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How Property Values Will Be Affected By a Proposed Off Highway Vehicle Track Located at the North Douglas Neighborhood in the City and Borough of Juneau Alaska

Prepared By Charlie Elliott, MBA, MAI, SRA, Real Estate Appraiser and Consultant March 14, 2008



I. Introduction

My name is Charlie Elliott; I am a real estate appraiser and consultant. I operate a national real estate appraisal firm headquartered in Greensboro, North Carolina. I hold the MAI and SRA designations from the Appraisal Institute and am a member of the National Association of Realtors. I am a state certified general real estate appraiser and a licensed real estate broker. I hold a Masters of Business Administration degree with special real estate study from Wake Forest University, and I have spent approximately 25 years assisting clients in solving real estate related problems, including many public interest projects. I regularly travel across the country assisting my clients with solutions to complex real estate problems. My firm has performed services in all fifty of the states in the United States and has completed in excess of 100,000 appraisal, inspection and consulting assignments. Please take note of a general summary of my resume attached.

This report is prepared for submission to the City and Borough of Juneau Planning Commission to assist in the process of determining the suitability of the above referenced track for development approval. I am here as a representative of Juneau Attorney Vance Sanders and other residents in and around the North Douglas community, which borders the proposed OHV Track.

I have experience serving as a member on my local planning commission and understand the responsibilities of the commissioners.

I enjoy the outdoors, own a boat and enjoy the thrill of speed. My children drive ATVs and I support those who enjoy riding them. I believe that tracks are a good way for the public to enjoy these vehicles. I am not functioning as a conservationist or environmentalist, even though I do have a healthy respect for the environment.

My goal is to use my experience in the real estate industry and the research, which I have performed unique to this particular project, to make all involved aware of the economic and property value effects this proposed track, if approved, will have on the residents and their homes in its vicinity.

I do not offer an appraisal on any of the individual properties surrounding this proposed track. I do offer a research report relating to the recreational use of off-highway vehicles and how they affect property values in general. I further offer my opinion as to how the proposed project will affect the value of property of nearby property owners. My research follows.

II. Research Report Summary

Motocross Track Wayne County, Ohio, Court Case (#01-CV-0017)

My research found a court case in Wayne County, Ohio, filed June 1, 2001, between Plaintiffs Roberta A. Angerman, et al. (109 residents in the county) and Defendant Thomas A. Burick, et al.

The case involved in excess of 100 upset neighbors living between 1,000 feet and one mile from the defendant's Motocross Race Track, which the residents claimed constituted a nuisance that substantially and unreasonably interfered with the use and enjoyment of their property.

Evidence was presented in court that motorcycles, ranging in number up to 25 and in size between 40 cc and 400 cc, caused high-pitched, nerve-wracking, annoying, obnoxious sounds at resident's adjoining homes. The track was open for racing events and was open to the public for practice. Evidence presented by Ronald Huff, an aerospace technologist and noise consultant, demonstrated that peak noise decibel levels, experienced by residents from five locations around the track, were 92, 72, 72, 56 and 71 decibels. Some of the residents testified that they were able to hear the noise from inside their homes with the windows shut. Others complained of dust and dirt accumulating on their property from the track. Another expert witness, Eric Zwerling, testified that, at a sound level of 65 decibels, it would be difficult for two people to converse over a distance of one meter. He further testified that a sound level of 35 decibels interferes with sleep and that, typically, night-time noise ordinance caps are at 50 decibels.

On March 26, 2003, the court found the motocross track to be an absolute nuisance and it was ordered permanently closed.

The proposed OHV track in North Douglas has many of the same characteristics as that of the subject track in the Ohio case. Listed below are a few of the common or near common characteristics:

	Case	Proposed
 Vehicles accommodated Distance from residences (feet) Vehicle types 	25 1,000 – 5,280 Off-road motorcycles	50 + 350 – 2,800 All OHV

Given the facts of the case, the proposed North Douglas track has many similar and, in some aspects, more undesirable characteristics. The same type of vehicles will be permitted to use the facility. The distance from the North Douglas track is actually 650 feet closer to residences than that in the Ohio court case and the North Douglas proposed facility is anticipated to accommodate at least twice as many vehicles. Both are located in rural settings and, according to the

conditional use permit application, the proposed track will occupy only 15 acres, which is very compact for such a course, causing an expected high concentration of noise. The track in the case was used as a race track, and the proposed track is expected to be used for racing in that it has no speed restrictions. The track in the court case was open to the public for practice, as will be the proposed track. The hours of operation of the proposed track are from 8:00 AM until 10:00 PM. In the case, the track had a varied schedule, but was open no earlier than 11:00 AM and closed no later than 9:00 PM. The earlier and later operating times makes the proposed track a less attractive facility to surrounding neighborhoods. The relatively higher actual sound decibels, recorded at the track in the Ohio case, call into question the validity of the sound study, shown on charts presented to the Juneau Planning Commission and prepared by planning staff as a projection and in an informal way. One of the most fundamental shortcomings of the study is that it only considered a maximum number of vehicles creating noise to be five, when the number of vehicles permitted is fifty. The study does demonstrate that the noise level increases significantly when the number of vehicles increases. An example would be that, according to the charts, the noise decibel level created by the vehicles in the daytime with one vehicle 350 feet away is 54 and the corresponding level for five vehicles is 66 decibels. This suggests that additional vehicles on the track, at a given time, increase the decibel level by 2.4 per vehicle. That being said, 45 additional vehicles could conceivably push the decibel level to 174 decibels (66+[45x2.4]=174). While the there is room for debate as to the accuracy of this method of computation, it does prove without question that the number of vehicles on the track raises decibel levels to an extremely large number over and above the 66 provided in the study, and this cannot and should not be ignored. Based upon the Ohio case, I would expect nearby residents to raise the same noise issue in any litigation at the proposed facility. See Exhibits A and B.

Noise People Will Accept Without Undue Complaint

The Orange County (California) Health Department Report (1972) provides results from its study as to the maximum level of noise people in rural residential areas will accept without complaining. This study is currently used as a standard by the U.S. Department of Transportation in planning highway noise levels on new projects, and suggests the following:

	Day	Night		
Rural Residential (decibels)	35-40	25-35		

While this report is one of many that could have been used for comparative purposes, it provides similar numbers to those in other reports. When compared

to the results of the locally prepared study and charts provided the Juneau Planning Commission, it demonstrates that approximately 92% of the time the noise from the proposed track will exceed that which people are willing to tolerate without complaining. Out of the 12 categories during the day, the track fails 10 of the 12 times when distance and the number of machines are considered. At night the track fails 12 of the 12 times when this information is considered. In summary, 22 failures / 24 categories = 92% failure rate. The charts representing this data are attached hereto. See Exhibit B.

Google Search – ATV Noise Complaints

Research for the project was obtained in part from the Internet and from the Google search site. One of the search terms used in the research on the Google site was "ATV noise complaints". As part of its service the Google site offers for each search a number representing the number of articles found in each search. It is of particular interest that the number of articles found by Google with the search words "ATV noise complaints" was one hundred, ten thousand (110,000).

While it was impossible to read all of the articles, many of them were read and the titles were scanned on even more. It should be noted that the large majority of the articles related to homeowners complaining about ATV noise disturbing them in and around their homes. Much, if not most, of the complaining was directed toward municipalities and government entities at public meetings, requesting relief from noise.

While this is not intended to provide conclusive evidence regarding the appropriateness of the proposed facility, it does underscore the concern that people have and the need for responsible government permitting and regulation of OHV tracks. See Exhibit C.

Pennsylvania Man Kills Biker Over Noise

The September 8, 1997, edition of the *Pittsburgh Post Gazette* reports that a man, John Bereznak, of Beaverdale, Pennsylvania, shot and killed a dirt biker who was biking on mounds of coal from an abandoned strip mine, 200 yards from his house. Residents had complained and the matter was taken to court, but no action was taken by the court. Bereznak, according to the article, had himself complained about the noise for years and had other altercations with the bikers previously. He later took his own life.

While it is not suggested that the proposed is likely to create a situation where residents are likely to take up arms to protect their property, this is an extreme example of how disrupting recreational bikers can be as close as 600 feet from a residence. See Exhibit D.

Hedonic Property Value Studies of Aircraft and Road Traffic

Research was conducted through the Appraisal Institute to locate relevant articles and studies, addressing the effects of external noise as it relates to the value of residences. Many articles were found to have common elements. They varied from each other usually in geographic location, noise type and in the methods used to compute or estimate damage. Typically, the sources of the noise were railroad, aircraft and automobile traffic. They also differed some in the amount of damage estimated from various sources of noise and the decibels produced. But, they all shared one common trait: They all demonstrated that excessive noise causes value degradation in residential homes. Most assigned a percentage of degradation per decibel of excess noise over a stated standard. The range as stated was between .20% and 1.30%. One of the most informative reports and one somewhat in the middle of the road relative to damage claims per decibel of excess noise is listed below.

An article written by Jon P. Nelson, PhD. Pennsylvania State University Department of Economics, appeared in *Environment Evaluation and Cost Benefit News*. He bases his academic article on a number of studies and various research, as cited within the article. He concludes that aircraft noise reduces property values by a mean average of .92% per excess decibel above a standard and that road traffic noise reduces property values by a mean average of .57% per excess decibel. Given the shrillness and piercing sounds produced by OHVs, it is suggested that neither of the above, aircraft or road traffic noises will be as offensive as that of the OHVs.

In spite of the fact that the OHV noise is considered more offensive that that of those surveyed above, in the interest of objectivity, it is assumed that the reduction in value per decibel of noise caused by an OHV lies somewhere in between the two, therefore, a number in the mid range of .75% per decibel is selected. Given this information, we could assume that in an area where the decibel excess, is, say 10 points, the damage to the particular property could be equal to 7.5% of its value. Said another way, if a subject property has a non-impaired value of \$400,000, the house could, quite possibly, have damage, due to impairment, in the amount of \$30,000 (7.5% x \$40,000 = \$30,000). The point of this segment of the report is not so much to quantify the amount of damage, even though that may become important, but to point out that there is a generally accepted methodology to determine the effect of excess noise on property values in the surrounding residential area where it occurs. See Exhibit E.

