

# **Exhibit 6**

(Petition PB-09-82TCH)



090384

*City of  
Gainesville*

Inter-Office Communication

Planning Division

Item No. 3

**TO:** City Plan Board

**DATE:** August 27, 2009

**FROM:** Planning Division Staff

**SUBJECT:** Petition PB-09-82 TCH City of Gainesville. Amend Chapter 30, Appendix F Airport Hazard Zoning regulations to update the code requirements for regulating the use of land and amending the airport Noise Zone map.

Recommendation:

Staff recommends approval of this petition

Explanation:

The purpose of this petition is to update the Airport Hazard Zoning regulations and to adopt a new Airport Noise Zone map. The intent of the proposed changes is to protect the safety and welfare of citizens through development regulations that will reduce the potential land use conflicts with airport operations. It is also important that regulation protect the airport from incompatible land uses that may hamper the future growth and expansion of airport operations. It is generally accepted that aviation noise significantly affects several million people in the United States. In a great number of instances, aircraft noise simply merges into the urban fabric with other uses in the environment such as buses, trucks, motorcycles, automobiles and construction noise. However, in locations closer to airports and aircraft flight tracks, aircraft noise becomes more of a concern.

In order to determine the most appropriate changes to make to the current regulation, staff has relied upon the City's expert airport consultant recommendations and the review of reports prepared by the Federal Aviation Administration (FAA), Transportation Research Board and Paul Schomer, Ph.D., P.E. There are three general areas that must be understood when trying to determine the best regulation for the community's public health, safety and welfare. Those areas include defining sound, the impacts of noise on the environment, and the best practices from a broad perspective.

**What is Sound?**

Sound is a complex vibration transmitted through the air which, upon reaching our ears, may be perceived as beautiful, desirable, or unwanted. It is this unwanted sound which

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people normally refer to as noise. Table 1 below provides comparative noise levels that citizens may be aware of in their everyday lives. (Ref. 1)

**TABLE 1**  
**Comparative Noise Levels**

Typical Decibel (dBA) Values Encountered in Daily Life and Industry\*

Rustling leaves	20 dBA
Room in a quiet dwelling at midnight	32
Soft whispers at 5 feet	34
Men's clothing department of large store	53
Window air conditioner	55
Conversational speech	60
Household department of large store	62
Busy restaurant	65
Typing pool (9 typewriters in use)	65
Vacuum cleaner in private residence (at 10 feet)	69
Ringling alarm clock (at 2 feet)	80
Loudly reproduced orchestral music in large room	82
Beginning of hearing damage if prolonged exposure over 85 dBA	
Printing press plant	86
Heavy city traffic	92
Heavy diesel-propelled vehicle (about 25 feet away)	92
Air grinder	95
Cut-off saw	97
Home lawn mower	98
Turbine condenser	98
150 cubic foot air compressor	100
Banging of steel plate	104
Air hammer	107
Jet airliner (500 feet overhead)	115

Source: (Ref. 1)

\* When distances are not specified, sound levels are the value at the typical location of the machine operator.

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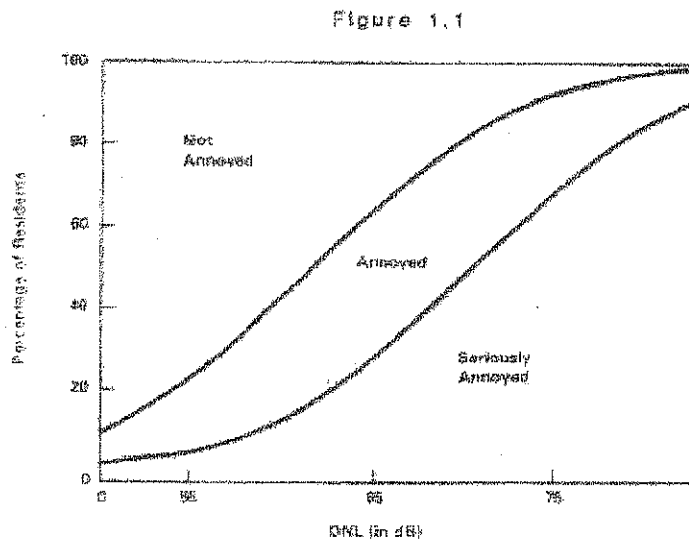
### What is a Decibel?

The decibel (dB) is a shorthand way to express the amplitude of sound (the relative height of those ripples in the pond). Because the "ripples" of sound typically experienced may vary in height from 1 to 100,000 "units", it becomes rather cumbersome to maintain an intuitive feeling for what different values represent. The decibel allows people to understand sound strength using numbers ranging between 20 and 120, a more familiar and manageable set of values. Table 1 provides a listing of some typical sounds and their respective sound levels (expressed in decibels) at given distances. (Ref. 1)

The decibel also relates well to the way in which people perceive sound. A 10 dB increase in a sound seems twice as loud to the listener, while a 10 dB decrease seems only half as loud. In general, changes in sound level of 3 or 4 dB are barely perceptible. (Ref. 1)

### What is the Most Important Effect of Aviation Noise?

Annoyance is the most prevalent effect of aircraft noise. It is important to note that while the overall, or average, community attitude about a noise level is usually what is reported, some individuals will be much more and others much less upset or annoyed with the sound in question. Figure 1.1 shows this typical response pattern. This variation in response is what makes the science of measuring "community response" a rather complicated matter.



*Annoyance Caused by Aircraft Noise in Residential Communities Near Major Airports*

(Ref. 1)

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## Impacts of Noise

Several studies have been conducted to determine the impacts of noise on the human living environment. Those studies conclude that while hearing damage is not a common result of aircraft noise exposure, speech and sleep interferences are major concerns of neighbors close to airports. Additionally, where you live, the time of day and the Season will dictate how noise will impact residents of a community:

**Type of Neighborhood.** Instances of annoyance, disturbance and complaint associated with a particular noise exposure will be greatest in rural areas, followed by suburban and urban residential areas, and then commercial and industrial areas in decreasing order. The type of neighborhood may actually be associated with one's expectations regarding noise there. People expect rural neighborhoods to be quieter than cities. Consequently, a given noise exposure may produce greater negative reaction in a rural area.

**Time of Day.** A number of studies have suggested that noise intrusions are considered more annoying in the early evening and at night than during the day.

**Season.** Noise is considered more disturbing in the summer than in the winter. This is understandable since, during the summer, windows are likely to be open and recreational activities take place out of doors. (Ref. 1)

## Best Practices

In looking at our current code requirement the City must determine whether the current 65DnL is the best noise standard to use as an assessment tool. It is often assumed that the 65DnL is the best standard because the FAA uses this standard for planning purposes. However, several leading sources indicate that the actions leading to the adoption of the 65DnL land use compatibility guidelines indicates that it was intended to be adjusted as industry needs changed (in particular, as technology improvements resulted in quieter aircraft). Federal noise policy has always recognized that land use compatibility decision should be made at the local level. In addition, adoption of the 65DnL guideline in the 1970's reflected a compromise between what was environmentally desirable and what was economically and technologically feasible at the time. (Ref. 2)

In a "White Paper: Assessment of Noise Annoyance", prepared by Paul Schomer, Ph.D., P.E., April 22, 2001, the following points were made:

1. Nearly all agencies and boards and boards, standard setting bodies, and international organization that have cognizance over noise production sources use a DnL criterion value of 55 dB as the threshold for defining noise impact in urban residential areas. In fact, of this large number of agencies, boards, standards setting bodies, and international organization,

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only the Department of Defense and the FAA suggest a criterion value for DnL that is higher than 55 dB. (The Department of Housing and urban Development has no cognizance over noise sources. However, they term DnL levels from 65 dB to 75dB as "normally unacceptable" and DnL levels from 60 to 65 dB as "normally acceptable". Level below 60 dB are termed "clearly acceptable" (HUD, 1985)

2. The US Environmental Protection Agency (EPA, 1974) recommended the DnL metric and 55 dB and the "level requisite to protect health and welfare with an adequate margin of safety". The USEPA recommends the criterion level of 55 DnL to other Federal Agencies.
3. Significant evidence exists to suggest that aircraft noise is more annoying than is road traffic noise for the same DnL level. Given that all major international bodies including the World Health Organization, the World Bank Group, and the Organization for Economic Co-operation and Development use the equivalent of DnL 55 dB as their criterion, or a yet lower level, the question is raised as to why only the aircraft sector in the United States espouses a higher DnL criterion level. Research has shown that aircraft noise is more annoying than the other forms of transportation noise, for this reason the ISO International Standards (ISO,2000) recommends a 3 to 6 dB penalty for aircraft noise compared with road traffic noise.
4. For residential areas and other similarly noise sensitive land uses, noise impacts becomes significant in urban areas when the DnL exceeds 55 dB. In suburban areas where the population density is between 1250 and 5000 inhabitants per square mile (Gainesville is 2000 person per square mile), noise impacts becomes significant when DnL exceeds 50 dB. And in rural area where population is less than 1250 inhabitants per square mile, noise impact becomes significant when DnL exceeds 45 dB.

(Ref. 3)

#### **Consultant's Recommendation**

Given the review of the literature staff supports the consultant's recommendation that the City should adopt more stringent regulations than the current version. The consultant recommends that the City:

1. Prohibit any new residential development within the 65 dB DnL contour.
2. Prohibit any new residential development within the 60 - 65 dB DnL contour interval, with exception on a case- by-case basis for infill development and requires a minimum of 25 dB exterior-to-interior noise level reduction.
3. Require any new development within the 55-60 dB DnL contour to provide a minimum of 25 dB of exterior-to-interior noise level reduction.

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In Mr. Ted Baldwin letter to Erik Bredfeldt dated April 6, 2009 (Exhibit 1), it states: "it should be noted that prior to the FAA adoption of Part 150 in 1981, the Environmental Protection Agency published a report (in response to congressional direction in the "Noise Control Act of 1972") title "Noise Levels Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety." The report identified 55 dB DnL as the outdoor "level of environmental noise requisite to protect public health and welfare" with a five decibel margin of safety. Even without the margin of safety, the EPA concluded that 60 dB DnL was the upper limit of acceptable exposure "outdoors in residential areas and farms and other outdoors areas where people spend widely ranging amounts of time and other places where quite is a basis for use." The 65 db DnL compatibility guideline in Part 150, which defines the outer limits of the Gainesville's existing airport noise zones, is five decibels higher than the EPA protective level without a margin of safety and 10 dB higher than the EPA recommendation with that margin.

### Staff's Recommendation

Staff's recommendation follows the consultant recommendation. Staff's recommendations are summarized as follows ( See Exhibit 2 for ordinance revisions and Exhibit 3 for new noise map):

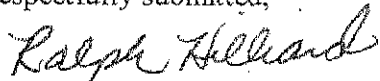
1. Added a Purpose and Finding section, page 1.
2. Amended the definition of Airport hazard to clarify the issues about permits that were previously obtained, page 1.
3. Amended Day/night average sound level to (DnL) instead of ~~Ldn~~, and amended the nonconforming use to indicate that the use must have been a lawfully established use, page 2.
4. Added a section to indicate that the regulations shall be administered by the City Manager or designee, page 3.
5. Added a Florida Statute reference, page 6.
6. Added Florida Administrative Code reference, page 7.
7. Corrected 14 CFR Part 77.25 reference, page 8.
8. Revised Airport Noise Subzones, added references for adopting a new noise zone maps and clarified the procedures for future updates, page 9 and 10.
9. Added a new regulated land use chart. Page 10
10. Deleted permitted use sections that have been replaced by the chart, page 11 and 12.

