EXHIBIT 14

(e) Except as provided in (f) below, the noise exposure maps must also contain and indentify:

(1) Runway locations.

(2) Flight tracks.

(3) Noise contours of L_{dn} 65, 70, and 75 dB resulting from aircraft operations.

(4) Outline of the airport boundaries.

(5) Noncompatible land uses within the noise contours, including those within the L_{dn} 65 dB contours. (No land use has to be identified as noncompatible if the self-generated noise from that use and/or the ambient noise from other nonaircraft and nonairport uses is equal to or greater than the noise from aircraft and airport sources.)

(6) Location of noise sensitive public buildings (such as schools, hospitals, and health care facilities), and properties on or eligible for inclusion in the National Register of Historic Places.

(7) Locations of any aircraft noise monitoring sites utilized for data acquisition and refinement procedures.

(8) Estimates of the number of people residing within the L_{dn} 65, 70, and 75 dB contours.

(9) Depiction of the required noise contours over a land use map of a sufficient scale and quality to discern streets and other identifiable geographic features.

(f) Notwithstanding any other provision of this part, noise exposure maps prepared in connection with studies which were either Federally funded or Federally approved and which commenced before October 1, 1981, are not required to be modified to contain the following items:

(1) Flight tracks depicted on the map.

(2) Use of ambient noise to determine land use compatibility.

(3) The L_{dn} 70 dB noise contour and data related to L_{dn} 70 dB contour. When determinations on land use compatibility using Table 1 differ between L_{dn} 65–70 dB and the L_{dn} 70–75 dB, determinations should either use the more conservative L_{dn} 70–75 dB column or reflect determinations based on local needs and values.

(4) Estimates of the number of people residing within the L_{dn} 65, 70, and 75 dB contours.

TABLE 1—LAND USE COMPATIBILITY* WITH YEARLY DAY-NIGHT AVERAGE SOUND LEVELS

Land use	Yearly day-night average sound level (L_{dn}) in decibels					
	Below 65	65–70	70–75	75–80	80–85	Over 85
RESIDENTIAL						
Residential, other than mobile homes and transient lodgings.	Y	N(1)	N(1)	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N(1)	N(1)	N(1)	N	N
PUBLIC USE						
Schools	Y	N(1)	N(1)	N	N	N
Hospitals and nursing homes	Y	25	30	N	N	N
Churches, auditoriums, and concert halls	Y	25	30	N	N	N
Governmental services	Y	Y	25	30	N	N
Transportation	Y	Y	Y(2)	Y(3)	Y(4)	Y(4)
Parking	Y	Y	Y(2)	Y(3)	Y(4)	N
COMMERCIAL USE						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail—building materials, hardware and farm equipment.	Y	Y	Y(2)	Y(3)	Y(4)	N
Retail trade—general	Y	Y	25	30	N	N
Utilities	Y	Y	Y(2)	Y(3)	Y(4)	N
Communication	Y	Y	25	30	N	N
MANUFACTURING AND PRODUCTION						
Manufacturing, general	Y	Y	Y(2)	Y(3)	Y(4)	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y(6)	Y(7)	Y(8)	Y(8)	Y(8)
Livestock farming and breeding	Y	Y(6)	Y(7)	N	N	N
Mining and fishing, resource production and extraction.	Y	Y	Y	Y	Y	Y
RECREATIONAL						
Outdoor sports arenas and spectator sports	Y	Y(5)	Y(5)	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusements, parks, resorts and camps	Y	Y	Y	N	N	N
Golf courses, riding stables and water recreation.	Y	Y	25	30	N	N

Numbers in parentheses refer to notes.

*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 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.

KEY TO TABLE 1

SLUCM=Standard Land Use Coding Manual.
Y (Yes)=Land Use and related structures compatible without restrictions.
N (No)=Land Use and related structures are not compatible and should be prohibited.
NLR=Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.
25, 30, or 35=Land use and related structures generally compatible; measures to achieve NLR of 25, 30, or 35 dB must be incorporated into design and construction of structure.

NOTES FOR TABLE 1

(1) Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB, thus, the reduction requirements are often stated as 5, 10 or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.
(2) Measures to achieve NLR 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
(3) Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
(4) Measures to achieve NLR 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal level is low.
(5) Land use compatible provided special sound reinforcement systems are installed.
(6) Residential buildings require an NLR of 25.
(7) Residential buildings require an NLR of 30.
(8) Residential buildings not permitted.

Sec. A150.103 Use of computer prediction model.

(a) The airport operator shall acquire the aviation operations data necessary to develop noise exposure contours using an FAA approved methodology or computer program, such as the Integrated Noise Model (INM) for airports or the Heliport Noise Model (HNM) for heliports. In considering approval of a methodology or computer program, key factors include the demonstrated capability to produce the required output and the public availability of the program or methodology to provide interested parties the opportunity to substantiate the results.

(b) Except as provided in paragraph (c) of this section, the following information must be obtained for input to the calculation of noise exposure contours:

(1) A map of the airport and its environs at an adequately detailed scale (not less than 1 inch to 2,000 feet) indicating runway length, alignments, landing thresholds, takeoff start-of-roll points, airport boundary, and flight tracks out to at least 30,000 feet from the end of each runway.

(2) Airport activity levels and operational data which will indicate, on an annual average-daily-basis, the number of aircraft, by type of aircraft, which utilize each flight track, in both the standard daytime (0700–2200 hours local) and nighttime (2200–0700 hours local) periods for both landings and takeoffs.

