

CHAPTER 9

Off-Airport Land Use Compatibility Planning

The issue of aviation related noise and its impact on people continues to be a controversial topic in the vicinity of our nation's airports. Airports throughout the United States have been adversely affected by the encroachment of land uses that are not compatible with levels of sound generally associated with ground and flight operations of aircraft. In response to the increasing encroachment of these incompatible land uses, airports, working through local units of government, have initiated land use management actions to facilitate the compatibility of development occurring in the airport environs across the United States.

This section presents the Federal initiatives and limitations related to land use control; addresses the relationships of the 2012 noise contours and the future land use plans developed by local governments, and recommends additional land use related measures to enhance the long term land use compatibility in the environs of AUS.

9.1 FAA INITIATIVES AND LIMITATIONS IN OFF-AIRPORT LAND USE PLANNING

The following, taken primarily from the September, 1999 report *Land Use Compatibility and Airports* prepared by the FAA, presents the FAA actions related to land use planning.

“While the FAA can provide assistance and funding to encourage compatible land development around airports, it has no regulatory authority for controlling land uses that would protect airport capacity. The FAA recognizes that state and local governments are responsible for land use planning, zoning and regulation, including that necessary to provide land use compatibility with airport operations.

However, pursuant to the Federal Airport and Airway Development Act, as a condition precedent to approval of an FAA-funded airport development project, the airport sponsor must provide the FAA with written assurances that “...appropriate action, including the adoption of zoning laws have been or will be taken, to the extent reasonable, 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 the landing and takeoff of aircraft...”

FAA has required the phasing out of noisy Stage 1 and Stage 2 aircraft consequently, the aviation industry has spent substantial monies to meet this requirement. To assist in the compatible land use efforts, the FAA, local airport sponsors, and state aviation agencies have expended significant funds related to airport planning and off-airport noise and land use compatibility planning throughout the United States.

Airport master plans have been prepared to identify the near-term and long-range projections for airport activity and the development necessary to meet these activity demands. In addition, noise and land use studies (FAR Part 150 studies) have been conducted to evaluate ways to minimize impacts of aircraft noise, and the FAA and airport sponsors have financed land acquisitions and other noise compatibility measures throughout the United States.”

The FAA has developed land use guidelines that relate the compatibility of aircraft activity to areas surrounding an Airport. These guidelines, provided previously in Figure 6.3, identify land use activities that are acceptable within the 65, 70 and 75 DNL contours. FAA guidance indicates that virtually all land uses below the 65 DNL are considered by them (the FAA) to be compatible with the affects of aircraft noise.

Attention is focused on areas within the 65 DNL because the FAA considers these to be the areas significantly exposed to noise and is the limit FAA uses for eligibility to fund noise abatement measures. It is recognized, however, that noise does not stop at the 65 DNL contour and is heard by those located in close proximity to approach, departure and training corridors. Thus, the FAA encourages airport sponsors and local governments to work together to establish land use controls within flight corridors and noise exposure areas beyond the 65 DNL.

9.2 Land Use Changes (Corrective Changes)

Land use changes under this category involve potential changes to existing land uses within the 65 DNL and higher noise contours. The existing land uses to be addressed represent those land uses considered to be incompatible with noise levels based on FAA guidelines. These guidelines state that residential land uses and other noise sensitive land uses (i.e., churches and schools) may not be compatible within noise levels of 65 DNL and higher. Types of corrective land use changes include: property acquisition and sound insulation of incompatible noise sensitive structures.

9.2.1 Property Acquisition

Acquiring land for noise compatibility is the most definitive way to ensure compatibility with aircraft noise levels. With the acquisition of property, the Airport operator is given sole authority on converting the incompatible land uses to compatible land uses. Once purchased, the airport operator has the option of demolishing the incompatible land uses

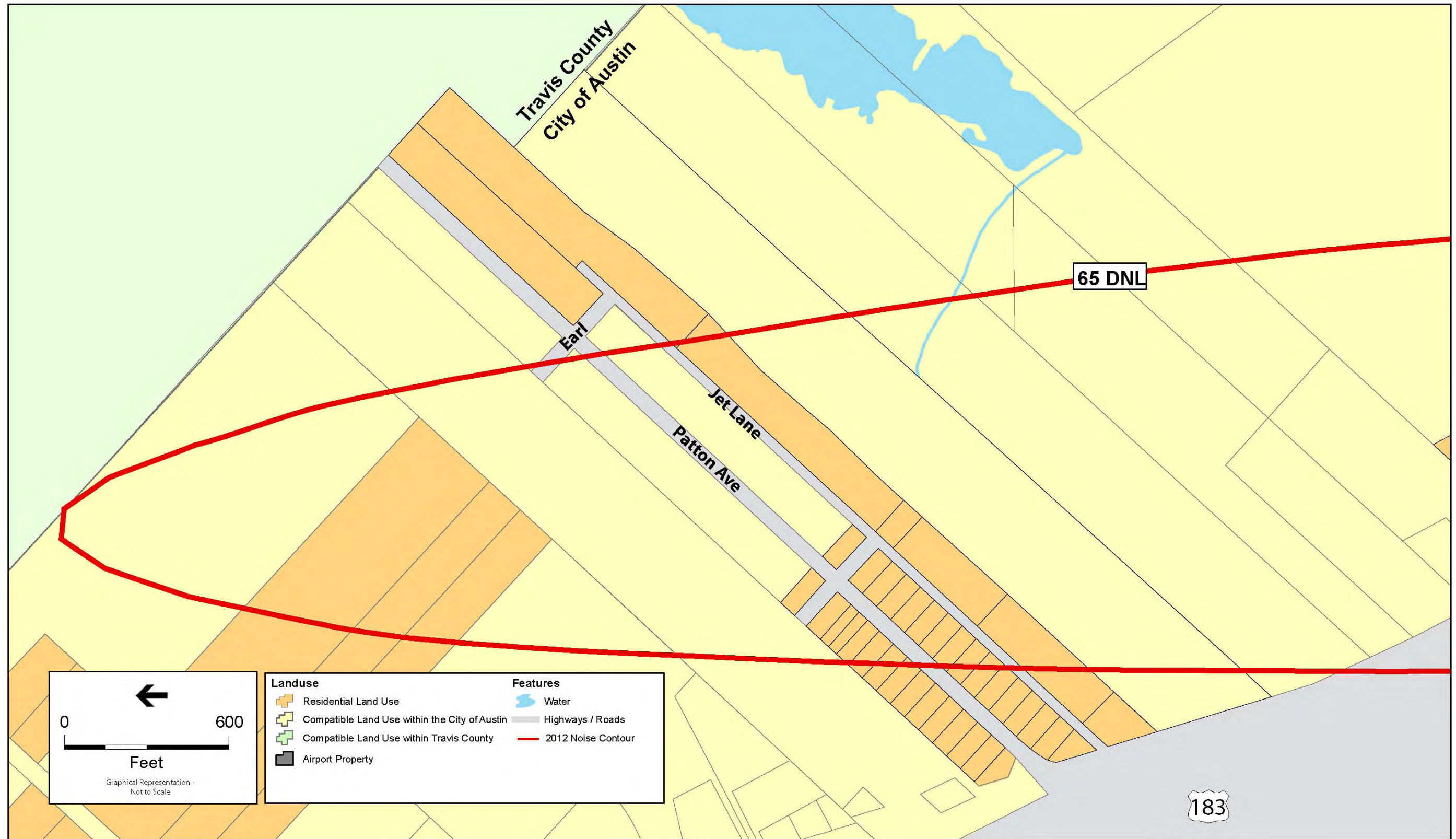
and leaving the property empty, or offering the property for resale with covenants in place to ensure future uses are compatible with existing and projected aircraft noise levels.

