492.87 FEET TO A ½ INCH REBAR AND CAP (SET) AT THE BASE OF A CORNER POST, SAID POINT A NEW CORNER TO THE PARENT TRACT;
THENCE WITH A NEW DIVISION LINE OF THE SAME NORTH 84 DEG. 16 MIN. 41 SEC. WEST, 543.39 FEET TO A ½ INCH REBAR AND CAP (SET) AT THE BASE.

TRACT TWO:

THAT CERTAIN FARM PROPERTY LOCATED ON THE SOUTH SIDE OF KENTUCKY #24 ABOUT 1 ½ MILES WEST OF MT. CARMEL, KENTUCKY AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING IN CENTER OF HIGHWAY #24, CORNER TO P.U. DOYLE;
THENCE OUT CENTER OF HWY. #24 N. 63 DEG. 50 MIN. W. 345.5 FT.;
THENCE N. 56 DEG. 00 MIN. W. 151.5 FT.;
THENCE N. 51 DEG. 13 MIN. W. 1199.1 FT. TO CORNER TO R. W. HAVENS;
THENCE LEAVING HIGHWAY WITH HIS LINE S. 42 DEG. 00 MIN. W. 2127.5 FT, TO POST;
THENCE S. 83 DEG. 04 MIN. W. 182.0 FT. TO POST;
THENCE N. 35 DEG. 51 MIN. W. 932.0 FT. TO POST;
THENCE N. 23 DEG. 38 MIN. W. 623.0 FT, TO POST;
THENCE N. 27 DEG. 16 MIN. W. 29.0 FT. TO POST CORNER TO THOMAS BIERLEY (DIVISION LINE OF FARM);
THENCE WITH HIS LINE S. 59 DEG. 10 MIN. W. 1393.0 FT. TO STAKE;
THENCE S. 64 DEG. 50 MIN. W. 768.0 FT. TO POST CORNER TO J. R. GLASCOCK;
THENCE WITH HIS LINE S. 51 DEG. 45 MIN. E. 4238.0 FT. TO POST CORNER AT INTERSECTION OF FARM ROAD LEADING TO HIGHWAY #57, (FARM ROAD CONTINUES S. 51 DEG. 45 MIN. E. 1665 FT. TO HWY. #57 AND IS 16.5 FT. WIDE);
THENCE CROSSING ROAD AT FARM INTERSECTION N. 38 DEG. 35 MIN. E. 16.5 FT. TO POST CORNER TO MRS. LILLIE LYONS;
THENCE WITH HER LINE N. 38 DEG. 35 MIN. E. 3302.5 FT. TO POST CORNER TO P. U. DOYLE
THENCE WITH HIS LINE (SAME BEARING N. 38 DEG. 35 MIN. E.) 383.0 FT. TO CENTER OF HIGHWAY #24, THE BEGINNING, CONTAINING 224.13 ACRES.

LESS AND EXCEPT A CERTAIN PARCEL OR TRACT OF REAL ESTATE CONVEYED TO ELMER FOXWORTHY AND CAROL FOXWORTHY, HUSBAND AND WIFE BY DEED RECORDED APRIL 27, 2005 IN VOLUME 222, PAGE 520, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A CERTAIN FARM ROAD COMMENCING WITH OTHER PROPERTY OF OWEN STEPHENS, JR., ET UX, AND CONTINUING WITH A BEARING OF S 51 DEG. 45 MIN. E A DISTANCE OF 1665 FEET TO THE RIGHT OF WAY OF HIGHWAY 57 AND BEING A WIDTH OF 16.5 FEET AND CONTAINING APPROXIMATELY 0.63 ACRE.

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE TRACTS DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
   TAX ID: 057-00-00-009.00
   POSTED DUE: $2114.66
2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)
3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)
4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)
5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)
6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)
7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)
8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)

THOMAS M. SKAGGS

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-12, EFFECTIVE DATE: DECEMBER 2, 2019

OWNER:THOMAS M. SKAGGS, A SINGLE MAN
TAX ID NO. 069-00-00-022.00

THREE CONTIGUOUS TRACTS OF LAND LOCATED ON THE SOUTHEAST SIDE OF KENTUCKY HIGHWAY NO. 57, APPROXIMATELY .7 MILE SOUTHWEST OF MT. CARMEL AND 6.3 MILES NORTHEAST OF FLEMINGBURG IN FLEMING COUNTY, KENTUCKY, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS, TO WIT:

TRACT ONE:

BEGINNING AT A SET STONE IN THE LINE OF DEBELL FARM (FORMERLY W. P. EMMONS);
THENCE WITH A LINE OF SAME SOUTH 18 ¾ DEGREES EAST 66 POLES TO A STAKE, CORNER TO MARSHALL;
THENCE WITH HIS LINE SOUTH 87 DEGREES EAST 155 ¼ POLES TO A STAKE CORNER TO SAME;
THENCE WITH ANOTHER LINE OF SAME NORTH 4 ½ DEGREES EAST 62 POLES TO A SET STONE CORNER TO TRACT NUMBER TWO;
THENCE WITH A LINE OF SAME AND PASSING AT 57.1 POLES TO A SET STONE CORNER TO DOWER;
THENCE WITH SAME NORTH 87 DEGREES WEST IN ALL 180.6 POLES TO THE BEGINNING, CONTAINING 65 ACRES, MORE OR LESS.

TRACT TWO:

BEGINNING AT A SET STONE IN THE CENTER OF THE HIGHWAY OPPOSITE A LOCUST ON THE SOUTH SIDE OF THE ROAD AND OUTSIDE OF THE FENCE MARKED AS A CORNER TO DOWER;
THENCE WITH THE LINE OF SAME SOUTH 27 ¾ DEGREES EAST 28 ¼ POLES TO A SET STONE;
THENCE SOUTH 68 DEGREES EAST 26 ½ POLES TO A SET STONE FROM WHICH AN ELM ABOVE THE SPRING BEARS SOUTH 43 DEGREES WEST 47 LINKS;
THENCE SOUTH 32 ¾ DEGREES EAST 163.6 POLES TO A SET STONE, A CORNER TO DOWER AND ALSO IN THE LINE OF TRACT NUMBER ONE;
THENCE WITH THE LINE OF SAME SOUTH 87 DEGREES EAST 57.1 POLES TO A SET STONE AT FIG. 20 AND IN MARSHALL'S LINE;
THENCE WEST OF SAME NORTH 4 ½ DEGREES EAST 18.4 POLES TO A STAKE WEST OF A BEECH;
THENCE WITH ANOTHER LINE OF SAME NORTH 41 DEGREES WEST 56.2 POLES TO A SET STONE CORNER TO MARSHALL AND ALSO CORNER TO TRACT NUMBER THREE, FIG. 2;
THENCE WITH A LINE OF TRACT NUMBER THREE NORTH 42 ½ DEGREES WEST 137 ½ POLES TO A SET STONE SOUTHWEST CORNER TO TOLL HOUSE LOT;
THENCE WITH THE LINE OF SAME NORTH 43 DEGREES WEST 27 POLES NORTH 30 DEGREES WEST 7.70 POLES TO THE CENTER OF THE PIKE;
THENCE WITH SAME SOUTH 66 ¼ DEGREES WEST 36 POLES TO BEGINNING, CONTAINING 60 ACRES, MORE OR LESS.

SAVE AND EXCEPT A SMALL TRACT HERETOFORE CONVEYED BY LUTIE TURNER TO C. G. LYTLE AND NOW OWNED BY PORTER AND LYONS, BOUNDED AND DESCRIBED AS FOLLOWS, TO WIT:

BEGINNING AT A STAKE IN THE CENTER OF THE TURNPIKE OPPOSITE A LOCUST UPON THE SOUTH SIDE OF THE PIKE OUTSIDE OF THE FENCE AND ORIGINAL CORNER AND IN THE DOWER LINE;
THENCE WITH THE DOWER LINE SOUTH 27 ¾ DEGREES EAST 28 POLES TO A SE STONE;
THENCE SOUTH 68 DEGREES EAST 26 ½ POLES TO A SET STONE NEAR THE SPRING;
THENCE NORTH 32 ¾ DEGREES WEST 48 POLES IN THE CENTER OF THE PIKE OPPOSITE A SET STONE ON THE SOUTH SIDE OF SAME;
THENCE WITH THE CENTER OF THE PIKE SOUTH 66 ½ DEGREES WEST 13 POLES TO THE BEGINNING, CONTAINING THREE ACRES, THREE QUARTERS AND 31 POLES, MORE OR LESS.

TRACT THREE:

BEGINNING AT A SET STONE IN THE SOUTH SIDE OF THE FLEMINGSBURG AND MT. CARMEL HIGHWAY IN CHARLES NUTE'S LINE;
THENCE WITH NUTE'S LINE SOUTH 30 DEGREES EAST 7.7 POLES;
THENCE SOUTH 43 DEGREES EAST 27 POLES AND 3 LENGTHS TO A CORNER OF NUTE'S AND MRS. O'BANNON'S LINE;
THENCE NORTH 33 ¼ DEGREES EAST 9 POLES AND 4 LENGTHS TO A STAKE IN O'BANNON'S LINE;
THENCE NORTH 32 DEGREES WEST 28 POLES AND 15 LENGTHS TO THE CENTER OF THE PIKE;
THENCE SOUTH 66 ¼ DEGREES WEST 14 POLES AND 8 LENGTHS TO THE BEGINNING, CONTAINING TWO ACRES THREE QUARTERS, AND 13 POLES, MORE OR LESS.

ALL SUBJECT TO THE POLE LINE AGREEMENT GRANTED TO THE KENTUCKY RURAL ELECTRIFICATION COMPANY ON APRIL 9, 1936, OF RECORD AT MISC. EASEMENT BOOK 5, PAGE 44, FLEMING COUNTY CLERK'S OFFICE.

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE TRACTS DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
   TAX ID NUMBER: 069-00-00-022.00
   POSTED PAID: $1711.18
2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)
3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)
4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)
5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)
6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)
7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)
8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)

LARRY M. COFFEY AND DAVETTA COFFEY

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-7, EFFECTIVE DATE: DECEMBER 4, 2019

OWNER: LARRY M. COFFEY AND DAVETTA COFFEY, HUSBAND AND WIFE
TAX ID NO. 057-00-00-009.01

THE LAND REFERRED TO IN THIS COMMITMENT IS LOCATED IN THE COUNTY OF FLEMING, STATE OF KENTUCKY, DESCRIBED AS FOLLOWS:

TRACT 1:

A CERTAIN PARCEL OR TRACT OF LAND LOCATED IN FLEMING COUNTY, KENTUCKY ON THE WATERS OF FLEMING CREEK AND DESCRIBED AS FOLLOWS, TO-WIT:-

BEGINNING AT A STAKE CHAS. NUTE'S FORMER AND IN A LINE OF SAID HENDERSON' FORMER TRACT; THENCE WITH A LINE OF SAME N 36-3/8 E 23 POLES AND 14 LINKS TO A STAKE UPON THE CENTER OF THE MAYSVILLE AND MT. CARMEL TURNPIKE; THENCE WITH THE CENTER OF SAME S 64-1/4 E 130 POLES S 76 E 10 POLES N 85 E 39-4/10 POLES TO THE FORKS OF THE TWO PIKES; THENCE WITH THE CENTER OF FLEMINGSBURG PIKE S 22-1/2 W 24 POLES S 6-7/8 W 41 POLES; S 24 W 26 POLES S 63-1/4 W 73-4/10 POLES TO A STAKE ON THE SOUTH EAST SIDE OF THE TURNPIKE CORNER TO SAID CHAS. NUTE; THENCE WITH HIS LINE N 30-3/8 W 48 POLES TO A SET STONE IN SAID LINE; THENCE N 59-5/8 E 1 POLES TO A SET STONE ON THE DIRT ROAD; THENCE N 30-3/8 W 127-8/10 POLES TO THE BEGINNING, CONTAINING 95 ACRES, 2 QUARTERS AND 2 POLES.

BEING A PART OF THE SAME REAL ESTATE, REFERRED TO AS TRACT II, CONVEYED TO OWEN STEPHENS, JR AND MARY LU STEPHENS, HIS WIFE, FROM NOEL HESTER EXECUTOR OF THE ESTATE OF P.U. DOYLE BY DEED DATED MAY 29, 1979, SAME BEING OF RECORD IN DEED BOOK 148, PAGE 732, FLEMING COUNTY CLERK'S OFFICE, FLEMINGSBURG, KENTUCKY.

TRACT 2:

LYING AND BEING NEAR KENTUCKY ROUTE 57 AND BEING A PART OF THE SAME PROPERTY CONVEYED TO LARRY M. COFFEY AS RECORDED IN DEED BOOK 182, PAGE 135 IN THE OFFICE OF THE CLERK OF FLEMING COUNTY, KENTUCKY AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

NORTH BASED ON A PREVIOUS SURVEY DATED MARCH 15, 2002.

ALL IRON PINS SET ARE ½" X 18" REBAR WITH ORANGE PLASTIC SURVEYORS CAP STAMPED PLS 3303.

BEGINNING AT AN IRON PIN SET A CORNER TO LARRY M. COFFEY (DEED BOOK 182, PAGE 135); THENCE WITH THE COFFEY LINE NORTH 23 DEG. 30 MIN. 07 SEC. WEST, A DISTANCE OF 281 11 FEET TO AN IRON PIN SET; THENCE NORTH 63 DEG. 15 MIN. 37 SEC. EAST, A DISTANCE OF 146.78 FEET TO AN IRON PIN SET; THENCE SOUTH 27 DEG 47 MIN. 14 SEC. EAST, A DISTANCE OF 273.08 FEET TO AN IRON PIN SET, SAID PIN BEING NORTH 78 DEG 19 MIN 48 SEC. WEST, A DISTANCE OF 118 8 .8 7 FEET FROM THE INTERSECTION OF STATE ROUTE 57 AND KILBRETH VALLEY ROAD AND ALSO NORTH 02 DEG . 21 MIN 54 SEC WEST, A DISTANCE OF 580.43 FEET FROM A FENCE POST A CORNER TO COFFEY AND FOXWORTHY, THENCE CONTINUING WITH THE COFFEY LINE SOUTH 60 DEG. 39 MIN. 19 SEC. WEST, A DISTANCE OF 167 .82 FEET TO THE POINT OF BEGINNING; SAID DESCRIBED TRACT CONTAINING 1.00 ACRE.

THERE IS ALSO CONVEYED A 15' RIGHT-OF-WAY ALONG AN EXISTING GRAVEL ROADWAY FROM STATE ROUTE 57 TO THE ABOVE DESCRIBED PROPERTY.

SUBJECT TO ALL LEGAL RIGHT-OF-WAYS AND EASEMENTS BEING OF RECORD OR NOT OF RECORD.

THE TRACT IS MORE FULLY SHOWN ON A MAP OR PLAT AS SURVEYED, DRAWN AND DATED MAY 27. 2003 BY MARKUS JOHNSON PROFESSIONAL LAND SURVEYOR NO. 3303 JOHNSON'S LAND SURVEYING AND ATTACHED HERETO AND MADE A PART HEREOF BY REFERENCE

BEING A PART OF THE SAME REAL ESTATE CONVEYED LARRY MICHAEL COFFEY, THEN SINGLE, BY DEED FROM OWEN STEPHENS, JR., ET UX DATED THE 4TH DAY OF APRIL, 1995 AND OF RECORD IN D.B. 182, PAGE 135, FLEMING COUNTY CLERK'S OFFICE.

THERE IS ALSO CONVEYED HEREBY A CERTAIN 2006 28X72 CLAYTON DOUBLE-WIDE MOBILE HOME BEARING VIN #CAP019014TN-AB WHICH IS SITUATED UPON THE ABOVE-DESCRIBED REAL ESTATE

(CONTINUED ON SHEET 10)

Westwood
Phone (720) 531-8350 Toll Free (888) 937-5150
10170 Church Ranch Way, Suite #201
Westminster, CO 80021
westwoodps.com
Westwood Professional Services, Inc.

PREPARED FOR:
RECURRENT ENERGY
123 Mission Street, Fl 18
San Francisco, CA 94105

REVISIONS:

#	DATE	COMMENT

Hummingbird Solar Project

Fleming County, Kentucky

DATE: 04/03/2022

LARRY M. COFFEY AND DAVETTA COFFEY (CONTINUED)

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE TRACTS DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
   PERMANENT PARCEL NUMBER: 057-00-00-009.01
   POSTED PAID: $1,319.49
2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)
3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)
4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)
5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)
6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)
7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)
8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)
9. REAL ESTATE DEED OF TRUST DATED APRIL 11, 2012, EXECUTED BY LARRY MICHAEL COFFEY AND DAVETTA COFFEY, HUSBAND AND WIFE TO PEOPLES BANK OF KENTUCKY, INC., SECURING A NOTE IN THE ORIGINAL PRINCIPAL SUM OF $30,000.00; RECORDED APRIL 23, 2012 IN MORTGAGE BOOK 296, PAGE 495, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY. (NOT A SURVEY MATTER)
10. REAL ESTATE DEED OF TRUST DATED JANUARY 17, 2018, EXECUTED BY LARRY MICHAEL COFFEY AND DAVETTA COFFEY, HUSBAND AND WIFE TO FARM SERVICE AGENCY, SECURING A NOTE IN THE ORIGINAL PRINCIPAL SUM OF $77,440.00; RECORDED JANUARY 25, 2018 IN MORTGAGE BOOK 348, PAGE 484, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY. (NOT A SURVEY MATTER)
11. REAL ESTATE DEED OF TRUST DATED MAY 22, 2019, EXECUTED BY LARRY MICHAEL COFFEY AND DAVETTA COFFEY, HUSBAND AND WIFE TO FARM SERVICE AGENCY, SECURING A NOTE IN THE ORIGINAL PRINCIPAL SUM OF $14,000.00; RECORDED MAY 22, 2019 IN MORTGAGE BOOK 360, PAGE 777, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY. (NOT A SURVEY MATTER)

GENEVA EARLS

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-6, EFFECTIVE DATE: DECEMBER 4, 2019

OWNER: GENEVA EARLS, A WIDOW
TAX ID NO. 070-00-00-002.00

THE LAND REFERRED TO IN THIS COMMITMENT IS LOCATED IN THE COUNTY OF FLEMING, STATE OF KENTUCKY, DESCRIBED AS FOLLOWS:

A TRACT OF LAND FRONTING ON BLACK DIAMOND ROAD ALSO KNOWN AS GORMAN PIKE, APPROXIMATELY 1.7 MILES SOUTHEAST OF MT. CARMEL, FLEMING COUNTY, KENTUCKY, AND WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:-

CONSISTING OF 419. 92 ACRES LOCATED IN FLEMING COUNTY, KENTUCKY, AND DESCRIBED AS FOLLOWS:

BEGINNING IN THE CENTER OF ROAD AND CORNER OF DUARD CARPENTER; THENCE WITH HIS LINE SOUTH 20 ½ DEGREES WEST 2075 FEET TO A POST; THENCE SOUTH 17 ¼ DEGREES EAST 922 FEET TO A POST; THENCE SOUTH 17 ¼ DEGREES EAST 922 FEET TO A POST; THENCE SOUTH 45 DEGREES EAST 100 FEET; THENCE SOUTH 11 ¼ DEGREES EAST 493 FEET TO A POST; THENCE SOUTH 75 DEGREES EAST 126 FEET TO A POST; THENCE NORTH 84 DEGREES EAST 1580 FEET TO A POST; THENCE SOUTH 9 DEGREES WEST 300 FEET; SOUTH 12 DEGREES WEST 100 FEET; SOUTH 20 ¾ DEGREES WEST 225 FEET; SOUTH 5 DEGREES WEST 211 FEET TO A WILD CHERRY; THENCE SOUTH 15 DEGREES EAST 519 FEET TO A STUMP; THENCE NORTH 64 ¾ DEGREES EAST 759 FEET TO A HICKORY; THENCE SOUTH 70 DEGREES EAST 532 FEET TO A CROOKED WHITE OAK; THENCE SOUTH 40 DEGREES EAST 246 FEET; SOUTH 30 DEGREES EAST 453 FEET; SOUTH 35 DEGREES EAST 152 FEET; SOUTH 78 DEGREES EAST 198 FEET; SOUTH 88 DEGREES EAST 330 FEET; SOUTH 86 ½ DEGREES EAST 1155 FEET; THENCE NORTH 3 DEGREES WEST 1875 FEET TO A POST; THENCE NORTH 78 DEGREES EAST 1155 FEET; THENCE NORTH 3 DEGREES WEST 1875 FEET TO A POST; THENCE NORTH 78 DEGREES EAST 165 FEET TO CENTER OF OLD ROAD; THENCE WITH THE CENTER OF THE OLD ROAD NORTH 22 ½ DEGREES WEST 660 FEET; NORTH 10 DEGREES WEST 1320 FEET; DUE WEST 99 FEET; NORTH 12 DEGREES WEST 924 FEET; NORTH 6 DEG. WEST 253 FEET; WITH THE LINE OF SAME SOUTH 59 DEGREES WEST 483 FEET; SOUTH 57 ¾ DEGREES WEST 300 FEET; SOUTH 74 ½ DEGREES WEST 226 FEET; SOUTH 56 DEGREES WEST 192 FEET; SOUTH 42 DEGREES WEST 572 FEET; SOUTH 52 ½ DEGREES WEST 174 FEET; SOUTH 60 DEGREES WEST 400 FEET TO FORKS OF ROAD; THENCE NORTH 35 ¼ DEGREES WEST 858 FEET; NORTH 38 DEGREES, WEST 445.5 FEET AND NORTH 55 DEGREES WEST 693 FEET TO THE BEGINNING, CONTAINING 421 ACRES, MORE OR LESS, BUT SUBJECT TO LEGAL HIGHWAYS.

THERE IS EXCEPTED AND NOT CONVEYED A CEMETERY LOCATED ON THE ABOVE PROPERTY AND DESCRIBED AS FOLLOWS: BEGINNING IN CENTER OF OLD ROAD 165 FEET FROM BEGINNING OF CALL, NORTH 22 ½ DEGREES WEST 660 FEET; THENCE LEAVING ROAD WITH LINE OF CEMETERY, SOUTH 71 ½ DEGREES WEST 223 FEET TO A POST; THENCE NORTH 30 ¼ DEGREES WEST 219 FEET TO A POST; THENCE NORTH 72 DEG. EAST 213 FEET TO A CENTER OF OLD ROAD; THENCE UP ROAD SOUTH 22 ½ DEGREES EAST 216 FEET TO THE BEGINNING, CONTAINING 1.08 ACRES, LEAVING IN SAID TRACT 419.92 ACRES.

THERE IS ALSO EXCEPTED AND CONVEYED HEREIN A CERTAIN TRACT OF LAND CONVEYED TO ARTHUR CAUDILL COMPANY FROM CHARLES E. NOBLE AND MAY L. NOBLE, HUSBAND AND WIFE, BY DEED DATED THE 17TH DAY OF NOVEMBER, 1964, AND OF RECORD IN DEED BOOK 122, PAGE 354, FLEMING COUNTY CLERK'S OFFICE.

BEGINNING IN THE CENTER OF THE ROAD, AND CORNER TO DUARD CARPENTER; THENCE LEAVING THE ROAD WITH HIS LINE S. 20 DEGREES 30' W. 2019 FEET TO A POST; THENCE S. 16 DEGREES E. 617.0 FEET TO A POST; THENCE S. 25 DEGREES 15' E. 310.0 FEET TO A POST; THENCE S. 38 DEGREES E. 92.0 FEET TO A WHITE OAK; THENCE S. 14 DEG. 30' E. 253.0 FEET TO A HICKORY; THENCE S. 2 DEG. 15' E. 262.0 FEET TO A POST; THENCE S. 78 DEG. 30' E. 130.0 FEET TO A POST; THENCE N. 34 DEG. 30' E. 1579.0 FEET TO A GATE; THENCE N. 2 DEG. W. 1207 FEET TO A POST; THENCE N. 36 DEG. W.493.5 FEET TO A POST; THENCE N. 21 DEG. 30' W 200.0 FEET TO A POST; THENCE N. 11 DEG. E. 29.0 FEET TO CENTER OF ROAD; THENCE N. 29 DEG. 30' W. 1000.00 FEET WITH CENTER OF ROAD; THENCE N. 38 DEG. 30' W. 134.5 FEET WITH CENTER OF ROAD; THENCE N. 44 DEG. 30' W. 500.0 FEET WITH CENTER OF ROAD; THENCE N. 51 DEG. W. 107.0 FEET TO THE BEGINNING, CONTAINING 106.4 ACRES, MORE OR LESS, WITH SAID TRACT OF LAND BEING SOLD BY THE BOUNDARY AND NOT BY THE ACRE.

(THIS CONVEYANCE DESCRIBED THE ACRES AS BEING 120 ACRES, HOWEVER, A LATER SURVEY SHOWED THE CORRECT ACREAGE AS BEING 106.4 ACRES. FOR FURTHER REFERENCE SEE A DEED DATED MAY 30, 1970 AND OF RECORD IN DEED BOOK 131, PAGE 436, FLEMING COUNTY CLERK'S OFFICE).

SAVE AND EXCEPT:

BEING A 30.702 ACRE PARCEL OF THAT LARGER TRACT OF LAND CONVEYED TO JOHNNY TUCKER (D.B. 213 PG. 493) LOCATED ON THE SOUTH SIDE OF BLACK DIAMOND ROAD, IN FLEMING COUNTY, KY AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A MAG NAIL SET IN THE EXISTING CENTER OF BLACK DIAMOND ROAD AND BEING A COMER TO JOHNNY TUCKER (D.B. 213 PG. 493) AND FRED & THERESA GARRETT (D.B. 159 PG. 133); THENCE LEAVING SAID ROAD AND WITH THE CENTER OF A GRAVEL ROAD AND WITH THE LINE OF TUCKER AND GARRETT, S 85° 17' 25" E A DISTANCE OF 460.12' TO A POINT; THENCE S 84° 01' 00" E A DISTANCE OF 481.80' TO AN IRON PIN SET IN THE GRAVEL ROAD AT ITS JUNCTION WITH AN OLD DIRT ROAD; THENCE LEAVING THE GRAVEL ROAD CONTINUING WITH THE LINE OF TUCKER AND GARRETT AND WITH THE CENTER OF THE OLD DIRT ROAD, S 07° 22' 51" E A DISTANCE OF 257.88' TO AN IRON PIN SET; THENCE S 04° 00' S 59" E A DISTANCE OF 890.32' TO AN IRON PIN SET; THENCE S 04° 00' 59" E A DISTANCE OF 29.15' TO A POINT; THENCE S 73° 42' 01" E A DISTANCE OF 111.53' TO A POINT IN THE CENTER; THENCE S 36° 09' 08" E A DISTANCE OF 22.73' TO AN IRON PIN SET; THENCE S 07" 04' 14" E A DISTANCE OF 923.77' TO AN IRON PIN SET; THENCE LEAVING GARRETT AND OLD ROAD AND WITH A NEW DIVISION LINE OF TUCKER, S 64° 05' 49" W A DISTANCE OF 236.50' TO AN IRON PIN SET; THENCE N 17° 58' 00" W A DISTANCE OF 523.00" TO AN IRON PIN SET; THENCE N 75° 05' 40" W A DISTANCE OF 236.36' TO AN IRON PIN SET NEAR A 4" MAPLE; THENCE N 06° 06' 52" W A DISTANCE OF 349.54' TO AN IRON PIN SET; THENCE N 33° 39' 28" W A DISTANCE OF 474.00' TO AN IRON PIN SET; THENCE N 41° 15' 32" W A DISTANCE OF 519.50' TO AN IRON PIN SET NEAR AN ELECTRIC POLE; THENCE N 41° 15' 32" W A DISTANCE OF 23.00' TO A POINT IN THE EXISTING CENTER OF BLACK DIAMOND ROAD; THENCE WITH THE CENTER OF THE SAME, N 60° 18' 48" E A DISTANCE OF 128.62' TO A POINT; THENCE WITH A CURVE TURNING TO THE LEFT WITH AN ARC LENGTH OF 74.06', WITH A RADIUS OF 300.00', WITH A CHORD BEARING OF N 50" 07' 15" E, WITH A CHORD LENGTH OF 73.87', TO THE POINT OF BEGINNING CONTAINING 30.702 ACRES AS SURVEYED BY MICHAEL D. RUGGLES, PLS #3487 IN SEPTEMBER OF 2011.

NOTES:
PROPERTY SUBJECT TO ALL LEGAL RIGHT-OF-WAYS, EASEMENTS AND CONVEYANCES. PROPERTY SUBJECT TO THE RIGHT OF-WAY OF BLACK DIAMOND ROAD.
ALL IRON PINS SET WERE 1/2'' DIAMETER BY 20" LONG REBAR WITH IDENTIFICATION CAP
STAMPED M.D.R 3487.
BEARINGS CORRELATED TO TRUE NORTH BY THE METHOD OF GPS OBSERVATION. COMPLETION DATE OF FIELD SURVEY WAS 9-22-2011.

BEING PART OF THE SAME PROPERTY CONVEYED JOHNNY R. TUCKER AND MARY SUE TUCKER, HIS WIFE, FROM CHARLES 0. NOBLE, ET AL., BY DEED DATED JUNE 8, I 985, AND RECORDED IN DEED BOOK 182, PAGE 514; AND ALSO BEING A PART OF THE SAME PROPERTY IN WHICH MARY SUE TUCKER, SINGLE, CONVEYED HER INTEREST TO JOHNNY R. TUCKER, SINGLE, BY DEED DATED DECEMBER 5, 2002, AND RECORDED IN DEED BOOK 213, PAGE
493, ALL OF RECORD IN THE FL W8. COUNTY CLERK'S OFFICE. SEE PLAT RECORDED IN PLAT CABINET 3, SLIDE. FLEMING COUNTY CLERK'S OFFICE. (DEED BOOK 245, PAGE 448)

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
   TAX ID: 070-00-00-002.00
   POSTED PAID: $1,487.59
2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)
3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)
4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)
5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)
6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)
7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)
8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)

KEVIN LEE O'CULL AND GWEN DEE O'CULL

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-15, EFFECTIVE DATE: DECEMBER 6, 2019

OWNER: KEVIN LEE O'CULL AND GWEN DEE O'CULL

THE LAND REFERRED TO IN THIS COMMITMENT IS LOCATED IN THE COUNTY OF FLEMING, STATE OF KENTUCKY, DESCRIBED AS FOLLOWS:

TRACT NO. I: - A CERTAIN TRACT OF LAND LYING IN FLEMING COUNTY, KENTUCKY, AND BOUNDED AND DESCRIBED AS FOLLOWS:-

BEGINNING AT A SET STONE IN A FORK OF THE STATE ROAD CORNER TO JAMES WILLIAMS, NOW H. C. BREEZE; THENCE WITH A LINE OF SAME DIVIDING THE ROAD EQUALLY N 19 3/4 E 148 1/4 POLES TO A STAKE; THENCE N 28 1/2 E TO A THORN BUSH ON THE EAST SIDE OF THE ROAD; THENCE WITH DIVISION FENCE TO A WATER GAP ACROSS THE NORTH FORK; THENCE DIVIDING THE CREEK EQUALLY TO THE LINE OF JESSE RUGGLES, NOW A. T. WARDER, TO A STAKE IN THE CENTER OF THE CREEK; THENCE WITH THE SAME W 65 3/4 E 43 POLES; S 59 E 12 POLES; S 39 1/2 E 19 POLES; S 22 1/4 E 14 POLES; S 4 1/2 E 20 POLES; S 12 1/2 W 10 3/4 POLES; S 47 3/4 W 42 POLES; S 30 1/2 W 40 POLES; S 1/2 E 8 POLES S 43 E 18 3/4 POLES TO A STAKE IN THE CENTER OF THE CREEK, CORNER TO ROBERTS; THENCE WITH THE CENTER OF A LANE N 88 1/2 W 164 2/10 POLES TO THE BEGINNING, CONTAINING 112 1/2 ACRES AND 35 POLES.

TRACT NO. II: ANOTHER TRACT OF LAND ADJOINING THE ABOVE LYING IN THE COUNTY OF LEWIS, KENTUCKY, AND BOUNDED AS FOLLOWS:- BEGINNING AT A SET STONE ON THE NORTH SIDE OF CREEK IN RUGGLES' (NOW WARDER'S LINE); THENCE DOWN THE CREEK 130 POLES TO A WATER GAP AT A SET STONE AND WIDE ENOUGH TO CONTAIN 1 ½ ACRES, MORE OR LESS.

BEING THE SAME LAND CONVEYED TO STEVE W. WELLS AND ODA JEAN WELLS, HIS WIFE BY TROY RISNER, ET AL, BY DEED DATED SEPTEMBER 28, 1970, AND RECORDED IN D.B. 131, PAGE 197; AND STEVE W. WELLS HAVING DIED ON AUGUST 13, 1987, LEAVING THE GRANTOR HEREIN THE SOLE OWNER THEREOF, ALL OF RECORD IN THE FLEMING COUNTY COURT CLERK'S OFFICE.

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
   PERMANENT PARCEL NUMBER: 080-00-00-003.00
   POSTED PAID: $1,165.77
2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)
3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)
4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)
5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)
6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)
7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)
8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)
9. REAL ESTATE DEED OF TRUST DATED MAY 23, 1977, EXECUTED BY KEVIN LEE O'CULL AND WIFE, GWEN DEE O'CULL TO FARMERS HOME ADMINISTRATION, SECURING A NOTE IN THE ORIGINAL PRINCIPAL SUM OF $6,470.00; RECORDED MAY 16, 1988 IN MORTGAGE BOOK 95, PAGE 751, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY. (NOT SURVEY MATTER)
10. REAL ESTATE DEED OF TRUST DATED JULY 11, 1977, EXECUTED BY KEVIN LEE O'CULL AND WIFE, GWEN DEE O'CULL TO FARMERS HOME ADMINISTRATION, SECURING A NOTE IN THE ORIGINAL PRINCIPAL SUM OF $54,210.00; RECORDED MAY 16, 1988 IN MORTGAGE BOOK 95, PAGE 751, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY. (NOT SURVEY MATTER)
11. REAL ESTATE DEED OF TRUST DATED SEPTEMBER 8, 1981, EXECUTED BY KEVIN LEE O'CULL AND WIFE, GWEN DEE O'CULL TO FARMERS HOME ADMINISTRATION, SECURING A NOTE IN THE ORIGINAL PRINCIPAL SUM OF $46,300.00; RECORDED MAY 16, 1988 IN MORTGAGE BOOK 95, PAGE 751, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY. (NOT SURVEY MATTER)
12. REAL ESTATE DEED OF TRUST DATED MAY 16, 1988, EXECUTED BY KEVIN LEE O'CULL AND WIFE, GWEN DEE O'CULL TO FARMERS HOME ADMINISTRATION, SECURING A NOTE IN THE ORIGINAL PRINCIPAL SUM OF $7,500.00; RECORDED MAY 16, 1988 IN MORTGAGE BOOK 95, PAGE 751, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY. (NOT SURVEY MATTER)

DOTTIE A. LIST

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-16, EFECTIVE DATE: DECEMBER 10, 2019

OWNER: DOTTIE A. LIST

A CERTAIN TRACT OR PARCEL OF LAND LOCATED ABOUT FOUR (4) MILES NORTHEAST OF FLEMINGSBURG, ON MATTOX PIKE AND MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT A POINT IN THE CENTER OF MATTOX PIKE, A COMER TO W.R. LUMAN; THENCE WITH THE CENTER OF MATTOX PIKE OR NEARLY SO; NORTH 64° EAST 4.71 CHAINS; SOUTH 80-3/4° EAST 8.86 CHAINS, AND NORTH 73° EAST 27.99 CHAINS TO A POINT IN THE CENTER OF SAME OPPOSITE OF CLOVER DIN ROAD; THENCE SAID DIRT ROAD NORTH 16- 1120 WEST 20.55 CHAINS TO AN OLD SET STONE ON EAST SIDE OF SAID ROOD, N COMER TO PURNELL: THENCE WITH PURNELL'S LINE NORTH 15" EAST 2.10 CHAINS T AN OLD SET STONE ON SOUTH BANK OF FLEMING CREEK AS IT MEANDERS, NORTH 46° WEST 8.85 CHAINS; NORTH SO" WEST 2.96 CHAINS; NORTH 89-1/2° WEST 4.52 CHAINS, SOUTH 57-1/2° WEST 4.75 CHAINS; NORTH 54° WEST 8.40 CHAINS TO A STONE ABUTMENT ON THE SOUTH SIDE OF THE CREEK; THENCE NORTH 70-1/2° WEST 1.52 CHAINS TO A FENCE POST, A CORNER TO COOPER; THENCE WITH SAID COOPER'S LINE, SOUTH 44-1/4° WEST 4.68 CHAINS TO ASSET STONE; THENCE SOUTH 72-1/4° WEST 14.2 CHAINS TO A SET STONE, A COMER TO MEADOWS; THENCE WITH SAID MEADOWS LINE SOUTH 13° EAST PASSING STORDE'S CORNER AT 9.96 CHAINS; LUMAN'S AT 28.31 CHAINS, IN ALL 34.53 CHAINS TO THE POINT OF BEGINNING, CONTAINING 138 .04 ACRES.

BEING THE SAME PROPERTY CONVEYED TO GILBERT E. LIST AND DOTTIE A LIST, HUSBAND AND WIFE, BY DEED FROM WILLIAM A. RUDICILL AND MARY SUE RUDICILL, HUSBAND AND WIFE, AND DANIEL D. CUPPS AND SANDRA K.R. CUPPS, HUSBAND AND WIFE, AND BANK OF MAYSVILLE, AS QUALIFIED INTERMEDIARY, DATED NOVEMBER 15, 2005 AND RECORDED IN DEED BOOK 225, PAGE 239, FLEMING COUNTY COURT CLERK'S RECORDS.

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
   PERMANENT PARCEL NUMBER: 058-00-00-024.00
   POSTED PAID: $2,239.89
2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)
3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)
4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)
5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)
6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)
7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)
8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)

Westwood
Phone (720) 531-8350 10170 Church Ranch Way, Suite #201
Toll Free (888) 937-5150 Westminster, CO 80021
westwoodps.com
Westwood Professional Services, Inc.

PREPARED FOR:
RECURRENT ENERGY
123 Mission Street, Fl 18
San Francisco, CA 94105

REVISIONS:

#	DATE	COMMENT

Hummingbird Solar Project

Fleming County, Kentucky

DATE: 04/03/2022

BEN PEACHY

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-13, EFFECTIVE DATE: DECEMBER 10, 2019

OWNER: BEN PEACHY
TAX ID NO. 058-00-00-032.00

THE LAND REFERRED TO IN THIS COMMITMENT IS LOCATED IN THE COUNTY OF HARRISON, STATE OF KENTUCKY, DESCRIBED AS FOLLOWS:

TRACT 1:

PARCEL 1: BEGINNING AT AN IRON PIN, SAID PIN BEING A CORNER WALLACE COBLENTZ AND A POINT IN THE RIGHT WAY OF THE MT. CARMEL-BEECHBURG ROAD; THENCE WITH WALLACE COLBENTZ LINE S 79° W FOR 2048.3 FEET TO IRON PIN; THENCE N 11° W FOR 590.7 FEET; THENCE S 79° W FOR 2338.7 FEET TO IRON PIN; THENCE S 17° 06' E 1152.8 FEET TO A POST; THENCE TURNING DOWN THE HILL N 77° 32' E FOR 229.5', THENCE NORTH 78° 06' E 300.08', THENCE N 77° 44' E FOR 300.0 FEET; THENCE S 86° E FOR 39.2 FEET TO A POINT ON THE EAST SIDE OF BRANCH; THENCE S 11° 57' E FOR 367.8 FEET TO A POST; THENCE N 79° E FOR 2936.0 FEET TO AN IRON PIN AT THE RIGHT OF WAY OF THE MT. CARMEL-BEECHBURG ROAD; THENCE WITH SAID RIGHT-OF-WAY N 13° 27' E FOR 700.0 FEET; THENCE N 19° 52' E FOR 336.3 FEET TO THE BEGINNING AND CONTAINING 110.00 ACRES.

THERE IS EXCEPTED FROM THE FOREGOING PARCEL I APPROXIMATELY .843 ACRES WHICH WAS CONVEYED TO THE TRUSTEES OD THE MT. CARMEL BIBLE FELLOWSHIP CHURCH ON THE 2ND DAY OF NOVEMBER, 1987, BY A DEED RECORDED IN DEED BOOK 164, PAGE 585, FLEMING COUNTY CLERK'S OFFICE, FLEMINGSBURG, KENTUCKY.

THERE IS FURTHER EXCEPTED FROM PARCEL 1 A CERTAIN 36.9857 ACRE TRACT (SUBJECT TO A RETAINED RIGHT-OF-WAY TRANSFERRED TO PEACHEY THIS DAY) IN A DEED TO JOSEPH H. SOMMERS, ET UX, BY DEED DATED THE 19TH DAY OF MAY 2005, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEING A 36.9857 ACRE TRACT OF LAND AND A PORTION OF THAT LARGE TRACT OF LAND CONVEYED WILLIAM J. YODER AND LYDIA YODER LIVING TRUST, WILLIAM J. YODER AND LYDIA YODER, AS TRUSTEE(S), BY DEED FROM WILLIAM J. YODER AND LYDIA A. YODER, DATED THE 8TH DAY OF AUGUST, 2003; OFF PARCEL I THEREIN AND SITUATED AND LOCATED ON THE WEST SIDE OF THE MT. CARMEL AND BEECHBURG ROAD AND BEING MORE PARTICULARLY BOUND AND DESCRIBED AS FOLLOWS:

BEING AT AN IRON PIN WITH CAP STAMPED JHP 723 SET FOR THE SOUTHEAST PROPERTY CORNER IN THE WEST RIGHT OF WAY LINE OF THE MT. CARMEL AND BEECHBURG ROAD COMMON TO DARREL P. MADDOX, ET AL (D.B. 214, PAGE 92); THENCE WITH THE LINE AND PROPERTY LINE FENCE OF MADDOX, S 78° 13' 28'' W A DISTANCE OF 1584.60' TO A WOODEN FENCE POST FOUND FOR THE SOUTHWEST PROPERTY CORNER, THENCE WITH A DIVISION LINE AND FENCE, N 11° 24'' 25'' W A DISTANCE OF 932.49' TO A WOODEN FENCE POST FOUND FOR THE NORTHWEST PROPERTY CORNER COMMON TO REMAINING LAND OF WILLIAM J. YODER, ET AL (D.B. 211, PAGE 257, PARCEL I);

THENCE WITH THE LINE OF YODER AND THEN DANIEL ESH, ET UX (D.B. 176, PAGE 415), N 79° 17' 28'' E A DISTANCE OF 1616.00' TO A WOODEN FENCE POST FOUND FOR THE SOUTHWEST CORNER OF THE BIBLE FELLOWSHIP CHURCH (D.B. 164, PAGE 585); THENCE WITH THE LINE OF THE CHURCH, S 76° 23' 19'' E A DISTANCE OF 354.80' TO AN IRON PIN WITH CAP STAMPED JHP 723 SET FOR THE NORTHEAST PROPERTY CORNER IN THE WEST RIGHT OF WAY LINE OF THE MT. CARMEL AND BEECHBURG ROAD, THENCE WITH THE RIGHT OF WAY LINE OF THE ROAD, S 17° 54' 43" W A DISTANCE OF 130.70' TO AN IRON PIN WITH CAP SET; THENCE CONTINUING WITH THE RIGHT OF WAY OF THE HIGHWAY, S 12°57'01" W A DISTANCE OF 700.01' BACK TO THE POINT OF BEGINNING, HAVING AN AREA OF 1,511,096.4998 SQUARE FEET, OR 36.9857 ACRES MORE OR LESS.

THE ABOVE DESCRIBED 36.9857 ACRE TRACT OF LAND IS SUBJECT TO ANY LEGAL EASEMENTS OF RECORD FOR ACCESS AND UTILITIES: INCLUDING BUT NOT LIMITED TO AN ACCESS AND UTILITY EASEMENT FOR THE BENEFIT OF YODER, THEIR HEIRS AND ASSIGNS AS MORE PARTICULARLY DESCRIBED IN THE DEED FROM YODER TO JOSEPH H. SOMMERS AND RHODA SOMMERS, HUSBAND AND WIFE, AT DEED BOOK PAGE FLEMING COUNTY CLERK'S OFFICE, DATED MAY 17, 2005.

THE BEARINGS FOR THE ABOVE DESCRIBED 36.9857 ACRE TRACT OF LAND IS BASED ON THE WEST LINE ON THE BIBLE FELLOWSHIP CHURCH AS SURVEYED BY JAMES H POLLITTE PLS 723 IN MARCH 2005.

PARCEL II: A CERTAIN ACCESS AND UTILITY CASEMENT LOCATED NEAR BEECHBURG IN FLEMING COUNTY AND MORE PARTICU1AR1Y. DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST PROPERTY CORNER IN THE WEST RIGHT OF WAY OF THE MT. CARMEL AND BEECHBURG ROAD; THENCE WITH THE SOUTH PROPERTY LINE, S 78" 13' 28" W A DISTANCE OF 1327.54" TO WOODEN FENCE POST; THENCE LEAVING THE PROPERTY LINE, N 87° 18' 28" W A DISTANCE OF 246.52' TO A POINT IN THE WEST PROPERTY LINE, LOCATED 62.33 FEET FROM THE SOUTHWEST PROPERTY CORNER; THENCE LEAVING THE WEST PROPERTY LINE, N 11° 24' 25" W A DISTANCE OF 70.39'; THENCE S 45° 41' 42"E A DISTANCE OF 78.21'; THENCE S 87° 57' 20" E A DISTANCE OF 197.12'; THENCE N 78° 13' 26" E A DISTANCE OF 936.72'; THENCE N 64° 27' 44" E A DISTANCE OF 140.06'; THENCE N 77° 53' 20" E A DISTANCE OF 126.11'; THENCE N 88" 24' 43" E A DISTANCE OF 146.89' TO THE WEST RIGHT OF WAY OF THE MT. CARMEL AND BEECHBURG ROAD; THENCE WITH THE RIGHT OF WAY LINE, S 12° 33' 59" W A DISTANCE OF 30.82' BACK TO THE POINT OF BEGINNING; HAVING AN AREA OF 41615.83 SQUARE FEET OR 0.9555 ACRES MORE OR LESS.

SAID ACCESS UTILITY EASEMENT WAS RESERVED BY YODER IN THE DEED FROM WILLIAM J. AND LYDIA YODER LIVING TRUST, WITH WILLIAM J. YODER AND LYDIA A YODER, AS TRUSTEE(S), TO JOSEPH H SOMMERS AND RHODA SOMMERS, HUSBAND AND WIFE, BY DEED DATED THE 17 DAY OF MAY, 2005, AND OF RECORD IN DEED BOOK 223 PAGE 6, FLEMING COUNTY CLERK'S 'OFFICE.

PARCEL III: A CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING IN FLEMING COUNTY, KENTUCKY AND WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON ROD CORNER TO DANIEL COBLENTZ; THENCE WITH COBLENTZ LINE S 79° 00' 00' W FOR 2338.70 FEET TO A CORNER OF COBLENTZ AND IN THE DELMAR EARLS LINE; THENCE WITH THE EARLS LINE N 17° 06'00" W FOR 696.60 FEET TO A POINT ACROSS FLEMING CREEK AND A CORNER OF EMMONS; THENCE WITH THE EMMONS LINE N 56° 24' 00" E FOR 290.00 FEET; THENCE S 40° 10' 00" E FOR 22.10 FEET; THENCE N 63° 01' 00'' E FOR 638.00 FEET TO A POST AT DAN ESH CORNER; THENCE CROSSING CREEK S 16° 03' 00'' E FOR 82.10 FEET TO A LARGE ASH TREE ON THE SOUTH BANK OF FLEMING CREEK; THENCE S 80° 07' 00" E 71.40 FEET; THENCE S 70° 04' 00" E FOR 163.00 FEET; THENCE S 79° 41' 00" E FOR 252.40 FEET; THENCE S 88° 30' 00" E FOR 260.10 FEET; THENCE N 72° 02' 00" E FOR 175.00 FEET; THENCE N 61° 50' 00" E FOR 269.20 FEET; THENCE N 53° 20' 00" E FOR 280.40 FEET TO AN IRON ROD CORNER OF DAN ESH; THENCE UP THE HILL WITH DAN ESH LINE S 11° 00' 00" W FOR 635.60 FEET TO DANIEL COBLENTZ LINE AT THE BEGINNING. CONTAINING 31.120 ACRES.

TRACT I BEING A PART OF THE SAME REAL ESTATE CONVEYED WILLIAM J. & LYDIA YODER LIVING TRUST, WITH WILLIAM J. YODER AND LYDIA A YODER AS TRUSTEE(S) FROM WILLIAM J. YODER AND LYDIA A YODER, HIS WIFE, BY DEED DATED THE 8111 DAY OF AUGUST. 2003, AND OF RECORD IN DEED BOOK 216, PAGE 741, FLEMING COUNTY CLERK'S OFFICE.

TRACT II:

PARCEL NO 1: BEGINNING AT AN IRON PIN IN THE RIGHT OF WAY OF MT. CARMEL-BEECHBURG ROAD AND BEING A CORNER OF DANIEL COBLENTZ; THENCE WITH THE DANIEL COBLENTZ LINE S 79" W FOR 2048.3 FEET TO AN IRON PIN; THENCE N 11° W FOR 590.7 FEET TO IRON PIN; THENCE S 79° W FOR 2338.7 FEET TO IRON PIN IN FENCE; THENCE N 17° 06' W FOR 696.6 FEET, THENCE N 56° 24' E FOR 290.0 FEET ACROSS WATER GAP TO THE NORTH SIDE OF FLEMING CREEK; THENCE S 40° 10' E FOR 222.1 FEET; THENCE N 63° 01' E FOR 638.0 FEET; THENCE N 26° 50' E FOR 103.L FEET; THENCE N 43° 04' E FOR 462.3 FEET; THENCE N 79° 27' E FOR 478.5 FEET; THENCE S 86° 13' E FOR 80.0 FEET; THENCE S 76° 48' E FOR 561.8 FEET TO A CORNER OF ABE WEAVER; THENCE WITH WEAVER LINE S 11° 30' E FOR 78.4 FEET TO IRON PIN; THENCE FOLLOWING THE NORTH SIDE OF FLEMING CREEK S 82° 08' E FOR 110.5 FEET; THENCE S 70° 08' E FOR 110.8 FEET; THENCE S 23° 43' E FOR 194.5 FEET; THENCE S 85° 38' E FOR 382.8 FEET; THENCE N 73° 20' E FOR 336.4 FEET; THENCE N 20° 07' E FOR 131.5 FEET; THENCE N 70° 42' E FOR 180.6 FEET; THENCE S 67° 55' E FOR 117.5 FEET; THENCE N 79° 05' E FOR 210.0 FEET; THENCE N.8° 42' E FOR 115.6 FEET; THENCE N 24" 27' E FOR 78.8 FEET; THENCE N 71° 39' E FOR 145.0 FEET; THENCE S 70° 46' E FOR 184.5 FEET; THENCE S 80° 14' E FOR 121.0 FEET; THENCE N 65° 05' E FOR 242.0 FEET; THENCE N 77° 03' E FOR 133.7FEET; THENCE S 76° 01' E FOR 115.9 FEET; THENCE S 48" 46'E FOR 73.8 FEET; THENCE S 7° 06' E FOR 285.4 FEET; THENCE S 42° 24' E FOR 69.4 FEET TO AN IRON PIN IN THE RIGHT OF WAY OF MT. CANNEL BEECHBURG ROAD; THENCE WITH THE RIGHT OF WAY OF SAID ROAD S 44° 43' W FOR 456.0 FEET; THENCE S 34° 09', W FOR 100.0 FEET; THENCE S 18° 03' W FOR 500.0 FEET TO THE BEGINNING AND CONTAINING 114.54 ACRES.

THERE IS EXCEPTED FROM THE FOREGOING APPROXIMATELY .844 ACRES WHICH WAS CONVEYED TO THE TRUSTEES OF THE ML CARMEL BIBLE FELLOWSHIP CHURCH ON THE 2ND DAY OF NOVEMBER, 1987, BY AND RECORDED IN DEED BOOK 164, PAGE 585, FLEMING COUNTY CLERK'S OFFICE, FLEMINGSBURG, KENTUCKY.

THERE IS ALSO EXCEPTED FROM THE ABOVE PROPERTY AND NOT CONVEYED HEREIN THE FOLLOWING PARCE1 OF LAND.

A CERTAIN TRACT OR PARCEL OF LAND CONVEYED TO DANIEL COBLENTZ AND SUSANNA COBLENTZ, HUSBAND AND WIFE, FROM DANIEL ESH AND CAROLINE ESH, HUSBAND AND WIFE, BY DEED DATED THE 6TH DAY OF APRI1, 1993 AND OF RECORD IN DEED BOOK 176, PAGE 420, FLEMING COUNTY CLERK'S OFFICE, LOCATED IN FLEMING COUNTY, KENTUCKY, AND WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON ROD CORNER OF DANIEL COBLENTZ; THENCE WITH COBLENTZ LINE S 79° 00' 00" W FOR 2338.70 FEET TO A CORNER OF COBLENTZ AND IN THE DELMAR EARLS LINE; THENCE WITH THE EARLS LINE N 17° 06' 00'' W FOR 696.60 FEET TO A POINT ACROSS FLEMING CREEK AND A CORNER OF EMMONS; THENCE WITH THE EMMONS LINE N 56° 24' 00" E FOR 290.00 FEET; THENCE S 40° 10' 00'' E FOR 222.10 FEET; THENCE N 63° 01' 00" E FOR 638.00 FEET TO A POST AT DAN ESH CORNER; THENCE CROSSING CREEK S 16° 03' 00'' E FOR 82.10 FEET TO A LARGE ASH TREE ON THE SOUTH BANK OF FLEMING CROSSING THENCE S 80° 07' 00" E FOR 71.40 FEET; THENCE S 70° 04' 00" E FOR 163.00 FEET; THENCE S 79° 41' 00" E FOR 252.40 FEET; THENCE S 88° 30' 00" E FOR 260.10 FEET; THENCE N 72° 02' 00" E FOR 175.00 FEET; THENCE N 61° 501, TO E FOR 269.20 FEET; THENCE N 53° 20' 00'' E FOR 280.40 FEET TO AN IRON ROD CORNER OF DAN ESH; THENCE UP THE HILL WITH DAN ESH LINE S 11° 00' 00" W FOR 635.60 FEET TO DANIEL COBLENTZ LINE AT THE BEGINNING, CONTAINING 31.120 ACRES.

THERE IS RESERVED AND NOT CONVEYED HEREBY A CERTAIN 16.847 ACRES PARCEL OF LAND, WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON ROD WITH A SURVEYOR CAP MARKED HENRY ROARK LS1931 AT THE WESTERN LINE OF THE CHURCH PROPERTY; THENCE S 80° 03' 00" W FOR 352.71 FEET TO AN IRON ROD WITH CAP; THENCE WITH THE LINE OF N 7° 32' 00" E FOR 195.45 FEET; THENCE N 10° 19' 10'' W FOR 338.40 FEET TO AN IRON ROD WITH A CAP; THENCE N 26° 33' 00" W FOR 256.00 FEET TO AN IRON ROD; THENCE N 83° 02' 00'' W FOR 164.00 FEET TO AN IRON AT TOP OF HILL; THENCE DOWN THE HILL N 2° 34' 00" W FOR 202.00 FEET TO AN IRON ROD; THENCE N 61° 16' 00" W FOR 47.00 FEET TO AN IRON ROD ON NORTHWEST SIDE OF FLEMING CREEK; THENCE FOLLOWING THE NORTH SIDE OF FLEMING CREEK N 7° 26' 14" E FOR 95.96 FEET; THENCE N 70° 42' 00" E FOR 180.60 FEET; THENCE N 71° 56' 00" E FOR 72.70 FEET TO AN IRON ROD AT CORNER OF HELMETH AND BLADES; THENCE N 71° 56' 00" E FOR 18.00 FEET; THENCE S 67° 55'00'' E FOR 117.50 FEET; THENCE N 79" 05' 00" B FOR 210.00 FEET TO AN IRON ROD ON NORTH SIDE OF FLEMING CREEK; THENCE ACROSS THE CREEK S 4° 01' 00" W FOR 235.00 FEET TO AN IRON ROD; THENCE S 53° 50' 00" E FOR 821.02 FEET TO AN IRON ROD A RIGHT OF WAY OF BEECHBURG-MT. CARMEL ROAD THENCE S 19° 05' 00" W FOR 337.10 FEET TO A CORNER OF THE CHURCH PROPERTY; THENCE N 76° 22' 00" W FOR 380.00 FEET; THENCE S 13° 381 00"W FOR 174.58 FEET TO THE BEGINNING.

THERE IS FURTHER EXCEPTED AND NOT CONVEYED HEREBY A CERTAIN TRACT OF LAND CONVEYED TO LEON D. ESH AND NANCY Z. ESH, HUSBAND AND WIFE, FROM DAN ESH AND CAROLINE ESH, HUSBAND AND WIFE, BY A DEED DATED THE 29TH DAY OF NOVEMBER, 2001, AND OF RECORD IN DEED BOOK 210, PAGE 52, FLEMINGCOUNTY CLERK'S OFFICE, AND WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

ALL MONUMENTS REFERRED TO HEREIN AS AN IRON REBAR IS A SET OF FOUND ½" DIAMETER SCHEDULE 40 STEEL REBAR 18" IN LENGTH WITH AN ORANGE SURVEY CAP MARKED HENRY ROARK LS1931. ALL BEARINGS WERE CALCULATED FROM THE OBSERVED MAGNETIC BEARING ALONG THE DAN ESH FENCE LINE ON 11-14-01.

BEGINNING AT AN IRON REBAR FOUND IN THE RIGHT OF WAY OF BEECHBURG- MT. CARMEL ROAD AT A CORNER OF DAN ESH PROPERTY D.B. 166, PAGE 252; THENCE WITH THE DAN ESH LINE N 53° S0' 00" W FOR 821.02 FEET TO AN IRON REBAR; THENCE CONTINUING WITH THE ESH LINE ACROSS NORTH FORK CREEK TO AN IRON REBAR AT A CORNER OF DAN ESH AND ANTHONY BLADES PROPERTY D.B. 178, PAGE 98; THENCE ALONG THE NORTHERN SIDE OF NORTH FORK CREEK WITH THE BLADES LINE N 15° 47' 30" E FOR 77.15 FEET; THENCE N 24° 27' 00'' E FOR 78.80 FEET TO IRON REBAR; THENCE N 71° 39'00"E FOR 145.00 FEET; THENCE S 70° 46' 00'' E FOR 184.50 FEET TO AN IRON REBAR; THENCE S 80° 14' 00" E FOR 121.00 FEET; THENCE CONTINUING WITH THE ANTHONY BLADES LINE ON THE NORTHERN SIDE OF THE NORTH FORK CREEK N 65° 05' 00" E 242.00 FEET TO AN IRON REBAR; THENCE N 77" 03' 00" E FOR 133.70 FEET; THENCE S 75° 01' 00" E FOR 115.90 FEET TO AN IRON REBAR; THENCE CONTINUING WITH THE BLADES LINE S 48° 46'00" E FOR 73.80 FEET; THENCE S 7° 06' 00" E FOR 28S.40 FEET TO AN IRON REBAR; THENCE WITH THE BLADES LINE S 42A 24' 00" E FOR 69.40 FEET TO AN IRON REBAR ON THE NORTH SIDE OF NORTH FORK CREEK AND BEING A POINT IN THE' RIGHT OF WAY OF BEECHBURG-MT. CARMEL ROAD; THENCE WITH THE RIGHT OF WAY OF BEECHBURG-MT CARMEL ROAD S 46° 29' 00" W FOR 402.65 FEET TO AN IRON REBAR; THENCE WITH RIGHT OF WAY S 40° 37' 00" W FOR 107.60 FEET TO AN IRON REBAR; THENCE WITH THE RIGHT OF WAY S 28° 22' 00" W FOR 70.95 FEET TO AN IRON REBAR; THENCE WITH THE RIGHT OF WAY S 18° 14' 00" W FOR 135.51 FEET TO
THE BEGINNING. THIS PARCEL CONTAINS 14.95 ACRES ACCORDING TO A SURVEY DONE BY HENRY ROARK PLS 1931 ON 11-14-01.

PARCEL NO. 2: BEGINNING AT AN IRON ROD CORNER OF DANIEL COBLENTZ AND IN ERIC CARPENTER LINE; THENCE WITH COBLENTZ S 8° 07' 00'' E FOR 644.0 FEET TO AN IRON ROD CORNER TO DAN ESH AND ON NORTH SIDE OF FLEMING CREEK; THENCE DOWN THE NORTH SIDE OF FLEMING CREEK S 71° 56' 00" W FOR 72.70 FEET; THENCE S 70° 42' 00" W FOR 180.60 FEET; THENCE S 20° 07' 00" W FOR 131.50 FEET; THENCE S 73° 20' 00" W FOR 336.40 FEET; THENCE N 85° 38' 00" W FOR 382.80 FEET; THENCE CONTINUING ON THE NORTH SIDE OF CREEK N 23°43' 00" W FOR 194.50 FEET; THENCE N 70° 08" 00" FOR 110.80 FEET; THENCE N 82° 08' 00" W FOR 110.50 FEET; THENCE N 11° 30' 00" W FOR 78.40 TO A POINT IN QUINTON EMMONS ESTATE N 13° 58' 00" W FOR 872.40 FEET TO CORNER OF ERIC CARPENTER; THENCE WITH THE CARPENTER LINE S 80° 56' 00'' E FOR 1411.80 FEET TO THE BEGINNING. THIS PARCEL CONTAINS 27.9210 ACRES.

TRACT II BEING THE SAME REAL ESTATE CONVEYED WILLIAM I. & LYDIA YODER LIVING TRUST. WITH WILLIAM I. YODER AND LYDIA A YODER AS TRUSTEE(S), FROM WILLIAM YODER AND LYDIA A YODER HIS WIFE BY DEED DATED THE 8TH DAY OF AUGUST 2003, AND OF RECORD IN DEED BOOK 216, PAGE 746, FLEMING COUNTY CLERK'S OFFICE.

IT IS SPECIFICALLY AGREED AND UNDERSTOOD THAT THIS CONVEYANCE INCLUDES THE RIGHT-OF-WAY RESERVED BY-THE YODER TRUSTS IN THE DEED TO JOSEPH H. SOMMERS, ET UX THIS DAY MADE, SAME BEING PARTICULARLY DESCRIBED AS APART OF SAID DEED IN DEED BOOK 223, PAGE 6 FLEMING COUNTY CLERK'S OFFICE.

TRACT 2:

PARCEL NO. 1: BEGINNING AT AN IRON PIN IN THE RIGHT OF WAY OF MT. CARMEL- BEECHBURG ROAD AND BEING A CORNER OF DANIEL COBLENTZ; THENCE WITH THE DANIEL COBLENTZ LINE S 79° W FOR 2048.3 FEET TO AN IRON PIN; THENCE N 11° W FOR 590.7 FEET TO IRON PIN; THENCE S 79° W FOR 2338.7 FEET TO IRON PIN IN FENCE; THENCE N 17" 06' W FOR 696.6 FEET; THENCE N 56° 24' E FOR 290.0 FEET ACROSS WATER GAP TO THE NORTH SIDE OF FLEMING CREEK; THENCE S 40° 10' E FOR 222.1 FEET; THENCE N 63° 01' E FOR 638.0 FEET; THENCE N 26° 50' E FOR 103.1 FEET; THENCE N 43° 04' E FOR 462.3 FEET; THENCE N 7'1° 27' E FOR 478.S FEET; THENCE S 86° 13' E FOR 80.00 FEET; THENCE S 76° 48' E FOR 561.8 FEET TO CORNER OF ABE WEAVER; THENCE WITH WEAVER LINE S 11° 30' E FOR 78.4 FEET TO IRON PIN; THENCE FOLLOWING THE NORTH SIDE OF FLEMING CREEK S 82° 08' E FOR L L0.5 FEET; THENCE S 70° 08' E FOR 110.8 FEET; THENCE S 23° 43' E FOR 194.5 FEET; THENCE S 85° 38' E FOR 382.8 FEET; THENCE N 73° 20' E FOR 336.4 FEET; THENCE N 20° 07' E FOR 131.S FEET; THENCE N 70° 42' E FOR 180.6 FEET; THENCE S 67° 55' E FOR 117.5 FEET; THENCE N 79" 05' E FOR 210.0 FEET; THENCE N 8° 42' E FOR 115.6 FEET; THENCE N 24° 27' E FOR 78.8 FEET; THENCE N 71° 39' E FOR 145.0 FEET; THENCE S 70" 46' E FOR 184.5 FEET; THENCE S 80° 14 E FOR 121.0 FEET; THENCE N 65°0S' E FOR 242.0 FEET; THENCE N 77" 03' E FOR 133.7 FEET; THENCE S 76° 01' E FOR 115.9 FEET; THENCE S 48° 46' E FOR 73.8 FEET; THENCE S 7" 06' E FOR 285.4 FEET; THENCE S 42° 24' E FOR 69.4 FEET TO AN IRON PIN IN THE RIGHT OF WAY OF THENCE S 7°06' 01' E FOR 115.9 FEET; THENCE S 48° 46'.E FOR 73.8 FEET; THENCE S 7° 06' E FOR 285.4 FEET; THENCE S 42° 24' E FOR 69.4 FEET TO AN IRON PIN IN THE RIGHT OF WAY OF MT. CARMEL BEECHBURG ROAD; THENCE WITH THE RIGHT OF WAY OF SAID ROAD S 44° 43' W FOR 456.0 FEET; THENCE S 34° 09' W FOR 100.0 FEET; THENCE S 18° 03' W FOR 500.0 FEET TO THE BEGINNING AND CONTAINING 114.54 ACRES.

THERE IS EXCEPTED FROM THE ABOVE PROPERTY AND NOT CONVEYED HEREIN THE FOLLOWING PARCEL OF LAND:

A CERTAIN TRACT OR PARCEL OF LAND CONVEYED TO DANIEL COBLENTZ AND SUSANNA COBLENTZ, HUSBAND AND WIFE, FROM DANIEL ESH END CAROLINE ESH HUSBAND AND WIFE, BY DEED DATED THE 6TH DAY OF APRIL, 1993 AND OF RECORD IN DEED BOOK 176, PAGE 420, FLEMING COUNTY CLERK'S OFFICE, LOCATED IN FLEMING COUNTY, KENTUCKY, AND WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON ROD CORNER OF DANIEL COBLENTZ; THENCE WITH COBLENTZ LINE S 79" 00' 00" W FOR 2338.70 FEET TO A CORNER OF COBLENTZ AND IN THE DELMAR EARLS LINE; THENCE WITH THE EARLS LINE N 17" 06' 00" W FOR 696.60 FEET TO A POINT ACROSS FLEMING CREEK AND A CORNER OF EMMONS; THENCE WITH THE EMMONS LINE N 56° 24' 00"E FOR 290.00 FEET; THENCE S 40° 10' 00" E FOR 222.10 FEET; THENCE N 63° 01' 00" E FOR 638.00 FEET 10 A POST AT DAN ESH CORNER; THENCE·CROSSING CREEK S 16° 03' 00" E FOR 82.10 FEET TO A LARGE ASH TREE ON THE SOUTH BANK OF FLEMING CREEK; THENCE S 80° 07' 00" E FOR 71.40 FEET; THENCE S 70° 04' 00" E FOR 163.00 FEET; THENCE S 79° 41' 00" E FOR 252.40 FEET; THENCE S 88° 30' 00" E FOR 260.10 FEET; THENCE N 72° 02' 00" E FOR 175.00 FEET; THENCE N 61° 50' 00" E FOR 26920 FEET; THENCE N 53° 20' 00" E FOR 280.40 FEET TO AN IRON ROD CORNER OF DAN ESH; THENCE UP THE BILL WITH DAN ESH LINE S 11° 00' 00" W FOR 635.60 FEET TO DANIEL COBLENTZ LINE AT THE BEGINNING, CONTAINING 31.120 ACRES.

THERE IS RESERVED AND NOT CONVEYED HEREBY A CERTAIN 16.847 ACRES PARCEL OF LAND, WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON ROD WITH A SURVEYOR CAP MARKED HENRY ROARK LS 1931 AT THE WESTERN LINE OF THE CHURCH PROPERTY; THENCE S 80° 03' 00" W FOR 352.71 FEET TO AN HON ROD WITH CAP; THENCE WITH THE LINE OF N 7° 32' 00" E FOR 195.45 FEET; THENCE N 10° 19' 10" W FOR 338.40 FEET TO AN IRON ROD WITH A CAP; THENCE N 26° 33' 00" W FOR 256.00 FEET TO AN IRON ROD; THENCE N 83° 02' 00" W FOR 164.00 FEET TO AN IRON AT TOP OF HILL; THENCE DOWN THE HILL N 2° 34' 00" W FOR 202.00 FEET TO AN IRON ROD; THENCE N 61° 16' 00" W FOR 47.00 FEET TO AN IRON ROD ON NORTHWEST SIDE OF FLEMING CREEK; THENCE FOLLOWING THE NORTH SIDE OF FLEMING CREEK N 7" 26' 14" E FOR 95.96 FEET; THENCE N 70" 42' 00" E FOR 180.60 FEET; THENCE N 71° 56' 00" E FOR 72.70 FEET TO AN IRON ROD AT CORNER OF HELMETH AND BLADES; THENCE N 71° 56' 00" E FOR 18.00 FEET; THENCE S 67° 55' 00" E FOR 117.50 FEET; THENCE N 79° 05' 00" E FOR 210.00 FEET TO AN IRON ROD ON NORTH SIDE OF FLEMING CREEK; THENCE ACROSS THE CREEK S 4" 01' 00" W FOR 23S.00 FEET TO AN IRON ROD; THENCE S 53° 50' 00" E FOR 821.02 FEET TO AN IRON ROD A RIGHT OF WAY OF BEECHBMG-MT. CARMEL ROAD; THENCE S 19° 05' 00" W FOR 337.10 FEET TO A CORNER OF THE CHURCH PROPERTY; THENCE N 76° 22' 00" W FOR 380.00 FEET; THENCE S 13° 38' 00" W FOR 174.58 FEET TO THE BEGINNING.

THERE IS FURTHER EXCEPTED AND NOT CONVEYED HEREBY A CERTAIN TRACT OF LAND CONVEYED TO LEON D. ESH AND NANCY Z. ESH, HUSBAND AND WIFE, FROM DAN ESH AND CAROLINE ESH, HUSBAND AND WIFE, BY A DEED DATED THE 29TH DAY OF NOVEMBER, 2001, AND OF RECORD IN DEED BOOK 210, PAGE 52, FLEMING COUNTY CLERK'S OFFICE, AND WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

ALL MONUMENTS REFERRED TO HEREIN AS AN IRON REBAR IS A SET OF FOUND ½" DIAMETER SCHEDULE 40 STEEL REBAR 18"IN LENGTH WITH AN ORANGE SURVEY CAP MARKED HENRY ROARK LS 1931. ALL BEARINGS WERE CALCULATED FROM THE OBSERVED MAGNETIC BEARING ALONG THE DAN ESH FENCE LINE ON 11-14-01.

BEGINNING AT AN IRON REBAR FOUND IN THE RIGHT OF WAY OF BEECHBURG-MT CARMEL ROAD AT A CORNER OF DAN ESH PROPERTY D.B. 166, PAGE 252; THENCE WITH THE DAN ESH LINE N S3° 50' 00" W FOR 821.02 FEET TO AN IRON REBAR; THENCE CONTINUING WITH THE ESH LINE ACROSS NORTH FORK CREEK TO AN IRON REBAR AT A CORNER OF DAN ESH AND ANTHONY BLADES PROPERTY D.B. 178, PAGE 98; THENCE ALONG THE NORTHERN SIDE OF NORTH FORK CREEK WITH THE BLADES LINE N 15° 47' 30" E FOR 77.15 FEET; THENCE N 24° 27' 00" E FOR 78.80 FEET TO IRON REBAR; THENCE N 71" 39' 00" E FOR 145.00 FEET; THENCE S 70° 46' 00" E FOR 184.50 FEET TO AN IRON REBAR; THENCE S 80" 14' 00" E FOR 121.00 FEET; THENCE CONTINUING WITH THE ANTHONY BLADES LINE ON THE NORTHERN SIDE OF THE NORTH FORK CREEK N 65° 05' 00" E FOR 242.00 FEET TO AN IRON REBAR; THENCE N 77° 03' 00" E FOR 133.70 FEET; THENCE S 76° 01' 00" E FOR 115.90 FEET TO AN IRON REBAR; THENCE CONTINUING WITH THE BLADES LINE S 48° 46' 00" E FOR 73.80 FEET; THENCE S 7° 06' 00" E FOR 285.40 FEET TO AN IRON REBAR; THENCE WITH THE BLADES LINE S 42° 24' 00" E FOR 69.40 FEET TO AN IRON REBAR ON THE NORTH SIDE OF NORTH FORK CREEK AND BEING A POINT IN THE RIGHT OF WAY OF BEECHBURG-MT. CANNEL ROAD; THENCE WITH THE RIGHT OF WAY OF BEECHBURG-MT. CARMEL ROAD S 46° 29' 00" W FOR 402.65 FEET TO AN IRON REBAR; THENCE WITH RIGHT OF WAY S 40° 37' 00" W FOR 107.60 FEET TO AN IRON REBAR; THENCE WITH THE RIGHT OF WAY S 28° 22' 00" W FOR 70.95 FEET TO AN IRON REBAR; THENCE WITH THE RIGHT OF WAY S 18° 14' 00" W FOR 135.51 FEET TO THE BEGINNING. THIS PARCEL CONTAINS 14.95 ACRES ACCORDING TO A SURVEY DONE BY HENRY ROARK PLS 1931 ON 11-14-01.

PARCEL NO. 2: BEGINNING AT AN IRON ROD CORNER OF DANIEL COBLENTZ AND IN ERIC CARPENTER LINE; THENCE WITH COBLENTZ S 8° 07' 00" E FOR 644.0 FEET TO AN IRON ROD CORNER TO DAN ESH AND ON NORTH SIDE OF FLEMING CREEK; THENCE DOWN THE NORTH SIDE OF FLEMING CREEK S 71° 56' 00" W FOR 72.70 FEET; THENCE S 70° 42' 00" W FOR 180.60 FEET; THENCE S 20° 07' 00 W FOR 131.50 FEET; THENCE S 73° 20' 00" W FOR 336.40 FEET; THENCE N 85° 38''00" W FOR 382.80 FEET; THENCE CONTINUING ON THE NORTH SIDE OF CREEK N 23° 43 00" W FOR 194.50 FEET; THENCE N 70° 08' 00" FOR 110.80 FEET; THENCE N 82° 08' 00" W FOR 110.50 FEET; THENCE N 11° 30' 00" W FOR 78.40 TO A POINT IN QUINTON EMMONS ESTATE N 13° 58' 00" W FOR 872.40 FEET TO CORNER OF ERIC CARPENTER; THENCE WITH·THE CARPENTER LINE S 80° 56' 00" E FOR 1411.80 FEET TO THE BEGINNING. THIS PARCEL CONTAINS 27.9210 ACRES.

BEING THE SAME PROPERTY CONVEYED TO WILLIAM J. AND LYDIA YODER LIVING TRUST DATED SEPTEMBER 19, 2002, FROM WILLIAM YODER AND LYDIA YODER, HIS WIFE, BY DEED DATED AUGUST 8, 2003, END RECORDED IN DEED BOOK 216, PAGE 746, FLEMING COUNTY CLERK'S OFFICE. IN THE ABOVE REFERENCED DEED, THE GRANTERS, WILLIAM YODER AND LYDIA YODER, RETAINED A LIFE ESTATE FOR PURPOSES OF ANNUAL PROPERTY TAX HOMESTEAD QUALIFICATIONS, AND THE PURPOSE OF THIS CONVEYANCE 'IS TO TRANSFER THE GRANTORS' LIFE ESTATE INTEREST.