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11. Changed the Prohibited uses section to Non-regulated uses, and changed Appeals to Variances, and modified the section to allow any property owner to apply to the Board of Adjustment, page 12.
12. Added Florida Administrative Code reference, page 13.
13. Clarified that Educational Facilities are prohibited with a certain area of the airport runways, and deleted references to May 10, 1999. Corrections to statute references were also made, page 14.
14. Deleted references to May 10, 1999, page 15.
15. Added clarifying language to the Nonconforming uses and Future uses section, and added an Appeals Section.

Staff recommends approval of the petition as provided in Exhibit 2 and 3.

Respectfully submitted,



Ralph Hilliard  
Planning Manager

References:

1. "Aviation noise effects", Federal Aviation Administration. Washington, DC Mar 85. U.S Department of Commerce. National Technical Information Service
2. Airport Cooperative Research Program Synthesis 16, Compliance of Noise Programs in Areas Outside DnL 65. Transportation Research Board, Washington, DC 2009.
3. "White Paper: Assessment of Noise Annoyance", prepared by Paul Schomer, Ph.D., P.E., April 22, 2001.



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EXHIBIT 432G

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## MEMORANDUM

To: Erik Bredfeldt, City of Gainesville, Florida  
From: Ted Baldwin  
Date: April 6, 2009  
Subject: Airport Noise Regulation Background for April 9, 2009 Development Review Board  
Discussion of Hatchet Creek Development Proposal  
Reference: HMMH Project 302950

### 1. INTRODUCTION

In response to your request, this memorandum addresses the following three topics to provide noise-related background for the April 9, 2009 Development Review Board discussion of the revised Hatchet Creek development proposal:

- Overview of Federal Aviation Regulation (FAR) Part 150, "Airport Noise Compatibility Planning" and its implementation at Gainesville Regional Airport (GNV).
- Relationship of Part 150 to the City of Gainesville "Airport Hazard Zoning Regulations."
- Opinions regarding "best practices" related to addressing noise impacts in the proposed Hatchet Creek development and the City of Gainesville "Airport Hazard Zoning Regulations."

#### 1.1 Project Understanding

A residential development, named "Hatchet Creek," is proposed adjacent to GNV, in an area generally bounded to the west by NE 15<sup>th</sup> Street, to the south by NE 39<sup>th</sup> Avenue, to the north by NE 53<sup>rd</sup> Avenue, and to the east by the Gainesville city limits and the GNV property line.

The developer originally petitioned the City to approve a Planned Use District for the site, and to rezone the eastern portion of the site from "industrial" ("I-1") and the western portion of the site from "single family" ("RSF-1"), to permit higher density residential development, assisted living facility units, and commercial and office uses. These two areas surround the Ironwood Golf Course, which is zoned "recreational."

I understand the developer has revised the proposal to include only single family residential units in the RSF-1 zoned portion of the site, and no development in the I-1 zoned portion.

A majority of the site, including a majority of the RSF-1 zoned area in which residential units are proposed, falls within "Airport Noise Subzones" "A," "B," or "C," defined by the City's Airport Hazard Zoning Regulations. The three subzones correspond to the following Day-Night Average Sound Level ("DNL" or "Ldn")<sup>2</sup> exposure bands (considering aircraft noise only):<sup>3</sup>

- Subzone A: 75+ decibel (dB) DNL
- Subzone B: 70 - 75 dB DNL
- Subzone C: 65 - 70 dB DNL

<sup>1</sup> Part 150 is codified under Title 14 of the Code of Federal Regulations, as 14 C.F.R. Part 150.

<sup>2</sup> DNL is a measure of cumulative exposure to noise, normally presented for an entire calendar year in airport noise studies. In simple terms, it is the steady-state noise level over the entire year that would contain the same amount of noise energy as the actual time-varying sound, with one important adjustment: noise occurring at night (10 p.m. - 7 a.m.) is increased by 10 dB. For aircraft noise, this is equivalent to assuming that every nighttime aircraft operation occurs ten times.

<sup>3</sup> I understand the City adopted the noise subzone regulations at least partly in response to recommendations from a Part 150 study that the Gainesville-Alachua County Regional Airport Authority adopted for GNV in March 1986. See Section 2.3.

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Section II.C.2.e of the Airport Hazard Zoning regulations permits residential development in Subzones A, B, or C when two conditions are met:

1. The developer verifies to the City in writing that the structures are designed to achieve an outdoor-to-indoor noise level reduction (NLR) of at least 25 dB or executes and records an avigation easement to the Gainesville-Alachua County Regional Airport Authority.
2. The proposed development is compatible with the "Official 14 CFR Part 150 study."

## 2. OVERVIEW OF PART 150 AND ITS IMPLEMENTATION AT GNV

Part 150 sets standards for airport proprietors to follow in documenting noise exposure in the airport environs and establishing programs to minimize noise-related land use incompatibility. A formal Part 150 submission to the Federal Aviation Administration (FAA) includes documentation for two principal elements: (1) Noise Exposure Map (NEM) and (2) Noise Compatibility Program (NCP).

Part 150 is a voluntary process; however, over 250 airports have participated in the Part 150 program. There are many reasons for airports to participate, including, but not limited to:

- Conducting a comprehensive noise study under a recognized process, to demonstrate and pursue the airport's interest in addressing noise issues in an affirmative, community-oriented manner.
- Developing noise abatement measures in a manner that is more likely to obtain cooperation from the FAA and other aviation interests.
- Developing compatible land use measures in a manner that is more likely to obtain cooperation from local land use control jurisdictions.
- Taking advantage of potential access to FAA funding for conducting the study and, with FAA approval of proposed NCP measures, for their implementation, which can be expensive, particularly when land use measures such as acquisition or sound insulation are involved.

### 2.1 Noise Exposure Maps

The NEM documentation describes the airport layout and operation, aircraft noise exposure, land uses in the airport environs and the resulting noise / land use compatibility situation. The NEM must address *at least* two time frames: (1) the year of submission and (2) a forecast year at least five years following the year of submission. Airports often include a third, long-term time frame, to provide a more extended basis for planning. Part 150 requires more than simple "maps" to provide all the necessary information. In addition to graphics, requirements include extensive tabulated information and text discussion, including description of data collection and analysis, and of consultation with all interested stakeholders, in particular local land use control jurisdictions.

A critical component of a NEM submission to the FAA is identification on the map graphics of noncompatible land uses within the 65 decibel (dB) DNL noise contour using a table of land use compatibility guidelines presented in Part 150,<sup>4</sup> or a "substitute" table if the local land use control jurisdictions have adopted one.

### 2.2 Noise Compatibility Program

The NCP is essentially a list of the actions the airport proprietor proposes to undertake to minimize existing and future noise/land use incompatibilities. NCP documentation must recount the development of the program, including a description of all measures considered, the reasons that individual measures were accepted or rejected, how measures will be implemented and funded, and the predicted effectiveness of individual measures and the overall program. Typically, an NCP includes noise abatement measures designed to reduce aircraft noise or shift it away from noncompatible areas, and compatible land use measures designed to prevent new noncompatible development and mitigate existing noncompatible uses.

<sup>4</sup> Part 150 §A150.101(b), Table 1, "Land Use Compatibility with Yearly Day-Night Average Sound Levels."

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Official FAA acceptance of the Part 150 submission and approval of the NCP does not eliminate requirements for formal environmental assessment of any proposed actions pursuant to requirements of the National Environmental Policy Act (NEPA). However, acceptance of the submission is a prerequisite to application for FAA funding of implementation actions.

**2.3 Part 150 Implementation at GNV**

The Gainesville Alachua County Regional Airport Authority (the "Airport Authority") completed a Part 150 study for GNV in March 1986.<sup>5</sup> The Authority is in the process of conducting a Part 150 update. Until the update is complete and accepted by the FAA, the 1986 study remains the "official study." The noise contour figures from the 1986 study designate residential land within the 65 dB DNL contours as "noncompatible."

Chapter IV ("Noise Compatibility Program") of the 1986 report includes a section titled "Evaluation of Surrounding Jurisdiction Options," which notes that "Alachua County is the sole surrounding jurisdiction which controls land use and development in the area surrounding the Airport which is adversely impacted by aircraft noise."<sup>6,7</sup> That section observes that current County zoning regulations and policies permit residential development within the 65-70 dB DNL contour interval with "an additional 5 dB of [exterior-to-interior sound level] attenuation above that resulting [from] normal construction practices with open windows for ventilation."<sup>8</sup> It notes that most local building codes and practices in the Gainesville region provide this additional attenuation because they require air conditioning systems for ventilation. The section observes that the County regulations and policies permit residential use within the 70-75 dB DNL contour interval, with 30 dB of attenuation.

The section comments about these regulations and policies as follows:

The noise attenuation requirements may serve residential land owners well during times of the year when continued use of air condition or heating systems are in operation and doors and windows are closed. However, the Gainesville regional climate is also conducive to open window conditions during several months of the year. Further these policies have no influence on reducing noise impacts outside of the building residence, where family and other activities occur which can require that noise levels be the same as those found in an interior environment. Moreover, because for the most part these land areas are (1) not yet developed for residential land use, (2) located in areas with are not planned to be provided with infrastructure development (water, sewer, etc.) and (3) have terrain features (wetlands) which limit future development, it would be prudent to adopt a more controlled land use management program. Specifically, it is recommended that the County not permit any residential use within the 65 Ldn contour.<sup>9</sup>

The Airport Authority is in the process of conducting a Part 150 update study at GNV. The City of Gainesville has a representative on the Part 150 Study's "Technical Advisory Committee." The Authority has submitted a revised NEM to the FAA for review.<sup>10</sup> To my knowledge, the FAA is still in the process of reviewing the document for acceptability. The NEM includes noise contours for calendar years 2007, 2012, and 2027, all of which are smaller than the contours for 1985 and 1990 presented in the 1986 NEM. The overall reduction is approximately 10 decibels.<sup>11</sup> The updated 65

<sup>5</sup> "Gainesville Regional Airport FAR Part 150 Study," prepared by CH2MHill, March 1986.

<sup>6</sup> Ibid., p. IV-11.

<sup>7</sup> In 1986, the area west of the airport encompassing the proposed Hatchet Creek development, was outside the Gainesville-municipal boundary.

<sup>8</sup> Ibid., p. IV-11.

<sup>9</sup> Ibid., p. IV-12.

<sup>10</sup> "GNV Part 150 Noise Study, Phase 1 - Noise Exposure Maps," RS&H and ESA Airports, October 2008.

<sup>11</sup> A ten-decibel reduction represents a 90% reduction in noise energy. While the reduction from 1985 and 1990 is due to complex changes in activity levels and the types of aircraft operating at the airport, it is equivalent to

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dB DNL contours only leave the airport property immediately west of the airport. This off-airport area extends into the Hatchet Creek development site, but only over the industrial zoned area.<sup>12</sup>

Table 7.2 of the revised NEM<sup>13</sup> presents a modified version of the Part 150 land use compatibility table discussed in Section 2.1 which proposes more stringent guidelines, including indicating that residential use be considered noncompatible with aircraft noise exposure as low as 60 dB DNL<sup>14</sup> and discouraged as low as 55 dB DNL.<sup>15</sup> I understand that the Airport Authority has recommended that the City adopt these revised guidelines and apply them using the 2027 NEM contours. A majority of the Hatchet Creek development site, including a majority of the RSF-1 zoned area in which residential units are proposed, falls within the 2027 55 dB DNL contour; on the order of half the area in which residential units are proposed falls within the 2027 60 dB DNL contour.

