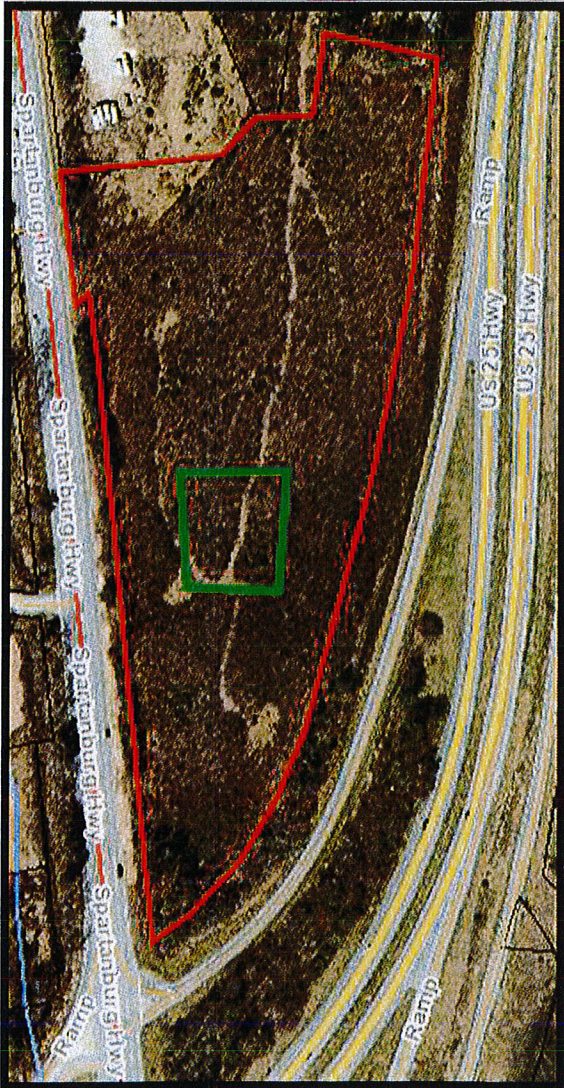


At the Request of  
**Jeffrey B. Shipman Enterprises, Inc.**  
C/O The Van Winkle Law Firm  
PO Box 7376  
Asheville, NC 28802

**MARKET IMPACT STUDY**



**PROPOSED ASPHALT PLANT - US HIGHWAY 176, EAST FLAT ROCK, HENDERSON COUNTY, NC 28726**

<b>Relevant Dates</b>	
Date Property Inspected:	July 31, 2020
Date Data Collected:	August 3, 2020
Date of Report:	August 5, 2020

**Prepared By**  
Lynn Carmichael, MAI, AI-GRS  
ACE Appraisals Inc.  
15 Dansford Lane  
Arden, 28704





*Scope of Work*

The study process begins by identifying the problem to be solved. To identify the problem to be solved I examined the client and intended users, intended use of the opinion or conclusions, subject of the assignment and its relevant characteristics and the assignment conditions. With this information, I was able to determine the type and extent of research and analysis necessary to include in the development of the study report to produce credible assignment results.

Problem

Does the presence of an Asphalt Plant have an injurious impact on residential property values in the surrounding area?

Subject

The subject property prompting the study is identified on the previous page. The subject site is a 6.5 acre section of an 11.90 acre site that is currently vacant land. The 6.5 acre site is surrounded by the 11.90 acre site (parent site); however, the 11.90 acre site is surrounded by industrial/commercial uses to the north and west while residential use properties adjoint to the northeast. US Highway 176 runs along the western border of the parent site while US Highway 25 or an off ramp run along the eastern and southern borders. Properties along US 176 in the vicinity of the parent site include primarily commercial or industrial uses.

Fact

The site for the proposed asphalt plant is within a mixed-use area that includes other industrial uses as well as commercial and residential uses.

Theory

If the presence of an asphalt plant has an injurious impact on the value of the surrounding residential properties then I would expect to see a sharp rise in property values further away from the asphalt plant. Furthermore, if the presence of the asphalt plant is injurious to the residential property values then I would expect to see a consistent pattern of increased property values with increased distance despite other influences. Finally, if the presence of the asphalt plant is the cause of the injurious impact on the value of residential properties, I would expect to see a more dramatic increase in the value for the residential properties as the distance increases surrounding an asphalt plant compared to a control property which, as best as possible resembles the current demographics of the subject's vicinity.

