



ORDINANCE NO. 090384
0-09-68

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4 An ordinance of the City of Gainesville, Florida, relating to Airport
5 Hazard Zoning Regulations; amending Appendix F of the Land
6 Development Code of the City of Gainesville by stating a purpose
7 and findings; by amending definitions; by amending and updating
8 requirements for regulating the use of land within the Airport Noise
9 Zone; by adopting a new Airport Noise Zone Map; by correcting
10 references in the existing text and conforming the regulations with
11 the state and federal law; providing directions to the codifier;
12 providing a severability clause; providing an immediate effective
13 date; and providing directions to the Clerk of the Commission.
14

15 WHEREAS, the publication was made of notice of a public hearing that the text and map
16 of the Code of Ordinances of the Land Development Code and the Code of Ordinances of the
17 City of Gainesville, Florida, be amended; and

18 WHEREAS, notice was given and publication made as required by law on August 11,
19 2009, and a public hearing was then held by the City Plan Board on August 27, 2009; and

20 WHEREAS, notice was given and publication made as required by section 333.05,
21 Florida Statutes, on September 15, 2009 and September 22, 2009, and a public hearing was then
22 held by the City Commission on October 1, 2009; and

23 WHEREAS, the City Commission finds that the zoning of the property described herein
24 will be consistent with the City of Gainesville 2000-2010 Comprehensive Plan; and

25 WHEREAS, pursuant to law, an advertisement no less than two columns wide by 10
26 inches long was placed in a newspaper of general circulation notifying the public of a public
27 hearing to be held in the City Commission Meeting Room, First Floor, City Hall, in the City of
28 Gainesville at least seven (7) days after the day the first advertisement was published; and

29 WHEREAS, a second advertisement no less than two columns wide by 10 inches long
30 was placed in the aforesaid newspaper notifying the public of the second public hearing to be

1 held at least five (5) days after the day the second advertisement was published; and

2 **WHEREAS**, the public hearings were held pursuant to published and mailed notice at
3 which hearings the parties in interest and all others had an opportunity to be and were, in fact,
4 heard.

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6 **NOW, THEREFORE, BE IT ORDAINED BY THE CITY COMMISSION OF THE**
7 **CITY OF GAINESVILLE, FLORIDA:**

8 **Section 1.** Appendix F of the Land Development Code of the City of Gainesville is
9 amended and adopted in its entirety to read as follows:

10 See Exhibit "A," attached hereto and made a part hereof as if fully
11 set forth herein.

12

13 **Section 2.** It is the intention of the City Commission that the provisions of Section 1 of
14 this ordinance shall become and be made a part of the Code of Ordinances of the City of
15 Gainesville, Florida, and that the Sections and Paragraphs of this Ordinance may be renumbered
16 or relettered in order to accomplish such intentions.

17 **Section 3.** If any word, phrase, clause, paragraph, section or provision of this ordinance
18 or the application hereof to any person or circumstance is held invalid or unconstitutional, such
19 finding shall not affect the other provisions or applications of the ordinance which can be given
20 effect without the invalid or unconstitutional provisions or application, and to this end the
21 provisions of this ordinance are declared severable.

22 **Section 4.** All ordinances, or parts of ordinances, in conflict herewith are to the extent of
23 such conflict hereby repealed.

24 **Section 5.** This ordinance shall become effective immediately upon final adoption.

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**EXHIBIT "A" TO
ORDINANCE NO. 090384**

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**APPENDIX F.
AIRPORT HAZARD ZONING REGULATIONS**

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Purpose. The purpose of the Airport Hazard Zoning regulations is to provide both airspace protection and land use compatibility in relation to the normal operation of public-use airports located within the city. These regulations attempt to promote:

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A. The maximum safety of residents and property within the areas surrounding the airport;

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B. The maximum safety of aircraft arriving at and departing from the Gainesville Regional Airport and all public-use airports;

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C. The full utility of the public-use airport;

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D. Compatible development standards for land uses within the prescribed Airport Zones of Influence associated with the normal operation of the airport;

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E. Building/structure height standards for use within the Airport Zones of Influence and other zones prescribed in the Federal Aviation Regulations through the use of variance procedures in cases of justifiable hardship; and

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F. Proper enforcement of these regulations in compliance with state and federal laws in a manner which provides the greatest degree of safety, comfort, and well-being to both the users of the airport facility and the property owners within the vicinity of the airport.

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Findings. The regulations set forth herein are adopted pursuant to the authority conferred by Section 333.03, Florida Statutes. It is hereby found that an airport hazard has the potential for being hazardous to aircraft operations as well as to persons and property on the ground in the vicinity of the hazard. A hazard may affect land use in its vicinity and may reduce the size of areas available for the taking off, maneuvering and landing of aircraft, thus tending to impair or destroy the utility of the airport and the public investment therein. In addition, it is found 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, negatively impact airport operations, as well as endanger the safety of residents and their property, adversely affect the health of residents, or otherwise limit the accomplishment of the residents normal activities. It is hereby found that excessive aircraft noise may be an annoyance or may be objectionable to residents in the city. Accordingly, it is declared that:

A. The creating or establishment of an airport hazard which reduces the size of the areas available for such operations, or which inhibits the safe and efficient use of airspace or

1 the airport, creates a public nuisance and injury to the city and no variance by the city
 2 shall be granted to authorize any such obstruction;

3
 4 B. It is in the interest of the public health, safety and welfare that the creation of airport
 5 hazards and incompatible use of land within the airport overlay district or the airport
 6 noise zones be prevented;

7
 8 C. The creating or establishment of anything affecting the safety of aircraft or pilots or
 9 passengers, or which inhibits the safe operation of aircraft operating to or from the airport
 10 shall be prevented;

11
 12 D. The prevention of these hazards and incompatible land uses is desirable and that this
 13 should be accomplished, to the extent legally possible, by exercise of the police power,
 14 without compensation, in accordance with Chapter 333, Florida Statutes; and

15
 16 E. The prevention of the creation of airport hazards and incompatible land uses, and the
 17 elimination, removal, alteration, mitigation or marking and lighting of existing airport
 18 obstructions, are public purposes for which the political subdivision may raise and
 19 expend public funds and acquire land or interests in land.

20
 21 **I. Definitions and Administration.**

22
 23 A. Definitions. Throughout these regulations, the following words and phrases shall
 24 have the meanings indicated unless the text of the ordinance clearly indicates otherwise:
 25

26 *Airport* means those areas of land or water designed or set aside for the landing and
 27 taking-off of aircraft utilized, or to be utilized, in the interest of the public for such purpose, and
 28 validly licensed by the State of Florida Department of Transportation (FDOT) as a "Public
 29 Airport" known as the Gainesville Regional Airport.
 30

31 *Airport hazard* means any structure, object of natural growth, or use of land that would
 32 exceed the federal obstruction standards contained in 14 Code of Federal Regulations (CFR) Part
 33 77, ss. 77.21, 77.23, 77.25, 77.28, and 77.29 and that obstructs the airspace required for flight of
 34 aircraft in taking off, maneuvering or landing at an airport; or may otherwise be hazardous to or
 35 interfere with taking off, maneuvering or landing of aircraft and for which no person has
 36 previously obtained a permit or variance pursuant to section 333.025 or section 333.07, Florida
 37 Statutes.
 38

39 *Airport reference point* means the approximate geometric center of the runways of an
 40 airport, expressed by its latitude and longitude, as shown on the approved airport layout plan of
 41 the Gainesville Regional Airport, and identified as the "future airport reference point."
 42

43 *Avigation easement* means the permanent grant of airspace rights over and above the
 44 surface of property in order to permit airport operations and operation of aircraft, despite the
 45 associated nuisance effects on the underlying surface property, such as but not limited to, noise,
 46 vibration, fumes, and fuel particles ~~assignment of a right to an airport proprietor to a portion of~~

1 the total benefits of the ownership of real property.

2
3 Day-/Night Average Sound Level (DNL) (Ldn) means the sound exposure level
4 generated by aircraft operations, as defined in Federal Aviation Regulation Part 150 entitled
5 “Airport Noise Compatibility Planning” (FAR Part 150) codified under 14 C.F.R. Part 150,
6 estimated using day/night average sound level estimated by the Federal Aviation Administration
7 (FAA) Integrated Noise Model (INM) in a manner that complies with the requirements set forth
8 in Part 150, from input assumptions contained in the approved airport master plan of each
9 publicly owned airport, including but not limited to, the type and amount of aircraft activity, the
10 time of day such activity occurs, runway utilization, flight track geometry, and take-off and
11 landing profiles.

12
13 Noise Exposure Map means documentation identifying aircraft-related noise exposure
14 around an airport that is developed in a manner that FAA finds compliant with the requirements
15 set forth in FAR Part 150.

16
17 Noise level reduction (NLR) means a measurement standard for the reduction in sound
18 level transmission between the exterior and interior of a structure. NLR standards are used to
19 evaluate the effectiveness or establish requirements of techniques to limit sound transmission in
20 order to prevent or mitigate adverse noise impacts through incorporation of noise attenuation into
21 the design and construction of a structure.

22
23 Nonconforming use means any existing structure, object of natural growth, or use of land
24 that is inconsistent with the provisions of these regulations, provided it was lawfully established
25 in accordance with the City Code of Ordinances as existed at the time of establishment.

26
27 Nonprecision instrument runway means any runway having an existing instrument
28 approach procedure utilizing air navigation facilities with only horizontal guidance, or area-type
29 navigation equipment, for which a straight-in nonprecision instrument approach procedure has
30 been approved or planned, and or for which no precision approach facilities are planned.

31
32 Object of natural growth means any organism of the plant kingdom, including trees.

33
34 Occupied rooms means rooms within enclosed structures that are, or may reasonably be
35 expected to be, used for human activities including, but not limited to, sound communications,
36 education or instruction, sleeping, eating, entertainment, or the use of telephones and other audio
37 devices.

38
39 Occupied structure means a structure with at least one occupied room. See “Occupied
40 Rooms.”

41
42 Other-than-utility runway means any existing or planned runway that is constructed for,
43 and intended to [be] used by, all types of aircraft, including those having gross weights greater
44 than 12,500 pounds.

45
46 Person means individual, firm, partnership, corporation, company, association, joint

1 stock association, or political body, including the trustee, receiver, assignee, administrator,
2 executor, guardian, or other representative.

3
4 *Precision instrument runway* means a runway having an existing instrument approach
5 procedure utilizing an Instrument Landing System, Microwave Landing System, or a Precision
6 Approach Radar, or any runway for which a precision approach system is planned.

