
**PART 150 NOISE LAND INVENTORY
AND RE-USE PLAN**

Burlington International Airport



**South Burlington,
Vermont**

Submitted by **BURLINGTON INTERNATIONAL AIRPORT**

Prepared by



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1.0 Introduction

Burlington International Airport (BTV) has prepared this Noise Land Inventory and Re-Use Plan to comply with the Airport Improvement Program (AIP) Grant Assurance No. 31. This assurance stipulates that “optimal use” must be made of the federal share of the proceeds from any subsequent disposal of noise land (originally acquired with AIP grant funds under a noise compatibility program) when that land is deemed to be no longer necessary for noise compatibility purposes. Theoretically, properties specifically acquired with grant funds that enable the removal and/or prevention of land uses incompatible with the high noise exposure areas are not typically intended to remain available for Airport development indefinitely. Simply stated, the Federal Aviation Administration (FAA) expects that land acquired for noise compatibility purposes will be disposed of at the earliest practical time after the land is converted to an airport-compatible use and no longer needed for noise compatibility purposes. However, under any disposal plan, the sponsor is obligated to retain sufficient interest in the land to ensure that the eventual “converted” land uses do remain compatible with the noise levels expected from the continued operation of the Airport. It is also very important to emphasize that the guidance clearly states that “disposal” of noise land does not necessarily mean that an airport must sell the property to another owner. Whether properties that are no longer needed for noise compatibility are sold, kept by the Airport and leased, converted to another airport use, or disposed of by other means is the Airport’s decision.

Detailed information describing how to satisfy the Grant Assurance No. 31 requirements is specified by the January 30, 2008 Program Guidance Letter (PGL 08-02) titled, “Management of Acquired Noise Land: Inventory-re-use-Disposal”, as amended on March 26, 2009. The timelines for preparing and submitting the



Inventory and Re-Use Plan to the FAA are established by Section 7 of the PGL guidance.

While this submittal will constitute the first documentation ever provided in this format by BTV, an inventory of all properties acquired by the Airport for development and noise/land use compatibility has historically been maintained on the sponsor's Airport Property Map on file with the FAA. Attached with this report are Exhibit A – Property Map and Exhibit B – Noise Compatibility Program Acquisition History showing the location, size, and relationship to the Airport of the lands that have been acquired to date under the Noise Compatibility Program (NCP). Likewise, the existing and planned use for all of these properties has historically been identified by the Airport Layout Plan (ALP). The intent of the new guidance is to create an inventory and Re-Use Plan that specifically identifies only those properties which have been acquired by AIP grant funds for noise compatibility purposes. This document is intended to supplement, not replace, the traditional Exhibit A and ALP which will continue to identify all properties owned and planned for development by the sponsor.

2.0 BTV Acquisition Program

2.1 Program History

Burlington International Airport is located within the City of South Burlington, Vermont (Figure 1, Location Map). BTV initiated its first Part 150 Noise Compatibility Program efforts in March of 1990. Numerous updates to the program eligibility requirements have been accomplished over the ensuing 18 years. The most recent update to the Noise Exposure Map (NEM) was approved by FAA on November 6, 2006. A corresponding update to the Noise Compatibility Program



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(NCP) was then approved by FAA on July 14, 2008. FY09 property acquisitions for noise compatibility are currently underway consistent with this most recent update. The properties acquired under the NCP are shown on the Exhibit A - Property Map, and the acquisition history as detailed in the attached Exhibit B - Noise Compatibility Program Acquisition History.¹ Under the NCP, a total of 63 parcels have been acquired, totaling roughly 27.11 acres of land. An additional two (2) parcels totaling 50.25 acres were acquired by the Vermont Air National Guard.

Most of the parcels that have been acquired specifically for noise compatibility purposes are small (i.e., $\frac{1}{4}$ to $\frac{1}{2}$ acre) individual residential lots located within the residential neighborhood known as the "Airport Parkway" neighborhood that is closest and directly adjacent to the Airport. House structures that once existed on the acquired lots typically have been removed and the vacant lots reseeded with grass and planted with basic landscaping materials to blend with the surrounding residential uses. Although the approved Part 150 program identifies additional noise impacted and potentially eligible properties in other areas around the Airport, the current priority is focused on the Airport Parkway neighborhood areas.

Since 1990, a large number of homeowners within the neighborhood have consistently been designated by the NEM and NCP updates to be eligible for program benefits. Many of the lots adjacent to those already acquired are also eligible for voluntary acquisition. Interest expressed by those owners suggest that most of the eligible lots will eventually be acquired over the next five to ten years as the owners request inclusion within the program and funds become available. As such, it is not practical for the Airport to consider any disposal or significant re-use or permanent redevelopment of the individual parcels at this time.

¹ See the Airport Property Map on file with FAA to identify the exact location and more information about each of the parcels.



2.2 Planned Use of Acquired Properties

As additional contiguous eligible parcels are acquired and assembled into a large enough acreage to support a compatible and economical re-use of the properties, a comprehensive Re-Use Plan could be implemented as long as it was consistent with both the Airport noise environment and the surrounding residential uses that will remain. Because of the number (± 120 home lots) and relative concentration of eligible properties within the Airport Parkway neighborhood and the obvious potential for unintended disruptive impacts to the integrity of the remaining neighborhood, a significant planning and coordination effort has been initiated with the City of South Burlington. The goal of this effort is to develop a mutually compatible long-term Re-Use Plan that will provide an appropriate and effective permanent noise buffer, as well as accommodate a redevelopment plan for the neighborhoods consistent with the local zoning and land use plans and goals.

As a result, at this time and for the projected effective period of this initial Inventory and Re-Use Plan, all noise lands currently owned and those expected to be acquired over the next five year period are considered "needed for noise compatibility purposes" or have already been redeveloped for Airport-related use as parking areas. Additionally, no land is planned to be disposed of or permanently re-used for anything other than for noise-compatibility purposes, which may include landscaped buffers consistent with local regulatory requirements. Exhibit A - Property Map and Exhibit B - Noise Compatibility Program Acquisition History indicate the location and status of all noise lands currently owned by BTV.

It is important to note that BTV is wholly owned and operated by the City of Burlington, but is physically located within the City of South Burlington. The Airport would generally be exempt from paying local personal property taxes to the City of South Burlington for those properties acquired from the Airport Parkway neighborhood. To assure that the City does not suffer a disproportionate financial



hardship as a result of the lost residential property tax revenues, both cities have reached an agreement to assure that the tax revenues lost to South Burlington are appropriately compensated by whatever long-term redevelopment plan is pursued.

The PGL requires that the Airport sponsor review "noise land" at least once every five years or when there is change to the Re-Use Plan, when the Airport undertakes a Master Plan Update (MPU), or when the noise contours are changed, whichever occurs first. The planning and coordination with the City of South Burlington for the potential long term re-use of the Airport Parkway neighborhood is being pursued simultaneously with the recently commenced Airport MPU.

Thus, consistent with the PGL guidance, some elements of this Re-Use Plan may require updating to reflect the progress of the voluntary acquisition program and the recommendations of the final MPU process when it is completed later in 2010.

The economic role and neighborhood setting of BTV represents important context for the long-term re-use concepts being considered for the Airport Parkway neighborhood. The Airport plays a major role in the region's economy, as an employer, as the host to multiple aviation-related businesses, and as the major air transportation gateway for northern Vermont, northeast New York, and portions of southern Quebec.

Immediately to the west of the Airport's main passenger terminal, and its main runways, is the Airport Parkway residential neighborhood (Figure 2, Land Use). The neighborhood includes roughly 800 residential units, a handful of commercial and office uses along Airport Drive, and Chamberlin Elementary School, which serves the immediate neighborhood as well as several other areas of South Burlington. Developed in the years immediately following World War II, the neighborhood's homes flank Airport Drive and Airport Parkway extending north to



Kirby Road, where the area transitions into a mixed commercial and industrial zone. The area is zoned R4-Residential 4, which generally permits single-family and duplex housing at a density of four units per acre (Figure 3, Zoning Map).

It is within this neighborhood that 13 properties have been acquired to date for airport-related and/or noise compatibility purposes. Another 100 residential properties are proposed to be acquired, and the houses removed, over the next five to ten years. This represents roughly 14 percent of the neighborhood's housing stock. Since home values in this neighborhood are modest relative to values for single-family, detached housing elsewhere in South Burlington, the City has expressed concern about the potential impacts of losing these housing units. The Airport has engaged in a process with the City to identify potential sites outside the 65 DNL contour in this neighborhood, and other residential zoning districts, where infill housing could be promoted to ensure that similar housing opportunities can be provided for the City's residents (see Section 3.5 below).

2.3 Acquisition Decision Protocol

In consultation with the South Burlington City Council, a decision protocol was agreed upon for future acquisition of noise lands. The program, which is entirely voluntary, has generated a great deal of interest and as a result, it is expected to take a number of years before all interested parties can enter the program. In an effort to minimize negative impacts on the neighborhoods from scattered acquisitions, BTVA and the City will embark on an agreement that establishes the following protocol. The overarching goal is to accommodate requests into the program as soon as it is practical to do so, and to ensure that the program benefits noise impacted homeowners.



- General parameters for the acquisition program:
 - Properties along Airport Drive
 - Properties in specific groups and blocks defined by existing streets
 - Higher noise impacted areas
 - Avoid “patch-work” acquisitions
- These parameters are to be firm, but flexible enough
 - To adjust when practical to meet individual owner situations
 - To adjust for increased and decreased future funding levels
 - Accelerate program when groups and blocks are ready to participate

As shown in the Detailed Acquisition Plan (Figure 4), BTV expects to purchase 115 homes through FY 2019, based upon resident requests to enter the program to-date. In light of the decision criteria described above and the long list of interested homeowners, BTV requested that the South Burlington City Council consider approval of an acceleration of the acquisition program for FY 2010 and 2011. FAA has agreed to double the funding for acquisition of noise lands for the next two fiscal years, which can allow for the purchase of approximately 20 homes each year. BTV believes that increasing the pace of neighborhood transition would speed up landscaping efforts and alleviate concerns about a patchwork of vacated properties. At its meeting on February 17, 2009, the City Council conditionally approved this recommendation.

BTV will continually evaluate and update the program and these protocols. BTV and the City agreed to keep the neighborhood informed of acquisition progress and schedules by using BTV and City websites to disseminate information. If for some reason BTV needs to adjust these protocols, it will consult with the City to discuss potential changes. Finally, BTV agrees to implement a policy to assure tax revenues to the City are maintained as homes are demolished and removed from the tax rolls.



As agreed to with the City Council, BTV will remove vacated homes and implement a landscaping program within two years after acquisition. It will be accomplished in logical contiguous areas that are large enough to create desired landscaping effects and to ensure that the remaining residences are not isolated in areas with few neighboring structures. The demolition and landscaping activities will be concentrated to no more than a few months each year in order to minimize neighborhood disturbances and avoid attractive nuisance and vandalism issues.

3.0 Use of Existing Noise Lands

At the present time, the Airport is using noise lands purchased within the Airport Parkway neighborhood for undeveloped greenspace. However, as additional land is acquired, several re-use concepts can be considered. As described below, these concepts for future re-use have been presented in preliminary form to the South Burlington City Council. It is important to note that no formal plans have been presented for approval by the City.

3.1 Potential Re-Use Concepts for Noise Lands

In consultation with and with the participation of the City of South Burlington, several re-use concepts are being considered within the Airport Parkway neighborhood. While no specific plans have been endorsed by the City at this point, and no specific plans are pending before the City, BTV has presented several potential concepts to the South Burlington City Council and neighborhood residents at a series of public meetings held between November 2008 and February 2009. The presentation materials from these public meetings are attached as the Appendices to this report.



The existing alignments of Airport Parkway and Airport Drive have been considered to be inadequate, and not necessarily compatible with the adjacent residential area for a number of reasons. The road is heavily traveled, including trips generated by airport businesses and passengers.

Conceptually, those properties acquired for noise compatibility purposes could be used for one of three airport-related purposes, which will create three permanent, clearly designated land use zones that facilitate development of a permanent, landscaped buffer between the Airport and the Airport Parkway neighborhood; extension of necessary transportation facilities; and a zone for planned Airport use and noise-compatible, use necessary transportation facilities. The three zones shown on Figure 5 are:

1. Future Airport Drive Extension Right-of-Way;
2. Permanent Greenspace and Buffer Areas
3. Airport Use Expansion and Potential Disposal for re-use

An interim landscaping treatment will be used on all noise lands, as discussed in Sections 2.1 and 2.3 above. Table 1 shows the acreage intended for each of the planned land uses, which are described in further detail below.

Table 1: Potential re-use Concepts for Noise Lands		
Noise-Compatible Use	Total Acres	Planned Use
Future Airport Drive Extension Right-of-Way	12 - 15	Planned collector roadway extension with recreation path extension; ROW of 80 - 100 feet; implement interim landscaping treatments until roadway is developed
Permanent Greenspace and Buffer Area	20 - 25	Permanent landscaped noise buffer to insulate residential neighborhood from non-compatible airport noise and demarcate airport from residential land use; protects wetland/stream areas



Table 1: Potential re-use Concepts for Noise Lands		
Noise-Compatible Use	Total Acres	Planned Use
Airport Use Expansion and Potential Disposal for re-use	30 - 40	Provide land for airport-related facilities including terminal access road, parking capacity, and airport support functions; potentially evaluate land for noise-compatible economic development use

3.2 Land Use Area #1: Future Airport Drive Extension Right-of-Way

Roughly 12 to 15 acres of the current and future noise lands will be designated for the future Airport Drive Extension Right-of-Way. Based on the 2000-1 scoping studies prepared for this collector roadway, a right-of-way of between 80 and 100 feet is necessary to accomplish improve traffic flow and achieve the recommended pedestrian and streetscape improvements. The Airport Drive Extension is envisioned as a four-lane, boulevarded, limited access collector roadway with a landscaped median and an eight- to ten-foot recreation path to be located on the west side of the right-of-way, closest to the residential neighborhood. This collector roadway would substantially alleviate the impacts of truck, airport and commuter traffic on neighborhood streets and create a significant new bicycle and pedestrian connection benefiting the regional network. It would also create a permanent transitional land use element that segregated airport-related and noise-compatible uses on the east from the residential neighborhood to the west. A preliminary conceptual plan for a realigned and reconstructed Airport Parkway has been prepared by BTV that proposes this roadway, which was presented to the South Burlington City Council for informational purposes, as shown in Figures 6 (alignment) and 7 (conceptual cross-section).

As conceptually presented, the roadway extension is designed to accomplish the following:

- Collect/redirect traffic away from neighborhood streets



- Create a landscaped median with curb
- Include pedestrian sidewalks/trails/bike paths “connected” with other amenities
- Establish a buffer that creates significant width for noise attenuation (200 feet or more in many areas)
- Create a permanent boundary to segregate new uses from neighborhood

Noise lands acquired within this land use zone will all have transitional landscaping treatments until permanent development of the roadway occurs. The Airport will cooperate with the City to seek funding sources both for the transportation improvements, and for associated amenities such as lighting, connector parks, and other features that will benefit the neighborhood. The Airport also will work with the City and the roadway design engineer to ensure that neighborhood areas whose street network is affected by the Airport Drive Extension, as well as the noise compatibility program overall, are engaged in planning to create new street connectivity patterns to enhance the neighborhood.

Such a roadway improvement is a number of years from fruition and cannot move forward until the property acquisition program has substantially advanced. In the interim as described above, landscaping will be put in place until permanent redevelopment of roadway is achieved.

3.3 Land Use Area #2: Permanent Greenspace and Buffer Areas

A significant portion of the acquired noise lands will function as permanent open greenspace and natural areas, providing a permanent noise buffer and visual resource to reduce the impacts of non-compatible airport noise on the residential neighborhood. These areas will be available for densely planted landscaping, and other permanent measures such as walls, berms, or “living walls,” consistent with



neighborhood aesthetics and help reduce ongoing airport noise. These features also will be designed to reduce ongoing noise impacts from the future Airport Drive Extension. It is also important to note that a sizable portion of the land in this land use area consists of steeply-sloped lands along Centennial Brook, and associated wetlands, which will remain undeveloped and preserved, and which can be integrated into the overall land use concepts for this area.

3.4 Land Use Area #3: Airport Use Expansion and Potential Disposal for re-use

The largest portion of the lands acquired to-date, and planned to be acquired, will be designated as Airport Use Expansion and Potential Disposal for re-use. Roughly 30 to 40 acres are expected to fall into this type of use, which could eventually involve some disposal and re-use of noise lands. Interim landscaping will be installed within this area until redevelopment occurs.

The Airport recognizes that any use of these lands must be compatible with a high noise environment. Among the airport-related facilities that will be considered for this land use area, through the Airport's MPU, are terminal access road and other circulation improvements: additional parking capacity (both at-grade and structured) for public parking; rental and 'ready car' spaces; taxi/cell phone waiting lots; hotel shuttles and convenience vehicles; and employee parking. Parking has been in short supply with the Airport's recent growth, and it is reasonable to anticipate that there will need to be a substantial portion of land dedicated to meeting Airport parking needs in the period that this Inventory and Plan is in effect. Finally, airport support options (i.e., offices) may also be located in this land use area.

At such time as sufficient consolidation of noise lands has occurred, and plans for the Airport Drive Extension are fully developed, the Airport may wish to consider future disposal of some lands within this land use area for noise-compatible



commercial purposes such as offices, retail, commercial, lodging, or light industrial use. Such uses are expected to be consistent with the types of uses presently found near the Airport along Airport Parkway, such as Heritage Flight, various car rentals, and other similar commercial uses. This will require policy and land use planning coordination with the City of South Burlington.

3.5 South Burlington Housing Issues

One concern raised by the City of South Burlington is the issue of displaced housing during the acquisition process. The area where land has been acquired for noise compatibility purposes is substantially residential land, much of which is located on smaller lots and contain modest and affordable single-family homes. Given that these homes will ultimately be demolished, the City has expressed interest in identifying alternative sites in South Burlington where such housing could be located. To that end, BTV is working cooperatively with the City's Department of Planning and Zoning to identify such sites, and potential zoning amendments to implement such a plan, which will be submitted to the City in a separate report.

4.0 Implementation

Based on the findings of this Noise Land Inventory and Re-Use Plan, Burlington International Airport will continue to retain all acquired noise lands for noise compatibility or Airport related purposes, and will also proceed with the acquisition of additional noise-affected lands within the 65 DNL contour. As consolidation of properties occurs, following the Acquisition Decision Protocol in this report, houses will be removed and interim landscaping measures will be implemented. All acquired parcels will be noted on annually-updated maps and tables by the future use designation(s) of the parcel: Future Airport Drive Extension Right-of-Way,



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Permanent Greenspace and Buffer Area, or Airport Use Expansion and Potential Disposal for re-use. This process is expected to require a minimum of five and up to ten years to implement. Once sufficient consolidation of lands in airport-related future areas has occurred, the Airport will evaluate the potential for lease, sale, or Airport development purposes on these lands in accordance with its Airport Master Plan Update. At this time, this Inventory and Plan can be updated to reflect the potential to re-use noise lands for airport-related purposes in that land use area.

