

## **5.2 COMPATIBLE LAND USE**

This section provides an evaluation of the compatibility of land uses in the vicinity of Port Columbus International Airport (CMH or Airport) for the Sponsor's Proposed Project and its alternatives. The impacts of each alternative on surrounding land uses and the consistency of the alternatives with the comprehensive plans of the surrounding communities are assessed in accordance with Federal Aviation Administration (FAA) Order 1050.1E, *Environmental Impacts: Policies and Procedures* and FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Projects*.

### **5.2.1 EXISTING CONDITIONS: 2006**

The existing land use patterns within the General Study Area (GSA) are described in Chapter Four, *Affected Environment*. The majority of the land use in the area surrounding the Airport are residential, industrial, and commercial uses. **Exhibit 5.2-1, Generalized Land Use**, graphically depicts the general land use pattern in the GSA.

Existing land use data was collected from Franklin County, municipalities, and townships within the GSA, as well as from reports generated by the Mid-Ohio Regional Planning Commission (MORPC). Land uses in the vicinity of the Airport were categorized in terms of the general land use classifications presented in 14 Code of Federal Regulations (CFR) Part 150, which includes residential (single and multi-family), commercial, public/institutional, and agricultural/recreational/open space. These land uses were identified based on Franklin County's Geographic Information System (GIS) database and additional land use surveys provided by the Columbus Regional Airport Authority (CRAA) or local jurisdictions, and was supplemented as necessary by field verification.

The FAA has identified guidelines relating the compatibility of land use types to airport sound levels. These guidelines are defined in Federal Aviation Regulations, 14 CFR Part 150 (Table 1 of Appendix A), *Land Use Compatibility with Yearly Day-Night Average Sound Levels*. These guidelines, shown in **Table 5.2-1**, delineate the compatibility parameters for residential, public (schools, churches, nursing homes, hospitals, libraries), commercial, manufacturing and production, and recreational land uses.

**Housing and Population:** The 2000 U.S. Census data was combined with the Franklin County GIS land use database to identify the location of residential land uses in the GSA. Field checking was conducted to verify the location of homes and to identify new or planned development. Population was estimated using a ratio of persons per household based on the Census data and housing unit counts in the area. The number of housing units and the population within each noise contour level were determined by overlaying each noise contour level with the GIS land use and housing structure layers.

**Table 5.2-1  
LAND USE COMPATIBILITY GUIDELINES - FAR PART 150**

<u>LAND USE</u>	YEARLY DAY-NIGHT AVERAGE SOUND LEVEL (DNL) IN DECIBELS					
	BELOW <u>65</u>	<u>65-70</u>	<u>70-75</u>	<u>75-80</u>	<u>80-85</u>	OVER <u>85</u>
<u>RESIDENTIAL</u>						
Residential, other than mobile homes & transient lodgings	Y	N <sup>1</sup>	N <sup>1</sup>	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N <sup>1</sup>	N <sup>1</sup>	N <sup>1</sup>	N	N
<u>PUBLIC USE</u>						
Schools, hospitals, nursing homes	Y	25	30	N	N	N
Churches, auditoriums, and concert halls	Y	25	30	N	N	N
Governmental services	Y	Y	25	30	N	N
Transportation	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N <sup>4</sup>
Parking	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N
<u>COMMERCIAL USE</u>						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail -- building materials, hardware, and farm equipment	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N
Retail trade, general	Y	Y	25	30	N	N
Utilities	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N
Communication	Y	Y	25	30	N	N
<u>MANUFACTURING AND PRODUCTION</u>						
Manufacturing, general	Y	Y	Y <sup>2</sup>	Y <sup>3</sup>	Y <sup>4</sup>	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y <sup>6</sup>	Y <sup>7</sup>	Y <sup>8</sup>	Y <sup>8</sup>	Y <sup>8</sup>
Livestock farming and breeding	Y	Y <sup>6</sup>	Y <sup>7</sup>	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
<u>RECREATIONAL</u>						
Outdoor sports arenas and spectator sports	Y	Y	Y <sup>5</sup>	N <sup>5</sup>	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusements, parks, resorts, and camps	Y	Y	Y	N	N	N
Golf courses, riding stables, and water recreation	Y	Y	25	30	N	N

**Table 5.2-1, Continued**

**LAND USE COMPATIBILITY GUIDELINES - FAR PART 150**

The designations contained in this table do not constitute a Federal determination that any use of land covered by the program is acceptable under Federal, State, or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. FAA determinations under Part 150 are not intended to substitute federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses.

**Key To Table A-1**

Y (Yes) Land use and related structures compatible without restrictions.

N (No) Land use and related structures are not compatible and should be prohibited.

NLR Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure

25, 30, 35 Land use and related structures generally compatible; measures to achieve a NLR of 25, 30, or 35 dB must be incorporated into design and construction of structure.

**Notes for Table A-1**

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

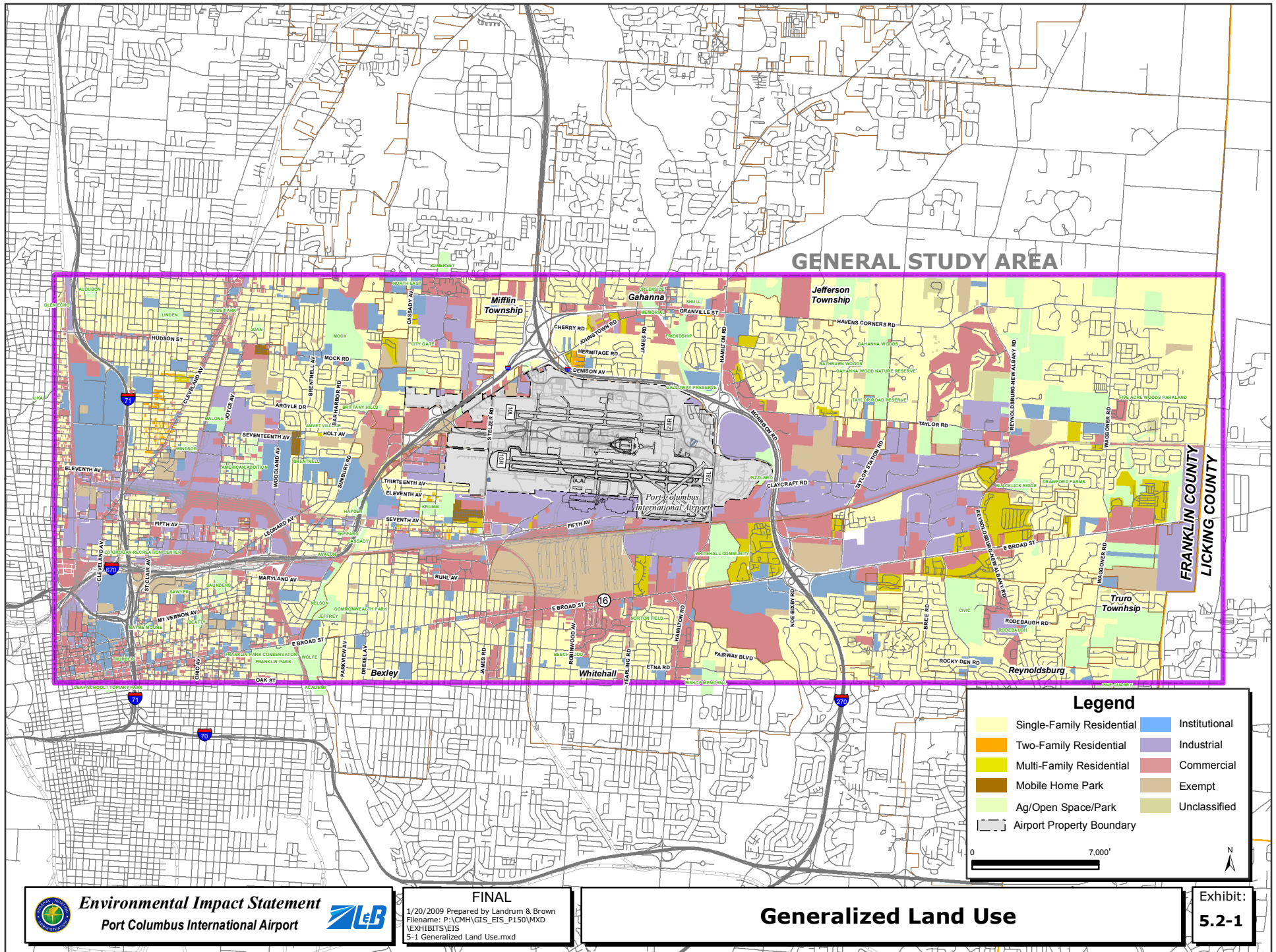
Source: FAR Part 150 Airport Noise Compatibility Planning, Appendix A, Table 1.

**Noise-Sensitive Public Facilities:** Noise-sensitive public facilities include schools, churches, libraries, hospitals, and nursing homes. The number and location of noise-sensitive public facilities within the Airport environs were derived from a number of different sources. Schools, libraries, hospitals, nursing homes, and churches initially were extracted from Franklin County Auditor data. These facilities were then field-checked to verify their locations. **Table 5.2-2** lists the noise-sensitive public facilities that are graphically depicted on **Exhibit 5.2-2, Existing Noise-Sensitive Public Facilities**.

**Historic, Architectural, Archaeological, and Cultural Resources:** Following a survey of over 1,400 sites in the GSA, four historic sites have been identified as being listed or eligible for listing in the National Register of Historic Places (NRHP). These sites qualify for protection under Section 106 of the National Historic Preservation Act (NHPA) and Section 4(f) of the Department of Transportation Act<sup>1</sup>, which was designed to preserve historic and recreational sites. For more information on historic sites in the GSA, see Section 5.7, *Department of Transportation Section 4(f)*, and Section 5.8, *Historic, Architectural, Archaeological, and Cultural Resources*. Exhibit 5.2.-2 includes the location of the four historic sites in the GSA.

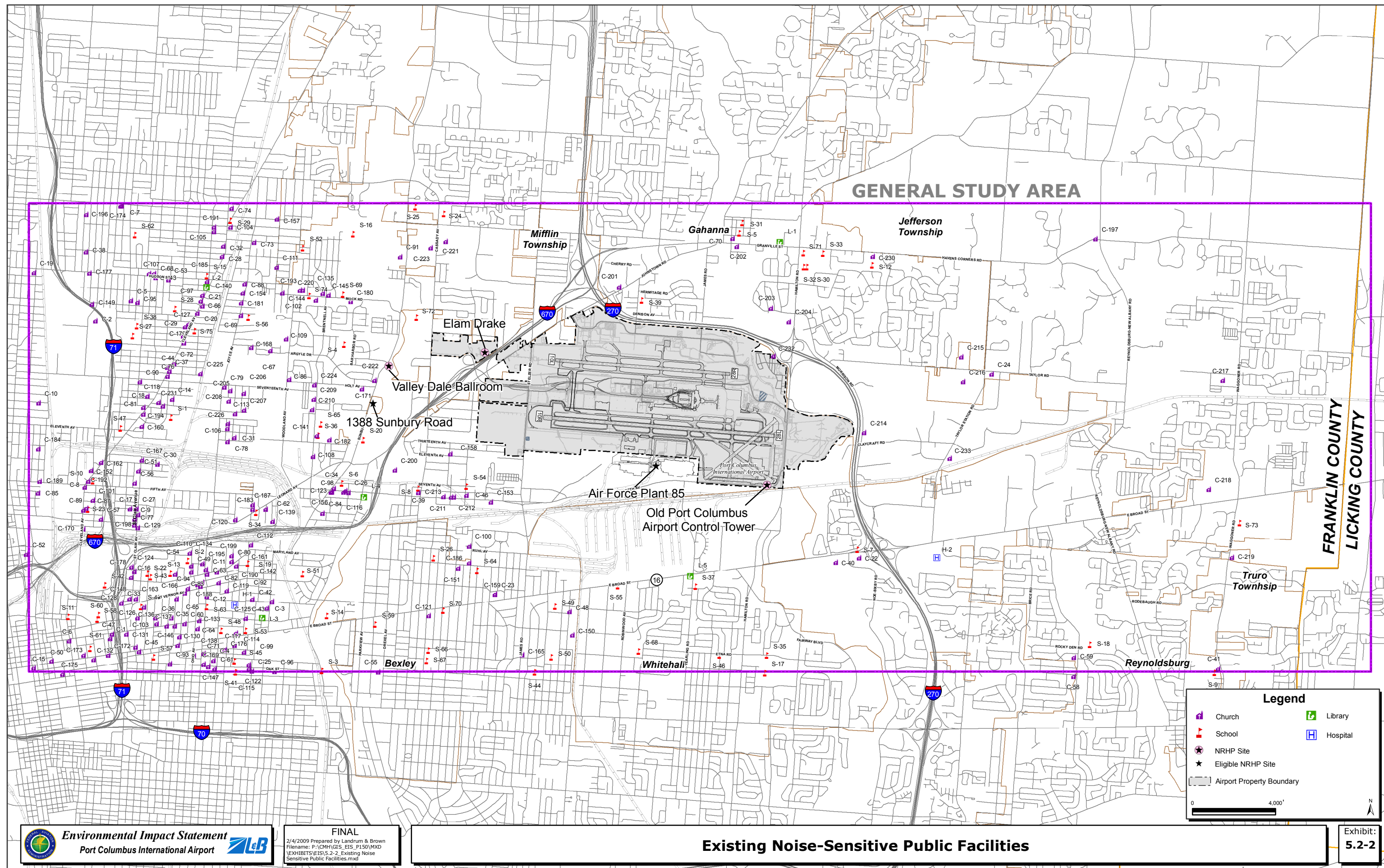
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<sup>1</sup> Section 4(f) of the Department of Transportation Act of 1966 is currently codified at 49 U.S.C. Section 303(c). Consistent with FAA Order 1050.1E, Appendix 1, paragraph 6.1a, Section 303(c) will be referred to as Section 4(f).