III. Diminution of Value Conclusion

It is more likely than not, that if it is permitted, the OHV track will introduce a number of less-than-desirable elements, which typically cause concern in a residential neighborhood. My research indicated that the general atmosphere around such tracks can be that of excitement, speed, socializing, risk taking, and partying. The behavior of participants at such tracks among most who attend generally is responsible; however, this cannot be said for all. Some tracks have complaints relating to improper behavior, both inside and outside the tracks, by a few, who, in some cases, are involved with alcohol, drugs and firearms. These conditions, along with that of the physical use of the vehicles driven by the participants, have and do lead to problems for nearby residents. While problems faced by nearby residents are varied, the problems most often cited by residents relate to noise, dust, and traffic. Of these potential problems, the one considered paramount, in terms of property-value diminution, is that of noise.

While it has been established that the proposed track will generate unwanted noise and other undesirable elements, it is not clear as to just what additional activities the facility will sponsor, other than that of driving off-road vehicles. The conclusions reached herein are based upon the assumption that the activities will be generally restricted to that of this activity. In the course of researching documents in the planning of the facility other activities were mentioned, such as drag racing and target shooting. These activities can and will probably have a more devastating effect on property than those projected herein. This should be noted in any consideration to the possible approval of the proposed project.

It would not be practical to offer an appraisal reflecting diminution of value for specific properties around the track, given all of their unique characteristics. In my professional opinion, many of the homes around the track, if it is built, will suffer from what we in the appraisal profession refer to as "proximity damage".

Given the absence of concrete facts relative to the amount of noise the track is likely to produce, it will be impossible to make a determination with any degree of certainty as to the proximity damage of a given property or a typical property. In my opinion, however, we may be assured with certainty that there will be damage, and that it will adversely affect property values of homes near the track.

Given the information in the informal sound study, produced by the City as coapplicant with the chain saw and ATV, and comparing it to the maximum sound decibels in the planning department staff recommendation of February 21, 2008, the project falls short in a number of categories. The staff recommended restricting the facilities noise to 45 decibels at night and 55 decibels in the day. This seems reasonable and consistent with my research as a maximum standard. The charts in the study, shown in Exhibit B attached, indicate that the project falls short in the daytime in three of the twelve categories and at night in eight of the twelve categories, or that it might negatively affect home values in

the area almost 50% of the time. That is f we use the study as indicated above with the chain saw and ATV. If the noise data from the Ohio motocross case is used as a benchmark, the project would fail 100% of the time since noise levels were professionally recorded on the ground, ranging from between 56 and 92 decibels or a median average of 74 decibels. Further, property values could suffer significantly given the damage estimate in the Hedonic Property case of .75% diminution in value per excess decibel beyond the standard. Given this information and considering that the 45 decibel cap in the evening is a reasonable maximum decibel standard, surrounding properties on or near a OHV, such as the subject, could decrease in value as much as 22% rounded (74 decibels - 45 decibels x .75% damage), due to the addition of the track. This would seem reasonable since there are reports of homes suffering value damage in excess of 20% around airports due to noise.

A track of the type proposed, which is as close as 350 feet from residential property, is significantly closer than would be recommended. As noted in the cases above, property owners can be negatively affected by such tracks for distances many times that of this proposed buffer.

A track in a remote area, centered in a larger tract of land with larger buffer zones, would best insure that adjoining property values are protected. My research and experience show that tracks of this type should be built where buffers are measured, not in hundreds of feet but in thousands of feet. In order to insure that property values are not negatively affected by an OHV track, a relatively safe distance from residences, in my opinion, would be one mile.

In final conclusion from my experience and the information in the cases above, there remains no question in my mind that noise and other negative effects of the proposed track will cause significant concern among neighbors. Their peace and quiet will be materially affected in a negative way and the creation of the proposed track will result in significant property value diminution.

Final Analysis and Examination Questions:

- 1. Given the above evidence, as a homeowner would you want a track of this type, 350 feet from your property?
- 2. If you were seeking to buy a house all other things being equal, would you purchase a home within close proximity to an OHV track permitted to run 14 hours per day, 365 days per year?

3. How much less would you expect to pay if you are willing to live near such a facility?

Charlie Elliott March 14, 2008 Date Charlie Elliott, MBA, MAI, SRA

Real Estate Consultant

Charlie Elliott, Jr., MBA, MAI, SRA Personal Resume



Experience

1979-1980	Boone Construction Co. Inc., Building Contractor, President
1980-1985 President	Elliott Real Properties, Inc., Real Estate Brokerage, Consulting & Appraising,
1985-Present	ELLIOTT® & Company Appraisers, President/Owner
	Education
1969	Bachelor of Science Degree in Eusiness & Economics: Appalachian State University, Boone N C
1979	Masters Degree in Business Administration: Wake Forest University, Winston Salem, NC (included special real estate project study)
	Professiona Certification
1974	North Carolina State Licensed Real Estate Broker
1979	North Carolina State General Building Contractor
1984	Senior Real Property Appraiser (SRA): The Appraisal Institute, Chicago, Illinois
1990	North Carolina State Certified General Real Estate Appraiser
1996	Member of Appraisal Institute (MAI), The Appraisal Institute, Chicago, Illinois
	Organizations & Positions
1979	President, Watauga Avery Home Builders Association
1985	Local & State Director, Watauga Avery Board of Realtors
1988	Director, Guilford Rotary Club
1992	Local Director, Greensboro Regional Realtors Association
1997	President, Appraisal Institute Piedmont Sub-Chapter
2004	President, Better Business Bureau Greensboro

STATE OF OHIO))ss:	IN THE COURT OF APPEALS NINTH JUDICIAL DISTRICT					
COUNTY OF WAYNE	1						
ROBERTA C. ANGERMAN	_et al.	C.A., No. 02CA0028					
Appellees/Cross-Appellants							
V.		APPEAL FROM JUDGMENT ENTERED IN THE					
THOMAS A. BURICK, et al	_	COURT OF COMMON PLEAS COUNTY OF					

Appellants/Cross-Appellees

DECISION AND JOURNAL ENTRY

WAYNE, OHIO CASE No. 01-CV-0115

Dated: March 26, 2003

This cause was heard upon the record in the trial court. Each error assigned has been reviewed and the following disposition is made:

BATCHELDER, Judge.

- {91} Appellants/Cross-Appellants. Thomas and Elizabeth Burick and Lo-Conn Motocross Ltd. (collectively "the Buricks"), appeal from a judgment of the Wayne County Court of Common Pleas that permanently enjoined them from operating a commercial motocross track on property that they own in Franklin Township. We affirm.
- {92} The Buricks own an eighty-two-acre tract of lanc in Franklin Township. On a four-acre section of the property, the Buricks constructed a commercial motocross track, a dist track on which small and medium motorcycles race. The track began operation on June 1, 2001. The track's hours of operation were confined primarily to weekend hours, late afternoon and evening hours on Thursdays and Fridays, and morning and afternoon hours on Saturdays and Sundays. The Buricks planned to expand their operation in coming seasons.
- {93} There are no zoning laws in place ir. Franklin Township. The area surrounding the Buricks' property is primarily residential and rural, with a sand and gravel business nearby as well. Many of the residents in this area have owned their homes for a decade or longer.
- {94} Prior to the track opening for commercial purposes, Roberta Angerman and one hundred eight other neighboring property owners ("the Plaintiffs"), fearing the potential "noise, odors, dust, congestion, and other offensive behavior" that would emanate from the track, filed this civil suit against the Buricks. The Plaintiff's sought intenctive relie as well as damages
 - {95} Following a bench trial, the trial court found that the Buricks' commercial motocross track

the property for commercial use as a motocross raceway. The term "motocross" is a contraction of the words motorcycle and cross country and refers to a motorcycle race over a course of very rough terrain. The raceway was opened to the public on June 1, 2001 and continued operation to on or about November 14 when the facility was closed. During the time the facility was open, practice racing was first offered on Thursdays and Fridays from 4:00 p.m. to dusk (8:30 to 9:00 p.m. depending on visibility), and then on Fridays from 4:00 p.m. to 7:00 p.m., and Saturdays 11:00 a.m. to 3:00 p.m. The Defendants stated that they wanted to reopen the raceway in late March or early April, 2002 with practice on Fridays and Saturdays from 4:00 p.m. to dusk, and motocross racing on Sundays from 11:00 a.m. to 5:00 p.m. The raceway, as presently constructed, can accommodate up to 25 or more motocross bikes at a time, depending on conditions, with motorcycles ranging in size from 40 cc to 400 cc. Thomas Burick testified that nothing could be done to the cycles to reduce the noise they produce. Burick is presently a member of the American Motorcycle Association and plans to become a member of the Competition Riders Association (CRA) which is a motorcycle racing sanctioning body. Burick testified that he wants to work full time at the track during the race season and hopes to make his living from operation of the motocross raceway. He stated his desire to have 10 sanctioned races at the track during the racing season. Elizabeth Burick testified that she expected to have more races on more days in 2002, with more people in attendance.

3. Of the 104 Plaintiffs who remained in this case at the time of trial, twenty (20) testified concerning the nature and extent of the sound emanating from the Defendants' racetrack during the times that it was used for practice or racing. Those who testified were residents in the area during the 2001 practice/race season and have homes between 1,000 feet to one mile from the track. Their descriptions of the sounds they heard at their residences during the running of motorcycles at the motocross course included:

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"high pitched", "nerve wracking", "annoying", "not pleasing", "intolerable", "irritating", "noisy", "sharp", "unrelenting and high pitched", "obnoxious", "ear-piercing", "aggravating", "angering", "same high-pitched noise 20 minutes at a time with few gaps".
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Those Plaintiffs who lived closer to the track testified that they could hear the motorcycles on the race course from inside their homes even with all the windows shut. Several of the plaintiffs testified that the noise interfered with family gatherings planned outdoors and interrupted conversations. Others stated that during the use of motocross bikes on the course they limited their use of outside space and stayed indoors.

