



## Planning Department

# Petition

## PB-13-65 TCH

### City Commission

### November 21, 2013

(Legistar No. 130432)

Prepared by: Ralph Hilliard

# Airport Hazard Zoning

- **Purpose:**
- **Protect the safety and welfare of citizens through land development regulations that will reduce the potential land use conflicts with airport operations.**
- **Protect the airport from incompatible land uses that may hamper the future growth and expansion of airport operations.**

# **(FAA) Federal Aviation Administration Guidelines**

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- **Identifies DNL 65 as the upper limit for residential development**
- **FAA determinations under Part 150 are not intended to substitute federally determined land uses for those determine to be appropriate by the local government**

# Current Regulations

<b>Subzone</b>	<b>A DNL 65</b>	<b>B DNL 65 - 60</b>	<b>C DNL 60 - 55</b>
Dwellings	Prohibited	Restricted (1)	Permitted (2)
Assembly Uses	Prohibited	Restricted (1)	Permitted (2)
Hospital	Prohibited	Prohibited	Permitted (2)
Nursing Homes	Prohibited	Restricted (1)	Permitted (2)
Public and Private Schools	Prohibited	Restricted (1)	Permitted (2)

# Restrictions

- **(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.

- **(2) All development shall provide a minimum of 25dB of exterior-to-interior noise level reduction and the property owner shall provide the City and the Gainesville Regional Airport with a permanent avigation easement in accordance with (g) below.**

# Background

## ■ Background/History

- **Gainesville-Alachua County Regional Airport Authority: Updated Airport Master Plan 2006**
- **Proposed Land Use Change Hatchet Creek 2007**
- **Existing Airport Noise Zone Maps out-of-date**
- **New Noise Exposure Maps accepted by FAA 2009**
- **Plan Board recommends approval of new regulations 2009**
- **City Commission adopts new regulations 2009**

# Justification

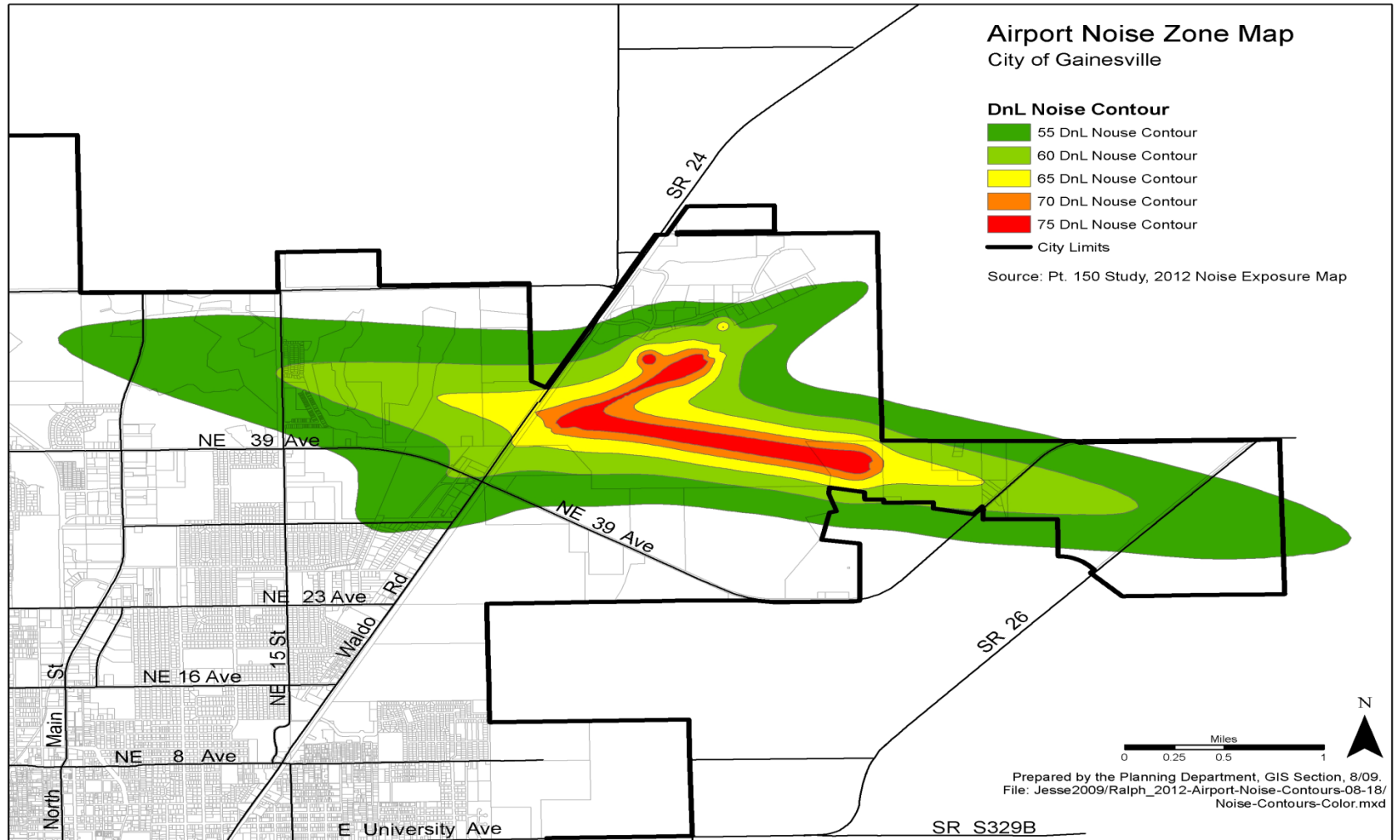
- **Impacts of Noise:**
- Speech and sleep interferences are major concerns of neighbors close to airports
- Noise will impact residents of a community more in the **evening** and at **night** than during the day