(3) For landings—glide slopes, glide slope intercept altitudes, and other pertinent information needed to establish approach profiles along with the engine power levels needed to fly that approach profile.

(4) For takeoffs—the flight profile which is the relationship of altitude to distance from start-of-roll along with the engine power levels needed to fly that takeoff profile; these data must reflect the use of noise abatement departure procedures and, if applicable, the takeoff weight of the aircraft or some proxy for weight such as stage length.

(5) Existing topographical or airspace restrictions which preclude the utilization of alternative flight tracks.

(6) The government furnished data depicting aircraft noise characteristics (if not already a part of the computer program's stored data bank).

(7) Airport elevation and average temperature.

(c) For heliports, the map scale required by paragraph (b)(1) of this section shall not be less than 1 inch to 2,000 feet and shall indicate heliport boundaries, takeoff and landing pads, and typical flight tracks out to at least 4,000 feet horizontally from the landing pad. Where these flight tracks cannot be determined, obstructions or other limitations on flight tracks in and out of the heliport shall be identified within the map areas out to at least 4,000 feet horizontally from the landing pad. For static operation (hover), the helicopter type, the number of daily operations based on an annual average, and the duration in minutes of the hover operation shall be identified. The other information required in paragraph (b) shall be furnished in a form suitable for input to the HNM or other FAA approved methodology or computer program.

Sec. A150.105 Identification of public agencies and planning agencies.

(a) The airport proprietor shall identify each public agency and planning agency whose jurisdiction or responsibility is either