The City of Austin began purchasing incompatible land uses in 2002 following the completion and approval of the last 14 CFR Part 150 Study. That Study recommended the acquisition of the single-family properties located within the 65 DNL and higher noise contours and the sound insulation of several large multi-family properties and a place of worship. Following the completion of the Study, a feasibility study was conducted to determine if the acquisition of the multi-family properties and place of worship would be a more feasible and viable option from a cost standpoint when compared to sound insulation. The feasibility study concluded that acquisition was the more economically feasible measure. An amendment to the NCP was submitted to the FAA to acquire the multi-family structures and the place of worship. Approval from FAA for the multi-family structure was received in 2004 and for the place of worship in 2006. To date, approximately 67 parcels have been purchased and 250 families relocated using federal and Airport funds exceeding more than \$ 27 million.

The current 14 CFR Part 150 Study uses the 2012 (future) noise contours, Map B from the NEM portion of the document, as the basis for establishing the preliminary limits of the future property acquisition program. The FAA identifies that residences and other noise sensitive uses located within the 65 DNL contour are considered to be subjected to significant noise exposure. To reduce impacts on those located within these areas of significant noise exposure, the Study evaluated the continued practice of acquiring noise sensitive properties within the 65 DNL and higher contours.

As indicated in Chapter 6, there are approximately 201 housing units located within the 2012 65 DNL – 70 DNL contour. In addition to the housing units, there is also a place of worship and a property that is potentially eligible for listing on the National Register of Historic Places. The place of worship, Austin First Church, is located within the 65-70 DNL contour to the northwest of the Airport. The potential historic site, Michalk's Grocery and adjoining residence, is located within the 65-70 DNL contour to the southeast of the Airport. No incompatible land uses exist in the 70 DNL and higher contours.

It is important to note that the neighborhood of Jet Lane and Patton Avenue falls both within and outside the 2012 65 DNL contour. These two streets are comprised of a total of 40 residential units located on 36 parcels. Of those 40 residential units, 23 are located within the 2012 65 DNL contour, with the remaining 16 residential units located just outside the 65 DNL. As shown in **Figure 9.1**, the 2012 65 DNL contour cuts through the middle of these two streets. FAA Order 5100.38c, Airports Improvement Program Handbook, states that:



SOURCE: City of Austin, ESA Airports

Austin-Bergstrom International Airport FAR Part 150 Study . 205054

Figure 9.1

Jet Lane and Patton Avenue Neighborhood

... projects within DNL 65 dB may be expanded beyond the DNL 65 dB contour to include a reasonable additional number of otherwise ineligible parcels contiguous to the project area, if necessary to achieve equity in the neighborhood.

If only those properties contained within the 2012 65 DNL contour are purchased, the remainder of the neighborhood would be isolated from each other with large parcels of vacant land between the two small portions that would remain. This swath of vacant land in the middle of the neighborhood would make it impossible for the City to resell the land in the future for compatible development.

The City of Austin should pursue the acquisition of incompatible land uses within the 65 DNL contours, including housing units, Austin First Church, and the parcel containing Michalk's Grocery. It should be noted that acquisition of the property potentially eligible for listing on the National Register of Historic Places must be accomplished in accordance with FAA Oder 5050.4B, Airport Environmental Handbook. The acquisition of this property may be subject to an environmental assessment and a subsequent FAA decision as to whether or not to prepare an environmental impact statement or a finding of no significant impact. In addition, Section 106 of the National Historic Preservation Act may need to be addressed. Several of the housing units identified in Chapter 6 are associated with businesses that have apartments attached or are houses, all of which now sit vacant. These particular housing units are not being recommended for purchase because the structures on the properties are vacant and the land use would now be considered compatible and do not present an opportunity for future redevelopment.

Table 9.1 provides a summary, including costs, of the parcels recommended for acquisition by the City of Austin. **Figures 9.2, 9.3, 9.4, 9.5, and 9.6** highlight the properties being recommended for acquisition. In Figure 9.2, the northwest quadrant of the Airport environs is depicted. This area contains the Jet Lane and Patton Avenue neighborhood which consists of properties located both within and outside the 2012 65 DNL contour. In addition to the neighborhood area, there are also several other parcels that lie wholly within the contours, including Austin First Church, and three parcels where the contour bisects the property. This Study recommends that the three parcels where the contour bisects the property be acquired to protect these parcels from any further incompatible development.

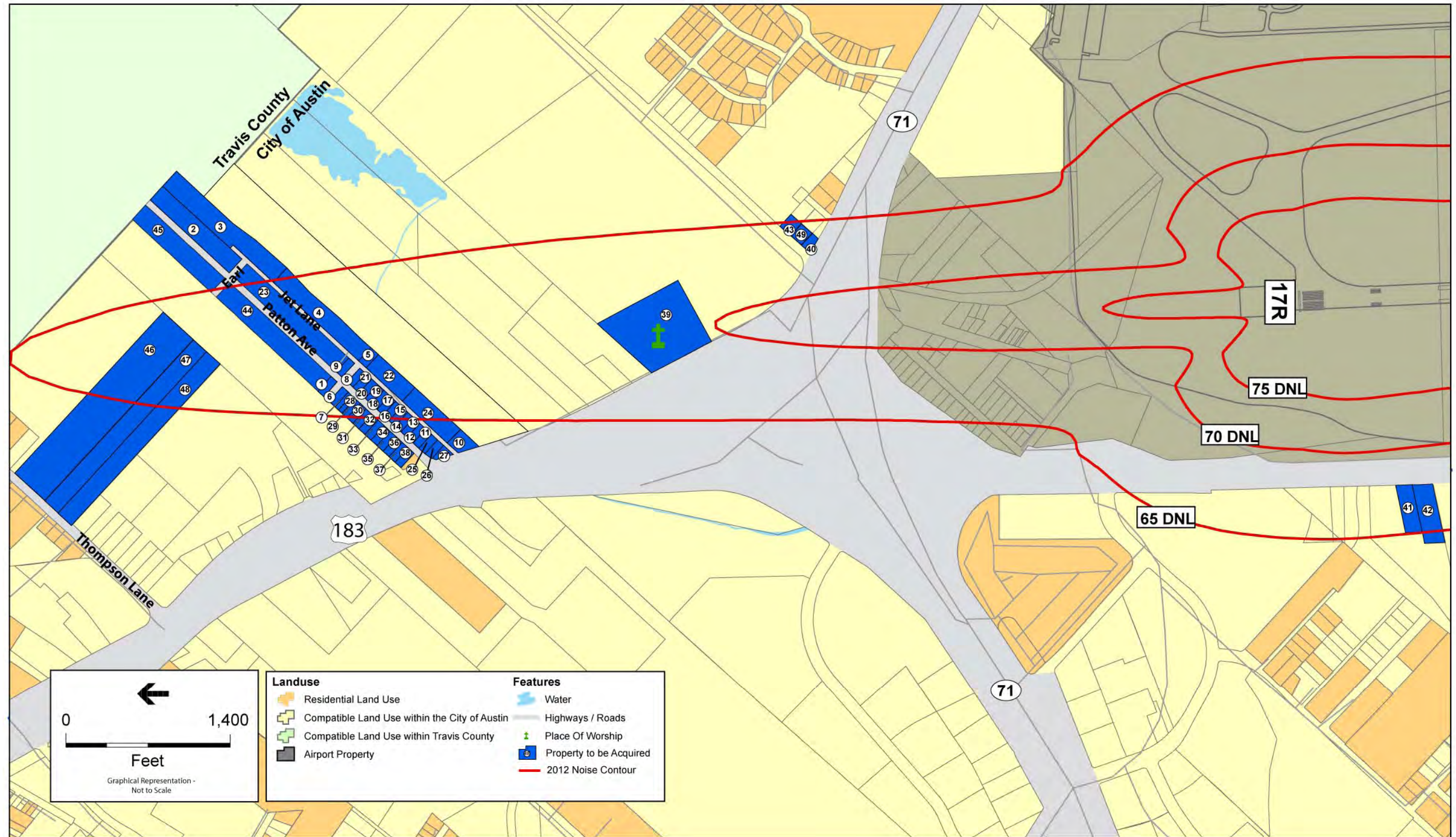
This quadrant of the Airport environs also contains four undeveloped parcels that are being recommended for acquisition. Parcels 23, 44, and 45, located within the Jet Lane and Patton Avenue neighborhood are being recommended for acquisition for two reasons: to allow the City to protect the properties from future non-compatible development and to present the City with a cohesive block of land that could be sold for compatible redevelopment in the future. Parcel 49 is located between two small parcels containing residential structures and is being recommended for acquisition to present the City with a cohesive block of land that could be sold for compatible redevelopment in the future.