- a. Plaintiff Brenda Blackburn, who is an eleven-year resident of 3758 Todd Lane (Lot 24) testified that the sound coming from the track cannot be compared to the sound of lawn mowers in the neighborhood or the sound of traffic from State Route 83, which she did not find annoying. Blackburn stated that the noise created by the track causes her to dread every weekend. Blackburn video taped the racing from her back yard and from an upstairs window in her house on August 17, and October 19 and 20, 2001 (Plaintiffs' Exhibits 5 and 6).
- b. Plaintiff Elizabeth Richey is a six-year resident at 1901 Sherck Boulevard (Lot 58). She and her husband Paul purchased the property because it was outside of town and had an open atmosphere. Richey testified that the noise from the track drove her and her family off their screened outside porch and into the house. She stated that she has considered moving from the residence and would definitely move if the track continues in operation.
- c. Plaintiff Lori Faught who has lived at 1964 Sherck Boulevard for three years testified that she and her husband, Michael, who is also a Plaintiff, live on atree-covered 50 acre lot about 4,000 feet from the race course. They selected the site because of its proximity to the city of Wooster and the quietness the area provided. Richey testified that her use and enjoyment of her home has been affected

by the use of the track. She stated that there was a great deal of noise from the race way in August (2001) and that the sound of the motorcycles was disappointing and irritating and could be heard from inside her home even though all windows were shut.

- d. Plaintiff Wendy McKee, a resident of 1719 Sherck Boulevard (Lot 14) resides at the property with her husband, Todd, and four children. McKee testified that use of the race track since late spring of 2001 has created noise which has interrupted normal conversation and interferes with family gatherings. McKee stated that she can hear track noise from inside the home and at times can feel the noise. She said that the use of the motocross course has decreased her enjoyment of her home and that she misses the peace and quiet she enjoyed before the track was opened.
- e. Plaintiff Steve Bernardy, a resident of 2073 Sherck Boulevard (Lot 39), is an eleven-year resident and testified that he chose the area as a residence site because of the country setting. He stated that his use and enjoyment of his home, and particularly grilling on the outside deck facing north, has been limited during the use of the motocross raceway. Bernardy testified that on one occasion in late July or early August 2001, he experienced the sound of a neighborhood lawn mower being drowned out by the motocross noise which he compared to the sound of chain saws.
- f. Plaintiff Bonnie Cherilla, 3838 Todd Lane (Lot 32), testified about the differences between pre and post track use. Pre track conditions were quiet and comfortable; post track conditions included piercing noise and annoying sound. Cherilla testified that she didn't garden in the Spring of 2001 because of the noise. She said she wasn't bothered at first, but that the noise grew in volume. Cherilla said she considered moving because of noise from the track.
- g. Plaintiff Ernest Smith, a one-year resident at 1745 Sherck Boulevard (Lot 15), testified that he moved into his home in December 2000. He describes the noise from the track as sounding like a "mechanical bee". Smith said that he was not going to let the noise bother him and that the sound from the track didn't affect his use of the property. Smith did testify that he could hear the sound from the track during its use on Thursdays, Fridays, and Saturdays.
- h. Plaintiff Brenda Litt is a ten-yer resident of the area, and a three and one-half year resident at the 3975 Millersburg Road location, along with her husband, Joel Litt, also a party to this action. The Litts are the closest plaintiffs to the motocross track at about 1000 feet. Both testified as to the annoying high-pitched noise created by the motorcycles racing on the track and that their use and enjoyment of their property has been affected by the noise. Brenda Litt stated that since the track has been in use, the dirt and dust created by the track required her to clean the family pool weekly instead of biweekly.
- i. Ermon French, a 24-year resident of 4137 Millersburg Road testified that the problem with the motocross track is noise. He described the sound of the racing dirt bikes as sharp, irritating, and annoying. French testified that he can hear the bikes in his house during the times the course is open even with his windows closed.
- 4. Expert witnesses testified on behalf of the parties regarding noise measurements taken in the vicinity of the motocross track. Ronald Huff, called by the Plaintiffs, has a 32-year prior employment history as a NASA aerospace technologist, and has worked over the past 14 years as a self-employed consultant in the field of acoustics and noise. William Hannon, called by the Defendants, has been the owner of The D.H. Kaiser Co. for about 17 years. D.H. Kaiser is a business which is involved in community noise assessment, zoning issues, and conducts community noise analyses.

Huff conducted noise measurements on three separate days at five locations around the track during the summer and early fall of 2001: on July 20 at the southern boundary of the Defendants property near the

motocross course, on July 26 on the pool deck of Joel and Brenda Litt who live at 3975 Millersburg Road, and on September 29 at three sites, the property of Lois and Harry Wright, 1742 Tolbert Road, the property of Brenda and Todd Blackburn, 3758 Todd Lane, and again on the pool deck at the Litt residence.

Hannon conducted sound tests on June 8, 2001 at three sites: at the track entrance onto Millersburg Road, in a swale just off Millersburg Road 250 feet south of the track entrance, and 90 feet south of a mailbox located 3699 Todd Lane, formerly the residence of Plaintiff Scott Burgess; the latter property is now owned by Gerald Vedan, a person who testified during Plaintiffs' rebuttal. Hannon conducted additional sound surveys on September 22, 2001 at 3830 Batdorf Road, 8 Warring Cross Drive, and 1756 Tolbert Road, and on November 16, 2001 near State Route 83.

Based upon their noise studies, Huff and Hannon testified respectively that:

Huff

- a. On July 20, 2001, at the Defendants' southerly property line, noise levels during motocross practice reached a maximum of 92 dBA (decibels measured by use of the A scale) with an average level over a 300-second measurement period at 76.6 dBA.
- b. On July 26, 2001, on the pool deck at the Joel and Brenda Litt residence on Millersburg Road, track noise levels during motocross practice reached a maximum of 72 dBA with the level being above 65 dBA on many occasions.
- c. During the morning hours of September 29, 2001, on the pool deck at the Litt residence, noise levels over a two hour testing period measured a maximum of 44.5 dBA for large bikes and 71.9 dBA for small bikes. At the same time, measured traffic noise from Route 83, reached a maximum of 61.4 dBA.
- d. On September 29, 2001, a two-hour sample of noise at the residence of Harry and Lois Wright on Tolbert Road reached a maximum of 52.4 dBA for small bikes and 56.4 dBA for large bikes.
- e. On September 29, 2001, at an oil well site near the Brenda and Todd Blackburn residence on Todd Lane, traffic noise from Route 83 measured 61 dBA, while track noise was measured at 67 dBA for small bikes and 71.1 dBA for large bikes.
- f. The human ear perceives noise differences of 1 dB; a difference of 6 dB is large because of the exponential nature of noise as measured by the use of decibels.

Hannon

- a. At the test sites near Route 83 where noise was measured on June 8, and November 16, 2001, a greater amount of noise was found to be produced by road traffic than by motocross track usage.
- b. On September 22, 2001, at a combination of sites (3830 Batdorf Road, 8 Warring Cross Drive, and 1756 Tolbert Road), existing background noise levels would be found "on the adjusted yearly average day/night average to 55 decibels because of their location away from heavy traffic areas..."
- c. "That given the limited duration of the motocross operation in time during the day over a long period of time over a year, assessing that into the community noise that already exists out there, it [the motocross operation] will have no effect upon the long term community noise levels that are existing at this point and that they would comply or fall within the categories of the first two residential categories of the ANSI [American National Standards Institute] standards."
- d. That over a period of time the sound emanating from the motocross track falls below the background traffic noises measured at the testing positions t sed by Huff.
- e. That over a long period of time there will be times when the traffic noise in the vicinity of the Litt residence is at or greater than the sound emanating from the motocross track. Huff ordered, with regard to this opinion however, that his opinion would be based upon use of transposed measurements as he did not measure the Litt site during actual motocross operation.

Another expert witness called by the Plaintiffs, Eric Zwerling, testified that at a sound level of 65 dB it would be difficult for two people to converse over the sound at a distance of one meter. Zwerling also

testified that a sound level of 35 dB and above interferes with sleep and, therefore, noise ordinances typically establish nighttime noise limit caps of 50 dBA.

The Court, as the trier of facts, finds the testimony of expert witnesses, Ronald Huff and Eric Zwerling, to be more credible in this matter than that of William Hannon.

Conclusions of Law

6. Black's Law Dictionary defines nuisance as:

"That which annoys and disturbs one in possession of his property, rendering its ordinary use or occupation physically uncomfortable to him." Black's Law Dictionary (Rev. Fourth Ed. 1968) 1214.

A private nuisance is defined as:

"...anything done to the hurt or annoyance of the lands, tenements, or hereditaments of another. (Citations omitted). As distinguished from public nuisance, it includes any wrongful act which destroys or deteriorates the property of an individual or of a few persons or interferes with their lawful use or enjoyment thereof, or any act which unlawfully hinders them in the enjoyment of a common or public right and causes them a special injury different from that sustained by the general public." Black's Law Dictionary (Rev. Fourth Ed. 1968) 1215.

- 7. The leading case in Ohio dealing with the law of nuisance is **Taylor v. Cincinnati** (1944), 143 Ohio State 426. In support of its holding that liability for nuisance does not depend upon the question of negligence and may exist although there is no negligence, the Court in **Taylor** cited cases from outside Ohio in support of such premise:
 - a. Bowman v. Humphrey, 132 Iowa 234, 109 N.W. 714 (dumping refuse from creamery into creek);
 - b. Kafka v. Bozio, 191 Cal., 746, 218 P., 753 (negligence irrelevant in action to abate nuisance resulting from sinking building causing wall to overhang, trespass upon and damage plaintiff's property);
 - c. Bartel v. Ridgefield Lumber Co., 131 Wash., 183, 229 P., 306 (substantial damage to plaintiff's farm caused from smoke and sawdust from operation of sawmill);
 - d. Truehart v. Parker (Tex. Civ. App.), 257 S.W., 640 (action to restrain operation of dance hall across street from plaintiff's residence because of din and noise). *Id.*, 143 Ohio St. at 437, 438

The Court in **Taylor**, regarding absolute nuisance for which strict liability or liability without fault is imposed by law, summarized that absolute nuisance may be defined as a distinct civil wrong, arising or resulting from the invasion of a legally protected interest, and consisting of an unreasonable interference with the use and enjoyment of the property of another; the doing of anything, or the permitting of anything under one's control or direction to be done without just cause or excuse, the necessary consequence of which interferes with or annoys another in the enjoyment of his legal rights; the unlawfully doing of anything, or the permitting of anything under one's control or direction to be done, which results in injury to another; or the collecting and keeping on one's premises of anything inherently dangerous or likely to do mischief, if it escapes, which, escaping, injures another in the enjoyment of his legal rights. (Emphasis added). *Id.*, 143 Ohio St. 440.