EXHIBIT 15

GAINESVILLE REGIONAL AIRPRORT

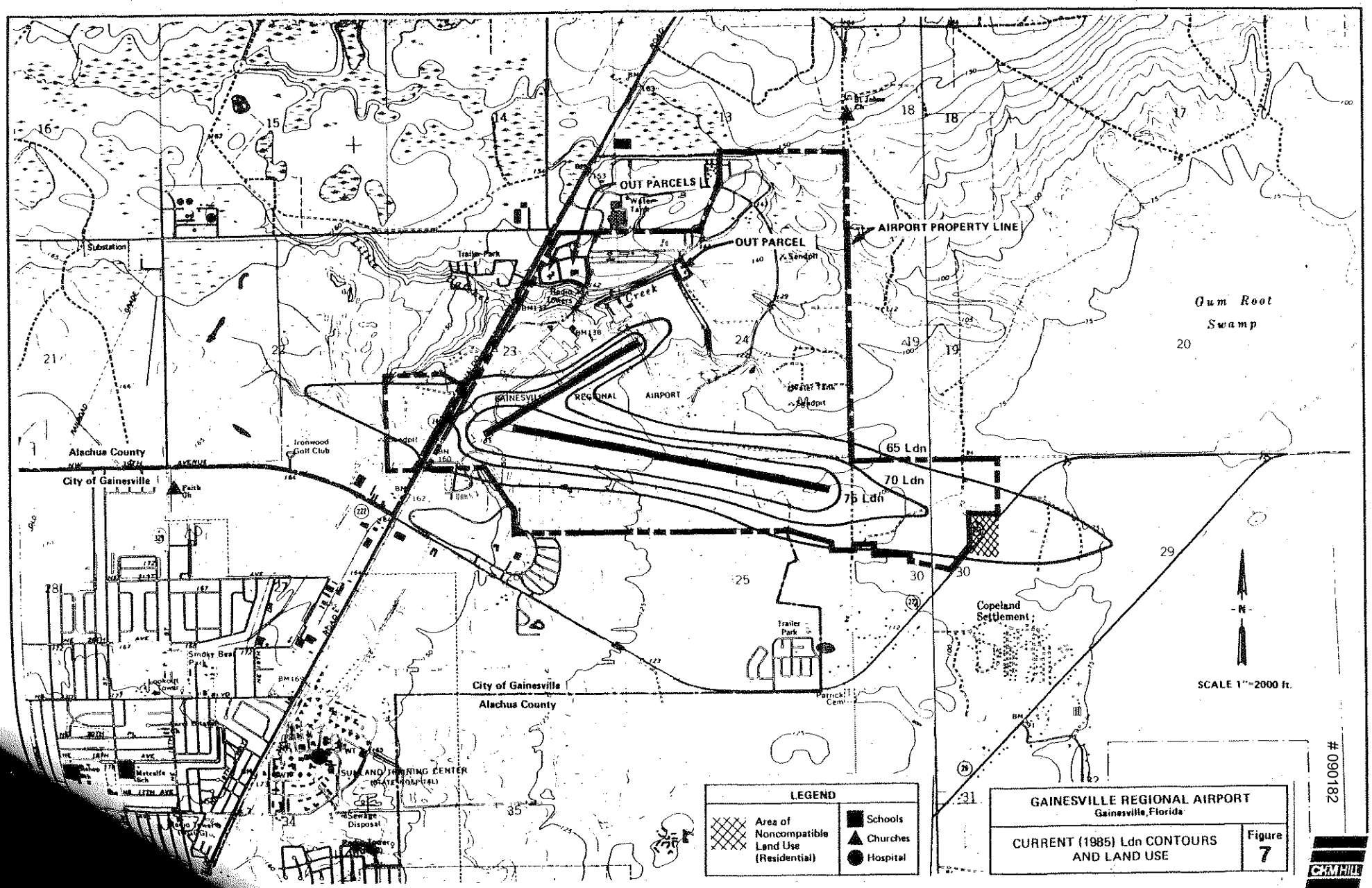
FAR PART 150 STUDY

CITY OF GAINESVILLE, FLORIDA

GAINESVILLE REGIONAL AIRPORT AUTHORITY

MARCH 1986

CH2M HILL



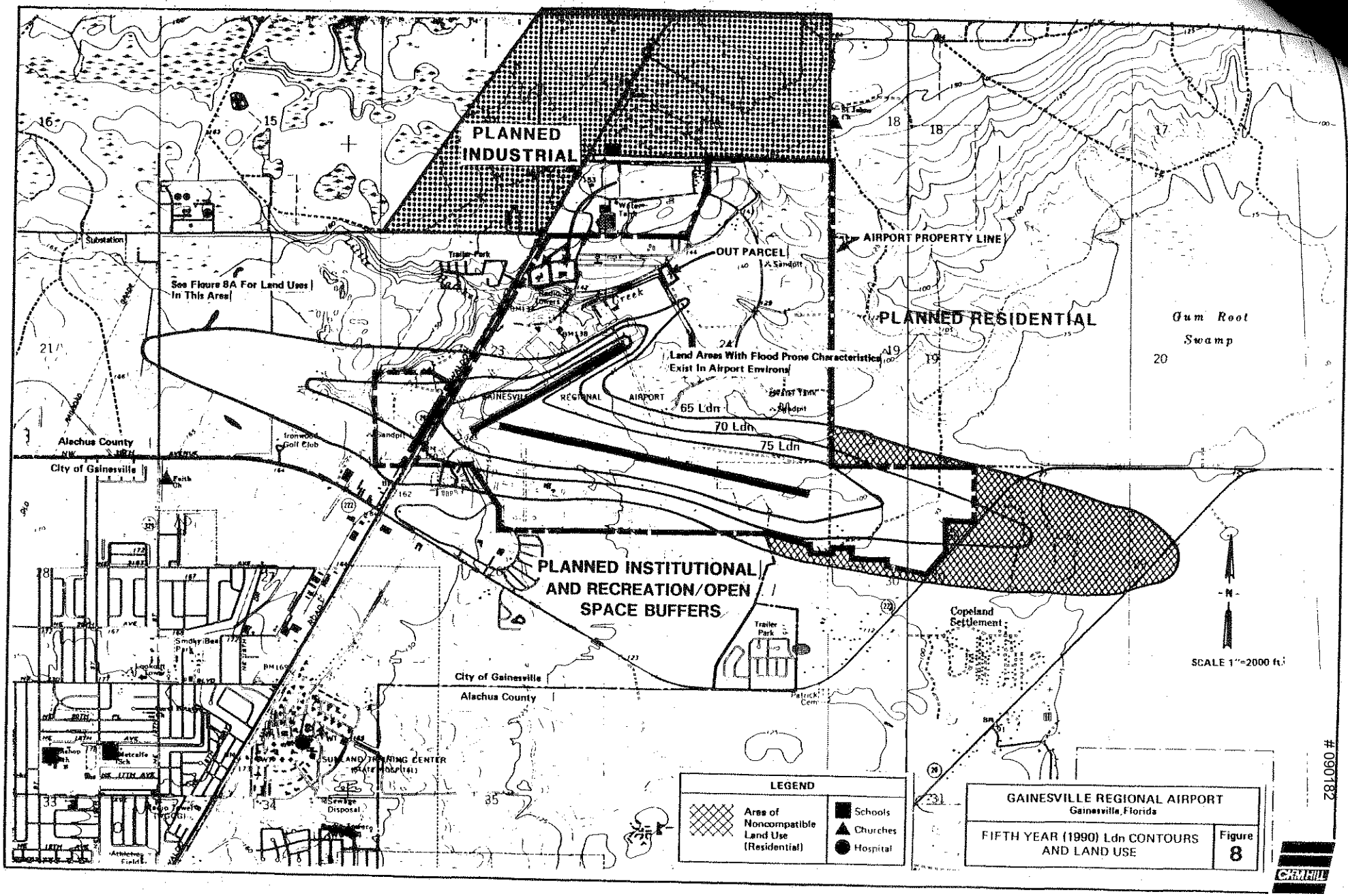
GAINESVILLE REGIONAL AIRPORT
Gainesville, Florida