TABLE 9.1
PROPERTIES TO BE ACQUIRED
AUSTIN-BERGSTROM INTERNATIONAL AIRPORT
14 CFR PART 150 STUDY

<i>Shown On Figure</i>	<i>Parcel Number</i>	<i>Parcel ID</i>	<i>Address</i>	Costs				
				<i>Acquisition</i>	<i>Relocation</i>	<i>Admin</i>	<i>Demo</i>	<i>Total</i>
9.2	1	03-0623-0118	734 Patton Ave.	\$132,954	\$7,000	\$55,814	\$4,000	\$199,768
9.2	2	03-0623-0301	600 Jet lane	\$284,488	\$26,500	\$55,814	\$4,000	\$370,802
9.2	3	03-0623-0302	601 Jet Lane	\$93,316	-	\$55,814	\$4,000	\$153,130
9.2	4	03-0623-0304	701 Jet Lane	\$155,330	\$7,000	\$55,814	\$4,000	\$222,144
9.2	5	03-0623-0305	801 Jet Lane	\$39,038	-	\$55,814	\$4,000	\$98,852
9.2	6	03-0623-0401	800 Patton Ave.	\$121,126	\$26,500	\$55,814	\$4,000	\$207,440
9.2	7	03-0623-0402	802 Patton Ave.	\$143,132	\$26,500	\$55,814	\$4,000	\$229,446
9.2	8	03-0623-0501	801 Patton Ave.	\$121,532	\$26,500	\$55,814	\$4,000	\$207,846
9.2	9	03-0623-0718	735 Patton Ave.	\$133,255	\$26,500	\$55,814	\$4,000	\$219,569
9.2	10	03-0720-0326	915 Bastrop Hwy.	\$55,628	-	\$55,814	\$4,000	\$115,442
9.2	11	03-0720-0314	823 Patton Ave.	\$175,227	\$26,500	\$55,814	\$4,000	\$261,541
9.2	12	03-0720-0315	821 Patton Ave.	\$116,846	\$7,000	\$55,814	\$4,000	\$183,660
9.2	13	03-0720-0316	819 Patton Ave.	\$109,795	\$7,000	\$55,814	\$4,000	\$176,609
9.2	14	03-0720-0317	817 Patton Ave.	\$80,000	\$7,000	\$55,814	\$4,000	\$146,814
9.2	15	03-0720-0318	815 Patton Ave.	\$120,287	\$26,500	\$55,814	\$4,000	\$206,601
9.2	16	03-0720-0319	813 Patton Ave.	\$127,876	\$26,500	\$55,814	\$4,000	\$214,190
9.2	17	03-0720-0320	811 Patton Ave.	\$116,250	\$7,000	\$55,814	\$4,000	\$183,064
9.2	18	03-0720-0321	809 Patton Ave.	\$128,591	\$26,500	\$55,814	\$4,000	\$214,905
9.2	19	03-0720-0322	807 Patton Ave.	\$112,783	\$26,500	\$55,814	\$4,000	\$199,097
9.2	20	03-0720-0323	805 Patton Ave.	\$115,861	\$26,500	\$55,814	\$4,000	\$202,175
9.2	21	03-0720-0324	803 Patton Ave.	\$95,228	\$26,500	\$55,814	\$4,000	\$181,542
9.2	22	03-0720-0325	805 Jet Lane	\$248,312	\$26,500	\$55,814	\$4,000	\$334,626
9.2	23	03-0623-0719	701 Patton Ave.	\$154,500	-	\$55,814	-	\$210,314
9.2	24	03-0720-0326	Jet Lane	\$80,294	\$14,000	\$55,814	\$4,000	\$154,108
9.2	25	03-0720-0327	825 Patton Ave.	\$148,793	\$7,000	\$55,814	\$4,000	\$215,607
9.2	26	03-0720-0328	827 Patton Ave.	\$148,794	\$7,000	\$55,814	\$4,000	\$215,608
9.2	27	03-0720-0329	829 Patton Ave.	\$13,590	-	\$55,814	\$4,000	\$73,404
9.2	28	03-0720-0501	804 Patton Ave.	\$100,264	\$26,500	\$55,814	\$4,000	\$186,578
9.2	29	03-0720-0502	806 Patton Ave.	\$139,456	\$26,500	\$55,814	\$4,000	\$225,770
9.2	30	03-0720-0503	808 Patton Ave.	\$98,287	\$26,500	\$55,814	\$4,000	\$184,601
9.2	31	03-0720-0504	810 Patton Ave.	\$80,000	\$7,000	\$55,814	\$4,000	\$146,814
9.2	32	03-0720-0505	812 Patton Ave.	\$120,398	\$26,500	\$55,814	\$4,000	\$206,712
9.2	33	03-0720-0506	814 Patton Ave.	\$131,691	\$7,000	\$55,814	\$4,000	\$198,505
9.2	34	03-0720-0507	816 Patton Ave.	\$169,893	\$26,500	\$55,814	\$4,000	\$256,207
9.2	35	03-0720-0508	818 Patton Ave.	\$133,918	\$26,500	\$55,814	\$4,000	\$220,232
9.2	36	03-0720-0509	820 Patton Ave.	\$119,726	\$26,500	\$55,814	\$4,000	\$206,040
9.2	37	03-0720-0510	822 Patton Ave.	\$125,121	\$28,000	\$55,814	\$4,000	\$212,935
9.2	38	03-0720-0511	824 Patton Ave.	\$16,200	-	-	\$4,000	\$20,200
9.2	39	03-0721-0527	1203 Old Bastrop Highway	\$1,807,800	\$30,000	\$200,000	\$17,340	\$2,055,140
9.2	40	03-1023-0205	1329 Dalton Lane	\$ 86,682	\$31,500	\$50,000	\$4,080	\$172,262
9.2	41	03-1420-0106	2510 Lockhart Hwy.	\$ 320,387	\$53,000	\$50,000	\$6,173	\$429,560
9.2	42	03-1420-0106	2512 US Hwy 183 S	\$333,000	\$44,000	\$100,000	\$9,000	\$486,000

