SUM-277-0.16
TYPE II NOISE PROJECT
(PID: 103858)

DECEMBER 2017

NOISE ANALYSIS

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TABLE OF CONTENTS

Exhibits

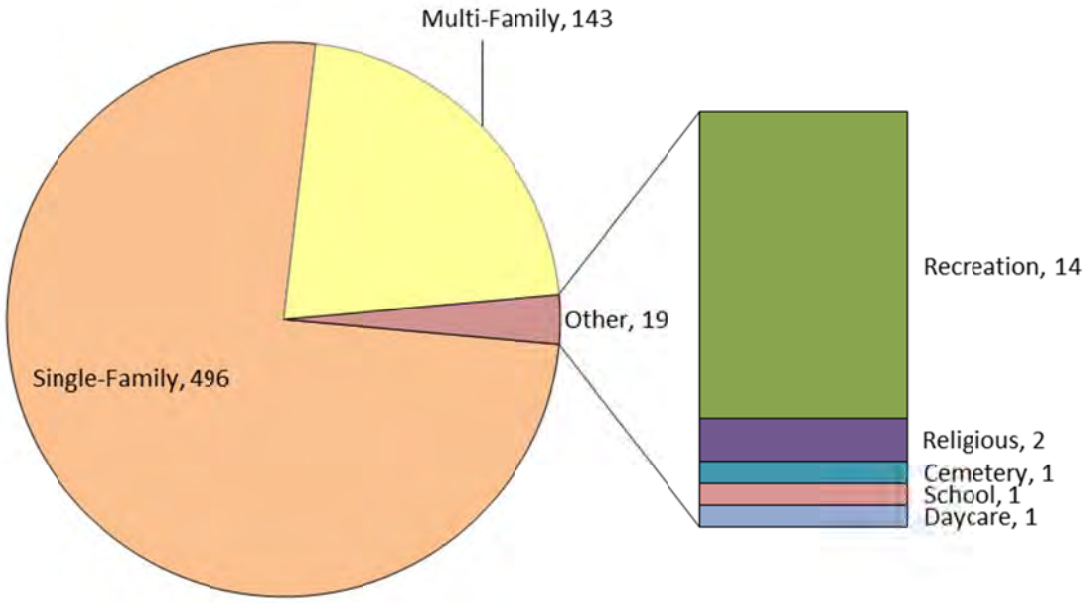
Appendices

Electronic Files

Folder 1	TNM Files
Folder 2	DXF Import Files
Folder 3	Noise Analysis Report (MS Word & PDF)

1.0 | EXECUTIVE SUMMARY

A Type II noise analysis was conducted in accordance with federal and state regulations to determine the existing noise impacts from I-277 in Summit County, Ohio between the I-277/I-76 interchange and the I-277/I-77 interchange. Type II noise studies are a type of project that studies noise abatement for noise sensitive land uses that were in existence prior to the construction of the original highway. . Noise sensitive land uses within 500 feet of I-277 and between I-76 and I-77 were modeled, totaling 658 noise sensitive dwelling units. Most of the noise sensitive land uses were single-family and multi-family residences (639 equivalent dwelling units). There were also four recreational areas (14 equivalent dwelling units), one cemetery, one school, two religious institutions, and one daycare.



The existing modeled noise levels range from 50.4 dBA to 77.2 dBA with an average of 61.3 dBA. Of the 658 noise sensitive dwelling units, the noise model indicates that 167 (25 percent) are impacted – they are experiencing a decibel level above their respective NAC thresholds. Related to the age of the dwelling units, 324 of the 658 noise sensitive dwelling units (49 percent) are Type II-eligible, and 103 of those are impacted.

The sites were grouped into the eight noise sensitive areas (NSAs) listed below:

- NSA 1: South side of I-277, Between I-76 and Waterloo Road
- NSA 2: South side of I-277, Between Waterloo Road and SR-93
- NSA 3: South side of I-277, Between SR-93 and the Ohio Canal
- NSA 4: North side of I-277, Between I-76 and Waterloo Road
- NSA 5: North side of I-277, Between SR-93 and the Ohio Canal
- NSA 6: South side of I-277, Between S Main Street and Glenmount Avenue
- NSA 7: South side of I-277, Glenmount Avenue and I-77
- NSA 8: North side of I-277, Between S Main Street and I-77

After consideration of all noise abatement alternatives for impacted receptors, the results are listed as follows:

- There are 167 impacted noise sensitive dwelling units in the existing year, which is 25 percent of the total modeled dwelling units. One hundred three (103) of the impacted dwelling units are Type II eligible.
- A barrier analysis to evaluate noise barrier feasibility and reasonableness was conducted for five locations (see **Exhibits 7, 8, 9, & 10**):
  - NSA 3/Barrier 3 (ROW/EOS): South side of I-277, Between SR-93 and the Ohio Canal
    - 3 Alternatives
  - NSA 4/Barrier 4 (EOS): North side of I-277, Between I-76 and Waterloo Road
    - 4 Alternatives
  - NSA 5/Barrier 5 (EOS/ROW): North side of I-277, Between SR-93 and the Ohio Canal
    - 3 Alternatives
  - NSA 6/Barrier 6 (ROW/EOS): South side of I-277, Between S Main Street and Glenmount Avenue
    - 3 Alternatives
  - NSA 7/Barrier 7 (EOS/ROW): South side of I-277, Glenmount Avenue and I-77
    - 3 Alternatives
- NSAs 1, 2, and 8 were not evaluated for a barrier because they either had scarcely any noise impacts or they had too few receivers for noise mitigation to be economically feasible.

The recommendations for this study include:

- The results of the barrier analysis show that three of the barriers were both feasible and reasonable for Type II noise sensitive land uses – Barriers 3, 4, and 5 (see **Exhibits 11, 12, and 13**). After coordination with ODOT, the recommended barrier alternatives for these barriers include:
  - **Barrier 3, Alternative 3:** lowest cost and no segments on structure, while still mitigating all but one of the impacted Type II-eligible noise sensitive land uses.
  - **Barrier 4, Alternative 4:** optimized height to mitigate most of the impacted Type II-eligible noise sensitive land uses; tied to Barrier 5 recommended alternative – average height is slightly more for Alternative 4 than for Alternative 3 to account for shorter Barrier 5 length.
  - **Barrier 5, Alternative 1:** lowest cost and no segments on structure, plus would result in easier maintenance.
- The segment heights of the recommended alternatives were modified in the final analysis in order to maintain a relatively even (or even transition) top barrier elevation (shown in **Exhibit 12**).
- Other forms of noise abatement were considered but are not recommended.

2.0 | INTRODUCTION

2.1 Project Description

The National Environmental Policy Act (NEPA) of 1969 requires the evaluation of potential environmental impacts of all projects subject to federal funding or approval. The traffic noise analysis and abatement measures were evaluated according to procedures set forth in the Ohio Department of Transportation's (ODOT's) Highway Traffic Noise Analysis Manual, dated April 2015, and in the Federal Highway Administration (FHWA) *Procedures For Abatement of Highway Traffic Noise and Construction Noise*, 23 Code of Federal Regulations (CFR) Part 772. Analyses were also done in accordance with FHWA's *Highway Traffic Noise Analysis and Abatement Guidance*, dated December 2011.

This project is located in Akon and Coventry townships in Summit County, Ohio, (**see Exhibit 1**) along Interstate (I) 277. This project is a Type II noise project, which is a type of project that studies noise abatement for noise sensitive land uses that were in existence prior to the construction of the original highway. The noise study area for this project is bounded on the west by the I-277/I-76 interchange and on the east by the I-277/I-77 interchange (**see Exhibit 2**).

This noise analysis is studying the impacts that I-277 may have on the noise sensitive areas in the noise study area, particularly focusing on the areas that were in existence prior to the construction of I-277.

2.2 Noise Abatement Criteria

2.2.1 Highway Noise Fundamentals

Sound is measured and described by units called decibels. Decibels are units that represent relative acoustic *energy* intensities. Because the range of energy found throughout the spectrum of normal hearing is so wide (whispers to jet engines) the numbers necessary to define these levels must be able to represent huge variations in energy. To compensate for this wide range, a base 10 logarithmic scale is used to make the numbers more "normal".

Noise is an undesirable or unwanted sound as subjectively perceived by the individual. Acceptance of a certain noise level may vary among neighborhoods, individuals, and by the time of day. Sound can affect all human activities and is often considered in local and regional land use planning.

Traffic noise is the sound generated by automobiles and truck operations on streets and highways. The sound generated is composed of tire, engine, and exhaust noise. People respond differently to acoustic energy in varying frequency ranges. Frequencies are airborne vibrations described in cycles/second, cps, or Hertz, Hz. The faster the vibration, the higher the frequency. The normal range of healthy hearing is from 30 cps (very low) to 16,000 cps (very high). The human ear is most efficient in the mid and high range frequencies and has decreasing efficiency below approximately 250 cycles.

Sounds heard in the environment usually consist of a range of frequencies, each at a different level. The method of correlating human response to equivalent sound pressure levels at different frequencies is called "weighting". The weighting system used to correlate human hearing to frequency response is

the "A-weighting" scale and the resultant sound pressure level is called the "A-weighted sound pressure level," identifiable by the abbreviated descriptor dBA. Traffic noise levels are presented in decibels, using the A-weighting scale.

The A-weighted sound level adequately describes the environmental noise at a particular instant. However, the level and frequency of noise varies constantly over time. Distant and continuous noise sources, such as traffic 1,000 – 1,200 feet away, wind rustling leaves, and industrial activity create a background noise level where no particular sound source can be readily identified. The level slowly changes with the daily cycle of human activity. Included with the background noise level is a succession of nearby noise events that are of short duration such aircraft flyovers, truck pass-bys, and miscellaneous loud noises that cause rapid changes in the overall noise level.

The threshold of noise interference levels presented in the FHWA Noise Abatement Criteria (NAC) represent the equivalent, or L_{eq}, sound levels which result in "sporadic to widespread complaints" for the corresponding land use being considered. L_{eq}, or equivalent sound level, is the level of constant sound, which, over the course of an hour would contain the same acoustic energy as the time-varying sound. In other words, the fluctuating sound levels of traffic noise are represented in terms of a steady-state noise level of the same energy content.

The currently recognized standard used for representing traffic noise levels is the $L_{eq}(h)$. The $L_{eq}(h)$ is calculated by averaging the total acoustic energy occurring during a specific period of time, over the course of one hour.

2.2.2 Noise Standards

The purpose of Part 772 of the Code of Federal Regulations (CFR) is to provide procedures for noise studies and noise abatement measures in order to help protect the public health and welfare, to supply noise abatement criteria, and to establish requirements for information to be given to local officials for use in the planning and design of highways approved pursuant to Title 23 of the Code of Federal Regulations (23 CFR 772.1).

The following characteristics constitute the noise standards mandated by 23 USC 109(i):

1. *Highway traffic noise prediction requirements:* Any traffic noise prediction methodology is approved for use in any noise analysis required by this regulation if it generally meets two conditions:
    a) The methodology is consistent with the methodology in the FHWA Highway Traffic Noise Prediction Model (Report No. FHWA-RD-77-108).
    b) The prediction method uses noise emission levels obtained from either National Reference Energy Mean Emission Levels as a Function of Speed or from determination of reference energy mean emission levels in Sound Procedures for Measuring Highway Noise: Final Report, DP-45-1R.

    In predicting noise levels and assessing noise impacts, traffic characteristics which will yield the worst hourly traffic noise impact on a regular basis for the design year shall be used (23 CFR 772.17).
2. *Noise analyses:* The highway agency shall determine and analyze expected traffic noise impacts and alternative noise abatement measures to mitigate these impacts, giving weight to the benefits and cost of abatement, and to the overall social, economic, and environmental effects. The traffic noise analysis shall include the following for each alternative under detailed study:
    a) Identification of existing activities, developed lands, and undeveloped lands for which development is planned, designed, and programmed, which may be affected by noise from the highway.
    b) Prediction of traffic noise levels

c) Determination of existing noise levels
d) Determination of traffic noise impacts
e) Examination and evaluation of alternative noise abatement measures for reducing or eliminating the noise impacts

Highway agencies proposing to use Federal-aid highway funds for Type II projects shall perform a noise analysis of sufficient scope to provide information needed to make the determination required by 23 CFR 772.13 (23 CFR 772.9).

3. *Noise Abatement Criteria:* In determining and abating traffic noise impacts, primary consideration is to be given to exterior areas. Abatement will usually be necessary only where frequent human use occurs and a lowered noise level would be of benefit (23 CFR 772.11).
4. *Requirements for informing local officials in this regulation:* In an effort to prevent future traffic noise impacts on currently undeveloped lands, highway agencies shall inform local officials within whose jurisdiction the highway project is located of the following:
    a) The best estimation of future noise levels for various distances from the highway improvement, for both developed and undeveloped lands or properties in the immediate vicinity of the project.
    b) The information that may be useful to local communities to protect future land development from becoming incompatible with anticipated highway noise levels.
    c) Eligibility for Federal-aid participation for Type II projects as described in 23 CFR 772.13 (23 CFR 772.15).

All highway projects, which are developed in conformance with this regulation, shall be deemed in conformance with the FHWA noise standards (23 CFR 772.3).

2.2.3 Federal Noise Abatement Criteria

The highway traffic noise prediction requirements, noise analyses, NAC, and requirements for informing local officials constitute the noise standards mandated by 23 U.S.C. 109(i). All highway projects that are developed in conformance with this directive are deemed to be in conformance with the FHWA noise standards. The purpose of the FHWA procedures is to provide for noise studies and noise abatement measures to help protect the public health and welfare, to supply the NAC, and to establish requirements for information to be given to local officials for use in the planning and control of development.

The NAC for various land uses have been established by FHWA in 23 CFR, Part 772 (**see Exhibit 3**). The activity categories for land uses in the study area fall into categories B, C, D, E, F and G.

- Noise Activity Category B
    - Study Area: Single and multi-family residences
    - NAC Description: Exterior impacts that approach or exceed 67 dBA for “Residential”
- Noise Activity Category C
    - Study Area: 1 cemetery, 1 daycare, 1 school, 4 recreation areas, 2 places of worship
    - NAC Description: Exterior impacts that approach or exceed 67 dBA for “Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, daycare centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreational areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.”
- Noise Activity Category E
    - Study Area: Commercial properties
    - Description: Exterior impacts that approach or exceed 72 dBA for “Hotels, motels,

offices, restaurant/bars, and other developed lands, properties, or activities not included in A-D or F."

- Noise Activity Category F
  - Study Area: Industrial properties
  - Description: Impacts are not applicable for "Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical) and warehousing."
- Noise Activity Category G
  - Study Area: Undeveloped lands (but traffic noise impacts to undeveloped lands do not need to be analyzed for Type II studies).
  - NAC Description: Impacts are not applicable for "Undeveloped lands that are not permitted."

According to ODOT procedures, consideration of noise abatement for Type II projects is required when existing noise levels approach or exceed the NAC. ODOT defines "approach" as 65.5 dBA for Activity Category B and C and 70.5 dBA for Activity Category E, and uses a 10 dBA increase to define a substantial increase.

Noise levels for the project area were predicted using the FHWA Traffic Noise Model (TNM) 2.5. TNM is a Windows-based computer program that calculates highway traffic noise at nearby receivers and aids in the design of highway noise barriers. The program includes 1994-1995 noise emission levels for the following vehicle types: 1) autos, 2) medium trucks, 3) heavy duty trucks, 4) buses, and 5) motorcycles. The program incorporates a choice of pavement type and traffic control type and will take into account; atmospheric absorption, divergence, intervening ground, intervening barriers, rows of buildings and areas of heavy vegetation.

3.0 | EXISTING NOISE ENVIRONMENT

3.1 Ambient Noise Levels

The temporal pattern of traffic noise levels can vary noticeably over time. Underneath this noise is typically a steady "lower sound level", or background, over which the nearby traffic noise level of interest is superimposed. This "all-encompassing" noise associated with a given environment is called the "ambient" noise level. Thus ambient noise includes both noise level contributions from distant non-identifiable sources and local nearby sources, which produce identifiable and discrete events.

3.2 Noise Sensitive Land Uses

Sensitive receptors were identified through project mapping and field reconnaissance of the project area. Noise sensitive land uses within 500 feet of I-277 and between I-76 and I-77 were modeled, totaling 658 noise sensitive dwelling units. Most of the noise sensitive land uses were single-family and multi-family residences (639 equivalent dwelling units). There were also four recreational areas (14 equivalent dwelling units), one cemetery, one school, two religious institutions, and one daycare. The sites were analyzed for the year 2017 against the FHWA NAC levels. The sites were grouped into the eight noise sensitive areas (NSAs) listed below. See **Exhibit 2** for the locations of the NSAs and **Exhibit 4** for the specific locations of the noise sensitive land uses.

- NSA 1: South side of I-277, Between I-76 and Waterloo Road
  Single-family residences
- NSA 2: South side of I-277, Between Waterloo Road and SR-93
  One recreational area (Lake Nesmith Park)
- NSA 3: South side of I-277, Between SR-93 and the Ohio Canal
  Single-family and multi-family residences, 1 daycare and 1 recreational trail
- NSA 4: North side of I-277, Between I-76 and Waterloo Road
  Single-family and multi-family residences, 1 recreational area, 1 church, and 1 school
- NSA 5: North side of I-277, Between SR-93 and the Ohio Canal
  Single-family and multi-family residences and 1 recreational trail
- NSA 6: South side of I-277, Between S Main Street and Glenmount Avenue
  Single-family and multi-family residences and 1 church
- NSA 7: South side of I-277, Glenmount Avenue and I-77
  Single-family and multi-family residences
- NSA 8: North side of I-277, Between S Main Street and I-77
  Single-family and multi-family residences, 1 cemetery, 1 retirement facility, and 1 community center (South Akron Knights of Columbus)

3.3 Noise Readings & Model Calibration

Noise readings were taken on March 3, 2017 and March 10, 2017. Traffic counts were taken on I-277 in conjunction with each of the noise readings. The locations of the noise readings are shown in **Exhibit 2;** the noise reading results are shown in the abbreviated **Table 1** below; and the detailed noise reading table is shown in **Exhibit 5**. **Appendix A** contains the field data.

The noise reading locations were selected to establish a complete and thorough representation of the existing noise sensitive land uses in the area. These locations were approved by ODOT via email on January 18, 2017. A total of 15 readings were taken for 15-minute periods each. Details on the location, time of day, duration, minimum decibel level, maximum decibel level, and L_{eq} decibel level can be found in **Appendix A.** Measured noise levels ranged from 52.4 dBA to 74.5 dBA at the noise reading sites (**see Table 1/Exhibit 5**). Vehicles operating on the following roadways were the dominant sources of traffic noise and thus were included in the noise model:

- I-277
- I-76
- SR-93
- Waterloo Road
- South Main Street
- Schwartz Road

The variation in measured levels was predominantly a function of the following three factors:

1. Traffic flow conditions (both volume and speed) during the measurement periods,
2. Distance of the measurement site from contributing roadways, and
3. Intervening topography between the measurement site and the noise source.

Existing ambient noise levels were modeled for all noise measurement sites using TNM and traffic volumes collected in the field during the time of the noise readings. Speed was determined by speed limit posted on the roadway. When calibrating the TNM model, the acceptable difference between noise readings and modeled results is plus or minus 3.0 decibels. All but one of the noise readings fell within the acceptable range. Noise Reading #13/Receiver A50, located in NSA 3, was modeled at 70.1 dBA, but the field measurements were 65.7 dBA, a difference of 4.4 dBA. Since the model was higher and therefore represented the worst-case scenario, the modeled decibel level was used for the analysis.

Table 1: Noise Reading Table

Receiver ID	Noise Reading ID	Noise Reading Elevation (ft)	Adjacent Mainline Elevation (ft)	Distance from Mainline EOP (ft)	Noise Reading Results (dBA)	Calibration Model Results (dBA)	Difference
A151	1	977	989	100	66.4	67.0	0.6
A168	2	996	1,022	485	60.7	58.4	-2.3
A175	3	1,004	1,016	200	66.1	68.6	2.5
A223	4	1,011	1,022	115	68.3	66.7	-1.6
A146	5	966	986	115	64.5	64.8	0.3
B220	6	1,004	1,008	250	68.6	67.4	-1.2
B250	7	1,002	1,020	270	65.0	62.7	-2.3
B198	8	1,020	1,059	240	60.6	63.3	2.7
B137	9	1,031	1,034	220	57.1	59.2	2.1
B101	10	1,025	1,027	525	52.4	55.1	2.7
B22	11	1,014	1,006	45	74.5	76.0	1.5
B18	12	1,024	994	160	58.2	61.2	3.0
A50	13	1,016	1,011	105	65.7	70.1	4.4
A30	14	975	1,021	500	59.9	62.2	2.3
A22	15	970	1,022	530	56.2	59.2	3.0

4.0 | PREDICTED NOISE LEVELS

4.1 Prediction Methodology

The computer model used to predict noise levels represents those models and techniques currently acceptable to FHWA and ODOT. All traffic noise predictions were performed in accordance with the TNM Users Guide. TNM is a Windows-based computer program that calculates highway traffic noise at nearby receivers and aids in the design of highway noise barriers. The program includes 1994-1995 noise emission levels for the following vehicle types: 1) autos, 2) medium trucks, 3) heavy duty trucks, 4) buses, and 5) motorcycles. The program incorporates a choice of pavement type and traffic control type and takes into account atmospheric absorption, divergence, intervening ground, intervening barriers, rows of buildings, and areas of heavy vegetation.

4.2 Traffic Volumes

The traffic data used in the models for the roads was derived from data supplied by ODOT and AMATS. **Appendix B** contains the traffic data tables and original data supplied by ODOT and AMATS.

4.3 Impact Assessment

Predicted noise levels were modeled in order to determine the noise levels for the existing conditions. **Exhibit 6** contains a table showing the modeled results for Present-Day. Also shown in this exhibit is the age of the receivers, including an indication of which are eligible for Type II consideration (older than when I-277 was built < 1962). **Appendix C** contains TNM printouts of the input and output tables for the existing scenario along with the calibration models.

4.3.1 Noise Study Area Assessment Overview

Noise sensitive land uses within 500 feet of I-277 were modeled, totaling 658 noise sensitive equivalent dwelling units, as shown in **Exhibit 4**. Most of the noise sensitive land uses are single-family and multi-family residences (639). There are also four recreational areas (14 equivalent dwelling units), one cemetery, one school, two religious institutions, and one daycare. The existing modeled noise levels range from 50.4 dBA to 77.2 dBA with an average of 61.3 dBA. Of the 658 noise sensitive dwelling units, the noise model indicates that 167 (25 percent) are impacted – they are experiencing a decibel level above their respective NAC thresholds. Related to the age of the dwelling units, 324 of the 658 noise sensitive dwelling units (49 percent) are Type II-eligible, and 103 of those are impacted.

4.3.2 NSA 1 Assessment

NSA 1 is located on the south side of I-277 between I-76 and Waterloo Road, including 16 noise sensitive locations. The existing modeled noise levels range from 59.3 dBA to 62.6 dBA with an average of 61.2 dBA. Of the 16 noise sensitive dwelling units, the noise model indicates that zero are impacted. There are 14 dwelling units that are Type-II eligible. However, none are impacted.

4.3.3 NSA 2 Assessment

NSA 2 is located on the south side of I-277 between Waterloo Road and SR-93, including one noise

sensitive location (Lake Nesmith Park, modeled with six receivers). The existing modeled noise levels range from 58.4 dBA to 63.6 dBA with an average of 61.1 dBA. The park is Type-II eligible, but the noise model indicates the park is not impacted.

4.3.4 NSA 3 Assessment

NSA 3 is located on the south side of I-277 between SR-93 and the Ohio Canal, including 122 noise sensitive locations. The existing modeled noise levels range from 50.4 dBA to 74.2 dBA with an average of 60.7 dBA. Of the 122 noise sensitive dwelling units, the noise model indicates that 31 are impacted. Related to the age of the dwelling units, 98 of the noise sensitive dwelling units (80 percent) are Type II-eligible, and 29 of those are impacted.

4.3.5 NSA 4 Assessment

NSA 4 is located on the north side of I-277 between I-76 and Waterloo Road, including 60 noise sensitive locations. The existing modeled noise levels range from 54.1 dBA to 73.4 dBA with an average of 63.3 dBA. Of the 60 noise sensitive dwelling units, the noise model indicates that 21 are impacted. Related to the age of the dwelling units, 49 of the 60 noise sensitive dwelling units (82 percent) are Type II-eligible, and 18 of those are impacted.

4.3.6 NSA 5 Assessment

NSA 5 is located on the north side of I-277 between SR-93 and the Ohio Canal, including 123 noise sensitive locations. The existing modeled noise levels range from 60.8 dBA to 73.8 dBA with an average of 64.7 dBA. Of the 123 noise sensitive dwelling units, the noise model indicates that 46 are impacted. Related to the age of the dwelling units, 104 of the 123 noise sensitive dwelling units (85 percent) are Type II-eligible, and 42 of those are impacted.

4.3.7 NSA 6 Assessment

NSA 6 is located on the south side of I-277 between South Main Street and Glenmount Avenue, including 139 noise sensitive locations. The existing modeled noise levels range from 55.7 dBA to 77.2 dBA with an average of 63.8 dBA. Of the 139 noise sensitive dwelling units, the noise model indicates that 25 are impacted. Related to the age of the dwelling units, 37 of 139 noise sensitive dwelling units (27 percent) are Type II-eligible, and nine of those are impacted.

4.3.8 NSA 7 Assessment

NSA 7 is located on the south side of I-277 between Glenmount Avenue and I-77, including 132 noise sensitive locations. The existing modeled noise levels range from 54.5 dBA to 73.4 dBA with an average of 64.0 dBA. Of the 132 noise sensitive dwelling units, the noise model indicates that 42 are impacted. Related to the age of the dwelling units, 20 of 132 of the noise sensitive dwelling units (15 percent) are Type II-eligible, and five of those are impacted.

4.3.9 NSA 8 Assessment

NSA 8 is located on the north side of I-277 between South Main Street and I-77, including 65 noise sensitive dwelling units. The existing modeled noise levels range from 53.0 dBA to 72.3 dBA with an average of 63.0 dBA. Of the 65 noise sensitive dwelling units, the noise model indicates that two are impacted. Related to the age of the dwelling units, two of 65 of noise sensitive dwelling units (3 percent) are Type-II eligible, and neither of those are impacted.

4.4 Noise Abatement Measures

Consideration of noise abatement was required due to the noise levels that were identified as meeting or exceeding the federal NAC criteria. Therefore, the following measures were evaluated:

4.4.1 Traffic Management Measures

Traffic management measures, including restrictions on specific types of motor vehicles, vehicle speed, traffic volumes, and/or time of operation, are sometimes used as noise abatement measures. A reduction in speed limit, while possibly generating some benefits on noise level reduction, would affect the ability of the roadway to accommodate anticipated traffic volumes and function as an interstate route. Limiting truck traffic and/or time of truck operation is not a feasible option to reduce noise impacts due to the lack of nearby routes capable of handling the existing capacity. Limiting truck traffic may further result in economic impacts that time use limitation may have on commercial traffic and businesses both within and beyond the project area. These traffic management measures are not feasible and therefore are not recommended.

4.4.2 Noise Insulation

Public use/nonprofit institutional structures (NAC D) were located in four of the NSAs:

- NSA 3 – Childtime Daycare (A31)
- NSA 4 – Akron Baptist Temple (A170) and Rimer Elementary School/Community Learning Center (A173)
- NSA 6 – Akron First Wesleyan Church (B3)
- NSA 8 – South Akron Knights of Columbus (B226)

Most of these structures were not impacted, so consideration of noise insulation is not warranted for those locations. South Akron Knights of Columbus (B226) was impacted with an exterior noise level of 67.5 dBA. However, the equivalent dwelling unit conversion was too low (<1) for consideration of a noise wall. In addition, the public meeting room did not have exterior windows on the south side of the building facing I-277; there are two exterior doors facing I-277 but they are located at either end of the building and do not directly connect to the central meeting room; and the building already has central A/C. So insulation was not appropriate and therefore not considered for this building.

4.4.3 Alteration of Alignment

Alignment modifications generally involve orienting and/or siting the roadway sufficient distances from noise-sensitive areas to minimize noise impact. Modifying the alignment of existing I-277 would result in increasing noise in some areas and possibly property takes, plus modifying an existing roadway would be costly. Thus vertical and/or horizontal modifications to the proposed alignment are not considered to be feasible or reasonable noise abatement measures, although such modifications may be considered for other purposes.

4.4.4 Acquisition of Real Property

Buffer zones are undeveloped, open spaces that border a highway. Buffer zones are created when a highway agency purchases land or development rights, in addition to the normal right-of-way, so that future dwellings cannot be constructed close to the highway. This prevents the possibility of constructing dwellings that would otherwise have an excessive noise level from nearby traffic. The appropriation of additional land not included in the highway alignment (or right-of-way) is not authorized as a "highway purpose" under Ohio Revised Code (ORC) 5501.32; therefore, this alternative is not a suitable option for noise abatement.

4.4.5 Noise Barrier Construction

The results from the noise analysis show that construction of a noise barrier to mitigate noise from the project may be warranted in five locations due to the noise levels at the noise sensitive land uses. A barrier analysis was performed at all of these locations to determine if a barrier would meet both the feasibility and reasonableness criteria. The feasibility criteria require a barrier to (a) reduce the noise levels by at least 5 dBA for a minimum of 40 percent of the impacted noise receptors and (b) reduce the noise levels by at least 7 dBA for a minimum of one benefitted receptor. The reasonableness criteria require that the calculated average cost per benefitted

receptor does not exceed $35,000. For Type II projects, an additional requirement is that the Type II-eligible noise sensitive locations (older than the roadway) are benefitted and the newer locations (built after the roadway) are not a strong contributing factor toward meeting the requirements.

The evaluation of the barrier analysis for each of the barriers is below. Each barrier is identified by a (1) number; (2) roadway location – Edge of Shoulder (EOS), Right-of-Way Line (ROW), or Mixed (Both EOS and ROW); and (3) area location. The barrier alternatives are mapped in **Exhibit 7; Exhibit 8** compares the barrier alternatives' noise mitigation results; **Exhibit 9** shows the barrier alternatives' structural details; and **Exhibit 10** contains a table comparing details for all of the barrier alternatives.

Barrier 3 (ROW/EOS) is located in NSA 3, starting at the SR-93 on Ramp to I-277 eastbound and terminating 500 feet east of the Ohio Canal. This barrier is located along the EOS at the ramp and at the I-277 overpass of the Ohio Canal; the middle section is located in the right-of-way since the right-of-way line in this location has a higher elevation than I-277. Three alternatives were analyzed for this barrier.

1. **Alternative 1: evaluates a maximized barrier height of 18 feet and ends at trail overpass.**
   This barrier alternative is 2,125 feet in length and averages 18 feet in height for a cost of $956,250. This alternative benefits 38 total dwelling units by 5dBA+, 37 of which are Type II-eligible. The average cost per benefitted receptor is $25,164 for total dwelling units and $25,845 for Type II locations.
2. **Alternative 2: evaluates a maximized barrier height of 18 feet with no barrier segments on structure.**
   This barrier alternative is 2,525 feet in length and averages 18 feet in height for a cost of $1,136,250. This alternative benefits 49 total dwelling units by 5dBA+, 43 of which are Type II-eligible. The average cost per benefitted receptor is $23,189 for total dwelling units and $26,424 for Type II locations.
3. **Alternative 3: evaluates an optimized barrier height of 14 to 18 feet to mitigate all impacted receivers except the trail.**
   This barrier alternative is 2,125 feet in length and averages 16 feet in height for a cost of $860,000. This alternative benefits 37 total dwelling units by 5dBA+, 36 of which are Type II-eligible. The average cost per benefitted receptor is $23,243 for total dwelling units and $23,889 for Type II locations.

- **Summary:** All three alternatives meet the feasibility and reasonableness criteria when considering the total benefitted dwelling units and when considering only Type II-eligible locations.

Barrier 4 (EOS) is located in NSA 4, starting a little over 500 feet west of 11th St SW and terminating at Waterloo Road. The barrier is located on the EOS due to higher I-277 elevations. There are two pieces of the barrier – one that runs down the Waterloo On Ramp and one that runs "behind" the ramp along mainline. Three alternatives were analyzed for this barrier.

1. **Alternative 1: evaluates a maximized barrier height of 18 feet with no barrier segments on structure.**
   This barrier alternative is 2,200 feet in length and averages 18 feet in height for a cost of $990,000. This alternative benefits 44 total dwelling units by 5dBA+, 41 of which are Type II-eligible. The average cost per benefitted receptor is $22,500 for total dwelling units and $24,146 for Type II locations.
2. **Alternative 2: evaluates a minimized barrier height of 12 feet with no barrier segments on structure.**

This barrier alternative is 2,200 feet in length and averages 12 feet in height for a cost of $660,000. This alternative benefits 22 total dwelling units by 5dBA+, all of which are Type II-eligible. The average cost per benefitted receptor is $30,000 for total dwelling units and for Type II locations.

3. **Alternative 3: evaluates an optimized barrier height of 14 to 15 feet in order to mitigate most of the impacted receivers; no barrier segments are on structure (with B5-Alt 3).**
   This barrier alternative is 2,200 feet in length and averages 15 feet in height for a cost of $807,500. This alternative benefits 37 total dwelling units by 5dBA+, 34 of which are Type II-eligible. The average cost per benefitted receptor is $21,824 for total dwelling units and $23,750 for Type II locations.

4. **Alternative 4: evaluates an optimized barrier height of 12 to 18 feet in order to mitigate most of the impacted receivers; no barrier segments are on structure (with B5-Alt 1).**
   This barrier alternative is 2,200 feet in length and averages 15 feet in height for a cost of $840,000. This alternative benefits 37 total dwelling units by 5dBA+, 35 of which are Type II-eligible. The average cost per benefitted receptor is $22,703 for total dwelling units and $24,000 for Type II locations.

- **Summary:** All four alternatives meet the feasibility and reasonableness criteria when considering the total benefitted dwelling units and when considering only Type II-eligible locations. Barrier 4-Alternative 3 is tied to Barrier 5-Alternative 3, and Barrier 4-Alternative 4 is tied to Barrier 5-Alternative 1 because the Barrier 5 alternatives influence the effectiveness of the Barrier 4 alternatives. Therefore, since Barrier 5-Alternative 1 is recommended, Barrier 4-Alternative 4 is the recommended alternative.

Barrier 5 (EOS/ROW) is located in NSA 5, starting at SR-93 and terminating 500 feet east of the Ohio Canal. It is predominantly located on the EOS due to higher I-277 elevations. There are two pieces of the barrier – one that runs down the Waterloo On Ramp and one that runs "behind" the ramp along mainline. In addition, it could connect to Barrier 6. Three alternatives were analyzed for this barrier.

1. **Alternative 1: evaluates a maximized barrier height; it does not include the additional barrier on I-277 mainline; no barrier segments are on structure, ends at trail.**
   This barrier alternative is 2,100 feet in length and averages 18 feet in height for a cost of $943,750. This alternative benefits 47 total dwelling units by 5dBA+, 43 of which are Type II-eligible. The average cost per benefitted receptor is $20,080 for total dwelling units and $21,948 for Type II locations.

2. **Alternative 2: evaluates a maximized barrier height; includes additional barrier 18 feet in height on I-277 mainline; no barrier segments are on structure; ends at the trail (mirroring Barrier 3 Alternatives 2 & 3).**
   This barrier alternative is 3,500 feet in length and averages 18 feet in height for a cost of $1,537,500. This alternative benefits 62 total dwelling units by 5dBA+, 57 of which are Type II-eligible. The average cost per benefitted receptor is $24,798 for total dwelling units and $26,974 for Type II locations.

3. **Alternative 3: evaluates an optimized barrier height in the ROW; includes additional barrier 10 feet in height on I-277 mainline; barrier segments on structure at SR-93; ends at the trail (mirroring Barrier 3 Alternatives 2 & 3).**
   This barrier alternative is 3,300 feet in length and averages 14 feet in height for a cost of $1,290,000. This alternative benefits 60 total dwelling units by 5dBA+, 55 of which are Type II-eligible. The average cost per benefitted receptor is $21,500 for total dwelling units and $23,455 for Type II locations.

- **Summary:** All three alternatives meet the feasibility and reasonableness criteria when considering the total benefitted dwelling units and when considering only Type II-eligible locations.

Barrier 6 (EOS & ROW) is located in NSA 6, starting at South Main Street and traveling to the east to the Glenmount Avenue underpass. This barrier is located along the right-of-way line for the first portion of its length, but as I-277 approaches Glenmount Avenue, it becomes elevated, so that portion of the barrier is located on the EOS. It joins with Barrier 5 at the Glenmount Avenue underpass. This barrier shares 500 feet with Barrier 7 on its eastern end. Three alternatives were analyzed for this barrier.

1. **Alternative 1: evaluates a maximized barrier height of 18 feet; no barrier segments are on structure.**
   This barrier alternative is 4,125 feet in length and averages 18 feet in height for a cost of $2,126,250. This alternative benefits 114 total dwelling units by 5dBA+, 18 of which are Type II-eligible. The average cost per benefitted receptor is $18,651 for total dwelling units and $118,125 for Type II locations.
2. **Alternative 2: evaluates a minimized barrier height of 14 feet; no barrier segments are on structure.**
   This barrier alternative is 4,125 feet in length and averages 14 feet in height for a cost of $1,431,250. This alternative benefits 91 total dwelling units by 5dBA+, 14 of which are Type II-eligible. The average cost per benefitted receptor is $15,728 for total dwelling units and $102,232 for Type II locations.
3. **Alternative 3: evaluates a shorter barrier length 14 feet in height, focusing on the cluster of impacted Type II receivers near Markey Street and Glenmount Avenue; 10-foot high barrier segments are on structure at Glenmount Avenue.**
   This barrier alternative is 2,300 feet in length and averages 14 feet in height for a cost of $870,000. This alternative benefits 47 total dwelling units by 5dBA+, 15 of which are Type II-eligible. The average cost per benefitted receptor is $18,511 for total dwelling units and $58,000 for Type II locations.