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Burlington International Airport
Part 150 Noise Land Inventory and Re-Use Plan
South Burlington, VT
Exhibit A: Property Map

October 15, 2009

Legend

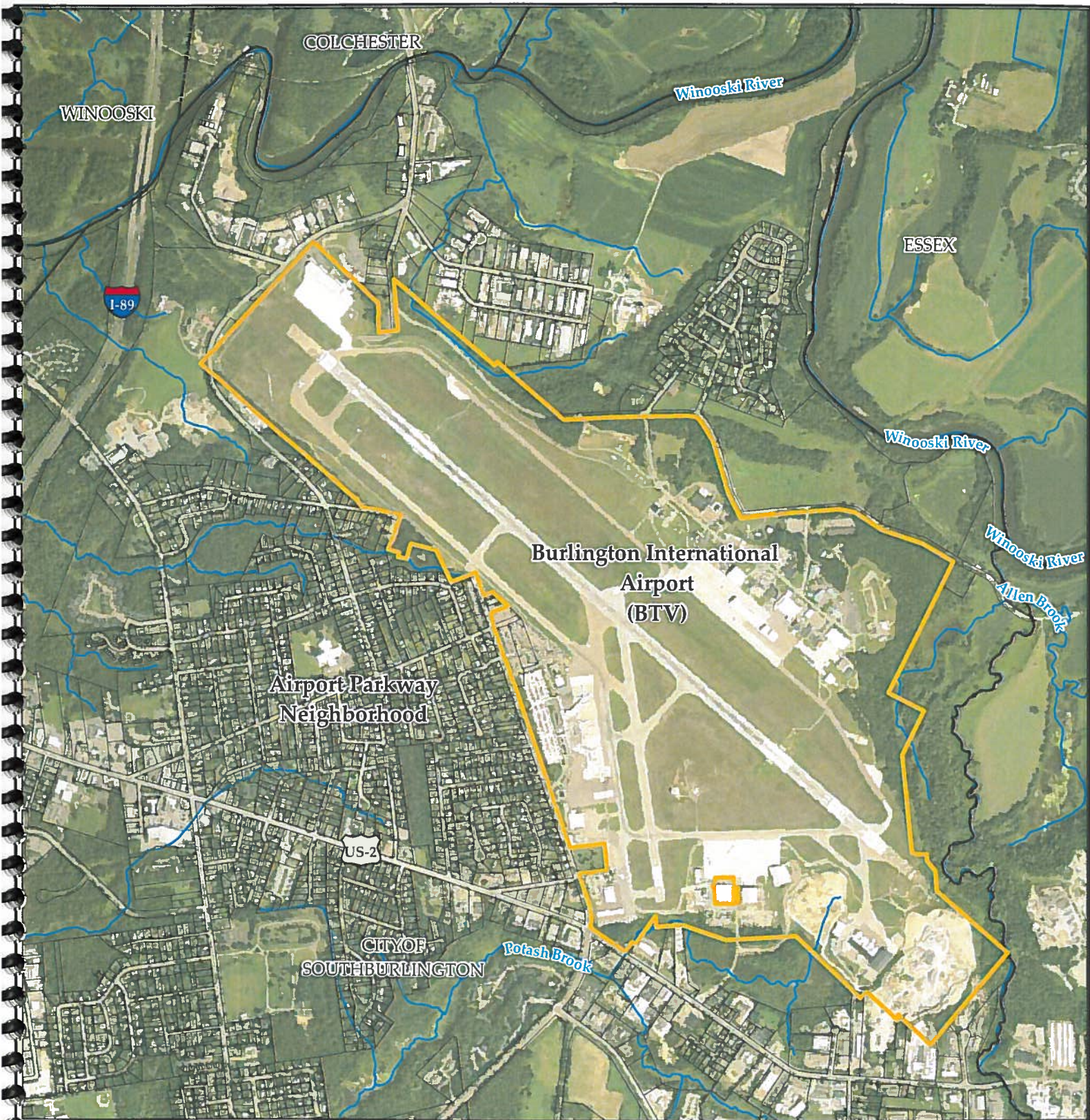
- VT ANL Acquisitions
- Noise Compatibility Parcel
- BTV Parcel
- Town Boundary
- Roads
- Parcel Boundary

Source: Background NAIT Photographs
Aerial Imagery: 2008
Boundary data downloaded from V.G.I.
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Exhibit B: BTV Noise Compatibility Program Acquisition History																							
LUIRP PARCEL NUMBER	BTV Parcel Number	Area (acres)	Grantor	Grantee	Instrument	Recording	Date of Acquisition	AIP grant number	Federal share	Purpose of Original Acquisition	Street Name (Airport reference only)	CURRENT USE	CURRENT NOISE CONTOUR	CURRENT ZONING	Recommendation*	Lease status	Date for Further Review						
1	01N	0.38	A & R COTA	City of Burlington	Fee	BK 651, PG 534-5	12/23/03	AIP 3-50-0005-41	90%	Noise Compatibility	White Street	airport parking	70/75	Airport	AIRPORT USE - Pkg.		n/a						
	01O	0.43	R & L HAMEL	City of Burlington	Fee	BK 56, PG 378	07/28/99						65/70										
	01P		P & C LANDERL	City of Burlington	Fee	BK 188, PG 492-4	09/13/99						65/70										
2	01S		M. BURNOR	City of Burlington	Fee	BK 544, PG 408	06/10/02						65/70										
3	01Q		0.61	D & R SUTTON	City of Burlington	Fee	BK 139, PG 554-5						05/18/00					65/70					
4	01R	0.19	S & S CHARBONNEAU	City of Burlington	Fee	BK 644, PG 367-8	10/24/03	AIP 3-50-0005-46	90%	Noise Compatibility	Shamrock Road	VT ANG Facility	65/70	Airport Residential 4	Hold - Noise Comp.		2014						
5	02A	5.06	GEORGE BRADY	City of Burlington	Fee	BK 88, PG 188	02/28/02				Airport Drive	Residential	65										
6	03A	0.48	O. KOPYSTIANSKY	City of Burlington	Fee	BK 621, PG 746-7	07/09/03	AIP 3-50-0005-49	90%	Noise Compatibility	Shamrock Road	VT ANG Facility	65/70	Airport	VT ANG Use		2014						
7	03B	0.28	J. DUFFY	City of Burlington	Fee	BK 628, PG 721-2	08/07/03				Kirby Road	Vacant	70										
8	03C	0.49	A. & P. ZENO	City of Burlington	Fee	BK 575, PG 5-6	10/22/02				Picard Circle	Vacant	70										
9	03D	0.31	R. DeBARGE	City of Burlington	Fee	BK 574, PG 776-7	10/30/02				Airport Parkway	Residential	70										
10	03E	0.30	R. ZENO	City of Burlington	Fee	BK 573, PG 1-2	10/22/02				Airport Parkway	Residential	70										
11	03F	0.16	C. & S. LETOURNEAU	City of Burlington	Fee	BK 610, PG 663-4	05/12/03				Airport Drive	Residential	60										
12	03G	0.21	K. ASHTON	City of Burlington	Fee	BK 606, PG 129-130	04/16/03				Airport Drive	Residential	60/65										
13	03H	0.16	D. ROBERTS	City of Burlington	Fee	BK 613, PG 476-8	05/29/03				Airport Drive	Residential	65										
14	03I	0.15	A. PORTER	City of Burlington	Fee	BK 625, PG 749-50	07/24/03				Airport Drive	Residential	65										
15	04A	0.91	B & S WHITEHILL	City of Burlington	Fee	BK 672, PG 113-4	06/18/04				AIP 3-50-0005-53	95%	Noise Compatibility	Airport Parkway	Residential	70	Residential 4	Hold - Noise Comp.		2014			
16	04B	0.20	R/S HAMEL	City of Burlington	Fee	BK 681, PG 135-6	09/01/04	Airport Drive	Residential	60													
17	04C	0.20	K & G CRONIN	City of Burlington	Fee	BK 749, PG 204-205	05/17/06	Airport Drive	Residential	60													
18	04D	0.32	R & D ROONEY	City of Burlington	Fee	BK 664, PG 336-7	04/28/04	Airport Drive	Residential	60/65													
19	04F	0.22	A. RENZONI	City of Burlington	Fee	BK 695, PG 315-6	01/20/05	Airport Drive	Residential	60													
20	05A	0.25	T. THIBAUT	City of Burlington	Fee	BK 743, PG 116	03/10/06	AIP 3-50-0005-55	95%	Noise Compatibility	Picard Circle	Vacant	65/70	Residential 4	Hold - Noise Comp.		2014						
21	05B	0.23	G. WADE	City of Burlington	Fee	BK 715, PG 648-9	06/28/05				Picard Circle		65/70										
22	05C	0.19	J. LONGTIN	City of Burlington	Fee	BK 677, PG 92-3	07/28/04				Picard Circle		65/70										
23	05D	0.26	R. ENNIS	City of Burlington	Fee	BK 728, PG 523-4	09/30/05				Kirby Road		70										
24	05E	0.20	R. BUSHY / L. WHITE	City of Burlington	Fee	BK 688, PG 688-9	11/18/04				Kirby Road		65/70										
25	05F	0.39	B & M PASSUT	City of Burlington	Fee	BK 696, PG 128-9	01/28/05				Airport Parkway		70										
26	05G	0.30	G. HALL	City of Burlington	Fee	BK 711, PG 246	05/25/05				Airport Parkway		70										
27	05H	0.24	T. CORROW	City of Burlington	Fee	BK 237, PG 306-7	08/25/05				White Street		airport parking	70/75									
28	05J	0.49	N & J PARROW	City of Burlington	Fee	BK 422, PG 124	08/01/05				Picard Circle	Vacant	65/70										
29	06A	0.51	M & D MORSE	City of Burlington	Fee	BK 687, PG 543-4	11/05/04				AIP 3-50-0005-64	95%	Noise Compatibility	Dumont Avenue	Vacant	65	Residential 4	Hold - Noise Comp.		2014			
30	06B	0.19	A. BARBER	City of Burlington	Fee	BK 715, PG 469-70	06/28/05	Dumont Avenue	65/70														
31	06C	0.18	G & B MAGLARI	City of Burlington	Fee	BK 732, PG 515-516	11/01/05	Dumont Avenue	65/70														
32	06D	0.36	R. FARR	City of Burlington	Fee	BK 750, PG 648-649	05/22/06	Picard Circle	65/70														
33	06E	0.24	G & L MOREAU	City of Burlington	Fee	BK 756, PG 680	08/01/06	Picard Circle	65/70														
34	06F	1.31	G & H WITHERS	City of Burlington	Fee	BK 755, PG 600	07/17/06	Picard Circle	65/70														
35	07A	0.16	H. LOSO	City of Burlington	Fee	BK 805, PG 130-131	07/16/08	AIP 3-50-0005-66	95%	Noise Compatibility	White Street	Vacant	65	Residential 4	Hold - Noise Comp.		2014						
36	07B	0.30	M. KERR	City of Burlington	Fee	BK 790, PG 654-655	07/30/07				Dumont Avenue		65/70										
37	07C	0.29	N. WRIGHT	City of Burlington	Fee	BK 788, PG 116-117	06/29/07				Dumont Avenue		65/70										
38	08A	0.15	C & F MYERS	City of Burlington	Fee	BK 796, PG 617-618	09/25/07				Airport Drive		60/65										
39	08B	0.18	C & L PLOOF	City of Burlington	Fee	BK 810, PG 26-27	03/20/08	AIP 3-50-0005-70	95%	Noise Compatibility	Airport Drive	Vacant	60/65	Residential 4	Hold - Noise Comp.		2014						
40	08C	0.20	R. LAGROW	City of Burlington	Fee	BK 796, PG 131-133	09/18/07				Airport Drive		65										
41	08D	0.28	C & R ROCHFORD	City of Burlington	Fee	BK 805, PG 574-575	01/28/08				Dumont Avenue		65										
42	08E	0.19	B. KOKINS	City of Burlington	Fee	BK 809, PG 172-173	03/11/08				Dumont Avenue		65/70										
43	08F	0.29	B & J BARRETT	City of Burlington	Fee	BK 809, PG 495-496	03/14/08				Picard Circle		65										
44	08G	0.32	P. BOWLER	City of Burlington	Fee	BK 794, PG 422-423	08/31/07				Airport Parkway	70											
45	08H	1.29	N & C BICKFORD	City of Burlington	Fee	BK 819, PG 250-1	09/24/08				Shamrock Road	65											
46	98C	1.05	C&C GRIGGS	City of Burlington	Fee	BK 428, PG 484-5	05/20/98				AIP 3-50-0005-34	90%	Noise Compatibility	White Street				airport parking	65/70/75	Airport	AIRPORT USE - Pkg.		2014
	98D		R & C GUILLETTE	City of Burlington	Fee	BK 436, PG 524-5	09/08/98							White Street					65/70/75				
	98E		R & L PARDY	City of Burlington	Fee	BK 436, PG 283-4	09/02/98	White Street	65/70/75														
	98L		R & R GERMAINE	City of Burlington	Fee	BK 443, PG 568-9	12/22/98	White Street	65/70/75														
47	98F	1.45	R. PICKERING	City of Burlington	Fee	BK 439, PG 266-7	10/20/98	Shamrock Road	VT ANG Facility	70/75				Residential 4	VT ANG Use								
	98G		C. ROY	City of Burlington	Fee	BK 435, PG 347-8	08/25/98			70/75													
	98H		E. DESAUTELS	City of Burlington	Fee	BK 441, PG 190-1	11/16/98			Shamrock Road								70/75					
	98I		J & G GUSTAVSEN	City of Burlington	Fee	BK 453, PG 24-25	04/26/99			Shamrock Road								70/75					
48	98M		H & J BRUNER	City of Burlington	Fee	BK 465, PG 421-3	11/09/99			65/70													
49	08I	47.06	SHELBURNE SHIPYARD	City of Burlington	Warrantee	BK 827, PG 107-111	10/09/08	Vermont Air National Guard	n/a	VT ANG	National Guard Ave.	open/forested	60	Residential 4/Mixed Industrial & Commercial Airport/Airport Industrial	Hold - VT ANR Use		2014						
50	08J	3.19	SHELBURNE SHIPYARD	City of Burlington	Quit Claim	BK 827, PG 112	10/9/08				National Guard Ave.		60										
51	NA	0.15		City of Burlington	Fee					Noise Compatibility	Williston Road	Vacant	60/65	Airport Industrial	Hold - Noise Comp.		2014						
52	09A	0.67	D&R DUPONT	City of Burlington	Fee		4/13/09				White Street		65										
53	09B	0.33	W&M GRADY	City of Burlington	Fee	BK 877, PG 309-310	7/10/09	AIP 3-50-0005-74	95%	Noise Compatibility	Dumont Avenue	Residential	65	Residential 4	Hold - Noise Comp.		2014						
54	09C	0.28	M&L WILLETTE	City of Burlington	Fee	BK 857, PG 305-306	4/30/09				Dumont Avenue		65										
55	09D	0.21	J. KIRK	City of Burlington	Fee	BK 825, PG 180-181	09/04/08				Picard Circle		65										
56	09E	0.30	J&C DAVIS	City of Burlington	Fee	BK 832, PG 157-158	08/14/08				Picard Circle		65/70										
	09F		G&S LAMAY	City of Burlington	Fee		NOV 09				Picard Circle		65/70										
57	09G	0.32	C&C THIBAUT	City of Burlington	Fee	BK 853, PG 334-336	4/14/09				Picard Circle		65/70										
	09H		M&M HENRY	City of Burlington	Fee	BK 824, PG 581-583	8/29/08				Picard Circle		65/70										
58	09I	0.43	D,A&P, M MICHAELIDES	City of Burlington	Fee		NOV 09				Airport Parkway		65/70										
59	09J	0.47	J. RUSSELL	City of Burlington	Fee	BK 875, PG 195-196	06/03/09				Shamrock Road		65										
60	09K	0.14	A.DEAVITT	City of Burlington	Fee		OCT 09				Airport Drive		65										
61	09L	0.15	E. LEMAY	City of Burlington	Fee		SEPT 09				Airport Drive		65										
62	09M	0.27	T. DUNCKLEY	City of Burlington	Fee		FEB 10				Airport Drive		65										
63	09N	0.23	D. BAILEY	City of Burlington	Fee		09/10/09				Airport Drive		65										
64	09O	0.37	CHERRY/CHAMPLAIN HOUS.	City of Burlington	Fee		04/09/09				Airport Drive		65										
65	09P	0.22	M. FRANCO	City of Burlington	Fee		6/29/09				Airport Drive		65										



Legend

- BTV Parcel
- Stream
- Parcel Boundary
- Town Boundary

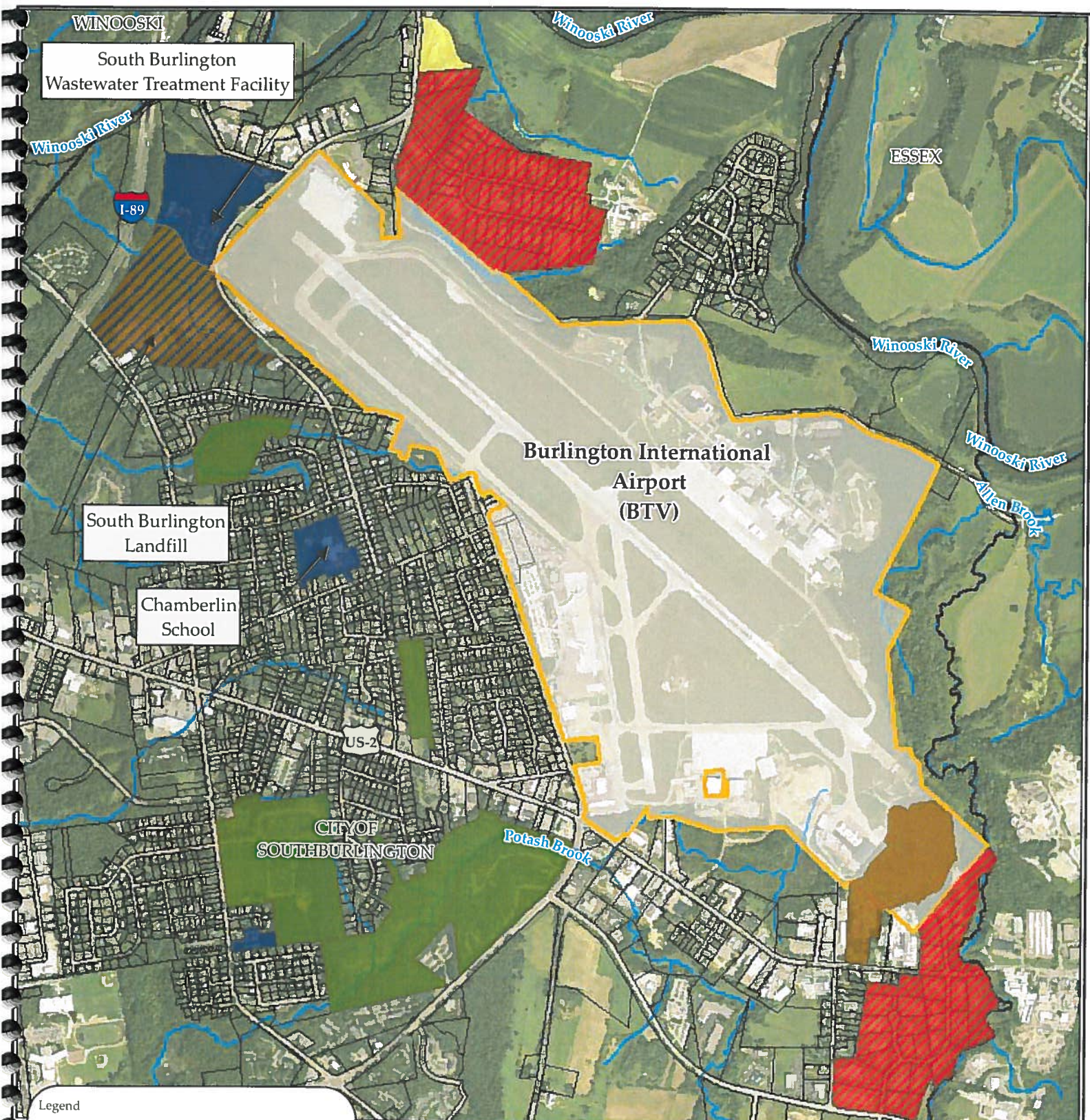
Burlington International Airport
 Part 150 Noise Land Inventory
 and Re-Use Plan
 South Burlington, VT
 Figure 1: Location Map

Sources: Background: NAIP Photography (2008); Parcel data provided by the Cities of Burlington and South Burlington, Town Boundary data downloaded from VCGI (2004); Streams data downloaded from VCGI (2007).