The Court also acknowledged a fourth situation where nuisance may be dependent upon negligence, the failure to exercise due care. In such cases, the Court stated, negligence must be averred and proven in order to warrant recovery. *Id.*, 143 Ohio St. 441.

- 8. A finding of common law nuisance is not dependent upon the existence of zoning laws.
- 9. The law of Ohio has established that the test as to the amount of annoyance necessary to constitute a nuisance is measured by the degree of discomfort that a person of ordinary sensibilities would experience. The Court must look at what persons of ordinary tastes and sensibilities would regard as an inconvenience or interference materially affecting their physical comfort to a degree which would constitute a nuisance. O'Neil v. Atwell (1991), 73 Ohio App. 631.

10. The Court concludes, in view of the evidence presented in this lawsuit, that the Defendant's use of the property in Franklin Township, Wayne County, Ohio constitutes an absolute nuisance for the reason that the Defendant's operation of the commercial motocross track situated in Franklin Township, Wayne County, Ohio, generates excessive noise which causes a substantial and unreasonable interference with the following Plaintiffs' use and enjoyment of their property, all of which would be offensive or inconvenient to any person of ordinary tastes and sensibilities:

Roberta C. Angerman	Lothar Beke	Steve J. Bernardy
Brenda K. Blackburn	Bonnie Cherilla	Lori A. Faught
Michael W. Faught	Ermon French	Ruth Kaplan
Brenda Litt	Joel Litt	Malcolm MacRaild
Wendy McKee	J.C. Morgan III	Jean Oplinger

Elizabeth Richey

- 11. In seeking to abate a nuisance, a Court of Equity may restrict the activity "no more than is required to eliminate the nuisance." 5 Powell, Real Property (1985), 64-69, ¶704[4]. See Christensen v. Hilltop Sportsman Club, Inc. (Feb. 17, 1993) Pickaway App. No. 91 CA 33, unreported, LEXIS 1112. Therefore, the Court concludes that the permanent injunction which should be ordered here regarding the commercial use of the 82.190 acres for motocross practice and racing, cannot be extended to prohibit the use of the property by the Defendants Thomas and Elizabeth and their family for reasonable purposes, including the operation of their personal motocross equipment thereon.
- 12. The general rule in Ohio is that, absent a statutory provision allowing attorney fees as costs, the prevailing party is not entitled to an award of attorney fees unless the party against whom the fees are taxed was found to have acted in bad faith. **State, ex rel. Crockett v. Robinson** (1981), 67 Ohio St. 2d 363.

Judgment

It is Ordered, Adjudged, and Decreed, that a permanent injunction shall be and hereby is granted to the Plaintiffs named herein above at Conclusions of Law ¶10, and that the Defendants, Thomas A. Burick, Elizabeth A. Burick, and Lo-Conn Motocross, LTD. shall be and hereby are permanently enjoined from using and operating, or permitting any other person, corporation, or business entity to use and operate a commercial motocross or commercial "dirt bike" track or course on their property as is fully described in the General Warranty Deed, filed for record on January 8, 2001, and recorded in the Wayne County Deed Record at Volume 315, Pages 497-498, which description is fully incorporated in this Judgment.

It is further Ordered that a marginal reference to this Judgment shall be made by the Wayne County Recorder on the Deed Record noted in the above paragraph and that the fee therefor shall be taxed as court costs herein.

No attorney fees are Ordered in this action.

Court costs are taxed to the Defendants.

ORDERED.

Date

funde Roger G. Lile (Sitting by Assignment)

cc J Douglas Drushal, Esq. John V Boggins, Esq. **JOURNALIZED**

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STATE OF OHIO))ss:	IN THE COURT OF APPEALS NINTH JUDICIAL DISTRICT				
COUNTY OF WAYNE)					
ROBERTA C. ANGERMAN	√, et al.	C A. No. 02CA0028				
Appellees/Cross-Appellants						
v.		APPEAL FROM JUDGMENT ENTERED IN THE				
THOMAS A. BURICK, et a	1.	COURT OF COMMON PLEAS COUNTY OF WAYNE, OHIO CASE No. 01-CV-0117				
Appellants/Cross-Appellees						

DECISION AND JOURNAL ENTRY

Dated: March 26, 2003

This cause was heard upon the record in the trial court. Each error assigned has been reviewed and the following disposition is made:

BATCHELDER, Judge.

- {¶1} Appellants/Cross-Appellants, Thomas and Elizabeth Burick and Lo-Conn Motocross, Ltd. (collectively "the Buricks"), appeal from a judgment of the Wayne County Court of Common Pleas that permanently enjoined them from operating a commercial motocross track on property that they own in Franklin Township. We affirm.
- {¶2} The Buricks own an eighty-two-acre tract of land in Franklin Township. On a four-acre section of the property, the Buricks constructed a commercial motocross track, a dirt track on which small and medium motorcycles race. The track began operation on June 1, 2001. The track's hours of operation were confined primarily to weekend hours: late afternoon and evening hours on Thursdays and Fridays, and morning and afternoon hours on Saturdays and Sundays. The Buricks planned to expand their operation in coming seasons.
- {¶3} There are no zoning laws in place in Franklin Township. The area surrounding the Buricks' property is primarily residential and rural, with a sand and gravel business nearby as well. Many of the residents in this area have owned their homes for a decade or longer.
- {¶4} Prior to the track opening for commercial purposes, Roberta Angerman and one hundred eight other neighboring property owners ("the Plaintiffs"), fearing the potential "noise, odors, dust, congestion, and other offensive behavior" that would emanate from the track, filed this civil suit against the Buricks. The Plaintiffs sought injunctive relief as well as damages.
 - {95} Following a bench trial, the trial court found that the Buricks' commercial motocross track

constituted an absolute nuisance and enjoined the Buricks from using the track for commercial purposes. The trial court did not enjoin the Buricks from using the track for reasonable family purposes. The Buricks appeal and raise six assignments of error. The Plaintiffs cross appeal, raising two cross-assignments of error.

Assignment of Error I

- {\$6} "THE TRIAL COURT ERRED AS A MATTER OF LAW IN FINDING THE MOTOCROSS TRACK WAS AN ABSOLUTE NUISANCE."
- {¶7} In their first assignment of error, the Buricks contend that the trial court erred as a matter of law in finding that the motocross track was an absolute nuisance. Instead, they insist, the trial court should have analyzed the facts under the law of qualified nuisance. For the reasons that follow, this court finds no error in the trial court's application of the law of nuisance.

The Buricks contend that the Plaintiffs would not have prevailed under a theory of qualified nuisance. Evidence of negligence is required to demonstrate a qualified nuisance and, according to the Euricks, the Plaintiffs failed to present such evidence.

- {¶8} Ohio case law does not provide a clear definition of the terms "absolute nuisance" and "qualified nuisance." As aptly noted by another appellate court, "the law in Ohio is far from clear in this area[.]" *Hupp v. Nelson*, 5th Dist. No. 2002CA00077, 2003-Ohio-255, ¶33. Another appellate court noted earlier that ""[t]here is perhaps no more impenetrable jungle in the entire law than that which surrounds the word "nuisance."" *Brown v. Scioto Cty. Bd. of Commrs.* (1993), 87 Ohio App.3d 704, 712, quoting Prosser & Keeton, The Law of Torts (5 Ed.1984) 616, Section 86.
 - { ¶ 9} The Ohio Supreme Court has distinguished the terms absolute and qualified nuisance as follows:
 - "1. An absolute nuisance, or nuisance [per se], consists of either a culpable and intentional act resulting in harm, or an act involving culpable and unlawful conduct causing unintentional harm, or a nonculpable act resulting in accidental harm, for which, because of the hazards involved, absolute liability attaches notwithstanding the absence of fault.
 - "2. A qualified nuisance, or nuisance dependent on negligence, consists of an act lawfully but so negligently or carelessly done as to create a potential and unreasonable risk of harm, which in due course results in injury to another. (*Taylor v. City if Cincinnati*, 143 Ohio St., 426, approved and followed.)" (Emphasis added.) *Metzger v. Pennsylvania, Ohio & Detroit RR. Co.* (1946), 146 Ohio St. 406, paragraphs one and two of the syllabus.
- {\$\mathbb{I0}}\$ The difference between an "absolute nuisance" and a "qualified nuisance" is not the type of interference (such as noise) or "the right or injury asserted[.]*** Rather, the distinction between 'absolute' and 'qualified' nuisance depends upon the conduct of the defendant." *Hurier v. Gumm* (Nov. 1, 1999), 12th Dist. No. CA99-01-005. As quoted above, an "absolute nuisance" requires intentional conduct on the part of the defendant; a qualified nuisance exists only because of the defendant's negligence. "'Intentional,' in this context, means 'not that a wrong or the existence of a nuisance was intended but that the creator of [it] intended to bring about the conditions which are in fact found to be a nuisance." *Dingwell v. Litchfield* (Conn. 1985), 426 A.2d 213, quoting *Beckwith v. Stratford* (1942), 29 A.2d 775.

"As to nuisances to one's *lands*: if one erects a smelting house for lead so near the land another, that the vapor and smoke kills his corn and grass, and damages his cattle therein, this is held to be a nuisance. And by consequence it follows, that if one does any other act, in itself lawful, which yet be done in that place necessarily tends to the damage of another's property, it is a nuisance: for it is incumbent on him to find some other place to do that act, where it will be less offensive." 3 Blackstone (1768), Commentaries on the Laws of England 217-218.