TAX ID: 070-00-00-006.00

TRACT 3:

LOCATED IN FLEMING COUNTY, KENTUCKY, AND BEGINNING AT A STAKE IN THE CENTER OF THE OLD CLOVER ROAD CORNER TO GEO. WALLINGFORD; THENCE WITH THE CENTER OF SAID ROAD S 21- 1/2 E 34 POLES S 8-1/4 E 16.2 POLES S 16 E 13-1/2 POLES TO A STAKE IN THE CENTER OF THE ROAD OPPOSITE A SET STONE NEAR THE FENCE ON THE EAST SIDE OF THE ROAD; THENCE N 86- 3/4 E 226.7 POLES TO A SET STONE ON THE WEST SIDE OF THE FENCE IN MARSHALL'S LINE; THENCE WITH SAME N 8- 1/2 E 26.7 POLES N 77-1/2 E 4.4 POLES N 18 W 84.6 POLES TO THE END OF THE FENCE, CORNER TO MARSHALL; THENCE WITH MARSHALL AND WALLINGFORD'S LINES S 72-7/8 W 235-1/2 POLES TO THE BEGINNING, CONTAINING 134 ACRES.

BEING THE SAME REAL ESTATE CONVEYED TO MERLIN MILLER AND MARY MILLER, HUSBAND AND WIFE, BY DEED FROM MABEL EMMONS, SINGLE DATED THE 14TH DAY OF APRIL, 1993 AND OF RECORD IN O.B. 176, PAGE 483, FLEMING COUNTY CLERK'S OFFICE.

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)

   PERMANENT PARCEL NUMBER: 070-00-00-006.00 (TRACT 1 AND 2)
   POSTED PAID: $950.94

   PERMANENT PARCEL NUMBER: 058-00-00-032.00 (TRACT 3)
   POSTED PAID: $1663.63

2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)

3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)

4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)

5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)

6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)

7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)

8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)

9. REAL ESTATE DEED OF TRUST DATED AUGUST 22, 2019, EXECUTED BY BEN PEACHEY AND JUDY PEACHEY, MARRIED TO EACH OTHER TO FARM CREDIT MID-AMERICA, FCLA, SECURING A NOTE IN THE ORIGINAL PRINCIPAL SUM OF $254, 800.00; RECORDED AUGUST 27, 2019 IN MORTGAGE BOOK 363, PAGE 566, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY. (AFFECTS TRACT 1 AND 2) (NOT A SURVEY MATTER)

10. REAL ESTATE DEED OF TRUST DATED FEBRUARY 13, 2006, EXECUTED BY BEN PEACHEY AND JUDY PEACHEY, HUSBAND AND WIFE TO COMMUNITY TRUST BANK , SECURING A NOTE IN THE ORIGINAL PRINCIPAL SUM OF $200,000.00; RECORDED MARCH 13, 2007 IN MORTGAGE BOOK 248, PAGE 499, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY. (AFFECTS TRACT 3) (NOT A SURVEY MATTER)

Westwood

Phone (720) 531-8350
Toll Free (888) 937-5150
10170 Church Ranch Way, Suite #201
Westminster, CO 80021
westwoodps.com

Westwood Professional Services, Inc.

PREPARED FOR:

RECURRENT ENERGY

123 Mission Street, Fl 18
San Francisco, CA 94105

REVISIONS:

#	DATE	COMMENT

Hummingbird Solar Project

Fleming County, Kentucky

DATE: 04/03/2022

SANDRA D. CAUDILL

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-18, EFFECTIVE DATE: DECEMBER 23, 2019

OWNER: SANDRA D. CAUDILL

A CERTAIN TRACT OF LAND LYING OR SITUATED ON THE EAST SIDE OF COUNTY ROAD NO. 1027, THE MT. CARMEL-BEECHBURG ROAD AND UPON THE WATERS OF THE FLEMING COUNTY CREEK, LOCATED APPROXIMATELY 0.50 MILE SOUTH OF COUNTY ROAD NO. 1023, THE BLACK DIAMOND ROAD IN FLEMING COUNTY, KENTUCKY AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A .35 INCH X 2.9 INCH STEEL NAIL MARKER (SET) IN THE CENTER OF THE MT. CARMEL BEECHBURG ROAD, SAID POINT BEING IN THE NORTHWEST CORNER OF CHARLES R. MARSHALL, ET AL (DEED BOOK 163, PAGE 750);

THENCE ALONG THE CENTER OF SAID ROAD FOR THE FOLLOWING SIX (6) CALLS:

1. NORTH 15 DEG. 25 MIN. 48 SEC. EAST, 65.02 FT. TO A NAIL (SET);
2. THENCE NORTH 16 DEG. 24 MIN. 47 SEC. EAST, 65.00 FT. TO NAIL (SET);
3. THENCE NORTH 18 DEG. 35 MIN. 15 SEC. EAST, 415.56 FT. TO A NAIL (SET);
4. THENCE NORTH 16 DEG. 41 MIN. 11 SEC. EAST, 99.98 FT. TO A NAIL (SET);
5. THENCE NORTH 14 DEG. 43 MIN. 55 SEC. EAST, 100.04 FT. TO A NAIL (SET);
6. THENCE NORTH 16 DEG. 05 MIN. 27 SEC. EAST, 16.49 FT. TO A .35 INCH X 2.39 INCH STEEL NAIL MARKER (SET) SAID POINT THE SOUTHWEST CORNER OF TRACT NO. 7;

THENCE WITH THE SOUTH LINE OF TRACT NO. 7 FOR THE FOLLOWING FIVE (5) CALLS:

1. SOUTH 65 DEG. 28 MIN. 29 SEC. EAST, 27.46 FT. TO A½ INCH REBAR (SET WITNESS CORNER);
2. THENCE CONTINUING SOUTH 65 DEG. 28 MIN. 29 SEC. EAST, 169.82 FT. TO A½ INCH REBAR (SET) IN LINE WITH THE SOUTHSIDE OF THE EXISTING BARN AND _______ FT. FROM (WESTERLY) AND THE SOUTHWEST CORNER OF SAID BARN;
3. THENCE SOUTH 19 DEG. 09 MIN. 42 SEC. WEST, 18.00 FT. TO A½ INCH REBAR (SET);
4. THENCE SOUTH 70 DEG. 43 MIN. 14 SEC. EAST, RUNNING 18 FT. FROM AND PARALLEL TO THE SOUTH SIDE OF SAID BARN 144.47 FT. TO A ½ INCH REBAR (SET);
5. THENCE SOUTH 71 DEG. 33 MIN. 59 SEC. EAST, 270.69 FT. TO A½ INCH REBAR (SET), SAID POINT BEING THE SOUTHEAST CORNER OF TRACT NO. 7;

THENCE WITH THE EAST LINE OF TRACT NO. 7, NORTH 36 DEG. 43 MIN. 49 SEC. EAST, 112.34 FT. TO A POST, CORNER TO TRACT NO. 2, SAID POINT WITNESSED BE A¼ INCH REBAR NORTH 61 DEG. 27 MIN. 06 SEC. WEST AT A DISTANCE OF 0.24 FT.; THENCE CONTINUING NORTH 36 DEG. 43 MIN. 49 SEC. EAST, ALONG THE EAST LINE OF TRACT NO. 2 PASSING A¼ INCH REBAR (SET WITNESS CORNER) AT 129.36 FT. FOR A TOTAL DISTANCE OF 173.51 FT. TO THE CENTER OF FLEMING CREEK, SAID POINT BEING THE NORTHEAST CORNER OF TRACT NO. 2 AND IN THE LINE OF TRACT NO. 3; THENCE CONTINUING NORTH 36 DEG. 43 MIN. 49 SEC. EAST, 54.67 FT. ALONG THE LINE OF TRACT NO. 3 TO A½ INCH REBAR (SET) IN THE EXISTING FENCE LINE;

THENCE CONTINUING WITH TRACT NO. 3 AND ALONG THE EXISTING FENCE FOR THE FOLLOWING EIGHT (8) CALLS:

1. SOUTH 70 DEG. 10 MIN. 12 SEC. EAST, 215.86 FT. TO A POST;
2. THENCE SOUTH 68 DEG. 14 MIN. 02 SEC. EAST, 1 1 3.20 FT. TO A POST;
3. THENCE SOUTH 77 DEG. 41 MIN. 36 SEC. EAST, 128.52 FT. TO A POST;
4. THENCE SOUTH 84 DEG. 25 MIN. 35 SEC. EAST, 44.26 FT. TO A POST;
5. THENCE NORTH 65 DEG. 33 MIN. 48 SEC. EAST, 175.27 FT. TO A POST;
6. THENCE NORTH 74 DEG. 09 MIN. 10 SEC. EAST, 179.84 FT. TO A½ INCH REBAR (SET);
7. THENCE CROSSING THE FLEMING CREEK SOUTH 4 DEG. 08 MIN. 22 SEC. WEST, 117.51 FT. TO A POST ON THE SOUTH SIDE OF SAID CREEK;
8. THENCE SOUTH 6 DEG. 37 MIN. 15 SEC. WEST, 159.07 FT. TO A POST IN THE NORTH LINE OF TRACT NO. 8;

THENCE WITH THE LINE OF TRACT NO. 8 FOR THREE (3) CALLS:

1. SOUTH 75 DEG. 19 MIN. 07 SEC. WEST, 11.02 FT. TO A¼ INCH REBAR (SET);
2. THENCE SOUTH 27 DEG. 02 MIN. 06 SEC. WEST 26.93 FT. TO A ½ INCH REBAR (SET);
3. THENCE SOUTH 14 DEG. 17 MIN. 18 SEC. WEST, 730.74 FT.

TO A POINT IN THE LINE OF AFORESAID MARSHALLS, SAID POINT

A COMMON CORNER TO TRACT NO. 1 AND TRACT NO. 8, WITH SAID LINE PASSING A½ INCH REBAR (SET WITNESS CORNER) AT NORTH 14 DEG. 17 MIN. 18 SEC. EAST, A DISTANCE OF 8.00 FT. FROM SAID CORNER;

THENCE WITH THE LINE OF SAID MARSHALLS NORTH 80 DEG. 06 MIN. 34 SEC. WEST, 1599.74 FT. TO THE POINT OF BEGINNING; CONTAINING 29.3635 ACRES.

BEING A PART OF THE SAME REAL ESTATE CONVEYED TO ELWOOD KEGLEY (AKA ELWOOD C. KEGLEY) AND GEORGIA KEGLEY, HIS WIFE, BY DEED FROM VIRGINIA V. CARPENTER, DATED SEPTEMBER 27, 1976, AND RECORDED IN DEED BOOK 142, PAGE 146, FLEMING COUNTY CLERK'S OFFICE.

ALSO, BEING A PART OF PARCEL NO.2 OF THE SAME PROPERTY CONVEYED TO ELWOOD KEGLEY (AKA ELWOOD C. KEGLEY) AND GEORGIA KEGLEY, HIS WIFE, BY DEED FROM VIRGINIA K. CARPENTER, WIDOW, DATED JULY 13, 1966, AND RECORDED IN DEED BOOK 124, PAGE 240, FLEMING COUNTY CLERK'S OFFICE.

THIS IS A REVISED SURVEY, COMPLETED BY W.T. (TOMMY) CARPENTER, R.L.S. 2380 ON SEPTEMBER 30, 1996. THE PROPERTY DESCRIBED IN THIS DOCUMENT IS DEPICTED AS TRACT NO. 1 ON THE REVISED PLAT OF THE SURVEY OF THE ELWOOD KEGLEY, SR. AND GEORGIA KEGLEY PROPERTIES. SAID PLAT IS INTENDED TO BECOME A PART OF THIS DESCRIPTION AND IS ON FILE IN PLAT CABINET NO. 1, SLIDE NO. 125, FLEMING COUNTY CLERK'S OFFICE.

THE ½ INCH REBARS CALLED FOR IN THIS DESCRIPTION ARE A MINIMUM OF 18 INCHES IN LENGTH AND BEAR A ONE (1) INCH DIAMETER PLASTIC I.D, CAP STAMPED "W.T.C., R.L.S. 2380". THE .35 INCH X 2.9 INCH STEEL NAIL MARKERS ARE STAMPED "SURVEY MARK".

TAX ID NO.: 069-00-00-045.00

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
   PERMANENT PARCEL NUMBER: 069-00-00-045.00
   POSTED PAID: $199.56
2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)
3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)
4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)
5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)
6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)
7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)
8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)

SPENCER RAPP AND REBECCA RAPP

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-19, EFFECTIVE DATE: DECEMBER 23, 2019

OWNER: SPENCER RAPP AND REBECCA RAPP

TRACT NO. I

PARCEL NO. I:

A CERTAIN TRACT OF LAND LOCATED IN FLEMING COUNTY, KENTUCKY, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING, AT THE EDGE OF KENTUCKY HIGHWAY #3301 AND CORNER TO SECOND PARTIES OTHER PROPERTY; THENCE N 75 DEG. W 848.5 FEET; THENCE N 08 DEG. E 1811 FEET; THENCE S 68 DEG. W 774.S FEET; THENCE S 63 DEG. W 438 FEET; THENCE S 02 DEG. W 48 FEET; THENCE N 84 DEG. W 425 FEET; THENCE N 54 DEG. W 120 FEET; THENCE N 83 DEG. W 200 FEET; THENCE S 45 DEG. W 172 FEET; THENCE S 16 DEG. E 208 FEET; THENCE S 13 DEG. E 400 FEET; THENCE S 52 DEG. E 57 FEET; THENCE S 22 DEG. E 200 FEET; THENCE S 60 DEG. E 600 FEET; THENCE S 07 DEG. E 839 FEET; THENCE N 76 DEG. E 1644 FEET; THENCE N 00 DEG. E 70 FEET TO THE BEGINNING, CONTAINING 67.136 ACRES, MORE OR LESS.

PARCEL NO. II:

A TRACT OF LAND FRONTING ON KENTUCKY HIGHWAY 3301 AND ON THE EAST SIDE THEREOF AND BORDERED BY THE PROPERTY OF ADRIAN WILLIAM AND SHIRLEY WILLIAMS, AND CONTAINING .30 ACRES, MORE OR LESS.

BEING THE SAME PROPERTY CONVEYED TO LEROY YODER, JR. AND MARY A. YODER, HIS WIFE, FROM STOVE FEARIN AND CATHY FEARIN.; HIS WIFE, BY A DEED OF CONVEYANCE DATED APRIL 1, 1993, OF RECORD IN DEED BOOK 176, PAGE 393, OF THE FLEMING COUNTY CLERK'S OFFICE.

THERE ISEXCEPTED AND NOT HEREIN CONVEYED, THE FOLLOWING DESCRIBED PROPERTY;

A CERTAIN TRACT OR PARCEL OF LAND LOCATED IN FLEMING COUNTY, KENTUCKY, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A TRACT OF LAND FRONTING ON KENTUCKY HIGHWAY 3301 AND ON THE EAST SIDE THEREOF AND BORDERED BY THE PROPERTY OF ADRIAN WILLIAMS AND SHIRLEY WILLIAMS AND SALYERS AND CONTAINING 0.30 ACRES, MORE OR LESS.

BEING THE SAME PROPERTY CONVEYED TO ADRIAN WILLIAMS AND SHIRLEY WILLIAMS, HUSBAND AND WIFE, FROM LEROY YODER, JR. AND MARY A. YODER, HUSBAND AND WIFE, BY A DEED OF CONVEYANCE DATED APRIL 1, 1993, OF RECORD IN DEED BOOK 176, PAGE 398, OF THE FLEMING COUNTY CLERK'S OFFICE.

TRACT NO. II

PROPERTY LOCATED IN FLEMING COUNTY, KENTUCKY, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT POST, CORNER TO CLARENCE GRAY; THENCE WITH HIS LINES N 63 ½ W 600 FEET TO A SYCAMORE; THENCE N 24 W 194 FEET TO A POST; THENCE N 44 W 66 FEET TO AN ELM;·THENCE N 13 ½W 200 FEET TO A POST; THENCE N 19 ½ W 182 FEET TO A POST; THENCE N 79 ½ W 234 FEET TO A WALNUT; THENCE S 82 W 253 FEET TO A WALNUT; THENCE N 41 ½ W 107 FEET TO A BUCKEYE; THENCE N 86 W 106 FEET TO A DEAD ASH; THENCE N 30 W 30 FEET TO AN ELM; THENCE S 58 W 50 FEET; N 80 W 145 FEET; N 55 W 136 FEET TO A SYCAMORE; THENCE CROSSING THE BRANCH S 52 W 48 FEET TO AN ASH; THENCE S 69 1/4 FEET TO A GUM; THENCE N 8S W 1133 FEET TO A POST; THENCE 8 13 ½ E 2739 FEET TO A POST CORNER TO IRVIN HAM'S; THENCE N 71 ½ E 600 FEET TO THE WESTERN SIDE OF PASSWAY; THENCE S 17 17 E 1563 FEET TO·THE CENTER OF COUNTY ROAD; THENCE N 71 ½ E 24 FEET; THENCE N 17 W 1563 FENCE TO A POST, CORNER TO HOWARD SOUSLEY; THENCE WITH HIS LINE N 71 ½ E 1718 FEET TO A POST; THENCE S 17 E 18 FEET TO A POST; THENCE N 71 ½ E 176 FEET TO A POST; THENCE N 11 W 831 FEET TO THE BEGINNING, CONTAINING 124.93 ACRES PLUS THE ROADWAY 0.87 ACRE.

BEING SAME PROPERTY CONVEYED TO LEROY YODER, JR. AND MACY A. YODER, HIS WIFE, FROM ABE TROYER, JR. AND MATTIE TROYER, HIS WIFE, BY A DEED OF CONVEYANCE DATED MAY 12, 1997, OF RECORD IN DEED BOOK 189, PAGE 607, OF THE FLEMING COUNTY CLERK'S OFFICE.

TRACT NO. III

A CERTAIN TRACT OF LAND FRONTING ON KENTUCKY HIGHWAY NO. 3301, LOCATED NEAR BEECHBURG & FLEMING COUNTY, KENTUCKY, AND WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:·

BEGINNING AT AN IRON CORNER OF ADRIAN AND SHIRLEY WILLIAMS AND IN THE RIGHT OF WAY FENCE LINE OF KENTUCKY 3301; THENCE WITH THE WILLIAMS LINE N 73 DEG. 50' 11" W FOR 256.67 FEET; THENCE N 63 DEG. 52' 02" W FOR 255.84 FEET TO A STAKE; THENCE N'66 DEG. 21' 06" W FOR 283.02 FEET.TO A STAKE; THENCE S 13 DEG. 47' 52" W FOR 250.38 FEET TO A POINT; THENCE WITH THE H.T. FEARIN LINE FENCE S 73 DEG. 51' 14" E 816.53 FEET TO A POINT IN THE RIGHT OF WAY OF KENTUCKY 3301 AND BEING 20.00 FEET FROM CENTER OF SAID ROAD; THENCE N 3 DEG. 08' 20" E FOR 180.11 FEET TO THE BEGINNING AT AN IRON ROD 35.00 FEET FROM CENTER OF KENTUCKY 3301. THIS PARCEL CONTAINS 3.6384 ACRES.

BEING THE SAME PROPERTY CONVEYED TO LEROY S. YODER, JR. AND MARY A. YODER, HUSBAND AND WIFE, FROM ADRIAN WILLIAMS AND SHIRLEY WILLIAMS, HUSBAND AND WIFE, BY A DEED OF CONVEYANCE DATED FEBRUARY 24, 1993, OF RECORD IN DEED BOOK 176, PAGE 286, OF RECORD IN THE FLEMING COUNTY CLERK'S OFFICE.

SAVE AND EXCEPT THAT CERTAIN TRACT OR PARCEL OF LAND IN DEED DATED AUGUST 18, 2019, RECORDED AUGUST 28, 2019 IN DEED BOOK 272, PAGE 390, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEING A 0.866 'ACRE TRACT OF LAND LOCATED ALONG BOTKINS LANE APPROXIMATELY 0.7 MILES NORTH OF KY HWY 559 IN FLEMING COUNTY, KENTUCKY AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON PIN & CAP SET ON THE EAST SIDE OF THE GRAVEL DRIVE CORNER TO SPENCER & REBECCA RAPP DEED BOOK 226, PAGE 57 AT THE NORTH WEST CORNER OF MARVIN & VIOLET LENGACHER DEED BOOK 237 PAGE 223 (PC 1 SLIDE 156); THENCE ALONG THE LENGACHER LINE AND THE EAST SIDE OF THE GRAVEL DRIVE S10°37'29"E A DISTANCE OF 564.37' TO A W' IRON PIN AND CAP FOUND (LS 2380); THENCE CONTINUING ALONG THE LENGACHER LINE S11°30'14"E A DISTANCE OF 689.83' TO AN IRON PIN AND CAP SET; THENCE S13°57'34"E A DISTANCE OF 316.51' TO A ½" IRON PIN AND CAP FOUND (LS 2380) NEAR THE TURN IN BOTKINS LANE; THENCE LEAVING THE LEGACHER LINE AND CROSSING THE GRAVEL LANE S 76°02'26"W A DISTANCE OF 24.00' TO AN IRON PIN AND CAP SET NEAR THE WEST SIDE OF GRAVEL AND CORNER TO KIMBERLY D. JONES DB 255 PG 513 WB 7 PG 74; THENCE WITH A LINE PARALLEL TO THE LENGACHER LINE ALONG THE JONES LINE AND THE WEST SIDE OF 11 GRAVEL DRIVE N 13°57'34"W A DISTANCE OF 317.03' TO AN IRON PIN & CAP SET; THENCE CONTINUING ALONG THE SAME N 11°30'14"W A DISTANCE OF 690.52'TO AN IRON PIN AND CAP SET; THENCE N 10°37'2911W A DISTANCE OF 564.09' TO AN IRON PIN AND CAP SET CORNER TO RAPP AND JONES; THENCE ALONG THE NEW LINE OF RAPP AND CROSSING THE GRAVEL DRIVE N78°15'29"E A DISTANCE OF 24.00' TO THE POINT OF BEGINNING CONTAINING 0.866 ACRES ACCORDING TO THE SURVEY BY TRAVIS A. MCGLONE PLS 3919 OF BUFFALO TRACE SURVEYING, LLC 5/7/2019 (FIELD SURVEY COMPLETED ON 5/1/2019 WITH A TOPCON 236W TOTAL STATION AS AN URBAN CLASS SURVEY HAVING AN UNADJUSTED TRAVERSE CLOSURE OF 1:28,707 AS SHOWN IN FILE 2019/LOWE MARK AND REVIEWED 5/7/2019).

ALL IRON PIN & CAPS SET WERE ½" X 18" REBAR WITH AN ORANGE PLASTIC CAP STAMPED "T. MCGLONE PLS 3919."

MAGNETIC NORTH BEARING OBSERVED ALONG A RANDOM TRAVERSE LINE ON DATE OF SURVEY 5/1/2019 (N5W).

PROPERTY SUBJECT TO ALL LEGAL RIGHT OF WAYS, EASEMENTS OF RECORD, UNRECORDED CONVEYANCES AND EXISTING RIGHT OF WAY FOR BOTKINS LANE FOR BENEFIT OF THE FLEMING COUNTY FISCAL COURT (ORDINANCE 05-005 40' TOTAL R/W).

BEING A PORTION OF THE PROPERTY CONVEYED TO SPENCER & REBECCA RAPP BY DEED RECORDED AT THE FLEMING COUNTY CLERK'S OFFICE IN DEED BOOK 226, PAGE 57.

TAX ID NO.: 071-00-00-004.00

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
   PERMANENT PARCEL NUMBER: 071-00-00-004.00
   POSTED PAID: $3,150.95
2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)
3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)
4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)
5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)
6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)
7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)
8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)
9. MORTGAGE DATED JANUARY 13, 2006, IN THE PRINCIPAL AMOUNT OF $450,000.00, EXECUTED BY SPENCER RAPP AND WIFE, REBECCA RAPP, IN FAVOR OF FARM CREDIT SERVICES, RECORDED JANUARY 13, 2006 IN BOOK 234, PAGE 720, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY. (NOT A SURVEY MATTER)
10. MORTGAGE DATED APRIL 4, 2008, IN THE PRINCIPAL AMOUNT OF $334,284.00, EXECUTED BY SPENCER RAPP AND WIFE, REBECCA RAPP, IN FAVOR OF FARM CREDIT SERVICES, RECORDED APRIL 5, 2008 IN BOOK 260, PAGE 635, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY. (NOT A SURVEY MATTER)
11. MORTGAGE DATED OCTOBER 28, 2019, IN THE PRINCIPAL AMOUNT OF $500,00.00, EXECUTED BY SPENCER RAPP AND WIFE, REBECCA RAPP, IN FAVOR OF FARM CREDIT SERVICES, RECORDED APRIL 5, 2008 IN BOOK 365, PAGE 329, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY. (NOT A SURVEY MATTER)
12. EASEMENT DATED SEPTEMBER 17, 1992, GRANTED BY R.T. FEARIN & NELLIE, HIS WIFE TO FLEMING COUNTY WATER ASSOCIATION, RECORDED NOVEMBER 12, 1992 IN BOOK 17, PAGE 5, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY. (BLANKET IN NATURE, NOT PLOTTABLE)
13. EASEMENT DATED SEPTEMBER 29, 1992, GRANTED BY ADRIAN WILLIAMS & SHIRLEY, HIS WIFE TO FLEMING COUNTY WATER ASSOCIATION, RECORDED NOVEMBER 12, 1992 IN BOOK 17, PAGE 7, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY. (BLANKET IN NATURE, NOT PLOTTABLE)

Westwood
Phone (720) 531-8350 10170 Church Ranch Way, Suite #201
Toll Free (888) 937-5150 Westminster, CO 80021
westwoodps.com
Westwood Professional Services, Inc.

PREPARED FOR:

RECURRENT ENERGY
123 Mission Street, Fl 18
San Francisco, CA 94105

REVISIONS:

#	DATE	COMMENT

Hummingbird Solar Project

Fleming County, Kentucky

DATE: 04/03/2022

ROBERT A. LIST AND CYNTHIA G. LIST

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-17, EFFECTIVE DATE: DECEMBER 23, 2019

OWNER: ROBERT A. LIST AND CYNTHIA G. LIST

A CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING IN FLEMING COUNTY, KENTUCKY, AND LYING ON THE WATERS OF FLEMING CREEK AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A FENCE POST AND STONE ON THE EAST SIDE OF A FARM LANE, COMER TO EDWARD KITCHEN; THENCE WITH SAID FARM LANE AND KITCHEN'S LINE N 31 DEG. 45' W 83 POLES AND 8 LINKS TO A FENCE POST; IN THE SOUTH RIGHT OF WAY OF HIGHWAY NO. 57, AND BEING A COMER TO GEORGE WATERMAN; THENCE WITH SOUTH R/W OF SAID HIGHWAY NO. 57 S 60 DEG. 00' W 39 LINKS TO A FENCE POST, COMER TO KELLEY AND LYING ON THE WEST SIDE. OF A FARM ROAD; THENCE WITH THE ABOVE ROAD AND KELLEY'S LINE S J1 DEG. 45' E 83 POLES AND 6 LINKS TO A FENCE POST ON THE WEST SIDE OF SAID FARM ROAD; THENCE LEAVING SAID ROAD AND WITH THE LINE OF KELLEY'S S 75 DEG. 45' W 60 POLES 22 LINKS TO A WILD CHERRY TREE ON THE EAST SIDE OF A COUNTY ROAD; THENCE WITH THE EAST R/W OF COUNTY ROAD S 21 DEG. 45' E 12 POLES 9 LINKS TO A WILD CHERRY; THENCE S 18 DEG. 45' E 40 POLES 10 LINKS; S 18 DEG. 15' E 36 POLES 9 LINKS; S 15 DEG. 30' E 12 POLES 12 LINKS; S 19 DEG. 00' E 36 POLES 9 LINKS TO A FENCE POST; THENCE S 16 DEG. 45' E 49 POLES 23 LINKS TO A BOX ELDER ON THE NORTH SIDE OF FLEMING CREEK S 01 DEG. 15' W 4 POLES 6 LINKS TO THREE ASH TREES ON THE SOUTH SIDE OF SAID CREEK; CORNER TO BROOKS DILLION AND ALEXANDERS; THENCE WITH THE LINE OF ALEXANDERS S 53 DEG. 30' E 2 POLES TO DELMAR EARLS LINE IN ALL 4 POLES, 4 LINKS TO A STAKE; THENCE WITH THE LINE OF DELMAR EARLS S 60 DEG. 15' E 23 POLES 20 LINKS TO A WILLOW TREE; THENCE N 80 DEG. 30' E 22 POLES 9 LINKS; N 81 DEG. 15' E 29 POLES 9 LINKS TO A HICKORY, THENCE N 29 DEG. 15' E 4 POLES 2 LINKS; N 15 DEG. 00' E 9 POLES 9 LINKS TO A LOCUST ON THE SOUTH SIDE OF CREEK; THENCE N 75 DEG. 30' E 10 POLES 12 LINKS; N 53 DEG. 00' E 3 POLES 7 LINKS; N 71 DEG. 45' E 4 POLES 11 LINKS TO A FENCE POST WEST OF A LARGE BOX ELDER; THENCE CROSSING CREEK N 03 DEG. 00 W 6 POLES 23 LINKS TO A FENCE POST ON THE NORTH SIDE OF CREEK BY A LARGE ELM AND A ROCK FENCE; THENCE N 61 DEG. 15' E 23 POLES 7 LINKS TO A FENCE POST; THENCE N 61 DEG. 30' E 42 POLES 9 LINKS TO A STONE CORNER TO EMMONS; THENCE WITH THE LINE OF EMMONS N 02 DEG. 00' W 185 POLES 12 LINKS TO A LARGE WILD CHERRY, CORNER TO EDWARD KITCHEN; THENCE WITH THE LINE OF EDWARD KITCHEN S 74 DEG. 00' W 149 POLES 15 LINKS TO THE PLACE OF BEGINNING, AND CONTAINING 230 ACRES, MORE OR LESS.

THERE IS EXCEPTED THEREFROM AND NOT CONVEYED HEREWITH THE FOLLOWING REAL ESTATE WHICH WAS CONVEYED TO ALGER TESTER AND IRENE TESTER, HIS WIFE, BY DEED FROM RUSSELL ZORNES AND CATHRYN ZORNES, HIS WIFE, DATED THE 2TH DAY OF NOVEMBER, 1985, AND OF RECORD IN DEED BOOK 160, PAGE 767, FLEMING COUNTY CLERK'S OFFICE:

A CERTAIN HOUSE AND TRACT OF LAND LYING OR SITUATED ON THE EAST SIDE OF COUNTY ROAD NO. 5038, MURPHY LANE, 0.5 MILE SOUTH OF KY. HWY. NO. 57, THE FLEMINGSBURG-MT. CARMEL ROAD, IN FLEMING COUNTY, KENTUCKY AND MORE SPECIFICALLY DESCRIBED AS FOLLOWS:

BEGINNING AT A 1/2 INCH RE-BAR IN THE EAST RIGHT-OF-WAY LINE OF MURPHY LANE, SAID POINT BEING 15 FEET FROM THE CENTER OF SAID ROAD AND ALSO BEING A NEW COMER TO RUSSELL AND CATHRYN ZORNES, (THE PARENT TRACT), CONVEYANCE OF SAID ZORNES' PROPERTY RECORDED IN DEED BOOK 140, PAGE 508, FLEMING COUNTY CLERK'S OFFICE; THENCE WITH SAID ZORNES' LINE FOR THE FOLLOWING CALLS:

NORTH 73 DEG. 05 MIN. 34 SEC. EAST, 188.23 FEEL TO A 1/2 INCH RE-BAR; THENCE SOUTH 14 DEG. 38 MIN. 54 SEC. EAST, 163.68 FEET TO A 1/2 INCH RE-BAR; THENCE SOUTH 74 DEG. 05 MIN. 12 SEC. WEST, 190.94 FEET TO A 1/2 INCH RE-BAR IN THE AFORESAID RIGHT-OF-WAY LINE OF MURPHY LANE; THENCE ALONG SAID RIGHT-OF-WAY LINE NORTH 13 DEG. 38 MIN. 39 SEC. WEST, 160.50 FEET TO THE POINT OF BEGINNING, CONTAINING 0.705 ACRE.

BEING THE SAME PROPERTY, LESS THE EXCEPTION, CONVEYED ONE-HALF (1/2) TO O. TODD FRYMAN AND LISA LEE FRYMAN, HIS WIFE, AND ONE-HALF (1/2) TO DONALD LEE AND JUNE A. LEE, HIS WIFE, BY DEED DATED MAY 17, 1990, FROM RUSSELL ZORNES AND CATHRYN ZORNES, HIS WIFE, AND RECORDED IN DEED BOOK 169, PAGE 489; ALSO BEING THE SAME PROPERTY, LESS THE EXCEPTION, THAT DONALD LEE AND JUNE A. LEE, HIS WIFE, CONVEYED THEIR ONE-HALF (1/2) INTEREST TO O. TODD FRYMAN AND LISA LEE FRYMAN, BY DEED DATED FEBRUARY 17, 1995, AND RECORDED IN DEED BOOK 181, PAGE 692; AND ALSO BEING THE SAME PROPERTY, LESS THE EXCEPTION, IN WHICH LISA LEE FRYMAN CONVEYED HER ONE-HALF (1/2) INTEREST TO O. TODD FRYMAN, BY DEED DATED MARCH 14, 2001 AND RECORDED IN DEED BOOK 206, PAGE 452, ALL OF RECORD IN THE FLEMING COUNTY CLERK'S OFFICE.

TAX ID NO.: 058-00-00-015.00

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
   PERMANENT PARCEL NUMBER: 058-00-00-015.00
   AMOUNT DUE: $2,260.25
2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)
3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)
4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)
5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)
6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)
7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)
8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)
9. REAL ESTATE MORTGAGE DATED MAY 24, 2007, IN THE PRINCIPAL AMOUNT OF $250,000.00, EXECUTED BY ROBERT LIST AND WIFE, CYNTHIA LIST, IN FAVOR OF THE BANK OF KENTUCKY, INC., RECORDED JUNE 7, 2007 IN BOOK 251, PAGE 651, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY; AS AMENDED BY RETAIL MODIFICATION AGREEMENT, INCLUDING MORTGAGE DATED JUNE 20, 2017, EXTENDING THE MATURITY DATE TO JUNE 20, 2032, RECORDED JULY 21, 2017 IN BOOK 344, PAGE 171, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY. (NOT A SURVEY MATTER)
10. EASEMENT DATED JUNE 15, 1992, GRANTED BY DONALD LEE AND WIFE JUNE LEE AND TODD FRYMAN AND WIFE, LISA FRYMAN TO FLEMING COUNTY WATER ASSOCIATION, RECORDED DECEMBER 8, 1992 IN BOOK 17, PAGE 112, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY. (SHOWN HEREON)

RICHARD E. LOWE

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-32, EFECITVE DATE: JUNE 30, 2020

OWNER: RICHARD E. LOWE
TRACTS 1-4:

QUIT CLAIM DEED DATED JULY 2, 2009, RECORDED AUGUST 21, 2008 IN DEED BOOK 238, PAGE 142, OFFICIAL RECORDS, FLEMING COUNTY, KENTUCKY.

TRACT 1:

DEED DATED MAY 24, 1994, RECORDED MAY 26, 1994 IN DEED BOOK 179, PAGE 480, OFFICIAL RECORDS, FLEMING COUNTY, KENTUCKY.

TRACT 2:

DEED DATED DECEMBER 30, 2002, RECORDED DECEMBER 30, 2002 IN DEED BOOK 213, PAGE 599, OFFICIAL RECORDS, FLEMING COUNTY, KENTUCKY.

TRACT 3:

DEED DATED JUNE 2, 2005, RECORDED JUNE 2, 2005 IN DEED BOOK 223, PAGE 231, OFFICIAL RECORDS, FLEMING COUNTY, KENTUCKY

TRACT 4:

DEED DATED SEPTEMBER 14, 2007, AND RECORDED SEPTEMBER 14, 2007 IN DEED BOOK 232, PAGE 286, OFFICIAL RECORDS, FLEMING COUNTY, KENTUCKY.

THE LAND REFERRED TO IN THIS COMMITMENT IS LOCATED IN THE COUNTY OF FLEMING, STATE OF KENTUCKY, DESCRIBED AS FOLLOWS:

SEE EXHIBIT "A" ATTACHED HERETO.

EXHIBIT A

TRACT NO. I:

PARCEL NO. 1: BEGINNING IN THE CENTER OF A LANE AT THE SOUTH EAST CORNER OF THE MAGOWAN FARM; THENCE WITH THIS LINE WEST 22 POLES AND 11 LINKS TO A SET STONE; THENCE S 10 W 21 POLES TO A SET STONE; THENCE S 8 E 28 POLES TO MIDDLE OF ROAD 14 LINKS BACK FROM A SET STONE; THENCE WITH SAID LANE N 18 E 18 POLES AND 2 LINKS TO THE BEGINNING. CONTAINING THREE AND ONE-QUARTER 0-1/4) ACRES.

NOTE: REFERENCE WAS MADE TO A CERTAIN DEED IN THIS TRACT'S CHAIN OF TITLE DATED 04-18-07, AT DEED BOOK 70, PAGE 308, FOR CORRECTIONS TO CERTAIN CALLS IN THE IMMEDIATELY PRECEDING DEED IN THIS CHAIN.

PARCEL NO. 2: A CERTAIN TRACT OF LAND LYING ON THE WATERS OF FLEMING CREEK IN FLEMING COUNTY, KENTUCKY AND BOUNDED AS FOLLOWS:

BEGINNING AT N.W. CORNER OF MRS. MADDOX'S HOUSE LOT & IN LINE OF JOHN CALDWELL LAND; THENCE N 86-3/4 W 51-2/10 POLES TO A SET STONE; THENCE S 9-7/8 E 58 POLES TO A NEW STONE UNDER THE FENCE AND CORNER TO THE LANDS RETAINED BY FIRST PARTY; THENCE A NEW LINE S 86-3/4 E 84-6/10 POLES TO CENTER OF PIKE; THENCE WITH SAME N 18 W 42-2/10 POLES TO A STAKE ON CENTER OF PIKE CORNER TO HOUSE LOT; THENCE WITH LINES OF SAME S 85 W 28-4/10 POLES; S 4-5/8 W 21-3/10 POLES TO THE BEGINNING. CONTAINING 25 ACRES.

NOTE: REFERENCE WAS MADE TO A CERTAIN DEED IN THIS TRACT'S CHAIN OF TITLE DATED 02-19, AT DEED BOOK 83, PAGE 255, FOR CORRECTIONS TO CERTAIN CALLS IN THE IMMEDIATELY PRECEDING DEED IN THIS CHAIN.

BEING THE SAME PROPERTY CONVEYED TO RICHARD E. LOWE AND DONNA LOWE, HUSBAND AND WIFE, FROM HOUSTON DUFF, WIDOWER, ET ALS, BY DEED DATED MAY 24, 1994, AND RECORDED IN DEED BOOK 179, PAGE 480, FLEMING COUNTY CLERK'S OFFICE.

TRACT NO. 2:

THIS PARCEL OF LAND IS A PORTION OF THE SHIRLEY BREWER PROPERTY LOCATED ON KY HWY 3304 IN FLEMING COUNTY, KENTUCKY. THE PARENT TRACT IS ON RECORD IN DEED BOOK 144, PAGE 724 LOCATED IN THE FLEMING COUNTY CLERK'S OFFICE AND IS MORE EXACTLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON PIN SET A CORNER TO THE REMAINDER OF THE SHIRLEY BREWER PROPERTY AND THE DUANE LOWE PROPERTY (DEED BOOK 208, PAGE 691); THENCE WITH THE LOWE LINE FOR THE FOLLOWING CALLS; THENCE N 05 DEG. 56 MIN. 32 SEC. E, 1069.26 FEET TO AN IRON PIN FOUND; THENCE N 00 DEG. 32 MIN. 15 SEC. E, 668.13 FEET TO AN IRON PIN FOUND A CORNER TO THE LOWE PROPERTY AND THE DAVID AND MARY LINDBERG PROPERTY (DEED BOOK 164, PAGE 664); THENCE S 88 DEG. 36 MIN. 46 SEC. E, 63,13 FEET WITH THE LINDBERG LINE TO AN IRON PIN SET A CORNER TO THE LINDBERG PROPERTY AND THE MICHAEL HILL PROPERTY (DEED BOOK 210, PAGE 200); THENCE S 86 DEG. 20 MIN. 39 SEC. E, 834.81 FEET WITH THE HILL LINE TO AN IRON PIN SET A CORNER TO THE HILL PROPERTY AND THE MICHAEL AND LINDA HILL PROPERTY (DEED BOOK 192, PAGE 52); THENCE WITH THE MICHAEL AND LINDA HILL LINE FOR THE FOLLOWING CALLS; THENCE S. 84 DEG. 12 MIN. 39 SEC. E 497.54 FEET TO AN IRON PIN SET; THENCE S 87 DEG. 08 MIN. 53 SEC. E, 384.21 FEET TO AN IRON PIN SET A CORNER TO THE HILL PROPERTY AND THE RICHARD AND DONNA LOWE PROPERTY (DEED BOOK 179, PAGE 480); THENCE S 09 DEG. 03 MIN. 12 SEC. E, 954.01 FEET WITH THE LOWE LINE TO AN IRON PIN SET A CORNER TO THE LOWE PROPERTY AND THE ROBERT MARSHALL PROPERTY (DEED BOOK 115, PAGE 325); THENCE S 08 DEG. 40 MIN 01 SEC. E, 772.62 FEET WITH MARSHALL LINE TO AN IRON PIN SET A CORNER TO THE MARSHALL PROPERTY AND THE MARK IV PROPERTIES AND RENTALS (DEED BOOK 189, PAGE 3, AND DEED BOOK 201, PAGE 594); THENCE N 88 DEG. 17 MIN. 29 SEC. W, 865.26 FEET WITH THE LINE TO THE MARK IV PROPERTIES AND RENTALS TO AN IRON PIN SET A CORNER TO THE MARK IV PROPERTIES AND RENTALS AND THE REMAINDER TO THE BREWER PROPERTY; THENCE N 86 DEG. 47 MIN. 20 SEC. W, 1295.64 FEET WITH THE BREWER LINE TO THE POINT OF BEGINNING CONTAINING AN AREA OF 3,358,714.4 SQUARE FEET (77.11 ACRES).

THIS PARCEL OF LAND WAS SURVEYED BY ALAN JUSTICE ENGINEERING AND SURVEYING, INC.
DURING THE MONTH OF DECEMBER 2002. ALL IRON PINS SET AREREBAR MARKED WITH I.D. CAPS. THE BASIS OF BEARING FOR THIS WAS AN ADJOINERS TRACT BEARING OFF THE NORTH EAST SIDE OF THE MARK IV PROPERTIES AND RENTALS. THIS IS A CLASS B SURVEY AND THE UNADJUSTED ERROR OF CLOSURE OF THE RANDOM TRAVERSE WAS I IN 30,947.

THE ABOVE DESCRIBED PROPERTY DOES NOT HAVE ACCESS TO A PUBLIC ROADWAY AND THE SOLE MEANS OF INGRESS AND EGRESS TO THE PROPERTY IS THROUGH PROPERTY CURRENTLY OWNED BY THE PARTIES OF THE SECOND PART AS MORE PARTICULARLY DESCRIBED IN DEED BOOK 179, PAGE 480, FLEMING COUNTY CLERK'S OFFICE.

BEING THE SAME PROPERTY CONVEYED TO RICHARD E. LOWE AND DONNA M. LOWE, HIS WIFE, FROM SHIRLEY BREWER, SINGLE, BY DEED DATED DECEMBER 30, 2002, AND RECORDED IN DEED BOOK 213, PAGE 599, FLEMING COUNTY CLERK'S OFFICE.

TRACT NO. 3

THIS PARCEL OF LAND IS A PORTION OF THE SHIRLEY BREWER PROPERTY LOCATED ON KY. HWY. 3301 (FLEMING-BEECHBURG ROAD) IN FLEMING COUNTY, KENTUCKY. THE PARENT TRACT IS ON RECORD IN DEED BOOK 144, PAGE 724, LOCATED IN THE FLEMING COUNTY CLERK'S OFFICE AND IS MORE EXACTLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON PIN FOUND A CORNER TO THE RICHARD AND DONNA LOWE PROPERTY (DEED BOOK 213, PAGE 599) AND THE MARK IV PROPERTIES (DEED BOOK 189, PAGE 3); THENCE S 02 DEG. 00 MIN. 00 SEC. W, 732.43 FEET WITH THE MARK IV PROPERTIES LINE, THE JASON AND CHRISTINA HAMM LINE (DEED BOOK 201, PAGE 565 AND DEED B. 215, PAGE 313), THE GLEN AND GOLDIE MOORE PROPERTY (D.B. 196, PAGE 97), AND THE OTHER MARK IV PROPERTIES LINE TO AN IRON PIN SET A CORNER TO THE MARK IV PROPERTIES PROPERTY AND THE REMAINDER OF THE SHIRLEY BREWER PROPERTY (DEED BOOK 144, PAGE 724); THENCE N 89 DEG. 25 MIN. 21 SEC, W, 1337.52 FEET WITH THE BREWER LINE TO AN IRON PIN SET A CORNER TO THE BREWER PROPERTY AND THE DUANE LOWE PROPERTY (DEED BOOK 208, PAGE 691); THENCE WITH THE LINE OF THE DUANE LOWE PROPERTY FOR THE FOLLOWING CALLS: N 04 DEG. 58 MIN. 39 SEC. E, 763.90 FEET TO AN IRON PIN FOUND; THENCE N 05 DEG. 56 MIN. 32 SEC. E, 30.22 FEET TO AN IRON PIN FOUND A CORNER TO THE DUANE LOWE PROPERTY AND THE RICHARD AND DONNA LOWE PROPERTY; THENCE S 86 DEG. 47 MIN. 20 SEC. E, 1295.64 FEET WITH THE RICHARD AND DONNA LOWE LINE TO THE POINT OF BEGINNING CONTAINING AN AREA OF 1004052.6 SQUARE FEET (23.05 ACRES). THIS PARCEL OF LAND WAS SURVEYED BY ALAN JUSTICE ENGINEERING AND SURVEYING, INC. DURING THE MONTH OF APRIL 2005. ALL IRON PINS SET ARE ½" REBAR MARKED WITH I.D. CAPS. THE BASIS OF BEARING FOR THIS SURVEY WAS A PARENT TRACT BEARING. THIS IS A CLASS A SURVEY AND THE UNADJUSTED ERROR OF CLOSURE OF THE RANDOM TRAVERSE WAS 1 IN 192,692.

BEING THE SAME PROPERTY CONVEYED TO RICHARD E. LOWE AND DONNA M. LOWE, HIS WIFE, FROM SHIRLEY BREWER, SINGLE, BY DEED DATED JUNE 2, 2005, AND RECORDED IN DEED BOOK 223, PAGE 231, FLEMING COUNTY CLERK'S OFFICE.

TRACT NO. 4

THIS PARCEL OF LAND IS A PORTION OF THE SHIRLEY BREWER PROPERTY LOCATED ON KY. HWY. 3301 IN FLEMING COUNTY, KENTUCKY. THE PARENT TRACT IS ON RECORD IN DEED BOOK 144, PAGE 724, LOCATED IN THE FLEMING COUNTY CLERK'S OFFICE AND IS MORE EXACTLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON PIN FOUND A CORNER TO THE RICHARD AND DONNA LOWE PROPERTY (DEED BOOK 223, PAGE 231) AND THE MARK IV PROPERTIES (D.B. 189, PAGE 3); THENCE S 02 DEG. 00 MIN. 00 SEC. W, 402.42 FEET WITH THE MARK IV PROPERTIES LINE TO AN IRON PIN FOUND A CORNER TO THE MARK IV PROPERTIES PROPERTY AND THE KENNY AND KAREN HUNT PROPERTY (DEED BOOK 225, PAGE 725); THENCE N 85 DEG. 46 MIN. 19 SEC. W, 407.32 FEET WITH THE HUNT LINE TO AN IRON PIN FOUND A CORNER TO THE HUNT PROPERTY AND THE REMAINDER OF THE SHIRLEY BREWER PROPERTY; THENCE N 04 DEG. 03 MIN. 04 SEC. W, 377.59 FEET WITH THE BREWER LINE TO AN IRON PIN SET A CORNER TO THE BREWER PROPERTY AND THE LOWE PROPERTY; THENCE S 89 DEG. 25 MIN. 21 SEC. E, 446,96 FEET WITH THE LOWE LINE TO THE POINT OF BEGINNING CONTAINING AN AREA OF 166003.5 SQUARE FEET (3.81 ACRES).

THIS PARCEL OF LAND WAS SURVEYED BY ALAN JUSTICE ENGINEERING AND SURVEYING, INC. DURING THE MONTH OF APRIL 2007. ALL IRON PINS SET ARE '1/2" REBAR MARKED WITH I.D, CAPS. THE BASIS OF BEARING FOR THIS SURVEY WAS ALONG THE SOUTH EAST SIDE OF THE RICHARD AND DONNA LOWE PROPERTY. THIS IS A CLASS A SURVEY AND THE UNADJUSTED ERROR OF CLOSURE OF THE RANDOM TRAVERSE WAS 1 IN 156,346.

BEING THE SAME PROPERTY CONVEYED TO RICHARD E. LOWE AND DONNA M. LOWE, HIS WIFE, FROM SHIRLEY BREWER, SINGLE, BY DEED DATED SEPTEMBER 14, 2007, AND RECORDED IN DEED BOOK 232, PAGE 286, FLEMING COUNTY CLERK'S OFFICE.

TAX ID NO.: 058-00-00-035.00

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
   PERMANENT PARCEL NUMBER: 058-00-00-035.00
   POSTED PAID: $1,195.29
2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)
3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)
4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)
5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)
6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)
7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)
8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)
9. MORTGAGE DATED APRIL 10, 2014, IN THE PRINCIPAL AMOUNT OF $91,484.00, EXECUTED BY RICHARD E. LOWE, SINGLE, IN FAVOR OF COMMUNITY TRUST BANK, INC., RECORDED APRIL 11, 2014 IN BOOK 315, PAGE 698, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (AFFECTS TRACT 2) (NOT A SURVEY MATTER)
10. MORTGAGE DATED SEPTEMBER 14, 2007, IN THE PRINCIPAL AMOUNT OF $14,500.00, EXECUTED BY RICHARD E. LOWE, AND WIFE, DONNA M. LOWE, IN FAVOR OF SHIRLEY BREWER, WITH A MATURITY DATE OF APRIL 1, 2010, RECORDED SEPTEMBER 14, 2007 IN BOOK 254, PAGE 615, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (AFFECTS TRACT 4) (NOT A SURVEY MATTER)
11. MORTGAGE DATED APRIL 24, 1995, IN THE PRINCIPAL AMOUNT OF $100,000.00, EXECUTED BY RICHARD E. LOWE, AND WIFE, DONNA M. LOWE, IN FAVOR OF RALPH E. OWENS, AND WIFE, JUNE W. OWENS, WITH A MATURITY DATE OF APRIL 24, 1996, RECORDED MAY 5, 1995 IN BOOK 121, PAGE 319, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (AFFECTS TRACT 1) (NOT A SURVEY MATTER)

Westwood
Phone (720) 531-8350 10170 Church Ranch Way, Suite #201
Toll Free (888) 937-5150 Westminster, CO 80021
westwoodps.com
Westwood Professional Services, Inc.

PREPARED FOR:
RECURRENT ENERGY
123 Mission Street, Fl 18
San Francisco, CA 94105

REVISIONS:

#	DATE	COMMENT

Hummingbird Solar Project

Fleming County, Kentucky

DATE: 04/03/2022

DONOHOO RAPP PROPERTIES, LLC, A KENTUCKY LIMITED LIABILITY COMPANY

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-28, EFFECTIVE DATE: JULY 1, 2020

OWNER: DONOHOO RAPP PROPERTIES, LLC, A KENTUCKY LIMITED LIABILITY COMPANY

TRACT 1:

LYING AND BEING IN FLEMING COUNTY, KENTUCKY, AND DESCRIBED AND BOUNDED AS FOLLOWS, TO-WIT:

BEGINNING IN CENTER OF WILSON RUN TURNPIKE, AND CORNER TO JORDAN; THENCE WITH THE JORDAN LINE S 50¼ E 10.6 RODS TO A POST; THENCE S 62 E 4 RODS; S 57 E 4 RODS; S 21 ½ E 5.84 RODS S 30½ E 8.44 RODS; S 44½ E 6.4 S 33¼ E 7.68 RODS TO AN ELM ON SOUTH SIDE OF BRANCH; THENCE CROSSING BRANCH N 75½ E 196 RODS TO AN ELM; THENCE S 46.75 E 20.8 RODS TO A POST; THENCE S 65 E 16.65 RODS TO A THORN TREE; THENCE S 79.75 E 9.04 RODS TO A POST; CORNER TO JORDAN, AND W.D. DALTON; THENCE WITH THE DALTON LINE N 15 E 0.18 RODS; THENCE S 76½ E 12.28 RODS TO A POST; THENCE S 82½ E 48.32 RODS TO AN ANCHOR POST; THENCE S 70 E L 05.8 RODS TO A POST, CORNER TO DALTON IN C.R. BISHOPS LINE; THENCE WITH THE BISHOP LINES N 7 E 22.12 RODS TO A POST; THENCE S 81.75 E 42.6 RODS TO A POST IN BISHOPS LINE, AND CORNER TO MRS. DORSEY; THENCE WITH HER LINE N 141/2 W 156.56 RODS TO A POST; THENCE N 86¼ W 92.24 RODS TO A POST; CORNER TO JOHN L. ZACHARYS LAND; THENCE WITH HIS LINES S 6 W 30.92 RODS; S 10½ W 20.6 RODS; S 11 W 19.12 RODS TO A POST; THENCE S 33½ W 10.6 RODS TO A POST AT ROADWAY; THENCE DOWN SAME N 57.75 W 4.6 RODS; N 91½ W 18 RODS; N 75½ W 4 RODS; N 83.75 W 33.68 RODS; N 75½ W 22.72 RODS; N 78 W 21.92 RODS; N 70 W 27.88 RODS TO CENTER OF WILSON RUN ROAD; THENCE DOWN SAME S 421/2 W 2.68 RODS; S 85 W 2 RODS TO THE BEGINNING, CONTAINING 127 ACRES 48 SQUARE RODS.

BEING THE SAME PROPERTY CONVEYED TO WILLIAM B. GRAY AND EUNICE GRAY, FROM ALICE SAUNDERS, WIDOW, ET AL., BY DEED DATED FEBRUARY 1950, AND RECORDED IN DEED BOOK 107, PAGE 465, FLEMING COUNTY CLERK'S OFFICE. WILLIAM B. GRAY DIED ON JUNE 26, 1991, LEAVING EUNICE M. GRAY AS SOLE OWNER OF THE PROPERTY PURSUANT TO THE SURVIVORSHIP PROVISION IN SAID DEED. EUNICE M. GRAY DIED TESTATE ON JULY 23, 2019, GIVING THE EXECUTOR THE POWER TO SELL REAL ESTATE. SEE WILL RECORDED IN WILL BOOK 9, PAGE 420, FLEMING COUNTY CLERK'S OFFICE.

TRACT 2:

A CERTAIN TRACT OF LAND LYING AND BEING IN FLEMING COUNTY, KENTUCKY, AND BEGINNING IN THE CENTER OF THE WILSON RUN TURNPIKE AND CORNER TO AVERY NEWMAN'S TRACT; THENCE WITH THE NEWMAN'S LINES, S 70° EAST 27.68 RODS; SOUTH 76° EAST 21.92 RODS; SOUTH 75½° EAST 22.72 RODS; THENCE SOUTH 83¾° EAST 33.68 RODS; SOUTH 75½° EAST 4 RODS; SOUTH 81½° EAST 18 RODS TO A GATE POST; THENCE SOUTH 57¾° EAST 4.6 RODS TO A POST; THENCE LEAVING ROADWAY, NORTH 33½° EAST 10.6 RODS; NORTH 11° EAST 19.12 RODS; NORTH 10 ½° EAST 20.6 RODS; NORTH 6° EAST 30.92 RODS TO A POST, CORNER TO NEWMAN; THENCE NORTH 86¼° WEST 96.64 RODS TO A POST; THENCE NORTH 56° WEST 7.2 RODS TO AN ELM; THENCE SOUTH 400 WEST 4.52 RODS TO A WILD CHERRY; THENCE SOUTH 86½° WEST 1.76 RODS TO A LOCUST; THENCE NORTH 85½° WEST 11.76 RODS TO CENTER OF WILSON RUN ROAD; THENCE DOWN THE SAME ITS APPROXIMATE CENTER, SOUTH 14° WEST 11.64 RODS; SOUTH 32½° WEST 2 RODS; SOUTH 37¾° WEST 10 RODS; SOUTH 29½° WEST 18 RODS; SOUTH 23½° WEST 21.32 RODS TO THE BEGINNING, CONTAINING 56 ACRES, MORE OR LESS. BEING THE SAME PROPERTY CONVEYED TO W. B. GRAY AND EUNICE GRAY. HIS WIFE, FROM ESTLE NEWSOME AND VERNA LUCILLE NEWSOME, HIS WIFE, BY DEED DATED DECEMBER 24, 1957, AND RECORDED IN DEED BOOK 115, PAGE 24, FLEMING COUNTY CLERK'S OFFICE, WILLIAM B. GRAY DIED ON JUNE 26, 1991, LEAVING EUNICE M. GRAY AS SOLE OWNER OF THE PROPERTY PURSUANT TO THE SURVIVORSHIP PROVISION IN SAID DEED. EUNICE M. GRAY DIED TESTATE ON JULY 23, 2019, GIVING THE EXECUTOR THE POWER TO SELL REAL ESTATE. SEE WILL RECORDED IN WILL BOOK 9, PAGE 420, FLEMING COUNTY CLERK'S OFFICE.

TRACT 3:

A CERTAIN TRACT OF LAND LYING AND BEING IN FLEMING COUNTY, KENTUCKY AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING IN THE FENCE LINE OF SECOND PARTIES FARM CORNER TO HAROLD HIMES AND WIFE AND THE PROPERTY CONVEYED BY THIS DEED; THENCE IN A GENERAL SOUTHERLY DIRECTION FOLLOWING THE HIMES PROPERTY LINE TO A POINT CORNER TO BETTY HANUN'S PROPERTY; THENCE AT AN APPROXIMATE RIGHT ANGLE FOLLOWING THE PROPERTY LINE OF BETTY HAMM AND PURNELL AND FIRST PARTIES OTHER PROPERTY WHICH IS NOT BEING CONVEYED, TO DON HAMM'S PROPERTY LINE; THENCE IN A GENERAL NORTHERLY DIRECTION FOLLOWING DON HAMM'S PROPERTY LINE TO SECOND PARTIES OTHER PROPERTY; THENCE FOLLOWING SECOND PARTIES OTHER PROPERTY LINE FOLLOWING A GENERAL WESTERLY AND NORTHWESTERLY COURSE TO THE BEGINNING, CONTAINING 55 ACRES, MORE OR LESS.

BEING THE SAME PROPERTY CONVEYED TO WILLIAM B. GRAY AND EUNICE GRAY, HIS WIFE, FROM W. BRUCE GARDNER AND GENEVA GARDNER, HIS WIFE, BY DEED DATED MARCH 24, 1979, AND RECORDED IN DEED BOOK 148, PAGE 241, FLEMING COUNTY CLERK'S OFFICE.

WILLIAM B. GRAY DIED ON JUNE 26, 1991, LEAVING EUNICE M. GRAY AS SOLE OWNER OF THE PROPERTY PURSUANT TO THE SURVIVORSHIP PROVISION IN SAID DEED. EUNICE M. GRAY DIED TESTATE ON JULY 23, 2019, GIVING THE EXECUTOR THE POWER TO SELL REAL ESTATE. SEE WILL RECORDED IN WILL BOOK 9, PAGE 420, FLEMING COUNTY CLERK'S OFFICE.

TAX ID NO.: 059-00-00-010.00

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
   PERMANENT PARCEL NUMBER: 059-00-00-010.00
   POSTED PAID: $1,425.38
2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)
3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)
4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)
5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)
6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)
7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)
8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)
9. ADDITIONAL COLLATERAL MORTGAGE DATED OCTOBER 28, 2019, IN THE PRINCIPAL AMOUNT OF $334,284.00, EXECUTED BY DONOHOO RAPP PROPERTIES, LLC, AN OHIO LIMITED LIABILITY COMPANY, IN FAVOR OF FARM CREDIT MID-AMERICA, FLCA, A CORPORATION, WITH A MATURITY DATE OF APRIL 1, 2028, RECORDED NOVEMBER 4, 2019 IN BOOK 365, PAGE 347, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (NOT A SURVEY MATTER)
10. ADDITIONAL COLLATERAL MORTGAGE DATED OCTOBER 28, 2019, IN THE PRINCIPAL AMOUNT OF $450,000.00, EXECUTED BY DONOHOO RAPP PROPERTIES, LLC, AN OHIO LIMITED LIABILITY COMPANY, IN FAVOR OF FARM CREDIT MID-AMERICA, FLCA, A CORPORATION, WITH A MATURITY DATE OF FEBRUARY 1, 2031, RECORDED NOVEMBER 4, 2019 IN BOOK 365, PAGE 342, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (NOT A SURVEY MATTER)
11. COMMERCIAL REAL ESTATE MORTGAGE DATED OCTOBER 28, 2019, IN THE PRINCIPAL AMOUNT OF $500,000.00, EXECUTED BY SPENCER RAPP AND REBECCA RAPP, AND DONOHOO RAPP PROPERTIES, LLC, AN OHIO LIMITED LIABILITY COMPANY, IN FAVOR OF FARM CREDIT MID-AMERICA, FLCA, A CORPORATION, WITH A MATURITY DATE OF NOVEMBER 1, 2039, RECORDED NOVEMBER 4, 2019 IN BOOK 365, PAGE 329, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (NOT A SURVEY MATTER)

ANDREW WOODSON GRAHAM

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-20, EFFECTIVE DATE: JULY 1, 2020

OWNER: DONOHOO RAPP PROPERTIES, LLC, A KENTUCKY LIMITED LIABILITY COMPANY

A CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING IN FLEMING COUNTY, KENTUCKY ON THE NORTH SIDE OF THE MT. CARMEL-FOXPORT ROAD AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A ½" STEEL REBAR (FOUND THIS SURVEY) WITH PLASTIC CAP STAMPED "PROPERTY CORNER, ROY A. WRIGHT, PLS 2808", CORNER TO MICHAEL A. HUGHES (D.B. 229, PG. 187) AND RANDALL MEADOWS (D.B. 206, PG. 527); THENCE WITH SAID HUGHES THE FOLLOWING FIVE CALLS S 07°51'49" W A DISTANCE OF 905.86' TO A ½" STEEL REBAR (FOUND THIS SURVEY) WITH PLASTIC CAP STAMPED "PROPERTY CORNER, ROY A. WRIGHT, PLS 2808", BY FENCE POST; THENCE S 19°40'52" W A DISTANCE OF 346.94' TO A ½" STEEL REBAR (FOUND THIS SURVEY) WITH PLASTIC CAP STAMPED "PROPERTY CORNER, ROY A. WRIGHT, PLS 2808" BY FENCE POST; THENCE S 33°43'31" W A DISTANCE OF 313.64' TO A ½" STEEL REBAR (FOUND THIS SURVEY) WITH PLASTIC CAP STAMPED "PROPERTY CORNER, ROY A. WRIGHT, PLS 2808", BY FENCE POST; THENCE N 55°36'16" W A DISTANCE OF 69.54' TO A 1/2" STEEL REBAR (SET THIS SURVEY) AS REFERENCE PIN WITH PLASTIC CAP STAMPED "ROY A. WRIGHT. PLS 2808"; THENCE N 55°36'16" W A DISTANCE OF 30.79' TO A CORNER FENCE POST, CORNER TO FREDDIE APPLEGATE (D.B. 213, PG. 224); THENCE WITH SAID APPLEGATE THE FOLLOWING FOUR CALLS N 38°18'19" W A DISTANCE OF 216.16' TO A ½" STEEL REBAR (FOUND THIS SURVEY) WITH PLASTIC CAP STAMPED "PROPERTY CORNER, ROY A. WRIGHT, PLS 2808"; THENCE S 62°25'17" W A DISTANCE OF 148.85' TO A ½" STEEL REBAR (FOUND THIS SURVEY) WITH PLASTIC CAP STAMPED "PROPERTY CORNER, ROY A. WRIGHT, PLS 2808"; THENCE N 52°09'24" W A DISTANCE OF 153.42' TO A ½" STEEL REBAR (FOUND THIS SURVEY) WITH PLASTIC CAP STAMPED "PROPERTY CORNER, ROY A. WRIGHT, PLS 2808"; THENCE S 56°04'33" W A DISTANCE OF 83.31' TO A ½" STEEL REBAR (FOUND THIS SURVEY) WITH PLASTIC CAP STAMPED "PROPERTY CORNER, ROY A. WRIGHT, PLS 2808", 30' FROM CENTER OF KY 344 IN NORTH RIGHT OF WAY LINE (D.B. 91C, PG. 326 & 327); THENCE WITH SAID NORTH RIGHT OF WAY LINE OF KY 344 THE FOLLOWING FIVE CALLS N 43°37'26" W A DISTANCE OF 170.87' TO A POINT ON SURVEY (NO MONUMENT SET); THENCE N 39°48'06" W A DISTANCE OF 298.88' TO AN IRON PIN (SET THIS SURVEY); THENCE WITH A CURVE TURNING TO THE LEFT WITH AN ARC LENGTH OF 435.35' WITH A RADIUS OF 1181. 70' WITH A CHORD BEARING OF N 50°21'21" W WITH A CHORD LENGTH OF 432.89' TO A POINT ON SURVEY (NO MONUMENT SET); THENCE N 29°05'24" E A DISTANCE OF 20.00' TO A POINT ON SURVEY (NO MONUMENT SET); THENCE WITH A CURVE TURNING TO THE LEFT WITH AN ARC LENGTH OF 35.65' WITH A RADIUS OF 1201.70' WITH A CHORD BEARING OF N 61°45'36" W WITH A CHORD LENGTH OF 35.65' TO AN IRON PIN (SET THIS SURVEY) IN THE WEST RIGHT OF WAY LINE OF BREEZE ROAD (COUNTY ROAD NO. 1025); THENCE WITH SAID RIGHT OF WAY LINE THE FOLLOWING NINETEEN CALLS N 71°52'08" E A DISTANCE OF 37.44' TO A POINT ON SURVEY (NO MONUMENT SET); THENCE WITH A CURVE TURNING TO THE LEFT WITH AN ARC LENGTH OF 114.33' WITH A RADIUS OF 145.91' WITH N CHORD BEARING OF N 49°25'12" E WITH A CHORD LENGTH OF 111.43' TO A POINT ON SURVEY (NO MONUMENT SET); THENCE N 26°58'17" E A DISTANCE OF 91.18' TO AN IRON PIN (SET THIS SURVEY); THENCE N 26°58'17" E A DISTANCE OF 155.50' TO AN IRON PIN (SET THIS SURVEY); THENCE N 19°05'00" E A DISTANCE OF 135.12' TO A POINT ON SURVEY (NO MONUMENT SET); THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 125.48' WITH A RADIUS OF 540.32' WITH A CHORD BEARING OF N 25°44'12" E WITH A CHORD LENGTH OF 125.20' TO A POINT ON SURVEY (NO MONUMENT SET); THENCE N 32°23'23" E A DISTANCE OF 13.83' TO A POINT ON SURVEY (NO MONUMENT SET); THENCE WITH A CURVE TURNING LO THE RIGHT WITH AN ARC LENGTH OF 107.87' WITH A RADIUS OF 271.18' WITH A CHORD BEARING OF N 43°47'08" E WITHE CHORD LENGTH OF 107.16' TO A POINT ON SURVEY (NO MONUMENT SET); THENCE N 55°10'53" E A DISTANCE OF 138.67' TO A POINT ON SURVEY (NO MONUMENT SET); THENCE WITH A CURVE TURNING TO THE LEFT WITH AN ARC LENGTH OF 216.29' WITH A RADIUS OF 706.79' WITH A CHORD BEARING OF N 46°24'53" E WITH A CHORD LENGTH OF 215.44' TO A POINT ON SURVEY (NO MONUMENT SET); THENCE N 37°38'54" E A DISTANCE OF 137.23' TO A POINT ON SURVEY (NO MONUMENT SET); THENCE N 41°42'59" E A DISTANCE OF 69.32' TO AN IRON PIN (SET THIS SURVEY); THENCE N 36°57'57" E A DISTANCE OF 166.35' TO AN IRON PIN (SET THIS SURVEY); THENCE N 38°14'55" E A DISTANCE OF 121.46' TO A POINT ON SURVEY (NO MONUMENT SET); THENCE WITH A CURVE TURNING TO THE LEFT WITH AN ARC LENGTH OF 211.28' WITH A RADIUS OF 846.20' WITH A CHORD BEARING OF N 31°05'46" E WITH A CHORD LENGTH OF 210.73' TO A POINT ON SURVEY (NO MONUMENT SET); THENCE N 23°56'36" E A DISTANCE OF 134.68' TO A POINT ON SURVEY (NO MONUMENT SET); THENCE N 29°45'36" E A DISTANCE OF 111.91' TO A POINT ON SURVEY (NO MONUMENT SET); THENCE WITH A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 147.42' WITH A RADIUS OF 158.03' WITH A CHORD BEARING OF N 56°29'05" E WITH A CHORD LENGTH OF 142.13' TO A POINT ON SURVEY (NO MONUMENT SET); THENCE N 83°12'35" E A DISTANCE OF 140.94' TO AN IRON PIN (SET THIS SURVEY); THENCE N 83°12'35" E A DISTANCE OF 159.46' TO AN IRON PIN (SET THIS SURVEY) CORNER TO SAID RANDALL MEADOWS (D.B. 206, PG. 527); THENCE WITH SAID MEADOWS THE FOLLOWING TWO CALLS S 07°19'49" W A DISTANCE OF 1167.89' TO AN IRON PIN (SET THIS SURVEY) BY CORNER POST; THENCE N 86°07'29" E A DISTANCE OF 144.38' TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED PARCEL CONTAINS 53.53 ACRES AS SURVEYED BY ROY A. WRIGHT SURVEYING, LLC, P.L.S. #2808, JUNE 26, 2014. ALL IRON PINS SET THIS SURVEY ARE 1/2" X 18" STEEL RE-BAR WITH AN ORANGE PLASTIC CAP STAMPED" ROY A. WRIGHT, P.L.S. #2808". ALL BEARINGS STATED HEREIN ARE ORIENTED PRIOR SURVEY OF MICHAEL A. HUGHES PROPERTY BY ROY A. WRIGHT, PLS, MAY 15, 2005, USING FOUND IRON PINS AS SHOWN HEREON.

THE ABOVE DESCRIBED IS SUBJECT TO ANY AND ALL RIGHT OF WAYS AND OR EASEMENTS WHETHER SHOWN HEREIN OR NOT. BEING A PART OF THE SAME LAND CONVEYED TO ROSCOE N. MILLER, THEN SINGLE, BY L.A. MACDONALD END WIFE, BY DEED DATED JULY 20, 1972, AND RECORDED IN DEED BOOK 134, PAGE 249; ROSCOE N. MILLER REMARRIED HIS WIFE, DOROTHY K. MILLER, ON FEBRUARY 14, 1974; DOROTHY K. MILLER DIED ON JULY 18, 2000, LEAVING ROSCOE N. MILLER A SINGLE PERSON ON THE DATE OF HIS DEATH ON MARCH 27, 2014; ALL OF RECORD IN THE FLEMING COUNTY CLERK'S OFFICE.

TAX ID NO.: 080-00-00-005.00

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
   PERMANENT PARCEL NUMBER: 080-00-00-005.00
   POSTED PAID: $333.95
2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)
3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)
4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)
5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)
6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)
7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)
8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)
9. MORTGAGE DATED MARCH 31, 2020, IN THE PRINCIPAL AMOUNT OF $90,000.00, EXECUTED BY ANDREW W. GRAHAM (A/K/A ANDREW WOODSON GRAHAM, SINGLE, AND DANIELLE L. HAMM, SINGLE, IN FAVOR OF PEOPLES BANK OF KENTUCKY, INC., WITH A MATURITY DATE OF APRIL 7, 2040, RECORDED APRIL 7, 2020 IN BOOK 369, PAGE 128, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (NOT A SURVEY MATTER)
10. MORTGAGE DATED JULY 1, 2014, IN THE PRINCIPAL AMOUNT OF $125,000.00, EXECUTED BY ANDREW WOODSON GRAHAM, SINGLE, IN FAVOR OF PEOPLES BANK OF KENTUCKY, INC., WITH A MATURITY DATE OF JULY 1, 2034, RECORDED JULY 1, 2014 IN BOOK 317, PAGE 665, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (NOT A SURVEY MATTER)

SHERRI GRIFFITH

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-36, EFFECTIVE DATE: JULY 1, 2020

OWNER: SHERRI GRIFFITH

TRACT NO. 1:

LOCATED ON THE BEECHBURG ROAD (ALSO KNOWN AS HUSSEY PIKE AND KENTUCKY HIGHWAY NO. 402) ABOUT FOUR (4) MILES NORTHEAST OF FLEMINGSBURG, FLEMING COUNTY, KENTUCKY, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS, TO-WIT:

PARCEL NO. 1: A CERTAIN TRACT OR BOUNDARY OF LAND LYING ON THE WATERS OF WILSON RUN IN FLEMING COUNTY, KENTUCKY AND BOUNDED GENERALLY AS FOLLOWS: ON THE NORTH BY THE LAND OF PATRICK FAY'S HEIRS AND JAMES JESSEE; ON THE EAST BY JAMES JESSEE AND ARNOLD HEIRS; ON THE SOUTH BY THE ARNOLD HEIRS AND ROBERT WEARE, AND ON THE WEST BY THE FAY HEIRS, CONTAINING IN ALL 121 ACRES AND 16 POLES, MORE OR LESS.

SAVE AND EXCEPT THE FOLLOWING-DESCRIBED TRACT OF LAND CONVEYED MADISON LOWE BY W. E. LOWE AND ROSA LOWE, HIS WIFE, BY DEED DATED JANUARY 25, 1954, OF RECORD IN DEED BOOK 111 AT PAGE 521, FLEMING COUNTY COURT CLERK'S OFFICE, TO-WIT:

A CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING ON THE SOUTHEASTERN SIDE OF THE WILSON RUN BEECHBURG ROAD, BOUNDED AND DESCRIBED AS FOLLOWS, VIZ: BEGINNING AT A CORNER POST AT THE SOUTHEAST CORNER OF THE DIVISION FENCE BETWEEN LOWE AND CARPENTER AND WHERE THE LANDS OF ARTHUR CARPENTER JOIN THE LANDS OF THE SAID W. E. LOWE; THENCE, NORTHWARD WITH A LINE RUNNING PARALLEL WITH THE COUNTY ROAD, TO WHERE THE LANDS OF NESBIT ASBURY JOINS THE LANDS OF THE SAID W. E. LOWE AT A CORNER POST ON THE EAST SIDE THEREOF; THENCE WITH THE DIVISION FENCE BETWEEN LOWE AND ASBURY IN A SOUTHEASTERN DIRECTION TO THE POINT OF BEGINNING, CONTAINING 60 ACRES, MORE OR LESS.

PARCEL NO. 2: THIS BEING A PART OF THE DOWER ASSIGNED BY MARY TRIPLETT IN THE DIVISION OF THE LANDS OF G. B. TRIPLETT, DECEASED, AND DESCRIBED AS FOLLOWS:

BEGINNING AT A STONE IN THE ROAD NEAR THE SCHOOL HOUSE; THENCE WITH SAID ROAD N 82$^{1}/_{4}$ W 5 54/100 POLES TO A STONE IN THE LINE OF HARRIETT EVANS, DECEASED; THENCE WITH HER LINE S 3-7/8 W 11-6/10 POLES TO A STONE; THENCE WITH A LINE OF LOT #4 OF THE DIVISION OF SAID LANDS S 82$^{1}/_{4}$ E 56 16/100 POLES TO A STONE ON THE EDGE OF THE ROAD; THENCE N 1$^{1}/_{2}$ W 11-6/10 POLES TO THE BEGINNING, CONTAINING FOUR (4) ACRES.