- **Summary:** All three alternatives meet the feasibility and reasonableness criteria when considering the total benefitted dwelling units; however, none of the alternatives meet the reasonableness criteria when considering only Type II-eligible locations.

Barrier 7 (ROW & EOS) is located in NSA 7, starting at the Glenmount Avenue underpass (and connecting to the end of Barrier 4) and traveling to the east to the I-277 eastbound ramp to I-77 southbound. This barrier is located along the ROW line for the first portion of its length due to the elevated section of I-277 over Glenmount Avenue, but past that area the barrier is located in the ROW. This barrier shares 500 feet with Barrier 6 on its western end. Three alternatives were analyzed for this barrier.

1. **Alternative 1: evaluates a maximized barrier height of 18 feet; no barrier segments are on structure.**
   This barrier alternative is 4,900 feet in length and averages 18 feet in height for a cost of $2,205,000. This alternative benefits 130 total dwelling units by 5dBA+, 20 of which are Type II-eligible. The average cost per benefitted receptor is $16,962 for total dwelling units and $110,250 for Type II locations.
2. **Alternative 2: evaluates a minimized barrier height of 13 feet; no barrier segments are on structure.**
   This barrier alternative is 4,900 feet in length and averages 13 feet in height for a cost of $1,592,500. This alternative benefits 86 total dwelling units by 5dBA+, 18 of which are Type

II-eligible. The average cost per benefitted receptor is $18,517 for total dwelling units and $88,472 for Type II locations.

3. **Alternative 3: evaluates a shorter barrier length 14 feet in height, focusing on the cluster of Type II receivers near Woodley Boulevard and Darnell Drive.**
   This barrier alternative is 2,700 feet in length and averages 14 feet in height for a cost of $945,000. This alternative benefits 23 total dwelling units by 5dBA+, 19 of which are Type II-eligible. The average cost per benefitted receptor is $41,087 for total dwelling units and $49,737 for Type II locations.

- **Summary:** Alternatives 1 and 2 meet the feasibility and reasonableness criteria when considering the total benefitted dwelling units; Alternative 3 meets the feasibility criteria but not the reasonableness criteria for total benefitted dwelling units; however, none of the alternatives meet the reasonableness criteria when considering only Type II-eligible locations.

5.0 | CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

After consideration of all noise abatement alternatives for impacted receptors, the results are listed as follows:

- There are 167 impacted noise sensitive dwelling units in the existing year, which is 25 percent of the total modeled dwelling units. One hundred three (103) of the impacted dwelling units are Type II eligible.
- A barrier analysis to evaluate noise barrier feasibility and reasonableness was conducted for five locations (see **Exhibits 7, 8, 9, & 10**):
  - NSA 3/Barrier 3 (ROW/EOS): South side of I-277, Between SR-93 and the Ohio Canal
    - 3 Alternatives
  - NSA 4/Barrier 4 (EOS): North side of I-277, Between I-76 and Waterloo Road
    - 4 Alternatives
  - NSA 5/Barrier 5 (EOS/ROW): North side of I-277, Between SR-93 and the Ohio Canal
    - 3 Alternatives
  - NSA 6/Barrier 6 (ROW/EOS): South side of I-277, Between S Main Street and Glenmount Avenue
    - 3 Alternatives
  - NSA 7/Barrier 7 (EOS/ROW): South side of I-277, Glenmount Avenue and I-77
    - 3 Alternatives
- NSAs 1, 2, and 8 were not evaluated for a barrier because they either had scarcely any noise impacts or they had too few receivers for noise mitigation to be economically feasible.

5.2 Recommendations

5.2.1 Recommended Alternatives

The recommendations for this study include:

- The results of the barrier analysis show that three of the barriers were both feasible and reasonable for Type II noise sensitive land uses – Barriers 3, 4, and 5 (see **Exhibits 11, 12, and 13**).
- After coordination with ODOT, the recommended barrier alternatives include:
  - **Barrier 3, Alternative 3:** lowest cost and no segments on structure, while still mitigating all but one of the impacted Type II-eligible noise sensitive land uses.
  - **Barrier 4, Alternative 4:** optimized height to mitigate most of the impacted Type II-eligible noise sensitive land uses; tied to Barrier 5 recommended alternative – average height is slightly more for Alternative 4 than for Alternative 3 to account for shorter Barrier 5 length.
  - **Barrier 5, Alternative 1:** lowest cost and no segments on structure, plus would result in easier maintenance.

- The segment heights of the recommended alternatives were modified in the final barrier analysis in order to maintain a relatively even (or even transition) top barrier elevation (shown in **Exhibit 12**).
- Other forms of noise abatement were considered but not recommended.

5.2.2 Constructability

The feasible and reasonable recommended barrier alternatives were evaluated for constructability to identify potential concerns:

- **Barrier 3, Alternative 3:** no major utilities were identified in this location, and the noise wall will not be on-structure – the eastern end terminates at the I-277 bridge structure over the canal. A pedestrian bridge over I-277 does exist in this location, so it should be considered during the final design/construction phases. The noise analysis accounted for the pedestrian bridge via a break in the wall and an overlap.
- **Barrier 4, Alternative 4:** no major utilities were identified in this location, and the noise wall will not be on-structure. I-277 does cross a rail line (AB&B Railroad) via an overpass in this location, but the noise wall breaks on either side of the bridge structure.
- **Barrier 5, Alternative 1:** one major overhead electrical utility line was identified in this location. It run east-west and crosses I-277 just east of the I-277 overpass of SR-93. The utility is shown on Exhibit 11 for Barrier 5, Alternative 1 as a light green dashed line. The noise analysis accounted for the utility line – the path of the noise wall does not impact any of the support structures and the noise wall height is lower than the lines. The majority of the utility line runs parallel to the noise wall 75 to 100 feet to the north. The noise wall will not be on-structure – the eastern end terminates at the I-277 bridge structure over the canal. A pedestrian bridge over I-277 does exist in this location, so it should be considered during the final design/construction phases. The noise analysis accounted for the pedestrian bridge via a break in the wall and an overlap.

EXHIBITS

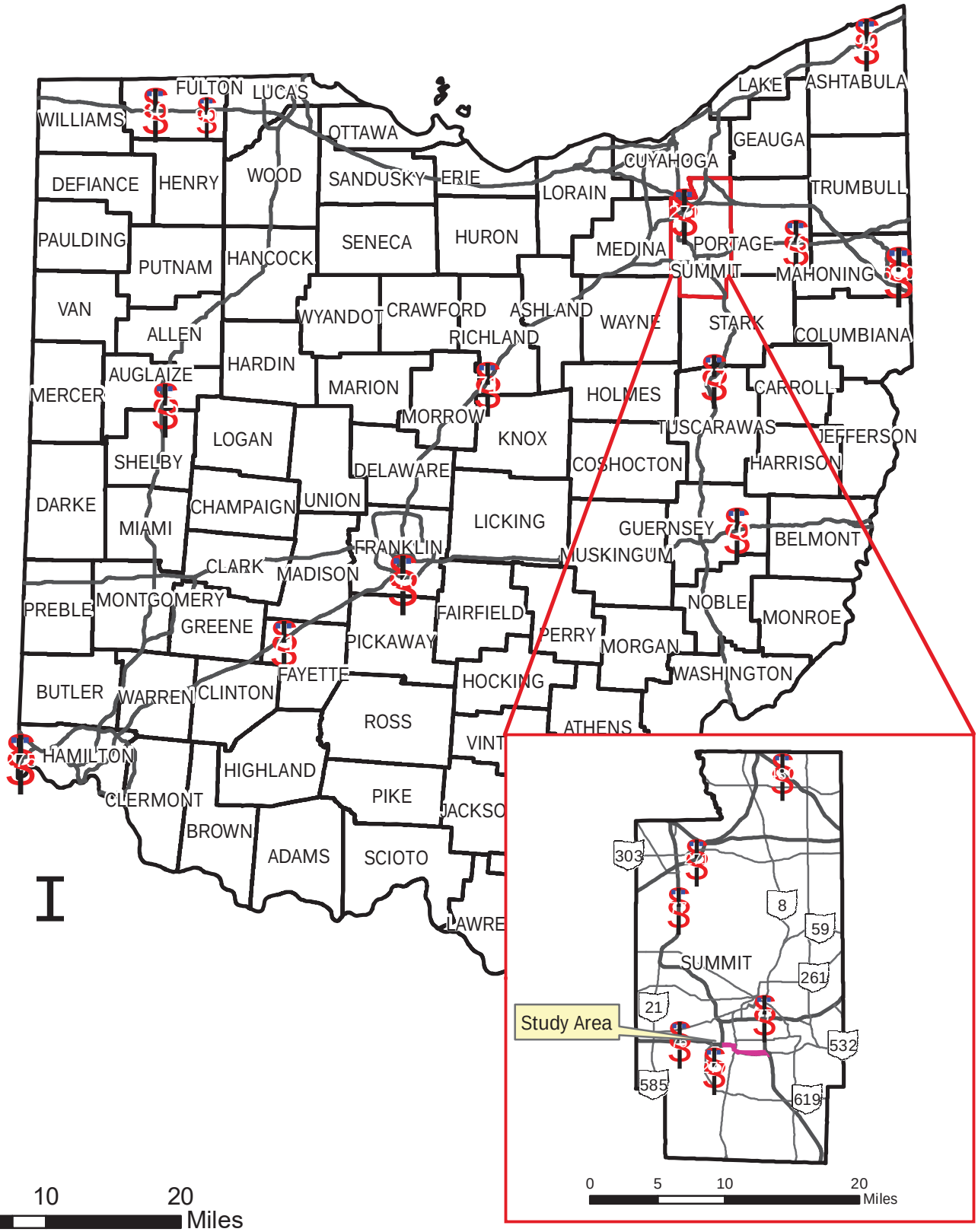
Report Exhibits

This report contains the following exhibits:

Exhibit 1	Project Location Map
Exhibit 2	Noise Analysis Study Area & Noise Reading Locations Map
Exhibit 3	Noise Abatement Criteria Table
Exhibit 4	Noise Receptor Locations Maps
Exhibit 5	Noise Readings Table
Exhibit 6	Modeled Noise Results Table
Exhibit 7	Barrier Alternative Locations & Receiver Benefits Maps
Exhibit 8	Barrier Alternative Noise Results Comparison Tables
Exhibit 9	Barrier Alternative Details Tables
Exhibit 10	Barrier Alternatives Summary Table
Exhibit 11	Recommended Barrier Maps
Exhibit 12	Recommended Barriers Details Table
Exhibit 13	Recommended Barriers Summary Table

SUM - 277 - 0.16 NOISE ANALYSIS

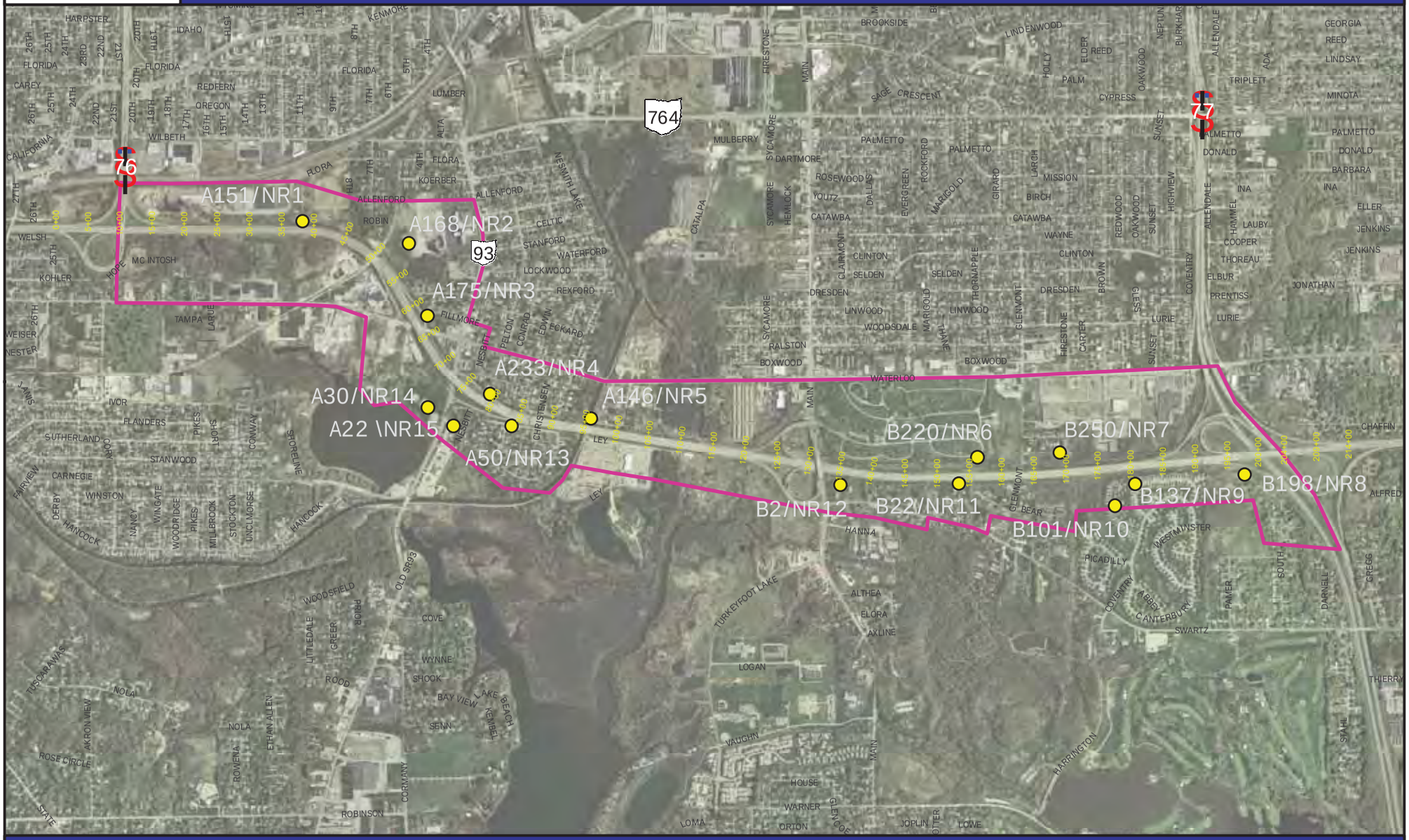
Exhibit 1 | Project Location Map



Date: 8/1/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 2 | Study Area and Noise Reading Locations Map



SUM-277-0.16
Exhibit 3
Noise Abatement Criteria Table

Federal Highway Administration
Noise Abatement Criteria
Hourly A-Weighted Sound Level - Decibels (dB(A))*

Activity Category	dB(A) $L_{eq}(h)$	dB(A) $L_{10}(h)$	Description of Activity Category
A	57 (Exterior)	60 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67	70	Residential
C	67 (Exterior)	70 (Exterior)	Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, daycare centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreational areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (Interior)	55 (Interior)	Auditoriums, daycare centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and televisions studios.
E	72 (Exterior)	75 (Exterior)	Hotels, motels, offices, restaurant/bars, and other developed lands, properties, or activities not included in A-D or F.
F	N/A	N/A	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical) and warehousing.
G	N/A	N/A	Undeveloped lands that are not permitted.

* Either L10(h) or Leq(h) (but not both) may be used on a project.

Source: PROCEDURES FOR ABATEMENT OF HIGHWAY TRAFFIC NOISE AND CONSTRUCTION NOISE, 23 CODE OF FEDERAL REGULATIONS (CFR) PART 772

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 4 | Noise Receptor Location Map (Map 1 of 8)

Burton Planning Services

Noise Readings
Receiver
Impacted Receiver
Contour 10 foot
Type II Eligible

0 250 500 1,000 Feet

Date: 9/7/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 4 | Noise Receptor Location Map (Map 2 of 8)

Burton Planning Services

Noise Readings
Receiver
Impacted Receiver
Contour 10 foot
Type II Eligible

0 250 500 1,000 Feet

Date: 9/19/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 4 | Noise Receptor Location Map (Map 3 of 8)

Burton Planning Services

Noise Readings
Receiver
Impacted Receiver
Contour 10 foot
Type II Eligible

0 250 500 1,000 Feet

Date: 9/19/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 4 | Noise Receptor Location Map (Map 4 of 8)

Noise Readings
Receiver
Impacted Receiver
Contour 10 foot
Type II Eligible

0 250 500 1,000 Feet

Date: 9/19/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 4 | Noise Receptor Location Map (Map 5 of 8)

Noise Readings
Receiver
Impacted Receiver
Contour 10 foot
Type II Eligible

0 250 500 1,000 Feet

Date: 9/19/2017

Burton Planning Services

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 4 | Noise Receptor Location Map (Map 6 of 8)

Noise Readings
Receiver
Impacted Receiver
Contour 10 foot
Type II Eligible

0 250 500 1,000 Feet

Date: 9/19/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 4 | Noise Receptor Location Map (Map 7 of 8)

Burton Planning Services

Noise Readings
Receiver
Impacted Receiver
Contour 10 foot
Type II Eligible

0 250 500 1,000 Feet

Date: 9/19/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 4 | Noise Receptor Location Map (Map 8 of 8)

Burton Planning Services

Noise Readings
Receiver
Impacted Receiver
Contour 10 foot
Type II Eligible

0 250 500 1,000 Feet

Date: 9/19/2017

Exhibit 5: Noise Reading Table

Roadway Information

Mainline Roadway:	I-277, Between I-76 and I-77		Speed Limit:	65 mph		Functional Class:	Interstate

Receiver ID	Noise Reading ID	Location	Noise Reading Elevation (ft)	Adjacent Mainline Elevation (ft)	Distance from Mainline EOP (ft)	Noise Reading Results (dBA)	Calibration Model Results (dBA)	Difference
A151	1	Single-family residence, 2499 11th Street SW, Akron, OH	977	989	100	66.4	67.0	0.6
A168	2	Ballfields, Akron Baptist Temple, 2324 Manchester Road, Akron, OH	996	1,022	485	60.7	58.4	-2.3
A175	3	Single-family residence, 592 Fillmore Avenue, Akron, OH	1,004	1,016	200	66.1	68.6	2.5
A223	4	Single-family residence, 2588 Pelton Avenue, Akron, OH	1,011	1,022	115	68.3	66.7	-1.6
A146	5	Recreational Trail, 2300 Ley Drive & Canal, Akron, OH	966	986	115	64.5	64.8	0.3
B220	6	Holy Name Mausoleum, Holy Cross Cemetery, 100 E Waterloo Road, Akron, OH	1,004	1,008	250	68.6	67.4	-1.2
B250	7	Villa at Marian Park Retirement Center, 320 Guys Run Road, Akron, OH	1,002	1,020	270	65.0	62.7	-2.3
B198	8	Single-family residence, 638 Woodview Drive, Akron, OH	1,020	1,059	240	60.6	63.3	2.7
B137	9	Single-family residence, 535 Wykeham Court, Akron, Ohio	1,031	1,034	220	57.1	59.2	2.1
B101	10	Single-family residence, 519 Seaton Court, Akron, Ohio	1,025	1,027	525	52.4	55.1	2.7
B22	11	Single-family residence, 2239 Markey Street, Akron, Ohio	1,014	1,006	45	74.5	76.0	1.5
B18	12	Akron First Wesleyan Church, 2303 Swartz Road, Akron, OH	1,024	994	160	58.2	61.2	3.0
A50	13	Single-family residence, 2643 Conrad Avenue, Akron, Ohio	1,016	1,011	105	65.7	70.1	4.4
A30	14	Childtime Daycare, 2645 Manchester Road, Akron, OH	975	1,021	500	59.9	62.2	2.3
A22	15	Ballfields, The Water's Edge at Lake Nesmith, 2666 Manchester Road, Akron, OH	970	1,022	530	56.2	59.2	3.0

Exhibit 6: Noise Model Results Table

NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year
1	A1	1	Single-Family	1958	61.9
1	A2	1	Single-Family	1953	61.7
1	A3	1	Single-Family	1953	61.6
1	A4	1	Single-Family	1941	61.2
1	A5	1	Single-Family	1916	62.6
1	A6	1	Single-Family	1919	61.8
1	A7	1	Single-Family	1919	61.9
1	A8	1	Single-Family	1971	62.1
1	A9	1	Single-Family	1900	61.7
1	A10	1	Single-Family	1909	59.8
1	A11	1	Single-Family	1919	60.2
1	A12	1	Single-Family	1997	59.3
1	A13	1	Single-Family	1919	60.8
1	A14	1	Single-Family	1920	60.9
1	A15	1	Single-Family	1919	61.3
1	A16	1	Single-Family	1922	61.1
2	A17	1	Recreation	Yes	60.3
2	A18	0	Recreation	Yes	58.4
2	A19	0	Recreation	Yes	62.1
2	A20	0	Recreation	Yes	63.6
2	A21	0	Recreation	Yes	60.2
2	A22	0	Noise Reading	No	61.8
3	A23	1	Single-Family	1955	67.6
3	A24	1	Single-Family	1928	63.4
3	A25	1	Single-Family	1944	65.1
3	A26	1	Single-Family	1942	66.2
3	A27	1	Single-Family	1924	71.4
3	A28	1	Single-Family	1923	71.9
3	A29	1	Single-Family	1917	61.7
3	A30	0	Noise Reading	No	62.2
3	A31	1	Daycare	1977	63.5

Color Definitions:
1) Pink: Substantially Impacted
2) Yellow: Noise level = 66+ dBA
3) Turqouise: Type II eligible

Exhibit 6: Noise Model Results Table

NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year
3	A32	1	Single-Family	1952	60.2
3	A33	1	Single-Family	1948	60.1
3	A34	1	Single-Family	1956	59.7
3	A35	1	Single-Family	1948	59.2
3	A36	1	Single-Family	1950	61.1
3	A37	1	Single-Family	1953	60.2
3	A38	1	Single-Family	1972	60.0
3	A39	1	Single-Family	1949	58.5
3	A40	1	Single-Family	1952	58.0
3	A41	1	Single-Family	1952	57.5
3	A42	1	Single-Family	1952	59.7
3	A43	1	Single-Family	1953	56.6
3	A44	1	Single-Family	1923	67.8
3	A45	1	Single-Family	1927	68.0
3	A46	1	Single-Family	1929	64.4
3	A47	1	Single-Family	1953	59.8
3	A48	1	Single-Family	1928	68.5
3	A49	1	Single-Family	1953	70.3
3	A50	0	Noise Reading	No	71.7
3	A51	1	Single-Family	1953	71.3
3	A52	1	Single-Family	1960	72.7
3	A53	1	Single-Family	1929	72.9
3	A54	1	Single-Family	1929	74.2
3	A55	1	Single-Family	1929	74.0
3	A56	1	Single-Family	1958	67.2
3	A57	1	Single-Family	1957	64.7
3	A58	2	Single-Family	1928	65.9
3	A59	1	Single-Family	1926	62.0
3	A60	1	Single-Family	1949	56.2
3	A61	1	Single-Family	1953	66.4
3	A62	1	Single-Family	1955	63.9

Color Definitions:
1) Pink: Substantially Impacted
2) Yellow: Noise level = 66+ dBA
3) Turqouise: Type II eligible

Exhibit 6: Noise Model Results Table

NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year
3	A63	1	Single-Family	1929	59.5
3	A64	1	Single-Family	1926	53.7
3	A65	1	Single-Family	1927	53.8
3	A66	1	Single-Family	1951	67.6
3	A67	1	Single-Family	1955	65.6
3	A68	1	Single-Family	1929	62.8
3	A69	1	Single-Family	1951	61.5
3	A70	1	Single-Family	1929	56.8
3	A71	1	Single-Family	1929	55.4
3	A72	1	Single-Family	1929	54.0
3	A73	1	Single-Family	1929	51.6
3	A74	1	Single-Family	1930	52.7
3	A75	1	Single-Family	1929	53.3
3	A76	1	Single-Family	1946	68.1
3	A77	1	Single-Family	1923	64.0
3	A78	1	Single-Family	1951	62.0
3	A79	1	Single-Family	1965	61.5
3	A80	1	Single-Family	1954	58.9
3	A81	1	Single-Family	1968	56.9
3	A82	1	Single-Family	1929	55.2
3	A83	1	Single-Family	1950	53.0
3	A84	1	Single-Family	1929	70.4
3	A85	1	Single-Family	1950	64.7
3	A86	1	Single-Family	1929	62.9
3	A87	1	Single-Family	1929	62.0
3	A88	1	Single-Family	1929	59.9
3	A89	1	Single-Family	1929	57.1
3	A90	1	Single-Family	1929	56.9
3	A91	1	Single-Family	1929	55.8
3	A92	1	Single-Family	1929	55.1
3	A93	1	Single-Family	1929	54.2

Color Definitions:
1) Pink: Substantially Impacted
2) Yellow: Noise level = 66+ dBA
3) Turqouise: Type II eligible

Exhibit 6: Noise Model Results Table

NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year
3	A94	1	Single-Family	1929	53.7
3	A95	1	Single-Family	1929	54.1
3	A96	1	Single-Family	1929	54.3
3	A97	1	Single-Family	1929	71.5
3	A98	1	Single-Family	1927	68.9
3	A99	1	Single-Family	1927	67.6
3	A100	1	Single-Family	1952	66.3
3	A101	1	Single-Family	1935	64.1
3	A102	1	Single-Family	1929	62.1
3	A103	1	Single-Family	1929	59.6
3	A104	1	Single-Family	1971	57.1
3	A105	1	Single-Family	1954	54.5
3	A106	1	Single-Family	1929	54.1
3	A107	1	Single-Family	1952	71.0
3	A108	1	Single-Family	1952	68.7
3	A109	1	Single-Family	1989	68.0
3	A110	1	Single-Family	1928	66.0
3	A111	1	Single-Family	1992	61.7
3	A112	1	Single-Family	1951	59.1
3	A113	1	Single-Family	1929	56.7
3	A114	1	Single-Family	1963	55.1
3	A115	1	Single-Family	1952	55.0
3	A116	1	Single-Family	1951	66.2
3	A117	1	Single-Family	1966	63.6
3	A118	1	Single-Family	1927	61.8
3	A119	1	Single-Family	1966	61.4
3	A120	1	Single-Family	1992	60.7
3	A121	1	Single-Family	1979	65.0
3	A122	1	Single-Family	1963	63.6
3	A123	1	Single-Family	1963	62.6
3	A124	1	Single-Family	2007	59.9

Color Definitions:
1) Pink: Substantially Impacted
2) Yellow: Noise level = 66+ dBA
3) Turqouise: Type II eligible

Exhibit 6: Noise Model Results Table

NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year
3	A125	1	Single-Family	2000	58.1
3	A126	1	Single-Family	1960	55.9
3	A127	1	Single-Family	1974	54.3
3	A128	1	Single-Family	1977	53.5
3	A129	1	Single-Family	1951	53.2
3	A130	1	Single-Family	1951	53.2
3	A131	1	Single-Family	1953	52.8
3	A132	1	Single-Family	1929	52.4
3	A133	1	Single-Family	1955	52.0
3	A134	1	Single-Family	1928	51.5
3	A135	1	Single-Family	1928	50.6
3	A136	1	Single-Family	1948	50.5
3	A137	1	Single-Family	1925	50.4
3	A138	1	Single-Family	1925	51.0
3	A139	1	Single-Family	1925	51.3
3	A140	1	Single-Family	1938	52.4
3	A141	1	Single-Family	1962	53.8
3	A142	1	Recreation	Yes	66.4
3	A143	1	Recreation	Yes	63.3
3	A144	1	Recreation	Yes	59.4
3	A145	1	Recreation	Yes	54.6
5	A146	0	Noise Reading	No	66.5
5	A147	1	Recreation	Yes	65.9
5	A148	1	Recreation	Yes	62.5
5	A149	1	Recreation	Yes	64.4
4	A150	1	Single-Family	1940	73.4
4	A151	0	Noise Reading	No	68.7
4	A152	1	Single-Family	1949	67.2
4	A153	0	Vacant Lot	1948	59.8
4	A154	1	Single-Family	1917	67.2
4	A155	1	Single-Family	1925	67.3

Color Definitions:
1) Pink: Substantially Impacted
2) Yellow: Noise level = 66+ dBA
3) Turqouise: Type II eligible

Exhibit 6: Noise Model Results Table

NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year
4	A156	1	Single-Family	1945	66.8
4	A157	1	Single-Family	1923	64.7
4	A158	1	Single-Family	1927	65.8
4	A159	1	Single-Family	1910	64.6
4	A160	1	Single-Family	1920	65.5
4	A161	1	Single-Family	1920	62.2
4	A162	1	Single-Family	1923	64.1
4	A163	1	Single-Family	1918	65.1
4	A164	1	Recreation	Yes	57.6
4	A165	1	Recreation	Yes	61.9
4	A166	1	Recreation	Yes	63.1
4	A167	1	Recreation	Yes	61.0
4	A168	0	Noise Reading	No	59.1
4	A169	1	Recreation	Yes	58.9
4	A170	1	Religious	1952	54.1
4	A171	1	School	1952	56.3
4	A172	0	School	1952	55.6
4	A173	0	School	1952	56.0
4	A174	1	Single-Family	1964	62.7
4	A175	0	Noise Reading	No	69.2
4	A176	2	Multi-Family	1959	70.7
4	A177	2	Multi-Family	1958	69.4
4	A178	1	Single-Family	1959	69.0
4	A179	1	Single-Family	1962	68.4
4	A180	1	Single-Family	1957	66.0
4	A181	2	Multi-Family	1959	66.1
4	A182	1	Single-Family	1945	66.9
4	A183	1	Single-Family	1950	66.9
4	A184	1	Single-Family	1962	66.4
4	A185	1	Single-Family	1962	66.2
4	A186	1	Single-Family	1948	65.1

Color Definitions:
1) Pink: Substantially Impacted
2) Yellow: Noise level = 66+ dBA
3) Turqouise: Type II eligible

Exhibit 6: Noise Model Results Table

NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year
4	A187	1	Single-Family	1940	64.4
4	A188	1	Single-Family	1960	63.4
4	A189	1	Single-Family	1940	66.3
4	A190	1	Single-Family	1933	65.2
4	A191	1	Single-Family	1954	64.0
4	A192	1	Single-Family	1945	64.3
4	A193	1	Single-Family	1950	63.6
4	A194	1	Single-Family	1958	61.9
4	A195	1	Single-Family	1957	60.4
4	A196	1	Single-Family	1946	60.2
4	A197	1	Single-Family	1950	58.8
4	A198	1	Single-Family	1968	60.3
4	A199	1	Single-Family	1946	63.9
4	A200	1	Single-Family	1959	61.9
4	A201	1	Single-Family	1953	63.2
4	A202	1	Single-Family	1953	62.7
4	A203	1	Single-Family	1960	61.9
4	A204	1	Single-Family	1960	61.1
4	A205	1	Single-Family	1950	59.0
4	A206	1	Single-Family	1948	58.1
4	A207	1	Single-Family	1953	58.1
4	A208	1	Single-Family	1968	58.6
4	A209	1	Single-Family	1949	59.3
4	A210	1	Single-Family	1948	62.5
4	A211	1	Single-Family	1910	64.2
4	A212	1	Single-Family	1920	59.9
5	A213	1	Single-Family	1917	67.1
5	A214	1	Single-Family	1917	67.0
5	A215	1	Single-Family	1917	67.3
5	A216	1	Single-Family	1951	67.1
5	A217	1	Single-Family	1929	67.0

Color Definitions:
1) Pink: Substantially Impacted
2) Yellow: Noise level = 66+ dBA
3) Turqouise: Type II eligible

Exhibit 6: Noise Model Results Table

NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year
5	A218	1	Single-Family	1950	66.7
5	A219	1	Single-Family	1921	66.6
5	A220	1	Single-Family	1925	66.4
5	A221	1	Single-Family	1953	66.0
5	A222	1	Single-Family	1928	69.6
5	A223	1	Single-Family	1931	67.6
5	A224	1	Single-Family	1955	66.4
5	A225	1	Single-Family	1923	67.0
5	A226	1	Single-Family	1928	66.7
5	A227	1	Single-Family	1928	66.2
5	A228	1	Single-Family	1924	65.5
5	A229	1	Single-Family	1924	64.8
5	A230	1	Single-Family	1919	65.1
5	A231	1	Single-Family	1923	64.7
5	A232	1	Single-Family	1918	64.3
5	A233	0	Noise Reading	No	73.8
5	A234	1	Single-Family	1951	71.2
5	A235	1	Single-Family	1952	67.0
5	A236	1	Single-Family	1965	64.6
5	A237	1	Single-Family	1926	65.2
5	A238	1	Single-Family	1960	64.7
5	A239	1	Single-Family	1926	64.1
5	A240	1	Single-Family	1923	63.7
5	A241	1	Single-Family	1919	63.9
5	A242	1	Single-Family	1949	71.8
5	A243	1	Single-Family	1929	68.2
5	A244	1	Single-Family	1920	64.2
5	A245	1	Single-Family	1928	63.6
5	A246	1	Single-Family	1930	63.1
5	A247	1	Single-Family	1928	62.8
5	A248	1	Single-Family	1965	62.5

Color Definitions:
1) Pink: Substantially Impacted
2) Yellow: Noise level = 66+ dBA
3) Turqouise: Type II eligible

Exhibit 6: Noise Model Results Table

NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year
5	A249	1	Single-Family	1958	62.6
5	A250	1	Single-Family	1918	63.4
5	A251	1	Single-Family	1919	62.6
5	A252	1	Single-Family	1919	63.3
5	A253	1	Single-Family	1953	70.0
5	A254	1	Single-Family	1941	66.7
5	A255	1	Single-Family	1952	63.9
5	A256	1	Single-Family	1949	62.7
5	A257	1	Single-Family	1956	62.1
5	A258	1	Single-Family	1957	61.7
5	A259	1	Single-Family	1919	62.8
5	A260	1	Single-Family	1953	70.2
5	A261	1	Single-Family	1959	67.5
5	A262	1	Single-Family	1950	65.2
5	A263	1	Single-Family	1953	63.6
5	A264	1	Single-Family	1948	62.9
5	A265	1	Single-Family	1953	62.0
5	A266	1	Single-Family	1953	61.5
5	A267	1	Single-Family	1948	61.2
5	A268	1	Single-Family	1954	62.2
5	A269	1	Single-Family	1918	63.1
5	A270	1	Single-Family	1953	68.9
5	A271	1	Single-Family	1995	67.5
5	A272	1	Single-Family	1995	65.8
5	A273	1	Single-Family	1948	64.7
5	A274	1	Single-Family	1927	63.4
5	A275	1	Single-Family	1957	62.7
5	A276	1	Single-Family	1940	61.1
5	A277	1	Single-Family	1956	60.8
5	A278	1	Single-Family	1942	68.5
5	A279	1	Single-Family	1929	67.0

Color Definitions:
1) Pink: Substantially Impacted
2) Yellow: Noise level = 66+ dBA
3) Turqouise: Type II eligible

Exhibit 6: Noise Model Results Table

NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year
5	A280	1	Single-Family	1955	64.9
5	A281	1	Single-Family	1956	64.1
5	A282	1	Single-Family	1927	63.2
5	A283	1	Single-Family	1963	62.4
5	A284	1	Single-Family	1963	61.7
5	A285	1	Single-Family	1950	61.1
5	A286	1	Single-Family	1926	61.4
5	A287	1	Single-Family	1925	61.0
5	A288	1	Single-Family	1924	62.9
5	A289	1	Single-Family	1998	62.0
5	A290	1	Single-Family	1930	62.3
5	A291	1	Single-Family	1926	67.9
5	A292	1	Single-Family	1929	67.2
5	A293	1	Single-Family	1929	65.5
5	A294	1	Single-Family	1925	65.0
5	A295	1	Single-Family	1928	64.5
5	A296	1	Single-Family	1923	63.8
5	A297	1	Single-Family	1953	62.0
5	A298	1	Single-Family	1994	61.7
5	A299	1	Single-Family	1963	69.9
5	A300	1	Single-Family	1955	68.5
5	A301	1	Single-Family	1924	66.1
5	A302	1	Single-Family	1949	65.7
5	A303	1	Single-Family	1925	63.5
5	A304	1	Single-Family	1928	63.1
5	A305	0	Vacant	No	62.0
5	A306	1	Single-Family	1953	61.9
5	A307	1	Single-Family	1953	63.3
5	A308	1	Single-Family	1986	63.2
5	A309	1	Single-Family	1957	70.1
5	A310	1	Single-Family	1957	68.6

Color Definitions:
1) Pink: Substantially Impacted
2) Yellow: Noise level = 66+ dBA
3) Turqouise: Type II eligible

Exhibit 6: Noise Model Results Table

NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year
5	A311	1	Single-Family	1958	67.9
5	A312	1	Single-Family	1958	66.2
5	A313	1	Single-Family	1958	65.5
5	A314	1	Single-Family	1958	64.8
5	A315	1	Single-Family	2002	64.7
5	A316	1	Single-Family	1956	63.6
5	A317	1	Single-Family	1956	62.9
5	A318	1	Single-Family	1986	62.6
5	A319	1	Single-Family	1957	66.6
5	A320	1	Single-Family	1957	64.9
5	A321	1	Single-Family	1957	63.4
5	A322	1	Single-Family	1954	63.4
5	A323	1	Single-Family	1953	61.3
5	A324	1	Single-Family	1965	60.8
5	A325	1	Single-Family	2004	61.4
5	A326	1	Single-Family	2005	62.6
5	A327	1	Single-Family	2005	61.4
5	A328	1	Single-Family	1928	66.1
5	A329	1	Single-Family	1924	65.9
5	A330	1	Single-Family	1923	65.6
5	A331	1	Single-Family	1953	61.7
5	A333	1	Single-Family	1942	62.6
5	A334	1	Single-Family	1942	62.1
5	A335	1	Single-Family	1928	61.5
6	B1	1	Single-Family	1955	71.6
6	B2	0	Noise Reading	No	62.2
6	B3	1	Religious	1955	60.8
6	B4	1	Single-Family	1988	70.6
6	B5	1	Single-Family	1919	62.1
6	B6	1	Single-Family	1988	62.1
6	B7	1	Single-Family	1957	60.6