April 23, 2009



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Legend

Land Use Type:	Parcel Boundary
Commercial/Industrial	Town Boundary
Industrial	Stream
Natural Area - Park, Farm	
Residential	
School - Institutional	
Landfill	
Airport	

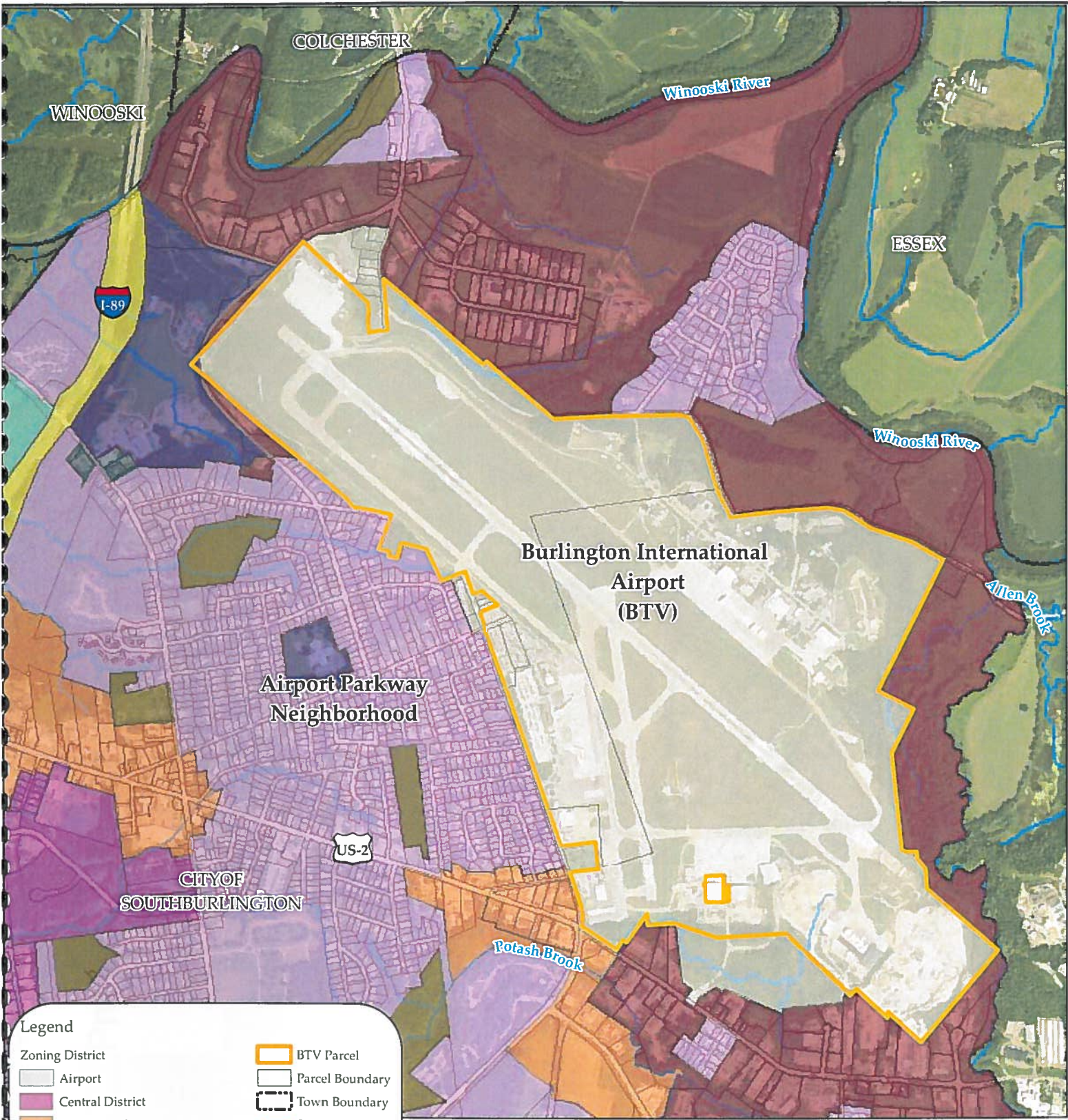
Burlington International Airport
 Part 150 Noise Land Inventory
 and Re-Use Plan
 South Burlington, VT
 Figure 2: Land Use

April 23, 2009

Sources: Background: NAIP Photography (2008); Parcel data provided by the Cities of Burlington and South Burlington, Town Boundary data downloaded from VCGI (2004); Streams data downloaded from VCGI (2007).



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Legend

Zoning District

- Airport
- Central District
- Commercial 1
- Commercial 2
- Institutional - Agricultural
- Interstate Overlay
- Mixed Industrial and Commercial
- Municipal
- Park and Recreation
- Residential

Other Features

- BTV Parcel
- Parcel Boundary
- Town Boundary
- Stream

**Burlington International Airport
Part 150 Noise Land Inventory
and Re-Use Plan
South Burlington, VT
Figure 3: Zoning Map**

April 23, 2009

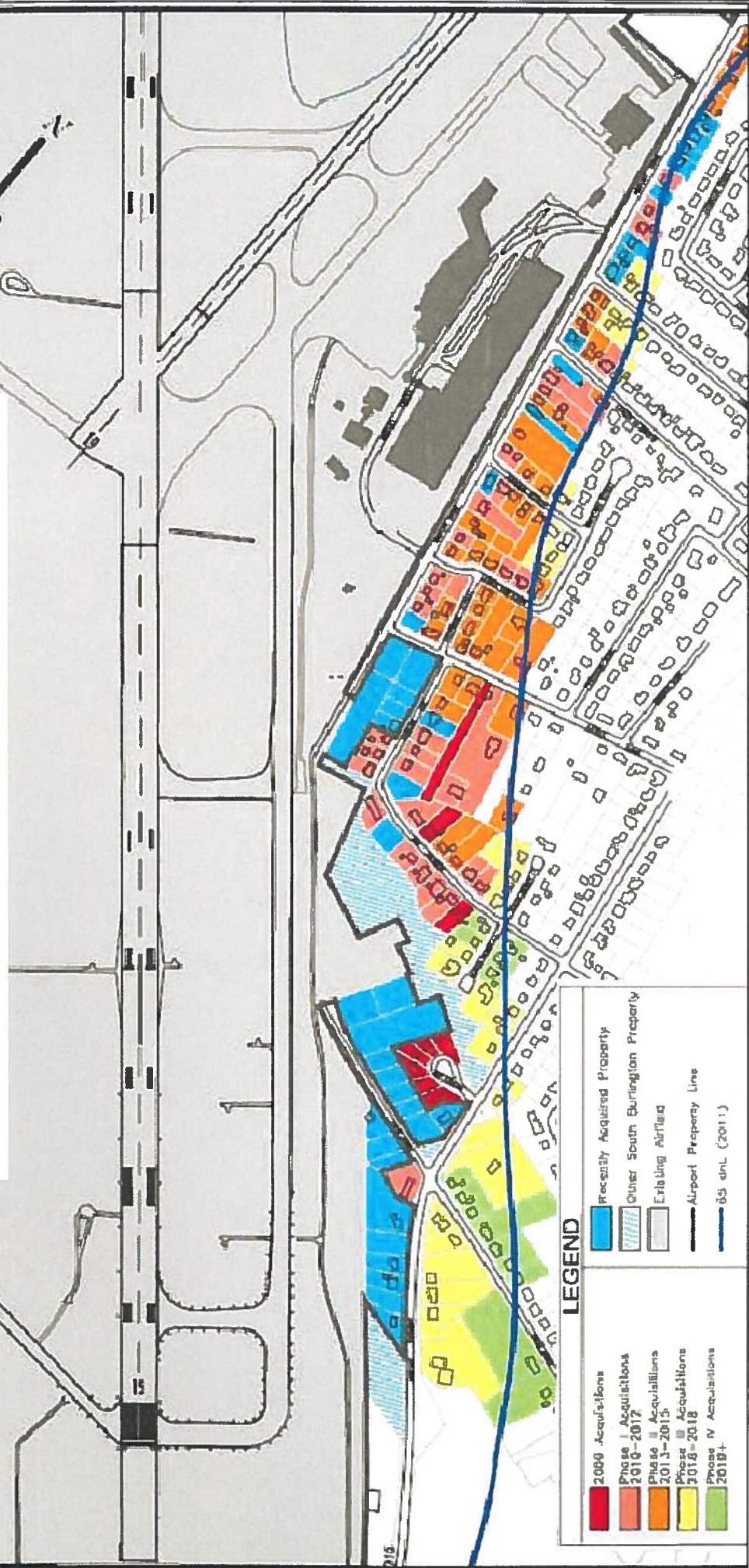
Sources: Background: NAIP Photography (2008); Parcel data provided by the Cities of Burlington and South Burlington, Town Boundary data downloaded from VCGI (2004); Streams data downloaded from VCGI (2007).



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Proposed Property Acquisition Program

Burlington International Airport
City of South Burlington, VT



Burlington International Airport
Part 150 Noise Land Inventory and Re-Use Plan

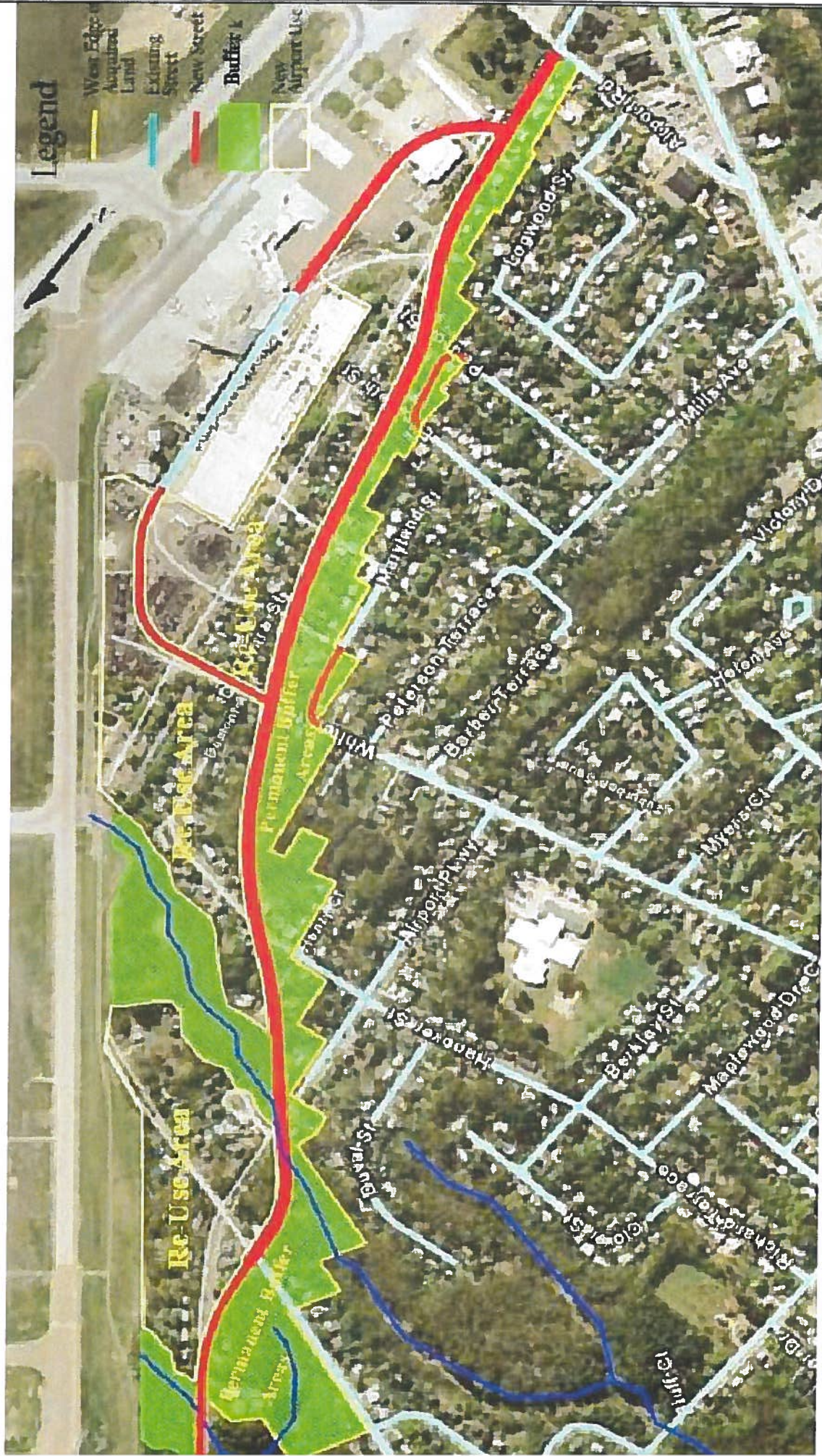
South Burlington, VT

Figure 4: Detailed Acquisition Plan



Source: Cambell & Paris
Engineers (2008-09).