Study

I examined the mean and median values of residential properties within a 0.5-mile, 1 mile and 5 mile radius of five asphalt plants in the Henderson and Buncombe Counties of Western NC. The Buncombe and Henderson County areas were selected as they most resemble the area of the subject property and provide adequate data for analysis. The mean and median values were extracted from the regional MLS and covered the two-year period immediately preceding the date of the data collection. A two-year period was selected to minimize any anomaly's due to the current pandemic situation. As the site of the proposed asphalt plant is in a mixed use area that currently includes industrial uses, I located a control property within close proximity to each asphalt plant. For the control properties, I tried as best as possible to match the current make up of the subject site with a mix of industrial, commercial and residential uses. I measured the percentage difference in the mean and median values between 0.5-mile and 1-mile radius then between 1-mile and 5-mile radius of the asphalt plant property and the control property. The results of my study are included on the following pages.



MARKET IMPACT STUDY, ASPHALT PLAN I

Data compiled August 3, 2020 for period from August 4, 2018 until August 3, 2020										
Group 1	Distance Apart	.5 Mile	5 Mile Total Sales	1 Mile	1 Mile Total Sales	5 Miles	5 Mile Total Sales			
A	1188 Smokey Park Highway, Candler	4.2 Miles	Mean \$208,985 Median \$200,000	5	\$333,477 \$290,000	48	60% 45%	\$316,097 \$281,000	1,231	-5% -3%
C	2023 Smokey Park Highway, Candler Industrial		Mean \$225,738 Median \$240,250	16	\$230,311 \$225,000	55	2% -6%	\$319,655 \$280,000	749	39% 24%
Group 2										
A	1557 Grovestone Road, Black Mountain	4.4 Miles	Mean \$205,754 Median \$181,508	4	\$221,916 \$233,000	32	8% 28%	\$316,729 \$279,600	691	43% 20%
C	114 Buckeye Cove Road, Swannanoa Industrial		Mean \$237,079 Median \$249,400	23	\$274,785 \$252,180	66	16% 1%	\$350,400 \$310,000	982	28% 23%
Group 3										
A	450 Goldview Road, Weaverville	5.5 Miles	Mean \$283,500 Median \$283,500	2	\$377,783 \$365,000	15	33% 29%	\$376,112 \$324,900	1,143	0% -11%
C	2992 Riverside Drive, Woodfin Craggy Correctional Center		Mean \$166,750 Median \$166,750	2	\$376,347 \$340,448	44	126% 104%	\$381,102 \$329,000	1,395	1% -3%
Group 4										
A	2352 Clear Creek Road, Hendersonville	6.4 Miles	Mean \$213,557 Median \$199,999	7	\$249,641 \$240,000	47	17% 20%	\$287,716 \$270,000	1,493	15% 13%
C	2079 Orchard Road, East Flat Rock Wrecker		Mean \$181,583 Median \$156,000	6	\$243,567 \$240,000	33	34% 54%	\$258,689 \$242,750	746	6% 1%
Group 5										
A	2700 Asheville Highway, Hendersonville	1.3 Miles	Mean \$247,167 Median \$255,000	6	\$240,277 \$244,250	54	-3% -4%	\$298,489 \$274,063	1,578	24% 12%
C	32 Smyth Avenue, Hendersonville Industrial		Mean \$198,762 Median \$217,000	13	\$214,491 \$221,000	80	8% 2%	\$309,805 \$275,000	1,638	44% 24%

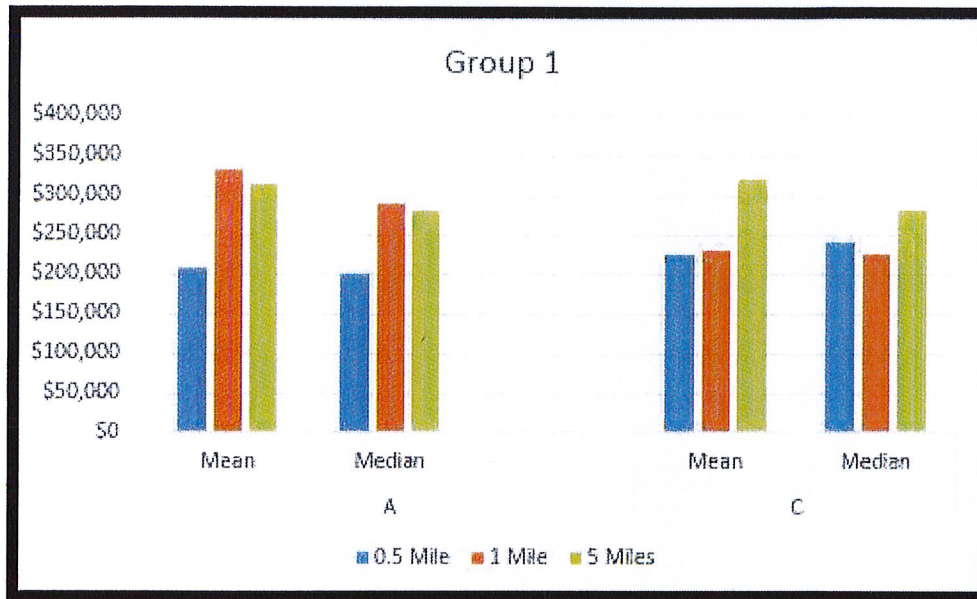


MARKET IMPACT STUDY. ASPHALT PLANT

DATA ANALYSIS

On the following pages, I have analyzed the data previously shown. Within each property analyzed, A represents the asphalt plant while C represents the control property.