**TABLE 9.1
PROPERTIES TO BE ACQUIRED
AUSTIN-BERGSTROM INTERNATIONAL AIRPORT
14 CFR PART 150 STUDY**

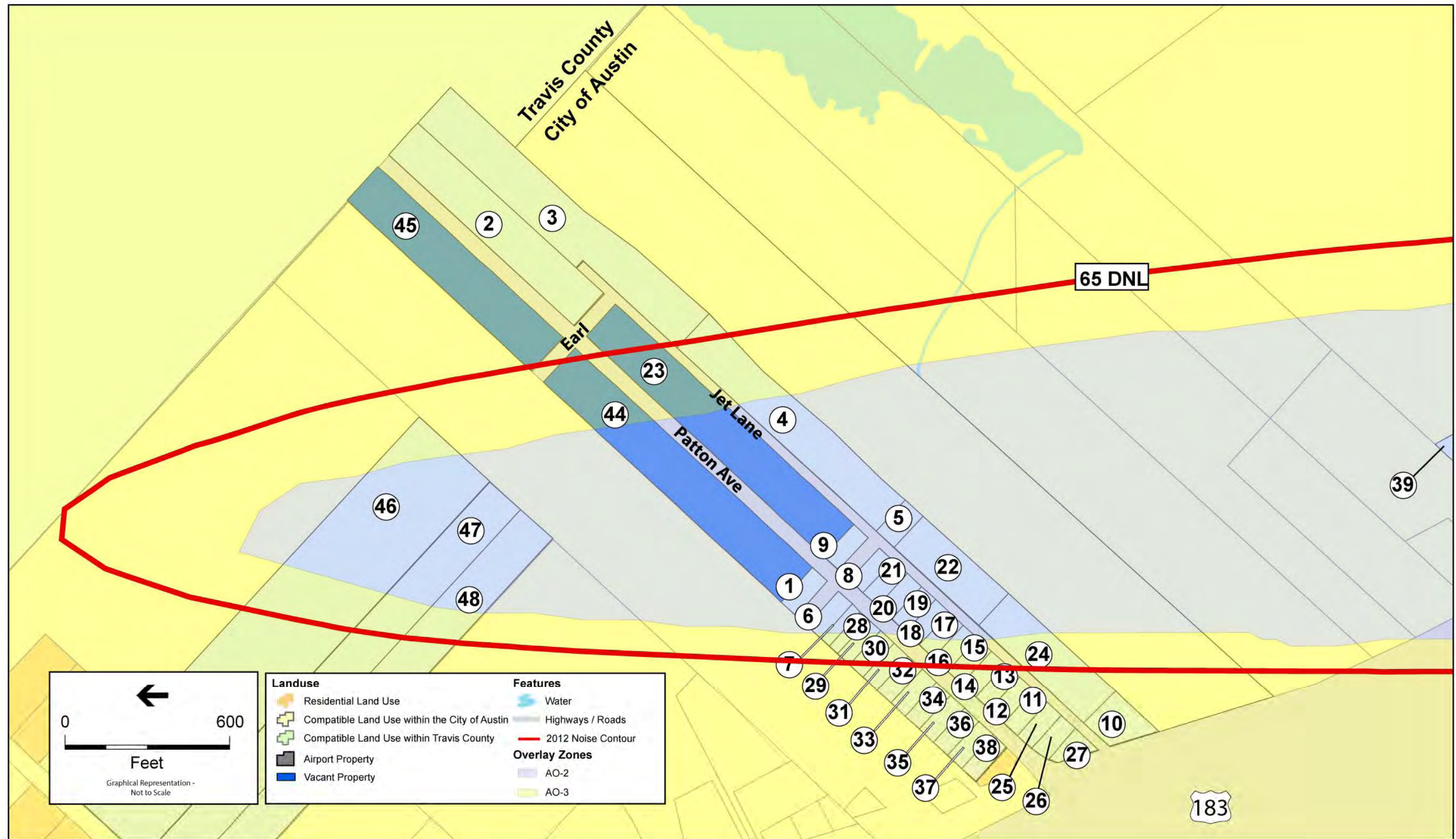
<i>Shown On Figure</i>	<i>Parcel Number</i>	<i>Parcel ID</i>	<i>Address</i>	Costs				
				<i>Acquisition</i>	<i>Relocation</i>	<i>Admin</i>	<i>Demo</i>	<i>Total</i>
9.2	43	03-1023-0214	1325 Dalton Lane	\$88,587	\$26,500	\$55,814	\$4,000	\$174,901
9.2	44	03-0623-0119	700 Patton Ave.	\$154,500	-	\$55,814	-	\$210,314
9.2	45	03-0623-0214	600 Patton Ave.	\$120,600	-	\$55,814	-	\$176,414
9.2	46	03-0721-0524	423 Thompson Lane	\$397,509	\$26,500	\$55,814	\$4,000	\$483,823
9.2	47	03-0721-0508	435 Thompson Lane	\$119,825	\$26,500	\$55,814	\$4,000	\$206,139
9.2	48	03-0721-0523	501 Thompson Lane	\$173,753	\$26,500	\$55,814	\$4,000	\$260,067
9.2	49	03-1023-0206	Dalton Lane	\$30,695	-	-	-	\$30,695
9.3	50	03-1430-0203	2707 E State Hwy. 71	\$1,135,000	\$230,000	\$500,000	\$26,000	\$1,891,000
9.3	51	03-1430-0204	2707 E State Hwy. 71	\$1,559,000	\$440,000	\$1,200,000	\$60,000	\$2,060,200
9.3	52	03-1430-0205	2707 E State Hwy. 71	\$2,789,000	\$287,000	\$700,000	\$28,000	\$3,804,000
9.3	53	03-1430-0401	2601 E State Hwy. 71	\$1,019,080	\$122,800	\$250,000	\$18,500	\$1,410,380
9.3	54	03-1430-0403	2600 Shapard Lane	\$232,800	\$1,000	\$50,000	\$4,200	\$288,000
9.3	55	03-1531-0501	2419 Cardinal Loop	\$4,953,230	\$655,500	\$900,000	\$365,000	\$6,873,730
9.4	56	03-3121-0613	Colton Road	\$966,150	\$74,000	\$100,000	\$9,000	\$1,149,150
9.4	57	03-3121-0642	9314 FM Road 812	\$66,574	\$26,500	\$50,000	\$2,585	\$145,659
9.4	58	03-3121-0656	FM Road 812	\$438,200	\$50,000	\$100,000	\$9,650	\$597,850
9.4	59	03-3121-0659	9316 FM Road 812	\$67,825	\$17,000	\$50,000	\$3,500	\$138,325
9.4	60	03-3121-0666	9316 FM Road 812	\$120,546	\$83,000	\$100,000	\$5,940	\$309,486
9.4	61	03-3121-0667	9320 FM Road 812	\$104,537	\$25,600	\$100,000	\$1,606	\$231,743
9.5	62	03-3131-0109	6210 S FM Road 973	\$69,125	\$22,000	\$50,000	\$3,700	\$144,825
9.5	63	03-3131-0132	Moore's Bridge Road	\$67,800	\$1,000	\$50,000	\$2,000	\$120,800
9.5	64	03-3121-0901	6214 FM Road 973	\$109,000	\$42,000	\$100,000	\$8,250	\$259,250
9.5	65	03-3131-0412	5601 FM Road 973	\$358,426	\$27,300	\$50,000	\$4,080	\$439,806
Total				\$22,297,411	\$3,011,200	\$5,951,202	\$752,604	\$32,012,417