April 23, 2009

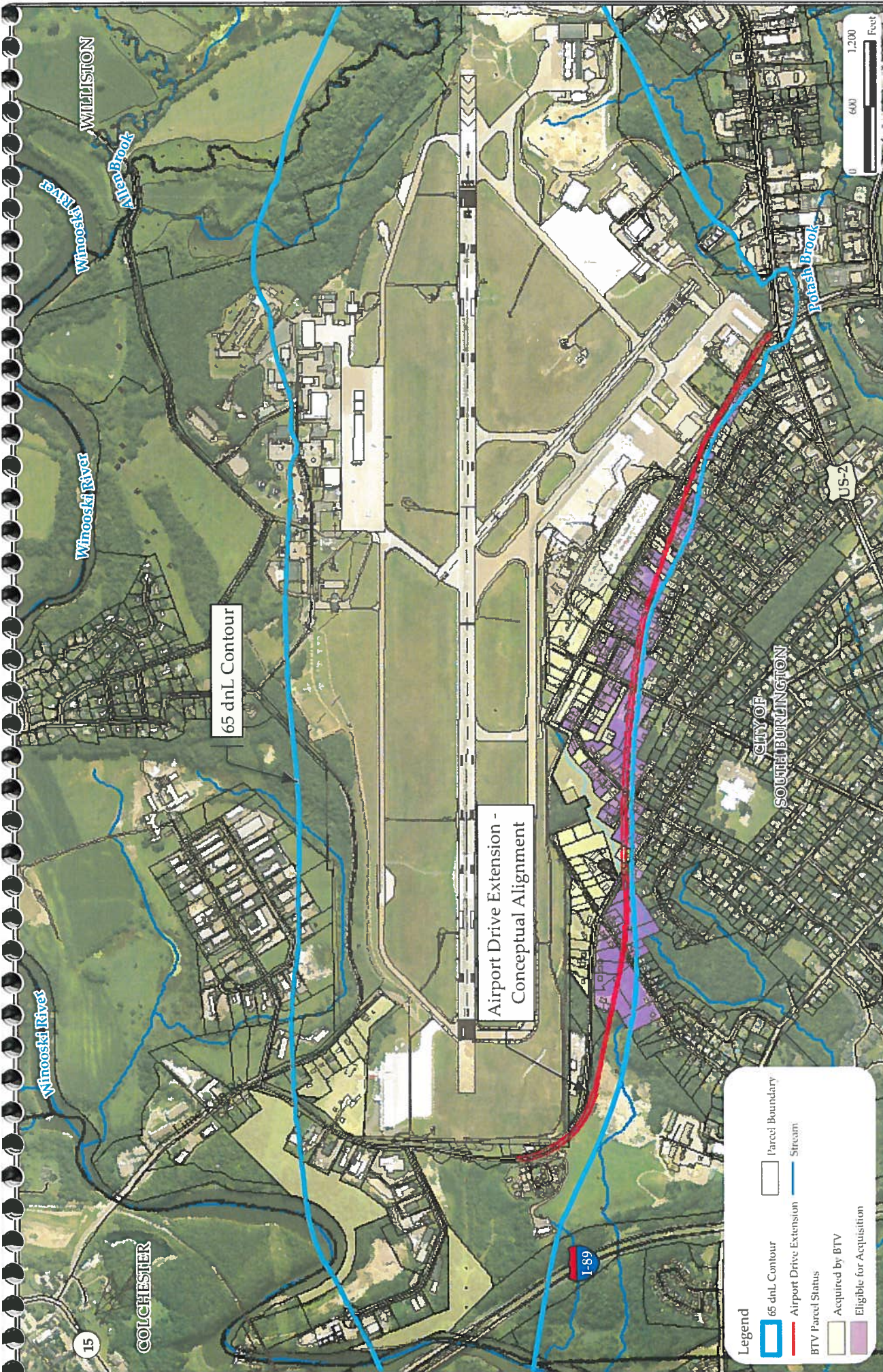


Burlington International Airport
 Part 150 Noise Land Inventory and Re-Use Plan

South Burlington, VT
 Figure 5: Land Use Zones

April 23, 2009





Burlington International Airport Part 150 Noise Land Inventory and Re-Use Plan

South Burlington, VT

Figure 6: Airport Drive Extension:
Conceptual Alignment

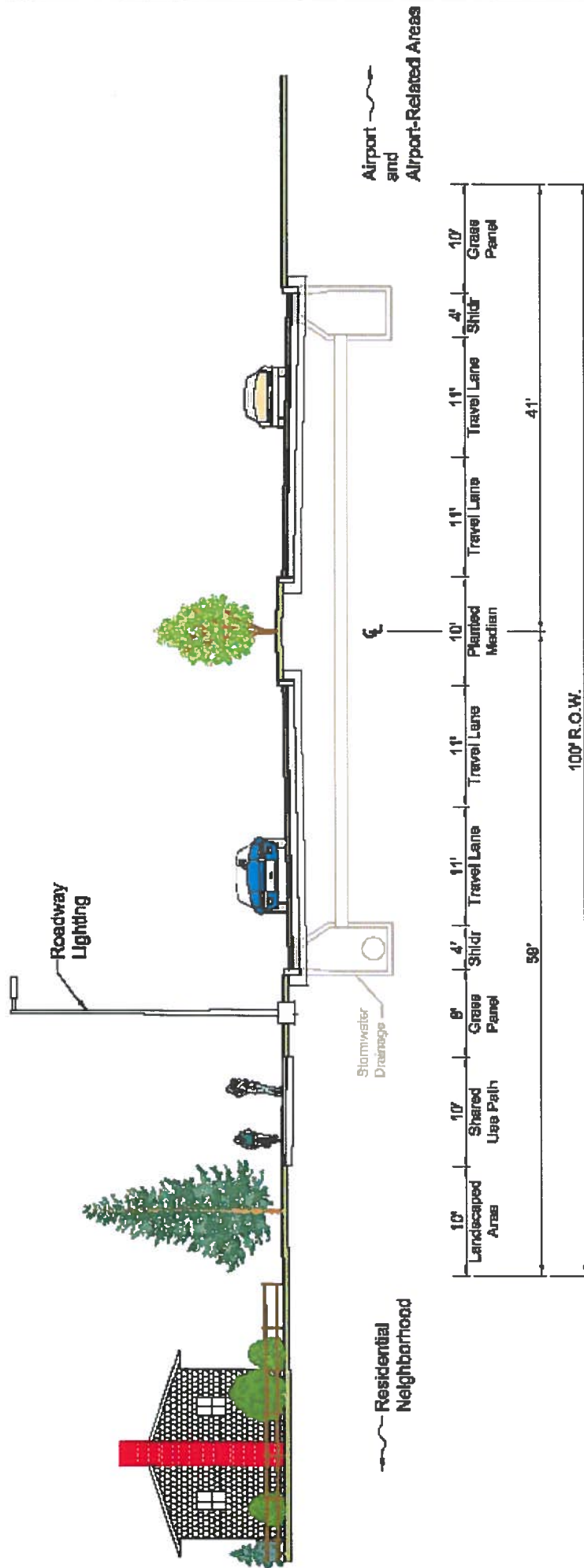
April 23, 2009

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Sources: Background: NAIP Photography (2008);
Parcel data provided by the Cities of Burlington and
South Burlington; Town Boundary data downloaded
from VCGI (2004); Streams data downloaded from
VCGI (2007).





Burlington International Airport
Part 150 Noise Land Inventory and Re-Use Plan

South Burlington, VT

Figure 7: Conceptual Cross Section
Airport Drive Extension

April 23, 2009



Grant History Report

Report Date

10/09/2008

Region: NE											
ADO: ANE											
Worksite: Burlington, VT		Locid: BTV		Worksite Name: Burlington International							
Grant Nbr	FY	Project Code	Descr	Entitlement	Current ServiceLevel: P		Current Hub Type: S				
					Discretionary	Total					
001-1982	1982	CA AP CO	Construct Apron	\$382,461.00	\$0.00	\$382,461.00					
002-1983	1983	RE RW IM	Rehabilitate Runway	\$106,500.00	\$0.00	\$106,500.00					
		SP RW FR	Groove Runway	\$10,400.00	\$0.00	\$10,400.00					
		ST AP LI	Install Apron Lighting	\$4,950.00	\$0.00	\$4,950.00					
		ST EQ MS	Acquire Aircraft Rescue & Fire Fighting Safety Equipment	\$7,000.00	\$0.00	\$7,000.00					
		ST RW SR	Install Runway Sensors	\$7,000.00	\$0.00	\$7,000.00					
		Grant Total		\$135,850.00	\$0.00	\$135,850.00					
003-1984	1984	RE RW IM	Rehabilitate Runway	\$225,823.00	\$979,401.00	\$1,205,224.00					
		ST AP LI	Install Apron Lighting	\$169,200.00	\$0.00	\$169,200.00					
		ST EQ SE	Install Perimeter Fencing	\$90,276.00	\$0.00	\$90,276.00					
		ST RW IM	Extend Runway	\$50,363.00	\$0.00	\$50,363.00					
		ST RW SR	Install Runway Sensors	\$219,338.00	\$0.00	\$219,338.00					
		Grant Total		\$755,000.00	\$979,401.00	\$1,734,401.00					
004-1984	1984	PL PL MA	Conduct Airport Master Plan Study	\$92,617.00	\$0.00	\$92,617.00					
005-1985	1985	RE RW IM	Rehabilitate Runway	\$1,186,217.00	\$271,884.00	\$1,458,101.00					
		SP RW FR	Groove Runway	\$0.00	\$89,272.00	\$89,272.00					
		ST EQ SN	Acquire Snow Removal Equipment	\$0.00	\$134,480.00	\$134,480.00					
		ST EQ WX	Install Weather Reporting Equipment	\$0.00	\$66,768.00	\$66,768.00					
		Grant Total		\$1,186,217.00	\$562,404.00	\$1,748,621.00					
006-1985	1985	CA TE EX	Expand Terminal Building	\$1,070,259.00	\$0.00	\$1,070,259.00					
		RE AP IM	Rehabilitate Apron	\$0.00	\$5,208.00	\$5,208.00					
		Grant Total		\$1,070,259.00	\$5,208.00	\$1,075,467.00					
007-1985	1985	OT GT AC	Improve Access Road	\$12,500.00	\$0.00	\$12,500.00					
		RE AP IM	Rehabilitate Apron	\$52,000.00	\$0.00	\$52,000.00					
		RE TW IM	Rehabilitate Taxiway	\$45,580.00	\$0.00	\$45,580.00					
		ST AP IM	Expand Apron	\$52,000.00	\$0.00	\$52,000.00					
		Grant Total		\$162,080.00	\$0.00	\$162,080.00					
008-1986	1986	RE TW IM	Rehabilitate Taxiway	\$732,041.00	\$0.00	\$732,041.00					

Grant History Report

FAA - Office Of Airports

Report Date

10/09/2008

Region: NE											
ADO: ANE											
Worksite: Burlington, VT		Locid:		BTV		Worksite Name: Burlington International		Current ServiceLevel: P		Current Hub Type: S	
Grant Nbr	FY	Project Code	Descr	Entitlement	Discretionary	Total					
009-1987	1987	CA AP CO	Construct Apron	\$219,312.00	\$0.00	\$219,312.00					
		RE AP IM	Rehabilitate Apron	\$653,100.00	\$0.00	\$653,100.00					
		Grant Total		\$872,412.00	\$0.00	\$872,412.00					
010-1987	1987	EN PL NO	Conduct Noise Compatibility Plan Study	\$0.00	\$138,429.00	\$138,429.00					
011-1988	1988	RE AP IM	Rehabilitate Apron	\$1,607,158.00	\$0.00	\$1,607,158.00					
013-1988	1988	ST AP LI	Install Apron Lighting	\$118,198.00	\$5,000.00	\$123,198.00					
		ST EQ MS	Acquire Aircraft Rescue & Fire Fighting Safety Equipment	\$32,805.00	\$0.00	\$32,805.00					
		Grant Total		\$151,003.00	\$5,000.00	\$156,003.00					
012-1989	1989	PL PL MA	Conduct Airport Master Plan Study	\$115,767.00	\$0.00	\$115,767.00					
014-1989	1989	ST AP IM	Expand Apron	\$621,078.00	\$0.00	\$621,078.00					
		ST EQ SN	Acquire Snow Removal Equipment	\$269,959.00	\$0.00	\$269,959.00					
		Grant Total		\$891,037.00	\$0.00	\$891,037.00					
015-1990	1990	RE TW IM	Rehabilitate Taxiway	\$734,900.00	\$0.00	\$734,900.00					
		ST AP LI	Install Apron Lighting	\$274,995.00	\$0.00	\$274,995.00					
		ST TW IM	Extend Taxiway	\$314,280.00	\$0.00	\$314,280.00					
016-1990	1990	Grant Total		\$1,324,175.00	\$0.00	\$1,324,175.00					
		ST LA MS	Acquire Miscellaneous Land	\$54,706.00	\$0.00	\$54,706.00					
		ST BD MS	Improve Building	\$546,475.00	\$15,024.00	\$561,499.00					
018-1991	1991	ST EQ SN	Acquire Snow Removal Equipment	\$68,315.00	\$0.00	\$68,315.00					
		Grant Total		\$614,790.00	\$15,024.00	\$629,814.00					
		ST LA MS	Acquire Miscellaneous Land	\$596,520.00	\$30,926.00	\$627,446.00					
020-1992	1992	SA EQ SE	Acquire Security Equipment	\$259,190.00	\$0.00	\$259,190.00					
021-1992	1992	PL PL MS	Conduct Miscellaneous Study	\$181,001.00	\$0.00	\$181,001.00					
022-1993	1993	PL PL MS	Conduct Miscellaneous Study	\$70,876.00	\$0.00	\$70,876.00					
023-1993	1993	PL PL MS	Conduct Miscellaneous Study	\$52,117.00	\$0.00	\$52,117.00					
024-1993	1993	RE RW IM	Rehabilitate Runway	\$2,187,578.00	\$0.00	\$2,187,578.00					
		RE TW LI	Rehabilitate Taxiway Lighting	\$40,046.00	\$0.00	\$40,046.00					
		SA OT SG	Install Guidance Signs	\$416,360.00	\$0.00	\$416,360.00					

Selection Criteria

Grant Step :REL, LOCID Code: BTV, Report Type: Detail

Grant History Report

Report Date

10/09/2008

Region: NE		Worksite Name: Burlington International		Current ServiceLevel: P		Current Hub Type: S	
ADO: ANE		Locid: BT		Discretionary		Total	
Grant Nbr	FY	Project Code	Descr	Entitlement			
025-1993		ST EQ MS	Acquire Aircraft Rescue & Fire Fighting Safety Equipment	\$33,357.00	\$0.00	\$33,357.00	
		ST RW SR	Install Runway Sensors	\$60,770.00	\$0.00	\$60,770.00	
		Grant Total		\$2,738,111.00	\$0.00	\$2,738,111.00	
		OT GT SV	Improve Service Road	\$218,658.00	\$0.00	\$218,658.00	
026-1994		PL PL MS	Conduct Miscellaneous Study	\$131,400.00	\$0.00	\$131,400.00	
		ST EQ SE	Install Perimeter Fencing	\$361,260.00	\$0.00	\$361,260.00	
		Grant Total		\$711,318.00	\$0.00	\$711,318.00	
		SA RW LI	Install Runway Lighting	\$627,952.00	\$0.00	\$627,952.00	
027-1994		ST LA DV	Acquire Land for Development	\$785,574.00	\$19,525.00	\$805,099.00	
		PL PL MA	Conduct Airport Master Plan Study	\$191,833.00	\$0.00	\$191,833.00	
		EN OT MT	Environmental Mitigation	\$142,260.00	\$0.00	\$142,260.00	
		SA OT OB	Remove Obstructions	\$147,540.00	\$0.00	\$147,540.00	
030-1996		Grant Total		\$289,800.00	\$0.00	\$289,800.00	
		ST LA MS	Acquire Miscellaneous Land	\$1,103,625.00	\$0.00	\$1,103,625.00	
		PL PL MA	Conduct Airport Master Plan Study	\$48,188.00	\$0.00	\$48,188.00	
		ST EQ SN	Acquire Snow Removal Equipment	\$412,024.00	\$0.00	\$412,024.00	
033-1997		ST RW SF	Improve Runway Safety Area	\$2,443,869.70	\$1,738,672.30	\$4,182,542.00	
		EN LA 70	Acquire Land for Noise Compatibility within 70 - 74 DNL	\$750,485.00	\$0.00	\$750,485.00	
		ST LA DV	Acquire Land for Development	\$688,734.00	\$0.00	\$688,734.00	
		Grant Total		\$1,439,219.00	\$0.00	\$1,439,219.00	
035-1999		OT GT SV	Improve Service Road	\$50,000.00	\$0.00	\$50,000.00	
		RE RW IM	Rehabilitate Runway	\$1,405,292.00	\$1,213,895.00	\$2,619,187.00	
		Grant Total		\$1,455,292.00	\$1,213,895.00	\$2,669,187.00	
		PL PL MA	Conduct Airport Master Plan Study	\$156,622.00	\$0.00	\$156,622.00	
037-2000		ST LA MS	Acquire Miscellaneous Land	\$1,357,891.00	\$0.00	\$1,357,891.00	
		ST EQ SN	Acquire Snow Removal Equipment	\$343,086.00	\$0.00	\$343,086.00	
		ST EQ SN	Acquire Snow Removal Equipment	\$414,910.00	\$0.00	\$414,910.00	
		ST EQ SN	Acquire Snow Removal Equipment	\$414,910.00	\$0.00	\$414,910.00	

Grant History Report

FAA - Office Of Airports

Report Date 10/09/2008

Region: NE		Worksite Name: Burlington International		Current ServiceLevel: P		Current Hub Type: S	
ADO:	ANE	Locid:	BTV	Worksite Name:	Discretionary	Entitlement	Total
Grant Nbr	FY	Project Code	Descr				
041-2001	2001	EN LA 60	Acquire Land for Noise Compatibility outside 65 DNL		\$49,238.00	\$985,410.00	\$1,034,648.00
042-2001	2001	EN PL MA	Conduct Environmental Study		\$0.00	\$198,958.00	\$198,958.00
040-2002	2002	RE RW IM	Rehabilitate Runway		\$0.00	\$1,852,284.00	\$1,852,284.00
044-2002	2002	PL PL MA	Update Airport Master Plan Study		\$0.00	\$95,662.00	\$95,662.00
045-2002	2002	ST EQ SN	Acquire Snow Removal Equipment		\$0.00	\$245,093.00	\$245,093.00
046-2002	2002	EN LA 65	Acquire Land for Noise Compatibility within 65 - 69 DNL		\$0.00	\$449,190.00	\$449,190.00
047-2002	2002	SE SE SE	Security Enhancements		\$0.00	\$341,974.00	\$341,974.00
048-2002	2002		No projects assigned: Withdrawn or being Initiated		\$0.00	\$0.00	\$0.00
049-2003	2003	EN LA 65	Acquire Land for Noise Compatibility within 65 - 69 DNL		\$0.00	\$1,584,492.00	\$1,584,492.00
050-2003	2003	ST EQ SN	Acquire Snow Removal Equipment		\$0.00	\$267,403.00	\$267,403.00
051-2003	2003	SA EQ SE	Security Enhancements		\$0.00	\$136,878.00	\$136,878.00
052-2003	2003	PL PL MA	Update Airport Master Plan Study		\$0.00	\$146,530.00	\$146,530.00
053-2004	2004	ST LA DV	Acquire Land for Development		\$135,395.00	\$1,121,000.00	\$1,256,395.00
054-2004	2004	ST RW SF	Improve Runway Safety Area		\$19,798.00	\$848,749.00	\$868,547.00
055-2005	2005	EN LA 65	Acquire Land for Noise Compatibility within 65 - 69 DNL		\$1,890,511.00	\$387,250.00	\$2,277,761.00
056-2005	2005	ST LA MS	Acquire Miscellaneous Land		\$0.00	\$753,250.00	\$753,250.00
057-2005	2005	ST AP CO	Construct Apron		\$0.00	\$5,363,157.00	\$5,363,157.00
		ST TE EX	Expand Terminal Building		\$0.00	\$2,474,343.00	\$2,474,343.00
		Grant Total			\$0.00	\$7,837,500.00	\$7,837,500.00
058-2005	2005	ST TW CO	Construct Taxiway		\$0.00	\$128,047.00	\$128,047.00
059-2005	2005	SA EQ SE	Security Enhancements		\$0.00	\$207,057.00	\$207,057.00
060-2006	2006	EN PL NO	Conduct Noise Compatibility Plan Study		\$0.00	\$126,474.00	\$126,474.00
062-2006	2006	CA AP CO	Construct Apron		\$0.00	\$2,101,729.00	\$2,101,729.00
		ST TW CO	Construct Taxiway		\$0.00	\$334,071.00	\$334,071.00
		Grant Total			\$0.00	\$2,435,800.00	\$2,435,800.00
063-2006	2006	EN OT MT	Environmental Mitigation		\$0.00	\$268,866.00	\$268,866.00
064-2006	2006	EN LA 65	Acquire Land for Noise Compatibility		\$1,360,016.00	\$0.00	\$1,360,016.00

Grant History Report

Report Date 10/09/2008

Region: NE												Report Date		10/09/2008	
ADO: ANE															
Worksite: Burlington, VT		Locid:		BTV		Worksite Name: Burlington International		Current Service Level: P		Current Hub Type: S					
Grant Nbr	FY	Project Code	Descr					Entitlement	Discretionary	Total					
065-2006	2006	RE RW IM	within 65 - 69 DNL												
066-2007	2007	EN LA 75	Rehabilitate Runway					\$138,700.00	\$0.00			\$138,700.00			
			Acquire Land for Noise Compatibility					\$0.00	\$874,000.00			\$874,000.00			
067-2007	2007	EN PL NO	within 75 DNL												
068-2007	2007	ST LA DV	Conduct Noise Compatibility Plan Study					\$132,997.00	\$0.00			\$132,997.00			
069-2008	2008	ST AP CO	Acquire Land for Development					\$689,700.00	\$0.00			\$689,700.00			
070-2008	2008	EN LA 65	Construct Apron					\$3,239,798.00	\$0.00			\$3,239,798.00			
			Acquire Land for Noise Compatibility					\$0.00	\$2,261,000.00			\$2,261,000.00			
071-2008	2008	ST AP CO	within 65 - 69 DNL												
			Construct Apron					\$621,308.00	\$162,822.00			\$784,130.00			
072-2008	2008	PL PL MA	Update Airport Master Plan Study					\$640,300.00	\$0.00			\$640,300.00			
Report Total								\$51,707,261.70	\$11,461,264.30			\$63,168,526.00			