### 3. RELATIONSHIP OF PART 150 TO THE AIRPORT HAZARD ZONING REGULATIONS

Part 150 relates to the Gainesville Airport Hazard Zoning Regulations in at least two ways:

- *The GNV NEM contours provide the basis for establishing the Airport Noise Zones.*

Section C.1. ("Airport Noise Zone and Regulations") states in part:

The boundary of any Airport Noise Zone shall be amended as necessary to reflect any changes in the documentation of forecast day/night average sound levels on which said zone is based. Notwithstanding other provisions of this section, should the Gainesville Regional Airport amend its official 14 CFR Part 150 study, the boundaries of the Airport Noise Zones shall be modified to comply with the amended official noise study.

Until the FAA determines that the updated NEM submission is in compliance with applicable requirements of Part 150, the 1986 NEM contours continue to be the basis for defining the Airport Noise Zone boundaries. When the FAA finds the updated NEM submission in compliance, then it is the appropriate basis for establishing the noise zone boundaries and, as I recommend in Section 4, the City should update the Airport Hazard Zoning Regulations accordingly.

- *Section II.C.2.e. "Restricted Uses and Criteria" states that residential use is one of several land uses that are permitted within the noise overlay zone "only if the proposed development is compatible with the "Official 14 CFR Part 150 study."*

As discussed in Section 2.3 of this memorandum, Chapter IV the 1986 NCP "recommended that the County not permit any residential use within the 65 Ldn contour." Until the FAA has found the updated NEM in compliance and approved the updated NCP, residential development within the 65 dB DNL contours from the 1986 report is not "compatible" with at least this recommendation of the "official 14 CFR Part 150 Study."

Furthermore, as discussed in Section 2.3, the 2008 Part 150 NEM update recommends that residential use be considered noncompatible with aircraft noise as low as 60 dB DNL and discouraged as low as 55 dB DNL. Since these updated NEM contours cover major portions of the RSF-1 zoned area in which residential units are proposed in the Hatchet Creek site, that residential development would not be "compatible" with this recommendation of the Part 150 update when it becomes the "official" study.

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cutting operations at the airport by a factor of 10. It should be noted that some of the reduction might be the result of improvements in the noise model and its embedded aircraft noise and performance data.

<sup>12</sup> The 2027 contour extends slightly further to the west over the eastern golf course area.

<sup>13</sup> Ibid., p.7-7.

<sup>14</sup> With the exception of transient lodging with 25 dB of sound attenuation.

<sup>15</sup> Where the local jurisdiction determines residential use must be allowed, the suggested guidelines recommend noise attenuation minimums. Transient lodgings are considered outright compatible and mobile homes outright noncompatible.

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**4. OPINIONS AND RECOMMENDATIONS**

In earlier assistance to the City related to the Hatchet Creek development proposal, I noted "[t]he City has adopted airport noise zone regulations that reflect relatively high levels of sensitivity to airport noise compatibility in general, and to recommendations from the GNV Part 150." Unfortunately for residents neighboring most airports in the U.S., few land use control jurisdictions have adopted such comprehensive and responsive airport zoning regulations. This section recommends actions the City could take to maintain this positive situation.

**4.1 Opinion Regarding Land Compatibility Best Practices**

As discussed in Section 2.1, Part 150 includes a table of land use compatibility guidelines. Several observations about that table are relevant to defining current best practices.

First, the table includes an important footnote, which states:

The designations contained in this table do not constitute a Federal determination that any use of land covered by the program is acceptable or unacceptable under Federal, State, or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local land use authorities. FAA determinations under Part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses.<sup>16</sup>

As discussed in preceding sections of this memorandum, both the original GNV Part 150 and the update that is underway recommend compatible land use criteria that are more stringent than the FAA guidelines, to take into account local climate, building types, life styles, citizen expectations, etc. As this Part 150 footnote makes clear, it is the City's responsibility to take these local conditions into account when adopting and applying land use controls; Part 150 guidelines reflect "national average" conditions that differ significantly from those in Florida, where the climate leads to citizen life styles focused on, and expectations related to, greater outdoor access and activity. Sound attenuation is not as affective in Gainesville as it is in colder climates, where outdoor interests are more limited.

Second, it should be noted that prior to FAA adoption of Part 150 in 1981, the Environmental Protection Agency published a report (in response to Congressional direction in the "Noise Control Act of 1972") titled "Noise Levels Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety." The report identified 55 dB DNL as the outdoor "level of environmental noise requisite to protect public health and welfare" with a five decibel margin of safety. Even without the margin of safety, the EPA concluded that 60 dB DNL was the upper limit of acceptable exposure "outdoors in residential areas and farms and other outdoor areas where people spend widely varying amounts of time and other places where quiet is a basis for use."<sup>17</sup> The 65 dB DNL compatibility guideline in Part 150, which defines the outer limit of the Gainesville's existing airport noise zones, is five decibels higher than the EPA protective level without a margin of safety and 10 dB higher than the EPA recommendation with that margin.

Third, it should be noted that FAA guidelines were based on technological and economic feasibility at that time they were adopted. Aircraft were generally much noisier in the 1980s when FAA published the Part 150 guidelines and when GNV conducted its first Part 150 study. Since that time, aircraft technology improvements have significantly reduced aircraft source noise levels and noise contours at most airports (as observed at GNV between 1986 and 2008), despite increases in activity.<sup>18</sup> These

<sup>16</sup> Ibid., Appendix A, Table 1, "Land Use Compatibility Planning with Yearly Day-Night Average Sound Levels."

<sup>17</sup> U.S. Environmental Protection Agency, "Noise Levels Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety," Washington, D.C., March 1974, Table 1, p.3.

<sup>18</sup> Federal regulations have forced manufacturers to implement the noise-reducing improvements and forced aircraft operators to purchase the quieter aircraft, accelerating the rate at which the benefits have been achieved.

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improvements have significantly reduced the cost of noise mitigation, such as sound insulation or acquisition. As a result, it is technologically and economically feasible to adopt compatibility criteria that provide a higher level of protection to residents and are consistent with the 1974 EPA recommendations for protective levels.

**4.2 Recommended Amendment to the Airport Noise Zone Regulations**

When the FAA finds the 2008 GNV NEM in compliance with Part 150, I recommend the City amend the Airport Noise Zone Regulations to make them more stringent than the current version, including:

- Prohibit any new residential development within the 65 dB DNL contour.
- Prohibit any new residential development within the 60-65 dB DNL contour interval, with the exception of case-by-case approval of development on isolated lots within largely developed neighborhoods; i.e., "infill" development. Require any new construction that is permitted to provide a minimum of 25 dB of exterior-to-interior noise level reduction and require the property owner to provide Airport Authority with a permanent noise and aviation easement.
- Require any new residential development within the 55-60 dB DNL contour to provide a minimum of 25 dB of exterior-to-interior noise level reduction.
- Base the noise zone definition on the 2027 Noise Exposure Map.

This action would be consistent with evolving "best practices" in the aircraft noise compatibility. As a relevant example, the City of Naples and Collier County, Florida are the local entities that regulate land use in the environs of Naples Municipal Airport. These two jurisdictions have formally adopted land use compatibility criteria that reflect locally determined needs and values, to prevent residential development within the 65 dB DNL contour and to approve residential use within the 60 to 65 dB DNL contour interval only on a case-by-case basis with conditions such as additional sound attenuation and aviation easements. For all intents and purposes, these regulations represent controls that are five decibels more stringent than the current Gainesville regulations.

**4.3 Opinion and Recommendation Regarding the Hatchet Creek Development Proposal**

The City should consider these best practices and likely revisions to the Airport Noise Zone regulations in reviewing the Hatchet Creek proposal, to ensure the project is consistent with current local and industry conditions, and not with 23-year-old information, guidelines, and practices.

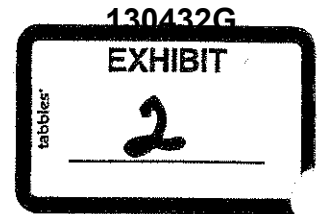
In my opinion, many future Hatchet Creek residents will find the aircraft operations and noise exposure that the 2008 NEM forecasts over the site to be intrusive and annoying. They are likely to complain to the airport, the City, and the developer. I do not believe the 25 dB noise level reduction option for obtaining development approval will adequately address this situation, because that requirement is not significantly higher than the level of sound attenuation typically provided by current building construction techniques in Florida, and because the treatment will provide little or no benefit when windows are open and no benefit for outdoor activities.

In my opinion, the aviation easement option for obtaining conditional approval for development in the Airport Noise Zones is preferable to the 25 dB NLR option, because it ensures that potential residents are notified in advance of closing on the property; at a minimum, the title search will reveal the easement, although it would be preferable if the purchaser was notified no later than during the purchase and sale process. Advance notice will permit potential residents purchasers to make informed purchasing decisions and avoid being surprised by the presence of aircraft overflights and noise after moving in to the development. Informed purchasers are less likely to find the overflights and noise annoying.

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Since 1980, the estimated U.S. population living within 65 dB DNL has dropped from approximately 7.2 million to approximately 0.5 million

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APPENDIX F.  
AIRPORT HAZARD ZONING REGULATIONS

Purpose. The Airport Hazard Zoning regulations are intended to provide standards for airport protection and ensuring land use compatibility with airport operations at the Gainesville Regional Airport. The standards shall address the location of natural and man-made objects that may create hazards to aviation, through implementation of airport height notification zones, airport runway clear zones, and airport noise zones.

Findings. It is hereby found that an airport hazard endangers the lives and property of users of the airport and of occupants of land in the vicinity of the airport, that certain activities and uses of land in the immediate vicinity of airports are not compatible with normal airport operations, and may, if not regulated, also endanger the lives of occupants, adversely affect their health, or otherwise limit the accomplishment of normal activities. Therefore, it is hereby declared:

- A. That the creation or establishment of an airport hazard and the incompatible use of land in airport vicinities are public nuisances and injure the community served by the airport in question.
- B. That it is therefore necessary in the interest of the public health, public safety, and general welfare that the creation or establishment of airport hazards and incompatible land uses be prevented; and
- C. That this should be accomplished, to the extent legally possible, by exercise of the police power, with out compensation, in accordance with Chapter 333, Florida Statutes.

**I. Definitions and Administration.**

A. Definitions. Throughout these regulations, the following words and phrases shall have the meanings indicated unless the text of the ordinance clearly indicates otherwise:

*Airport* means those areas of land or water designed or set aside for the landing and taking-off of aircraft utilized, or to be utilized, in the interest of the public for such purpose, and validly licensed by the State of Florida Department of Transportation (FDOT) as a "Public Airport" known as the Gainesville Regional Airport.

*Airport hazard* means any structure, object of natural growth, or use of land that would exceed the federal obstruction standards contained in 14 Code of Federal Regulations (CFR) Part 77, ss. 77.21, 77.23, 77.25, 77.28, and 77.29 and that obstructs the airspace required for flight of aircraft in taking off, maneuvering or landing at an airport; or may otherwise be hazardous to or interfere with taking off, maneuvering or landing of aircraft and for which no person has previously obtained a permit or variance pursuant to section 333.025 or section 333.07, Florida Statutes.

*Airport reference point* means the approximate geometric center of the runways of an airport, expressed by its latitude and longitude, as shown on the approved airport layout plan of

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the Gainesville Regional Airport, and identified as the “future airport reference point.”