SOURCE: 03-01-2004, Airphoto USA; ESA Airports

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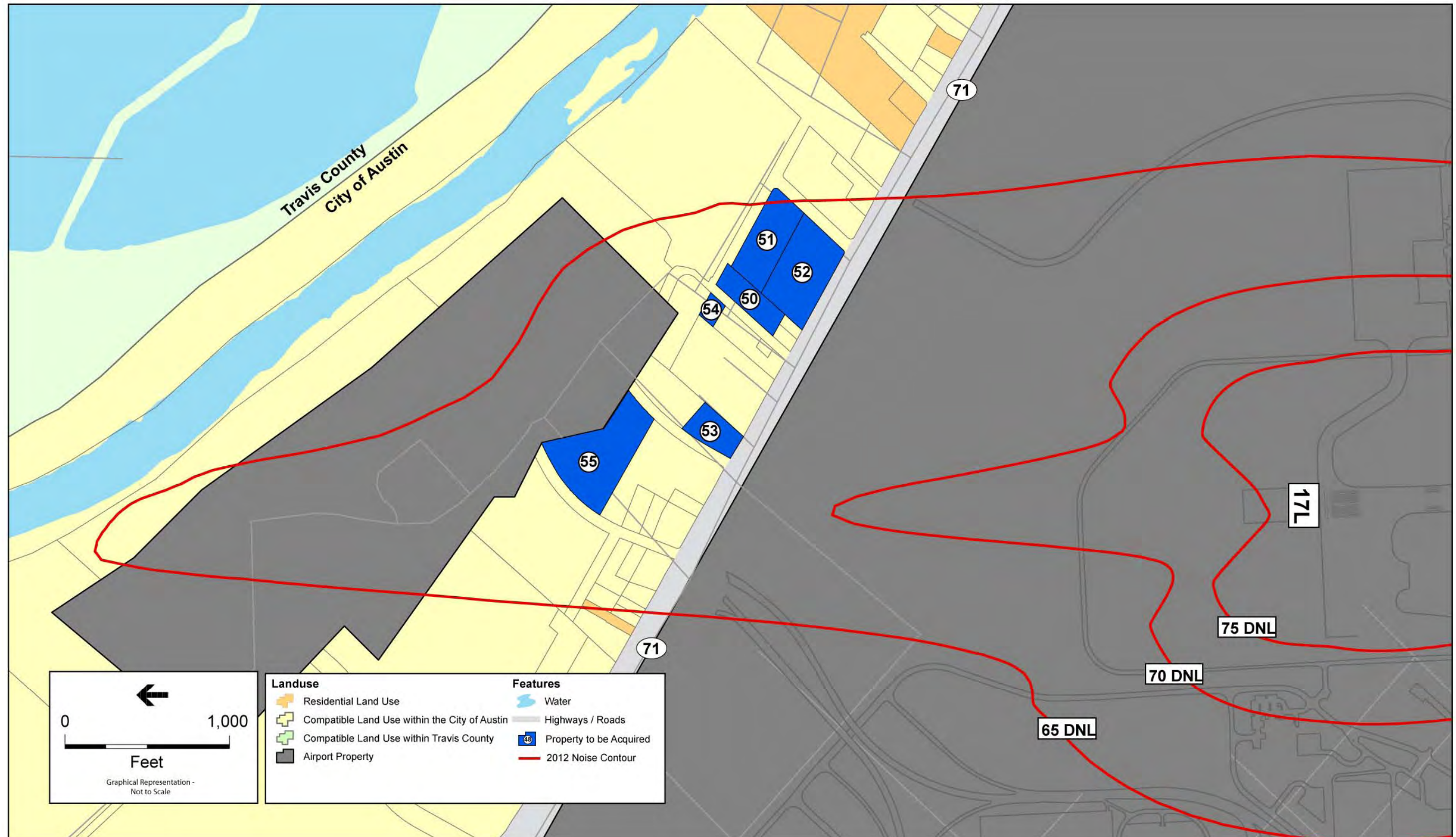
Figure 9.2
Properties to be Acquired – Northwest Quadrant of Airport Environs



SOURCE: City of Austin, ESA Airports

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Figure 9.3
Airport Overlay Zones with Vacant Property