Color Definitions:
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2) Yellow: Noise level = 66+ dBA
3) Turqouise: Type II eligible

Exhibit 6: Noise Model Results Table

NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year
6	B8	1	Single-Family	1948	59.5
6	B9	1	Single-Family	1966	64.2
6	B10	1	Single-Family	1943	61.4
6	B11	2	Multi-Family	1967	61.1
6	B12	4	Multi-Family	1971	60.9
6	B13	4	Multi-Family	1971	61.1
6	B14	1	Single-Family	1950	61.1
6	B15	1	Single-Family	1950	61.0
6	B16	1	Single-Family	1950	60.8
6	B17	1	Single-Family	1953	74.6
6	B18	1	Single-Family	1928	66.7
6	B19	1	Single-Family	1953	60.7
6	B20	1	Single-Family	1928	61.0
6	B21	1	Single-Family	1969	76.7
6	B22	0	Noise Reading	No	77.2
6	B23	1	Single-Family	1975	72.5
6	B24	1	Single-Family	1957	72.0
6	B25	1	Single-Family	1958	68.3
6	B26	1	Single-Family	1938	66.4
6	B27	1	Single-Family	1996	65.8
6	B28	1	Single-Family	1979	63.6
6	B29	1	Single-Family	1928	63.5
6	B30	1	Single-Family	1938	62.1
6	B31	2	Multi-Family	1965	62.9
6	B32	1	Single-Family	1961	62.1
6	B33	1	Single-Family	1923	63.3
6	B34	1	Single-Family	1918	63.4
6	B35	1	Single-Family	1958	63.1
6	B36	1	Single-Family	1967	62.6
6	B37	1	Single-Family	1935	58.4
6	B38	1	Single-Family	1923	60.0

Color Definitions:
1) Pink: Substantially Impacted
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Exhibit 6: Noise Model Results Table

NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year
6	B39	1	Single-Family	1940	62.3
6	B40	1	Single-Family	1912	61.2
6	B41	1	Single-Family	1923	61.7
6	B42	1	Single-Family	1888	60.0
6	B43	1	Single-Family	1999	60.8
6	B44	1	Single-Family	1920	59.5
6	B45	1	Single-Family	1947	60.0
6	B46	1	Single-Family	1949	57.9
6	B47	1	Single-Family	1962	58.8
6	B48	1	Single-Family	1964	68.5
6	B49	1	Single-Family	1930	68.0
6	B50	1	Single-Family	1928	66.9
6	B51	1	Single-Family	1933	69.6
6	B52	1	Single-Family	1965	72.1
6	B53	1	Single-Family	1965	68.1
6	B54	1	Single-Family	1964	66.3
6	B55	1	Single-Family	1963	65.6
6	B56	1	Single-Family	1973	65.6
6	B57	1	Single-Family	1965	66.0
6	B58	1	Single-Family	1974	64.5
6	B59	4	Multi-Family	1972	62.2
6	B60	4	Multi-Family	1972	61.4
6	B61	4	Multi-Family	1973	62.1
6	B62	6	Multi-Family	1973	62.1
6	B63	6	Multi-Family	1973	59.8
6	B64	6	Multi-Family	1973	61.8
6	B65	6	Multi-Family	1973	60.2
6	B66	6	Multi-Family	1973	61.7
6	B67	1	Single-Family	1972	67.2
6	B68	1	Single-Family	1965	67.3
6	B69	1	Single-Family	1964	67.3

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1) Pink: Substantially Impacted
2) Yellow: Noise level = 66+ dBA
3) Turqouise: Type II eligible

Exhibit 6: Noise Model Results Table

NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year
6	B70	1	Single-Family	1964	67.1
6	B71	1	Single-Family	1965	66.8
6	B72	1	Single-Family	1964	65.4
6	B73	1	Single-Family	1923	64.5
6	B74	1	Single-Family	1952	64.0
6	B75	1	Single-Family	1880	64.4
6	B76	6	Multi-Family	1973	57.5
6	B77	1	Single-Family	1971	60.5
6	B78	8	Multi-Family	1973	55.8
6	B79	8	Multi-Family	1973	55.7
6	B80	1	Single-Family	1970	60.6
7	B81	1	Single-Family	2003	62.9
7	B82	1	Single-Family	2004	63.9
7	B83	1	Single-Family	2004	65.1
7	B84	1	Single-Family	2004	66.5
7	B85	1	Single-Family	2004	68.0
7	B86	1	Single-Family	2004	69.7
7	B87	1	Single-Family	2004	71.5
7	B88	1	Single-Family	2004	72.6
7	B89	1	Single-Family	2004	73.1
7	B90	1	Single-Family	2004	73.4
7	B91	1	Single-Family	2004	72.7
7	B92	1	Single-Family	2003	68.8
7	B93	1	Single-Family	2004	64.5
7	B94	1	Single-Family	2003	63.0
7	B95	1	Single-Family	2003	62.1
7	B96	1	Single-Family	2003	62.0
7	B97	1	Single-Family	2003	60.1
7	B98	1	Single-Family	2003	60.8
7	B99	1	Single-Family	2003	60.6
7	B100	1	Single-Family	2003	57.8

Color Definitions:
1) Pink: Substantially Impacted
2) Yellow: Noise level = 66+ dBA
3) Turqouise: Type II eligible

Exhibit 6: Noise Model Results Table

NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year
7	B101	0	Noise Reading	No	57.2
7	B102	1	Single-Family	1998	58.6
7	B103	1	Single-Family	1998	59.6
7	B104	1	Single-Family	1998	60.3
7	B105	1	Single-Family	1998	60.3
7	B106	1	Single-Family	1998	60.2
7	B107	1	Single-Family	1998	61.1
7	B108	1	Single-Family	1997	63.2
7	B109	1	Single-Family	1998	65.2
7	B110	1	Single-Family	1998	66.8
7	B111	1	Single-Family	1998	67.4
7	B112	1	Single-Family	1998	67.5
7	B113	1	Single-Family	1998	66.8
7	B114	1	Single-Family	1999	68.0
7	B115	1	Single-Family	2000	67.5
7	B116	1	Single-Family	2000	69.4
7	B117	1	Single-Family	2000	71.2
7	B118	1	Single-Family	2000	70.9
7	B119	1	Single-Family	2000	69.0
7	B120	1	Single-Family	2000	69.9
7	B121	1	Single-Family	2000	69.5
7	B122	1	Single-Family	2001	69.8
7	B123	1	Single-Family	2000	69.4
7	B124	1	Single-Family	2000	71.9
7	B125	1	Single-Family	2000	69.6
7	B126	1	Single-Family	2000	70.9
7	B127	1	Single-Family	2000	72.7
7	B128	1	Single-Family	2000	72.2
7	B129	1	Single-Family	2001	72.3
7	B130	1	Single-Family	2000	72.6
7	B131	1	Single-Family	2001	71.1

Color Definitions:
1) Pink: Substantially Impacted
2) Yellow: Noise level = 66+ dBA
3) Turqouise: Type II eligible

Exhibit 6: Noise Model Results Table

NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year
7	B132	1	Single-Family	2001	71.1
7	B133	1	Single-Family	2002	70.3
7	B134	1	Single-Family	2002	70.9
7	B135	1	Single-Family	2002	71.0
7	B136	1	Single-Family	1974	70.7
7	B137	0	Noise Reading	No	60.5
7	B138	1	Single-Family	1997	56.9
7	B139	1	Single-Family	1998	57.4
7	B140	1	Single-Family	1999	57.7
7	B141	1	Single-Family	1998	57.4
7	B142	1	Single-Family	1998	58.2
7	B143	1	Single-Family	1998	58.9
7	B144	1	Single-Family	1998	59.3
7	B145	1	Single-Family	1998	59.8
7	B146	1	Single-Family	1998	60.5
7	B147	1	Single-Family	1998	61.1
7	B148	1	Single-Family	1999	62.0
7	B149	1	Single-Family	1999	62.2
7	B150	1	Single-Family	1999	62.2
7	B151	1	Single-Family	1999	62.0
7	B152	1	Single-Family	2000	61.7
7	B153	1	Single-Family	2000	61.9
7	B154	1	Single-Family	2000	62.3
7	B155	1	Single-Family	2000	62.4
7	B156	1	Single-Family	2000	62.5
7	B157	1	Single-Family	2000	63.1
7	B158	1	Single-Family	2000	63.3
7	B159	1	Single-Family	2001	63.9
7	B160	1	Single-Family	2001	63.9
7	B161	1	Single-Family	2001	63.7
7	B162	1	Single-Family	2001	63.9

Color Definitions:
1) Pink: Substantially Impacted
2) Yellow: Noise level = 66+ dBA
3) Turqouise: Type II eligible

Exhibit 6: Noise Model Results Table

NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year
7	B163	1	Single-Family	2001	60.2
7	B164	1	Single-Family	2001	54.5
7	B165	1	Single-Family	1998	57.7
7	B166	1	Single-Family	1998	57.6
7	B167	1	Single-Family	1998	57.9
7	B168	1	Single-Family	1998	59.2
7	B169	1	Single-Family	1998	59.0
7	B170	1	Single-Family	1998	58.4
7	B171	1	Single-Family	1998	58.1
7	B172	1	Single-Family	1998	57.9
7	B173	1	Single-Family	2000	58.6
7	B174	1	Single-Family	2001	58.4
7	B175	1	Single-Family	2001	58.9
7	B176	1	Single-Family	2002	59.4
7	B177	1	Single-Family	2001	59.7
7	B178	1	Single-Family	2001	61.1
7	B179	1	Single-Family	1998	57.2
7	B180	1	Single-Family	1998	58.2
7	B181	1	Single-Family	2001	58.8
7	B182	1	Single-Family	2001	59.1
7	B183	1	Single-Family	2001	59.7
7	B184	1	Single-Family	2001	60.8
7	B185	1	Single-Family	2001	61.1
7	B186	1	Single-Family	2002	62.3
7	B187	1	Single-Family	2001	64.0
7	B188	1	Single-Family	2001	64.9
7	B189	1	Single-Family	2002	65.7
7	B190	1	Single-Family	2002	65.4
7	B191	1	Single-Family	2004	65.2
7	B192	1	Single-Family	1955	65.2
7	B193	1	Single-Family	1956	65.3

Color Definitions:
1) Pink: Substantially Impacted
2) Yellow: Noise level = 66+ dBA
3) Turqouise: Type II eligible

Exhibit 6: Noise Model Results Table

NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year
7	B194	1	Single-Family	1957	64.8
7	B195	1	Single-Family	1954	65.3
7	B196	1	Single-Family	1958	65.0
7	B197	1	Single-Family	1960	64.1
7	B198	0	Noise Reading	1993	63.3
7	B199	1	Single-Family	1957	66.2
7	B200	1	Single-Family	1957	64.4
7	B201	1	Single-Family	1955	63.9
7	B202	1	Single-Family	1971	64.4
7	B203	1	Single-Family	1958	64.4
7	B204	1	Single-Family	1972	64.6
7	B205	1	Single-Family	1957	67.4
7	B206	1	Single-Family	1961	66.9
7	B207	1	Single-Family	1960	65.8
7	B208	1	Single-Family	1954	65.2
7	B209	1	Single-Family	1956	68.8
7	B210	1	Single-Family	1972	65.1
7	B211	1	Single-Family	1955	64.1
7	B212	1	Single-Family	1955	63.3
7	B213	1	Single-Family	1961	62.6
7	B214	1	Single-Family	1957	62.4
7	B215	1	Single-Family	1954	62.6
8	B216	1	Cemetery	1975	72.3
8	B217	0	Cemetery	1975	62.9
8	B218	0	Cemetery	1975	63.6
8	B219	0	Cemetery	1975	69.8
8	B220	0	Noise Reading	No	69.0
8	B221	0	Cemetery	1975	68.9
8	B222	0	Cemetery	1975	58.3
8	B223	0	Cemetery	1975	53.0
8	B224	0	Cemetery	1975	54.0

Color Definitions:
1) Pink: Substantially Impacted
2) Yellow: Noise level = 66+ dBA
3) Turqouise: Type II eligible

Exhibit 6: Noise Model Results Table

NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year
8	B225	0	Cemetery	1975	63.3
8	B226	1	Recreation	Yes	67.5
8	B227	1	Multi-Family	1979	63.6
8	B228	1	Multi-Family	1979	63.9
8	B229	1	Multi-Family	1979	64.1
8	B230	1	Multi-Family	1979	63.8
8	B231	1	Multi-Family	1979	64.8
8	B232	1	Multi-Family	1979	64.4
8	B233	1	Multi-Family	1979	64.3
8	B234	1	Multi-Family	1997	64.6
8	B235	1	Multi-Family	1997	64.7
8	B236	1	Multi-Family	1997	64.3
8	B237	1	Multi-Family	1996	63.5
8	B238	1	Multi-Family	1996	63.3
8	B239	1	Multi-Family	1996	63.3
8	B240	1	Multi-Family	1981	61.9
8	B241	1	Multi-Family	1981	60.7
8	B242	1	Multi-Family	1981	59.2
8	B243	1	Multi-Family	1981	58.7
8	B244	1	Multi-Family	1981	58.5
8	B245	1	Multi-Family	1981	58.5
8	B246	1	Multi-Family	1981	58.4
8	B247	1	Multi-Family	1981	58.5
8	B248	1	Single-Family	1928	61.9
8	B249	1	Single-Family	1924	61.6
8	B250	0	Noise Reading	No	65.0
8	B251	40	Multi-Family	2005	65.2

Color Definitions:
1) Pink: Substantially Impacted
2) Yellow: Noise level = 66+ dBA
3) Turqouise: Type II eligible

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.3.1a | Barrier 3 - Alternative 1 (Map 1 of 1)

Burton Planning Services

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.3.2a | Barrier 3 - Alternative 2 (Map 1 of 1)

Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

0 250 500 1,000 Feet

Date: 10/3/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.3.3a | Barrier 3 - Alternative 3 (Map 1 of 1)

Burton Planning Services

Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

0 250 500 1,000 Feet

Date: 10/3/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.4.1a | Barrier 4 - Alternative 1 (Map 1 of 2)

Burton Planning Services

Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

0 250 500 1,000 Feet

Date: 10/3/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.4.1b | Barrier 4 - Alternative 1 (Map 2 of 2)

Burton Planning Services

Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

0 250 500 1,000 Feet

Date: 10/3/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.4.2a | Barrier 4 - Alternative 2 (Map 1 of 2)

Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

0 250 500 1,000 Feet

Date: 10/3/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.4.2b | Barrier 4 - Alternative 2 (Map 2 of 2)

Burton Planning Services

Date: 10/3/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.4.3a | Barrier 4 - Alternative 3 (Map 1 of 2)

Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

0 250 500 1,000 Feet

Date: 10/3/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.4.3b | Barrier 4 - Alternative 3 (Map 2 of 2)

Burton Planning Services

Date: 10/3/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.4.4a | Barrier 4 - Alternative 4 (Map 1 of 2)

Burton Planning Services

Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

0 250 500 1,000 Feet

Date: 11/14/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.4.4b | Barrier 4 - Alternative 4 (Map 2 of 2)

Burton Planning Services

Date: 11/14/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.5.1a | Barrier 5 - Alternative 1 (Map 1 of 1)

Burton Planning Services

Receiver | Barrier | Contour 10 foot

Impacted Receiver | Noise Readings

Benefitted Receiver | Type II Eligible

0 250 500 1,000 Feet

Date: 10/3/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.5.2a | Barrier 5 - Alternative 2 (Map 1 of 1)

Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

0 250 500 1,000 Feet

Date: 10/3/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.5.3a | Barrier 5 - Alternative 3 (Map 1 of 1)

Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

0 250 500 1,000 Feet

Date: 10/3/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.6.1a | Barrier 6 - Alternative 1 (Map 1 of 2)

Burton Planning Services

Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

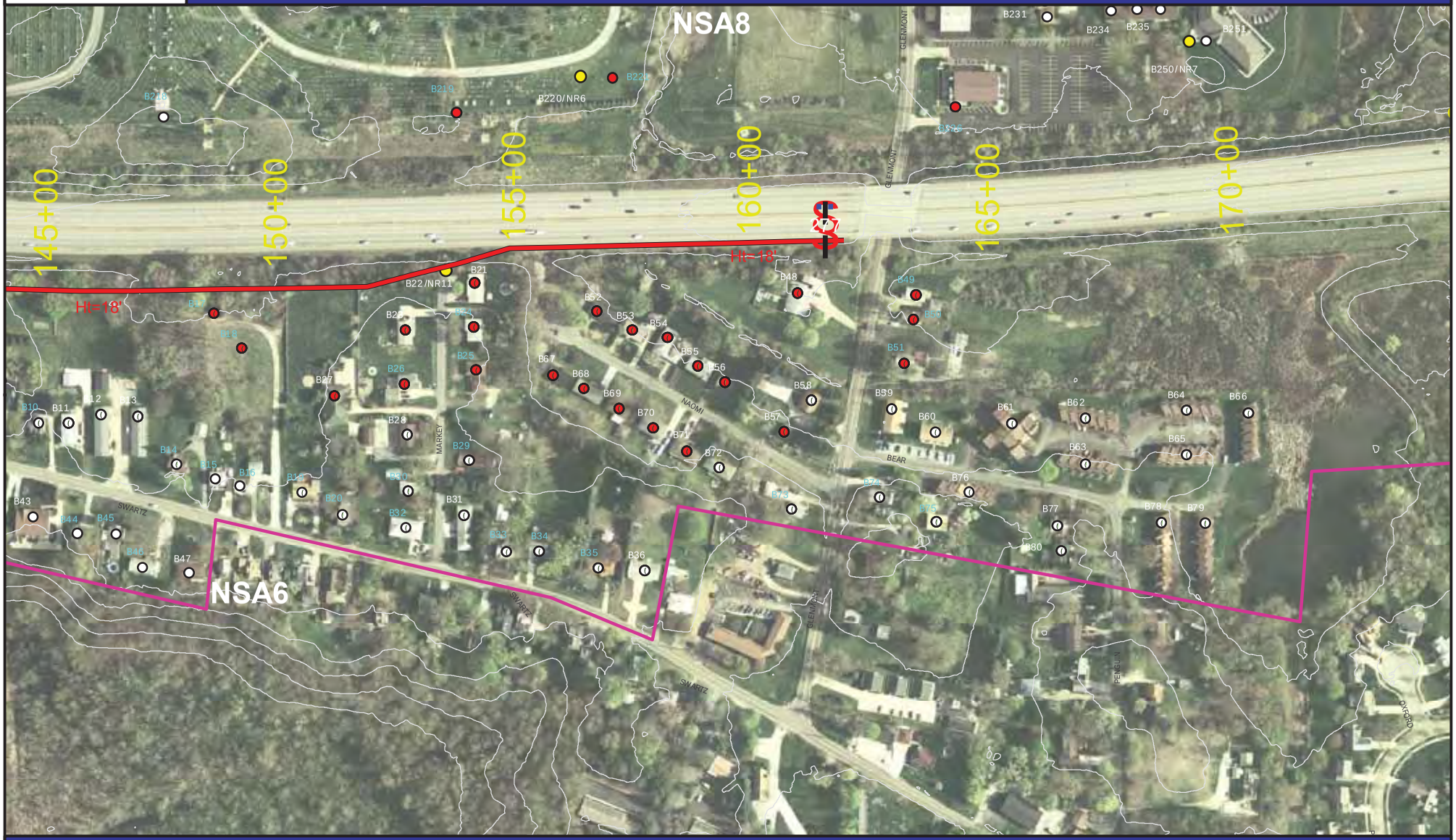
0 250 500 1,000 Feet

Date: 10/5/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.6.1b | Barrier 6 - Alternative 1 (Map 2 of 2)

Burton Planning Services



Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

0 250 500 1,000 Feet

Date: 10/5/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.6.2a | Barrier 6 - Alternative 2 (Map 1 of 2)

Burton Planning Services

Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

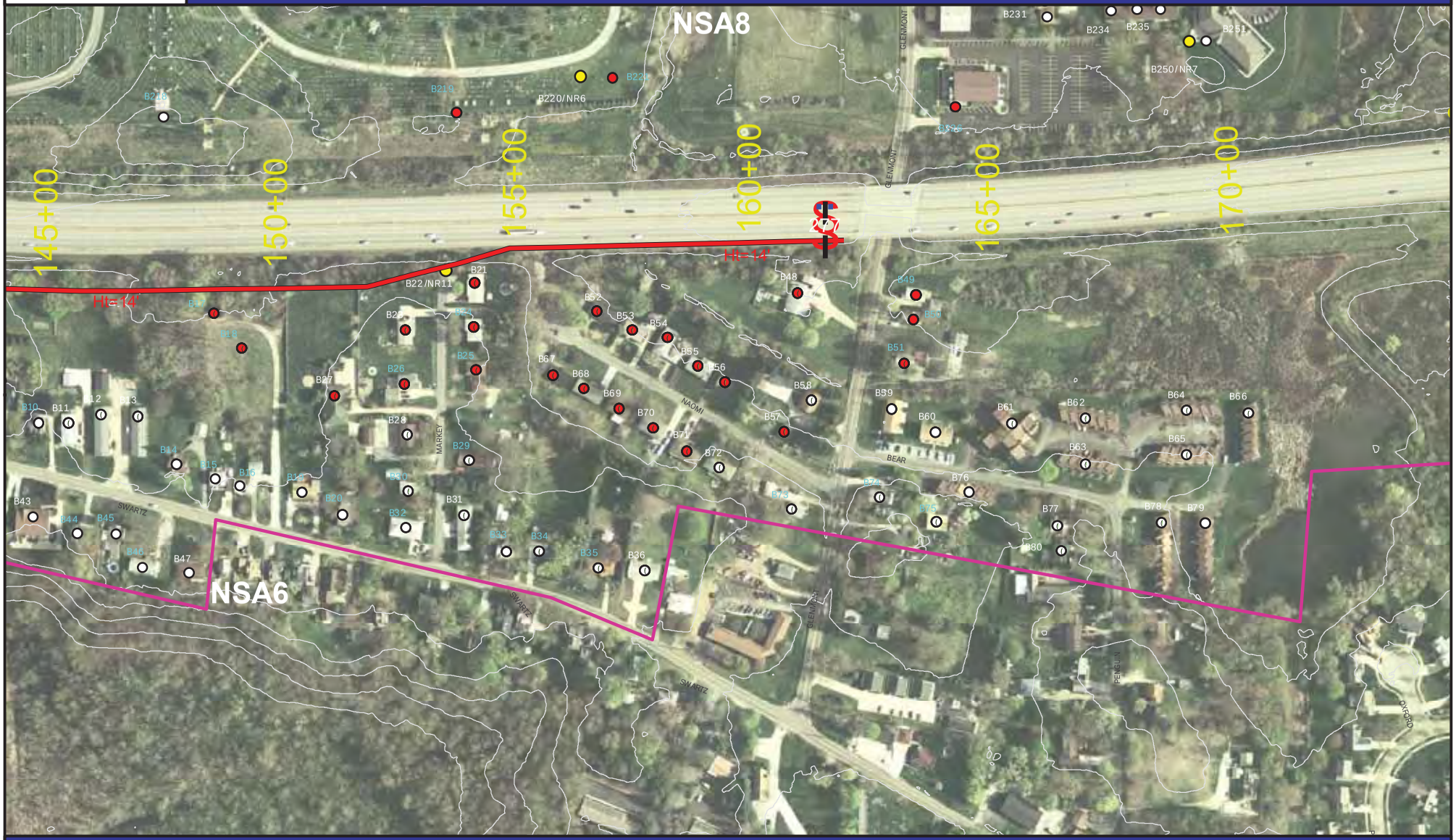
0 250 500 1,000 Feet

Date: 10/5/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.6.2b | Barrier 6 - Alternative 2 (Map 2 of 2)

Burton Planning Services



Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

0 250 500 1,000 Feet

Date: 10/5/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.6.3a | Barrier 6 - Alternative 3 (Map 1 of 1)

Burton Planning Services

Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

0 250 500 1,000 Feet

Date: 10/5/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.7.1a | Barrier 7 - Alternative 1 (Map 1 of 2)

Burton Planning Services

Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

0 250 500 1,000 Feet

Date: 10/3/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.7.1b | Barrier 7 - Alternative 1 (Map 2 of 2)

Burton Planning Services

Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

0 250 500 1,000 Feet

Date: 10/3/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.7.2a | Barrier 7 - Alternative 2 (Map 1 of 2)

Burton Planning Services

Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

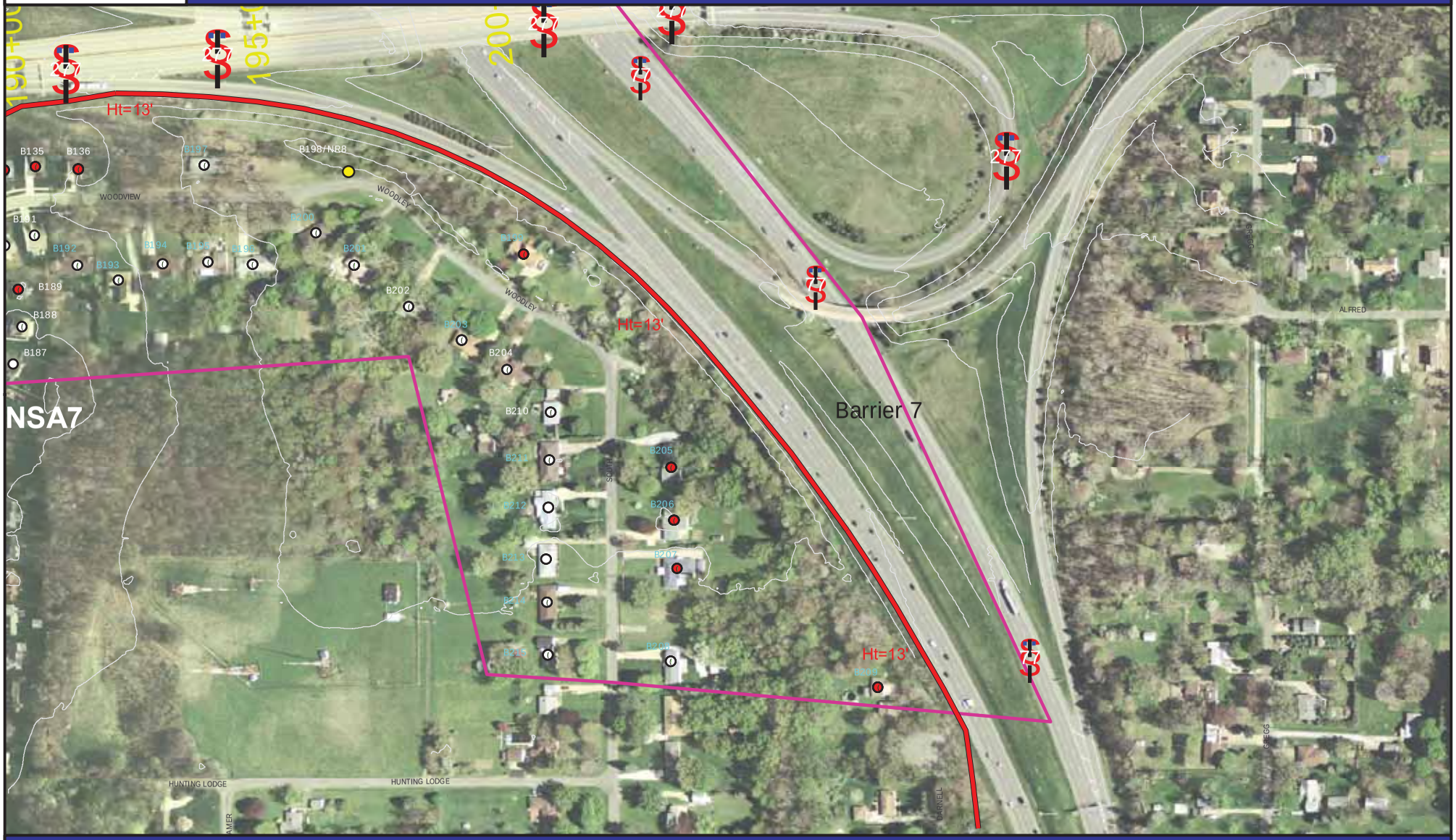
0 250 500 1,000 Feet

Date: 10/3/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.7.2b | Barrier 7 - Alternative 2 (Map 2 of 2)

Burton Planning Services



Receiver | Barrier | Contour 10 foot

Impacted Receiver | Noise Readings

Benefitted Receiver | Type II Eligible

0 250 500 1,000 Feet

Date: 10/3/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 7.7.3a | Barrier 7 - Alternative 3 (Map 1 of 1)

Burton Planning Services

Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

0 250 500 1,000 Feet

Date: 10/3/2017

Barrier	NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year	Barrier Alt1	Barrier Alt1 / Build Difference	Barrier Alt2	Barrier Alt2 / Build Difference	Barrier Alt3	Barrier Alt3 / Build Difference	Barrier Alt4	Barrier Alt4 / Build Diff
3	3	A23	1	Single-Family	1955	67.6	61.0	-6.6	61.0	-6.6	61.3	-6.3	N/A	N/A
3	3	A24	1	Single-Family	1928	63.4	57.2	-6.2	57.2	-6.2	57.2	-6.2	N/A	N/A
3	3	A25	1	Single-Family	1944	65.1	59.3	-5.8	59.3	-5.8	59.3	-5.8	N/A	N/A
3	3	A26	1	Single-Family	1942	66.2	60.9	-5.3	60.9	-5.3	60.9	-5.3	N/A	N/A
3	3	A27	1	Single-Family	1924	71.4	62.7	-8.7	62.7	-8.7	62.8	-8.6	N/A	N/A
3	3	A28	1	Single-Family	1923	71.9	60.4	-11.5	60.4	-11.5	60.8	-11.1	N/A	N/A
3	3	A29	1	Single-Family	1917	61.7	58.9	-2.8	58.9	-2.8	59.0	-2.7	N/A	N/A
3	3	A30	0	Noise Reading	No	62.2	61.4	-0.8	61.4	-0.8	61.5	-0.7	N/A	N/A
3	3	A31	1	Daycare	1977	63.5	62.9	-0.6	62.9	-0.6	63.0	-0.5	N/A	N/A
3	3	A32	1	Single-Family	1952	60.2	58.3	-1.9	58.4	-1.8	58.5	-1.7	N/A	N/A
3	3	A33	1	Single-Family	1948	60.1	59.3	-0.8	59.3	-0.8	59.4	-0.7	N/A	N/A
3	3	A34	1	Single-Family	1956	59.7	58.8	-0.9	58.8	-0.9	59.0	-0.7	N/A	N/A
3	3	A35	1	Single-Family	1948	59.2	58.4	-0.8	58.4	-0.8	58.5	-0.7	N/A	N/A
3	3	A36	1	Single-Family	1950	61.1	58.0	-3.1	58.0	-3.1	58.0	-3.1	N/A	N/A
3	3	A37	1	Single-Family	1953	60.2	57.8	-2.4	57.8	-2.4	57.9	-2.3	N/A	N/A
3	3	A38	1	Single-Family	1972	60.0	59.0	-1.0	59.0	-1.0	59.0	-1.0	N/A	N/A
3	3	A39	1	Single-Family	1949	58.5	57.9	-0.6	57.9	-0.6	58.0	-0.5	N/A	N/A
3	3	A40	1	Single-Family	1952	58.0	57.6	-0.4	57.6	-0.4	57.6	-0.4	N/A	N/A
3	3	A41	1	Single-Family	1952	57.5	57.1	-0.4	57.1	-0.4	57.2	-0.3	N/A	N/A
3	3	A42	1	Single-Family	1952	59.7	59.1	-0.6	59.1	-0.6	59.1	-0.6	N/A	N/A
3	3	A43	1	Single-Family	1953	56.6	56.2	-0.4	56.2	-0.4	56.3	-0.3	N/A	N/A
3	3	A44	1	Single-Family	1923	67.8	61.6	-6.2	61.6	-6.2	61.8	-6.0	N/A	N/A
3	3	A45	1	Single-Family	1927	68.0	63.4	-4.6	63.4	-4.6	63.5	-4.5	N/A	N/A
3	3	A46	1	Single-Family	1929	64.4	61.2	-3.2	61.1	-3.3	61.3	-3.1	N/A	N/A
3	3	A47	1	Single-Family	1953	59.8	58.8	-1.0	58.8	-1.0	58.8	-1.0	N/A	N/A
3	3	A48	1	Single-Family	1928	68.5	58.7	-9.8	58.7	-9.8	59.3	-9.2	N/A	N/A
3	3	A49	1	Single-Family	1953	70.3	57.6	-12.7	57.5	-12.8	58.6	-11.7	N/A	N/A
3	3	A50	0	Noise Reading	No	71.7	58.8	-12.9	58.6	-13.1	59.8	-11.9	N/A	N/A
3	3	A51	1	Single-Family	1953	71.3	58.6	-12.7	58.3	-13.0	59.6	-11.7	N/A	N/A
3	3	A52	1	Single-Family	1960	72.7	60.1	-12.6	59.7	-13.0	60.8	-11.9	N/A	N/A
3	3	A53	1	Single-Family	1929	72.9	60.1	-12.8	59.5	-13.4	60.8	-12.1	N/A	N/A
3	3	A54	1	Single-Family	1929	74.2	61.8	-12.4	61.1	-13.1	62.6	-11.6	N/A	N/A
3	3	A55	1	Single-Family	1929	74.0	62.5	-11.5	61.6	-12.4	62.9	-11.1	N/A	N/A
3	3	A56	1	Single-Family	1958	67.2	60.9	-6.3	60.3	-6.9	61.2	-6.0	N/A	N/A
3	3	A57	1	Single-Family	1957	64.7	60.5	-4.2	59.9	-4.8	60.7	-4.0	N/A	N/A
3	3	A58	2	Single-Family	1928	65.9	59.5	-6.4	59.4	-6.5	59.8	-6.1	N/A	N/A
3	3	A59	1	Single-Family	1926	62.0	58.1	-3.9	58.0	-4.0	58.3	-3.7	N/A	N/A
3	3	A60	1	Single-Family	1949	56.2	54.9	-1.3	54.9	-1.3	54.9	-1.3	N/A	N/A
3	3	A61	1	Single-Family	1953	66.4	57.1	-9.3	57.0	-9.4	58.0	-8.4	N/A	N/A
3	3	A62	1	Single-Family	1955	63.9	56.9	-7.0	56.8	-7.1	57.4	-6.5	N/A	N/A
3	3	A63	1	Single-Family	1929	59.5	55.9	-3.6	55.8	-3.7	56.1	-3.4	N/A	N/A
3	3	A64	1	Single-Family	1926	53.7	51.5	-2.2	51.4	-2.3	51.5	-2.2	N/A	N/A
3	3	A65	1	Single-Family	1927	53.8	52.0	-1.8	52.0	-1.8	52.1	-1.7	N/A	N/A
3	3	A66	1	Single-Family	1951	67.6	58.1	-9.5	57.6	-10.0	58.9	-8.7	N/A	N/A
3	3	A67	1	Single-Family	1955	65.6	57.8	-7.8	57.2	-8.4	58.6	-7.0	N/A	N/A
3	3	A68	1	Single-Family	1929	62.8	56.7	-6.1	55.9	-6.9	57.3	-5.5	N/A	N/A
3	3	A69	1	Single-Family	1951	61.5	55.8	-5.7	55.6	-5.9	56.3	-5.2	N/A	N/A
3	3	A70	1	Single-Family	1929	56.8	52.9	-3.9	52.8	-4.0	53.3	-3.5	N/A	N/A
3	3	A71	1	Single-Family	1929	55.4	51.9	-3.5	51.8	-3.6	52.1	-3.3	N/A	N/A
3	3	A72	1	Single-Family	1929	54.0	51.3	-2.7	51.1	-2.9	51.5	-2.5	N/A	N/A
3	3	A73	1	Single-Family	1929	51.6	50.4	-1.2	50.3	-1.3	50.5	-1.1	N/A	N/A
3	3	A74	1	Single-Family	1930	52.7	51.5	-1.2	51.2	-1.5	51.6	-1.1	N/A	N/A
3	3	A75	1	Single-Family	1929	53.3	52.2	-1.1	51.5	-1.8	52.2	-1.1	N/A	N/A
3	3	A76	1	Single-Family	1946	68.1	59.1	-9.0	58.5	-9.6	59.8	-8.3	N/A	N/A
3	3	A77	1	Single-Family	1923	64.0	58.2	-5.8	57.3	-6.7	58.7	-5.3	N/A	N/A
3	3	A78	1	Single-Family	1951	62.0	57.6	-4.4	56.5	-5.5	58.0	-4.0	N/A	N/A
3	3	A79	1	Single-Family	1965	61.5	57.4	-4.1	56.3	-5.2	57.8	-3.7	N/A	N/A
3	3	A80	1	Single-Family	1954	58.9	54.3	-4.6	54.0	-4.9	54.8	-4.1	N/A	N/A
3	3	A81	1	Single-Family	1968	56.9	54.7	-2.2	53.6	-3.3	54.8	-2.1	N/A	N/A
3	3	A82	1	Single-Family	1929	55.2	53.1	-2.1	52.3	-2.9	53.3	-1.9	N/A	N/A
3	3	A83	1	Single-Family	1950	53.0	52.0	-1.0	51.3	-1.7	52.1	-0.9	N/A	N/A
3	3	A84	1	Single-Family	1929	70.4	60.1	-10.3	59.4	-11.0	60.8	-9.6	N/A	N/A
3	3	A85	1	Single-Family	1950	64.7	59.4	-5.3	58.4	-6.3	59.8	-4.9	N/A	N/A
3	3	A86	1	Single-Family	1929	62.9	58.7	-4.2	57.5	-5.4	59.1	-3.8	N/A	N/A
3	3	A87	1	Single-Family	1929	62.0	58.6	-3.4	57.2	-4.8	58.9	-3.1	N/A	N/A
3	3	A88	1	Single-Family	1929	59.9	57.2	-2.7	55.7	-4.2	57.3	-2.6	N/A	N/A
3	3	A89	1	Single-Family	1929	57.1	54.7	-2.4	53.6	-3.5	54.9	-2.2	N/A	N/A
3	3	A90	1	Single-Family	1929	56.9	55.3	-1.6	53.7	-3.2	55.4	-1.5	N/A	N/A