- {¶11} There is no question here that the Buricks intentionally built and operated the motocross track, which created a great deal of noise. Even if they did not intend to generate noise, it apparently was an unavoidable byproduct of their intentional activity.
- {¶12} Early Supreme Court cases explained the distinction between absolute and qualified nuisance in basic terms, convincing this court that this situation involves an absolute nuisance rather than a qualified one. A qualified nuisance requires proof of negligence because, otherwise, there is no nuisance. Taylor ν. Cincinnati (1944), 143 Ohio St. 426, upon which the trial court and both parties rely, quoted extensively from Judge Cardozo "in the leading case of McFarlane ν. City of Niagra Falls, 247 N.Υ., 340" to set forth several situations in which a qualified nuisance arises. Most examples involved negligent maintenance of roads, buildings, trees, electrical wires, boilers, oil tanks, etc. See Taylor at 441-444. Properly maintained, these roads, buildings, trees, electrical wires, and oil tanks did not constitute nuisances for they did not cause injury to anyone. See id. Consequently, to establish a nuisance in these situations, a plaintiff must prove negligence by those who have a duty to maintain the areas.
- {\$\\$J\$13}\$ Absolute nuisance, on the other hand, does not require proof of negligence. "Where the harm and resulting damage are the necessary consequences of just what the defendant is doing, or is incident to the activity itself or the manner in which it is conducted, the law of negligence has no application and the rule of absolute liability applies." Id. at 432. "The primary meaning [of nuisance] does not involve the element of negligence as one of its essential factors. ***One who emits noxious fumes or gases day by day in the running of his factory may be liable to his neighbor though he has taken all available precautions." Id. at 441-442, quoting McFarlane, supra.
- {¶14} Some of the confusion in the area of noise nuisances has resulted from a few Ohio appellate court cases that have focused on the offensive noise itself, rather than on the culpability of the defendant's conduct, to conclude that noise that is not completely intolerable is not an absolute nuisance or nuisance per se. See Christensen v. Hilltop Sportsman Club, Inc. (1990), 61 Ohio App.3d 807; Gustafson v. Cotco Enterprises, Inc. (1994), 42 Ohio App.2d 45; Lykins v. Dayton Motorcycle Club, Inc. (1972), 33 Ohio App.2d 269. This court is not persuaded by the reasoning of these cases. None of these cases follows Ohio Supreme Court authority to support its conclusion that noise is not a nuisance per se or absolute nuisance. Instead, Lykins relies on no authority, Gustafson relies on out-of-state cases and Lykins, and Christensen relies solely on Lykins. More importantly, the reasoning of each court completely ignores the wellrecognized distinction between absolute and qualified nuisance; the culpability of the defendant's conduct. Despite the label that each court attached to the potential nuisance (absolute, qualified, etc.), each case clearly recognized that noise generated by a race track or drag strip can constitute a nuisance and that a trial court may enjoin such a nuisance without any proof that the defendant acted negligently. In fact, none of these cases even mentioned the concept of negligence, despite the fact that one of the courts claimed to conduct a qualified nuisance analysis and found that a qualified nuisance had been established by the evidence. See Christensen, at 812.

- {¶15} This court is more persuaded by Ohio appellate opinions that have analyzed the problem of intentionally created excessive noise as an absolute nuisance. See, e.g., Zang v. Engle (Sept. 19, 2000), 10th Dist. No. 00AP-290; Coe v. Pennington (Apr. 6, 1983), 12th Dist. No. 470. These courts followed the law of the Ohio Supreme Court and their reasoning is sound.
- {\$\\$16}\$ Consequently, the Buricks have failed to demonstrate that the trial court erred by applying the law of absolute nuisance. Moreover, even if the "absolute nuisance" label was improper, the Buricks' own cases fail to support their argument that the trial court erred in failing require the Plaintiffs to prove that the nuisance was the result of the Buricks' negligence. The first assignment of error is overruled.

Assignment of Error II

- {¶17} "THE TRIAL COURT ERRED IN ISSUING A PERMANENT INJUNCTION AND FAILED TO BALANCE THE PARTIES' RESPECTIVE INTERESTS UNDER THE REQUIRED CLEAR AND CONVINCING EVIDENCE STANDARD, RESULTING IN AN UNREASONABLE PROHIBITION OF THE APPELLANTS' LEGAL ACTIVITY."
- {¶18} Through their second assigned error, the Buricks maintain that the trial court failed to adequately balance the competing interests of the parties in its decision to permanently enjoin the commercial operation of a motocross track. Although they are correct that the trial court must give due consideration to the rights of all parties in interest, not just the party seeking the injunction, the decision whether to grant or deny an injunction rests within the sound discretion of the trial court. *Perkins v. Quaker City* (1956), 165 Ohio St. 120, syllabus. The trial court also retains broad discretion when framing the terms of an injunctive order. *Superior Sav. Assn. v. Cleveland Council of Unemployed Workers* (1986), 27 Ohio App.3d 344, 346. An injunction will not be reversed on appeal absent an abuse of discretion. *Garono v. State* (1988), 37 Ohio St.3d 171, 173. "The term 'abuse of discretion' connotes more than an error or law or judgment; it implies that the court's attitude is unreasonable, arbitrary or unconscionable." *Blakemore v. Blakemore* (1983), 5 Ohio St.3d 217, 219.
- {¶19} The Buricks' argument that the trial court did not consider the competing interests of the parties is contradicted by the explicit reasoning of the trial court in its eight-page, single-spaced decision. As owners of the property, and in the absence of zoning laws in the area, the Buricks had the legal right to construct and operate the motocross track. The trial court noted, however, that the Buricks had recently purchased this property and had just constructed and opened the motocross track. Although Thomas Burick testified that he would like to work fulltime at the track during race season and make a living from the operation of the track, at the time of the trial, he had another fulltime job. Elizabeth Burick was also employed elsewhere as an attorney. Consequently, any income from the track was not the Buricks' sole means of financial support.
- {J20} Competing with the Buricks' interests were those of several neighboring property owners. The trial court summarized the testimony of several of the Plaintiffs who testified. The Plaintiffs, who reside anywhere from 1,000 feet to one mile from the track, purchased their homes prior to the Buricks' opening of the motocross track. Many of the Plaintiffs had lived in their homes for over a decade. The testimony of most of the Plaintiffs was similar: the noise generated by the track was piercing and annoying and interfered with the peace and quiet that they enjoyed in the area before the track was opened. One plaintiff testified that she had considered moving from the area and several testified that they could no longer enjoy some of the outdoor activities that they had enjoyed before the track opened. As Thomas Burick had testified that nothing could be done to the motorcycles to reduce the level of noise that they generate, the Plaintiffs would

have to tolerate increasing noise and interference if the commercial operation of the track was not enjoined.

- {J21} Expert testimony was offered on the level of noise generated by the track. The trial indicated that if found the Plaintiffs' experts more credible than the expert presented by the Buricks. One of the Plaintiffs' experts testified about the noise tests he conducted in several locations. Track noise levels measured at the homes of several of the Plaintiffs were in the maximum range of 52.4 decibels to 72 decibels. At one residence, noise levels were measured above 65 decibels several times. The Plaintiffs' other expert explained that, at a sound level of 65 decibels, it would be difficult for two people to carry on a conversation at a distance of one meter.
- {¶22} In addition to hearing the testimony of expert witnesses and several of the property owners, by consent of the parties, the trial judge had visited "the areas which are the subject of this lawsuit, including the motocross track and all of the neighborhoods where Plaintiffs resided." He was able to observe the area and hear for himself the noise generated by the motocross track while motorcycles were running on the track.
- {¶23} The Buricks have failed to demonstrate that the trial court did not thoroughly consider the competing interests at stake or that it acted in an unreasonable, arbitrary, or unconscionable manner by enjoining the commercial operation of a motocross track by the Buricks. The second assignment of error is overruled.

Assignment of Error III

{**924**} "THE TRIAL COURT ERRED AS A MATTER OF LAW BY ADMITTING EXPERT TESTIMONY WITHOUT PROPER FOUNDATION AND BASED ON HEARSAY IN VIOLATION OF OHIO RULES OF EVIDENCE 703 AND 705."

Assignment of Error V

- {§25} "THE TRIAL COURT ERRED AS A MATTER OF LAW BY ALLOWING THE USE AT TRIAL OF THE AUDIO PORTION OF SEVERAL VIDEO TAPES CONTAINING HEARSAY."
- {\$\mathbb{J}26}\$} These two assigned errors will be addressed together because they are closely related. The Buricks contend that the trial court erred in admitting certain evidence that failed to comply with the Ohio Rules of Evidence. This was a bench trial, however, and because the trial judge was acting as fact finder, he is presumed to have "considered only relevant, material, and competent evidence in arriving at [his] judgment unless it affirmatively appears to the contrary." State v. White (1968), 15 Ohio St.2d 146, 151. Because nothing in the trial court's judgment suggests that it relied upon inadmissible evidence, the Buricks have failed to demonstrate error. The third and fifth assignments of error are overruled.

Assignment of Error IV

- {927} "THE TRIAL COURT ERRED IN ALLOWING TESTIMONY IN VIOLATION OF ITS OWN SEPARATION OF WITNESSES ORDER."
- {¶28} The Buricks next contend that the trial court erred by violating its own separation of witnesses order, which, according to the Buricks, the trial court made in response to their written motion made at the commencement of trial. A review of the record does not reveal any such written motion filed by the Buricks

nor does it reveal any order filed by the trial court. The "order" to which the Buricks refer apparently consists of oral statements made by the trial court prior to the commencement of the trial. In addition to the fact that this court cannot understand exactly what the trial court decided when discussing the issue of separation of witnesses, there is no separation of witnesses "order" because "[a] court of records speaks only through its journal and not by oral pronouncement***." Schenley v. Kauth (1953), 160 Ohio St. 109, paragraph one of the syllabus. Consequently, the Buricks have failed to demonstrate any error and their fourth assignment of error is overruled.

Assignment of Error VI

- **{929}** "THE TRIAL COURT ERRED AS A MATTER OF LAW IN FAILING TO DISMISS AS PARTIES THOSE PLAINTIFFS WHO FAILED TO APPEAR AND TESTIFY AT TRIAL."
- {\$\\$30}} For their final assignment of error, the Buricks contend that the trial court erred by failing to dismiss the plaintiffs who did not appear at trial. It is fundamental that, to demonstrate reversible error, an appellant must not only demonstrate an error by the trial court but also that he was materially prejudiced by that error. Nilavar v. Osborn (2000), 137 Ohio App.3d 469, 500. Even if the trial court committed error in this respect, the Buricks do not even attempt to explain how they were prejudiced. None of the plaintiffs was awarded damages and this case is over. The trial court found that the Buricks' commercial operation of the motocross track interfered with the use and enjoyment of the property of sixteen specific plaintiffs, all of whom appeared at trial. An injunction was granted in the name of only those sixteen plaintiffs. Consequently, the plaintiffs who did not appear at trial did not acquire any rights, nor do they have any pending claims, against the Buricks. Because the Buricks have failed to demonstrate how they could have been prejudiced by the trial court's failure to explicitly dismiss those plaintiffs, the sixth assignment of error is overruled.