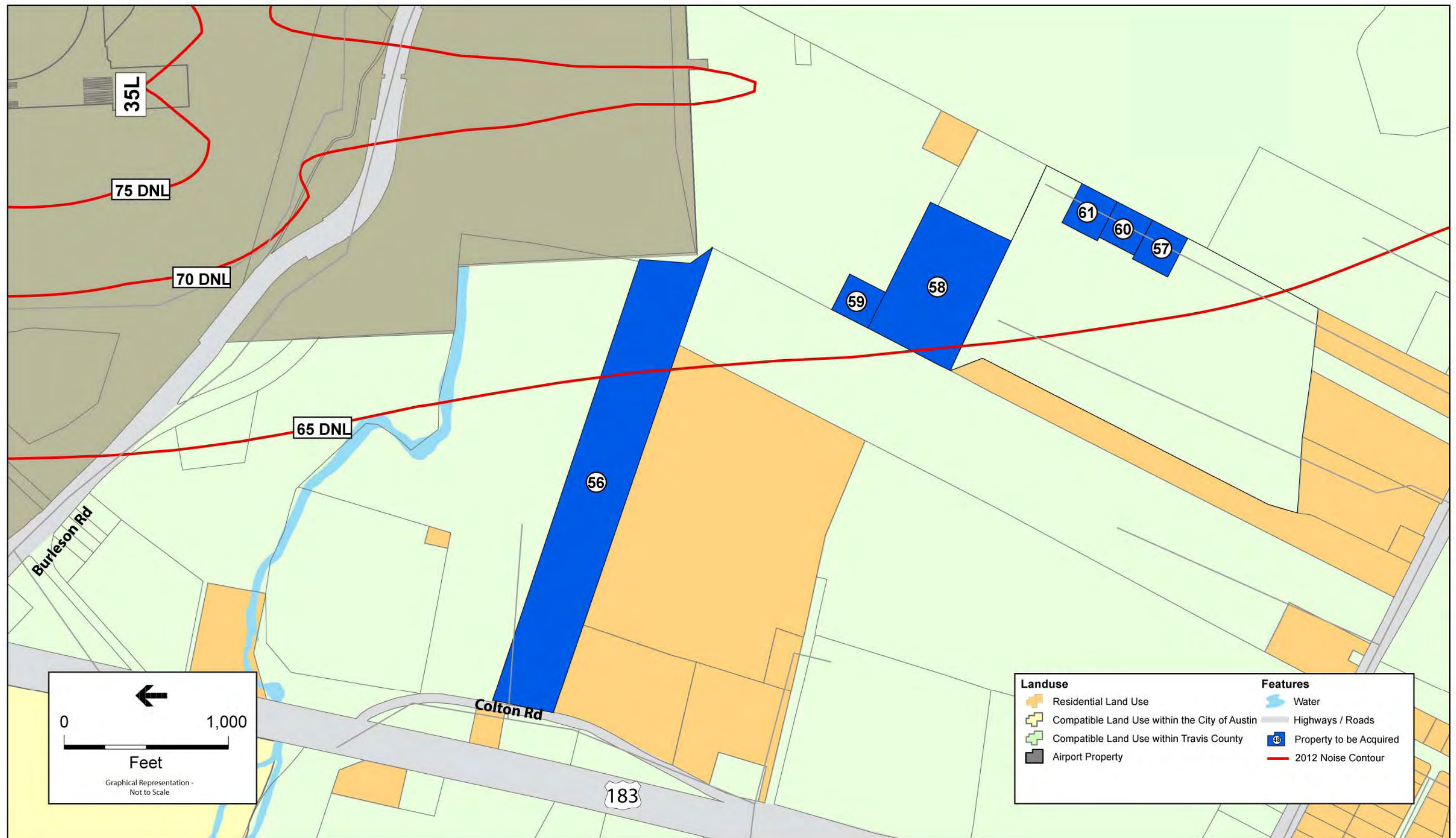


SOURCE: City of Austin, ESA Airports

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Figure 9.4

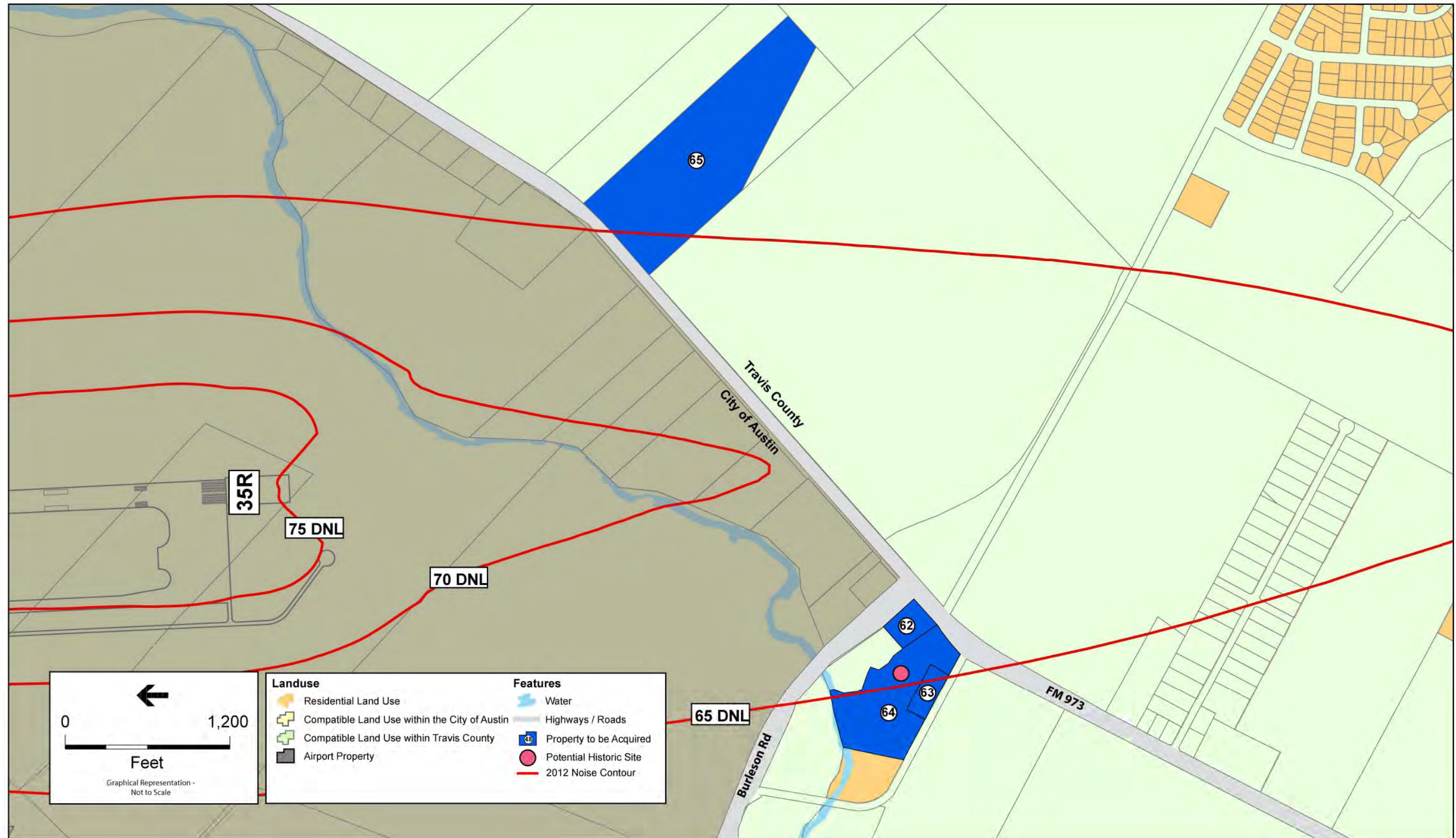
Properties to be Acquired – Northeast Quadrant of Airport Environs



SOURCE: City of Austin, ESA Airports

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Figure 9.5
Properties to be Acquired – Southwest Quadrant of Airport Environs



SOURCE: 03-01-2004, Airphoto USA; ESA Airports

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Figure 9.6

Properties to be Acquired – Southeast Quadrant of Airport Environs

As shown in Figure 9.3, most of Parcel 45 is located outside the 2012 65 DNL contour, but within Airport Overlay Zone AO-3. Portions of parcels 23 and 44 are located inside the 2012 65 DNL contour as well as being located partially within Airport Overlay Zone AO-3. Airport Overlay Zone AO-3 states that residential and school uses are restricted within this zone, but not prohibited. Residential and school uses are permitted if they were recorded in a final plat by August 20, 2001. Based on Travis County tax records, Parcels 23, 44, and 45 were platted in 1947 for residential development. Because this date precedes the date of August 20, 2001, residential units could be built on these parcels if the owner so desired. Portions of parcels 23 and 44 are located within the 2012 65 DNL contour as well as within Airport Overlay Zone AO-2. Airport Overlay Zone AO-2 prohibits the development of incompatible land uses.

As can be seen from Figure 9.2, parcels 23, 44, and 45 are large parcels surrounded by properties containing residential uses that are being recommended for acquisition. Without these three large parcels, the City will be faced with a rather large and unusual block of land that would contain three large vacant properties with the potential for residential development, where the City does not own title. The acquisition of parcels 23, 44, and 45 would allow the block of land to become a more cohesive property for compatible development by offering a single large block of land with no conflicting land uses in the middle. Parcel 49 is a small undeveloped parcel located between two residential units that are being recommended for acquisition within the 2012 65 DNL contour. These three small parcels are located on a corner facing Highway 71, the primary road providing access to the Airport. Parcel 49 is recommended for acquisition so that the Airport has a cohesive block of property for future compatible development. Because the other two properties are separated by Parcel 49, any potential for redevelopment is linked to the acquisition of all three parcels. Separately, the parcels are too small for development; together, the parcels' potential for compatible development increases significantly.

Land acquired via a noise compatibility program should always be purchased with resale of the property in mind. The primary purpose of acquiring land in noise compatibility programs is to change the land use from a non-compatible use, such as residential, to a compatible use, such as industrial. Thus this approach is implemented with an eventual resale as the goal of the overall effort. As in the typical real estate investor scenario, the airport sponsor must look into the future to consider various market influences and conditions that will enable the property to be sold at its highest and best use in order to maximize value at the time of resale.

The FAA is presently drafting new regulations that will require all airport sponsors to think in the same manner that the savvy real estate investor thinks. Sponsors receiving federal money for noise compatibility land acquisition projects will be required to submit a land resale map and resale plan along with the application for federal assistance. This is a significant change in the way the FAA has monitored airport plans for selling noise compatibility land acquired with federal money.

Airports have long been encouraged by FAA Order 5100.38C to resell the land purchased via the noise compatibility program as quickly as possible. It is also in the airport sponsor's best interest to turn this land around to a developer as soon as possible because the costs associated with holding such land are not grant eligible, nor may they be deducted from the proceeds of the resale of the land. So, beyond the idea of maximum returns for the land acquisition, it is also in the airport sponsor's best interest to assemble the land with the ultimate goal of expeditious resale at a compatible land use in order to keep land maintenance costs at a minimum.

One of the primary areas that must be considered in airport land acquisition programs is the benefits of purchasing vacant lots, as well as the drawbacks of not purchasing vacant lots. When airport-sponsored noise compatibility programs acquire residential properties and ignore the presence of vacant lots that are often times scattered throughout the neighborhoods acquired, the aftermath is a checkerboard of airport owned land and privately held vacant land. This quagmire of land ownership is not conducive to maximum value land redevelopment. This strategy actually works against land redevelopment as it creates an improbable atmosphere for real estate developers to maximize redevelopment by putting together a master plan concept for the entire area. Instead the developer is faced with the very difficult, if not impossible, task of putting together a strategy to acquire the property purchased by the airport sponsor and each lot owned by the various individuals in ownership of the vacant lots. Each additional owner beyond a single owner creates another redevelopment hurdle for the developer. When the governing local jurisdiction either does not, or cannot, enforce eminent domain authority over vacant land owners, the best efforts for maximizing redevelopment of the land is destroyed. This actual scenario has occurred at airports that have not included the purchase of vacant lots in their noise compatibility plan.

Acquiring improved residential properties without acquiring the vacant lots creates a "hole" in the plan for resale of the land at a compatible use. Every "hole" in the plan creates delays in the time that it takes to resale the land. These delays result in higher costs for the airport sponsor such as ongoing property maintenance and property taxes. It also delays the time that these land sale proceeds can be reinvested back into the noise compatibility program or returned to the federal government. Where incidental lots are scattered throughout an otherwise total neighborhood that is identified for acquisition within the noise compatibility program, these lots should always be purchased as a part of the noise compatibility program.

Not only is the future land owner limited by this strategy due to a lack of attractive development potential, but the current vacant land owners are also limited. When the airport sponsor imposes this policy of leaving the vacant land owners to find purchasers themselves, and often times couple this policy with overlay zoning restrictions, they are severely restricting the real estate market, sometimes even to the level of inverse condemnation. The resulting atmosphere created by the policy of not acquiring vacant

lots is one of ill will and sentiment towards the airport from the noise impacted community. This is exactly the opposite atmosphere desired by the airport sponsor.