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3) Green: 5+ dBA reduction
4) Blue: 7+ dBA reduction
5) Turquoise: Type II eligible

Barrier	NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year	Barrier Alt1	Barrier Alt1 / Build Difference	Barrier Alt2	Barrier Alt2 / Build Difference	Barrier Alt3	Barrier Alt3 / Build Difference	Barrier Alt4	Barrier Alt4 / Build Diff
3	3	A91	1	Single-Family	1929	55.8	54.5	-1.3	53.1	-2.7	54.5	-1.3	N/A	N/A
3	3	A92	1	Single-Family	1929	55.1	53.6	-1.5	52.6	-2.5	53.7	-1.4	N/A	N/A
3	3	A93	1	Single-Family	1929	54.2	52.8	-1.4	51.8	-2.4	52.9	-1.3	N/A	N/A
3	3	A94	1	Single-Family	1929	53.7	52.3	-1.4	51.5	-2.2	52.5	-1.2	N/A	N/A
3	3	A95	1	Single-Family	1929	54.1	52.6	-1.5	51.7	-2.4	52.8	-1.3	N/A	N/A
3	3	A96	1	Single-Family	1929	54.3	52.8	-1.5	51.9	-2.4	53.0	-1.3	N/A	N/A
3	3	A97	1	Single-Family	1929	71.5	61.4	-10.1	60.6	-10.9	62.0	-9.5	N/A	N/A
3	3	A98	1	Single-Family	1927	68.9	61.1	-7.8	60.0	-8.9	61.5	-7.4	N/A	N/A
3	3	A99	1	Single-Family	1927	67.6	61.0	-6.6	59.9	-7.7	61.4	-6.2	N/A	N/A
3	3	A100	1	Single-Family	1952	66.3	60.8	-5.5	59.6	-6.7	61.2	-5.1	N/A	N/A
3	3	A101	1	Single-Family	1935	64.1	59.9	-4.2	58.4	-5.7	60.1	-4.0	N/A	N/A
3	3	A102	1	Single-Family	1929	62.1	58.8	-3.3	57.2	-4.9	58.9	-3.2	N/A	N/A
3	3	A103	1	Single-Family	1929	59.6	57.3	-2.3	55.6	-4.0	57.5	-2.1	N/A	N/A
3	3	A104	1	Single-Family	1971	57.1	55.6	-1.5	54.4	-2.7	55.7	-1.4	N/A	N/A
3	3	A105	1	Single-Family	1954	54.5	53.1	-1.4	52.1	-2.4	53.1	-1.4	N/A	N/A
3	3	A106	1	Single-Family	1929	54.1	52.6	-1.5	51.8	-2.3	52.8	-1.3	N/A	N/A
3	3	A107	1	Single-Family	1952	71.0	62.0	-9.0	60.9	-10.1	62.3	-8.7	N/A	N/A
3	3	A108	1	Single-Family	1952	68.7	61.7	-7.0	60.4	-8.3	62.0	-6.7	N/A	N/A
3	3	A109	1	Single-Family	1989	68.0	61.9	-6.1	60.6	-7.4	62.1	-5.9	N/A	N/A
3	3	A110	1	Single-Family	1928	66.0	61.0	-5.0	59.6	-6.4	61.2	-4.8	N/A	N/A
3	3	A111	1	Single-Family	1992	61.7	59.7	-2.0	58.1	-3.6	59.8	-1.9	N/A	N/A
3	3	A112	1	Single-Family	1951	59.1	57.3	-1.8	56.2	-2.9	57.4	-1.7	N/A	N/A
3	3	A113	1	Single-Family	1929	56.7	55.1	-1.6	53.9	-2.8	55.2	-1.5	N/A	N/A
3	3	A114	1	Single-Family	1963	55.1	53.6	-1.5	52.5	-2.6	53.7	-1.4	N/A	N/A
3	3	A115	1	Single-Family	1952	55.0	53.5	-1.5	52.5	-2.5	53.6	-1.4	N/A	N/A
3	3	A116	1	Single-Family	1951	66.2	60.7	-5.5	59.8	-6.4	61.0	-5.2	N/A	N/A
3	3	A117	1	Single-Family	1966	63.6	59.9	-3.7	59.0	-4.6	60.1	-3.5	N/A	N/A
3	3	A118	1	Single-Family	1927	61.8	58.8	-3.0	57.9	-3.9	58.9	-2.9	N/A	N/A
3	3	A119	1	Single-Family	1966	61.4	58.8	-2.6	57.8	-3.6	58.9	-2.5	N/A	N/A
3	3	A120	1	Single-Family	1992	60.7	58.4	-2.3	57.4	-3.3	58.5	-2.2	N/A	N/A
3	3	A121	1	Single-Family	1979	65.0	60.9	-4.1	60.3	-4.7	61.1	-3.9	N/A	N/A
3	3	A122	1	Single-Family	1963	63.6	59.7	-3.9	58.8	-4.8	59.8	-3.8	N/A	N/A
3	3	A123	1	Single-Family	1963	62.6	59.1	-3.5	58.1	-4.5	59.2	-3.4	N/A	N/A
3	3	A124	1	Single-Family	2007	59.9	57.2	-2.7	55.9	-4.0	57.3	-2.6	N/A	N/A
3	3	A125	1	Single-Family	2000	58.1	55.9	-2.2	54.8	-3.3	56.0	-2.1	N/A	N/A
3	3	A126	1	Single-Family	1960	55.9	53.6	-2.3	52.5	-3.4	53.7	-2.2	N/A	N/A
3	3	A127	1	Single-Family	1974	54.3	52.3	-2.0	51.3	-3.0	52.4	-1.9	N/A	N/A
3	3	A128	1	Single-Family	1977	53.5	51.8	-1.7	50.9	-2.6	52.0	-1.5	N/A	N/A
3	3	A129	1	Single-Family	1951	53.2	52.0	-1.2	51.1	-2.1	52.1	-1.1	N/A	N/A
3	3	A130	1	Single-Family	1951	53.2	52.0	-1.2	51.2	-2.0	52.1	-1.1	N/A	N/A
3	3	A131	1	Single-Family	1953	52.8	51.8	-1.0	51.0	-1.8	51.9	-0.9	N/A	N/A
3	3	A132	1	Single-Family	1929	52.4	51.5	-0.9	50.8	-1.6	51.6	-0.8	N/A	N/A
3	3	A133	1	Single-Family	1955	52.0	51.2	-0.8	50.6	-1.4	51.3	-0.7	N/A	N/A
3	3	A134	1	Single-Family	1928	51.5	50.5	-1.0	50.3	-1.2	50.7	-0.8	N/A	N/A
3	3	A135	1	Single-Family	1928	50.6	49.8	-0.8	49.5	-1.1	49.9	-0.7	N/A	N/A
3	3	A136	1	Single-Family	1948	50.5	49.8	-0.7	49.6	-0.9	49.9	-0.6	N/A	N/A
3	3	A137	1	Single-Family	1925	50.4	49.6	-0.8	49.6	-0.8	49.6	-0.8	N/A	N/A
3	3	A138	1	Single-Family	1925	51.0	50.1	-0.9	50.0	-1.0	50.1	-0.9	N/A	N/A
3	3	A139	1	Single-Family	1925	51.3	50.4	-0.9	50.4	-0.9	50.4	-0.9	N/A	N/A
3	3	A140	1	Single-Family	1938	52.4	51.7	-0.7	51.7	-0.7	51.7	-0.7	N/A	N/A
3	3	A141	1	Single-Family	1962	53.8	53.3	-0.5	53.3	-0.5	53.3	-0.5	N/A	N/A
3	3	A142	1	Recreation	Yes	66.4	65.9	-0.5	64.7	-1.7	65.9	-0.5	N/A	N/A
3	3	A143	1	Recreation	Yes	63.3	61.8	-1.5	60.4	-2.9	61.8	-1.5	N/A	N/A
3	3	A144	1	Recreation	Yes	59.4	57.6	-1.8	56.5	-2.9	57.7	-1.7	N/A	N/A
3	3	A145	1	Recreation	Yes	54.6	53.3	-1.3	52.3	-2.3	53.4	-1.2	N/A	N/A

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4	4	A150	1	Single-Family	1940	73.4	73.6	0.2	73.6	0.2	73.6	0.2	73.6	0.2
4	4	A151	0	Noise Reading	No	68.7	67.2	-1.5	67.2	-1.5	67.2	-1.5	67.2	-1.5
4	4	A152	1	Single-Family	1949	67.2	67.2	0.0	67.2	0.0	67.2	0.0	67.2	0.0
4	4	A153	0	Vacant Lot	1948	59.8	52.8	-7.0	54.1	-5.7	53.6	-6.2	53.1	-6.7
4	4	A154	1	Single-Family	1917	67.2	60.4	-6.8	61.2	-6.0	60.8	-6.4	60.7	-6.5
4	4	A155	1	Single-Family	1925	67.3	61.3	-6.0	61.9	-5.4	61.6	-5.7	61.5	-5.8
4	4	A156	1	Single-Family	1945	66.8	60.8	-6.0	61.4	-5.4	61.1	-5.7	61.1	-5.7
4	4	A157	1	Single-Family	1923	64.7	58.8	-5.9	59.6	-5.1	59.2	-5.5	59.2	-5.5
4	4	A158	1	Single-Family	1927	65.8	60.2	-5.6	61.2	-4.6	60.6	-5.2	60.6	-5.2
4	4	A159	1	Single-Family	1910	64.6	59.4	-5.2	60.4	-4.2	59.7	-4.9	59.8	-4.8
4	4	A160	1	Single-Family	1920	65.5	60.5	-5.0	61.3	-4.2	60.8	-4.7	60.7	-4.8
4	4	A161	1	Single-Family	1920	62.2	57.5	-4.7	58.4	-3.8	57.8	-4.4	57.9	-4.3
4	4	A162	1	Single-Family	1923	64.1	59.2	-4.9	60.1	-4.0	59.5	-4.6	59.6	-4.5
4	4	A163	1	Single-Family	1918	65.1	60.4	-4.7	61.1	-4.0	60.6	-4.5	60.6	-4.5
4	4	A164	1	Recreation	Yes	57.6	52.3	-5.3	53.4	-4.2	52.8	-4.8	53.2	-4.4
4	4	A165	1	Recreation	Yes	61.9	56.5	-5.4	57.4	-4.5	57.0	-4.9	57.1	-4.8
4	4	A166	1	Recreation	Yes	63.1	56.0	-7.1	57.1	-6.0	56.5	-6.6	56.9	-6.2
4	4	A167	1	Recreation	Yes	61.0	54.4	-6.6	55.8	-5.2	55.0	-6.0	55.5	-5.5
4	4	A168	0	Noise Reading	No	59.1	53.5	-5.6	54.9	-4.2	54.2	-4.9	54.5	-4.6
4	4	A169	1	Recreation	Yes	58.9	53.3	-5.6	54.6	-4.3	53.9	-5.0	54.2	-4.7
4	4	A170	1	Religious	1952	54.1	50.7	-3.4	52.1	-2.0	51.4	-2.7	51.5	-2.6
4	4	A171	1	School	1952	56.3	52.1	-4.2	54.0	-2.3	53.0	-3.3	53.0	-3.3
4	4	A172	0	School	1952	55.6	51.5	-4.1	53.3	-2.3	52.3	-3.3	52.4	-3.2
4	4	A173	0	School	1952	56.0	52.4	-3.6	54.1	-1.9	53.3	-2.7	53.3	-2.7
4	4	A174	1	Single-Family	1964	62.7	62.3	-0.4	62.4	-0.3	62.3	-0.4	62.4	-0.3
4	4	A175	0	Noise Reading	No	69.2	55.9	-13.3	58.9	-10.3	57.4	-11.8	56.4	-12.8
4	4	A176	2	Multi-Family	1959	70.7	56.9	-13.8	60.8	-9.9	58.7	-12.0	57.8	-12.9
4	4	A177	2	Multi-Family	1958	69.4	58.4	-11.0	62.7	-6.7	60.1	-9.3	60.0	-9.4
4	4	A178	1	Single-Family	1959	69.0	59.5	-9.5	65.2	-3.8	61.7	-7.3	62.5	-6.5
4	4	A179	1	Single-Family	1962	68.4	60.1	-8.3	65.7	-2.7	62.4	-6.0	63.9	-4.5
4	4	A180	1	Single-Family	1957	66.0	56.8	-9.2	59.4	-6.6	58.0	-8.0	57.5	-8.5
4	4	A181	2	Multi-Family	1959	66.1	57.5	-8.6	61.7	-4.4	59.0	-7.1	58.7	-7.4
4	4	A182	1	Single-Family	1945	66.9	57.5	-9.4	61.9	-5.0	59.5	-7.4	59.2	-7.7
4	4	A183	1	Single-Family	1950	66.9	58.6	-8.3	63.1	-3.8	60.7	-6.2	61.2	-5.7
4	4	A184	1	Single-Family	1962	66.4	58.9	-7.5	63.2	-3.2	60.7	-5.7	61.4	-5.0
4	4	A185	1	Single-Family	1962	66.2	59.8	-6.4	64.3	-1.9	61.5	-4.7	62.2	-4.0
4	4	A186	1	Single-Family	1948	65.1	59.2	-5.9	63.2	-1.9	60.8	-4.3	61.8	-3.3
4	4	A187	1	Single-Family	1940	64.4	59.4	-5.0	62.7	-1.7	60.8	-3.6	61.7	-2.7
4	4	A188	1	Single-Family	1960	63.4	59.6	-3.8	61.9	-1.5	60.6	-2.8	61.6	-1.8
4	4	A189	1	Single-Family	1940	66.3	65.6	-0.7	65.8	-0.5	65.7	-0.6	65.9	-0.4
4	4	A190	1	Single-Family	1933	65.2	64.5	-0.7	64.7	-0.5	64.6	-0.6	64.8	-0.4
4	4	A191	1	Single-Family	1954	64.0	54.8	-9.2	56.9	-7.1	55.9	-8.1	56.1	-7.9
4	4	A192	1	Single-Family	1945	64.3	55.8	-8.5	58.1	-6.2	56.8	-7.5	56.9	-7.4
4	4	A193	1	Single-Family	1950	63.6	55.8	-7.8	58.4	-5.2	56.9	-6.7	57.0	-6.6
4	4	A194	1	Single-Family	1958	61.9	55.2	-6.7	58.9	-3.0	56.8	-5.1	56.6	-5.3
4	4	A195	1	Single-Family	1957	60.4	54.5	-5.9	58.0	-2.4	56.1	-4.3	55.7	-4.7
4	4	A196	1	Single-Family	1946	60.2	54.7	-5.5	57.7	-2.5	56.5	-3.7	55.7	-4.5
4	4	A197	1	Single-Family	1950	58.8	54.6	-4.2	56.9	-1.9	55.8	-3.0	55.6	-3.2
4	4	A198	1	Single-Family	1968	60.3	57.5	-2.8	58.9	-1.4	58.1	-2.2	58.3	-2.0
4	4	A199	1	Single-Family	1946	63.9	62.9	-1.0	63.3	-0.6	63.1	-0.8	63.3	-0.6
4	4	A200	1	Single-Family	1959	61.9	54.8	-7.1	56.4	-5.5	55.5	-6.4	55.9	-6.0
4	4	A201	1	Single-Family	1953	63.2	54.9	-8.3	56.8	-6.4	55.7	-7.5	56.1	-7.1
4	4	A202	1	Single-Family	1953	62.7	54.6	-8.1	56.5	-6.2	55.4	-7.3	55.8	-6.9
4	4	A203	1	Single-Family	1960	61.9	54.4	-7.5	56.3	-5.6	55.2	-6.7	55.6	-6.3
4	4	A204	1	Single-Family	1960	61.1	53.8	-7.3	56.2	-4.9	54.8	-6.3	55.1	-6.0
4	4	A205	1	Single-Family	1950	59.0	53.5	-5.5	56.2	-2.8	54.4	-4.6	54.4	-4.6
4	4	A206	1	Single-Family	1948	58.1	53.4	-4.7	56.0	-2.1	54.6	-3.5	54.3	-3.8
4	4	A207	1	Single-Family	1953	58.1	53.6	-4.5	55.9	-2.2	54.8	-3.3	54.6	-3.5
4	4	A208	1	Single-Family	1968	58.6	54.3	-4.3	56.3	-2.3	55.3	-3.3	55.3	-3.3
4	4	A209	1	Single-Family	1949	59.3	55.9	-3.4	57.3	-2.0	56.5	-2.8	56.7	-2.6
4	4	A210	1	Single-Family	1948	62.5	61.4	-1.1	61.8	-0.7	61.6	-0.9	61.7	-0.8
4	4	A211	1	Single-Family	1910	64.2	63.6	-0.6	63.8	-0.4	63.7	-0.5	63.8	-0.4
4	4	A212	1	Single-Family	1920	59.9	57.7	-2.2	58.5	-1.4	58.1	-1.8	58.3	-1.6

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5	5	A213	1	Single-Family	1917	67.1	61.4	-5.7	58.2	-8.9	59.5	-7.6	N/A	N/A
5	5	A214	1	Single-Family	1917	67.0	62.0	-5.0	59.1	-7.9	60.3	-6.7	N/A	N/A
5	5	A215	1	Single-Family	1917	67.3	62.8	-4.5	59.7	-7.6	60.7	-6.6	N/A	N/A
5	5	A216	1	Single-Family	1951	67.1	63.4	-3.7	59.9	-7.2	60.5	-6.6	N/A	N/A
5	5	A217	1	Single-Family	1929	67.0	63.9	-3.1	60.3	-6.7	60.5	-6.5	N/A	N/A
5	5	A218	1	Single-Family	1950	66.7	64.2	-2.5	60.7	-6.0	61.0	-5.7	N/A	N/A
5	5	A219	1	Single-Family	1921	66.6	65.7	-0.9	63.8	-2.8	63.4	-3.2	N/A	N/A
5	5	A220	1	Single-Family	1925	66.4	65.5	-0.9	63.7	-2.7	63.2	-3.2	N/A	N/A
5	5	A221	1	Single-Family	1953	66.0	64.8	-1.2	62.7	-3.3	62.3	-3.7	N/A	N/A
5	5	A222	1	Single-Family	1928	69.6	59.3	-10.3	56.9	-12.7	58.8	-10.8	N/A	N/A
5	5	A223	1	Single-Family	1931	67.6	60.1	-7.5	56.9	-10.7	58.9	-8.7	N/A	N/A
5	5	A224	1	Single-Family	1955	66.4	60.7	-5.7	57.8	-8.6	59.4	-7.0	N/A	N/A
5	5	A225	1	Single-Family	1923	67.0	62.3	-4.7	58.7	-8.3	60.0	-7.0	N/A	N/A
5	5	A226	1	Single-Family	1928	66.7	63.0	-3.7	59.6	-7.1	60.3	-6.4	N/A	N/A
5	5	A227	1	Single-Family	1928	66.2	63.3	-2.9	60.0	-6.2	60.5	-5.7	N/A	N/A
5	5	A228	1	Single-Family	1924	65.5	63.2	-2.3	60.2	-5.3	60.6	-4.9	N/A	N/A
5	5	A229	1	Single-Family	1924	64.8	63.2	-1.6	61.0	-3.8	60.9	-3.9	N/A	N/A
5	5	A230	1	Single-Family	1919	65.1	64.2	-0.9	62.8	-2.3	62.8	-2.3	N/A	N/A
5	5	A231	1	Single-Family	1923	64.7	63.7	-1.0	62.5	-2.2	62.5	-2.2	N/A	N/A
5	5	A232	1	Single-Family	1918	64.3	63.3	-1.0	62.1	-2.2	62.3	-2.0	N/A	N/A
5	5	A233	0	Noise Reading	No	73.8	58.1	-15.7	56.1	-17.7	58.2	-15.6	N/A	N/A
5	5	A234	1	Single-Family	1951	71.2	59.7	-11.5	56.5	-14.7	59.4	-11.8	N/A	N/A
5	5	A235	1	Single-Family	1952	67.0	59.4	-7.6	56.1	-10.9	58.7	-8.3	N/A	N/A
5	5	A236	1	Single-Family	1965	64.6	59.0	-5.6	56.1	-8.5	58.3	-6.3	N/A	N/A
5	5	A237	1	Single-Family	1926	65.2	60.0	-5.2	56.8	-8.4	58.8	-6.4	N/A	N/A
5	5	A238	1	Single-Family	1960	64.7	60.3	-4.4	57.1	-7.6	58.8	-5.9	N/A	N/A
5	5	A239	1	Single-Family	1926	64.1	60.3	-3.8	57.5	-6.6	58.7	-5.4	N/A	N/A
5	5	A240	1	Single-Family	1923	63.7	60.5	-3.2	58.2	-5.5	59.1	-4.6	N/A	N/A
5	5	A241	1	Single-Family	1919	63.9	62.7	-1.2	61.7	-2.2	62.1	-1.8	N/A	N/A
5	5	A242	1	Single-Family	1949	71.8	59.6	-12.2	56.8	-15.0	59.6	-12.2	N/A	N/A
5	5	A243	1	Single-Family	1929	68.2	59.0	-9.2	56.3	-11.9	58.6	-9.6	N/A	N/A
5	5	A244	1	Single-Family	1920	64.2	58.3	-5.9	55.8	-8.4	57.6	-6.6	N/A	N/A
5	5	A245	1	Single-Family	1928	63.6	58.2	-5.4	55.5	-8.1	57.4	-6.2	N/A	N/A
5	5	A246	1	Single-Family	1930	63.1	58.2	-4.9	55.7	-7.4	57.3	-5.8	N/A	N/A
5	5	A247	1	Single-Family	1928	62.8	58.7	-4.1	56.2	-6.6	57.6	-5.2	N/A	N/A
5	5	A248	1	Single-Family	1965	62.5	58.9	-3.6	56.9	-5.6	57.9	-4.6	N/A	N/A
5	5	A249	1	Single-Family	1958	62.6	59.9	-2.7	58.2	-4.4	58.9	-3.7	N/A	N/A
5	5	A250	1	Single-Family	1918	63.4	62.3	-1.1	61.5	-1.9	61.8	-1.6	N/A	N/A
5	5	A251	1	Single-Family	1919	62.6	60.9	-1.7	60.2	-2.4	60.5	-2.1	N/A	N/A
5	5	A252	1	Single-Family	1919	63.3	62.0	-1.3	61.5	-1.8	61.7	-1.6	N/A	N/A
5	5	A253	1	Single-Family	1953	70.0	58.8	-11.2	57.1	-12.9	58.8	-11.2	N/A	N/A
5	5	A254	1	Single-Family	1941	66.7	57.9	-8.8	55.9	-10.8	57.7	-9.0	N/A	N/A
5	5	A255	1	Single-Family	1952	63.9	57.7	-6.2	55.5	-8.4	57.2	-6.7	N/A	N/A
5	5	A256	1	Single-Family	1949	62.7	57.8	-4.9	55.6	-7.1	57.0	-5.7	N/A	N/A
5	5	A257	1	Single-Family	1956	62.1	57.9	-4.2	55.9	-6.2	57.0	-5.1	N/A	N/A
5	5	A258	1	Single-Family	1957	61.7	58.1	-3.6	56.6	-5.1	57.4	-4.3	N/A	N/A
5	5	A259	1	Single-Family	1919	62.8	61.4	-1.4	60.9	-1.9	61.1	-1.7	N/A	N/A
5	5	A260	1	Single-Family	1953	70.2	59.0	-11.2	57.8	-12.4	59.0	-11.2	N/A	N/A
5	5	A261	1	Single-Family	1959	67.5	58.0	-9.5	56.5	-11.0	57.9	-9.6	N/A	N/A
5	5	A262	1	Single-Family	1950	65.2	57.5	-7.7	56.0	-9.2	57.3	-7.9	N/A	N/A
5	5	A263	1	Single-Family	1953	63.6	57.7	-5.9	55.8	-7.8	57.1	-6.5	N/A	N/A
5	5	A264	1	Single-Family	1948	62.9	57.5	-5.4	55.7	-7.2	56.9	-6.0	N/A	N/A
5	5	A265	1	Single-Family	1953	62.0	57.4	-4.6	55.7	-6.3	56.7	-5.3	N/A	N/A
5	5	A266	1	Single-Family	1953	61.5	57.3	-4.2	55.8	-5.7	56.7	-4.8	N/A	N/A
5	5	A267	1	Single-Family	1948	61.2	58.4	-2.8	57.3	-3.9	57.9	-3.3	N/A	N/A
5	5	A268	1	Single-Family	1954	62.2	60.7	-1.5	60.2	-2.0	60.4	-1.8	N/A	N/A
5	5	A269	1	Single-Family	1918	63.1	62.1	-1.0	61.8	-1.3	62.0	-1.1	N/A	N/A
5	5	A270	1	Single-Family	1953	68.9	60.0	-8.9	59.4	-9.5	60.0	-8.9	N/A	N/A
5	5	A271	1	Single-Family	1995	67.5	59.7	-7.8	59.1	-8.4	59.6	-7.9	N/A	N/A
5	5	A272	1	Single-Family	1995	65.8	58.4	-7.4	57.6	-8.2	58.3	-7.5	N/A	N/A
5	5	A273	1	Single-Family	1948	64.7	58.3	-6.4	57.6	-7.1	58.2	-6.5	N/A	N/A
5	5	A274	1	Single-Family	1927	63.4	58.6	-4.8	57.8	-5.6	58.3	-5.1	N/A	N/A
5	5	A275	1	Single-Family	1957	62.7	58.2	-4.5	57.3	-5.4	57.9	-4.8	N/A	N/A
5	5	A276	1	Single-Family	1940	61.1	57.4	-3.7	56.5	-4.6	57.0	-4.1	N/A	N/A
5	5	A277	1	Single-Family	1956	60.8	58.0	-2.8	57.3	-3.5	57.7	-3.1	N/A	N/A
5	5	A278	1	Single-Family	1942	68.5	60.4	-8.1	59.9	-8.6	60.3	-8.2	N/A	N/A
5	5	A279	1	Single-Family	1929	67.0	60.0	-7.0	59.6	-7.4	59.9	-7.1	N/A	N/A
5	5	A280	1	Single-Family	1955	64.9	59.5	-5.4	59.0	-5.9	59.4	-5.5	N/A	N/A

Color Definitions:
1) Pink: Substantially Impacted
2) Yellow: 66+ dBA noise level
3) Green: 5+ dBA reduction
4) Blue: 7+ dBA reduction
5) Turquoise: Type II eligible

Barrier	NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year	Barrier Alt1	Barrier Alt1 / Build Difference	Barrier Alt2	Barrier Alt2 / Build Difference	Barrier Alt3	Barrier Alt3 / Build Difference	Barrier Alt4	Barrier Alt4 / Build Diff
5	5	A281	1	Single-Family	1956	64.1	59.2	-4.9	58.8	-5.3	59.1	-5.0	N/A	N/A
5	5	A282	1	Single-Family	1927	63.2	58.9	-4.3	58.4	-4.8	58.7	-4.5	N/A	N/A
5	5	A283	1	Single-Family	1963	62.4	58.5	-3.9	58.0	-4.4	58.3	-4.1	N/A	N/A
5	5	A284	1	Single-Family	1963	61.7	58.2	-3.5	57.7	-4.0	58.0	-3.7	N/A	N/A
5	5	A285	1	Single-Family	1950	61.1	57.8	-3.3	57.1	-4.0	57.5	-3.6	N/A	N/A
5	5	A286	1	Single-Family	1926	61.4	58.8	-2.6	58.4	-3.0	58.6	-2.8	N/A	N/A
5	5	A287	1	Single-Family	1925	61.0	58.8	-2.2	58.3	-2.7	58.6	-2.4	N/A	N/A
5	5	A288	1	Single-Family	1924	62.9	62.0	-0.9	61.8	-1.1	61.9	-1.0	N/A	N/A
5	5	A289	1	Single-Family	1998	62.0	60.8	-1.2	60.6	-1.4	60.7	-1.3	N/A	N/A
5	5	A290	1	Single-Family	1930	62.3	61.9	-0.4	61.3	-1.0	61.6	-0.7	N/A	N/A
5	5	A291	1	Single-Family	1926	67.9	60.7	-7.2	60.5	-7.4	60.7	-7.2	N/A	N/A
5	5	A292	1	Single-Family	1929	67.2	60.7	-6.5	60.6	-6.6	60.8	-6.4	N/A	N/A
5	5	A293	1	Single-Family	1929	65.5	60.7	-4.8	60.6	-4.9	60.7	-4.8	N/A	N/A
5	5	A294	1	Single-Family	1925	65.0	60.5	-4.5	60.4	-4.6	60.5	-4.5	N/A	N/A
5	5	A295	1	Single-Family	1928	64.5	60.3	-4.2	60.2	-4.3	60.3	-4.2	N/A	N/A
5	5	A296	1	Single-Family	1923	63.8	60.0	-3.8	59.8	-4.0	60.0	-3.8	N/A	N/A
5	5	A297	1	Single-Family	1953	62.0	59.4	-2.6	59.2	-2.8	59.3	-2.7	N/A	N/A
5	5	A298	1	Single-Family	1994	61.7	60.2	-1.5	60.0	-1.7	60.1	-1.6	N/A	N/A
5	5	A299	1	Single-Family	1963	69.9	62.2	-7.7	62.4	-7.5	62.5	-7.4	N/A	N/A
5	5	A300	1	Single-Family	1955	68.5	62.1	-6.4	62.2	-6.3	62.3	-6.2	N/A	N/A
5	5	A301	1	Single-Family	1924	66.1	61.6	-4.5	61.6	-4.5	61.6	-4.5	N/A	N/A
5	5	A302	1	Single-Family	1949	65.7	61.7	-4.0	61.7	-4.0	61.8	-3.9	N/A	N/A
5	5	A303	1	Single-Family	1925	63.5	60.6	-2.9	60.5	-3.0	60.6	-2.9	N/A	N/A
5	5	A304	1	Single-Family	1928	63.1	60.4	-2.7	60.4	-2.7	60.4	-2.7	N/A	N/A
5	5	A305	0	Vacant	No	62.0	59.9	-2.1	59.9	-2.1	59.9	-2.1	N/A	N/A
5	5	A306	1	Single-Family	1953	61.9	60.4	-1.5	60.3	-1.6	60.3	-1.6	N/A	N/A
5	5	A307	1	Single-Family	1953	63.3	62.5	-0.8	62.4	-0.9	62.5	-0.8	N/A	N/A
5	5	A308	1	Single-Family	1986	63.2	62.4	-0.8	62.4	-0.8	62.4	-0.8	N/A	N/A
5	5	A309	1	Single-Family	1957	70.1	62.7	-7.4	62.9	-7.2	62.9	-7.2	N/A	N/A
5	5	A310	1	Single-Family	1957	68.6	62.7	-5.9	62.8	-5.8	62.8	-5.8	N/A	N/A
5	5	A311	1	Single-Family	1958	67.9	63.0	-4.9	63.1	-4.8	63.2	-4.7	N/A	N/A
5	5	A312	1	Single-Family	1958	66.2	62.4	-3.8	62.5	-3.7	62.5	-3.7	N/A	N/A
5	5	A313	1	Single-Family	1958	65.5	62.3	-3.2	62.3	-3.2	62.3	-3.2	N/A	N/A
5	5	A314	1	Single-Family	1958	64.8	62.0	-2.8	62.0	-2.8	62.0	-2.8	N/A	N/A
5	5	A315	1	Single-Family	2002	64.7	62.1	-2.6	62.1	-2.6	62.1	-2.6	N/A	N/A
5	5	A316	1	Single-Family	1956	63.6	61.4	-2.2	61.5	-2.1	61.5	-2.1	N/A	N/A
5	5	A317	1	Single-Family	1956	62.9	61.1	-1.8	61.1	-1.8	61.1	-1.8	N/A	N/A
5	5	A318	1	Single-Family	1986	62.6	61.5	-1.1	61.5	-1.1	61.5	-1.1	N/A	N/A
5	5	A319	1	Single-Family	1957	66.6	62.1	-4.5	62.3	-4.3	62.3	-4.3	N/A	N/A
5	5	A320	1	Single-Family	1957	64.9	61.8	-3.1	61.9	-3.0	61.9	-3.0	N/A	N/A
5	5	A321	1	Single-Family	1957	63.4	61.3	-2.1	61.4	-2.0	61.4	-2.0	N/A	N/A
5	5	A322	1	Single-Family	1954	63.4	61.1	-2.3	61.1	-2.3	61.1	-2.3	N/A	N/A
5	5	A323	1	Single-Family	1953	61.3	59.9	-1.4	59.9	-1.4	59.9	-1.4	N/A	N/A
5	5	A324	1	Single-Family	1965	60.8	59.8	-1.0	59.8	-1.0	59.8	-1.0	N/A	N/A
5	5	A325	1	Single-Family	2004	61.4	60.9	-0.5	60.9	-0.5	60.9	-0.5	N/A	N/A
5	5	A326	1	Single-Family	2005	62.6	62.1	-0.5	62.1	-0.5	62.2	-0.4	N/A	N/A
5	5	A327	1	Single-Family	2005	61.4	60.8	-0.6	60.8	-0.6	60.8	-0.6	N/A	N/A
5	5	A328	1	Single-Family	1928	66.1	65.9	-0.2	65.0	-1.1	65.1	-1.0	N/A	N/A
5	5	A329	1	Single-Family	1924	65.9	65.7	-0.2	64.8	-1.1	64.9	-1.0	N/A	N/A
5	5	A330	1	Single-Family	1923	65.6	65.3	-0.3	64.4	-1.2	64.5	-1.1	N/A	N/A
5	5	A331	1	Single-Family	1953	61.7	61.5	-0.2	59.5	-2.2	59.9	-1.8	N/A	N/A
5	5	A333	1	Single-Family	1942	62.6	62.4	-0.2	60.6	-2.0	61.0	-1.6	N/A	N/A
5	5	A334	1	Single-Family	1942	62.1	61.9	-0.2	59.9	-2.2	60.3	-1.8	N/A	N/A
5	5	A335	1	Single-Family	1928	61.5	61.2	-0.3	59.2	-2.3	59.5	-2.0	N/A	N/A
5	5	A146	0	Noise Reading	No	66.5	65.9	-0.6	65.9	-0.6	65.9	-0.6	N/A	N/A
5	5	A147	1	Recreation	Yes	65.9	65.3	-0.6	65.4	-0.5	65.4	-0.5	N/A	N/A
5	5	A148	1	Recreation	Yes	62.5	61.3	-1.2	61.4	-1.1	61.4	-1.1	N/A	N/A
5	5	A149	1	Recreation	Yes	64.4	64.1	-0.3	64.1	-0.3	64.1	-0.3	N/A	N/A

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5) Turquoise: Type II eligible