*Avigation easement* means the assignment of a right to an airport proprietor to a portion of the total benefits of the ownership of real property.

*Day/night average sound level (DnL) (Ldn)* means the day/night average sound level estimated by the Federal Aviation Administration Integrated Noise Model from input assumptions contained in the approved airport master plan of each publicly-owned airport, including but not limited to, the type and amount of aircraft activity, the time of day such activity occurs, runway utilization, flight track geometry, and take-off and landing profiles.

*Nonconforming use* means any existing structure, object of natural growth, or use of land that is inconsistent with the provisions of these regulations, provided it was lawfully established in accordance with the City Code of Ordinances as existed at the time of establishment.

*Nonprecision instrument runway* means any runway having an existing instrument approach procedure utilizing air navigation facilities with only horizontal guidance, or area-type navigation equipment, for which a straight-in nonprecision instrument approach procedure has been approved or planned, and for which no precision approach facilities are planned.

*Object of natural growth* means any organism of the plant kingdom, including trees.

*Occupied rooms* means rooms within enclosed structures that are, or may reasonably be expected to be, used for human activities including, but not limited to, sound communications, education or instruction, sleeping, eating, entertainment, or the use of telephones and other audio devices.

*Occupied structure* means a structure with at least one occupied room. See “Occupied Rooms.”

*Other-than-utility runway* means any existing or planned runway that is constructed for, and intended to [be] used by, all types of aircraft, including those having gross weights greater than 12,500 pounds.

*Person* means individual, firm, partnership, corporation, company, association, joint stock association, or political body, including the trustee, receiver, assignee, administrator, executor, guardian, or other representative.

*Precision instrument runway* means a runway having an existing instrument approach procedure utilizing an Instrument Landing System, Microwave Landing System, or a Precision Approach Radar, or any runway for which a precision approach system is planned.

*Runways* means those existing or planned portions of the airport prepared for the landing and take-off of aircraft, as shown on the approved airport layout plan of the Gainesville Regional Airport, or those portions of each privately-owned airport prepared for the landing and take-off of aircraft, and identified as such by the Florida Department of Transportation.



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*Runway end elevation* means the elevation at each runway end centerline, expressed in “feet Above Mean Sea Level (AMSL),” as shown on the approved airport layout plan of the Gainesville Regional Airport. For each airport runway, the runway end elevation is that value reported by the Florida Department of Transportation for each respective runway.

*Sound level* means the quantity, in decibels, measured by an instrument satisfying the requirements of the American Standard Specification for Type I sound level meters. The sound level is the frequency-weighted sound pressure level obtained with the frequency weighting “A” and the standardized dynamic characteristic “SLOW.”

*Noise level reduction (NLR)* means a measurement standard for the reduction in sound level transmission between two designated locations for a stated sound frequency band. NLR standards are used to evaluate the effectiveness or establish the requirements of techniques to limit sound level transmission in order to prevent or mitigate adverse noise impacts.

*Statute mile* means a distance of 5280 feet.

*Structure* means any temporary or permanent object constructed or installed by man, including but not limited to antennae, buildings, cranes, towers, smoke stacks, utility poles and overhead transmission lines.

*Utility runway* means any existing or planned runway that is constructed for and intended to be used by only propeller driven aircraft having gross weights less than or equal to 12,500 pounds.

*Visual runway* means any runway intended solely for the operation of aircraft using visual approach procedures and for which no straight-in instrument approach procedure exists, or is planned, and is so indicated on the approved airport layout plan of the Gainesville Regional Airport.

B. Administration of the Airport Regulations. All airport zoning regulations shall be administered and enforced by the City Manager or designee.

## II. Airport Zones of Influence.

The City of Gainesville hereby adopts three airport zones of influence. These zones are established to regulate land development in relation to the Gainesville Regional Airport as licensed for public use. The location of these airport zones of influence, and restrictions on the use of land within said zones, are hereby established by these regulations. The boundaries of said zones, and restrictions on the use of land within said zones, shall be changed only through the amendment of these regulations by the city commission of the City of Gainesville. Any application for land development within these airport zones of influence shall comply with these regulations, any applicable state or federal regulations, and any applicable requirements of the land development regulations of the City of Gainesville. The airport zones of influence established in these regulations include:

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the Airport Height Notification Zone;  
the Airport Runway Clear Zone; and  
the Airport Noise Zone.

A. *Airport Height Notification Zone and Regulations.*

1. *Establishment of Zone.* The Airport Height Notification Zone is hereby established as an overly zone on the adopted city zoning map atlas. The Airport Height Notification Zone is established to regulate the height of structures and objects of natural growth in areas around the Gainesville Regional Airport. The Airport Height Notification Zone consists of two subzones, defined as follows:

*Airport Height Notification Subzone 1:* The area surrounding the Gainesville Regional Airport extending outward 20,000 feet from the ends and each side of all active runways.

*Airport Height Notification Subzone 2:* The area within the city limits not within Airport Height Notification Subzone 1.

For the Gainesville Regional Airport the boundary of the Airport Height Notification Zone established in these regulations is based on the runway configuration which is planned and documented as such in its approved airport layout plan.

Refer to the Airport Height Notification Zoning maps attached and made a part of these regulations in Attachment 1. The boundary of the Airport Height Notification Zone shall be amended as necessary to reflect any changes in the documentation of the runway configuration on which said zone is based.

In the event a discrepancy arises between an Airport Height Notification Zone boundary depicted on the maps attached at Attachment 1 and an Airport Height Notification Zone boundary located by application of the definition of said boundary as set forth in these regulations, the boundary as prescribed by the latter shall prevail.

2. *Airport Height Notification Regulations.*

a. All development proposals for land lying within an Airport Height Notification Zone shall be reviewed for conformance with the federal obstruction standards contained in Title 14 of the Code of Federal Regulations (CFR), Part 77, for civil airports.

b. A proposed development shall be considered a "potential airport obstruction," if the proposed development would result in a structure or object of natural growth having a height that would exceed:

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an imaginary surface extending outward and upward from the ends and sides of a runway at a slope of one foot vertically for every 100 feet horizontally, for a distance of 20,000 feet, in Airport Height Notification Subzone 1; or

200 feet above ground level in Airport Height Notification Subzone 2.

c. The applicant for any land development proposal determined to result in a structure or object of natural growth that constitutes a "potential airport obstruction" shall be issued a Notice of Potential Airport Obstruction during the development review process by the Planning Division. No land development proposal determined to result in a structure or object of natural growth that constitutes a potential airport obstruction shall be approved for construction unless:

an Airport Obstruction Permit is issued by the city manager or designee; or

The Board of Adjustment grants an Airport Obstruction Variance, if applicable.

d. Any land development proposal that has been determined to include no "potential airport obstruction" is exempt from any Airport Height Notification Zone permitting and variance requirements contained herein.

3. *Airport Obstruction Permit Procedures and Criteria for Approval.* Any applicant receiving a Notice of Potential Airport Obstruction may apply to the Planning Division for an Airport Obstruction Permit.

a. *Procedures for Obtaining an Airport Obstruction Permit.*

i. The applicant shall submit a completed Airport Obstruction Permit application, as provided by City, and shall provide documentation that the required Notice of Proposed Construction or Alteration has been filed with the Federal Aviation Administration (FAA). The city manager or designee may consider permit requests concurrent with the development plan approval consideration.

ii. Prior to any such permit request being scheduled for consideration by the city manager or designee, the applicant shall submit a copy of the final written Determination, as issued by the FAA based on its review of the applicant's Notice of Proposed Construction or Alteration, in accordance with the provisions of 14 CFR Part 77.

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b. *Criteria for Granting an Airport Obstruction Permit.*

i. If the FAA has reviewed a proposed land development and determined it would not exceed any federal obstruction standard contained in 14 CFR Part 77, the city manager or designee shall grant an Airport Obstruction Permit for the proposed development. The permit shall include conditions to ensure the installation, operation, and maintenance of appropriate obstruction marking, lighting, and/or flagging, if such obstruction marking, lighting, and/or flagging is required by either Chapter 333, Florida Statutes, Chapter 14-60, Florida Administrative Code, or by the FAA in its written Determination. No Airport Obstruction Permit shall be issued after the expiration date indicated on the FAA's written Determination. Each Airport Obstruction Permit issued shall specify a reasonable expiration date as a condition.

ii. Where the FAA has reviewed a proposed land development and determined it would exceed the federal obstruction standards contained in 14 CFR Part 77, no Airport Obstruction Permit shall be granted by the city manager or designee. In order for the proposed land development to proceed, an applicant must apply for and obtain an Airport Obstruction Variance from the Board of Adjustment of the City of Gainesville.

4. *Airport Obstruction Variance Procedures and Criteria for Approval.*

a. *Procedures for Obtaining an Airport Obstruction Variance.*

i. The applicant shall submit to the Planning Division a completed Airport Obstruction Variance application, as provided by the City. At the time of filing an Airport Obstruction Variance application, the applicant must provide proof to the city that a copy of said application has been forwarded by certified mail, return receipt requested, to the Florida Department of Transportation (FDOT) Central Aviation Office in Tallahassee, Florida. The FDOT shall have 45 days from the receipt of the application to provide comments to the Board of Adjustment, after which time its right is waived. The Board of Adjustment may approve, deny or approve the application with conditions.

ii. Prior to the variance request being scheduled for consideration by the Board of Adjustment, comments must be received from the FDOT or the applicant must submit a copy of the return receipt showing that the FDOT has waived its right to comment. In addition, the applicant shall submit to the Planning Division the following:

a copy of the notice of proposed construction form submitted to the FAA; and

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a copy of the final written Determination issued by the FAA, based on its review of the applicant's Notice of Proposed Construction or Alteration, in accordance with the provisions of 14 CFR Part 77.

b. *Criteria for Granting an Airport Obstruction Variance.*

i. The Board of Adjustment shall consider the criteria enumerated in Section 333.025(6), Florida Statutes, and Chapter 14-60, Florida Administrative Code, in its consideration of an Airport Obstruction Variance request.

ii. The Board of Adjustment may grant an Airport Obstruction Variance if it determines that:

a literal application or enforcement of these regulations would result in practical difficulty or unnecessary hardship and that the relief granted would not be contrary to the public interest but would do substantial justice and be in accordance with the spirit of these regulations, and Chapter 333, Florida Statutes, and Chapter 14-60, Florida Administrative Code, and

the proposed development can be accommodated in navigable airspace without adverse impact to Gainesville Regional Airport aviation operations.

iii. In granting an Airport Obstruction Variance, the Board of Adjustment may prescribe appropriate conditions, requirements and safeguards in conformity with these regulations and the intent hereof, including avigation easements if deemed necessary and shall require the owner of the structure or tree in question to install, operate, and maintain thereon, at his or her own expense, such marking and lighting as may be necessary to indicated to the aircraft pilots the presence of an obstruction. Such marking and lighting shall conform to the specific standards established by Chapter 333, Florida Statutes, and Chapter 14-60, Florida Administrative Code.

B. *Airport Runway Clear Zone and Regulations.*

1. *Establishment of Zone.* There is hereby established the Airport Runway Clear Zone as an airport zone of influence. The Airport Runway Clear Zone is established to regulate the uses of land lying in specified areas above which aircraft must routinely operate at low altitudes and climb from or descend to the runways of the Gainesville Regional Airport. Within the Airport Runway Clear Zone, certain land uses are restricted or prohibited due to land use characteristics which could result in further death, injury, and property damage in the event of an aircraft accident, as such areas are more likely, statistically, to be exposed to

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accidents involving aircraft climbing from, or descending to, the runway at low altitudes.