The noise compatibility program is a voluntary, good will effort on the part of the airport sponsor to reach out to the noise impacted communities in an attempt to better neighboring relationships. A policy of not acquiring vacant parcels that are located in the midst of other parcels being purchased does not follow a pattern of good will established by the noise compatibility plan. In every case where airport sponsors have neglected vacant land owners, poor relationships have resulted with these land owners due to the conditions created.

Figure 9.4 highlights the northeast quadrant of the Airport environs where all parcels being recommended for acquisition fall within the 2012 65 DNL contour. One apartment complex, Bergstrom Arms Apartments, is located here as are three parcels containing mobile homes.

Figure 9.5 represents the southwest quadrant of the Airport environs containing parcels located wholly within the 2012 65 DNL contour, as well as two parcels located partially within the contours. Those parcels located partially within the contours are being recommended for acquisition to protect against further incompatible development in the future.

Figure 9.6 highlights the southeast quadrant of the Airport environs and contains only four parcels for acquisition. Three of the parcels lie partially within the 2012 65 DNL contour, with one of these parcels being potentially eligible for listing on the National Register for historic places.

Recommendation: The acquisition of 65 parcels of property containing 197 housing units and Austin First Church is being recommended for inclusion in this noise compatibility program.

9.2.2 Sound Insulation

The objective of a Sound Insulation Program is to reduce the interior noise level of a residential dwelling (or other noise sensitive site) by making modifications to the building. Literally soundproofing a residence so that no aircraft operations are heard is usually not practical or cost-effective. The goal of providing sound insulation is to reduce the interior noise levels from aircraft operations to an acceptable level, so that it no longer interferes with the resident's indoor activities. Since noise travels through air, sound insulation is accomplished by reducing the unwanted infiltration of air into a home. Since the highest level of air infiltration in a typical home occurs through existing windows, doors, and attic/roof vents, an effective acoustical treatment program typically includes windows, insulation, doors, and venting modifications. As established by FAA, the goal of noise reduction is to achieve a maximum interior noise measurement of 45 decibels

(dB) after modification and an overall minimum 5 dB reduction from pre-insulation conditions as a result of the modifications.

The previous Part 150 Study established the Airport's mitigation program surrounding acquisition of properties. There was a recommendation to sound insulate some of the multifamily properties, along with a place of worship, in that previous study. However, as mentioned previously, a feasibility study conducted after the completion of the Part 150 Study found that acquisition of those properties was the more economically feasible measure versus sound insulation. Based on this decision, and the fact that property acquisition is the most definitive method of controlling land use for compatibility, no properties are being recommended for sound insulation.

Recommendation: No sound insulation of any properties within the 2012 65 DNL contour is being recommended for inclusion in this noise compatibility program.

9.2.3 Avigation Easement

Avigation easements are rights sought by airports that allow operation of aircraft over a specific property with a guarantee the homeowner will not pursue legal remedies in the future related to noise impacts. In exchange for the avigation easement, the property owner may or may not be compensated, depending on the circumstances of the avigation easement.

Avigation easements are standard practice for homes that have received sound insulation. In this situation, the homeowner receives the sound insulation package from the Airport in exchange for the signing the avigation easement. In this case, the airport paying for the sound insulation package serves as the monetary compensation. If no sound insulation package is offered, the owner of the impacted property may receive monetary compensation in exchange for the easement. If this is the case, the value of the monetary compensation is typically based on a percentage of the value of the impacted property. If no sound insulation package is offered in exchange for the avigation easement, the FAA no longer will participate in the funding of an avigation easement.

For AUS, the mitigation program recommendations revolve around property acquisitions. No structures are recommended for sound insulation and no structures are recommended for just avigation easements. Therefore, no recommendations requiring avigation easements are included in this Study. .

Recommendation: The purchase of avigation easements is not recommended for any properties within the 2012 65 DNL contours for inclusion in the noise compatibility program.

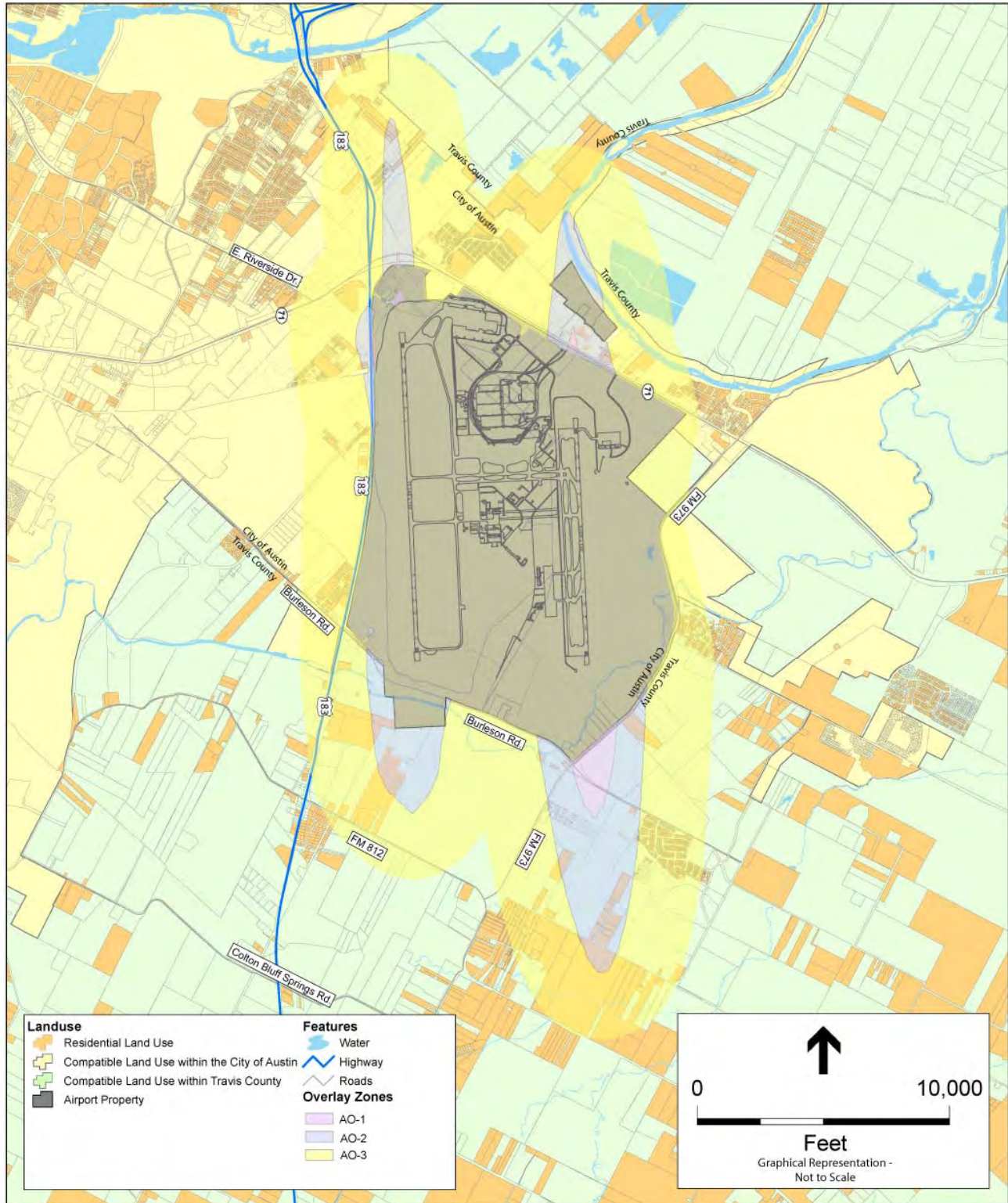
9.3 Planning/Regulatory Changes (Preventive Changes)

9.3.1 Overlay Zones

One of the more effective tools for maintaining the compatibility of future development in the Airport environs is the establishment of an overlay zone. An overlay zone creates one or more specialized zoning districts that are intended to supplement the underlying jurisdictional zoning regulations. Regulations associated with overlay zones could limit the development of noise sensitive uses; could require new development to incorporate sound insulation into the design of buildings; could require some form of publication (through aviation easement or notification, for example) advising future buyers as to the existence of aircraft overflights and noise and/or other measures. The determination as to which of the controls should apply for any given situation is based on the extent of the noise exposure at the proposed development site.