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**Table 5.2-2  
NOISE-SENSITIVE PUBLIC FACILITIES  
Port Columbus International Airport**

Map ID	Name
<b>Churches</b>	
C-1	Zion Lighthouse Spiritualist Church
C-2	World Peace Healing Temple
C-3	Woodland Christian Church
C-4	Wilson Avenue Church
C-5	Williams Temple Pentecostal Church
C-6	Welsh Presbyterian Church (historic)
C-7	Weber Road Alliance Church
C-8	Way of Holiness Church
C-9	Unveiling and Unfolding of the Truth Ministries
C-10	University Bible Fellowship Church
C-11	Union Tabernacle Church of God
C-12	Union Grove Baptist Church
C-14	The Greater 12th Baptist Church
C-15	Trinity Episcopal Church
C-16	Trinity Baptist Church
C-17	Triedstone Baptist Church
C-18	Travelers Rest Baptist Church
C-19	Temple of Psychic Prophecy
C-20	Temple of Faith Church of Deliverance
C-21	Temple of Faith Church
C-22	Temple Israel
C-23	Temple Beth Shalom
C-24	Taylor Station Church
C-25	Tabernacle of Christian Fellowship
C-26	Strong Tower Church of Christ
C-27	Spring Hill Baptist Church
C-28	Spanish Evangelistic Association of the Living God
C-29	Lighthouse Community Baptist Church
C-30	Solid Rock Baptist Church
C-31	Sigsbee Avenue Church of God
C-32	Shining Light Bible Mission Church
C-33	Shiloh Baptist Church
C-34	Shepard United Methodist Church
C-35	Shady Grove Baptist Church of Christ
C-36	Second Baptist Church
C-37	Sanctified Temple Church of God in Christ
C-38	Salvation Army Chapel Church
C-39	Saint Thomas the Apostle Roman Catholic Church
C-40	Saint Theresa's Shrine
C-41	Saint Pius X Catholic Church
C-42	Saint Philips Episcopal Church
C-43	Saint Philip Lutheran Church
C-44	Saint Peters Evangelical Lutheran Church

**Table 5.2-2, *Continued***  
**NOISE-SENSITIVE PUBLIC FACILITIES**  
**Port Columbus International Airport**

Map ID	Name
<b>Churches, <i>Continued</i></b>	
C-45	Saint Paul's Episcopal Church
C-46	Living Word Church
C-47	Saint Paul African Methodist Episcopal Church
C-48	Saint Mary's Macedonian Eastern Orthodox Church
C-49	Saint Mark African Methodist Episcopal Church
C-50	Saint Joseph Cathedral
C-51	Saint Johns Baptist Church
C-52	Saint John the Baptist Roman Catholic Church
C-53	Saint James Baptist Church
C-54	Saint Dominic Roman Catholic Church
C-55	Saint Albans Church
C-56	Ruth Temple Apostolic Original Holy Church of God
C-57	Rose of Sharon Baptist Church
C-58	Rose Hill Church of God
C-59	Reynoldsburg Baptist Church
C-60	Rehoboth Temple
C-61	Refuge Church of Christ
C-62	Purple Rose Temple of Truth Spiritualist Church
C-63	Praise Temple Christian Methodist Episcopal Church
C-64	Pleasant Hill Church of the Living God
C-65	Pilgrim Baptist Church
C-66	Pentecostal House of Prayer
C-67	Peace Baptist Mission
C-68	Pathway to Power Baptist Church
C-69	Original Glorious Church of God in Christ
C-70	Old Peace Lutheran Church
C-71	Ohio Union Steadfast Primitive Church
C-72	Northside Church of God
C-73	Northeast Church of Christ
C-74	North Linden Baptist Church
C-76	Beginning Missionary Baptist Church
C-77	New Bethlehem Baptist Church
C-78	Mount Zion Missionary Baptist Church
C-79	Mount Zion Church of God in Christ
C-80	Mount Zion Church of God in Christ
C-81	Mount Victory Baptist Church
C-82	Mount Vernon Avenue Missionary Baptist Church
C-83	Mount Vernon African Methodist Episcopal Church
C-84	Mount Sinai Missionary Baptist Church
C-85	Mount Sinai Holy Temple
C-86	Great St. Paul Church
C-87	Mount Pisgah Baptist Church
C-88	Mount Pisgah Baptist Church

**Table 5.2-2, *Continued***  
**NOISE-SENSITIVE PUBLIC FACILITIES**  
**Port Columbus International Airport**

Map ID	Name
<b>Churches, <i>Continued</i></b>	
C-89	Mount Nebo Baptist Mission
C-90	Living Charity Church
C-91	Mount Herman Baptist Church
C-92	Mount Calvary Holy Church
C-93	Metropolitan Baptist Church
C-94	Meredith Temple Church of God in Christ
C-95	Maynard Avenue Baptist Church
C-96	Masjid Al-Islam Mosque
C-97	Man in Christ Ministries
C-98	Loving Charity Baptist Church
C-99	Love Zion Baptist Church
C-100	Lord of Life Fellowship Church
C-101	Lord Jesus Christ of Apostolic Faith Church
C-102	Living Faith Apostolic Church
C-103	Little Flock Church
C-104	Linden United Methodist Church
C-105	Linden Spiritualist Church
C-106	Lee Avenue United Methodist Church
C-107	Kingdom Hall of Jehovah's Witnesses
C-108	New Horizons Christian Fellowship Church
C-109	Jordan Baptist Church
C-110	Jireh House Full Gospel Church
C-111	Jesus People Evangelistic Center
C-112	Jerusalem Tabernacle Baptist Church
C-113	Jerusalem Baptist Church
C-114	Islamic Center Church
C-115	International Gospel Center
C-116	Independent Missionary Church of God in Christ
C-117	House of God Holy Church
C-118	Holy Temple Church of God
C-119	Holy Church of God
C-120	Holy Carmel Holy Church of America
C-121	Agudas Achim Congregation
C-122	Apostolic Assembly of Our Lord Jesus Christ Church
C-123	Apostolic Faith Tabernacle
C-124	Apostolic Glorious Church
C-125	Asbury Church
C-126	Bethany Presbyterian Church
C-127	Bethel African Methodist Episcopal Church
C-128	Bethel Baptist Church
C-129	Bethel Holy Temple Church of God
C-130	Broad Street Christian Church
C-131	Broad Street Presbyterian Church

**Table 5.2-2, *Continued***  
**NOISE-SENSITIVE PUBLIC FACILITIES**  
**Port Columbus International Airport**

Map ID	Name
<b>Churches, <i>Continued</i></b>	
C-132	Broad Street United Methodist Church
C-133	Calhoun's Memorial Temple Church
C-134	Calvary Tremont Baptist Church
C-135	Power of Faith Ministries
C-136	Centenary United Methodist Church
C-137	Christ Memorial Baptist Church
C-138	Christian Home Ministry Church
C-139	Church in Jesus Christ
C-140	Pleasant Green Baptist Church
C-141	Church of Christ Apostolic Faith
C-142	Church of God and Saint of Christ
C-143	Church of God of Franklin County
C-144	Church of God of Prophecy
C-145	Church of Spiritual Unity
C-146	Church of Universal Forces
C-147	Church of the Living God
C-148	Church of the Living God
C-149	Columbus Chinese Christian Church
C-150	Columbus Eastwood Seventh Day Adventist Church
C-151	Community Baptist Church
C-152	Consolidated Baptist Church
C-153	Corinthian Baptist Church
C-154	Cornerstone Church
C-156	Deliverance Church of God
C-157	East Linden United Methodist Church
C-158	East Mount Olivet Baptist Church
C-159	Eastminster Church
C-160	Eliezer Church of Our Lord Jesus Christ
C-161	Emmanuel Community Baptist Church
C-162	Emmanuel Holy Church of God
C-163	Emmanuel Tabernacle Baptist Church
C-165	Fairmoor Presbyterian Church
C-166	Faith Mission United Methodist Church
C-167	Faith Tabernacle
C-168	Faith Tabernacle Church of God in Christ
C-169	Faith Temple Apostolic Holiness Church of God
C-170	Faith Temple House of Prayer
C-171	Christian Outreach Ministries
C-172	First Baptist Church
C-173	First Congregational Church
C-174	First Spiritualist Church of Sprit Revelation
C-175	First Spiritualist Temple
C-176	Flintridge Baptist Church

**Table 5.2-2, *Continued***  
**NOISE-SENSITIVE PUBLIC FACILITIES**  
**Port Columbus International Airport**

Map ID	Name
<b>Churches, <i>Continued</i></b>	
C-177	Free Pentecostal Church of God
C-178	Freewill Pentecostal Holiness Church of Christ
C-179	C.R.A.C.K. House Ministries Church
C-180	Anointed Touch Ministries
C-181	Galilee Baptist Church
C-182	Gay Tabernacle Baptist Church
C-183	Gods House of Prayer
C-184	Good Neighbor Community Church
C-185	Good Shepherd Baptist Church
C-186	Good Shepherd Church
C-187	Goodwill Baptist Church
C-188	Gospel Tabernacle Church
C-189	Grace Bible Baptist Church
C-190	Grace Temple
C-191	Greater Emmanuel Apostolic Faith Church
C-192	Greater Emmanuel Church
C-193	Greater Harvest Baptist Church
C-194	Greater Liberty Temple Church
C-195	Greater Life Evangelistic Temple
C-196	Greater Light Church of the Living God
C-197	Havens Corners Church of Christ in Christian Union
C-198	Higher Ground Always Abounding Assembly Church
C-199	Highway Church of God
C-200	Lutheran Village of Columbus
C-201	Victory In Pentecost
C-202	Mifflin Presbyterian Church
C-203	Christian Center Church
C-204	Shepherd Church of the Nazarene and Christian School
C-205	Everlasting Life Ministries
C-206	New Tabernacle Church of God in Christ
C-207	Ephphatha New Ministries
C-208	Paradise Baptist Church
C-209	Temple of Faith Church of the Living God
C-210	Aenon Missionary Baptist Church
C-211	Faith Comes by Hearing Christian Center
C-212	Apostolic House of Worship
C-213	Redeemed Christian Church of God
C-214	Mt. Judia Church
C-215	United Baptist Church
C-216	Country Fellowship Church
C-217	East Pointe Christian Church
C-218	East Side Brethren Grace Church
C-219	St. Mary Church

**Table 5.2-2, *Continued***  
**NOISE-SENSITIVE PUBLIC FACILITIES**  
**Port Columbus International Airport**

Map ID	Name
<b>Churches, <i>Continued</i></b>	
C-220	Church of God Militant Pillar and the Ground of Truth
C-221	Columbus Christian Center Church
C-222	Eternal Life Church of Christ
C-223	Advent United Church of Christ
C-224	Jerusalem Deliverance Church of God in Christ
C-225	The House of God Church
C-226	Terry Lee Center
C-230	St. Matthews Church
C-231	Greater Liberty Temple
C-232	Wonderland Community Church
C-233	Greater Works Ministries
<b>Hospitals</b>	
H-1	University Hospital East
H-2	Mount Carmel Hospital East
<b>Libraries</b>	
L-1	Gahanna Library
L-2	Columbus Library Linden Branch
L-3	Martin Luther King Library
L-4	Shepard Library
L-5	Whitehall Library
<b>Schools</b>	
S-1	Windsor Alternative Elementary School
S-2	Trevitt Elementary School
S-3	The Columbus Academy
S-4	South Mifflin Elementary School
S-5	Shepard Street School (historic)
S-6	Shepard School
S-7	School Number 5 (historic)
S-8	Saint Thomas the Apostle School
S-9	Saint Pius School
S-10	Saint Peters School
S-11	Saint Patrick's School
S-12	Saint Matthews School
S-13	Saint Dominic School
S-14	Saint Charles Seminary
S-15	Saint Augustine School
S-16	Rosemont High School
S-17	Rose More School
S-18	Rose Hill Elementary School
S-19	Pilgrim Elementary School
S-20	Ohio Dominican University
S-22	Monroe Junior High School
S-23	Milo School