Cross-appeal

{\$\J\$31} In their cross-appeal, the Plaintiffs raised two cross-assignments of error, the first of which was raised in the event that this court sustained any of the Buricks' assignments of error. Because this court found no merit in any of the Buricks' assigned errors, the first cross-assignment of error need not be addressed.

Cross-Assignment of Error II

- {¶32} "THE TRIAL COURT ERRED IN FAILING TO AWARD DAMAGES TO THE APPELLEES FOR THE HARM SUFFERED AS A RESULT OF THE NUISANCE."
- {¶33} The Plaintiffs contend that the trial court erred in failing to award them damages. The trial court awarded no damages because it made a factual finding that "[n]o economic damages to Plaintiffs have been proven in this action." The Plaintiffs do not dispute that they failed to establish economic damages but contend that they should have been compensated for the annoyance and irritation that they suffered during the period of time that the track was in commercial operation.
- {J34} The Plaintiffs essentially contend that the trial court's failure to award them damages was against the manifest weight of the evidence presented at trial. When reviewing the weight of the evidence, this court applies the same test in civil cases as it does in criminal cases. *Tewarson v. Simon* (2001), 141 Ohio App.3d 103, 115. "The court *** weighs the evidence and all reasonable inferences, considers the credibility of

witnesses and determines whether in resolving conflicts in the evidence, the [finder of fact] clearly lost its way and created such a manifest miscarriage of justice that the [judgment] must be reversed and a new trial ordered." *State v. Thompkins* (1997), 78 Ohio St.3d 380, 387, quoting *State v. Martin* (1983), 20 Ohio App.3d 172, 175.

- {J35} The Plaintiffs point to a few items of brief testimony regarding how several of the Plaintiffs were annoyed and inconvenienced by the noise and dust generated by the motocross track. Pointing to these few pieces of evidence falls far short of demonstrating that the trial court lost its way in failing to award the Plaintiffs damages.
- {¶36} Moreover, the complaint filed by the Plaintiffs sought economic damages for the alleged diminution of the value of their property but, as to the alleged interference and annoyance, they sought to enjoin the nuisance. Nothing in their complaint suggests that they also were seeking compensatory damages for the annoyance and inconvenience that they suffered while the track was permitted to operate. The Plaintiffs were granted the injunctive relief that they sought. Consequently, they have demonstrated no error by the trial court. The second cross-assignment of error is overruled.

Judgment affirmed.

The Court finds that there were reasonable grounds for this appeal.

We order that a special mandate issue out of this Court, directing the Court of Common Pleas, County of Wayne, State of Ohio, to carry this judgment into execution. A certified copy of this journal entry shall constitute the mandate, pursuant to App.R. 27.

Immediately upon the filing hereof, this document shall constitute the journal entry of judgment, and it shall be file stamped by the Clerk of the Court of Appeals at which time the period for review shall beg to run. App.R. 22(E). The Clerk of the Court of Appeals is instructed to mail a notice of entry of this judgment to the parties and to make a notation of the mailing in the docket, pursuant to App.R. 30.

Costs taxed to Appellant.

Exceptions.

WILLIAM G. BATCHELDER FOR THE COURT

BAIRD, P.J. WHITMORE, J. CONCUR

APPEARANCES:

JOHN V. BOGGINS, Attorney at Law, 1428 Market Avenue, North, Canton, Ohio 44718, for Appellant.

J. DOUGLAS DRUSHAL and JOHN H. SCHAEFFER, Attorneys at Law, 225 North Market Street, Wooster, Ohio 44691, for Appellee.



The Impact of Airport Noise on Residential Real Estate

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As populations and airports examil, airports examil, airport noise is an increasingly important have for reasestate analysts. In researching real estate damage issues, the topic of airport noise and its impact or property market values are particularly well-documented and well-researched areas. This article puts airport region into the framework of the Detrimental Conditions (DC)

Matrix outlines the measurement of "noise," sets forth some of the health effects of airport noise, and addresses the impact that airport noise has an property market walkers.

As populations and suports expand, sitport noise is an increasingly important issue for real estate analysts. In researching real estate damage issues, the topic of a rport noise and in impact on property market values are particularly well-documented and well-researched areas. This article puts airport noise into the framework of the Detrimental Conditions (DC) Marrix, outlines the measurement of "noise" servicines of the health effects of airport noise and addresses the impact that airport noise has on property market values. There are dozens of published studies on the topic, all of which variably come to the conclusion that homes under or nearby the flight corridors of national or international airports especience some dimension in property market values.

An Overview of Detrimental Conditions

Diministry in value is the difference between the before and after market values of properties that have been demaged or taken. Handreds of Determental Conditions (DCs) may imprecated estate values, including environmental contain nation, or natraction defects, georethmical issues, entirent domain, ect nomic declines, proximity issues, natural disasters, and many others. While identifying categorizing, and analyzing these numerous DCs may seem overwhelming, the task becomes manageable when the fundamental stages and market value effects are considered in a logical sequence. The fundamental tools for a DC analysis, the DC Marris, the DC Model. The Bell Chair, and the Three DC Approaches to Value, are set forth within the book Real Estate Damages. On this basis, airport noise is generally categorized as a Class V frem of Disclosure, which is defined as being an externality or neighborhood condition, and is generally permanent in nature.

Detrimental Conditions Stages and Issues Related to Airport Noise Uniting the DC Marrix, it is apparent that several issues are relevant in study-

ing airport noise. Based upon this discussion, the DC Matrix as related specifically to airports could be sammarized as shown in Table 1.

⁻ Barrotal Bell, Analysticin Damases die Sentros of Personen et Lenthorn (Unicado Approaisa Enstitute: 1999)

Table 1 The DC Matrix—Airport Noise and Residential Properties

		Stages ———	
Issues Cost	Assessment Assessment by noise engineers and related costs	Repair Noise mitigation such as double pane windows, insulation, etc.	Ongoing Ongoing noise mitigation, i.e., water fountains, background music, etc.
Use	Not generally applicable	Not generally applicable	Possible
Risk	Not generally applicable	Not generally applicable	Market resistance, if any, as demonstrated by market data

Measuring Airport Noise

The perceptions and impacts of airport noise must be defined in order for them to be studied. Accordingly, a number of noise measurement methods are used by noise engineers. The impact of airport noise and those related perceptions are typically delineated by "noise contour lines" that vary from airport to airport, depending upon the size of the airport, prevalent wind directions, topography, and so forth. By measuring noise contours, a standard can be derived whereby the impact of noise from different airports can be compared.

Noise is unwanted sound. By that definition, the sound emanating from jet aircraft is considered noise to most people.2 The real estate professional needs to assess the market's perceptions towards airport noise, knowing that those perceptions are then translated into sales prices when the properties are sold and other indications of market values. While most agree that excessive noise is bothersome, it is a subjective issue. For example, what is more annoying—a single firecracker or five motorcycles driving by at one-minute intervals? Is one motorcycle at 73 dB (see Table 2 for noise measurement terms and definitions) for 5 seconds more or less annoying than a jet at 68 dB for 27 seconds? Moreover, is the noise more annoying during the day or at night? If at night, how much more annoying is it?

In an effort to answer these questions, there has been a proliferation of noise measurement terms, techniques, and acronyms. To add to the confusion, there are ongoing debates over the merits of each approach. In an effort to provide at least some clarification of these issues, the following table outlines the primary noise measurement terms, their meanings, and comments that are summarized from various published sources. It is important to note that each of the noise measurement systems is scientifically designed to measure the level of noise, not the measure of annoyance.

To illustrate this issue, noise measurement methods measure noise in somewhat the same way the volume of water in a river can be measured. For example, the total gallons flowing past a certain point per day, the speed of the river, the volume between two points at a specific period in time, the peak levels, and so forth. However, these measurement techniques are not intended to measure flood-related damage, which in turn cause annoyance. The techniques themselves are only designed to measure noise.

Noise Mitigation

There are only three ways to mitigate noise: (1) quiet the source, (2) put more distance between the source of the noise and the receptor, and (3) build or create a barrier to the noise. It is often infeasible for homeowners to have control over quieting the source of jet noise, and it is equally impractical to move their house further from the airport. The third choice is often the only option for homeowners who are impacted by airport noise. For example, attics and walls may be insulated and double pane windows may be installed. On an ongoing basis, background music, fountains, or running water may "drown out" some of the noise. Of course, outside activities such as barbecues, sports, swimming, and so forth do not generally benefit from these measures. It is estimated that airport noise heard within the interior of a property with lightweight construction is reduced from 15 to 30 dBAs. According to a 1972 study, the most recent obtainable, mobile homes reduce jet landing noise levels by 14 dBA to 23 dB(A).3

The primary problem with double pane windows is that they must be kept closed to effectively reduce airport noise. With the costs of air conditioning, this can be a significant factor to a household budget where the climate is mild and where natural breezes would otherwise cool. Citing these concerns, it is

^{2.} Lester Reingold, "Research not Regulation," Air Transport World (May, 1995): 79.

^{3.} Robert S. Stone, Kenneth R. Regier, and Ellwyn Brickson, "The Human Effects of Exposures to Aircraft Noise in a Residential Environment," Division of Environmental Health, Orange County Health Department (May 19, 1972): 37.