PARCEL NO. 3: BEING LOT #4 IN THE DIVISION OF THE LANDS OF G. B. TRIPLETT, DECEASED, AND BEGINNING AT A STAKE CORNER TO LOT #3 IN SECTION 2 OF SAID DIVISION, AND CORNER TO G. ARNOLD AT FIG. 29 ON THE PLAT OF SAID DIVISION; THENCE WITH A LINE OF SECTION 2 N 1 $^{1}/_{2}$ W 56-/100 POLES TO A STONE CORNER TO THE DOWER TIMBER LAND; THENCE WITH A LINE OF SAME N 82 $^{1}/_{4}$W 74-18/100 POLES TO A STONE CORNER TO LOT #3 SECTION 1; THENCE EAST 62-84/100 POLES TO A STONE IN THE EDGE OF THE ROAD, CORNER TO SAME; THENCE N 3 ¾ W 9 58/100 POLES TO THE BEGINNING, CONTAINING 26 ACRES.

BEING THE SAME REAL ESTATE CONVEYED TO RAYMOND M. HACKWORTH AND BONITA R. HACKWORTH, HUSBAND AND WIFE, FROM DENNIS LOWE, SR., ADMINISTRATOR WITH THE WILL ANNEXED OF THE ESTATE OF WILLIAM E. LOWE, DECEASED, BY DEED DATED JANUARY 3, 1966 AND OF RECORD IN DEED BOOK 123, PAGE 468, FLEMING COUNTY CLERK'S OFFICE.

TRACT NO. 2:

A SMALL TRACT OR PARCEL OF LAND LOCATED IN FLEMING COUNTY, KENTUCKY AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A SMALL TRACT OF LAND LOCATED IN FLEMING CO., KY., ON THE WATERS OF WILSON AND BOUNDED ON THE NORTH BY THE HUSSEY PIKE; ON THE EAST BY MADDISON LOWE; ON THE SOUTH BY BUMGARDNER; AND ON THE WEST BY WILSON RUN ROAD, CONTAINING 11 ACRES, MORE OR LESS.

BEING THE SAME REAL ESTATE CONVEYED TO RAYMOND HACKWORTH AND BONITA HACKWORTH, HUSBAND AND WIFE, FROM MADISON LOWE AND VIOLA LOWE, HUSBAND AND WIFE, BY DEED DATED OCTOBER 29, 1968 AND OF RECORD IN DEED BOOK 127, PAGE 243, FLEMING COUNTY CLERK'S OFFICE.

TRACT NO. 3:

A TRACT OF LAND LOCATED NEAR BEECHBURG, FLEMING COUNTY, KENTUCKY, WITH THE IMPROVEMENTS THEREON AND BOUNDED AND DESCRIBED AS FOLLOWS:

PARCEL NO. 1: BEGINNING AT A SET STONE IN THE ROAD RUNNING WITH THE ROAD S 70 W 62 POLES TO A CORNER IN SAME ROAD; THENCE S 20 E 66.6 POLES TO A STAKE UPON THE WEST SIDE OF A BEECH, WHICH BEECH IS A CORNER TO FIELDING GREEN AND CLARA ARBILD; THENCE WITH GREEN'S LINE N 68 E 63-3/4 POLES, TO A SET STONE CORNER TO SAME IN JESS DEBELL'S LINE; THENCE WITH SAME N 21-1/2 W 64.8 POLES TO THE BEGINNING, CONTAINING 25 ACRES, 2 QUARTERS AND 34 POLES, MORE OR LESS.

PARCEL NO. 2: BEGINNING AT A STONE; THENCE S 34-1/2 E 43 POLES TO TWO WHITE OAKS; THENCE 56 W 66 POLES TO A STONE; THENCE N 34 W 86 POLES TO A BEECH TREE MARKED ; THENCE N 68 E 65 POLES TO THE BEGINNING, CONTAINING 32-1/2 ACRES, MORE OR LESS.

SAVE AND EXCEPT AND NOT CONVEYED HEREIN, A TRACT OF LAND HERETOFORE CONVEYED TO MALCOLM BIGELOW AND WIFE ON OCTOBER 6, 1956, AND OF RECORD IN DEED BOOK 116, PAGE 395, FLEMING COUNTY CLERK'S OFFICE, SAID TRACT OF LAND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A CERTAIN TRACT OF LAND LYING IN FLEMING COUNTY, KENTUCKY, ON THE COLD SPRING ROAD AND BEGINNING AT A POST IN THE FENCELINE NEXT TO THE COLD SPRING ROAD; THENCE WITH AN EXISTING FENCELINE AND WITH THE LINE OF THE LAND BELONGING TO THE PARTY OF THE SECOND PART, BACK FROM SAID ROAD 90 FEET TO A POST; THENCE FOLLOWING ANOTHER FENCELINE AND WITH THE LAND OF THE PARTY OF THE SECOND PART 16 FEET TO A POST; THENCE FOLLOWING ANOTHER FENCELINE AND THE LAND OF PARTY OF THE SECOND PART 40 FEET TO A POST; THENCE IN A LINE THAT IS PARALLEL WITH THE COLD SPRING ROAD 178.5 FEET TO A STAKE; THENCE WITH A LINE THAT IS PARALLEL WITH THE 90 FOOT CALL ABOVE, 130 FEET TO THE FENCELINE THAT FRONTS ON THE COLD SPRING ROAD; THENCE WITH THE FENCELINE ON THE COLD SPRING ROAD 162.5 FEET TO THE BEGINNING, CONTAINING ONE-HALF ACRE, MORE OR LESS.

BEING THE SAME REAL ESTATE CONVEYED TO RAYMOND HACKWORTH AND BONITA HACKWORTH, HUSBAND AND WIFE, FROM R.T. FEARIN AND MARY GARDNER, CO-EXECUTORS OF THE ESTATE OF C.H. FEARIN, DECEASED, BY DEED DATED MARCH 1, 1972 AND OF RECORD IN DEED BOOK 133, PAGE 385, FLEMING COUNTY CLERK'S OFFICE.

TRACT NO. 4:

ALL THAT CERTAIN TRACT OF LAND LYING AND BEING IN FLEMING COUNTY, KENTUCKY, ON THE MT. CANNEL AND BEECHBURG TURNPIKE AND BOUNDED AS FOLLOWS:

BEGINNING IN CENTER OF MT. CARMEL, BEECHBURG TURNPIKE; THENCE LEAVING ROAD WITH DR. WALLINGFORD'S LINE N 87-3/8 E 40.16 RODS TO A POST AT END OF PICKET FENCE; THENCE N 59-1/2 W 2 RODS TO A POST, CORNER TO THOMAS POWER; THENCE WITH HIS LINE S 50-1/8 W 136.96 RODS TO A SET STONE, TO MRS. WRIGHTMAN, AND IN MRS. TURNER'S LINE; THENCE WITH HER LINE S 40 E 56 RODS TO A POINT AT TURN IN OLD ROAD; THENCE N 57-1/2 E 29.88 RODS TO A POST; THENCE S 59 E 73.12 RODS TO A SET STONE ON WEST SIDE OF ROAD; THENCE UP SAID ROAD N 7-1/2 E 14.04 RODS; N 10-1/4 E 72 RODS; N 4-3/4 E 62.52 RODS TO THE BEGINNING, CONTAINING 80 ACRES, AND 25 SQUARE RODS.

ALSO, A CERTAIN PASSWAY OR TRACT OF LAND BEING NEAR MT. CARMEL, KENTUCKY, IN FLEMING COUNTY, KY, BOUNDED GENERALLY AS FOLLOWS:

BEGINNING AT THE MARSHALL TURNPIKE; THENCE IN A WESTERLY DIRECTION TO THE LAND OF MRS. MARY A. POWER, A DISTANCE OF_____ FEET, MORE OR LESS, AND LYING BETWEEN THE FARMS OF THE LATE ROBERT MARSHALL AND THE FARM OF DR. A.M. WALLINGFORD AND SON, AND BEING 16 FEET WIDE SAID PASSWAY BEING DESCRIBED IN THE DEED FROM MRS. ALICE F. GLASCOCK TO DR. A.M. WALLINGFORD AND SON AS FOLLOWS: THENCE N 88 W PARALLEL TO THE MARSHALL LINE AND 16 FEET FROM IT 40.6 POLES TO A POINT AT A TURN IN THE OLD POPLAR PLAINS DIRT ROAD AND 16 FEET FROM MARSHALL'S CORNER. REFERENCE IS MADE TO SAID LINES IN SAID DEED RECORDED IN DEED BOOK 60, PAGE 163, FOR MORE PARTICULAR DESCRIPTION.

BEING THE SAME REAL ESTATE CONVEYED TO RAYMOND HACKWORTH AND BONITA HACKWORTH, HUSBAND AND WIFE, FROM WILLIAM T. WALTON, SPECIAL COMMISSIONER OF THE FLEMING CIRCUIT COURT BY DEED DATED APRIL 20, 1978 AND OF RECORD IN COMMISSIONER'S DEED BOOK 5, PAGE 163, FLEMING COUNTY CLERK'S OFFICE.

Westwood

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Toll Free (888) 937-5150 Westminster, CO 80021
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Westwood Professional Services, Inc.

PREPARED FOR:

RECURRENT ENERGY

123 Mission Street, Fl 18
San Francisco, CA 94105

REVISIONS:

#	DATE	COMMENT

Hummingbird Solar Project

Fleming County, Kentucky

DATE: 04/03/2022

SHERRI GRIFFITH (CONTINUED)

LEGAL DESCRIPTION (CONTINUED)

ALL OF THE ABOVE TRACTS ALSO BEING THE SAME PROPERTY IN WHICH BONITA R. HACKWORTH, MARRIED, CONVEYED ALL HER UNDIVIDED ONE-HALF ON) INTEREST UNTO RAYMOND M. HACKWORTH, MARRIED, BY DEED DATED MARCH 9, 1994, AND RECORDED IN DEED BOOK 181, PAGE 385, FLEMING COUNTY CLERK'S OFFICE.

BONITA R. HACKWORTH REFERRED TO HEREIN IS ONE AND THE SAME PERSON AS BONITA HACKWORTH, AND RAYMOND M. HACKWORTH REFERRED TO HEREIN IS ONE AND THE SAME PERSON AS RAYMOND HACKWORTH.

TAX ID NO.: 069-00-00-035.00

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
PERMANENT PARCEL NUMBER: 069-00-00-035.00
POSTED PAID: $618.01

2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)

3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)

4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)

5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)

6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)

7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)

8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)

9. RIGHT OF WAY EASEMENT DATED SEPTEMBER 18, 1992, GRANTED BY RAYMOND HACKWORTH AND WIFE, BONITA HACKWORTH, CONVEYED TO FLEMING COUNTY WATER ASSOCIATION, INC., RECORDED NOVEMBER 12, 1992 IN EASEMENT BOOK 17, PAGE 15, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (AFFECTS TRACT 3) (NOT PLOTTABLE)

10. RIGHT OF WAY EASEMENT DATED JULY 24, 1987, GRANTED BY RAYMOND HACKWORTH AND WIFE, BONITA HACKWORTH, CONVEYED TO FLEMING COUNTY WATER ASSOCIATION, INC., RECORDED APRIL 15, 1988 IN EASEMENT BOOK 15, PAGE 627, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (AFFECTS TRACT 1) (BLANKET IN NATURE, NOT PLOTTABLE)

11. RIGHT OF WAY EASEMENT DATED MAY 28, 1986, GRANTED BY RAYMOND HACKWORTH AND WIFE, BONITA HACKWORTH, CONVEYED TO FLEMING COUNTY WATER ASSOCIATION, INC., RECORDED JULY 15, 1986 IN EASEMENT BOOK 15, PAGE 460, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (AFFECTS TRACTS 1 AND 2) (BLANKET IN NATURE, NOT PLOTTABLE)

ANDREW T. HEFLIN

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-29, EFFECTIVE DATE: JULY 1, 2020

OWNER: ANDREW T. HEFLIN

A CERTAIN TRACT OR PARCEL OF LAND LYING IN FLEMING COUNTY, KENTUCKY AND DESCRIBED AS FOLLOWS:-

BEGINNING IN CENTER OF HIGHWAY NO. 344, CORNER TO CARL BREEZE; THENCE OUT CENTER OF HIGHWAY, S. 64 DEGREES 00' E. 989.5 FT. TO CORNER TO NOLAN MILLER. THENCE LEAVING HIGHWAY WITH HIS LINE, N. 42 DEGREES 50' E. 158.0 FT, TO CENTER OF COUNTY ROAD. THENCE OUT CENTER OF COUNTY ROAD N. 27 DEGREES 25' E. 298.0 FEET; THENCE N. 16 DEGREES 05' E. 150.0 FT; THENCE N. 31 DEGREES 11' E. 145.0 FT; THENCE N. 51 DEGREES 47' E. 312.0 FT; THENCE N. 39 DEGREES 00' E. 247.6 FT. TO CORNER TO DONALD MEADOWS. THENCE LEAVING COUNTY ROAD WITH HIS LINE N. 4 7 DEGREES 00' W. 15 6. 5 FT., TO POST. THENCE N. 07 DEGREES 22' E. 1680.5 FT, TO POST CORNER TO WALTER MATTINGLY. THENCE WITH HIS LINE N. 85 DEGREES 40' W. 1337 2 FT, TO POST CORNER TO D.E. FOXWORTHY. THENCE WITH HIS LINE, S. 19 DEGREES 50' W. 2105.0 FT, TO POST CORNER TO CARL BREEZE. THENCE WITH HIS LINE, S. 71 DEGREES 17' E. 525.6 FT, TO POST. THENCE S. 25 DEGREES 40' W. 380.8 FT, TO CENTER OF HIGHWAY NO. 344. THE BEGINNING. CONTAINING 92.255 ACRES.

BEING THE SAME PROPERTY CONVEYED TO ANDREW T. HEFLIN AND DIANA F. HEFLINE BY DEED FROM MELVIN LYNCH AND MARJORIE LYNCH, DATED FEBRUARY 12, 1982, AND RECORDED IN DEED BOOK 153, PAGE 697, FLEMING COUNTY CLERK'S OFFICE. THE SECOND PARTIES HAD THEIR MARRIAGE DISSOLVED BY THE FLEMING CIRCUIT COURT IN 1997, CIVIL ACTION NO. 97-CI-00094.

TAX ID NO.: 069-00-00-002.00

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
PERMANENT PARCEL NUMBER: 069-00-00-002.00
POSTED PAID: $963.15

2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)

3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)

4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)

5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)

6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)

7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)

8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)

9. MORTGAGE DATED JUNE 24, 2016, IN THE PRINCIPAL AMOUNT OF $110,234.65, EXECUTED BY ANDREW T. HEFLIN, UNMARRIED, IN FAVOR OF FARM CREDIT MID-AMERICA, FLCA, A CORPORATION, RECORDED JUNE 30, 2016 IN BOOK 334, PAGE 72, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (NOT A SURVEY MATTER)

RICK HORD AND TERESA HORD

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-35, EFFECTIVE DATE: JULY 1, 2020

OWNER: RICK HORD AND TERESA HORD

A TRACT OF LAND ON THE WATERS OF TURKEY RUN AND ON THE MT. CARMEL AND FLEMINGSBURG ROAD IN FLEMING COUNTY, KENTUCKY, AND BOUNDED AS FOLLOWS:

BEGINNING AT A POINT IN THE FLEMINGSBURG-MT CARMEL ROAD CORNER TO GEO WATTS; THENCE WITH WATTS S 27° 30' E 39.40 CHS. TO CORNER OF CHAS. MARSHALL; THENCE WITH MARSHALL N 51° E 26.02 CHS. TO A PASSWAY AND CORNER TO BRICE HINTON; THENCE N 16° W 18.40 CHS.; THENCE N 10° 30' E 93 CHS.; THENCE S 76° W 3.15; THENCE N 24° 30' W 2.78, THENCE N 89° 18' W 1.23 CHS.; THENCE N 48° 30' W 1.21 CHS.; THENCE N 72° 30' W 3.02 CHS.; THENCE N 10° 38' W 4.65 CHS. TO A POINT IN THE MT. CARMEL ROAD; THENCE WITH THE ROAD S 74° 30' W 9 CHS. S 76° 15' W 12 CHS. S 73° 30' W 2.80 CHS. TO THE BEGINNING, SAID TRACT CONTAINING 88.82 ACRE.

AND AN EASEMENT TO THE BARN RETAINED AND DESCRIBED IN DEED BOOK 177, PAGE 600, FLEMING COUNTY COURT RECORDS.

LESS AND EXCEPT THAT CERTAIN TRACT OR PARCEL OF LAND CONTAINING 5.4176 ACRES CONVEYED BY JAMES THOMAS ESHAM AND MARY LEWIS ESHAM, HUSBAND AND WIFE, TO LLOYD T SHINDLEBOWER AND JANE SHINDLEBOWER, HUSBAND AND WIFE, DATED SEPTEMBER 8, 1993, RECORDED IN DEED BOOK 177, PAGE 600, FLEMING COUNTY COURT RECORDS

TAX ID NO.: 069-00-00-024.00

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
PERMANENT PARCEL NUMBER: 069-00-00-024.00
POSTED PAID: $566.08

2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)

3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)

4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)

5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)

6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)

7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)

8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)

RICK HORD AND TERESA HORD

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-22, EFFECTIVE DATE: JULY 1, 2020

OWNER: LESLIE LITZLER, MARRIED, AS TO AN UNDIVIDED ONE-HALF (1/2) INTEREST, KELLEY SMITH, MARRIED, AS TO AN UNDIVIDED ONE-HALF (1/2) INTEREST

A CERTAIN TRACT OR PARCEL OF LAND, LYING AND BEING IN FLEMING COUNTY, KENTUCKY BOUNDED AND DESCRIBED AS FOLLOWS, TO-WIT:

BEGINNING IN THE CENTER OF THE BEECHBURG-FLEMINGSBURG ROAD AND CORNER TO CLAUDE BREWER, THENCE WITH HIS LINES, S 12-3/4 DEGREES WEST 37 RODS TO A POST; THENCE S 33 DEGREES WEST 21.7 RODS TO A POST; THENCE S 30 DEGREES W 14.72 RODS TO A POST AT WEST END OF WATER GAP; THENCE CROSSING BRANCH SOUTH 70 DEGREES E 1.16 RODS TO A HONEY LOCUST; THENCE S 11-1/2 WEST 3.4 RODS TO A POST; THENCE SOUTH 30 DEGREES W 4 RODS TO A POST; THENCE S 15 DEGREES W 11 RODS TO A POST; THENCE S 11 DEGREES W 27.6 RODS TO A POST; THENCE SOUTH 83-1/2 DEGREES E 154.2 RODS TO A POST; THENCE N 7 DEGREES E 104 RODS TO THE CENTER OF THE ABOVE ROAD; THENCE OUT SAME WITH ITS MEANDERS N 80-1/4 DEGREES W 48.48 RODS; N 83-1/2 DEGREES W 51.57 RODS; N 69-3/4 DEGREES W 30.76 RODS TO THE BEGINNING, CONTAINING 98.1 ACRES MORE OR LESS.

THERE IS EXCEPTED AND NOT CONVEYED HEREBY A CERTAIN TRACT OF LAND CONVEYED TO JAMES. E. HIGGINS AND RUTH ANN HIGGINS, HUSBAND AND WIFE, BY DEED FROM EUGENE DEARING AND HELEN DEARING, HUSBAND AND WIFE, DATED THE 30TH DAY OF SEPTEMBER, 1969, AND OF RECORD IN D.B. 129, PAGE 71, FLEMING COUNTY CLERK'S OFFICE, AND WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A CERTAIN TRACT OF REAL ESTATE SITUATED ON THE FLEMINGSBURG-BEECHBURG ROAD IN FLEMING COUNTY, KENTUCKY, AND DESCRIBED AS FOLLOWS:

BEGINNING IN THE CENTER OF THE FLEMINGSBURG-BEECHBURG ROADWAY AND CORNER TO RAYMOND HACKWORTH'S LAND; THENCE LEAVING THE ROAD WITH HIS LINE S 6 DEG. 30' W 140 FEET TO A STAKE, CORNER TO EUGENE DEARING'S LAND; THENCE WITH HIS LINE N 80 DEG, 20' W 170 FEET TO A STAKE; THENCE N 6 DEG. 30' E 140 FEET TO THE CENTER OF ROAD; THENCE OUT THE SAME S 80 DEG. 20' E 170 FEET TO THE BEGINNING, CONTAINING 0.54 ACRE.

THERE IS ALSO EXCEPTED AND NOT CONVEYED HEREBY A CERTAIN TRACT OF LAND CONVEYED TO JAMES HIGGINS AND RUTH ANN HIGGINS, HUSBAND AND WIFE, BY DEED FROM HELEN DEARING, WIDOW, DATED THE 19TH DAY OF AUGUST, 1993 AND OF RECORD IN D.B. 177, PAGE 496, FLEMING COUNTY CLERK'S OFFICE, AND WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A CERTAIN TRACT OF LAND LYING AND BEING IN FLEMING COUNTY, KENTUCKY BOUNDED AND DESCRIBED AS FOLLOWS, TO-WIT:

BEGINNING AT A CORNER POST IN THE PROPERTY LINE OF JAMES HIGGINS AND FOLLOWING THE LINE OF HIGGINS' PROPERTY N 170.01 TO A CORNER POST; THENCE AT AN APPROXIMATE 45" ANGLE E 120.0' ALONG THE PROPERTY LINE OF RAYMOND HACKWORTH'S LAND TO A STAKE; THENCE AT ANOTHER APPROXIMATE 90' ANGLE S 143.0' ALONG THE PROPERTY LINE OF HELEN DEARING TO A STAKE; THENCE AT AN APPROXIMATE 90" WEST 147.0 FEET ALONG THE PROPERTY LINE OF HELEN DEARING TO THE POINT OF BEGINNING AND CONTAINING ONE-HALF ACRE, MORE OR LESS.

THERE IS FURTHER EXCEPTED AND NOT CONVEYED A TRACT OF LAND CONVEYED TO NEIL DARE, SINGLE, FROM KENNETH C. DEARING AND MARILYN J. DEARING, HUSBAND AND WIFE, BY DEED DATED THE 24TH DAY OF AUGUST, 2007, AND OF RECORD IN DEED BOOK 232, PAGE 114, FLEMING COUNTY CLERK'S OFFICE AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A CERTAIN PARCEL OR TRACT OF LAND LYING OR SITUATED ON THE SOUTH SIDE OF KY. HWY. NO. 3301, BEECHTREE PIKE (FORMERLY BEECHBURG-FLEMINGSBURG ROAD), LOCATED APPROXIMATELY 1.7 MILES EAST OF KY. HWY. NO. 57, THE FLEMINGSBURG-MT. CARMEL ROAD, IN FLEMING COUNTY, KENTUCKY AND MORE SPECIFICALLY DESCRIBED AS FOLLOWS:

BEGINNING AT A CORNER POST IN THE SOUTH RIGHT-OF-WAY LINE OF KY. HWY. NO. 3301, SAID POINT, BEING 30 FEET FROM THE CENTER OF THE ROAD AND AN EXISTING COMMON CORNER TO RUTH ANN HIGGINS (DEED BOOK 129, PAGE 71) AND KENNETH C. DARING, ET UX, THE PARENT TRACT (DEED BOOK 178, PAGE 650); THENCE WITH THE LINE OF SAID HIGGINS AND ALONG AN EXISTING FENCE SOUTH 5 DEG. 01 MIN. 4 3 SEC. WEST, PASSING A ½ INCH REBAR AND CAP (SET WITNESS CORNER) AT 5.02 FEET AND PASSING ANOTHER ½ INCH REBAR AND CAP (SET WITNESS CORNER) AT 108.36 FEET (5.02 FEET+ 103.34 FEET), FOR A TOTAL DISTANCE OF 113.13 FEET TO A CORNER POST, SAID POINT A CORNER TO AFORESAID HIGGINS PROPERTY AND ANOTHER RUTH ANN HIGGINS PROPERTY (DEED BOOK 177, PAGE 496); THENCE WITH LATTER SAID HIGGINS' LINES FOR THE FOLLOWING TWO (2) CALLS:

(1) SOUTH 3 DEG. 51 MIN. 28 SEC. EAST, PASSING A ½ INCH REBAR AND CAP (SET WITNESS CORNER) AT 143.00 FEET, FOR A TOTAL DISTANCE OF 147.00 FEET TO A CORNER POST;

(2) THENCE NORTH 88 DEG. 3 6 MIN. 28 SEC. EAST, 141.93 FEET TO A ½ INCH REBAR AND CAP (SET) IN THE LINE OF RAYMOND M. HACKWORTH (DEED BOOK 123, PAGE 468 AND DEED BOOK 181, PAGE 385, TRACTS NO. 2 AND NO. 3); THENCE WITH THE LINE OF HACKWORTH SOUTH 5 DEG. 43 MIN. 15 SEC. WEST, PASSING THE COMMON CORNER OF HACKWORTH AND BRIAN HUNT (DEED BOOK 193, PAGE 83) AT 115 6. 00 FEET AND PASSING A ½ INCH REBAR AND CAP (SET WITNESS CORNER) IN THE LINE OF HUNT AT 1473.74 FEET (1156.00 FEET+ 317.74 FEET), FOR A TOTAL DISTANCE OF 1487. 74 FEET TO A CORNER POST; THENCE CONTINUING WITH THE LINE OF SAID HUNT NORTH 84 DEG. 00 MIN. 23 SEC. WEST, 803. 73 FEET TO A ½ INCH REBAR AND I.D. CAP STAMPED R. A. WRIGHT, L.S. 2808 (FOUND), SAID POINT A COMMON CORNER TO HUNT AND JASON L. PLANCK (DEED BOOK 221, PAGE 324); THENCE WITH THE LINE OF SAID PLANCK NORTH 83 DEG. 27 MIN. 23 SEC. WEST, 146.13 FEET TO A ½ INCH REBAR AND CAP (SET) AT THE NORTH BASE OF A FIFTEEN (15) INCH WILD CHERRY; THENCE WITH NEW DIVISION LINES OF THE PARENT TRACT FOR THE FOLLOWING TWO (2) CALLS:

(1) NORTH 1 DEG. 45 MIN. 49 SEC. EAST, PASSING A ½ INCH REBAR AND CAP (SET WITNESS CORNER) AT 1048.09 FEET, FOR A TOTAL DISTANCE OF 1053.09 FEET TO A POST IN AN EXISTING FENCE LINE;

(2) THENCE NORTH 16 DEG. 33 MIN. 44 SEC. EAST 724.10 FEET TO A ½ INCH REBAR AND CAP (SET) IN AFORESAID RIGHT-OF-WAY LINE; THENCE WITH THE RIGHT-OF-WAY LINE (COMMONWEALTH OF KENTUCKY, R/W DEED BOOK 91 C, 472 AND 474) FOR THE FOLLOWING TEN (10) CALLS:

(1) 24.78 FEET ALONG THE ARC OF A CURVE TO THE RIGHT TO A POINT 40 FEET RIGHT OF KY. 3301 CENTERLINE STATION 90 + 75, WITH SAID CURVE HAVING A RADIUS OF 5690.00 FEET AND A CHORD SOUTH 81 DEG. 18 MIN. 12 SEC. EAST, 24.78 FEET;

(2) THENCE NORTH 8 DEG. 49 MIN. 18 SEC. EAST, 15.00 FEET TO A POINT 25 FEET RIGHT OF KY. 3301 CENTERLINE STATION 90+75;

(3) THENCE 94.32 FEET ALONG THE ARC OF A CURVE TO THE RIGHT TO A POINT OF CURVE (P.C.), WITH SAID CURVE HAVING A RADIUS OF 5705.00 FEET AND A CHORD SOUTH 80 DEG. 42 MIN. 17 SEC. EAST, 94.31 FEET;

(4) THENCE SOUTH 80 DEG. 15 MIN. 00 SEC. EAST, 30.70 FEET TO A POINT 25 FEET RIGHT OF KY. 3301 CENTERLINE STATION 92+00;

(5) THENCE SOUTH 9 DEG. 45 MIN. 00 SEC. WEST 5.00 FEET TO A POINT 30 FEET RIGHT OF KY. 3301 CENTERLINE STATION 92+00;

(6) THENCE SOUTH 80 DEG. 15 MIN. 00 SEC. EAST, 515.00 FEET TO A POINT 30 FEET RIGHT OF KY. 3301 CENTERLINE STATION 97+ 15;

(7) THENCE SOUTH 9 DEG. 45 MIN. 00 SEC. WEST, 10.00 FEET TO A POINT 40 FEET RIGHT OF KY. 3301 CENTERLINE STATION 97+15;

(8) THENCE SOUTH 80 DEG. 15 MIN. 00 SEC. EAST, 35.00 FEET TO A POINT 40 FEET RIGHT OF KY. 3301 CENTERLINE STATION 97+50:

(9) THENCE NORTH 9 DEG. 45 MIN. 00 SEC. EAST, 10.00 FEET TO A POINT 30 FEET RIGHT OF KY. 3301 CENTERLINE STATION 97+50;

(10) THENCE SOUTH 80 DEG. 15 MIN. 00 SEC. EAST, 21.12 FEET TO THE POINT OF BEGINNING; CONTAINING 38.15 ACRES, OR WHICH IS SUBJECT TO ALL EASEMENTS, RESTRICTIONS OR COVENANTS OF RECORD. THIS DESCRIPTION WAS PREPARED IN CONJUNCTION WITH A CLASS "B" SURVEY, FIELD COMPLETED IN AUGUST, 2006 BY WILLIAM T. (TOMMY) CARPENTER, PLS 2380. A PLAT DEPICTING THAT SURVEY (DRAWING NO. 06-018) IS ON FILE IN PLAT CABINET NO. 3, SLIDE NO. 224, FLEMING COUNTY CLERK'S OFFICE. THE ½ INCH X 24 INCH REBARS SET THIS SURVEY BEAR A ONE (1) INCH DIAMETER ORANGE PLASTIC I.D. CAP STAMPED W.T.C., PLS 2380 AT PROPERTY CORNER AND W.T.C., 2380-WIT.COR. AT WITNESS CORNERS. THE BEARINGS STATED HEREIN ARE REFERENCED TO THE MAGNETIC MERIDIAN NOTED ON SAID PLAT.

BEING A PART OF THE SAME REAL ESTATE CONVEYED KENNETH C. DEARING AND MARILYN J. DEARING, HUSBAND AND WIFE, FROM HELEN DEARING, WIDOW, BY DEED DATED THE 1ST DAY OF MARCH, 1994, OF RECORD IN DEED BOOK 178, PAGE 650, FLEMING COUNTY CLERK'S OFFICE.

SAVE AND EXCEPT THAT TRACT OR PARCEL OF LAND IN DEED DATED OCTOBER 24, 2016, RECORDED OCTOBER 27, 2016 IN BOOK 261, PAGE 588, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEING A 4.012 ACRE PARCEL OF PROPERTY LYING ON THE SOUTH SIDE OF KY HWY 3301 (BEECHTREE PIKE) APPROXIMATELY 1.6 MILES EAST OF KY HWY 57 (MOUNT CARMEL ROAD), IN FLEMING COUNTY, KENTUCKY AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A ½" IRON PIN AND CAP FOUND (WTC 2380) AT THE SOUTH RIGHT OF WAY OF KY HWY 3301 (BEECHTREE PIKE) (COMMONWEALTH OF KENTUCKY DB 91 C PG 473) CORNER TO NELL DARE DB 232 PG 114 AND KELLEY SMITH & LESLIE LITZLER DB 258 PG 734; THENCE LEAVING THE RIGHT OF WAY ALONG THE DARE LINE S16°33'44"W A DISTANCE OF 416.921 TO AN IRON PIN AND CAP SET; THENCE CONTINUING ALONG THE DARE LINE S16°33'44"W 114.41' TO AN IRON PIN & CAP SET NEW CORNER TO SMITH & LITZLER; THENCE LEAVING THE DARE LINE ALONG THE NEW DIVISION LINE OF SMITH & LITZLER N42°35'14'W A DISTANCE OF 580.29' TO AN IRON PIN AND CAP SET; THENCE CONTINUING ALONG SAID NEW LINE N43°40'34"E A DISTANCE OF 36.65' TO AN IRON PIN AND CAP SET NEAR THE WEST END OF A POND; THENCE N09°15'01"E A DISTANCE OF 132.13' TO AN IRON PIN AND CAP SET IN THE SOUTH RIGHT OF WAY OF KY HWY 3301; THENCE ALONG THE SOUTH RIGHT OF WAY OF KY HWY 3301 S83°33'08" E A DISTANCE OF 224.68' TO A POINT 25' RIGHT OF CENTERLINE STATION 87+71.70; THENCE CONTINUING WITH THE RIGHT OF WAY ALONG A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 178.30' A RADIUS OF 5705.00' AND A CHORD BEARING AND DISTANCE OF S83°19'57"E 178.29' TO A POINT 25' RIGHT OF CENTERLINE STATION 89+50; THENCE S07°33'46" W A DISTANCE OF 15.00' TO A POINT 40' RIGHT OF CENTERLINE STATION 89+50; THENCE ALONG A CURVE TURNING TO THE RIGHT WITH AN ARC LENGTH OF 100.22' A RADIUS OF 5690.00' AND A CHORD BEARING AND DISTANCE OF S81°55'58"E 100.22' TO THE POINT OF BEGINNING CONTAINING 4.012 ACRES ACCORDING TO THE SURVEY BY TRAVIS A. MCGLONE PLS 3919 OF BUFFALO TRACE SURVEYING, LLC 7/19/2016 (FIELD SURVEY COMPLETED ON 7/18/2016 WITH A TOPCON 236W TOTAL STATION HAVING AN UNADJUSTED TRAVERSE CLOSURE OF 1:35,494).

Westwood
Phone (720) 531-8350 10170 Church Ranch Way, Suite #201
Toll Free (888) 937-5150 Westminster, CO 80021
westwoodps.com
Westwood Professional Services, Inc.

PREPARED FOR:

RECURRENT ENERGY
123 Mission Street, Fl 18
San Francisco, CA 94105

REVISIONS:

#	DATE	COMMENT

Hummingbird Solar Project

Fleming County, Kentucky

DATE: 04/03/2022

RICK HORD AND TERESA HORD (CONTINUED)

LEGAL DESCRIPTION (CONTINUED)

ALL IRON PIN AND CAPS SET WERE ½" X 18" REBAR WITH A YELLOW PLASTIC CAP STAMPED "T.MCGLONE PLS 3919".

BEARINGS COORDINATED TO THE ½" IRON PIN AND CAPS FOUND (WTC 2380) WEST LINE OF NEIL DARE DB 232, PAGE 114.

PROPERTY SUBJECT TO ALL LEGAL RIGHT OF WAYS, EASEMENTS OF RECORD AND UNRECORDED CONVEYANCES.

PROPERTY SUBJECT TO THE EXISTING RIGHT OF WAY FOR KY HWY 3301 (BEECHTREE PIKE) FOR BENEFIT OF THE COMMONWEALTH OF KENTUCKY DB 91 C PG 473.

BEING A 4.012 ACRE PORTION OF THE PROPERTY CONVEYED TO KELLEY SMITH & LESLIE LITZLER BY DEED RECORDED IN THE FLEMING COUNTY CLERK'S OFFICE IN DEED BOOK 258, PAGE 734.

TAX ID NO.: 059-00-00-005.00

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
   PERMANENT PARCEL NUMBER: 059-00-00-005.00
   POSTED PAID: $1,637.34
2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)
3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)
4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)
5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)
6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)
7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)
8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)
9. RIGHT OF WAY EASEMENT DATED MAY 28, 1986, GRANTED BY HELEN DEARING AND KENNETH DEARING, TO FLEMING COUNTY WATER ASSOCIATION, INC., RECORDED JULY 18, 1986 IN BOOK 15, PAGE 456, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (BLANKET IN NATURE, NOT PLOTTABLE)

LYLE B. UTTERBACK AND VICKIE UTTERBACK

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-37, EFFECTIVE DATE: JULY 1, 2020

OWNER: LYLE B. UTTERBACK AND VICKIE UTTERBACK

BEING A 46.82 ACRE TRACT OF LAND LOCATED ON THE SOUTH SIDE OF KY HWY 57 AND THE EAST SIDE OF CARPENTER ROAD NEAR THE TOWN OF MOUNT CARMEL, IN FLEMING COUNTY, KENTUCKY AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON PIN & CAP SET CORNER TO JOHN ANTHONY UTTERBACK & LYLE B. UTTERBACK DB 185, PG 684, IN THE LINE OF JAMES & RUBY MINEER DB 245 PG 290 AND THE SOUTHEAST CORNER OF LYLE B. & VICKIE UTTERBACK DB 152, PAGE 626; THENCE WITH THE UTTERBACK LINE N 04-46-54 E 236.61' TO AN IRON PIN & CAP SET NEW CORNER TO UTTERBACK TRACTS 2 & 3; THENCE WITH THE NEW DIVISION LINE OF UTTERBACK TRACTS 2 & 3 N 59-59-57 E 165.79' TO AN IRON PIN & CAP SET NEW CORNER TO UTTERBACK TRACTS 2 & 3; THENCE CONTINUING WITH THE NEW DIVISION LINE OF UTTERBACK TRACTS 2 & 3 N 24-42-10 W 269.83' TO AN IRON PIN & CAP SET NEW CORNER TO UTTERBACK TRACTS 2 & 3; THENCE S 59-41-26 W (PASSING AN IRON PIN & CAP SET AT 239.60') A TOTAL DISTANCE OF 265.50' TO A POINT IN THE CENTERLINE OF CARPENTER ROAD NEW CORNER TO UTTERBACK TRACTS 2 & 3; THENCE WITH SAID ROAD N 03-15-43 E 133.47'; THENCE CONTINUING WITH SAID ROAD ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 731.50' AND A CHORD BEARING AND DISTANCE OF N 06-36-35 W 265.54'; THENCE N 18-34-24 W 181.92'; THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 2479.73' AND A CHORD BEARING AND DISTANCE OF N 16-43-15 W 5.11' TO A POINT IN SAID ROAD NEW CORNER TO UTTERBACK TRACTS 1 & 2; THENCE ALONG THE NEW DIVISION LINE OF TRACTS 1 & 2 N 65-47-08 E (PASSING AN IRON PIN & CAP SET AT 20.00' AND AT 1000.00') A TOTAL DISTANCE OF 1863.66' TO A ½" IRON PIN & CAP FOUND (WILLIAMS 316) AT THE SOUTHWEST CORNER OF ROGER STEVEN UTTERBACK DB 188, PG 558; THENCE WITH UTTERBACK LINE N 74-50-17 E 235.80' TO A ½" IRON PIN & CAP FOUND (WILLIAMS LS 316) AT THE SOUTH EAST CORNER OF UTTERBACK DB 188, PG 558 ON THE WEST SIDE OF JM CLARY LANE IN THE LINE OF ROSCOE NOLAN MILLER CDB 7 PG 198; THENCE WITH THE MILLER AND MINEER LINE S 03-46-33 W (PASSING AN IRON PIN & CAP SET AT 384.31') A TOTAL DISTANCE OF 1384.31' TO AN IRON PIN & CAP SET IN THE LINE OF JAMES & RUBY MINEER DB 245 PG 290; THENCE WITH THE MINEER LINE N 85-49-43 W 844.77' TO AN IRON PIN & CAP SET CORNER TO UTTERBACK & MINEER; THENCE CONTINUING WITH THE MINEER LINE S 12-22-54 W 541.72' TO AN IRON PIN & CAP SET CORNER TO UTTERBACK & MINEER; THENCE N 88-15-37 W 616.66' TO THE POINT OF BEGINNING CONTAINING 46.82 ACRES ACCORDING TO THE SURVEY BY TRAVIS A. MCGLONE PLS 3919 OF BUFFALO TRACE SURVEYING LLC 3/21/2013.

BEARINGS COORDINATED TO KENTUCKY STATE PLANE COORDINATE SYSTEM NAD 83 NORTH ZONE. ALL IRON PIN & CAPS SET WERE ½" X 18" REBAR WITH AN ORANGE PLASTIC CAP STAMPED "T. MCGLONE PLS 3919."

ALL MAG NAILS SET WERE 2-1/4" WITH A 1-1/2" BRASS WASHER STAMPED "T. MCGLONE PLS 3919."

PROPERTY SUBJECT TO ALL LEGAL RIGHT OF WAYS, EASEMENTS OF RECORD AND UNRECORDED CONVEYANCES.

PROPERTY SUBJECT TO ALL UTILITIES.

PROPERTY SUBJECT TO EXISTING RIGHT OF WAY FOR CARPENTER ROAD FOR BENEFIT OF THE FLEMING COUNTY FISCAL COURT ORDINANCE ORDER 05-005, PUBLISHED 1/26/2005 (40' TOTAL RMI).

PROPERTY SUBJECT TO AN UNDIVIDED INTEREST TO JM CLARY LANE AS RECORDED IN DB 185, PG 684.

AND

BEGINNING AT A POINT CORNER OF COUNTY ROAD AND CRUMP PROPERTY; THENCE NORTH 9 DEG. EAST 160.7 FEET TO A STAKE; THENCE NORTH 64 DEG. EAST 227.6 FEET TO A STAKE; THENCE SOUTH 9 DEG. 55' WEST 284 FEET TO A STAKE; THENCE NORTH 83 DEG. 30' WEST 102 FEET TO THE BEGINNING, AND CONTAINING 0.94 ACRE.

TOGETHER WITH AN EASEMENT·FOR THE PURPOSE OF INGRESS AND EGRESS ACROSS THE JOHN AND DERMA F. UTTERBACK PROPERTY WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:-

THERE IS A 20 FOOT WIDE EASEMENT FOR THE PURPOSE OF ACCESS THROUGH THE LAND OF JOHN UTTERBACK, THE CENTER OF SAID EASEMENT BEGINS NORTH 9 DEG. EAST A DISTANCE OF 10.0 FEET FROM THE NORTHWESTERLY CORNER OF SAID LOT; THENCE NORTH 64 DEG. EAST A DISTANCE OF 227.6 FEET TO A POINT 10.0 FEET FROM THE NORTHEASTERLY CORNER OF SAID LOT.

BEING A PORTION OF THE LAND CONVEYED TO JOHN UTTERBACK AN DORMA F. UTTERBACK, HIS WIFE, FROM L. L. EMMONS AND THERESA EMMONS, HIS WIFE, AND WILLIAM B. MINEER AND JANICE MINEER, HIS WIFE, BY DEED DATED THE 26TH DAY OF MARCH, 1973, AND RECORDED IN D.B. 135, PAGE 753, FLEMING COUNTY COURT CLERK'S OFFICE.

TAX ID NO.: 069-00-00-030.00

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
   PERMANENT PARCEL NUMBER: 069-00-00-030.00
   POSTED PAID: $929.57
2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)
3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)
4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)
5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)
6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)
7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)
8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)
9. QUIT CLAIM AND BOUNDARY LINE AGREEMENT DATED MAY 2, 2006, BY AND BETWEEN JOHN ANTHONY UTTERBACK AND TAMMY S. UTTERBACK, HIS WIFE AND LYLE B. UTTERBACK AND VICKIE UTTERBACK, HIS WIFE AND MT. CARMEL VOLUNTEER FIRE DEPARTMENT, INC., RECORDED JUNE 2, 2006 IN BOOK 227, PAGE 572, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY.
   (AFFECTS SUBJECT PROPERTY - UNABLE TO PLOT) (DOCUMENT DESCRIBES A SURVEY PLAT RECORDED AT CABINET 2, SLIDE 185 WAS NOT FURNISHED AT THE TIME OF SURVEY.)
10. RIGHT OF WAY DATED MAY 23, 1997, GRANTED BY LYLE B. UTTERBACK AND VICKIE UTTERBACK, HIS WIFE AND JOHN A. UTTERBACK AND TAMMY UTTERBACK, HIS WIFE TO FLEMING COUNTY WATER ASSOCIATION, INC., RECORDED JUNE 4, 1997 IN BOOK 17, PAGE 597, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (SHOWN HEREON)
11. EASEMENT DATED MAY 7, 1981, GRANTED BY JOHN UTTERBACK AND DORMA F. UTTERBACK TO LYLE UTTERBACK AND VICKIE UTTERBACK, RECORDED MAY 21, 1981 IN BOOK 14, PAGE 96, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (DOES NOT AFFECT SUBJECT PROPERTY - NOT PLOTTED)

DANNY MINEER, AS TO AN UNDIVIDED ONE-THIRD (1/3) INTEREST, DARRELL MINEER AND KAREN MINEER, HIS WIFE, AS TO AN UNDIVIDED ONE-THIRD (1/3) INTEREST, JAMES MINEER AND RUBY MINEER, HIS WIFE, AS TO AN UNDIVIDED ONE-THIRD (1/3) INTEREST

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-27, EFFECTIVE DATE: JULY 1, 2020

OWNER: DANNY MINEER, AS TO AN UNDIVIDED ONE-THIRD (1/3) INTEREST, DARRELL MINEER AND KAREN MINEER, HIS WIFE, AS TO AN UNDIVIDED ONE-THIRD (1/3) INTEREST, JAMES MINEER AND RUBY MINEER, HIS WIFE, AS TO AN UNDIVIDED ONE-THIRD (1/3) INTEREST

BEGINNING AT A WALNUT, CORNER TO J.W. HARDYMAN'S CORNER; THENCE WITH SAME N 12-1/4 E. 32.56 RODS TO A POST IN LINE OF SAME AND CORNER TO GARRETT MINEER; THENCE WITH HIS LINE S 85 E 197.6 RODS TO A POST, CORNER TO JOHN CLARA. AND BERNARD MARTIN; THENCE WITH MARTIN'S AND LITTLETON'S LINE S 5 W 39.44 RODS TO A STONE, CORNER TO TRACT NO. 2; THENCE WITH SAME N 85 W 248.04 RODS TO CENTER OF MT. CARMEL-BEECHBURG TURNPIKE; THENCE N 5 E 5.08 RODS TO CORNER OF HARDYMAN; THENCE WITH SAME S 87 E 48.44 RODS TO THE BEGINNING, CONTAINING 50 ACRES. SUBJECT TO RIGHT OF PASSWAY FOR TRACTS NO. _ AND 3, AND 4 TO THE TURNPIKE. BEING THE SAME PROPERTY CONVEYED ELBERT CRUMP AND AUDREY CRUMP, HIS WIFE, FROM EVERETT E. LEWIS AND RUBY LEWIS, HIS WIFE, BY DEED DATED MARCH 18, 1961, AND RECORDED IN DEED BOOK 118, PAGE 545, FLEMING COUNTY CLERK'S OFFICE. SALLY R. MINEER (ONE AND THE SOME AS SALLY MINEER) HAVING CONVEYED ANY INTEREST SHE HAD IN THE PROPERTY TO DANNY W. MINEER (ONE AND THE SAME AS DANNY MINEER), BY QUITCLAIM DEED DATED AUGUST 11, 2005, AND RECORDED IN DEED BOOK 224, PAGE 447, FLEMING COUNTY CLERK'S OFFICE.

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
   PERMANENT PARCEL NUMBER: 069-00-00-031.00
   POSTED PAID: $370.23
2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)
3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)
4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)
5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)
6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)
7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)
8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)
9. NOTICE OF JUDGMENT LIEN DATED OCTOBER 3, 2019, AGAINST DARRELL A. MINEER, DEBTOR, BY JOHN DEERE FINANCIAL F.S.B. F/K/A FPC FINANCIAL, F.S.B., CREDITOR, IN THE AMOUNT OF $50,040.77, RECORDED OCTOBER 7, 2019 IN BOOK 28, PAGE 320, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (NOT A SURVEY MATTER)
10. NOTICE OF JUDGMENT LIEN DATED SEPTEMBER 26, 2018, AGAINST KAREN MINEER, DEFENDANT, BY CAVALRY SPV I, LLC, PLAINTIFF, IN THE AMOUNT OF $4,015.38, RECORDED OCTOBER 1, 2018 IN BOOK 27, PAGE 508, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (NOT A SURVEY MATTER)

JAMES CALVIN ROBINSON AND MARY MICHELLE ROBINSON

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-30, EFFECTIVE DATE: JULY 1, 2020

OWNER: JAMES CALVIN ROBINSON AND MARY MICHELLE ROBINSON

A CERTAIN TRACT OR PARCEL OF LAND LYING AND BEING IN FLEMING COUNTY, KENTUCKY, ABOUT 5 MILES NORTHEAST OF FLEMINGSBURG ON THE MT. CARMEL TURNPIKE ROAD AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON PIN (SET THIS SURVEY) CORNER TO THOMAS SKAGGS (D.B. 165, PG. 293), SAID POINT ALSO BEING IN THE SOUTH R/W OF KY. 57, 30 FEET FROM THE CENTER OF SAID KY. 57; THENCE WITH SAID SKAGGS PROPERTY LINE SOUTH 26 DEGREES 39 MINUTES 44 SECONDS EAST, 290. 78 FEET TO AN IRON PIN (SET THIS SURVEY); THENCE NORTH 80 DEGREES 40 MINUTES 33 SECONDS WEST, 213. 65 FEET TO AN IRON PIN (SET THIS SURVEY); THENCE NORTH 21 DEGREES 04 MINUTES 02 SECONDS WEST, 185.72 FEET TO AN IRON PIN (SET THIS SURVEY); THENCE NORTH 70 DEGREES 33 MINUTES 10 SECONDS EAST, 156.00 FEET TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED PARCEL CONTAINS 0.909 ACRES AS SURVEYED BY ROY A. WRIGHT, L.S. #2808, FEBRUARY 23, 1998. ALL IRON PINS SET THIS SURVEY ARE 1/2" RE-BAR WITH AN ORANGE PLASTIC CAP STAMPED "PROPERTY CORNER, R.A. WRIGHT, L.S #2808".

BEING PART OF THE SAME PROPERTY CONVEYED JAMES CALVIN ROBINSON AND MARY MICHELLE ROBINSON, HIS WIFE, FROM MARK A. FOLLMER, SINGLE, BY DEED DATED THE 29TH DAY OF AUGUST, 1997, AND RECORDED IN DEED BOOK 190, PAGE 655, FLEMING COUNTY CLERK'S OFFICE.

AND

BEGINNING AT A STAKE UPON THE CENTER OF THE TURNPIKE, THE NORTHWEST CORNER OF THE NUTE FARM; THENCE WITH THE CENTER OF THE PIKE S 45-1/2 W 8 POLES; S 65 W 52-3/4 POLES TO A CORNER OF TOLL HOUSE LOT; THENCE WITH A LINE OF SAME S 29 E 28-1/2 POLES TO A STAKE; THENCE S 36 W 84-1/10 POLES TO A SET STONE, CORNER TO LOT NO. 2; THENCE WITH THE LIEN OF SAME S 42-1/2 E 137-1/2 POLES TO A SET STONE, CORNER TO SAME AND ALSO TO MARSHALL; THENCE WITH HIS LINE N 49-1/4 E 34-1/3 POLES TO A STONE, CORNER TO FOXWORTHY; THENCE WITH HIS AND COOK'S LINE N 28-1/4 W 157-1/4 POLES TO THE BEGINNING, CONTAINING 53 ACRES.

BEING THE SAME PROPERTY CONVEYED MARK A. FOLLMER AND DEBBIE A. FOLLMER, HIS WIFE, FROM JEAN W. DENNY, GUARDIAN FOR LANDY WATTS, BY DEED DATED FEBRUARY 22, 1988, RECORDED IN D.B. 165, PAGE 162; AND THE SAME PROPERTY CONVEYED MARK A, FOLLMER, SINGLE, FROM DEBBIE A. FOLLMER, SINGLE, BY DEED DATED JULY 14, 1995, AND RECORDED IN DEED BOOK 183, PAGE 44, ALL OF RECORD IN THE FLEMING COUNTY CLERK'S OFFICE.

TAX ID NO.: 069-00-00-023.00

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
   PERMANENT PARCEL NUMBER: 069-00-00-023.00
   POSTED PAID: $711.68
2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)
3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)
4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)
5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)
6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)
7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)
8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)
9. MORTGAGE DATED NOVEMBER 7, 2013, IN THE PRINCIPAL AMOUNT OF $42,000.00, EXECUTED BY MARY MICHELLE ROBINSON, MARRIED, AND JAMES CALVIN ROBINSON, HER HUSBAND, IN FAVOR OF COMMUNITY TRUST BANK, INC., WITH A MATURITY DATE OF NOVEMBER 7, 2028, RECORDED DECEMBER 19, 2013 IN BOOK 313, PAGE 181, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (NOT A SURVEY MATTER)
10. MORTGAGE DATED APRIL 21, 2008, IN THE PRINCIPAL AMOUNT OF $102,711.00, EXECUTED BY JAMES CALVIN ROBINSON AND MARY MICHELLE ROBINSON, HUSBAND AND WIFE, IN FAVOR OF COMMUNITY TRUST BANK, INC., WITH A MATURITY DATE OF APRIL 21, 2023, RECORDED DECEMBER 19, 2013 IN BOOK 261, PAGE 258, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (NOT A SURVEY MATTER)

Westwood

Phone (720) 531-8350
Toll Free (888) 937-5150
10170 Church Ranch Way, Suite #201
Westminster, CO 80021
westwoodps.com

Westwood Professional Services, Inc.

PREPARED FOR:

RECURRENT ENERGY

123 Mission Street, Fl 18
San Francisco, CA 94105

REVISIONS:

#	DATE	COMMENT

Hummingbird Solar Project

Fleming County, Kentucky

DATE: 04/03/2022

JASON SCHWARTZ

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-25, EFFECTIVE DATE: JULY 1, 2020

OWNER: JASON SCHWARTZ

BEING A 89.13 ACRE TRACT LOCATED AT THE END OF SAUNDERS ROAD NEAR PLEASUREVILLE IN FLEMING COUNTY, KENTUCKY AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A ½" IRON PIN & CAP FOUND (WRIGHT 2808) ON THE NORTH SIDE OF SAUNDERS ROAD CORNER TO OTHEL L. JR & DORA JEAN COOKSEY AND MARCIA D. & CARMEN D. FIELDS DB 219, PG 372 AND CORNER TO JAMES W. & RUBY F. MINEER DB 133 PG 720; THENCE CROSSING SAUNDERS ROAD S32°33'40"E A DISTANCE OF 38.31' TO A ½" IRON PIN & CAP FOUND (WRIGHT 2808) CORNER TO JONAS E. & MARTHA SCHWARTZ AND JONATHON E. SCHWARTZ DB 250 PG 230 PARCEL II; THENCE ALONG THE SCHWARTZ LINE S46°54'24"W A DISTANCE OF 85.80' TO A ½" IRON PIN & CAP FOUND (WRIGHT 2808); THENCE CONTINUING ALONG THE SCHWARTZ LINE S08°37'47"E A DISTANCE OF 550.17' TO A ½" IRON PIN & CAP FOUND (WRIGHT 2808); THENCE S07°14'19"E A DISTANCE OF 453.69' TO A ½" IRON PIN & CAP FOUND (WRIGHT 2808); THENCE S61°42'31"E (PASSING A REFERENCE IRON PIN & CAP SET AT 969.57') A TOTAL DISTANCE OF 1308.44' TO A ½" IRON PIN & CAP FOUND (WRIGHT 2808); THENCE S65°44'42"E A DISTANCE OF 73.29' TO A ½" IRON PIN & CAP FOUND (WRIGHT 2808); THENCE S68°14'32"E A DISTANCE OF 81.11' TO A½" IRON PIN & CAP FOUND (WRIGHT 2808); THENCE S70°15'22"E A DISTANCE OF 153.01' TO A½" IRON PIN & CAP FOUND (WRIGHT 2808); THENCE S68°49'47" E A DISTANCE OF 193.51' TO A ½" IRON PIN & CAP FOUND (WRIGHT 2808); THENCE S63°58'14"E A DISTANCE OF 71.61' TO A ½" IRON PIN & CAP FOUND (WRIGHT 2808); THENCE S66°29'37"E A DISTANCE OF 289.85' TO A ½" IRON PIN & CAP FOUND (WRIGHT 2808); THENCE S50°51'26"E A DISTANCE OF 31.36' TO A ½" IRON PIN & CAP FOUND (WRIGHT 2808) CORNER TO LARRY & DONNA SMITH DB 222 PG 106 AND NEW CORNER TO COOKSEY & FIELDS TRACTS 1 & 2; THENCE ALONG THE NEW LINE OF COOKSEY & FIELDS TRACTS 1 & 2 S89°00'56'W A DISTANCE OF 544.13' TO AN IRON PIN & CAP SET; THENCE CONTINUING ALONG THE NEW LINE OF COOKSEY & FIELDS TRACTS 1 & 2 S88°25'20'W A DISTANCE OF 485.11' TO AN IRON PIN & CAP SET; THENCE S87°38'15"W A DISTANCE OF 488.09' TO AN IRON PIN & CAP SET; THENCE N83°12'00"W (PASSING 12" WHITE OAK-PAINTED AT 4.00') A TOTAL DISTANCE OF 1003.73' TO AN IRON PIN & CAP SET; THENCE N85°14'32"W A DISTANCE OF 273.00" TO AN IRON PIN & CAP SET; THENCE S14°46'20'W A DISTANCE OF 45.21' TO AN IRON PIN & CAP SET; THENCE S32°53'48"W A DISTANCE OF 170.12' TO A 12" DOUBLE CEDAR (PAINTED); THENCE S33°29'41'W A DISTANCE OF 40.99' TO AN IRON PIN & CAP SET; THENCE S53°18'33"W A DISTANCE OF 67.20' TO AN IRON PIN & CAP SET; THENCE S54°50'26'W A DISTANCE OF 118.00' TO AN IRON PIN & CAP SET; THENCE S54°22'25'W A DISTANCE OF 130.99' TO AN IRON PIN & CAP SET; THENCE N49°26'08'W A DISTANCE OF 265.22' TO AN IRON PIN & CAP SET AT A 10" DOUBLE HONEY LOCUST; THENCE N67°24'14"W A DISTANCE OF 215.95' TO AN IRON PIN & CAP SET NEW CORNER TO COOKSEY & FIELDS TRACTS 1 & 2 IN THE LINE OF GARY & GLENNA TURNER AND GARY LEE II & JAMIE TURNER DB 227 PG 189; THENCE ALONG THE TURNER LINE N03°24'38"E (PASSING A REFERENCE IRON PIN & CAP SET AT 722.17') A TOTAL DISTANCE OF 1657.41' TO A ½" IRON PIN & CAP FOUND (WRIGHT 2808) CORNER TO DARRELL & KAREN MINEAR AND JAMES & RUBY MINEER DB 245 PG 290; THENCE ALONG THE MINEER LINE N03°30'39"E A DISTANCE OF 305.02' TO A ½" IRON PIN & CAP FOUND (WRIGHT 2808) CORNER TO MINEER DB 133 PG 720; THENCE ALONG THE MINEAR DB 133 PG 720 LINE S88°18'19"E A DISTANCE OF 563.90' TO A ½" IRON PIN & CAP FOUND (WRIGHT 2808); THENCE CONTINUING ALONG THE MINEER DB 133 PG 720 LINE S87°20'31"E A DISTANCE OF 503.20' TO A ½" IRON PIN & CAP FOUND (WRIGHT 2808); THENCE N75°40'31"E A DISTANCE OF 22.35' TO A ½" IRON PIN & CAP FOUND (WRIGHT 2808); THENCE N58°26'36"E A DISTANCE OF 344.38' TO THE POINT OF BEGINNING CONTAINING 89.13 ACRES ACCORDING TO THE SURVEY BY TRAVIS A. MCGLONE PLS 3919 OF BUFFALO TRACE SURVEYING LLC 3/29/2017 (FIELD SURVEY COMPLETED ON 3/29/2017 AS A RURAL CLASS SURVEY)

ALL IRON PIN & CAPS SET WERE ½" X 18" REBAR WITH AN ORANGE PLASTIC CAP STAMPED "T. MCGLONE PLS 3919."

BEARINGS COORDINATED TO THE KENTUCKY STATE PLANE COORDINATE SYSTEM KY1Z (SINGLE ZONE) (NAD 83) PER GPS OBSERVATIONS ON DATE OF SURVEY 3/3/2017.

PROPERTY SUBJECT TO ALL LEGAL RIGHT OF WAYS, EASEMENTS OF RECORD AND UNRECORDED CONVEYANCES.

PROPERTY SUBJECT TO EXISTING RIGHT OF WAY OF SAUNDERS ROAD FOR BENEFIT OF THE FLEMING COUNTY FISCAL COURT (ORDINANCE 05-005).

TREES MARKED WITH 3 ORANGE HORIZONTAL PAINTED LINES. BEING A PORTION OF THE PROPERTY CONVEYED TO OTHEL L. JR. & DORA JEAN COOKSEY AND MARCIA D. & CARMEN D. FIELDS BY DEED RECORDED AT THE FLEMING COUNTY CLERK'S OFFICE IN DEED BOOK 219, PAGE 372. ALSO BEING A PORTION OF THE SAME PROPERTY CONVEYED TO OTHEL L. COOKSEY, JR., SINGLE, FROM DORA JEAN COOKSEY, ET AL BY DEED DATED THE 7TH DAY OF APRIL, 2017, AND OF RECORD IN DEED BOOK 263, PAGE 679, FLEMING COUNTY CLERK'S OFFICE.

TAX ID NO.: 081-00-00-042.00

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
PERMANENT PARCEL NUMBER: 081-00-00-042.00
POSTED PAID: $444.65

2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)

3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)

4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)

5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)

6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)

7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)

8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)

9. COMMERCIAL MORTGAGE DATED MAY 30, 2017, IN THE PRINCIPAL AMOUNT OF $165,000.00, EXECUTED BY JSON SCHWARTZ, SINGLE, IN FAVOR OF PEOPLES BANK OF KENTUCKY, INC., RECORDED MAY 31, 2017 IN BOOK 342, PAGE 675, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (NOT A SURVEY MATTER)

DONALD EUGENE YOUNG AND SHARON K. YOUNG

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-33, EFFECTIVE DATE: JULY 1, 2020

OWNER: DONALD EUGENE YOUNG AND SHARON K. YOUNG
TRACT 1:

TWO TRACTS OF LAND SITUATED IN FLEMING COUNTY, KENTUCKY, ON THE WATERS OF WILSON RUN AND BEGINNING AT A SET STONE ON THE WEST SIDE OF WILSON RUN ROAD AND WILSON RUN BRANCH, CORNER TO TRACT NO. 3 IN LOUIS BOWER LINE (NOW ROE JOHNSON); THENCE WITH SAID LINE UP THE ROAD AND BRANCH N 81 3/4 W 7.06 CHS. TO A SET STONE CORNER TO SAID JOHNSON; THENCE S 77-1/4 E 5.25 CHS. TO A SET STONE ON THE WEST BANK OF THE ROAD AND BRANCH CORNER TO SAME; THENCE N 87 3/4 E 10.89 CHS. TO A SET STONE IN THE SOUTHEAST CORNER OF THE INTERSECTION OF A SMALL BRANCH AND WILSON RUN, A CORNER TO SAID JOHNSON; THENCE WITH HIS LINE N 32 E 4.62 CHS. TO A SET STONE ON THE S.E. SIDE OF THE ROAD; THENCE S 26-1/4 W 6.76 CHS. TO A POINT AT THE JUNCTION OF THE FENCE, CORNER TO SAME; THENCE WITH SAID JOHNSON'S LINE, CROSSING THE ROAD AND CONTINUING WITH THE LINE OF LIZZIE CARPENTER HEIRS, IN ALL AND S 87-1/2 E 16.42 CHS. TO A POINT, CORNER TO SAME; THENCE WITH ANOTHER LINE OF SAME N 5 E 25.3 CHS. TO A SET STONE, CORNER TO THE ABOVE MENTIONED CARPENTER LINE AND IN TRIPLETT'S LINE; THENCE WITH SAME N 88-1/4 W 9.29 CHS. CROSSING THE WILSON RUN ROAD AND BRANCH TO A POINT CORNER TO DONALDSON; THENCE WITH HIS LINE N 87-1/2 W 10.5 CHS. TO A TURN IN THE FENCE; THENCE S 80 W 22.02 CHS. TO A POST CORNER TO SAID DONALDSON AND TRACT NO. 3; THENCE WITH A LINE OF THE LATTER S 2 E 11.96 CHS. TO THE BEGINNING. CONTAINING ACCORDING TO THE OLD DEED 74 ACRES AND 15 POLES. FROM WHICH THERE IS EXCEPTED TWO SMALL TRACTS SOLD BY E. P. CARPENTER TO LOUIS BOWER ON OCTOBER 23, 1917 AND OF RECORD IN DEED BOOK 81, PAGE 394, FLEMING COUNTY COURT CLERK'S OFFICE.

LESS AND EXCEPT:

BEGINNING AT A BUNCH OF SWAMP ASH BUSHES STANDING JUST AT THE FORK OF GRADE OF TURNPIKE; THENCE WITH THE OLD LINE OF BOWER (NOW JOHNSON) N 82-1/2 E 28 POLES, S 77 E 21 POLES, N 87 E 33 POLES TO A STONE IN THE BRANCH; THENCE N 3 W 1.3 POLES TO THE CENTER OF THE TURNPIKE; THENCE FOLLOWING GENERALLY THE CENTER OF THE TURNPIKE S 84-1/2 W 26-1/2 POLES, N 75 W 28 POLES, N 85 W 14 POLES, N 74 W 28 POLES, S 54-1/2 W 6.7 POLES TO A POINT IN THE PIKE IN THE LINE OF SAID CARPENTER; THENCE S 2 E 1 POLE TO THE BEGINNING. CONTAINING 1 ACRE AND 35 POLES.

AND, LESS AND EXCEPT:

BEGINNING AT A STAKE ON THE SOUTHEAST BANK OF JOSEPHUS EARLS ROAD, CORNER TO THE LAND OWNED BY JOHNSON; THENCE WITH THE GENERAL COURSE OF THE OLD WORN FENCE S 25 W 27.2 POLES TO THE JUNCTION OF THE FENCE; THENCE S 87 E 20 POLES TO A STAKE ON THE S.E. SIDE OF THE BRANCH; THENCE DOWN THE BRANCH N 37-1/2 W 26.7 POLES TO A STAKE IN THE CENTER OF THE ROAD; THENCE N 28 W 5.7 POLES TO THE BEGINNING. CONTAINING 2 ACRES, 2 QUARTERS AND 2 POLES. LEAVING THE NET AMOUNT CONVEYED TO CHARLES G. CARPENTER 70 ACRES AND 18 POLES.

AND ALSO, LESS AND EXCEPT:

BEGINNING IN THE WILSON RUN ROAD, CORNER TO BERT JORDAN IN THE LINE OF CARPENTER; THENCE WITH JORDAN LINE S 50 E 17.16 POLES TO A POINT IN THE LAND LEADING TO EDMONDS PROPERTY (NOW KATHERINE ANDREWS); THENCE S 25 E 34 POLES, S 39 E 12 POLES, S 32-1/4 E 10 POLES, S 54 E 4.16 POLES TO THE CORNER OF KATHERINE ANDREWS; THENCE WITH A LINE OF SAME S 86-1/2 E 34.8 POLES TO A POST; THENCE N 4-1/ E 105 POLES TO MRS. PRATHER'S LINE (NOW LANDRETH ANDREWS); THENCE WITH HIS LINE N 76-1/2 W 31.72 POLES; THENCE N 58 W 5 POLES TO AN ELM TREE; THENCE S 35 W 3.2 POLES TO A SET STONE; THENCE N 86 1/2 W 13.32 POLES TO THE CENTER OF THE WILSON RUN ROAD; THENCE DOWN THE CENTER OF SAME S 14 W 11.64 POLES S 32-1/2 W 2 POLES, S 37-3/4 W 10 POLES, S 29-1/2 W 18 POLES, S 23-1/2 W 24 POLES, S 86-1/2 W 2 POLES TO THE BEGINNING. CONTAINING 36 ACRES AND 48 POLES, WHICH DEED IS OF RECORD IN DEED BOOK 93, PAGE 226, FLEMING COUNTY COURT CLERK'S OFFICE. LEAVING 34 ACRES AND 10 POLES HEREBY CONVEYED TO SECOND PARTY.

TRACT 2:

LOCATED ON THE WILSON RUN ROAD IN FLEMING COUNTY, KENTUCKY AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POST IN LINE OF MEDLEY BROWN; THENCE N 6-1/2 W 126.54 RODS TO A STAKE 2 FEET WEST OF A LOCUST; THENCE N 84-1/2 W 29.04 RODS TO A STONE IN WALKER KIDWELL'S (NOW ASA SKAGGS) LINE; THENCE WITH HIS LINES S 21 W 43.12 RODS TO A BLACK WALNUT TREE; THENCE S 2-1/2 E 4 RODS TO A POST; THENCE S 6 E 16 RODS; THENCE S 7.75 F 29.6 RODS TO A POST; THENCE S 8-1/4 E 27.4 RODS, S 1-1/2 E 20 RODS TO A POST; THENCE LEAVING KIDWELL'S (NOW SKAGGS) LINE AND WITH THE BROWN LINE N 81-1/4 E 49.88 RODS TO THE BEGINNING, CONTAINING 37.87 ACRES.

BEING THE SAME LAND CONVEYED BUELL B. YOUNG FROM GEORGE D. FISHER AND ADDIE L. FISHER BY DEED DATED SEPTEMBER 3, 1964, SAME BEING OF RECORD IN D. B. 122, PAGE 219, FLEMING COUNTY CLERK'S OFFICE, FLEMINGSBURG, KENTUCKY.

TAX ID NO.: 059-00-00-012.00

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
PERMANENT PARCEL NUMBER: 059-00-00-012.00
POSTED PAID: $695.40

2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)

3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)

4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)

5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)

6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)

7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)

8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)

9. RIGHT OF WAY EASEMENT DATED JULY 25, 1987, GRANTED BY DONALD EUGENE YOUNG AND SHARON K. YOUNG, CONVEYED TO FLEMING COUNTY WATER ASSOCIATION, INC., RECORDED APRIL 5, 1988 IN EASEMENT BOOK 15, PAGE 623, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (DOCUMENT WAS NOT FURNISHED AT THE TIME OF SURVEY)

MICHAEL HILL AND BARBARA L. HILL

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-23, EFFECTIVE DATE: JULY 20, 2020

OWNER: MICHAEL HILL AND BARBARA L. HILL

TRACT NO. 1 A CERTAIN TRACT OF LAND SITUATED AND BEING ON THE WATERS OF FLEMING CREEK, BEGINNING AT A SET STONE UPON THE NORTH SIDE OF THE ROAD OPPOSITE THE NORTHWEST CORNER OF THE ORCHARD AND CORNER TO THE LAND HERETOFORE CONVEYED TO NANCY B. CORYELL; THENCE WITH HER LINE S 20-1/4 E 26 POLES TO A SET STONE AT THE SOUTHWEST CORNER OF THE ORCHARD; THENCE S 83-1/2 E 12.6 POLES TO A SET STONE AT THE BARS OF THE STABLE; THENCE S 18-1/8 E 35.8 POLES TO A SET STONE IN THE WOODS; THENCE N 69-3/4 E 54 POLES TO A SET STONE IN THE CENTER OF THE OLD CLOVER ROAD, ALSO IN THE LINE OF THE NASH FARM; THENCE DIVIDING THE ROAD EQUALLY S 18-3/4 E 65.3 POLES TO A STAKE CORNER TO JON CARPENTER; THENCE WITH HIS LINE WEST 129.1 POLES TO A STAKE IN A DRAIN IN THE OLD STRODE LAND; THENCE N 92-1/4 POLES TO A SET STONE E OF THE POND IN THE CENTER OF THE FENCE; THENCE N 69-3/4 E 24.6 POLES TO THE BEGINNING, CONTAINING 50 CARES. THERE IS EXCEPTED AND NOT CONVEYED IN THE ABOVE BOUNDARY A PASSWAY 15 FEET WIDE HERETOFORE SOLD TO C. S. NORTON.

TRACT NO. 2 BEGINNING AT A SET STONE UPON THE NORTH SIDE OF THE ROAD OPPOSITE THE N.E. CORNER OF THE ORCHARD AND CORNER TO THE LAND CONVEYED TO MRS. LULA K. CALDWELL; THENCE WITH HER LINE S 20-1/4 E 21 POLES TO A SET STONE AT THE S.W. CORNER OF THE ORCHARD; THENCE S 83-1/2 E 13.6 POLES TO A SET STONE AT THE BARS OF THE STABLE LOT; THENCE S 18-1/8 E 35.8 POLES TO A SET STONE IN THE WOODS; THENCE N 69-3/4 E 54 POLES TO A SET STONE IN THE OLD CLOSED ROAD, ALSO IN THE LINE OF THE NASH FARM; THENCE DIVIDING SAID ROAD EQUALLY AS IT MEANDERS N 18-3/4 W 5.7 POLES TO A TURN; THENCE N 22-1/4 W 49-1/4 POLES TO A STAKE, CORNER TO THE HOME TRACT OF MRS. ELIZA STRODE; THENCE N 10-1/8 W 12.6 POLES; THENCE WITH LINE OF SAME ALONG NORTH SIDE OF THE ROAD S 69-3/4 W 67 POLES TO THE BEGINNING, CONTAINING 26 ACRES.

(THE ABOVE DESCRIPTION IS INTENDED TO INCLUDE LOTS NO. 11 AND 12 AS DESCRIBED ON A PLAT WHICH IS RECORDED IN DEED BOOK 133, PAGE 784, AND FURTHER IS INTENDED TO INCLUDE A STRIP OF LAND EXCEPTED OUT OF DEED TO WENDELL L. EARLS AND JUDY L. EARLS, HIS WIFE FROM CLARENCE E. JONES AND CHESTER J. JONES, DATED NOVEMBER 14, 1977, RECORDED IN DEED BOOK 144, PAGE 766; SAID STRIP HAVING BEEN EXCEPTED OUT OF LOT NO. 6, ON PLAT RECORDED IN DEED BOOK 133, PAGE 784, AND IS 16 FEET IN WIDTH COMMENCING IN THE CENTER OF THE MATTOX PIKE AND EXTENDING S 15 DEG. E 150 FEET ALONG THE BOUNDARY LINE OF LOT NO. 5 AS SHOWN ON THE AFOREMENTIONED PLAT, ALL
OF RECORD IN THE FLEMING COUNTY CLERK'S OFFICE.)

THERE IS EXCEPTED FROM THE FOREGOING LOTS NO.'S 1,2,3,4,5,6,7,8,9 AND 10 AS DESCRIBED ON PLATS RECORDED IN DEED BOOK 133, PAGE 785 AND DEED BOOK 132, PAGE 311, FLEMING COUNTY CLERK'S OFFICE.

TAX ID NO.: 058-00-00-033.00

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)
PERMANENT PARCEL NUMBER: 058-00-00-033.00
POSTED PAID: $1,074.14

2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)

3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)

4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)

5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)

6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)

7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)

8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)

Westwood

Phone (720) 531-8350 10170 Church Ranch Way, Suite #201
Toll Free (888) 937-5150 Westminster, CO 80021
westwoodps.com

Westwood Professional Services, Inc.