The Airport Runway Clear Zone includes the area over which aircraft routinely operate at altitudes of 50 feet or less above the runway end elevation, and is defined as follows:

That portion of the Approach Surface, as defined by 14 CFR Part 77.25(d), that extends outward from, and perpendicular to, its common boundary with the Primary Surface, as defined in 14 CFR Part 77.25(a), for a horizontal distance of:

1,000 feet for utility/visual runways,

1,700 feet for nonprecision instrument/other-than-utility runways, and

2,500 feet for precision instrument runways.

The Airport Runway Clear Zone is shown on the maps attached as Attachment 2. In the event a discrepancy arises between an Airport Runway Clear Zone boundary depicted on the maps attached as Attachment 2 and an Airport Runway Clear Zone boundary located by application of the definition of said boundary as set forth in these regulations, the boundary as prescribed by the latter shall prevail.

2. *Airport Runway Clear Zone Regulations.*

a. *Prohibited uses.* The following types of land uses shall be prohibited within the established Airport Runway Clear Zone:

educational facilities (including all types of schools, pre-schools, and child-care facilities);

hospitals, medical and health-related facilities;

places of religious assembly;

hotels and motels (including transient lodging, recreational vehicle and mobile home parks); and

other similar land uses wherein or whereabouts persons are concentrated or assembled;

b. *Allowable uses.* Any use that is not prohibited in an Airport Runway Clear Zone as determined above, is allowable within such zone,

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subject to compliance with applicable Airport Noise and Height Notification Zone and zoning district regulations.

C. *Airport Noise Zone and Regulations.*

1. *Establishment of Zone.* There is hereby established the Airport Noise Zone as an airport zone of influence. The Airport Noise Zone is established around the Gainesville Regional Airport to regulate land uses sensitive to sound levels generated by the routine operation of the Airport. Within the Airport Noise Zone, land use restrictions and special construction standards are established to minimize impacts of airport-generated noise. The Airport Noise Zone consists of three subzones, defined as follows:

*Airport Noise Subzone A:* The area commencing at the airport reference point and extending outward therefrom to that boundary which approximates a day/night average sound level of ~~75 Ldn~~ 65 DnL.

*Airport Noise Subzone B:* The area commencing at the airport reference point and extending outward therefrom to that boundary which approximates a day/night average sound level of ~~70 Ldn~~ 60 DnL, excluding Subzone A.

*Airport Noise Subzone C:* The area commencing at the airport reference point and extending outward therefrom to that boundary which approximates a day/night average sound level of ~~65 Ldn~~ 55 DnL, excluding Subzones A and B.

For the Gainesville Regional Airport, the boundary of the Airport Noise Zone established in these regulations is based on the forecast of day/night average sound levels documented in its approved airport master plan or airport layout plan, or both the 2012 Noise Exposure Map, prepared for the Gainesville Regional Airport by RS&H and determined compliant by the FAA on April 20, 2009.

~~Refer to the Airport Noise Zone maps attached and made a part of these regulations as Attachment 3. The boundary of any Airport Noise Zone shall be amended as necessary to reflect any changes in the documentation of forecast day/night average sound levels on which said zone is based. Notwithstanding other provisions of this section, should the Gainesville Regional Airport amend its official 14 CFR Part 150 study, the boundaries of the Airport Noise Zones shall be modified to comply with the amended official noise study.~~

The 2012 Noise Exposure Map is attached and made a part of these regulations as Attachment 3. When future Noise Exposure Maps are prepared and determined compliant by the FAA, the City shall consider revisions to the boundary of the Airport Noise Zones and to these regulations. Any such revisions shall not be operative or effective for purposes of these regulations, until adopted by ordinance of the City.

2. *Airport Noise Zone Land Use Regulations.* The provisions of this section shall

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apply to the construction, expansion, alteration, moving, repair, replacement, use, and changes of use or occupancy of any occupied structure located within any Airport Noise Zone defined by these regulations. ~~Said structures include those that exist within any Airport Noise Zone as of May 10, 1999, those which are thereafter~~ and to any structure that is moved into or within any Airport Noise Zone, and those proposed to be constructed within any Airport Noise Zone.

- a. *Existing Structures.* Structures located within any Airport Noise Zone at the time of the adoption of these regulations to which additions, expansions, alterations, repairs, replacement, and changes of use or occupancy are made shall comply with the requirements of these regulations, with the following exceptions:

Structures for which the cost of such additions, alterations, or repairs made within any five year period does not exceed 50 percent of the value of such structures;

Nonstructural alterations or repairs of such structures for which the cost of such alterations or repairs does not exceed 50 percent of the value of such structures may be made with the materials of which such structures are constructed, if otherwise allowed; or

Structures for which no more than 50 percent of the roof covering of such structures is replaced within any three-year period.

- b. *Moved Structures.* Structures moved into or within any Airport Noise Zone defined by these regulations shall comply with requirements of these regulations before permanent occupancy is permitted.
- c. *New Structures.* New structures proposed within any Airport Noise Zone defined by these regulations shall comply with the requirements of these regulations before permanent occupancy is permitted.
- d. *Regulated Uses within the Airport Noise Zones*

**Table 1. Land Use Regulation Chart**

<u>Zones</u>	<u>A</u>	<u>B</u>	<u>C</u>
	<u>65DnL</u>	<u>65-60DnL</u>	<u>60-55DnL</u>
<u>Residential, single-family</u>	<u>Prohibited</u>	<u>Restricted (1)</u>	<u>Permitted (2)</u>
<u>Residential, multi-family</u>	<u>Prohibited</u>	<u>Restricted (1)</u>	<u>Permitted (2)</u>
<u>Mobile Homes/Manufactured Housing</u>	<u>Prohibited</u>	<u>Restricted (1)</u>	<u>Permitted (2)</u>
<u>Transient Lodging</u>	<u>Prohibited</u>	<u>Restricted (1)</u>	<u>Permitted (2)</u>
<u>Auditoriums and concert halls and similar uses (primarily indoor uses)</u>	<u>Prohibited</u>	<u>Restricted (1)</u>	<u>Permitted (2)</u>
<u>Library</u>	<u>Prohibited</u>	<u>Restricted (1)</u>	<u>Permitted (2)</u>



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Hospital	Prohibited	Prohibited	Permitted (2)
Correctional institution	Prohibited	Restricted (1)	Permitted (2)
Nursing homes	Prohibited	Restricted (1)	Permitted (2)
Assisted living facility	Prohibited	Restricted (1)	Permitted (2)
School/Educational Centers	Prohibited	Restricted (1)	Permitted (2)
Daycare	Prohibited	Restricted (1)	Permitted (2)
Places of Religious Assembly	Prohibited	Restricted (1)	Permitted (2)
Outdoor Sports Arenas and similar uses (primarily outdoor uses)	Prohibited	Permitted	Permitted
<p>(1) Development shall be allowed only on isolated lots within largely developed subdivisions or neighborhoods; i.e., "infill development lots." Any such construction that is allowed shall provide a minimum of 25 dB of exterior-to-interior noise level reduction and the property owner shall provide the City and the Gainesville Regional Airport with a permanent avigation easement, in accordance with (g) below.</p> <p>(2) Any development shall be required to provide a minimum of 25 dB of exterior-to-interior noise level reduction.</p>			

d. — *Permitted uses.*

The following uses shall be permitted within the established noise overlay zone, unless prohibited by Airport Runway Clear Zone or zoning district regulations:

Governmental Services  
 Transportation  
 Off-Street Parking  
 Offices, business and professional  
 Wholesale and retail building materials, hardware and farm equipment  
 Retail trade—general  
 Utilities, Heavy or Limited  
 Communications  
 Manufacturing—general  
 Photographic and optical services  
 Mining and fishing, resource production and extraction  
 Nature exhibits and zoos  
 Amusement parks, resorts and camps  
 Golf courses, riding stables and water recreation  
 Agricultural operations  
 Similar uses, as determined by the city manager or designee

e. — *Restricted Uses and Criteria.* The following uses shall be permitted within the established noise overlay zone, (unless prohibited by Airport Runway Clear Zone or zoning district regulations) only if the proposed development complies with the applicable criteria described below and is compatible with the Official 14 CFR Part 150

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study:

~~i. — Child Care, Transient Lodgings, Educational Centers, Residential (other than mobile homes), and similar uses. Developers of proposed child care facilities, transient lodgings, educational centers and residential uses (other than mobile homes) shall verify to the city in writing that proposed buildings are designed to achieve an outdoor to indoor noise level reduction (NLR) of at least 25 decibels. (Normal residential construction can be expected to provide an NLR of 20-25 decibels).~~

~~ii. — Hospitals, Homes for the Aged, Places of Religious Assembly, Auditoriums, Concert Halls and similar uses. Hospitals, homes for the aged, places of religious assembly, auditoriums and concert halls shall verify to the city in writing that proposed buildings are designed to achieve an outdoor to indoor noise level reduction (NLR) of at least 25 decibels.~~

~~iii. — Outdoor Sports Arenas, Spectator Sports and similar uses. Outdoor sports arenas and spectator sports facilities must be constructed with special sound reinforcement systems consistent with building code regulations.~~

~~In lieu of providing written verification that a proposed building is designed for an NLR of 25 decibels (as stated in i and ii above), a developer may execute and record an avigation easement as provided in subsection i. below.~~

~~ef. Non-regulated Prohibited uses. Uses that are not specified in Table 1 may be allowed if permitted by the underlying zoning and other applicable Land Development regulations. this subsection as regulated uses may be allowed if permitted by the underlying zoning.~~

~~fg. — Variances Appeals. Determinations by the planning and development services department, relating to use interpretations involving sections “d.” or “e.” or “f.” above, may be appealed to the Board of Adjustment by an applicant or any aggrieved person, taxpayer affected, governing body of a political subdivision, or FDOT. Any property owner desiring to erect a structure or otherwise use his/her/its property in violation of these regulations may apply to the board of adjustment for a variance from the airport noise zone regulation in question. All such appeals to the Board of Adjustment shall be filed, reviewed, and heard in a manner consistent with sections 333.08 and 333.10 of the 333.07, Florida Statutes.~~

~~gh. Avigation Easements. An avigation easement is a legal document that grants to the owner/operator of a nearby airport a right to continue to operate the airport in a manner similar to current and foreseeable future operations, despite potential nuisance effects upon uses that are being established in close proximity to the airport. Applicants required or choosing to provide an avigation easement shall execute said easement to the City of Gainesville and the Gainesville-Alachua County Regional Airport Authority. The easement shall be in the recordable a-form provided by acceptable to the city attorney and~~

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airport authority and shall be executed ~~in a recordable form~~ by the property owner and recorded in the Public Records of Alachua County:

prior to release of a development site plan,

prior to or via recording of a final plat, or

prior to issuance of a building permit, as applicable.

~~The property owner shall record the easement and provide a copy of it to the city and to the airport authority.~~

### III. Special Requirements.

Notwithstanding any of the provisions of this section, no use of land, air or water shall be made in such a manner to interfere with the operation of any airborne aircraft or aircraft operation at the Gainesville Regional Airport. The following special requirements shall apply to proposed developments.