Barrier	NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year	Barrier Alt1	Barrier Alt1 / Build Difference	Barrier Alt2	Barrier Alt2 / Build Difference	Barrier Alt3	Barrier Alt3 / Build Difference	Barrier Alt4	Barrier Alt4 / Build Diff
6	6	B1	1	Single-Family	1955	71.6	58.1	-13.5	59.6	-12.0	71.8	0.2	N/A	N/A
6	6	B2	0	Noise Reading	No	62.2	56.4	-5.8	57.3	-4.9	62.6	0.4	N/A	N/A
6	6	B3	1	Religious	1955	60.8	59.0	-1.8	59.2	-1.6	60.5	-0.3	N/A	N/A
6	6	B4	1	Single-Family	1988	70.6	57.6	-13.0	59.0	-11.6	70.4	-0.2	N/A	N/A
6	6	B5	1	Single-Family	1919	62.1	57.0	-5.1	57.9	-4.2	61.5	-0.6	N/A	N/A
6	6	B6	1	Single-Family	1988	62.1	56.9	-5.2	57.7	-4.4	61.1	-1.0	N/A	N/A
6	6	B7	1	Single-Family	1957	60.6	56.5	-4.1	57.2	-3.4	58.9	-1.7	N/A	N/A
6	6	B8	1	Single-Family	1948	59.5	56.2	-3.3	56.8	-2.7	57.8	-1.7	N/A	N/A
6	6	B9	1	Single-Family	1966	64.2	57.4	-6.8	58.4	-5.8	59.0	-5.2	N/A	N/A
6	6	B10	1	Single-Family	1943	61.4	56.9	-4.5	57.5	-3.9	57.9	-3.5	N/A	N/A
6	6	B11	2	Multi-Family	1967	61.1	55.8	-5.3	56.5	-4.6	56.6	-4.5	N/A	N/A
6	6	B12	4	Multi-Family	1971	60.9	55.5	-5.4	56.3	-4.6	56.5	-4.4	N/A	N/A
6	6	B13	4	Multi-Family	1971	61.1	55.6	-5.5	56.4	-4.7	56.6	-4.5	N/A	N/A
6	6	B14	1	Single-Family	1950	61.1	56.5	-4.6	57.0	-4.1	57.4	-3.7	N/A	N/A
6	6	B15	1	Single-Family	1950	61.0	56.9	-4.1	57.4	-3.6	57.7	-3.3	N/A	N/A
6	6	B16	1	Single-Family	1950	60.8	56.9	-3.9	57.4	-3.4	57.7	-3.1	N/A	N/A
6	6	B17	1	Single-Family	1953	74.6	57.6	-17.0	59.3	-15.3	59.3	-15.3	N/A	N/A
6	6	B18	1	Single-Family	1928	66.7	57.9	-8.8	59.2	-7.5	59.3	-7.4	N/A	N/A
6	6	B19	1	Single-Family	1953	60.7	56.3	-4.4	56.9	-3.8	57.2	-3.5	N/A	N/A
6	6	B20	1	Single-Family	1928	61.0	56.8	-4.2	57.4	-3.6	57.7	-3.3	N/A	N/A
6	6	B21	1	Single-Family	1969	76.7	62.5	-14.2	65.0	-11.7	65.0	-11.7	N/A	N/A
6	6	B22	0	Noise Reading	No	77.2	60.2	-17.0	62.5	-14.7	62.5	-14.7	N/A	N/A
6	6	B23	1	Single-Family	1975	72.5	60.8	-11.7	62.9	-9.6	62.9	-9.6	N/A	N/A
6	6	B24	1	Single-Family	1957	72.0	59.8	-12.2	61.7	-10.3	61.5	-10.5	N/A	N/A
6	6	B25	1	Single-Family	1958	68.3	58.6	-9.7	60.5	-7.8	60.5	-7.8	N/A	N/A
6	6	B26	1	Single-Family	1938	66.4	58.1	-8.3	59.9	-6.5	60.0	-6.4	N/A	N/A
6	6	B27	1	Single-Family	1996	65.8	58.0	-7.8	59.5	-6.3	59.6	-6.2	N/A	N/A
6	6	B28	1	Single-Family	1979	63.6	56.6	-7.0	58.0	-5.6	58.2	-5.4	N/A	N/A
6	6	B29	1	Single-Family	1928	63.5	56.2	-7.3	57.3	-6.2	57.6	-5.9	N/A	N/A
6	6	B30	1	Single-Family	1938	62.1	56.1	-6.0	57.1	-5.0	57.4	-4.7	N/A	N/A
6	6	B31	2	Multi-Family	1965	62.9	56.5	-6.4	57.4	-5.5	57.8	-5.1	N/A	N/A
6	6	B32	1	Single-Family	1961	62.1	57.7	-4.4	58.2	-3.9	58.6	-3.5	N/A	N/A
6	6	B33	1	Single-Family	1923	63.3	58.4	-4.9	59.0	-4.3	59.3	-4.0	N/A	N/A
6	6	B34	1	Single-Family	1918	63.4	58.0	-5.4	58.6	-4.8	58.9	-4.5	N/A	N/A
6	6	B35	1	Single-Family	1958	63.1	57.9	-5.2	58.5	-4.6	58.6	-4.5	N/A	N/A
6	6	B36	1	Single-Family	1967	62.6	56.5	-6.1	57.2	-5.4	57.5	-5.1	N/A	N/A
6	6	B37	1	Single-Family	1935	58.4	57.6	-0.8	57.8	-0.6	58.1	-0.3	N/A	N/A
6	6	B38	1	Single-Family	1923	60.0	59.4	-0.6	59.6	-0.4	59.7	-0.3	N/A	N/A
6	6	B39	1	Single-Family	1940	62.3	61.8	-0.5	61.8	-0.5	62.0	-0.3	N/A	N/A
6	6	B40	1	Single-Family	1912	61.2	60.3	-0.9	60.4	-0.8	60.6	-0.6	N/A	N/A
6	6	B41	1	Single-Family	1923	61.7	60.7	-1.0	60.8	-0.9	61.0	-0.7	N/A	N/A
6	6	B42	1	Single-Family	1888	60.0	57.6	-2.4	57.9	-2.1	58.2	-1.8	N/A	N/A
6	6	B43	1	Single-Family	1999	60.8	59.0	-1.8	59.1	-1.7	59.4	-1.4	N/A	N/A
6	6	B44	1	Single-Family	1920	59.5	57.4	-2.1	57.6	-1.9	57.9	-1.6	N/A	N/A
6	6	B45	1	Single-Family	1947	60.0	58.4	-1.6	58.6	-1.4	58.8	-1.2	N/A	N/A
6	6	B46	1	Single-Family	1949	57.9	55.6	-2.3	56.0	-1.9	56.3	-1.6	N/A	N/A
6	6	B47	1	Single-Family	1962	58.8	56.5	-2.3	56.8	-2.0	57.0	-1.8	N/A	N/A
6	6	B48	1	Single-Family	1964	68.5	62.1	-6.4	62.7	-5.8	60.1	-8.4	N/A	N/A
6	6	B49	1	Single-Family	1930	68.0	64.1	-3.9	64.4	-3.6	60.0	-8.0	N/A	N/A
6	6	B50	1	Single-Family	1928	66.9	63.2	-3.7	63.4	-3.5	59.7	-7.2	N/A	N/A
6	6	B51	1	Single-Family	1933	69.6	63.7	-5.9	64.1	-5.5	61.2	-8.4	N/A	N/A
6	6	B52	1	Single-Family	1965	72.1	58.8	-13.3	60.2	-11.9	60.1	-12.0	N/A	N/A
6	6	B53	1	Single-Family	1965	68.1	58.2	-9.9	59.4	-8.7	59.0	-9.1	N/A	N/A
6	6	B54	1	Single-Family	1964	66.3	57.9	-8.4	58.9	-7.4	58.2	-8.1	N/A	N/A
6	6	B55	1	Single-Family	1963	65.6	58.1	-7.5	59.0	-6.6	57.7	-7.9	N/A	N/A
6	6	B56	1	Single-Family	1973	65.6	58.3	-7.3	59.1	-6.5	57.9	-7.7	N/A	N/A
6	6	B57	1	Single-Family	1965	66.0	59.2	-6.8	59.8	-6.2	57.0	-9.0	N/A	N/A
6	6	B58	1	Single-Family	1974	64.5	59.1	-5.4	59.6	-4.9	58.1	-6.4	N/A	N/A
6	6	B59	4	Multi-Family	1972	62.2	58.7	-3.5	59.2	-3.0	57.5	-4.7	N/A	N/A
6	6	B60	4	Multi-Family	1972	61.4	56.9	-4.5	57.6	-3.8	57.5	-3.9	N/A	N/A
6	6	B61	4	Multi-Family	1973	62.1	56.5	-5.6	57.3	-4.8	58.5	-3.6	N/A	N/A
6	6	B62	6	Multi-Family	1973	62.1	55.5	-6.6	56.5	-5.6	59.4	-2.7	N/A	N/A
6	6	B63	6	Multi-Family	1973	59.8	54.3	-5.5	55.3	-4.5	57.9	-1.9	N/A	N/A
6	6	B64	6	Multi-Family	1973	61.8	54.4	-7.4	55.8	-6.0	60.8	-1.0	N/A	N/A
6	6	B65	6	Multi-Family	1973	60.2	53.2	-7.0	54.6	-5.6	59.0	-1.2	N/A	N/A
6	6	B66	6	Multi-Family	1973	61.7	53.9	-7.8	55.4	-6.3	60.8	-0.9	N/A	N/A
6	6	B67	1	Single-Family	1972	67.2	56.5	-10.7	57.6	-9.6	57.0	-10.2	N/A	N/A
6	6	B68	1	Single-Family	1965	67.3	57.0	-10.3	57.9	-9.4	57.0	-10.3	N/A	N/A

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5) Turquoise: Type II eligible

Barrier	NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year	Barrier Alt1	Barrier Alt1 / Build Difference	Barrier Alt2	Barrier Alt2 / Build Difference	Barrier Alt3	Barrier Alt3 / Build Difference	Barrier Alt4	Barrier Alt4 / Build Diff
6	6	B69	1	Single-Family	1964	67.3	57.8	-9.5	58.5	-8.8	57.1	-10.2	N/A	N/A
6	6	B70	1	Single-Family	1964	67.1	57.9	-9.2	58.6	-8.5	57.1	-10.0	N/A	N/A
6	6	B71	1	Single-Family	1965	66.8	57.9	-8.9	58.6	-8.2	57.4	-9.4	N/A	N/A
6	6	B72	1	Single-Family	1964	65.4	57.8	-7.6	58.4	-7.0	57.2	-8.2	N/A	N/A
6	6	B73	1	Single-Family	1923	64.5	57.7	-6.8	58.4	-6.1	58.4	-6.1	N/A	N/A
6	6	B74	1	Single-Family	1952	64.0	57.0	-7.0	57.7	-6.3	58.5	-5.5	N/A	N/A
6	6	B75	1	Single-Family	1880	64.4	56.4	-8.0	57.2	-7.2	59.7	-4.7	N/A	N/A
6	6	B76	6	Multi-Family	1973	57.5	52.5	-5.0	53.3	-4.2	54.2	-3.3	N/A	N/A
6	6	B77	1	Single-Family	1971	60.5	54.6	-5.9	55.3	-5.2	56.8	-3.7	N/A	N/A
6	6	B78	8	Multi-Family	1973	55.8	50.3	-5.5	51.3	-4.5	54.0	-1.8	N/A	N/A
6	6	B79	8	Multi-Family	1973	55.7	50.1	-5.6	51.4	-4.3	54.2	-1.5	N/A	N/A
6	6	B80	1	Single-Family	1970	60.6	53.7	-6.9	54.5	-6.1	57.6	-3.0	N/A	N/A

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Barrier	NSA	Receiver	Dwelling Units	Dwelling Unit Type	Age (Type II eligible)	Existing Year	Barrier Alt1	Barrier Alt1 / Build Difference	Barrier Alt2	Barrier Alt2 / Build Difference	Barrier Alt3	Barrier Alt3 / Build Difference	Barrier Alt4	Barrier Alt4 / Build Diff
7	7	B81	1	Single-Family	2003	62.9	52.9	-10.0	54.6	-8.3	62.9	0.0	N/A	N/A
7	7	B82	1	Single-Family	2004	63.9	53.7	-10.2	55.7	-8.2	64.0	0.1	N/A	N/A
7	7	B83	1	Single-Family	2004	65.1	54.2	-10.9	56.3	-8.8	65.1	0.0	N/A	N/A
7	7	B84	1	Single-Family	2004	66.5	54.7	-11.8	57.0	-9.5	66.5	0.0	N/A	N/A
7	7	B85	1	Single-Family	2004	68.0	55.5	-12.5	58.0	-10.0	68.1	0.1	N/A	N/A
7	7	B86	1	Single-Family	2004	69.7	56.6	-13.1	59.5	-10.2	69.7	0.0	N/A	N/A
7	7	B87	1	Single-Family	2004	71.5	58.2	-13.3	61.1	-10.4	71.5	0.0	N/A	N/A
7	7	B88	1	Single-Family	2004	72.6	59.3	-13.3	62.4	-10.2	72.6	0.0	N/A	N/A
7	7	B89	1	Single-Family	2004	73.1	60.1	-13.0	63.5	-9.6	73.2	0.1	N/A	N/A
7	7	B90	1	Single-Family	2004	73.4	60.3	-13.1	63.9	-9.5	73.4	0.0	N/A	N/A
7	7	B91	1	Single-Family	2004	72.7	59.8	-12.9	63.4	-9.3	72.7	0.0	N/A	N/A
7	7	B92	1	Single-Family	2003	68.8	57.9	-10.9	61.0	-7.8	68.8	0.0	N/A	N/A
7	7	B93	1	Single-Family	2004	64.5	55.9	-8.6	58.1	-6.4	64.5	0.0	N/A	N/A
7	7	B94	1	Single-Family	2003	63.0	55.3	-7.7	57.1	-5.9	62.9	-0.1	N/A	N/A
7	7	B95	1	Single-Family	2003	62.1	54.1	-8.0	55.9	-6.2	62.1	0.0	N/A	N/A
7	7	B96	1	Single-Family	2003	62.0	53.8	-8.2	55.7	-6.3	62.0	0.0	N/A	N/A
7	7	B97	1	Single-Family	2003	60.1	52.6	-7.5	54.0	-6.1	60.1	0.0	N/A	N/A
7	7	B98	1	Single-Family	2003	60.8	53.0	-7.8	54.5	-6.3	60.8	0.0	N/A	N/A
7	7	B99	1	Single-Family	2003	60.6	52.8	-7.8	54.3	-6.3	60.6	0.0	N/A	N/A
7	7	B100	1	Single-Family	2003	57.8	51.7	-6.1	53.3	-4.5	57.6	-0.2	N/A	N/A
7	7	B101	0	Noise Reading	No	57.2	50.3	-6.9	51.5	-5.7	57.1	-0.1	N/A	N/A
7	7	B102	1	Single-Family	1998	58.6	52.4	-6.2	53.6	-5.0	58.4	-0.2	N/A	N/A
7	7	B103	1	Single-Family	1998	59.6	52.8	-6.8	54.3	-5.3	59.5	-0.1	N/A	N/A
7	7	B104	1	Single-Family	1998	60.3	52.5	-7.8	54.1	-6.2	60.2	-0.1	N/A	N/A
7	7	B105	1	Single-Family	1998	60.3	52.8	-7.5	54.5	-5.8	60.2	-0.1	N/A	N/A
7	7	B106	1	Single-Family	1998	60.2	52.8	-7.4	54.9	-5.3	60.1	-0.1	N/A	N/A
7	7	B107	1	Single-Family	1998	61.1	53.7	-7.4	56.0	-5.1	61.1	0.0	N/A	N/A
7	7	B108	1	Single-Family	1997	63.2	54.7	-8.5	57.2	-6.0	63.2	0.0	N/A	N/A
7	7	B109	1	Single-Family	1998	65.2	56.1	-9.1	58.7	-6.5	65.2	0.0	N/A	N/A
7	7	B110	1	Single-Family	1998	66.8	56.9	-9.9	59.7	-7.1	66.8	0.0	N/A	N/A
7	7	B111	1	Single-Family	1998	67.4	58.4	-9.0	60.6	-6.8	67.4	0.0	N/A	N/A
7	7	B112	1	Single-Family	1998	67.5	57.9	-9.6	60.0	-7.5	67.5	0.0	N/A	N/A
7	7	B113	1	Single-Family	1998	66.8	58.2	-8.6	60.3	-6.5	66.7	-0.1	N/A	N/A
7	7	B114	1	Single-Family	1999	68.0	58.4	-9.6	60.6	-7.4	67.9	-0.1	N/A	N/A
7	7	B115	1	Single-Family	2000	67.5	58.3	-9.2	60.3	-7.2	67.3	-0.2	N/A	N/A
7	7	B116	1	Single-Family	2000	69.4	58.3	-11.1	60.5	-8.9	69.4	0.0	N/A	N/A
7	7	B117	1	Single-Family	2000	71.2	58.4	-12.8	60.6	-10.6	71.3	0.1	N/A	N/A
7	7	B118	1	Single-Family	2000	70.9	58.6	-12.3	61.0	-9.9	70.8	-0.1	N/A	N/A
7	7	B119	1	Single-Family	2000	69.0	58.6	-10.4	61.0	-8.0	68.9	-0.1	N/A	N/A
7	7	B120	1	Single-Family	2000	69.9	58.8	-11.1	61.3	-8.6	69.8	-0.1	N/A	N/A
7	7	B121	1	Single-Family	2000	69.5	59.0	-10.5	61.6	-7.9	69.4	-0.1	N/A	N/A
7	7	B122	1	Single-Family	2001	69.8	58.9	-10.9	61.5	-8.3	69.7	-0.1	N/A	N/A
7	7	B123	1	Single-Family	2000	69.4	58.9	-10.5	61.5	-7.9	69.3	-0.1	N/A	N/A
7	7	B124	1	Single-Family	2000	71.9	59.2	-12.7	62.0	-9.9	72.1	0.2	N/A	N/A
7	7	B125	1	Single-Family	2000	69.6	59.1	-10.5	61.9	-7.7	69.9	0.3	N/A	N/A
7	7	B126	1	Single-Family	2000	70.9	59.2	-11.7	61.9	-9.0	71.1	0.2	N/A	N/A
7	7	B127	1	Single-Family	2000	72.7	59.9	-12.8	62.5	-10.2	72.8	0.1	N/A	N/A
7	7	B128	1	Single-Family	2000	72.2	60.0	-12.2	62.6	-9.6	72.3	0.1	N/A	N/A
7	7	B129	1	Single-Family	2001	72.3	60.1	-12.2	62.9	-9.4	72.4	0.1	N/A	N/A
7	7	B130	1	Single-Family	2000	72.6	60.2	-12.4	62.9	-9.7	72.7	0.1	N/A	N/A
7	7	B131	1	Single-Family	2001	71.1	60.3	-10.8	62.8	-8.3	71.1	0.0	N/A	N/A
7	7	B132	1	Single-Family	2001	71.1	60.3	-10.8	62.9	-8.2	70.9	-0.2	N/A	N/A
7	7	B133	1	Single-Family	2002	70.3	59.9	-10.4	62.3	-8.0	70.0	-0.3	N/A	N/A
7	7	B134	1	Single-Family	2002	70.9	60.1	-10.8	62.5	-8.4	70.7	-0.2	N/A	N/A
7	7	B135	1	Single-Family	2002	71.0	60.2	-10.8	62.7	-8.3	69.4	-1.6	N/A	N/A
7	7	B136	1	Single-Family	1974	70.7	59.7	-11.0	62.0	-8.7	65.3	-5.4	N/A	N/A
7	7	B137	0	Noise Reading	No	60.5	55.0	-5.5	56.3	-4.2	60.3	-0.2	N/A	N/A
7	7	B138	1	Single-Family	1997	56.9	52.2	-4.7	53.3	-3.6	56.5	-0.4	N/A	N/A
7	7	B139	1	Single-Family	1998	57.4	52.8	-4.6	53.8	-3.6	57.0	-0.4	N/A	N/A
7	7	B140	1	Single-Family	1999	57.7	53.1	-4.6	54.1	-3.6	57.4	-0.3	N/A	N/A
7	7	B141	1	Single-Family	1998	57.4	53.0	-4.4	53.9	-3.5	57.0	-0.4	N/A	N/A
7	7	B142	1	Single-Family	1998	58.2	53.5	-4.7	54.4	-3.8	57.9	-0.3	N/A	N/A
7	7	B143	1	Single-Family	1998	58.9	54.2	-4.7	54.9	-4.0	58.6	-0.3	N/A	N/A
7	7	B144	1	Single-Family	1998	59.3	54.6	-4.7	55.3	-4.0	59.0	-0.3	N/A	N/A
7	7	B145	1	Single-Family	1998	59.8	55.3	-4.5	55.9	-3.9	59.7	-0.1	N/A	N/A
7	7	B146	1	Single-Family	1998	60.5	55.5	-5.0	56.6	-3.9	60.2	-0.3	N/A	N/A
7	7	B147	1	Single-Family	1998	61.1	55.7	-5.4	56.9	-4.2	60.8	-0.3	N/A	N/A
7	7	B148	1	Single-Family	1999	62.0	56.1	-5.9	57.4	-4.6	61.8	-0.2	N/A	N/A

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7	7	B149	1	Single-Family	1999	62.2	56.3	-5.9	57.6	-4.6	62.0	-0.2	N/A	N/A
7	7	B150	1	Single-Family	1999	62.2	56.5	-5.7	57.7	-4.5	62.0	-0.2	N/A	N/A
7	7	B151	1	Single-Family	1999	62.0	56.6	-5.4	57.8	-4.2	61.8	-0.2	N/A	N/A
7	7	B152	1	Single-Family	2000	61.7	56.6	-5.1	57.8	-3.9	61.4	-0.3	N/A	N/A
7	7	B153	1	Single-Family	2000	61.9	56.6	-5.3	58.1	-3.8	61.6	-0.3	N/A	N/A
7	7	B154	1	Single-Family	2000	62.3	56.9	-5.4	58.5	-3.8	62.0	-0.3	N/A	N/A
7	7	B155	1	Single-Family	2000	62.4	56.8	-5.6	58.5	-3.9	62.0	-0.4	N/A	N/A
7	7	B156	1	Single-Family	2000	62.5	56.9	-5.6	58.6	-3.9	62.1	-0.4	N/A	N/A
7	7	B157	1	Single-Family	2000	63.1	57.2	-5.9	59.0	-4.1	62.6	-0.5	N/A	N/A
7	7	B158	1	Single-Family	2000	63.3	57.4	-5.9	59.3	-4.0	62.8	-0.5	N/A	N/A
7	7	B159	1	Single-Family	2001	63.9	57.7	-6.2	59.7	-4.2	63.1	-0.8	N/A	N/A
7	7	B160	1	Single-Family	2001	63.9	57.6	-6.3	59.7	-4.2	62.8	-1.1	N/A	N/A
7	7	B161	1	Single-Family	2001	63.7	57.5	-6.2	59.6	-4.1	62.0	-1.7	N/A	N/A
7	7	B162	1	Single-Family	2001	63.9	57.4	-6.5	59.4	-4.5	61.9	-2.0	N/A	N/A
7	7	B163	1	Single-Family	2001	60.2	55.1	-5.1	57.3	-2.9	58.5	-1.7	N/A	N/A
7	7	B164	1	Single-Family	2001	54.5	47.9	-6.6	49.7	-4.8	52.3	-2.2	N/A	N/A
7	7	B165	1	Single-Family	1998	57.7	53.1	-4.6	54.1	-3.6	57.4	-0.3	N/A	N/A
7	7	B166	1	Single-Family	1998	57.6	53.1	-4.5	54.0	-3.6	57.2	-0.4	N/A	N/A
7	7	B167	1	Single-Family	1998	57.9	53.1	-4.8	54.2	-3.7	57.5	-0.4	N/A	N/A
7	7	B168	1	Single-Family	1998	59.2	53.6	-5.6	55.0	-4.2	58.9	-0.3	N/A	N/A
7	7	B169	1	Single-Family	1998	59.0	53.0	-6.0	54.5	-4.5	58.7	-0.3	N/A	N/A
7	7	B170	1	Single-Family	1998	58.4	52.9	-5.5	54.4	-4.0	58.0	-0.4	N/A	N/A
7	7	B171	1	Single-Family	1998	58.1	52.9	-5.2	54.4	-3.7	57.7	-0.4	N/A	N/A
7	7	B172	1	Single-Family	1998	57.9	52.6	-5.3	54.0	-3.9	57.5	-0.4	N/A	N/A
7	7	B173	1	Single-Family	2000	58.6	53.3	-5.3	54.7	-3.9	58.1	-0.5	N/A	N/A
7	7	B174	1	Single-Family	2001	58.4	53.0	-5.4	54.6	-3.8	57.8	-0.6	N/A	N/A
7	7	B175	1	Single-Family	2001	58.9	53.5	-5.4	55.0	-3.9	58.2	-0.7	N/A	N/A
7	7	B176	1	Single-Family	2002	59.4	53.6	-5.8	55.3	-4.1	58.6	-0.8	N/A	N/A
7	7	B177	1	Single-Family	2001	59.7	54.6	-5.1	56.1	-3.6	58.8	-0.9	N/A	N/A
7	7	B178	1	Single-Family	2001	61.1	55.6	-5.5	57.5	-3.6	59.6	-1.5	N/A	N/A
7	7	B179	1	Single-Family	1998	57.2	52.6	-4.6	53.6	-3.6	56.7	-0.5	N/A	N/A
7	7	B180	1	Single-Family	1998	58.2	53.6	-4.6	54.7	-3.5	57.4	-0.8	N/A	N/A
7	7	B181	1	Single-Family	2001	58.8	54.3	-4.5	55.3	-3.5	58.0	-0.8	N/A	N/A
7	7	B182	1	Single-Family	2001	59.1	54.7	-4.4	55.7	-3.4	58.0	-1.1	N/A	N/A
7	7	B183	1	Single-Family	2001	59.7	54.9	-4.8	56.1	-3.6	58.4	-1.3	N/A	N/A
7	7	B184	1	Single-Family	2001	60.8	55.9	-4.9	57.2	-3.6	59.3	-1.5	N/A	N/A
7	7	B185	1	Single-Family	2001	61.1	55.6	-5.5	57.2	-3.9	59.6	-1.5	N/A	N/A
7	7	B186	1	Single-Family	2002	62.3	56.9	-5.4	58.8	-3.5	60.3	-2.0	N/A	N/A
7	7	B187	1	Single-Family	2001	64.0	57.9	-6.1	60.1	-3.9	61.5	-2.5	N/A	N/A
7	7	B188	1	Single-Family	2001	64.9	58.0	-6.9	60.4	-4.5	62.0	-2.9	N/A	N/A
7	7	B189	1	Single-Family	2002	65.7	58.1	-7.6	60.5	-5.2	62.4	-3.3	N/A	N/A
7	7	B190	1	Single-Family	2002	65.4	57.7	-7.7	60.1	-5.3	63.0	-2.4	N/A	N/A
7	7	B191	1	Single-Family	2004	65.2	57.8	-7.4	59.9	-5.3	62.7	-2.5	N/A	N/A
7	7	B192	1	Single-Family	1955	65.2	57.7	-7.5	60.1	-5.1	61.5	-3.7	N/A	N/A
7	7	B193	1	Single-Family	1956	65.3	57.6	-7.7	60.0	-5.3	60.7	-4.6	N/A	N/A
7	7	B194	1	Single-Family	1957	64.8	57.3	-7.5	59.0	-5.8	59.2	-5.6	N/A	N/A
7	7	B195	1	Single-Family	1954	65.3	57.3	-8.0	58.9	-6.4	59.0	-6.3	N/A	N/A
7	7	B196	1	Single-Family	1958	65.0	57.0	-8.0	58.6	-6.4	58.5	-6.5	N/A	N/A
7	7	B197	1	Single-Family	1960	64.1	57.2	-6.9	58.4	-5.7	58.3	-5.8	N/A	N/A
7	7	B198	0	Noise Reading	1993	63.3	56.7	-6.6	57.8	-5.5	57.6	-5.7	N/A	N/A
7	7	B199	1	Single-Family	1957	66.2	58.9	-7.3	60.2	-6.0	60.0	-6.2	N/A	N/A
7	7	B200	1	Single-Family	1957	64.4	57.1	-7.3	58.4	-6.0	58.4	-6.0	N/A	N/A
7	7	B201	1	Single-Family	1955	63.9	57.0	-6.9	58.3	-5.6	58.2	-5.7	N/A	N/A
7	7	B202	1	Single-Family	1971	64.4	57.1	-7.3	58.5	-5.9	58.3	-6.1	N/A	N/A
7	7	B203	1	Single-Family	1958	64.4	57.5	-6.9	58.9	-5.5	58.7	-5.7	N/A	N/A
7	7	B204	1	Single-Family	1972	64.6	57.6	-7.0	59.3	-5.3	59.0	-5.6	N/A	N/A
7	7	B205	1	Single-Family	1957	67.4	58.8	-8.6	60.6	-6.8	60.2	-7.2	N/A	N/A
7	7	B206	1	Single-Family	1961	66.9	57.9	-9.0	59.6	-7.3	59.3	-7.6	N/A	N/A
7	7	B207	1	Single-Family	1960	65.8	57.5	-8.3	59.2	-6.6	58.9	-6.9	N/A	N/A
7	7	B208	1	Single-Family	1954	65.2	57.2	-8.0	58.9	-6.3	58.6	-6.6	N/A	N/A
7	7	B209	1	Single-Family	1956	68.8	59.7	-9.1	61.4	-7.4	61.0	-7.8	N/A	N/A
7	7	B210	1	Single-Family	1972	65.1	58.0	-7.1	59.7	-5.4	59.4	-5.7	N/A	N/A
7	7	B211	1	Single-Family	1955	64.1	57.5	-6.6	59.4	-4.7	59.1	-5.0	N/A	N/A
7	7	B212	1	Single-Family	1955	63.3	57.1	-6.2	58.9	-4.4	58.6	-4.7	N/A	N/A
7	7	B213	1	Single-Family	1961	62.6	56.5	-6.1	58.2	-4.4	57.9	-4.7	N/A	N/A
7	7	B214	1	Single-Family	1957	62.4	56.3	-6.1	57.9	-4.5	57.7	-4.7	N/A	N/A
7	7	B215	1	Single-Family	1954	62.6	56.1	-6.5	57.7	-4.9	57.5	-5.1	N/A	N/A

Color Definitions:
1) Pink: Substantially Impacted
2) Yellow: 66+ dBA noise level
3) Green: 5+ dBA reduction
4) Blue: 7+ dBA reduction
5) Turquoise: Type II eligible

Exhibit 9: Barrier Alternative Comparison Table: Barrier 3

Barrier Segment Station	Barrier Segment SLM (SUM-277 SLM)	Segment Length (feet)	Alternative 1 Height (feet)	Alternative 2 Height (feet)	Alternative 3 Height (feet)
72+50R	1.34	50	0	0	0
73+00R	1.35	100	18	18	16
74+00R	1.37	50	18	18	16
74+50R	1.38	50	18	18	17
75+00R	1.39	100	18	18	18
76+00R	1.41	100	18	18	18
77+00R	1.43	100	18	18	18
78+00R	1.45	100	18	18	18
79+00R	1.47	100	18	18	18
80+00R	1.49	100	18	18	15
81+00R	1.50	100	18	18	15
82+00	1.52	100	18	18	15
83+00	1.54	100	18	18	14
84+00	1.56	100	18	18	15
85+00	1.58	100	18	18	15
86+00	1.60	50	18	18	17
Break for Pedestrian Overpass Bridge (wall overlap on either side of ramp to bridge)					
86+25	1.60	75	18	18	16
87+00	1.62	100	18	18	15
88+00	1.64	100	18	18	15
89+00	1.66	100	18	18	16
90+00	1.68	100	18	18	18
91+00	1.69	100	18	18	16
92+00	1.71	100	18	18	16
93+00	1.73	100	18	18	16
94+00	1.75	100	0	0	0
95+00	1.77	100	0	0	0
96+00	1.79	100	0	18	0
97+00	1.81	100	0	18	0
98+00	1.83	100	0	18	0
99+00	1.85	100	0	18	0
100+00	1.86	0	0	18	0

	Alternative 1	Alternative 2	Alternative 3
Noise Barrier Measurements & Cost			
Total Barrier Square Footage	38,250	45,450	34,400
Cost Per Square Foot (Off Structure/On Structure)	$25/$100	$25/$100	$25/$100
Total Barrier Cost	$956,250	$1,136,250	$860,000
Feasibility Calculations			
Total Impacted Receptors	31	31	31
Minimum Required Benefitted Impacted Receptors (5dBA+)	12	12	12
Benefitted Impacted Receptors (5dBA+)	30	30	30
Minimum Required Benefitted Impacted Receptors (7dBA+)	1	1	1
Benefitted Impacted Receptors (7dBA+)	20	25	18
Reasonableness Calculations			
Total Benefitted Receptors (5dBA+)	38	49	37
Maximum Allowable Cost Per Benefitted Receptor	$35,000	$35,000	$35,000
Maximum Allowable Total Cost	$1,330,000	$1,715,000	$1,295,000
Calculated Average Cost Per Benefitted Receptor	$25,164	$23,189	$23,243
Type II Evaluation			
Type II Eligible Benefitted Receptors (5dBA+)	37	43	36
Maximum Allowable Total Cost	$1,295,000	$1,505,000	$1,260,000
Calculated Average Cost Per Type II Benefitted Receptor	$25,845	$26,424	$23,889
Recommended Alternative			
Alternative Meets Feasibility Criteria?	Yes	Yes	Yes
Alternative Meets Reasonableness Criteria?	Yes	Yes	Yes
Recommended?	**No**	**No**	**Yes**

Notes:

Blue: segments on structure

Alternative 1 - Max height (18') with no barrier segments on structure, end wall at trail

Alternative 2 - Max height (18') with no barrier segments on structure

Alternative 3 - Min height to benefit all impacted receivers & reduce <66 dBA, except trail (segment top elevs smoothed)

Exhibit 9: Barrier Alternative Comparison Table: Barrier 4

Barrier Segment Station	Barrier Segment SLM (SUM-277 SLM)	Segment Length (feet)	Alternative 1 Height (feet)	Alternative 2 Height (feet)	Alternative 3 Height (feet)	Alternative 4 Height (feet)
66+00	1.22	100	18	12	15	14
65+00	1.20	100	18	12	15	16
64+00	1.18	100	18	12	15	17
63+00	1.16	100	18	12	15	18
62+00	1.14	100	18	12	15	18
61+00	1.13	100	18	12	15	16
60+00	1.11	100	18	12	15	15
59+00	1.09	100	18	12	15	14
58+00	1.07	100	18	12	15	14
57+00	1.05	100	18	12	15	13
56+00	1.03	100	18	12	15	14
55+00	1.01	100	18	12	15	14
54+00	0.99	100	18	12	15	13
53+00	0.97	100	18	12	15	12
52+00	0.96	100	18	12	15	12
51+00	0.94	100	0	0	0	0
50+00	0.92	100	18	12	14	14
49+00	0.90	100	18	12	14	16
48+00	0.88	100	18	12	14	18
47+00	0.86	100	18	12	14	18
46+00	0.84	100	18	12	14	18
45+00	0.82	100	18	12	14	16
44+00	0.80	100	18	12	14	16
43+00	0.79	100	0	0	0	0
42+00	0.77	100	0	0	0	0
41+00	0.75	100	0	0	0	0
40+00	0.73	100	0	0	0	0
39+00	0.71	100	0	0	0	0
38+00	0.69	100	0	0	0	0
37+00	0.67	100	0	0	0	0
36+00	0.65	100	0	0	0	0
35+00	0.63	0	0	0	0	0
34+00	0.61	0	0	0	0	0
33+00	0.60	0	0	0	0	0
32+00	0.58	0	0	0	0	0
31+00	0.56	0	0	0	0	0
30+00	0.54	0	0	0	0	0

	Alternative 1	Alternative 2	Alternative 3	Alternative 4
Noise Barrier Measurements & Cost				
Total Barrier Square Footage	39,600	26,400	32,300	33,600
Cost Per Square Foot (Off Structure/On Structure)	$25/$100	$25/$100	$25/$100	$25/$100
Total Barrier Cost	$990,000	$660,000	$807,500	$840,000
Feasibility Calculations				
Total Impacted Receptors	21	21	21	21
Minimum Required Benefitted Impacted Receptors (5dBA+)	8	8	8	8
Benefitted Impacted Receptors (5dBA+)	18	10	18	17
Minimum Required Benefitted Impacted Receptors (7dBA+)	1	1	1	1
Benefitted Impacted Receptors (7dBA+)	13	5	9	10
Reasonableness Calculations				
Total Benefitted Receptors (5dBA+)	44	22	37	37
Maximum Allowable Cost Per Benefitted Receptor	$35,000	$35,000	$35,000	$35,000
Maximum Allowable Total Cost	$1,540,000	$770,000	$1,295,000	$1,295,000
Calculated Average Cost Per Benefitted Receptor	$22,500	$30,000	$21,824	$22,703
Type II Evaluation				
Type II Eligible Benefitted Receptors (5dBA+)	41	22	34	35
Maximum Allowable Total Cost	$1,435,000	$770,000	$1,190,000	$1,225,000
Calculated Average Cost Per Type II Benefitted Receptor	$24,146	$30,000	$23,750	$24,000
Recommended Alternative				
Alternative Meets Feasibility Criteria?	Yes	Yes	Yes	Yes
Alternative Meets Reasonableness Criteria?	Yes	Yes	Yes	Yes
Recommended?	**No**	**No**	**No**	**Yes**

Notes:

Blue: segments on structure

Alternative 1 - max height (18'), no barrier segments on structure

Alternative 2 - min height (12'), no barrier segments on structure

Alternative 3 - optimized height to mitigate most impacted receivers <66 dBA, no barrier segments on structure, +B5-Alt3

Alternative 4 - optimized height to mitigate most impacted receivers <66 dBA, no barrier segments on structure, +B5-Alt1, (top elevs smoothed)

Exhibit 9: Barrier Alternative Comparison Table: Barrier 5

Barrier Segment Station	Barrier Segment SLM (SUM-277 SLM)	Segment Length (feet)	Alternative 1 Height (feet)	Alternative 2 Height (feet)	Alternative 3 Height (feet)
100+00	1.86	100	0	0	0
99+00	1.85	100	0	0	0
98+00	1.83	100	0	0	0
97+00	1.81	100	0	0	0
96+00	1.79	100	0	0	0
95+00	1.77	100	0	0	0
94+00	1.75	100	20	16	16
93+00	1.73	100	18	16	16
92+00	1.71	100	18	16	16
91+00	1.69	100	18	16	16
90+00	1.68	100	20	16	16
89+00	1.66	100	16	16	16
88+00	1.64	100	13	16	16
87+00	1.62	50	11	16	16
Break for Pedestrian Overpass Bridge (wall overlap on either side of ramp to bridge)					
86+50	1.61	50	14	18	16
86+00	1.60	100	16	18	16
85+00	1.58	100	17	18	16
84+00	1.56	100	18	18	16
83+00	1.54	100	18	18	16
82+00	1.52	100	19	18	16
81+00	1.50	100	18	18	16
80+00	1.49	100	19	18	16
79+00	1.47	100	18	18	16
78+00	1.45	100	20	18	16
77+00	1.43	100	20	18	16
76+00	1.41	100	19	18	16
75+00	1.39	100	20	18	16
74+00	1.37	100	20	18	16
73+00	1.35	0	20	18	16
Break for Barrier 4/5 on Mainline					
81+00	1.50	100	0	18	0
80+00	1.49	100	0	18	0
79+00	1.47	100	0	18	0
78+00	1.45	100	0	18	0
77+00	1.43	100	0	18	10
76+00	1.41	100	0	18	10
75+00	1.39	100	0	18	10
74+00	1.37	100	0	0	10
73+00	1.35	100	0	0	10
72+00	1.33	100	0	18	10
71+00	1.32	100	0	18	10
70+00	1.30	100	0	18	10
69+00	1.28	100	0	18	10
68+00	1.26	100	0	18	10
67+00	1.24	100	0	18	10
66+00	1.22	100	0	18	10
65+00	1.20	100	0	0	0
64+00	1.18	100	0	0	0
63+00	1.16	100	0	0	0
62+00	1.14	100	0	0	0
61+00	1.13	100	0	0	0
60+00	1.11	100	0	0	0
59+00	1.09	100	0	0	0
58+00	1.07	100	0	0	0
57+00	1.05	100	0	0	0
56+00	1.03	0	0	0	0