Group 1		0.5 Mile	1 Mile	5 Miles
A	Mean	\$208,985	\$333,477	\$316,097
	Median	\$200,000	\$290,000	\$281,000
C	Mean	\$225,738	\$230,311	\$319,655
	Median	\$240,250	\$225,000	\$280,000



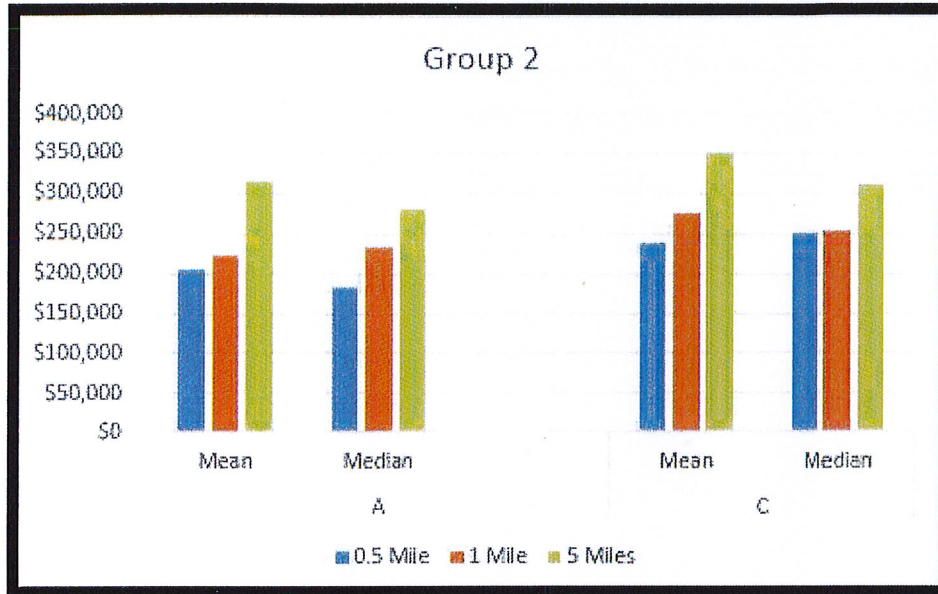
The mean and median residential property values within Group 1 have a significant spike in value (60% and 45%) with a combined average change in value of 52% between the 0.5 mile to 1-mile radiuses surrounding the asphalt plant whereas the control property has a minor (2%) increase in the mean value and a decrease in the median value with a combined average change in value of negative 2%. The sharp rise in the mean and median values for the residential properties surrounding the asphalt plant with no corresponding pattern for the control property suggests an injurious impact on the residential property values within a 0.5-mile radius surrounding the asphalt plant.

The mean and median residential property values within Group 1 have negative changes (-5% and -3%) in value between the 1-mile to 5-mile radiuses surrounding the asphalt plant resulting in a combined average change in value of -4%. The control property has a significant (39% and 24%) increase in the mean and median values for the 1-mile and 5-mile radiuses resulting in a combined average change in value of 32%. The overall decrease in the mean and median values for the residential properties beyond the 1-mile radius surrounding the asphalt plant compared to the sharp rise in values for the control property within the same distance suggests there is no injurious impact on the residential property values beyond a 1-mile radius resulting exclusively from the presence of the asphalt plant.



MARKET IMPACT STUDY. ASPHALT PLANT

Group 2		0.5 Mile	1 Mile	5 Miles
A	Mean	\$205,754	\$221,916	\$316,729
	Median	\$181,508	\$233,000	\$279,600
C	Mean	\$237,079	\$274,785	\$350,400
	Median	\$249,400	\$252,180	\$310,000