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123 Mission Street, Fl 18
San Francisco, CA 94105

REVISIONS:

#	DATE	COMMENT

Hummingbird Solar Project

Fleming County, Kentucky

DATE: 04/03/2022

SHEET: 17 OF 19

JAMES W. MINEER AND RUBY F. MINEER

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-26, EFFECTIVE DATE: JULY 20, 2020

OWNER: JAMES W. MINEER AND RUBY F. MINEER

TRACT 1:

A TRACT OF 70 ACRES OF LAND MORE OR LESS, LOCATED SOUTHEAST OF THE TOWN OF MT. CARMEL, KENTUCKY, BOUNDED GENERALLY AS FOLLOWS:

ON THE NORTH BY THE LAND OF GILMER RIGDON, EAST AND WEST BY THE LANDS OF GARRET MINEER AND ON THE SOUTH BY THE MARY GODDARD LANDS, CONTAINING 70 ACRES, MORE OR LESS TOGETHER WITH A PASSWAY TO THE STATE HIGHWAY, SAID PASSWAY BEING DESCRIBED AS FOLLOWS:

MRS. MATILDA CLARY'S PASSWAY FROM RIGDON'S PASSWAY AT WEBB LINE AND MINEER CORNER TO RIGDON'S GARDEN CORNER. SAID PASSWAY TO BE 18 FEET WIDE, SAID PASSWAY IS TO BE FENCED BY RIGDON STARTING AT RIGDON'S GARDEN CORNER (N.W. CORNER) TO MRS. CLARY'S LINE. SEE M.B. 32, PAGE 486, FLEMING COUNTY COURT CLERK'S OFFICE AND ALL OTHER PASSWAYS OR RIGHT OF WAYS THAT ARE APPURTENANT TO THIS TRACT OF LAND TO REACH THE HIGHWAY IN CONNECTION WITH SAID LANDS.

BEING THE SAME PROPERTY CONVEYED TO GRANTORS BY DEED FROM ALICE FOXWORTHY, ET AL, DATED 29 APRIL 1983, RECORDED IN DEED BOOK 156, PAGE 222.

SAVE AND EXCEPT THAT TRACT OF PARCEL OF LAND IN DEED DATED NOVEMBER 15, 1993, RECORDED NOVEMBER 19, 1993 IN BOOK 178, PAGE 226, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE NORTH PROPERTY LINE OF GRANTORS, BEING THE LINE BETWEEN GRANTORS AND MILLER, BEING 600 FEET EAST OF THE GRANTORS' PROPERTY CORNER AND J.M. CLARY RD.; THENCE WITH MILLERS LINE S 80 DEG. 40' 04.78" E 321.6626 FEET TO AN IRON POST; THENCE LEAVING MILLERS LINE WITH NEW DIVIDING LINE OF GRANTERS S 10 DEG. 29' 53.59" W, 145.0575 FEET TO AN IRON POST; THENCE N 78 DEG. 31' 39.21" W 291.8734 FEET TO A POINT IN THE CENTER OF A GRAVEL FARM ROAD; THENCE N 2 DEG. 03' 58.62" W 136.8249 FEET TO THE POINT OF BEGINNING, CONTAINING .9811 ACRES.

THE GRANTORS ALSO GRANT TO THE GRANTEES A 20 FOOT EASEMENT RUNNING WITH THE EXISTING DRIVEWAY FOR THE PURPOSE OF INGRESS AND EGRESS TO THE ABOVE DESCRIBED LOT.

BEING PART OF THE SAME PROPERTY CONVEYED JAMES W. MINEER AND RUBY F. MINEER, FROM CARL BURKHOLDER AND ROSETTA BURKHOLDER, HUSBAND AND WIFE, BY DEED DATED FEBRUARY 12, 1985, RECORDED IN D.B. 159, PAGE 622, FLEMING COUNTY CLERK'S OFFICE.

TAX ID NO.: 069-00-00-012.00

TRACT 2:

A CERTAIN TRACT OF LAND LOCATED IN FLEMING COUNTY, KENTUCKY ABOUT 1 MILE EAST OF MT. CARMEL, NEAR THE MAYSVILLE AND MT. CARMEL TURNPIKE ROAD AND BOUNDED AS FOLLOWS:-

BOUNDED ON THE WEST BY THE LANDS OF GEORGE A. CLARY; ON THE NORTH BY THE LANDS OF GARRETT MINEER; ON THE EAST BY THE LANDS OF HARRY HONEYFELT, AND ON THE SOUTH BY THE LANDS OF SILAS POLLITT, AND CONTAINING ABOUT 25 ACRES, MORE OR LESS.

TAX ID NO.: 081-00-00-007.00

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2019, AS FOLLOWS: (NOT A SURVEY MATTER)

PERMANENT PARCEL NUMBER: 069-00-00-012.00 (TRACT 1)
POSTED PAID: $544.71

PERMANENT PARCEL NUMBER: 081-00-00-007.00 (TRACT 2)
POSTED PAID: $118.10

2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)

3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)

4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)

5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)

6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)

7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)

8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)

9. RIGHT OF WAY EASEMENT DATED MAY 27, 1997, GRANTED BY JAMES W. MINEER AND RUBY F. MINEER, HUSBAND AND WIFE, TO FLEMING COUNTY WATER ASSOCIATION, INC., RECORDED JUNE 4, 1997 IN BOOK 17, PAGE 591, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (SHOWN HEREON)

EULA GRACE SKAGGS

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-39, EFFECTIVE DATE: FEBRUARY 24, 2021

OWNER: EULA GRACE SKAGGS

TRACT 1:

BEING A 0.867 ACRE TRACT OF LAND LOCATED SOUTHEAST OF KY HWY 57 AND ON THE NORTHEAST SIDE OF KY HWY 344 (FOXPORT ROAD) IN FLEMING COUNTY, KENTUCKY AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON PIN & CAP SET NEAR THE NORTH RIGHT OF WAY OF KY HWY 344 CORNER TO ROSCOE N. MILLER DB 115 PG 162 AND CORNER TO JULIUS R. & RAMONA MAY DB 150 PG 16; THENCE ALONG THE MAY LINE N 52-52-15 E 156.191 TO AN IRON PIN & CAP SET CORNER TO MILLER; THENCE CONTINUING ALONG THE MAY LINE S 73-27-59 E 98.04' TO AN IRON PIN & CAP SET NEAR THE WEST SIDE OF A GRAVEL PASSWAY IN THE LINE OF GEORGE JR., & EULA P. SKAGGS DB 132 PG 40; THENCE ALONG THE SKAGGS LINE S 07-14-45 W 303.17' TO A POINT CORNER TO MILLER AND SKAGGS AT THE NORTH RIGHT OF WAY OF KY HWY 344;

THENCE ALONG THE NORTH RIGHT OF WAY OF KY HWY 344 N 37-34-02 W (PASSING A REFERENCE IRON PIN & CAP SET AT 19.89') A TOTAL DISTANCE OF 295.68' TO THE POINT OF BEGINNING CONTAINING 0.867 ACRES ACCORDING TO THE SURVEY BY TRAVIS A. MCGLONE PLS 3919 OF BUFFALO TRACE SURVEYING LLC 5/30/2014. (FIELD SURVEY COMPLETED ON 5/16/14 WITH AN UNADJUSTED TRAVERSE CLOSURE OF 1:19,963) ALL IRON PIN & CAPS SET WERE ½" X 18" REBAR WITH AN ORANGE PLASTIC CAP STAMPED "T. MCGLONE PLS 3919."

BEARINGS COORDINATED TO THE ½" IRON PIN & CAPS FOUND (WRIGHT 2808) MICHAEL A. & HEATHER DAWN HUGHES DB 229 PG 187, 30.811 ACRE TRACT.

PROPERTY SUBJECT TO ALL LEGAL RIGHT OF WAYS, EASEMENTS OF RECORD AND UNRECORDED CONVEYANCES.

PROPERTY SUBJECT TO ALL UTILITIES.

PROPERTY SUBJECT TO ANY EXISTING RIGHT OF WAY FOR KY HWY 344 FOR BENEFIT OF THE COMMONWEALTH OF KENTUCKY (NO REFERENCE FOUND).

BEING THE SAME PROPERTY CONVEYED TO EULA GRAY SKAGGS, SINGLE, FROM THE ESTATE OF ROSCOE N. MILLER BY DEED DATED THE 17TH DAY OF JUNE, 2014, AND OF RECORD IN DEED BOOK 253, PAGE 592, FLEMING COUNTY CLERK'S OFFICE.

TAX ID NO.: 080-00-00-012.00

TRACT 2:

FIRST TRACT:

THE FOLLOWING PARCEL OF LAND, LYING ON THE WATERS OF NORTH FORK OF LICKING RIVER IN FLEMING COUNTY, KENTUCKY.

BEGINNING AT A SET STONE IN THE COUNTY ROAD AT JAMES WILLIAMS CORNER; THENCE S WITH HIS LINE J.G. WALLINGFORD TO A CORNER IN THE LAND BELONGING TO JOHN CASSIDY; THENCE WITH SAID LINE TO THE LINE OF WILLIAM HARNE'S; THENCE WITH SAID HARNE'S LINE TO THE NORTH FORK CREEK; THENCE DOWN SAID CREEK TO THE COUNTY ROAD; THENCE DOWN SAID COUNTY ROAD TO THE BEGINNING. CONTAINING 69 ACRES, MORE OR LESS.

SECOND TRACT:

BEGINNING AT A CORNER OF THE LINE OF A. MEADOW'S LINE; THENCE S WITH LINE OF DAWSON'S POWER TO COUNTY ROAD; THENCE WITH COUNTY ROAD TO MEADOW'S LINE; THENCE WITH HIS LINE TO THE BEGINNING, CONTAINING 16 ACRES, MORE OR LESS.

BEING THE SAME PROPERTY CONVEYED TO FIRST PARTIES BY RICHARD L. HINTON, MATTER COMMISSIONER OF THE FLEMING CIRCUIT COURT BY DEED DATED JANUARY 31, 1955 AND OF RECORD IN COMMISSIONERS DEED BOOK 4, PAGE 400, FLEMING COUNTY CLERK'S OFFICE.

TAX ID NO.: 081-40-00-001.0

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2020, AS FOLLOWS: (NOT A SURVEY MATTER)

TRACT 1:

TAX ID: 080-00-00-012.00
2020 TAXES POSTED PAID: $50.50

TRACT 2:

TAX ID: 081-40-00-001.00
2020 TAXES POSTED PAID: $151.73 (FACE AMOUNT $154.83)

2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)

3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)

4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)

5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)

6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)

7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)

8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)

RANDALL MEADOWS AND WILLA MEADOWS

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-40, EFFECTIVE DATE: FEBRUARY 24, 2021

OWNER: RANDALL MEADOWS AND WILLA MEADOWS

A CERTAIN TRACT OF LAND LYING AND BEING IN FLEMING COUNTY, KENTUCKY NEAR MT. CARMEL ON THE NORTH SIDE OF KY 324 AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON PIN (SET THIS SURVEY) CORNER TO JULIUS R. MAY (D.B. 160, PG. 16, AND D.B. 151, PG. 557 AND BRING IN THE NORTH RIGHT OF WAY LINE OF KY 324 (30' FROM CENTER); THENCE WITH THE SAID KY 324 RIGHT OF WAY LINE THE FOLLOWING FIVE CALLS 173.44 FEET ALONG AN ARC TO THE LEFT, HAVING A RADIUS OF 1231.33 FEET, THE CHORD OF WHICH IS NORTH 40 DEGREES 55 MINUTES 11 SECONDS WEST, 178.30 FEET TO AN IRON PIN (SET THIS SURVEY); THENCE NORTH 42 DEGREES 30 MINUTES 05 SECONDS EAST, 19.97 FEET TO AN IRON PIN (SET THIS SURVEY); THENCE NORTH 47 DEGREES 15 MINUTES 43 SECONDS WEST, 100.05 FEET TO AN IRON PIN (SET THIS SURVEY); THENCE SOUTH 42 DEGREES 33 MINUTES 49 SECONDS WEST, 20.01 FEET TO AN IRON PIN (SET THIS SURVEY); THENCE NORTH 50 DEGREES 06 MINUTES 50 SECONDS WEST, 405.67 FEET TO AN IRON PIN (SET PRIOR SURVEY) CORNER TO FREDDY APPLEGATE (D.B. 218, PG. 224); THENCE WITH APPLEGATE NORTH 38 DEGREES 42 MINUTES 23 SECONDS EAST, 187.60 FEET TO AN IRON PIN (SET THIS SURVEY) CORNER TO GRANTOR'S REMAINING PROPERTY; THENCE WITH GRANTOR'S REMAINDER AND A NEW DIVIDING LINE THE FOLLOWING FOUR CALLS SOUTH 55 DEGREES 52 MINUTES 48 SECONDS EAST, 100.48 FEET TO AN IRON PIN (SET THIS SURVEY); THENCE NORTH 33 DEGREES 43 MINUTES 31 SECONDS EAST, 313.59 FEET TO AN IRON PIN (SET THIS SURVEY); THENCE NORTH 19 DEGREES 40 MINUTES 52 SECONDS EAST, 346.94 FEET TO AN IRON PIN (SET THIS SURVEY); THENCE NORTH 7 DEGREES 51 MINUTES 49 SECONDS EAST, 906.86 FEET TO AN IRON PIN (SET THIS SURVEY) IN EULENE M. MEADOWS (D.B. 206, PG. 527) FENCE LINE; THENCE WITH MEADOWS THE FOLLOWING TWO CALLS NORTH 85 DEGREES 44 MINUTES 12 SECONDS EAST, 537.53 FEET TO AN IRON PIN (SET THIS SURVEY) BY CORNER POST, CORNER TO GEORGE SKAGGS, JR. (D.B. 132, PG. 40); THENCE WITH SKAGGS THE FOLLOWING FOUR CALLS SOUTH 6 DEGREES 24 MINUTES 19 SECONDS WEST, 627.31 FEET TO AN WITNESS IRON PIN (SET THIS SURVEY) BY OLD GATE POST; THENCE SOUTH 6 DEGREES 24 MINUTES 19 SECONDS WEST, 10.00 FEET TO A POINT IN THE CENTER OF PASS WAY AS CALLED FOR IN D.B. 132, PG. 40; THENCE WITH THE CENTER OF SAID PASS WAY NORTH 84 DEGREES 41 MINUTES 39 SECONDS WEST, 533.66 FEET TO AN IRON PIN (SET THIS SURVEY) BY POST; THENCE SOUTH 7 DEGREES 56 MINUTES 41 SECONDS WEST, 1073.50 FEET TO AN IRON PIN (SET THIS SURVEY) CORNER TO SAID JULIUS MAY; THENCE WITH MAY THE FOLLOWING THREE CALLS: SOUTH 87 DEGREES 07 MINUTES 19 SECONDS WEST, 189.96 FEET TO AN IRON PIN (SET THIS SURVEY); THENCE SOUTH 5 DEGREES 48 MINUTES 25 SECONDS WEST, 245.31 FEET TO AN IRON PIN (SET THIS SURVEY); THENCE SOUTH 44 DEGREES 58 MINUTES 05 SECONDS WEST, 301.47 FEET TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED PARCEL CONTAINS 30.811 ACRES AS SURVEYED BY ROPY A. WRIGHT L.S. #2808, MAY 15, 2006. ALL IRON PINS SET THIS SURVEY AND PRIOR SURVEY ARE ½" RE-BAR WITH AN ORANGE PLASTIC CAP STAMPED "PROPERTY CORNER, R.A. WRIGHT, L.S. #2808". ALL WITNESS IRON PINS SET THIS SURVEY ARE ½" RE-BAR WITH A YELLOW PLASTIC CAP STAMPED "WITNESS CORNER, R.A. WRIGHT, L.S. #2808". ALL BEARINGS STATED HEREIN ARE REFERRED TO MAGNETIC MERIDIAN AS ORIENTED TO SEPTEMBER 28, 2002 SURVEY OF FREDDY APPLEGATE PROPERTY BY THE SURVEYOR.

BEING THE SAME PROPERTY CONVEYED MICHAEL A. HUGHES AND HEATHER DAWN HUGHES, HIS WIFE, FROM WILL LENGACHER AND MARY LENGACHER, HIS WIFE, BY DEED DATED THE 7TH DAY OF NOVEMBER 2006 AND RECORDED IN DEED BOOK 229, PAGE 187, FLEMING COUNTY CLERK'S OFFICE.

TAX ID NO.: 080-00-00-005.01

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2020, AS FOLLOWS: (NOT A SURVEY MATTER)
TAX ID: 080-00-00-005.01
POSTED PAID: $1,576.49

2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)

3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)

4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)

5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)

6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)

7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)

8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)

Westwood
Phone (720) 531-8350
Toll Free (888) 937-5150
10170 Church Ranch Way, Suite #201
Westminster, CO 80021
westwoodps.com
Westwood Professional Services, Inc.

PREPARED FOR:

RECURRENT ENERGY
123 Mission Street, Fl 18
San Francisco, CA 94105

REVISIONS:

#	DATE	COMMENT

Hummingbird Solar Project

Fleming County, Kentucky

DATE: 04/03/2022

DUANE R. LOWE

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-41, EFFECTIVE DATE: FEBRUARY 25, 2021

OWNER: DUANE R. LOWE

THIS PARCEL OF LAND IS A PORTION OF THE SHIRLEY BREWER PROPERTY LOCATED ON KY HWY 3301 IN FLEMING COUNTY, KENTUCKY. THE PARENT TRACT IS ON RECORD IN DEED BOOK 144, PAGE 724 LOCATED IN THE FLEMING COUNTY CLERK'S OFFICE AND IS MORE EXACTLY DESCRIBED AS FOLLOWS:

BEGINNING AT AN IRON PIN SET IN THE RIGHT-OF-WAY LINE OF KY HWY 3301 A CORNER TO THE WILLIAM AND GILBERTA COLGAN PROPERTY (D.B. 171, PAGE 614); THENCE N 04 DEG. 36 MIN. 28 SEC. E, 1001.02 FEET WITH THE COLGAN LINE TO AN IRON PIN SET A CORNER TO THE COLGAN PROPERTY; THENCE N 04 DEG. 19 MIN. 46 SEC. E, 1589.74 FEET WITH THE COLGAN LINE TO AN IRON PIN SET A CORNER TO THE COLGAN PROPERTY AND THE MARY SAYRE PROPERTY (D.B. 160, PAGE 348); THENCE WITH THE SAYRE LINE FOR THE FOLLOWING CALLS; THENCE S 86 DEG. 28 MIN. 02 SEC. E, 442.81 FEET TO AN IRON PIN SET; THENCE N 21 DEG. 35 MIN. 50 SEC. W, 92.72 FEET TO AN IRON PIN SET AT A 14" ELM; THENCE N 20 DEG. 56 MIN. 08 SEC. W, 130.57 FEET TO A P.K. NAIL SET IN A 24" WALNUT; THENCE N 28 DEG. 08 MIN. 46 SEC. W, 108.81 FEET TO AN IRON PIN SET AT A 12" TRIPLE HICKORY; THENCE N 32 DEG. 05 MIN. 57 SEC. W, 97.82 FEET TO AN IRON PIN SET; THENCE N 18 DEG. 09 MIN. 41 SEC. W, 58.47 FEET TO AN IRON PIN SET; THENCE N 15 DEG. 34 MIN, 20 SEC. W, 237.22 FEET TO AN IRON PIN SET A CORNER TO THE SAYRE PROPERTY AND THE DAVID AND MARY LINDBERG PROPERTY (D.B. 164, PAGE 664); THENCE N 86 DEG. 26 MIN. 27 SEC. E, 25.09 FEET WITH THE LINDBERG LINE TO AN IRON PIN SET A CORNER TO THE LINDBERG PROPERTY; THENCE S 88 DEG. 36 MIN. 46 SEC, E, 287.08 FEET WITH THE LINDBERG LINE TO AN IRON PIN SET A CORNER TO THE LINDBERG PROPERTY AND THE REMAINDER OF THE SHIRLEY BREWER PROPERTY (D.B. 144, PAGE 159); THENCE WITH THE BREWER LINE FOR THE FOLLOWING CALLS; THENCE S 00 DEG. 32 MIN. 15 SEC. W, 668.13 FEET TO AN IRON PIN SET; THENCE S 05 DEG. 56 MIN. 32 SEC. W, 1099.48 FEET TO AN IRON PIN SET; THENCE S 04 DEG. 58 MIN. 39 SEC. W, 1521.00 FEET TO AN IRON PIN SET IN THE RIGHT-OF-WAY LINE OF KY HWY 3301 A CORNER TO THE BREWER PROPERTY; THENCE WITH THE RIGHT-OF-WAY LINE OF KY HWY 3301 FOR THE FOLLOWING CALLS; THENCE N 80 DEG. 34 MIN. 38 SEC. W, 97.42 FEET TO AN IRON PIN SET; THENCE N 82 DEG, 59 MIN. 40 SEC. W, 172.40 FEET TO AN IRON PIN SET; THENCE N 83 DEG. 43 MIN. 01 SEC. W, 170.18 FEET TO THE POINT OF BEGINNING CONTAINING AN AREA OF 1,306,624.9 SQUARE FEET (30.00 ACRES).

THIS PARCEL OF LAND WAS SURVEYED BY ALAN JUSTICE ENGINEERING AND SURVEYING, INC. DURING THE MONTH OF JULY 2001. ALL IRON PINS SET ARC 1/2" REBAR MARKED WITH I.D. CAPS. THE BASIS OF BEARING FOR THIS SURVEY WAS A PARENT TRACT BEARING OFF THE SOUTH EAST SIDE OF THE BREWER PROPERTY AND THE NORTH WEST SIDE OF THE MARK IV PROPERTIES (D.B. 189, PAGE 3) (S 02 DEG. 00 MIN. 00 SEC. W). THIS IS A CLASS B SURVEY AND THE UNADJUSTED ERROR OF CLOSURE OF THE RANDOM TRAVERSE WAS 1 IN 18,949.

A PLAT OF SAID PROPERTY IS RECORDED IN PLAT CABINET 2, SLIDE 56 FLEMING COUNTY CLERK'S OFFICE TO WHICH REFERENCE IS MADE FOR A MORE PARTICULAR DESCRIPTION.

BEING THE SAME PROPERTY CONVEYED TO SHIRLEY H. BREWER, SINGLE, FROM THE PETRA CORPORATION, BY DEED DATED JULY 27, 2001, AND RECORDED IN DEED BOOK 208, PAGE 473, FLEMING COUNTY CLERK'S OFFICE. ALSO BEING A PART OF THE SAME PROPERTY CONVEYED TO CLARENCE MCCULLEN "MACK" BREWER FROM CLAUDIE R. BREWER AND JESSIE E. BREWER, HIS WIFE, BY DEED DATED NOVEMBER 8, 1977, AND RECORDED IN DEED BOOK 144, PAGE 724, FLEMING COUNTY CLERK'S OFFICE. CLARENCE MCCULLEN "MACK" BREWER DEVISED SAID PROPERTY TO HIS WIFE, SHIRLEY BREWER (AKA SHIRLEY H. BREWER) BY HIS LAST WILL AND TESTAMENT RECORDED IN WILL BOOK X, PAGE 680, FLEMING COUNTY CLERK'S OFFICE.

TAX ID NO.: 058-00-00-041.01

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2020, AS FOLLOWS: (NOT A SURVEY MATTER)
   TAX ID: 058-00-00-041.01
   POSTED PAID: $159.56
2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)
3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)
4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)
5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)
6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)
7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)
8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)
9. SUBJECT TO THOSE MATTERS DESCRIBED IN PLAT OF SURVEY DATED AUGUST 3, 2001, RECORDED AUGUST 31, 2001 IN PLAT BOOK 2, PAGE 56, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (PLAT CONTAINS NO SURVEY RELATED MATTERS TO PLOT)

ESTATE OF MARY ANN BREWER

LEGAL DESCRIPTIONS:

TITLE COMMITMENT NO:304387NCT-42, EFFECTIVE DATE: MARCH 24, 2021

OWNER: ESTATE OF MARY ANN BREWER

TWO CERTAIN TRACTS OF LAND LOCATED IN FLEMING COUNTY, KENTUCKY AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

TRACT NO. I: BEGINNING AT THE CENTER OF THE BEECHBURG AND FLEMINGSBURG TURNPIKE OPPOSITE A DIRT ROAD; THENCE WITH THE MEANDERINGS OF THE DIRT ROAD S 13 W 36 POLES; S 28 W 35-1/2 POLES; S 13 W 24 POLES; S 10 W 25-1/2 POLES TO A STONE IN THE CENTER OF THE ROAD AND IN A. J. SLOOPS LINE AND CORNER TO LOUIS BOWER; THENCE N 84 W 73-1/2 POLES TO A STONE CORNER TO HUSSEY BROS; ON A LANE; THENCE N 3 E 104-8/10 POLES TO THE CENTER OF THE TURNPIKE CORNER TO J. S. CARPENTER AND HENRY SCHWARTZ; THENCE N 80 E 52 POLES; THENCE N 84 E 49-2/10 POLES TO THE BEGINNING, CONTAINING 61 ACRES, 2 QUARTERS AND 10 POLES.

TRACT NO. II; ALSO ANOTHER TRACT OF LAND SITUATED ON THE FLEMINGSBURG-MT. CARMEL TURNPIKE, INCLUDING A HOUSE, AND ABOUT ONE MILE EAST OF FLEMINGSBURG, KENTUCKY, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT WHERE THE LAND OF W. T. LATHRAM CORNERS WITH THE LAND OF FIRST PARTIES (CLARENCE BREWER); THENCE IN A STRAIGHT LINE AND WITH THE DIVISION LINE BETWEEN LATHRAM AND BATEMAN TO A SET STONE WHERE IT JOINS THE LAND OF O. H. JONES, SAID CORNER BEING 17 FEET SOUTH OF A LARGE PEAR TREE; THENCE WITH THE LINE OF SAID JONES TO THE CENTER OF THE FLEMINGSBURG AND MT. CARMEL TURNPIKE; THENCE WITH THE CENTER OF SAID TURNPIKE IN A NORTHERLY DIRECTION TO THE PROPERTY OF W. T. LATHRAM; THENCE AT RIGHT ANGLE IN A SOUTHWESTERLY DIRECTION AND WITH THE LINE OF SAID LATHRAM TO THE POINT OF BEGINNING, CONTAINING APPROXIMATELY 3 ACRES, MORE OR LESS.

THERE IS EXCEPTED A TRACT OF LAND CONTAINING 1.03 ACRES CONVEYED TO BREWER MINI STORAGE, LLC, A KENTUCKY LIMITED LIABILITY COMPANY, FROM JIMMY BREWER AND MARY ANN BREWER, HUSBAND AND WIFE, BY DEED DATED THE 30TH DAY OF DECEMBER, 2002, AND OF RECORD IN DEED BOOK 214, PAGE 84, FLEMING COUNTY CLERK'S OFFICE.

TRACTS I AND II BEING A PART OF THE SAME REAL ESTATE CONVEYED JAMES GILMER BREWER AND MARY ANN BREWER, HUSBAND AND WIFE, FROM JESSIE BREWER, BY DEED DATED THE 20TH DAY OF NOVEMBER, 1990, AND OF RECORD IN DEED BOOK 170, PAGE 591, FLEMING COUNTY CLERK'S OFFICE.

SAVE AND EXCEPT:

A CERTAIN PARCEL OF LAND LOCATED IN FLEMING COUNTY, KENTUCKY OFF THE FLEMINGSBURG-BEECHBURG ROAD AND WHICH IS MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A GATE POST ON THE WEST SIDE OF A 12 FEET PASSWAY AND AT THE SOUTHEAST CORNER OF SECOND PARTIES' LOT; THENCE AT A 90° ANGLE IN A GENERAL SOUTHEASTERLY DIRECTION A DISTANCE OF 45 FEET TO A STAKE; THENCE AT ANOTHER 90° ANGLE IN A GENERAL WESTERLY DIRECTION A DISTANCE OF 84 FEET TO A STAKE CORNER TO SECOND PARTIES' LOT; THENCE IN A GENERAL NORTHEASTERLY DIRECTION FOLLOWING SECOND PARTIES' PROPERTY LINE A DISTANCE OF 90 FEET TO THE BEGINNING, CONTAINING 1,890 SQUARE FEET.

BEING A PART OF THE SAME PROPERTY CONTAINED IN TRACT I CONVEYED TO JAMES GILMER BREWER AND MARY ANN BREWER, HUSBAND AND WIFE FROM JESSIE BREWER DATED THE 20TH DAY OF NOVEMBER, 1990 AND OF RECORD IN DEED BOOK 170, PAGE 591 FLEMING COUNTY CLERK'S OFFICE.

BEING THE SAME REAL ESTATE CONVEYED TO RICHARD E. LOWE AND DONNA M. LOWE, HUSBAND AND WIFE, BY JAMES GILMER BREWER AND MARY ANN BREWER, HUSBAND AND WIFE, BY DEED DATED MARCH 23, 1992, RECORDED APRIL 23, 1992 IN DEED BOOK 173, PAGE 689, FLEMING COUNTY COURT CLERK, FLEMING COUNTY, KENTUCKY.

TAX ID NO.: 059-00-00-002.00

SCHEDULE B-II EXCEPTIONS:

THE FOLLOWING MATTERS AFFECT THE PARCEL DESCRIBED ABOVE:

1. GENERAL TAXES AND ASSESSMENTS FOR THE FISCAL YEAR 2020, AS FOLLOWS: (NOT A SURVEY MATTER)
   TAX ID: 059-00-00-002.00
   POSTED PAID: $460.52
2. EASEMENTS, CLAIMS OF EASEMENTS AND RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS. (NOT A SURVEY MATTER)
3. DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGES IN AREA, ENCROACHMENTS AND ANY FACTS WHICH A SURVEY AND INSPECTION OF THE PREMISES WOULD DISCLOSE. (NOT A SURVEY MATTER)
4. ANY LIEN OR RIGHT TO A LIEN IMPOSED BY LAW FOR SERVICES, LABOR OR MATERIAL HERETOFORE OR HEREAFTER FURNISHED, EXCEPT FOR ANY SUCH LIEN THE ASSERTION OF WHICH BY A CLAIMANT IS SHOWN BY THE PUBLIC RECORDS AT DATE OF POLICY. (NOT A SURVEY MATTER)
5. ANY AND ALL INTEREST IN AND TO ALL OF THE WATER, OR OIL, GAS, COAL, METALLIC ORES, AND OTHER MINERALS IN, UNDER OR ON THE LAND AND ALL RIGHTS PERTAINING THERETO. (NOT A SURVEY MATTER)
6. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF, BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES OF RECORD, FOR VALUE, THE ESTATE OR INTEREST OR MORTGAGE THEREON, COVERED BY THIS POLICY. (NOT A SURVEY MATTER)
7. THE FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE DOCUMENTS INSURED UNDER SCHEDULE A. (NOT A SURVEY MATTER)
8. ANY REFERENCES TO ACREAGE IN THE LAND DESCRIBED IN SCHEDULE A IS FOR TRACT IDENTIFICATION ONLY AND ARE NOT TO BE CONSTRUED AS ANY PART OF THE COVERAGE AFFORDED BY THIS POLICY. (NOT A SURVEY MATTER)
9. SUBJECT TO THOSE MATTERS DESCRIBED IN PLAT OF SURVEY DATED DECEMBER 16, 2002, RECORDED IN PLAT CABINET 79, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (PLAT CONTAINS NO SURVEY RELATED MATTERS TO PLOT)
10. RIGHT OF WAY EASEMENT DATED MAY 28, 1986, GRANTED BY JESSIE BREWER, SINGLE, TO FLEMING COUNTY WATER ASSOCIATION, INC., RECORDED MAY 28, 1986 IN EASEMENT BOOK 15, PAGE 450, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (BLANKET IN NATURE, NOT PLOTTABLE)
11. RIGHT OF WAY EASEMENT DATED MAY 12, 1970, GRANTED BY JESSIE BREWER AND CLAUDE BREWER, SR., TO FLEMING COUNTY WATER ASSOCIATION, INC., RECORDED MAY 12, 1970 IN EASEMENT BOOK 11, PAGE 49, OFFICIAL PUBLIC RECORDS, FLEMING COUNTY, KENTUCKY. (BLANKET IN NATURE, NOT PLOTTABLE)

Westwood
Phone (720) 531-8350
Toll Free (888) 937-5150
10170 Church Ranch Way, Suite #201
Westminster, CO 80021
westwoodps.com
Westwood Professional Services, Inc.

PREPARED FOR:

RECURRENT ENERGY
123 Mission Street, Fl 18
San Francisco, CA 94105

REVISIONS:

#	DATE	COMMENT

Hummingbird Solar Project

Fleming County, Kentucky

DATE: 04/03/2022

SAR Exhibit D

Hummingbird Solar Noise Assessment

Hummingbird Solar Facility

September 23, 2022

Prepared for:

Hummingbird Energy LLC

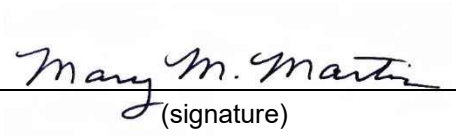
Prepared by:

Stantec Consulting Services, Inc
Louisville, Kentucky

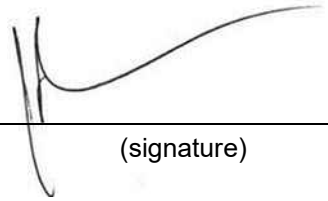
This document entitled Hummingbird Solar Noise Assessment was prepared by Stantec Consulting Services Inc. (“Stantec”) for the account of Hummingbird Solar, LLC (the “Client”). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec’s professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Prepared by 
(signature)

Amber Coleman

Reviewed by 
(signature)

Mary Martin

Approved by 
(signature)

Josh Adams

Table of Contents

LIST OF TABLES

1.0 INTRODUCTION

1.1 PROJECT DESCRIPTION

The Hummingbird Solar Project (Project) is a proposed 200-megawatt (MW) photovoltaic (PV) solar power energy generating facility located in Fleming County, Kentucky. The project site is located within approximately 3,900 acres 2.5 miles northeast of Flemingsburg (Figure 1). The solar project consists of solar panels, a panel tracking system, inverters and electrical equipment associated with a solar facility and substation. The power generated by the proposed solar facility will be connected to the existing power grid using the existing transmission line connecting to the proposed Substation located on Carpenter Road. The generating facility will sell power on the wholesale market as a merchant power plant or independent power producer. The solar facility will be enclosed by a six (6)-foot chain link fence with three strand barbed wire. At the end of the project's life the equipment and electrical infrastructure will be decommissioned, and land may return to farming or other development.

A desktop noise assessment was completed to evaluate potential noise impacts to noise sensitive receptors within 1,000 feet from the project boundary (Noise Assessment Area). Background noise as well as noise generated during construction and operation of the Project were considered in the analysis.

1.2 EXISTING LAND USE AND SITE CONDITIONS

The Project is located in a rural area with gently sloping topography. Existing land use within the project site is cultivated cropland with small areas of deciduous forest. (MLRC 2016 and USDA-FSA 2018). Land use adjacent to the Project is comprised of scattered homes and cultivated cropland. The community of Mt. Carmel is located in the north central portion of the Project while Flemingsburg is located to the southeast. KY-57 transects the project site northeast to southwest while forested land is present to the southeast (Figure 2). There are two 138-kV transmission lines that intersects the Project.

2.0 NOISE STUDY

2.1 EXISTING NOISE CONDITIONS

2.1.1 Noise Sensitive Receptors

A noise sensitive receptor is generally defined as locations where people reside or where the presence of unwanted sound may adversely affect the use of the land. Receptors may include but are not limited to schools, homes, churches, hospitals, and certain types of recreation or outdoor land uses such as outdoor restaurant seating.

Potential noise sensitive receptors were evaluated within a 1,000 foot buffer from the project boundary. High resolution aerial photography, topographic quadrangles and proposed site layouts were analyzed using ESRI ArcMap 10.8 and Google Earth Pro to determine the presence of potential noise sensitive receptors. These receptors include residential dwellings and are shown on Figure 2. Two churches are present within the study area: Mt. Carmel Christian Church and Mt. Carmel Bible Fellowship. Mt. Carmel Christian Church is located within the Mt. Carmel community near the north portion of the site while Mt. Carmel Bible Fellowship is located along Carpenter Road near the center of the site. The Fleming County Cemetery is located in the Mt. Carmel community and will not be analyzed further for this study. No schools, nursing homes, childcare centers, outdoor recreation, medical centers or other types of noise sensitive receptors were observed within the noise assessment area.

136 residences consisting of single family homes are located within the Noise Assessment Area. These dwellings are referred to as noise sensitive receptors within this report (R1-R139). Forty three (43) of these dwellings are located within areas that meet the definition of “residential neighborhood” according to KRS 278.700. These 43 dwellings are in one of five neighborhoods, which include populated areas of five or more acres containing at least one residential structure per acre. The five residential neighborhoods include an area along Beech Springs Drive, Maddox Road, Poplar Grove Road, Foxport Road and the community of Mt. Carmel. The nearest residence is approximately 260 feet from the nearest solar panel (Table 1). Proposed inverters are located even further away with the nearest being approximately 624 feet from a residence. Three adjacent residences along Botkins Lane are currently under a purchase option and will be removed prior to construction (R4, R5 and R6); therefore, they have not been considered as noise sensitive receptors in this study. These are labeled as Participating Structures on Figure 2.

Table 1. Nearest Sensitive Receptor to the Site

Type	Nearest to	Direction from Project Site	Distance from Fence	Distance from Nearest Solar Panel	Distance from Nearest Inverter or Transformer*
Residences – Beech Springs Drive Neighborhood (R17-R32)		West	Within 305 ft	Within 352 ft	Within 1,252 ft
Residences – Maddox Road Neighborhood (R40-R44)		West	Within 309 ft	Within 381 ft	Within 1,053 ft
Residence (R46)	Fence	West	Within 180 ft	Within 316 ft	Within 755 ft
Residences – Poplar Grove Road Neighborhood (R63-R73)		Northwest	Within 317 ft	Within 373 ft	Within 1,011 ft
Residences – Mount Carmel Neighborhood (R80-R85)		North Central	Within 320 ft	Within 394 ft	Within 1,529 ft
Residence (R91)	Substation	Central	Within 324 ft	Within 575 ft	Within 792 ft*
Residence (R105)	Solar Panel / Tracking Motors	East	Within 208 ft	Within 260 ft	Within 788 ft
Residence (R109)	Inverter	East	Within 355 ft	Within 469 ft	Within 624 ft
Residences – Foxport Road Neighborhood (R126-R130)		Northeast	Within 243 ft	Within 306 ft	Within 1,287 ft

*All values reflect distance to inverters except for R91 which is the distance to the substation/transformer area.

2.1.2 Noise Ordinances

The unincorporated portions of Fleming and Lewis Counties do not appear to have a specific noise ordinance.

2.1.3 Existing Noise from Surrounding Areas

Noise is typically measured in decibels (dB_A - A-weighted sound levels) to describe the relative loudness of specific sounds. Unless otherwise noted, sound is presented as equivalent continuous sound level [L_{eq} (dB_A)]. This is defined as the steady sound pressure level which, over a given period of time, has the same total energy as the actual fluctuating noise. This can be generally thought of as average sound levels. L_{min} (dB_A) and L_{max} (dB_A) are the minimum and maximum sound levels at a given period in time. See Table 2 for example sound levels from the Centers for Disease Control and Prevention (CDC 2020) and the Federal Railroad Administration (FRA 2010).

Table 2. Common Sources of Noise and Decibel Levels

Noise Source	Average Noise Level (dB_A)*
Loud Entertainment Venues (Nightclubs, Bars and Rock Concerts)	105 – 110
Car horn at 16 ft / Sporting Events	100
Motorcycle	95
Locomotives and Rail Cars at 100 feet**	80-90
Gas powered lawnmowers and leaf blowers	80-85
Heavy Traffic	80-85
Washing Machine / Dishwasher	70
Normal Conversation / Air Conditioner	60
Soft Whisper	30

**CDC 2020 **FRA 2010*

The primary source of noise from the surrounding area is similar to the Project site with sparse automotive traffic on rural roads and adjacent farms producing agricultural sounds related to tractors, farm machinery, trucks, and ATVs. Additionally, wildlife also contributes to the local noise including insects, birds and frogs.

2.1.4 Existing On-Site Noise

Existing noise on the Project site consists of noises typically produced by agricultural activities. These noises include tractors, trucks, and all-terrain vehicles. Rural wildlife noises contribute to the existing noise conditions including birds, frogs and insects.

2.2 PROPOSED CONSTRUCTION NOISE CONDITIONS

2.2.1 Equipment and Machinery

The Project's construction will require earthmoving and tree removal activities as well as typical solar panel and electrical equipment installation. Typical construction equipment is expected to be used for site preparation and infrastructure installation and may include dump trucks, pile drivers, backhoes, dozers,

and excavators. The Federal Transit Administration outlines typical construction equipment noise levels and is presented in Table 3 (FTA 2018). The Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) was used to evaluate noise during construction (FHWA 2006). Pile drivers are expected to be the loudest machinery and will only be used during installation of the solar panel supports. Since pile drivers will only be used during pole installation, nearest receptor model results have been presented both with and without pile drivers in use.

Table 3. Construction Equipment Noise Emission Levels

Equipment	Typical Noise Levels at 50 ft from Source (dB_A)*
Air Compressor	80
Backhoe	80
Ballast Equalizer	82
Ballast Tamper	83
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88
Crane, Mobile	83
Dozer	85
Generator	82
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	80
Paver	85
Pile Driver (Impact)	101
Pile Driver (Sonic)	95
Pneumatic Tool	85
Pump	77
Rail Saw	90
Rock Drill	95
Roller	85
Saw	76
Scarifier	83
Scraper	85
Shovel	82
Spike Driver	77
Tie Cutter	84
Tie Handler	80
Tie Inserter	85
Truck	84

**Taken from FTA 2018*

2.2.2 Roadway Noise During Construction

Traffic noise is expected to increase temporarily during construction due to the mobilization of labor and materials, equipment and staff moving between sections of the project and construction and equipment vehicles entering and leaving the site. Construction related activity is expected to occur mainly between 7 a.m. and 7 p.m. (sunrise and sunset) and will be of limited duration at any given location within the project.

2.2.3 Assembly of Solar Array and Construction of Facilities

The solar facility consists of solar panels, a panel tracking system, inverters and electrical equipment associated with the solar facility and substation. All solar module equipment is expected to be assembled using handheld equipment and power tools. Assembly will occur within the Project site several hundred to thousands of feet from the nearest receptors. Assembly will take place during daytime hours and will be of limited duration at any given location within the project.

2.3 PROPOSED OPERATIONAL NOISE CONDITIONS

2.3.1 Solar Array and Tracking System

The solar array associated with this project includes single-axis tracking panels distributed evenly across the site (Figure 2). Tracking systems involve the panels being driven by small, 24-volt brushless DC motors to track the arc of the sun to maximize each panel's potential for solar absorption. Panels would turn no more than five (5) degrees every 15 minutes and would operate no more than one (1) minute out of every 15-minute period during daylight hours. These tracking motors are a potential source of mechanical noise and are included in this assessment. Tracking motors will not be installed closer than 100 feet from the project boundary. The sound typically produced by panel tracking motors (NexTracker or equivalent) is approximately 78 dB_A. Comparing similar noise values and distances from the RCNM, at the nearest receptor (R105) the tracking system will be approximately 49.7 dB_A as a worst-case maximum noise [L_{max} (dB_A)] which is similar to a refrigerator hum. The equivalent continuous sound level [L_{eq} (dB_A)] from the tracking motors is 37.5 dB_A which is around a soft whisper. Model results are presented in Table 5.

2.3.2 Inverters

Approximately 53 inverters are expected to be installed across the Project site. Inverters installed onsite are expected to be SMA Energy PCS or General Electric (GE) LV5 PCS or similar. Manufacturer's specifications for the equipment include a range of noise emission for SMA Energy PCS from 49 dB_A at 50 meters (164 feet) distance to 67 dB_A at 10 meters (32.8 feet) from the source which roughly translates to 31.1 dB_A at the nearest receptor (R109), comparable to a computer. The GE LV5 PCS ranges from 73.6 dB_A at lowest cooling level to 91.3 dB_A at highest cooling levels at 10 meters (32.8 feet) from the source which is approximately 48 dBA at the nearest receptor (R109), comparable to a refrigerator. Since the GE approximate sound levels are higher, those were used for this assessment and results are shown in Table 5.

The noise produced by the inverters can be characterized as a hum and during average operation is similar in noise level to a household air conditioner at the unit. Proposed inverter locations are shown on Figure 2.

2.3.3 Transformers

The proposed substation and battery storage area covers approximately 14.0 acres and is located on the central portion of the Project. Transformers associated with the project will include a SBG-SMIT 3 phase 127 kVA transformer or similar. According to manufacturer specifications the loudest the transformer is expected to be is just over 60 $dB_{A,}$ measured 1 meter (3.2 feet) from the source, or the level of a normal conversation. The nearest sensitive receptor (R91) is approximately 792 feet away which equates to a sound level of 12.2 dBA and is barely audible, comparable to normal breathing. Remaining model results can be found in Table 5.

2.3.4 Site Operation and Maintenance

2.3.4.1 Vehicular Traffic

During operation, the solar facility is expected to have a maximum of one technician visiting the site daily for inspection and two to three technicians up to 70 days per year. Operation and maintenance work may be expected at night for up to 30 days per year. Weekend work is not anticipated but may be required upon any component outages that may impact energy production from the site. Other than the scenarios mentioned, vehicular traffic onsite will be limited to typical weekday business hours. Technicians will drive mid- or full-sized trucks and will not contribute noticeably to the existing traffic noise levels.

2.3.4.2 Maintenance Activities

Typical maintenance activities may include inspection, minor repair and maintenance on the solar panels, the tracking system, wiring, and/or inverters. Grounds maintenance will include periodic inspection of the boundary fencing and vegetation control through mowing and herbicide applications.

2.4 NOISE SUMMARY AND CONCLUSIONS

Noise is expected to increase temporarily and intermittently during the construction phase of the project due to increases in vehicular traffic, construction equipment and assembly of the solar facility components. This increase in noise is expected to be within accepted ranges and of short duration at any given location within the project with the majority of the noise producing activities to occur many hundreds to thousands of feet from the nearest noise sensitive receptors. With the exception of the pile driving activities, the typical noise levels of construction equipment are not unlike the existing noise levels related to cultivation within and surrounding the Project.

The noisiest portion of the construction will be the use of pile drivers to install the solar panel supports. These will only be used very briefly for each pile. The pile driver's worst-case intermittent maximum noise

[L_{max} (dB_A)] level (86.5 dB_A) is expected to occur at the nearest receptor (R105) and is similar to a motorcyle. The equivalent continuous sound level [L_{eq} (dB_A)] from construction including the pile driver is 79.6 dB_A which is similar to the sound level of a leaf blower. The noise model was also evaluated without the inputs of the pile driver since that is more typical of ongoing construction sound levels. The sound levels for typical construction (without pile driving) onsite are approximately 64.2 dB_A which around the sound level of a dishwasher (Table 4). Construction activities at the Project site would move around the site and are not anticipated to be performed near a sensitive receptor for more than a few weeks.

Table 4. Calculated Noise Levels at Nearest Receptor Due to Construction (Sunrise to Sunset)

	Panel Distance (ft)	**Calculated L_{max} (dB_A)**	**Calculated L_{eq} (dB_A)**
Noise Level at Nearest Residential Receptor (R105) (including pile driver)	260	86.5	79.6
Noise Level at Nearest Residential Receptor (R105) (minus pile driver)	260	66.2	64.2

During site operation, intermittent noise related to the panel tracking system and the constant noise of the inverters is expected. The increase in noise is negligible due to the distance between the panels / inverters and the nearest noise sensitive receptors. The nearest receptor (R105) is approximately 260 feet from the closest solar panels (and approximately 788 feet from an inverter). Maximum sound levels from the tracking system can be expected to be the levels of a refrigerator hum at the nearest receptor (R105, 49.7 dB_A), while the sounds will be much quieter at most receptors.

It should be noted that the trackers and the inverters for the panels themselves will not operate at night when residential receptors are most sensitive. During average daytime operation, the inverters will be similar in noise level (~48 $dB_{A\ max}$) to a quiet library at the nearest receptor (R109). According to manufacturer specifications the loudest the substation transformer is expected to be is just over 60 dB_A at 1m from the source, or the level of a normal conversation. Since the nearest receptor (R91) is approximately 792 ft from the substation, transformers are not expected to add additional noise above background noise as the noise levels are barely audible (12.2 dB_A). Site visits and maintenance activities including single vehicular traffic and mowing will be negligible as they are similar to the background agricultural noise characteristics. All site visits, outside of emergency maintenance, will occur during daylight hours.

At the nearest receptors, besides intermittent and infrequent pile driver activity, no elevated and prolonged noise levels above background levels are expected either during construction or operation of the Project site. Construction (pile driving) is not expected to remain in any area beyond a week.

Table 5. Approximate Noise Levels During Operation (Sunrise to Sunset)

Receptor*	Nearest Panel / Panel Tracking System		Nearest Inverter		Nearest Transformer/Substation	
	Distance (ft)	dB_A	Distance (ft)	dB_A	Distance (ft)	dB_A
R1	542	43.3	1430	40.8	16205	<10
R2	913	38.8	1990	37.9	15231	<10
R3	477	44.4	989	44.0	13972	<10
R7	1027	37.7	1534	40.2	14700	<10
R8	903	38.9	1472	40.5	14960	<10
R9	668	41.5	1526	40.2	15850	<10
R10	386	46.2	1328	41.4	16538	<10
R11	823	39.7	1742	39.1	17479	<10
R12	441	45.1	1022	43.7	17351	<10
R13	733	40.7	1254	41.9	17802	<10
R14	1061	37.5	1522	40.2	18083	<10
R15	1003	38.0	1118	42.9	14049	<10
R16	988	38.1	1187	42.4	13587	<10
R17	880	39.1	1414	40.9	12999	<10
R18	1079	37.3	1706	39.2	12807	<10
R19	951	38.4	1605	39.8	12701	<10
R20	849	39.4	1550	40.1	12600	<10
R21	722	40.8	1460	40.6	12524	<10
R22	571	42.8	1410	40.9	12356	<10
R23	376	46.5	1349	41.3	12073	<10
R24	352	47.0	1333	41.4	11967	<10
R25	369	46.6	1412	40.9	11734	<10
R26	395	46.0	1252	41.9	11525	<10
R27	544	43.3	1475	40.5	11747	<10
R28	558	43.0	1538	40.1	11910	<10
R29	586	42.6	1552	40.1	12006	<10
R30	756	40.4	1627	39.6	12267	<10
R31	853	39.4	1668	39.4	12390	<10
R32	953	38.4	1725	39.1	12481	<10
R33	718	40.9	1657	39.5	10010	<10
R34	457	44.8	1402	40.9	9621	<10
R35	506	43.9	883	45.0	9441	<10
R36	1132	36.9	1400	40.9	8914	<10
R37	532	43.5	1291	41.7	11251	<10
R38	1077	37.3	1842	38.6	8626	<10
R39	350	47.1	1037	43.6	8220	<10

Receptor*	Nearest Panel / Panel Tracking System		Nearest Inverter		Nearest Transformer/Substation	
	Distance (ft)	dB_A	Distance (ft)	dB_A	Distance (ft)	dB_A
R40	398	46.0	1080	43.2	8581	<10
R41	439	45.1	1065	43.3	8702	<10
R42	440	45.1	1054	43.4	8800	<10
R43	381	46.4	1086	43.2	9072	<10
R44	462	44.7	1188	42.4	9344	<10
R45	474	44.5	893	44.9	9752	<10
R46	317	48.0	755	46.3	9712	<10
R47	902	38.9	1515	40.3	10854	<10
R48	1182	36.5	1901	38.3	11408	<10
R49	960	38.3	1653	39.5	11248	<10
R50	1047	37.6	1895	38.3	11288	<10
R51	1042	37.6	1939	38.1	11233	<10
R52	405	45.8	1320	41.5	7917	<10
R53	361	36.7	1157	42.6	7699	<10
R54	488	44.2	655	47.5	8026	<10
R55	682	41.3	901	44.8	8195	<10
R56	275	49.2	821	45.6	6181	<10
R57	348	47.1	757	46.3	3530	<10
R58	351	47.1	1246	42.0	3725	<10
R59	284	48.9	1306	41.6	4532	<10
R60	1035	37.7	1054	43.4	8084	<10
R61	829	39.6	2466	36.0	11207	<10
R62	405	45.8	1966	38.0	11006	<10
R63	914	38.8	2172	37.1	12787	<10
R64	613	42.1	1864	38.5	12484	<10
R65	615	42.2	1883	38.4	12481	<10
R66	445	45.0	1697	39.3	12257	<10
R67	385	46.3	1609	39.7	12148	<10
R68	373	46.5	1545	40.1	12054	<10
R69	408	45.8	1447	40.7	11903	<10
R70	485	44.3	1361	41.2	11762	<10
R71	381	46.4	1133	42.8	11603	<10
R72	526	43.6	1011	43.8	11317	<10
R73	672	41.4	1153	42.6	11380	<10
R74	920	38.7	2068	37.6	12463	<10
R75	807	39.8	1834	38.6	12159	<10
R76	787	40.1	1749	39.0	12046	<10

Receptor*	Nearest Panel / Panel Tracking System		Nearest Inverter		Nearest Transformer/Substation	
	Distance (ft)	dB_A	Distance (ft)	dB_A	Distance (ft)	dB_A
R77	1063	37.4	1526	40.2	11483	<10
R78	995	38.0	1272	41.8	9538	<10
R79	740	40.6	2193	37.0	6130	<10
R80	534	43.4	1529	40.2	3941	<10
R81	394	46.1	1740	39.1	3719	<10
R82	675	41.4	2006	37.8	3857	<10
R83	955	38.4	2309	36.6	3932	<10
R84	1046	37.6	2375	36.4	4011	<10
R85	463	44.7	2030	37.7	3162	<10
R86	1113	37.0	3056	34.2	3393	<10
R87	859	39.3	2916	34.6	2690	<10
R88	1708	33.3	1960	38.0	926	10.9
R89	1554	34.2	2018	37.8	895	11.3
R90	598	42.4	1571	39.9	1399	<10
R91	575	42.8	1624	39.7	792	12.2
R92	428	45.4	1386	41.0	906	11.2
R93	371	46.6	844	45.3	1514	<10
R94	727	40.7	1259	41.9	1220	<10
R95	631	42.0	1710	39.2	866	11.6
R96	369	46.6	2225	36.9	1251	<10
R97	590	42.6	1679	39.4	1882	<10
R98	412	45.7	1118	42.9	1974	<10
R99	371	46.6	1904	38.3	3043	<10
R100	750	40.5	1938	38.1	3549	<10
R101	406	45.8	1580	39.9	3819	<10
R102	469	44.6	862	45.2	5483	<10
R103	268	49.4	3100	34.0	4147	<10
R104	314	48.0	1584	39.9	5635	<10
R105	260	49.7	788	45.9	6267	<10
R106	286	48.9	650	47.6	6406	<10
R107	328	47.7	916	44.6	6652	<10
R108	941	38.5	975	44.1	8346	<10
R109	469	44.6	624	48.0	7851	<10
R110	374	46.5	1469	40.5	8326	<10
R111	564	43.0	2207	37.0	8969	<10
R112	371	46.6	2393	36.3	8792	<10
R113	906	38.8	2885	34.7	9291	<10

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Noise Study

Receptor*	Nearest Panel / Panel Tracking System		Nearest Inverter		Nearest Transformer/Substation	
	Distance (ft)	dB_A	Distance (ft)	dB_A	Distance (ft)	dB_A
R114	983	38.1	3203	33.8	9253	<10
R115	1053	37.5	3527	32.9	9359	<10
R116	1094	37.2	3664	32.6	9399	<10
R117	370	46.6	745	46.4	7302	<10
R118	542	43.3	967	44.2	7418	<10
R119	733	40.7	1357	41.2	8090	<10
R120	443	45.1	837	45.4	8189	<10
R121	648	41.7	770	46.1	8462	<10
R122	867	39.2	1325	41.4	9076	<10
R123	956	38.4	1801	38.8	9802	<10
R124	774	40.2	1351	41.3	11791	<10
R125	420	45.5	1328	41.4	12165	<10
R126	452	44.9	1435	40.7	9498	<10
R127	533	43.4	1427	40.8	9675	<10
R128	454	44.8	1352	41.3	9665	<10
R129	306	48.3	1287	41.7	9606	<10
R130	475	44.4	1313	41.5	9555	<10
R131	395	46.0	1392	41.0	9125	<10
R132	504	43.9	1639	39.6	8888	<10
R133	385	46.3	1258	41.9	9978	<10
R134	890	39.0	1797	38.8	9062	<10
R135	921	38.7	1589	39.8	8743	<10
R136	915	38.8	1685	39.3	11542	<10
R137	586	42.6	1300	41.6	12410	<10
R138	293	48.6	894	44.8	13064	<10
R139	317	48.0	907	44.7	13152	<10
Note	Operates 1 minute every 15 minutes during daylight hours		Continuous low hum during daylight hours		Substation area	

Noise Levels are Lmax – maximum noise levels expected. R4, R5, and R6 will be demolished prior to construction.

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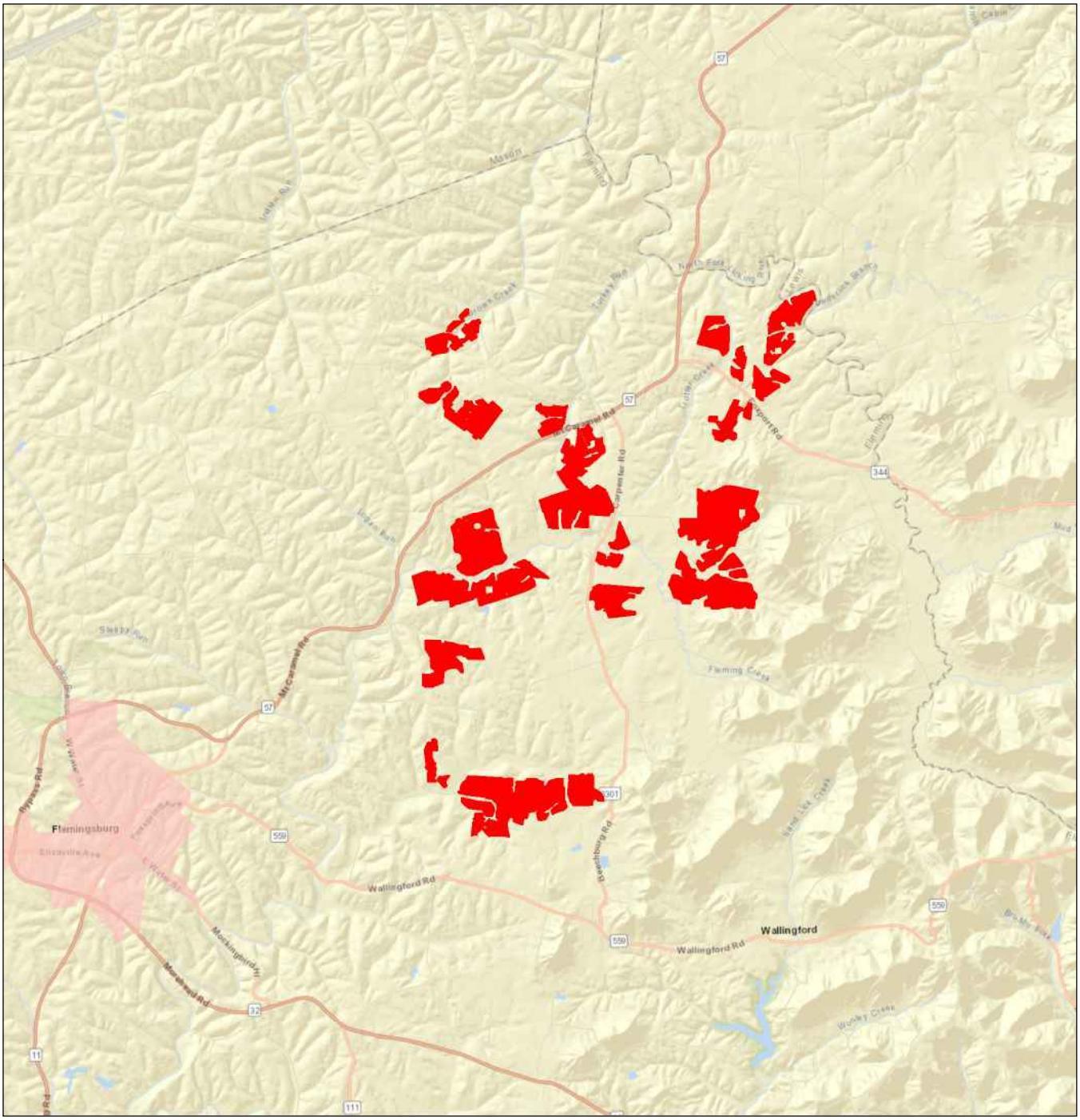
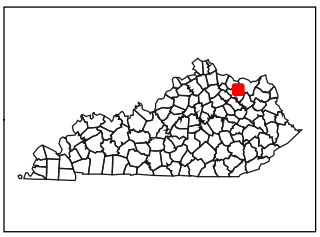
USDA-FSA 2018. Kentucky Statewide 2 Foot Aerial Imagery (2018). National Agricultural Imagery Program (NAIP). United States Department of Agriculture-Farm Service Agency Aerial Photography Field Office. Web map service.

Appendix A FIGURES





Legend

- Kentucky Corporate Boundary Polygons
- Project Study Area

1.5 0.75 0 1.5 Miles

(At original document size of 8.5x11)
1:100,000

N

Stantec

Project Location
Fleming County, KY

Prepared by GRG on 2022-09-19
TR by ALC on 2022-03-31
IR Review by on 2022-03-31

Client/Project
Hummingbird Solar Facility
Noise Assessment

Figure No.
1

Title
Vicinity Map

Notes
1. Coordinate System: NAD 1983 2011 StatePlane Kentucky South FIPS 1602 Ft US
2. Data Sources: Stantec
3. Background: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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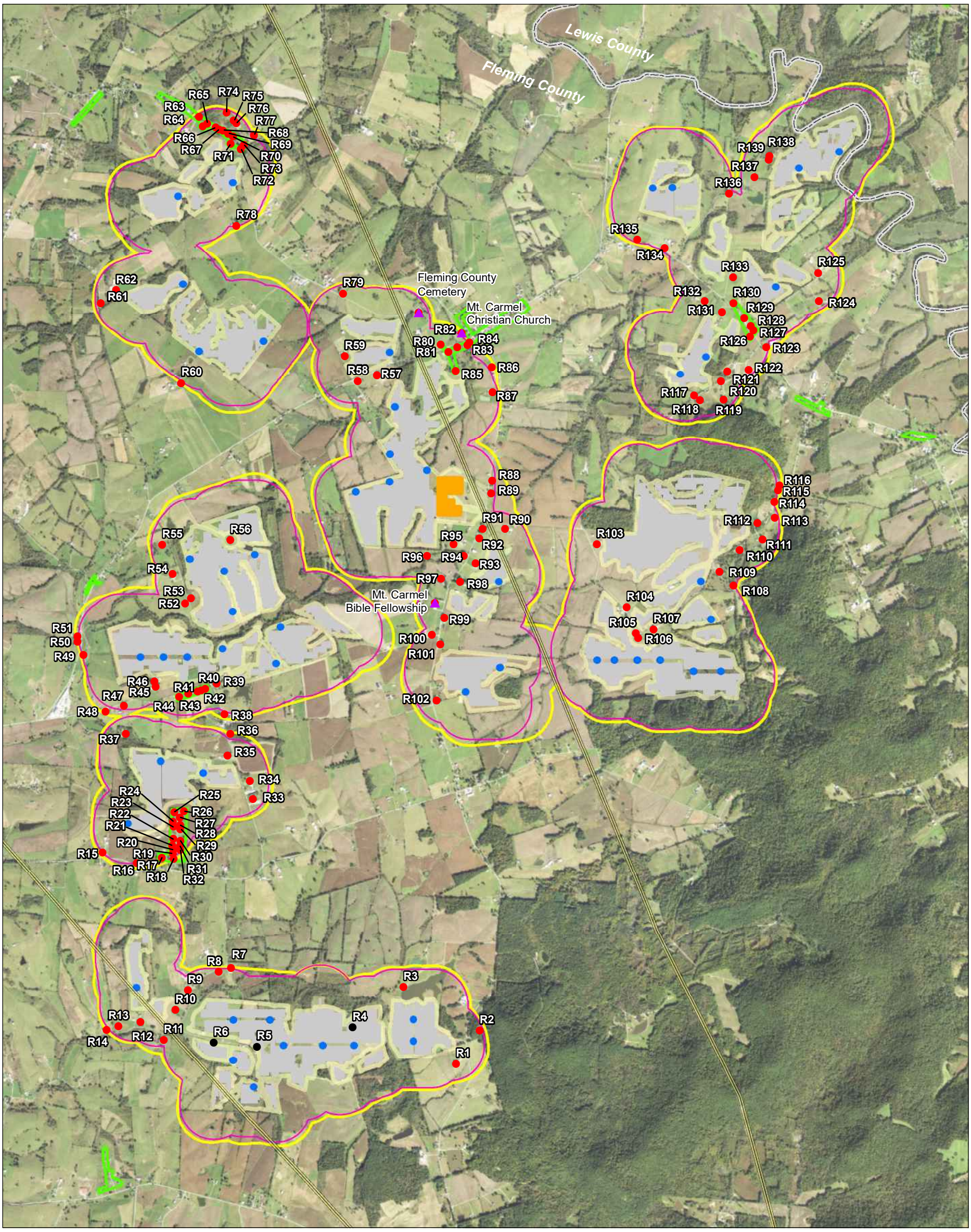

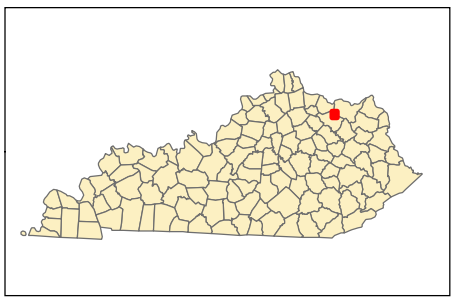

Notes

1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Data Sources: ESRI; Stantec
3. Background: BING Aerials Kentucky Transportation Cabinet (KYTC)

Legend

- 1000 ft Noise Assessment Area
- Potential Fence Line
- Noise Sensitive Receptors
- Participating Structures
- Potential PV Layout
- Potential Inverter Locations
- Potential Substation Location
- 55dBA Temporary Construction Noise Limit
- Residential Neighborhoods as per KRS 278.700
- Counties
- 138kv Transmission Line

0 3,000 6,000 Feet

(At original document size of 11x17)
1:36,000

N

Stantec

Project Location
Fleming County, KY

Prepared by ALC on 2022-09-19
TR by JA on 2022-09-19

Client/Project
Hummingbird Solar Facility
Noise Assessment Report

Figure No.
2

Title
Hummingbird Solar Project

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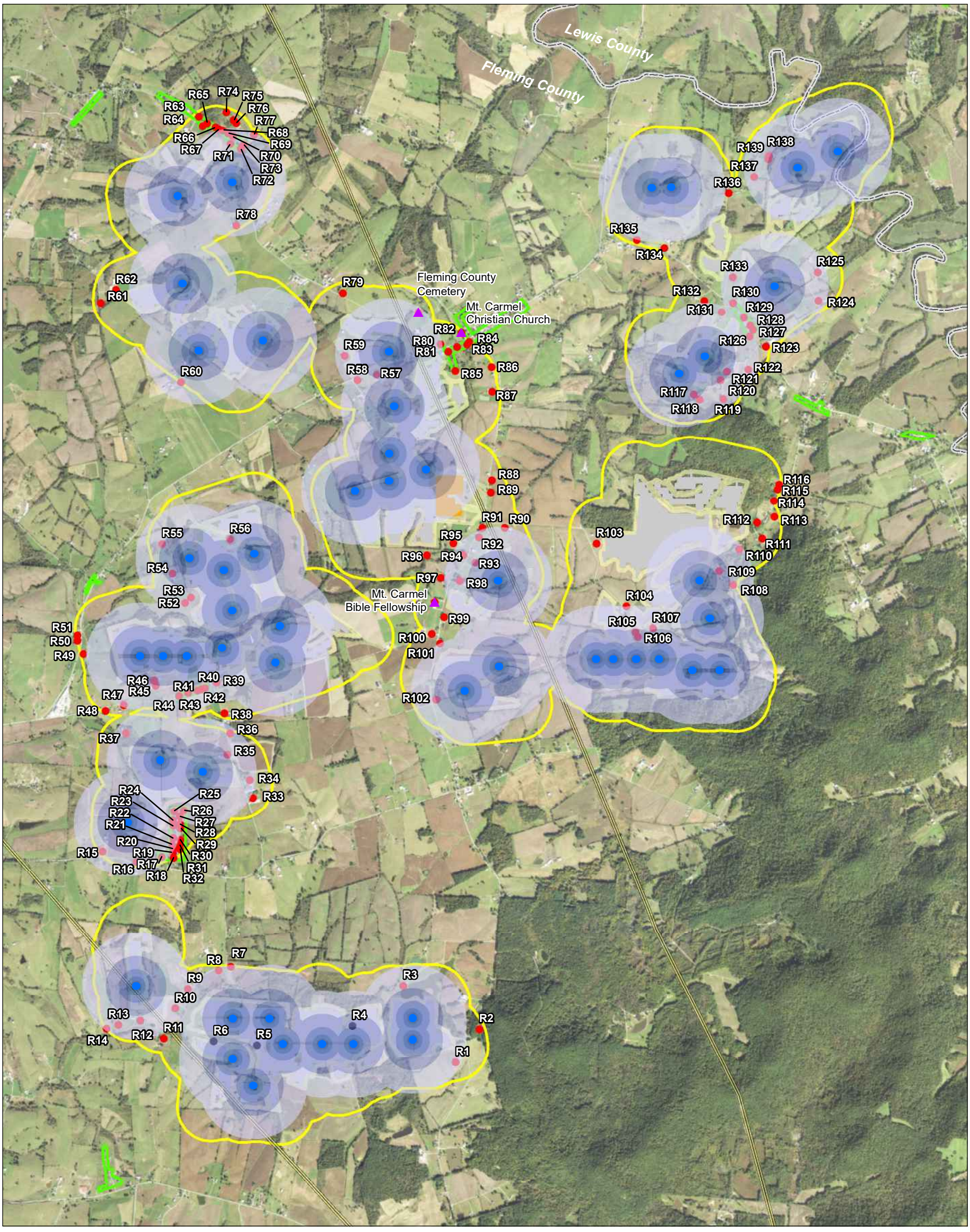

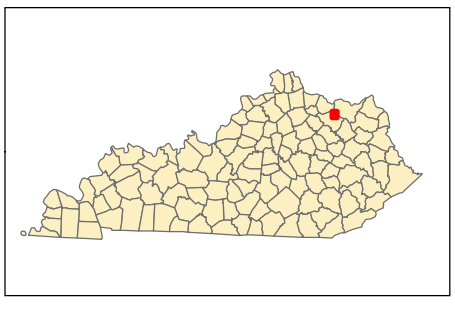

Legend

- 1000 ft Noise Assessment Area

Approximate Sound Levels for Potential Inverter Locations

- 40 dB
- 45 dB
- 50 dB
- 55 dB
- 60 dB
- Potential Inverter Locations
- Potential Fence Line
- Noise Sensitive Receptors
- Participating Structures
- Potential PV Layout
- Potential Substation Location
- Residential Neighborhoods as per KRS 278.700
- Counties
- 138kv Transmission Line

Notes

1. Coordinate System: NAD 1983 StatePlane Kentucky North FIPS 1601 Feet
2. Data Sources: ESRI; Stantec
3. Background: BING Aerials Kentucky Transportation Cabinet (KYTC)

0 3,000 6,000 Feet

(At original document size of 11x17)
1:36,000

N

Stantec

Project Location
Fleming County, KY

Prepared by ALC on 2022-09-19
TR by JA on 2022-09-19

Client/Project

Hummingbird Solar Facility
Noise Assessment Report

Figure No.

3

Title

Approximate Inverter Sound Contours

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SAR Exhibit E

Hummingbird Solar Project

August 12, 2022

Prepared for:

Recurrent Energy
98 San Jacinto Blvd, Suite 750
Austin, Texas 78701

Prepared by:

Stantec Consulting Services Inc.
9200 Shelbyville Road, Suite 800
Louisville, Kentucky 40222

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Prepared by 
(signature)

Chad Martin

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LIST OF APPENDICES

Executive Summary

The Hummingbird Solar Project development is proposed northeast of Flemingsburg in Fleming County, Kentucky on a property located south of KY 1237 (Burtonville Road), north of KY 559 (Fox Spring Avenue/Wallingford Road), mostly east of KY 57 (Mt. Carmel Road) and west of KY 1902. The petitioner proposes to utilize the existing land to establish a solar facility on the site. The development will have access points along several routes around the facility. Analyses of the 2022 existing conditions (based on most recent counts provided by the Kentucky Transportation Cabinet, KYTC) and the 2023 construction year were performed. The traffic impact study (TIS) evaluated the operating conditions for the AM and PM peak hours at the roadway segments below:

- Station 035080: CR 1027 (Carpenter Road)
- Station 035150: CR 1030 (Colgan Road)
- Station 035049: CR 1036 (Wilson Run Road)
- Station 035083: CR 1037 (Maddox Pike)
- Station 068811: KY 57 from Fleming/Lewis County Line (MP 0.00) to KY 1237 (MP 2.093)
- Station 035002: KY 57 from KY 344 (MP 8.232) to KY 3301 (2.567)
- Station 035104: KY 57 from KY 3301 (2.567) to KY 57X (MP 1.728)
- Station 035001: KY 344 from KY 57 (MP 0.00) to KY 989 (MP 1.600)
- Station 035091: KY 344 from KY 989 (MP 1.600) to Licking River (MP 2.404)
- Station 035054: KY 559 from Stewart Lane (MP 5.455) to Dudley Hollow Road (MP 11.850)
- Station 068516: KY 989 from Fleming/Lewis County Line (MP 0.00) to KY 1237 (MP 1.214)
- Station 068517: KY 1237 from KY 989 (MP 0.00) to Ribolt-Epworth Road (MP 1.579)
- Station 068761: KY 1237 from Ribolt-Epworth Road (MP 1.579) to KY 57 (MP 3.163)
- Station 035087: KY 3301 from KY 57 (MP 0.00) to Colgan Road (MP 3.425)
- Station 035081: KY 3301 from Colgan Road (MP 3.425) to KY 559 (MP 6.387)

Based on the results of the analysis, the following conclusions were developed:

- During construction, all highway segments are anticipated to continue to operate at acceptable level of service (LOS) standards during both the peak hours. Therefore, the construction for this project will not adversely affect traffic operations on any of the roadways in and around the project area.

- After construction is complete, the site will be managed with negligible added traffic demand. During the operational phase of the project, the surrounding roadway network will continue to operate at an acceptable LOS during the peak hours.

1.0 INTRODUCTION

The purpose of this study is to estimate the traffic impacts of the proposed Hummingbird Solar Project located approximately three miles northeast of Flemingsburg in Fleming County, Kentucky. The project site can be generally described as south of KY 1237 (Burtonville Road), north of KY 559 (Fox Spring Avenue/Wallingford Road), mostly east of KY 57 (Mt. Carmel Road) and west of KY 1902. The proposed project site is shown in **Figure 1**.

The Project area encompasses approximately 3,900-acres in an agricultural area. The petitioner proposes to utilize the land to establish a 200-megawatt (MW), utility-scale, solar-powered electric generating facility. The Project will have access points around the site with major truck deliveries. A construction year of 2023 was evaluated as part of the study.