As discussed in Chapter 6, the City of Austin enacted compatible land use controls in the development of certain areas surrounding the Airport through its Land Development Code. Chapter 25-13, *Airport Hazard and Compatible Land Use Regulations*, from Title 25, *Land Development*, defines overlay zones and permitted uses within each zone of the controlled compatible land use area. **Figure 9.7** displays the existing Airport Overlay Zones established following the last 14 CFR Part 150 Study in 2000.

Chapter 25-13 assigns the authority for the control and review of development plans within the zones to the Executive Director of the Department of Aviation for the City. In addition, the permitting process is under the Executive Director's authority within the airport overlay zone. With these controls in place, the Airport has the tools to effectively minimize the future development of incompatible land uses within the immediate vicinity of the Airport.



SOURCE: City of Austin; ESA Airports

Austin-Bergstrom International Airport FAR Part 150 Study . 205054

Figure 9.7
Existing Airport Overlay Zones

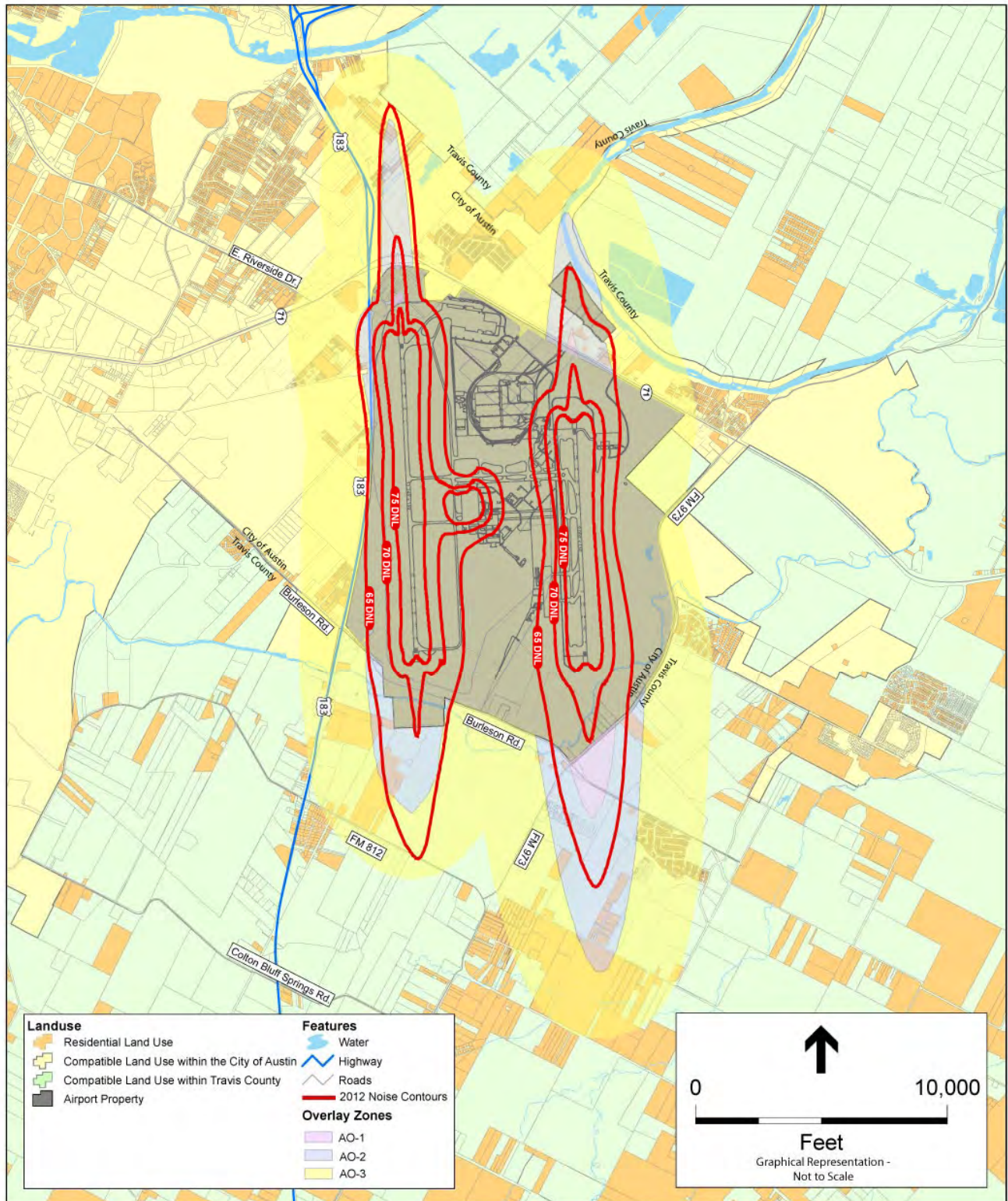
As mentioned previously, the existing overlay zones were established following the completion of the last 14 CFR Part 150 Study in 2000. The establishment of the overlay zones was based on the contours generated within that study for the year 2019. **Figure 9.8** depicts the 2012 noise contour overlaid on the existing Airport Overlay Zones. The 2012 contours are contained completely within the existing Airport Overlay Zones, therefore no changes to the Airport Overlay Zones are needed; the existing zones will continue to provide the Airport with a buffer from incompatible land use development.

In addition to the Airport Overlay Zones, the City of Austin also relies on the extra-territorial jurisdiction (ETJ) to ensure compatible land use with Airport operations. The ETJ was established by the State of Texas and extends the powers of a city beyond its city limits, including authority over subdivision and development of land. The ETJ consists of boundaries of five miles for those cities with populations over 100,000, which would include Austin. The establishment of the ETJ assists the City of Austin in regulating the land uses surrounding the Airport beyond the Airport Overlay Zones.

Beyond the immediate vicinity of the Airport, land use control resides with the City of Austin or Travis County, Texas. While the City of Austin has zoning regulations and can control the development of land within the City limits, Travis County is responsible for zoning outside the City of Austin city limits, and beyond the boundaries of the ETJ. Travis County has no formal zoning in its jurisdictional area.

The enactment of Chapter 25-13, in conjunction with the ETJ, provides the City with the necessary land use controls to minimize future incompatible land uses. The likelihood of future incompatible development is minimal at best.

Recommendation: The existing Airport Overlay Zones are recommended for inclusion in the AUS noise compatibility program to ensure future compatibility for land uses around the Airport.



SOURCE: City of Austin; ESA Airports

Austin-Bergstrom International Airport FAR Part 150 Study . 205054

Figure 9.8
Existing Airport Overlay Zones with
2012 Noise Contours

9.3.2 Building Codes

Building codes are established to regulate the construction of structures by setting the standards for materials and construction techniques to protect the health and safety of future occupants of those structures. Most building codes address items such as the structural elements of the building, as well as the ventilation and insulation requirements. All three of these elements directly impact the sound attenuation abilities of the structure. By establishing solid building codes a municipality can ensure that any new construction, or alterations to existing structures, can have sound attenuation properties built into the building to ensure the building is compatible with noise for aircraft operations.

With the establishment of the overlay zones mentioned previously, the City of Austin also adopted building codes within those zones that apply to structures that would be allowed to be constructed within each zone. No changes or additions to the building codes already established are recommended.

Recommendation: The existing building codes established for the Airport Overlay Zones are recommended for inclusion in the AUS noise compatibility program to ensure future compatibility for land uses around the Airport.