**Table 5.2-2, *Continued***  
**NOISE-SENSITIVE PUBLIC FACILITIES**  
**Port Columbus International Airport**

Map ID	Name
<b>Schools, <i>Continued</i></b>	
S-24	Mifflin Junior High School
S-25	Mifflin High School
S-26	Maryland Avenue Elementary School
S-27	Linmoor Alternative School
S-28	Linden McKinley High School
S-29	Linden Elementary School
S-30	Lincoln Schools
S-31	Lincoln School
S-32	Lincoln High School
S-33	Lincoln Elementary School
S-34	Leonard School
S-35	Kay Avenue Elementary School
S-36	Karl F Smith Bible School
S-37	Holy Spirit School
S-38	Hamilton School
S-39	Goshen Lane Elementary School
S-40	Garfield School
S-41	Franklin Middle School
S-42	Fort Hayes Career Center
S-43	Felton School
S-44	Fairmoor Elementary School
S-45	Fair Elementary School
S-46	Etna Road Elementary School
S-47	CMHA Institution
S-48	Eastwood Avenue School
S-49	Eastmoor Junior High School
S-50	Eastmoor High School
S-51	Eastgate Elementary School
S-52	East Linden Elementary School
S-53	East High School
S-54	East Columbus Elementary School
S-55	East Broad Street School
S-56	Duxberry Park School
S-57	Douglas Alternative Elementary School
S-58	Columbus State Community College
S-59	Columbus School for Girls
S-60	Columbus Community College
S-61	Columbus College of Art and Design
S-62	Columbus Alternative High School
S-63	Champion Alternative Middle School
S-64	Broadleigh Elementary School
S-65	Oakland Park at Brentnell Elementary School
S-66	Bexley Junior High School



**Table 5.2-2, Continued**  
**NOISE-SENSITIVE PUBLIC FACILITIES**  
**Port Columbus International Airport**

Map ID	Name
<b>Schools, Continued</b>	
S-67	Bexley High School
S-68	Beechwood Elementary School
S-69	Arlington Park Elementary School
S-70	Agudas Achim School
S-71	Columbus State Community College
S-73	Waggoner Road Middle School
S-74	FCI Academy
S-75	Gladstone Elementary School

Source: Landrum & Brown, 2007.

### **5.2.2 FUTURE CONDITIONS: 2012**

The following section discusses the land use impacts of the Sponsor's Proposed Project and its alternatives in 2012, which includes quantifying the number of residential and other noise-sensitive land uses that are impacted by aircraft noise for each of the 2012 alternatives. Impacts are determined according to the FAA land use compatibility guidelines, relating types of land use to airport sound levels shown in Table 5.2-1.

#### **5.2.2.1 Alternative A: No Action**

This section provides a summary of the residential population, housing units, and noise-sensitive facilities affected by noise levels for the 2012 Alternative A: No Action.

**Land Use Incompatibilities:** Table 5.2-3 shows the number of housing units, residents, and noise-sensitive facilities located within the 2012 Alternative A: No Action noise contour. There are 693 housing units and an estimated 1,712 residents located within the 65+ Day-Night Average Sound Level (DNL) of the 2012 Alternative A: No Action noise contour. Of those 693 housing units, 638 are within the City of Columbus and 55 are within Mifflin Township. A total of 357 of those housing units have received sound insulation and are therefore considered mitigated. There are three churches and one school located within the 65+ DNL of the 2012 Alternative A: No Action noise contour, the Christian Outreach Ministries, the Eternal Life Church of Christ, the Mt. Judia Church, and South Mifflin Elementary School (which has received sound insulation). Table 5.2-4 summarizes the housing unit and population impacts for all of the 2012 alternatives.

**Table 5.2-3  
2012 ALTERNATIVE A: NO ACTION HOUSING, POPULATION, AND  
NOISE-SENSITIVE FACILITY INCOMPATIBILITIES  
Port Columbus International Airport**

	<b>60-65 DNL *</b>	<b>65-70 DNL</b>	<b>70-75 DNL</b>	<b>75+ DNL</b>	<b>65+ DNL</b>
<b>Housing Units</b>					
<b>Columbus</b>	<b>5,139</b>	<b>638</b>	<b>0</b>	<b>0</b>	<b>638</b>
Mitigated					
Sound Insulated <sup>1</sup>	326	322	0	0	322
Easement <sup>2</sup>	191	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated <sup>3</sup>	106	61	0	0	61
Not Previously Mitigated <sup>4</sup>	4,516	255	0	0	255
<b>Mifflin Township</b>	<b>17</b>	<b>55</b>	<b>0</b>	<b>0</b>	<b>55</b>
Mitigated					
Sound Insulated	1	35	0	0	35
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	3	17	0	0	17
Not Previously Mitigated	13	3	0	0	3
<b>Gahanna</b>	<b>194</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Mitigated					
Sound Insulated	3	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	0	0	0	0
Not Previously Mitigated	190	0	0	0	0
<b>Jefferson Township</b>	<b>56</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	27	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	29	0	0	0	0
<b>Total Housing Units</b>	<b>5,406</b>	<b>693</b>	<b>0</b>	<b>0</b>	<b>693</b>
<b>Population</b>					
<b>Total Population</b>	<b>13,353</b>	<b>1,712</b>	<b>0</b>	<b>0</b>	<b>1,712</b>
<b>Noise-Sensitive Facilities</b>					
Churches	38	3	0	0	3
Schools	7	1	0	0	1
Libraries	0	0	0	0	0
Hospitals	0	0	0	0	0
Nursing Homes	0	0	0	0	0

**Notes:**

- \* 14 CFR Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL. Counts of housing units below 65 DNL are provided for informational purposes only.
- 1. Homes that have previously received sound insulation.
- 2. Homes that have an avigation easement.
- 3. Homes that were previously offered sound insulation but declined.
- 4. Homes that have not received and were never offered sound insulation or avigation easement by the CRAA.

Source: Landrum & Brown, 2007.

**Table 5.2-4  
COMPARISON OF HOUSING, POPULATION, AND NOISE-SENSITIVE  
FACILITY INCOMPATIBILITIES FOR 2012 ALTERNATIVES  
Port Columbus International Airport**

CATEGORY	2012 ALTERNATIVE A: NO ACTION	2012 ALTERNATIVE C2a	2012 ALTERNATIVE C2b	2012 ALTERNATIVE C3a	2012 ALTERNATIVE C3b
<b>Housing Units</b>					
65-70 DNL	693	725	507	700	473
70-75 DNL	0	0	0	0	0
75+ DNL	0	0	0	0	0
65+ DNL	693	725	507	700	473
<b>Population</b>					
65-70 DNL	1,712	1,791	1,252	1,729	1,168
70-75 DNL	0	0	0	0	0
75+ DNL	0	0	0	0	0
65+ DNL	1,712	1,791	1,252	1,729	1,168
<b>Noise Sensitive Facilities (Churches, Schools, Libraries, Hospitals, and Nursing Homes)</b>					
65-70 DNL	4	1	0	0	0
70-75 DNL	0	0	0	0	0
75+ DNL	0	0	0	0	0
65+ DNL	4	1	0	0	0

Source: Landrum & Brown, 2007.

### **5.2.2.2 Alternative C2a: 2012 Relocate Runway 10R/28L 800 Feet to the South – Noise Abatement Scenario A**

This section provides a summary of the potential land use impacts, including impacts to residential population, housing units, and noise-sensitive facilities affected by the 2012 Alternative C2a noise contour.

**Land Use Incompatibilities:** Table 5.2-5 shows the number of housing units, residents, and noise-sensitive facilities located within the 2012 Alternative C2a noise contour. Table 5.2-4 shows a comparison of the number of housing units, residents, and noise-sensitive facilities for all of the 2012 alternatives. There are 725 housing units and an estimated 1,791 residents located within the 65+ DNL of the 2012 Alternative C2a noise contour. A total of 318 of those housing units have received sound insulation (282 in Columbus and 36 in Mifflin Township) from the CRAA and are therefore considered previously mitigated. The CRAA has obtained an avigation easement on one additional housing unit located in Columbus. There is one church, the East Mount Olivet Baptist Church (2940 East 11<sup>th</sup> Ave.), located within the 65+ DNL of the 2012 Alternative C2a noise contour. There are no schools, libraries, hospitals, or nursing homes located within the 65+ DNL of the 2012 Alternative C2a noise contour.

**Table 5.2-5  
HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY  
INCOMPATIBILITIES - 2012 ALTERNATIVE C2a  
Port Columbus International Airport**

	<b>60-65 DNL *</b>	<b>65-70 DNL</b>	<b>70-75 DNL</b>	<b>75+ DNL</b>	<b>65+ DNL</b>
<b>Housing Units</b>					
<b>Columbus</b>	<b>5,610</b>	<b>667</b>	<b>0</b>	<b>0</b>	<b>667</b>
Mitigated					
Sound Insulated <sup>1</sup>	370	282	0	0	282
Easement <sup>2</sup>	373	1	0	0	1
Unmitigated					
Eligible for Sound Insulation but not Insulated <sup>3</sup>	91	77	0	0	77
Not Previously Mitigated <sup>4</sup>	4,776	307	0	0	307
<b>Mifflin Township</b>	<b>12</b>	<b>58</b>	<b>0</b>	<b>0</b>	<b>58</b>
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	19	0	0	19
Not Previously Mitigated	11	3	0	0	3
<b>Gahanna</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Mitigated					
Sound Insulated	1	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	0	0	0	0
Not Previously Mitigated	29	0	0	0	0
<b>Jefferson Township</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	15	0	0	0	0
<b>Total Housing Units</b>	<b>5,668</b>	<b>725</b>	<b>0</b>	<b>0</b>	<b>725</b>
<b>Population</b>					
<b>Total Population</b>	<b>14,000</b>	<b>1,791</b>	<b>0</b>	<b>0</b>	<b>1,791</b>
<b>Noise-Sensitive Facilities</b>					
Churches	37	1	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Hospitals	0	0	0	0	0
Nursing Homes	0	0	0	0	0

Notes:

\*14 CFR Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL. Counts of housing units below 65 DNL are provided for informational purposes only.

1. Homes that have previously received sound insulation.
2. Homes that have an avigation easement.
3. Homes that were previously offered sound insulation but declined.
4. Homes that have not received and were never offered sound insulation or avigation easement by the CRAA.

Source: Landrum & Brown, 2007.

**Consistency with Local Land Use Plan:** This section describes the affects of this alternative on land use and the compatibility with local land use plans. Alternative C2a would result in impacts to a number of facilities that could affect future land use patterns within the surrounding jurisdictions.

The construction of replacement Runway 10R/28L 800 feet to the south of existing Runway 10R/28L would require the acquisition of 36 residential properties for clearing the Runway Protection Zone (RPZ) and vacating all of East 13<sup>th</sup> Avenue east of Sterling Avenue (see Exhibit 5.3-2 in Section 5.3, *Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks*). These 36 properties are the eastern-most properties on the street and are bounded by Airport property on two sides. The acquisition and relocation of the residents from these 36 properties is considered an impact of this alternative. Because the 35 housing units and one vacant lot represents a small percentage of the overall neighborhood and are located on the edge of the neighborhood, removing these housing units would not constitute a significant impact to the overall pattern of land use in this area. Section 5.3, *Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks*, further discusses the potential impacts of these acquisitions.

Portions of the Columbus International Aircenter (CIAC) would be acquired and removed to allow the installation of a CAT II/III Instrument Landing System (ILS) to Runway 10R. The displaced tenants could be relocated elsewhere on the Airport for those needing airfield access or within Franklin County for those not requiring airfield access. The specific location of on-Airport or off-Airport sites would be done prior to relocation if this alternative were implemented. The land use of the remaining buildings on the CIAC campus could remain warehousing/commercial, so there would not be a change in land use.

The Airport Golf Course, located east of the Airport, would be reconfigured as a result of relocating Runway 10R/28L 800 feet to the south. The approach lighting system, which currently is located in the golf course, would be shifted 800 feet to the south and cause at least nine holes to be reconfigured. During re-construction of the golf course, it is the desire of both the CRAA and the City of Columbus to maintain a minimum of nine holes. The feasibility of this will be further analyzed and determined during the design phase of the project. Because the land use is expected to be maintained and the golf course would return to a full 18-hole facility, there would be no impact to the existing land use. The reconfiguration of the Airport Golf Course is discussed further in Section 5.7, *Department of Transportation Section 4(f) Lands*.