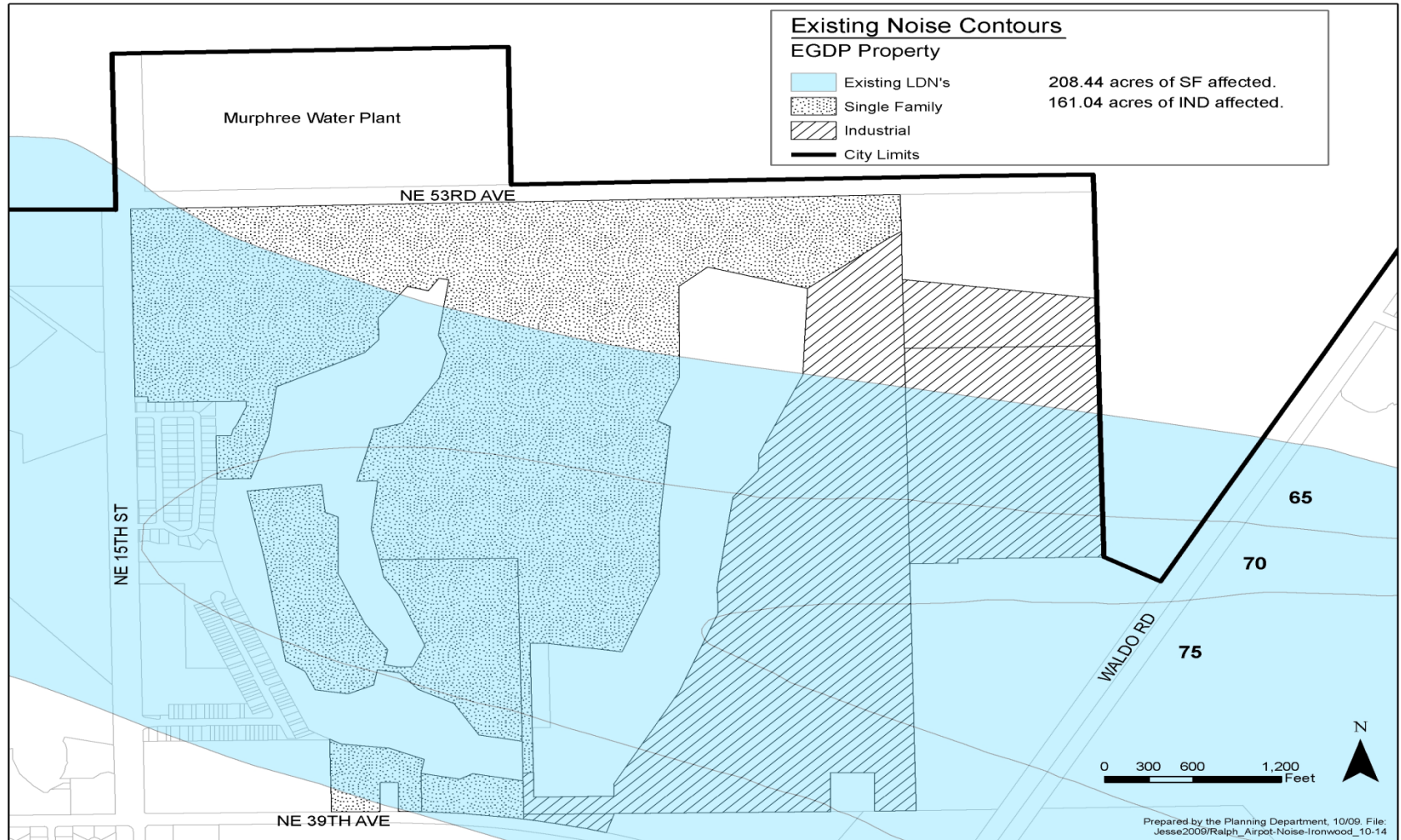
- **Season.** Noise is considered more disturbing in the summer than in the winter. This is understandable since, during the **summer**, windows are likely to be open and recreational activities take place out of doors.