Grant History Report - Addendum 10-3-2009

FAA - Office of Airports

Region:		NE				
ADO:		ANE				
Worksite:		Burlington, VT		Locid: BTV		
Worksite Name:		Burlington International				
Grant Nbr	FY	Project Code	Descr	Entitlement	Current Service Level: P	Current Hub Type: S
065-2006	2006	RE RW IM	Rehabilitate Runway	\$138,700.00	Discretionary	Total
066-2007	2007	EN LA 75	Acquire Land for Noise Compatibility within 75 DNL	\$0.00	\$0.00	\$138,700.00
067-2007	2007	EN PL NO	Conduct Noise Compatibility Plan Study	\$132,997.00	\$874,000.00	\$874,000.00
068-2007	2007	ST LA DV	Acquire Land for Development	\$689,700.00	\$0.00	\$132,997.00
069-2008	2008	ST AP CO	Construct Apron	\$3,239,798.00	\$0.00	\$689,700.00
070-2008	2008	EN LA 65	Acquire Land for Noise Compatibility within 65-69 DNL	\$0.00	\$0.00	\$3,239,798.00
071-2008	2008	ST AP CO	Construct Apron	\$621,308.00	\$2,261,000.00	\$2,261,000.00
072-2008	2008	PL PL MA	Update Airport Master Plan Study	\$640,300.00	\$162,822.00	\$784,130.00
Report Total				\$51,707,261.70	\$0.00	\$640,300.00
				\$11,461,264.30		\$63,168,526.00
OCTOBER 2009 ADDENDUM:						
073-2009	2009	Engineering - 5 Projects		\$1,254,000.00	\$0.00	\$1,254,000.00
074-2009	2009	Acquire Land - 10 Parcels		\$0.00	\$3,274,515.00	\$3,274,515.00
075-2009	2009	ARRA - T/W C/G Construction		\$0.00	\$2,622,000.00	\$2,622,000.00
076-2009	2009	T/W - Construction		\$2,401,600.00	\$0.00	\$2,401,600.00
078-2009	2009	Acquire Land - 6 Parcels		\$0.00	\$1,909,500.00	\$1,909,500.00
079-2009	2009	T/W Lighting LED		\$0.00	\$549,100.00	\$549,100.00
080-2009	2009	T/W "c" reconstruction		\$0.00	\$836,000.00	\$836,000.00
Report Total with October 2009 Addendum:				\$55,362,861.70	\$20,652,379.30	\$76,015,241.00

Burlington International Airport FAA Part 150 Noise Land Inventory Update and Re-Use Plan

Presented to the South Burlington
City Council & Planning Commission
November 17, 2008



Airport Staff & Consultants

- Brad Worthen (Presenter)
Community Facilitator, Burlington International Airport
- Michael Lawrence, ASLA (Presenter)
Landscape Architecture
- George Paris, PE; *Campbell & Paris Engineers*
Airport Engineering & Master Planning
- Ralph Willmer, AICP; *VHB*
Land Use Study & Zoning
- Airport Staff: Brian Searles, Director of Aviation;
Robert McEwing, Director of Planning & Development



CAMPBELL & PARIS



Purpose of the Noise Land Inventory Update and Re-Use Plan

- ▶ “Part 150”: FAA funds to Airports to purchase land whose use is incompatible with the noise levels experienced near an Airport
- ▶ Plan identifies current use of land purchased with Part 150 or Airport Improvement Program funds and future use of Part 150 purchased land
- ▶ Incompatible noise level determined by noise contours from engineering studies
- ▶ Separate from the Master Plan Update (MPU)



Planning for Use of Land Acquired with Part 150 funds

- ▶ Land use has been determined to be **NON-COMPATIBLE** with operation of an Airport, due to noise levels
- ▶ Federal regulations **prohibit re-use** of these properties for **non-compatible (residential) use**
- ▶ Eligibility for purchase determined by noise contours, but *purely voluntary*
- ▶ FAA does not require schedule or priority system but strictly limits re-use





Identified Non Compatible Properties >>

*Yellow: Airport owned;
Pink: Eligible for Part 150 purchase;
within 65 dbA contour*

Future Use of Part 150 Funds: Airport and Compatible Uses

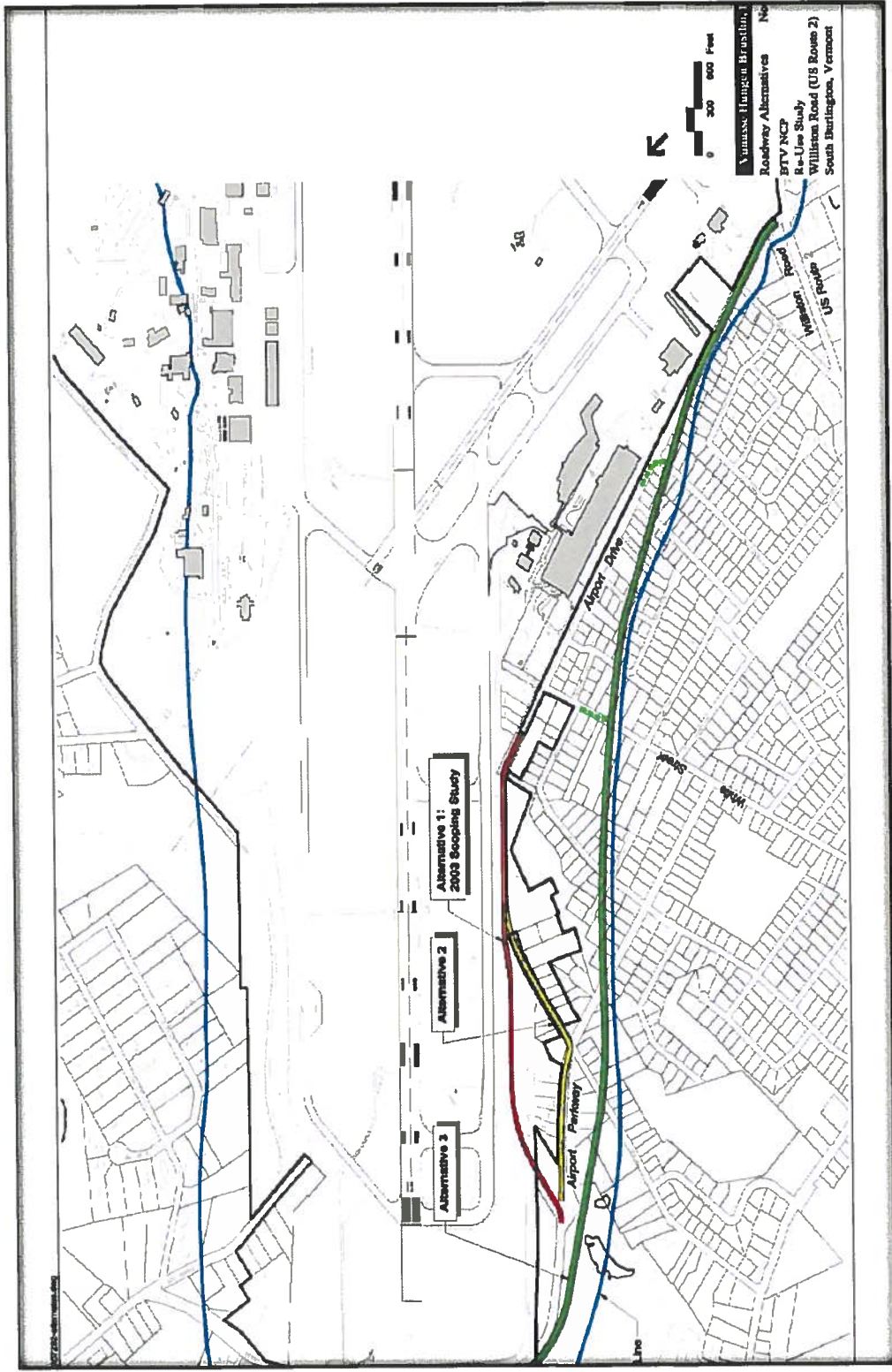
- FAA regulations: land exposed to 65 dbA is unsuitable for residential and most park uses; can be used for Airport or compatible purposes
 - Soundproofing considered a last resort
 - BIA intent to acquire ~100 dwellings within 65 dbA contour over 10 years, 2009–2019
 - Land Re-Use Study will identify infill sites within the neighborhood OUTSIDE 65 dbA contour
- ▶ Some Part 150 land may be needed for Airport-related purposes, to be determined in the Master Plan Update (begins Nov. 2008, City involved in public process)
- ▶ Other land may be utilized for noise-compatible purposes
 - Roads and landscaped buffer areas
 - Appropriate non-residential use, governed by South Burlington zoning



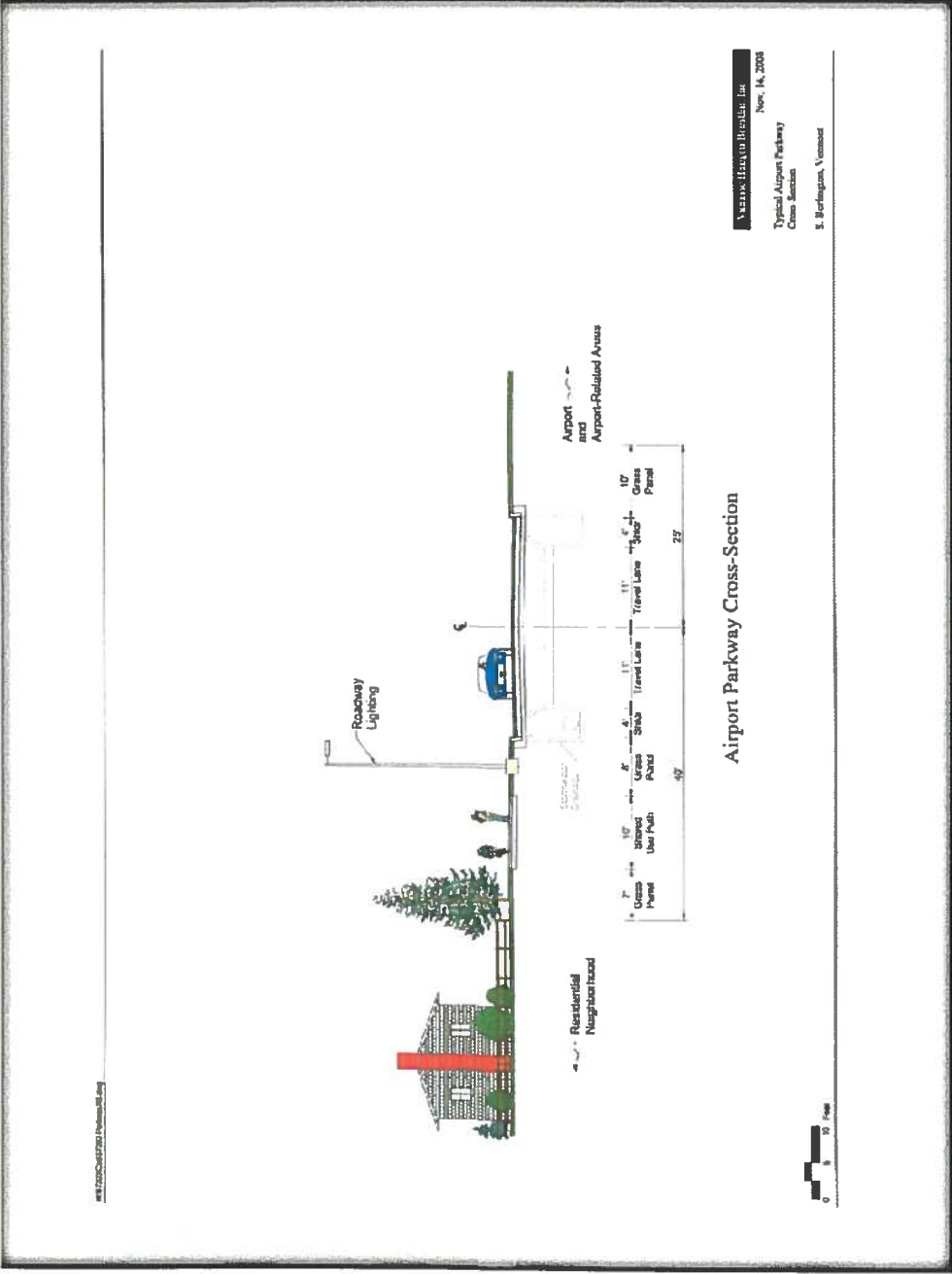
Conceptual Land Use for the 65 dbA area:

- ▶ Airport uses
- ▶ Noise-compatible uses appropriate for an Airport setting, governed by SB zoning
- ▶ Roadway, recreation path, and buffering/landscape zone: Airport Drive extension
- ▶ Landscape and design transitions to protect the residential neighborhood





Airport Drive Extension >>

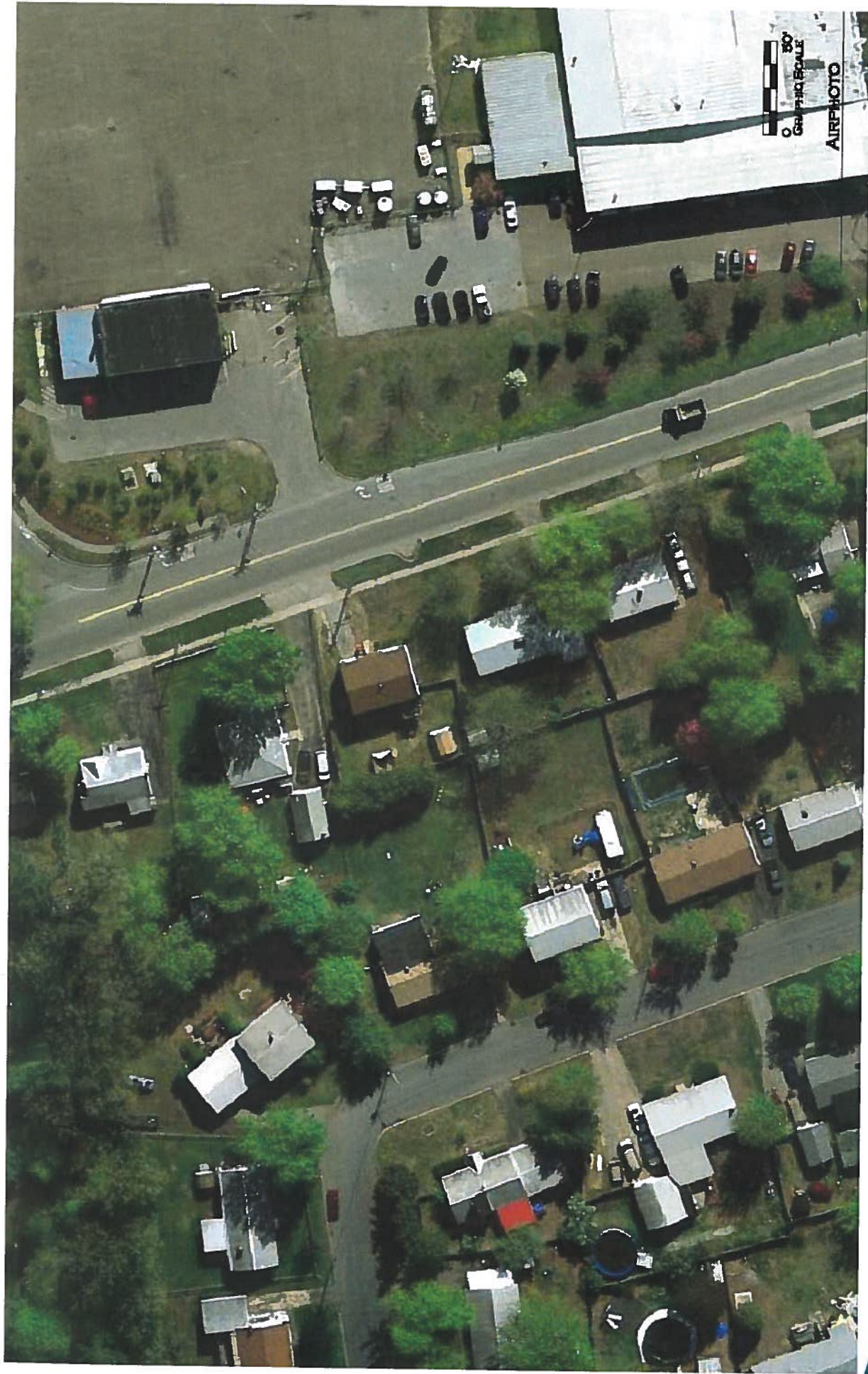


Airport Parkway Cross-Section Concept >>





Micro-Level Neighborhood
Planning:
Landscape Concepts for Re-Use
Airport Parkway-Picard Circle Area



Micro-Level Neighborhood Planning:
Landscape Concepts for Re-Use
1151-1153 Airport Drive



Micro-Level Neighborhood Planning: Landscape Concepts for Re-Use 1151-1153 Airport Drive



Micro-Level Neighborhood Planning:
Landscape Concepts for Re-Use
Lots along White Street & Dumont Ave

BTV is one of only three airports in the country experiencing any growth at all.

Additional aircraft seating capacity has increased by 9% this year

- ▶ Honolulu is off by 25%
- ▶ Arrival of discount carrier Air Tran
- ▶ Strong use of BTV by our neighbors from Quebec. The average round trip airfare savings realized by Canadians departing from BTV vs. Elliot Trudeau Airport in Montreal is \$350 per person.
- ▶ Our shops, restaurants, filling stations and hotels all benefit from Canadian activity.

BTV is home base to the Green Mountain Boys.

- ▶ The VT Air National Guard has taken on an ever expanding role in patrolling our nations skies and protecting USA global interest since 9-11.



Burlington International Airport

The Region's Largest Transportation Hub

- ▶ 1.4 million passengers use BTV annually
- ▶ BTV infuses tens of millions of dollars into the local economy.
- ▶ On the same scale as IBM, IDX, UVM, FAHC, Burton Snowboards, Ben & Jerry's, Dealer.com, VT Teddy Bear, The Lane Press.
- ▶ We need to plan for future growth and the related airport services that will be required to facilitate growth.
- ▶ We need to continue to dialogue with the surrounding communities and be ever mindful that cooperative planning efforts between BTV and the City of South Burlington are key to achieving mutual goals and the interest of our citizens, homeowners and businesses alike.