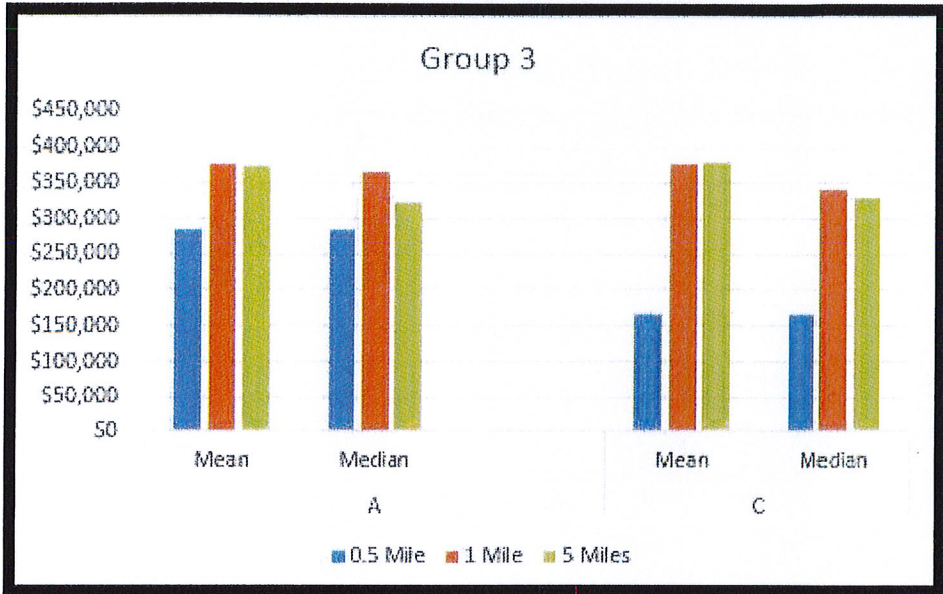
The mean and median residential property values within Group 2 have an increase in value (8% and 28%) with a combined average change in value of 18% between the 0.5 mile to 1-mile radiuses surrounding the asphalt plant whereas the control property has slightly lower increases (16% and 1%) in the mean and median values with a combined average change in value of 9%. The rise in the mean and median values for the residential properties surrounding the asphalt plant with a corresponding pattern for the control property suggests any injurious impact on the residential property values within a 0.5-mile radius surrounding the asphalt plant may not be directly related to the presence of the asphalt plant.

The mean and median residential property values surrounding the asphalt plant within Group 2 have a further significant change in value (43% and 20%) between the 1-mile and 5-mile radiuses resulting in a combined average change in value of 31%. The control property also has a significant (28% and 23%) increase in the mean and median values for the 1-mile and 5-mile radiuses resulting in a combined average change in value of 25%. The overall change in value for the mean and median values for the residential properties beyond the 1-mile radius of the asphalt plant was 31% which is comparable to the 25% change in values for the control property within the same distance which suggests there is no injurious impact on the residential property values beyond a 1-mile radius resulting exclusively from the presence of the asphalt plant.



MARKET IMPACT STUDY. ASPHALT PLANT

Group 3		0.5 Mile	1 Mile	5 Miles
A	Mean	\$283,500	\$377,783	\$376,112
	Median	\$283,500	\$365,000	\$324,900
C	Mean	\$166,750	\$376,347	\$381,102
	Median	\$166,750	\$340,448	\$329,000



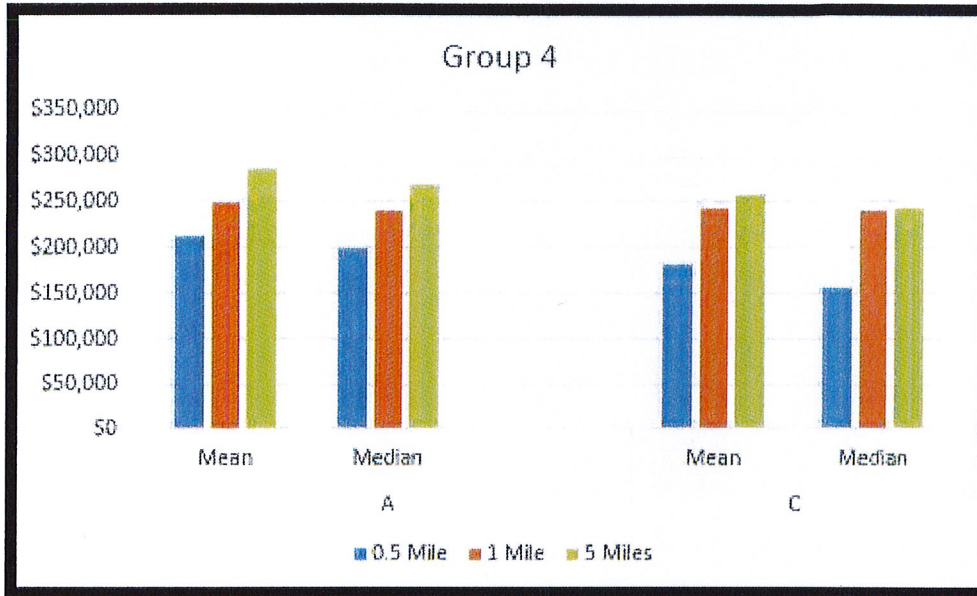
The mean and median residential property values within Group 3 have an increase in value (33% and 29%) with a combined average change in value of 31% between the 0.5 mile and 1-mile radiuses surrounding the asphalt plant whereas the control property Group 3 had significant increases in value (126% and 104%) resulting in a combined average change in value of 115% between the 0.5 mile and 1-mile radiuses. The rise in the mean and median values for the residential properties surrounding the asphalt plant with a corresponding pattern for the control property suggests any injurious impact on the residential property values within a 0.5-mile radius surrounding the asphalt plant may not be directly related to the presence of the asphalt plant. The significant increase in value within the control group emphasizes this point.