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

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

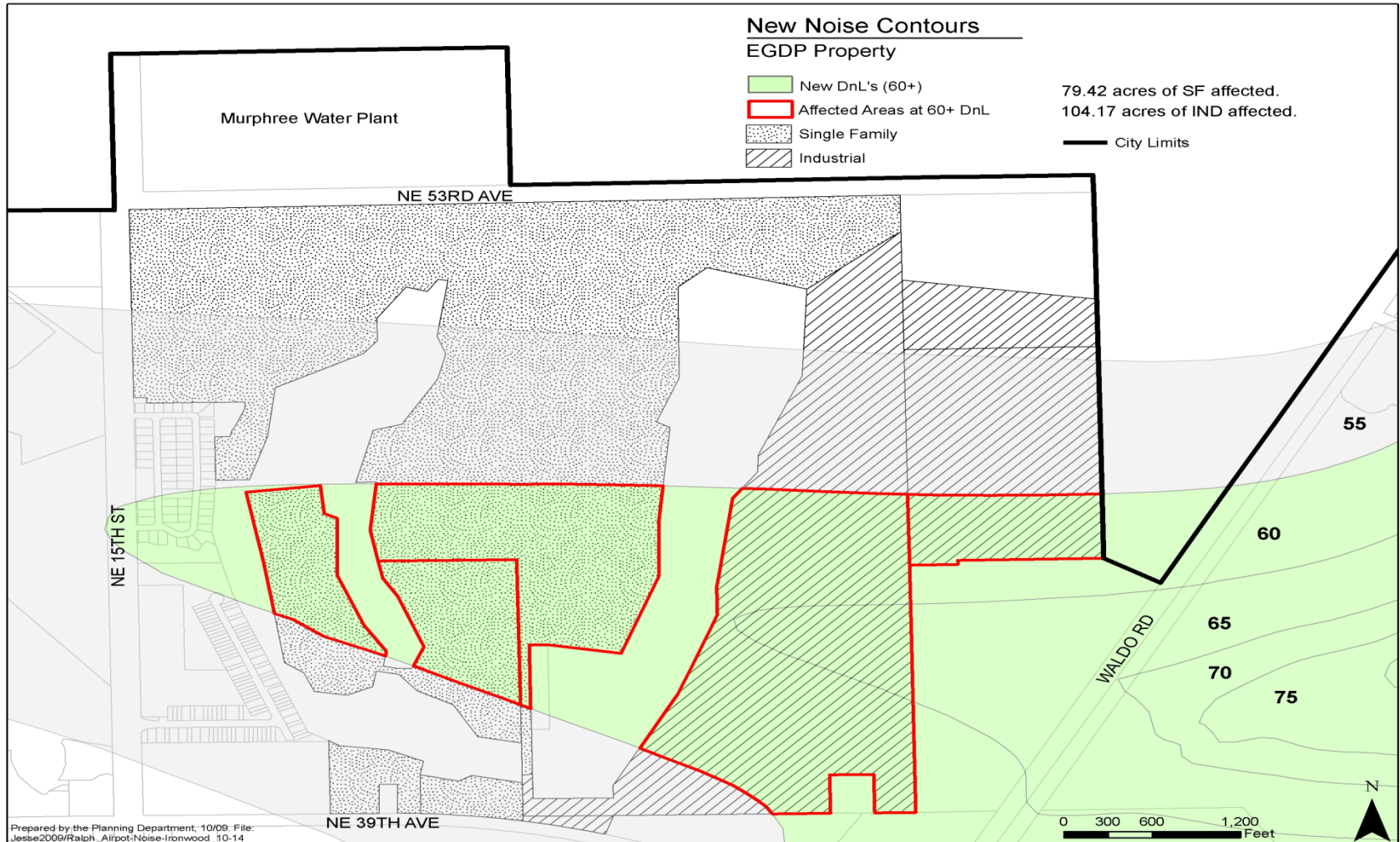


# Airport Noise Zone Pre-2009



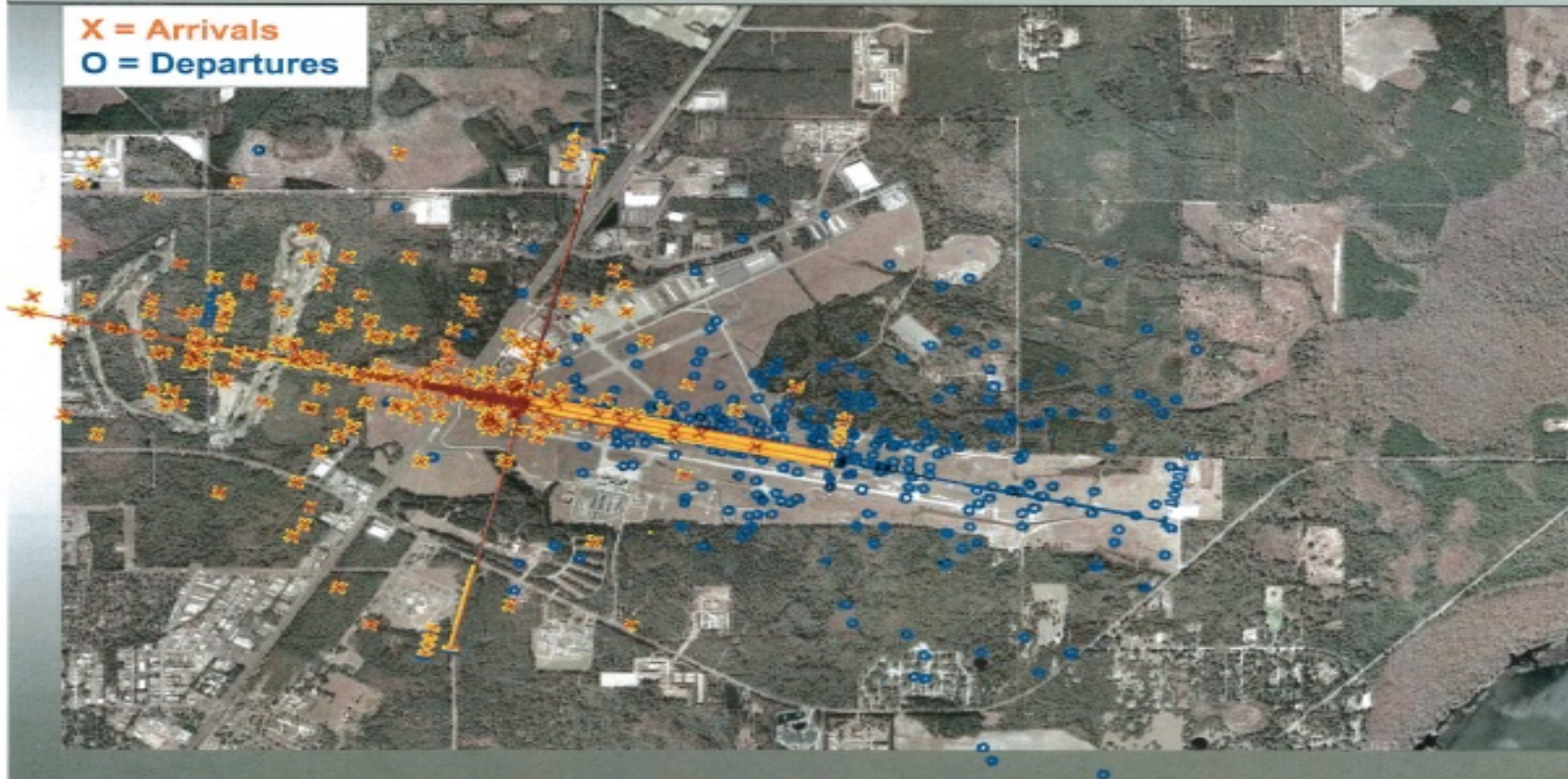
# Change in Noise Zone

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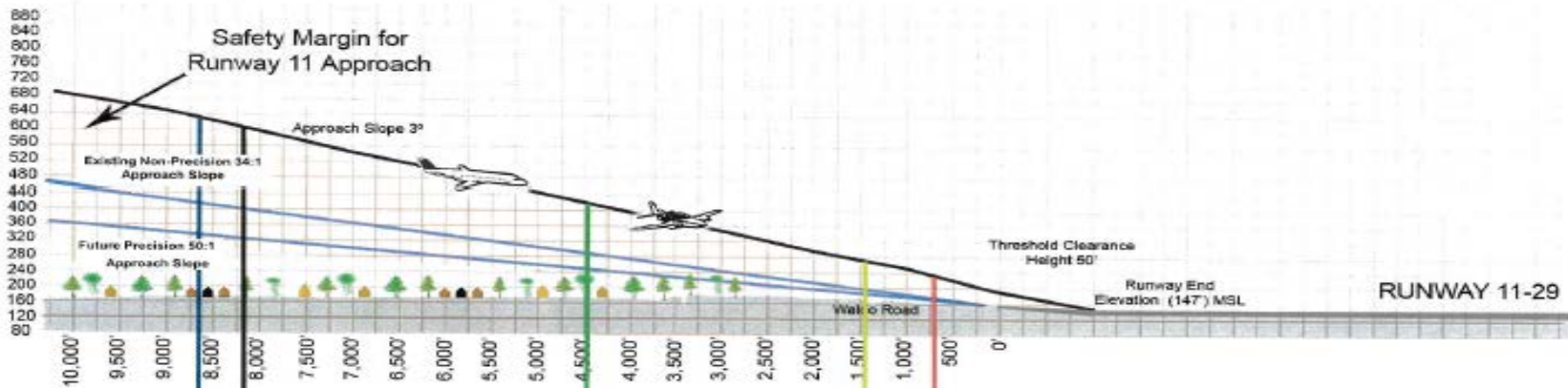
## General Aviation Aircraft Accident Location Patterns *Runway 11 – East Flow*

Source: California Airport Land Use Planning Handbook (January 2002): Institute of Transportation Studies at the University of California, Berkeley



# Approach Profile

## Gainesville Regional Airport Runway 11 Approach Profile



60 – 65 dnl  
≈ 8,654 ft.  
from R/W  
and ≈ 460 ft.  
above  
ground

NE 15<sup>th</sup> St.  
≈ 8,180 ft. from R/W  
and ≈ 430 ft. above  
ground

65 – 70 dnl  
≈ 4,477 ft.  
from R/W  
and ≈ 250 ft  
above  
ground

70 – 75 dnl  
≈ 1,473 ft.  
from R/W  
and ≈ 110 ft.  
above  
ground

75+ dnl  
≈ 710 ft.  
from R/W  
and ≈ 80 ft.  
above  
ground

Approximate aircraft location on approach to Runway 11

Source: 2027 Noise Exposure Map  
- 2007 Part 150 Noise Study  
Reynolds, Smith & Hills, Inc.  
and ESA Airports



- **Deny Petition PB-13-65 TCH**