Next Steps

BTV needs to continue the Acquisition Part 150 program:

- ▶ Proceed with FY09 plans and landscape strategies
 - Voluntary home sales; prompt removal and landscape plantings for Airport Drive properties
 - Work with Picard Circle, other landowners on voluntary acquisition so as not to lose Federal funding opportunity
- ▶ Continue Land Re-Use Planning
 - Development of “three-zone” concept with Airport Drive extension
 - Evaluation of infill sites
 - Develop neighborhood fabric/zoning strategies
- ▶ Coordinate next presentation date (2nd of 3 planned) with the City of South Burlington

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BURLINGTON INTERNATIONAL AIRPORT

FAR PART 150 NOISE LAND RE-USE PLAN

Presentation To City of South Burlington



Burlington International Airport

Noise Land Re-Use Plan

January 5, 2009

AIRPORT STAFF AND STUDY TEAM

Burlington International Airport

Brian Searles, Director of Aviation

Robert McEwing, Director of Planning & Development

Brad Worthen, Community Facilitator

Study Team

George Paris PE

Campbell & Paris Engineers – Project Manager & Airport Planning

Ralph Willmer AICP

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Michael Lawrence ASLA

Michael Lawrence Associates - Landscape Architecture



Burlington International Airport

Noise Land Re-Use Plan

January 5, 2009

Burlington International Airport (BTV)

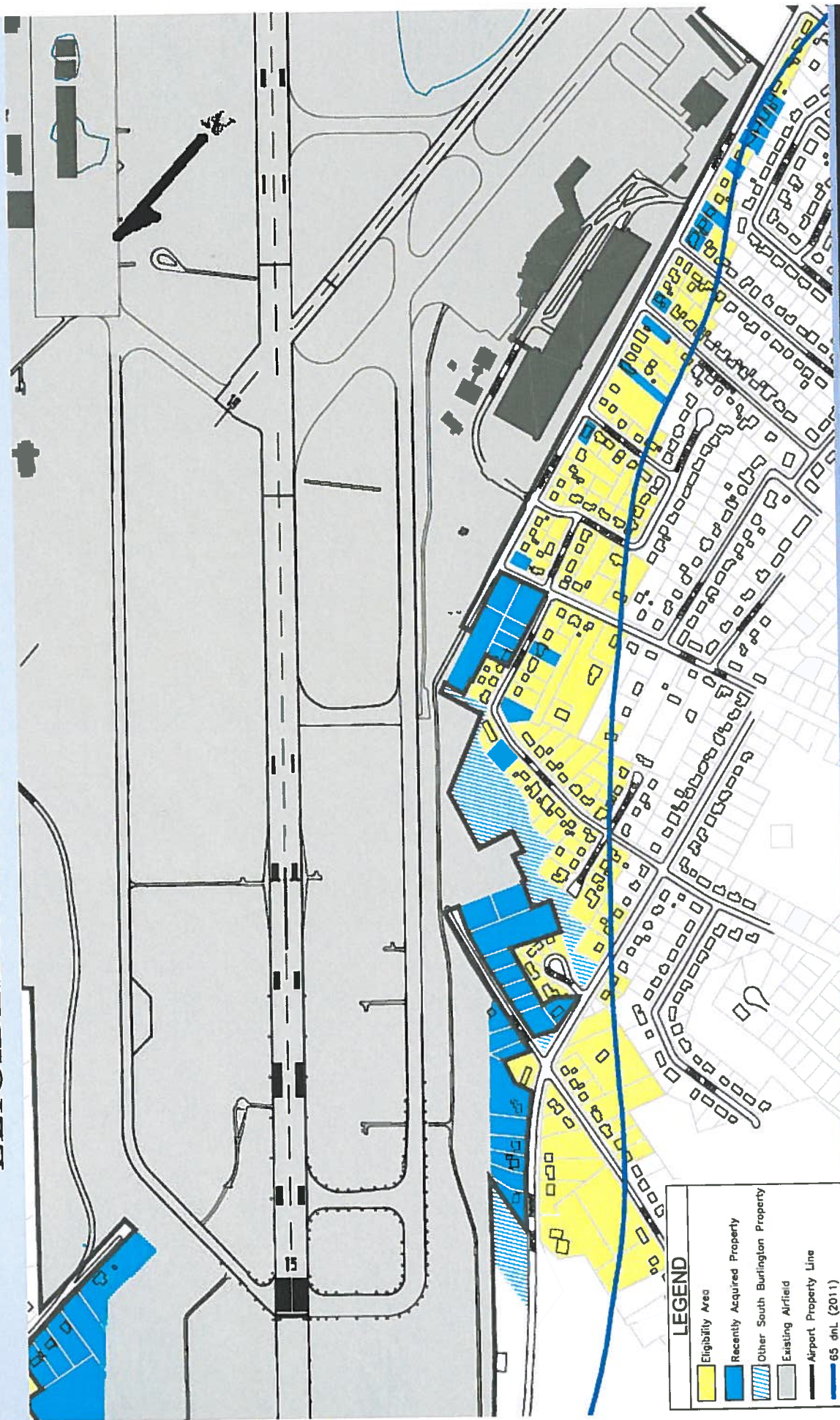
October 2008



Burlington International Airport Noise Land Re-Use Plan

January 5, 2009

ELIGIBLE NOISE IMPACTED PROPERTIES



Burlington International Airport

Noise Land Re-Use Plan

January 5, 2009



Planned Uses within Acquired Areas

(Part 1 of 3)

Permanent Buffering & Resource Areas ($\pm$ 25 acres)

Provide noise and visual buffers

- Sound walls, earthen berms & densely planted landscaping features (i.e., Living Walls)
- Consistent with neighborhood aesthetics

Suppress traffic noise into the residential areas

Community parkland and recreational uses

Wetland resource areas remain preserved & undeveloped



Burlington International Airport

Noise Land Re-Use Plan

January 5, 2009

The Living Wall

AN ECOLOGICAL SOUND BARRIER SOLUTION INC.

Willow plantations

Privacy screen fence

Sound barrier with soil

Advantages and benefits

Info

Winner of:



2008



The Living Wall is a sound attenuation/privacy screening solution that incorporates ecological principals with engineering practices.

The vegetation used in **The Living Wall**, willow shrubs native to Canada and the US, has the ability to grow rapidly and thus provides an almost instant landscape. The construction is carefully planned to ensure the controlled growth of roots and shoots. As the vegetation spreads over it's biodegradable wooden framework, it matures into an integrated unit that is able to withstand harsh winters and hot summers, maintaining it's aesthetic appeal in all seasons.

The Living Wall naturalizes urban and rural environments while providing superior sound absorption and a substantial privacy structure. It is an organic manufacture that has enormous environmental benefits including: photosynthesis, pollution filtration, and soil stabilization.



Burlington International Airport

Noise Land Re-Use Plan

January 5, 2009

Planned Uses within Acquired Areas

(Part 2 of 3)

Relocated Airport Drive/Parkway (± 15 acres)

Collect/redirect traffic away from neighborhood streets

Collector type roadway with limited access

- Sufficient ROW (100 ft) for two travel lanes each direction
- Landscaped median with curb
- Pedestrian sidewalks/trails/bike paths “connected” with other amenities
- Interim landscaping until permanent redevelopment of roadway

Combined ROW with buffer creates significant width for noise attenuation (200 ft or more in many areas)

Permanent boundary to segregate new uses from neighborhood



Burlington International Airport

Noise Land Re-Use Plan

January 5, 2009

AIRPORT DRIVE/PARKWAY

Typical 100-ft Right-Of-Way Reservation



Burlington International Airport

Noise Land Re-Use Plan

January 5, 2009



Planned Uses within Acquired Areas

(Part 3 of 3)

Airport Re-Use Areas ($\pm$ 30 acres)

Accommodate needs of the “traveling public”

Public Transit Facilities

- Consistent w/ Regional Transportation Initiatives
- To Reduce On-Site Parking and Traffic Demands

Airport Access /Circulation/Parking Improvements

- On Grade & Structured Public Parking
- Rental Car/Taxi/Shuttle/Cell Phone Waiting/Employee Parking Areas

Economic Development Opportunities and Uses

Potential Hotel Operation

Office, Retail & Commercial Uses

All uses must be compatible with “high noise” impacts

Interim landscaping provided until redevelopment occurs

Wetland resource areas remain preserved



Burlington International Airport

Noise Land Re-Use Plan

January 5, 2009

Legend

- West Edge of Acquired Land
- Existing Street
- New Street
- Buffer
- New Airport Use

Re-Use Area

Permanent Buffer Areas

Streets shown on the map include: Airport Blvd., Kibby Rd., Richard Terrace, Kull Ct., Maplewood Dr., Glover St., Beckler St., Hanover St., Guy St., Airport Pkwy., Barber Terrace, Peterson Terrace, Maryland St., Is St., Leonard St., Mills Ave., Victory Dr., Helen Ave., Myers Ct.



January 5, 2009

Acquisition Protocol

(Part 1 of 3)

All sales are voluntary & initial inquiries handled confidentially

Goal to accommodate requests into program as soon as practical

General preferences:

- Properties along Airport Drive
- Properties in “Groups” and “Blocks” defined by existing streets
- Higher noise impacted areas
- Avoid “patch-work” acquisitions

Firm but flexible policies:

- To adjust when practical to meet individual owner situations
- To adjust for increased and decreased future funding levels
- Accelerate program when “blocks” and “groups” are ready

Overall Principle - Program benefits are intended for noise impacted homeowners



Burlington International Airport

Noise Land Re-Use Plan

January 5, 2009

Acquisition Protocol

(Part 2 of 3)

Continually evaluate and update program and protocols

Keep neighborhood informed of acquisition progress and schedules

Use BTV and City Websites to disseminate information

Consult City when acquisition requirements can't maintain protocol

Implement policy to assure tax revenues are maintained

Overall Principle - Program benefits are intended for noise impacted homeowners



Burlington International Airport

Noise Land Re-Use Plan

January 5, 2009

Acquisition Protocol

(Part 3 of 3)

Remove vacated homes/implement landscaping program:

- Within 2 years after acquisition
- In logical contiguous areas
- Large enough areas to create desired landscaping effects
- So remaining residences are not “stranded”

Concentrate demolition and landscaping activities:

- To no more than a few months each year
- To minimize neighborhood disturbances
- Avoid “attractive nuisance” & vandalism issues

Overall Principle - Program benefits are intended for noise impacted homeowners



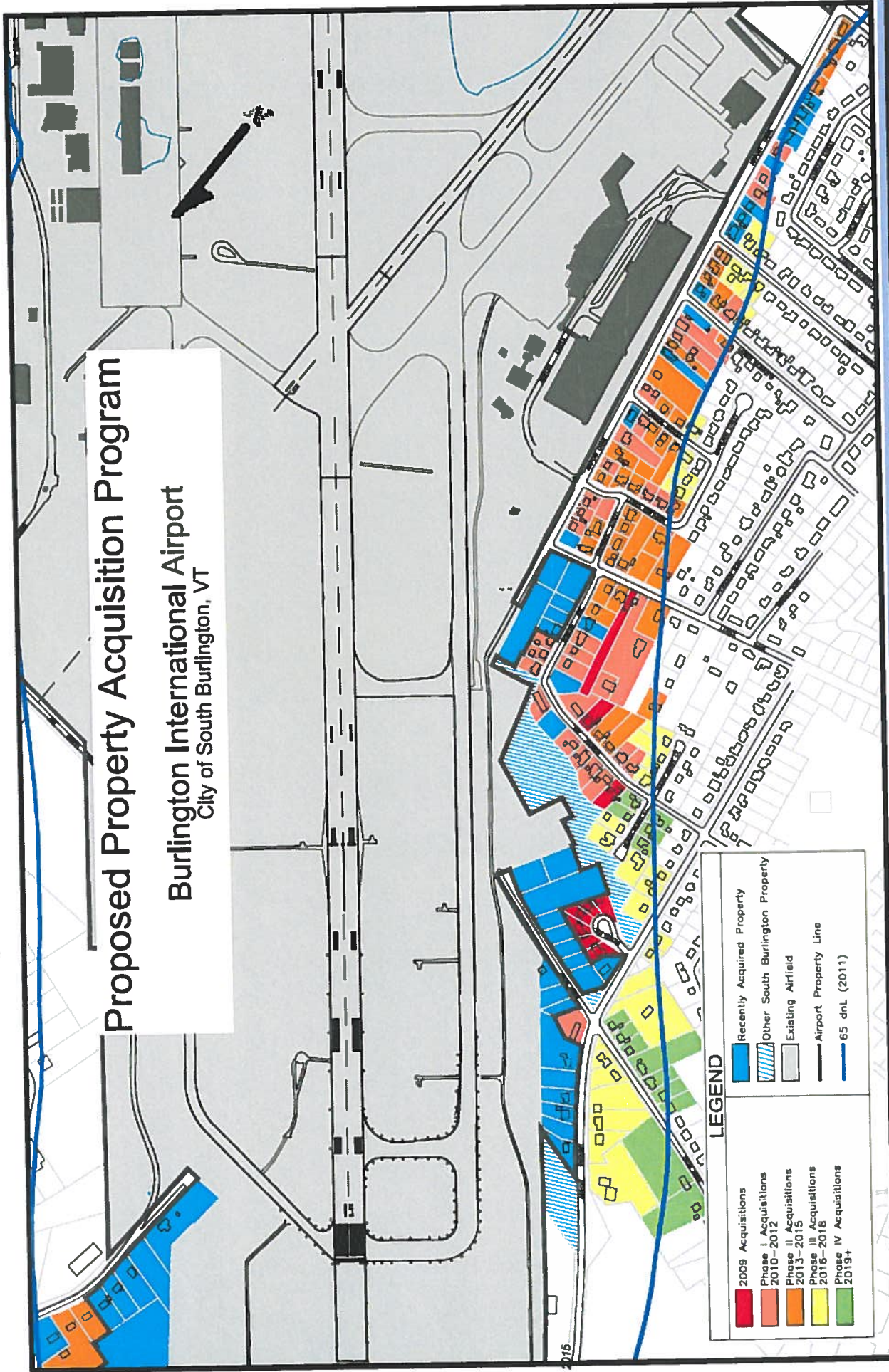
Burlington International Airport

Noise Land Re-Use Plan

January 5, 2009

Proposed Property Acquisition Program

Burlington International Airport
City of South Burlington, VT



Burlington International Airport Noise Land Re-Use Plan

January 5, 2009



DETAILED ACQUISITION PLAN

BURLINGTON INTERNATIONAL AIRPORT
LAND ACQUISITION SUMMARY/PLAN
PURCHASES: 1991-2008
TENATIVE PLAN: 2009-2019

YEAR (FY)	AIRPORT DRIVE	SHAMROCK ROAD	AIRPORT PARKWAY	KIRBY ROAD	PICARD CIRCLE	DUMONT AVE	HENRY COURT	WHITE STREE	MARYLAND ST	LEDoux TERR	ELIZABETH ST	DELAWARE ST	PATRICK ST	COMMERCIAL	YEARLY TOTAL
1990-2008 PURCHASES															
1990															0
1991	1														1
1992	3														3
1993															0
1994	3													1	4
1995															0
1996															0
1997	1														3
1998			1					1						1	1
1999	4	5	1												10
2000															3
2001	5	1								1				2	6
2002			2												2
2003	4	1	2	2											9
2004	4		1												5
2005	1		2	0											0
2006				3		2		1							6
2007	1					2									3
2008	3	1	2			2									8
TOTAL	30	8	11	11	0	6	0	2	0	1	0	0	0	4	113
2009-2019 PROPOSED PROGRAM															
2009		1	1		5	2		1							10
2010	3				7			2							12
2011	2		1		3				1	1	1			1	10
2012	3				4				1			1		1	10
2013	4				3			1			1	1			10
2014								4		2	1	3			10
2015								2	4	3					10
2016		1							2	2	1		5		10
2017			6				8								10
2018			6	2			2								10
2019				8			5								13
TOTAL	12	2	13	10	5	19	12	10	8	6	4	5	5	2	115



Burlington International Airport
Noise Land Re-Use Plan

January 5, 2009

Infill Areas Studied For Residential Redevelopment

BTV and Study Team will continue to work closely with City

Address issues caused by displaced housing from the acquired areas

Recommendations will include:

- Where additional new housing opportunities could be created
- What areas might be available for potential infill housing development
- How best to promote development of a variety of housing types
- What possible zoning changes might be needed



Burlington International Airport

Noise Land Re-Use Plan

January 5, 2009

City of South Burlington Actions

Concurrence with Acquisition Plan & Decision Protocol

Concurrence with overall Re-Use Concept Plan



FY09 Program (Red Properties)
consistent with Plan and Protocol

Concurrence with resumption of FY 09
Program Acquisitions

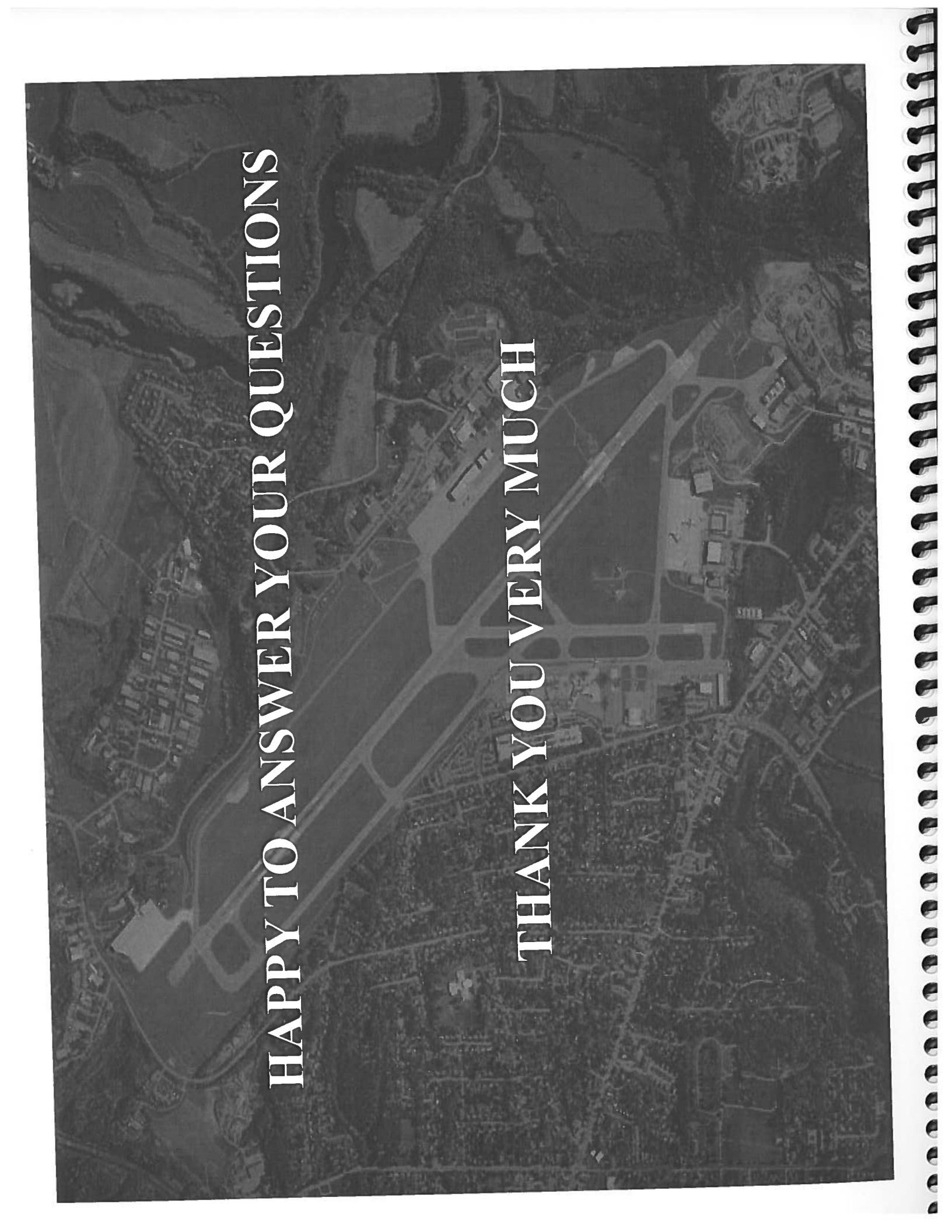
Future Comprehensive Planning and Zoning Updates Necessary



Burlington International Airport

Noise Land Re-Use Plan

January 5, 2009

An aerial photograph of an airport and surrounding area, including runways, taxiways, and surrounding land. The image is in black and white and serves as the background for the text.