The mean and median residential property values surrounding the asphalt plant within Group 3 decreased in value (0% and -11%) between the 1-mile and 5-mile radiuses resulting in a combined average change in value of -6%. The control property had a similar (1% and -3%) change in residential property values for the 1-mile and 5-mile radiuses resulting in a combined average change in value of -1%. The overall decrease in the mean and median values for the residential properties beyond the 1-mile radius surrounding the asphalt plant and the control property within the same distance suggests there is no injurious impact on the residential property values beyond a 1-mile radius resulting exclusively from the presence of the asphalt plant.



MARKET IMPACT STUDY. ASPHALT PLANT

Group 4		0.5 Mile	1 Mile	5 Miles
A	Mean	\$254,222	\$259,046	\$272,116
	Median	\$210,000	\$230,950	\$259,000
C	Mean	\$126,000	\$250,539	\$246,466
	Median	\$126,000	\$287,000	\$235,000



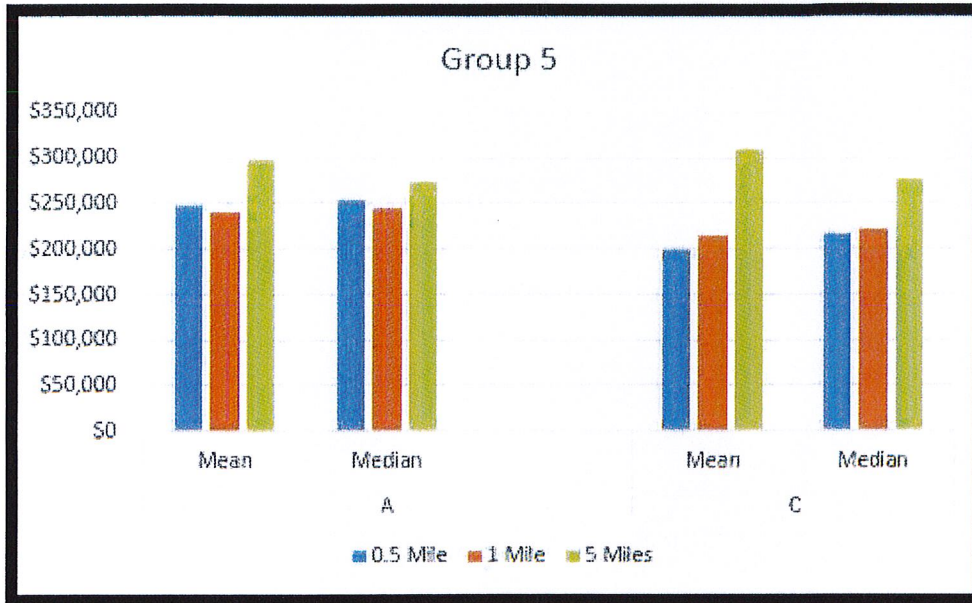
The mean and median residential property values within Group 4 have an increase in value (17% and 20%) with a combined average change in value of 18% between the 0.5 mile and 1-mile radiuses surrounding the asphalt plant whereas the control property has a significant spike (34% and 54%) in the mean and median values with a combined average change in value of 44% for the same distance. The marginal rise in the mean and median values for the asphalt plant compared to the significant spike in value for the control property suggests no injurious impact on the residential property values within a 0.5-mile radius surrounding the asphalt plant due specifically to the presence of the asphalt plant.

The mean and median residential property values surrounding the asphalt plant within Group 4 continued to increase in value (15% and 13%) between the 1-mile and 5-mile radiuses resulting in a combined average change in value of 14%. The control property had a similar (6% and 1%) change in residential property values for the 1-mile and 5-mile radiuses resulting in a combined average change in value of 4%. The similar pattern in the mean and median values for the residential properties beyond the 1-mile radius surrounding the asphalt plant and the control property within the same distance suggests there is no injurious impact on the residential property values beyond a 1-mile radius resulting exclusively from the presence of the asphalt plant.