Exhibit 9: Barrier Alternative Comparison Table: Barrier 5

	Alternative 1	Alternative 2	Alternative 3
Noise Barrier Measurements & Cost			
Total Barrier Square Footage	37,750	61,500	45,600
Cost Per Square Foot (Off Structure/On Structure)	$25/$100	$25/$100	$25/$100
Total Barrier Cost	$943,750	$1,537,500	$1,290,000
Feasibility Calculations			
Total Impacted Receptors	46	46	46
Minimum Required Benefitted Impacted Receptors (5dBA+)	18	18	18
Benefitted Impacted Receptors (5dBA+)	30	35	35
Minimum Required Benefitted Impacted Receptors (7dBA+)	1	1	1
Benefitted Impacted Receptors (7dBA+)	19	27	25
Reasonableness Calculations			
Total Benefitted Receptors (5dBA+)	47	62	60
Maximum Allowable Cost Per Benefitted Receptor	$35,000	$35,000	$35,000
Maximum Allowable Total Cost	$1,645,000	$2,170,000	$2,100,000
Calculated Average Cost Per Benefitted Receptor	$20,080	$24,798	$21,500
Type II Evaluation			
Type II Eligible Benefitted Receptors (5dBA+)	43	57	55
Maximum Allowable Total Cost	$1,505,000	$1,995,000	$1,925,000
Calculated Average Cost Per Type II Benefitted Receptor	$21,948	$26,974	$23,455
Recommended Alternative			
Alternative Meets Feasibility Criteria?	Yes	Yes	Yes
Alternative Meets Reasonableness Criteria?	Yes	Yes	Yes
Recommended?	**Yes**	**No**	**No**

Notes:

Blue: segments on structure

Alternative 1: Max height, without Barrier 4/5 on mainline between overpasses, no barrier segments on structure (top elevs smoothed)

Alternative 2: Max height, with Barrier 4/5, no barrier segments on structure, ends at trail (trail mirrors Barrier 3 rec)

Alternative 3: Opt height, with Barrier 4/5, barrier segments on structure at SR-93, ends at trail (trail mirrors Barrier 3 rec)

Exhibit 9: Barrier Alternative Comparison Table: Barrier 6

Barrier Segment Station	Barrier Segment SLM (MAH-680 SLM)	Segment Length (feet)	Alternative 1 Height (feet)	Alternative 2 Height (feet)	Alternative 3 Height (feet)
132+75	2.48	25	18	14	0
133+00	2.49	100	18	14	0
134+00	2.51	100	18	14	0
135+00	2.53	100	18	14	0
136+00	2.55	100	18	14	0
137+00	2.57	100	18	14	0
138+00	2.58	100	18	14	0
139+00	2.60	100	18	14	0
140+00	2.62	100	18	14	0
141+00	2.64	100	18	14	0
142+00	2.66	100	18	14	0
143+00	2.68	100	18	14	0
144+00	2.70	100	18	14	14
145+00	2.72	100	18	14	14
146+00	2.74	100	18	14	14
147+00	2.75	100	18	14	14
148+00	2.77	100	18	14	14
149+00	2.79	100	18	14	14
150+00	2.81	100	18	14	14
151+00	2.83	100	18	14	14
152+00	2.85	100	18	14	14
153+00	2.87	100	18	14	14
154+00	2.89	100	18	14	14
155+00	2.91	100	18	14	14
156+00	2.93	100	18	14	14
157+00	2.94	100	18	14	14
158+00	2.96	100	18	14	14
159+00	2.98	100	18	14	14
160+00	3.00	100	18	14	14
161+00	3.02	100	18	14	14
162+00	3.04	100	0	0	10
163+00	3.06	100	18	14	14
164+00	3.08	100	18	14	14
165+00	3.10	100	18	14	14
166+00	3.11	100	18	14	14
167+00	3.13	100	18	14	0
168+00	3.15	100	18	14	0
169+00	3.17	100	18	14	0
170+00	3.19	100	18	13	0
171+00	3.21	100	18	13	0
172+00	3.23	100	18	13	0
173+00	3.25	100	18	13	0
174+00	3.27	100	18	13	0
175+00	3.29	0	18	13	0

Exhibit 9: Barrier Alternative Comparison Table: Barrier 6

	Alternative 1	Alternative 2	Alternative 3
Noise Barrier Measurements & Cost			
Total Barrier Square Footage	74,250	57,250	31,800
Cost Per Square Foot (Off Structure/On Structure)	$25/$100	$25/$100	$25/$100
Total Barrier Cost	$2,126,250	$1,431,250	$870,000
Feasibility Calculations			
Total Impacted Receptors	25	25	25
Minimum Required Benefitted Impacted Receptors (5dBA+)	10	10	10
Benefitted Impacted Receptors (5dBA+)	23	23	23
Minimum Required Benefitted Impacted Receptors (7dBA+)	1	1	1
Benefitted Impacted Receptors (7dBA+)	21	19	21
Reasonableness Calculations			
Total Benefitted Receptors (5dBA+)	114	91	47
Maximum Allowable Cost Per Benefitted Receptor	$35,000	$35,000	$35,000
Maximum Allowable Total Cost	$3,990,000	$3,185,000	$1,645,000
Calculated Average Cost Per Benefitted Receptor	$18,651	$15,728	$18,511
Type II Evaluation			
Type II Eligible Benefitted Receptors (5dBA+)	18	14	15
Maximum Allowable Total Cost	$630,000	$490,000	$525,000
Calculated Average Cost Per Type II Benefitted Receptor	$118,125	$102,232	$58,000
Recommended Alternative			
Alternative Meets Feasibility Criteria?	Yes	Yes	Yes
Alternative Meets Reasonableness Criteria?	No	No	No
Recommended?	**No**	**No**	**No**

Notes:

Blue: segments on structure; Orange: also part of Barrier 7

Alternative 1: Max barrier height (18')

Alternative 2: Min barrier height (14')

Alternative 3: Shorter length, focusing on cluster of impacted Type II receivers

Exhibit 9: Barrier Alternative Comparison Table: Barrier 7

Barrier Segment Station	Barrier Segment SLM (SUM-277 SLM)	Segment Length (feet)	Alternative 1 Height (feet)	Alternative 2 Height (feet)	Alternative 3 Height (feet)
170+00	3.19	100	18	13	0
171+00	3.21	100	18	13	0
172+00	3.23	100	18	13	0
173+00	3.25	100	18	13	0
174+00	3.27	100	18	13	0
175+00	3.29	100	18	13	0
176+00	3.30	100	18	13	0
177+00	3.32	100	18	13	0
178+00	3.34	100	18	13	0
179+00	3.36	100	18	13	0
180+00	3.38	100	18	13	0
181+00	3.40	100	18	13	0
182+00	3.42	100	18	13	0
183+00	3.44	100	18	13	0
184+00	3.46	100	18	13	0
185+00	3.47	100	18	13	0
186+00	3.49	100	18	13	0
187+00	3.51	100	18	13	0
188+00	3.53	100	18	13	0
189+00	3.55	100	18	13	0
190+00	3.57	100	18	13	0
191+00	3.59	100	18	13	0
192+00	3.61	100	18	13	14
193+00R	3.63	100	18	13	14
194+00R	3.64	100	18	13	14
195+00R	3.66	100	18	13	14
196+00R	3.68	100	18	13	14
197+00R	3.70	100	18	13	14
198+00R	3.72	100	18	13	14
199+00R	3.74	100	18	13	14
200+00R	3.76	100	18	13	14
201+00R	3.78	100	18	13	14
202+00R	3.80	100	18	13	14
203+00R	3.82	100	18	13	14
204+00R	3.83	100	18	13	14
209+00R	3.85	100	18	13	14
214+00R	3.87	100	18	13	14
215+00R	3.89	100	18	13	14
216+00R	3.91	100	18	13	14
217+00R	3.93	100	18	13	14
218+00R	3.95	100	18	13	14
219+00R	3.97	100	18	13	14
220+00R	3.99	100	18	13	14
221+00R	4.00	100	18	13	14
222+00R	4.02	100	18	13	14
223+00R	4.04	100	18	13	14
224+00R	4.06	100	18	13	14
225+00R	4.08	100	18	13	14
226+00R	4.10	100	18	13	14
227+00R	4.12	0	18	13	14
228+00R	4.14	0	0	0	0
229+00R	4.16	0	0	0	0
230+00R	4.18	0	0	0	0

Exhibit 9: Barrier Alternative Comparison Table: Barrier 7

	Alternative 1	Alternative 2	Alternative 3
Noise Barrier Measurements & Cost			
Total Barrier Square Footage	88,200	63,700	37,800
Cost Per Square Foot (Off Structure/On Structure)	$25/$100	$25/$100	$25/$100
Total Barrier Cost	$2,205,000	$1,592,500	$945,000
Feasibility Calculations			
Total Impacted Receptors	42	42	9
Minimum Required Benefitted Impacted Receptors (5dBA+)	17	17	4
Benefitted Impacted Receptors (5dBA+)	42	42	6
Minimum Required Benefitted Impacted Receptors (7dBA+)	1	1	1
Benefitted Impacted Receptors (7dBA+)	42	40	4
Reasonableness Calculations			
Total Benefitted Receptors (5dBA+)	130	86	23
Maximum Allowable Cost Per Benefitted Receptor	$35,000	$35,000	$35,000
Maximum Allowable Total Cost	$4,550,000	$3,010,000	$805,000
Calculated Average Cost Per Benefitted Receptor	$16,962	$18,517	$41,087
Type II Evaluation			
Type II Eligible Benefitted Receptors (5dBA+)	20	18	19
Maximum Allowable Total Cost	$700,000	$630,000	$665,000
Calculated Average Cost Per Type II Benefitted Receptor	$110,250	$88,472	$49,737
Recommended Alternative			
Alternative Meets Feasibility Criteria?	Yes	Yes	Yes
Alternative Meets Reasonableness Criteria?	No	No	No
Recommended?	**No**	**No**	**No**

Notes:

Blue: segments on structure; Orange: also part of Barrier 6

Alternative 1: Max barrier height (18')

Alternative 2: Min barrier height (13')

Alternative 3: Shorter length, focusing on cluster of Type II receivers

Exhibit 10: Barrier Details Summary Table

Barrier & Alternative	Barrier Location	Barrier Length (ft)	Average Barrier Height (ft)	Barrier Area (ft^2)	Barrier Cost ($)	Max Noise Reduction (dBA)	Impacted Dwelling Units (#)	Benefitted Dwelling Units (#)	Cost per Benefitted DU ($/#)	Type II Eval Benefitted Dwelling Units (#)	Type II Eval Cost per Benefitted DU ($/#)	Barrier Feasible	Barrier Reasonable	Barrier Recommended
Barrier 3														
Alternative 1	ROW/EOS	2,125	18	38,250	$956,250	12.9	31	38	$25,164	37	$25,845	Yes	Yes	No
Alternative 2	ROW/EOS	2,525	18	45,450	$1,136,250	13.4	31	49	$23,189	43	$26,424	Yes	Yes	No
Alternative 3	ROW/EOS	2,125	16	34,400	$860,000	12.1	31	37	$23,243	36	$23,889	Yes	Yes	Yes
Barrier 4														
Alternative 1	EOS	2,200	18	39,600	$990,000	13.8	21	44	$22,500	41	$24,146	Yes	Yes	No
Alternative 2	EOS	2,200	12	26,400	$660,000	10.3	21	22	$30,000	22	$30,000	Yes	Yes	No
Alternative 3	EOS	2,200	15	32,300	$807,500	12.0	21	37	$21,824	34	$23,750	Yes	Yes	No
Alternative 4	EOS	2,200	15	33,600	$840,000	12.2	21	37	$22,703	35	$24,000	Yes	Yes	Yes
Barrier 5														
Alternative 1	EOS/ROW	2,100	18	37,750	$943,750	15.7	46	47	$20,080	43	$21,948	Yes	Yes	Yes
Alternative 2	EOS/ROW	3,500	18	61,500	$1,537,500	17.7	46	62	$24,798	57	$26,974	Yes	Yes	No
Alternative 3	EOS/ROW	3,300	14	45,600	$1,290,000	15.6	46	60	$21,500	55	$23,455	Yes	Yes	No
Barrier 6														
Alternative 1	ROW/EOS	4,125	18	74,250	$2,126,250	17.0	25	114	$18,651	18	$118,125	Yes	No	No
Alternative 2	ROW/EOS	4,125	14	57,250	$1,431,250	15.3	25	91	$15,728	14	$102,232	Yes	No	No
Alternative 3	ROW/EOS	2,300	14	31,800	$870,000	15.3	25	47	$18,511	15	$58,000	Yes	No	No
Barrier 7														
Alternative 1	EOS/ROW	4,900	18	88,200	$2,205,000	13.3	42	130	$16,962	20	$110,250	Yes	No	No
Alternative 2	EOS/ROW	4,900	13	63,700	$1,592,500	10.6	42	86	$18,517	18	$88,472	Yes	No	No
Alternative 3	EOS/ROW	2,700	14	37,800	$945,000	7.8	9	23	$41,087	19	$49,737	Yes	No	No

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 11.3.3a | Barrier 3 - Recommended Alternative 3 (Map 1 of 1)

Burton Planning Services

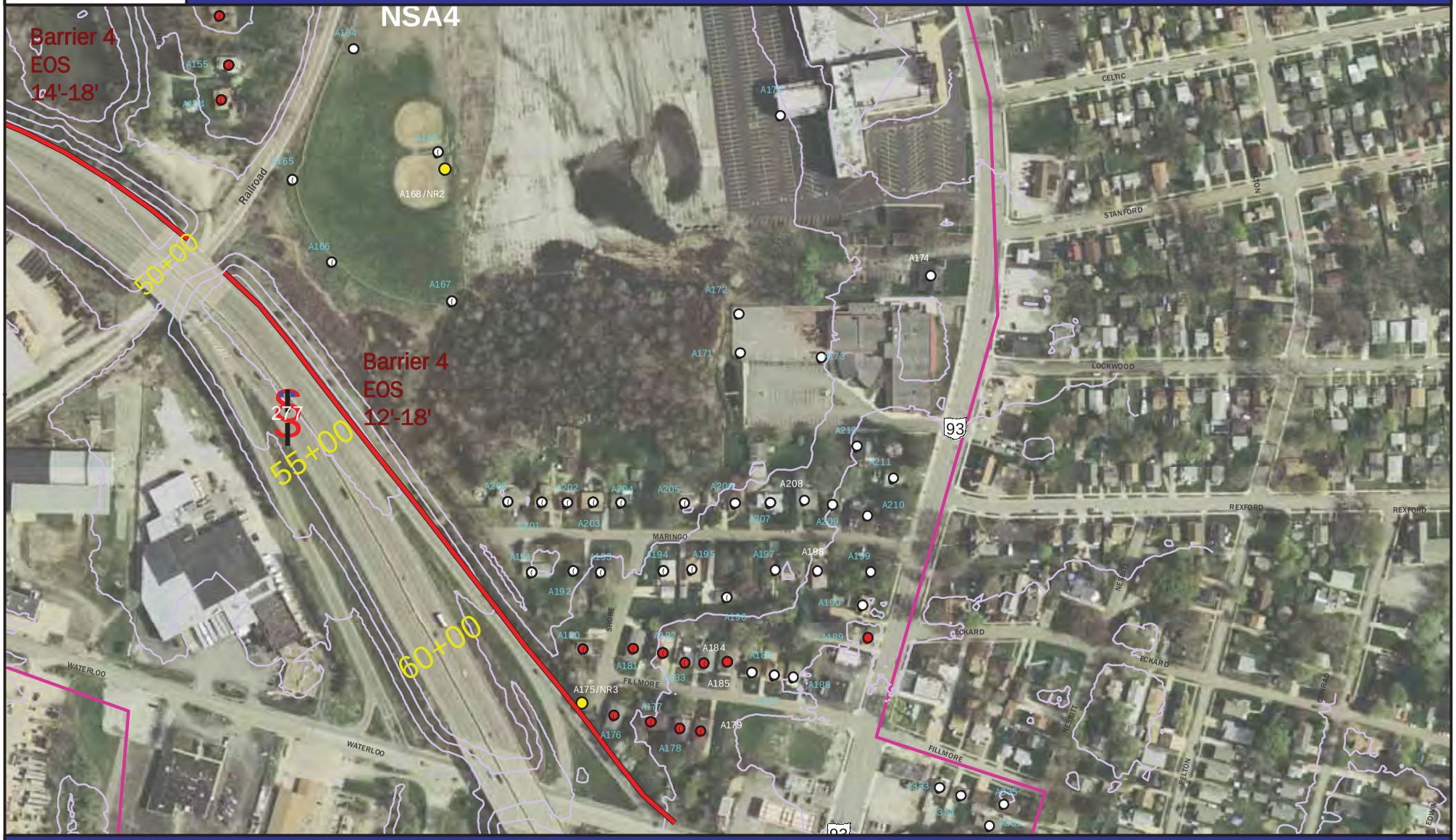
Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

0 250 500 1,000 Feet

Date: 10/5/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 11.4.4a | Barrier 4 - Alternative 4 (Map 1 of 2)



Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

0 250 500 1,000 Feet

Date: 11/14/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 11.4.4b | Barrier 4 - Alternative 4 (Map 2 of 2)

Burton Planning Services

Receiver
ImpactedReceiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot

0 250 500 1,000 Feet

Date: 11/14/2017

SUM - 277 - 0.16 NOISE ANALYSIS

Exhibit 11.5.1a | Barrier 5 - Recommended Alternative 1 (Map 1 of 1)

Receiver
Impacted Receiver
Benefitted Receiver
Barrier
Noise Readings
Type II Eligible
Contour 10 foot
Utility Line

0 250 500 1,000 Feet

Date: 10/5/2017

Exhibit 12: Recommended Barriers Details Table: Barrier 3, Alternative 3

Barrier Segment Station	Barrier Segment SLM (SUM-277 SLM)	Segment Length (feet)	Distance Offset (feet)	Height (feet)	Base Elevation (feet)	Top Elevation (feet)	Height Difference (feet)
73+00R	1.35	100	16	16	982	998	-
74+00R	1.37	50	15	16	984	1,000	2
74+50R	1.38	50	12	17	986	1,003	3
75+00R	1.39	100	12	18	988	1,006	3
76+00R	1.41	100	8	18	992	1,010	4
77+00R	1.43	100	8	18	997	1,015	5
78+00R	1.45	100	11	18	1,001	1,019	4
79+00R	1.47	100	11	18	1,006	1,024	5
80+00R	1.49	100	20	15	1,013	1,028	4
81+00R	1.50	100	40	15	1,016	1,031	3
82+00	1.52	100	50	15	1,016	1,031	0
83+00	1.54	100	46	14	1,017	1,031	0
84+00	1.56	100	41	15	1,016	1,031	0
85+00	1.58	100	37	15	1,016	1,031	0
86+00	1.60	50	20	17	1,014	1,031	0
86+50	1.61	0	20	17	1,013	1,030	-1
Break for Pedestrian Overpass Bridge (wall overlap on either side of ramp to bridge)							
86+25	1.60	75	34	16	1,014	1,030	-
87+00	1.62	100	34	15	1,012	1,027	-3
88+00	1.64	100	34	15	1,008	1,023	-4
89+00	1.66	100	34	16	1,002	1,018	-5
90+00	1.68	100	36	18	994	1,012	-6
91+00	1.69	100	16	16	990	1,006	-6
92+00	1.71	100	6	16	990	1,006	0
93+00	1.73	100	0	16	990	1,006	0
94+00	1.75	0	0	16	990	1,006	0
		Averages	22	16	1,002	1,018	
		Minimums	0	14	982	998	
		Maximums	50	18	1,017	1,031	

Max Height/Distance Ratio for Wall Type	0.10
Barrier Ratio	0.05
Recommended Wall Type	Reflective

Total Length	2,125	Total Area	34,400	Total Cost	$860,000

Exhibit 12: Recommended Barriers Details Table: Barrier 4, Alternative 4

Barrier Segment Station	Barrier Segment SLM (SUM-277 SLM)	Segment Length (feet)	Distance Offset (feet)	Height (feet)	Base Elevation (feet)	Top Elevation (feet)	Height Difference (feet)
66+00	1.22	100	0	14	1,010	1,024	-
65+00	1.20	100	0	16	1,008	1,024	0
64+00	1.18	100	0	17	1,007	1,024	0
63+00	1.16	100	0	18	1,006	1,024	0
62+00	1.14	100	0	18	1,006	1,024	0
61+00	1.13	100	0	16	1,008	1,024	0
60+00	1.11	100	0	15	1,010	1,025	1
59+00	1.09	100	0	14	1,013	1,027	2
58+00	1.07	100	0	14	1,016	1,030	3
57+00	1.05	100	0	13	1,020	1,033	3
56+00	1.03	100	0	14	1,020	1,034	1
55+00	1.01	100	0	14	1,020	1,034	0
54+00	0.99	100	0	13	1,021	1,034	0
53+00	0.97	100	0	12	1,022	1,034	0
52+00	0.96	100	0	12	1,022	1,034	0
51+00	0.94	100	-	0	-	-	-
50+00	0.92	100	0	14	1,020	1,034	0
49+00	0.90	100	0	16	1,018	1,034	0
48+00	0.88	100	0	18	1,016	1,034	0
47+00	0.86	100	0	18	1,014	1,032	-2
46+00	0.84	100	0	18	1,010	1,028	-4
45+00	0.82	100	0	16	1,008	1,024	-4
44+00	0.80	100	0	16	1,004	1,020	-4
43+00	0.79	0	0	16	1,002	1,018	-2
		Averages	0	15	1,013	1,028	
		Minimums	0	12	1,002	1,018	
		Maximums	0	18	1,022	1,034	

Max Height/Distance Ratio for Wall Type	0.10
Barrier Ratio	0.02
Recommended Wall Type	Reflective

Total Length	2,200	Total Area	26,400	Total Cost	$660,000	

Exhibit 12: Recommended Barriers Details Table: Barrier 5, Alternative 1

Barrier Segment Station	Barrier Segment SLM (SUM-277 SLM)	Segment Length (feet)	Distance Offset (feet)	Height (feet)	Base Elevation (feet)	Top Elevation (feet)	Height Difference (feet)
94+00	1.75	100	0	20	990	1,010	-
93+00	1.73	100	0	18	992	1,010	0
92+00	1.71	100	0	18	994	1,012	2
91+00	1.69	100	0	18	996	1,014	2
90+00	1.68	100	13	20	996	1,016	2
89+00	1.66	100	41	16	1,004	1,020	4
88+00	1.64	100	36	13	1,011	1,024	4
87+00	1.62	50	36	11	1,015	1,026	2
86+50	1.61	0	36	11	1,016	1,027	1
Break for Pedestrian Overpass Bridge (wall overlap on either side of ramp to bridge)							
86+50	1.61	50	22	14	1,013	1,027	-
86+00	1.60	100	25	16	1,014	1,030	3
85+00	1.58	100	28	17	1,016	1,033	3
84+00	1.56	100	29	18	1,018	1,036	3
83+00	1.54	100	36	18	1,018	1,036	0
82+00	1.52	100	38	19	1,017	1,036	0
81+00	1.50	100	38	18	1,018	1,036	0
80+00	1.49	100	32	19	1,017	1,036	0
79+00	1.47	100	23	18	1,016	1,034	-2
78+00	1.45	100	18	20	1,012	1,032	-2
77+00	1.43	100	18	20	1,010	1,030	-2
76+00	1.41	100	18	19	1,009	1,028	-2
75+00	1.39	100	18	20	1,008	1,028	0
74+00	1.37	100	25	20	1,006	1,026	-2
73+00	1.35	0	31	20	1,004	1,024	-2
		Averages	23	18	1,009	1,026	
		Minimums	0	11	990	1,010	
		Maximums	41	20	1,018	1,036	
					Max Height/Distance Ratio for Wall Type		0.10
					Barrier Ratio		0.09
					Recommended Wall Type		Reflective
	Total Length	2,100	Total Area	37,750	Total Cost		$943,750

Exhibit 13: Recommended Barriers Summary Table

Barrier & Alternative	Barrier Location	Barrier Length (ft)	Average Barrier Height (ft)	Barrier Area (ft^2)	Barrier Cost ($)	Max Noise Reduction (dBA)	Impacted Dwelling Units (#)	Benefitted Dwelling Units (#)	Cost per Benefitted DU ($/#)	Type II Eval Benefitted Dwelling Units (#)	Type II Eval Cost per Benefitted DU ($/#)	Barrier Feasible	Barrier Reasonable	Barrier Recommended
Barrier 3														
Alternative 3	ROW/EOS	2,125	16	34,400	$860,000	12.1	31	37	$23,243	36	$23,889	Yes	Yes	Yes
Barrier 4														
Alternative 4	EOS	2,200	15	33,600	$840,000	12.2	21	37	$22,703	35	$24,000	Yes	Yes	Yes
Barrier 5														
Alternative 1	EOS/ROW	2,100	18	37,750	$943,750	15.7	46	47	$20,080	43	$21,948	Yes	Yes	Yes

APPENDIX A

Field Review Materials

This appendix contains the following materials:

1. Noise Monitoring Plan
2. NMP ODOT Approval
3. Property Owner Notification
4. Noise Meter Session Reports
5. Cumulative Noise Meter Session Reports
6. Traffic Counts
7. Photolog
8. Noise Meter Calibration Documentation
9. Equivalent Receptor Calculations

SUM - 277 (I-76 to US-224) Noise Measurement Plan

Noise Sensitive Land Uses & Noise Reading Locations (Sheet 1 of 4)

NoiseReadings
500 FT Buffer
1000 FT Buffer

Noise Sensitive Land Uses
- G Cemetery
- Church
- Daycare; Preschool; School
- Recreation
- Residential - SF - Condo

- Residential - SF
- Residential - MF - 2
- Residential - MF - 3
- Residential - MF - 4 to 19
- Residential - MF - 40 Plus
- Trail

0 250 500 1,000 Feet

Date: 1/13/2017

SUM - 277 (I-76 to US-224) Noise Measurement Plan

Noise Sensitive Land Uses & Noise Reading Locations (Sheet 1 of 4)

NoiseReadings
500 FT Buffer
1000 FT Buffer

Noise Sensitive Land Uses
- Cemetery
- Church
- Daycare; Preschool; School
- Recreation
- Residential - SF - Condo
- Residential - SF
- Residential - MF - 2
- Residential - MF - 3
- Residential - MF - 4 to 19
- Residential - MF - 40 Plus
- Trail

0 250 500 1,000 Feet

Date: 1/13/2017

SUM - 277 (I-76 to US-224) Noise Measurement Plan

Noise Sensitive Land Uses & Noise Reading Locations (Sheet 1 of 4)

- NoiseReadings
- 500 FT Buffer
- 1000 FT Buffer

Noise Sensitive Land Uses

- G Cemetery
- Church
- 4 Daycare; Preschool; School
- Recreation
- Residential - SF - Condo
- Residential - SF
- Residential - MF - 2
- Residential - MF - 3
- Residential - MF - 4 to 19
- Residential - MF - 40 Plus
- Trail

0 250 500 1,000 Feet

Date: 1/13/2017

SUM - 277 (I-76 to US-224) Noise Measurement Plan

Noise Sensitive Land Uses & Noise Reading Locations (Sheet 1 of 4)

NoiseReadings
500 FT Buffer
1000 FT Buffer

Noise Sensitive Land Uses
- Cemetery
- Church
- Daycare; Preschool; School
- Recreation
- Residential - SF - Condo
- Residential - SF
- Residential - MF - 2
- Residential - MF - 3
- Residential - MF - 4 to 19
- Residential - MF - 40 Plus
- Trail

0 250 500 1,000 Feet

Date: 1/13/2017

Kimberly Burton

From: Elvin Pinckney (Burton Planning Services) <application@teamwork.com>
Sent: Friday, February 17, 2017 9:57 AM
To: Kimberly Burton
Subject: (16102b / D4EnvTO / WO4-16 / SUM-277) EMH& Work Order 04-16 (SUM-277 Noise Analysis) - Noise Measurement Plan

===== WRITE YOUR REPLY ABOVE THIS LINE =====

Feb 17 09:56

Elvin Pinckney wrote a new message

Elvin Pinckney, Noise & Air Quality Specialist
Burton Planning Services, LLC
epinckney@burtonplanning.comepinckney@burtonplanning.com | http://www.burtonplanning.comhttp://www.burtonplanning.com/
P Please consider the environment before printing this email.
This message, including attachments, is for the sole use of the intended recipient(s) and may contain private, confidential, and/or privileg
Unauthorized use, disclosure, retention, or distribution is prohibited. If you are not the intended recipient or agent responsible for deliver

---

From: Krokonko, Michael mkrokonko@emht.com
Sent: Tuesday, February 14, 2017 6:56 AM
To: Elvin Pinckney
Subject: FW: EMH& Work Order 04-16 (SUM-277 Noise Analysis) - Noise Measurement Plan

FYI

From: Edward.Deley@dot.ohio.gov [mailto:Edward.Deley@dot.ohio.gov]
Sent: Wednesday, January 18, 2017 8:54 AM
To: Krokonko, Michael mkrokonko@emht.com
Cc: Noel.Alcala@dot.ohio.gov; Robert.Lang@dot.ohio.gov
Subject: RE: EMH& Work Order 04-16 (SUM-277 Noise Analysis) - Noise Measurement Plan

Thank you, Mike, for the corrections to your list. The noise measurement plan is acceptable to me.

Enjoy the rest of your day!

Ed

Edward W. Deley, Jr.

ODOT District 4 Environmental Coordinator

2088 South Arlington Road, Mail Stop 3500

Akron, Ohio 44306-4243

Telephone Number: 330-786-4930

Fax Number: 330-786-4914

e-mail address: edward.deley@dot.ohio.govedward.deley@dot.ohio.gov

The environmental review, consultation and other actions required by applicable Federal environmental laws for this project are being, or

From: Krokonko, Michael [mailto:mkrokonko@emht.com]
Sent: Wednesday, January 18, 2017 7:35 AM
To: Deley, Edward Edward.Deley@dot.ohio.gov<mailto:Edward.Deley@dot.ohio.gov>
Cc: Alcala, Noel Noel.Alcala@dot.ohio.gov<mailto:Noel.Alcala@dot.ohio.gov>; Lang, Robert Robert.Lang@dot.ohio.gov<mailto:Robert.La
Subject: RE: EMH& Work Order 04-16 (SUM-277 Noise Analysis) - Noise Measurement Plan

Ed,

I had BPS take a look at this. With that, the revised list of land use descriptions below was provided. This list reflects the information incl

R1 - Residential

R2 - Ball Diamonds/Park

R3 - Residential

R4 - Residential

R5 - Bike/Walking Trail

R6 - Cemetery Structure

R7 - MF Residential

R8 - Residential

R9 - Residential

R10 - Residential

R11 - MF Residential

R12 - Church

R13 - Residential

R14 - Day Care

R15 - Lake Nesmith Park

Thanks,

Mike

From: Edward.Deley@dot.ohio.govEdward.Deley@dot.ohio.gov [mailto:Edward.Deley@dot.ohio.gov]

Sent: Tuesday, January 17, 2017 3:37 PM
To: Krokonko, Michael mkrokonko@emht.com<mailto:mkrokonko@emht.com>
Cc: Noel.Alcala@dot.ohio.govNoel.Alcala@dot.ohio.gov; Robert.Lang@dot.ohio.govRobert.Lang@dot.ohio.gov
Subject: RE: EMH& Work Order 04-16 (SUM-277 Noise Analysis) - Noise Measurement Plan

Mike, upon review of the noise measurement plan aerial sheets, the noise reading numbers on the aerial sheets only go to NR 15 wherea land uses depicted on the aerial sheets.

Please let me know if you have any questions.

Thank you and enjoy the rest of your day!

Ed

Edward W. Deley, Jr.

ODOT District 4 Environmental Coordinator

2088 South Arlington Road, Mail Stop 3500

Akron, Ohio 44306-4243

Telephone Number: 330-786-4930

Fax Number: 330-786-4914

e-mail address: edward.deley@dot.ohio.govedward.deley@dot.ohio.gov

The environmental review, consultation and other actions required by applicable Federal environmental laws for this project are being, or

From: Krokonko, Michael [mailto:mkrokonko@emht.com]
Sent: Monday, January 16, 2017 9:10 AM
To: Deley, Edward Edward.Deley@dot.ohio.gov<mailto:Edward.Deley@dot.ohio.gov>; Lang, Robert Robert.Lang@dot.ohio.gov<mailto:R
Cc: Alcala, Noel Noel.Alcala@dot.ohio.gov<mailto:Noel.Alcala@dot.ohio.gov>
Subject: EMH& Work Order 04-16 (SUM-277 Noise Analysis) - Noise Measurement Plan

Ed/Rob,

Please see attached and below for the noise measurement plan proposed by Burton Planning Services (BPS) for the SUM-277 noise analy outdoor use.

R1 - Residential

R2 - Ball diamonds/Park

R3 - Residential

R4 - Residential

R5 - Bike/Walking trail

R6 - Cemetery structure

R7 - MF Residential

R8 - Residential

R9 - Residential

R10 - Residential

R11 - MF Residential

R12 - Residential

R13 - Church

R14 - Residential

R15 - Day Care

R16 - Lake Nesmith Park

NOTE: I have also attached a copy of the Auditor's map provided to us with the RFP as a reference. Please let me know if you feel a quic

Thanks,

Mike

Michael A. Krokonko
Senior Environmental Scientist

[EMH&T-email-logo]

EMH&T Engineers, Surveyors, Planners, Scientists
5500 New Albany Road, Columbus, OH 43054
v. 614.775.4509 | f. 614.775.4887 | c. 614.419.7911 | mkrokonko@emht.commkrokonko@emht.com

emht.comhttps://na01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.emht.com%2F&data=01%7C01%7CEdward.Deley%

1 attachment

- image001.png (3KB) · Download File

Message Details

Message: EMH& Work Order 04-16 (SUM-277 Noise Analysis) - Noise Measurement Plan

Project: 16102b / D4EnvTO / WO4-16 / SUM-277

Company: Burton Planning Services

Copied To: Kimberly Burton, Michael Blau, Josh Kubitza, Richard Carr

February 22, 2017

RE: Traffic Noise Study for Interstate Route 277 between Interstate 76 (Kenmore Leg)/IR277/US224 Interchange and Interstate 77/277/US224 Interchange.
ODOT Study: SUM IR 0277 Noise Analysis; PID 103858; Summit County, Ohio.

Dear Property Owner/Occupant:

The Ohio Department of Transportation (ODOT) is currently conducting a traffic noise study along Interstate Route 277 between Interstate 76 (Kenmore Leg) and the Interstate 77/277/US224 Interchange in the city of Akron and Coventry Township, Summit County, Ohio. The study will determine the traffic noise level at several locations along the corridor.

As part of the study, various tasks are required in the field. To perform this field work, it may be necessary for work crews from our consultants, EMH&T and Burton Planning Services to enter upon your property to place noise monitors that consist of a microphone on a tripod and to monitor them. It is likely that a crew will be on your property as much as three times a day to check the noise monitor devices. Work is currently planned to take place within the next 30 days, weather permitting. The work crews are not involved in any noise mitigation development. They will simply be collecting data necessary for the traffic noise study. In addition to sending this notification, our representatives will carry full personal identification and will be wearing brightly colored safety vests. They will attempt to inform occupants when they first enter a property and when they have completed their work on the property.

Sections 5517.01 and 163.02 of the Ohio Revised Code authorize such entries but also require that reimbursement be made for any actual damage resulting from such work. The work crews have received strict instructions concerning the preservation of private property and public lands. In the event that any valuable vegetation must be cleared to accomplish our work, you will be notified of the procedure for preparing a claim for reimbursement. In all cases, however, removal of vegetation as well as other damage will be held to a minimum. If, at any time, you feel that our representatives have not given proper attention to private property, please notify me at once.

We sincerely appreciate your cooperation and assistance so this worthwhile study can be completed at the earliest possible date. If you would like any additional information about the study, please contact me at 330-786-4930 or by email at *edward.deley@dot.ohio.gov*.