A. *Aircraft Bird Strike Hazard.* No land use shall be permitted to store, handle, or process organic or any other materials that foster or harbor the growth of insects, rodents, amphibians, or other similar organisms, in such a way as to significantly increase the potential for aircraft bird strike hazard to aircraft operations at the Gainesville Regional Airport:

within 10,000 feet of the nearest point of any runway used or planned to be used by turbine powered aircraft;

within 5,000 feet of the nearest point of any runway used or planned to be used only by conventional piston engine powered aircraft;

within the lateral limits of the airport imaginary surfaces defined in 14 CFR Part 77.25; or

in locations where the passage of a significant volume of bird traffic originating from or destined to bird feeding, watering, or roosting areas is induced across any Primary Surface or Approach Surface, as defined in 14 CFR Part 77.25(e) ~~and 14 CFR Part 77.25 (d), respectively,~~ of the airport.

B. *In-Flight Visual or Electronic Interference.* No land use shall produce smoke, steam, glare, or other visual impairment within three statute miles of any runway of the Gainesville Regional Airport. Furthermore, no land use shall:

produce electronic interference with navigation signals or radio communications of any airborne aircraft or aircraft operations at the airport;

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utilize high energy beam devices that interfere with aircraft operations at the airport, and for which such energy transmission is not fully contained within a structure, or absorbing or masking vessel; or

utilize lights or illumination arranged or operated in such manner that either misleads or obscures the vision of pilots during take-off and landing stages of aircraft operations at the airport.

Proposed developments which produce light or illumination, smoke, glare or other visual hazards, or produce electronic interference with airport/airplane navigation signals are subject to the standards specified in the FAA Procedures Manual 7400-2C, consistent with Chapter 333.03(3), Fla. Stat., as may be applied and enforced by the state and/or federal governments.

C. *Restrictions on the Educational Facilities of Public and Private Schools.*

1. *Educational Facilities Restricted.* The construction of any educational facility of a public or private school, with the exception of aviation school facilities, is prohibited ~~restricted~~ within an area that extends five miles out from either end of any runway, along the extended runway centerline, and which has a width measuring one-half the length of the longest runway of the Gainesville Regional Airport. Refer to the Restrictions on the Educational Facilities of Public and Private Schools map attached and made a part of these regulations in Attachment 4.

2. *Existing Educational Facilities.* These restrictions shall not be construed to require the removal, alteration, sound conditioning, or other change, or to interfere with the continued use or adjacent expansion of any non-conforming educational structure or site ~~in existence on May 10, 1999~~, or be construed to prohibit the construction of any new structure for which a site has been determined as provided in Section 1013.36-235.19, Florida Statutes, ~~as of May 10, 9999 [1999]~~.

3. *Exceptions.* Exceptions approving construction of an educational facility within the delineated area(s) shall only be granted when the Board of Adjustment makes specific findings detailing how public policy reasons for allowing the construction outweigh health and safety concerns prohibiting such a location.

4. *Criteria for Granting Exceptions.* The Board of Adjustment shall consider, at a minimum, the following criteria in determining whether or not to grant exceptions approving construction of educational facilities within the delineated area(s):

Physical attributes of the proposed site, including the nature of the terrain and topography, and the density of planned/existing land uses;

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Situation of the proposed site relative to other geographic features, either natural or man-made, and other planned/existing land uses and activities;

Public and private interests and investments;

Safety of persons on the ground and in the air;

Any other applicable airport zoning restrictions;

Availability of alternate sites;

Any unique attributes of the proposed site;

Planned approach type of the runway: either precision instrument, nonprecision instrument, or visual;

Type(s) of aircraft using the runway, including the number and type of engine(s) used by, and gross weight of, aircraft; and

Inbound approach or outbound departure bearing relative to the extended runway centerline.

#### **IV. Determination of Boundaries.**

In determining the location of airport zone of influence boundaries, the following rules shall apply:

Where boundaries are shown to follow streets or alleys, the centerline of such streets or alleys as ~~they exist on May 10, 1999,~~ shall be the airport zone boundary;

Where boundaries are shown to enter or cross platted lots, property lines of the lots as they exist ~~on May 10, 1999,~~ shall be the airport zone boundary;

Notwithstanding the above, where boundaries are shown on any platted lot, provisions of the more restrictive airport zone shall apply;

Where boundaries are shown on unsubdivided property of less than five acres in area, provisions of the more restrictive airport zone shall apply; and

Where boundaries are shown on unsubdivided property of five or more acres in area, the location shall be determined by the Airport Noise Zone boundary shown in Attachment 3, or the Airport Height Notification Zone or Airport Runway Clear Zone boundary located by application of the definition of said zone boundaries set forth in these regulations.

Parcels of land that are in more than one zone shall meet the requirements of the more restrictive zone.

~~090384b~~**V. Nonconforming uses.**

No ~~land use~~ of land, structure or development may be permitted in any airport zone of influence unless it conforms to the specific limitations set forth in these regulations. The requirements of these regulations shall not be construed to necessitate the removal, lowering, alteration, or other change of any nonconforming use ~~existing as of May 10, 1999~~. Any nonconforming use that is an object of natural growth shall not be allowed to exceed the height of said object as it was on May 10, 1999, unless permitted by the city manager or designee. Nothing in these regulations should be construed to require sound conditioning or other alteration of any nonconforming use.

The provisions of Section 333.07, Florida Statutes, and Section 30-346 of the land development regulations (to the extent not in conflict or inconsistent with section 333.07, Florida Statutes) also apply to non-conformities.

**VI. Future Uses.**

No change shall be made in the use of land, and no structure shall be altered or otherwise established in any airport zone of influence created by these regulations except in conformance with the requirements of this section. Land use and zoning changes that would allow a prohibited use within an airport zone of influence shall be prohibited.

Properties with an incompatible land use and zoning map designation may be changed to a compatible land use and zoning by ordinance. Planned Use District (PUD) land use and Planned Development (PD) zoning may be used to designate new uses of properties within airport noise zones.

**VII. Appeals.**

Any person aggrieved, or taxpayer affected, by any decision of the City Manager, or designee, made in his administration of these airport hazard zoning regulations, or any governing body of a political subdivision, or the Department of Transportation, or any joint airport zoning board, which is of the opinion that a decision of the City Manager, or designee, is an improper application of airport hazard zoning regulations of concern to such governing body or board, may appeal to the board of adjustment, which is hereby authorized to hear and decide appeals from the decisions of the City Manager, or designee. All such appeals to the board of adjustment shall be filed, reviewed and heard in a manner consistent with sections 333.08 and 333.10, Florida Statutes.

**VIII VII. Judicial Review.**

Any person aggrieved by any decision of the Board of Adjustment regarding these regulations may appeal to the Circuit Court as provided by Section 333.11, Florida Statutes.

**IX VIII. Conflicting Regulations.**

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Where there exists a conflict between any of the requirements or limitations prescribed in these regulations and any other requirements, regulations or zoning applicable to the same area, whether the conflict be with respect to the height of structures or objects of natural growth, the use of land, or any other matter, the more stringent limitation or requirement shall govern and prevail. The variance to or waiver of any such more stringent limitation or requirement shall not constitute automatic variance or waiver of the less stringent limitations or requirements of these regulations.

**X IX. Severability.**

If any of the provisions of these regulations or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or applications of these regulations that can be given effect without the invalid provisions or applications, and to this end the provisions of these regulations are declared to be severable.

**XI X. Penalties.**

In addition to other remedies for violation of these regulations provided in the Land Development Code, the City may institute in any court of competent jurisdiction an action to prevent, restrain, correct, or abate any violation of chapter 333, Fla. Stat, these regulations, or any order or ruling made in connection with their administration or enforcement. The court shall adjudge to the City such relief, by way of injunction (which may be mandatory) or otherwise, as may be proper under all the facts and circumstances of the case in order to fully effectuate the purposes of ch. 333, Fla. Stat. and of these regulations, and the orders and rulings made pursuant thereto.







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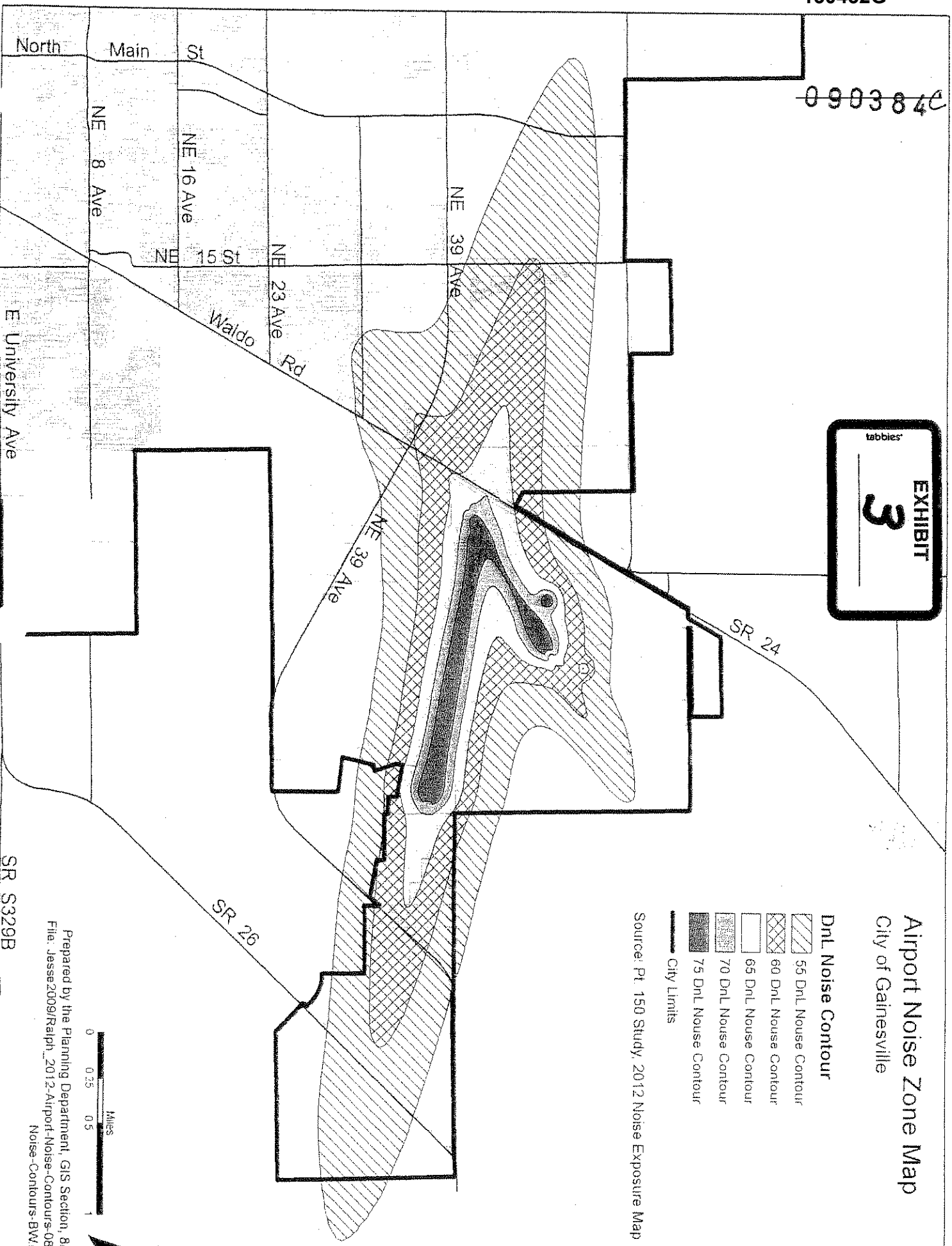
**EXHIBIT**