MARKET IMPACT STUDY. ASPHALT PLANT

Group 5		0.5 Mile	1 Mile	5 Miles
A	Mean	\$247,167	\$240,277	\$298,489
	Median	\$255,000	\$244,250	\$274,063
C	Mean	\$198,762	\$214,491	\$309,805
	Median	\$217,000	\$221,000	\$275,000



The mean and median residential property values within Group 5 decreased in value (-3% and -4%) with a combined average change in value of -3.5% between the 0.5 mile and 1-mile radiuses of the asphalt plant whereas the control property has an 8% increase in the mean value and a 2% increase in the median value for a combined average change in value of 5% for the same distance. The decrease in the mean and median values for the asphalt plant suggest no injurious impact on the residential property values within a 0.5-mile radius of the asphalt plant.

As I conclude there is no injurious impact on the residential property values within a 0.5-mile radius surrounding the asphalt plant, there can be no injurious impact on residential values further away from the plant that is resulting exclusively from the presence of the asphalt plant.



**SUMMARY AND CONCLUSION OF STUDY FINDINGS**

The determination of each group analyzed is summarized in the table below.

	Summary of Study Findings					
	0.5-Mile to 1-Mile			1-Mile to 5-Mile		
	Asphalt Plant	Control Property	Conclusion	Asphalt Plant	Control Property	Conclusion
Group 1	52%	-2%	Injurious	-4%	32%	Not Injurious
Group 2	18%	9%	Not Injurious	31%	25%	Not Injurious
Group 3	31%	115%	Not Injurious	-6%	-1%	Not Injurious
Group 4	18%	44%	Not Injurious	14%	4%	Not Injurious
Group 5	-4%	5%	Not Injurious	18%	34%	Not Injurious

Within each group I examined the mean and median values for residential properties within a 0.5-mile, 1-mile and 5-mile radius of an asphalt plant and a control property that somewhat resembles the current vicinity of the subject site. The mean and median values were extracted from the MLS for the two-year period immediately preceding the date the data was collected. In the Scope of Work section of this study, my theory stated the following.

Theory	<p>If the presence of an asphalt plant has an injurious impact on the value of the surrounding residential properties then I would expect to see a sharp rise in property values further away from the asphalt plant. Furthermore, if the presence of the asphalt plant is injurious to the residential property values then I would expect to see a consistent pattern of increased property values with increased distance despite other influences. Finally, if the presence of the asphalt plant is the cause of the injurious impact on the value of residential properties, I would expect to see a more dramatic increase in the value for the residential properties as the distance increases surrounding an asphalt plant compared to a control property which, as best as possible resembles the current demographics of the subject's vicinity.</p>
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Based on the theory, the presence of the asphalt plant is the cause of an injurious impact on value if three criteria are met: 1. Property values rise in relation to distance from the site of the asphalt plant, 2. The pattern of increased property values in relation to distance from the site of the asphalt plant is consistent with numerous properties (asphalt plant sites), and 3. The values surrounding the asphalt plant site increase more dramatically with distance compared to the control group.

The mean and median values within Group 1 for the 0.5-mile to 1-mile radius suggests an injurious impact on value due to the presence of the asphalt plant given the significant rise in the property values for the residential properties further from the asphalt plant compared to the control property; however, the mean and median values within Groups 2 through 4 for the 0.5-mile to 1-mile radius suggests no injurious impact on value due to the presence of the asphalt plant as both the area of the asphalt plant and the control group act similar. Within Group 2 the property values further from the asphalt plant increased greater than that of the control group suggesting the asphalt plant may have some impact on value; however, for Groups 3 and 4 for the 0.5-mile to 1-mile radius, the property values for the residential properties surrounding the asphalt plant increased at a lower rate compared to the control property indicating any injurious impact on value was not exclusively related to the asphalt plant. Finally, the mean and median values within Group 5 for the 0.5-mile to 1-mile radius suggests no injurious impact on value due to the presence of the asphalt plant given the decrease in the property values for the residential properties further from the asphalt plant compared to the control property.

For the 1-mile to 5-mile radius, I concluded that all groups showed no injurious impact on value. In order for there to be an injurious impact on value within the larger radius, there must be an injurious impact within the smaller radius. As there was no injurious impact on value for Groups 2 through 5 within the smaller radius, there is no injurious impact on value for these groups within the larger radius. Within the 1-mile to 5-mile radius, Group 1 had a decrease in value comparable to the control group. The decrease in value with distance from the asphalt plant means the values closer to the plant were higher; therefore, there is no injurious impact on value resulting from the presence of the asphalt plant for the residential properties within Group 1 within the 1-mile to 5-mile radius.