2.0 DATA COLLECTION

Traffic counts (including both 24-hour and classification counts) were obtained from the Kentucky Transportation Cabinet (KYTC) to establish the existing traffic conditions. **Figure 2** shows the locations of the primary / adjacent count stations used in this analysis. The summarized count data for each of these stations (plus additional stations outside the immediate area) is included in **Appendix A** for the following count stations:

- Station 035080: CR 1027 (Carpenter Road)
- Station 035150: CR 1030 (Colgan Road)
- Station 035049: CR 1036 (Wilson Run Road)
- Station 035083: CR 1037 (Maddox Pike)
- Station 068811: KY 57 from Fleming/Lewis County Line (MP 0.00) to KY 1237 (MP 2.093)
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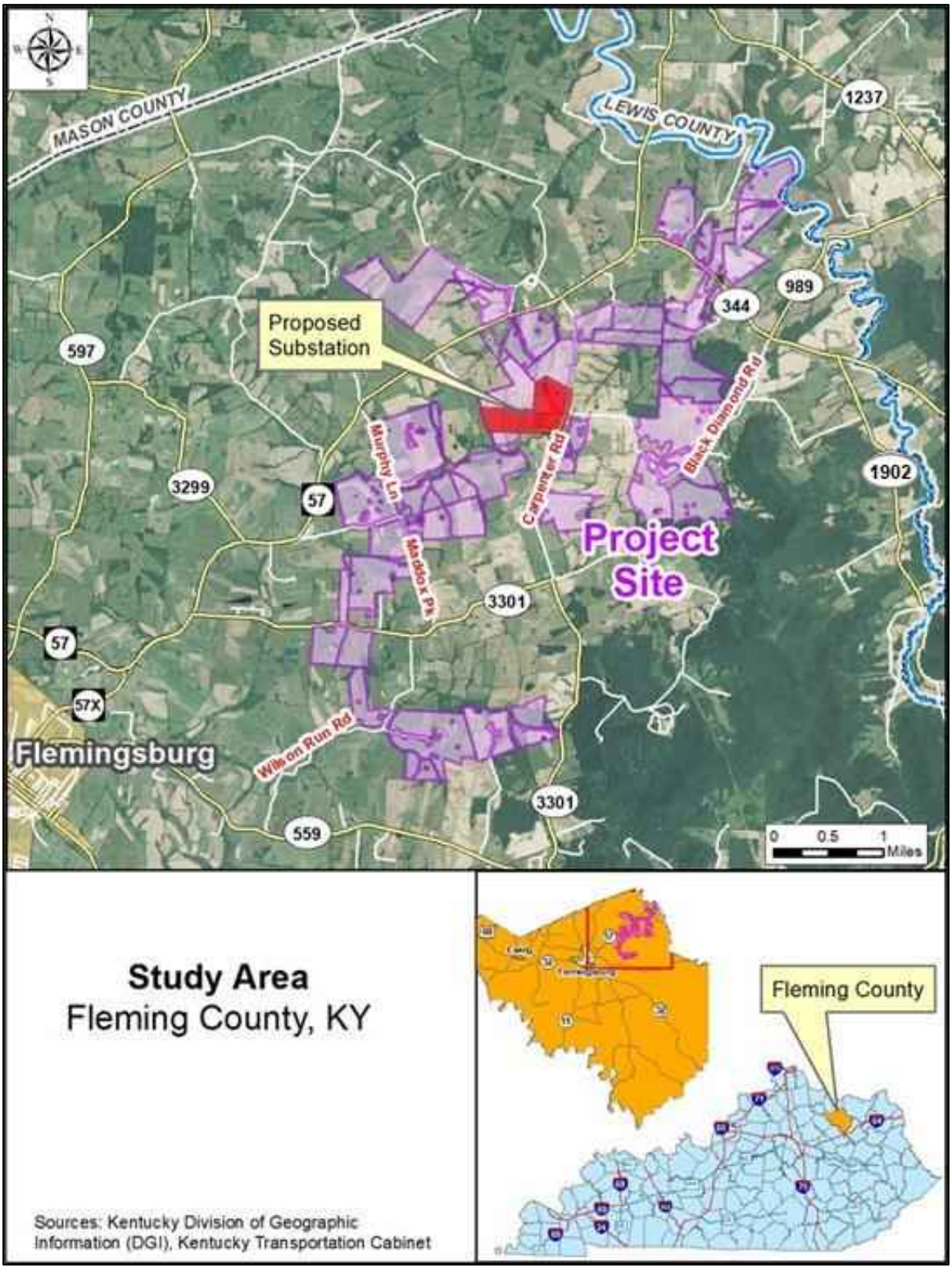

Figure 1: Project Location

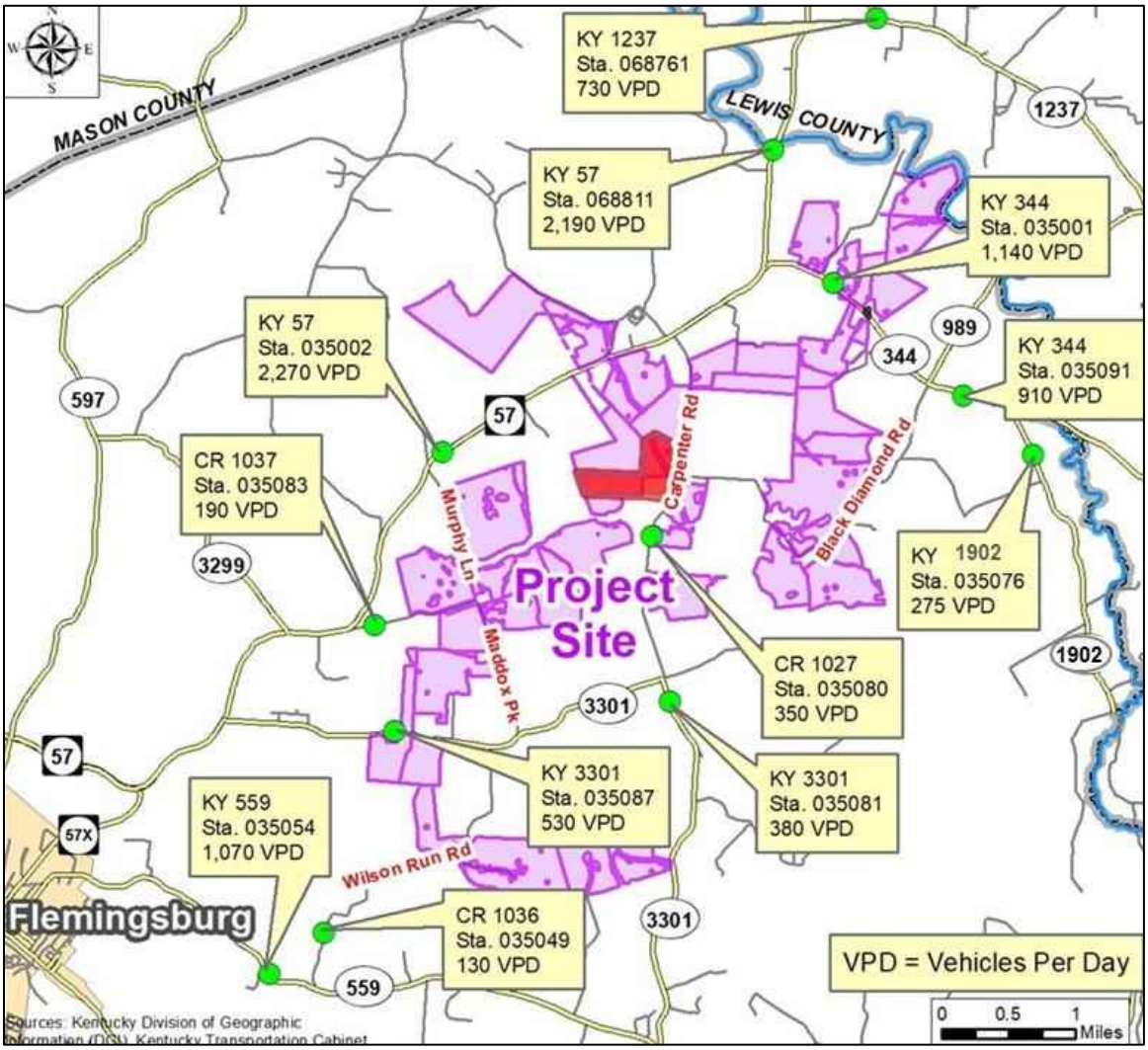

Figure 2: KYTC Count Stations

KY 57 (Mt. Carmel Road), located directly west of most of the project site, is classified as a two-lane major collector with daily traffic volume of 2,300 vehicles per day (VPD). KY 57 has posted speed limits ranging from 35 miles per hour (mph) to 55 mph. To the north, KY 1237 in Lewis County is a two-lane urban minor collector with a posted speed limit of 55 mph and daily traffic of 700 VPD. To the east of the project site, KY 1902 is a two-lane urban local roadway with a posted speed limit of 55 mph. To the south, KY 559 (Fox Spring Avenue/Wallingford Road) is a two-lane urban minor collector from with a posted speed limit of 35 mph to 55 mph.

Two-lane analyses were used to evaluate the roadways based on methods described in the Highway Capacity Manual (HCM) and implemented within the Highway Capacity Software (HCS 2022). The results can be found in **Appendix B**. The analyses were used to estimate capacity and Level of Service (LOS) for given traffic and geometric conditions. LOS provides a measure of the quality of traffic flow provided

by a roadway facility, expressed in terms of letter grades with LOS A representing the highest quality traffic flow and minimal delay, and LOS F representing poor traffic operations and significant delay. For rural areas, LOS C or better is generally considered to be desirable. In urban areas, LOS D or better is generally considered desirable.

The two-lane highways method utilizes follower density (followers/mile) as the service measure for LOS, as shown in **Table 1**.

Table 1: Level of Service Criteria for Two-Lane Highways

LOS	Density (followers/mi) Speed Limit ≥ 50 mph	Density (followers/mi) Speed Limit < 50 mph
A	≤ 2	≤ 2.5
B	> 2 - 4	> 2.5 - 5.5
C	> 4 - 8	> 5 - 10
D	> 8 - 12	> 10 - 15
E	> 12	> 15
F	Demand exceeds capacity	Demand exceeds capacity

The results of the existing AM and PM peak hour traffic analyses for two-lane roads are summarized in **Table 2**. The results indicate that all existing project-adjacent two-lane roadways currently operate at acceptable LOS during both the AM and PM peak hours.

Table 2: Existing AM/PM Two-Lane Highway Analysis

Segment	Existing AM		Existing PM	
	Density (followers/mi/ln)	LOS	Density (followers/mi/ln)	LOS
CR 1027 (Carpenter Road)	0.2	A	0.3	A
CR 1030 (Colgan Road)	0.1	A	0.0	A
CR 1036 (Wilson Run Road)	0.1	A	0.1	A
CR 1037 (Maddox Pike)	0.1	A	0.1	A
KY 57 (Mt. Caramel Road) at:				
KY 1237 (Burtonville Road) to near north of Mandie Lane	0.2	A	0.6	A
North of Mandie Lane to south of Mandie Lane	0.1	A	0.5	A
South of Mandie Lane to Fleming/Lewis County Line	0.1	A	0.4	A
Fleming/Lewis County Line to near Perkins Lane	0.2	A	0.6	A
Near Perkins Lane to near KY 344 (Foxport Road)	0.1	A	0.4	A
Near KY 344 (Foxport Road) to J M Clary	0.3	A	0.2	A
J M Clary to near Kilbreth Valley Road	0.8	A	0.7	A
Kilbreth Valley Road to near Penny Patch Road	0.3	A	0.2	A
Near Penny Patch Road to near Murphy Lane	0.3	A	0.2	A
Near Murphy Lane to north of Logan Run Road	0.3	A	0.2	A
North of Logan Run Road to south of Logan Run Road	0.3	A	0.3	A
South of Logan Run Road to KY 3301 (Beechtree Pike)	0.3	A	0.2	A
KY 3301 (Beechtree Pike) to north of KY 57X (Mt. Caramel Road)	1.3	A	1.7	A
KY 344 (Foxport Road) at:				
KY 1902 to 2155 KY 344 (Foxport Road)	0.2	A	0.4	A
2155 KY 344 (Foxport Road) to 1680 Foxport Road	0.1	A	0.1	A
1680 Foxport Road to KY 989 (Burtonville Road)	0.1	A	0.2	A
KY 989 (Burtonville Road) to 1278 Foxport Road	0.1	A	0.2	A
1278 Foxport Road to near Saunders Lane	0.1	A	0.2	A
Near Saunders Lane to 875 KY 344 (Foxport Road)	0.1	A	0.3	A
875 KY 344 (Foxport Road) to Andrew Graham property	0.1	A	0.2	A
Andrew Graham Property to west of Breeze Road	0.1	A	0.2	A
West of Breeze Road to 234 KY 344 (Foxport Road)	0.1	A	0.2	A
234 KY 344 (Foxport Road) to KY 57 (Mt. Caramel Road)	0.1	A	0.3	A
KY 559 (Foxspring Avenue/Wallingford Road) at:				
Gulley Drive to near east of Sutton Road	0.2	A	0.2	A
East of Sutton Road to west of Botkins Lane	0.1	A	0.1	A
West of Botkins Lane to 3954 KY 559 (Wallingford Road)	0.1	A	0.2	A
3954 KY 559 (Wallingford Road) to near Crump Lane	0.1	A	0.1	A
Near Crump Lane to near Adams Lane	0.1	A	0.2	A
Near Adams Lane to 3215 KY 559 (Wallingford Road)	0.1	A	0.2	A
3215 KY 559 (Wallingford Road) to near Brookstone Drive	0.2	A	0.2	A
Near Brookstone Drive to near Stewart Lane	0.2	A	0.3	A
Near Stewart Lane to School Street	0.5	A	0.5	A
KY 989 (Burtonville Road/Salt Lick Road) at:				
KY 344 (Foxport Road) to Fleming/Lewis County Line	0.0	A	0.0	A
Fleming/Lewis County Line to KY 1237 (Burtonville Road)	0.0	A	0.0	A
KY 1237 (Burtonville Road) at:				
KY 989 (Salt Lick Road) to Thomas Lane/Ribolt Epworth Road	0.0	A	0.0	A
Thomas Lane/Ribolt Epworth Road to KY 57	0.0	A	0.1	A
KY 3301 (Beechtree Pike/Road) at:				
KY 57 (Mt. Carmel Road) to near Rebecca Lane	0.1	A	0.1	A
Near Rebecca Lane to near Penny Lane	0.0	A	0.0	A
Near Penny Lane to Licking River Bridge	0.0	A	0.1	A
Licking River Bridge to 1208 KY 3301 (Beechtree Pike)	0.0	A	0.0	A
1208 KY 3301 (Beechtree Pike) to Beech Spring Estates	0.0	A	0.0	A
Beech Spring Estates to Wilson Run Road	0.0	A	0.0	A
Wilson Run Road to 2810 KY 3301 (Beechtree Pike)	0.0	A	0.0	A
2810 KY 3301 (Beechtree Pike) to near Colgan Road	0.0	A	0.0	A
Near Colgan Road to Rice Lane	0.0	A	0.1	A

3.0 PROJECT TRIP GENERATION

3.1 CONSTRUCTION

The trip generation analysis for the construction of the Project would generally be based on the number of workers and the associated construction and delivery truck trips expected during the construction of the project. Construction workers will consist of laborers, equipment operators, electricians, supervisory personnel, support personnel, and construction management personnel. It is envisioned that workers will arrive/depart from passenger vehicles and trucks daily during the AM (7:00 – 9:00 AM) and PM (3:00 – 6:00 PM) peak hours. Equipment deliveries will occur on trailers, flatbeds, or other large vehicles at various times during the day. Specific details concerning construction duration and intensity are not currently known. Therefore, this study has employed a sensitivity analysis to demonstrate that likely construction traffic levels will not have a significant, adverse effect on peak hour traffic operations. For this analysis, AM and PM peak hour traffic volumes on roadways were increased by 50 percent which is far greater than would be anticipated for the actual construction of the Project.

3.1.1 CONSTRUCTION ANALYSIS

The 2023 construction year analysis assumed no changes to the existing roadway network and increases in traffic demand discussed above. The results of the construction year AM and PM peak hour two-lane analysis are summarized in **Table 3**. Complete output reports are included in **Appendix B**. The results indicate that all analyzed roadway segments are anticipated to continue to operate at acceptable LOS during construction for both peak hours.

Table 3: Construction Year (2023) AM/PM Two-Lane Highway Analysis

Segment	Construction AM		Construction PM	
	Density (followers/mi/ln)	LOS	Density (followers/mi/ln)	LOS
CR 1027 (Carpenter Road)	0.4	A	0.5	A
CR 1030 (Colgan Road)	0.1	A	0.1	A
CR 1036 (Wilson Run Road)	0.2	A	0.1	A
CR 1037 (Maddox Pike)	0.2	A	0.2	A
KY 57 (Mt. Caramel Road) at:				
KY 1237 (Burtonville Road) to near north of Mandie Lane	0.4	A	1.2	A
North of Mandie Lane to south of Mandie Lane	0.3	A	1.0	A
South of Mandie Lane to Fleming/Lewis County Line	0.2	A	0.8	A
Fleming/Lewis County Line to near Perkins Lane	0.3	A	1.1	A
Near Perkins Lane to near KY 344 (Foxport Road)	0.3	A	0.9	A
Near KY 344 (Foxport Road) to J M Clary	0.6	A	0.5	A
J M Clary to near Kilbreth Valley Road	1.5	A	1.3	A
Kilbreth Valley Road to near Penny Patch Road	0.5	A	0.4	A
Near Penny Patch Road to near Murphy Lane	0.5	A	0.5	A
Near Murphy Lane to north of Logan Run Road	0.6	A	0.5	A
North of Logan Run Road to south of Logan Run Road	0.6	A	0.5	A
South of Logan Run Road to KY 3301 (Beechtree Pike)	0.6	A	0.5	A
KY 3301 (Beechtree Pike) to north of KY 57X (Mt. Caramel Road)	2.4	B	3.2	B
KY 344 (Foxport Road) at:				
KY 1902 to 2155 KY 344 (Foxport Road)	0.4	A	0.8	A
2155 KY 344 (Foxport Road) to 1680 Foxport Road	0.1	A	0.3	A
1680 Foxport Road to KY 989 (Burtonville Road)	0.2	A	0.4	A
KY 989 (Burtonville Road) to 1278 Foxport Road	0.2	A	0.5	A
1278 Foxport Road to near Saunders Lane	0.1	A	0.4	A
Near Saunders Lane to 875 KY 344 (Foxport Road)	0.2	A	0.5	A
875 KY 344 (Foxport Road) to Andrew Graham property	0.1	A	0.3	A
Andrew Graham Property to west of Breeze Road	0.2	A	0.4	A
West of Breeze Road to 234 KY 344 (Foxport Road)	0.1	A	0.3	A
234 KY 344 (Foxport Road) to KY 57 (Mt. Caramel Road)	0.2	A	0.5	A
KY 559 (Foxspring Avenue/Wallingford Road) at:				
Gulley Drive to near east of Sutton Road	0.3	A	0.3	A
East of Sutton Road to west of Botkins Lane	0.2	A	0.2	A
West of Botkins Lane to 3954 KY 559 (Wallingford Road)	0.2	A	0.3	A
3954 KY 559 (Wallingford Road) to near Crump Lane	0.2	A	0.2	A
Near Crump Lane to near Adams Lane	0.2	A	0.3	A
Near Adams Lane to 3215 KY 559 (Wallingford Road)	0.2	A	0.3	A
3215 KY 559 (Wallingford Road) to near Brookstone Drive	0.4	A	0.3	A
Near Brookstone Drive to near Stewart Lane	0.4	A	0.5	A
Near Stewart Lane to School Street	0.7	A	0.8	A
KY 989 (Burtonville Road/Salt Lick Road) at:				
KY 344 (Foxport Road) to Fleming/Lewis County Line	0.0	A	0.0	A
Fleming/Lewis County Line to KY 1237 (Burtonville Road)	0.0	A	0.0	A
KY 1237 (Burtonville Road) at:				
KY 989 (Salt Lick Road) to Thomas Lane/Ribolt Epworth Road	0.0	A	0.1	A
Thomas Lane/Ribolt Epworth Road to KY 57	0.1	A	0.2	A
KY 3301 (Beechtree Pike/Road) at:				
KY 57 (Mt. Carmel Road) to near Rebecca Lane	0.1	A	0.1	A
Near Rebecca Lane to near Penny Lane	0.1	A	0.1	A
Near Penny Lane to Licking River Bridge	0.1	A	0.1	A
Licking River Bridge to 1208 KY 3301 (Beechtree Pike)	0.1	A	0.1	A
1208 KY 3301 (Beechtree Pike) to Beech Spring Estates	0.1	A	0.1	A
Beech Spring Estates to Wilson Run Road	0.1	A	0.1	A
Wilson Run Road to 2810 KY 3301 (Beechtree Pike)	0.1	A	0.1	A
2810 KY 3301 (Beechtree Pike) to near Colgan Road	0.1	A	0.1	A
Near Colgan Road to Rice Lane	0.1	A	0.1	A

3.2 OPERATION

Once operational, the facility will be managed and monitored by a small number of employees. The facility will have one employee on site every day and up to three additional employees for 70 days a year for site inspections and repair. Operations workers are expected to commute to and from the project site individually during the peak AM and PM hours. Work can also be conducted at night up to thirty days a year. This additional volume of daily traffic is considered negligible, and the operational phase of the project will have no measurable impact on the traffic and/or transportation infrastructure.

4.0 CONCLUSION

As demonstrated in the traffic analysis, the construction period will not produce significant operational changes to existing roadways. All roadways within the project area will continue to operate at LOS B or better during peak construction traffic. Although no significant adverse traffic impacts are expected during project construction or operation, using mitigation measures such as ridesharing between construction workers, using appropriate traffic controls, or allowing flexible working hours outside of peak hours could be implemented to minimize any potential for delays during the AM and PM peak hours.

Appendix A

TRAFFIC COUNTS AND CLASSIFICATION DATA

Kentucky Transportation Cabinet

Short-term Hourly Traffic Volume for 05/03/2017 through 05/05/2017

Site names:	035081	Seasonal Factor Grp:	2
County:	Fleming	Daily Factor Grp:	2
Funct Class:	R Minor Collector	Axle Factor Grp:	08
Location:	035-KY-3301 -000 @ 3.700 From: COLGAN	Growth Factor Grp:	08

	Sun, Apr 30, 2017			Mon, May 1, 2017			Tue, May 2, 2017			Wed, May 3, 2017			Thu, May 4, 2017			Fri, May 5, 2017			Sat, May 6, 2017		
	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg
00:00													4			1					
01:00													0			0					
02:00													4			1					
03:00													3			0					
04:00													4			7					
05:00													14			12					
06:00													13			18					
07:00													49			37					
08:00													31			20					
09:00													11			7					
10:00										29			27								
11:00										16			31								
12:00										21			36								
13:00										34			32								
14:00										16			34								
15:00										37			39								
16:00										37			44								
17:00										50			50								
18:00										62			30								
19:00										34			14								
20:00										32			26								
21:00										27			17								
22:00										10			8								
23:00										3			4								
Total										408			525			103					
AM Peak Vol										0			49			0					
AM Peak Fct										0			1			0					
AM Peak Hr										:			7: 00			:					
PM Peak Vol										62			50			0					
PM Peak Fct										1			1			0					
PM Peak Hr										18: 00			17: 00			:					
Seasonal Fct										.955			.955			.955					
Daily Fct										.995			.953			.860					
Axle Fct										.489			.489			.489					
Pulse Fct										2.000			2.000			2.000					

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Short-term Hourly Traffic Volume for 09/01/2020 through 09/03/2020

Site names:	035081	Seasonal Factor Grp:	2
County:	Fleming	Daily Factor Grp:	2
Funct Class:	R Minor Collector	Axle Factor Grp:	08
Location:	035-KY-3301 -000 @ 3.700 From: COLGAN	Growth Factor Grp:	08

	Sun, Aug 30, 2020			Mon, Aug 31, 2020			Tue, Sep 1, 2020			Wed, Sep 2, 2020			Thu, Sep 3, 2020			Fri, Sep 4, 2020			Sat, Sep 5, 2020		
	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg
00:00										1			1								
01:00										2			3								
02:00										5			1								
03:00										1			0								
04:00										1			0								
05:00										9			7								
06:00										16			21								
07:00										29			22								
08:00										24			23								
09:00										21			21								
10:00										18			19								
11:00										21			29								
12:00										13			23								
13:00										33			18								
14:00										29			27								
15:00							32			20											
16:00							37			29											
17:00							51			31											
18:00							29			32											
19:00							19			23											
20:00							21			17											
21:00							16			19											
22:00							7			7											
23:00							5			6											
Total							217			407			215								
AM Peak Vol										30			32								
AM Peak Fct										.536			.8								
AM Peak Hr										6: 30			10: 45								
PM Peak Vol										33											
PM Peak Fct										.635											
PM Peak Hr										13: 00			:								
Seasonal Fct							.924			.924			.924								
Daily Fct							.989			.986			.961								
Axle Fct							.489			.489			.489								
Pulse Fct							2.000			2.000			2.000								

Kentucky Transportation Cabinet

Short-term Hourly Traffic Volume for 06/24/2019 through 06/27/2019

Site names:	035087	Seasonal Factor Grp:	2
County:	Fleming	Daily Factor Grp:	2
Funct Class:	R Minor Collector	Axle Factor Grp:	08
Location:	035-KY-3301 -000 @ 1.200 From: KY 57 (NE	Growth Factor Grp:	08

	Sun, Jun 23, 2019			Mon, Jun 24, 2019			Tue, Jun 25, 2019			Wed, Jun 26, 2019			Thu, Jun 27, 2019			Fri, Jun 28, 2019			Sat, Jun 29, 2019		
	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg
00:00							3			6			1								
01:00							1			3			2								
02:00							4			1			5								
03:00							6			5			5								
04:00							5			6			6								
05:00							19			20			11								
06:00							18			13			17								
07:00							46			32			51								
08:00							29			31											
09:00							24			40											
10:00				29			17			29											
11:00				38			33			32											
12:00				31			30			37											
13:00				40			29			38											
14:00				32			23			40											
15:00				33			38			40											
16:00				40			45			38											
17:00				48			39			45											
18:00				32			41			42											
19:00				16			30			32											
20:00				17			33			23											
21:00				11			14			21											
22:00				7			12			11											
23:00				3			9			9											
Total				377			548			594			98								
AM Peak Vol							46			40											
AM Peak Fct							.767			.714											
AM Peak Hr				:			7: 00			8: 45											
PM Peak Vol				53			54			50											
PM Peak Fct				.779			.9			.735											
PM Peak Hr				16: 45			16: 15			12: 30											
Seasonal Fct				.950			.950			.950			.950								
Daily Fct				1.008			.985			.998			.962								
Axle Fct				.495			.495			.495			.495								
Pulse Fct				2.000			2.000			2.000			2.000								

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Short-term Hourly Traffic Volume for 05/14/2019 through 05/17/2019

Site names:	068517	Seasonal Factor Grp:	2
County:	Lewis	Daily Factor Grp:	2
Funct Class:	R Minor Collector	Axle Factor Grp:	08
Location:	068-KY-1237 -000 @ .500 From: KY 989 To:	Growth Factor Grp:	08

	Sun, May 12, 2019			Mon, May 13, 2019			Tue, May 14, 2019			Wed, May 15, 2019			Thu, May 16, 2019			Fri, May 17, 2019			Sat, May 18, 2019		
	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg
00:00										3			3			1					
01:00										1			1			0					
02:00										2			0			1					
03:00										3			3			1					
04:00										2			0			0					
05:00										12			8			6					
06:00										17			17			19					
07:00										16			16								
08:00							20			24			20								
09:00							18			27			24								
10:00							28			24			19								
11:00							22			32			18								
12:00							30			28			32								
13:00							42			31			33								
14:00							22			27			27								
15:00							28			38			31								
16:00							34			41			39								
17:00							39			35			38								
18:00							27			30			33								
19:00							37			22			31								
20:00							26			17			17								
21:00							17			14			18								
22:00							5			10			12								
23:00							5			6			6								
Total							400			462			446			28					
AM Peak Vol							28			36			24								
AM Peak Fct							.636			.529			.75								
AM Peak Hr							10: 00			10: 45			8: 45								
PM Peak Vol							42			47			41								
PM Peak Fct							.7			.691			.788								
PM Peak Hr							13: 00			16: 45			16: 45								
Seasonal Fct							.931			.931			.931			.931					
Daily Fct							.977			.982			.970			.863					
Axle Fct							.494			.494			.494			.494					
Pulse Fct							2.000			2.000			2.000			2.000					

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Short-term Hourly Traffic Volume for 06/08/2020 through 06/11/2020

Site names:	068761	Seasonal Factor Grp:	2
County:	Lewis	Daily Factor Grp:	2
Funct Class:	R Minor Collector	Axle Factor Grp:	08
Location:	068-KY-1237 -000 @ 2.400 From: RIBOLT-	Growth Factor Grp:	08

	Sun, Jun 7, 2020			Mon, Jun 8, 2020			Tue, Jun 9, 2020			Wed, Jun 10, 2020			Thu, Jun 11, 2020			Fri, Jun 12, 2020			Sat, Jun 13, 2020		
	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg
00:00							5			3			2								
01:00							7			4			3								
02:00							2			3			3								
03:00							8			1			5								
04:00							5			9			7								
05:00							14			12			10								
06:00							28			24			25								
07:00							42			41			38								
08:00							49			28			34								
09:00							42			29											
10:00							56			30											
11:00				43			55			45											
12:00				46			57			31											
13:00				64			50			64											
14:00				43			50			45											
15:00				66			67			63											
16:00				73			67			59											
17:00				75			73			70											
18:00				58			61			53											
19:00				46			36			44											
20:00				49			32			32											
21:00				30			21			35											
22:00				20			23			12											
23:00				7			8			5											
Total				620			858			742			127								
AM Peak Vol							63			45											
AM Peak Fct							.788			.804											
AM Peak Hr				:			10: 15			11: 00											
PM Peak Vol				78			75			70											
PM Peak Fct				.78			.781			.673											
PM Peak Hr				16: 30			17: 30			17: 00											
Seasonal Fct				.921			.921			.921			.921								
Daily Fct				.998			1.000			.976			.960								
Axle Fct				.495			.495			.495			.495								
Pulse Fct				2.000			2.000			2.000			2.000								

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Short-term Hourly Traffic Volume for 06/12/2017 through 06/14/2017

Site names:	068761	Seasonal Factor Grp:	2
County:	Lewis	Daily Factor Grp:	2
Funct Class:	R Minor Collector	Axle Factor Grp:	08
Location:	068-KY-1237 -000 @ 2.400 From: RIBOLT-	Growth Factor Grp:	08

	Sun, Jun 11, 2017			Mon, Jun 12, 2017			Tue, Jun 13, 2017			Wed, Jun 14, 2017			Thu, Jun 15, 2017			Fri, Jun 16, 2017			Sat, Jun 17, 2017		
	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg
00:00							3			4											
01:00							0			0											
02:00							5			9											
03:00							3			5											
04:00							7			10											
05:00							29			31											
06:00							39			32											
07:00							46			42											
08:00				43			44			54											
09:00				41			50			45											
10:00				45			55														
11:00				40			42														
12:00				41			44														
13:00				46			47														
14:00				47			53														
15:00				49			62														
16:00				58			74														
17:00				79			65														
18:00				43			47														
19:00				41			44														
20:00				45			42														
21:00				23			28														
22:00				21			12														
23:00				13			4														
Total				675			845			232											
AM Peak Vol				0			55			0											
AM Peak Fct				0			1			0											
AM Peak Hr				:			10: 00			:											
PM Peak Vol				79			74			0											
PM Peak Fct				1			1			0											
PM Peak Hr				17: 00			16: 00			:											
Seasonal Fct				.950			.950			.950											
Daily Fct				1.016			1.015			.984											
Axle Fct				.488			.488			.488											
Pulse Fct				2.000			2.000			2.000											

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Short-term Hourly Traffic Volume for 05/14/2019 through 05/16/2019

Site names:	068516	Seasonal Factor Grp:	2
County:	Lewis	Daily Factor Grp:	2
Funct Class:	R Local System	Axle Factor Grp:	09
Location:	068-KY-0989 -000 @ .800 From: FLEMING	Growth Factor Grp:	09

	Sun, May 12, 2019			Mon, May 13, 2019			Tue, May 14, 2019			Wed, May 15, 2019			Thu, May 16, 2019			Fri, May 17, 2019			Sat, May 18, 2019		
	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg
00:00										1			5								
01:00										3			0								
02:00										3			1								
03:00										7			8								
04:00										4			1								
05:00										6			4								
06:00										9			6								
07:00										13			7								
08:00										4			6								
09:00							9			7			17								
10:00							14			12			12								
11:00							18			12			8								
12:00							13			19			19								
13:00							18			18			18								
14:00							18			21			7								
15:00							18			34			18								
16:00							12			22			21								
17:00							21			20			21								
18:00							15			14			10								
19:00							8			10			10								
20:00							9			16											
21:00							14			7											
22:00							3			5											
23:00							1			2											
Total							191			269			199								
AM Peak Vol							18			15			17								
AM Peak Fct							.5			.536			.531								
AM Peak Hr							11: 00			6: 30			9: 00								
PM Peak Vol							22			36			24								
PM Peak Fct							.611			.563			.75								
PM Peak Hr							13: 30			14: 15			15: 30								
Seasonal Fct							.931			.931			.931								
Daily Fct							.977			.982			.970								
Axle Fct							.500			.500			.500								
Pulse Fct							2.000			2.000			2.000								

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Short-term Hourly Traffic Volume for 06/24/2019 through 06/27/2019

Site names:	035042	Seasonal Factor Grp:	2
County:	Fleming	Daily Factor Grp:	2
Funct Class:	R Minor Collector	Axle Factor Grp:	08
Location:	035-KY-0559 -000 @ 13.200 From: DUDLEY	Growth Factor Grp:	08

	Sun, Jun 23, 2019			Mon, Jun 24, 2019			Tue, Jun 25, 2019			Wed, Jun 26, 2019			Thu, Jun 27, 2019			Fri, Jun 28, 2019			Sat, Jun 29, 2019		
	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg
00:00							2			2			0								
01:00							0			3			0								
02:00							2			1			2								
03:00							1			0			2								
04:00							2			1			2								
05:00							8			8			10								
06:00							12			10			11								
07:00							25			25			16								
08:00							19			20											
09:00							24			23											
10:00				25			22			30											
11:00				18			26			22											
12:00				23			26			28											
13:00				31			26			27											
14:00				17			32			37											
15:00				30			28			55											
16:00				44			31			36											
17:00				29			25			29											
18:00				24			26			25											
19:00				20			22			20											
20:00				16			18			19											
21:00				14			14			8											
22:00				9			5			8											
23:00				4			4			0											
Total				304			400			437			43								
AM Peak Vol							29			30											
AM Peak Fct							.725			.625											
AM Peak Hr				:			10: 15			10: 00											
PM Peak Vol				46			34			60											
PM Peak Fct				.676			.708			.469											
PM Peak Hr				16: 15			15: 15			15: 15											
Seasonal Fct				.950			.950			.950			.950								
Daily Fct				1.008			.985			.998			.962								
Axle Fct				.495			.495			.495			.495								
Pulse Fct				2.000			2.000			2.000			2.000								

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Short-term Hourly Traffic Volume for 04/06/2021 through 04/08/2021

Site names:	035054	Seasonal Factor Grp:	2
County:	Fleming	Daily Factor Grp:	2
Funct Class:	R Minor Collector	Axle Factor Grp:	08
Location:	035-KY-0559 -000 @ 7.200 From: STEWART	Growth Factor Grp:	08

	Sun, Apr 4, 2021			Mon, Apr 5, 2021			Tue, Apr 6, 2021			Wed, Apr 7, 2021			Thu, Apr 8, 2021			Fri, Apr 9, 2021			Sat, Apr 10, 2021		
	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg
00:00										6			4								
01:00										2			4								
02:00										1			2								
03:00										4			8								
04:00										14			7								
05:00										13			25								
06:00										49			45								
07:00										76			99								
08:00							78			62											
09:00							57			56											
10:00							64			62											
11:00							63			64											
12:00							76			79											
13:00							83			70											
14:00							79			89											
15:00							90			87											
16:00							96			97											
17:00							75			92											
18:00							65			80											
19:00							51			44											
20:00							34			38											
21:00							25			31											
22:00							13			16											
23:00							8			6											
Total							957			1,138			194								
AM Peak Vol										77											
AM Peak Fct										.875											
AM Peak Hr							:			7: 30											
PM Peak Vol							104			108											
PM Peak Fct							.813			.9											
PM Peak Hr							15: 45			16: 30											
Seasonal Fct							1.244			1.244			1.244								
Daily Fct							.930			.943			.948								
Axle Fct							.494			.494			.494								
Pulse Fct							2.000			2.000			2.000								

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Short-term Hourly Traffic Volume for 06/24/2019 through 06/27/2019

Site names:	035001	Seasonal Factor Grp:	2
County:	Fleming	Daily Factor Grp:	2
Funct Class:	R Minor Collector	Axle Factor Grp:	08
Location:	035-KY-0344 -000 @ .500 From: KY 57 To:	Growth Factor Grp:	08

	Sun, Jun 23, 2019			Mon, Jun 24, 2019			Tue, Jun 25, 2019			Wed, Jun 26, 2019			Thu, Jun 27, 2019			Fri, Jun 28, 2019			Sat, Jun 29, 2019		
	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg
00:00							3			4			4								
01:00							3			5			1								
02:00							7			3			8								
03:00							15			16			14								
04:00							13			14			13								
05:00							50			35			38								
06:00							50			62			55								
07:00							46			62			74								
08:00							59			57			63								
09:00							53			57											
10:00							59			57											
11:00				64			60			79											
12:00				80			59			80											
13:00				83			67			69											
14:00				76			74			61											
15:00				93			61			82											
16:00				90			84			106											
17:00				94			115			115											
18:00				87			83			91											
19:00				54			70			56											
20:00				58			32			56											
21:00				24			42			92											
22:00				23			34			16											
23:00				7			9			14											
Total				833			1,148			1,289			270								
AM Peak Vol							71			79											
AM Peak Fct							.74			.823											
AM Peak Hr				:			10: 45			11: 00											
PM Peak Vol				100			115			120											
PM Peak Fct				.833			.821			.909											
PM Peak Hr				16: 30			16: 45			16: 15											
Seasonal Fct				.950			.950			.950			.950								
Daily Fct				1.008			.985			.998			.962								
Axle Fct				.495			.495			.495			.495								
Pulse Fct				2.000			2.000			2.000			2.000								

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Short-term Hourly Traffic Volume for 04/27/2020 through 04/29/2020

Site names:	035091	Seasonal Factor Grp:	2
County:	Fleming	Daily Factor Grp:	2
Funct Class:	R Minor Collector	Axle Factor Grp:	08
Location:	035-KY-0344 -000 @ 1.800 From: KY 989	Growth Factor Grp:	08

	Sun, Apr 26, 2020			Mon, Apr 27, 2020			Tue, Apr 28, 2020			Wed, Apr 29, 2020			Thu, Apr 30, 2020			Fri, May 1, 2020			Sat, May 2, 2020		
	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg
00:00							2			4											
01:00							0			3											
02:00							1			3											
03:00							3			2											
04:00							4			7											
05:00							25			22											
06:00							36			22											
07:00							30			36											
08:00							29			29											
09:00							38			41											
10:00							55			46											
11:00							35			53											
12:00							58			40											
13:00							40			48											
14:00				48			35														
15:00				48			70														
16:00				64			72														
17:00				75			92														
18:00				71			56														
19:00				46			46														
20:00				38			26														
21:00				19			31														
22:00				6			13														
23:00				2			5														
Total				417			802			356											
AM Peak Vol							55			53											
AM Peak Fct							.688			.663											
AM Peak Hr							10: 00			11: 00											
PM Peak Vol							97														
PM Peak Fct							.808														
PM Peak Hr							16: 45			:											
Seasonal Fct				1.244			1.244			1.244											
Daily Fct				.942			.930			.943											
Axle Fct				.494			.494			.494											
Pulse Fct				2.000			2.000			2.000											

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Short-term Hourly Traffic Volume for 08/16/2017 through 08/18/2017

Site names:	035091	Seasonal Factor Grp:	2
County:	Fleming	Daily Factor Grp:	2
Funct Class:	R Minor Collector	Axle Factor Grp:	08
Location:	035-KY-0344 -000 @ 1.800 From: KY 989	Growth Factor Grp:	08

	Sun, Aug 13, 2017			Mon, Aug 14, 2017			Tue, Aug 15, 2017			Wed, Aug 16, 2017			Thu, Aug 17, 2017			Fri, Aug 18, 2017			Sat, Aug 19, 2017		
	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg
00:00													6			3					
01:00													2			1					
02:00													1			3					
03:00													10			3					
04:00													13			16					
05:00													33			34					
06:00													65			54					
07:00													61			56					
08:00													53			44					
09:00										55			45								
10:00										49			44								
11:00										70			67								
12:00										52			53								
13:00										46			53								
14:00										56			66								
15:00										73			80								
16:00										64			60								
17:00										95			93								
18:00										55			62								
19:00										37			44								
20:00										38			35								
21:00										22			21								
22:00										12			13								
23:00										2			4								
Total										726			984			214					
AM Peak Vol										0			67			0					
AM Peak Fct										0			1			0					
AM Peak Hr										:			11: 00			:					
PM Peak Vol										95			93			0					
PM Peak Fct										1			1			0					
PM Peak Hr										17: 00			17: 00			:					
Seasonal Fct										.957			.957			.957					
Daily Fct										.990			.939			.867					
Axle Fct										.489			.489			.489					
Pulse Fct										2.000			2.000			2.000					

Kentucky Transportation Cabinet

Count Class Distribution for 04/27/2020 through 04/29/2020

Site names: 035002
County: Fleming
Funct Class: R Major Collector
Location: 035-KY-0057 -000 @ 5.407 From: KY 3301 To: KY 344

Seasonal Factor Grp: 2
Daily Factor Grp: 2
Axle Factor Grp: 07
Growth Factor Grp: 07

	Road	Pos	Neg	Pos Lane1	Neg Lane1
MC	7 .18%	3 .16%	4 .20%	3 .16%	4 .20%
CAR	1,997 51.39%	966 50.63%	1,031 52.12%	966 50.63%	1,031 52.12%
PU	1,343 34.56%	643 33.70%	700 35.39%	643 33.70%	700 35.39%
BUS	42 1.08%	26 1.36%	16 .81%	26 1.36%	16 .81%
2D	352 9.06%	183 9.59%	169 8.54%	183 9.59%	169 8.54%
SU 3	7 .18%	4 .21%	3 .15%	4 .21%	3 .15%
SU 4+	4 .10%	2 .10%	2 .10%	2 .10%	2 .10%
ST 4-	130 3.35%	77 4.04%	53 2.68%	77 4.04%	53 2.68%
ST 5	3 .08%	3 .16%	0 .00%	3 .16%	0 .00%
ST 6+	0 .00%	0 .00%	0 .00%	0 .00%	0 .00%
MT 5-	1 .03%	1 .05%	0 .00%	1 .05%	0 .00%
MT 6	0 .00%	0 .00%	0 .00%	0 .00%	0 .00%
MT 7+	0 .00%	0 .00%	0 .00%	0 .00%	0 .00%
NA	0 .00%	0 .00%	0 .00%	0 .00%	0 .00%
UNCLS	0 .00%	0 .00%	0 .00%	0 .00%	0 .00%
Trucks	539 13.87%	296 15.51%	243 12.29%	296 15.51%	243 12.29%
Combo Trucks	134 3.45%	81 4.25%	53 2.68%	81 4.25%	53 2.68%
Classified	3,886 100.00%	1,908 100.00%	1,978 100.00%	1,908 100.00%	1,978 100.00%
Unclassified	0 .00%	0 .00%	0 .00%	0 .00%	0 .00%
Total	3,886 100.00%	1,908 100.00%	1,978 100.00%	1,908 100.00%	1,978 100.00%

Kentucky Transportation Cabinet

Count Class Distribution for 06/03/2014 through 06/05/2014

Site names: 035002
County: Fleming
Funct Class: R Major Collector
Location: 035-KY-0057 -000 @ 5.407 From: KY 3301 To: KY 344

Seasonal Factor Grp: 2
Daily Factor Grp: 2
Axle Factor Grp: 07
Growth Factor Grp: 07

	Road	Pos	Neg	Pos Lane1	Neg Lane1
MC	17 .49%	11 .65%	6 .33%	11 .65%	6 .33%
CAR	2,259 64.64%	1,104 65.33%	1,155 63.99%	1,104 65.33%	1,155 63.99%
PU	888 25.41%	413 24.44%	475 26.32%	413 24.44%	475 26.32%
BUS	19 .54%	9 .53%	10 .55%	9 .53%	10 .55%
2D	133 3.81%	65 3.85%	68 3.77%	65 3.85%	68 3.77%
SU 3	27 .77%	17 1.01%	10 .55%	17 1.01%	10 .55%
SU 4+	11 .31%	6 .36%	5 .28%	6 .36%	5 .28%
ST 4-	54 1.55%	22 1.30%	32 1.77%	22 1.30%	32 1.77%
ST 5	78 2.23%	38 2.25%	40 2.22%	38 2.25%	40 2.22%
ST 6+	7 .20%	3 .18%	4 .22%	3 .18%	4 .22%
MT 5-	0 .00%	0 .00%	0 .00%	0 .00%	0 .00%
MT 6	0 .00%	0 .00%	0 .00%	0 .00%	0 .00%
MT 7+	1 .03%	1 .06%	0 .00%	1 .06%	0 .00%
NA	0 .00%	0 .00%	0 .00%	0 .00%	0 .00%
UNCLS	1 .03%	1 .06%	0 .00%	1 .06%	0 .00%
Trucks	330 9.44%	161 9.53%	169 9.36%	161 9.53%	169 9.36%
Combo Trucks	140 4.01%	64 3.79%	76 4.21%	64 3.79%	76 4.21%
Classified	3,494 99.97%	1,689 99.94%	1,805 100.00%	1,689 99.94%	1,805 100.00%
Unclassified	1 .03%	1 .06%	0 .00%	1 .06%	0 .00%
Total	3,495 100.00%	1,690 100.00%	1,805 100.00%	1,690 100.00%	1,805 100.00%

Kentucky Transportation Cabinet

Count Class Distribution for 04/26/2022 through 04/29/2022

Site names: 035103
County: Fleming
Funct Class: R Major Collector
Location: 035-KY-0057 -000 @ 1.202 From: KY 597 To: KY 57X

Seasonal Factor Grp: 2
Daily Factor Grp: 2
Axle Factor Grp: 07
Growth Factor Grp: 07

	Road	Pos	Neg	Pos Lane1	Neg Lane1
MC	10 .15%	3 .09%	7 .20%	3 .09%	7 .20%
CAR	3,717 54.26%	1,817 54.66%	1,900 53.89%	1,817 54.66%	1,900 53.89%
PU	2,108 30.77%	1,020 30.69%	1,088 30.86%	1,020 30.69%	1,088 30.86%
BUS	68 .99%	38 1.14%	30 .85%	38 1.14%	30 .85%
2D	420 6.13%	201 6.05%	219 6.21%	201 6.05%	219 6.21%
SU 3	82 1.20%	45 1.35%	37 1.05%	45 1.35%	37 1.05%
SU 4+	28 .41%	4 .12%	24 .68%	4 .12%	24 .68%
ST 4-	186 2.72%	94 2.83%	92 2.61%	94 2.83%	92 2.61%
ST 5	223 3.26%	98 2.95%	125 3.55%	98 2.95%	125 3.55%
ST 6+	7 .10%	3 .09%	4 .11%	3 .09%	4 .11%
MT 5-	1 .01%	1 .03%	0 .00%	1 .03%	0 .00%
MT 6	0 .00%	0 .00%	0 .00%	0 .00%	0 .00%
MT 7+	0 .00%	0 .00%	0 .00%	0 .00%	0 .00%
NA	0 .00%	0 .00%	0 .00%	0 .00%	0 .00%
UNCLS	0 .00%	0 .00%	0 .00%	0 .00%	0 .00%
Trucks	1,015 14.82%	484 14.56%	531 15.06%	484 14.56%	531 15.06%
Combo Trucks	417 6.09%	196 5.90%	221 6.27%	196 5.90%	221 6.27%
Classified	6,850 100.00%	3,324 100.00%	3,526 100.00%	3,324 100.00%	3,526 100.00%
Unclassified	0 .00%	0 .00%	0 .00%	0 .00%	0 .00%
Total	6,850 100.00%	3,324 100.00%	3,526 100.00%	3,324 100.00%	3,526 100.00%

Kentucky Transportation Cabinet

Count Class Distribution for 05/16/2018 through 05/18/2018

Site names: 035103
County: Fleming
Funct Class: R Major Collector
Location: 035-KY-0057 -000 @ 1.202 From: KY 597 To: KY 57X

Seasonal Factor Grp: 2
Daily Factor Grp: 2
Axle Factor Grp: 07
Growth Factor Grp: 07

	Road	Pos	Neg	Pos Lane1	Neg Lane1
MC	10 .22%	6 .28%	4 .17%	6 .28%	4 .17%
CAR	2,452 54.97%	1,136 53.53%	1,316 56.26%	1,136 53.53%	1,316 56.26%
PU	1,332 29.86%	627 29.55%	705 30.14%	627 29.55%	705 30.14%
BUS	38 .85%	16 .75%	22 .94%	16 .75%	22 .94%
2D	288 6.46%	154 7.26%	134 5.73%	154 7.26%	134 5.73%
SU 3	78 1.75%	61 2.87%	17 .73%	61 2.87%	17 .73%
SU 4+	35 .78%	3 .14%	32 1.37%	3 .14%	32 1.37%
ST 4-	100 2.24%	47 2.21%	53 2.27%	47 2.21%	53 2.27%
ST 5	125 2.80%	70 3.30%	55 2.35%	70 3.30%	55 2.35%
ST 6+	1 .02%	1 .05%	0 .00%	1 .05%	0 .00%
MT 5-	1 .02%	1 .05%	0 .00%	1 .05%	0 .00%
MT 6	1 .02%	0 .00%	1 .04%	0 .00%	1 .04%
MT 7+	0 .00%	0 .00%	0 .00%	0 .00%	0 .00%
NA	0 .00%	0 .00%	0 .00%	0 .00%	0 .00%
UNCLS	0 .00%	0 .00%	0 .00%	0 .00%	0 .00%
Trucks	667 14.95%	353 16.64%	314 13.42%	353 16.64%	314 13.42%
Combo Trucks	228 5.11%	119 5.61%	109 4.66%	119 5.61%	109 4.66%
Classified	4,461 100.00%	2,122 100.00%	2,339 100.00%	2,122 100.00%	2,339 100.00%
Unclassified	0 .00%	0 .00%	0 .00%	0 .00%	0 .00%
Total	4,461 100.00%	2,122 100.00%	2,339 100.00%	2,122 100.00%	2,339 100.00%

Kentucky Transportation Cabinet

Short-term Hourly Traffic Volume for 04/27/2020 through 04/29/2020

Site names:	035002	Seasonal Factor Grp:	2
County:	Fleming	Daily Factor Grp:	2
Funct Class:	R Major Collector	Axle Factor Grp:	07
Location:	035-KY-0057 -000 @ 5.407 From: KY 3301	Growth Factor Grp:	07

	Sun, Apr 26, 2020			Mon, Apr 27, 2020			Tue, Apr 28, 2020			Wed, Apr 29, 2020			Thu, Apr 30, 2020			Fri, May 1, 2020			Sat, May 2, 2020		
	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg
00:00							6	4	2	10	7	3									
01:00							13	9	4	3	0	3									
02:00							4	1	3	3	0	3									
03:00							7	3	4	6	4	2									
04:00							15	5	10	13	5	8									
05:00							46	15	31	39	9	30									
06:00							57	17	40	64	20	44									
07:00							130	28	102	119	28	91									
08:00							101	41	60	102	37	65									
09:00							89	44	45	103	45	58									
10:00							120	59	61	129	58	71									
11:00							118	54	64	152	77	75									
12:00							138	62	76	130	63	67									
13:00							136	69	67	142	72	70									
14:00				152	71	81	147	83	64												
15:00				155	84	71	158	73	85												
16:00				156	100	56	151	91	60												
17:00				190	112	78	190	124	66												
18:00				118	69	49	92	65	27												
19:00				67	40	27	76	37	39												
20:00				56	30	26	62	33	29												
21:00				39	23	16	34	16	18												
22:00				13	7	6	19	11	8												
23:00				6	0	6	10	3	7												
Total				952	536	416	1,919	947	972	1,015	425	590									
AM Peak Vol							133	60	102	153	78	93									
AM Peak Fct							.693	.789	.607	.797	.65	.802									
AM Peak Hr							7: 30	10: 15	7: 00	10: 45	10: 45	7: 15									
PM Peak Vol							199	139	85												
PM Peak Fct							.905	.772	.759												
PM Peak Hr							16: 45	16: 45	15: 00	:	:	:									
Seasonal Fct				1.244	1.244	1.244	1.244	1.244	1.244	1.244	1.244	1.244									
Daily Fct				.942	.942	.942	.930	.930	.930	.943	.943	.943									
Axle Fct				.500	.500	.500	.500	.500	.500	.500	.500	.500									
Pulse Fct				2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000									

Kentucky Transportation Cabinet

Short-term Hourly Traffic Volume for 05/03/2017 through 05/05/2017

Site names:	035002	Seasonal Factor Grp:	2
County:	Fleming	Daily Factor Grp:	2
Funct Class:	R Major Collector	Axle Factor Grp:	07
Location:	035-KY-0057 -000 @ 5.407 From: KY 3301	Growth Factor Grp:	07

	Sun, Apr 30, 2017			Mon, May 1, 2017			Tue, May 2, 2017			Wed, May 3, 2017			Thu, May 4, 2017			Fri, May 5, 2017			Sat, May 6, 2017		
	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg
00:00													13	8	5	11	8	3			
01:00													2	1	1	7	3	4			
02:00													11	4	7	10	4	6			
03:00													26	6	20	33	12	21			
04:00													22	9	13	16	6	10			
05:00													45	11	34	35	5	30			
06:00													89	28	61	73	20	53			
07:00													164	36	128	157	39	118			
08:00													116	37	79	113	37	76			
09:00													109	47	62	126	62	64			
10:00													107	53	54	103	47	56			
11:00													111	53	58	145	66	79			
12:00													104	56	48	151	83	68			
13:00													138	80	58	132	63	69			
14:00													154	76	78	142	73	69			
15:00										143	78	65	159	90	69						
16:00										163	102	61	175	113	62						
17:00										168	118	50	157	97	60						
18:00										123	75	48	84	50	34						
19:00										86	57	29	58	40	18						
20:00										88	56	32	62	46	16						
21:00										51	28	23	30	13	17						
22:00										25	16	9	10	7	3						
23:00										22	13	9	18	12	6						
Total										869	543	326	1,964	973	991	1,254	528	726			
AM Peak Vol										0	0	0	164	53	128	157	66	118			
AM Peak Fct										0	0	0	1	1	1	1	1	1			
AM Peak Hr										:	:	:	7: 00	10: 00	7: 00	7: 00	11: 00	7: 00			
PM Peak Vol										0	0	0	175	113	78	0	0	0			
PM Peak Fct										0	0	0	1	1	1	0	0	0			
PM Peak Hr										:	:	:	16: 00	16: 00	14: 00	:	:	:			
Seasonal Fct										.955	.955	.955	.955	.955	.955	.955	.955	.955			
Daily Fct										.995	.995	.995	.953	.953	.953	.860	.860	.860			
Axle Fct										.500	.500	.500	.500	.500	.500	.500	.500	.500			
Pulse Fct										2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000			

Kentucky Transportation Cabinet

Short-term Hourly Traffic Volume for 04/06/2021 through 04/08/2021

Site names:	035104	Seasonal Factor Grp:	2
County:	Fleming	Daily Factor Grp:	2
Funct Class:	R Major Collector	Axle Factor Grp:	07
Location:	035-KY-0057 -000 @ 2.147 From: KY 57X	Growth Factor Grp:	07

	Sun, Apr 4, 2021			Mon, Apr 5, 2021			Tue, Apr 6, 2021			Wed, Apr 7, 2021			Thu, Apr 8, 2021			Fri, Apr 9, 2021			Sat, Apr 10, 2021		
	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg
00:00										20			12								
01:00										10			13								
02:00										7			10								
03:00										42			37								
04:00										50			46								
05:00										81			72								
06:00										145			124								
07:00										263			287								
08:00										194			220								
09:00										208			200								
10:00										216			236								
11:00										201			194								
12:00										228			233								
13:00										214			245								
14:00							241			222											
15:00							309			236											
16:00							324			367											
17:00							336			329											
18:00							179			214											
19:00							152			172											
20:00							129			120											
21:00							88			83											
22:00							58			48											
23:00							25			34											
Total							1,841			3,704			1,929								
AM Peak Vol										281			287								
AM Peak Fct										.798			.854								
AM Peak Hr										7: 30			7: 00								
PM Peak Vol										394											
PM Peak Fct										.879											
PM Peak Hr										16: 15			:								
Seasonal Fct							1.244			1.244			1.244								
Daily Fct							.930			.943			.948								
Axle Fct							.492			.492			.492								
Pulse Fct							2.000			2.000			2.000								

Kentucky Transportation Cabinet

Short-term Hourly Traffic Volume for 06/08/2020 through 06/11/2020

Site names: 068811
County: Lewis
Funct Class: R Major Collector
Location: @ .308 From: ??? To: ???

Seasonal Factor Grp: 2
Daily Factor Grp: 2
Axle Factor Grp: 07
Growth Factor Grp: 07

	Sun, Jun 7, 2020			Mon, Jun 8, 2020			Tue, Jun 9, 2020			Wed, Jun 10, 2020			Thu, Jun 11, 2020			Fri, Jun 12, 2020			Sat, Jun 13, 2020		
	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg
00:00							13			12			10								
01:00							6			9			7								
02:00							8			10			6								
03:00							18			23			24								
04:00							24			32			24								
05:00							74			80			90								
06:00							78			80			69								
07:00							144			138			155								
08:00							141			164			151								
09:00							129			134											
10:00							151			154											
11:00				147			161			183											
12:00				146			156			155											
13:00				178			165			166											
14:00				160			173			198											
15:00				162			180			184											
16:00				178			178			205											
17:00				214			200			198											
18:00				121			133			135											
19:00				89			98			74											
20:00				73			67			87											
21:00				61			36			59											
22:00				32			37			34											
23:00				17			17			21											
Total				1,578			2,387			2,535			536								
AM Peak Vol							175			183											
AM Peak Fct							.875			.775											
AM Peak Hr				:			10: 30			11: 00											
PM Peak Vol				214			206			212											
PM Peak Fct				.836			.817			.914											
PM Peak Hr				17: 00			16: 30			15: 30											
Seasonal Fct				.921			.921			.921			.921								
Daily Fct				.998			1.000			.976			.960								
Axle Fct				.492			.492			.492			.492								
Pulse Fct				2.000			2.000			2.000			2.000								

Kentucky Transportation Cabinet

Short-term Hourly Traffic Volume for 06/12/2017 through 06/14/2017

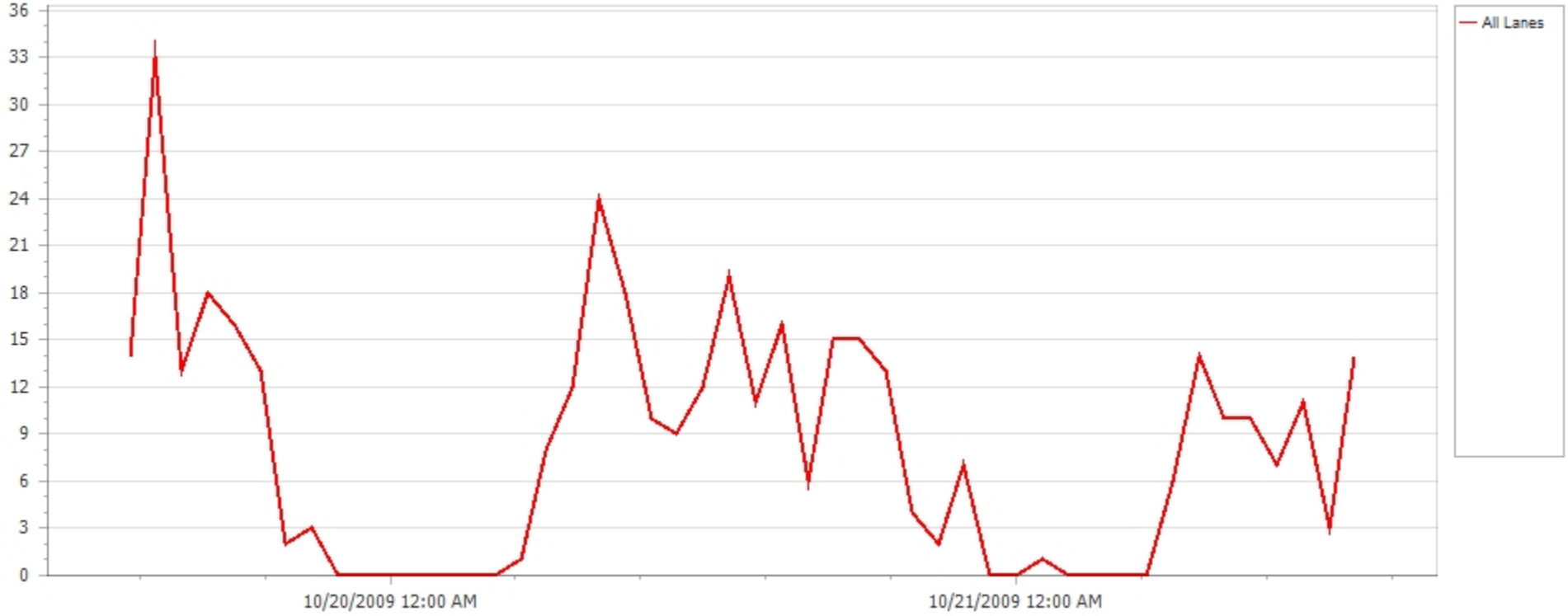
Site names:	068811	Seasonal Factor Grp:	2
County:	Lewis	Daily Factor Grp:	2
Funct Class:	R Major Collector	Axle Factor Grp:	07
Location:	@ .308 From: ??? To: ???	Growth Factor Grp:	07

	Sun, Jun 11, 2017			Mon, Jun 12, 2017			Tue, Jun 13, 2017			Wed, Jun 14, 2017			Thu, Jun 15, 2017			Fri, Jun 16, 2017			Sat, Jun 17, 2017		
	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg	Road	Pos	Neg
00:00							16			39											
01:00							8			11											
02:00							8			9											
03:00							11			7											
04:00							26			24											
05:00							31			39											
06:00							81			77											
07:00							96			78											
08:00							148			133											
09:00				99			115			110											
10:00				147			118			118											
11:00				119			128														
12:00				121			131														
13:00				137			135														
14:00				119			149														
15:00				116			130														
16:00				155			140														
17:00				162			199														
18:00				186			171														
19:00				136			131														
20:00				79			87														
21:00				64			79														
22:00				40			50														
23:00				29			23														
Total				1,709			2,211			645											
AM Peak Vol				0			148			0											
AM Peak Fct				0			1			0											
AM Peak Hr				:			8: 00			:											
PM Peak Vol				186			199			0											
PM Peak Fct				1			1			0											
PM Peak Hr				18: 00			17: 00			:											
Seasonal Fct				.950			.950			.950											
Daily Fct				1.016			1.015			.984											
Axle Fct				.484			.484			.484											
Pulse Fct				2.000			2.000			2.000											

Peek Traffic
5401 N Sam Houston Pkwy W
Houston, Tx 77086
1-800-848-7025

Volume by Lane

Name:	R1037_0018T9-035083A2AV11		
Site:	R1037_0018T9	Station:	035083A2AV11
Latitude:	0.000000 N	Longitude:	0.000000 E
Started:	10/19/2009 2:00:00 PM	Ended:	10/21/2009 1:59:59 PM



Hasta 24 horas comenzando en Monday, October 19, 2009

Interval	All Lanes
14:00	14
15:00	33
16:00	13
17:00	18
18:00	16
19:00	13
20:00	2
21:00	3
22:00	0
23:00	0
00:00	0
01:00	0
02:00	0
03:00	0
04:00	0
05:00	1
06:00	8
07:00	12
08:00	24
09:00	18
10:00	10
11:00	9
12:00	12
13:00	19
24 Hour Total	**225**
AM Peak	**24 (starting at 08:00:00)**
PM Peak	**33 (starting at 15:00:00)**

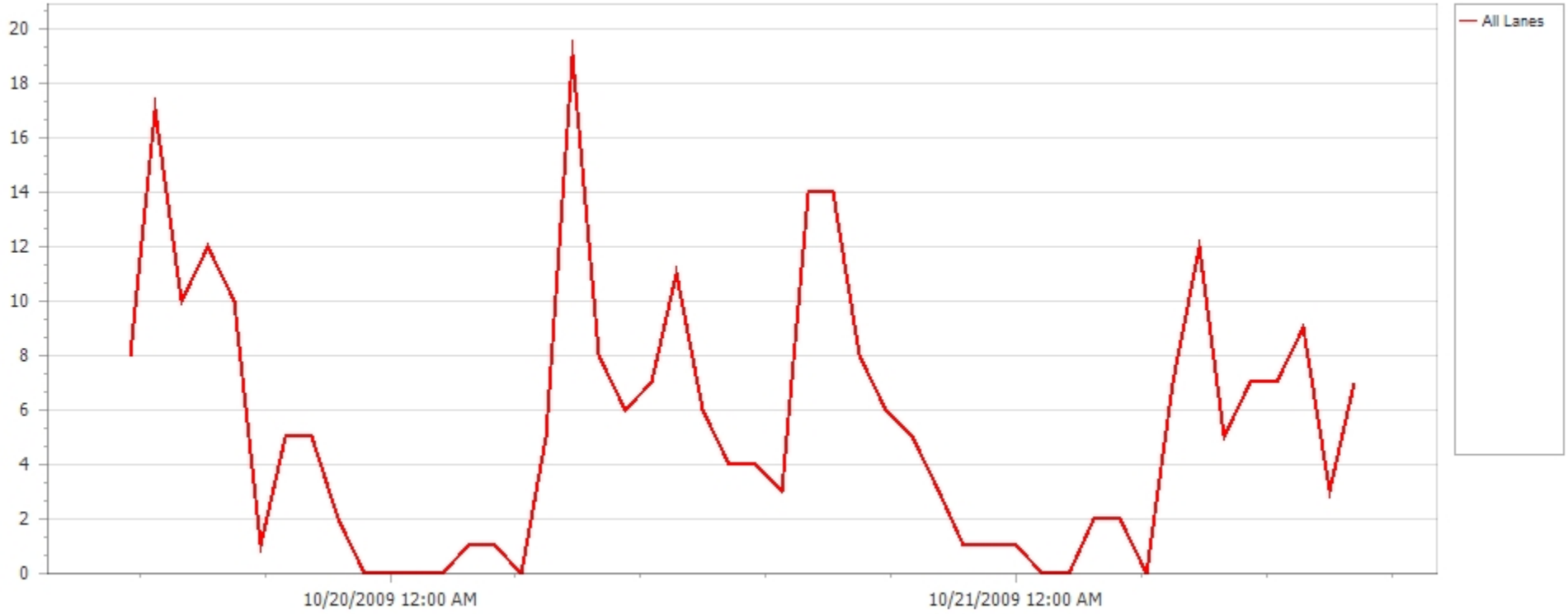
Hasta 24 horas comenzando en Tuesday, October 20, 2009

Interval	All Lanes
14:00	11
15:00	16
16:00	6
17:00	15
18:00	15
19:00	13
20:00	4
21:00	2
22:00	7
23:00	0
00:00	0
01:00	1
02:00	0
03:00	0
04:00	0
05:00	0
06:00	6
07:00	14
08:00	10
09:00	10
10:00	7
11:00	11
12:00	3
13:00	14
24 Hour Total	**165**
AM Peak	**14 (starting at 07:00:00)**
PM Peak	**16 (starting at 15:00:00)**
Average Interval	**8**
Maximum in one Interval	**33**
Grand Total	**390**

Peek Traffic
5401 N Sam Houston Pkwy W
Houston, Tx 77086
1-800-848-7025

Volume by Lane

Name:	R1036_0004T9-035049A2AV11		
Site:	R1036_0004T9	Station:	035049A2AV11
Latitude:	0.000000 N	Longitude:	0.000000 E
Started:	10/19/2009 2:00:00 PM	Ended:	10/21/2009 1:59:59 PM



Hasta 24 horas comenzando en Monday, October 19, 2009

Interval	All Lanes
14:00	8
15:00	17
16:00	10
17:00	12
18:00	10
19:00	1
20:00	5
21:00	5
22:00	2
23:00	0
00:00	0
01:00	0
02:00	0
03:00	1
04:00	1
05:00	0
06:00	5
07:00	19
08:00	8
09:00	6
10:00	7
11:00	11
12:00	6
13:00	4
24 Hour Total	**138**
AM Peak	**19 (starting at 07:00:00)**
PM Peak	**17 (starting at 15:00:00)**

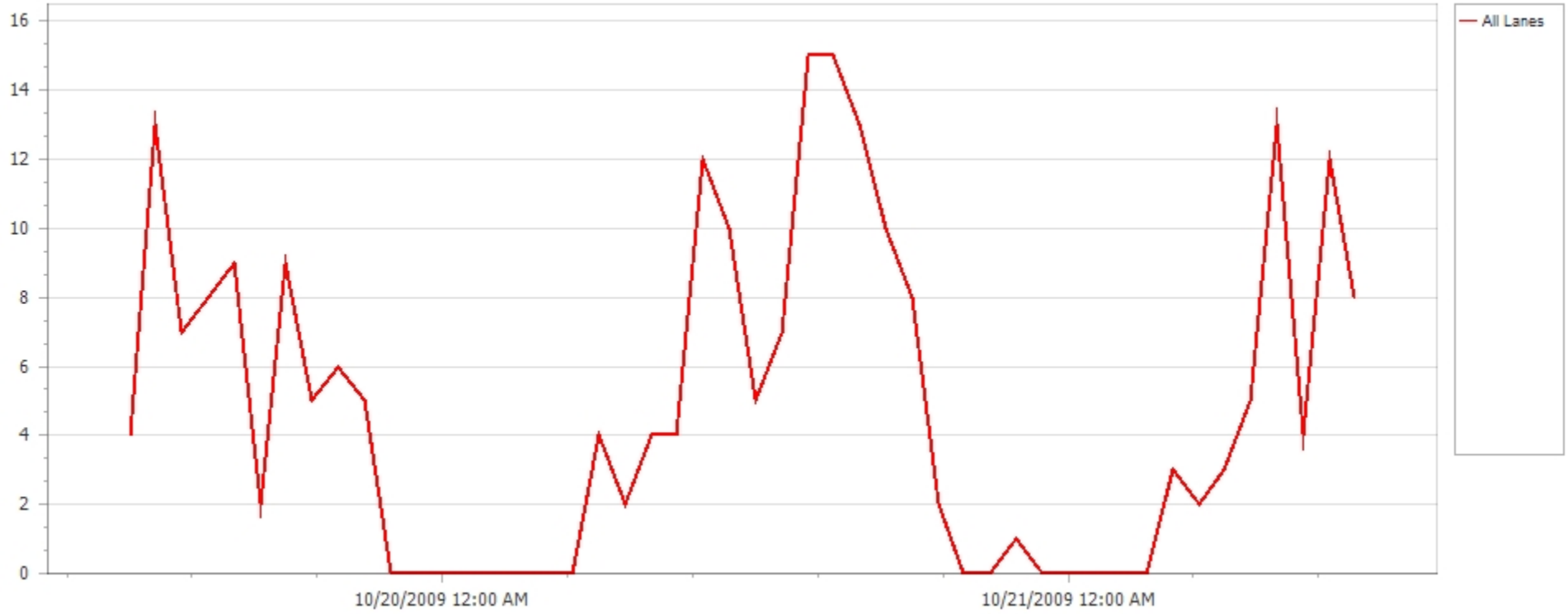
Hasta 24 horas comenzando en Tuesday, October 20, 2009

Interval	All Lanes
14:00	4
15:00	3
16:00	14
17:00	14
18:00	8
19:00	6
20:00	5
21:00	3
22:00	1
23:00	1
00:00	1
01:00	0
02:00	0
03:00	2
04:00	2
05:00	0
06:00	7
07:00	12
08:00	5
09:00	7
10:00	7
11:00	9
12:00	3
13:00	7
24 Hour Total	**121**
AM Peak	**12 (starting at 07:00:00)**
PM Peak	**14 (starting at 16:00:00)**
Average Interval	**5**
Maximum in one Interval	**19**
Grand Total	**259**

Peek Traffic
5401 N Sam Houston Pkwy W
Houston, Tx 77086
1-800-848-7025

Volume by Lane

Name:	R1030_0009T9-035Z81A2AV11		
Site:	R1030_0009T9	Station:	035Z81A2AV11
Latitude:	0.000000 N	Longitude:	0.000000 E
Started:	10/19/2009 12:00:00 PM	Ended:	10/21/2009 11:59:59 AM



Hasta 24 horas comenzando en Monday, October 19, 2009

Interval	All Lanes
12:00	4
13:00	13
14:00	7
15:00	8
16:00	9
17:00	2
18:00	9
19:00	5
20:00	6
21:00	5
22:00	0
23:00	0
00:00	0
01:00	0
02:00	0
03:00	0
04:00	0
05:00	0
06:00	4
07:00	2
08:00	4
09:00	4
10:00	12
11:00	10
24 Hour Total	**104**
AM Peak	**12 (starting at 10:00:00)**
PM Peak	**13 (starting at 13:00:00)**

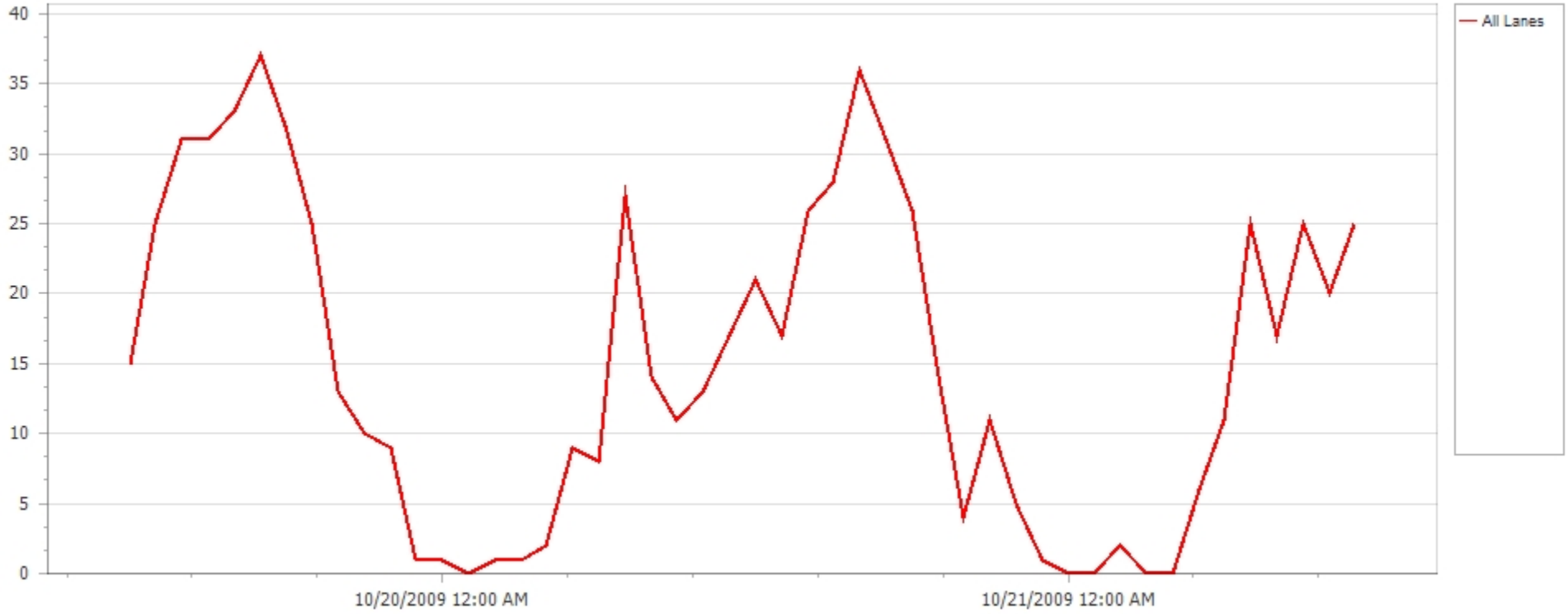
Hasta 24 horas comenzando en Tuesday, October 20, 2009