Table 2 Airport Noise Comparison Chart

Term dB	Meaning Decibels	Comments The most fundamental of noise measurements, however, this scale fails to account for noise										
10	Decibera	frequency.	3, 110vvevei, tilis 30	ale fails to account for fior								
dB(A) E	Decibels with "A Weighting"	The most common measurement of noise, with the "A weighting" which accounts for the										
		What People Will Accept Without Undue Complaint ²										
		Location	Day dBA	Night dBA								
		Rural residential	35-40	25-35								
		Suburban residential	40-50	30-40								
		Urban residential	45-55	35–45								
		Commercial	55–65	45–55								
		Industrial	60–70	50–60								
		Estimated Community Response to Nois	e³									
		Noise Level in dB(A) Above Acceptable		ed Community Respon								
		0		o observed reaction								
		5		oradic complaints								
		10		idespread complaints								
		15		eats of action								
		20 Vigorous action										
		Human Effects Criteria for Noise Contro	۲									
		Objectives		e Levels at Which								
		Objectives	Harmful Effe	cts Begin to Occur, dB(,								
		Prevention of hearing loss	-4-	75–85								
		Prevention of extra-auditory physiological effe	CLS	65–75								
		Prevention of speech interference Prevention of interruption of sleep		50–60 45–50								
		Satisfying subjective preferences		45-50 45-50								
												
PNL	Perceived Noise Level	An active band analysis that measures noise in one octave intervals. Measures sound in each octave and compensates for discrete tones that are annoying but not necessarily loud, such as a scratch across a blackboard.										
EPNL	Effective	Similar to PNL but measures noises in one-third octaves. This is a noise measurement method Perceived where the decibels of the noise of an aircraft includes the loudness and the frequency Noise Levelspectrum of the noise for takeoffs and landings. This measurement utilizes EPBdB over time.										
PNdB	Effective Perceived Noise Level in Decibels	Noise generated by a single event. Few people increase of 10 EPBdB is usually perceived as rigorous mathematical calculations and acceparticularly annoying.	a doubling of lou	ıdness.⁵ This system requir								
EL	Sound Exposure Level	A measurement of noise that accounts for both energy is calculated from the area of a triang	le formed by the	graphically illustrated increa								
		peak event, and decrease of a noise event ar	d converted into a	a one-second measuremen								

^{1.} FAA WebPages-April, 1999. "Aircraft Noise: How We Measure It and Assess Its I npact," http://www.faa.gov/region/aea/noise/tindxbrkdwn.htm.

Exposure Level

^{2.} Table III, "What People Will Accept Without Undue Complaint," Table IV, "Estimated Community Response to Noise," Orange County Health Department Report (1972).

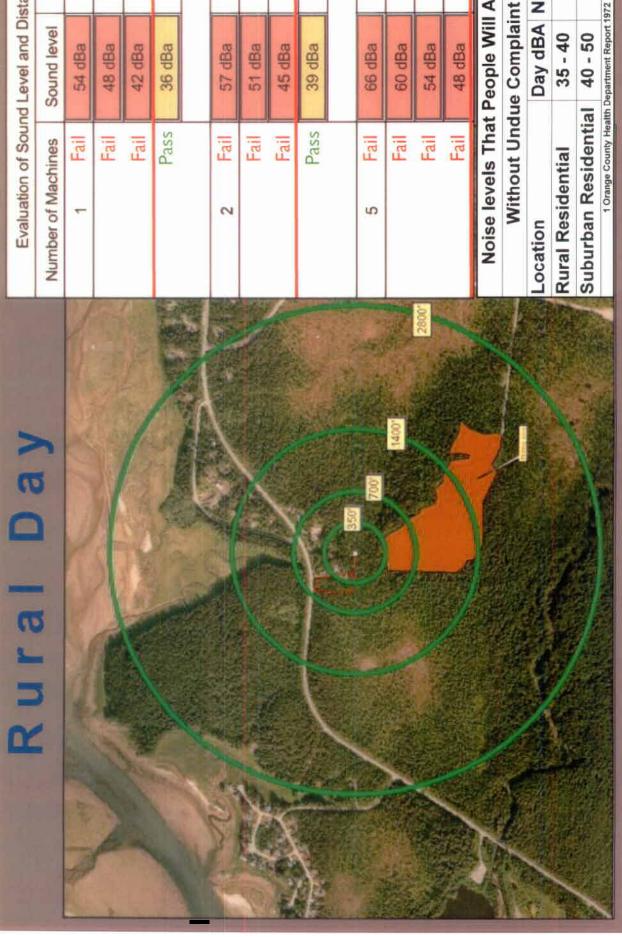
³ Ibid.

^{4.} fbid.

^{5.} FAA WebPages-April, 1999. "Aircraft Noise: How We Measure It and Assess Its I npact," http://www.faa.gov/region/aea/noise/tindxbrkdwn.htm.

^{6.} Ibid

Noise levels People Will Accept Study Vs. City Informal Sound Study

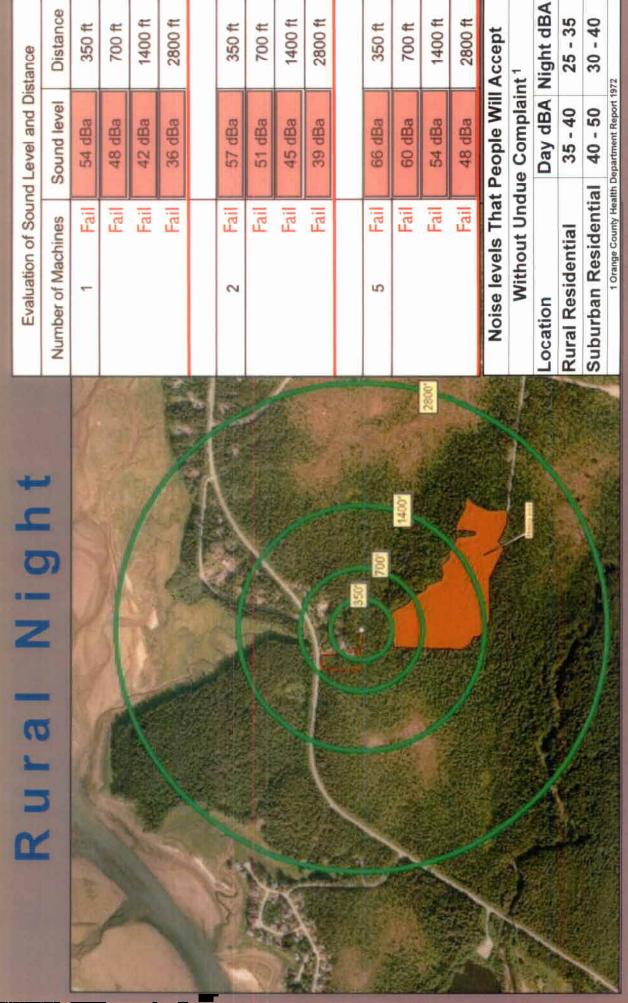


stance	Distance	350 ft	700 ft	1400 ft	2800 ft	350 ft	700 ft	1400 ft	2800 ft	350 ft	700 ft	1400 ft	2800 ft	
Evaluation of Sound Level and Distance	Sound level	54 dBa	48 dBa	42 dBa	36 dBa	57 dBa	51 dBa	45 dBa	39 dBa	66 dBa	60 dBa	54 dBa	48 dBa	11.181.11
of Sour	nines	Fail	Fail	Fail	Pass	Fail	Fail	Fail	Pass	Fail	Fail	Fail	Fail	1.46
Evaluation	Number of Machines	÷				2				5				

Noise levels That People Will Accept	eople Will	Accept
Without Undue Complaint 1	e Complai	nt1
Location	Day dBA	Day dBA Night dBA
Rural Residential	35 - 40	25 - 35
Suburban Residential	40 - 50	30 - 40

Noise levels People Will Accept Study

City Informal Sound Study



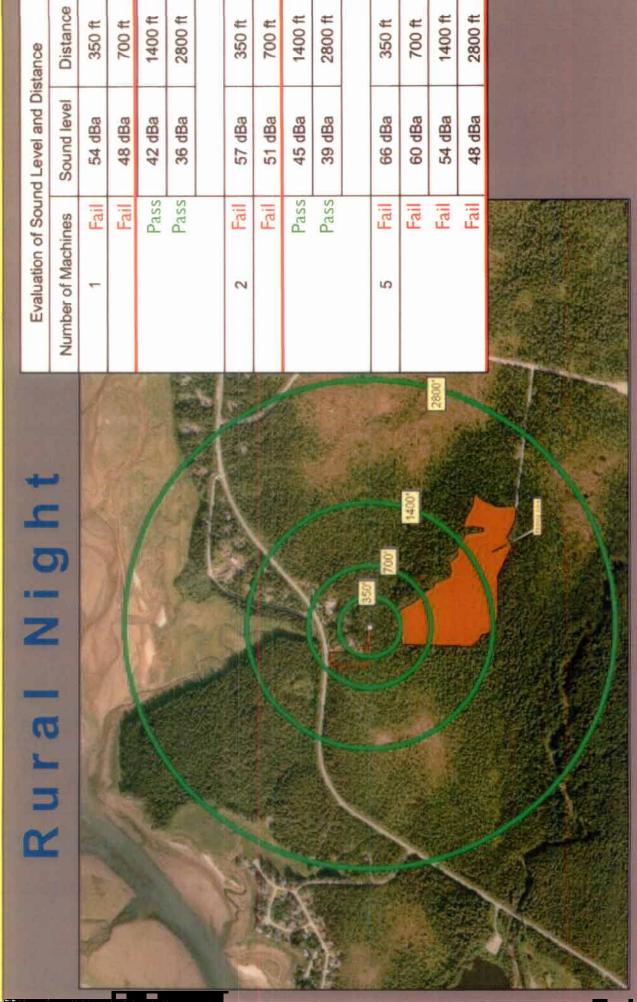
Staff Recommended Maximum Noise levels

City Informal Sound Study

tance		Distance	350 ft	700 ft	1400 ft	2800 ft	350 ft	700 ft	1400 ft	2800 ft	350 ft	700 ft	1400 ft	2800 ft	
I evel and Dis	מונה כו	Sound level	54 dBa	48 dBa	42 dBa	36 dBa	57 dBa	51 dBa	45 dBa	39 dBa	66 dBa	60 dBa	54 dBa	48 dBa	
Evaluation of Sound Level and Distance	Evaluation of Sound	Number of Machines	1 Pass	Pass	Pass	Pass	2 Fail	Pass	Pass	Pass	5 Fail	Fail	Pass	Pass	
-	YELLE Day		The second second								1001	.001			

Staff Recommended Maximum Noise levels

City Informal Sound Study





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Search 110,000 for atv noise complaints. (0.32 seconds)

Tip. Save time by hitten the return toy instead of clicking on "search"

3 results stored on your computer - Hate - About

WLOK TV 13 - The Station - spart hearing complaints about the ATV Under My Helmet. Red Cree - noise all terrain vehicle atv park noise to

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Index of News Articles Concerning **Noise** Pollution and Snowmobile and ATV Noise . . .
Newsday reports that reacting to noise complaints from residents and ...

www.bottoiae.org/news/jmbw.both. 1775 - Qacted - Sisser pages - Note the ...