**Stormwater Detention Basin:** One entrance driveway and 24 parking spaces associated with the 94<sup>th</sup> Aero Squadron restaurant would be removed to allow for expansion of the ravine located south of Sawyer Road. The ravine is a small tributary of Big Walnut Creek and the proposed expansion will allow stormwater drainage during construction and operation from the proposed airfield projects. The driveway off Sawyer Road will be relocated in-kind, west of the present location and replacement parking areas will be constructed west of the building resulting in

no net loss in parking capacity or access to the restaurant. Because there are two entrance driveways to the restaurant and an abundance of parking, disruption of access and parking for the restaurant would be temporary and minimal.

**Mitigation Commitments:** Mitigation for this alternative includes offering sound insulation to homes affected by significant noise levels, providing relocation assistance to the residents that would be displaced to clear the RPZ, and constructing a noise berm/wall near the area where the homes on East 13<sup>th</sup> Avenue would be removed.

### Sound Insulation

The CRAA prepared an update to the CMH Noise Compatibility Program in 2007 (2007 Part 150 Study).<sup>2</sup> One of the recommendations of the 2007 Part 150 Study is to offer sound insulation to eligible homes that are located within and adjacent<sup>3</sup> to an approved 65 DNL noise contour (Measure LU-1). If Alternative C2a were selected as the preferred alternative and implemented, the sound insulation eligibility boundary would be updated to reflect the area graphically depicted on **Exhibit 5.2-3, 2012 Alternative C2a - Proposed Sound Insulation Boundary**. Within this boundary, there are 422 housing units<sup>4</sup> that would be eligible for sound insulation under this alternative. There are homes within the 65 DNL Noise Contour that were built within a published Noise Exposure Map (graphically depicted in green on Exhibit 5.2-3). The 2007 Part 150 Study concluded that these homes are not eligible for noise mitigation due to the FAA's Final Policy on Noise Mitigation, published in 1998. An analysis was conducted for this EIS to determine if there would be an increase in noise in these areas as a result of implementing this alternative. It was found that Alternative C2a would not increase noise levels in these areas. Therefore, these homes would not be eligible for noise mitigation in this EIS.

### Relocation Assistance

A negotiated purchase program would be offered to the 36 properties located inside and adjacent to the RPZ. A negotiated purchase program is the purchase of real property through negotiation (i.e., the offer of fair market value) and involves the payment of relocation assistance and moving expenses, which is consistent with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act* (49 CFR Part 24). The acquired property would be converted to open space, which is a land

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<sup>2</sup> The Final Part 150 Study Update for Port Columbus International Airport was submitted to the FAA for approval in November 2007. The FAA accepted the NEMs on December 5, 2007. The FAA issued a Record of Approval on the NCP on May 28, 2008.

<sup>3</sup> To remain consistent with FAA and CRAA policies regarding sound insulation eligibility, housing units that are adjacent to the 65+ DNL would be included in the sound insulation program to preserve the integrity of contiguous, stable, and viable residential neighborhoods of similar housing design, construction type, and materials.

<sup>4</sup> This includes 296 unmitigated housing units that are within the 65 DNL Noise Contour and 126 unmitigated housing units that are within the proposed sound insulation boundary adjacent to the 65 DNL Noise Contour for this alternative that would be eligible for mitigation.

use that is compatible with RPZs. Section 5.3, *Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks*, discusses the relocation assistance that would be offered to these residents.

#### Noise Berm/Wall

After the negotiated purchase program acquires the 36 properties located inside and adjacent to the RPZ, a noise berm or berm/wall combination will be built along the new Airport property boundary (See **Exhibit 5.2-4, Location of Proposed Noise Berm/Wall**). This noise berm/wall was recommended in the 2007 Part 150 Study and would serve to reduce noise as well as visual impacts from the removal of houses and trees in the relocated RPZ area.

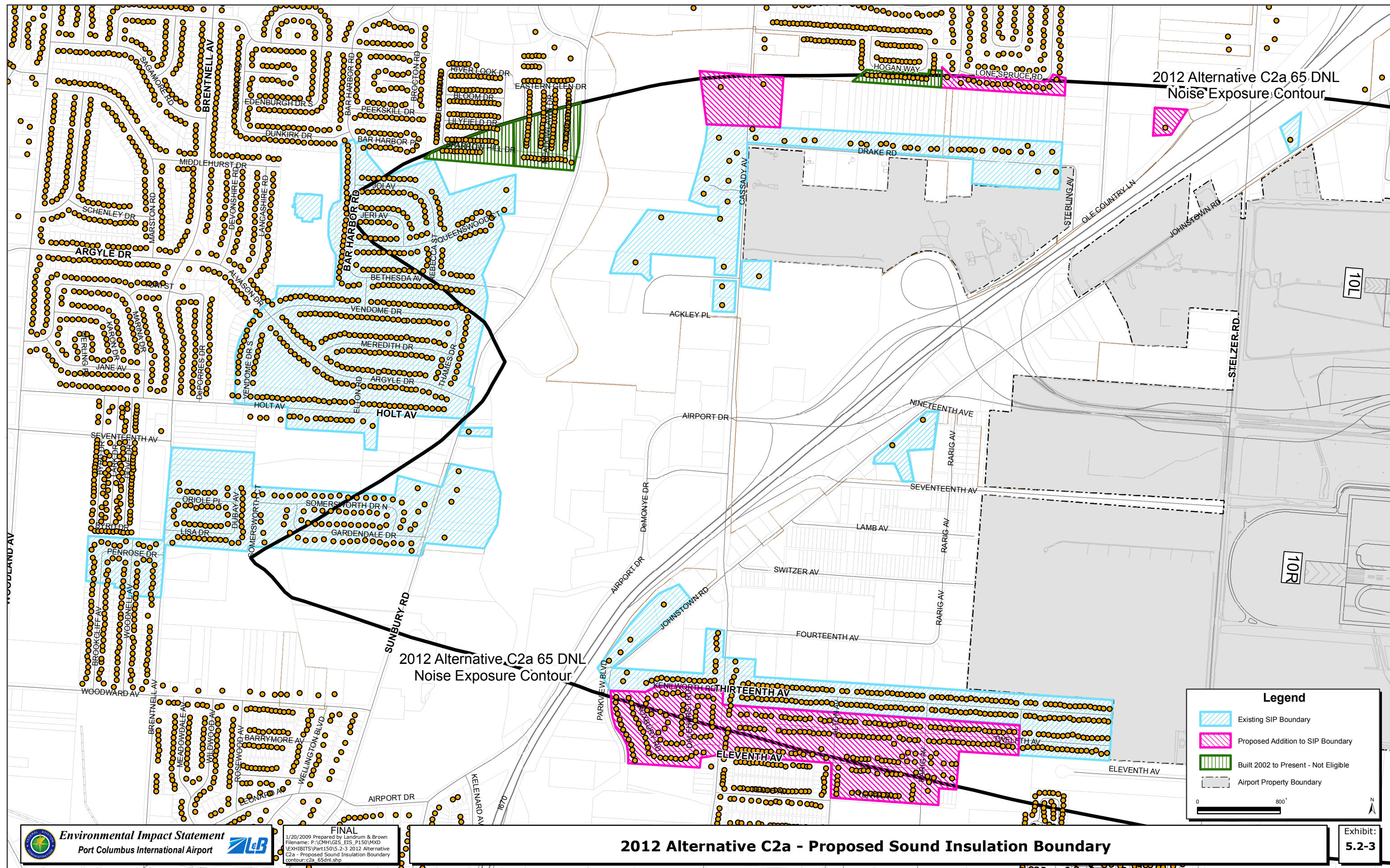
#### **5.2.2.3 Alternative C2b: 2012 Relocate Runway 10R/28L 800 Feet to the South – Noise Abatement Scenario B**

This section provides a summary of the potential land use impacts, including impacts to residential population, housing units, and noise-sensitive facilities affected by the 2012 Alternative C2b noise contour. **Land Use Incompatibilities:** **Table 5.2-6** shows the number of housing units, residents, and noise-sensitive facilities located within the 2012 Alternative C2b noise contour. **Table 5.2-4** shows a comparison of the number of housing units, residents, and noise-sensitive facilities for all of the 2012 alternatives. There are 507 housing units and an estimated 1,252 residents located within the 65+ DNL of the 2012 Alternative C2b noise contour. A total of 238 of those housing units have received sound insulation (203 in Columbus and 35 in Mifflin Township) from the CRAA and are therefore considered previously mitigated. There are no churches, schools, libraries, hospitals, or nursing homes located within the 65+ DNL of the 2012 Alternative C2b noise contour.

**Consistency with Local Land Use Plan:** This section describes the affects of this alternative on land use and the compatibility with local land use plans. Alternative C2b would result in impacts to a number of facilities that could affect future land use patterns within the surrounding jurisdictions. The impacts described under Alternative C2a for the acquisition of homes in East Columbus, the removal of portions of the CIAC, and the reconfiguration of the Airport Golf Course would remain the same for Alternative C2b.

In addition, Alternative C2b includes a number of recommended land use measures from the 2007 Part 150 Study that could potentially impact land use and development patterns around the Airport. The land use measures are intended to enhance land use compatibility surrounding the Airport through the implementation of land use restrictions. Currently, the City of Columbus and Franklin County have adopted an Airport Environs Overlay (AEO) District that corresponds to the 65-70, 70-75, and 75+ DNL contours of the most recent Noise Exposure Map (NEM) for the Airport. Within the AEO, development standards are enacted that restrict residential land uses in the highest noise areas and provides for avigation easements in the areas of 65+ DNL. Two problems have occurred with this



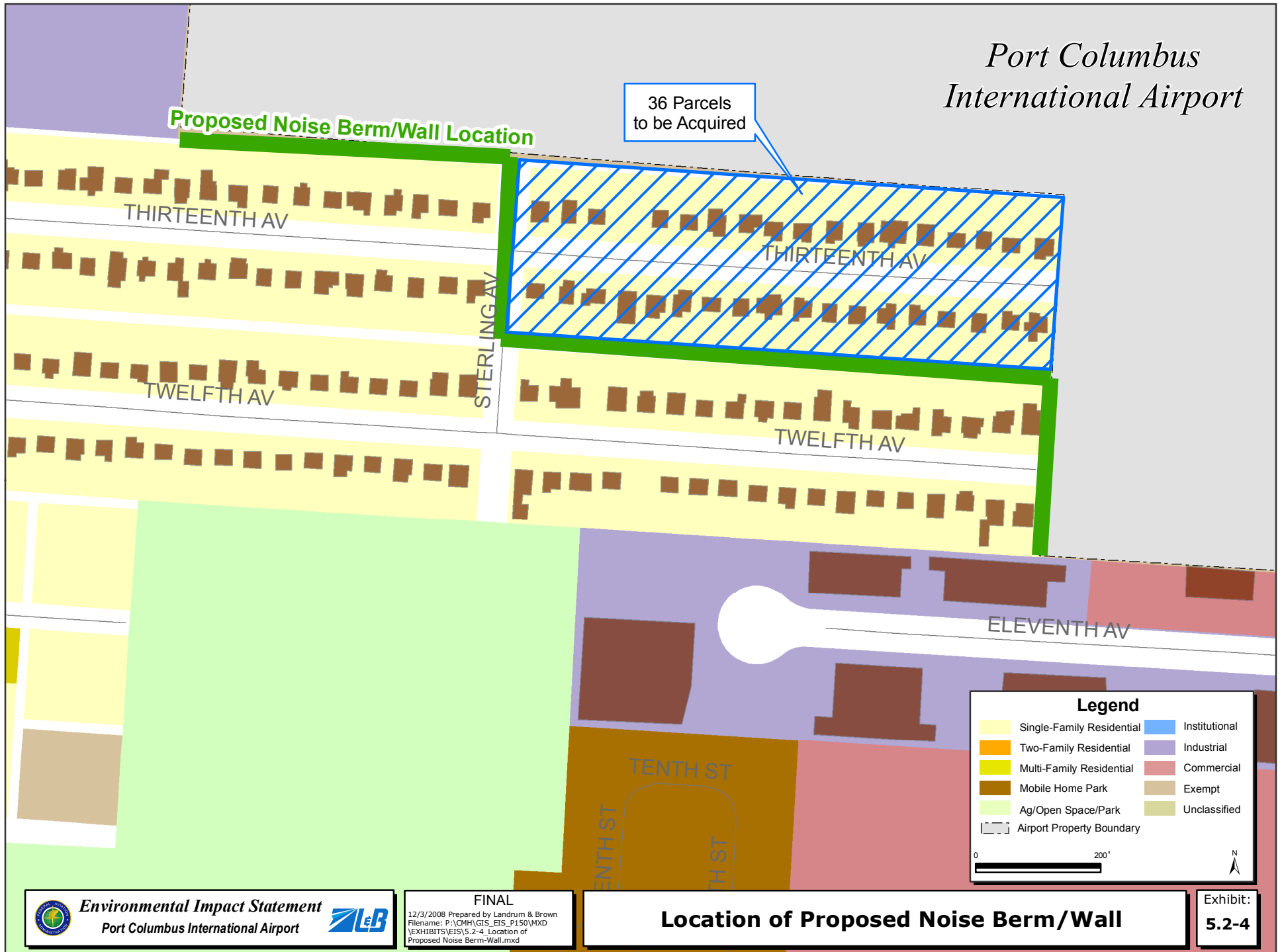


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# Port Columbus International Airport

36 Parcels  
to be Acquired

Proposed Noise Berm/Wall Location



**Environmental Impact Statement**  
Port Columbus International Airport



**FINAL**

12/3/2008 Prepared by Landrum & Brown  
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Proposed Noise Berm-Wall.mxd

**Location of Proposed Noise Berm/Wall**

Exhibit:  
**5.2-4**

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program: lack of implementation by the City of Gahanna and Jefferson Township; and the AEO boundary changes every time the NEMs are updated for the Airport (which occurs every three years on average).