Respectfully,

Edward W. Deley, Jr.
District Environmental Coordinator

SUM-277 Noise Evaluation PO Letter Recipients

Resident/Owner

18604 58th St. NE

Akron, OH 44314

Akron Baptist Temple-- Ball Fields

2324 Manchester Rd.

Akron, OH 44314

Residents/Owner

581 Fillmore Ave.

Akron, OH 44314

Resident/Owner

2588 Pelton Ave.

Akron, OH 44314

Walking Jogging Path

No Owner listed

Holy Cross Cemetery

100 E. Waterloo

Akron, OH 44314

Resident/Owner

320 Guys Run Rd.

Akron, OH 44314

Resident/Owner

638 Woodview Dr.

Akron, Oh 44314

Resident/Owner

535 Wykeham Ct.

Akron, OH 44319

Resident/Owner

521 Seaton Ct.

Akron, OH 44319

Penguin Condos

No Office address listed

Resident/Owner

2254 Markey St.

Akron, OH 44319

First Weslyan Church of Akron

2285 S. Main St.

Akron, OH 44319

Resident/Owner

2648 Conrad Ave.

Akron, OH 44314

Resident/Owner

536 Brenneman Blvd.

Akron, OH 44314

City of Akron Recreation and Parks

166 S. High St. #505

Akron, OH 44308

Lake Nesmith Park

Childtime of Akron Ohio

2645 Manchester Rd.

Akron, OH 44319

Session Report

3/3/2017

General Information

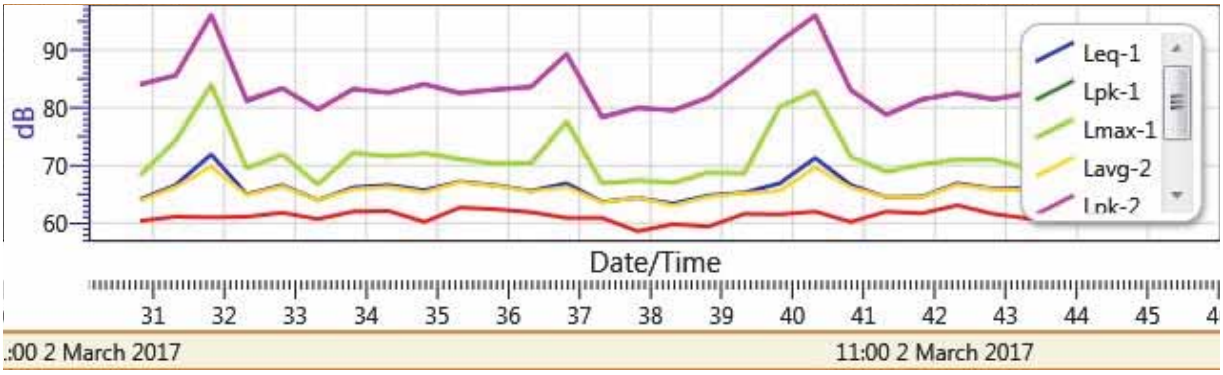
Name	S020_BIG080015_02032017_193959
Comments	
Start Time	3/2/2017 11:30:19 AM
Stop Time	3/2/2017 11:45:19 AM
Run Time	00:15:00
Device Name	BIG080015
Serial Number	BIG080015
Model Type	SoundPro DL

Summary Data

Description	Meter	Value	Description	Meter	Value
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW	Lmin	1	58.6 dB
Lmax	1	84 dB	Leq	1	66.4 dB
L50	1	64.7 dB	L90	1	62.1 dB

Logged Data Chart

S020_BIG080015_02032017_193959: Logged Data Chart



Logged Data Table

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
3/2/2017 11:30:49 AM	64.1	84.1	68.3	60.4

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
11:31:19 AM	66.6	85.6	74.3	61.1
11:31:49 AM	71.9	96	84	61
11:32:19 AM	65	81.1	69.5	61.1
11:32:49 AM	66.6	83.4	71.9	61.8
11:33:19 AM	64	79.7	66.7	60.7
11:33:49 AM	66.2	83.2	72.2	62
11:34:19 AM	66.6	82.6	71.6	62.1
11:34:49 AM	65.7	84.1	72.1	60.2
11:35:19 AM	67.2	82.6	71.1	62.7
11:35:49 AM	66.6	83.1	70.3	62.4
11:36:19 AM	65.6	83.6	70.4	61.9
11:36:49 AM	66.9	89.3	77.6	60.9
11:37:19 AM	63.7	78.5	66.9	60.9
11:37:49 AM	64.4	80	67.4	58.6
11:38:19 AM	63.4	79.6	67	59.8
11:38:49 AM	64.8	81.8	68.8	59.4
11:39:19 AM	65.3	86.4	68.6	61.6
11:39:49 AM	66.9	91.5	80.2	61.5
11:40:19 AM	71.3	96	82.9	62
11:40:49 AM	66.6	83.1	71.5	60.2
11:41:19 AM	64.5	78.8	68.9	62
11:41:49 AM	64.6	81.5	70.2	61.7
11:42:19 AM	66.9	82.5	71	63.1
11:42:49 AM	66	81.4	71	61.6
11:43:19 AM	66	82.5	69.5	60.8
11:43:49 AM	63.4	79.6	67.3	60.4
11:44:19 AM	66.8	83.8	71.9	61.3
11:44:49 AM	65.2	81.8	69.8	61.2
11:45:19 AM	66.4	84.7	73.6	62.2

Session Report

3/3/2017

General Information

Name	S018_BIG080015_02032017_193949
Comments	
Start Time	3/2/2017 10:24:37 AM
Stop Time	3/2/2017 10:39:37 AM
Run Time	00:15:00
Device Name	BIG080015
Serial Number	BIG080015
Model Type	SoundPro DL

Summary Data

Description	Meter	Value	Description	Meter	Value
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW	Leq	1	60.7 dB
Lmax	1	71.7 dB	Lmin	1	54.9 dB
L50	1	60 dB	L90	1	57.7 dB

Logged Data Chart

S018_BIG080015_02032017_193949: Logged Data Chart

Logged Data Table

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
3/2/2017 10:25:07 AM	61.6	76.8	64.5	58

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
10:25:37 AM	61	85.2	71.7	58.2
10:26:07 AM	60.1	74.9	61.8	58.1
10:26:37 AM	58.9	76.2	62.3	56.9
10:27:07 AM	59.9	76.5	62.6	56.7
10:27:37 AM	58.7	75	61.4	56.3
10:28:07 AM	59.1	74.5	62.2	56.3
10:28:37 AM	57.8	73.9	59.6	56.4
10:29:07 AM	60.4	83.9	68.9	56.8
10:29:37 AM	59.5	75.4	62.9	56
10:30:07 AM	59.4	74.7	62.3	56.1
10:30:37 AM	60	73.9	62.6	57.9
10:31:07 AM	58.1	73.7	61.3	54.9
10:31:37 AM	59.8	73.8	61.2	58.1
10:32:07 AM	60.6	76.9	65.2	58.6
10:32:37 AM	61.4	79.6	68.5	58.5
10:33:07 AM	62.8	78.8	66.8	59.5
10:33:37 AM	60.7	77.1	65.5	57.4
10:34:07 AM	60.1	74.7	62.9	58.2
10:34:37 AM	63.2	78.3	66.4	60.9
10:35:07 AM	63.1	81	69	58.7
10:35:37 AM	60.7	75.4	63.9	58.6
10:36:07 AM	62.5	77.3	65.3	59.3
10:36:37 AM	61.6	80.5	65.4	58.8
10:37:07 AM	60.8	76.8	63.7	58.4
10:37:37 AM	61.8	78.4	66	58.9
10:38:07 AM	62.4	77.7	65.6	60
10:38:37 AM	59.7	74.8	62.9	57.7
10:39:07 AM	61.4	79	68	56.9
10:39:37 AM	57.6	77.2	60.1	55.7

Session Report

3/3/2017

General Information

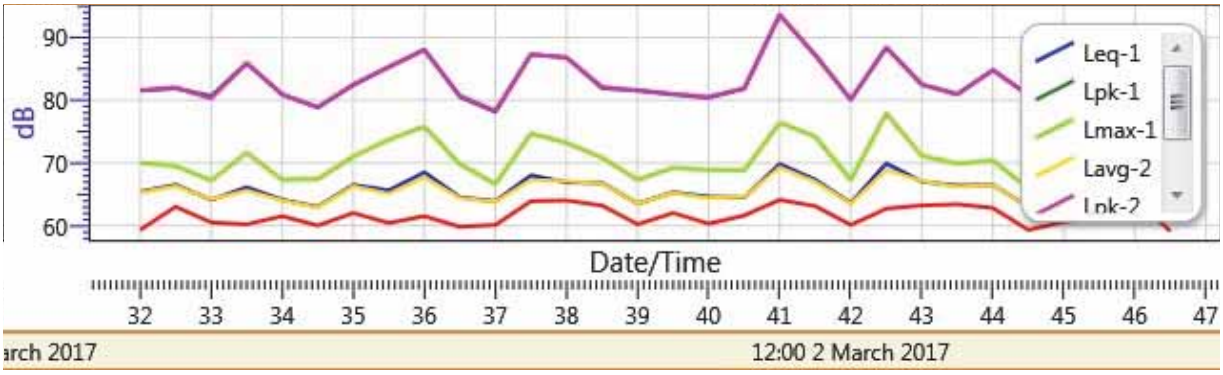
Name	S022_BIG080015_02032017_194003
Comments	
Start Time	3/2/2017 12:31:30 PM
Stop Time	3/2/2017 12:46:30 PM
Run Time	00:15:00
Device Name	BIG080015
Serial Number	BIG080015
Model Type	SoundPro DL

Summary Data

Description	Meter	Value	Description	Meter	Value
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW	Lmin	1	59.1 dB
Lmax	1	77.9 dB	Leq	1	66.1 dB
L50	1	64.7 dB	L90	1	62 dB

Logged Data Chart

S022_BIG080015_02032017_194003: Logged Data Chart



Logged Data Table

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
3/2/2017 12:32:00 PM	65.4	81.5	70	59.3

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
12:32:30 PM	66.5	81.9	69.5	63
12:33:00 PM	64.1	80.7	67.2	60.5
12:33:30 PM	66.1	85.9	71.6	60.2
12:34:00 PM	64.1	80.9	67.3	61.5
12:34:30 PM	63	78.8	67.4	60
12:35:00 PM	66.5	82.4	71	62
12:35:30 PM	65.6	85.3	73.7	60.4
12:36:00 PM	68.5	88.1	75.8	61.5
12:36:30 PM	64.5	80.5	69.8	59.8
12:37:00 PM	63.9	78.1	66.6	60.1
12:37:30 PM	68	87.3	74.7	63.9
12:38:00 PM	66.9	86.8	73.2	64
12:38:30 PM	66.8	81.9	70.8	63.2
12:39:00 PM	63.5	81.6	67.3	60.2
12:39:30 PM	65.3	80.9	69.2	62
12:40:00 PM	64.6	80.4	68.9	60.3
12:40:30 PM	64.5	81.8	68.8	61.6
12:41:00 PM	69.8	93.6	76.4	64.1
12:41:30 PM	67.3	87.2	74.2	63.1
12:42:00 PM	63.6	80.1	67.3	60.1
12:42:30 PM	69.9	88.4	77.9	62.7
12:43:00 PM	67	82.5	71.1	63.2
12:43:30 PM	66.4	81	69.9	63.4
12:44:00 PM	66.5	84.8	70.4	62.8
12:44:30 PM	63	80.8	65.9	59.3
12:45:00 PM	63.9	87	69.2	60.6
12:45:30 PM	64.6	90.7	69.1	61.1
12:46:00 PM	68.3	85.5	73.7	64.1
12:46:30 PM	62.6	82	68	59.1

Session Report

3/3/2017

General Information

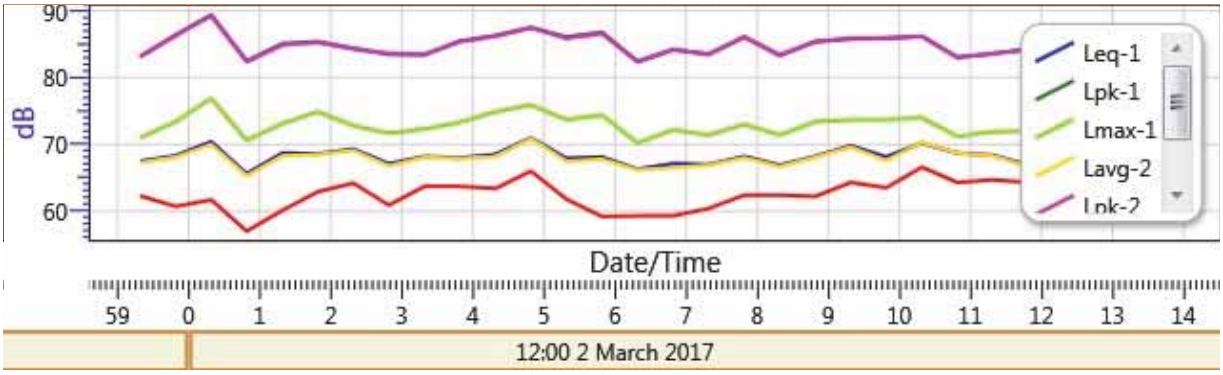
Name	S021_BIG080015_02032017_194001
Comments	
Start Time	3/2/2017 11:58:49 AM
Stop Time	3/2/2017 12:13:49 PM
Run Time	00:15:00
Device Name	BIG080015
Serial Number	BIG080015
Model Type	SoundPro DL

Summary Data

Description	Meter	Value	Description	Meter	Value
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW	Lmin	1	57 dB
Lmax	1	76.9 dB	Leq	1	68.3 dB
L50	1	67.6 dB	L90	1	63.9 dB

Logged Data Chart

S021_BIG080015_02032017_194001: Logged Data Chart



Logged Data Table

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
3/2/2017 11:59:19 AM	67.5	83.1	71	62.3

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
11:59:49 AM	68.3	86.4	73.4	60.7
12:00:19 PM	70.4	89.4	76.9	61.7
12:00:49 PM	65.6	82.5	70.6	57
12:01:19 PM	68.7	85.1	73.1	60.1
12:01:49 PM	68.6	85.4	74.9	62.9
12:02:19 PM	69.3	84.4	72.8	64.2
12:02:49 PM	67.1	83.5	71.7	60.9
12:03:19 PM	68.2	83.4	72.3	63.7
12:03:49 PM	68	85.5	73.3	63.7
12:04:19 PM	68.5	86.3	74.9	63.4
12:04:49 PM	71	87.5	75.9	66
12:05:19 PM	67.9	86.1	73.7	61.8
12:05:49 PM	68.1	86.8	74.4	59.2
12:06:19 PM	66.3	82.4	70.2	59.3
12:06:49 PM	67.1	84.2	72.2	59.3
12:07:19 PM	67	83.5	71.4	60.4
12:07:49 PM	68.2	86.1	73	62.4
12:08:19 PM	66.9	83.3	71.4	62.4
12:08:49 PM	68.2	85.4	73.4	62.2
12:09:19 PM	69.8	85.8	73.7	64.3
12:09:49 PM	68.1	85.9	73.7	63.5
12:10:19 PM	70.2	86.2	74	66.6
12:10:49 PM	68.7	83.1	71.2	64.3
12:11:19 PM	68.4	83.6	71.9	64.7
12:11:49 PM	66.9	84.3	72	64.3
12:12:19 PM	66.6	81.7	71.5	61
12:12:49 PM	69.8	86.8	74.6	62.2
12:13:19 PM	67	84.7	72.9	63
12:13:49 PM	68.5	84.7	71.5	61.8

Session Report

3/3/2017

General Information

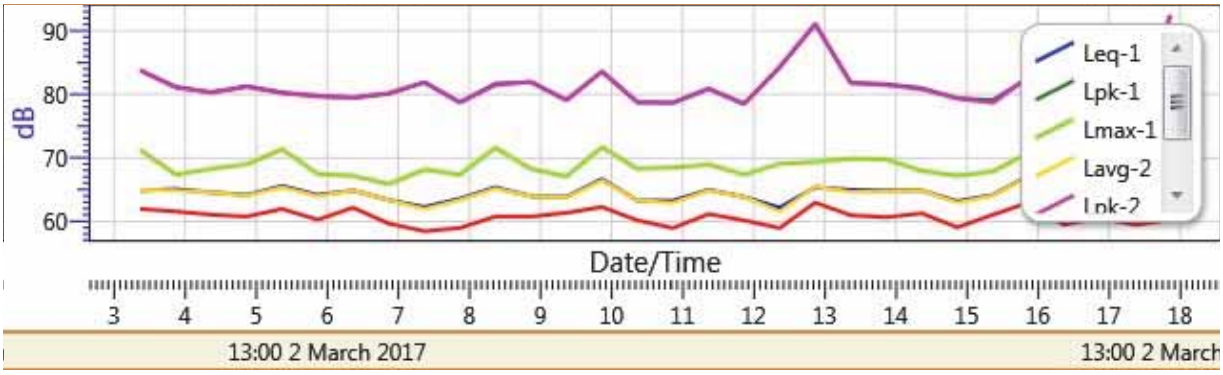
Name	S023_BIG080015_02032017_194005
Comments	
Start Time	3/2/2017 1:02:52 PM
Stop Time	3/2/2017 1:17:52 PM
Run Time	00:15:00
Device Name	BIG080015
Serial Number	BIG080015
Model Type	SoundPro DL

Summary Data

Description	Meter	Value	Description	Meter	Value
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW	Lmin	1	58.5 dB
Lmax	1	73.6 dB	Leq	1	64.5 dB
L50	1	63.9 dB	L90	1	61.1 dB

Logged Data Chart

S023_BIG080015_02032017_194005: Logged Data Chart



Logged Data Table

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
3/2/2017 1:03:22 PM	64.9	83.8	71.3	62

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
1:03:52 PM	65.1	81.2	67.4	61.6
1:04:22 PM	64.6	80.3	68.3	61.1
1:04:52 PM	64.2	81.3	69	60.8
1:05:22 PM	65.6	80.3	71.4	62
1:05:52 PM	64.2	79.8	67.5	60.3
1:06:22 PM	64.9	79.5	67.2	62.2
1:06:52 PM	63.4	80.1	65.9	59.7
1:07:22 PM	62.3	81.9	68.2	58.5
1:07:52 PM	63.6	78.8	67.4	59
1:08:22 PM	65.4	81.7	71.6	60.8
1:08:52 PM	64	81.9	68.3	60.8
1:09:22 PM	63.9	79.1	67.1	61.4
1:09:52 PM	66.7	83.6	71.7	62.3
1:10:22 PM	63.3	78.7	68.3	60.2
1:10:52 PM	63.3	78.7	68.5	59
1:11:22 PM	65	80.9	69	61.2
1:11:52 PM	63.9	78.5	67.4	60.2
1:12:22 PM	62.2	84.3	69.1	59
1:12:52 PM	65.4	91	69.4	63
1:13:22 PM	65	81.8	69.9	61
1:13:52 PM	64.9	81.6	69.8	60.7
1:14:22 PM	64.9	81	68	61.3
1:14:52 PM	63.2	79.4	67.2	59.1
1:15:22 PM	64.2	79.1	67.9	61.1
1:15:52 PM	67.2	82.6	70.8	63
1:16:22 PM	62.8	79.3	66.6	59.5
1:16:52 PM	64.6	82.5	68.5	60.6
1:17:22 PM	63	78.1	66.6	59.5
1:17:52 PM	66.2	92.5	73.6	60.3

Session Report

3/3/2017

General Information

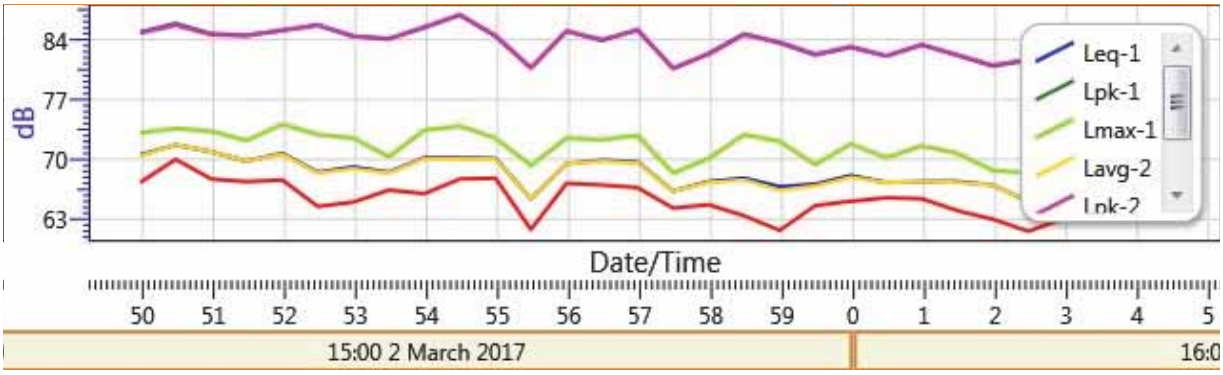
Name	S025_BIG080015_02032017_194009
Comments	
Start Time	3/2/2017 3:49:28 PM
Stop Time	3/2/2017 4:04:28 PM
Run Time	00:15:00
Device Name	BIG080015
Serial Number	BIG080015
Model Type	SoundPro DL

Summary Data

Description	Meter	Value	Description	Meter	Value
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW	Lmin	1	61.6 dB
Lmax	1	74.1 dB	Leq	1	68.6 dB
L50	1	67.8 dB	L90	1	65.2 dB

Logged Data Chart

S025_BIG080015_02032017_194009: Logged Data Chart



Logged Data Table

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
3/2/2017 3:49:58 PM	70.5	84.9	73.1	67.3

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
3:50:28 PM	71.7	85.9	73.6	70
3:50:58 PM	70.9	84.7	73.3	67.7
3:51:28 PM	69.8	84.5	72.2	67.4
3:51:58 PM	70.7	85.1	74.1	67.6
3:52:28 PM	68.5	85.7	72.9	64.5
3:52:58 PM	69.1	84.4	72.5	65
3:53:28 PM	68.5	84.1	70.3	66.4
3:53:58 PM	70.2	85.4	73.4	66
3:54:28 PM	70.2	86.9	73.9	67.7
3:54:58 PM	70.1	84.4	72.5	67.8
3:55:28 PM	65.4	80.7	69.3	61.8
3:55:58 PM	69.5	85	72.5	67.2
3:56:28 PM	69.9	83.9	72.3	67
3:56:58 PM	69.7	85.2	72.8	66.7
3:57:28 PM	66.3	80.6	68.4	64.3
3:57:58 PM	67.4	82.4	70.1	64.7
3:58:28 PM	67.8	84.7	72.9	63.4
3:58:58 PM	66.8	83.6	72.1	61.7
3:59:28 PM	67.1	82.2	69.4	64.6
3:59:58 PM	68.1	83.1	71.8	65.1
4:00:28 PM	67.3	82.1	70.2	65.5
4:00:58 PM	67.4	83.4	71.6	65.4
4:01:28 PM	67.4	82.2	70.7	64
4:01:58 PM	67	80.9	68.7	63
4:02:28 PM	65.1	81.6	68.4	61.6
4:02:58 PM	66.5	81.8	69.4	63.1
4:03:28 PM	66.2	80.4	68.6	63.7
4:03:58 PM	66.4	81	68.4	64.2
4:04:28 PM	67.1	80.8	69.4	64.9

Session Report

3/3/2017

General Information

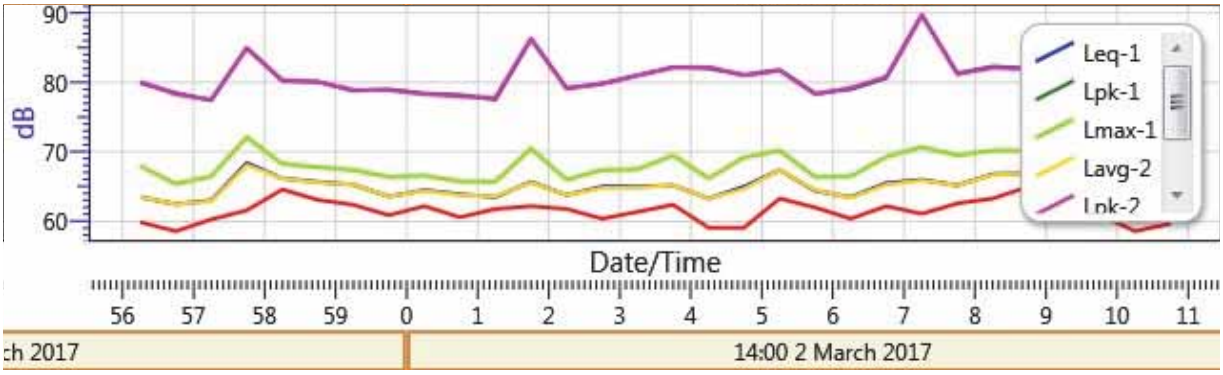
Name	S024_BIG080015_02032017_194007
Comments	
Start Time	3/2/2017 1:55:45 PM
Stop Time	3/2/2017 2:10:45 PM
Run Time	00:15:00
Device Name	BIG080015
Serial Number	BIG080015
Model Type	SoundPro DL

Summary Data

Description	Meter	Value	Description	Meter	Value
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW	Lmin	1	58.6 dB
Lmax	1	72.1 dB	Leq	1	65 dB
L50	1	64.4 dB	L90	1	61.8 dB

Logged Data Chart

S024_BIG080015_02032017_194007: Logged Data Chart



Logged Data Table

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
3/2/2017 1:56:15 PM	63.5	79.9	68	59.9

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
1:56:45 PM	62.5	78.5	65.4	58.6
1:57:15 PM	63	77.4	66.5	60.3
1:57:45 PM	68.4	85	72.1	61.6
1:58:15 PM	66.2	80.2	68.3	64.6
1:58:45 PM	65.7	80.1	67.8	63.1
1:59:15 PM	65.3	78.8	67.4	62.4
1:59:45 PM	63.6	79	66.4	60.9
2:00:15 PM	64.5	78.4	66.6	62.2
2:00:45 PM	63.9	78.2	65.8	60.6
2:01:15 PM	63.5	77.5	65.7	61.8
2:01:45 PM	65.7	86.2	70.5	62.2
2:02:15 PM	63.8	79.2	66	61.8
2:02:45 PM	65	79.8	67.4	60.4
2:03:15 PM	65	81	67.5	61.4
2:03:45 PM	65.2	82.2	69.5	62.4
2:04:15 PM	63.3	82	66.2	59.1
2:04:45 PM	65	81.1	69.2	59.1
2:05:15 PM	67.4	81.8	70.2	63.3
2:05:45 PM	64.4	78.4	66.4	62
2:06:15 PM	63.5	79	66.5	60.4
2:06:45 PM	65.5	80.6	69.3	62.2
2:07:15 PM	66	89.7	70.7	61.1
2:07:45 PM	65.2	81.3	69.5	62.6
2:08:15 PM	66.8	82.3	70.2	63.3
2:08:45 PM	66.9	82	70.2	65
2:09:15 PM	64.2	78.4	67.3	61.2
2:09:45 PM	64.7	80.3	68.8	61
2:10:15 PM	62.3	77.9	66.6	58.6
2:10:45 PM	63.7	79	66.9	59.7

Session Report

3/10/2017

General Information

Name	S026_BIG080015_09032017_212916
Comments	
Start Time	3/9/2017 10:45:34 AM
Stop Time	3/9/2017 11:00:34 AM
Run Time	00:15:00
Device Name	BIG080015
Serial Number	BIG080015
Model Type	SoundPro DL

Summary Data

Description	Meter	Value	Description	Meter	Value
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW	Lmin	1	53 dB
Lmax	1	71.9 dB	Leq	1	60.6 dB
Lpk	1	85.5 dB	L50	1	59.3 dB
L90	1	56.3 dB			

Logged Data Chart

S026_BIG080015_09032017_212916: Logged Data Chart

Logged Data Table

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
3/9/2017 10:46:04 AM	63.3	85.5	67	59.4
10:46:34 AM	60	76	64.7	55.3
10:47:04 AM	61.3	77.5	67.1	57.3
10:47:34 AM	59.8	76.6	65.8	55.3
10:48:04 AM	60.8	77.3	64.9	55.4
10:48:34 AM	60.3	75.3	63.6	58
10:49:04 AM	60.1	77.7	64.5	58
10:49:34 AM	58.4	73.9	62.8	56.3
10:50:04 AM	59.5	75.9	64	56.8
10:50:34 AM	59	74.1	62.9	55.7
10:51:04 AM	61.6	78.9	67.2	57.9
10:51:34 AM	59.8	78.1	64.8	55.6
10:52:04 AM	60.6	76.7	64.7	56
10:52:34 AM	61.8	79.2	67.8	55.3
10:53:04 AM	59.9	75.7	62.5	56.5
10:53:34 AM	63.3	81.1	68.9	56.4
10:54:04 AM	62.2	78.1	66.2	57.4
10:54:34 AM	60.8	83.3	66.3	57.6
10:55:04 AM	63.7	81	69	57.9
10:55:34 AM	58.7	74.1	61.9	53.2
10:56:04 AM	58	73.5	62.1	53.9
10:56:34 AM	58.4	73.7	61.5	53
10:57:04 AM	58.3	72.5	61.6	55.7
10:57:34 AM	59.3	75.2	62.7	54.6
10:58:04 AM	64.4	83.6	71.9	57.3
10:58:34 AM	58.1	76.4	61.6	54.7
10:59:04 AM	61.1	83.2	69.1	54.1
10:59:34 AM	58.2	82.1	68	53.2
11:00:04 AM	57.5	72.4	60.2	54.4
11:00:34 AM	59.5	75.5	63.8	54.5

Session Report

3/10/2017

General Information

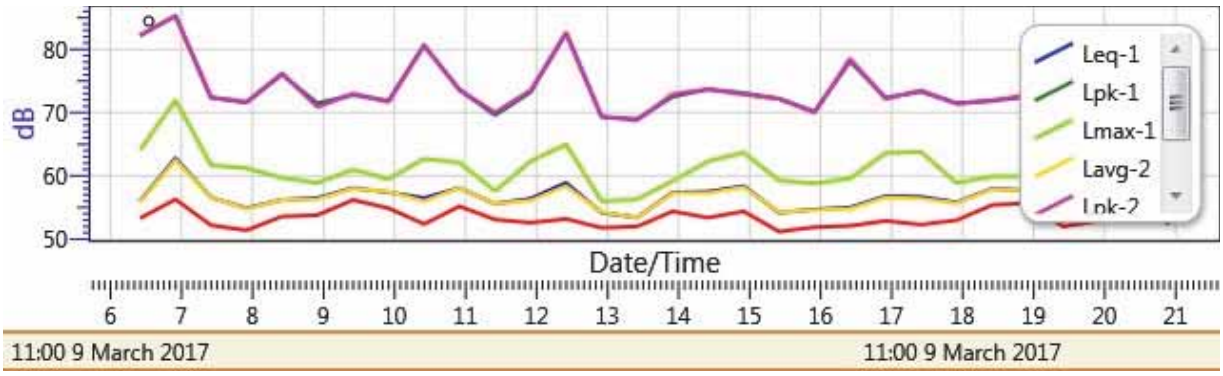
Name	S027_BIG080015_09032017_212926
Comments	
Start Time	3/9/2017 11:05:55 AM
Stop Time	3/9/2017 11:20:55 AM
Run Time	00:15:00
Device Name	BIG080015
Serial Number	BIG080015
Model Type	SoundPro DL

Summary Data

Description	Meter	Value	Description	Meter	Value
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW	Lmin	1	51.2 dB
Lmax	1	72 dB	Lpk	1	85.3 dB
Leq	1	57.1 dB	L50	1	56.1 dB
L90	1	53.3 dB			

Logged Data Chart

S027_BIG080015_09032017_212926: Logged Data Chart



Logged Data Table

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
3/9/2017 11:06:25 AM	56	82.2	64.1	53.3
11:06:55 AM	62.8	85.3	72	56.3
11:07:25 AM	56.6	72.4	61.7	52.2
11:07:55 AM	54.9	71.6	61.2	51.4
11:08:25 AM	56.2	76	59.7	53.6
11:08:55 AM	56.5	71.5	58.9	53.8
11:09:25 AM	58.1	72.8	61	56.2
11:09:55 AM	57.4	71.9	59.5	54.9
11:10:25 AM	56.5	80.7	62.7	52.4
11:10:55 AM	58.1	73.6	62.1	55.2
11:11:25 AM	55.6	69.6	57.6	53.1
11:11:55 AM	56.4	73.2	62.3	52.6
11:12:25 AM	58.9	82.6	65	53.2
11:12:55 AM	54.2	69.3	56	51.8
11:13:25 AM	53.4	69	56.3	52
11:13:55 AM	57.4	72.5	59.2	54.4
11:14:25 AM	57.5	73.7	62.3	53.4
11:14:55 AM	58.4	73.1	63.7	54.4
11:15:25 AM	54.2	72.2	59.3	51.2
11:15:55 AM	54.7	70.2	58.8	51.9
11:16:25 AM	55	78.1	59.6	52.1
11:16:55 AM	56.8	72.4	63.6	52.9
11:17:25 AM	56.7	73.3	63.8	52.3
11:17:55 AM	55.8	71.5	58.9	53
11:18:25 AM	58	71.9	59.9	55.4
11:18:55 AM	57.7	72.5	59.9	55.7
11:19:25 AM	55.1	73.9	59.1	52
11:19:55 AM	56.5	71.2	59.8	52.9
11:20:25 AM	60	77.3	63.6	55.9
11:20:55 AM	56.2	71.5	60.8	52.4

Session Report

3/10/2017

General Information

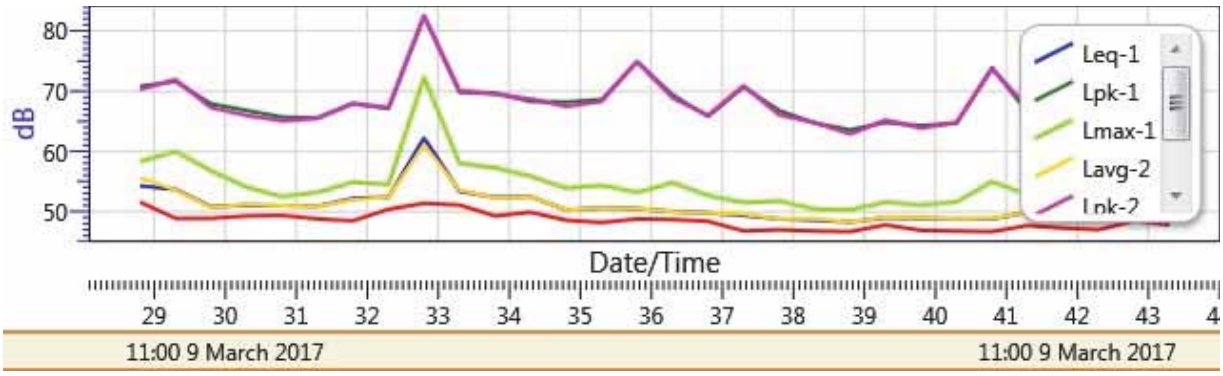
Name	S028_BIG080015_09032017_212928
Comments	
Start Time	3/9/2017 11:28:18 AM
Stop Time	3/9/2017 11:43:18 AM
Run Time	00:15:00
Device Name	BIG080015
Serial Number	BIG080015
Model Type	SoundPro DL

Summary Data

Description	Meter	Value	Description	Meter	Value
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW	Lmin	1	46.7 dB
Lmax	1	72.3 dB	Lpk	1	82.5 dB
Leq	1	52.4 dB	L50	1	50 dB
L90	1	48.2 dB			

Logged Data Chart

S028_BIG080015_09032017_212928: Logged Data Chart



Logged Data Table

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
3/9/2017 11:28:48 AM	54.3	70.8	58.3	51.6
11:29:18 AM	53.7	71.6	60	48.9
11:29:48 AM	50.8	67.9	56.8	48.9
11:30:18 AM	51.1	66.8	54.1	49.3
11:30:48 AM	51	65.7	52.5	49.4
11:31:18 AM	50.9	65.6	53.2	48.8
11:31:48 AM	52.2	68	54.9	48.5
11:32:18 AM	52.4	67.1	54.5	50.4
11:32:48 AM	62.2	82.5	72.3	51.4
11:33:18 AM	53.4	69.8	58	51.1
11:33:48 AM	52.4	69.7	57.3	49.3
11:34:18 AM	52.5	68.3	55.9	49.9
11:34:48 AM	50.3	68.2	53.9	48.6
11:35:18 AM	50.6	68.6	54.4	48.2
11:35:48 AM	50.5	74.9	53.2	48.8
11:36:18 AM	50	69.4	54.8	48.7
11:36:48 AM	49.8	65.8	52.7	48.4
11:37:18 AM	49.4	70.7	51.5	46.8
11:37:48 AM	48.8	66.8	51.8	47
11:38:18 AM	48.6	64.7	50.4	46.8
11:38:48 AM	48.3	63.6	50.3	46.7
11:39:18 AM	49	64.8	51.6	47.8
11:39:48 AM	48.9	64.3	51.1	46.9
11:40:18 AM	48.8	64.7	51.6	46.8
11:40:48 AM	48.8	73.9	55	46.7
11:41:18 AM	49.9	66.5	52.8	47.7
11:41:48 AM	50	66.3	54.3	47.3
11:42:18 AM	49.5	75	53.8	47
11:42:48 AM	50	66.3	54	48.5
11:43:18 AM	50.3	68.1	56.5	47.8

Session Report

3/10/2017

General Information

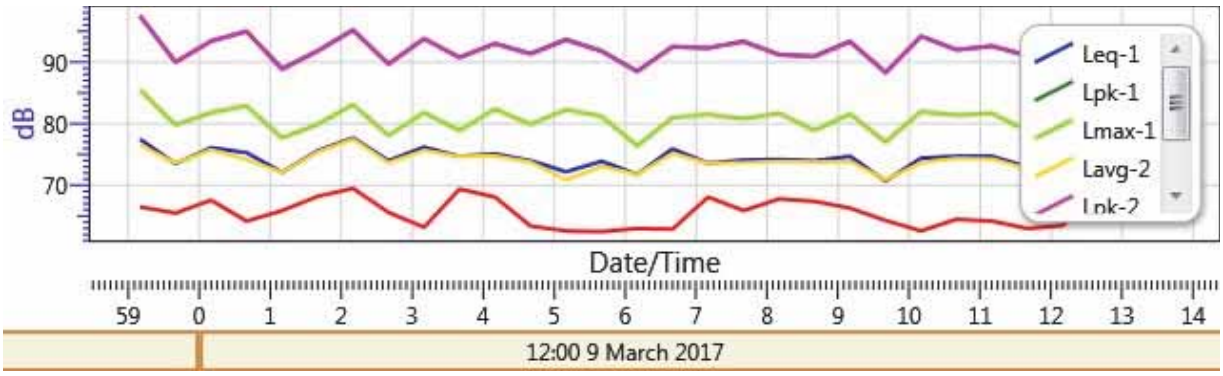
Name	S029_BIG080015_09032017_212930
Comments	
Start Time	3/9/2017 11:58:40 AM
Stop Time	3/9/2017 12:13:40 PM
Run Time	00:15:00
Device Name	BIG080015
Serial Number	BIG080015
Model Type	SoundPro DL

Summary Data

Description	Meter	Value	Description	Meter	Value
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW	Lmin	1	62.5 dB
Lmax	1	85.5 dB	Lpk	1	97.5 dB
Leq	1	74.5 dB	L50	1	73.1 dB
L90	1	67.3 dB			