*Conclusions*

Only one group out of the five groups examined show a sharp rise in residential property values between the 0.5-mile to 1-mile radius for properties surrounding an asphalt plant while three the remaining four groups showed a decrease in residential property values with increased distance from the asphalt plant or showed increases at a lower rate than

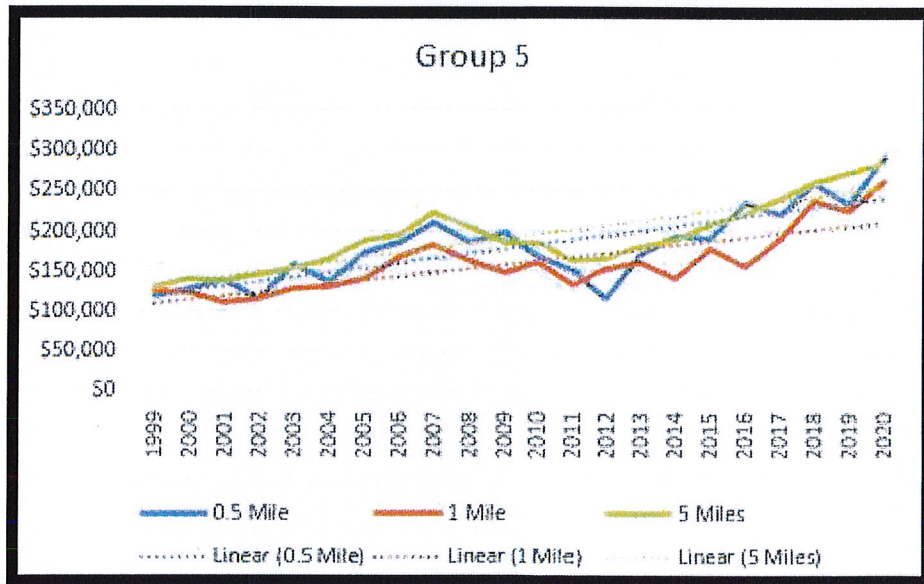


Group 5, 2700 Asheville Highway

The asphalt plant at 2700 Asheville Highway was constructed in 2001. In one of the two years prior to the construction of the plant, the values within a 0.5-mile radius of the site where the plant was constructed were lower than the values within a 1-mile radius and in the other year the values were higher indicating no impact on value from the site prior to the construction of the asphalt plant. In the year the plant was constructed and the years afterwards, two out of eighteen years the values within a 0.5-mile radius of the site where the plant was constructed were lower than the values within a 1-mile radius and in the other sixteen years the values were higher closer to the plant indicating no injurious impact on value from the construction of the asphalt plant.

The trend of the median values is visually depicted in the chart below. The blue line represents the sales within the 0.5-mile radius of the asphalt plant while the red line represents the sales within the 1-mile radius and the green line represents sales within a 5-mile radius. With the exception of one year, the blue line is consistently equal to or higher than the red line. The blue line indicates a slight decrease in the one year following the construction of the asphalt plant; however, the long-term higher values than the sales represented by the red line indicates there is no injurious impact on value due to the presence of the asphalt plant.

2700 Asheville Highway, Hendersonville - Median Values			
Group 5	0.5 Mile	1 Mile	5 Miles
1999	\$119,450	\$125,000	\$130,500
2000	\$127,000	\$123,500	\$140,250
2001	\$139,000	\$110,000	\$138,200
2002	\$115,000	\$116,500	\$145,000
2003	\$158,000	\$128,000	\$153,950
2004	\$135,000	\$131,825	\$165,550
2005	\$172,500	\$139,750	\$186,500
2006	\$184,000	\$168,000	\$195,000
2007	\$210,000	\$182,250	\$222,950
2008	\$184,000	\$163,750	\$205,000
2009	\$196,500	\$148,500	\$185,750
2010	\$168,500	\$159,500	\$185,000
2011	\$151,600	\$133,750	\$162,500
2012	\$115,000	\$152,000	\$164,150
2013	\$169,500	\$159,250	\$180,000
2014	\$192,000	\$140,000	\$187,000
2015	\$190,000	\$177,500	\$206,750
2016	\$235,000	\$155,000	\$220,000
2017	\$219,000	\$189,900	\$240,000
2018	\$260,000	\$237,000	\$260,000
2019	\$231,000	\$224,000	\$273,000
2020	\$291,000	\$262,500	\$284,500



All three lines trend in generally the same direction. The blue line has the smallest sample size which makes it more fluctuating as there is less data while the green line has the largest sample size making it a smoother line. As in the previous analysis, to show the overall trend for each line I included the "Linear Trend Line" which is the dotted line shown on the chart. As shown on the chart, the values for properties within closer proximity to the asphalt plant not only trend in an upward direction similar to the property values further from the plant yet also the line is higher than the red line indicating higher values within the 0.5-mile radius. Finally, all three study areas reacted in a similar manner during the most recent recession of 2008 and all three areas have recovered in a similar manner.