In response to these issues, the 2007 Part 150 Study recommends that a fixed-boundary approach be implemented where the boundaries are larger than the 65 DNL of the most recent NEM. The approach of creating fixed-boundaries is recommended as Measure LU-12 in the 2007 Part 150 Study. This approach to land use planning was discussed with the local planning jurisdictions on several occasions throughout the development of the 2007 Part 150 Study. While it is not possible to get assurance on the implementation of the recommendations of the land use measures in a Part 150 study, the local planning jurisdictions have participated in the development of the recommendations and have not objected to the measures being included in the study. If fully implemented, new development around the Airport would be compatible with Airport development and anticipated noise levels.

**Stormwater Detention Basin:** The stormwater detention basin would stay the same as described under Alternative C2a.

**Mitigation Commitments:** Mitigation for this alternative includes offering sound insulation to homes affected by significant noise levels and providing relocation assistance to the residents that would be displaced to clear the RPZ, and constructing a noise berm/wall near the area where the homes on East 13<sup>th</sup> Avenue would be removed.

**Table 5.2-6  
HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY  
INCOMPATIBILITIES - 2012 ALTERNATIVE C2b  
Port Columbus International Airport**

	<b>60-65 DNL *</b>	<b>65-70 DNL</b>	<b>70-75 DNL</b>	<b>75+ DNL</b>	<b>65+ DNL</b>
<b>Housing Units</b>					
<b>Columbus</b>	<b>5,366</b>	<b>451</b>	<b>0</b>	<b>0</b>	<b>451</b>
Mitigated					
Sound Insulated <sup>1</sup>	449	203	0	0	203
Easement <sup>2</sup>	525	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated <sup>3</sup>	102	66	0	0	66
Not Previously Mitigated <sup>4</sup>	4,290	182	0	0	182
<b>Mifflin Township</b>	<b>14</b>	<b>55</b>	<b>0</b>	<b>0</b>	<b>55</b>
Mitigated					
Sound Insulated	1	35	0	0	35
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	19	0	0	19
Not Previously Mitigated	12	1	0	0	1
<b>Gahanna</b>	<b>138</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
Mitigated					
Sound Insulated	3	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	1	0	0	1
Not Previously Mitigated	135	0	0	0	0
<b>Jefferson Township</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	22	0	0	0	0
<b>Total Housing Units</b>	<b>5,540</b>	<b>507</b>	<b>0</b>	<b>0</b>	<b>507</b>
<b>Population</b>					
<b>Total Population</b>	<b>13,684</b>	<b>1,252</b>	<b>0</b>	<b>0</b>	<b>1,252</b>
<b>Noise-Sensitive Facilities</b>					
Churches	34	0	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Hospitals	0	0	0	0	0
Nursing Homes	0	0	0	0	0

**Notes:**

- \* 14 CFR Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL. Counts of housing units below 65 DNL are provided for informational purposes only.
- 1. Homes that have previously received sound insulation.
- 2. Homes that have an avigation easement.
- 3. Homes that were previously offered sound insulation but declined.
- 4. Homes that have not received and were never offered sound insulation or avigation easement by the CRAA.

Source: Landrum & Brown, 2007.



### Sound Insulation

The CRAA prepared an update to the CMH Part 150 Study in 2007.<sup>5</sup> One of the recommendations of the 2007 Part 150 Study was to offer sound insulation to eligible homes located within and adjacent to an approved 65 DNL noise contour (Measure LU-1). If Alternative C2b is selected as the preferred alternative and implemented, the sound insulation eligibility boundary would be updated to reflect the area graphically depicted on **Exhibit 5.2-5, 2012 Alternative C2b - Proposed Sound Insulation Boundary**. Within this boundary, there are 297 housing units<sup>6</sup> that would be eligible for sound insulation under this alternative. There are homes within the 65 DNL Noise Contour that were built within a published NEM (graphically depicted in green on Exhibit 5.2-5). The 2007 Part 150 Study concluded that these homes are not eligible for noise mitigation due to the FAA's Final Policy on Noise Mitigation, published in 1998. An analysis was conducted for this EIS to determine if there would be an increase in noise in these areas as a result of implementing this alternative. It was found that alternative C2b would not increase noise levels in these areas. Therefore, these homes would not be eligible for noise mitigation in this EIS.

### Relocation Assistance

A negotiated purchase program would be offered to the 36 properties located inside and adjacent to the RPZ. A negotiated purchase program is the purchase of real property through negotiation (i.e., the offer of fair market value) and involves the payment of relocation assistance and moving expenses, which is consistent with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act* (49 CFR Part 24). The acquired property would be converted to open space, which is a land use that is compatible with RPZs. Section 5.3, *Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks*, discusses the relocation assistance that would be offered to these residents.

### Noise Berm/Wall

The noise berm/wall would remain the same as discussed under Alternative C2a.

#### **5.2.2.4 Alternative C3a: 2012 Relocate Runway 10R/28L 702 Feet to the South – Noise Abatement Scenario A**

This section provides a summary of the potential land use impacts, including impacts to residential population, housing units, and noise-sensitive facilities affected by the 2012 Alternative C3a noise contour.

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<sup>5</sup> Final 2007 Part 150 Noise Compatibility Program Update, November 2007. FAA Record of Approval is anticipated by June 1, 2008.

<sup>6</sup> This includes 226 unmitigated housing units that are within the 65 DNL Noise Contour and 71 unmitigated housing units that are within the proposed sound insulation boundary adjacent to the 65 DNL Noise Contour for this alternative that would be eligible for mitigation.

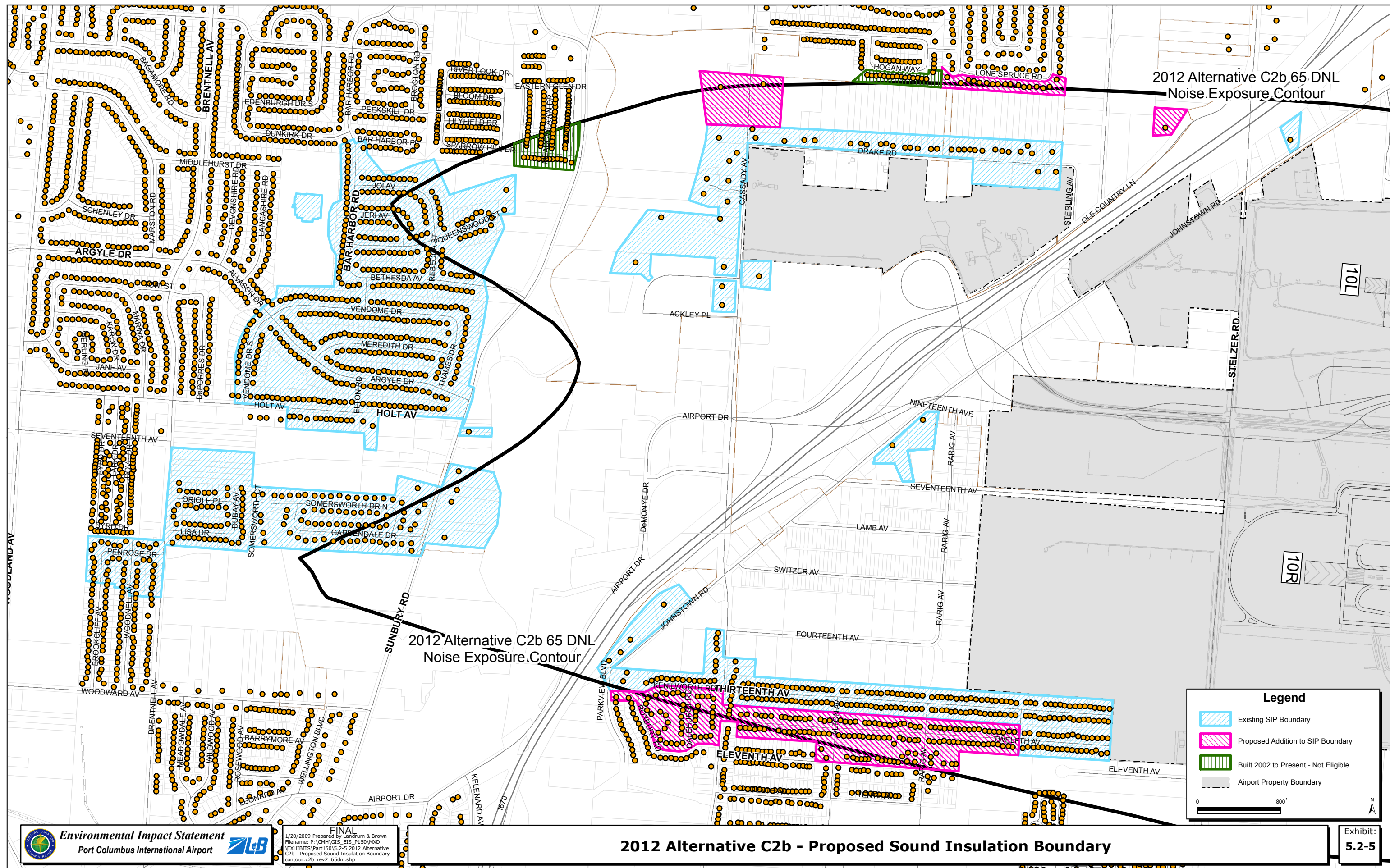


**Land Use Incompatibilities:** Table 5.2-7 shows the number of housing units, residents, and noise-sensitive facilities located within the 2012 Alternative C3a noise contour. Table 5.2-4 shows a comparison of the number of housing units, residents, and noise-sensitive facilities for all of the 2012 alternatives. There are 700 housing units and an estimated 1,729 residents located within the 65+ DNL of the 2012 Alternative C3a noise contour. A total of 337 of those housing units have received sound insulation (301 in Columbus and 36 in Mifflin Township) from the CRAA and are therefore considered previously mitigated. There are no churches, schools, libraries, hospitals, or nursing homes located within the 65+ DNL of the 2012 Alternative C3a noise contour.

**Consistency with Local Land Use Plan:** This section describes the affects of this alternative on land use and the compatibility with local land use plans. Alternative C3a would result in impacts to a number of facilities that could affect future land use patterns within the surrounding jurisdictions.

The construction of replacement Runway 10R/28L 702 feet to the south of existing Runway 10R/28L would result in the acquisition of the same 36 residential properties for clearing the RPZ and vacating East 13<sup>th</sup> Avenue, as discussed above for Alternative C2a (see Exhibit 5.3-3 in Section 5.3, *Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks*). These 36 properties are the eastern most properties on the street and are bounded by Airport property on two sides. The acquisition of the property and relocation of the residents from these 36 properties is considered an impact of this alternative. Because the 35 housing units and one vacant lot represents a small percentage of the overall neighborhood and are located on the edge of the neighborhood, removing these housing units would not constitute a significant impact to the overall pattern of land use in this area. Section 5.3, *Socioeconomic Impacts; Environmental Justice; and Children's Environmental Health and Safety Risks*, discusses the potential impacts of these acquisitions.

The Airport Golf Course, located east of the Airport, would be reconfigured as a result of relocating Runway 10R/28L 702 feet to the south. The approach lighting system, which currently is located in the golf course, would be shifted 702 feet to the south and cause at least nine holes to be reconfigured. During re-construction of the golf course, it is the desire of both the CRAA and the City of Columbus to maintain a minimum of nine holes. The feasibility of this will be further analyzed and determined during the design phase of the project. Because the land use is expected to be maintained and the golf course would return to a full 18-hole facility, a temporary impact to the existing land use is expected. However, the land use would return to its existing use when the golf course reconfiguration was completed. The reconfiguration of the Airport Golf Course is discussed further in Section 5.7, *Department of Transportation Section 4(f) Lands*.