**3**

**Airport Noise Zone Map**  
 City of Gainesville

- DnL Noise Contour**
-  55 DnL Noise Contour
  -  60 DnL Noise Contour
  -  65 DnL Noise Contour
  -  70 DnL Noise Contour
  -  75 DnL Noise Contour
-  City Limits

Source: Pt. 150 Study, 2012 Noise Exposure Map

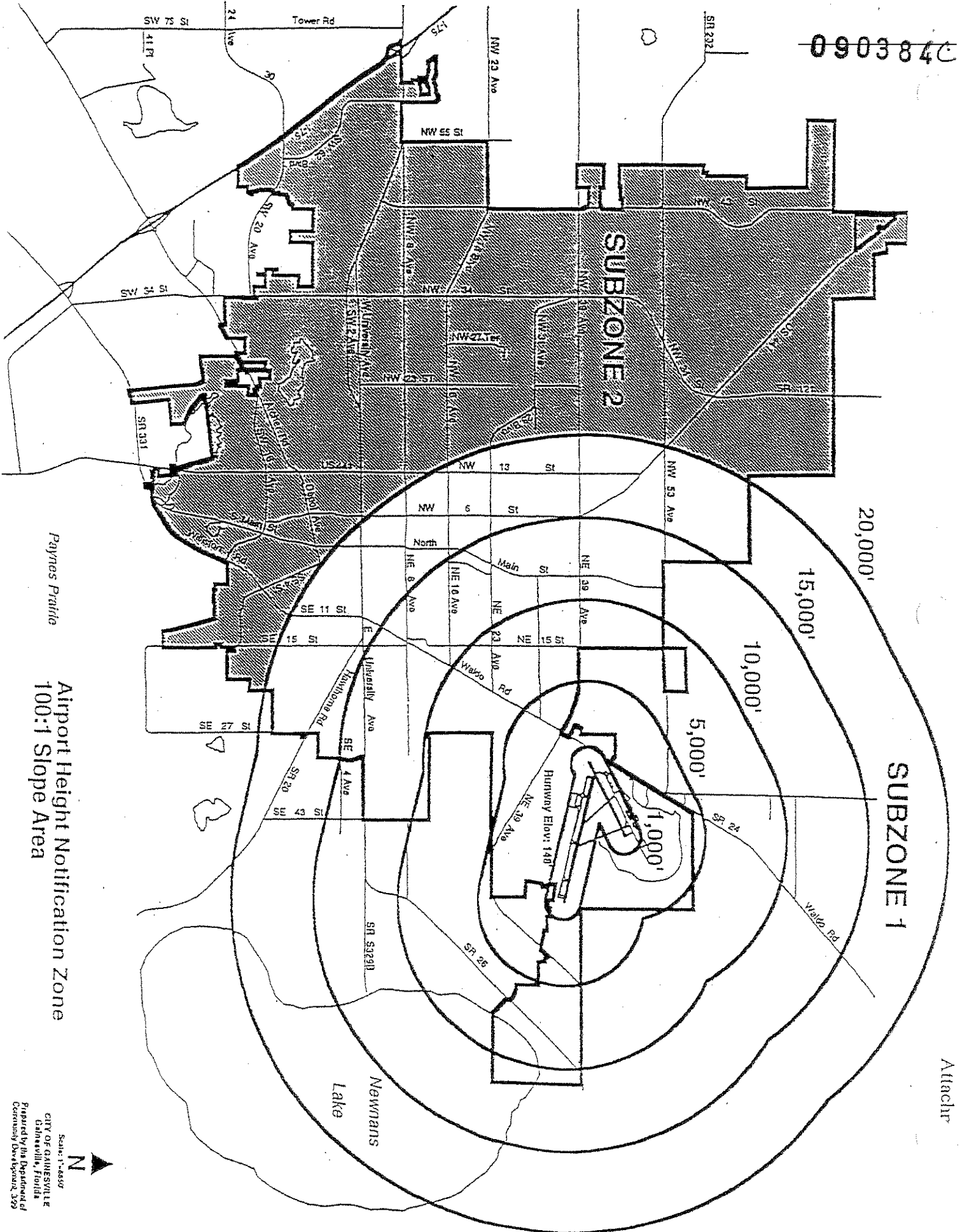


Prepared by the Planning Department, GIS Section, 8/09.  
 File: Jesse2009/Ralph\_2012-Airport-Noise-Contours-08-18/Noise-Contours-BW.mxd

SR S329B



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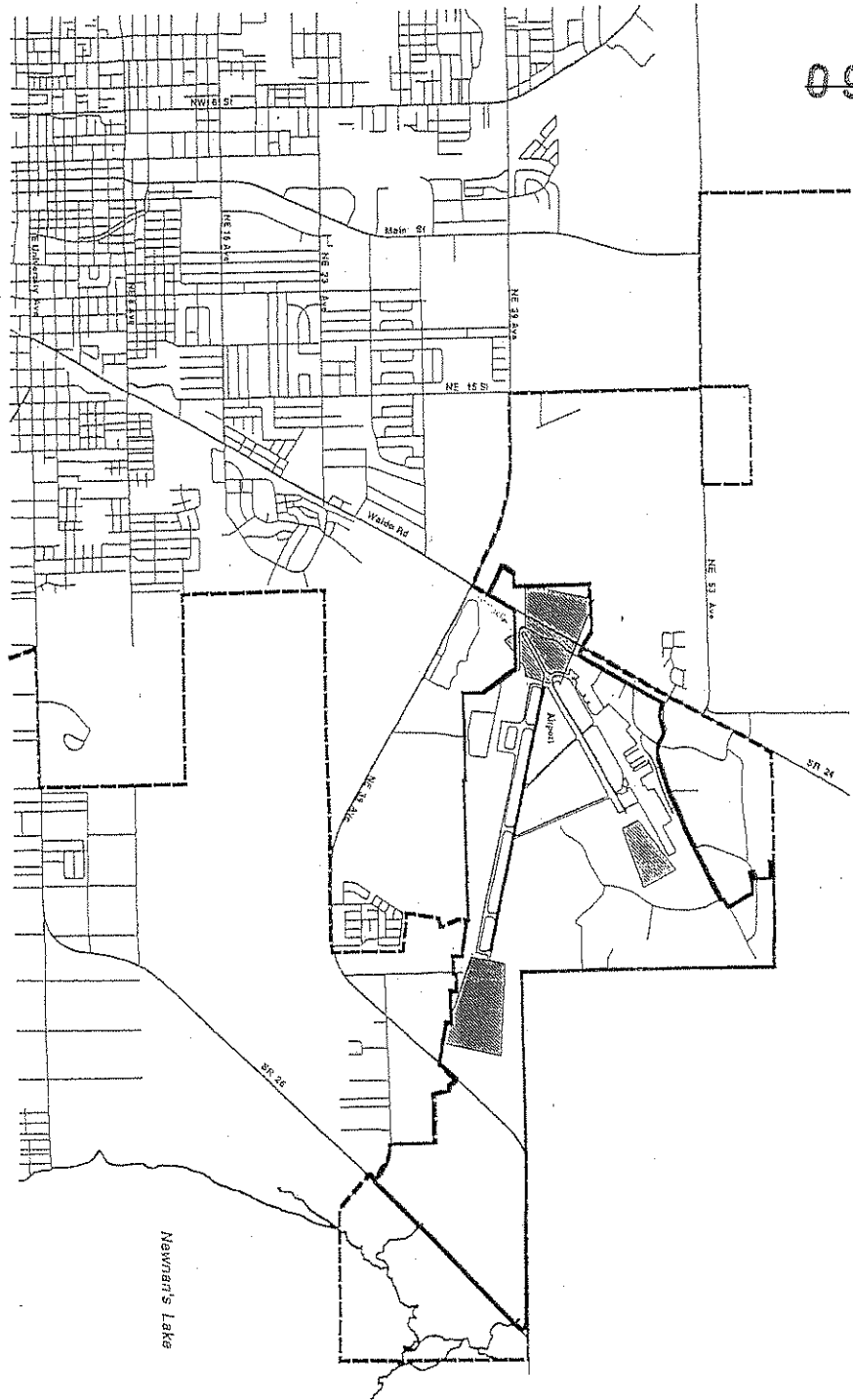
Airport Height Notification Zone  
100:1 Slope Area

Scale: 1"=400'  
CITY OF GAINESVILLE  
Gainesville, Florida  
Prepared by the Department of  
Community Development, 2009

Attachr

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Attachment 2



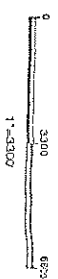
# AIRPORT RUNWAY CLEAR ZONE

Gainesville Regional Airport

## Legend

- Clear Zones
- Airport Property Line
- City Limits

City of Gainesville  
 Gainesville, Florida  
 Prepared by the  
 Department of Community Development  
 MAHCH 1999



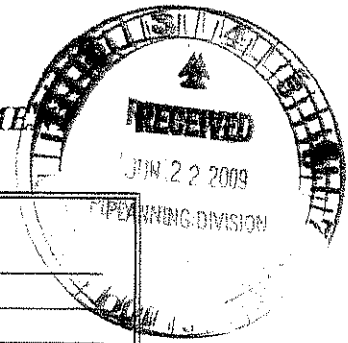
Source:  
 CH2M Hill, Drawing 3, Gainesville Regional Airport Master Plan, Prepared under the Airport and Airway Improvement Act of 1982.





090384D

APPLICATION—CITY PLAN BOARD—TEXT AMENDMENT  
 Planning & Development Services



OFFICE USE ONLY	
Petition No. <u>B-09-00082</u>	Fee: \$ _____
1 <sup>st</sup> Step Mtg Date: _____	EZ Fee: \$ _____
Tax Map No. _____	Receipt No. _____
Account No. 001-670-6710-3401 [ ]	
Account No. 001-670-6710-1124 (Enterprise Zone) [ ]	
Account No. 001-670-6710-1125 (Enterprise Zone Credit) [ ]	

Name of Applicant/Agent (Please print or type)	
Applicant/Agent Name:	<u>City of Gainesville</u>
Applicant/Agent Address:	<u>P.O. Box 490 MS 12</u>
City:	<u>Gainesville</u>
State:	<u>Florida</u> Zip: <u>32602</u>
Applicant/Agent Phone:	<u>(352) 334-5022</u> Applicant/Agent Fax: <u>(352) 334-2648</u>

*Note: It is recommended that anyone intending to file a petition for a text amendment to Chapter 30 of the City of Gainesville Code of Ordinances (Land Development Code) or to the Comprehensive Plan, meet with the Department of Community Development prior to filing the petition, in order to discuss the proposed amendment and petition process. The request will be evaluated as applicable to the particular zoning district or land use category on a citywide basis.*

**TEXT AMENDMENT**

Check applicable request below:

Land Development Code <input checked="" type="checkbox"/>	Comprehensive Plan Text [ ]	Other [ ]
Section/Appendix No.: <u>Appendix F</u>	Element & Goal, Objective or Policy No.:	Specify:
<u>Airport Hazard Zoning</u>		

Proposed text language and/or explanation of reason for request (use additional sheets, if necessary):

City of Gainesville amend Chapter 30, Appendix F Airport Hazard Zoning regulations to update the code requirements for regulating the use of land.