HAPPY TO ANSWER YOUR QUESTIONS

THANK YOU VERY MUCH

BURLINGTON INTERNATIONAL AIRPORT

FAR PART 150 NOISE LAND RE-USE PLAN

Presentation
To
City of South Burlington



*Burlington International Airport
Noise Land Re-Use Plan*

January 20, 2009

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Burlington International Airport

Noise Land Re-Use Plan

January 20, 2009

Burlington International Airport (BTV)

October 2008



Burlington International Airport Noise Land Re-Use Plan

January 20, 2009

Airport Land Use Compatibility Activities

Chronological Summary

National FAA Part 150 Program initiated by 1979 legislation

First Part 150 Study for BTV prepared in 1990

Noise related acquisitions began in 1991 (inside LDN 70)

BTV study was updated again in 1997

Current updates began in 2006

November 2007 Public Workshop

March 2008 Public Workshop

Expanded Eligibility (to LDN 65) approved by FAA in Sept 2008

Presentations to City of South Burlington

November 17, 2008

January 5, 2009

January 20, 2009



Burlington International Airport

Noise Land Re-Use Plan

January 20, 2009

Presentations to City of South Burlington

(November 17, 2008 - Meeting 1 of 3)

Introduce Reuse Study and background issues

Part 150 program funding requirements, restrictions and timetables

Describe eligibility areas, requirements and program goals

Introduce early concepts for reuse



Burlington International Airport
Noise Land Re-Use Plan

January 20, 2009

Presentations to City of South Burlington

(January 5, 2009 - Meeting 2 of 3)

Present acquisition plan and receive comments on reuse concepts

Review refined concepts for reuse and receive City comments

- Permanent Buffering & Resource Areas ($\pm$ 25 acres)
- Relocated Airport Drive/Parkway ($\pm$ 15 acres)
- Airport Re-Use Areas ($\pm$ 30 acres)

Describe details for acquisition plan and decision protocols

- Concurrence to resume FY 09 acquisition efforts
- Constructive comments received from residents and council

Historical variations in the LDN 65 noise exposure limits

Incompatible noise for residential uses should not be confused with human safety

Noise exposures would have to continuously exceed LDN 75 to threaten hearing loss

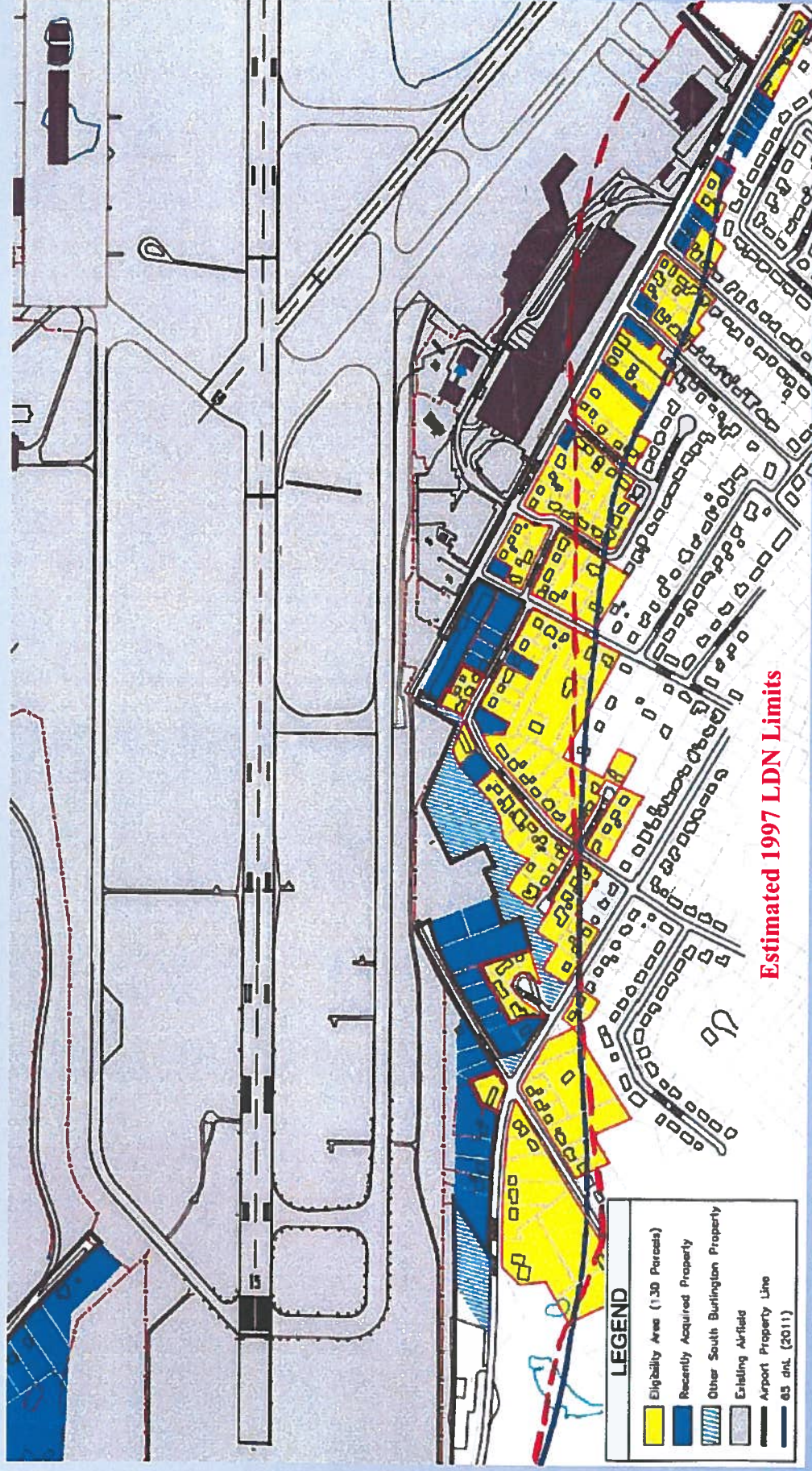


Burlington International Airport

Noise Land Re-Use Plan

January 20, 2009

1997 vs. 2011 ELIGIBLE NOISE IMPACTED PROPERTIES

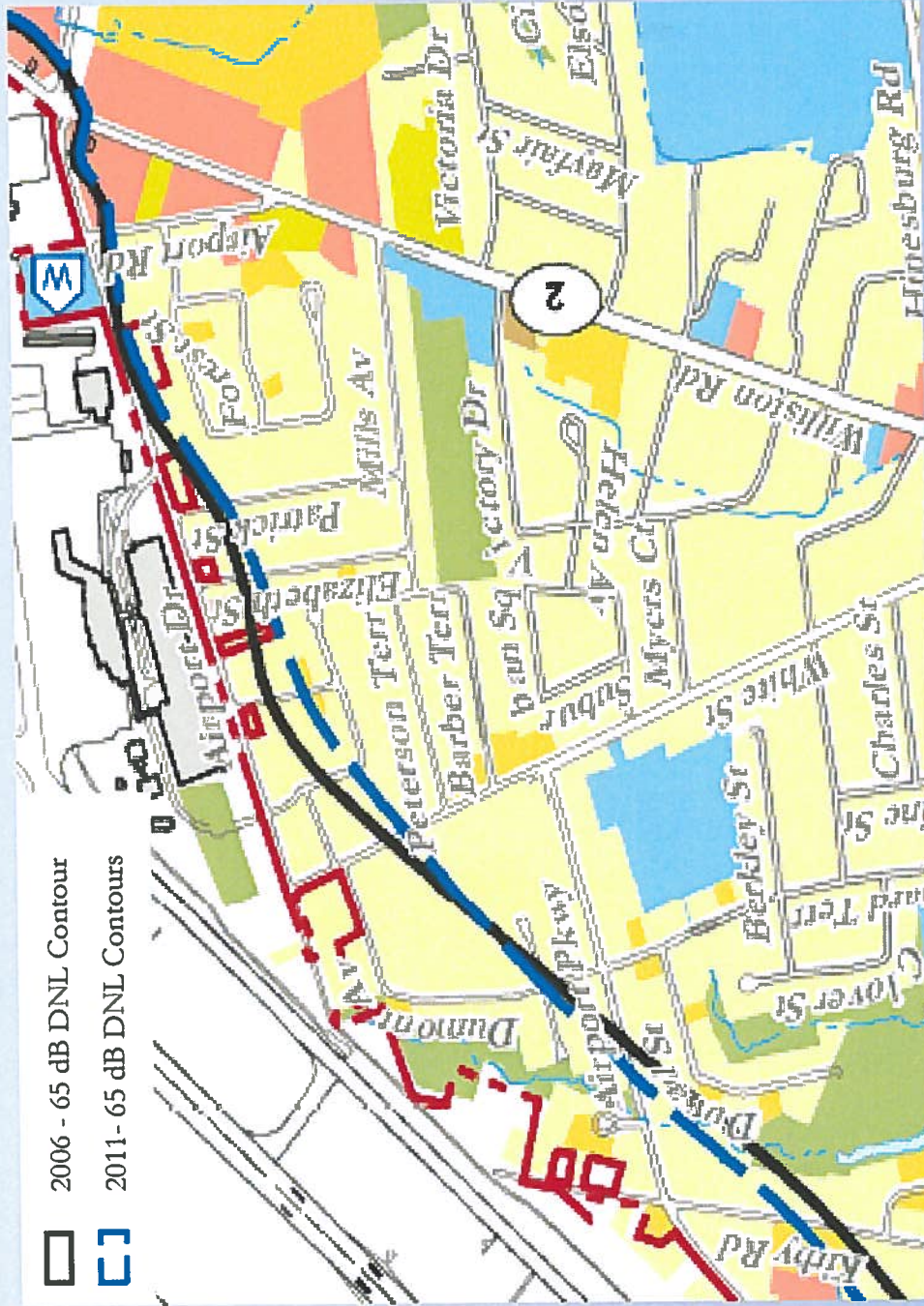


Burlington International Airport

Noise Land Re-Use Plan

January 20, 2009

CURRENT STUDY NOISE EXPOSURE LIMITS



Burlington International Airport

Noise Land Re-Use Plan

January 20, 2009



Presentations to City of South Burlington

(Tonight's January 20, 2009 - Meeting 3 of 3)

Outline next steps in the process

Submit Reuse Plan to FAA for concurrence in February 2009

- Incorporate/document City concerns and comments into plan
- Continue work with City to identify recommendations for housing infill areas
- Continue work with City to create useable and effective noise buffer policies
- Incorporate FAA approved Reuse Plan into a formal City to City Agreement

Execute a written agreement between Cities to document and bind both parties

- To adhere to the acquisition plan
- To adhere to the decision protocols
- To adhere to the development guidelines established for the reuse areas
- To petition FAA together when properties request inclusion in the program along the “humanized” eligibility boundary



Burlington International Airport

Noise Land Re-Use Plan

January 20, 2009

Presentations to City of South Burlington

(Tonight's January 20, 2009 - Meeting 3 of 3)

Outline next steps in the process

Implement reuse guidelines in Master Plan Update (MPU) recommendations

- City interests represented on the study's Technical Advisory Group (TAG)
- MPU efforts expected to take 12 to 18 months
- Briefings to be provided to the City throughout process

Master Plan recommendations formally presented to the City for concurrence

- To receive and incorporate comments prior to finalizing
- Public workshops will be conducted during the review process

Acquisition program continues based on the plan and protocol

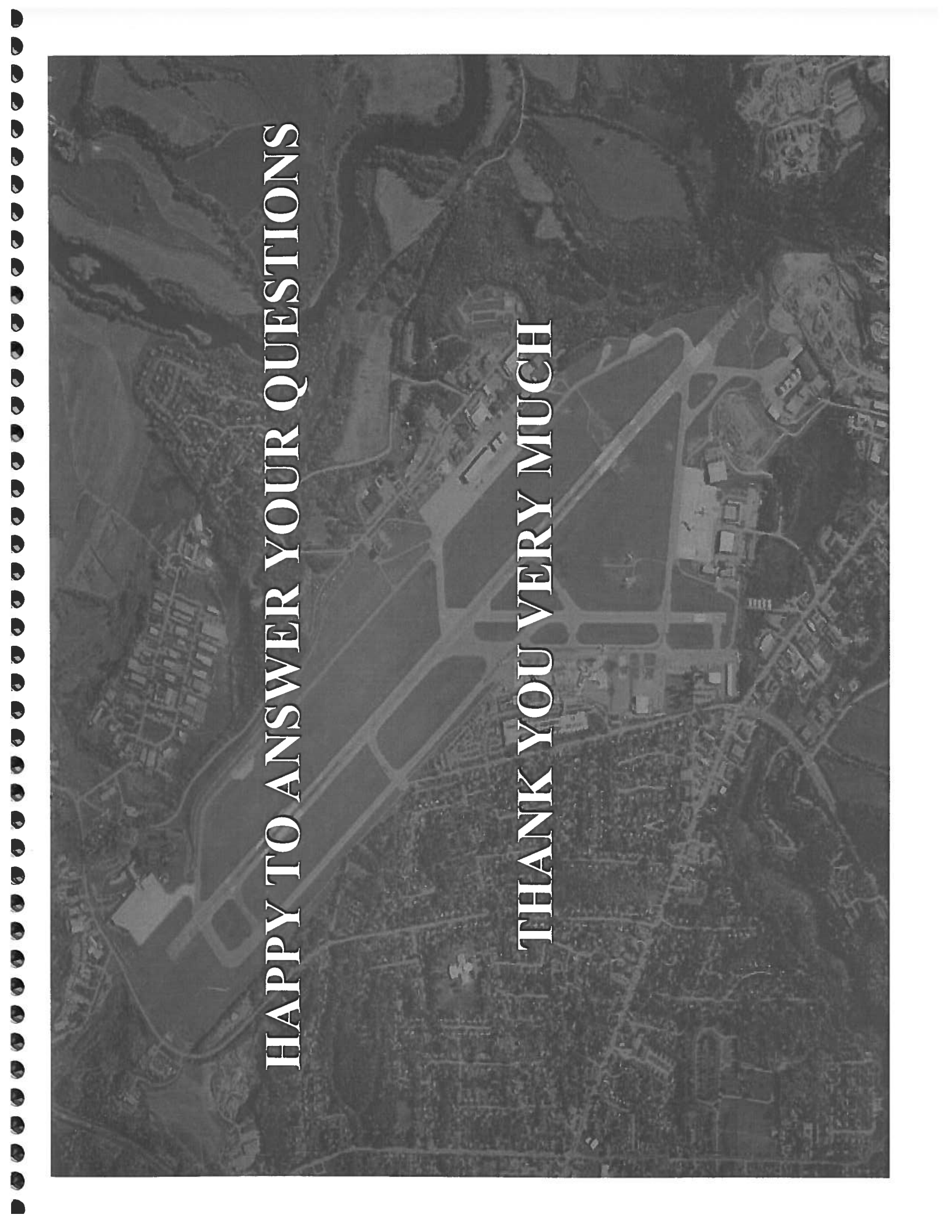
- Temporary landscaping measures implemented
- Final re-use concepts will be described by the MPU
- Acquisition program will be reviewed for consistency with final MPU



Burlington International Airport

Noise Land Re-Use Plan

January 20, 2009

An aerial photograph of an airport and surrounding area, including runways, taxiways, and surrounding land. The image is in grayscale and serves as the background for the text.

HAPPY TO ANSWER YOUR QUESTIONS

THANK YOU VERY MUCH

**Infill Housing Analysis and
Zoning Strategies
for the
City of South Burlington, Vermont**

July, 2009

Infill Housing Analysis and Zoning Strategies

This report was developed by VHB Pioneer in July, 2009, in conjunction with the FAA Part 150 Noise Land Inventory and Re-Use Plan for Burlington International Airport, prepared by Campbell & Paris Engineers and VHB Pioneer.

1.0 Introduction

In conjunction with the Part 150 Noise Land Inventory and Re-Use Plan prepared for Burlington International Airport in 2009, an analysis was performed to identify the number, location, and nature of potential infill housing sites in the City of South Burlington, Vermont. This report and analysis is intended to help support development of land use and housing policies by the City of South Burlington in conjunction with the Airport's planned and programmed acquisition of lands affected by Airport-related noise under the FAA's Part 150 program.

Removal of single-family housing stock, particularly moderately-priced units such as those eligible for acquisition under the Part 150 program, is of concern to the City of South Burlington. For many years, the City successfully has promoted policies to increase the quantity and price variety of its housing stock, encouraging infill development in commercial, residential and mixed use areas as one strategy to accomplish this goal. In light of the Airport's plan to remove single-family housing stock from eligible, noise-impacted areas under the Part 150 program, the City of South Burlington has requested analysis to identify the residentially-zoned parcels in South Burlington that have conditions suitable for infill housing development. This technical memorandum describes the parameters used to identify infill parcels, the analysis performed, and the resulting identification of infill parcels, both in the residential neighborhoods around the Airport, and City-wide.

2.0 Airport Acquisition Program and City Housing Stock

To facilitate its ongoing and planned operations, and complimentary transportation and land use activities that support Airport functions, the Airport has been utilizing Part 150 funds to acquire properties affected by Airport noise since 1991. Properties were deemed eligible for acquisition through modeling of expected noise levels performed by the Airport Engineer in accordance with FAA protocols. In September 2008, the Airport gained approval from the FAA to extend eligibility to those properties within or affected by a modeled contour line representing an expected noise level of 65 dnl. The prior eligibility area of properties exposed to 70 dnl was closer to the Airport, and involved fewer properties. The extension to the 65 dnl line added roughly 85 properties to the total number of houses eligible for acquisition under the Part 150 program.

Within the eligible area, the Airport has acquired 13 houses to date, and has planned to acquire and remove an average ten (10) houses per year for each of the next ten years. These acquisitions will enable development of transportation improvements, Airport facilities, noise-compatible land use activities, and appropriate buffer areas between Airport-related uses and adjacent residential areas. If completed as planned, the Part 150 acquisition program could result in the ultimate removal of a total of roughly 120 single-family housing units from the eligible area.

The City's major concern has been the impact of the acquisitions on the City's stock of detached single-family dwellings. Overall, South Burlington's housing stock has grown rapidly since 2000, adding an average of 125 single-family and 63 duplex or multi-family units annually between 2000 and 2008.