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**Table 5.2-7  
HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY  
INCOMPATIBILITIES - 2012 ALTERNATIVE C3a  
Port Columbus International Airport**

	<b>60-65 DNL *</b>	<b>65-70 DNL</b>	<b>70-75 DNL</b>	<b>75+ DNL</b>	<b>65+ DNL</b>
<b>Housing Units</b>					
<b>Columbus</b>	<b>5,526</b>	<b>642</b>	<b>0</b>	<b>0</b>	<b>642</b>
Mitigated					
Sound Insulated <sup>1</sup>	357	301	0	0	301
Easement <sup>2</sup>	338	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated <sup>3</sup>	81	80	0	0	80
Not Previously Mitigated <sup>4</sup>	4,750	261	0	0	261
<b>Mifflin Township</b>	<b>12</b>	<b>58</b>	<b>0</b>	<b>0</b>	<b>58</b>
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	18	0	0	18
Not Previously Mitigated	11	4	0	0	4
<b>Gahanna</b>	<b>31</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	29	0	0	0	0
<b>Jefferson Township</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	15	0	0	0	0
<b>Total Housing Units</b>	<b>5,584</b>	<b>700</b>	<b>0</b>	<b>0</b>	<b>700</b>
<b>Population</b>					
<b>Total Population</b>	<b>13,792</b>	<b>1,729</b>	<b>0</b>	<b>0</b>	<b>1,729</b>
<b>Noise-Sensitive Facilities</b>					
Churches	37	0	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Hospitals	0	0	0	0	0
Nursing Homes	0	0	0	0	0

**Notes:**

- \* 14 CFR Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL. Counts of housing units below 65 DNL are provided for informational purposes only.
- 1. Homes that have previously received sound insulation.
- 2. Homes that have an avigation easement.
- 3. Homes that were previously offered sound insulation but declined.
- 4. Homes that have not received and were never offered sound insulation or avigation easement by the CRAA.

Source: Landrum & Brown, 2007.

**Stormwater Detention Basin:** The stormwater detention basin would stay the same as described under Alternative C2a.

**Mitigation Commitments:** Mitigation for this alternative includes offering sound insulation to homes affected by significant noise levels and providing relocation assistance to the residents that would be displaced to clear the RPZ, and constructing a noise berm/wall near the area where the homes on East 13<sup>th</sup> Avenue would be removed.

### Sound Insulation

The CRAA prepared an update to the CMH Part 150 Study in 2007. One of the recommendations of the 2007 Part 150 Study is to offer sound insulation to eligible homes that are located within and adjacent<sup>7</sup> to an approved 65 DNL noise contour (Measure LU-1). If Alternative C3a were selected as the preferred alternative and implemented, the sound insulation eligibility boundary would be updated to reflect the area graphically depicted on **Exhibit 5.2-6, 2012 Alternative C3a - Proposed Sound Insulation Boundary**. Within this boundary, there are 313 housing units<sup>8</sup> that would be eligible for sound insulation under this alternative. There are homes within the 65 DNL Noise Contour that were built within a published Noise Exposure Map (graphically depicted in green on Exhibit 5.2-6). The 2007 Part 150 Study concluded that these homes are not eligible for noise mitigation due to the FAA's Final Policy on Noise Mitigation, published in 1998. An analysis was conducted for this EIS to determine if there would be an increase in noise in these areas as a result of implementing this alternative. It was found that alternative C3a would not increase noise levels in these areas. Therefore, these homes would not be eligible for noise mitigation in this EIS.

### Relocation Assistance

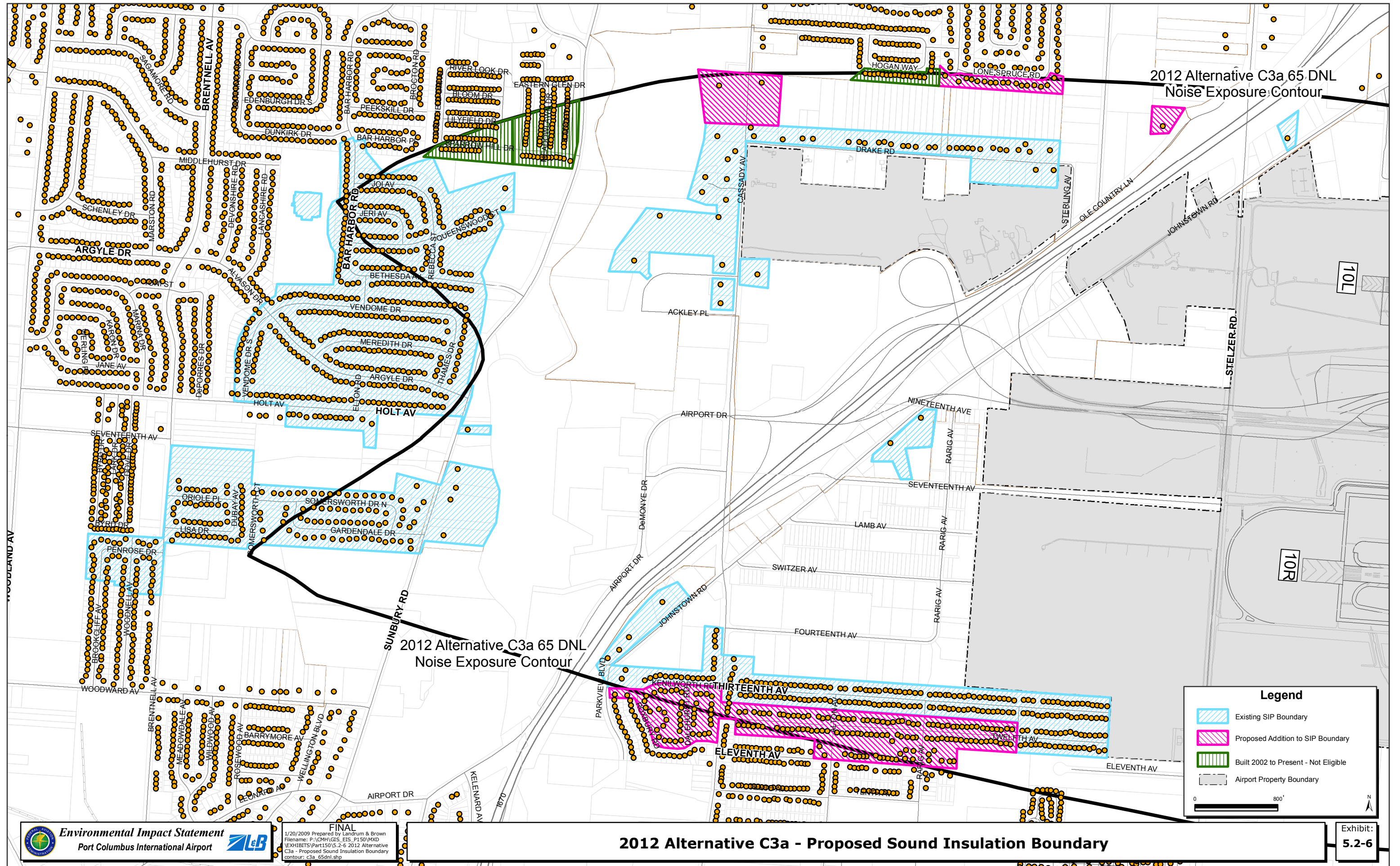
A negotiated purchase program would be offered to the 36 properties located inside and adjacent to the RPZ. A negotiated purchase program is the purchase of real property through negotiation (i.e., the offer of fair market value) and involves the payment of relocation assistance and moving expenses, which is consistent with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act* (49 CFR Part 24). The acquired property would be converted to open space, which is a land use that is compatible with RPZs. Section 5.3, *Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks*, discusses the relocation assistance that would be offered to these residents.

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<sup>7</sup> To remain consistent with FAA and CRAA policies regarding sound insulation eligibility, housing units that are adjacent to the 65+ DNL would be included in the sound insulation program to preserve the integrity of contiguous, stable, and viable residential neighborhoods of similar housing design, construction type, and materials.

<sup>8</sup> This includes 259 unmitigated housing units that are within the 65 DNL Noise Contour and 54 unmitigated housing units that are within the proposed sound insulation boundary adjacent to the 65 DNL Noise Contour for this alternative that would be eligible for mitigation.





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### Noise Berm/Wall

The noise berm/wall would remain the same as discussed under Alternative C2a.

#### **5.2.2.5 Alternative C3b: 2012 Relocate Runway 10R/28L 702 Feet to the South – Noise Abatement Scenario B (Sponsor's Proposed Project)**

This section provides a summary of the potential land use impacts, including impacts to residential population, housing units, and noise-sensitive facilities affected by the 2012 Alternative C3b noise contour.

**Land Use Incompatibilities:** Table 5.2-8 shows the number of housing units, residents, and noise-sensitive facilities located within the 2012 Alternative C3b noise contour. Table 5.2-4 shows a comparison of the number of housing units, residents, and noise-sensitive facilities for all of the 2012 alternatives. There are 473 housing units and an estimated 1,168 residents located within the 65+ DNL of the 2012 Alternative C3b noise contour. A total of 248 of those housing units have received sound insulation (212 in Columbus and 36 in Mifflin Township) from the CRAA and are therefore considered previously mitigated. There are no churches, schools, libraries, hospitals, or nursing homes located within the 65+ DNL of the 2012 Alternative C3b noise contour.

**Consistency with Local Land Use Plan:** This section describes the affects of this alternative on land use and the compatibility with local land use plans. Alternative C3b would result in impacts to a number of facilities that could affect future land use patterns within the surrounding jurisdictions. The impacts described under Alternative C3a for the acquisition of homes in East Columbus and the reconfiguration of the Airport Golf Course would remain the same for Alternative C3b.

In addition, Alternative C3b includes a number of recommended land use measures from the 2007 Part 150 Study that could potentially impact land use and development patterns around the Airport. The land use measures are intended to enhance land use compatibility surrounding the Airport through the implementation of land use restrictions. Currently, the City of Columbus and Franklin County have adopted an AEO district that corresponds to the 65-70, 70-75, and 75+ DNL contours of the most recent NEM for the Airport. Within the AEO, development standards are enacted that restrict residential land uses in the highest noise areas and provide for avigation easements in the areas of 65+ DNL. Two problems have occurred with this program: lack of implementation by the City of Gahanna and Jefferson Township and the AEO boundary changes every time the NEMs are updated for the Airport (which occurs every three years on average).

In response to these issues, the 2007 Part 150 Study recommends that a fixed-boundary approach be implemented where the boundaries are larger than the 65 DNL of the most recent NEM (see Chapter Four, Exhibit 4-10). The approach of creating fixed-boundaries is recommended as Measure LU-12 in the 2007 Part 150 Study. This approach to land use planning was discussed with the local planning jurisdictions on several occasions throughout the development of the



**Table 5.2-8  
HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY  
INCOMPATIBILITIES - 2012 ALTERNATIVE C3b  
Port Columbus International Airport**

	<b>60-65 DNL *</b>	<b>65-70 DNL</b>	<b>70-75 DNL</b>	<b>75+ DNL</b>	<b>65+ DNL</b>
<b>Housing Units</b>					
<b>Columbus</b>	<b>5,233</b>	<b>415</b>	<b>0</b>	<b>0</b>	<b>415</b>
Mitigated					
Sound Insulated <sup>1</sup>	440	212	0	0	212
Easement <sup>2</sup>	471	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated <sup>3</sup>	100	68	0	0	68
Not Previously Mitigated <sup>4</sup>	4,222	135	0	0	135
<b>Mifflin Township</b>	<b>12</b>	<b>57</b>	<b>0</b>	<b>0</b>	<b>57</b>
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	19	0	0	19
Not Previously Mitigated	11	2	0	0	2
<b>Gahanna</b>	<b>148</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
Mitigated					
Sound Insulated	3	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	1	0	0	1
Not Previously Mitigated	145	0	0	0	0
<b>Jefferson Township</b>	<b>27</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	4	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	23	0	0	0	0
<b>Total Housing Units</b>	<b>5,420</b>	<b>473</b>	<b>0</b>	<b>0</b>	<b>473</b>
<b>Population</b>					
<b>Total Population</b>	<b>13,387</b>	<b>1,168</b>	<b>0</b>	<b>0</b>	<b>1,168</b>
<b>Noise-Sensitive Facilities</b>					
Churches	32	0	0	0	0
Schools	8	0	0	0	0
Libraries	0	0	0	0	0
Hospitals	0	0	0	0	0
Nursing Homes	0	0	0	0	0

**Notes:**

- \* 14 CFR Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL. Counts of housing units below 65 DNL are provided for informational purposes only.
- 1. Homes that have previously received sound insulation.
- 2. Homes that have an avigation easement.
- 3. Homes that were previously offered sound insulation but declined.
- 4. Homes that have not received and were never offered sound insulation or avigation easement by the CRAA.

Source: Landrum & Brown, 2007.

2007 Part 150 Study. While it is not possible to get assurance on the implementation of the recommendations of the land use measures in a Part 150 study, the local planning jurisdictions have participated in the development of the recommendations and have not objected to the measures being included in the study. If fully implemented, new development around the Airport would be compatible with airport development and anticipated noise levels.

**Stormwater Detention Basin:** The stormwater detention basin would stay the same as described under Alternative C2a.

**Mitigation Commitments:** Mitigation for this alternative includes offering sound insulation to homes affected by significant noise levels and providing relocation assistance to the residents that would be displaced to clear the RPZ, and constructing a noise berm/wall near the area where the homes on East 13<sup>th</sup> Avenue would be removed.