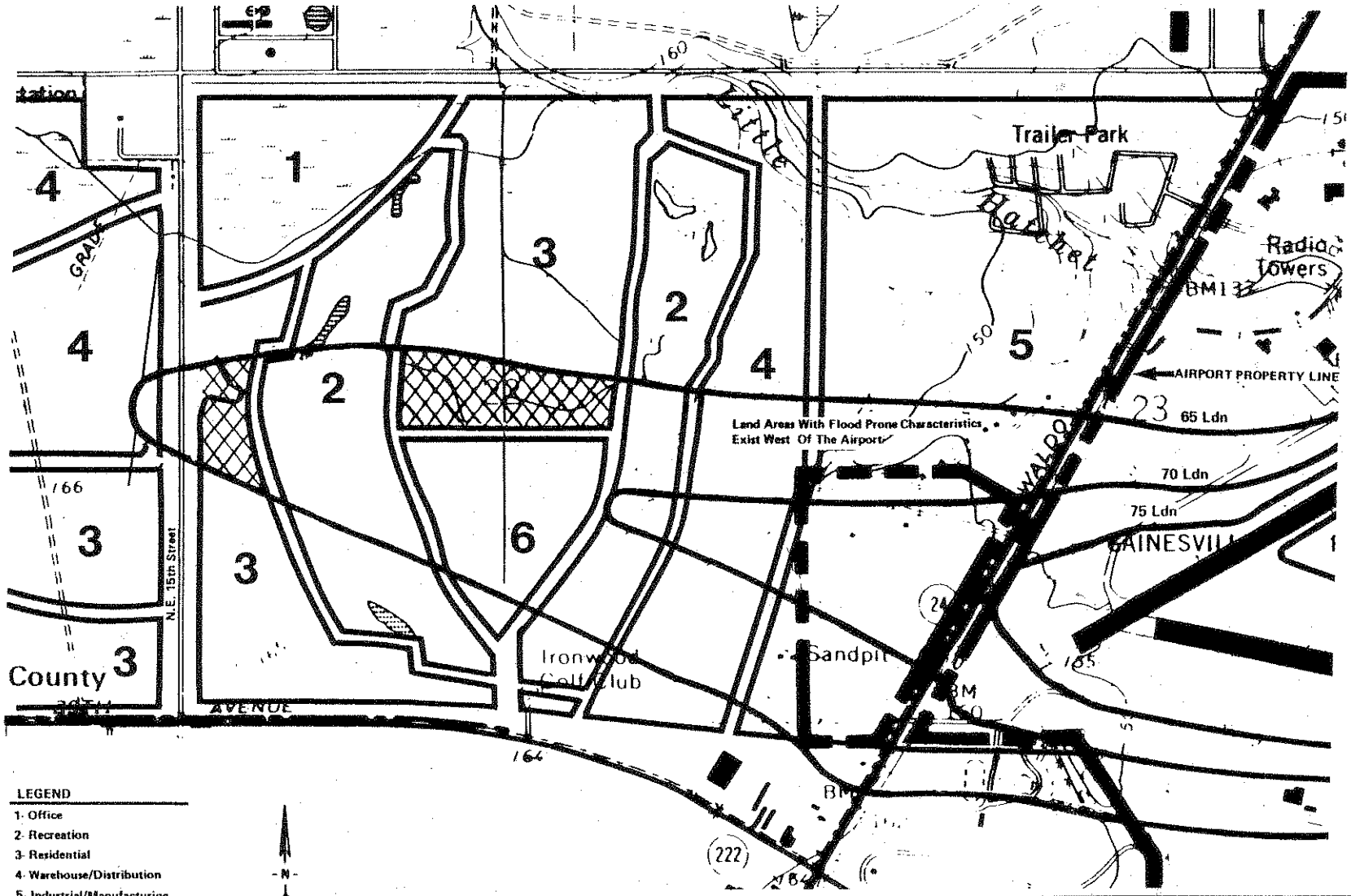
CURRENT (1985) Ldn CONTOURS AND LAND USE

Figure 7

090182

CH2M HILL


PLANNED INDUSTRIAL
PLANNED RESIDENTIAL
PLANNED INSTITUTIONAL AND RECREATION/OPEN SPACE BUFFERS
AIRPORT PROPERTY LINE
OUT PARCEL
See Figure 8A For Land Uses In This Area
Land Areas With Flood Prone Characteristics Exist In Airport Environs
65 Ldn
70 Ldn
75 Ldn
Gum Root Swamp
Alachua County
City of Gainesville
Copeland Settlement
SUNLAND TRAINING CENTER
Trailer Park
Substation
Ironwood Golf Club
Sewage Disposal
SCALE 1"=2000 ft.
LEGEND
Area of Noncompatible Land Use (Residential)
Schools
Churches
Hospital
GAINESVILLE REGIONAL AIRPORT
Gainesville, Florida
FIFTH YEAR (1990) Ldn CONTOURS AND LAND USE
Figure 8
090182



LEGEND

1- Office
2- Recreation
3- Residential
4- Warehouse/Distribution
5- Industrial/Manufacturing
6- Tourist/Entertainment

Area of Noncompatible Land Use (Residential)

- N -

Scale: 1" = 800 Feet

GAINESVILLE REGIONAL AIRPORT Gainesville, Florida	
DETAIL OF FIFTH YEAR (1990) Ldn CONTOURS AND LAND USE WEST OF AIRPORT	8A