Interval	All Lanes
12:00	5
13:00	7
14:00	15
15:00	15
16:00	13
17:00	10
18:00	8
19:00	2
20:00	0
21:00	0
22:00	1
23:00	0
00:00	0
01:00	0
02:00	0
03:00	0
04:00	3
05:00	2
06:00	3
07:00	5
08:00	13
09:00	4
10:00	12
11:00	8
24 Hour Total	**126**
AM Peak	**13 (starting at 08:00:00)**
PM Peak	**15 (starting at 14:00:00)**
Average Interval	**5**
Maximum in one Interval	**15**
Grand Total	**230**

Peek Traffic
5401 N Sam Houston Pkwy W
Houston, Tx 77086
1-800-848-7025

Volume by Lane

Name:	R1027_0012T9-035080A2AV11		
Site:	R1027_0012T9	Station:	035080A2AV11
Latitude:	0.000000 N	Longitude:	0.000000 E
Started:	10/19/2009 12:00:00 PM	Ended:	10/21/2009 11:59:59 AM



Hasta 24 horas comenzando en Monday, October 19, 2009

Interval	All Lanes
12:00	15
13:00	25
14:00	31
15:00	31
16:00	33
17:00	37
18:00	32
19:00	25
20:00	13
21:00	10
22:00	9
23:00	1
00:00	1
01:00	0
02:00	1
03:00	1
04:00	2
05:00	9
06:00	8
07:00	27
08:00	14
09:00	11
10:00	13
11:00	17
24 Hour Total	**366**
AM Peak	**27 (starting at 07:00:00)**
PM Peak	**37 (starting at 17:00:00)**

Hasta 24 horas comenzando en Tuesday, October 20, 2009

Interval	All Lanes
12:00	21
13:00	17
14:00	26
15:00	28
16:00	36
17:00	31
18:00	26
19:00	14
20:00	4
21:00	11
22:00	5
23:00	1
00:00	0
01:00	0
02:00	2
03:00	0
04:00	0
05:00	6
06:00	11
07:00	25
08:00	17
09:00	25
10:00	20
11:00	25
24 Hour Total	**351**
AM Peak	**25 (starting at 07:00:00)**
PM Peak	**36 (starting at 16:00:00)**
Average Interval	**15**
Maximum in one Interval	**37**
Grand Total	**717**

Appendix B

HIGHWAY CAPACITY SOFTWARE (HCS 2022) FILES

EXISTING

CONSTRUCTION PERIOD

EXISTING

HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing AM
Project Description	CR 1027	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2575
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	6.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	28	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	20.9
Speed Slope Coefficient (m)	1.66210	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.30998	PF Power Coefficient (p)	0.59048
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2575	-	-	20.9

Vehicle Results

Average Speed, mi/h	20.9	Percent Followers, %	14.6
Segment Travel Time, minutes	1.40	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	3	0.00	0.2	A

HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing PM
Project Description	CR 1027	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2575
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	6.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	36	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	20.9
Speed Slope Coefficient (m)	1.66210	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.30998	PF Power Coefficient (p)	0.59048
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2575	-	-	20.9

Vehicle Results

Average Speed, mi/h	20.9	Percent Followers, %	16.8
Segment Travel Time, minutes	1.40	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	4	0.00	0.3	A

HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing AM
Project Description	KY 3301	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1584
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	33.3

Demand and Capacity

Directional Demand Flow Rate, veh/h	27	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	48.4
Speed Slope Coefficient (m)	3.13556	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.46639	PF Power Coefficient (p)	0.71076
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	48.4

Vehicle Results

Average Speed, mi/h	48.4	Percent Followers, %	10.5
Segment Travel Time, minutes	0.37	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1732
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	24.2

Demand and Capacity

Directional Demand Flow Rate, veh/h	27	Opposing Demand Flow Rate, veh/h	19
Peak Hour Factor	0.94	Total Trucks, %	0.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.6
Speed Slope Coefficient (m)	2.90478	Speed Power Coefficient (p)	0.62836
PF Slope Coefficient (m)	-1.22654	PF Power Coefficient (p)	0.78245
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1732	-	-	50.6

Vehicle Results

Average Speed, mi/h	50.6	Percent Followers, %	6.9
Segment Travel Time, minutes	0.39	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 3

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1056
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	27	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	53.7
Speed Slope Coefficient (m)	3.41926	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.44983	PF Power Coefficient (p)	0.72120
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1056	-	-	53.7

Vehicle Results

Average Speed, mi/h	53.7	Percent Followers, %	10.1
Segment Travel Time, minutes	0.22	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 4

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1796
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	2.9

Demand and Capacity

Directional Demand Flow Rate, veh/h	27	Opposing Demand Flow Rate, veh/h	19
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	56.0
Speed Slope Coefficient (m)	3.19448	Speed Power Coefficient (p)	0.62836
PF Slope Coefficient (m)	-1.21184	PF Power Coefficient (p)	0.80011
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1796	-	-	56.0

Vehicle Results

Average Speed, mi/h	56.0	Percent Followers, %	6.4
Segment Travel Time, minutes	0.36	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 5

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2565
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.2

Demand and Capacity

Directional Demand Flow Rate, veh/h	27	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	53.6
Speed Slope Coefficient (m)	3.43628	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.39290	PF Power Coefficient (p)	0.73652
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2565	-	-	53.6

Vehicle Results

Average Speed, mi/h	53.6	Percent Followers, %	9.2
Segment Travel Time, minutes	0.54	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 6

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2067
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	15.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	27	Opposing Demand Flow Rate, veh/h	19
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.9
Speed Slope Coefficient (m)	3.03029	Speed Power Coefficient (p)	0.62836
PF Slope Coefficient (m)	-1.20996	PF Power Coefficient (p)	0.79496
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2067	-	-	52.9

Vehicle Results

Average Speed, mi/h	52.9	Percent Followers, %	6.5
Segment Travel Time, minutes	0.44	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 7

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4526
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	10.5

Demand and Capacity

Directional Demand Flow Rate, veh/h	27	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	54.1
Speed Slope Coefficient (m)	3.48395	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.35008	PF Power Coefficient (p)	0.74489
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4526	-	-	54.1

Vehicle Results

Average Speed, mi/h	54.1	Percent Followers, %	8.7
Segment Travel Time, minutes	0.95	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 8

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3016
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	15.8

Demand and Capacity

Directional Demand Flow Rate, veh/h	27	Opposing Demand Flow Rate, veh/h	19
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.8
Speed Slope Coefficient (m)	3.03813	Speed Power Coefficient (p)	0.62836
PF Slope Coefficient (m)	-1.18454	PF Power Coefficient (p)	0.80498
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3016	-	-	52.8

Vehicle Results

Average Speed, mi/h	52.8	Percent Followers, %	6.2
Segment Travel Time, minutes	0.65	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 9

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	3185
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	15.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	26	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	53.0
Speed Slope Coefficient (m)	3.40708	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.38055	PF Power Coefficient (p)	0.73849
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

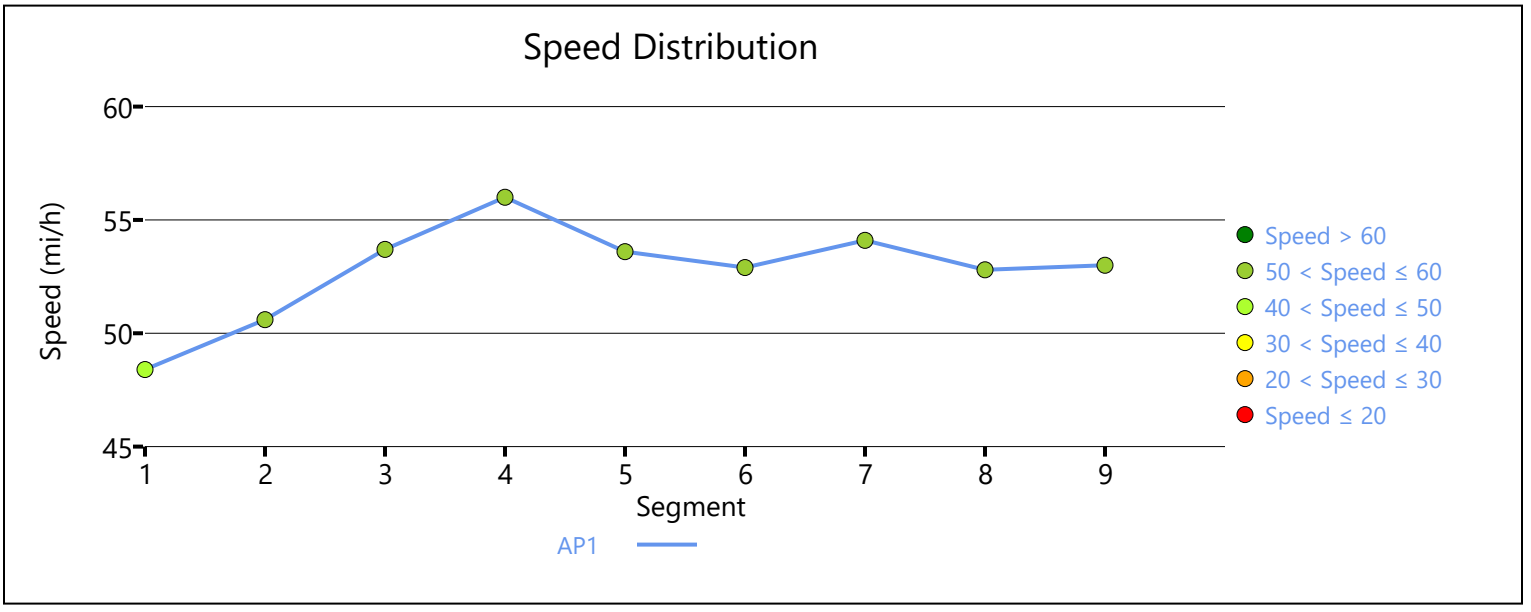
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3185	-	-	53.0

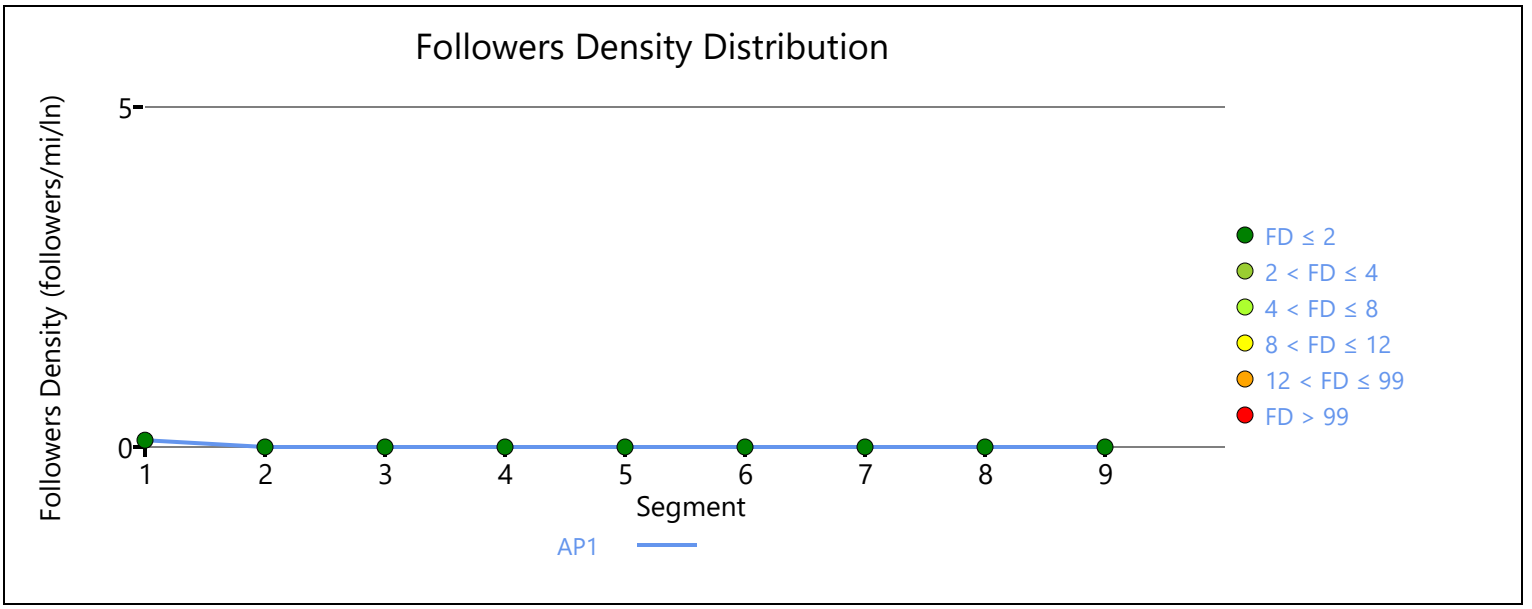
Vehicle Results

Average Speed, mi/h	53.0	Percent Followers, %	8.8
Segment Travel Time, minutes	0.68	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	25	0.00	0.0	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing PM
Project Description	KY 3301	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1584
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	33.3

Demand and Capacity

Directional Demand Flow Rate, veh/h	28	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	48.4
Speed Slope Coefficient (m)	3.13556	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.46639	PF Power Coefficient (p)	0.71076
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	48.4

Vehicle Results

Average Speed, mi/h	48.4	Percent Followers, %	10.8
Segment Travel Time, minutes	0.37	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1732
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	24.2

Demand and Capacity

Directional Demand Flow Rate, veh/h	28	Opposing Demand Flow Rate, veh/h	19
Peak Hour Factor	0.94	Total Trucks, %	0.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.6
Speed Slope Coefficient (m)	2.90478	Speed Power Coefficient (p)	0.62836
PF Slope Coefficient (m)	-1.22654	PF Power Coefficient (p)	0.78245
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1732	-	-	50.6

Vehicle Results

Average Speed, mi/h	50.6	Percent Followers, %	7.1
Segment Travel Time, minutes	0.39	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 3

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1056
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	28	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	53.7
Speed Slope Coefficient (m)	3.41926	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.44983	PF Power Coefficient (p)	0.72120
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1056	-	-	53.7

Vehicle Results

Average Speed, mi/h	53.7	Percent Followers, %	10.3
Segment Travel Time, minutes	0.22	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 4

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1796
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	2.9

Demand and Capacity

Directional Demand Flow Rate, veh/h	28	Opposing Demand Flow Rate, veh/h	19
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	56.0
Speed Slope Coefficient (m)	3.19448	Speed Power Coefficient (p)	0.62836
PF Slope Coefficient (m)	-1.21184	PF Power Coefficient (p)	0.80011
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1796	-	-	56.0

Vehicle Results

Average Speed, mi/h	56.0	Percent Followers, %	6.6
Segment Travel Time, minutes	0.36	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 5

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2565
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.2

Demand and Capacity

Directional Demand Flow Rate, veh/h	28	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	53.6
Speed Slope Coefficient (m)	3.43628	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.39290	PF Power Coefficient (p)	0.73652
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2565	-	-	53.6

Vehicle Results

Average Speed, mi/h	53.6	Percent Followers, %	9.4
Segment Travel Time, minutes	0.54	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 6

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2067
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	15.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	28	Opposing Demand Flow Rate, veh/h	19
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.9
Speed Slope Coefficient (m)	3.03029	Speed Power Coefficient (p)	0.62836
PF Slope Coefficient (m)	-1.20996	PF Power Coefficient (p)	0.79496
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2067	-	-	52.9

Vehicle Results

Average Speed, mi/h	52.9	Percent Followers, %	6.7
Segment Travel Time, minutes	0.44	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 7

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4526
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	10.5

Demand and Capacity

Directional Demand Flow Rate, veh/h	28	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	54.1
Speed Slope Coefficient (m)	3.48395	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.35008	PF Power Coefficient (p)	0.74489
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4526	-	-	54.1

Vehicle Results

Average Speed, mi/h	54.1	Percent Followers, %	8.9
Segment Travel Time, minutes	0.95	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 8

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3016
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	15.8

Demand and Capacity

Directional Demand Flow Rate, veh/h	28	Opposing Demand Flow Rate, veh/h	19
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.8
Speed Slope Coefficient (m)	3.03813	Speed Power Coefficient (p)	0.62836
PF Slope Coefficient (m)	-1.18454	PF Power Coefficient (p)	0.80498
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3016	-	-	52.8

Vehicle Results

Average Speed, mi/h	52.8	Percent Followers, %	6.4
Segment Travel Time, minutes	0.65	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 9

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	3185
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	15.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	30	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	53.0
Speed Slope Coefficient (m)	3.40708	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.38055	PF Power Coefficient (p)	0.73849
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

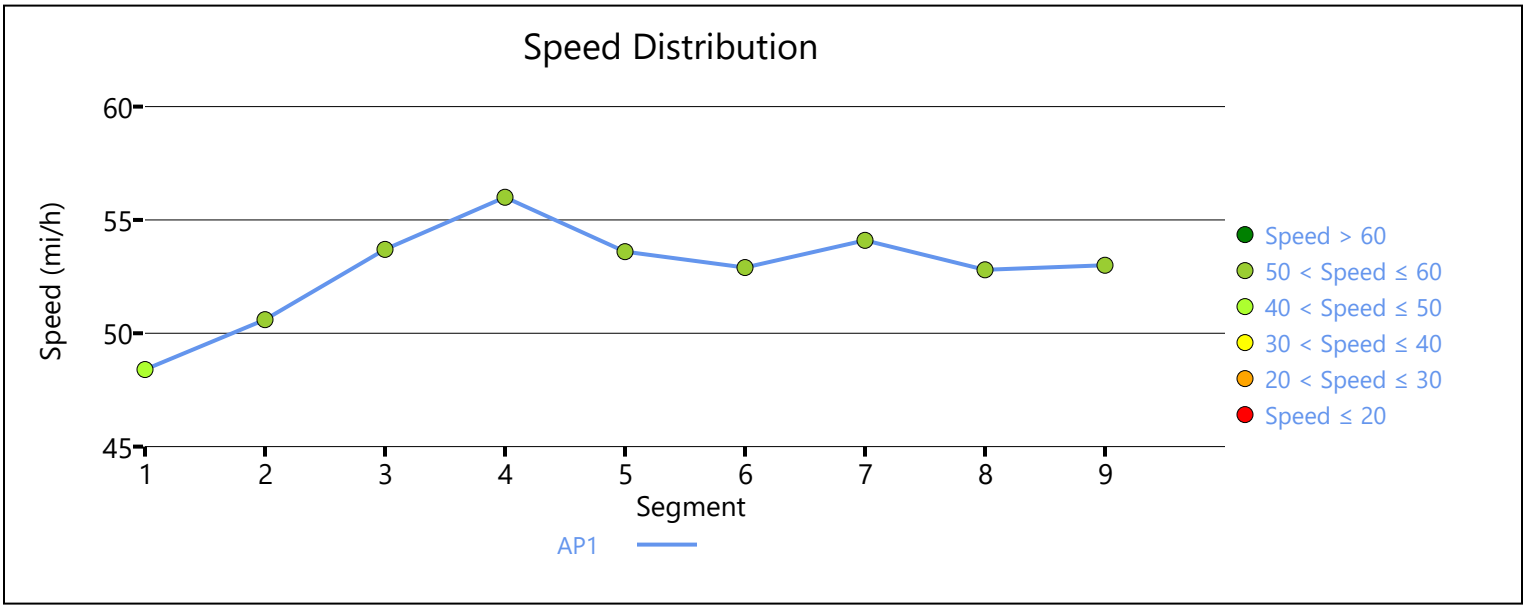
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3185	-	-	53.0

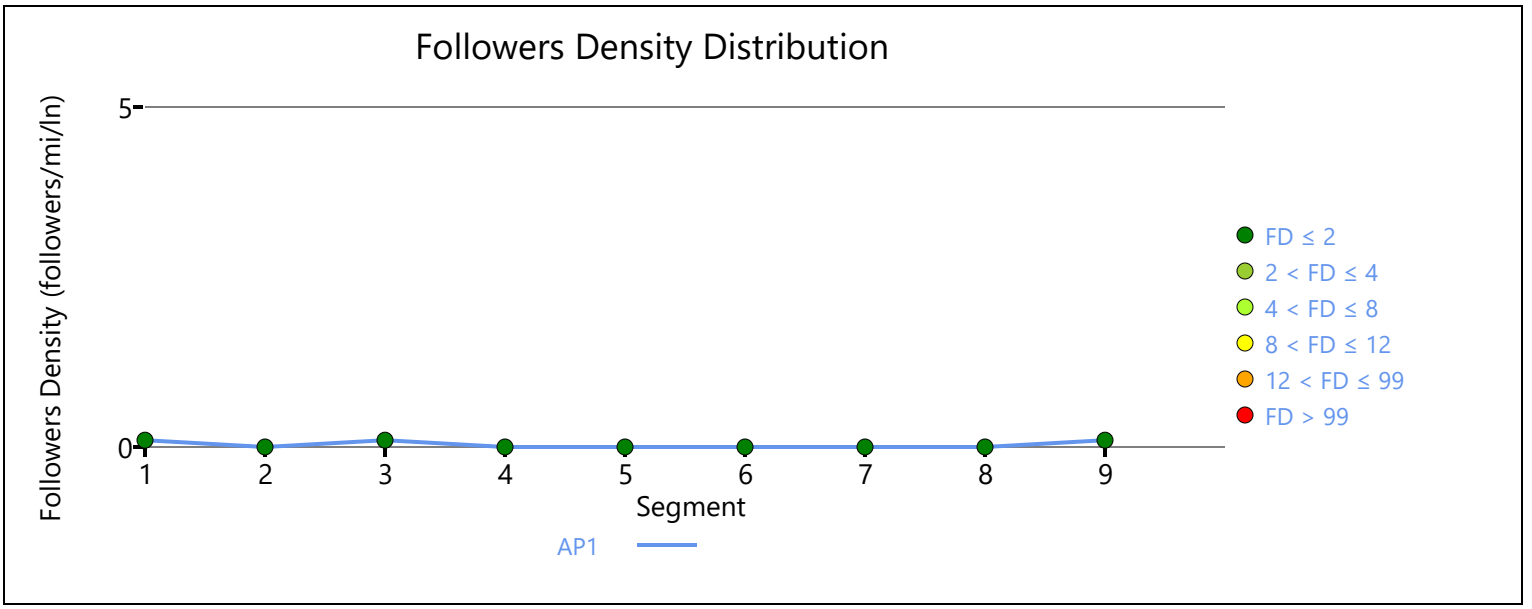
Vehicle Results

Average Speed, mi/h	53.0	Percent Followers, %	9.8
Segment Travel Time, minutes	0.68	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	27	0.00	0.0	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing AM
Project Description	KY 1237	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	8337
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	18.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	14	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.7
Speed Slope Coefficient (m)	3.44540	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.34677	PF Power Coefficient (p)	0.72875
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	8337	-	-	52.7

Vehicle Results

Average Speed, mi/h	52.7	Percent Followers, %	5.8
Segment Travel Time, minutes	1.80	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	8264
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	21.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	27	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	51.9
Speed Slope Coefficient (m)	3.40003	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.35159	PF Power Coefficient (p)	0.72676
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

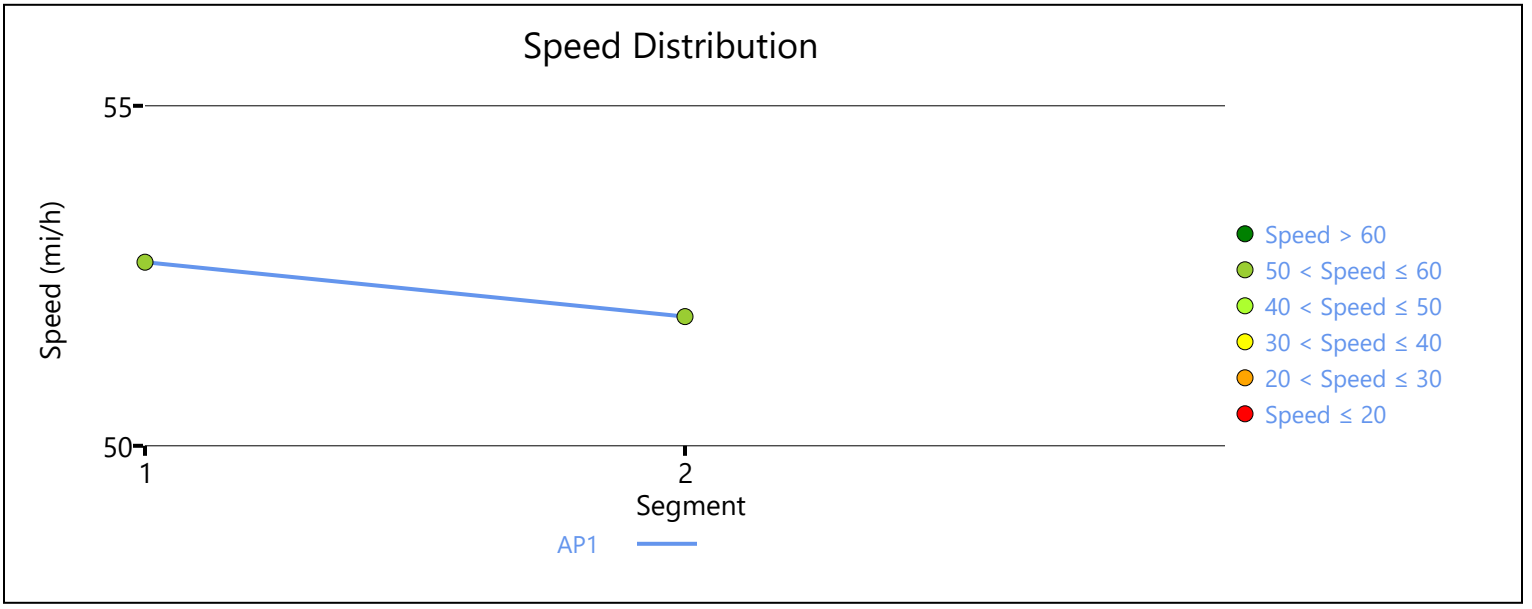
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	8264	-	-	51.9

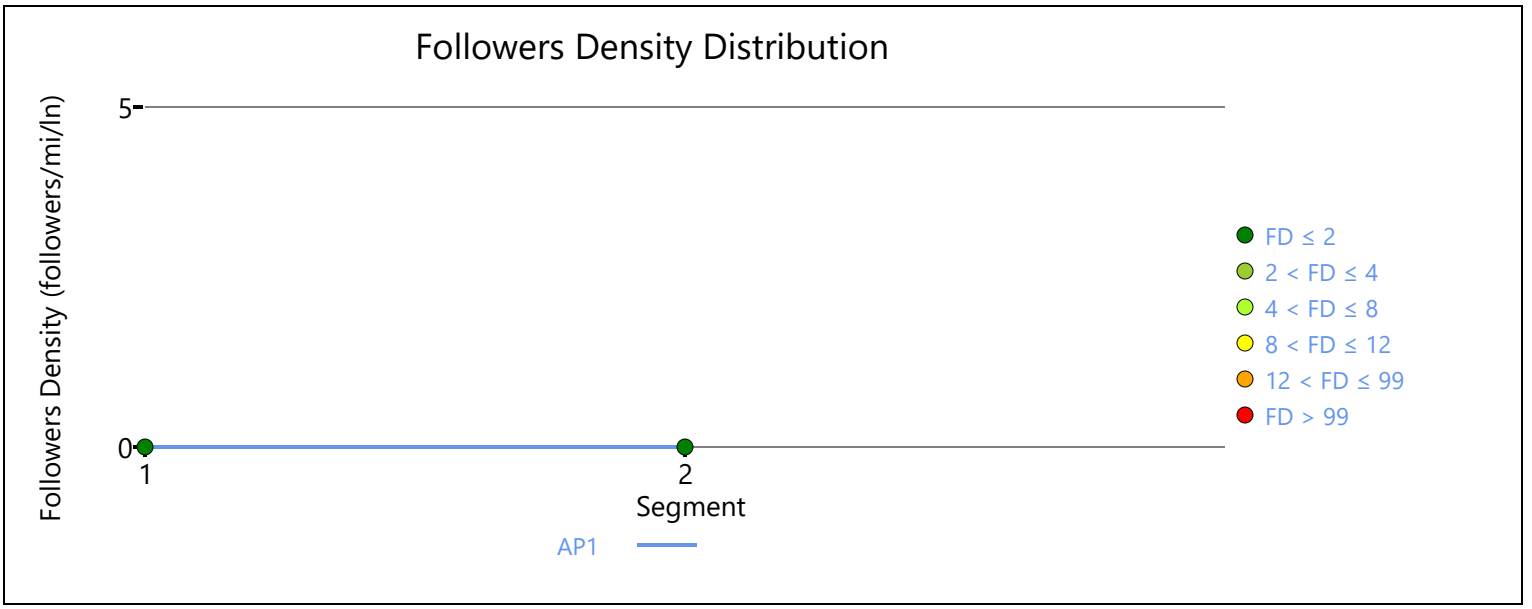
Vehicle Results

Average Speed, mi/h	51.9	Percent Followers, %	9.2
Segment Travel Time, minutes	1.81	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	15	0.00	0.0	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing PM
Project Description	KY 1237	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	8337
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	18.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	23	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.7
Speed Slope Coefficient (m)	3.44540	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.34677	PF Power Coefficient (p)	0.72875
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	8337	-	-	52.7

Vehicle Results

Average Speed, mi/h	52.7	Percent Followers, %	8.4
Segment Travel Time, minutes	1.80	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	8264
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	21.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	43	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	51.9
Speed Slope Coefficient (m)	3.40003	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.35159	PF Power Coefficient (p)	0.72676
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

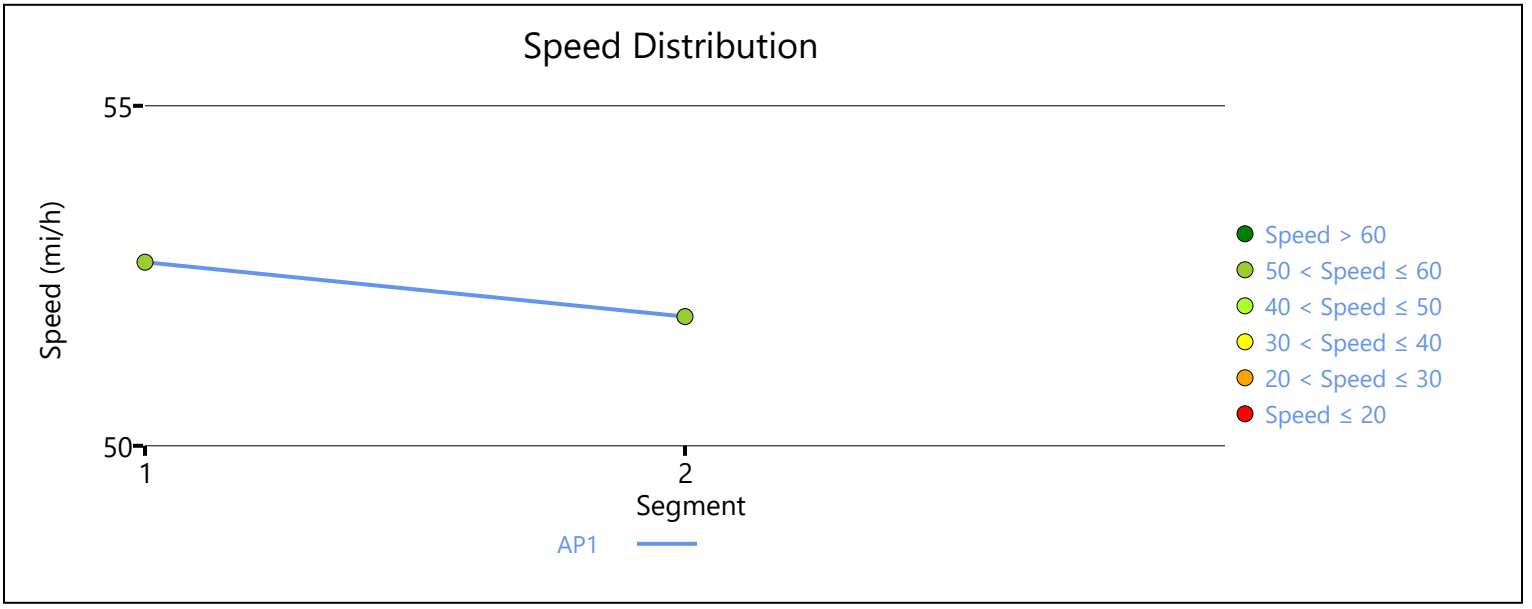
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	8264	-	-	51.9

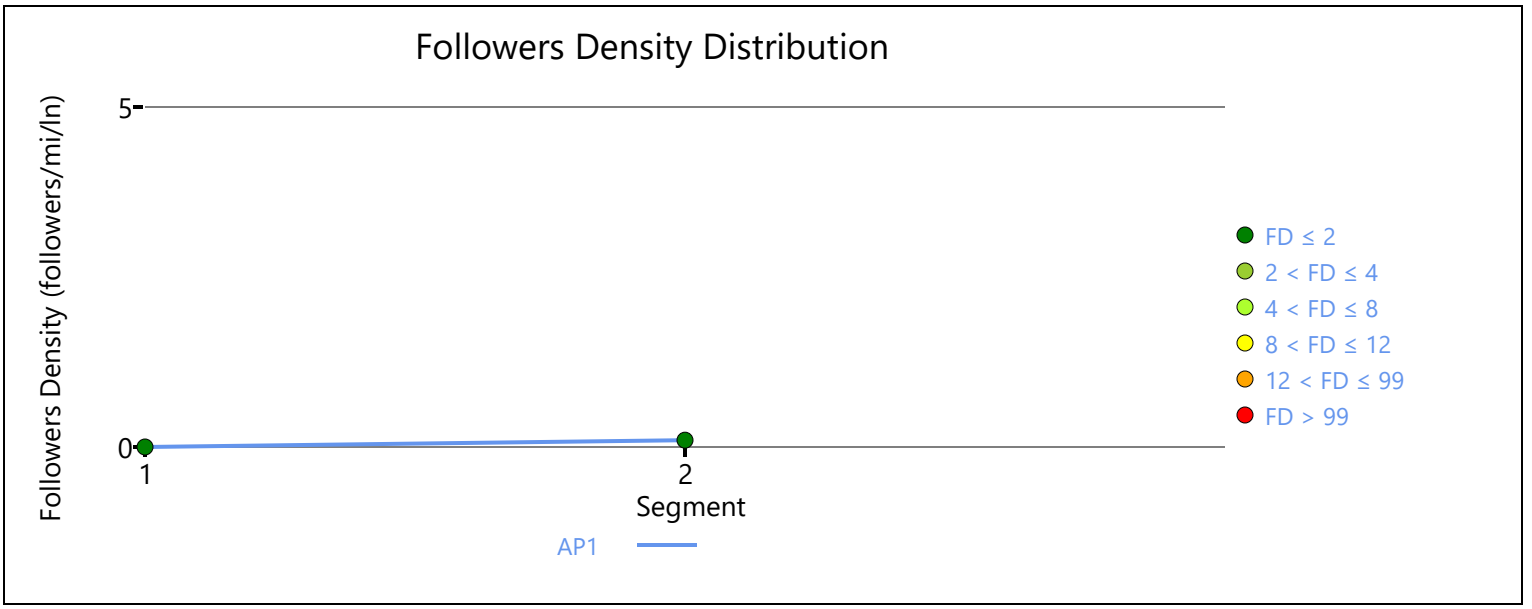
Vehicle Results

Average Speed, mi/h	51.9	Percent Followers, %	12.7
Segment Travel Time, minutes	1.81	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	24	0.00	0.1	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing AM
Project Description	KY 989	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	5412
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	10.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	6	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.00

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	54.7
Speed Slope Coefficient (m)	3.52422	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.33772	PF Power Coefficient (p)	0.74619
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5412	-	-	54.7

Vehicle Results

Average Speed, mi/h	54.7	Percent Followers, %	3.0
Segment Travel Time, minutes	1.13	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	6410
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	6	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.00

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	54.2
Speed Slope Coefficient (m)	3.51015	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.33606	PF Power Coefficient (p)	0.74237
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

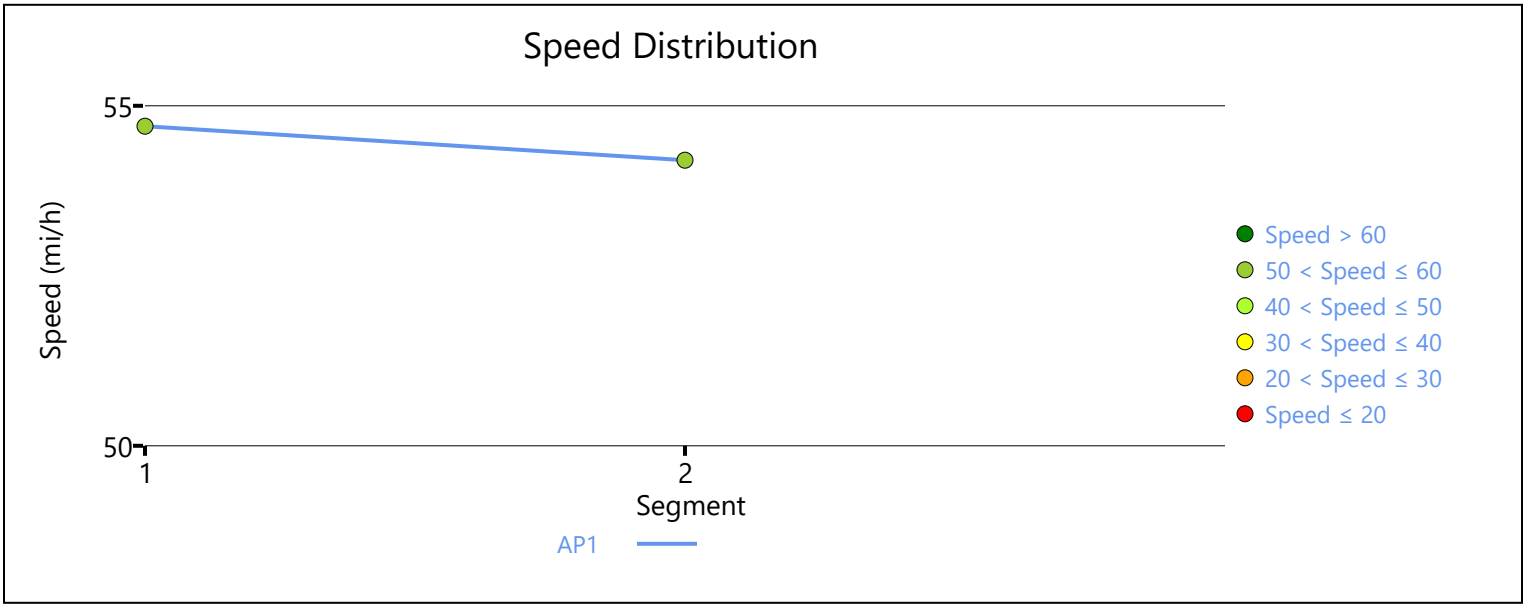
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	6410	-	-	54.2

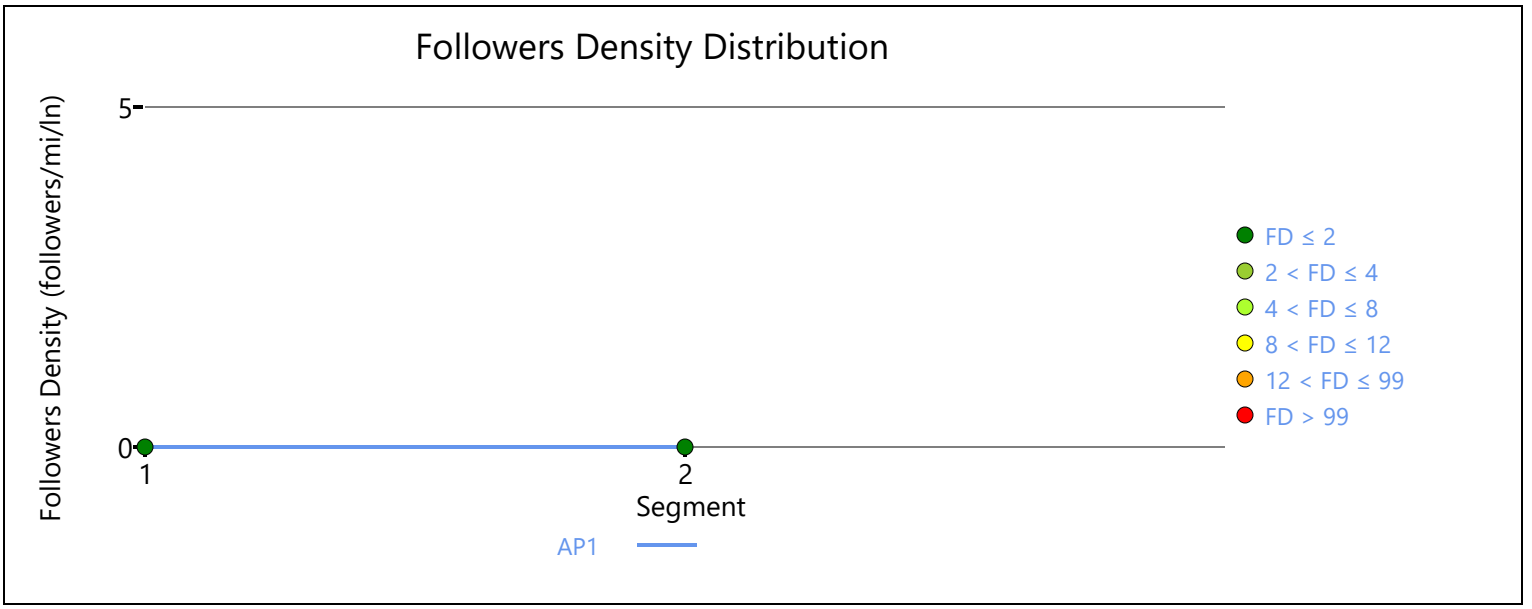
Vehicle Results

Average Speed, mi/h	54.2	Percent Followers, %	3.1
Segment Travel Time, minutes	1.34	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	3	0.00	0.0	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing PM
Project Description	KY 989	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	5412
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	10.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	13	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	54.7
Speed Slope Coefficient (m)	3.52422	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.33772	PF Power Coefficient (p)	0.74619
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5412	-	-	54.7

Vehicle Results

Average Speed, mi/h	54.7	Percent Followers, %	5.0
Segment Travel Time, minutes	1.13	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	6410
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	13	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	54.2
Speed Slope Coefficient (m)	3.51015	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.33606	PF Power Coefficient (p)	0.74237
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

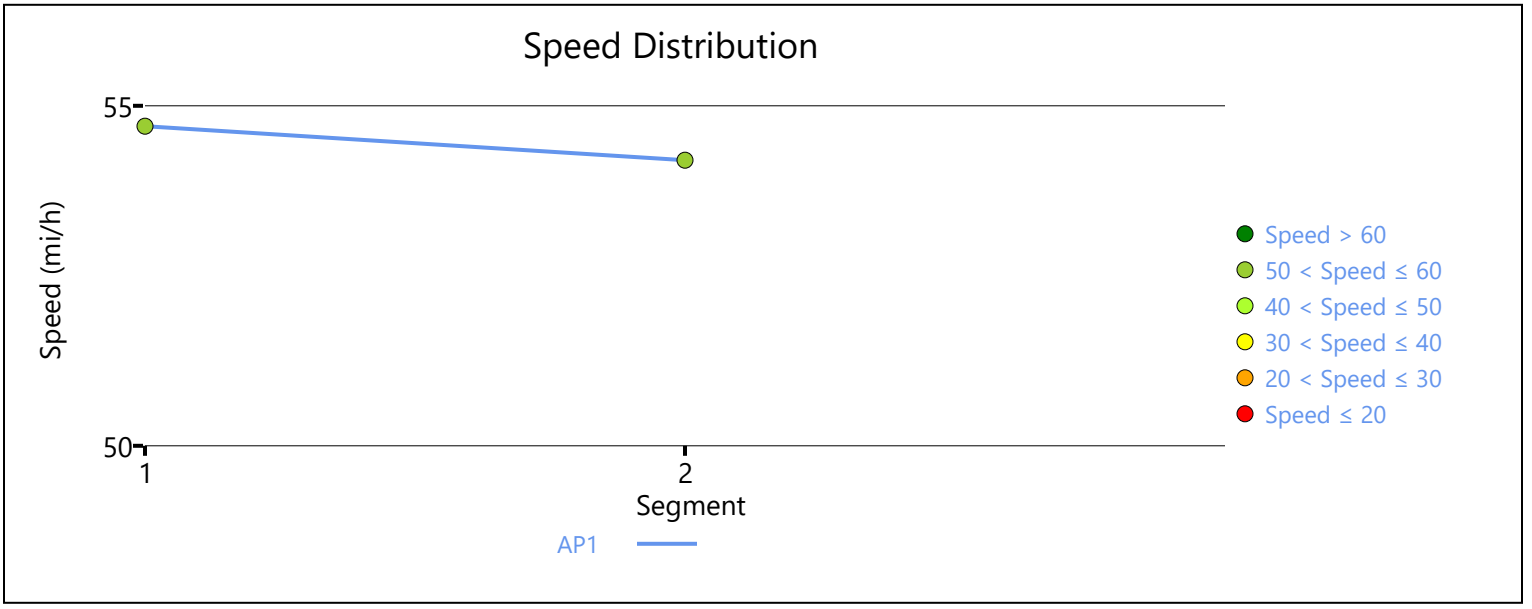
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	6410	-	-	54.2

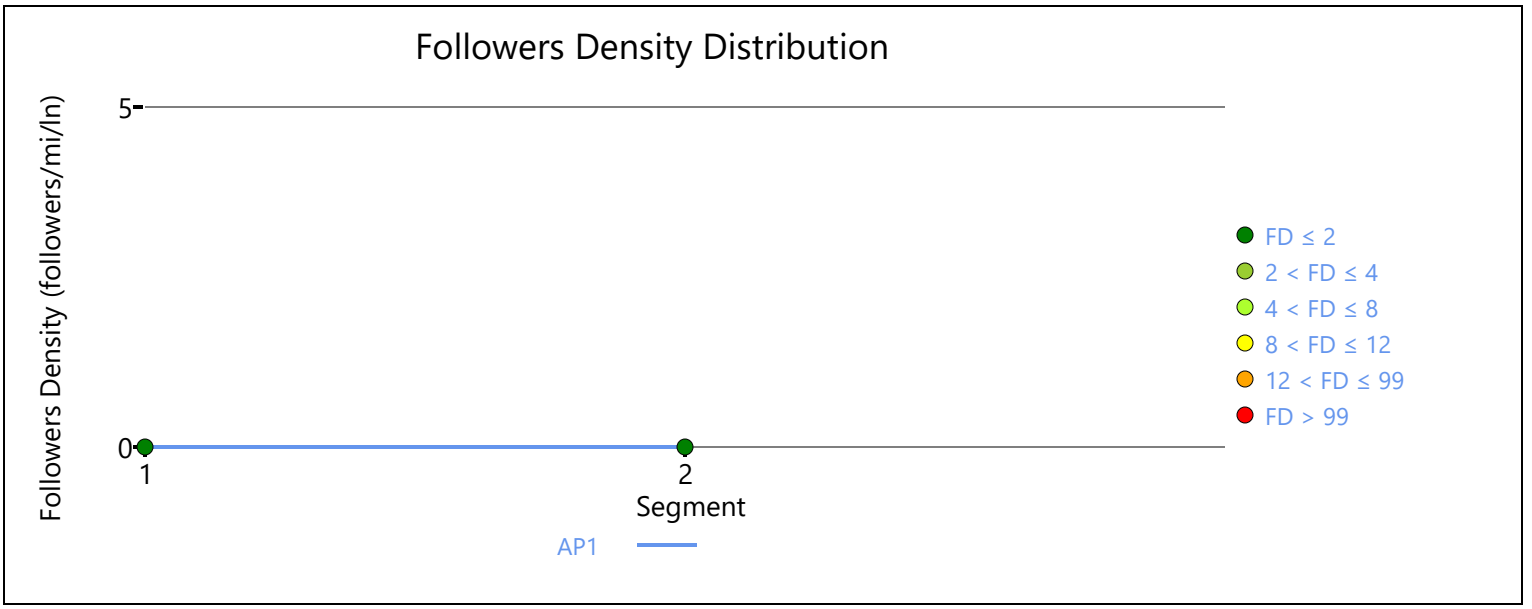
Vehicle Results

Average Speed, mi/h	54.2	Percent Followers, %	5.1
Segment Travel Time, minutes	1.34	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	7	0.00	0.0	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing AM
Project Description	KY 559	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2862
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	31.5

Demand and Capacity

Directional Demand Flow Rate, veh/h	53	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	49.4
Speed Slope Coefficient (m)	3.20852	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.40969	PF Power Coefficient (p)	0.72659
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2862	-	-	49.4

Vehicle Results

Average Speed, mi/h	49.4	Percent Followers, %	15.4
Segment Travel Time, minutes	0.66	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2899
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	20.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	53	Opposing Demand Flow Rate, veh/h	40
Peak Hour Factor	0.94	Total Trucks, %	2.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.2
Speed Slope Coefficient (m)	3.02857	Speed Power Coefficient (p)	0.60883
PF Slope Coefficient (m)	-1.20604	PF Power Coefficient (p)	0.79798
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2899	-	-	52.2

Vehicle Results

Average Speed, mi/h	52.2	Percent Followers, %	11.0
Segment Travel Time, minutes	0.63	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 3

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4715
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	15.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	53	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	53.3
Speed Slope Coefficient (m)	3.44342	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.35294	PF Power Coefficient (p)	0.74299
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4715	-	-	53.3

Vehicle Results

Average Speed, mi/h	53.3	Percent Followers, %	14.2
Segment Travel Time, minutes	1.01	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 4

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	317
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	4.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	53	Opposing Demand Flow Rate, veh/h	40
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	56.2
Speed Slope Coefficient (m)	3.22057	Speed Power Coefficient (p)	0.60883
PF Slope Coefficient (m)	-1.25169	PF Power Coefficient (p)	0.78709
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	317	-	-	56.2

Vehicle Results

Average Speed, mi/h	56.2	Percent Followers, %	11.7
Segment Travel Time, minutes	0.06	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 5

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	3168
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	8.3

Demand and Capacity

Directional Demand Flow Rate, veh/h	53	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	55.2
Speed Slope Coefficient (m)	3.52656	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36536	PF Power Coefficient (p)	0.74471
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3168	-	-	55.2

Vehicle Results

Average Speed, mi/h	55.2	Percent Followers, %	14.2
Segment Travel Time, minutes	0.65	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 6

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1584
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	26.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	53	Opposing Demand Flow Rate, veh/h	40
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.6
Speed Slope Coefficient (m)	2.91831	Speed Power Coefficient (p)	0.60883
PF Slope Coefficient (m)	-1.25193	PF Power Coefficient (p)	0.77544
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	50.6

Vehicle Results

Average Speed, mi/h	50.6	Percent Followers, %	12.1
Segment Travel Time, minutes	0.36	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 7

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	12302
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	8.6

Demand and Capacity

Directional Demand Flow Rate, veh/h	53	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	55.1
Speed Slope Coefficient (m)	3.59986	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36038	PF Power Coefficient (p)	0.70449
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	12302	-	-	55.1

Vehicle Results

Average Speed, mi/h	55.1	Percent Followers, %	15.8
Segment Travel Time, minutes	2.54	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 8

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1003
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	45	Access Point Density, pts/mi	20.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	53	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.8
Speed Slope Coefficient (m)	2.72189	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.50480	PF Power Coefficient (p)	0.68051
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1003	-	-	40.8

Vehicle Results

Average Speed, mi/h	40.8	Percent Followers, %	18.5
Segment Travel Time, minutes	0.28	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 9

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1869
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	35	Access Point Density, pts/mi	57.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	53	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	24.4
Speed Slope Coefficient (m)	1.84278	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.38415	PF Power Coefficient (p)	0.60433
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

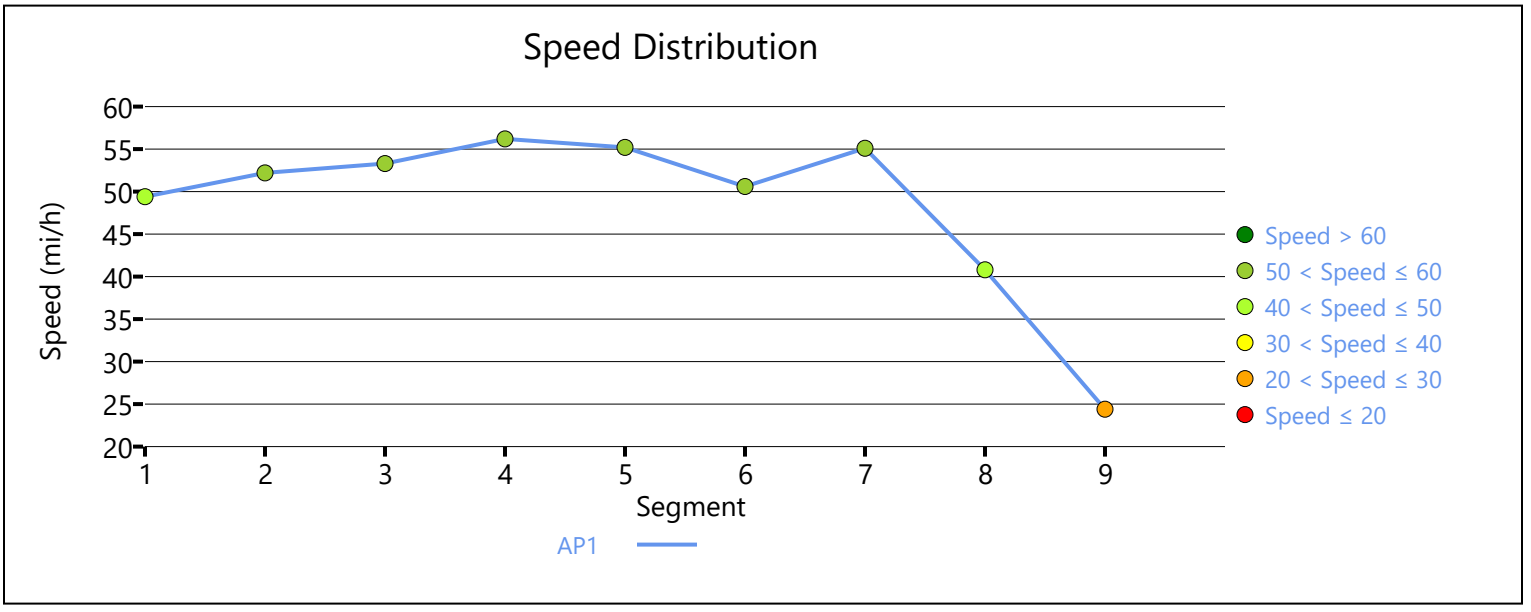
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1869	-	-	24.4

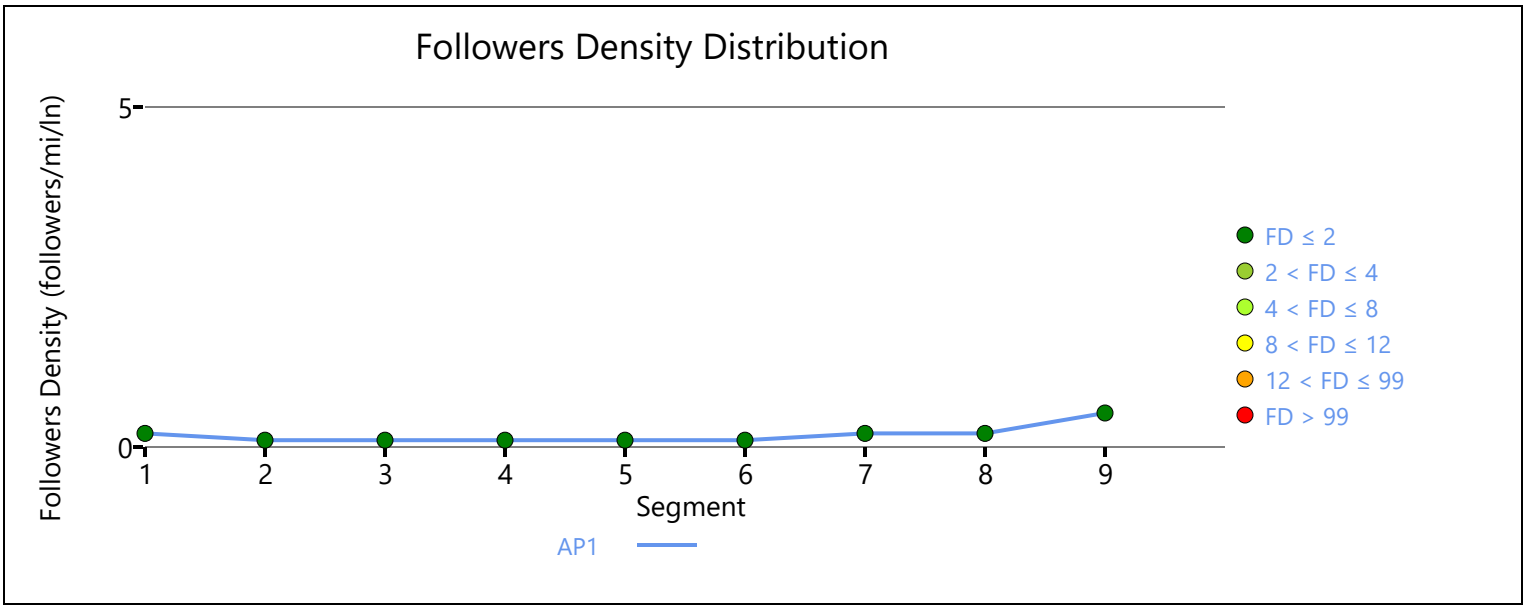
Vehicle Results

Average Speed, mi/h	24.4	Percent Followers, %	20.9
Segment Travel Time, minutes	0.87	Follower Density (FD), followers/mi/ln	0.5
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	73	0.00	0.2	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing PM
Project Description	KY 559	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2862
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	31.5

Demand and Capacity

Directional Demand Flow Rate, veh/h	59	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	49.4
Speed Slope Coefficient (m)	3.20852	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.40969	PF Power Coefficient (p)	0.72659
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2862	-	-	49.4

Vehicle Results

Average Speed, mi/h	49.4	Percent Followers, %	16.4
Segment Travel Time, minutes	0.66	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2899
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	20.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	59	Opposing Demand Flow Rate, veh/h	44
Peak Hour Factor	0.94	Total Trucks, %	2.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.2
Speed Slope Coefficient (m)	3.03197	Speed Power Coefficient (p)	0.60561
PF Slope Coefficient (m)	-1.20906	PF Power Coefficient (p)	0.79721
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2899	-	-	52.2

Vehicle Results

Average Speed, mi/h	52.2	Percent Followers, %	11.8
Segment Travel Time, minutes	0.63	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 3

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4715
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	15.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	59	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	53.3
Speed Slope Coefficient (m)	3.44342	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.35294	PF Power Coefficient (p)	0.74299
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4715	-	-	53.3

Vehicle Results

Average Speed, mi/h	53.3	Percent Followers, %	15.1
Segment Travel Time, minutes	1.01	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 4

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	317
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	4.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	59	Opposing Demand Flow Rate, veh/h	44
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	56.2
Speed Slope Coefficient (m)	3.22398	Speed Power Coefficient (p)	0.60561
PF Slope Coefficient (m)	-1.25480	PF Power Coefficient (p)	0.78639
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	317	-	-	56.2

Vehicle Results

Average Speed, mi/h	56.2	Percent Followers, %	12.6
Segment Travel Time, minutes	0.06	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 5

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	3168
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	8.3

Demand and Capacity

Directional Demand Flow Rate, veh/h	59	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	55.2
Speed Slope Coefficient (m)	3.52656	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36536	PF Power Coefficient (p)	0.74471
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3168	-	-	55.2

Vehicle Results

Average Speed, mi/h	55.2	Percent Followers, %	15.2
Segment Travel Time, minutes	0.65	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 6

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1584
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	26.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	59	Opposing Demand Flow Rate, veh/h	44
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.6
Speed Slope Coefficient (m)	2.92171	Speed Power Coefficient (p)	0.60561
PF Slope Coefficient (m)	-1.25510	PF Power Coefficient (p)	0.77474
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	50.6

Vehicle Results

Average Speed, mi/h	50.6	Percent Followers, %	13.0
Segment Travel Time, minutes	0.36	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 7

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	12302
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	8.6

Demand and Capacity

Directional Demand Flow Rate, veh/h	59	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	55.1
Speed Slope Coefficient (m)	3.59986	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36038	PF Power Coefficient (p)	0.70449
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	12302	-	-	55.1

Vehicle Results

Average Speed, mi/h	55.1	Percent Followers, %	16.8
Segment Travel Time, minutes	2.54	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 8

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1003
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	45	Access Point Density, pts/mi	20.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	59	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.8
Speed Slope Coefficient (m)	2.72189	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.50480	PF Power Coefficient (p)	0.68051
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1003	-	-	40.8

Vehicle Results

Average Speed, mi/h	40.8	Percent Followers, %	19.6
Segment Travel Time, minutes	0.28	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 9

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1869
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	35	Access Point Density, pts/mi	57.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	59	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	24.4
Speed Slope Coefficient (m)	1.84278	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.38415	PF Power Coefficient (p)	0.60433
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

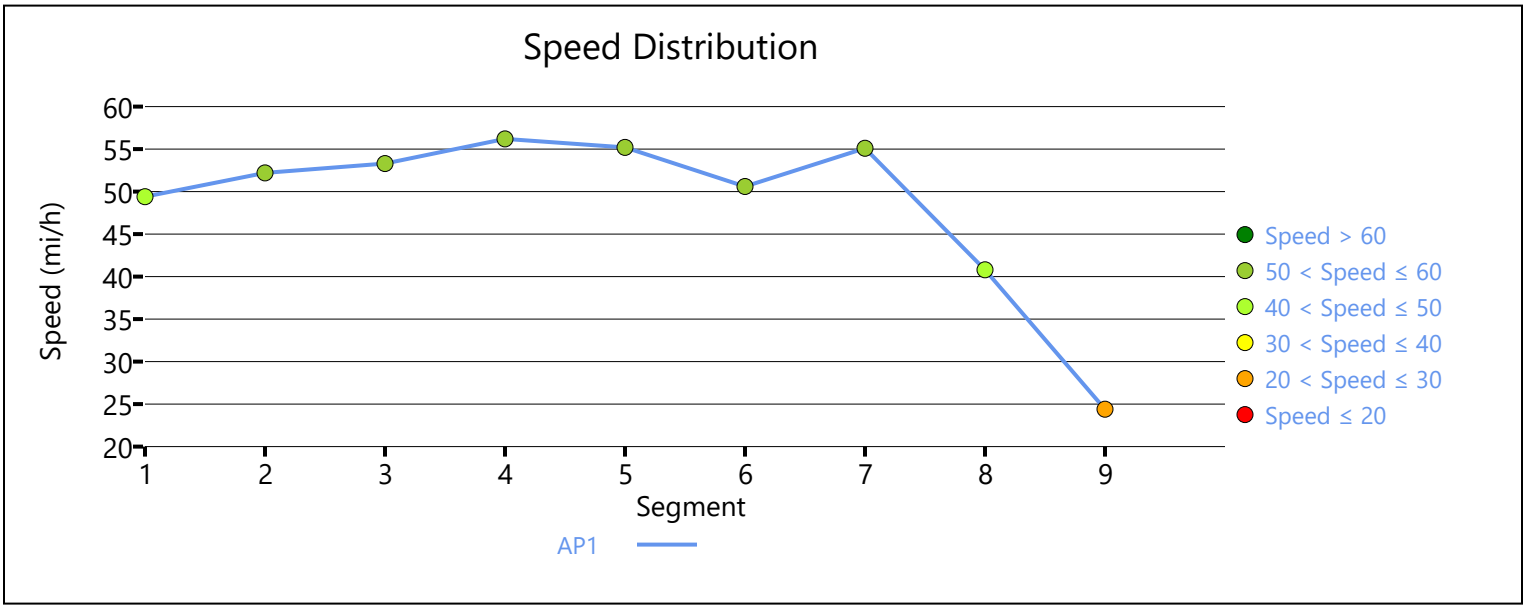
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1869	-	-	24.4

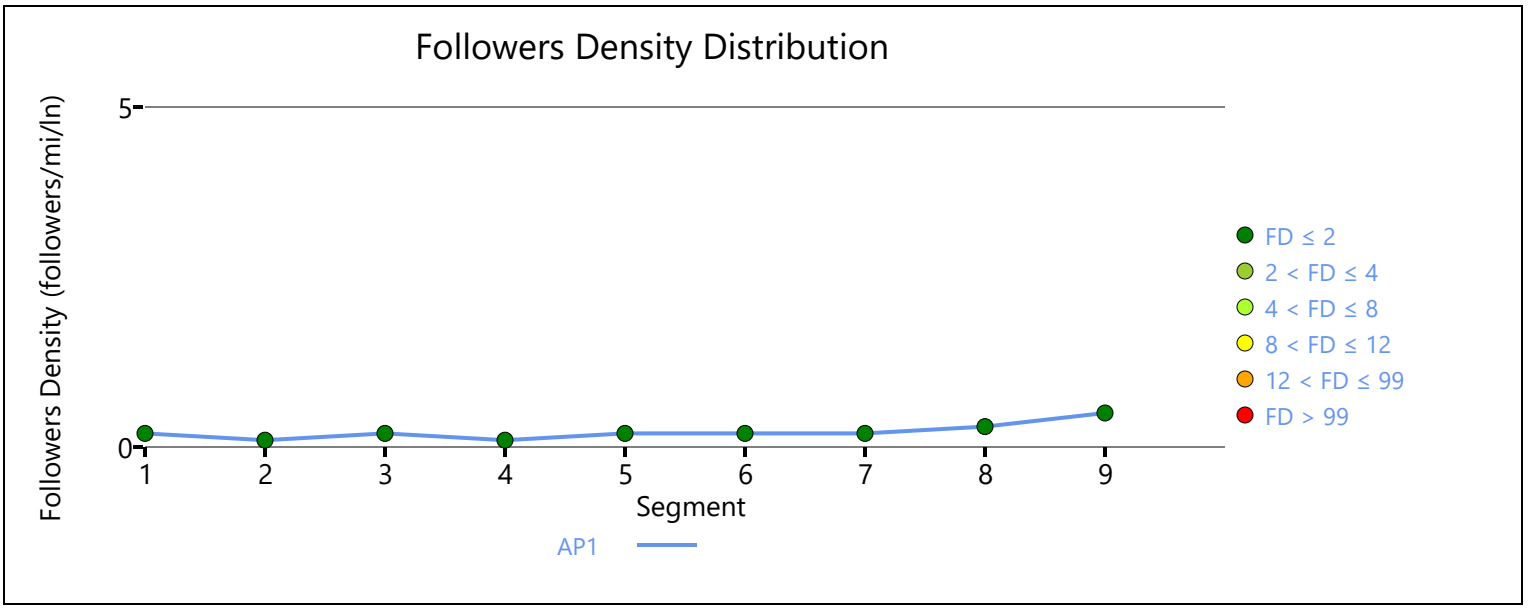
Vehicle Results

Average Speed, mi/h	24.4	Percent Followers, %	22.0
Segment Travel Time, minutes	0.87	Follower Density (FD), followers/mi/ln	0.5
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	80	0.00	0.2	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing AM
Project Description	KY 344	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	512
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	35	Access Point Density, pts/mi	20.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	35	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	29.5
Speed Slope Coefficient (m)	2.10943	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.46561	PF Power Coefficient (p)	0.62573
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	512	-	-	29.5

Vehicle Results

Average Speed, mi/h	29.5	Percent Followers, %	16.5
Segment Travel Time, minutes	0.20	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2518
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	27.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	35	Opposing Demand Flow Rate, veh/h	27
Peak Hour Factor	0.94	Total Trucks, %	2.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	50.5
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.62179
PF Slope Coefficient (m)	-1.20383	PF Power Coefficient (p)	0.77717
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2518	-	-	50.5

Vehicle Results

Average Speed, mi/h	50.5	Percent Followers, %	8.5
Segment Travel Time, minutes	0.57	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 3

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	327
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	24.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	35	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	51.3
Speed Slope Coefficient (m)	3.29099	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.46577	PF Power Coefficient (p)	0.71525
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	327	-	-	51.3

Vehicle Results

Average Speed, mi/h	51.3	Percent Followers, %	12.5
Segment Travel Time, minutes	0.07	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 4

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1592
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	20.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	37	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.3
Speed Slope Coefficient (m)	3.35025	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.44258	PF Power Coefficient (p)	0.72248
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	52.3

Vehicle Results

Average Speed, mi/h	52.3	Percent Followers, %	12.5
Segment Travel Time, minutes	0.35	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 5

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1525
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	26.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	37	Opposing Demand Flow Rate, veh/h	28
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.7
Speed Slope Coefficient (m)	2.91171	Speed Power Coefficient (p)	0.61936
PF Slope Coefficient (m)	-1.24427	PF Power Coefficient (p)	0.77686
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	50.7

Vehicle Results

Average Speed, mi/h	50.7	Percent Followers, %	9.2
Segment Travel Time, minutes	0.34	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 6

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	528
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	30.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	37	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	49.8
Speed Slope Coefficient (m)	3.20969	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.47482	PF Power Coefficient (p)	0.71104
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	528	-	-	49.8

Vehicle Results

Average Speed, mi/h	49.8	Percent Followers, %	13.2
Segment Travel Time, minutes	0.12	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 7

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1584
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	10.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	37	Opposing Demand Flow Rate, veh/h	28
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	3	Free-Flow Speed, mi/h	54.6
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.70657
PF Slope Coefficient (m)	-1.16319	PF Power Coefficient (p)	0.78625
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	54.6

Vehicle Results

Average Speed, mi/h	54.6	Percent Followers, %	8.4
Segment Travel Time, minutes	0.33	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 8

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	528
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	0.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	37	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	57.3
Speed Slope Coefficient (m)	3.61619	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.42067	PF Power Coefficient (p)	0.73029
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	528	-	-	57.3

Vehicle Results

Average Speed, mi/h	57.3	Percent Followers, %	12.1
Segment Travel Time, minutes	0.10	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 9

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2112
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	5.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	37	Opposing Demand Flow Rate, veh/h	28
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	56.0
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.65161
PF Slope Coefficient (m)	-1.20105	PF Power Coefficient (p)	0.79250
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2112	-	-	56.0

Vehicle Results

Average Speed, mi/h	56.0	Percent Followers, %	8.5
Segment Travel Time, minutes	0.43	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 10

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1056
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	28.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	37	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.3
Speed Slope Coefficient (m)	3.23679	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.47191	PF Power Coefficient (p)	0.71247
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

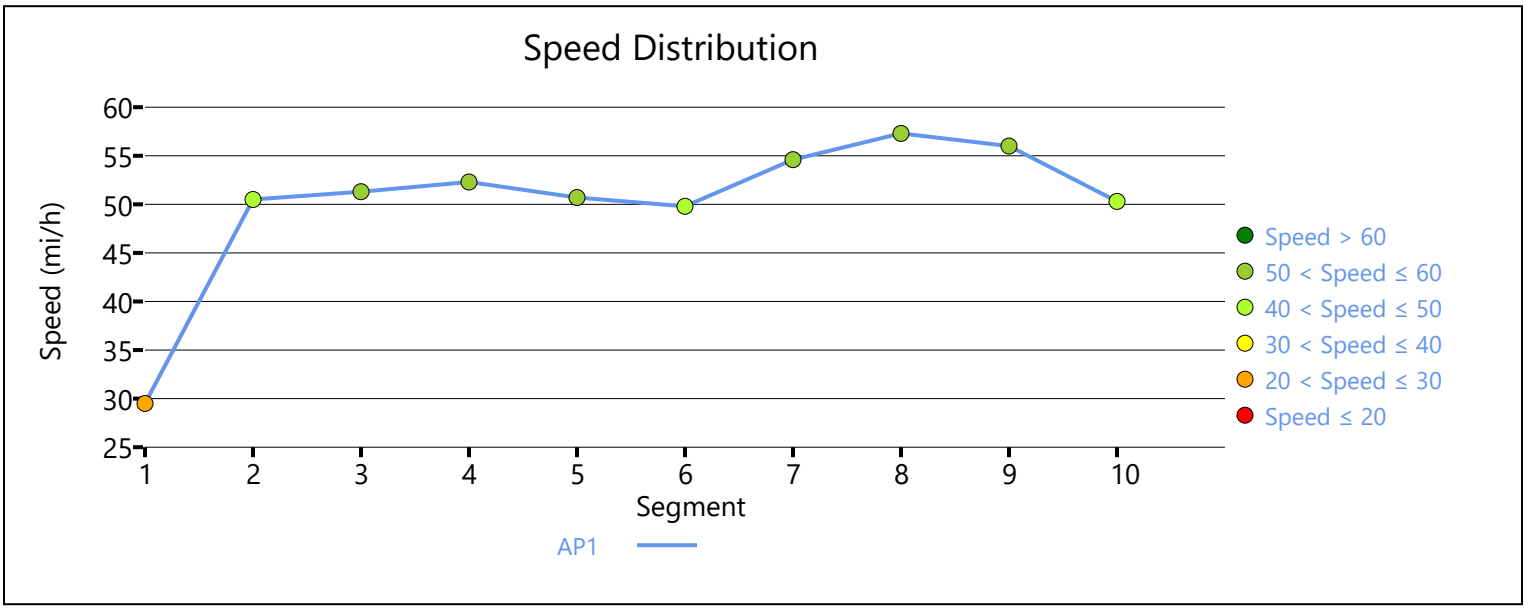
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1056	-	-	50.3

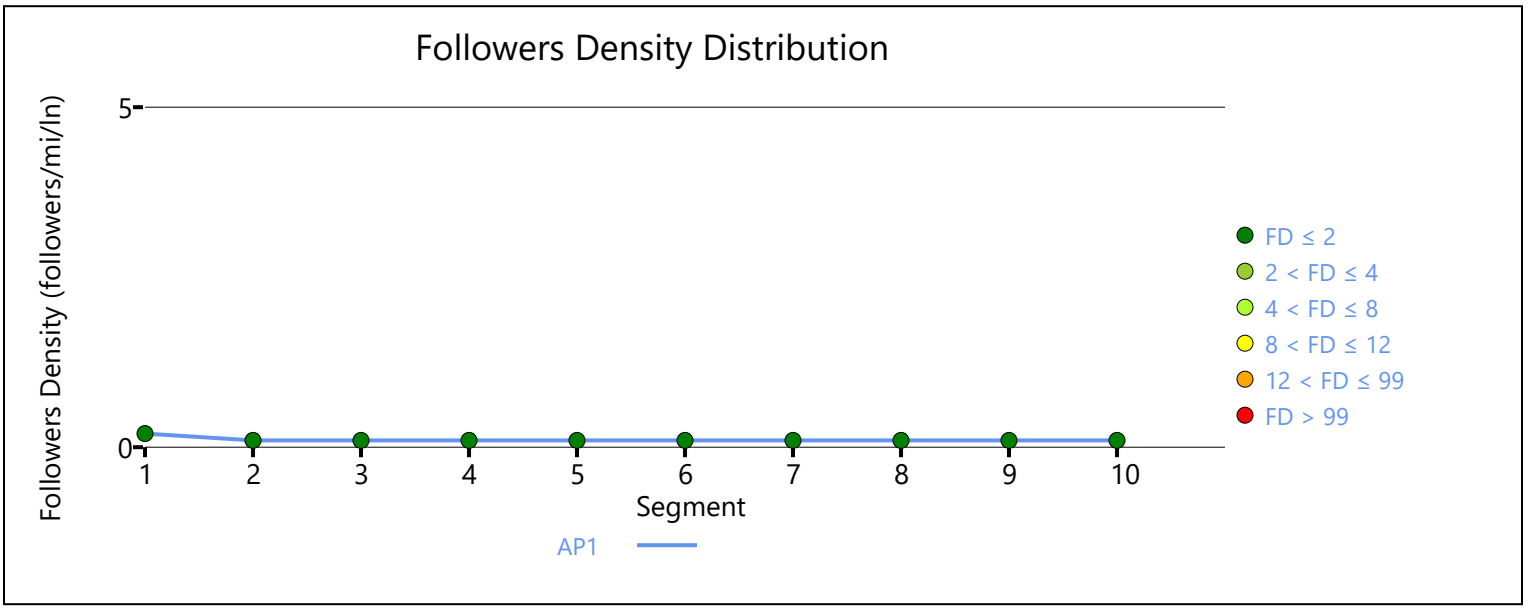
Vehicle Results

Average Speed, mi/h	50.3	Percent Followers, %	13.2
Segment Travel Time, minutes	0.24	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	20	0.00	0.1	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing PM
Project Description	KY 344	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	512
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	35	Access Point Density, pts/mi	20.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	57	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	29.5
Speed Slope Coefficient (m)	2.10943	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.46561	PF Power Coefficient (p)	0.62573
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.4
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	512	-	-	29.5