7
8 *Runways* means those existing or planned portions of the airport prepared for the landing
9 and take-off of aircraft, as shown on the approved airport layout plan of the Gainesville Regional
10 Airport, or those portions of each privately-owned airport prepared for the landing and take-off
11 of aircraft, and identified as such by the Florida Department of Transportation.

12
13 *Runway end elevation* means the elevation at each runway end centerline, expressed in
14 "feet Above Mean Sea Level (AMSL)," as shown on the approved airport layout plan of the
15 Gainesville Regional Airport. For each airport runway, the runway end elevation is that value
16 reported by the Florida Department of Transportation for each respective runway.

17
18 *Sound level* means the quantity, in decibels, measured by an instrument satisfying the
19 requirements of the American Standard Specification for Type I sound level meters. The sound
20 level is the frequency-weighted sound pressure level obtained with the frequency weighting "A"
21 and the standardized dynamic characteristic "SLOW."

22
23 ~~*Noise level reduction (NLR)* means a measurement standard for the reduction in sound
24 level transmission between two designated locations for a stated sound frequency band. NLR
25 standards are used to evaluate the effectiveness or establish the requirements of techniques to
26 limit sound level transmission in order to prevent or mitigate adverse noise impacts.~~

27
28 *Statute mile* means a distance of 5280 feet.

29
30 *Structure* means any temporary or permanent object constructed or installed by man,
31 including but not limited to antennae, buildings, cranes, towers, smoke stacks, utility poles and
32 overhead transmission lines.

33
34 *Utility runway* means any existing or planned runway that is constructed for and intended
35 to be used by only propeller driven aircraft having gross weights less than or equal to 12,500
36 pounds.

37
38 *Visual runway* means any runway intended solely for the operation of aircraft using
39 visual approach procedures and for which no straight-in instrument approach procedure exists, or
40 is planned, and is so indicated on the approved airport layout plan of the Gainesville Regional
41 Airport.

42
43 B. Administration of the Airport Regulations. All airport zoning regulations shall be
44 administered and enforced by the City Manager or designee.

45
46 **II. Airport Zones of Influence.**

1
2 The City of Gainesville hereby adopts three airport zones of influence. These zones are
3 established to regulate land development in relation to the Gainesville Regional Airport as
4 licensed for public use. The location of these airport zones of influence, and restrictions on the
5 use of land within said zones, are hereby established by these regulations. The boundaries of said
6 zones, and restrictions on the use of land within said zones, shall be changed only through the
7 amendment of these regulations by the city commission of the City of Gainesville.
8 Any application for land development within these airport zones of influence shall comply with
9 these regulations, any applicable state or federal regulations, and any applicable requirements of
10 the land development regulations of the City of Gainesville. The airport zones of influence
11 established in these regulations include:

12
13 the Airport Height Notification Zone;
14 the Airport Runway Clear Zone; and
15 the Airport Noise Zone.

16
17 A. *Airport Height Notification Zone and Regulations.*

18
19 1. *Establishment of Zone.* The Airport Height Notification Zone is hereby
20 established as an overly zone on the adopted city zoning map atlas. The Airport
21 Height Notification Zone is established to regulate the height of structures and
22 objects of natural growth in areas around the Gainesville Regional Airport. The
23 Airport Height Notification Zone consists of two subzones, defined as follows:

24
25 *Airport Height Notification Subzone 1:* The area surrounding the
26 Gainesville Regional Airport extending outward 20,000 feet from the ends
27 and each side of all active runways.

28
29 *Airport Height Notification Subzone 2:* The area within the city limits not
30 within Airport Height Notification Subzone 1.

31
32 For the Gainesville Regional Airport the boundary of the Airport Height
33 Notification Zone established in these regulations is based on the runway
34 configuration which is planned and documented as such in its approved airport
35 layout plan.

36
37 The Airport Height Notification Zone map is attached as Attachment 1
38 and is adopted and made a part of these regulations as if set forth fully herein.
39 When future Airport Height Notification Zone maps are prepared, the City shall
40 consider revisions to the boundary of the Airport Height Notification Zone and to
41 these regulations. Any such revisions shall not be operative or effective for
42 purposes of these regulations, until adopted by ordinance of the City.

43
44 ~~Refer to the Airport Height Notification Zoning maps attached and made a~~
45 ~~part of these regulations in Attachment 1. The boundary of the Airport Height~~
46 ~~Notification Zone shall be amended as necessary to reflect any changes in the~~

1 ~~documentation of the runway configuration on which said zone is based.~~
2

3 In the event a discrepancy arises between an Airport Height Notification
4 Zone boundary depicted on the maps attached at Attachment I and an Airport
5 Height Notification Zone boundary located by application of the definition of said
6 boundary as set forth in these regulations, the boundary as prescribed by the latter
7 shall prevail.
8

9 2. *Airport Height Notification Regulations.*

10
11 a. All development proposals for land lying within an Airport Height
12 Notification Zone shall be reviewed for conformance with the federal
13 obstruction standards contained in Title 14 of the Code of Federal
14 Regulations (CFR), Part 77, for civil airports.
15

16 b. A proposed development shall be considered a "potential airport
17 obstruction," if the proposed development would result in a structure or
18 object of natural growth having a height that would exceed:
19

20 an imaginary surface extending outward and upward from the ends and
21 sides of a runway at a slope of one foot vertically for every 100 feet
22 horizontally, for a distance of 20,000 feet, in Airport Height Notification
23 Subzone 1; or
24

25 200 feet above ground level in Airport Height Notification Subzone 2.
26

27 c. The applicant for any land development proposal determined to
28 result in a structure or object of natural growth that constitutes a "potential
29 airport obstruction" shall be issued a Notice of Potential Airport
30 Obstruction during the development review process by the Planning
31 Division. No land development proposal determined to result in a structure
32 or object of natural growth that constitutes a potential airport obstruction
33 shall be approved for construction unless:
34

35 an Airport Obstruction Permit is issued by the city manager or
36 designee; or
37

38 The Board of Adjustment grants an Airport Obstruction Variance,
39 if applicable.
40

41 d. Any land development proposal that has been determined to
42 include no "potential airport obstruction" is exempt from any Airport
43 Height Notification Zone permitting and variance requirements contained
44 herein.
45

46 3. *Airport Obstruction Permit Procedures and Criteria for Approval.* Any

1 applicant receiving a Notice of Potential Airport Obstruction may apply to the
 2 Planning Division for an Airport Obstruction Permit.

3
 4 a. *Procedures for Obtaining an Airport Obstruction Permit.*

5
 6 i. The applicant shall submit a completed Airport Obstruction Permit
 7 application, as provided by City, and shall provide documentation that the
 8 required Notice of Proposed Construction or Alteration has been filed with
 9 the Federal Aviation Administration (FAA). The city manager or designee
 10 may consider permit requests concurrent with the development plan
 11 approval consideration.

12
 13 ii. Prior to any such permit request being scheduled for consideration
 14 by the city manager or designee, the applicant shall submit a copy of the
 15 final written Determination, as issued by the FAA based on its review of
 16 the applicant's Notice of Proposed Construction or Alteration, in
 17 accordance with the provisions of 14 CFR Part 77.

18
 19 b. *Criteria for Granting an Airport Obstruction Permit.*

20
 21 i. If the FAA has reviewed a proposed land development and
 22 determined it would not exceed any federal obstruction standard contained
 23 in 14 CFR Part 77, the city manager or designee shall grant an Airport
 24 Obstruction Permit for the proposed development. The permit shall
 25 include conditions to ensure the installation, operation, and maintenance
 26 of appropriate obstruction marking, lighting, and/or flagging, if such
 27 obstruction marking, lighting, and/or flagging is required by either
 28 Chapter 333, Florida Statutes, Chapter 14-60, Florida Administrative
 29 Code, or by the FAA in its written Determination. No Airport Obstruction
 30 Permit shall be issued after the expiration date indicated on the FAA's
 31 written Determination. Each Airport Obstruction Permit issued shall
 32 specify a reasonable expiration date as a condition.

33
 34 ii. Where the FAA has reviewed a proposed land development and
 35 determined it would exceed the federal obstruction standards contained in
 36 14 CFR Part 77, no Airport Obstruction Permit shall be granted by the city
 37 manager or designee. In order for the proposed land development to
 38 proceed, an applicant must apply for and obtain an Airport Obstruction
 39 Variance from the Board of Adjustment of the City of Gainesville.

40
 41 4. *Airport Obstruction Variance Procedures and Criteria for Approval.*

42
 43 a. *Procedures for Obtaining an Airport Obstruction Variance.*

44
 45 i. The applicant shall submit to the Planning Division a completed
 46 Airport Obstruction Variance application, as provided by the City. At the

1 time of filing an Airport Obstruction Variance application, the applicant
 2 must provide proof to the city that a copy of said application has been
 3 forwarded by certified mail, return receipt requested, to the Florida
 4 Department of Transportation (FDOT) Central Aviation Office in
 5 Tallahassee, Florida. The FDOT shall have 45 days from the receipt of the
 6 application to provide comments to the Board of Adjustment, after which
 7 time its right is waived. The Board of Adjustment may approve, deny or
 8 approve the application with conditions.
 9

10 ii. Prior to the variance request being scheduled for consideration by
 11 the Board of Adjustment, comments must be received from the FDOT or
 12 the applicant must submit a copy of the return receipt showing that the
 13 FDOT has waived its right to comment. In addition, the applicant shall
 14 submit to the Planning Division the following:
 15

16 a copy of the notice of proposed construction form submitted to the
 17 FAA; and
 18

19 a copy of the final written Determination issued by the FAA, based
 20 on its review of the applicant's Notice of Proposed Construction or
 21 Alteration, in accordance with the provisions of 14 CFR Part 77.
 22

23 b. *Criteria for Granting an Airport Obstruction Variance.*
 24

25 i. The Board of Adjustment shall consider the criteria enumerated in
 26 Section 333.025(6), Florida Statutes, and Chapter 14-60, Florida
 27 Administrative Code, in its consideration of an Airport Obstruction
 28 Variance request.
 29

30 ii. The Board of Adjustment may grant an Airport Obstruction
 31 Variance if it determines that:
 32

33 a literal application or enforcement of these regulations would
 34 result in practical difficulty or unnecessary hardship and that the
 35 relief granted would not be contrary to the public interest but
 36 would do substantial justice and be in accordance with the spirit of
 37 these regulations, and Chapter 333, Florida Statutes, and Chapter
 38 14-60, Florida Administrative Code, and
 39

40 the proposed development can be accommodated in navigable
 41 airspace without adverse impact to Gainesville Regional Airport
 42 aviation operations.
 43

44 iii. In granting an Airport Obstruction Variance, the Board of
 45 Adjustment may prescribe appropriate conditions, requirements and
 46 safeguards in conformity with these regulations and the intent hereof,

1 including avigation easements if deemed necessary and shall require the
 2 owner of the structure or tree in question to install, operate, and maintain
 3 thereon, at his or her own expense, such marking and lighting as may be
 4 necessary to indicated to the aircraft pilots the presence of an obstruction.
 5 Such marking and lighting shall conform to the specific standards
 6 established by Chapter 333, Florida Statutes, and Chapter 14-60, Florida
 7 Administrative Code.