090182

EXHIBIT 16

Figure 5-2
2023 NOISE CONTOURS

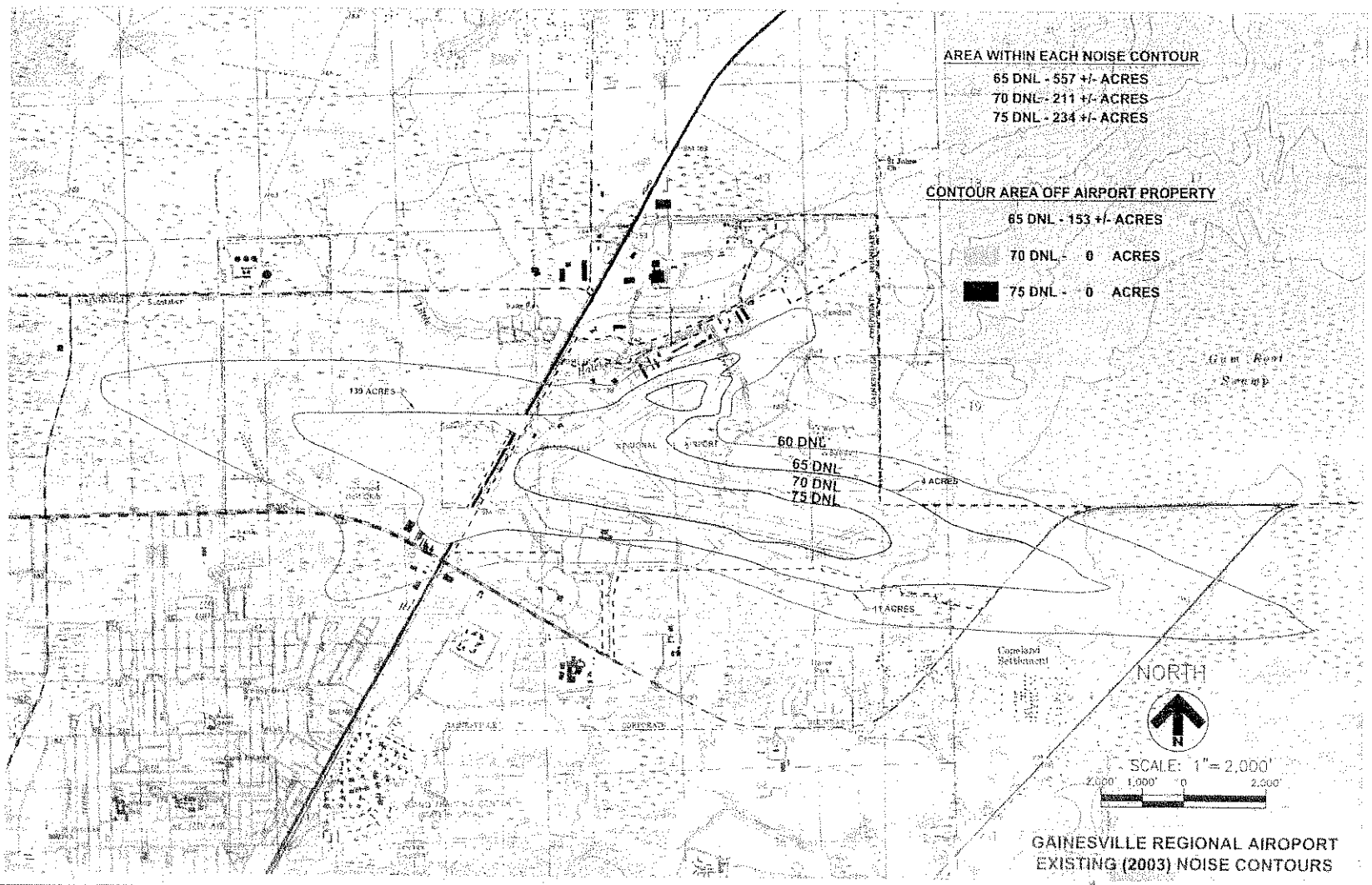


FIGURE 5-1
2023 NOISE CONTOURS

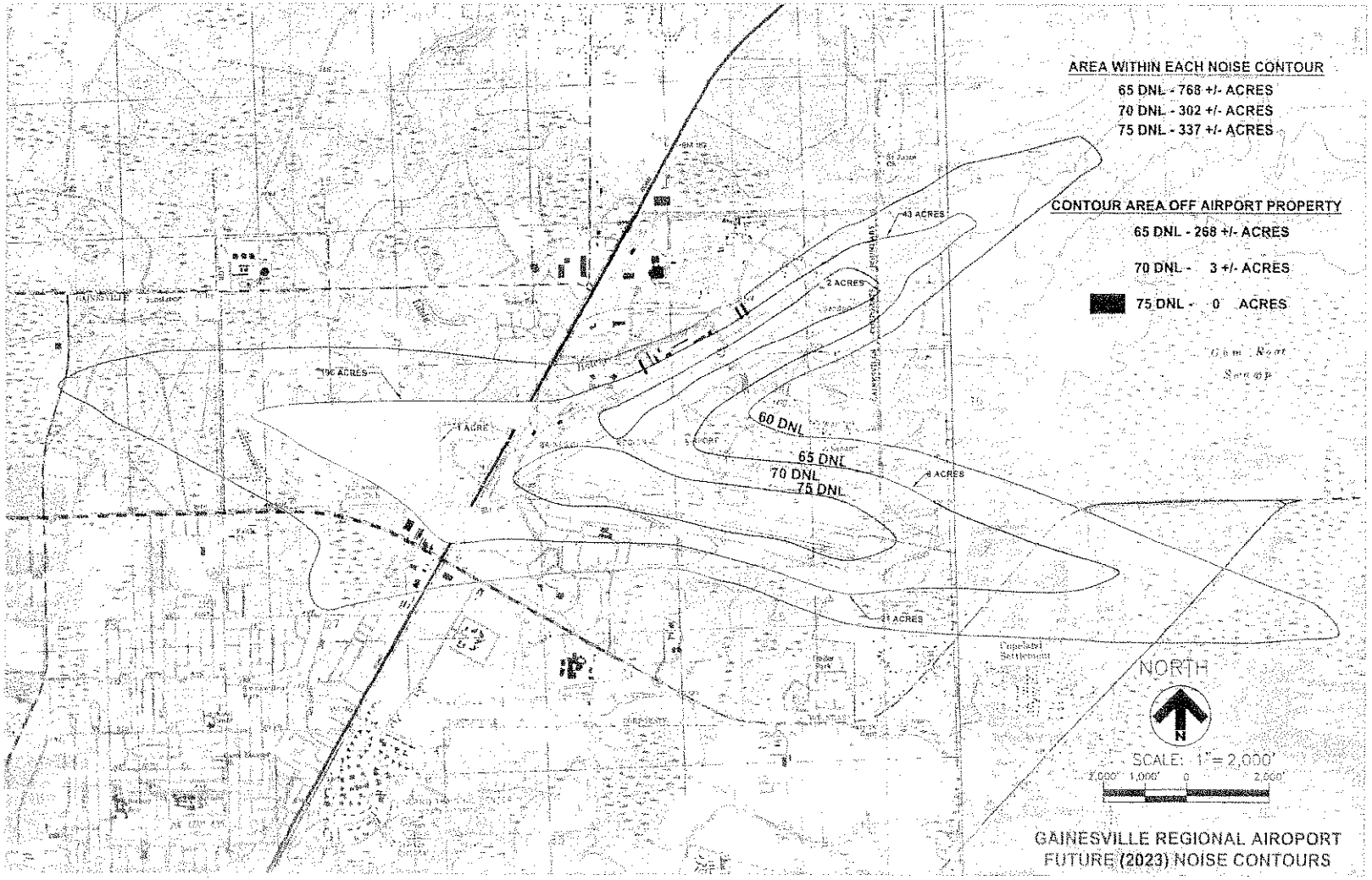


EXHIBIT 17

ASSURANCES
Airport Sponsors

A. General.

1. These assurances shall be complied with in the performance of grant agreements for airport development, airport planning, and noise compatibility program grants for airport sponsors.
2. These assurances are required to be submitted as part of the project application by sponsors requesting funds under the provisions of Title 49, U.S.C., subtitle VII, as amended. As used herein, the term "public agency sponsor" means a public agency with control of a public-use airport; the term "private sponsor" means a private owner of a public-use airport; and the term "sponsor" includes both public agency sponsors and private sponsors.
3. Upon acceptance of the grant offer by the sponsor, these assurances are incorporated in and become part of the grant agreement.

B. Duration and Applicability.

1. **Airport development or Noise Compatibility Program Projects Undertaken by a Public Agency Sponsor.** The terms, conditions and assurances of the grant agreement shall remain in full force and effect throughout the useful life of the facilities developed or equipment acquired for an airport development or noise compatibility program project, or throughout the useful life of the project items installed within a facility under a noise compatibility program project, but in any event not to exceed twenty (20) years from the date of acceptance of a grant offer of Federal funds for the project. However, there shall be no limit on the duration of the assurances regarding Exclusive Rights and Airport Revenue so long as the airport is used as an airport. There shall be no limit on the duration of the terms, conditions, and assurances with respect to real property acquired with federal funds. Furthermore, the duration of the Civil Rights assurance shall be specified in the assurances.

2. **Airport Development or Noise Compatibility Projects Undertaken by a Private Sponsor.** The preceding paragraph 1 also applies to a private sponsor except that the useful life of project items installed within a facility or the useful life of the facilities developed or equipment acquired under an airport development or noise compatibility program project shall be no less than ten (10) years from the date of acceptance of Federal aid for the project.