Vehicle Results

Average Speed, mi/h	29.5	Percent Followers, %	21.8
Segment Travel Time, minutes	0.20	Follower Density (FD), followers/mi/ln	0.4
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2518
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	27.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	57	Opposing Demand Flow Rate, veh/h	43
Peak Hour Factor	0.94	Total Trucks, %	2.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	50.5
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.60526
PF Slope Coefficient (m)	-1.21726	PF Power Coefficient (p)	0.77397
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2518	-	-	50.5

Vehicle Results

Average Speed, mi/h	50.5	Percent Followers, %	12.5
Segment Travel Time, minutes	0.57	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 3

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	327
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	24.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	57	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	51.3
Speed Slope Coefficient (m)	3.29099	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.46577	PF Power Coefficient (p)	0.71525
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	327	-	-	51.3

Vehicle Results

Average Speed, mi/h	51.3	Percent Followers, %	17.3
Segment Travel Time, minutes	0.07	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 4

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1592
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	20.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	67	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.3
Speed Slope Coefficient (m)	3.35025	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.44258	PF Power Coefficient (p)	0.72248
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	52.3

Vehicle Results

Average Speed, mi/h	52.3	Percent Followers, %	18.5
Segment Travel Time, minutes	0.35	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 5

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1525
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	26.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	67	Opposing Demand Flow Rate, veh/h	48
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.7
Speed Slope Coefficient (m)	2.92891	Speed Power Coefficient (p)	0.60294
PF Slope Coefficient (m)	-1.26041	PF Power Coefficient (p)	0.77331
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	50.7

Vehicle Results

Average Speed, mi/h	50.7	Percent Followers, %	14.4
Segment Travel Time, minutes	0.34	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 6

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	528
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	30.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	67	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	49.8
Speed Slope Coefficient (m)	3.20969	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.47482	PF Power Coefficient (p)	0.71104
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	528	-	-	49.8

Vehicle Results

Average Speed, mi/h	49.8	Percent Followers, %	19.4
Segment Travel Time, minutes	0.12	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 7

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1584
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	10.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	67	Opposing Demand Flow Rate, veh/h	48
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	3	Free-Flow Speed, mi/h	54.6
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.67969
PF Slope Coefficient (m)	-1.18377	PF Power Coefficient (p)	0.78189
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	54.6

Vehicle Results

Average Speed, mi/h	54.6	Percent Followers, %	13.3
Segment Travel Time, minutes	0.33	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 8

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	528
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	0.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	67	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	57.3
Speed Slope Coefficient (m)	3.61619	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.42067	PF Power Coefficient (p)	0.73029
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	528	-	-	57.3

Vehicle Results

Average Speed, mi/h	57.3	Percent Followers, %	17.9
Segment Travel Time, minutes	0.10	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 9

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2112
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	5.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	67	Opposing Demand Flow Rate, veh/h	48
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	56.0
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.63164
PF Slope Coefficient (m)	-1.21718	PF Power Coefficient (p)	0.78859
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2112	-	-	56.0

Vehicle Results

Average Speed, mi/h	56.0	Percent Followers, %	13.5
Segment Travel Time, minutes	0.43	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 10

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1056
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	28.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	67	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.3
Speed Slope Coefficient (m)	3.23679	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.47191	PF Power Coefficient (p)	0.71247
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

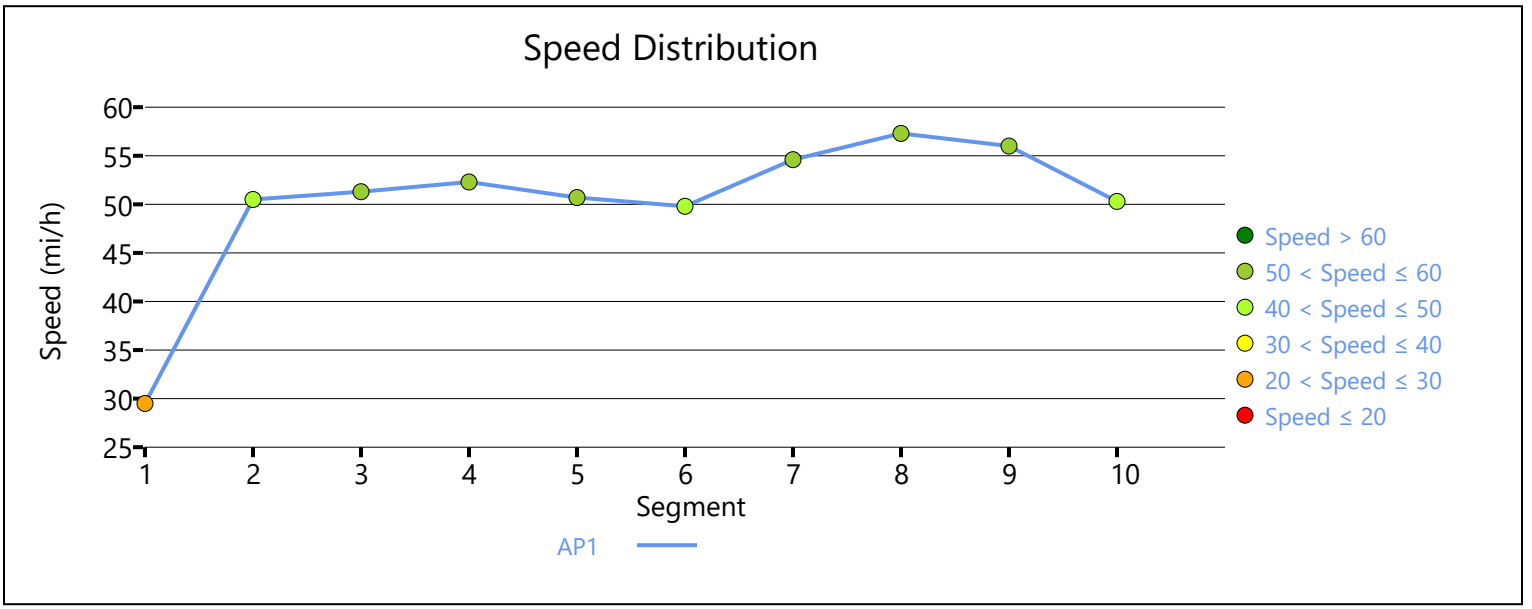
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1056	-	-	50.3

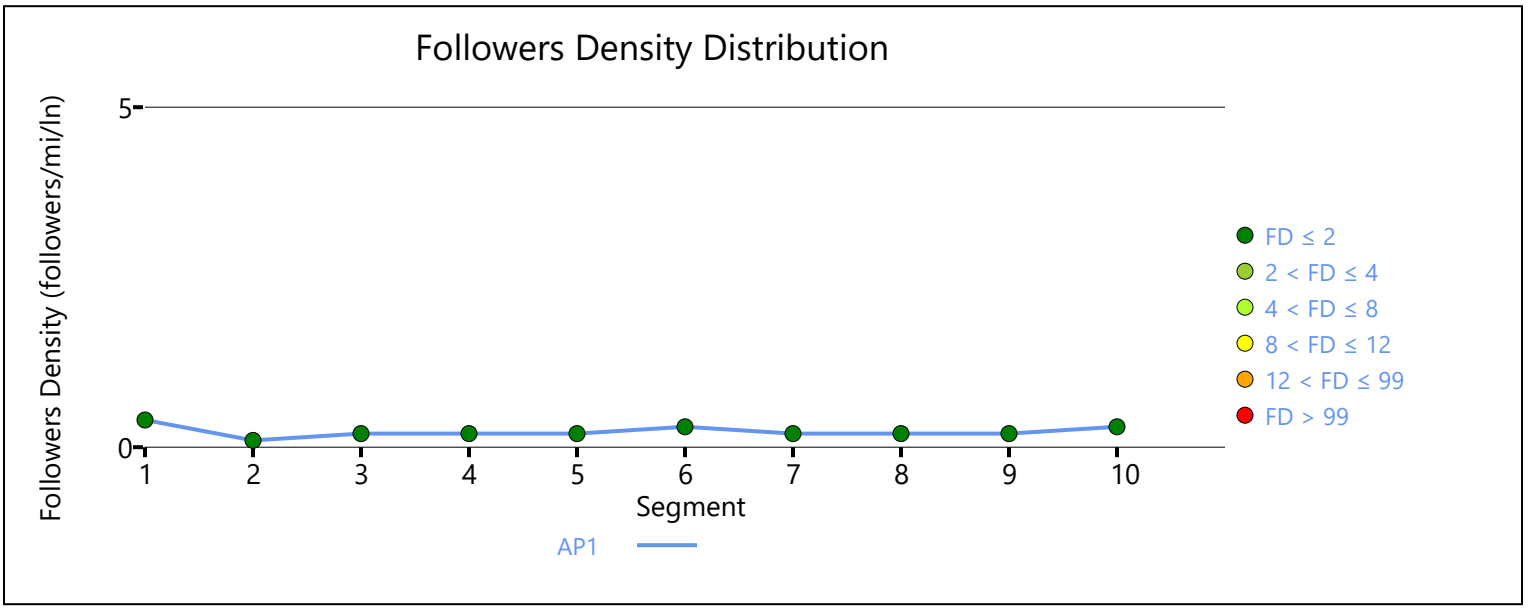
Vehicle Results

Average Speed, mi/h	50.3	Percent Followers, %	19.3
Segment Travel Time, minutes	0.24	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	35	0.00	0.2	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing AM
Project Description	KY 57	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	3833
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	24.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	61	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	51.1
Speed Slope Coefficient (m)	3.31561	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.37832	PF Power Coefficient (p)	0.73598
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3833	-	-	51.1

Vehicle Results

Average Speed, mi/h	51.1	Percent Followers, %	16.1
Segment Travel Time, minutes	0.85	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	528
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	61	Opposing Demand Flow Rate, veh/h	32
Peak Hour Factor	0.94	Total Trucks, %	3.50

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	54.3
Speed Slope Coefficient (m)	3.10797	Speed Power Coefficient (p)	0.61544
PF Slope Coefficient (m)	-1.25102	PF Power Coefficient (p)	0.78296
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	528	-	-	54.3

Vehicle Results

Average Speed, mi/h	54.3	Percent Followers, %	13.0
Segment Travel Time, minutes	0.11	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 3

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2580
Lane Width, ft	9	Shoulder Width, ft	6
Speed Limit, mi/h	55	Access Point Density, pts/mi	4.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	61	Opposing Demand Flow Rate, veh/h	32
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	3	Free-Flow Speed, mi/h	59.3
Speed Slope Coefficient (m)	4.07289	Speed Power Coefficient (p)	0.78235
PF Slope Coefficient (m)	-1.11374	PF Power Coefficient (p)	0.81930
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2580	-	-	59.3

Vehicle Results

Average Speed, mi/h	59.3	Percent Followers, %	10.6
Segment Travel Time, minutes	0.49	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 4

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1400
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	55	Access Point Density, pts/mi	7.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	61	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	3	Free-Flow Speed, mi/h	60.1
Speed Slope Coefficient (m)	4.77922	Speed Power Coefficient (p)	0.53696
PF Slope Coefficient (m)	-1.47099	PF Power Coefficient (p)	0.73766
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1400	-	-	60.1

Vehicle Results

Average Speed, mi/h	60.1	Percent Followers, %	17.0
Segment Travel Time, minutes	0.26	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 5

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1399
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	55	Access Point Density, pts/mi	7.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	61	Opposing Demand Flow Rate, veh/h	32
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	60.6
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.68039
PF Slope Coefficient (m)	-1.22401	PF Power Coefficient (p)	0.79499
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1399	-	-	60.6

Vehicle Results

Average Speed, mi/h	60.6	Percent Followers, %	12.4
Segment Travel Time, minutes	0.26	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 6

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4187
Lane Width, ft	10	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	8.9

Demand and Capacity

Directional Demand Flow Rate, veh/h	83	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	55.7
Speed Slope Coefficient (m)	3.56613	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.34280	PF Power Coefficient (p)	0.74945
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4187	-	-	55.7

Vehicle Results

Average Speed, mi/h	55.7	Percent Followers, %	18.8
Segment Travel Time, minutes	0.85	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 7

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4905
Lane Width, ft	10	Shoulder Width, ft	1
Speed Limit, mi/h	35	Access Point Density, pts/mi	39.8

Demand and Capacity

Directional Demand Flow Rate, veh/h	83	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	25.1
Speed Slope Coefficient (m)	1.91896	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.32538	PF Power Coefficient (p)	0.62496
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.8
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4905	-	-	25.1

Vehicle Results

Average Speed, mi/h	25.1	Percent Followers, %	24.4
Segment Travel Time, minutes	2.22	Follower Density (FD), followers/mi/ln	0.8
Vehicle LOS	A		

Segment 8

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1162
Lane Width, ft	10	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	83	Opposing Demand Flow Rate, veh/h	45
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	55.8
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.63900
PF Slope Coefficient (m)	-1.26501	PF Power Coefficient (p)	0.77411
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1162	-	-	55.8

Vehicle Results

Average Speed, mi/h	55.8	Percent Followers, %	16.8
Segment Travel Time, minutes	0.24	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 9

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	8686
Lane Width, ft	12	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	7.3

Demand and Capacity

Directional Demand Flow Rate, veh/h	83	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	57.3
Speed Slope Coefficient (m)	3.69306	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.31619	PF Power Coefficient (p)	0.73942
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	8686	-	-	57.3

Vehicle Results

Average Speed, mi/h	57.3	Percent Followers, %	18.9
Segment Travel Time, minutes	1.72	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 10

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1177
Lane Width, ft	10	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	28.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	83	Opposing Demand Flow Rate, veh/h	45
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.9
Speed Slope Coefficient (m)	2.93442	Speed Power Coefficient (p)	0.60522
PF Slope Coefficient (m)	-1.26835	PF Power Coefficient (p)	0.77025
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1177	-	-	50.9

Vehicle Results

Average Speed, mi/h	50.9	Percent Followers, %	17.0
Segment Travel Time, minutes	0.26	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 11

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1420
Lane Width, ft	12	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	11.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	83	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	56.3
Speed Slope Coefficient (m)	3.56256	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.42277	PF Power Coefficient (p)	0.72994
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1420	-	-	56.3

Vehicle Results

Average Speed, mi/h	56.3	Percent Followers, %	20.6
Segment Travel Time, minutes	0.29	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 12

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	10212
Lane Width, ft	11	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	83	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	55.4
Speed Slope Coefficient (m)	3.60216	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.33893	PF Power Coefficient (p)	0.72336
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	10212	-	-	55.4

Vehicle Results

Average Speed, mi/h	55.4	Percent Followers, %	19.8
Segment Travel Time, minutes	2.10	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 13

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	608
Lane Width, ft	11	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	4.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	189	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.11

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	57.3
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.42136
PF Slope Coefficient (m)	-1.52652	PF Power Coefficient (p)	0.71538
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	1.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	608	-	-	56.2

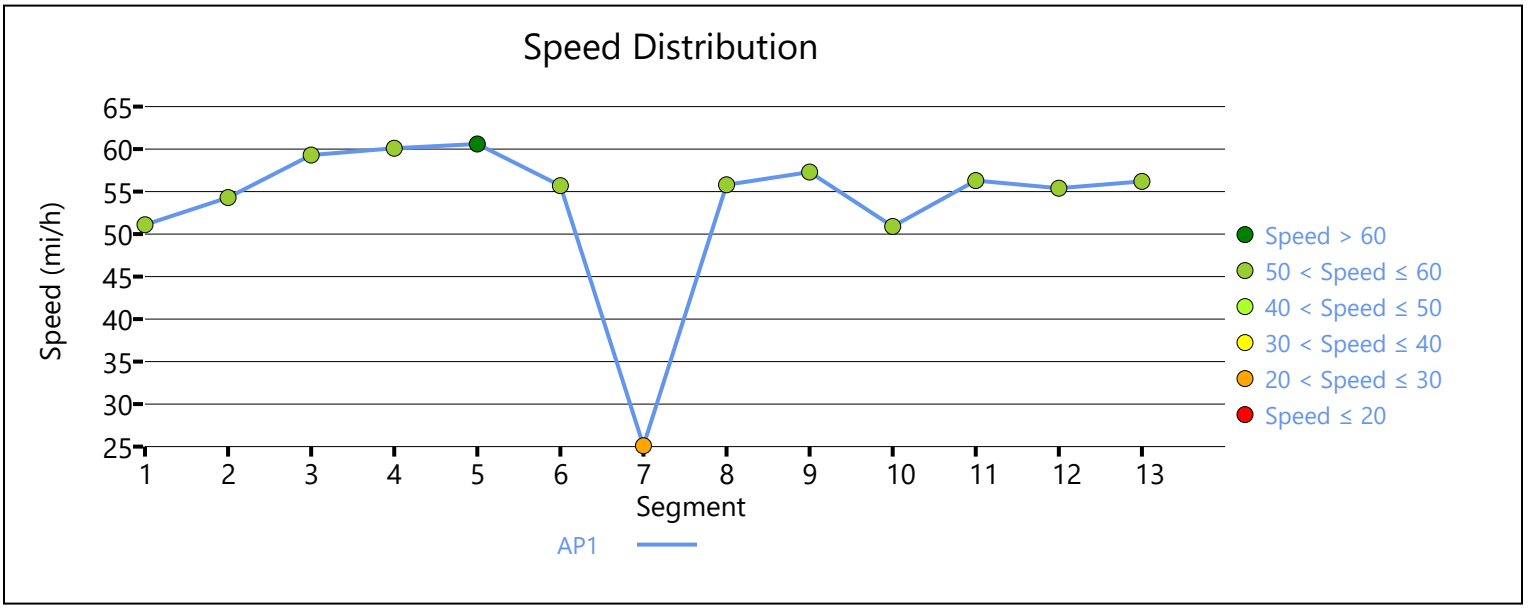
Vehicle Results

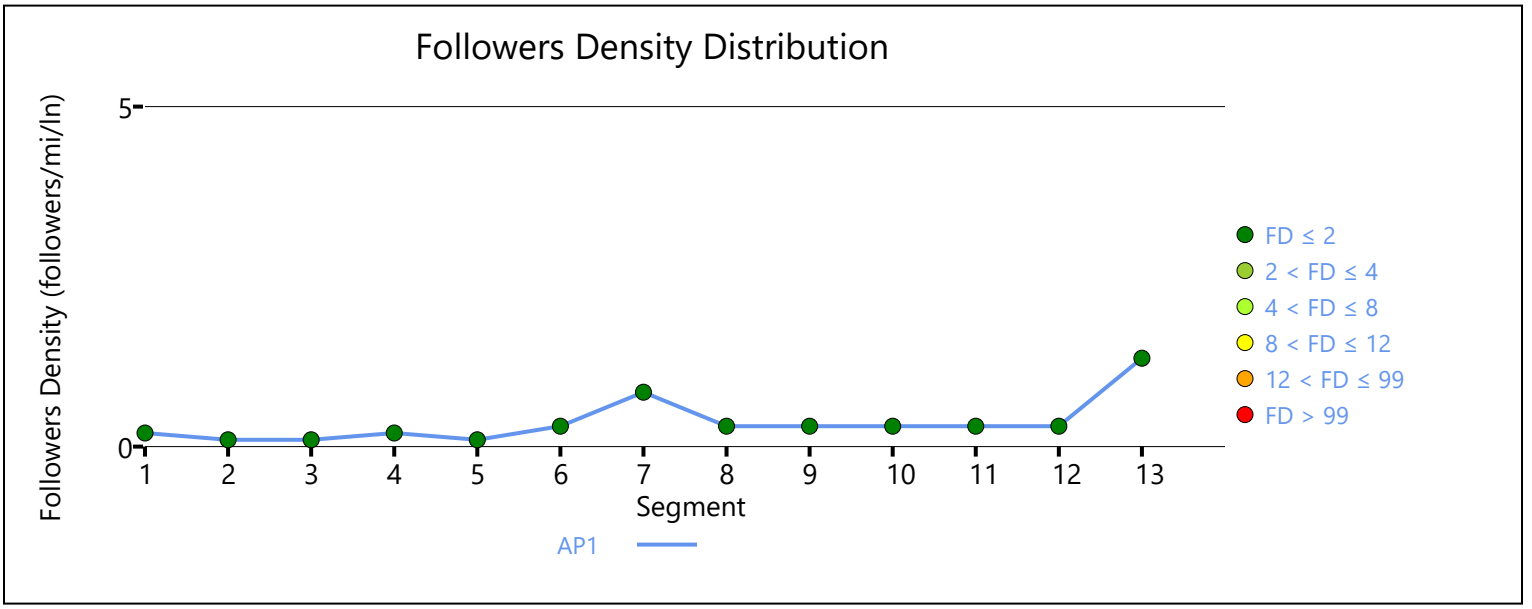
Average Speed, mi/h	56.2	Percent Followers, %	37.1
Segment Travel Time, minutes	0.12	Follower Density (FD), followers/mi/ln	1.3
Vehicle LOS	A		

Facility Results

T	VMT	VHD	Follower Density, followers/	LOS

	veh-mi/p	veh-h/p	mi/ln	
1	149	0.00	0.3	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing PM
Project Description	KY 57	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	3833
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	24.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	124	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	51.1
Speed Slope Coefficient (m)	3.31561	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.37832	PF Power Coefficient (p)	0.73598
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.6
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3833	-	-	50.4

Vehicle Results

Average Speed, mi/h	50.4	Percent Followers, %	25.7
Segment Travel Time, minutes	0.86	Follower Density (FD), followers/mi/ln	0.6
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	528
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	124	Opposing Demand Flow Rate, veh/h	68
Peak Hour Factor	0.94	Total Trucks, %	3.50

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	54.3
Speed Slope Coefficient (m)	3.13495	Speed Power Coefficient (p)	0.59025
PF Slope Coefficient (m)	-1.27577	PF Power Coefficient (p)	0.77756
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	528	-	-	53.9

Vehicle Results

Average Speed, mi/h	53.9	Percent Followers, %	22.3
Segment Travel Time, minutes	0.11	Follower Density (FD), followers/mi/ln	0.5
Vehicle LOS	A		

Segment 3

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2580
Lane Width, ft	9	Shoulder Width, ft	6
Speed Limit, mi/h	55	Access Point Density, pts/mi	4.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	124	Opposing Demand Flow Rate, veh/h	68
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	3	Free-Flow Speed, mi/h	59.3
Speed Slope Coefficient (m)	4.16555	Speed Power Coefficient (p)	0.74144
PF Slope Coefficient (m)	-1.14385	PF Power Coefficient (p)	0.81165
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.4
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2580	-	-	59.0

Vehicle Results

Average Speed, mi/h	59.0	Percent Followers, %	19.0
Segment Travel Time, minutes	0.50	Follower Density (FD), followers/mi/ln	0.4
Vehicle LOS	A		

Segment 4

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1400
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	55	Access Point Density, pts/mi	7.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	124	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	3	Free-Flow Speed, mi/h	60.1
Speed Slope Coefficient (m)	4.77922	Speed Power Coefficient (p)	0.53696
PF Slope Coefficient (m)	-1.47099	PF Power Coefficient (p)	0.73766
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.6
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1400	-	-	59.5

Vehicle Results

Average Speed, mi/h	59.5	Percent Followers, %	27.1
Segment Travel Time, minutes	0.27	Follower Density (FD), followers/mi/ln	0.6
Vehicle LOS	A		

Segment 5

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1399
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	55	Access Point Density, pts/mi	7.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	124	Opposing Demand Flow Rate, veh/h	68
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	60.6
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.64975
PF Slope Coefficient (m)	-1.24948	PF Power Coefficient (p)	0.78919
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.4
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1399	-	-	60.3

Vehicle Results

Average Speed, mi/h	60.3	Percent Followers, %	21.4
Segment Travel Time, minutes	0.26	Follower Density (FD), followers/mi/ln	0.4
Vehicle LOS	A		

Segment 6

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4187
Lane Width, ft	10	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	8.9

Demand and Capacity

Directional Demand Flow Rate, veh/h	74	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	55.7
Speed Slope Coefficient (m)	3.56613	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.34280	PF Power Coefficient (p)	0.74945
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4187	-	-	55.7

Vehicle Results

Average Speed, mi/h	55.7	Percent Followers, %	17.4
Segment Travel Time, minutes	0.85	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 7

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4905
Lane Width, ft	10	Shoulder Width, ft	1
Speed Limit, mi/h	35	Access Point Density, pts/mi	39.8

Demand and Capacity

Directional Demand Flow Rate, veh/h	74	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	25.1
Speed Slope Coefficient (m)	1.91896	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.32538	PF Power Coefficient (p)	0.62496
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.7
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4905	-	-	25.1

Vehicle Results

Average Speed, mi/h	25.1	Percent Followers, %	23.0
Segment Travel Time, minutes	2.22	Follower Density (FD), followers/mi/ln	0.7
Vehicle LOS	A		

Segment 8

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1162
Lane Width, ft	10	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	74	Opposing Demand Flow Rate, veh/h	40
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	55.8
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.64288
PF Slope Coefficient (m)	-1.26168	PF Power Coefficient (p)	0.77479
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1162	-	-	55.8

Vehicle Results

Average Speed, mi/h	55.8	Percent Followers, %	15.5
Segment Travel Time, minutes	0.24	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 9

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	8686
Lane Width, ft	12	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	7.3

Demand and Capacity

Directional Demand Flow Rate, veh/h	74	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	57.3
Speed Slope Coefficient (m)	3.69306	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.31619	PF Power Coefficient (p)	0.73942
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	8686	-	-	57.3

Vehicle Results

Average Speed, mi/h	57.3	Percent Followers, %	17.5
Segment Travel Time, minutes	1.72	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 10

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1177
Lane Width, ft	10	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	28.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	74	Opposing Demand Flow Rate, veh/h	40
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.9
Speed Slope Coefficient (m)	2.93104	Speed Power Coefficient (p)	0.60842
PF Slope Coefficient (m)	-1.26517	PF Power Coefficient (p)	0.77093
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1177	-	-	50.9

Vehicle Results

Average Speed, mi/h	50.9	Percent Followers, %	15.7
Segment Travel Time, minutes	0.26	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 11

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1420
Lane Width, ft	12	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	11.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	74	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	56.3
Speed Slope Coefficient (m)	3.56256	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.42277	PF Power Coefficient (p)	0.72994
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1420	-	-	56.3

Vehicle Results

Average Speed, mi/h	56.3	Percent Followers, %	19.2
Segment Travel Time, minutes	0.29	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 12

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	10212
Lane Width, ft	11	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	74	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	55.4
Speed Slope Coefficient (m)	3.60216	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.33893	PF Power Coefficient (p)	0.72336
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	10212	-	-	55.4

Vehicle Results

Average Speed, mi/h	55.4	Percent Followers, %	18.5
Segment Travel Time, minutes	2.10	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 13

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	608
Lane Width, ft	11	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	4.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	230	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.14

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	57.3
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.42136
PF Slope Coefficient (m)	-1.52652	PF Power Coefficient (p)	0.71538
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	1.7
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	608	-	-	56.0

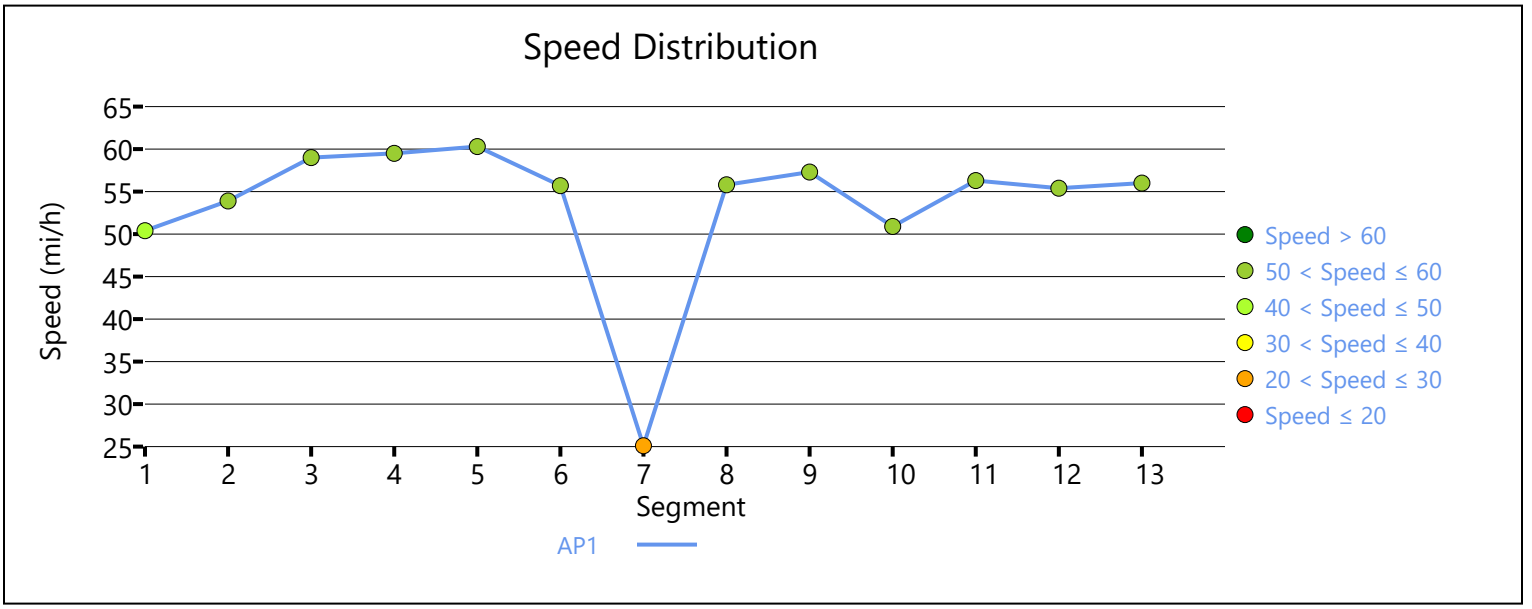
Vehicle Results

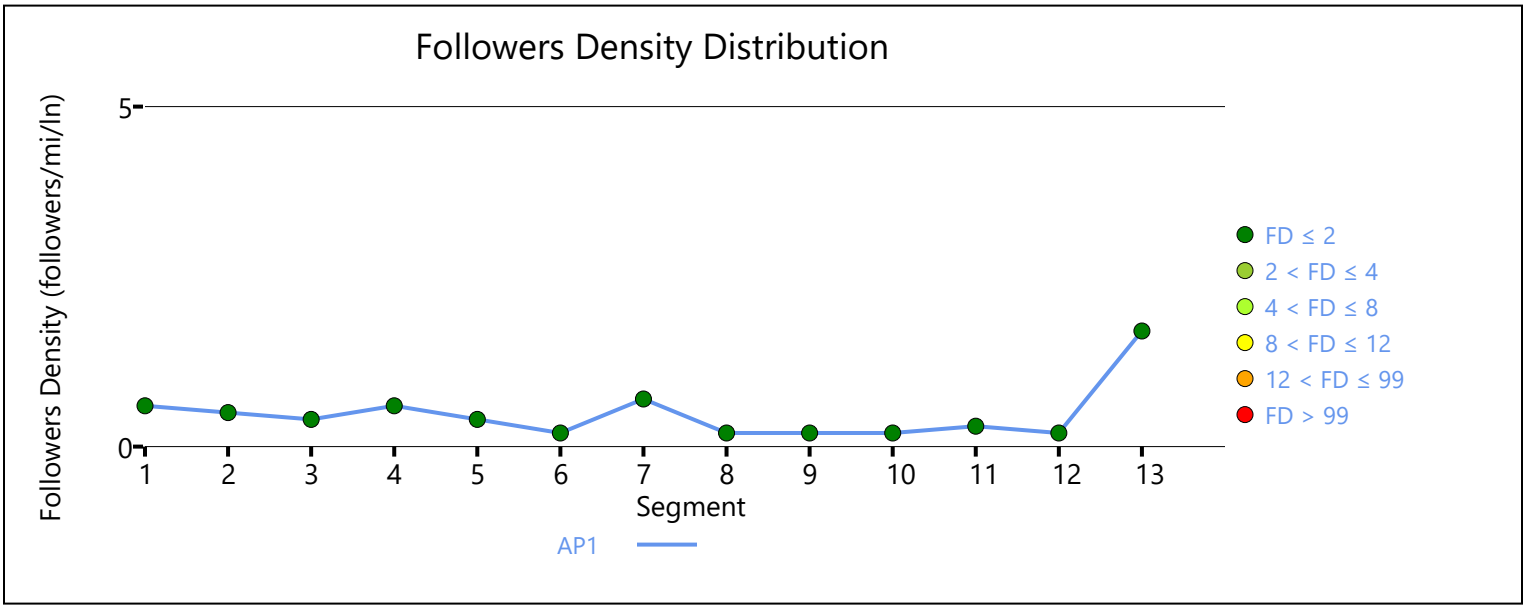
Average Speed, mi/h	56.0	Percent Followers, %	41.3
Segment Travel Time, minutes	0.12	Follower Density (FD), followers/mi/ln	1.7
Vehicle LOS	A		

Facility Results

T	VMT	VHD	Follower Density, followers/	LOS

	veh-mi/p	veh-h/p	mi/ln	
1	165	0.01	0.4	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing AM
Project Description	CR 1037	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2558
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	14.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	15	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	18.9
Speed Slope Coefficient (m)	1.55508	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.27783	PF Power Coefficient (p)	0.57790
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2558	-	-	18.9

Vehicle Results

Average Speed, mi/h	18.9	Percent Followers, %	10.6
Segment Travel Time, minutes	1.54	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	2	0.00	0.1	A

HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing PM
Project Description	CR 1037	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2558
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	14.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	18	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	18.9
Speed Slope Coefficient (m)	1.55508	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.27783	PF Power Coefficient (p)	0.57790
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2558	-	-	18.9

Vehicle Results

Average Speed, mi/h	18.9	Percent Followers, %	11.6
Segment Travel Time, minutes	1.54	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	2	0.00	0.1	A

HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing AM
Project Description	CR 1036	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	3025
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	12.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	20	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	19.4
Speed Slope Coefficient (m)	1.58682	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.27434	PF Power Coefficient (p)	0.58479
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3025	-	-	19.4

Vehicle Results

Average Speed, mi/h	19.4	Percent Followers, %	12.2
Segment Travel Time, minutes	1.77	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	3	0.00	0.1	A

HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing PM
Project Description	CR 1036	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	3025
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	12.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	15	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	19.4
Speed Slope Coefficient (m)	1.58682	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.27434	PF Power Coefficient (p)	0.58479
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3025	-	-	19.4

Vehicle Results

Average Speed, mi/h	19.4	Percent Followers, %	10.3
Segment Travel Time, minutes	1.77	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	2	0.00	0.1	A

HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing AM
Project Description	CR 1030	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4172
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	7.6

Demand and Capacity

Directional Demand Flow Rate, veh/h	13	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	20.5
Speed Slope Coefficient (m)	1.66165	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.27316	PF Power Coefficient (p)	0.59682
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4172	-	-	20.5

Vehicle Results

Average Speed, mi/h	20.5	Percent Followers, %	9.2
Segment Travel Time, minutes	2.31	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	2	0.00	0.1	A

HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Existing PM
Project Description	CR 1030	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4172
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	7.6

Demand and Capacity

Directional Demand Flow Rate, veh/h	12	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	20.5
Speed Slope Coefficient (m)	1.66165	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.27316	PF Power Coefficient (p)	0.59682
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4172	-	-	20.5

Vehicle Results

Average Speed, mi/h	20.5	Percent Followers, %	8.6
Segment Travel Time, minutes	2.31	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	2	0.00	0.0	A

CONSTRUCTION

HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2023
Jurisdiction		Time Analyzed	Construction AM
Project Description	CR 1027	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2575
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	6.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	41	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	20.9
Speed Slope Coefficient (m)	1.66210	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.30998	PF Power Coefficient (p)	0.59048
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.4
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2575	-	-	20.9

Vehicle Results

Average Speed, mi/h	20.9	Percent Followers, %	18.1
Segment Travel Time, minutes	1.40	Follower Density (FD), followers/mi/ln	0.4
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	5	0.00	0.4	A

HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2023
Jurisdiction		Time Analyzed	Construction PM
Project Description	CR 1027	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2575
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	6.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	54	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	20.9
Speed Slope Coefficient (m)	1.66210	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.30998	PF Power Coefficient (p)	0.59048
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2575	-	-	20.9

Vehicle Results

Average Speed, mi/h	20.9	Percent Followers, %	20.9
Segment Travel Time, minutes	1.40	Follower Density (FD), followers/mi/ln	0.5
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	6	0.00	0.5	A

HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2023
Jurisdiction		Time Analyzed	Construction AM
Project Description	KY 3301	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1584
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	33.3

Demand and Capacity

Directional Demand Flow Rate, veh/h	36	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	48.4
Speed Slope Coefficient (m)	3.13556	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.46639	PF Power Coefficient (p)	0.71076
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	48.4

Vehicle Results

Average Speed, mi/h	48.4	Percent Followers, %	12.9
Segment Travel Time, minutes	0.37	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1732
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	24.2

Demand and Capacity

Directional Demand Flow Rate, veh/h	36	Opposing Demand Flow Rate, veh/h	26
Peak Hour Factor	0.94	Total Trucks, %	0.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.6
Speed Slope Coefficient (m)	2.91212	Speed Power Coefficient (p)	0.62113
PF Slope Coefficient (m)	-1.23351	PF Power Coefficient (p)	0.78085
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1732	-	-	50.6

Vehicle Results

Average Speed, mi/h	50.6	Percent Followers, %	8.8
Segment Travel Time, minutes	0.39	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 3

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1056
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	36	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	53.7
Speed Slope Coefficient (m)	3.41926	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.44983	PF Power Coefficient (p)	0.72120
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1056	-	-	53.7

Vehicle Results

Average Speed, mi/h	53.7	Percent Followers, %	12.3
Segment Travel Time, minutes	0.22	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 4

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1796
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	2.9

Demand and Capacity

Directional Demand Flow Rate, veh/h	36	Opposing Demand Flow Rate, veh/h	26
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	56.0
Speed Slope Coefficient (m)	3.20182	Speed Power Coefficient (p)	0.62113
PF Slope Coefficient (m)	-1.21865	PF Power Coefficient (p)	0.79846
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1796	-	-	56.0

Vehicle Results

Average Speed, mi/h	56.0	Percent Followers, %	8.2
Segment Travel Time, minutes	0.36	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 5

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2565
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.2

Demand and Capacity

Directional Demand Flow Rate, veh/h	36	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	53.6
Speed Slope Coefficient (m)	3.43628	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.39290	PF Power Coefficient (p)	0.73652
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2565	-	-	53.6

Vehicle Results

Average Speed, mi/h	53.6	Percent Followers, %	11.3
Segment Travel Time, minutes	0.54	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 6

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2067
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	15.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	36	Opposing Demand Flow Rate, veh/h	26
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.9
Speed Slope Coefficient (m)	3.03763	Speed Power Coefficient (p)	0.62113
PF Slope Coefficient (m)	-1.21680	PF Power Coefficient (p)	0.79330
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2067	-	-	52.9

Vehicle Results

Average Speed, mi/h	52.9	Percent Followers, %	8.3
Segment Travel Time, minutes	0.44	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 7

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4526
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	10.5

Demand and Capacity

Directional Demand Flow Rate, veh/h	36	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	54.1
Speed Slope Coefficient (m)	3.48395	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.35008	PF Power Coefficient (p)	0.74489
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4526	-	-	54.1

Vehicle Results

Average Speed, mi/h	54.1	Percent Followers, %	10.7
Segment Travel Time, minutes	0.95	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 8

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3016
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	15.8

Demand and Capacity

Directional Demand Flow Rate, veh/h	36	Opposing Demand Flow Rate, veh/h	26
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.8
Speed Slope Coefficient (m)	3.04547	Speed Power Coefficient (p)	0.62113
PF Slope Coefficient (m)	-1.19121	PF Power Coefficient (p)	0.80322
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3016	-	-	52.8

Vehicle Results

Average Speed, mi/h	52.8	Percent Followers, %	7.9
Segment Travel Time, minutes	0.65	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 9

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	3185
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	15.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	34	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	53.0
Speed Slope Coefficient (m)	3.40708	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.38055	PF Power Coefficient (p)	0.73849
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

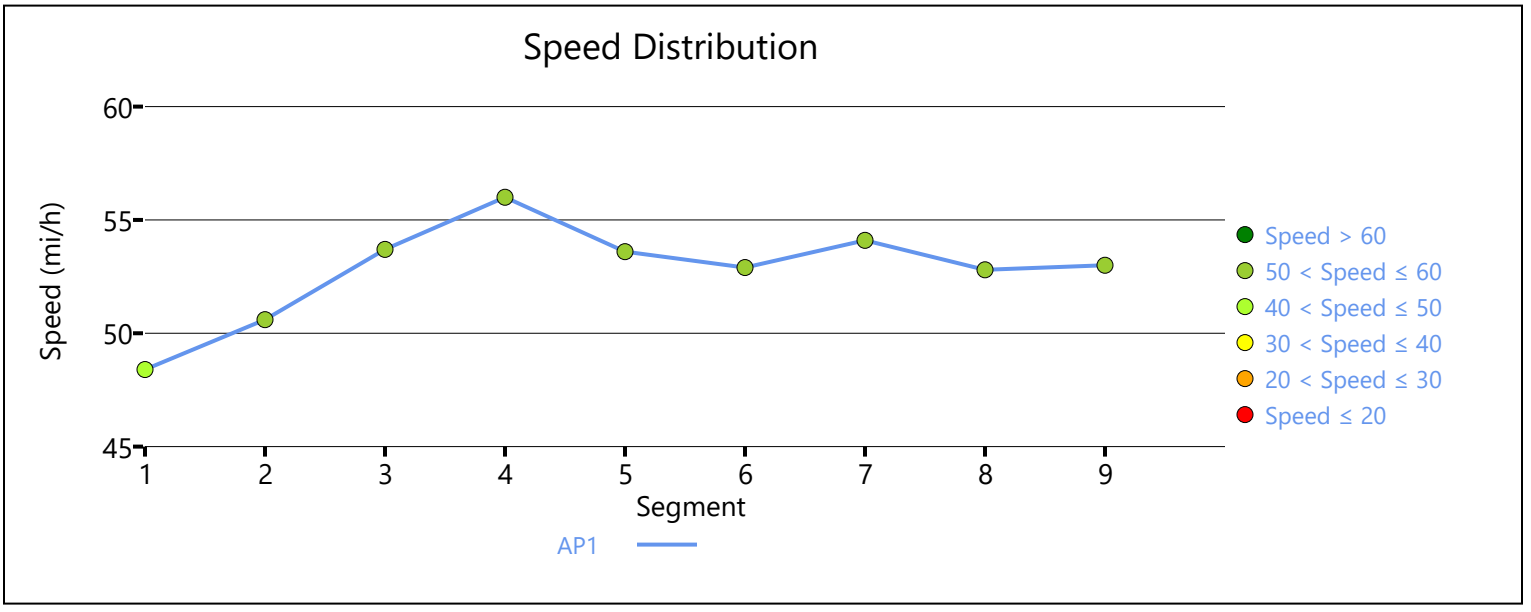
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3185	-	-	53.0

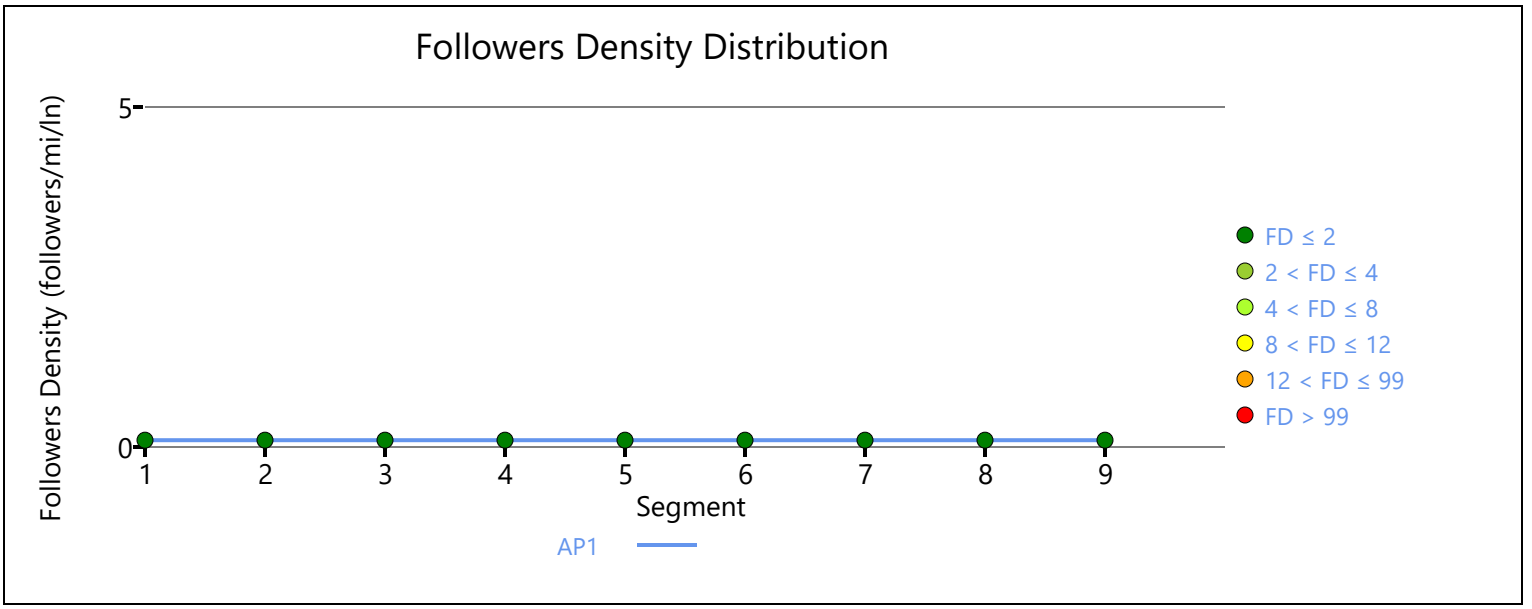
Vehicle Results

Average Speed, mi/h	53.0	Percent Followers, %	10.8
Segment Travel Time, minutes	0.68	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	34	0.00	0.1	A





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Agency	Stantec	Analysis Year	2023
Jurisdiction		Time Analyzed	Construction PM
Project Description	KY 3301	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1584
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	33.3

Demand and Capacity

Directional Demand Flow Rate, veh/h	37	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	48.4
Speed Slope Coefficient (m)	3.13556	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.46639	PF Power Coefficient (p)	0.71076
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	48.4

Vehicle Results

Average Speed, mi/h	48.4	Percent Followers, %	13.2
Segment Travel Time, minutes	0.37	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1732
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	24.2

Demand and Capacity

Directional Demand Flow Rate, veh/h	37	Opposing Demand Flow Rate, veh/h	26
Peak Hour Factor	0.94	Total Trucks, %	0.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.6
Speed Slope Coefficient (m)	2.91212	Speed Power Coefficient (p)	0.62113
PF Slope Coefficient (m)	-1.23351	PF Power Coefficient (p)	0.78085
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1732	-	-	50.6

Vehicle Results

Average Speed, mi/h	50.6	Percent Followers, %	9.0
Segment Travel Time, minutes	0.39	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 3

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1056
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	37	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	53.7
Speed Slope Coefficient (m)	3.41926	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.44983	PF Power Coefficient (p)	0.72120
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1056	-	-	53.7

Vehicle Results

Average Speed, mi/h	53.7	Percent Followers, %	12.7
Segment Travel Time, minutes	0.22	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 4

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1796
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	2.9

Demand and Capacity

Directional Demand Flow Rate, veh/h	37	Opposing Demand Flow Rate, veh/h	26
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	56.0
Speed Slope Coefficient (m)	3.20182	Speed Power Coefficient (p)	0.62113
PF Slope Coefficient (m)	-1.21865	PF Power Coefficient (p)	0.79846
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1796	-	-	56.0

Vehicle Results

Average Speed, mi/h	56.0	Percent Followers, %	8.4
Segment Travel Time, minutes	0.36	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 5

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2565
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.2

Demand and Capacity

Directional Demand Flow Rate, veh/h	37	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	53.6
Speed Slope Coefficient (m)	3.43628	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.39290	PF Power Coefficient (p)	0.73652
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2565	-	-	53.6

Vehicle Results

Average Speed, mi/h	53.6	Percent Followers, %	11.6
Segment Travel Time, minutes	0.54	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 6

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2067
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	15.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	37	Opposing Demand Flow Rate, veh/h	26
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.9
Speed Slope Coefficient (m)	3.03763	Speed Power Coefficient (p)	0.62113
PF Slope Coefficient (m)	-1.21680	PF Power Coefficient (p)	0.79330
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2067	-	-	52.9

Vehicle Results

Average Speed, mi/h	52.9	Percent Followers, %	8.6
Segment Travel Time, minutes	0.44	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 7

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4526
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	10.5

Demand and Capacity

Directional Demand Flow Rate, veh/h	37	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	54.1
Speed Slope Coefficient (m)	3.48395	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.35008	PF Power Coefficient (p)	0.74489
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4526	-	-	54.1

Vehicle Results

Average Speed, mi/h	54.1	Percent Followers, %	11.0
Segment Travel Time, minutes	0.95	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 8

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	3016
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	15.8

Demand and Capacity

Directional Demand Flow Rate, veh/h	37	Opposing Demand Flow Rate, veh/h	26
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.8
Speed Slope Coefficient (m)	3.04547	Speed Power Coefficient (p)	0.62113
PF Slope Coefficient (m)	-1.19121	PF Power Coefficient (p)	0.80322
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3016	-	-	52.8

Vehicle Results

Average Speed, mi/h	52.8	Percent Followers, %	8.1
Segment Travel Time, minutes	0.65	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 9

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	3185
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	15.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	40	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	0.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	53.0
Speed Slope Coefficient (m)	3.40708	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.38055	PF Power Coefficient (p)	0.73849
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

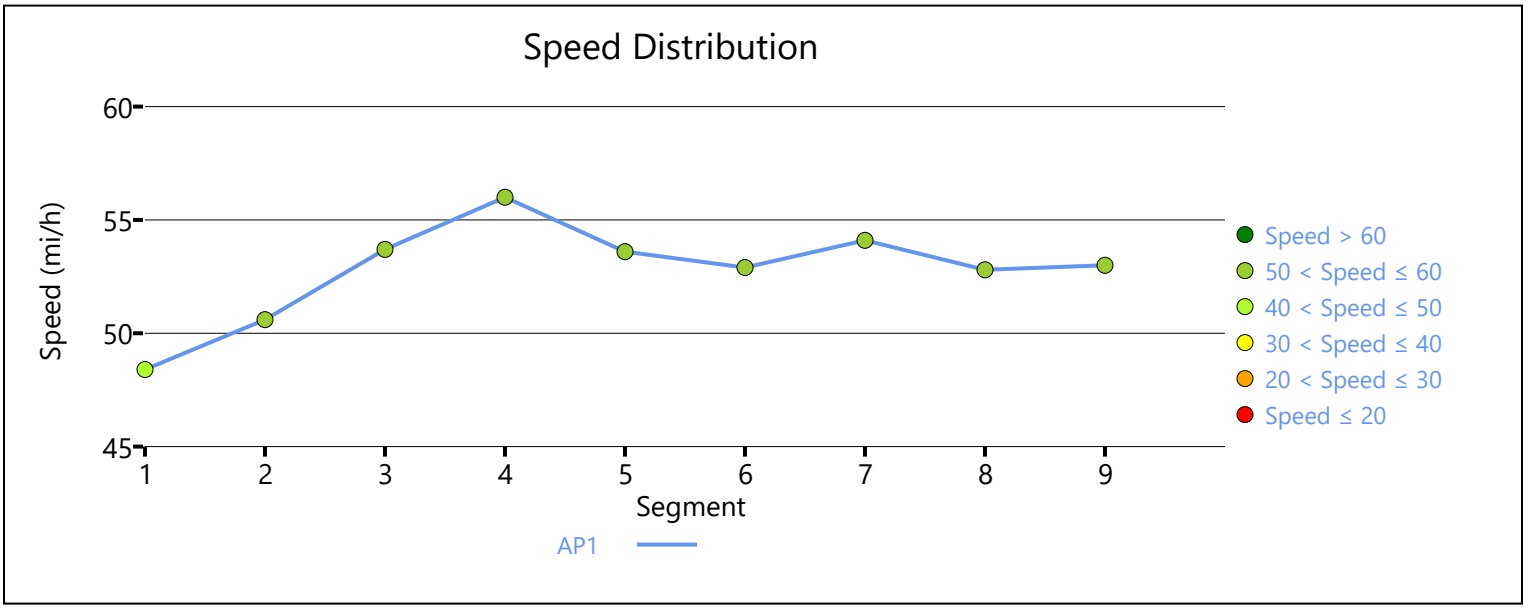
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3185	-	-	53.0

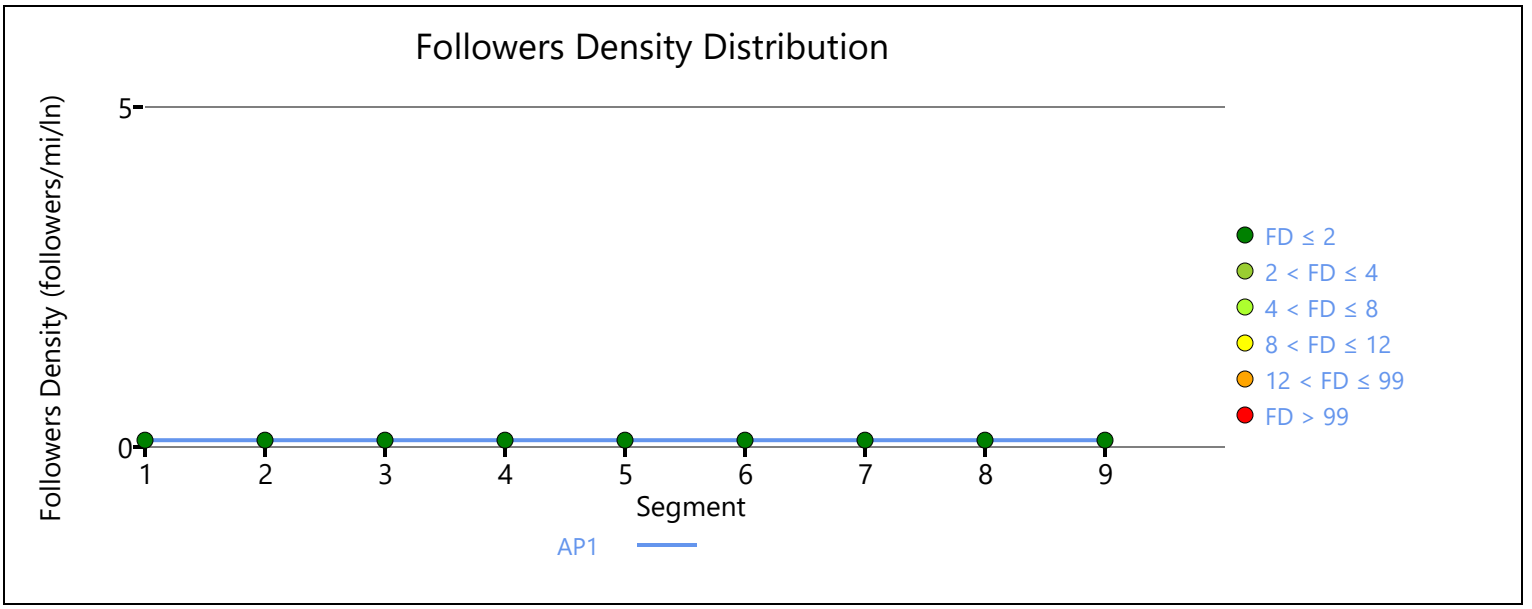
Vehicle Results

Average Speed, mi/h	53.0	Percent Followers, %	12.1
Segment Travel Time, minutes	0.68	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	36	0.00	0.1	A





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Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2023
Jurisdiction		Time Analyzed	Construction AM
Project Description	KY 1237	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	8337
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	18.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	19	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.7
Speed Slope Coefficient (m)	3.44540	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.34677	PF Power Coefficient (p)	0.72875
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	8337	-	-	52.7

Vehicle Results

Average Speed, mi/h	52.7	Percent Followers, %	7.3
Segment Travel Time, minutes	1.80	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	8264
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	21.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	36	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	51.9
Speed Slope Coefficient (m)	3.40003	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.35159	PF Power Coefficient (p)	0.72676
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

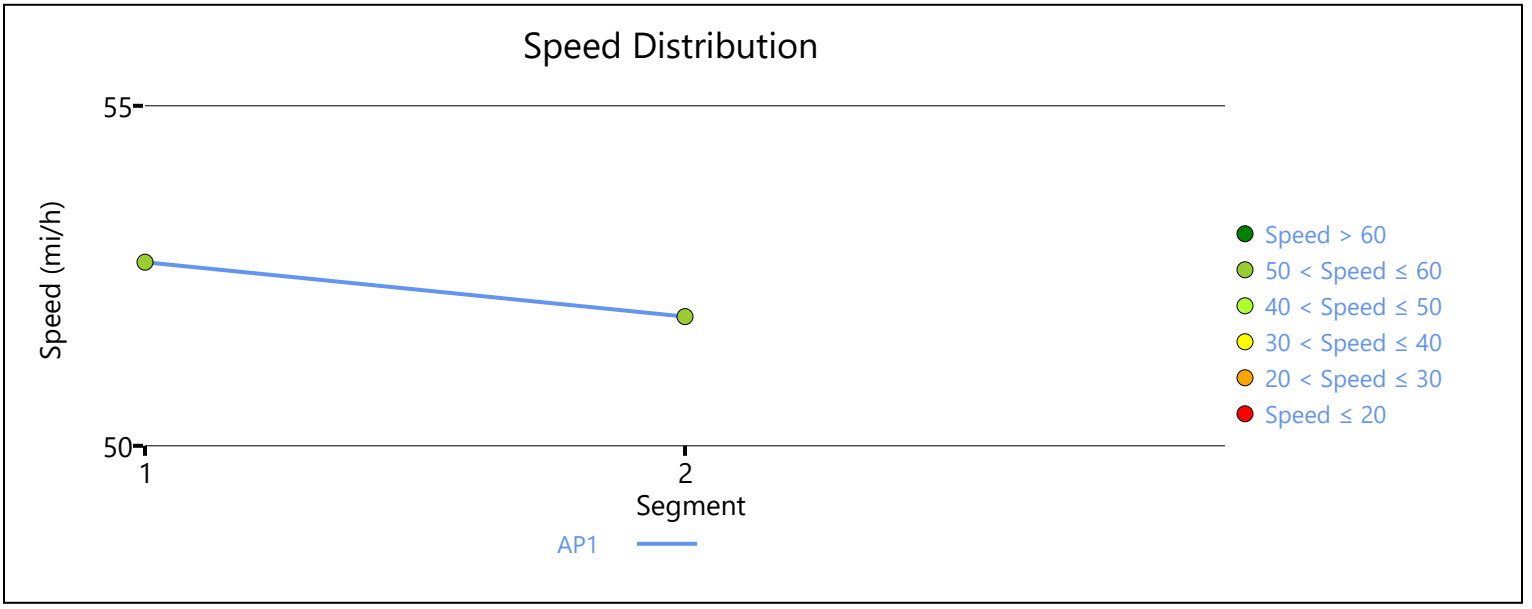
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	8264	-	-	51.9

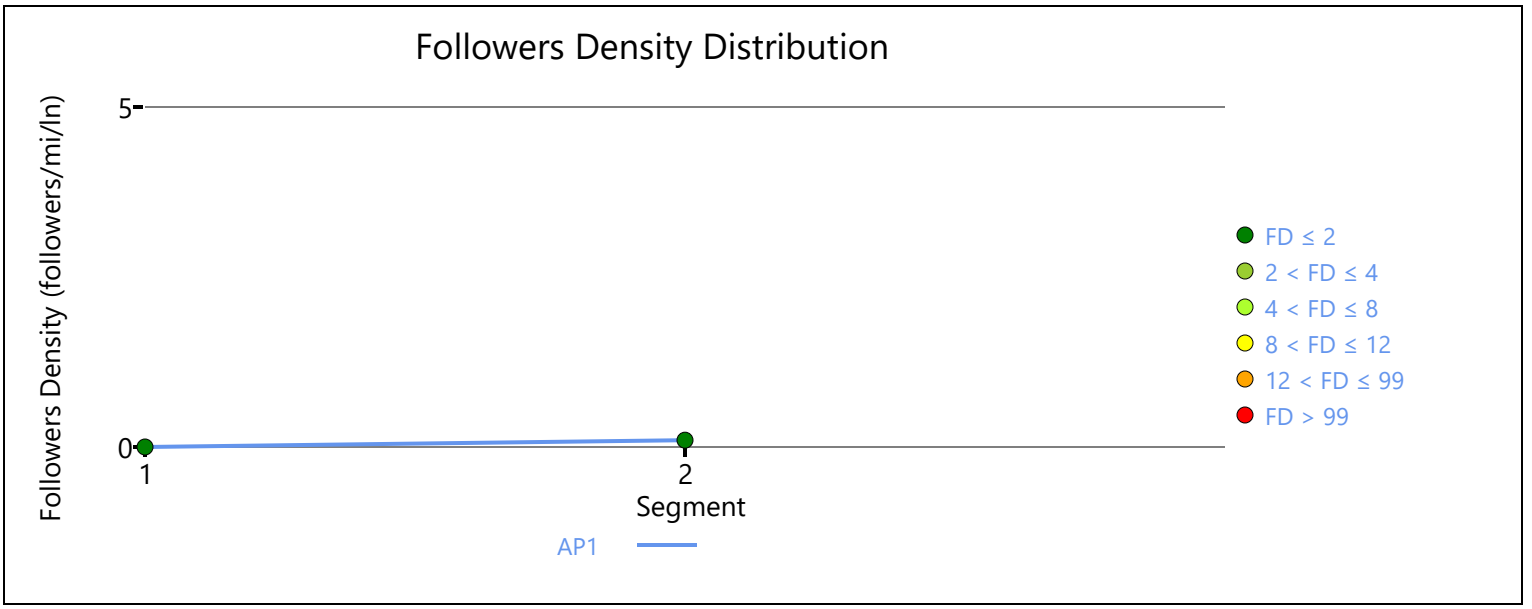
Vehicle Results

Average Speed, mi/h	51.9	Percent Followers, %	11.3
Segment Travel Time, minutes	1.81	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	20	0.00	0.1	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2023
Jurisdiction		Time Analyzed	Construction PM
Project Description	KY 1237	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	8337
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	18.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	32	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.7
Speed Slope Coefficient (m)	3.44540	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.34677	PF Power Coefficient (p)	0.72875
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	8337	-	-	52.7

Vehicle Results

Average Speed, mi/h	52.7	Percent Followers, %	10.3
Segment Travel Time, minutes	1.80	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	8264
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	21.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	57	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	51.9
Speed Slope Coefficient (m)	3.40003	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.35159	PF Power Coefficient (p)	0.72676
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

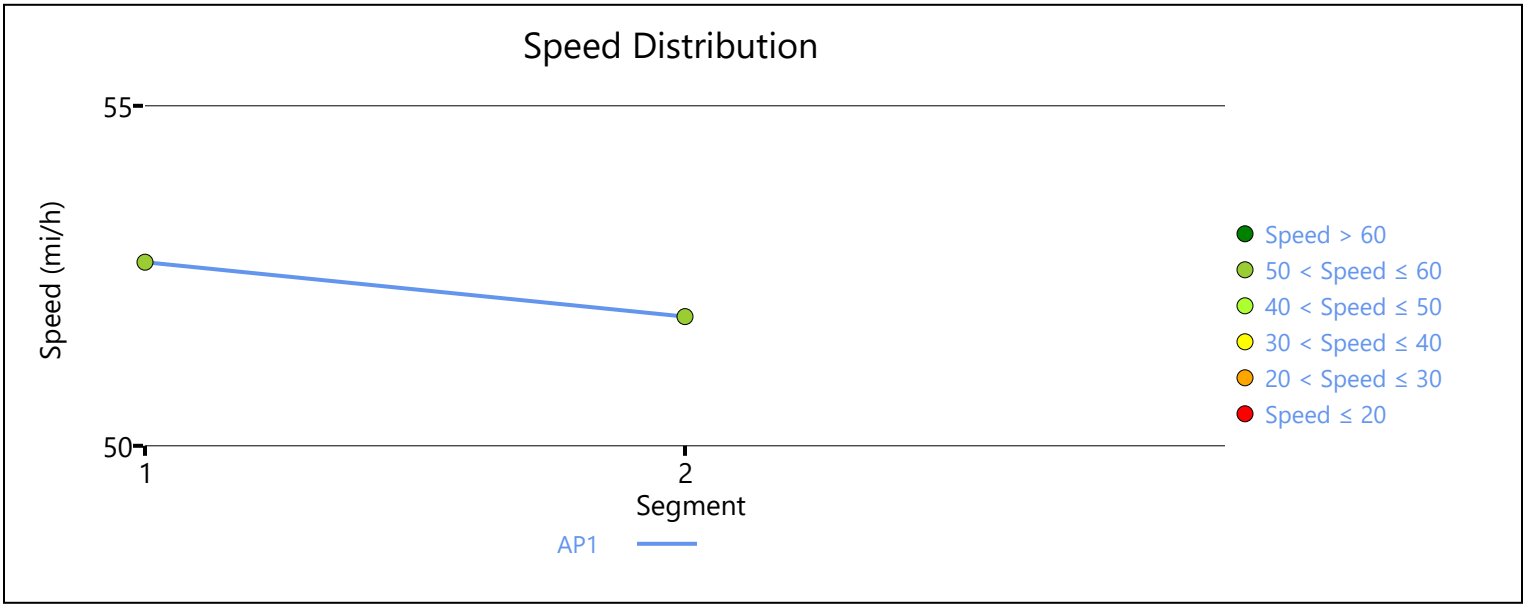
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	8264	-	-	51.9

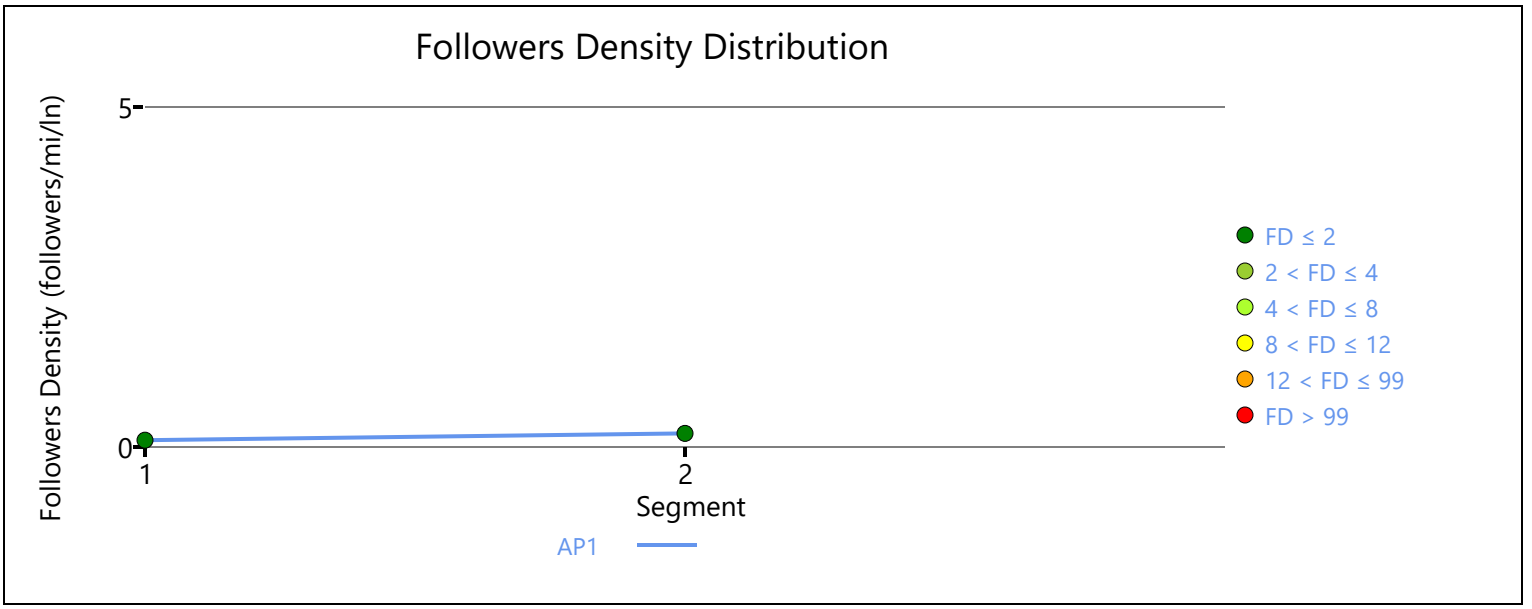
Vehicle Results

Average Speed, mi/h	51.9	Percent Followers, %	15.6
Segment Travel Time, minutes	1.81	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	33	0.00	0.1	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2023
Jurisdiction		Time Analyzed	Construction AM
Project Description	KY 989	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	5412
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	10.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	9	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	54.7
Speed Slope Coefficient (m)	3.52422	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.33772	PF Power Coefficient (p)	0.74619
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5412	-	-	54.7

Vehicle Results

Average Speed, mi/h	54.7	Percent Followers, %	3.7
Segment Travel Time, minutes	1.13	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	6410
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	9	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	54.2
Speed Slope Coefficient (m)	3.51015	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.33606	PF Power Coefficient (p)	0.74237
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

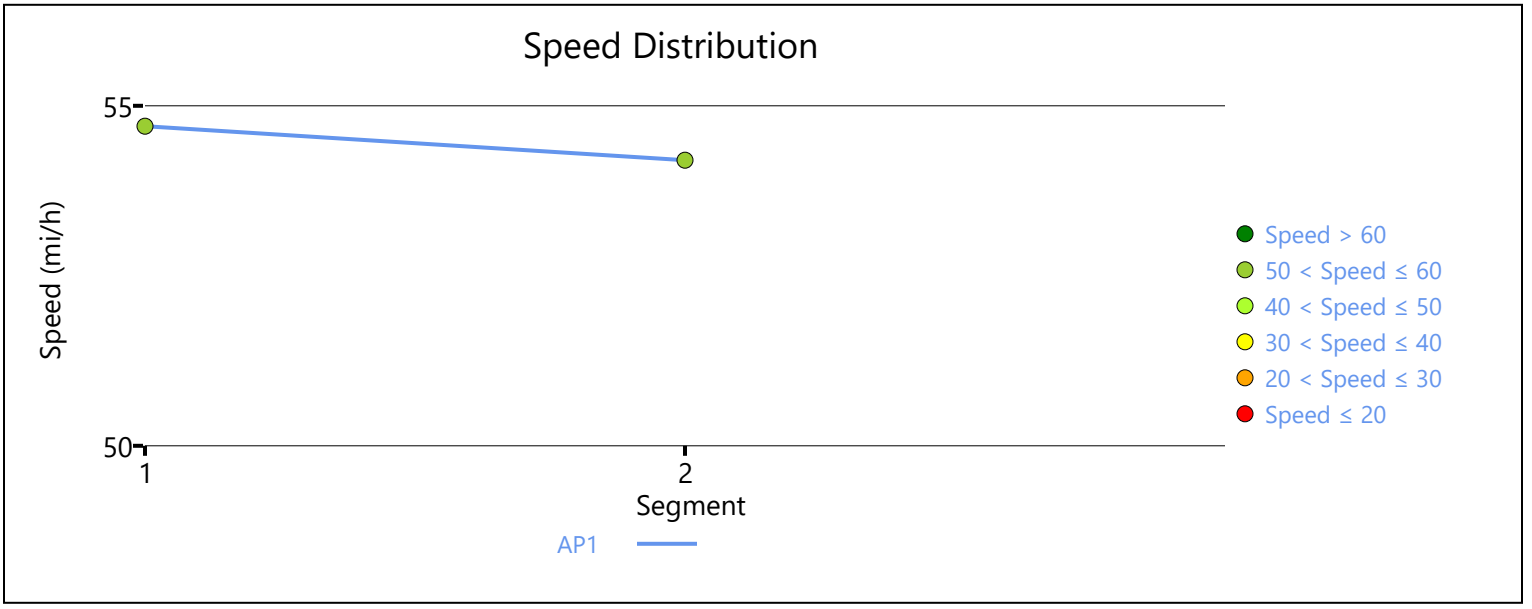
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	6410	-	-	54.2

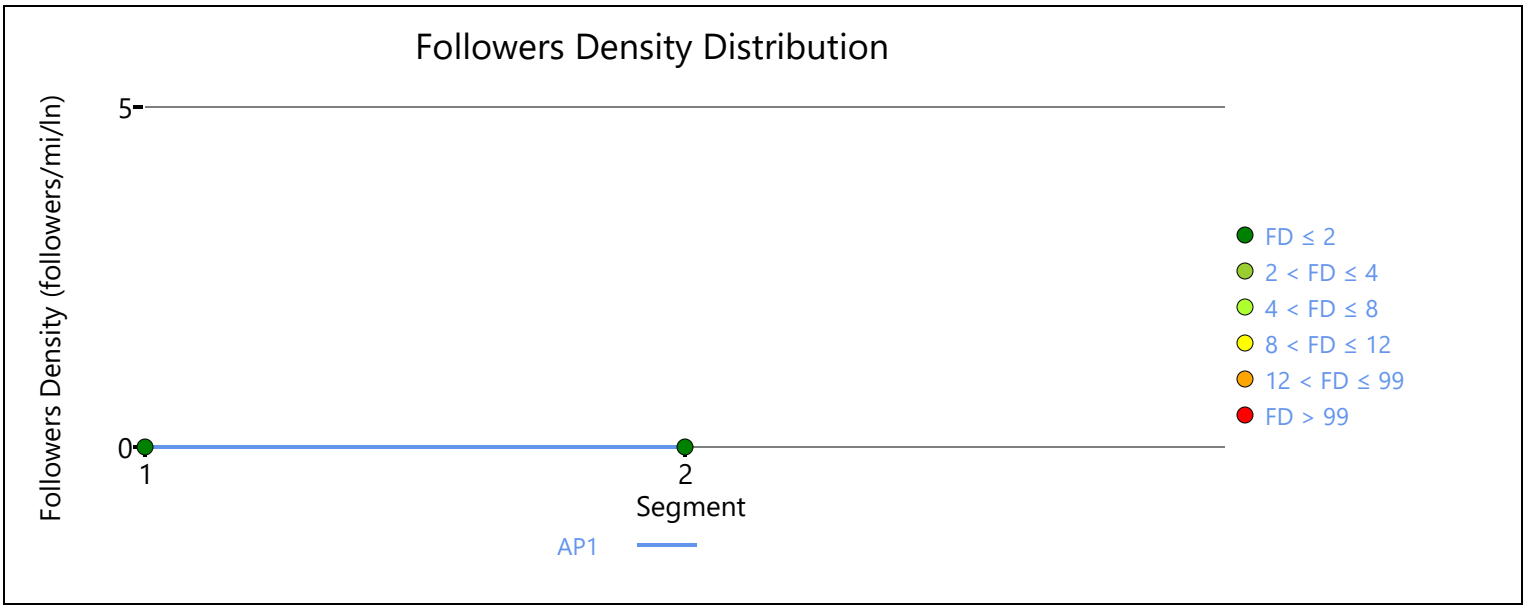
Vehicle Results

Average Speed, mi/h	54.2	Percent Followers, %	3.8
Segment Travel Time, minutes	1.34	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	4	0.00	0.0	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2023
Jurisdiction		Time Analyzed	Construction PM
Project Description	KY 989	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	5412
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	10.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	17	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	54.7
Speed Slope Coefficient (m)	3.52422	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.33772	PF Power Coefficient (p)	0.74619
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	5412	-	-	54.7