8
 9 B. *Airport Runway Clear Zone and Regulations.*

10
 11 1. *Establishment of Zone.* There is hereby established the Airport Runway
 12 Clear Zone as an airport zone of influence. The Airport Runway Clear Zone is
 13 established to regulate the uses of land lying in specified areas above which
 14 aircraft must routinely operate at low altitudes and climb from or descend to the
 15 runways of the Gainesville Regional Airport. Within the Airport Runway Clear
 16 Zone, certain land uses are restricted or prohibited due to land use characteristics
 17 which could result in further death, injury, and property damage in the event of an
 18 aircraft accident, as such areas are more likely, statistically, to be exposed to
 19 accidents involving aircraft climbing from, or descending to, the runway at low
 20 altitudes.

21
 22 The Airport Runway Clear Zone includes the area over which aircraft
 23 routinely operate at altitudes of 50 feet or less above the runway end elevation,
 24 and is defined as follows:

25
 26 That portion of the Approach Surface, as defined by 14 CFR Part
 27 77.25(d), that extends outward from, and perpendicular to, its common boundary
 28 with the Primary Surface, as defined in 14 CFR Part 77.25(a), for a horizontal
 29 distance of:

30
 31 1,000 feet for utility/visual runways,

32
 33 1,700 feet for nonprecision instrument/other-than-utility runways, and

34
 35 2,500 feet for precision instrument runways.

36
 37 The Airport Runway Clear Zone map is attached as Attachment 2 and is adopted
 38 and made a part of these regulations as if set forth fully herein. When future
 39 Airport Runway Clear Zone maps are prepared, the City shall consider revisions
 40 to the boundary of the Airport Runway Clear Zone and to these regulations. Any
 41 such revisions shall not be operative or effective for purposes of these regulations,
 42 until adopted by ordinance of the City.

43
 44 ~~The Airport Runway Clear Zone is shown on the maps attached as Attachment 2.~~
 45 In the event a discrepancy arises between an Airport Runway Clear Zone
 46 boundary depicted on the maps attached as Attachment 2 and an Airport Runway

1 Clear Zone boundary located by application of the definition of said boundary as
 2 set forth in these regulations, the boundary as prescribed by the latter shall
 3 prevail.
 4

5 2. *Airport Runway Clear Zone Regulations.*
 6

7 a. *Prohibited uses.* The following types of land uses shall be
 8 prohibited within the established Airport Runway Clear Zone:
 9

10 educational facilities (including all types of schools, pre-schools,
 11 and child-care facilities);
 12

13 hospitals, medical and health-related facilities;
 14

15 places of religious assembly;
 16

17 hotels and motels (including transient lodging, recreational vehicle
 18 and mobile home parks); and
 19

20 other similar land uses wherein or whereabouts persons are
 21 concentrated or assembled;
 22
 23

24 b. *Allowable uses.* Any use that is not prohibited in an Airport
 25 Runway Clear Zone as determined above, is allowable within such zone,
 26 subject to compliance with applicable Airport Noise and Height
 27 Notification Zone and zoning district regulations.
 28

29 C. *Airport Noise Zone and Regulations.*
 30

31 1. *Establishment of Zone.* There is hereby established the Airport Noise Zone
 32 as an airport zone of influence. The Airport Noise Zone is established around the
 33 Gainesville Regional Airport to regulate land uses sensitive to sound levels
 34 generated by the routine operation of the Airport. Within the Airport Noise Zone,
 35 land use restrictions and special construction standards are established to
 36 minimize impacts of airport-generated noise. The Airport Noise Zone consists of
 37 three subzones, defined as follows:
 38

39 *Airport Noise Subzone A:* The area commencing at the airport reference point and
 40 extending outward therefrom to that boundary which approximates a ~~d~~Day-
 41 ~~n~~Night ~~a~~Average ~~s~~Sound ~~l~~Level of ~~75~~65 ~~Ln~~ dB DNL.
 42

43 *Airport Noise Subzone B:* The area commencing at the airport reference point and
 44 extending outward therefrom to that boundary which approximates a ~~d~~Day-
 45 ~~n~~Night ~~a~~Average ~~s~~Sound ~~l~~Level of ~~70~~60 ~~Ln~~ dB DNL, excluding Subzone A.
 46

1 *Airport Noise Subzone C:* The area commencing at the airport reference point and
 2 extending outward therefrom to that boundary which approximates a ~~d~~Day/
 3 ~~n~~Night ~~a~~Average ~~s~~Sound ~~l~~Level of ~~65~~ ~~Ln~~ 55 dB DNL, excluding Subzones A
 4 and B.
 5

6 For the Gainesville Regional Airport, the boundary of the Airport Noise Zone
 7 established in these regulations is based on the forecast of ~~d~~Day/
 8 ~~n~~Night ~~a~~Average ~~s~~Sound ~~l~~Level noise contours documented in the 2012 Noise Exposure Map prepared for
 9 the Gainesville Regional Airport by RS&H and determined compliant by the FAA on
 10 April 20, 2009, its approved airport master plan or airport layout plan, or both
 11

12 The Airport Noise Zone Map based on the 2012 Noise Exposure Map is attached
 13 as Attachment 3 and is adopted and made a part of these regulations as if set forth fully
 14 herein. When future Noise Exposure Maps are prepared and determined compliant by
 15 the FAA, the City shall consider revisions to the boundary of the Airport Noise Zones
 16 and to these regulations. Any such revisions shall not be operative or effective for
 17 purposes of these regulations, until adopted by ordinance of the City.
 18

19 ~~Refer to the Airport Noise Zone maps attached and made a part of these~~
 20 ~~regulations as Attachment 3. The boundary of any Airport Noise Zone shall be amended~~
 21 ~~as necessary to reflect any changes in the documentation of forecast day/night average~~
 22 ~~sound levels on which said zone is based. Notwithstanding other provisions of this~~
 23 ~~section, should the Gainesville Regional Airport amend its official 14 CFR Part 150~~
 24 ~~study, the boundaries of the Airport Noise Zones shall be modified to comply with the~~
 25 ~~amended official noise study.~~
 26

27 2. *Airport Noise Zone Land Use Regulations.* The provisions of this section shall
 28 apply to the construction, expansion, alteration, moving, repair, replacement, use, and
 29 changes of use or occupancy of any occupied structure located within any Airport Noise
 30 Zone defined by these regulations. ~~Said structures include those that exist within any~~
 31 ~~Airport Noise Zone as of May 10, 1999, those which are thereafter and to any structure~~
 32 ~~that is moved into or within any Airport Noise Zone, and those proposed to be~~
 33 ~~constructed within any Airport Noise Zone.~~
 34

35 a. *Existing Structures.* Structures located within any Airport Noise Zone at
 36 the time of the adoption of these regulations to which additions, expansions,
 37 alterations, repairs, replacement, and changes of use or occupancy are made shall
 38 comply with the requirements of these regulations, with the following exceptions:
 39

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

43
 44 ~~Nonstructural alterations or repairs of such structures for which the cost of~~
 45 ~~such alterations or repairs does not exceed 50 percent of the value of such~~
 46 ~~structures may be made with the materials of which such structures are~~

1 constructed, if otherwise allowed; or

2
3 Structures for which no more than 50 percent of the roof covering of such
4 structures is replaced within any three-year period.

5
6 b. *Moved Structures.* Structures moved into or within any Airport Noise
7 Zone defined by these regulations shall comply with requirements of these
8 regulations before permanent occupancy is permitted.

9
10 c. *New Structures.* New structures proposed within any Airport Noise Zone
11 defined by these regulations shall comply with the requirements of these
12 regulations before permanent occupancy is permitted.

13
14 d. *Regulated Uses within the Airport Noise Zone*

15
16 **Table 1. Land Use Regulation Chart**

<u>Subzones</u>	<u>A</u>	<u>B</u>	<u>C</u>
	<u>65 dB DNL</u>	<u>65-60 dB DNL</u>	<u>60-55 dB DNL</u>
<u>Dwelling, intended for residential occupancy (excluding hotels, motels, and similar short-term transient occupancies)</u>	<u>Prohibited</u>	<u>Restricted (1)</u>	<u>Permitted (2)</u>
<u>Places of religious assembly, auditoriums, concert halls, libraries and similar assembly uses (primarily indoor uses)</u>	<u>Prohibited</u>	<u>Restricted (1)</u>	<u>Permitted (2)</u>
<u>Hospital</u>	<u>Prohibited</u>	<u>Prohibited</u>	<u>Permitted (2)</u>
<u>Correctional institution</u>	<u>Prohibited</u>	<u>Restricted (1)</u>	<u>Permitted (2)</u>
<u>Nursing homes, assisted living facilities, social service homes and halfway houses</u>	<u>Prohibited</u>	<u>Restricted (1)</u>	<u>Permitted (2)</u>
<u>Public and private school, daycare centers, and other educational facilities (excluding aviation-related schools)</u>	<u>Prohibited</u>	<u>Restricted (1)</u>	<u>Permitted (2)</u>
<u>Outdoor Sports Arenas, amphitheaters and similar uses (primarily outdoor uses)</u>	<u>Prohibited</u>	<u>Permitted (2)</u>	<u>Permitted (2)</u>
<u>(1) Development shall be allowed only on isolated lots within neighborhoods or developments that were constructed prior to December 3, 2009 (i.e., "infill development lots.") Any such development 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 aviation easement in accordance with (g) below.</u>			

(2) All development 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 aviation easement in accordance with (g) below.