Noise News for Week of February 23, 1997

DIA officials say the notice problem has been fixed because complaints are down. ...

Residential and Community Notice: Snowmobile and ATV Notice ...

Linear regions org/notice/1997/fm23 ptm - Ok - Osched - Spread pages - Note this

More reside to go were managed one.

ATV noise

Notes has always been one of the bigglist reasons people don't like did bikes ... and rolling complaints ned dropped off as a major issue problem :

awar mantering recognision from 164 - Captiers - Sancar pages - Note this

Exhibit D

Pennsylvania Man Kills Dirt Biker Over Noise

PUBLICATION, Pittshungh Post-Gazette

DATE September 8, 1997 SECTION, State, Pg. A-11 BYUNE: Mike Buesko

DATIA INF. Beaverdale, Pennsylvania

The Pittsburgh Post-Gazette reports that John Bereznak of Beaverdale, Pennsylvania on Saturday shot and killed a young cirt biker who was biking on the mounds of coal from an abandoned strip mine about 200 yards from Bereznak's house. Bereznak had complained about noise from the dirt bikers for several years, and once had thrown a shovel at a dirt biker while ranting about noise. He also was suspected by the tewn's dirt bikers of installing tur paper seeded with nalls around the abandoned mine area. Bereznak later killed himself.

The article reports that the shooting occurred at the old No. 4 Logan Co. Mine, which has been abandoned for about 40 years and is now owned by Cooney Brothers Inc. The company owns thousands of acres of mines in the area. For about five years, the article says, cirt bikers have used the irregular mounds of coal at the mine for dirt bike tracks and jumps

According to the article, Bereznak was a 70-year-old retired miner. On Saturday shortly after 4 p.m., Bereznak took his 380-caliber semiautomatic pistol from I is Jefferson Avenue home to confront the dirt bikers. There were seven teen-agers at the abandoned mine, the article says, six of whom later told police that Bereznak watched the bikers silently for a few minutes before walking towards them. Robert Custer, age 17, was sitting on his cirt bike about to ride up a mound of coal the teens call "KTM" after the make of the first dirt bike that made it to the top, the article upons. Bereznak stopped about eight feer from Custer, pulled out his gun from behind his shirt, and fired at Custer's chest. After the teen fell, Bereznak fired two more shots at the biker. He then returned to his home and shot himself.

The article reports that people in this village of 1,000 residents still were numb yesterday from the violence of the previous day. Custer's family and two teens who witnessed the shooting would not comment, the article says.

According to Paul Bonfanti, police ciref in Summerhill, which includes Beaverdale, "I guess he [Bereznak] just flipped." Honfanti said that Bereznak and a few other residents who lived near the mine had complained occasionally about the noise from the bikes. A few years ago, after receiving several complaints, a police officer cited a dirt biker for disorderly conduct, but the citation was tossed out by a district justice when the residents who had complained refused to testify. Subsequently, the feen's purents sued the township and won. Since ther there haven't been any more citations issued. Bonfanti said, and police fend to ignore the dirt bikers.

Exhibit E

Environmental Valuation & Cost-Benefit News

Empirical Cost-Benefit and Environmental Value Estimates

Hedonic Property Value Studies of Transportation Noise: Aircraft and Road Traffic 12/11/07

Hedonic Property Value Studies of Transportation Noise: Aircraft and Road Traffic

Introduction

Noise from aircraft and road traffic is an example of an uncompensated external cost or externality. A negative externality is defined as a by-product of production or consumption activities that adversely affects third parties not directly involved in the associated market transactions. Environmental noises that exceed ambient levels can disturb valuable activities such as conversation, TV viewing, teisure, work or sleep, and in severe cases can have adverse effects on long-term health and thereby reduce productivity and quality of life.

The third parties can take defensive steps to avoid the physical effects of noise, such as screening their property using fending or vegetation, installing air conditioning and insulation, or moving to a new residence. A role of economics is to help determine the socially optimal amount of noise and the appropriate mixture of source abatement, operational changes, and housing adjustments irelocation, zoning, soundproofing). Recent legislative changes, such as the European Commission's Green Paper on Future Noise Policy and Directive 2002/49/EC on noise assessment (EC 2002), have focused attention on noise valuation as part of benefit-cost analyses of mitigation projects. The information from valuation studies also can be used for cost-effective policy design, including the choice between regulations and noise pollution taxes.

Summary and Conduding Remarks

The preceding discussion demonstrates that there is a very active research program for hedonic studies of noise valuation, interest in the area declined in the 1990s, but it now enjoys a healthy renewal. Researchers have taken

advantage of advances in economic theory, newer econometric techniques, large disaggregated data sets, and GIS methods. Novel and innovative studies have appeared that estimate models not considered by earlier researchers. Survey-based studies now provide a useful supplement to the revealed values obtained from real estate data. However, policy applications of results from hedonic studies do not appear to have increased in frequency, especially in the United States. In this concluding section, I first offer summary comments on the use of hedonic models for valuation of transportation noise and then briefly discuss recent policy applications and final results.

The discussion in this paper suggests five issues that researchers need to be aware of when estimating or using hedonic models:

- * Market segmentation may be common in large samples of housing data. Researchers should guard against specification errors due to segmentation by appropriate use of Chow tests and other specification tests and by careful thinking about the research issue being addressed. Cluster analysis is another tool that has been used to address segmentation. However, these tools need to be applied carefully given a non-linear hedonic price function.
- * Spatially-dependent errors present a major challenge to research on housing markets. This is due to the fact that econometric tools and software were designed for a spaceless world and the practical difficulty of observing all locational characteristics. Careful model specification can in some cases resolve the problem. However, simply adding more locational variables is not necessarily the best solution due to multicollinearity and the limitations of theory. Spatial statistics can be used to keep the hedonic model simple and augment the conventional HP model with models of spatial-error dependence.
- * Housing market adjustments present researchers with opportunities to extend the basic hedonic model and test newer propositions from economic theory, such as the effects of asymmetric information, changes in noise valuation over time, and housing market imperfections. More studies in this area are needed to support applications of hedonic valuations.
- * Noise measurement is a relatively old area of interest, but some studies have failed to heed past research. For example, quiet residential areas do not have a background sound level of zero decibels. Noise changes of 3 to 5 dB are generally noticeable, but some studies use dummy variables for differences of 10 dB or more, which is excessive. Attention needs to be paid to the appropriate non-linear relationship between noise levels and housing prices or apartment rents. More attention also should be given to use of community annoyance metrics as an alternative to commonly employed noise indices.
- * Stated preference surveys represent an alternative method for valuation of noise damages. These studies rely on hypothetical responses, whereas hedonic price studies use observed behavior and market responses. In order to estimate damages using a survey, SP researchers need to frame questions that simulate

actual responses and tie these responses to realistic payment vehicles. This would appear easier for road traffic noise compared to aircraft noise, especially for the United States. Some existing studies suggest that SP and HP models yield comparable results, but interesting differences in noise valuations also have been uncovered.

There are three major policy applications for hedonic prices. First, costbenefit analyses of specific noise mitigation and abatement projects, including airport expansions, curfews, quieter aircraft, traffic noise barriers, and improved roads and highways. Representative studies in this area include Bateman et al. (2005); De Vany et al. (1977); Morrison et al. (1999); Nellthorp et al. (2007); Nelson (1978); Nijland et al. (2003); Saelensminde and Veisten (2006); and Wilhelmsson (2005). Second, overall evaluations of the full social costs of transportation, which are studies of the Apaid@ and Aunpaid@ costs of motor vehicle and aircraft operations. Representative full-cost studies include Delucchi and Hsu (1998); Greene et al. (1997); Levinson and Gillen (1998); Levinson et al. (1998); Murphy and Delucchi (1998); Parry et al. (2007); Quinet (2004); and Schipper (2004). Third, studies have evaluated alternative policy instruments, such as the calculation of noise and congestion taxes. Representative studies of noise-congestion taxes are Brueckner and Girvin (2007); Hsu and Lin (2005); Newberry (2005); and Pearce and Pearce (2000).

Continued refinement of HP and SP estimates of noise damage valuation will aid these policy applications. In particular, HP estimates of noise damages are more useful if marginal prices are stable over time and space, and therefore can be applied to welfare changes in similar environmental settings. Absent this stability, each HP estimate is useful for only its designed purposes. A general problem in environmental economics is the use of a WTP value or function from a given study area (or mode of transport) for a policy evaluation of another location or mode, which is referred to as the "benefit transfer" problem (Brookshire and Neill 1992; Rosenberger and Loomis 2003). Both unit value transfers and function transfers are possible. Several European countries have adopted standardized noise valuations for policy purposes, but many of these values are old or based on only a few studies (Saelensmine and Veisten 2006). These values could be improved through benefit transfer methods. Earlier reviews reported mean NDI values of 0.50 to 0.70% per dB for aircraft noise and 0.40 to 0.60% per dB for traffic noise (Bertrand 1997; Nelson 1980, 1982, 2004). For rough comparisons, the NDI values reported in this survey can be combined to yield more recent estimates of noise valuations.

For aircraft noise, the 24 estimates yield an unweighted mean value of 0.92% and a median value of 0.74% per dB. The interquartile mean for aircraft noise is 0.80% per dB. For traffic noise, the 25 estimates yield an unweighted mean value

of 0.57% and a median value of 0.54% per dB. The interquartile mean for traffic noise is 0.53% per dB. The average values for aircraft noise are slightly higher than prior estimates, which may reflect rising real incomes as well as differences in econometric techniques. The average values for traffic noise also are slightly higher than prior estimates, although the differences are perhaps minor. Hence, a review of recent estimates of the NDI for aircraft and traffic noise suggests that the unit values are stable over time.

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Forthcoming in A. Baranzini, et al. (editors); *Hedonic Methods in Housing Market Economics* (Springer, 2008)