Housing Type	2000 Census	Percent	July 2009 ¹	Percent
Single-Family	3,813	58.7%	4,818	60.2%
Duplex/Multi-Family	2,685	41.3%	3,189	39.8%
Total Units	6,498		8,007	

While the number and proportion of single-family housing in South Burlington increased between 2000 and 2009, much of the new single-family detached units constructed during this period were larger and had substantially higher initial sales prices than the single-family detached residences in the Airport Parkway neighborhood. Therefore, the loss of units in the Airport Parkway neighborhood presents some concern with respect to the diversity of size and price in the City's stock of single-family detached dwellings.

Relative to the total number of single-family detached dwelling units existing as of 2008, the eventual acquisition and removal of 120 houses would represent the removal of approximately 15 percent of the current Airport Parkway neighborhood's housing stock (120 out of approximately 800 existing in 2009), approximately 2.5 percent of the City's single-family dwelling units, and approximately 1.5

¹ Data from the Department of Planning & Zoning, City of South Burlington, July 28, 2009 and <http://www.housingdata.org/profile/resultsMain.php?town=007070>, accessed July 28, 2009

percent of the City's total housing stock. In summary, while the overall housing growth in South Burlington is likely to replace the 120 units removed in a shorter timeframe than the timeframe expected for acquisitions, the City is seeking to support development of additional moderately-priced single-family detached housing, both in areas of the Airport Parkway neighborhood outside the 65 dnl contour and elsewhere, as part of its overall housing strategy.

3.0 Identification of Infill Parcels

To identify potential infill parcels, parcel and assessment data from the South Burlington assessor's office were combined with parcel maps, zoning district boundaries, and dimensional zoning requirements from the South Burlington Land Development Regulations². These data were used to identify sites with different levels of development potential. All zoning districts that allow residential use were evaluated for potential infill development sites.

3.1 Infill Development Definitions

Infill development can be defined as the creation of new or more intensive land uses on a parcel that is at least partially surrounded by existing developed land uses. It is distinguished from "Greenfield" development because it occurs in the context of developed areas and established neighborhoods, rather than in rural or otherwise undeveloped areas. Infill development may be more or less intensive than the land uses and buildings surrounding the site, and may or may not involve the demolition or re-use of existing buildings.

Three types of infill sites were identified for purposes of this study :

- 1 Vacant parcels of sufficient size to support new housing development. This captured any parcel with sufficient land area to support one single-family, one duplex, and/or three multi-family housing units in accordance with the dimensional standards of the underlying zoning district.
- 2 Parcels of sufficient size to support new housing development per the underlying zoning district regulations that contain structures with an assessed value less than 60% of the average for comparable properties (i.e. residential, duplex, commercial, etc.) in the surrounding area. This analysis was intended to find parcels with under-market structures, whose value relative to other assessed values in the immediate area indicates that a tear-down or other building redevelopment may be economically feasible.

²Dimensional standards from the South Burlington Land Development Regulations dated February 25, 2008 were used for this analysis. While amendments to the Land Development Regulations were approved December 15, 2008, at the time of writing, these amendments had not yet taken effect. No changes to any applicable dimensional standards were made in the December 2008 amendments that would affect use of the February 25, 2008 version of the Regulations for purposes of this analysis.

- 3 Parcels of sufficient size to support new housing units in addition to those already located on the site. Parcels containing a structure with an assessed value of at least 60% of the average for comparable properties (i.e. residential, commercial, etc.) in the surrounding area were further evaluated to identify those with sufficient lot size to support additional residential units through subdivision or planned unit development (PUD).

3.2 Assumptions Regarding the Land Development Regulations

The dimensional standards from the South Burlington Land Development Regulations (SB LDRs) were used to evaluate whether tax parcels had sufficient area to support the development of infill or additional housing units. Two parameters are important: the minimum lot size per dwelling unit, which may be waived under the SB LDRs in a PUD application; and the maximum density per acre, which in most cases may not be waived.

The zoning districts in the SB LDRs were evaluated to determine which should be evaluated. Those zoning districts that permit new residential land use per Table C-2, and were included in this analysis, are:

- Residential 1, 2, 4, 7, 7-NC, 12
- Residential 7-NC
- Lakeshore Neighborhood
- Queen City Park
- Southeast Quadrant NRT, NR, VR, VC (SEQ-NRP excluded)
- Commercial 1 and Commercial 1-LR
- Commercial 2
- Central District 1, 2, 3, 4

For this analysis, the first step was to identify those parcels meeting the minimum lot size for some residential development, whether single-family, duplex, or multi-family (3 or more units). While lot sizes can be waived, the need to provide off-site parking, landscaping, and required yards typically precludes more intensive development on small parcels of four or fewer housing units. Thus, if the parcel's size was sufficient to support four or fewer new units based on the minimum required lot size, the minimum lot size was used as the controlling parameter. In cases where a parcel was of sufficient size to support more than four new units, regardless of type, the number of units assumed to be achievable on the parcel was evaluated based the maximum density in the zoning district.

Finally, this analysis took property boundaries as fixed, and did not evaluate the potential to create additional units if lot line adjustments, lot mergers, or other parcel adjustments were made. It is clear that in some specific cases, lot line adjustments, mergers or subdivision could create additional opportunities for infill beyond those described herein. Since this type of analysis would involve private property transactions, it was not performed for this report; however, the City may wish to evaluate

further those lots and areas where parcel mergers or lot line adjustments could create additional opportunities.

3.3 Residential 4 Zoning District

For the Residential 4 zoning district, which includes the Airport Parkway residential area where the Airport's acquisitions are planned, the standard for the amount of lot area required to support a single-family housing unit in this district was reduced from as-of-right minimum of 9,500 SF per unit to 6,500 SF for purposes of this analysis. The maximum density, however, was kept at four units per acre. Two factors argue for this approach. First, under the City's Planned Unit Development (PUD) regulations, the minimum lot size requirement is eliminated for application submitted under the PUD provisions. Second, there have been recent approvals in the City (under the PUD provisions) of smaller single-family units on 'footprint' lots, in which the land around the dwelling unit is commonly owned rather than being subdivided. 'Footprint' lots allow for more efficient use of land and can enable the design of infill projects on lots that might not be large enough to accommodate standard, subdivided lots.

4.0 Analysis and Mapping

With these parameters established, a query was performed in ArcGIS for parcels that met the minimum lot size standards for the applicable zoning district, with an adjustment to the zoning standards made for the Residential 4 district as noted above. The initial screening was for lots that had sufficient lot size to meet the applicable requirements. A second screening then was performed by VHB Pioneer staff based on additional GIS layers, including topography, wetlands, streams, and stream setbacks, to evaluate the physical conditions on each of the sites. The analysis was intended to determine if there was sufficient physical space on the parcel for reasonable development of access and a footprint for a new dwelling unit, based on the location and configuration of existing structures, the location and availability of public roadway access, and the presence or absence of limiting natural features such as wetlands and streams.

The attached map indicates in **yellow** those parcels that had sufficient land area to support more than one housing unit under the applicable zoning district standards, in the existing parcel configuration, but that were judged to have insufficient physical space to support an additional housing unit whether due to access limitations, lot configuration, or environmental constraints. The map indicates in **red** those parcels that were judged to have sufficient land area in a sufficient configuration to support the development of at least one additional single family or duplex dwelling unit, depending on the allowances of the underlying zoning district. Airport noise contours projected for 2011 conditions are shown in blue, as indicated on the map legend.

5.0 Findings

Key findings of the analysis are presented below.

1. There is substantial infill potential in developed, core districts of South Burlington. Much of this is within the C1-R15 mixed-use district along upper Shelburne Road, and along Swift Street near the Swift Street-Spear Street intersection. In addition to the larger potential subdivision parcels, such as the O'Brien Farm and Farrell Estate, there are many infill opportunities within existing neighborhoods. These, however, tend to be challenging and controversial in the permitting process.
2. In the predominantly commercial mixed-use zones, such as C1-R15, many existing commercial uses are subject to permit conditions related to parking (including shared parking agreements among properties) that would represent a challenge for permitting additional use. However, residential infill on a second floor or on an existing impervious surface still is considered a possibility in this analysis.
3. A majority of the R-4 residential parcels in the Airport Parkway neighborhood are at least twice the minimum lot size for this zoning district. While this indicates substantial infill potential, limitations include a property ownership pattern that would require multiple properties to be assembled for most infill; the need for access to the rear of many lots to add units; and the high degree of impervious cover in the Centennial Brook watershed, which is small relative to the size of other South Burlington watersheds.
4. The R1 zoning district along Spear Street is similarly limited. Most of the lots are more than twice the minimum one-acre lot size; however, the pattern of lot ownership with multiple narrow, deep lots and need for access onto Spear Street limits development options unless properties are assembled and some form of rear or secondary access is created.

6.0 Zoning Strategies

Based on this analysis, discussions with Staff of the City of South Burlington Department of Planning and Zoning, and the planned land use areas outlined in the Part 150 Noise Land Inventory and Re-Use Plan, a number of zoning strategies were recommended to the City to explore as part of its planning around both housing and Airport development. While the principal focus of these recommendations concerns the provision of additional smaller-scale, detached single-family housing, other Airport-related issues were considered as well.

6.1 Ensure Affirmative Language Supporting Infill Housing Development in City Comprehensive Plan and LDRs

To be most effective, all of the strategies discussed below should be supported by affirmative language in the City's Comprehensive Plan and Land Development Regulations that clearly articulates the City's support for the development – especially the infill development in existing neighborhoods and built areas – of new, single-family detached housing of a size and scale comparable to the Airport Parkway neighborhood's existing housing stock.

6.2 Density Bonus and PUD Provisions Encouraging Detached Single-Family Housing

South Burlington's land development regulations include a density bonus provision that grants additional units above the maximum allowed density for the provision of affordable housing units. The same approach could be extended to grant additional a density bonus for the provision of small single-family detached units in a development. This type of approach could help tip the balance in favor of small single-family in districts where townhouse development otherwise would maximize the return on a project, notably parcels in the R2, R4, R7 and R12 districts. A bonus could be based either on standard units per acre, or on overall floor area ratio (FAR) for a project or parcel.

This approach also could be applied to certain large, undeveloped parcels that are zoned for residential use and have substantial infill potential. Parcels such as the O'Brien Farm on Old Farm Road, the Rye Farm on Hinesburg Road within the Southeast Quadrant, and lands of the Farrell Estate in the R1-Lakeshore District could be designated for additional residential density if small single-family detached residences are provided.

Another approach with similar effect would be to create an overlay district within portions of the residential zones where small single-family detached dwellings are seen as being most desirable to the City. An overlay district could either provide a density bonus for single-family detached in certain areas, or limit the allowable housing types to single-family detached (as is the current case in the Southeast Quadrant-Natural Resource Protection sub-district).

6.3 Standard Subdivision Process and Dimensional Standards Favorable to Small Single-Family Units

One of the limitations noted for infill housing concerns the lack of flexibility in standard subdivisions, which are the most commonly used method of creating an additional housing lot on parcels that can

support more than one unit under prevailing zoning, such as those identified in this analysis. The prospects for infill housing would be improved by a process that provides overall flexibility for site design in standard subdivisions through reduced setbacks, reduced parking standards, and possibly higher allowable lot coverage in areas targeted for infill housing. As with the recommendations in (2) above, these provisions could be employed in all residential districts, or targeted to priority parcels or areas.

6.4 Create a Higher-Density Sub-District at the Corner of White Street and Airport Parkway

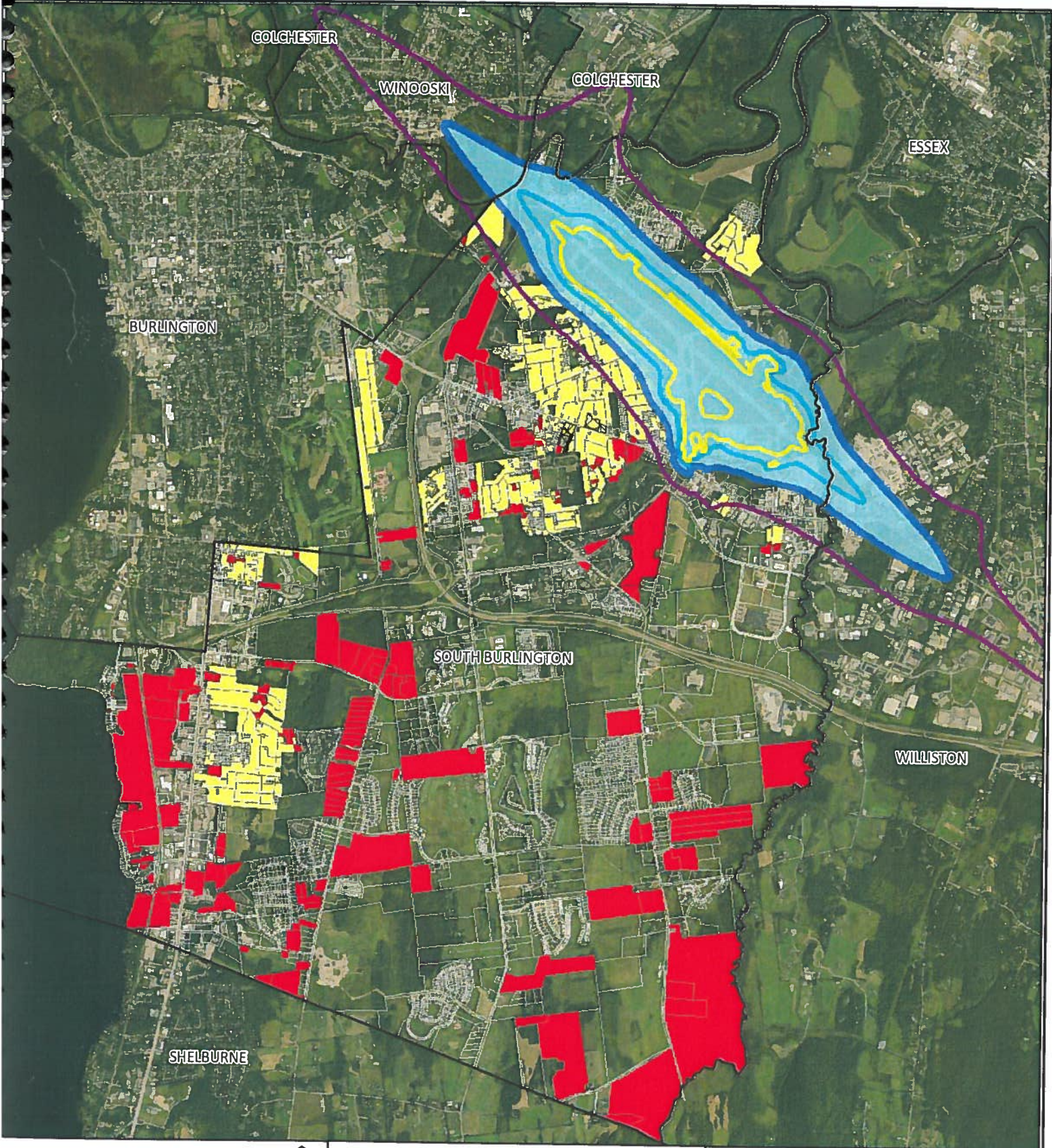
In the land use analysis completed for this report, the area at the present corner of White Street and Airport Parkway was identified as a location where higher-density residential development could be considered in the future, as the Airport's planned acquisition program proceeds. As existing structures are removed and the Airport begins creating a transitional zone, this site may represent an opportunity to do a higher-density infill project that acts as a further transition between more intensive uses in the Airport area, and the residential neighborhoods to the west.

6.5 Consider Transition Zone Provisions for Areas within the 65 dnl Contour

One of the most pressing zoning issues for South Burlington will be the treatment of lands within the 65 dnl contour, where a gradual phasing out of residential uses through property acquisition, along with transportation improvements and creation of a linear buffer area, is planned. The South Burlington Planning Commission will have a number of zoning strategies to consider, including:

- (a) Developing a re-zoning protocol as acquisitions occur. The Airport and the Planning Commission may wish to consider developing an agreed protocol for the Airport to request the rezoning of properties as acquisitions and removal of dwelling units occurs. Currently, the City must consider whether to initiate a formal rezoning process to adjust the boundary between the Residential 4 and Airport zoning districts each time the Airport seeks to re-use land for uses other than landscaping. One option would be to re-evaluate the appropriate boundaries of the Residential 4 zoning district, and create a transitional or "holding" zoning district within the 65 dnl contour. The most important area to address in this manner is the area where acquired lands are intended for Airport and Airport-related use, as discussed in the Part 150 Noise Land Inventory and Re-Use Plan. In this area, the City could adopt a provision that changes a property's zoning from R4 to a transitional district when the property is acquired by the Airport. This would save the time and expense of formally rezoning these properties, but would require careful thought with respect to the uses that become permitted or conditional and any zoning boundary issues affecting neighboring residential properties. In any event, some understanding as to the protocol for this type of zoning amendment would provide greater certainty to the City, Airport, property owners, and public.

- (b) Addressing Residential Uses within the 65 dnl Contour. The City may wish consider different strategies to limit the potential that new residential construction (or substantial residential investments) will take place within the 65 dnl contour in the area where acquisitions are planned. If new residential construction occurs or new investments are made under the current Residential 4 zoning standards, this would create the potential for future conflict among land uses as the Airport continues acquisition and housing removal. While making residential a non-conforming use would be a very strong step, the City may wish to consider a prohibition on new residential construction, a limit on the percent of value that may be invested in an existing residential unit, or prohibiting the physical expansion of residential structures other than for handicapped access or structural repairs.
- (c) Establishing landscaping standards for the "buffer zone." The landscaping and management of lots where houses have been removed has been an important consideration for the City, and is addressed in the Part 150 Noise Land Inventory and Re-Use Plan. Besides the desire to screen the residential neighborhood from Airport-related and transportation uses, the City has expressed a desire to ensure that landscaping is attractive and somewhat porous, creating views into and out of a buffer area. Within this area, standards and approaches to landscaping and screening will be especially important, and special provisions in the Land Development Regulations may be warranted. A separate zoning district or sub-district, or an overlay zone, could be created to accomplish this.
- (d) Establishing the road right-of-way for an extension of Airport Drive. The City may wish to consider whether the Official Map should be amended to recognize the road right-of-way contemplated in the Part 150 Noise Land Inventory and Re-Use Plan. This would enable the City to work with the Airport on the implementation of the roadway.



Legend

2011 Future Airport dnl Contours

- DNL_60
- DNL_65
- DNL_70
- DNL_75

Selected Infill Parcels

Parcels Selected by Lot Size

Town/City Boundary

F:\57292.00\GIS\project\Infill_Analysis.mxd

**Infill Housing Analysis
South Burlington, VT**

July 28, 2009

4,000 2,000 0 4,000 Feet

Prepared by: JAT

Sources: Background: USDA NAIP 2008
Photography; Parcel data provided by the
City of South Burlington (2009).

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