1
2 d. ~~Permitted uses.~~

3
4 ~~The following uses shall be permitted within the established noise overlay zone, unless~~
5 ~~prohibited by Airport Runway Clear Zone or zoning district regulations:~~

6
7 ~~Governmental Services~~
8 ~~Transportation~~
9 ~~Off-Street Parking~~
10 ~~Offices, business and professional~~
11 ~~Wholesale and retail building materials, hardware and farm equipment~~
12 ~~Retail trade—general~~
13 ~~Utilities, Heavy or Limited~~
14 ~~Communications~~
15 ~~Manufacturing—general~~
16 ~~Photographic and optical services~~
17 ~~Mining and fishing, resource production and extraction~~
18 ~~Nature exhibits and zoos~~
19 ~~Amusement parks, resorts and camps~~
20 ~~Golf courses, riding stables and water recreation~~
21 ~~Agricultural operations~~
22 ~~Similar uses, as determined by the city manager or designee~~

23
24 e. ~~Restricted Uses and Criteria.~~ The following uses shall be permitted within the
25 established noise overlay zone, (unless prohibited by Airport Runway Clear Zone or
26 zoning district regulations) only if the proposed development complies with the
27 applicable criteria described below and is compatible with the Official 14 CFR Part 150
28 study:

29
30 i. ~~Child Care, Transient Lodgings, Educational Centers, Residential (other~~
31 ~~than mobile homes), and similar uses.~~ Developers of proposed child care
32 facilities, transient lodgings, educational centers and residential uses (other than
33 mobile homes) shall verify to the city in writing that proposed buildings are
34 designed to achieve an outdoor to indoor noise level reduction (NLR) of at least
35 25 decibels. (Normal residential construction can be expected to provide an NLR
36 of 20-25 decibels).

37
38 ii. ~~Hospitals, Homes for the Aged, Places of Religious Assembly,~~
39 ~~Auditoriums, Concert Halls and similar uses.~~ Hospitals, homes for the aged,
40 places of religious assembly, auditoriums and concert halls shall verify to the city
41 in writing that proposed buildings are designed to achieve an outdoor to indoor

1 noise level reduction (NLR) of at least 25 decibels.

2
3 ~~iii.—Outdoor Sports Arenas, Spectator Sports and similar uses. Outdoor sports~~
4 ~~arenas and spectator sports facilities must be constructed with special sound~~
5 ~~reinforcement systems consistent with building code regulations.~~

6
7 ~~In lieu of providing written verification that a proposed building is designed for~~
8 ~~an NLR of 25 decibels (as stated in i and ii above), a developer may execute and~~
9 ~~record an avigation easement as provided in subsection i. below.~~

10
11 ~~ef. Other uses not specified Prohibited uses. Uses that are not specified in Table 1~~
12 ~~may be allowed in the Airport Noise Zone if permitted by the underlying zoning and~~
13 ~~other applicable Land Development regulations, provided all development shall provide a~~
14 ~~minimum of 25dB of exterior-to-interior noise level reduction and the property owner~~
15 ~~shall provide the City and the Gainesville Regional Airport with a permanent avigation~~
16 ~~easement in accordance with (g) below. this subsection as regulated uses may be allowed~~
17 ~~if permitted by the underling zoning.~~

18
19 ~~fg.—Variances Appeals. Determinations by the planning and development services~~
20 ~~department, relating to use interpretations involving sections “d.” or “e.” or “f.” above,~~
21 ~~may be appealed to the Board of Adjustment by an applicant or any aggrieved person,~~
22 ~~taxpayer affected, governing body of a political subdivision, or FDOT. Any property~~
23 ~~owner desiring to erect a structure or otherwise use his/her/its property in violation of~~
24 ~~these regulations may apply to the board of adjustment for a variance from the airport~~
25 ~~noise zone regulation in question. All such appeals to the Board of Adjustment shall be~~
26 ~~filed, reviewed, and heard in a manner consistent with sections 333.08 and 333.10 of the~~
27 ~~333.07, Florida Statutes.~~

28
29 ~~gh. Avigation Easements. An avigation easement is a legal document that grants to~~
30 ~~the owner/operator of a nearby airport a right to continue to operate the airport in a~~
31 ~~manner similar to current operations, despite potential nuisance effects upon uses that are~~
32 ~~being established in close proximity to the airport. Applicants Property owners required~~
33 ~~or choosing to provide an avigation easement shall execute grant said easement to the~~
34 ~~City of Gainesville and to the Gainesville-Alachua County Regional Airport Authority,~~
35 ~~and to their respective successors and/or assigns. The easement shall be in the a form~~
36 ~~provided by aacceptable to the city attorney and airport authority and shall be executed by~~
37 ~~the property owner in a recordable form and recorded by the property owner in the Public~~
38 ~~Records of Alachua County, upon the first to occur of the following:~~

39
40 prior to release of a development site plan,

41
42 prior to or via recording of a lot split, minor subdivision or final plat, or

43
44 prior to issuance of a building permit, as applicable.

45
46 The property owner shall record the easement and provide a copy of it the recorded

1 easement to the city and to the airport authority.
2

3 **III. Special Requirements.**
4

5 Notwithstanding any of the provisions of this section, no use of land, air or water shall be
6 made in such a manner to interfere with the operation of any airborne aircraft or aircraft
7 operation at the Gainesville Regional Airport. The following special requirements shall apply to
8 proposed developments.
9

10 A. *Aircraft Bird Strike Hazard.* No land use shall be permitted to store, handle, or
11 process organic or any other materials that foster or harbor the growth of insects, rodents,
12 amphibians, or other similar organisms, in such a way as to significantly increase the
13 potential for aircraft bird strike hazard to aircraft operations at the Gainesville Regional
14 Airport:
15

16 within 10,000 feet of the nearest point of any runway used or planned to be used
17 by turbine powered aircraft;
18

19 within 5,000 feet of the nearest point of any runway used or planned to be used
20 only by conventional piston engine powered aircraft;
21

22 within the lateral limits of the airport imaginary surfaces defined in 14 CFR Part
23 77.25; or
24

25 in locations where the passage of a significant volume of bird traffic originating
26 from or destined to bird feeding, watering, or roosting areas is induced across any
27 Primary Surface or Approach Surface, as defined in 14 CFR Part 77.25(e) and 14
28 CFR Part 77.25 (d), respectively, of the airport.
29

30 B. *In-Flight Visual or Electronic Interference.* No land use shall produce smoke,
31 steam, glare, or other visual impairment within three statute miles of any runway of the
32 Gainesville Regional Airport. Furthermore, no land use shall:
33

34 produce electronic interference with navigation signals or radio communications
35 of any airborne aircraft or aircraft operations at the airport;
36

37 utilize high energy beam devices that interfere with aircraft operations at the
38 airport, and for which such energy transmission is not fully contained within a
39 structure, or absorbing or masking vessel; or
40

41 utilize lights or illumination arranged or operated in such manner that either
42 misleads or obscures the vision of pilots during take-off and landing stages of
43 aircraft operations at the airport.
44

45 Proposed developments which produce light or illumination, smoke, glare or other visual
46 hazards, or produce electronic interference with airport/airplane navigation signals are subject to

1 the standards specified in the FAA Procedures Manual 7400-2C, consistent with Chapter
2 333.03(3), Fla. Stat., as may be applied and enforced by the state and/or federal governments.

3
4 C. *Restrictions on the Educational Facilities of Public and Private Schools.*

5
6 1. *Educational Facilities Restricted.* The construction of any educational
7 facility of a public or private school, with the exception of aviation school
8 facilities, is ~~prohibited~~ restricted within an area that extends five miles out from
9 either end of any runway, along the extended runway centerline, and which has a
10 width measuring one-half the length of the longest runway of the Gainesville
11 Regional Airport. Refer to the ~~Restrictions on the Educational Facilities of Public
12 and Private Schools map attached and made a part of these regulations in
13 Attachment 4.~~ The Restrictions on the Educational Facilities of Public and
14 Private Schools map is attached as Attachment 4 and is adopted and made a part
15 of these regulations as if set forth fully herein. When future Restrictions on the
16 Educational Facilities of Public and Private Schools maps are prepared, the City
17 shall consider revisions to the boundary of the Restrictions on the Educational
18 Facilities of Public and Private Schools and to these regulations. Any such
19 revisions shall not be operative or effective for purposes of these regulations, until
20 adopted by ordinance of the City.

21
22
23 2. *Existing Educational Facilities.* These restrictions shall not be construed
24 to require the removal, alteration, sound conditioning, or other change, or to
25 interfere with the continued use or adjacent expansion of any non-conforming
26 educational structure or site ~~in existence on May 10, 1999~~, or be construed to
27 prohibit the construction of any new structure for which a site has been
28 determined as provided in Section 1013.36-235.19, Florida Statutes, ~~as of May 10,
29 9999 [1999].~~

30
31 3. *Exceptions.* Exceptions approving construction of an educational facility
32 within the delineated area(s) shall only be granted when the Board of Adjustment
33 makes specific findings detailing how public policy reasons for allowing the
34 construction outweigh health and safety concerns prohibiting such a location.

35
36 4. *Criteria for Granting Exceptions.* The Board of Adjustment shall consider,
37 at a minimum, the following criteria in determining whether or not to grant
38 exceptions approving construction of educational facilities within the delineated
39 area(s):

40
41 Physical attributes of the proposed site, including the nature of the terrain
42 and topography, and the density of planned/existing land uses;

43
44 Situation of the proposed site relative to other geographic features, either
45 natural or man-made, and other planned/existing land uses and activities;
46

1 Public and private interests and investments;
 2
 3 Safety of persons on the ground and in the air;
 4
 5 Any other applicable airport zoning restrictions;
 6
 7 Availability of alternate sites;
 8
 9 Any unique attributes of the proposed site;
 10
 11 Planned approach type of the runway: either precision instrument,
 12 nonprecision instrument, or visual;
 13
 14 Type(s) of aircraft using the runway, including the number and type of
 15 engine(s) used by, and gross weight of, aircraft; and
 16
 17 Inbound approach or outbound departure bearing relative to the extended
 18 runway centerline.
 19

20 IV. Determination of Boundaries.

21
 22 In determining the location of airport zone of influence boundaries, the following rules shall
 23 apply:
 24

25 Where boundaries are shown to follow streets or alleys, the centerline of such streets or alleys as
 26 ~~they exist on May 10, 1999,~~ shall be the airport zone boundary;
 27

28 Where boundaries are shown to enter or cross platted lots, property lines of the lots as they exist
 29 ~~on May 10, 1999,~~ shall be the airport zone boundary;
 30

31 Notwithstanding the above, where boundaries are shown on any platted lot, provisions of the
 32 more restrictive airport zone that crosses the platted lot shall apply to the entire platted lot;
 33

34 Where boundaries are shown to enter or cross unsubdivided property of less than five acres in
 35 area, property lines of the unsubdivided parcel shall be the airport zone boundary;
 36

37 Notwithstanding the above, Where boundaries are shown on unsubdivided property of less than
 38 five acres in area, provisions of the more restrictive airport zone that crosses the unsubdivided
 39 parcel shall apply to the entire unsubdivided parcel; and
 40

41 Where boundaries are shown on unsubdivided property of five or more acres in area, the location
 42 shall be determined by the Airport Noise Zone boundary shown in Attachment 3, or the Airport
 43 Height Notification Zone or Airport Runway Clear Zone boundary located by application of the
 44 definition of said zone boundaries set forth in these regulations.
 45

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

1 zone.