### Sound Insulation

The CRAA prepared an update to the CMH Part 150 Study in 2007. One of the recommendations of the 2007 Part 150 Study is to offer sound insulation to eligible homes that are located within and adjacent<sup>9</sup> to an approved 65 DNL noise contour (Measure LU-1). If Alternative C3b were selected as the preferred alternative and implemented, the sound insulation eligibility boundary would be updated to reflect the area graphically depicted on **Exhibit 5.2-7, 2012 Alternative C3b - Proposed Sound Insulation Boundary**. Within this boundary, there are approximately 247 housing units<sup>10</sup> that would be eligible for sound insulation under this alternative. There are homes within the 65 DNL Noise Contour that were built within a published Noise Exposure Map (graphically depicted in green on Exhibit 5.2-7). The 2007 Part 150 Study concluded that these homes are not eligible for noise mitigation due to the FAA's Final Policy on Noise Mitigation, published in 1998. An analysis was conducted for this EIS to determine if there would be an increase in noise in these areas as a result of implementing this alternative. It was found that alternative C3b would not increase noise levels in these areas. Therefore, these homes would not be eligible for noise mitigation in this EIS.

### Relocation Assistance

A negotiated purchase program would be offered to the 36 properties located inside and adjacent to the RPZ. A negotiated purchase program is the purchase of real property through negotiation (i.e., the offer of fair market value) and involves the payment of relocation assistance and moving

<sup>9</sup> To remain consistent with FAA and CRAA policies regarding sound insulation eligibility, housing units that are adjacent to the 65+ DNL would be included in the sound insulation program to preserve the integrity of contiguous, stable, and viable residential neighborhoods of similar housing design, construction type and materials.

<sup>10</sup> This includes 187 unmitigated housing units that are within the 65 DNL Noise Contour and 60 unmitigated housing units that are within the proposed sound insulation boundary adjacent to the 65 DNL Noise Contour for this alternative that would be eligible for mitigation.

expenses, which is consistent with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act* (49 CFR Part 24). The acquired property would be converted to open space, which is a land use that is compatible with RPZs. Section 5.3, *Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks*, discusses the relocation assistance that would be offered to these residents.

#### Noise Berm/Wall

The noise berm/wall would remain the same as discussed under Alternative C2a.

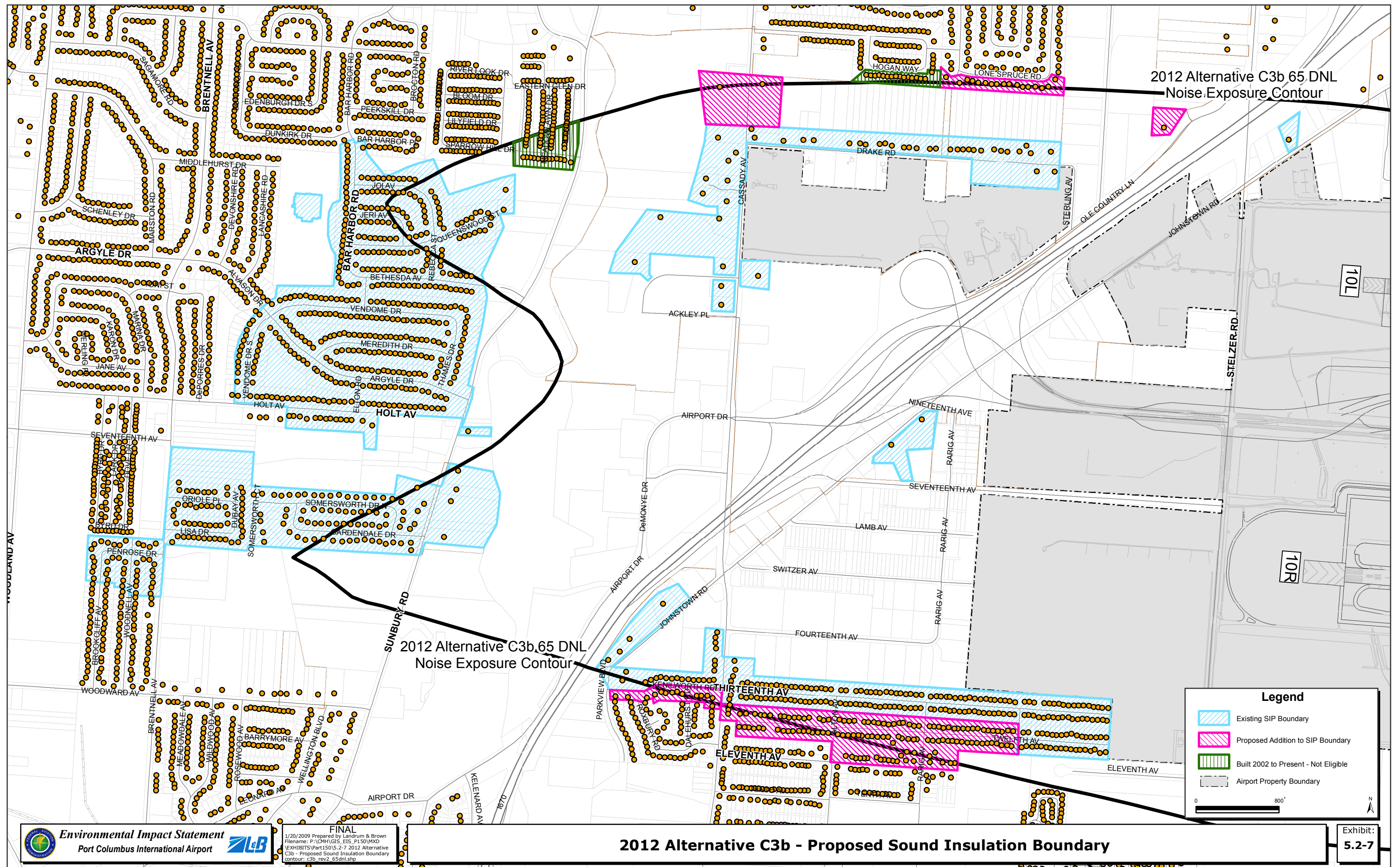
### **5.2.3 FUTURE CONDITIONS: 2018**

The following discusses the land use impacts of the Sponsor's Proposed Project and its alternatives in 2018, which includes quantifying the number of residential and other noise-sensitive land uses that are impacted by aircraft noise for each of the 2018 alternatives. The 2018 alternatives do not change the off-airport land use impacts discussed for the 2012 alternatives. The only difference between the 2012 and 2018 alternatives from a land use perspective is the number of housing units located within the various noise contours. These noise contours are based on the latest forecasts of operating activity for the Airport. However, forecasts are projections that become more speculative and less dependable the farther away from the current year they are. Therefore, for land use mitigation planning (such as sound insulation), the CRAA would commit to the proposed mitigation described for the alternatives under 2012 conditions. Furthermore, the CRAA would commit to updating the Airport's NEMs 12 to 18 months after the opening of the proposed runway to identify any potential changes in noise levels that may warrant an update to the sound insulation program boundaries.

#### **5.2.3.1 Alternative A: 2018 No Action**

This section provides a summary of the residential population, housing units, and noise-sensitive facilities affected by noise levels for the 2018 Alternative A: No Action.

**Land Use Incompatibilities:** Table 5.2-9 shows the number of housing units, residents, and noise-sensitive facilities located within the 2018 Alternative A: No Action noise contour. There are 819 housing units and an estimated 2,023 residents located within the 65+ DNL of the 2018 Alternative A: No Action noise contour. Of those 819 housing units, 762 are within the City of Columbus and 57 are within Mifflin Township. A total of 382 of those housing units have received sound insulation and are therefore considered previously mitigated. There are four churches and one school located within the 65 DNL of the 2018 Alternative A: No Action noise contour, the Mt. Judia Church, the Eternal Life Church of Christ, the Christian Outreach Ministries, the Wonderland Community Church (which has an avigation easement), and the South Mifflin Elementary School (which has received sound insulation and an avigation easement has been conveyed to the CRAA). Table 5.2-10 summarizes the housing unit and population impacts for all of the 2018 alternatives.



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**Table 5.2-9  
HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY  
INCOMPATIBILITIES - 2018 ALTERNATIVE A: NO ACTION  
Port Columbus International Airport**

	<b>60-65 DNL *</b>	<b>65-70 DNL</b>	<b>70-75 DNL</b>	<b>75+ DNL</b>	<b>65+ DNL</b>
<b>Housing Units</b>					
<b>Columbus</b>	<b>5,591</b>	<b>762</b>	<b>0</b>	<b>0</b>	<b>762</b>
Mitigated					
Sound Insulated <sup>1</sup>	301	347	0	0	347
Easement <sup>2</sup>	241	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated <sup>3</sup>	94	73	0	0	73
Not Previously Mitigated <sup>4</sup>	4,955	342	0	0	342
<b>Mifflin Township</b>	<b>17</b>	<b>57</b>	<b>0</b>	<b>0</b>	<b>57</b>
Mitigated					
Sound Insulated	1	35	0	0	35
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	2	18	0	0	18
Not Previously Mitigated	14	4	0	0	4
<b>Gahanna</b>	<b>256</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Mitigated					
Sound Insulated	3	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	0	0	0	0
Not Previously Mitigated	252	0	0	0	0
<b>Jefferson Township</b>	<b>105</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Mitigated					
Sound Insulated	0	0	0	0	0
Easement					
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	32	0	0	0	0
<b>Total Housing Units</b>	<b>5,969</b>	<b>819</b>	<b>0</b>	<b>0</b>	<b>819</b>
<b>Population</b>					
<b>Total Population</b>	<b>14,743</b>	<b>2,023</b>	<b>0</b>	<b>0</b>	<b>2,023</b>
<b>Noise-Sensitive Facilities</b>					
Churches	39	4	0	0	4
Schools	7	1	0	0	1
Libraries	0	0	0	0	0
Hospitals	0	0	0	0	0
Nursing Homes	0	0	0	0	0

**Notes:**

- \* 14 CFR Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL. Counts of housing units below 65 DNL are provided for informational purposes only.
- 1. Homes that have previously received sound insulation.
- 2. Homes that have an avigation easement.
- 3. Homes that were previously offered sound insulation but declined.
- 4. Homes that have not received and were never offered sound insulation or avigation easement by the CRAA.

Source: Landrum & Brown, 2007.

**Table 5.2-10  
COMPARISON OF HOUSING, POPULATION, AND NOISE-SENSITIVE  
FACILITY INCOMPATIBILITIES FOR 2018 ALTERNATIVES  
Port Columbus International Airport**

CATEGORY	2018 ALTERNATIVE A: NO ACTION	2018 ALTERNATIVE C2a	2018 ALTERNATIVE C2b	2018 ALTERNATIVE C3a	2018 ALTERNATIVE C3b
<b>Housing Units</b>					
65-70 DNL	819	811	740	738	656
70-75 DNL	0	0	0	0	0
75+ DNL	0	0	0	0	0
65+ DNL	819	811	740	738	656
<b>Population</b>					
65-70 DNL	2,023	2,003	1,828	1,823	1,620
70-75 DNL	0	0	0	0	0
75+ DNL	0	0	0	0	0
65+ DNL	2,023	2,003	1,828	1,823	1,620
<b>Noise Sensitive Facilities (Churches, Schools, Libraries, Hospitals, and Nursing Homes)</b>					
65-70 DNL	5	2	2	1	2
70-75 DNL	0	0	0	0	0
75+ DNL	0	0	0	0	0
65+ DNL	5	2	2	1	2

Source: Landrum & Brown, 2007.

### **5.2.3.2 Alternative C2a: 2018 Relocate Runway 10R/28L 800 Feet to the South – Noise Abatement Scenario A**

This section provides a summary of the potential land use impacts, including impacts to residential population, housing units, and noise-sensitive facilities affected by the 2018 Alternative C2a noise contour.

**Land Use Incompatibilities:** Table 5.2-11 shows the number of housing units, residents, and noise-sensitive facilities located within the 2018 Alternative C2a noise contour. Table 5.2-10 shows a comparison of the number of housing units, residents, and noise-sensitive facilities for all of the 2018 alternatives. There are 811 housing units and an estimated 2,003 residents located within the 65+ DNL of the 2018 Alternative C2a noise contour. A total of 270 of those housing units have received sound insulation (234 in Columbus and 36 in Mifflin Township) from the CRAA and are therefore considered previously mitigated. There are two churches located within the 65 DNL of the 2018 Alternative C2a noise contour, the East Mount Olivet Baptist Church and the Greater Works Ministries. There are no schools, libraries, hospitals, or nursing homes located within the 65+ DNL of the 2018 Alternative C2a noise contour.

**Consistency with Local Plans:** 2018 Alternative C2a would have the same impacts to local plans as the 2012 Alternative C2a.