Certified Cashiers Receipt:



**4. Petition PB-09-82 TCH. City of Gainesville. Amend Chapter 30, Appendix F Airport Hazard Zoning regulations to update the code requirements for regulating the use of land and amending the airport Noise Zone map.**

Ralph Hilliard, the Planning Manager gave staff's presentation. He explained the purpose and intent of the petition was to update the Airport Hazard Zoning regulations and adopt a new Airport Noise Zone map, with the intent to protect the safety and welfare of citizens, and reduce potential land use conflicts with airport operations. He stated that speech and sleep interferences are major concerns of neighbors close to airports. Additionally, where you live, the time of day and the Season will dictate how noise will impact residents of a community. Mr. Hilliard explained what are considered the best practices as it relate to noise impact generally:

- DnL criterion value of 55 dB as the threshold for defining noise impact in urban residential areas;
- The US Environmental Protection Agency (EPA, 1974) recommended the DnL metric and 55 dB as the "level requisite to protect health and welfare with an adequate margin of safety"; and
- Significant evidence exists to suggest that aircraft noise is more annoying than is road traffic noise for the same DnL level.
- All major international bodies including the World Health Organization, the World Bank Group, and the Organization for Economic Co-operation and Development use the equivalent of DnL 55 dB as their criterion.

Finally, the proposed noise zones were explained, recommending that residential be prohibited in Subzone A 65DnL, restricted to infill lots in Subzone B, 60 DnL with a noise level reduction and an avigation easement, and permitted in Subzone C with a noise level reduction.

Ted Baldwin, City Consultant stated that the City implemented the recommendations of the original 1986 Gainesville Airport Part 150 Study, of which only permits residential development within the 65 DnL with 25 decibels of sound insulation or an avigation easement. Mr. Baldwin further stated that the Airport is currently in the process of updating their Part 150 Study and the FAA has accepted updated noise contours for the Airport that have shrunk about 10 decibels from where they were in 1986. Mr. Baldwin added that the Airport has recommended to the City of Gainesville to amend the Airport Zoning to prohibit non-transient residential use within the 60 DnL contour and to discourage it within the 55 DnL contour; and is advising that the City of Gainesville revise the Airport Noise Regulation in a manner that is largely consistent with that recommendation.

Bob Ackerman inquired from Mr. Baldwin what he means by best practices and if it is an objective standard or more of a survey of current opinions among, multiple agencies. Mr. Baldwin stated that it is the latter based on industry and government consensus that has developed over the last few years. Mr. Ackerman further inquired of Mr. Baldwin whether is was his general testimony that except for the FAA, the best practices would pretty much follows his recommendations. Mr. Baldwin stated yes as even the FAA is not recommending something different, and the reason the FAA has different guidelines is because they are just providing guidelines and they do not set standards, as standards are up to the local communities. Mr. Baldwin further stated that those guidelines are almost 30 years old and back then the FAA technology was not consistent with the ideal conditions like

what the EPA recommended; but they had been technically weakened because of economic and technological feasibility at that time and because aircraft technology has improved so dramatically, those technological and economical issues are no longer relative.

Bob Cohen inquired from Mr. Baldwin why he would prefer the option of an aviation easement for obtaining conditional approval for development in the Airport Noise Zone to the 25 db DnL option; as the City is going with the 25 db option and not the aviation agreement. Mr. Baldwin stated that that is his opinion and recommendation regarding the Hatchet Creek Development Proposal and was reviewing it in light of the existing Airport Hazard Zoning Regulations. Mr. Baldwin further stated that he is recommending the amended Airport Hazard Zoning Regulations with a slightly more complicated tier, with the aviation easement that will be applicable in some cases. Mr. Baldwin added that the reason he is recommending the aviation easement for developments as a requirement in the 60-65 contour intervals is because it provides advance notice of airport noises to current and future property owners and does not believe that that kind of a requirement would be appropriate necessary at the lower contour interval or the outer band the 55-60 band and would be overly restrictive.

Mr. Cohen stated that in Mr. Baldwin's report he makes comparisons of Collier County and the City of Naples of which both of those entities regulate their land use and the environs in the municipal airport and have adopted a land use criteria that allows residential in the 60-65 on a case by case basis with conditions such as aviation or additional sound reductions; however, it seems like your recommendation to the City of Gainesville is that in the 60-65 would be restricted and development would only be allowed as infill as opposed to new development and inquired if what he is proposing for the City of Gainesville is stricter than the Naples Airport. Mr. Baldwin stated that it is not, because in Naples the 60-65 DnL contour today is entirely on Airport property and when they first considered and made that change, to the case by case approval it only extended a very short distance off the airport property into areas that were already largely developed so that it was only infill development that might have been a consideration.

Mr. Cohen stated that the board received a letter from Kaplan Kirsch Rockwell this evening which essentially is stating that this board should deny this petition because the FAA study has two parts to it consisting of the map and the noise compatibility program; and they are saying that the noise compatibility program is essential and feels that the City of Gainesville may not be able to appropriately evaluate a proposal like the one this board is hearing this evening, and are objecting on procedural grounds that we ought to finish the Part 150 FAA Study, the first part of which is essentially completed and the second part and would like him to comment on this as process. Mr. Baldwin stated that a Part 150 process is a totally voluntary process as there is no requirement for an airport to conduct a Part 150 process or is there any requirement that the City of Gainesville or any land use control jurisdiction have access to a Part 150 Study when determining what appropriate land use compatibility standards are for their community. Mr. Baldwin further stated that Kaplan Kirsch Rockwell are correct a voluntary Part 150 Study has two parts consisting of the noise exposure map and a noise compatibility phase; and in fact it is a requirement of Part 150 that in the noise exposure map phase of the study that the table of noise land use compatibility is determined; because it is that first phase of the noise exposure maps where you are defining what the noise problem is, and the second phase is where you address solutions. Mr. Baldwin further stated that you can not identify the noise problems if you have not adopted standards; as many airports only conduct noise exposure map phases of the study and based on that phase

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the local community adopts land use standards. Mr. Baldwin stated that he disagrees with waiting to the second stage to develop standards.

Ron Carpenter, Attorney for an affected party stated that his client owns 290 acres around the Airport, with most of it being in the 60-65 DnLs proposed designated areas; and for the past three years have only heard about 1 noise complaint to the Airport Authority. Attorney Carpenter further stated that over time the noises from Airports have been reduced by about 10 decibels and this board is being solicited to change a prohibited zone, not based upon any community standard.

Dan Reimer, representative for an affected party read his letter into the record that requested the board to recommend denial of this petition to the City Commission because staff's proposal is premature, has not explained or established a factual basis for their proposal and that the staff report is inadequate as a decision making tool. Mr. Reimer further stated that the Airport Authority committed to undertake this Part 150 Study and the process is being taken out of sequence; as the noise exposure map portion of the study has been concluded and the Airport Authority's recommended changes are not the same as what Mr. Baldwin and staff are recommending. Mr. Reimer added that there is uncertainty about the proper interpretation of Appendix F and can not see how this board or staff can move forward with amending Appendix F if it is not understood what it means today, or if it strikes the right balance for land use compatibility in the areas surrounding the Airport.

Alan Penska, representative from the Gainesville Regional Airport stated that the City has done a good job over the last 30 years in planning around the Airport; however as these noise contours get smaller, if the city were to adopt the 65 DnL standard, technology would bring planes flying lower, will be limited to certain runways, change plane approaches, and would ultimately restrict the growth of the Airport. Mr. Penska further stated that once you start down the path of voluntary noise restrictions it does not get any easier as noise can not be avoided on an airplane's final approach. Mr. Penska added that he would have liked to have seen more protection in the 55 to 60 DnL areas and thinks that residential in these areas should be discouraged except for infill development.

Mr. Cohen inquired from Mr. Penska what his objection is to the aviation easement that is being proposed for solving the noise issue. Mr. Penska stated that the City Attorney will tell you that aviation easements do not make happy people, but keep people from suing you under a certain set of conditions.

Chair Wells opened the floor for public comments and those comments were:

- aircrafts will be passing about 250 feet over the proposed Hackett Creek area
- would prefer if the Hackett Creek area be a wildlife refuge
- sound insulations and easements will not make a bit of difference to muffle aircraft noise
- East Gainesville and the Gainesville Regional Airport and should be able to co-exist
- lived in this area for several years and have yet to have an issue with the noise
- would like to see the developer work with the Airport for a resolution
- Part 2 of the Part 150 study is being skipped and does not feel that the city has the expertise to make these decisions



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- in the last year military airplanes have been doing touch and go constantly around the Airport and is totally different than anything else they have experienced from the Airport in the past
- the airport would not grow at a rate that would cause a disturbing noise
- workshops should be conducted before this is approved
- this petition is denying the rights to a developer

<b>Motion By:</b> Bob Ackerman	<b>Seconded By:</b> Bob Cohen
<b>Moved To:</b> Approved with Exhibit 2 for ordinance revisions and Exhibit 3 for the new airport noise zone map.	<b>Upon Vote:</b> None.

Bob Ackerman stated that Airports are something that is around almost forever and it would be wise to restrict some of the development around the Airport. Mr. Ackerman further stated that what staff is proposing is an excellent way of doing this and aviation easements are pathetic and a last ditch effort that gets you nothing. Mr. Ackerman further added that developers are happy to build houses anywhere you will let them build them; as 10 years from now a new owner will buy a house and will say that they did not know about this and will be bound by it and will not be happy by it. Jack Walls concurred with Mr. Ackerman's statements.

Chris Dawson stated that he does not know if he is opposed to the Code that is in front of him, but has concerns with receiving documentation (from the public- airport staff) at the last minute and being asked to consider that as part of their decision. Mr. Dawson further stated that the proposed ordinance is not based on the current master plan of the Airport referenced in the Comprehensive Plan, nor a completed Part 150 Noise Study; it is based on a partial study and it seems like we are back tracking and using a partial map to define our Land Development Regulations. Mr. Dawson added that he does not see the community values and outreach by this proposed ordinance; but does see the hiring of a consultant and the consideration for the public health and welfare and safety for the community as positive steps.

<b>Motion By:</b> Bob Ackerman	<b>Seconded By:</b> Bob Cohen
<b>Moved To:</b> Approved with Exhibit 2 for ordinance revisions and Exhibit 3 for the new airport noise zone map.	<b>Upon Vote:</b> 6 – 1. (Nay: C. Dawson)



Planning Department

**Petition PB-09-82 TCH**  
**Appendix F:**  
**Airport Hazard Zoning**  
**October 1, 2009**  
(City Registrar # 090384)



- Intent:
- Protect the safety and welfare of citizens
- Reduce potential land use conflicts with airport operations

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**Petition Summary**

- Purpose:
- Update the Airport Hazard Zoning regulations
- Adopt a new Airport Noise Zone map



- Impacts of Noise:
- Speech and sleep interferences are major concerns of neighbors close to airports
- Noise will impact residents of a community more in the evening and at night than during the day

- Season. Noise is considered more disturbing in the summer than in the winter. This is understandable since, during the **summer**, windows are likely to be open and recreational activities take place out of doors.

- All major international bodies including the World Health Organization, the World Bank Group, and the Organization for Economic Co-operation and Development use the equivalent of DnL 55 dB as their criterion.

- **Best Practices**
- The US Environmental Protection Agency (EPA, 1974) recommended the DnL metric and 55 dB as the "level requisite to protect health and welfare with an adequate margin of safety".

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#### Airport Noise Zones

- **Airport Noise Subzone A:** 65 DnL.
- **Airport Noise Subzone B:** 60 DnL, excluding Subzone A.
- **Airport Noise Subzone C:** 55 DnL, excluding Subzones A and B.