2
3 **V. Nonconforming uses.**

4
5 No ~~land use of land, structure or development~~ may be permitted in any airport zone of
6 influence unless it conforms to the specific limitations set forth in these regulations. The
7 requirements of these regulations shall not be construed to necessitate the removal, lowering,
8 alteration, or other change of any nonconforming use ~~existing as of May 10, 1999~~. Any
9 nonconforming use that is an object of natural growth shall not be allowed to exceed the height
10 of said object as it was on May 10, 1999, unless permitted by the city manager or designee.
11 Nothing in these regulations should be construed to require sound conditioning or other
12 alteration of any nonconforming use.

13
14 The provisions of Section 333.07, Florida Statutes, and Section 30-346 of the land
15 development regulations (to the extent not in conflict or inconsistent with section 333.07, Florida
16 Statutes) also apply to non-conformities.

17
18 **VI. Future Uses.**

19
20 No change shall be made in the use of land, and no structure shall be altered or otherwise
21 established in any airport zone of influence created by these regulations except in conformance
22 with the requirements of this section. Land use and zoning changes that would allow a
23 prohibited use within an airport zone of influence shall be prohibited.

24
25 Properties with an incompatible land use and zoning map designation may be changed to
26 a compatible land use and zoning by ordinance. Planned Use District (PUD) land use and
27 Planned Development (PD) zoning may be used to designate new uses of properties within
28 airport noise zones.

29
30 **VII. Appeals.**

31
32 Any person aggrieved, or taxpayer affected, by any decision of the City Manager, or
33 designee, made in the administration of these airport hazard zoning regulations; or any governing
34 body of a political subdivision, or the Department of Transportation, or any joint airport zoning
35 board, which is of the opinion that a decision of the City Manager, or designee, is an improper
36 application of airport hazard zoning regulations of concern to such governing body or board,
37 may appeal to the board of adjustment, which is hereby authorized to hear and decide appeals
38 from the decisions of the City Manager, or designee. All such appeals to the board of adjustment
39 shall be filed, reviewed and heard in a manner consistent with sections 333.08 and 333.10,
40 Florida Statutes.

41
42 **VIII VII. Judicial Review.**

43
44 Any person aggrieved by any decision of the Board of Adjustment regarding these
45 regulations may appeal to the Circuit Court as provided by Section 333.11, Florida Statutes.
46

1 **IX VIII. Conflicting Regulations.**
2

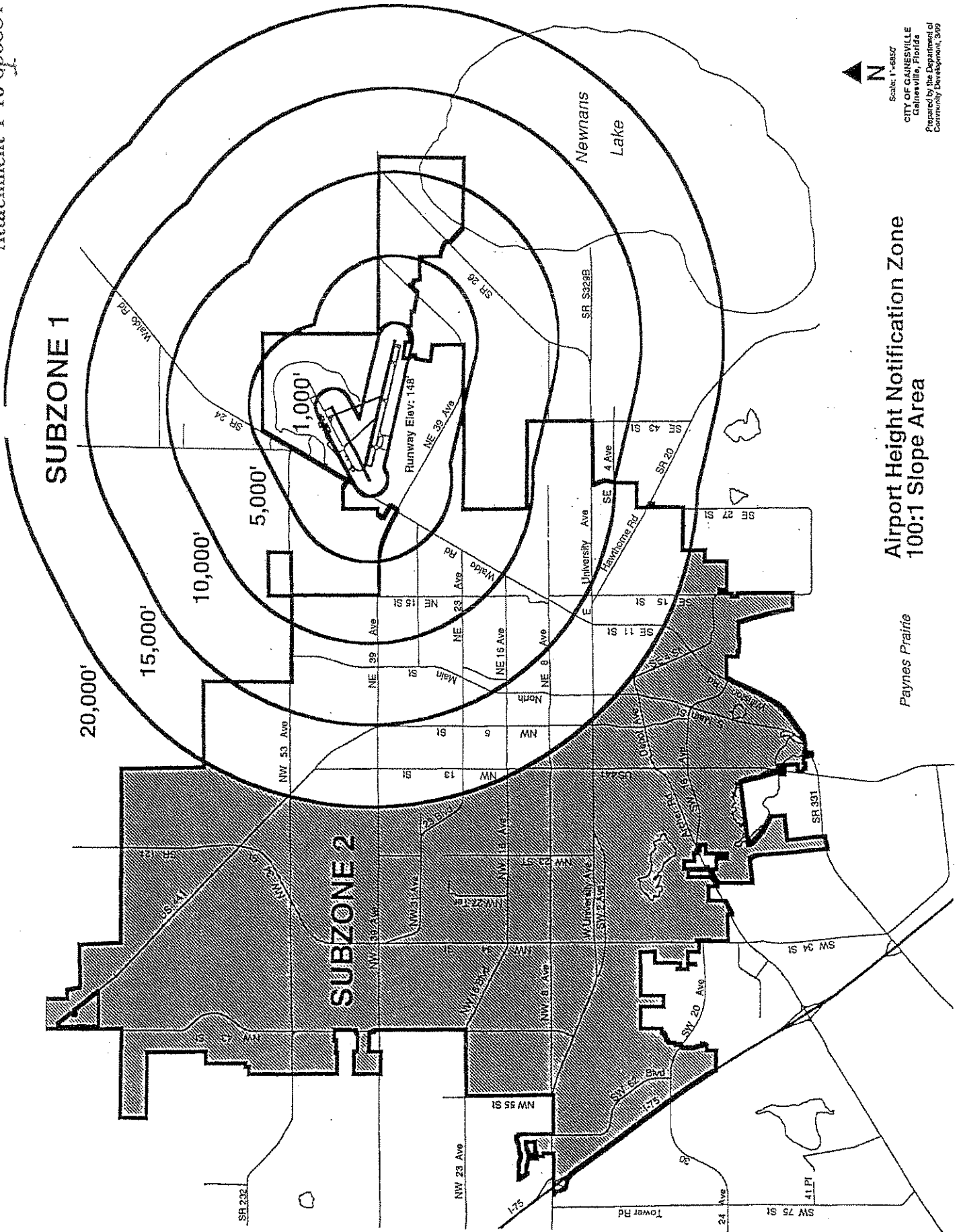
3 Where there exists a conflict between any of the requirements or limitations prescribed in
4 these regulations and any other requirements, regulations or zoning applicable to the same area,
5 whether the conflict be with respect to the height of structures or objects of natural growth, the
6 use of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

10
11 **X IX. Severability.**
12

13 If any of the provisions of these regulations or the application thereof to any person or
14 circumstances is held invalid, such invalidity shall not affect other provisions or applications of
15 these regulations that can be given effect without the invalid provisions or applications, and to
16 this end the provisions of these regulations are declared to be severable.
17

18 **XI X. Penalties.**
19

20 In addition to other remedies for violation of these regulations provided in the Land
21 Development Code, the City may institute in any court of competent jurisdiction an action to
22 prevent, restrain, correct, or abate any violation of chapter 333, Fla. Stat, these regulations, or
23 any order or ruling made in connection with their administration or enforcement. The court shall
24 adjudge to the City such relief, by way of injunction (which may be mandatory) or otherwise, as
25 may be proper under all the facts and circumstances of the case in order to fully effectuate the
26 purposes of ch. 333, Fla. Stat. and of these regulations, and the orders and rulings made pursuant
27 thereto.
28



Airport Height Notification Zone
100:1 Slope Area









Scale: 1"=500'
CITY OF GAINESVILLE
Gainesville, Florida
Prepared by the Department of
Community Development, SR

Attachment 3
To 090384

Airport Noise Zone Map

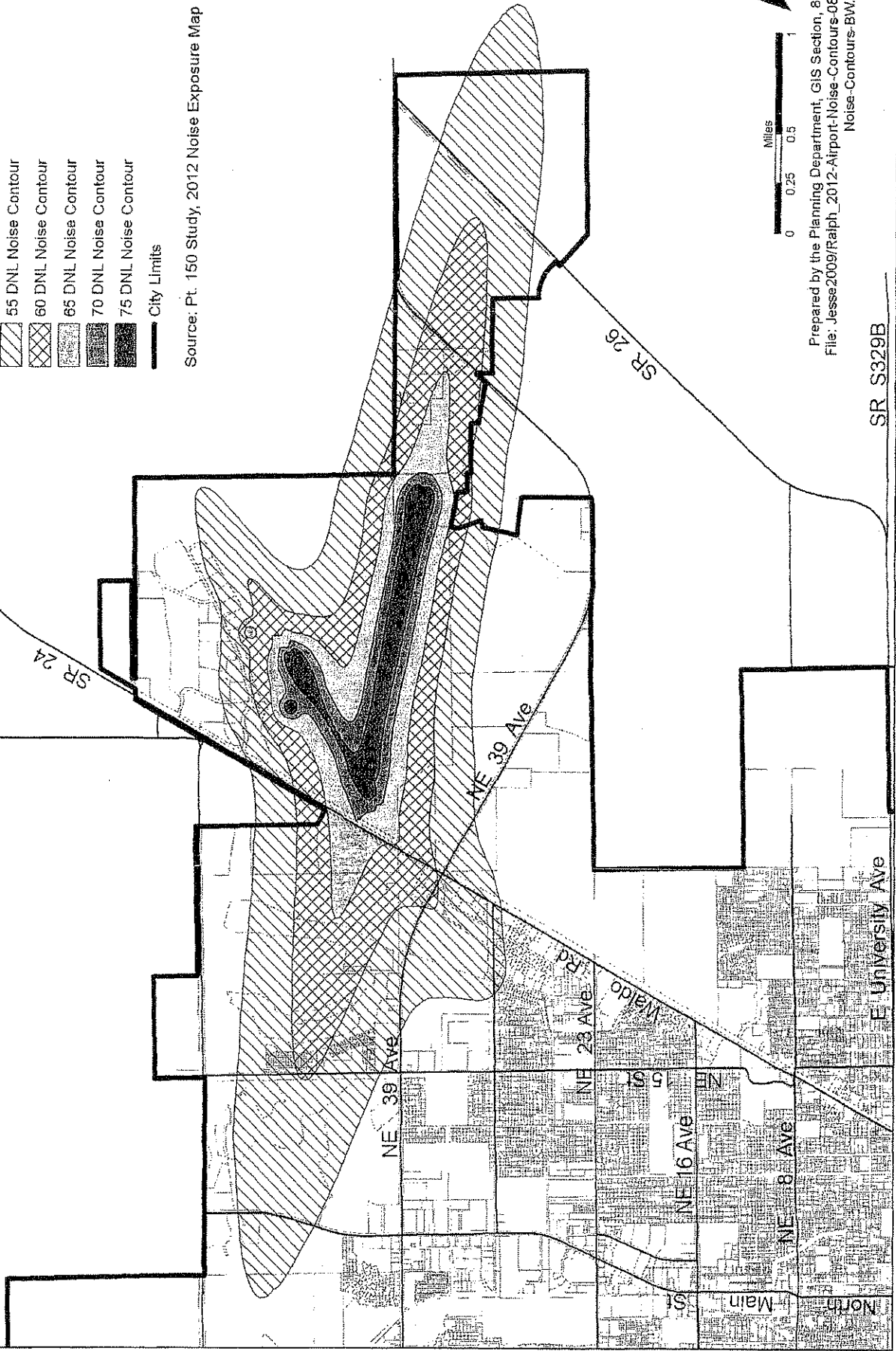
City of Gainesville

- 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





Scale: 1"=250'
CITY OF GAINESVILLE
Gainesville, Florida
Prepared by the Department of
Community Development, 2009