Vehicle Results

Average Speed, mi/h	54.7	Percent Followers, %	6.2
Segment Travel Time, minutes	1.13	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	6410
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	17	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	54.2
Speed Slope Coefficient (m)	3.51015	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.33606	PF Power Coefficient (p)	0.74237
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

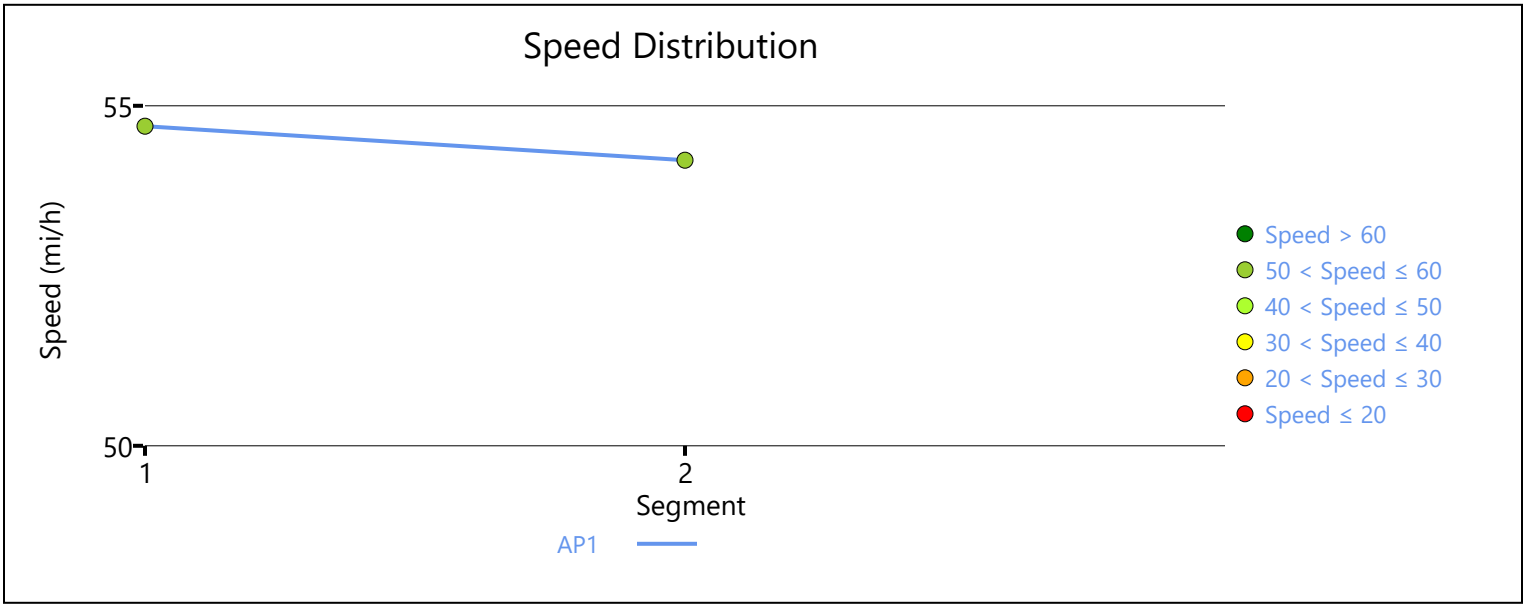
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	6410	-	-	54.2

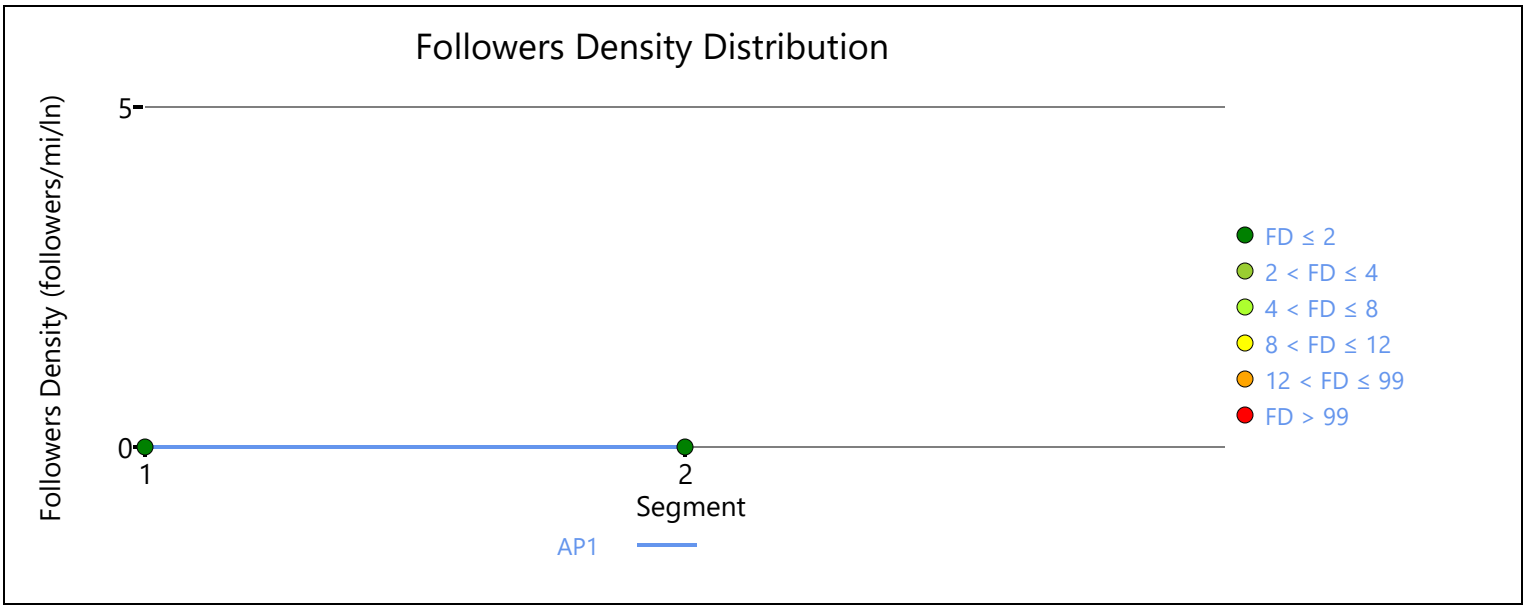
Vehicle Results

Average Speed, mi/h	54.2	Percent Followers, %	6.3
Segment Travel Time, minutes	1.34	Follower Density (FD), followers/mi/ln	0.0
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	9	0.00	0.0	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2023
Jurisdiction		Time Analyzed	Construction AM
Project Description	KY 559	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2862
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	31.5

Demand and Capacity

Directional Demand Flow Rate, veh/h	72	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	49.4
Speed Slope Coefficient (m)	3.20852	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.40969	PF Power Coefficient (p)	0.72659
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2862	-	-	49.4

Vehicle Results

Average Speed, mi/h	49.4	Percent Followers, %	18.8
Segment Travel Time, minutes	0.66	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2899
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	20.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	72	Opposing Demand Flow Rate, veh/h	55
Peak Hour Factor	0.94	Total Trucks, %	2.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.2
Speed Slope Coefficient (m)	3.03967	Speed Power Coefficient (p)	0.59843
PF Slope Coefficient (m)	-1.21582	PF Power Coefficient (p)	0.79548
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2899	-	-	52.2

Vehicle Results

Average Speed, mi/h	52.2	Percent Followers, %	13.9
Segment Travel Time, minutes	0.63	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 3

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4715
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	15.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	72	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	53.3
Speed Slope Coefficient (m)	3.44342	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.35294	PF Power Coefficient (p)	0.74299
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4715	-	-	53.3

Vehicle Results

Average Speed, mi/h	53.3	Percent Followers, %	17.4
Segment Travel Time, minutes	1.01	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 4

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	317
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	4.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	72	Opposing Demand Flow Rate, veh/h	55
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	56.2
Speed Slope Coefficient (m)	3.23168	Speed Power Coefficient (p)	0.59843
PF Slope Coefficient (m)	-1.26178	PF Power Coefficient (p)	0.78483
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	317	-	-	56.2

Vehicle Results

Average Speed, mi/h	56.2	Percent Followers, %	14.8
Segment Travel Time, minutes	0.06	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 5

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	3168
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	8.3

Demand and Capacity

Directional Demand Flow Rate, veh/h	72	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	55.2
Speed Slope Coefficient (m)	3.52656	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36536	PF Power Coefficient (p)	0.74471
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3168	-	-	55.2

Vehicle Results

Average Speed, mi/h	55.2	Percent Followers, %	17.5
Segment Travel Time, minutes	0.65	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 6

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1584
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	26.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	72	Opposing Demand Flow Rate, veh/h	55
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.6
Speed Slope Coefficient (m)	2.92941	Speed Power Coefficient (p)	0.59843
PF Slope Coefficient (m)	-1.26220	PF Power Coefficient (p)	0.77317
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	50.6

Vehicle Results

Average Speed, mi/h	50.6	Percent Followers, %	15.2
Segment Travel Time, minutes	0.36	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 7

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	12302
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	8.6

Demand and Capacity

Directional Demand Flow Rate, veh/h	72	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	55.1
Speed Slope Coefficient (m)	3.59986	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36038	PF Power Coefficient (p)	0.70449
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	12302	-	-	55.1

Vehicle Results

Average Speed, mi/h	55.1	Percent Followers, %	19.2
Segment Travel Time, minutes	2.54	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 8

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1003
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	45	Access Point Density, pts/mi	20.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	72	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.8
Speed Slope Coefficient (m)	2.72189	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.50480	PF Power Coefficient (p)	0.68051
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.4
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1003	-	-	40.8

Vehicle Results

Average Speed, mi/h	40.8	Percent Followers, %	22.2
Segment Travel Time, minutes	0.28	Follower Density (FD), followers/mi/ln	0.4
Vehicle LOS	A		

Segment 9

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1869
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	35	Access Point Density, pts/mi	57.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	72	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.04

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	24.4
Speed Slope Coefficient (m)	1.84278	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.38415	PF Power Coefficient (p)	0.60433
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.7
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

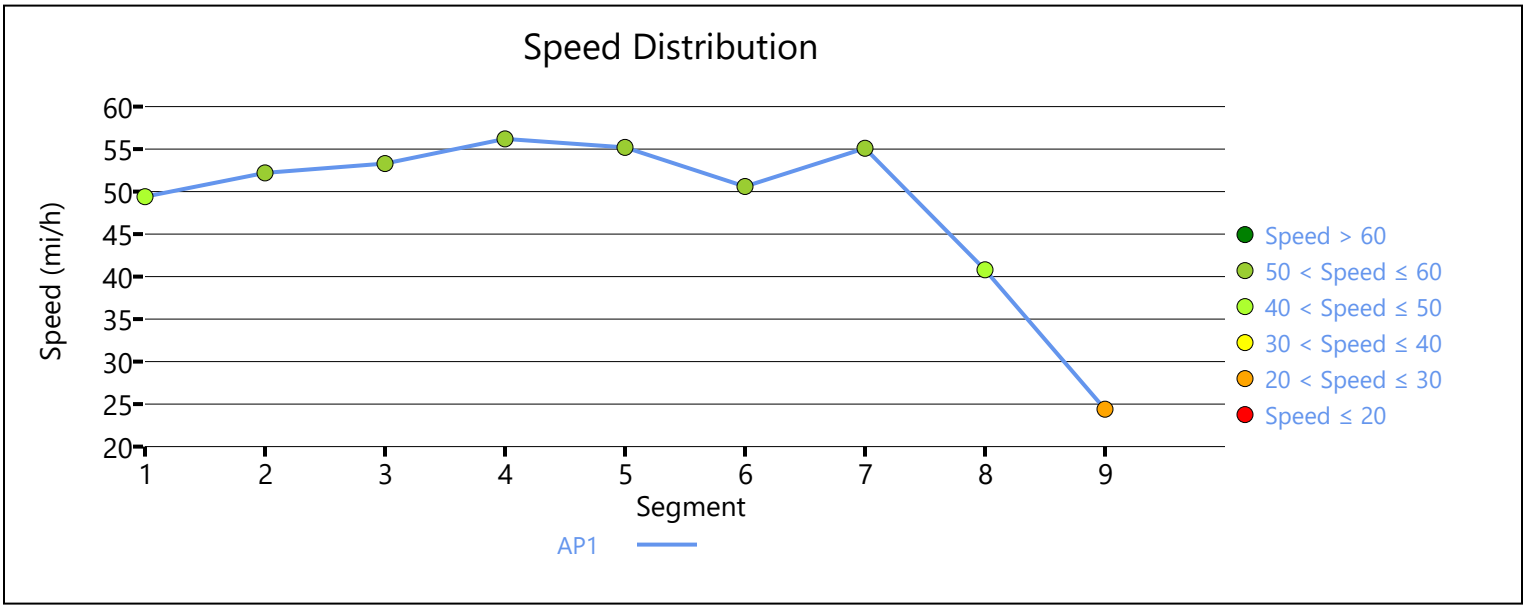
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1869	-	-	24.4

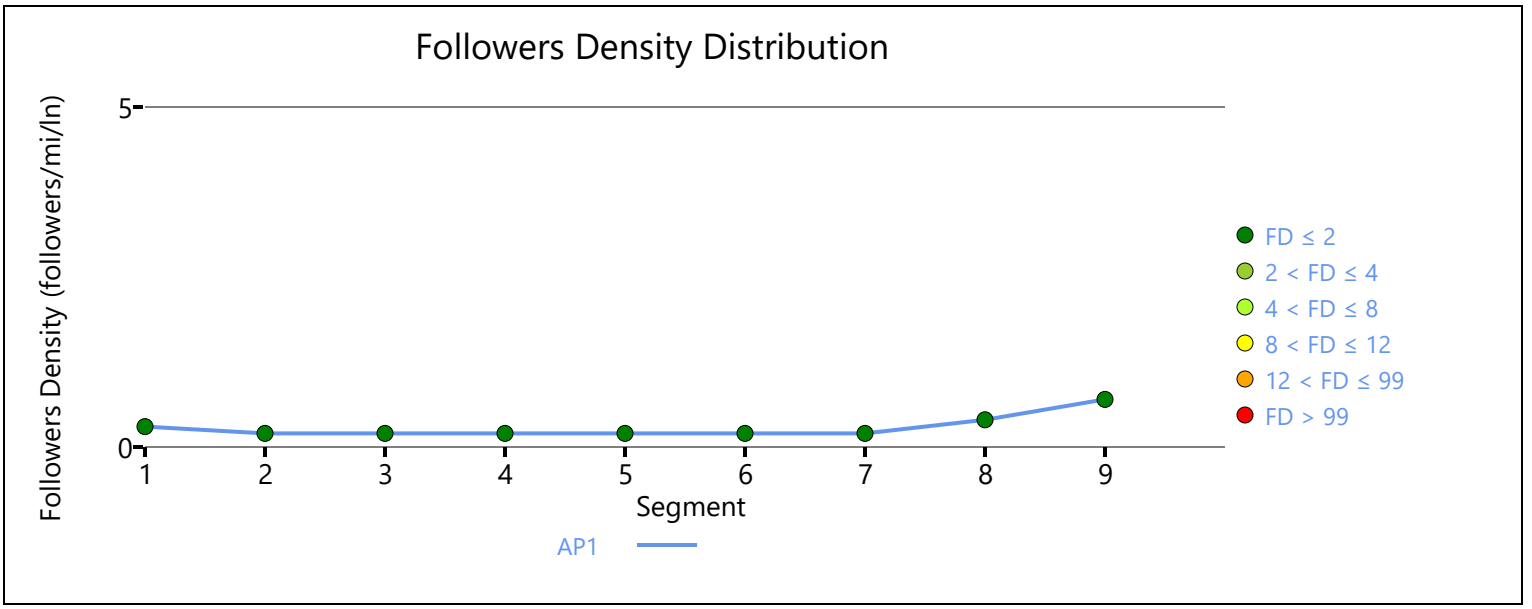
Vehicle Results

Average Speed, mi/h	24.4	Percent Followers, %	24.6
Segment Travel Time, minutes	0.87	Follower Density (FD), followers/mi/ln	0.7
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	98	0.00	0.3	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2022
Jurisdiction		Time Analyzed	Construction PM
Project Description	KY 559	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2862
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	31.5

Demand and Capacity

Directional Demand Flow Rate, veh/h	79	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	49.4
Speed Slope Coefficient (m)	3.20852	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.40969	PF Power Coefficient (p)	0.72659
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2862	-	-	49.4

Vehicle Results

Average Speed, mi/h	49.4	Percent Followers, %	20.0
Segment Travel Time, minutes	0.66	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2899
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	20.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	79	Opposing Demand Flow Rate, veh/h	60
Peak Hour Factor	0.94	Total Trucks, %	2.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.2
Speed Slope Coefficient (m)	3.04360	Speed Power Coefficient (p)	0.59482
PF Slope Coefficient (m)	-1.21923	PF Power Coefficient (p)	0.79461
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2899	-	-	52.2

Vehicle Results

Average Speed, mi/h	52.2	Percent Followers, %	15.0
Segment Travel Time, minutes	0.63	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 3

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4715
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	15.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	79	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	53.3
Speed Slope Coefficient (m)	3.44342	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.35294	PF Power Coefficient (p)	0.74299
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4715	-	-	53.3

Vehicle Results

Average Speed, mi/h	53.3	Percent Followers, %	18.6
Segment Travel Time, minutes	1.01	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 4

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	317
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	4.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	79	Opposing Demand Flow Rate, veh/h	60
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	56.2
Speed Slope Coefficient (m)	3.23561	Speed Power Coefficient (p)	0.59482
PF Slope Coefficient (m)	-1.26530	PF Power Coefficient (p)	0.78405
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	317	-	-	56.2

Vehicle Results

Average Speed, mi/h	56.2	Percent Followers, %	15.9
Segment Travel Time, minutes	0.06	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 5

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	3168
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	8.3

Demand and Capacity

Directional Demand Flow Rate, veh/h	79	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	55.2
Speed Slope Coefficient (m)	3.52656	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36536	PF Power Coefficient (p)	0.74471
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3168	-	-	55.2

Vehicle Results

Average Speed, mi/h	55.2	Percent Followers, %	18.6
Segment Travel Time, minutes	0.65	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 6

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1584
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	26.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	79	Opposing Demand Flow Rate, veh/h	60
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.6
Speed Slope Coefficient (m)	2.93334	Speed Power Coefficient (p)	0.59482
PF Slope Coefficient (m)	-1.26579	PF Power Coefficient (p)	0.77239
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	50.6

Vehicle Results

Average Speed, mi/h	50.6	Percent Followers, %	16.3
Segment Travel Time, minutes	0.36	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 7

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	12302
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	55	Access Point Density, pts/mi	8.6

Demand and Capacity

Directional Demand Flow Rate, veh/h	79	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	55.1
Speed Slope Coefficient (m)	3.59986	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.36038	PF Power Coefficient (p)	0.70449
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	12302	-	-	55.1

Vehicle Results

Average Speed, mi/h	55.1	Percent Followers, %	20.3
Segment Travel Time, minutes	2.54	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 8

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1003
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	45	Access Point Density, pts/mi	20.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	79	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	40.8
Speed Slope Coefficient (m)	2.72189	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.50480	PF Power Coefficient (p)	0.68051
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1003	-	-	40.8

Vehicle Results

Average Speed, mi/h	40.8	Percent Followers, %	23.5
Segment Travel Time, minutes	0.28	Follower Density (FD), followers/mi/ln	0.5
Vehicle LOS	A		

Segment 9

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1869
Lane Width, ft	10	Shoulder Width, ft	0
Speed Limit, mi/h	35	Access Point Density, pts/mi	57.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	79	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	24.4
Speed Slope Coefficient (m)	1.84278	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.38415	PF Power Coefficient (p)	0.60433
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.8
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

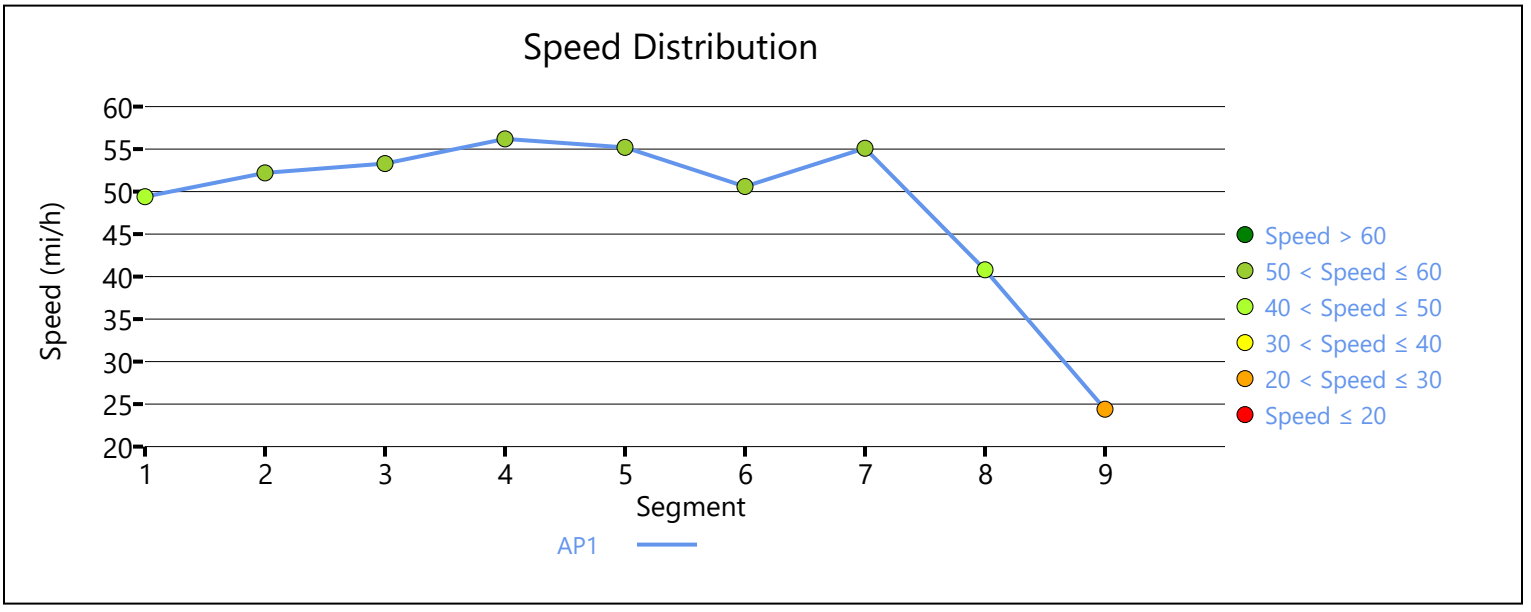
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1869	-	-	24.4

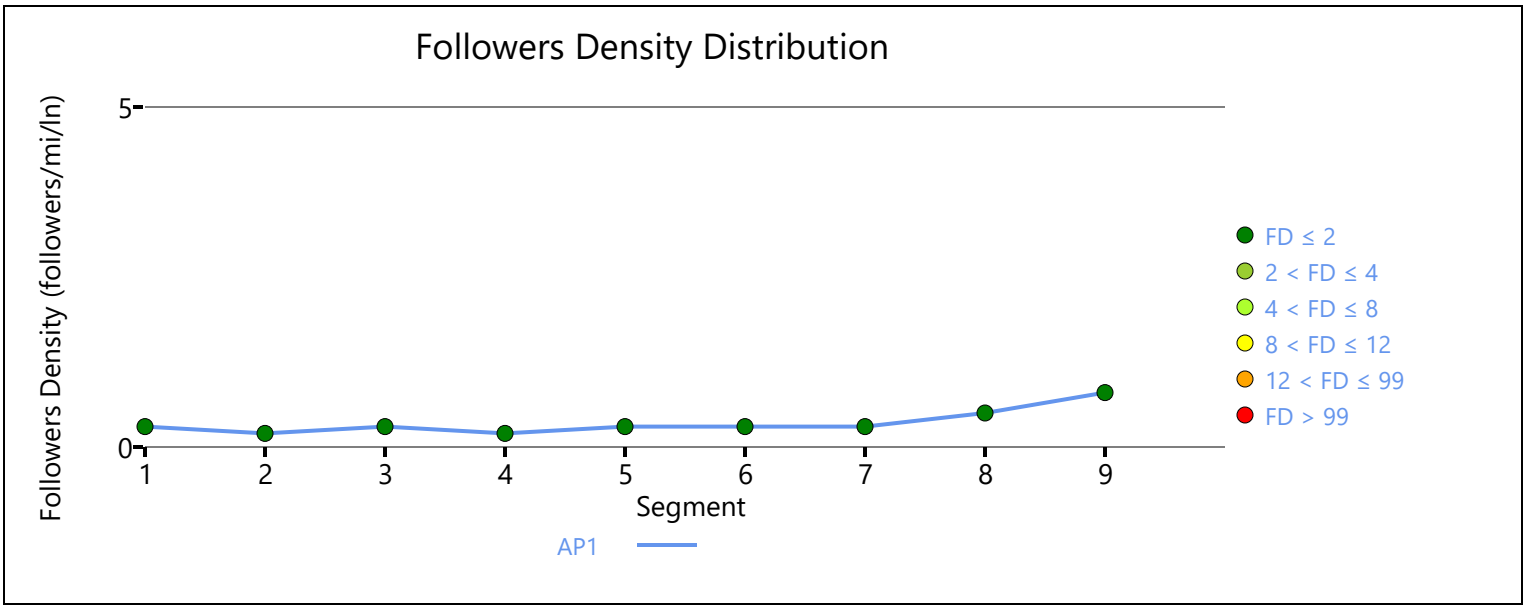
Vehicle Results

Average Speed, mi/h	24.4	Percent Followers, %	25.8
Segment Travel Time, minutes	0.87	Follower Density (FD), followers/mi/ln	0.8
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	108	0.00	0.3	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2023
Jurisdiction		Time Analyzed	Construction AM
Project Description	KY 344	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	512
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	35	Access Point Density, pts/mi	20.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	53	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	29.5
Speed Slope Coefficient (m)	2.10943	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.46561	PF Power Coefficient (p)	0.62573
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.4
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	512	-	-	29.5

Vehicle Results

Average Speed, mi/h	29.5	Percent Followers, %	20.8
Segment Travel Time, minutes	0.20	Follower Density (FD), followers/mi/ln	0.4
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2518
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	27.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	53	Opposing Demand Flow Rate, veh/h	40
Peak Hour Factor	0.94	Total Trucks, %	2.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	50.5
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.60723
PF Slope Coefficient (m)	-1.21564	PF Power Coefficient (p)	0.77436
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2518	-	-	50.5

Vehicle Results

Average Speed, mi/h	50.5	Percent Followers, %	11.8
Segment Travel Time, minutes	0.57	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 3

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	327
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	24.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	53	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	51.3
Speed Slope Coefficient (m)	3.29099	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.46577	PF Power Coefficient (p)	0.71525
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	327	-	-	51.3

Vehicle Results

Average Speed, mi/h	51.3	Percent Followers, %	16.5
Segment Travel Time, minutes	0.07	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 4

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1592
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	20.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	56	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.3
Speed Slope Coefficient (m)	3.35025	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.44258	PF Power Coefficient (p)	0.72248
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	52.3

Vehicle Results

Average Speed, mi/h	52.3	Percent Followers, %	16.5
Segment Travel Time, minutes	0.35	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 5

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1525
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	26.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	56	Opposing Demand Flow Rate, veh/h	41
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.7
Speed Slope Coefficient (m)	2.92396	Speed Power Coefficient (p)	0.60760
PF Slope Coefficient (m)	-1.25581	PF Power Coefficient (p)	0.77432
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	50.7

Vehicle Results

Average Speed, mi/h	50.7	Percent Followers, %	12.7
Segment Travel Time, minutes	0.34	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 6

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	528
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	30.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	56	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	49.8
Speed Slope Coefficient (m)	3.20969	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.47482	PF Power Coefficient (p)	0.71104
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	528	-	-	49.8

Vehicle Results

Average Speed, mi/h	49.8	Percent Followers, %	17.4
Segment Travel Time, minutes	0.12	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 7

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1584
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	10.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	56	Opposing Demand Flow Rate, veh/h	41
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	3	Free-Flow Speed, mi/h	54.6
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.68727
PF Slope Coefficient (m)	-1.17787	PF Power Coefficient (p)	0.78312
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	54.6

Vehicle Results

Average Speed, mi/h	54.6	Percent Followers, %	11.7
Segment Travel Time, minutes	0.33	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 8

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	528
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	0.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	56	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	57.3
Speed Slope Coefficient (m)	3.61619	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.42067	PF Power Coefficient (p)	0.73029
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	528	-	-	57.3

Vehicle Results

Average Speed, mi/h	57.3	Percent Followers, %	16.0
Segment Travel Time, minutes	0.10	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 9

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2112
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	5.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	56	Opposing Demand Flow Rate, veh/h	41
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	56.0
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.63731
PF Slope Coefficient (m)	-1.21256	PF Power Coefficient (p)	0.78971
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2112	-	-	56.0

Vehicle Results

Average Speed, mi/h	56.0	Percent Followers, %	11.8
Segment Travel Time, minutes	0.43	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Segment 10

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1056
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	28.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	56	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.03

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.3
Speed Slope Coefficient (m)	3.23679	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.47191	PF Power Coefficient (p)	0.71247
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

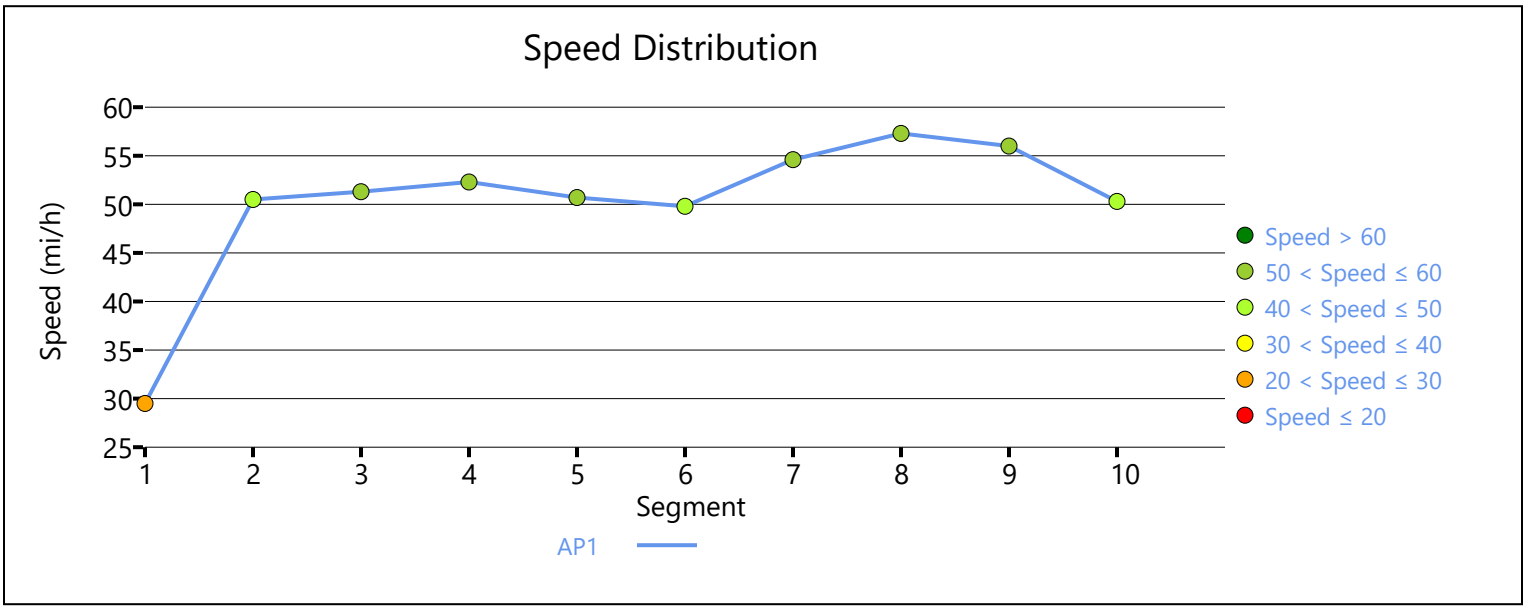
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1056	-	-	50.3

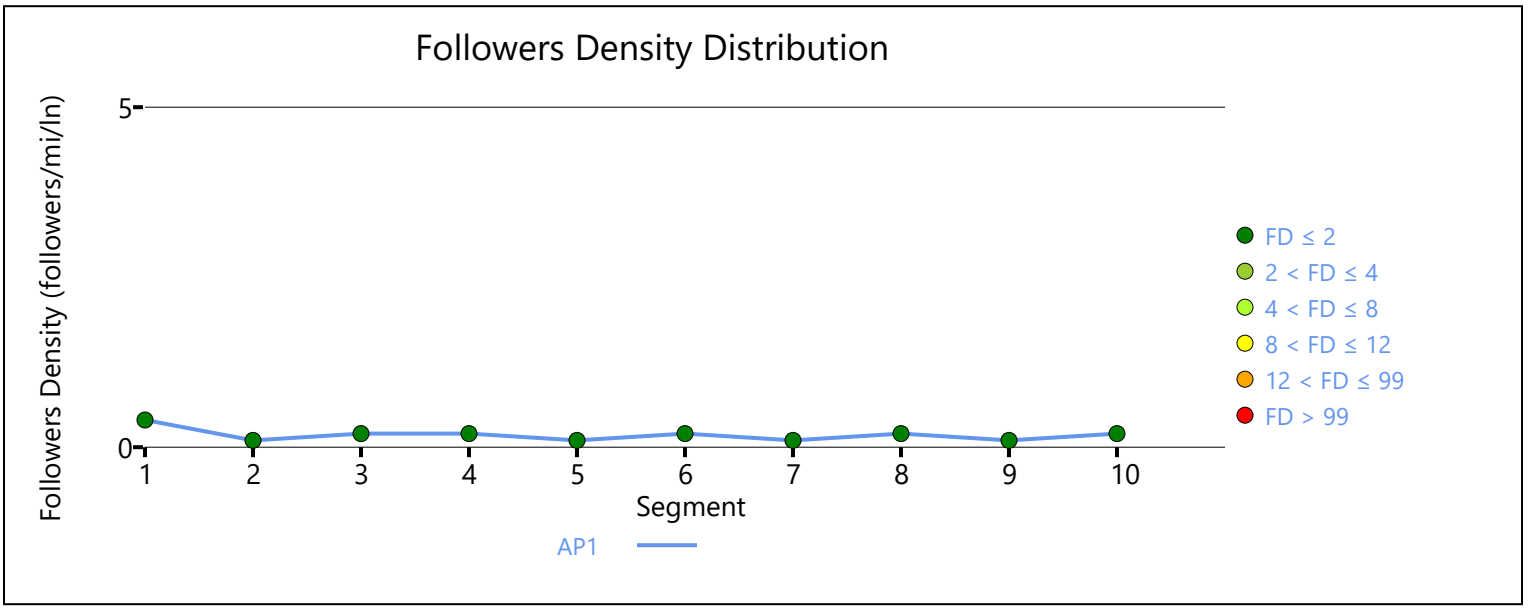
Vehicle Results

Average Speed, mi/h	50.3	Percent Followers, %	17.3
Segment Travel Time, minutes	0.24	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	30	0.00	0.2	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2023
Jurisdiction		Time Analyzed	Construction PM
Project Description	KY 344	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	512
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	35	Access Point Density, pts/mi	20.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	86	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	29.5
Speed Slope Coefficient (m)	2.10943	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.46561	PF Power Coefficient (p)	0.62573
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.8
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	512	-	-	29.5

Vehicle Results

Average Speed, mi/h	29.5	Percent Followers, %	27.1
Segment Travel Time, minutes	0.20	Follower Density (FD), followers/mi/ln	0.8
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2518
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	27.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	86	Opposing Demand Flow Rate, veh/h	64
Peak Hour Factor	0.94	Total Trucks, %	2.00

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	50.5
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.58813
PF Slope Coefficient (m)	-1.23157	PF Power Coefficient (p)	0.77061
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2518	-	-	50.5

Vehicle Results

Average Speed, mi/h	50.5	Percent Followers, %	17.0
Segment Travel Time, minutes	0.57	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 3

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	327
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	24.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	86	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	51.3
Speed Slope Coefficient (m)	3.29099	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.46577	PF Power Coefficient (p)	0.71525
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.4
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	327	-	-	51.3

Vehicle Results

Average Speed, mi/h	51.3	Percent Followers, %	22.4
Segment Travel Time, minutes	0.07	Follower Density (FD), followers/mi/ln	0.4
Vehicle LOS	A		

Segment 4

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1592
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	20.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	101	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.06

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	52.3
Speed Slope Coefficient (m)	3.35025	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.44258	PF Power Coefficient (p)	0.72248
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	52.1

Vehicle Results

Average Speed, mi/h	52.1	Percent Followers, %	24.1
Segment Travel Time, minutes	0.35	Follower Density (FD), followers/mi/ln	0.5
Vehicle LOS	A		

Segment 5

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1525
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	26.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	101	Opposing Demand Flow Rate, veh/h	72
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.06

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.7
Speed Slope Coefficient (m)	2.94536	Speed Power Coefficient (p)	0.58788
PF Slope Coefficient (m)	-1.27544	PF Power Coefficient (p)	0.77005
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.4
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	50.6

Vehicle Results

Average Speed, mi/h	50.6	Percent Followers, %	19.6
Segment Travel Time, minutes	0.34	Follower Density (FD), followers/mi/ln	0.4
Vehicle LOS	A		

Segment 6

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	528
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	30.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	101	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.06

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	49.8
Speed Slope Coefficient (m)	3.20969	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.47482	PF Power Coefficient (p)	0.71104
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	528	-	-	49.6

Vehicle Results

Average Speed, mi/h	49.6	Percent Followers, %	25.1
Segment Travel Time, minutes	0.12	Follower Density (FD), followers/mi/ln	0.5
Vehicle LOS	A		

Segment 7

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1584
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	10.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	101	Opposing Demand Flow Rate, veh/h	72
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.06

Intermediate Results

Segment Vertical Class	3	Free-Flow Speed, mi/h	54.6
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.65542
PF Slope Coefficient (m)	-1.20321	PF Power Coefficient (p)	0.77793
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1584	-	-	54.5

Vehicle Results

Average Speed, mi/h	54.5	Percent Followers, %	18.3
Segment Travel Time, minutes	0.33	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 8

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	528
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	0.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	101	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.06

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	57.3
Speed Slope Coefficient (m)	3.61619	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.42067	PF Power Coefficient (p)	0.73029
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.4
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	528	-	-	57.1

Vehicle Results

Average Speed, mi/h	57.1	Percent Followers, %	23.4
Segment Travel Time, minutes	0.11	Follower Density (FD), followers/mi/ln	0.4
Vehicle LOS	A		

Segment 9

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2112
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	5.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	101	Opposing Demand Flow Rate, veh/h	72
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.06

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	56.0
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.61333
PF Slope Coefficient (m)	-1.23244	PF Power Coefficient (p)	0.78494
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2112	-	-	56.0

Vehicle Results

Average Speed, mi/h	56.0	Percent Followers, %	18.4
Segment Travel Time, minutes	0.43	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 10

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1056
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	28.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	101	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.06

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.3
Speed Slope Coefficient (m)	3.23679	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.47191	PF Power Coefficient (p)	0.71247
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

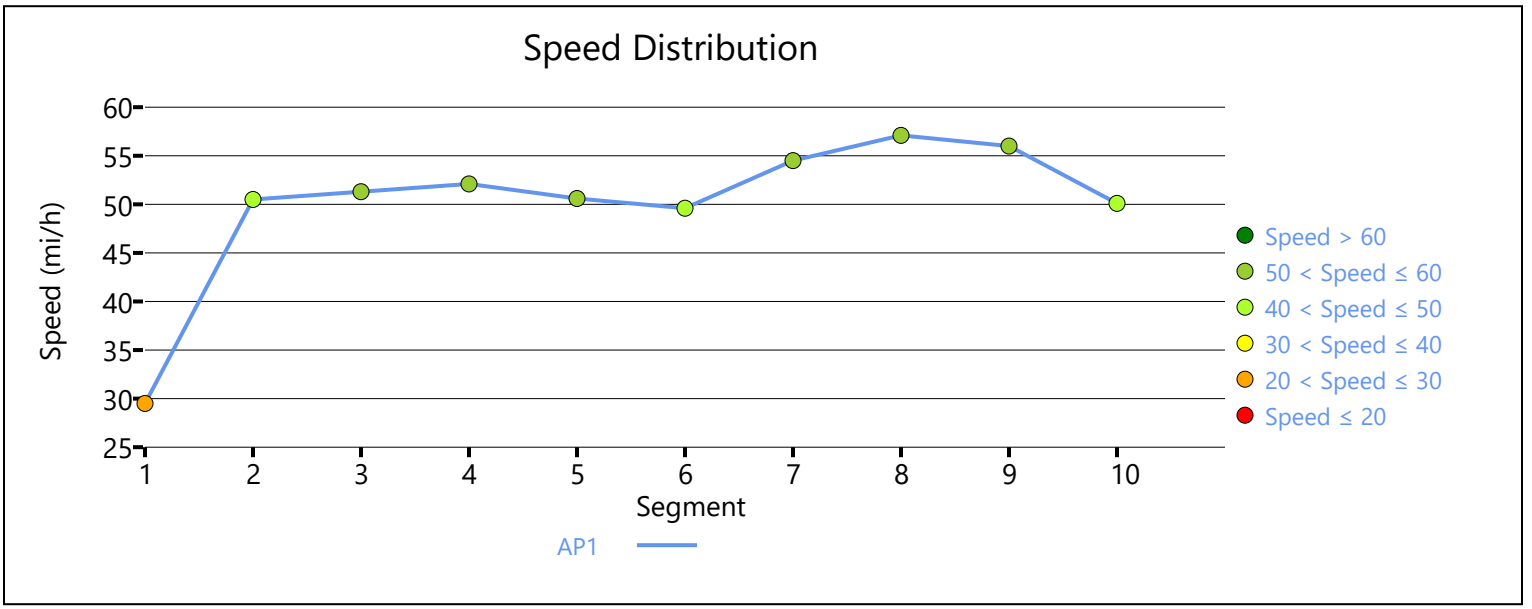
#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1056	-	-	50.1

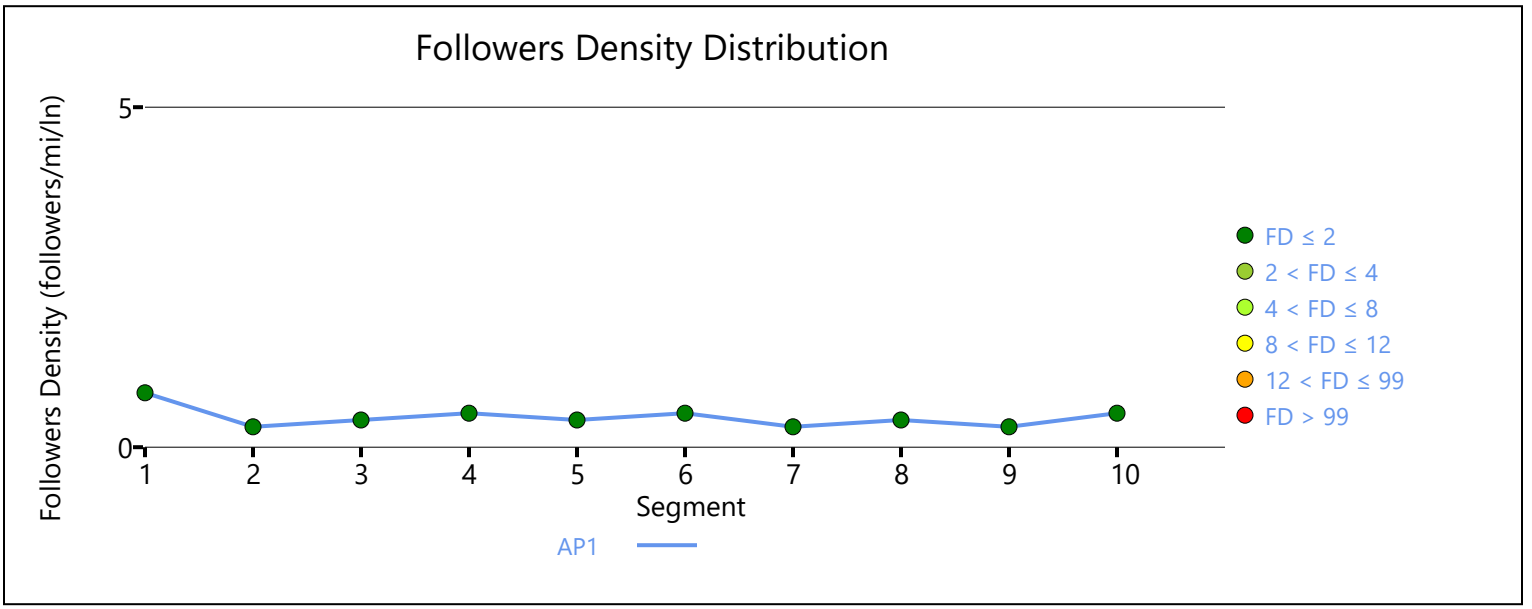
Vehicle Results

Average Speed, mi/h	50.1	Percent Followers, %	25.0
Segment Travel Time, minutes	0.24	Follower Density (FD), followers/mi/ln	0.5
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	53	0.00	0.4	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2023
Jurisdiction		Time Analyzed	Construction AM
Project Description	KY 57	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	3833
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	24.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	91	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	51.1
Speed Slope Coefficient (m)	3.31561	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.37832	PF Power Coefficient (p)	0.73598
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.4
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3833	-	-	51.1

Vehicle Results

Average Speed, mi/h	51.1	Percent Followers, %	21.1
Segment Travel Time, minutes	0.85	Follower Density (FD), followers/mi/ln	0.4
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	528
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	91	Opposing Demand Flow Rate, veh/h	48
Peak Hour Factor	0.94	Total Trucks, %	3.50

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	54.3
Speed Slope Coefficient (m)	3.12113	Speed Power Coefficient (p)	0.60294
PF Slope Coefficient (m)	-1.26325	PF Power Coefficient (p)	0.78028
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	528	-	-	54.3

Vehicle Results

Average Speed, mi/h	54.3	Percent Followers, %	17.8
Segment Travel Time, minutes	0.11	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 3

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2580
Lane Width, ft	9	Shoulder Width, ft	6
Speed Limit, mi/h	55	Access Point Density, pts/mi	4.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	91	Opposing Demand Flow Rate, veh/h	48
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	3	Free-Flow Speed, mi/h	59.3
Speed Slope Coefficient (m)	4.11812	Speed Power Coefficient (p)	0.76192
PF Slope Coefficient (m)	-1.12853	PF Power Coefficient (p)	0.81549
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2580	-	-	59.3

Vehicle Results

Average Speed, mi/h	59.3	Percent Followers, %	14.8
Segment Travel Time, minutes	0.49	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Segment 4

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1400
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	55	Access Point Density, pts/mi	7.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	91	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	3	Free-Flow Speed, mi/h	60.1
Speed Slope Coefficient (m)	4.77922	Speed Power Coefficient (p)	0.53696
PF Slope Coefficient (m)	-1.47099	PF Power Coefficient (p)	0.73766
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1400	-	-	60.1

Vehicle Results

Average Speed, mi/h	60.1	Percent Followers, %	22.3
Segment Travel Time, minutes	0.26	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 5

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1399
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	55	Access Point Density, pts/mi	7.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	91	Opposing Demand Flow Rate, veh/h	48
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.05

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	60.6
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.66519
PF Slope Coefficient (m)	-1.23651	PF Power Coefficient (p)	0.79213
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1399	-	-	60.6

Vehicle Results

Average Speed, mi/h	60.6	Percent Followers, %	17.0
Segment Travel Time, minutes	0.26	Follower Density (FD), followers/mi/ln	0.3
Vehicle LOS	A		

Segment 6

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4187
Lane Width, ft	10	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	8.9

Demand and Capacity

Directional Demand Flow Rate, veh/h	124	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	55.7
Speed Slope Coefficient (m)	3.56613	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.34280	PF Power Coefficient (p)	0.74945
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.6
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4187	-	-	54.9

Vehicle Results

Average Speed, mi/h	54.9	Percent Followers, %	24.6
Segment Travel Time, minutes	0.87	Follower Density (FD), followers/mi/ln	0.6
Vehicle LOS	A		

Segment 7

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4905
Lane Width, ft	10	Shoulder Width, ft	1
Speed Limit, mi/h	35	Access Point Density, pts/mi	39.8

Demand and Capacity

Directional Demand Flow Rate, veh/h	124	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	25.1
Speed Slope Coefficient (m)	1.91896	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.32538	PF Power Coefficient (p)	0.62496
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	1.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4905	-	-	24.7

Vehicle Results

Average Speed, mi/h	24.7	Percent Followers, %	30.3
Segment Travel Time, minutes	2.25	Follower Density (FD), followers/mi/ln	1.5
Vehicle LOS	A		

Segment 8

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1162
Lane Width, ft	10	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	124	Opposing Demand Flow Rate, veh/h	67
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	55.8
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.62152
PF Slope Coefficient (m)	-1.28024	PF Power Coefficient (p)	0.77103
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1162	-	-	55.5

Vehicle Results

Average Speed, mi/h	55.5	Percent Followers, %	22.6
Segment Travel Time, minutes	0.24	Follower Density (FD), followers/mi/ln	0.5
Vehicle LOS	A		

Segment 9

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	8686
Lane Width, ft	12	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	7.3

Demand and Capacity

Directional Demand Flow Rate, veh/h	124	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	57.3
Speed Slope Coefficient (m)	3.69306	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.31619	PF Power Coefficient (p)	0.73942
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	8686	-	-	56.5

Vehicle Results

Average Speed, mi/h	56.5	Percent Followers, %	24.6
Segment Travel Time, minutes	1.75	Follower Density (FD), followers/mi/ln	0.5
Vehicle LOS	A		

Segment 10

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1177
Lane Width, ft	10	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	28.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	124	Opposing Demand Flow Rate, veh/h	67
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.9
Speed Slope Coefficient (m)	2.95000	Speed Power Coefficient (p)	0.59085
PF Slope Coefficient (m)	-1.28278	PF Power Coefficient (p)	0.76722
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.6
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1177	-	-	50.6

Vehicle Results

Average Speed, mi/h	50.6	Percent Followers, %	22.8
Segment Travel Time, minutes	0.26	Follower Density (FD), followers/mi/ln	0.6
Vehicle LOS	A		

Segment 11

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1420
Lane Width, ft	12	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	11.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	124	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	56.3
Speed Slope Coefficient (m)	3.56256	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.42277	PF Power Coefficient (p)	0.72994
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.6
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1420	-	-	55.5

Vehicle Results

Average Speed, mi/h	55.5	Percent Followers, %	26.7
Segment Travel Time, minutes	0.29	Follower Density (FD), followers/mi/ln	0.6
Vehicle LOS	A		

Segment 12

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	10212
Lane Width, ft	11	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	124	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	55.4
Speed Slope Coefficient (m)	3.60216	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.33893	PF Power Coefficient (p)	0.72336
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.6
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	10212	-	-	54.6

Vehicle Results

Average Speed, mi/h	54.6	Percent Followers, %	25.7
Segment Travel Time, minutes	2.12	Follower Density (FD), followers/mi/ln	0.6
Vehicle LOS	A		

Segment 13

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	608
Lane Width, ft	11	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	4.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	284	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.17

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	57.3
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.42136
PF Slope Coefficient (m)	-1.52652	PF Power Coefficient (p)	0.71538
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	2.4
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	608	-	-	55.8

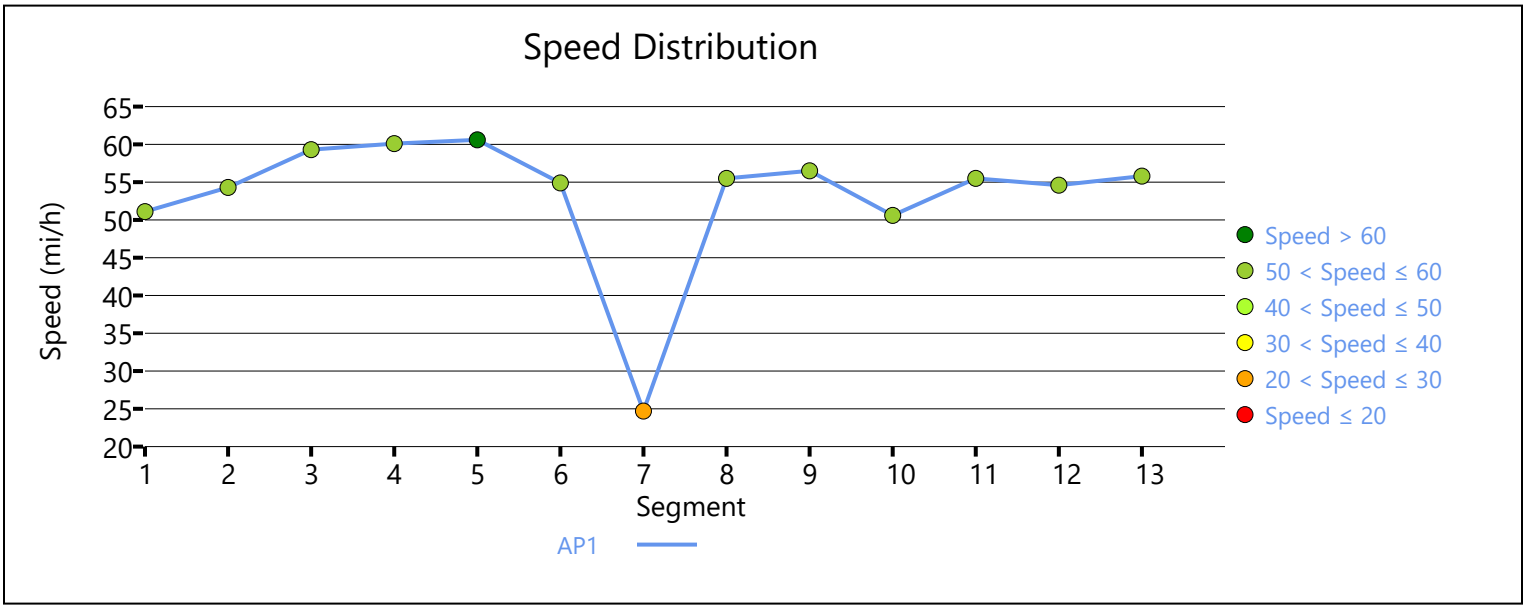
Vehicle Results

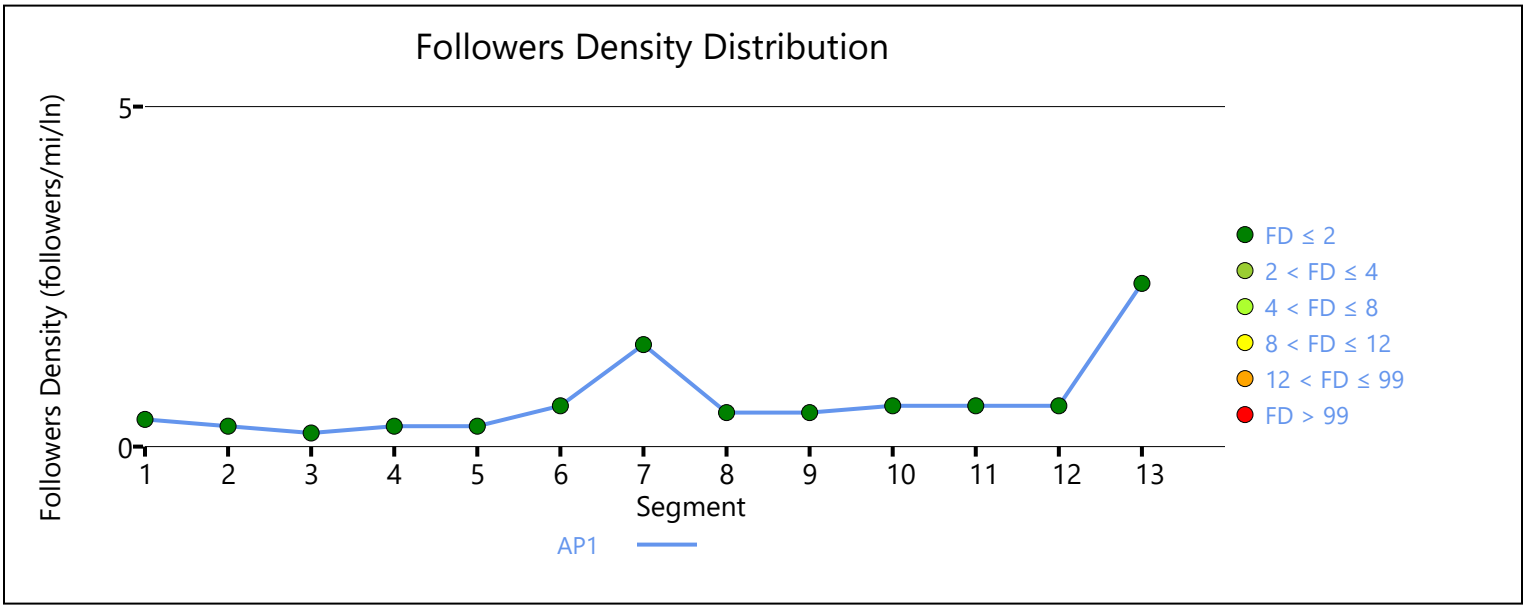
Average Speed, mi/h	55.8	Percent Followers, %	46.2
Segment Travel Time, minutes	0.12	Follower Density (FD), followers/mi/ln	2.4
Vehicle LOS	B		

Facility Results

T	VMT	VHD	Follower Density, followers/	LOS

	veh-mi/p	veh-h/p	mi/ln	
1	223	0.06	0.6	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2023
Jurisdiction		Time Analyzed	Construction PM
Project Description	KY 57	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	3833
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	24.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	187	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.11

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	51.1
Speed Slope Coefficient (m)	3.31561	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.37832	PF Power Coefficient (p)	0.73598
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	1.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3833	-	-	49.9

Vehicle Results

Average Speed, mi/h	49.9	Percent Followers, %	33.1
Segment Travel Time, minutes	0.87	Follower Density (FD), followers/mi/ln	1.2
Vehicle LOS	A		

Segment 2

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	528
Lane Width, ft	9	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	187	Opposing Demand Flow Rate, veh/h	102
Peak Hour Factor	0.94	Total Trucks, %	3.50

Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.11

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	54.3
Speed Slope Coefficient (m)	3.15417	Speed Power Coefficient (p)	0.57329
PF Slope Coefficient (m)	-1.29266	PF Power Coefficient (p)	0.77391
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	1.0
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	528	-	-	53.5

Vehicle Results

Average Speed, mi/h	53.5	Percent Followers, %	29.8
Segment Travel Time, minutes	0.11	Follower Density (FD), followers/mi/ln	1.0
Vehicle LOS	A		

Segment 3

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	2580
Lane Width, ft	9	Shoulder Width, ft	6
Speed Limit, mi/h	55	Access Point Density, pts/mi	4.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	187	Opposing Demand Flow Rate, veh/h	102
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.11

Intermediate Results

Segment Vertical Class	3	Free-Flow Speed, mi/h	59.3
Speed Slope Coefficient (m)	4.23153	Speed Power Coefficient (p)	0.71457
PF Slope Coefficient (m)	-1.16478	PF Power Coefficient (p)	0.80653
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.8
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2580	-	-	58.5

Vehicle Results

Average Speed, mi/h	58.5	Percent Followers, %	26.0
Segment Travel Time, minutes	0.50	Follower Density (FD), followers/mi/ln	0.8
Vehicle LOS	A		

Segment 4

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1400
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	55	Access Point Density, pts/mi	7.7

Demand and Capacity

Directional Demand Flow Rate, veh/h	187	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.11

Intermediate Results

Segment Vertical Class	3	Free-Flow Speed, mi/h	60.1
Speed Slope Coefficient (m)	4.77922	Speed Power Coefficient (p)	0.53696
PF Slope Coefficient (m)	-1.47099	PF Power Coefficient (p)	0.73766
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	1.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1400	-	-	58.8

Vehicle Results

Average Speed, mi/h	58.8	Percent Followers, %	34.8
Segment Travel Time, minutes	0.27	Follower Density (FD), followers/mi/ln	1.1
Vehicle LOS	A		

Segment 5

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1399
Lane Width, ft	12	Shoulder Width, ft	6
Speed Limit, mi/h	55	Access Point Density, pts/mi	7.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	187	Opposing Demand Flow Rate, veh/h	102
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.11

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	60.6
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.62914
PF Slope Coefficient (m)	-1.26730	PF Power Coefficient (p)	0.78517
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.9
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1399	-	-	59.9

Vehicle Results

Average Speed, mi/h	59.9	Percent Followers, %	28.8
Segment Travel Time, minutes	0.27	Follower Density (FD), followers/mi/ln	0.9
Vehicle LOS	A		

Segment 6

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4187
Lane Width, ft	10	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	8.9

Demand and Capacity

Directional Demand Flow Rate, veh/h	112	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	55.7
Speed Slope Coefficient (m)	3.56613	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.34280	PF Power Coefficient (p)	0.74945
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4187	-	-	55.1

Vehicle Results

Average Speed, mi/h	55.1	Percent Followers, %	22.9
Segment Travel Time, minutes	0.86	Follower Density (FD), followers/mi/ln	0.5
Vehicle LOS	A		

Segment 7

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4905
Lane Width, ft	10	Shoulder Width, ft	1
Speed Limit, mi/h	35	Access Point Density, pts/mi	39.8

Demand and Capacity

Directional Demand Flow Rate, veh/h	112	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	25.1
Speed Slope Coefficient (m)	1.91896	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.32538	PF Power Coefficient (p)	0.62496
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	1.3
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4905	-	-	24.8

Vehicle Results

Average Speed, mi/h	24.8	Percent Followers, %	28.6
Segment Travel Time, minutes	2.24	Follower Density (FD), followers/mi/ln	1.3
Vehicle LOS	A		

Segment 8

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1162
Lane Width, ft	10	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	8.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	112	Opposing Demand Flow Rate, veh/h	61
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	55.8
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.62611
PF Slope Coefficient (m)	-1.27620	PF Power Coefficient (p)	0.77185
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.4
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1162	-	-	55.6

Vehicle Results

Average Speed, mi/h	55.6	Percent Followers, %	20.9
Segment Travel Time, minutes	0.24	Follower Density (FD), followers/mi/ln	0.4
Vehicle LOS	A		

Segment 9

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	8686
Lane Width, ft	12	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	7.3

Demand and Capacity

Directional Demand Flow Rate, veh/h	112	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	57.3
Speed Slope Coefficient (m)	3.69306	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.31619	PF Power Coefficient (p)	0.73942
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	8686	-	-	56.7

Vehicle Results

Average Speed, mi/h	56.7	Percent Followers, %	22.9
Segment Travel Time, minutes	1.74	Follower Density (FD), followers/mi/ln	0.5
Vehicle LOS	A		

Segment 10

Vehicle Inputs

Segment Type	Passing Zone	Length, ft	1177
Lane Width, ft	10	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	28.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	112	Opposing Demand Flow Rate, veh/h	61
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	50.9
Speed Slope Coefficient (m)	2.94585	Speed Power Coefficient (p)	0.59462
PF Slope Coefficient (m)	-1.27898	PF Power Coefficient (p)	0.76801
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1177	-	-	50.7

Vehicle Results

Average Speed, mi/h	50.7	Percent Followers, %	21.1
Segment Travel Time, minutes	0.26	Follower Density (FD), followers/mi/ln	0.5
Vehicle LOS	A		

Segment 11

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	1420
Lane Width, ft	12	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	11.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	112	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	56.3
Speed Slope Coefficient (m)	3.56256	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.42277	PF Power Coefficient (p)	0.72994
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	1420	-	-	55.8

Vehicle Results

Average Speed, mi/h	55.8	Percent Followers, %	25.0
Segment Travel Time, minutes	0.29	Follower Density (FD), followers/mi/ln	0.5
Vehicle LOS	A		

Segment 12

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	10212
Lane Width, ft	11	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	12.4

Demand and Capacity

Directional Demand Flow Rate, veh/h	112	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.07

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	55.4
Speed Slope Coefficient (m)	3.60216	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.33893	PF Power Coefficient (p)	0.72336
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.5
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	10212	-	-	54.8

Vehicle Results

Average Speed, mi/h	54.8	Percent Followers, %	24.0
Segment Travel Time, minutes	2.12	Follower Density (FD), followers/mi/ln	0.5
Vehicle LOS	A		

Segment 13

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	608
Lane Width, ft	11	Shoulder Width, ft	1
Speed Limit, mi/h	55	Access Point Density, pts/mi	4.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	345	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	3.50
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.20

Intermediate Results

Segment Vertical Class	2	Free-Flow Speed, mi/h	57.3
Speed Slope Coefficient (m)	3.11550	Speed Power Coefficient (p)	0.42136
PF Slope Coefficient (m)	-1.52652	PF Power Coefficient (p)	0.71538
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	3.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	608	-	-	55.6

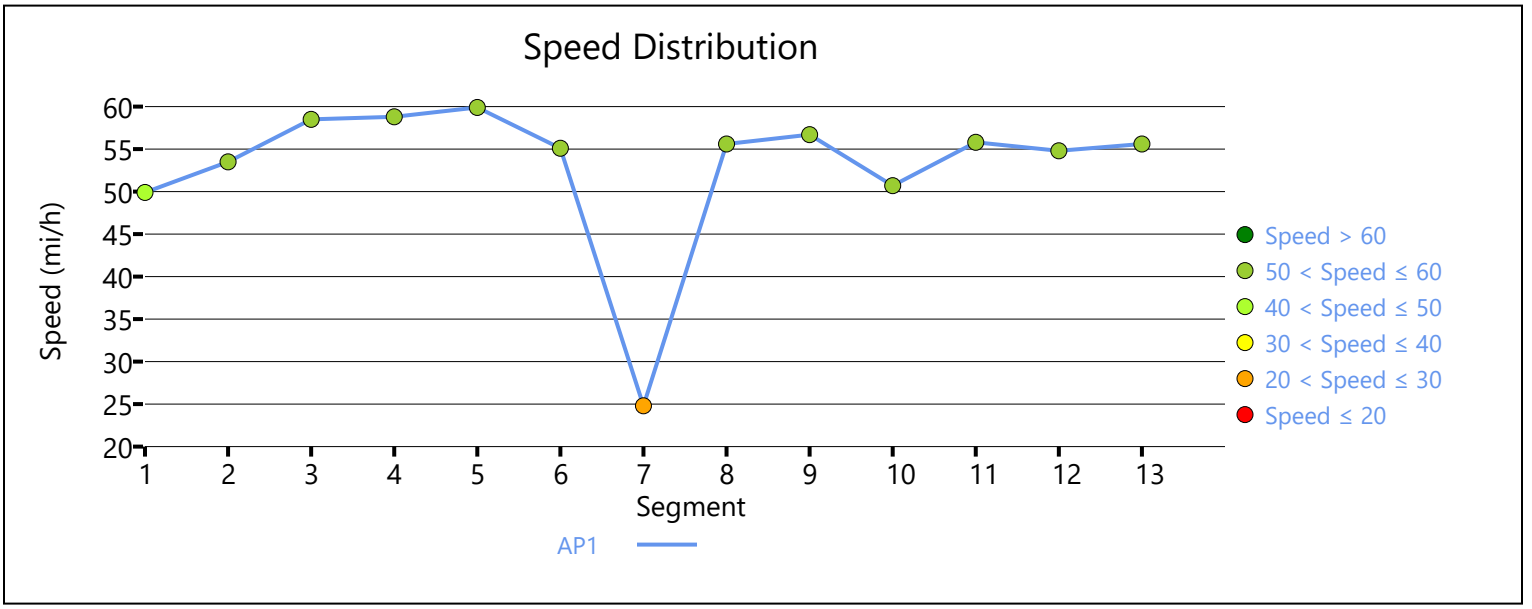
Vehicle Results

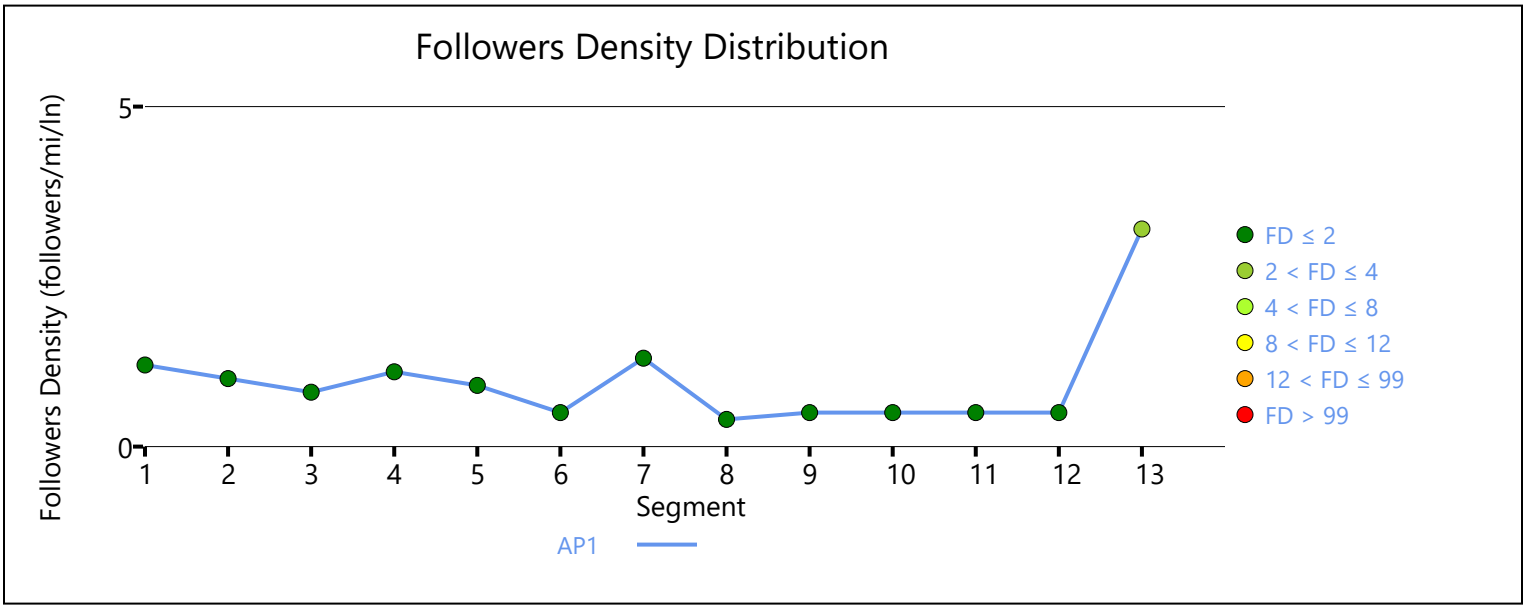
Average Speed, mi/h	55.6	Percent Followers, %	51.0
Segment Travel Time, minutes	0.12	Follower Density (FD), followers/mi/ln	3.2
Vehicle LOS	B		

Facility Results

T	VMT	VHD	Follower Density, followers/	LOS

	veh-mi/p	veh-h/p	mi/ln	
1	248	0.07	0.7	A





HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2023
Jurisdiction		Time Analyzed	Construction AM
Project Description	CR 1037	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2558
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	14.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	22	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	18.9
Speed Slope Coefficient (m)	1.55508	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.27783	PF Power Coefficient (p)	0.57790
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2558	-	-	18.9

Vehicle Results

Average Speed, mi/h	18.9	Percent Followers, %	13.2
Segment Travel Time, minutes	1.54	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	3	0.00	0.2	A

HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2023
Jurisdiction		Time Analyzed	Construction PM
Project Description	CR 1037	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	2558
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	14.0

Demand and Capacity

Directional Demand Flow Rate, veh/h	28	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	18.9
Speed Slope Coefficient (m)	1.55508	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.27783	PF Power Coefficient (p)	0.57790
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	2558	-	-	18.9

Vehicle Results

Average Speed, mi/h	18.9	Percent Followers, %	14.8
Segment Travel Time, minutes	1.54	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	3	0.00	0.2	A

HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2023
Jurisdiction		Time Analyzed	Construction AM
Project Description	CR 1036	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	3025
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	12.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	30	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.02

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	19.4
Speed Slope Coefficient (m)	1.58682	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.27434	PF Power Coefficient (p)	0.58479
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.2
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3025	-	-	19.4

Vehicle Results

Average Speed, mi/h	19.4	Percent Followers, %	15.2
Segment Travel Time, minutes	1.77	Follower Density (FD), followers/mi/ln	0.2
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	4	0.00	0.2	A

HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2023
Jurisdiction		Time Analyzed	Construction PM
Project Description	CR 1036	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	3025
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	12.1

Demand and Capacity

Directional Demand Flow Rate, veh/h	22	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	19.4
Speed Slope Coefficient (m)	1.58682	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.27434	PF Power Coefficient (p)	0.58479
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	3025	-	-	19.4

Vehicle Results

Average Speed, mi/h	19.4	Percent Followers, %	12.9
Segment Travel Time, minutes	1.77	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	3	0.00	0.1	A

HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2023
Jurisdiction		Time Analyzed	Construction AM
Project Description	CR 1030	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4172
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	7.6

Demand and Capacity

Directional Demand Flow Rate, veh/h	21	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	20.5
Speed Slope Coefficient (m)	1.66165	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.27316	PF Power Coefficient (p)	0.59682
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4172	-	-	20.5

Vehicle Results

Average Speed, mi/h	20.5	Percent Followers, %	11.8
Segment Travel Time, minutes	2.31	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	4	0.00	0.1	A

HCS Two-Lane Highway Report

Project Information

Analyst	ATW	Date	5/4/2022
Agency	Stantec	Analysis Year	2023
Jurisdiction		Time Analyzed	Construction PM
Project Description	CR 1030	Units	U.S. Customary

Segment 1

Vehicle Inputs

Segment Type	Passing Constrained	Length, ft	4172
Lane Width, ft	9	Shoulder Width, ft	0
Speed Limit, mi/h	25	Access Point Density, pts/mi	7.6

Demand and Capacity

Directional Demand Flow Rate, veh/h	18	Opposing Demand Flow Rate, veh/h	-
Peak Hour Factor	0.94	Total Trucks, %	2.00
Segment Capacity, veh/h	1700	Demand/Capacity (D/C)	0.01

Intermediate Results

Segment Vertical Class	1	Free-Flow Speed, mi/h	20.5
Speed Slope Coefficient (m)	1.66165	Speed Power Coefficient (p)	0.41674
PF Slope Coefficient (m)	-1.27316	PF Power Coefficient (p)	0.59682
In Passing Lane Effective Length?	No	Total Segment Density, veh/mi/ln	0.1
%Improvement to Percent Followers	0.0	%Improvement to Speed	0.0

Subsegment Data

#	Segment Type	Length, ft	Radius, ft	Superelevation, %	Average Speed, mi/h
1	Tangent	4172	-	-	20.5

Vehicle Results

Average Speed, mi/h	20.5	Percent Followers, %	10.8
Segment Travel Time, minutes	2.31	Follower Density (FD), followers/mi/ln	0.1
Vehicle LOS	A		

Facility Results

T	VMT veh-mi/p	VHD veh-h/p	Follower Density, followers/ mi/ln	LOS
1	3	0.00	0.1	A