3. **Airport Planning Undertaken by a Sponsor.** Unless otherwise specified in the grant agreement, only Assurances 1, 2, 3, 5, 6, 13, 18, 30, 32, 33, and 34 in section C apply to planning projects. The terms, conditions, and assurances of the grant agreement shall remain in full force and effect during the life of the project.

C. Sponsor Certification. The sponsor hereby assures and certifies, with respect to this grant that:

1. **General Federal Requirements.** It will comply with all applicable Federal laws, regulations, executive orders, policies, guidelines, and requirements as they relate to the application, acceptance and use of Federal funds for this project including but not limited to the following:

Federal Legislation

a. Title 49, U.S.C., subtitle VII, as amended.
b. Davis-Bacon Act - 40 U.S.C. 276(a), et seq.[1]
c. Federal Fair Labor Standards Act - 29 U.S.C. 201, et seq.
d. Hatch Act - 5 U.S.C. 1501, et seq.[2]

operate and maintain the airport and all facilities thereon or connected therewith, with due regard to climatic and flood conditions. Any proposal to temporarily close the airport for non-aeronautical purposes must first be approved by the Secretary.
In furtherance of this assurance, the sponsor will have in effect arrangements for-

(1) Operating the airport's aeronautical facilities whenever required;

(2) Promptly marking and lighting hazards resulting from airport conditions, including temporary conditions; and

(3) Promptly notifying airmen of any condition affecting aeronautical use of the airport.

Nothing contained herein shall be construed to require that the airport be operated for aeronautical use during temporary periods when snow, flood or other climatic conditions interfere with such operation and maintenance. Further, nothing herein shall be construed as requiring the maintenance, repair, restoration, or replacement of any structure or facility which is substantially damaged or destroyed due to an act of God or other condition or circumstance beyond the control of the sponsor.

b. It will suitably operate and maintain noise compatibility program items that it owns or controls upon which Federal funds have been expended.

20. **Hazard Removal and Mitigation.** It will take appropriate action to assure that such terminal airspace as is required to protect instrument and visual operations to the airport (including established minimum flight altitudes) will be adequately cleared and protected by removing, lowering, relocating, marking, or lighting or otherwise mitigating existing airport hazards and by preventing the establishment or creation of future airport hazards.