Restrictions on the Educational Facilities of Public and Private Schools

Paynes Prairie

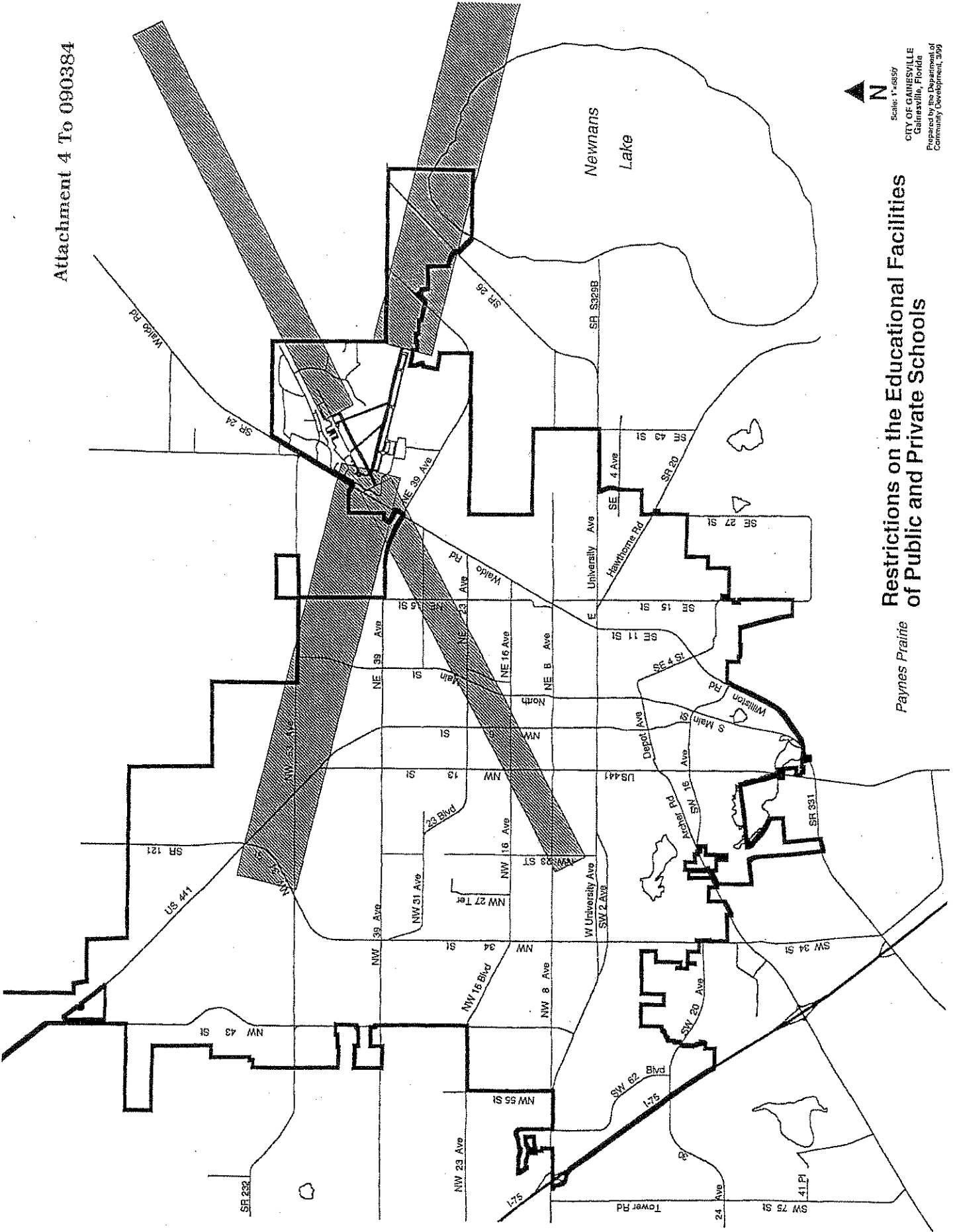


EXHIBIT "A"
(7 pages)



U.S. Department
of Transportation
Federal Aviation
Administration

ORLANDO AIRPORTS DISTRICT OFFICE
5950 Hazeltine National Drive, Suite 400
Orlando, Florida 32822
Phone: 407-812-6331 Fax: 407-812-6978

April 20, 2009

Mr. Allan J. Penksa
Airport Manager
Gainesville Regional Airport
3880 N.E. 39th Avenue, Suite A
Gainesville, Florida 32609

Dear Mr. Penksa:

RE: Noise Exposure Maps Compliance Determination

This is to notify you that the Federal Aviation Administration (FAA) has evaluated your final submission of the Noise Exposure Maps (NEM) and supporting documentation transmitted by your letter of March 13, 2009, in accordance with Section 103(a)(1) of the Aviation Safety and Noise Abatement Act of 1979 (ASNA), (49 U.S.C., Section 47503). We have determined that they are in compliance with applicable requirements of 14 CFR Part 150. Further, we have determined that the maps entitled "Existing (2007) Noise Contour Map" and "Future (2012) Noise Contour Map" fulfill the requirements for the current year and the future year noise exposure maps.

FAA's determination that your Noise Exposure Maps are in compliance is limited to a finding that the maps were developed in accordance with the procedures contained in Appendix A of 14 CFR Part 150. Such determination does not constitute approval of your data, information or plans.

Should questions arise concerning the precise relationship of specific properties to noise exposure contours depicted on your Noise Exposure Maps, you should note that the FAA will not be involved in any way in determining the relative locations of specific properties with regard to the depicted noise exposure contours, or in interpreting the maps to resolve questions concerning, for example, which properties should be covered by the provisions of Section 107 of ASNA (49 U.S.C., Section 47506). These functions are inseparable from the ultimate land use control and planning responsibilities of local government. These local responsibilities are not changed in any way under Part 150 or through FAA's determination relative to your Noise Exposure Maps. Therefore, the responsibility for the detailed overlaying of noise exposure contours onto the maps depicting properties on the surface rests exclusively with you, the airport operator, or with those public agencies and planning agencies with which consultation is required under Section 103 of ASNA (49 U.S.C., Section 47503). The FAA relies on the


certification by you, under 150.21 of 14 CFR part 150, that the statutorily required consultation has been accomplished.

The FAA will publish notice in the Federal Register announcing its determination on the Noise Exposure Maps for the Gainesville Regional Airport.

Your notice of this determination and the availability of the Noise Exposure Maps, when published at least three times in a newspaper of general circulation in the county or counties where affected parties are located, will satisfy the requirements of Section 107 of the ASNA Act (49 U.S.C., Section 47506).

Your attention is called to the requirements of Section 150.21(d) of 14 CFR Part 150, involving the prompt preparation and submission of revisions to these maps of any actual or proposed change in the operation of the Gainesville Regional Airport which might create any substantial, new, noncompatible use in any areas depicted on the Noise Exposure Maps, or significant reduction in noise over noncompatible land uses that were previously included in the Noise Exposure Map contour. Remedial mitigation is limited to existing non-compatible land uses located within the existing 65 DNL noise exposure contour of the official Noise Exposure Maps (Existing (2007) Noise Contour Map) and is consistent with FAA's 1998 remedial mitigation policy (64 FR 16409).

Sincerely,









Juan C. Brown
Acting Manager

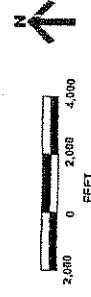
cc:
APP-400
ASO-610
ASO-7



Source: RSH & ESA Analysis (2008)

LEGEND

-  PROPERTY LINE
-  65 DnL NOISE CONTOUR
-  75 DnL NOISE CONTOUR
-  80 DnL NOISE CONTOUR
-  70 DnL NOISE CONTOUR
-  55 DnL NOISE CONTOUR





Source: RSH & ESA Analysis (2008)

LEGEND

- PROPERTY LINE
- 75 DnL NOISE CONTOUR
- 70 DnL NOISE CONTOUR
- 65 DnL NOISE CONTOUR



[Federal Register: May 1, 2009 (Volume 74, Number 83)]
 [Notices]
 [Page 20357-20358]
 From the Federal Register Online via GPO Access [wais.access.gpo.gov]
 [DOCID:fr01my09-93]

=====

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Noise Exposure Map Notice, Gainesville Regional Airport,
 Gainesville, FL

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice.

[[Page 20358]]

SUMMARY: The Federal Aviation Administration (FAA) announces its determination that the Noise Exposure Maps submitted by the Gainesville Alachua County Regional Airport Authority for Gainesville Regional Airport under the provisions of 49 U.S.C. 47501 et seq. (Aviation Safety and Noise Abatement Act) and 14 CFR part 150 are in compliance with applicable requirements.

DATES: Effective Date: The effective date of the FAA's determination on the noise exposure maps is April 20, 2009.

FOR FURTHER INFORMATION CONTACT: Ms. Lindy McDowell, Federal Aviation Administration, Orlando Airports District Office, 5950 Hazeltine National Drive, Suite 400, Orlando, Florida 32822, 407-812-6331 X130.

SUPPLEMENTARY INFORMATION: This notice announces that the FAA finds that the Noise Exposure Maps submitted for Gainesville Regional Airport are in compliance with applicable requirements of Title 14 Code of Federal Regulations (CFR) Part 150, effective April 20, 2009. Under 49 U.S.C. section 47503 of the Aviation Safety and Noise Abatement Act (the Act), an airport operator may submit to the FAA Noise Exposure Maps which meet applicable regulations and which depict non-compatible land uses as of the date of submission of such maps, a description of projected aircraft operations, and the ways in which such operations will affect such maps. The Act requires such maps to be developed in consultation with interested and affected parties in the local community, government agencies, and persons using the airport. An airport operator who has submitted Noise Exposure Maps that are found by FAA to be in compliance with the requirements of 14 CFR part 150, promulgated pursuant to the Act, may submit a Noise Compatibility Program for FAA approval which sets forth the measures the airport operator has taken or proposes to take to reduce existing non-compatible uses and prevent the introduction of additional non-compatible uses.