The values within the study areas and the trend lines of the property values provides further support that the presence of and proximity to the asphalt plant at 2700 Asheville Highway does not have an injurious impact on the residential property values.



the control group. The one group that showed an increase in value within the smaller radius, showed a change in value comparable to the control group within the larger radius. My study did not show a consistent pattern of increased residential property values with increased distance from the existing asphalt plants. Additionally, the increase in property values for the areas surrounding the asphalt plants were, for the most part, comparable or less than that of the control properties which, as best as possible mirrors the current demographics of the subject's vicinity. Based on the data collected combined with my analysis, it is my opinion there is no injurious impact on residential property values directly resulting from the presence of an asphalt plant when added to the current demographics of the subject site.

**Additional Study**

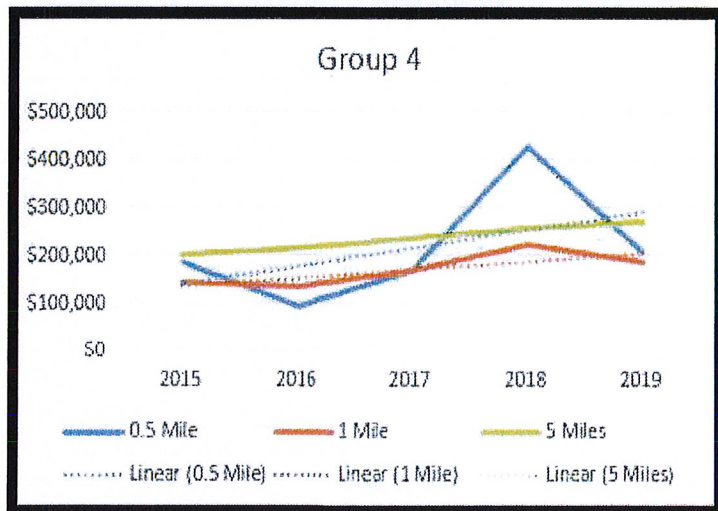
As Group 4 and 5 are located within Henderson County similar to the subject property, I conducted an additional study of the median sale values for the residential properties surrounding the plant at 2352 Clear Creek Road and 2700 Asheville Highway. For the 2352 Clear Creek Road I examined a 10-year period from 2010 until 2019 whereas for the 2700 Asheville Highway property I examined from prior to the construction of the plant in 2001 and in the years following the construction. The tables below highlight my findings.

*Group 4 - 2352 Clear Creek Road*

In the table to the right the purple highlighted value indicates the lowest value for that year. Given the small sample size, four of the ten years had no sales within the 0.5-mile radius of the asphalt plant. Of the remaining six years, the values within the 0.5-mile radius of the plant had a lower value than the other categories only once or had higher values than the 1-mile radius four out of the six years and was equal once. There was not enough data to show a year-to-date for 2020.

Group 4	0.5 Mile	1 Mile	5 Miles
2010	\$0	\$131,450	\$175,000
2011	\$115,950	\$114,000	\$160,000
2012	\$0	\$125,000	\$160,000
2013	\$0	\$102,500	\$176,750
2014	\$0	\$138,000	\$184,500
2015	\$183,500	\$142,500	\$199,450
2016	\$91,643	\$135,000	\$215,000
2017	\$170,000	\$170,000	\$234,150
2018	\$425,000	\$221,900	\$255,000
2019	\$205,000	\$184,000	\$269,500

The trend of the median values is visually depicted in the chart to the right. As there were no sales in several years prior to 2014, the chart starts at 2015 and shows the trend lines until 2019. The blue line has the smallest sample size which makes it more fluctuating as there is less data while the green line has the largest sample size making it a smoother line. The lines within the chart indicate an overall similar trend. While the blue line decreases significantly between 2018 and 2019, the line is merely returning to normal values after a significant spike between 2017 and 2018. Additionally, during 2019, the blue line (0.5-mile radius) still indicates a higher value than the red line (1-mile radius). To show the overall trend for each line, I included the "Linear Trend Line" which is the dotted line shown on the chart. As shown on the chart, the values for properties within closer proximity to the asphalt plant not only trend in an upward direction similar to the property values further from the plant yet also the line is higher than the red line indicating higher values within the 0.5-mile radius.



The values within the study areas and the trend lines of the property values provide further support that the presence of and proximity to the asphalt plant at 2352 Clear Creek Road in Henderson County does not have an injurious impact on the residential property values.