21. **Compatible Land Use.** It will take appropriate action, to the extent reasonable, including the adoption of zoning laws, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including landing and takeoff of aircraft. In addition, if the project is for noise compatibility program implementation, it will not cause or permit any change in land use, within its jurisdiction, that will reduce its compatibility, with respect to the airport, of the noise compatibility program measures upon which Federal funds have been expended.

22. **Economic Nondiscrimination.**

a. It will make the airport available as an airport for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities, including commercial aeronautical activities offering services to the public at the airport.

b. In any agreement, contract, lease, or other arrangement under which a right or privilege at the airport is granted to any person, firm, or corporation to conduct or to engage in any aeronautical activity for furnishing services to the public at the airport, the sponsor will insert and enforce provisions requiring the contractor to-

(1) furnish said services on a reasonable, and not unjustly discriminatory, basis to all users thereof, and

(2) charge reasonable, and not unjustly discriminatory, prices for each unit or service, provided that the contractor may be allowed to make reasonable and nondiscriminatory discounts, rebates, or other similar types of price reductions to volume purchasers.

EXHIBIT 18

LAND USE COMPATIBILITY AND AIRPORTS

PREFACE

The development of land uses that are not compatible with airports and aircraft noise is a growing concern across the country. In addition to aircraft noise, there are other issues, such as safety and other environmental impacts to land uses around airports which need to be considered when addressing the overall issue of land use compatibility. Although several federal programs include noise standards or guidelines as part of their funding-eligibility and performance criteria, the primary responsibility for integrating airport considerations into the local land use planning process rests with local governments. The objectives of compatible land use planning are to encourage land uses that are generally considered to be incompatible with airports (such as residential, schools, and churches) to locate away from airports and to encourage land uses that are more compatible (such as industrial and commercial uses) to locate around airports. The FAA has been actively supporting programs to minimize noise impacts. These include phase out of noise aircraft, supporting airport noise compatibility programs, funding of mitigation measures in environmental studies.

Interest has been expressed in having the federal government play a much stronger role in airport-related land use compatibility planning. Although the federal government cannot dictate local land use policies, it can play a role in facilitating the coordination between airports, local, county, and regional planning agencies to ensure that compatible land use planning occurs around our nation's airports.

The Federal Aviation Administration's (FAA) Southern Region Airports Division Office has received requests from airport personnel and local governments to provide guidance on how to establish and maintain compatible land uses around airports. The Southern Region Airports Division Office is responsible for planning, building, expanding, and improving airports; finding solutions to airport

congestion; supporting noise-compatibility and noise-reduction programs; minimizing adverse environmental impacts; and ensuring safety and regulatory compliance in the states of Alabama, Georgia, Mississippi, Kentucky, North Carolina, South Carolina, Tennessee, Florida, the U.S. Virgin Islands, and Puerto Rico.

In response to these requests, the FAA Southern Reigon, established, in 1998, a ***Compatible Land Use Planning Task Force***. The Task Force was charged with identifying how to better coordinate the airport master planning process (and related environmental plans) with the local comprehensive land use planning process. The Task Force determined that a resource guide to assist local governments and airports in identifying and implementing appropriate compatible land use tools (such as, airport overlay zones and avigation easements) would be the best way to prevent or slow down the proliferation of incompatible land uses around airports.

This guide, developed by the Task Force, is provided as a resource to local planners, governments, and other interested parties and should not be construed as FAA regulations or official agency policy. The case studies contained within this guide are included as examples to illustrate specific techniques and strategies of how and where some of the compatible land use tools across the country have been applied and implemented. Inclusion of these examples does not in any way represent official endorsement by the FAA. In some instances, approved Part 150 Noise Compatibility Program measures and Noise Exposure Maps have been included as examples for discussion purposes only.

The Task Force consists of representatives from airport planning staffs, airport planning consultants, city/county planning departments, state aviation departments, and the FAA Regional Environmental Program Manager.

The Task Force members are:

Ms. Jacqueline Sweatt-Essick, Environmental Program Manager, FAA, Airports Division, Southern Region Office, Atlanta, Georgia.

Mr. Rick Alberts, P.E., President, Transportation Solutions, Incorporated, Clearwater, Florida.

Mr. William W. Bowdy, FAICP, Executive Director, Northern Kentucky Area Planning Commission, Fort Mitchell, Kentucky.

Ms. Diane E. Gusky, AICP, Deputy Director, Aeronautics Division, Tennessee Department of Transportation, Nashville, Tennessee.

Mr. Dale Huber, Deputy Director of Aviation, Cincinnati/Northern Kentucky International Airport, Cincinnati, Ohio.

Ms. Suzie Kleymeyer, AICP, Senior Consultant, Landrum & Brown Incorporated, Cincinnati, Ohio.

Ms. Diana Lewis, AAE, Manager, Airport Planning, Broward County Aviation Department, Ft. Lauderdale, Florida.

Mr. Mark Perryman, Director of Environmental Planning, Landrum & Brown Incorporated, Cincinnati, Ohio.

Mr. Raymond R. White, Sr., AICP, Director of DeKalb County Planning, Decatur, Georgia.

Public meetings or workshops could also be conducted at key points in the development of the master plan. These workshops allow the public, affected local municipalities, and community groups to provide critical input so that potential impacts can be identified and possibly avoided or minimized.