The FAA has completed its review of the Noise Exposure Maps and accompanying documentation submitted by Gainesville Alachua County Regional Airport Authority. The documentation that constitutes the "Noise Exposure Maps" as defined in Sec. 150.7 of 14 CFR part 150 includes: Figure 7-1(A), Existing (2007) Noise Contour Map; Figure 7-

2(A), Future (2012) Noise Contour Map; Table 5-1, 2007 Operations; Table 5-2, 2007 Itinerant Operations and Fleet Mix; Table 5-3, 2007 Local Operations and Fleet Mix, Table 5-4, 2012 Operations; Table 5-5, 2012 Itinerant Operations and Fleet Mix; Table 5-6, 2012 Local Operations and Fleet Mix; Figure 5-1, East Flow Corridors 2007, 2012 & 2027; Figure 5-2, West Flow Corridors 2007, 2012 & 2027; Figure 5-3, Helicopter Corridors 2007, 2012 & 2027; Composite Corridors 2007, 2012 & 2027; Table 5-9, Itinerant Departure Track Use Percentages; Table 5-11, Local Track Use Percentages; Table 5-12, Rotorcraft Arrival Track Use Percentages; Table 5-13, Rotorcraft Arrival Track Use Percentages; Table 6-1; 2007 Noise Contour Surface Areas; Table 6-2, 2012 Noise Contour Surface Areas; Figure 6-1, 2007 Noise Contour Map; Figure 6-2, 2012 Noise Contour Map; Table 7-3, 2007 Noise Exposure Contour Population Summary; and Table 7-4, 2012 Noise Exposure Contour Population Summary. The FAA has determined that these Noise Exposure Maps and accompanying documentation are in compliance with applicable requirements. This determination is effective on April 20, 2009.

FAA's determination on the airport operator's Noise Exposure Maps is limited to a finding that the maps were developed in accordance with the procedures contained in Appendix A of 14 CFR part 150. Such determination does not constitute approval of the airport operator's data, information or plans, or a commitment to approve a Noise Compatibility Program or to fund the implementation of that Program. If questions arise concerning the precise relationship of specific properties to noise exposure contours depicted on a Noise Exposure Map submitted under Section 47503 of the Act, it should be noted that the FAA is not involved in any way in determining the relative locations of specific properties with regard to the depicted noise exposure contours, or in interpreting the Noise Exposure Maps to resolve questions concerning, for example, which properties should be covered by the provisions of Section 47506 of the Act. These functions are inseparable from the ultimate land use control and planning responsibilities of local government. These local responsibilities are not changed in any way under 14 CFR part 150 or through FAA's review of Noise Exposure Maps.

Therefore, the responsibility for the detailed overlaying of noise exposure contours onto the map depicting properties on the surface rests exclusively with the airport operator that submitted those maps, or with those public agencies and planning agencies with which consultation is required under Section 47503 of the Act. The FAA has relied on the certification by the airport operator, under Sec. 150.21 of 14 CFR part 150, that the statutorily required consultation has been accomplished.

Copies of the full Noise Exposure Maps documentation and of the FAA's evaluation of the maps are available for examination at the following locations: Federal Aviation Administration, Orlando Airports District Office, 5950 Hazeltine National Drive, Suite 400, Orlando, Florida 32822.

Questions may be directed to the individual named above under the heading, FOR FURTHER INFORMATION CONTACT.

Issued in Orlando, Florida, on April 20, 2009.

Julian C. Brown,
Acting Manager, Orlando Airports District Office.
[FR Doc. E9-9954 Filed 4-30-09; 8:45 am]
BILLING CODE 4910-13-M



Notice of Determination of Compliance

This serves to provide public notice that, on April 20, 2009, the Federal Aviation Administration announced its determination that the "Existing (2007) Noise Exposure Map" and the "Future (2012) Noise Exposure Map" for Gainesville Regional Airport are in compliance with applicable requirements of 14 CFR Part 150. Copies of the full noise exposure maps and associated documentation are available for examination by appointment during normal business hours (9:00 a.m. to 5:00 p.m. Monday through Friday) at the Gainesville Regional Airport office, 3880 NE 39th Avenue, Suite A, Gainesville. Please call (352) 373-0249 to schedule an appointment.

Airport Noise / Land Use Compatibility: 080549A
Federal Guidelines and
"Best Practices" Related to Adoption of
Local Standards

Presentation to:
City Commission, Gainesville, Florida

November 20, 2008

Presentation by:
Ted Baldwin

 HARRIS MILLER MILLER & HANSON INC.

Background

- **HMMH – Environmental noise and vibration consulting**
 - Assistance to 200+ airports worldwide, 35+ in Florida
 - Part 150 studies and implementation at 70+ airports (out of 268)
- **Ted Baldwin**
 - Master of City and Regional Planning
 - 30 years experience in aviation noise - land use compatibility
 - Assistance to 75+ airports, including 20+ in Florida
- **Local recommendations based on review of:**
 - City airport hazard zoning regulation
 - 1986 Gainesville Regional Airport Part 150
 - Draft 2008 Part 150 Noise Exposure Map Update
 - Related documentation

Topics

www.hmmh.com

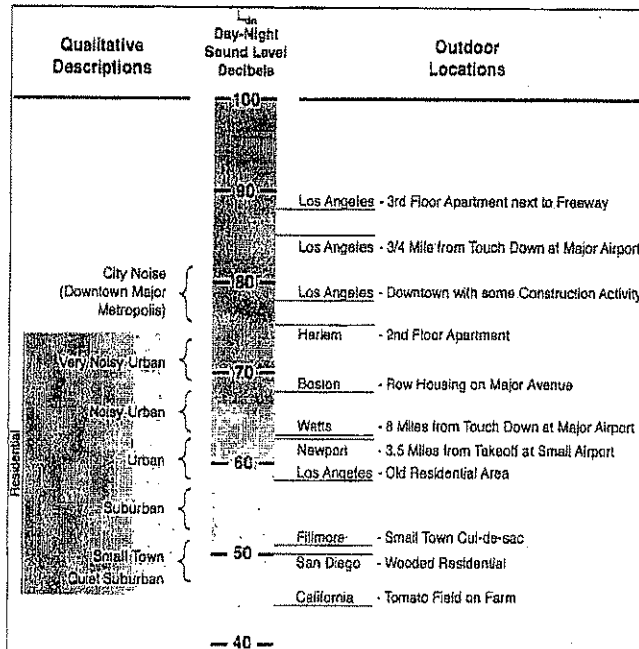
- Day-Night Average Sound Level (DNL)
- FAA Part 150 "Airport Noise Compatibility Planning"
 - Application at Gainesville Regional Airport – 1986 and 2008
- City of Gainesville response to prior recommendations
 - Existing "Airport Hazard Zoning Regulations"
- 2008 Gainesville Regional Part 150 update and land use compatibility recommendations
- Federal land use compatibility guidelines and standards
- Basis for determining "best practices"
- Application of best practices at Gainesville

080549A

Day-Night Average Sound Level ("DNL" or "Ldn")

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- Measures cumulative noise
- Equal to steady noise level that contains same energy as the actual time-varying sound
- Increases sounds from 10 p.m. to 7 a.m. 10-fold
- Used by all federal agencies that deal with aviation noise



Part 150 - Airport Noise Compatibility Planning”

080549 A

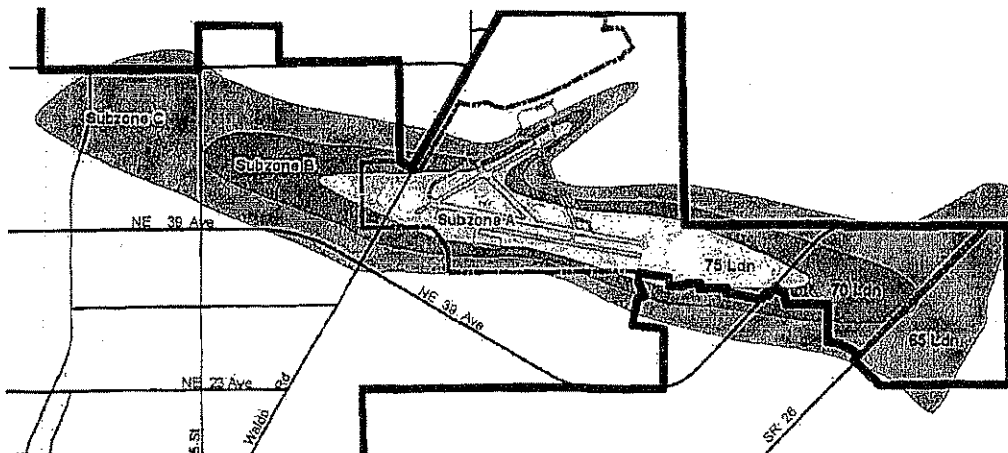
www.hmmh.com

- **Voluntary program sets compatibility planning standards**
 - Noise Exposure Maps describe noise-land use “problem”
 - Noise Compatibility Program proposes “solutions”
 - Noise abatement and land use measures
- **Gainesville Regional conducted a Part 150 study in 1986**
 - Recommended use of Part 150 land use compatibility guidelines
 - All land uses are compatible outside 65 DNL contour
 - Residential use generally incompatible inside 65 DNL
 - Where local jurisdiction determines that residential uses must be allowed inside 65 DNL, sound insulation should be required
- **Gainesville Regional is conducting a Part 150 update**
 - Draft Noise Exposure Map is complete
 - 2007, 2012, and 2027 contours.