**Mitigation Commitments:** 2018 Alternative C2a would include the same mitigation as the 2012 Alternative C2a.

### **5.2.3.3 Alternative C2b: 2018 Relocate Runway 10R/28L 800 Feet to the South – Noise Abatement Scenario B**

This section provides a summary of the potential land use impacts, including impacts to residential population, housing units, and noise-sensitive facilities affected by the 2018 Alternative C2b noise contour.

**Land Use Incompatibilities:** Table 5.2-12 shows the number of housing units, residents, and noise-sensitive facilities located within the 2018 Alternative C2b noise contour. Table 5.2-10 shows a comparison of the number of housing units, residents, and noise-sensitive facilities for all of the 2018 alternatives. There are 740 housing units and an estimated 1,828 residents located within the 65+ DNL of the 2018 Alternative C2b noise contour. A total of 237 of those housing units have received sound insulation (201 in Columbus and 36 in Mifflin Township) from the CRAA and are therefore considered previously mitigated. There are two churches located within the 65 DNL of the 2018 Alternative C2b noise contour, the East Mount Olivet Baptist Church and the Greater Works Ministries. There are no schools, libraries, hospitals, or nursing homes located within the 65+ DNL of the 2018 Alternative C2b noise contour.



**Table 5.2-11  
HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY  
INCOMPATIBILITIES - 2018 ALTERNATIVE C2a  
Port Columbus International Airport**

	60-65 DNL*	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
<b>Housing Units</b>					
<b>Columbus</b>	<b>5,752</b>	<b>754</b>	<b>0</b>	<b>0</b>	<b>754</b>
Mitigated					
Sound Insulated	408	234	0	0	234
Easement	624	18	0	0	18
Unmitigated					
Eligible for Sound Insulation but not Insulated	89	79	0	0	79
Not Previously Mitigated	4,631	423	0	0	423
<b>Mifflin Township</b>	<b>13</b>	<b>56</b>	<b>0</b>	<b>0</b>	<b>56</b>
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	19	0	0	19
Not Previously Mitigated	12	1	0	0	1
<b>Gahanna</b>	<b>13</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
Mitigated					
Sound Insulated	1	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	1	0	0	1
Not Previously Mitigated	12	0	0	0	0
<b>Jefferson Township</b>	<b>70</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	38	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	32	0	0	0	0
<b>Total Housing Units</b>	<b>5,848</b>	<b>811</b>	<b>0</b>	<b>0</b>	<b>811</b>
<b>Population</b>					
<b>Total Population</b>	<b>14,445</b>	<b>2,003</b>	<b>0</b>	<b>0</b>	<b>2,003</b>
<b>Noise-Sensitive Facilities</b>					
Churches	36	2	0	0	2
Schools	9	0	0	0	0
Libraries	0	0	0	0	0
Hospitals	0	0	0	0	0
Nursing Homes	0	0	0	0	0

**Notes:**

- \* 14 CFR Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL. Counts of housing units below 65 DNL are provided for informational purposes only.
- 1. Homes that have previously received sound insulation.
- 2. Homes that have an aviation easement.
- 3. Homes that were previously offered sound insulation but declined.
- 4. Homes that have not received and were never offered sound insulation or aviation easement by the CRAA.

Source: Landrum & Brown, 2007.

**Table 5.2-12  
HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY  
INCOMPATIBILITIES - 2018 ALTERNATIVE C2b  
Port Columbus International Airport**

	<b>60-65 DNL *</b>	<b>65-70 DNL</b>	<b>70-75 DNL</b>	<b>75+ DNL</b>	<b>65+ DNL</b>
<b>Housing Units</b>					
<b>Columbus</b>	<b>5,420</b>	<b>683</b>	<b>0</b>	<b>0</b>	<b>683</b>
Mitigated					
Sound Insulated <sup>1</sup>	451	201	0	0	201
Easement <sup>2</sup>	701	1	0	0	1
Unmitigated					
Eligible for Sound Insulation but not Insulated <sup>3</sup>	94	74	0	0	74
Not Previously Mitigated <sup>4</sup>	4,174	407	0	0	407
<b>Mifflin Township</b>	<b>11</b>	<b>56</b>	<b>0</b>	<b>0</b>	<b>56</b>
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	19	0	0	19
Not Previously Mitigated	10	1	0	0	1
<b>Gahanna</b>	<b>48</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	1	0	0	1
Not Previously Mitigated	46	0	0	0	0
<b>Jefferson Township</b>	<b>96</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	55	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	41	0	0	0	0
<b>Total Housing Units</b>	<b>5,575</b>	<b>740</b>	<b>0</b>	<b>0</b>	<b>740</b>
<b>Population</b>					
<b>Total Population</b>	<b>13,770</b>	<b>1,828</b>	<b>0</b>	<b>0</b>	<b>1,828</b>
<b>Noise-Sensitive Facilities</b>					
Churches	29	2	0	0	2
Schools	6	0	0	0	0
Libraries	0	0	0	0	0
Hospitals	0	0	0	0	0
Nursing Homes	0	0	0	0	0

**Notes:**

- \* 14 CFR Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL. Counts of housing units below 65 DNL are provided for informational purposes only.
- 1. Homes that have previously received sound insulation.
- 2. Homes that have an avigation easement.
- 3. Homes that were previously offered sound insulation but declined.
- 4. Homes that have not received and were never offered sound insulation or avigation easement by the CAAA.

Source: Landrum & Brown, 2007.

**Consistency with Local Plans:** 2018 Alternative C2b would have the same impacts to local plans as the 2012 Alternative C2b.

**Mitigation Commitments:** 2018 Alternative C2b would include the same mitigation as the 2012 Alternative C2b.

#### **5.2.3.4 Alternative C3a: 2018 Relocate Runway 10R/28L 702 Feet to the South – Noise Abatement Scenario A**

This section provides a summary of the potential land use impacts, including impacts to residential population, housing units, and noise-sensitive facilities affected by the 2018 Alternative C3a noise contour.

**Land Use Incompatibilities:** Table 5.2-13 shows the number of housing units, residents, and noise-sensitive facilities located within the 2018 Alternative C3a noise contour. Table 5.2-10 shows a comparison of the number of housing units, residents, and noise-sensitive facilities for all of the 2018 alternatives. There are 738 housing units and an estimated 1,823 residents located within the 65+ DNL of the 2018 Alternative C3a noise contour. A total of 295 of those housing units have received sound insulation (259 in Columbus and 36 in Mifflin Township) from the CRAA and are therefore considered previously mitigated. There are three churches, Aenon Missionary Baptist Church, East Mount Olivet Baptist Church, and the Greater Works Ministries, located within the 65 DNL of the 2018 Alternative C3a noise contour. There are no schools, libraries, hospitals, or nursing homes located within the 65+ DNL of the 2018 Alternative C3a noise contour.

**Mitigation Recommendations:** Mitigation for this alternative is discussed for the 2012 Alternative C3a conditions.

**Consistency with Local Plans:** Land use consistency is discussed in the section describing the 2012 Alternative C3a.

**Table 5.2-13  
HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY  
INCOMPATIBILITIES - 2018 ALTERNATIVE C3a  
Port Columbus International Airport**

	60-65 DNL*	65-70 DNL	70-75 DNL	75+ DNL	65+ DNL
<b>Housing Units</b>					
<b>Columbus</b>	<b>5,870</b>	<b>681</b>	<b>0</b>	<b>0</b>	<b>681</b>
Mitigated					
Sound Insulated	393	259	0	0	259
Easement	589	23	0	0	23
Unmitigated					
Eligible for Sound Insulation but not Insulated	87	81	0	0	81
Not Previously Mitigated	4,801	318	0	0	318
<b>Mifflin Township</b>	<b>13</b>	<b>56</b>	<b>0</b>	<b>0</b>	<b>56</b>
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	19	0	0	19
Not Previously Mitigated	12	1	0	0	1
<b>Gahanna</b>	<b>19</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	1	0	0	1
Not Previously Mitigated	17	0	0	0	0
<b>Jefferson Township</b>	<b>84</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	54	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	30	0	0	0	0
<b>Total Housing Units</b>	<b>5,986</b>	<b>738</b>	<b>0</b>	<b>0</b>	<b>738</b>
<b>Population</b>					
<b>Total Population</b>	<b>14,785</b>	<b>1,823</b>	<b>0</b>	<b>0</b>	<b>1,823</b>
<b>Noise-Sensitive Facilities</b>					
Churches	32	3	0	0	3
Schools	10	0	0	0	0
Libraries	0	0	0	0	0
Hospitals	0	0	0	0	0
Nursing Homes	0	0	0	0	0

Notes:

- \* 14 CFR Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL. Counts of housing units below 65 DNL are provided for informational purposes only.
- 1. Homes that have previously received sound insulation.
- 2. Homes that have an aviation easement.
- 3. Homes that were previously offered sound insulation but declined.
- 4. Homes that have not received and were never offered sound insulation or aviation easement by the CRAA.

Source: Landrum & Brown, 2007.

#### **5.2.3.5 Alternative C3b: 2018 Relocate Runway 10R/28L 702 Feet to the South – Noise Abatement Scenario B (Sponsor's Proposed Project)**

This section provides a summary of the potential land use impacts, including impacts to residential population, housing units, and noise-sensitive facilities affected by the 2018 Alternative C3b noise contour.

**Land Use Incompatibilities:** Table 5.2-14 shows the number of housing units, residents, and noise-sensitive facilities located within the 2018 Alternative C3b noise contour. Table 5.2-10 shows a comparison of the number of housing units, residents, and noise-sensitive facilities for all of the 2018 alternatives. There are 656 housing units and an estimated 1,620 residents located within the 65+ DNL of the 2018 Alternative C3b noise contour. A total of 256 of those housing units have received sound insulation (220 in Columbus and 36 in Mifflin Township) from the CRAA and are therefore considered previously mitigated. There are two churches, located within the 65+DNL of the 2018 Alternative C3b noise contour, the East Mount Olivet Baptist Church and the Greater Works Ministries. There are no schools, libraries, hospitals, or nursing homes located within the 65+ DNL of the 2018 Alternative C3b noise contour.

**Consistency with Local Plans:** 2018 Alternative C3b would have the same impacts to local plans as the 2012 Alternative C3b.

**Mitigation Commitments:** 2018 Alternative C3b would include the same mitigation as the 2012 Alternative C3b.

**Table 5.2-14  
HOUSING, POPULATION, AND NOISE-SENSITIVE FACILITY  
INCOMPATIBILITIES - 2018 ALTERNATIVE C3b  
Port Columbus International Airport**

	<b>60-65 DNL *</b>	<b>65-70 DNL</b>	<b>70-75 DNL</b>	<b>75+ DNL</b>	<b>65+ DNL</b>
<b>Housing Units</b>					
<b>Columbus</b>	<b>5,570</b>	<b>599</b>	<b>0</b>	<b>0</b>	<b>599</b>
Mitigated					
Sound Insulated <sup>1</sup>	432	220	0	0	220
Easement <sup>2</sup>	705	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated <sup>3</sup>	93	75	0	0	75
Not Previously Mitigated <sup>4</sup>	4,340	304	0	0	304
<b>Mifflin Township</b>	<b>11</b>	<b>56</b>	<b>0</b>	<b>0</b>	<b>56</b>
Mitigated					
Sound Insulated	0	36	0	0	36
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	1	19	0	0	19
Not Previously Mitigated	10	1	0	0	1
<b>Gahanna</b>	<b>62</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
Mitigated					
Sound Insulated	2	0	0	0	0
Easement	0	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	1	0	0	1
Not Previously Mitigated	60	0	0	0	0
<b>Jefferson Township</b>	<b>103</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Mitigated					
Sound Insulated	0	0	0	0	0
Easement	62	0	0	0	0
Unmitigated					
Eligible for Sound Insulation but not Insulated	0	0	0	0	0
Not Previously Mitigated	41	0	0	0	0
<b>Total Housing Units</b>	<b>5,746</b>	<b>656</b>	<b>0</b>	<b>0</b>	<b>656</b>
<b>Population</b>					
<b>Total Population</b>	<b>14,193</b>	<b>1,620</b>	<b>0</b>	<b>0</b>	<b>1,620</b>
<b>Noise-Sensitive Facilities</b>					
Churches	30	2	0	0	2
Schools	5	0	0	0	0
Libraries	0	0	0	0	0
Hospitals	0	0	0	0	0
Nursing Homes	0	0	0	0	0

Notes:

\* 14 CFR Part 150 Land Use Compatibility Guidelines indicate that residential land uses are compatible with noise levels below 65 DNL. Counts of housing units below 65 DNL are provided for informational purposes only.

1. Homes that have previously received sound insulation.

2. Homes that have an aviation easement.

3. Homes that were previously offered sound insulation but declined.

4. Homes that have not received and were never offered sound insulation or aviation easement by the CRAA.

Source: Landrum & Brown, 2007.

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