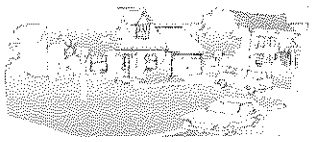
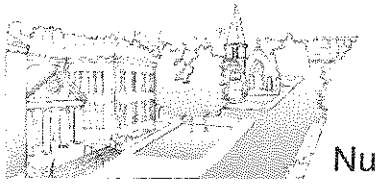
How Are Master Plans and Land Use Compatibility Planning Related?

The airport master planning process provides a means to promote land use compatibility around an airport. Incompatible land uses around an airport can affect the safe and efficient operation of aircraft. Incompatible land uses can include wildlife-attracting land uses such as wetlands and landfills, cell towers and antennae transmitting signals that interfere with radio transmissions and/or navigational aids, lights that may be disorienting to a pilot, and tall structures including towers and construction cranes that may impact an airport's airspace.

Within an airport's noise impact areas, residential and public facilities such as schools, churches, public health facilities, and concert halls are sensitive to high noise levels and can affect the development of the airport. To assist in the assessment of noise compatibility/incompatibility in the airport environs , a land use compatibility table has been developed (see **Exhibit V-2**). Designations in this table, however, do not constitute a federal determination that any use of the land covered by this program is acceptable or unacceptable under federal, state, or local law. The responsibility for determining the acceptable and permissible land uses remain with the local authorities.

The land uses shown on Exhibit V-2 are land uses that are compatible with airport operations. Most commercial and industrial uses, especially those associated with the airport, are good neighbors to airports. Land uses where the airport creates the demand, such as motels, restaurants, warehouses, shipping agencies, aircraft-related industries, and industries that benefit from the access to an airport, are compatible land uses.

Land Use Noise Sensitivity Matrix

		55-65 DNL	65-75 DNL	75+ DNL
	1-2 Family			
	Multi-Family			
	Mobile Homes			
Residential	Dorms, etc.			
	Churches			
	Schools			
	Hospitals			
	Nursing Homes			
Institutional	Libraries			
	Sports/Play			
	Arts/Instructional			
Recreational	Camping			
Commercial	All Uses			
Industrial	All Uses			
Agricultural	All Uses			

PER FAR PART 150	COMPATIBLE	
	INCOMPATIBLE	

X:\FAA\LANDUSE TP\LAND USE MATRIX.CDR DATE: OCT. 1998

Other uses that may be compatible with airports are large parks, conservatory areas, and other open spaces. These land uses are created for public purposes and are opportunities for local government bodies to provide facilities that serve another public purpose to protect airport operations. Forestry service, landscape services, golf courses, and some extractive industries such as mining and excavations are also compatible with airports.

Agriculture is another land use that is compatible with airport operations as long as the use is not a wildlife attractant. Agricultural use of land near an airport permits the owner of the property to efficiently use land while providing an additional benefit to the community for airport protection.

C. Airport Master Planning and Comprehensive Land Use Plans

The master plan is a published document approved by the governmental agency or authority that owns/operates the airport through a public hearing process. The airport master plan should be incorporated into local comprehensive land use plans and used by local land use planners and airport planners to evaluate new development within the airport environs.

Integration of airport master plans and comprehensive land use plans begins during the development of the master plan. Local municipalities within and surrounding the airport boundaries must be contacted to collect demographic data and information on existing land uses in and around airports. The local comprehensive land use plans are also reviewed to determine what types of land uses are planned for the future. Additionally, zoning ordinances should be reviewed to determine what uses are currently permitted around the airport and if there have been any recent changes in zoning. It is important that local land use planners become involved in the review and development plans of the airport's master planning process by providing input on future airport development plans and what potential impacts these plans may have on communities around the airport. Any conflicts or inconsistencies between airport development plans and the local comprehensive plans should be noted in the airport master plan.
The information on future airport expansion and development contained in the airport's master plan should be incorporated in the development of

comprehensive land use plans or their subsequent updates or amendments to ensure land use compatibility in and around airports. During the development of such plans, formal coordination and consultation with the airport staff should occur so that the airport's future plans for expansion can be taken into consideration. Local land use planners should review the airport's master plan to determine how future airport projects could affect existing and projected future land uses around airports.

Other opportunities for coordination and communication between the airport and local planning agencies include the FAA Noise Compatibility planning process (discussed in detail in the next section). These studies provide opportunities for input from the aviation users, local municipalities, communities, private citizens, and the airport on recommended operational measures and land use control measures that could minimize or prohibit the development or continuation of incompatible land uses.

Lastly, the airport master plan is also a tool to ensure that planning among federal, state, regional, and local agencies are coordinated. The incorporation and review of these plans provide for the orderly development of air transportation while protecting the public health, safety, and welfare.

The legal structure of airport ownership will determine its power to regulate or influence land uses around the airport. Municipalities or counties with this regulatory authority need to be made aware of existing and long-term airport development plans and the importance of minimizing incompatible land uses. An airport master plan is a published document to make all the affected agencies aware of existing and long-term airport development plans, and how they can be compatibly integrated into the larger community. The master plan is of major importance to local communities within which, or near where, such facilities are located. Because air travel is a major means of travel for most people as well as the transporting of goods and materials, it is extremely important that airport planners and local land use planners work together toward cooperative land use planning efforts.

D. Aircraft Noise Compatibility Planning