City of Gainesville Response to 1986 Part 150

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- Airport Hazard Zoning Regulations implemented the Part 150 recommendations
- Residential development within 65 DNL only with 25 dB NLR (sound insulation) or aviation easement

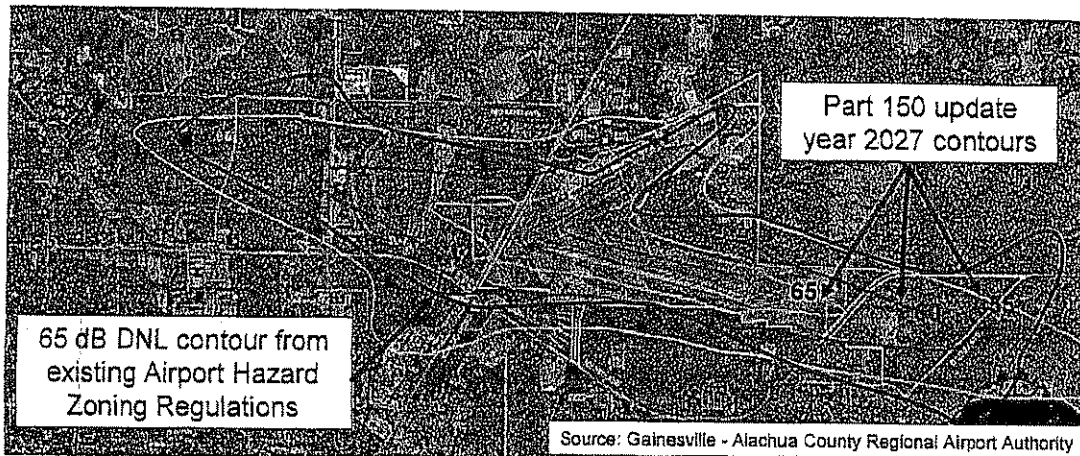


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2008 Noise Exposure Map Update

www.hmmh.com

- Noise contours have “shrunk” approximately 10 dB
- Airport Authority recommends the City adopt guidelines:
 - Prohibiting non-transient residential use within 60 DNL
 - Discouraging residential use within 55 DNL



Federal Land Use Compatibility Guidelines

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- DNL is most widely accepted metric, worldwide
- Part 150 provides FAA compatibility “guidelines”
 - All uses generally compatible below 65 DNL
 - Local responsibility for determining acceptability
- U.S. Department of Housing and Urban Development (HUD) publishes “standards” for federal funding of residential construction
 - Acceptable: 65 DNL
 - Normally unacceptable: 65 to 75 DNL (additional sound attenuation required)
 - Unacceptable: above 75 DNL (case-by-case conditional approval)
- *FAA guidelines (and HUD standards) are based on mid-1970s technical and economic feasibility*

EPA Provides Accepted Basis for Land Use Compatibility "Best Practice"

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- EPA "Levels Document" (March 1974)
 - "Noise Levels Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety"
 - EPA prepared in response to Noise Control Act of 1972
 - Ignored economic and technical feasibility

Effect on Residential Uses	Protective Level with Margin of Safety	Protective Level without Margin of Safety
Outdoor activity interference and annoyance	DNL > 55 dB	DNL > 60 dB
Indoor activity interference and annoyance	DNL > 45	DNL > 50

- *60 DNL has been the recognized target threshold for residential exposure to aircraft noise for over 30 years*

1981 Part 150 Guidelines Are Outdated and Do Not Represent "Best Practice" at All Airports

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- Part 150 guidelines reflect economic / technical feasibility
 - Technology advances since 1980 have significantly reduced noise levels and overall exposure – despite increased activity
 - Current noise certification standards require a 10 dB overall reduction
 - US population within 65 DNL has gone from approx. 7.2 to 0.5 million
 - Technological and economic feasibility has extended at least 5 dB
- Many communities are adopting 60 DNL standard
 - Naples Airport Authority adopted 60 DNL in 2000
 - State and federal courts upheld in face of multiple challenges
 - Palm Beach County includes half-mile buffer outside 65 DNL
 - Boca Raton Airport received FAA acceptance of 60 DNL standard
 - Orlando requires disclosure within 55 DNL; disclosure, waiver of claim, and sound insulation within 60 DNL
 - Many other examples outside Florida

Application of "Best Practices" at Gainesville

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- 60 DNL compatibility standard is consistent with EPA "protective level" identified in 1970s
- Current technical and economic conditions support feasibility of 60 DNL standard
 - 10 dB contour shrinkage at Gainesville Regional Airport since 1986 is a "textbook" example of changed feasibility conditions
- ***60 DNL standard for the most noise-sensitive land uses, including residential and schools, is appropriate for consideration at Gainesville***
 - Most jurisdictions which adopt the 60 DNL standard permit residential use on a case-by-case basis with some mix of sound insulation, disclosure, and avigation easements, particularly for in fill construction in largely developed areas
 - Effectively represents a 5 dB extension of Part 150 guidelines

HARRIS MILLER MILLER & HANSON INC.

77 South Bedford Street
Burlington, MA 01803
T 781.229.0707
F 781.229.7939
W www.hmmh.com

090384A



MEMORANDUM

To: Erik Bredfeldt, City of Gainesville, Florida
From: Ted Baldwin
Date: April 8, 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"¹ 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 15th Street, to the south by NE 39th Avenue, to the north by NE 53rd 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")² exposure bands (considering aircraft noise only):³

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

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

² 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.

³ 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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Erik Brødfeldt, City of Gainesville, Florida

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Airport Noise Background for Development Review Board Discussion of Hatchet Creek Proposal April 6, 2008

Section D.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 150,⁴ 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.

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

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Erik Bredfeldt, City of Gainesville, Florida

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Airport Noise Background for Development Review Board Discussion of Hatchet Creek Proposal April 6, 2009

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 1986.⁵ 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."^{6,7} 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."⁸ 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.⁹

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.¹⁰ 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.¹¹ The updated 65

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

⁶ Ibid., p. IV-11.

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

⁸ Ibid., p. IV-11.

⁹ Ibid., p. IV-12.

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

¹¹ 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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Erik Bradfeldt, City of Gainesville, Florida

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Airport Noise Background for Development Review Board Discussion of Hatchet Creek Proposal April 6, 2009

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.¹²

Table 7.2 of the revised NEM¹³ 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 DNL¹⁴ and discouraged as low as 55 dB DNL.¹⁵ 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.a. "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.

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.

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

¹³ Ibid., p.7-7.

¹⁴ With the exception of transient lodging with 25 dB of sound attenuation.

¹⁵ 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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Erik Bredfeldt, City of Gainesville, Florida

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Airport Noise Background for Development Review Board Discussion of Hatchet Creek Proposal

April 6, 2009

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.¹⁶

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."¹⁷ 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.¹⁸ These

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

¹⁷ 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.

¹⁸ 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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Erik Bredfeldt, City of Gainesville, Florida

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Airport Noise Background for Development Review Board Discussion of Hatchet Creek Proposal April 6, 2009

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 avigation 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 avigation 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 avigation 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.

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

EXHIBIT "D"
(2 pages)

RESOLUTION NO. 10-002
EFFECTIVE OCTOBER 29, 2009

RESOLUTION ENDORSING THE APPROVAL BY THE GAINESVILLE CITY COMMISSION OF PETITION PB-09-82-TCH AMENDING 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

WHEREAS, Part 150 of the Federal Aviation Regulations (FAR), "Airport Noise Compatibility Planning," sets standards for airport operators to use in documenting noise exposure and for establishing programs to minimize noise-related land use incompatibilities. A formal submission to the Federal Aviation Administration (FAA) under Part 150 includes two principal elements: (1) A Noise Exposure Map (NEM) and (2) A Noise Compatibility Program (NCP); and

WHEREAS, at its meeting on September 26, 2007, the Gainesville-Alachua County Regional Airport Authority (GACRAA) adopted Resolution 07-021 authorizing execution of Task Order # 20 with Reynolds, Smith & Hills, Inc. to conduct Phase 1 of a Part 150 Noise Study; and

WHEREAS, on July 31, 2008, GACRAA, having received a draft of Phase 1 of the Part 150 Study, approved a motion recommending that the City of Gainesville create an Airport Environs Overlay Zone as part of its anticipated update of the City's Airport Hazard Zoning Regulation; prohibit residential development in the 60-65 dnl noise zone; and restrict residential development in the 55-60 dnl noise zone; and

WHEREAS, RS&H submitted Phase 1 of a Part 150 Noise Study to the FAA in 2008 and the resulting new Noise Exposure Maps were reviewed and approved by the FAA in April of 2009; and

WHEREAS, on August 26, 2009, GACRAA, having reviewed the proposed Petition PB-09-82-TCH, approved a motion to support the Petition PB-09-82-TCH with the following additions, exceptions and modifications:

- Clarification of language: define "infill" and define the conditions under which residential development can take place in the 60 dnl.
- The 55 dnl – 60 dnl area needs further protections:
 1. Discourage residential development within the 55 dnl – 60 dnl zone;
 2. Require noise insulation within the 55 dnl – 60 dnl zone;
 3. Require Airport Noise Zone notification to potential developers / buyers in the 55 dnl – 60 dnl zone;

4. *Require aviation easement in the 55 dnl – 60 dnl zone.*

NOW, THEREFORE,

BE RESOLVED BY THE GAINESVILLE-ALACHUA COUNTY REGIONAL AIRPORT AUTHORITY, as follows:

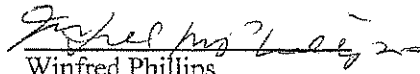
Section 1. That the Gainesville-Alachua County Regional Airport Authority does hereby support the adoption of the Part 150 Noise Study 2012 Noise Exposure Map as "Attachment 3 – Airport Noise Zone Map" by the City of Gainesville in its Appendix F Airport Hazard Zoning Regulations.

Section 2. The Gainesville-Alachua County Regional Airport Authority does hereby support the support adoption the Petition PB-09-82-TCH and requests that the City Commission consider the following additions, exceptions and modifications:

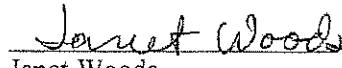
- *Further protections in the 55 dnl – 60 dnl area are recommended:*
 1. *Discourage residential development within the 55 dnl – 60 dnl zone;*
 2. *Require Airport Noise Zone notification to potential developers / buyers in the 55 dnl – 60 dnl zone;*
 3. *Require aviation easement in the 55 dnl – 60 dnl zone.*

EFFECTIVE this 29th day of October, 2009.

(SEAL)


 Winfred Phillips
 Chair

WITNESS:


 Janet Woods
 Secretary/Treasurer

APPROVED AS TO FORM AND LEGALITY

BY: 
 Donald W. Stanley
 Attorney for the Authority

EXHIBIT "E"
(1 page)

Murphree Water Plant

NE 53RD AVE

NE 15TH ST

NE 39TH AVE

Existing Noise Contours

EGDP Property

Existing LDN's

Single Family

Industrial

City Limits

208.44 acres of SF affected.

161.04 acres of IND affected.



WALDO RD

75

70

65

Prepared by the Planning Department, 10/09, File
Jesse, 2009/Replan. Atwood Noise/rowood, 10-14





Murphree Water Plant

NE 53RD AVE

NE 15TH ST

NE 39TH AVE

New Noise Contours
EGDP Property

-  New DnL's (60+)
-  Affected Areas at 60+ DnL
-  Single Family
-  Industrial

79.42 acres of SF affected.
104.17 acres of IND affected.

 City Limits

Prepared by the Planning Department, 10009 File
Jesse2008raipn_jr/pd/issa-kenwood_10-14