Logged Data Chart

S029_BIG080015_09032017_212930: Logged Data Chart



Logged Data Table

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
3/9/2017 11:59:10 AM	77.5	97.5	85.5	66.5
11:59:40 AM	73.5	90	79.8	65.5
12:00:10 PM	76.1	93.4	81.8	67.6
12:00:40 PM	75.3	95	82.9	64.2
12:01:10 PM	72.1	89	77.7	65.9
12:01:40 PM	75.6	91.8	79.9	68.2
12:02:10 PM	77.7	95.2	83.1	69.5
12:02:40 PM	74	89.7	78.1	65.6
12:03:10 PM	76.2	93.8	81.8	63.2
12:03:40 PM	74.7	90.8	78.9	69.4
12:04:10 PM	75.1	93	82.4	68.1
12:04:40 PM	74	91.4	79.9	63.4
12:05:10 PM	72.2	93.7	82.3	62.6
12:05:40 PM	73.9	91.8	81.2	62.5
12:06:10 PM	71.8	88.5	76.4	63
12:06:40 PM	75.9	92.5	81	62.9
12:07:10 PM	73.6	92.3	81.5	68.1
12:07:40 PM	74.1	93.4	80.8	65.9
12:08:10 PM	74.2	91.2	81.7	67.8
12:08:40 PM	74	91	78.9	67.4
12:09:10 PM	74.7	93.4	81.6	66.3
12:09:40 PM	70.7	88.3	77	64.3
12:10:10 PM	74.4	94.2	82	62.6
12:10:40 PM	74.7	92	81.4	64.5
12:11:10 PM	74.7	92.6	81.7	64.2
12:11:40 PM	73	91	78.8	63
12:12:10 PM	72.7	91.2	80.3	63.5
12:12:40 PM	75.4	93.5	82	70.1
12:13:10 PM	73.3	92.6	80.5	66.8
12:13:40 PM	73.7	89.7	77.9	66

Session Report

3/10/2017

General Information

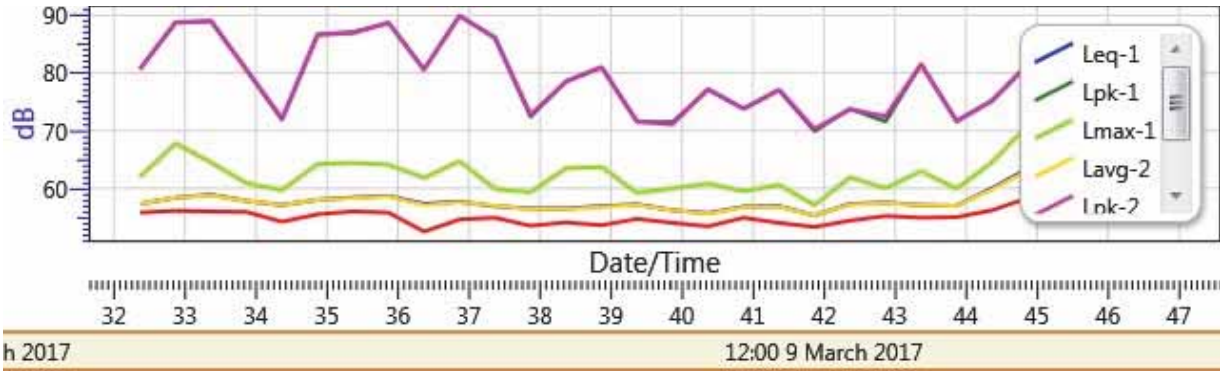
Name	S030_BIG080015_09032017_212932
Comments	
Start Time	3/9/2017 12:31:52 PM
Stop Time	3/9/2017 12:46:52 PM
Run Time	00:15:00
Device Name	BIG080015
Serial Number	BIG080015
Model Type	SoundPro DL

Summary Data

Description	Meter	Value	Description	Meter	Value
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW	Lmin	1	52.5 dB
Lmax	1	70.9 dB	Lpk	1	89.9 dB
Leq	1	58.2 dB	L50	1	57.3 dB
L90	1	55.3 dB			

Logged Data Chart

S030_BIG080015_09032017_212932: Logged Data Chart



Logged Data Table

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
3/9/2017 12:32:22 PM	57.3	80.7	62	55.8
12:32:52 PM	58.4	88.7	67.8	56.1
12:33:22 PM	58.9	89	64.5	56
12:33:52 PM	57.8	80.5	60.9	55.9
12:34:22 PM	57.1	71.9	59.7	54.2
12:34:52 PM	58	86.7	64.2	55.5
12:35:22 PM	58.4	87.1	64.4	56
12:35:52 PM	58.7	88.7	64.1	55.8
12:36:22 PM	57.3	80.6	61.8	52.5
12:36:52 PM	57.7	89.9	64.7	54.6
12:37:22 PM	56.9	86.1	59.9	54.9
12:37:52 PM	56.5	72.4	59.3	53.5
12:38:22 PM	56.5	78.6	63.5	54.1
12:38:52 PM	56.9	81	63.7	53.6
12:39:22 PM	57.2	71.5	59.2	54.7
12:39:52 PM	56.2	71.5	60	54
12:40:22 PM	55.7	77.1	60.8	53.4
12:40:52 PM	56.8	73.8	59.5	54.9
12:41:22 PM	56.9	77	60.6	54
12:41:52 PM	55.3	69.9	57.1	53.3
12:42:22 PM	57.3	73.8	61.9	54.4
12:42:52 PM	57.5	71.6	60	55.2
12:43:22 PM	57.1	81.5	63	54.9
12:43:52 PM	57	71.7	59.9	55
12:44:22 PM	60	75.2	64.5	56.2
12:44:52 PM	63.4	81.5	70.9	58.3
12:45:22 PM	61.5	77	66.4	58.3
12:45:52 PM	59.9	76.3	63.3	58.2
12:46:22 PM	60	75.7	64.7	57.7
12:46:52 PM	59	74	61.7	57.4

Session Report

3/10/2017

General Information

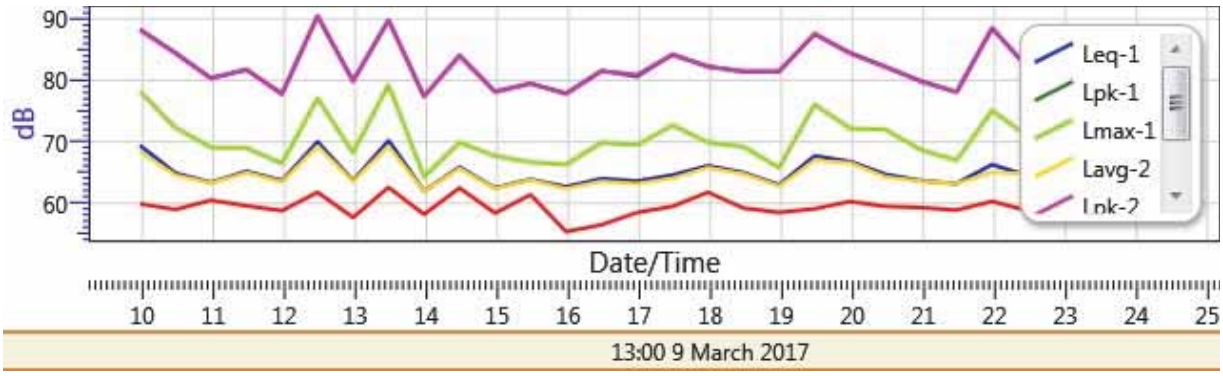
Name	S031_BIG080015_09032017_212935
Comments	
Start Time	3/9/2017 1:09:28 PM
Stop Time	3/9/2017 1:24:28 PM
Run Time	00:15:00
Device Name	BIG080015
Serial Number	BIG080015
Model Type	SoundPro DL

Summary Data

Description	Meter	Value	Description	Meter	Value
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW	Lmin	1	55.4 dB
Lmax	1	79.3 dB	Lpk	1	90.5 dB
Leq	1	65.7 dB	L50	1	63.7 dB
L90	1	60.6 dB			

Logged Data Chart

S031_BIG080015_09032017_212935: Logged Data Chart



Logged Data Table

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
3/9/2017 1:09:58 PM	69.4	88.3	78.2	59.9
1:10:28 PM	64.9	84.5	72.3	59
1:10:58 PM	63.4	80.4	69.1	60.5
1:11:28 PM	65.2	81.7	69	59.6
1:11:58 PM	63.7	77.9	66.5	58.8
1:12:28 PM	70	90.5	77.1	61.8
1:12:58 PM	63.7	79.9	68.2	57.7
1:13:28 PM	70.2	89.8	79.3	62.6
1:13:58 PM	62	77.4	64.3	58.2
1:14:28 PM	65.9	84.1	69.9	62.5
1:14:58 PM	62.5	78.2	67.7	58.4
1:15:28 PM	63.9	79.5	66.7	61.4
1:15:58 PM	62.7	77.9	66.3	55.4
1:16:28 PM	64	81.6	69.9	56.5
1:16:58 PM	63.6	80.6	69.5	58.5
1:17:28 PM	64.6	84.2	72.7	59.5
1:17:58 PM	66.1	82.3	69.9	61.8
1:18:28 PM	65	81.4	69.2	59.2
1:18:58 PM	63	81.4	65.8	58.5
1:19:28 PM	67.7	87.5	76.1	59.1
1:19:58 PM	66.8	84.5	72.2	60.3
1:20:28 PM	64.7	82.2	72	59.5
1:20:58 PM	63.7	79.9	68.7	59.3
1:21:28 PM	63.2	78.1	67	58.9
1:21:58 PM	66.3	88.5	75.1	60.3
1:22:28 PM	64.5	82.1	70.9	58.8
1:22:58 PM	65.8	82.1	70.4	59.2
1:23:28 PM	62.8	79.3	68.9	59.5
1:23:58 PM	67.2	83.4	72.4	61.6
1:24:28 PM	66.9	84.5	72.5	61.1

Session Report

3/10/2017

General Information

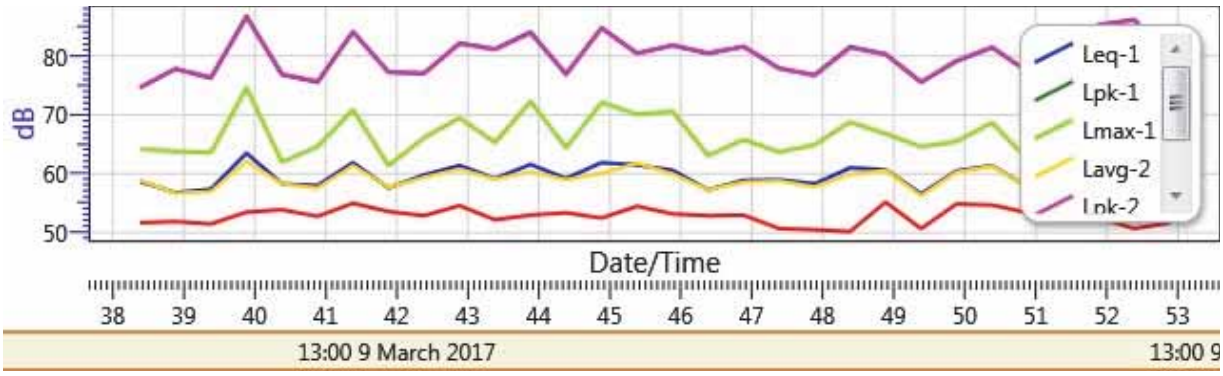
Name	S032_BIG080015_09032017_212937
Comments	
Start Time	3/9/2017 1:37:53 PM
Stop Time	3/9/2017 1:52:53 PM
Run Time	00:15:00
Device Name	BIG080015
Serial Number	BIG080015
Model Type	SoundPro DL

Summary Data

Description	Meter	Value	Description	Meter	Value
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW	Lmin	1	50.2 dB
Lmax	1	74.6 dB	Lpk	1	86.8 dB
Leq	1	59.9 dB	L50	1	58 dB
L90	1	53.7 dB			

Logged Data Chart

S032_BIG080015_09032017_212937: Logged Data Chart



Logged Data Table

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
3/9/2017 1:38:23 PM	58.7	74.6	64.2	51.7
1:38:53 PM	56.8	77.8	63.8	51.9
1:39:23 PM	57.4	76.2	63.6	51.5
1:39:53 PM	63.5	86.8	74.6	53.5
1:40:23 PM	58.3	76.8	62	53.9
1:40:53 PM	58	75.5	64.6	52.8
1:41:23 PM	61.9	84.1	70.9	55
1:41:53 PM	57.6	77.3	61.4	53.6
1:42:23 PM	59.8	77	66.1	52.9
1:42:53 PM	61.4	82.2	69.5	54.6
1:43:23 PM	59.2	81.2	65.3	52.2
1:43:53 PM	61.6	84.1	72.3	53
1:44:23 PM	59.2	76.8	64.4	53.4
1:44:53 PM	61.9	84.8	72.1	52.5
1:45:23 PM	61.5	80.5	70.1	54.5
1:45:53 PM	60.6	81.8	70.6	53.2
1:46:23 PM	57.3	80.4	63.1	52.9
1:46:53 PM	58.9	81.6	65.8	53
1:47:23 PM	59	77.9	63.7	50.7
1:47:53 PM	58.3	76.8	64.9	50.5
1:48:23 PM	61	81.6	68.8	50.2
1:48:53 PM	60.7	80.3	66.8	55.2
1:49:23 PM	56.6	75.5	64.6	50.7
1:49:53 PM	60.5	79.1	65.5	54.9
1:50:23 PM	61.4	81.4	68.7	54.7
1:50:53 PM	57.8	77.4	62.4	53.4
1:51:23 PM	58.3	81.1	64.2	52.3
1:51:53 PM	62.7	85.2	74.3	52.6
1:52:23 PM	58.8	86.2	69.2	50.7
1:52:53 PM	58.5	79.3	64.2	51.7

Session Report

3/10/2017

General Information

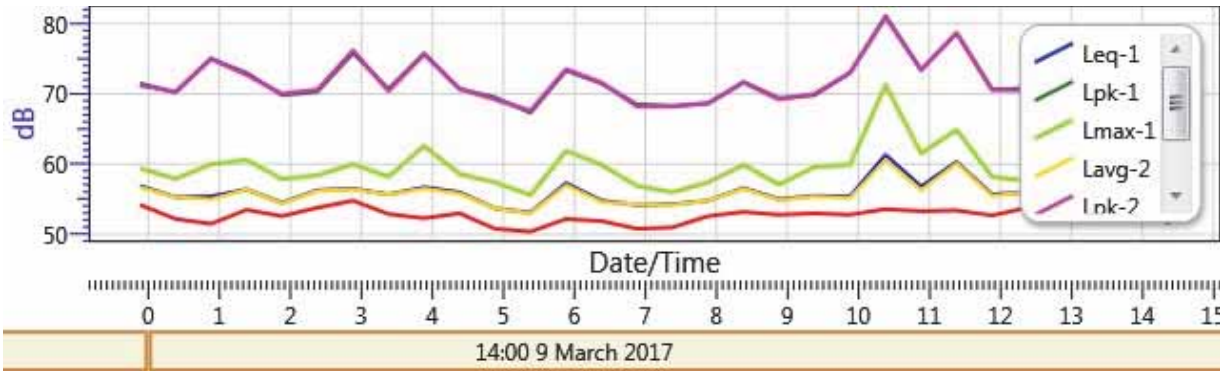
Name	S033_BIG080015_09032017_212939
Comments	
Start Time	3/9/2017 1:59:23 PM
Stop Time	3/9/2017 2:14:23 PM
Run Time	00:15:00
Device Name	BIG080015
Serial Number	BIG080015
Model Type	SoundPro DL

Summary Data

Description	Meter	Value	Description	Meter	Value
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	FAST	Bandwidth	1	OFF
Exchange Rate	2	5 dB	Weighting	2	A
Response	2	SLOW	Lmin	1	50.4 dB
Lmax	1	71.3 dB	Lpk	1	81.1 dB
Leq	1	56.2 dB	L50	1	55.1 dB
L90	1	53.1 dB			

Logged Data Chart

S033_BIG080015_09032017_212939: Logged Data Chart



Logged Data Table

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1

Date/Time	Leq-1	Lpk-1	Lmax-1	Lmin-1
3/9/2017 1:59:53 PM	56.9	71.5	59.4	54.2
2:00:23 PM	55.3	70.2	57.9	52.2
2:00:53 PM	55.4	75	60	51.5
2:01:23 PM	56.4	73	60.6	53.5
2:01:53 PM	54.5	69.8	57.9	52.6
2:02:23 PM	56.3	70.3	58.4	53.8
2:02:53 PM	56.5	75.8	60	54.8
2:03:23 PM	55.7	70.7	58.2	52.9
2:03:53 PM	56.7	75.8	62.6	52.3
2:04:23 PM	56	70.7	58.6	53
2:04:53 PM	53.7	69.5	57.4	50.8
2:05:23 PM	53.1	67.3	55.6	50.4
2:05:53 PM	57.3	73.3	61.9	52.2
2:06:23 PM	54.8	71.5	59.9	51.9
2:06:53 PM	54.2	68.5	56.9	50.8
2:07:23 PM	54.3	68.3	56	51
2:07:53 PM	54.8	68.6	57.4	52.6
2:08:23 PM	56.6	71.7	59.9	53.2
2:08:53 PM	55	69.4	57.1	52.8
2:09:23 PM	55.5	69.8	59.6	53
2:09:53 PM	55.4	73	59.9	52.8
2:10:23 PM	61.3	81.1	71.3	53.6
2:10:53 PM	56.8	73.4	61.5	53.3
2:11:23 PM	60.3	78.6	64.9	53.4
2:11:53 PM	55.7	70.6	58.2	52.7
2:12:23 PM	56	70.8	57.6	53.8
2:12:53 PM	55.5	71	60.6	53
2:13:23 PM	55.6	71.3	58.4	53.6
2:13:53 PM	56.1	71.6	58.8	53.5
2:14:23 PM	54.2	72.9	59.6	51.6

Noise Meter Session Reports, Cumulative Calculations, Page 1 of 3

Interval	Noise Reading 1			Noise Reading 2			Noise Reading 3			Noise Reading 4			Noise Reading 5			Noise Reading 6		
	Date/Time	Leq	Cumulative	Date/Time	Leq	Cumulative	Date/Time	Leq	Cumulative	Date/Time	Leq	Cumulative	Date/Time	Leq	Cumulative	Date/Time	Leq	Cumulative
0.5	3/2/2017 11:30:49 AM	64.1	64.1	3/2/2017 10:25:07 AM	61.6	61.6	3/2/2017 12:32:00 PM	65.4	65.4	3/2/2017 11:59:19 AM	67.5	67.5	3/2/2017 1:03:22 PM	64.9	64.9	3/2/2017 3:49:58 PM	70.5	70.5
1.0	11:31:19 AM	66.6	65.4	10:25:37 AM	61.0	61.3	12:32:30 PM	66.5	66.0	11:59:49 AM	68.3	67.9	1:03:52 PM	65.1	65.0	3:50:28 PM	71.7	71.1
1.5	11:31:49 AM	71.9	67.5	10:26:07 AM	60.1	60.9	12:33:00 PM	64.1	65.3	12:00:19 PM	70.4	68.7	1:04:22 PM	64.6	64.9	3:50:58 PM	70.9	71.0
2.0	11:32:19 AM	65.0	66.9	10:26:37 AM	58.9	60.4	12:33:30 PM	66.1	65.5	12:00:49 PM	65.6	68.0	1:04:52 PM	64.2	64.7	3:51:28 PM	69.8	70.7
2.5	11:32:49 AM	66.6	66.8	10:27:07 AM	59.9	60.3	12:34:00 PM	64.1	65.2	12:01:19 PM	68.7	68.1	1:05:22 PM	65.6	64.9	3:51:58 PM	70.7	70.7
3.0	11:33:19 AM	64.0	66.4	10:27:37 AM	58.7	60.0	12:34:30 PM	63.0	64.9	12:01:49 PM	68.6	68.2	1:05:52 PM	64.2	64.8	3:52:28 PM	68.5	70.4
3.5	11:33:49 AM	66.2	66.3	10:28:07 AM	59.1	59.9	12:35:00 PM	66.5	65.1	12:02:19 PM	69.3	68.3	1:06:22 PM	64.9	64.8	3:52:58 PM	69.1	70.2
4.0	11:34:19 AM	66.6	66.4	10:28:37 AM	57.8	59.6	12:35:30 PM	65.6	65.2	12:02:49 PM	67.1	68.2	1:06:52 PM	63.4	64.6	3:53:28 PM	68.5	70.0
4.5	11:34:49 AM	65.7	66.3	10:29:07 AM	60.4	59.7	12:36:00 PM	68.5	65.5	12:03:19 PM	68.2	68.2	1:07:22 PM	62.3	64.4	3:53:58 PM	70.2	70.0
5.0	11:35:19 AM	67.2	66.4	10:29:37 AM	59.5	59.7	12:36:30 PM	64.5	65.4	12:03:49 PM	68.0	68.2	1:07:52 PM	63.6	64.3	3:54:28 PM	70.2	70.0
5.5	11:35:49 AM	66.6	66.4	10:30:07 AM	59.4	59.7	12:37:00 PM	63.9	65.3	12:04:19 PM	68.5	68.2	1:08:22 PM	65.4	64.4	3:54:58 PM	70.1	70.0
6.0	11:36:19 AM	65.6	66.3	10:30:37 AM	60.0	59.7	12:37:30 PM	68.0	65.5	12:04:49 PM	71.0	68.4	1:08:52 PM	64.0	64.4	3:55:28 PM	65.4	69.6
6.5	11:36:49 AM	66.9	66.4	10:31:07 AM	58.1	59.6	12:38:00 PM	66.9	65.6	12:05:19 PM	67.9	68.4	1:09:22 PM	63.9	64.3	3:55:58 PM	69.5	69.6
7.0	11:37:19 AM	63.7	66.2	10:31:37 AM	59.8	59.6	12:38:30 PM	66.8	65.7	12:05:49 PM	68.1	68.4	1:09:52 PM	66.7	64.5	3:56:28 PM	69.9	69.6
7.5	11:37:49 AM	64.4	66.1	10:32:07 AM	60.6	59.7	12:39:00 PM	63.5	65.6	12:06:19 PM	66.3	68.2	1:10:22 PM	63.3	64.4	3:56:58 PM	69.7	69.6
8.0	11:38:19 AM	63.4	65.9	10:32:37 AM	61.4	59.8	12:39:30 PM	65.3	65.5	12:06:49 PM	67.1	68.2	1:10:52 PM	63.3	64.3	3:57:28 PM	66.3	69.4
8.5	11:38:49 AM	64.8	65.8	10:33:07 AM	62.8	59.9	12:40:00 PM	64.6	65.5	12:07:19 PM	67.0	68.1	1:11:22 PM	65.0	64.4	3:57:58 PM	67.4	69.3
9.0	11:39:19 AM	65.3	65.8	10:33:37 AM	60.7	60.0	12:40:30 PM	64.5	65.4	12:07:49 PM	68.2	68.1	1:11:52 PM	63.9	64.4	3:58:28 PM	67.8	69.2
9.5	11:39:49 AM	66.9	65.9	10:34:07 AM	60.1	60.0	12:41:00 PM	69.8	65.7	12:08:19 PM	66.9	68.0	1:12:22 PM	62.2	64.2	3:58:58 PM	66.8	69.1
10.0	11:40:19 AM	71.3	66.1	10:34:37 AM	63.2	60.2	12:41:30 PM	67.3	65.7	12:08:49 PM	68.2	68.0	1:12:52 PM	65.4	64.3	3:59:28 PM	67.1	69.0
10.5	11:40:49 AM	66.6	66.2	10:35:07 AM	63.1	60.3	12:42:00 PM	63.6	65.6	12:09:19 PM	69.8	68.1	1:13:22 PM	65.0	64.3	3:59:58 PM	68.1	69.0
11.0	11:41:19 AM	64.5	66.1	10:35:37 AM	60.7	60.3	12:42:30 PM	69.9	65.8	12:09:49 PM	68.1	68.1	1:13:52 PM	64.9	64.4	4:00:28 PM	67.3	68.9
11.5	11:41:49 AM	64.6	66.0	10:36:07 AM	62.5	60.4	12:43:00 PM	67.0	65.9	12:10:19 PM	70.2	68.2	1:14:22 PM	64.9	64.4	4:00:58 PM	67.4	68.8
12.0	11:42:19 AM	66.9	66.1	10:36:37 AM	61.6	60.5	12:43:30 PM	66.4	65.9	12:10:49 PM	68.7	68.2	1:14:52 PM	63.2	64.3	4:01:28 PM	67.4	68.8
12.5	11:42:49 AM	66.0	66.1	10:37:07 AM	60.8	60.5	12:44:00 PM	66.5	65.9	12:11:19 PM	68.4	68.2	1:15:22 PM	64.2	64.3	4:01:58 PM	67.0	68.7
13.0	11:43:19 AM	66.0	66.1	10:37:37 AM	61.8	60.5	12:44:30 PM	63.0	65.8	12:11:49 PM	66.9	68.2	1:15:52 PM	67.2	64.4	4:02:28 PM	65.1	68.6
13.5	11:43:49 AM	63.4	66.0	10:38:07 AM	62.4	60.6	12:45:00 PM	63.9	65.7	12:12:19 PM	66.6	68.1	1:16:22 PM	62.8	64.4	4:02:58 PM	66.5	68.5
14.0	11:44:19 AM	66.8	66.0	10:38:37 AM	59.7	60.6	12:45:30 PM	64.6	65.7	12:12:49 PM	69.8	68.2	1:16:52 PM	64.6	64.4	4:03:28 PM	66.2	68.4
14.5	11:44:49 AM	65.2	66.0	10:39:07 AM	61.4	60.6	12:46:00 PM	68.3	65.8	12:13:19 PM	67.0	68.2	1:17:22 PM	63.0	64.3	4:03:58 PM	66.4	68.3
15.0	11:45:19 AM	66.4	66.0	10:39:37 AM	57.6	60.5	12:46:30 PM	62.6	65.7	12:13:49 PM	68.5	68.2	1:17:52 PM	66.2	64.4	4:04:28 PM	67.1	68.3

Noise Meter Session Reports, Cumulative Calculations, Page 2 of 3

Interval	Noise Reading 7			Noise Reading 8			Noise Reading 9			Noise Reading 10			Noise Reading 11		
	Date/Time	Leq	Cumulative	Date/Time	Leq	Cumulative	Date/Time	Leq	Cumulative	Date/Time	Leq	Cumulative	Date/Time	Leq	Cumulative
0.5	3/2/2017 1:56:15 PM	63.5	63.5	3/9/2017 10:46:04 AM	63.3	63.3	3/9/2017 11:06:25 AM	56.0	56.0	3/9/2017 11:28:48 AM	54.3	54.3	3/9/2017 11:59:10 AM	77.5	77.5
1.0	1:56:45 PM	62.5	63.0	10:46:34 AM	60.0	61.7	11:06:55 AM	62.8	59.4	11:29:18 AM	53.7	54.0	11:59:40 AM	73.5	75.5
1.5	1:57:15 PM	63.0	63.0	10:47:04 AM	61.3	61.5	11:07:25 AM	56.6	58.5	11:29:48 AM	50.8	52.9	12:00:10 PM	76.1	75.7
2.0	1:57:45 PM	68.4	64.4	10:47:34 AM	59.8	61.1	11:07:55 AM	54.9	57.6	11:30:18 AM	51.1	52.5	12:00:40 PM	75.3	75.6
2.5	1:58:15 PM	66.2	64.7	10:48:04 AM	60.8	61.0	11:08:25 AM	56.2	57.3	11:30:48 AM	51.0	52.2	12:01:10 PM	72.1	74.9
3.0	1:58:45 PM	65.7	64.9	10:48:34 AM	60.3	60.9	11:08:55 AM	56.5	57.2	11:31:18 AM	50.9	52.0	12:01:40 PM	75.6	75.0
3.5	1:59:15 PM	65.3	64.9	10:49:04 AM	60.1	60.8	11:09:25 AM	58.1	57.3	11:31:48 AM	52.2	52.0	12:02:10 PM	77.7	75.4
4.0	1:59:45 PM	63.6	64.8	10:49:34 AM	58.4	60.5	11:09:55 AM	57.4	57.3	11:32:18 AM	52.4	52.1	12:02:40 PM	74.0	75.2
4.5	2:00:15 PM	64.5	64.7	10:50:04 AM	59.5	60.4	11:10:25 AM	56.5	57.2	11:32:48 AM	62.2	53.2	12:03:10 PM	76.2	75.3
5.0	2:00:45 PM	63.9	64.7	10:50:34 AM	59.0	60.3	11:10:55 AM	58.1	57.3	11:33:18 AM	53.4	53.2	12:03:40 PM	74.7	75.3
5.5	2:01:15 PM	63.5	64.6	10:51:04 AM	61.6	60.4	11:11:25 AM	55.6	57.2	11:33:48 AM	52.4	53.1	12:04:10 PM	75.1	75.3
6.0	2:01:45 PM	65.7	64.7	10:51:34 AM	59.8	60.3	11:11:55 AM	56.4	57.1	11:34:18 AM	52.5	53.1	12:04:40 PM	74.0	75.2
6.5	2:02:15 PM	63.8	64.6	10:52:04 AM	60.6	60.3	11:12:25 AM	58.9	57.2	11:34:48 AM	50.3	52.9	12:05:10 PM	72.2	74.9
7.0	2:02:45 PM	65.0	64.6	10:52:34 AM	61.8	60.5	11:12:55 AM	54.2	57.0	11:35:18 AM	50.6	52.7	12:05:40 PM	73.9	74.9
7.5	2:03:15 PM	65.0	64.6	10:53:04 AM	59.9	60.4	11:13:25 AM	53.4	56.8	11:35:48 AM	50.5	52.6	12:06:10 PM	71.8	74.6
8.0	2:03:45 PM	65.2	64.7	10:53:34 AM	63.3	60.6	11:13:55 AM	57.4	56.8	11:36:18 AM	50.0	52.4	12:06:40 PM	75.9	74.7
8.5	2:04:15 PM	63.3	64.6	10:54:04 AM	62.2	60.7	11:14:25 AM	57.5	56.9	11:36:48 AM	49.8	52.2	12:07:10 PM	73.6	74.7
9.0	2:04:45 PM	65.0	64.6	10:54:34 AM	60.8	60.7	11:14:55 AM	58.4	56.9	11:37:18 AM	49.4	52.1	12:07:40 PM	74.1	74.6
9.5	2:05:15 PM	67.4	64.8	10:55:04 AM	63.7	60.9	11:15:25 AM	54.2	56.8	11:37:48 AM	48.8	51.9	12:08:10 PM	74.2	74.6
10.0	2:05:45 PM	64.4	64.7	10:55:34 AM	58.7	60.7	11:15:55 AM	54.7	56.7	11:38:18 AM	48.6	51.7	12:08:40 PM	74.0	74.6
10.5	2:06:15 PM	63.5	64.7	10:56:04 AM	58.0	60.6	11:16:25 AM	55.0	56.6	11:38:48 AM	48.3	51.6	12:09:10 PM	74.7	74.6
11.0	2:06:45 PM	65.5	64.7	10:56:34 AM	58.4	60.5	11:16:55 AM	56.8	56.6	11:39:18 AM	49.0	51.5	12:09:40 PM	70.7	74.4
11.5	2:07:15 PM	66.0	64.8	10:57:04 AM	58.3	60.4	11:17:25 AM	56.7	56.6	11:39:48 AM	48.9	51.4	12:10:10 PM	74.4	74.4
12.0	2:07:45 PM	65.2	64.8	10:57:34 AM	59.3	60.4	11:17:55 AM	55.8	56.6	11:40:18 AM	48.8	51.2	12:10:40 PM	74.7	74.4
12.5	2:08:15 PM	66.8	64.9	10:58:04 AM	64.4	60.5	11:18:25 AM	58.0	56.6	11:40:48 AM	48.8	51.1	12:11:10 PM	74.7	74.4
13.0	2:08:45 PM	66.9	65.0	10:58:34 AM	58.1	60.4	11:18:55 AM	57.7	56.7	11:41:18 AM	49.9	51.1	12:11:40 PM	73.0	74.4
13.5	2:09:15 PM	64.2	64.9	10:59:04 AM	61.1	60.5	11:19:25 AM	55.1	56.6	11:41:48 AM	50.0	51.1	12:12:10 PM	72.7	74.3
14.0	2:09:45 PM	64.7	64.9	10:59:34 AM	58.2	60.4	11:19:55 AM	56.5	56.6	11:42:18 AM	49.5	51.0	12:12:40 PM	75.4	74.4
14.5	2:10:15 PM	62.3	64.8	11:00:04 AM	57.5	60.3	11:20:25 AM	60.0	56.7	11:42:48 AM	50.0	51.0	12:13:10 PM	73.3	74.3
15.0	2:10:45 PM	63.7	64.8	11:00:34 AM	59.5	60.3	11:20:55 AM	56.2	56.7	11:43:18 AM	50.3	50.9	12:13:40 PM	73.7	74.3

Noise Meter Session Reports, Cumulative Calculations, Page 3 of 3

Interval	Noise Reading 12			Noise Reading 13			Noise Reading 14			Noise Reading 15		
	Date/Time	Leq	Cumulative	Date/Time	Leq	Cumulative	Date/Time	Leq	Cumulative	Date/Time	Leq	Cumulative
0.5	3/9/2017 12:32:22 PM	57.3	57.3	3/9/2017 1:09:58 PM	69.4	69.4	3/9/2017 1:38:23 PM	58.7	58.7	3/9/2017 1:59:53 PM	56.9	56.9
1.0	12:32:52 PM	58.4	57.9	1:10:28 PM	64.9	67.2	1:38:53 PM	56.8	57.8	2:00:23 PM	55.3	56.1
1.5	12:33:22 PM	58.9	58.2	1:10:58 PM	63.4	65.9	1:39:23 PM	57.4	57.6	2:00:53 PM	55.4	55.9
2.0	12:33:52 PM	57.8	58.1	1:11:28 PM	65.2	65.7	1:39:53 PM	63.5	59.1	2:01:23 PM	56.4	56.0
2.5	12:34:22 PM	57.1	57.9	1:11:58 PM	63.7	65.3	1:40:23 PM	58.3	58.9	2:01:53 PM	54.5	55.7
3.0	12:34:52 PM	58.0	57.9	1:12:28 PM	70.0	66.1	1:40:53 PM	58.0	58.8	2:02:23 PM	56.3	55.8
3.5	12:35:22 PM	58.4	58.0	1:12:58 PM	63.7	65.8	1:41:23 PM	61.9	59.2	2:02:53 PM	56.5	55.9
4.0	12:35:52 PM	58.7	58.1	1:13:28 PM	70.2	66.3	1:41:53 PM	57.6	59.0	2:03:23 PM	55.7	55.9
4.5	12:36:22 PM	57.3	58.0	1:13:58 PM	62.0	65.8	1:42:23 PM	59.8	59.1	2:03:53 PM	56.7	56.0
5.0	12:36:52 PM	57.7	58.0	1:14:28 PM	65.9	65.8	1:42:53 PM	61.4	59.3	2:04:23 PM	56.0	56.0
5.5	12:37:22 PM	56.9	57.9	1:14:58 PM	62.5	65.5	1:43:23 PM	59.2	59.3	2:04:53 PM	53.7	55.8
6.0	12:37:52 PM	56.5	57.8	1:15:28 PM	63.9	65.4	1:43:53 PM	61.6	59.5	2:05:23 PM	53.1	55.5
6.5	12:38:22 PM	56.5	57.7	1:15:58 PM	62.7	65.2	1:44:23 PM	59.2	59.5	2:05:53 PM	57.3	55.7
7.0	12:38:52 PM	56.9	57.6	1:16:28 PM	64.0	65.1	1:44:53 PM	61.9	59.7	2:06:23 PM	54.8	55.6
7.5	12:39:22 PM	57.2	57.6	1:16:58 PM	63.6	65.0	1:45:23 PM	61.5	59.8	2:06:53 PM	54.2	55.5
8.0	12:39:52 PM	56.2	57.5	1:17:28 PM	64.6	65.0	1:45:53 PM	60.6	59.8	2:07:23 PM	54.3	55.4
8.5	12:40:22 PM	55.7	57.4	1:17:58 PM	66.1	65.0	1:46:23 PM	57.3	59.7	2:07:53 PM	54.8	55.4
9.0	12:40:52 PM	56.8	57.4	1:18:28 PM	65.0	65.0	1:46:53 PM	58.9	59.6	2:08:23 PM	56.6	55.5
9.5	12:41:22 PM	56.9	57.3	1:18:58 PM	63.0	64.9	1:47:23 PM	59.0	59.6	2:08:53 PM	55.0	55.4
10.0	12:41:52 PM	55.3	57.2	1:19:28 PM	67.7	65.1	1:47:53 PM	58.3	59.5	2:09:23 PM	55.5	55.5
10.5	12:42:22 PM	57.3	57.2	1:19:58 PM	66.8	65.2	1:48:23 PM	61.0	59.6	2:09:53 PM	55.4	55.4
11.0	12:42:52 PM	57.5	57.2	1:20:28 PM	64.7	65.1	1:48:53 PM	60.7	59.7	2:10:23 PM	61.3	55.7
11.5	12:43:22 PM	57.1	57.2	1:20:58 PM	63.7	65.1	1:49:23 PM	56.6	59.5	2:10:53 PM	56.8	55.8
12.0	12:43:52 PM	57.0	57.2	1:21:28 PM	63.2	65.0	1:49:53 PM	60.5	59.6	2:11:23 PM	60.3	56.0
12.5	12:44:22 PM	60.0	57.3	1:21:58 PM	66.3	65.0	1:50:23 PM	61.4	59.6	2:11:53 PM	55.7	55.9
13.0	12:44:52 PM	63.4	57.6	1:22:28 PM	64.5	65.0	1:50:53 PM	57.8	59.6	2:12:23 PM	56.0	55.9
13.5	12:45:22 PM	61.5	57.7	1:22:58 PM	65.8	65.1	1:51:23 PM	58.3	59.5	2:12:53 PM	55.5	55.9
14.0	12:45:52 PM	59.9	57.8	1:23:28 PM	62.8	65.0	1:51:53 PM	62.7	59.6	2:13:23 PM	55.6	55.9
14.5	12:46:22 PM	60.0	57.9	1:23:58 PM	67.2	65.1	1:52:23 PM	58.8	59.6	2:13:53 PM	56.1	55.9
15.0	12:46:52 PM	59.0	57.9	1:24:28 PM	66.9	65.1	1:52:53 PM	58.5	59.6	2:14:23 PM	54.2	55.9

TRAFFIC COUNTS

Project Name: SUM-277 Page 1 of 3

R1

Road Name: I-277 Date: 3-2-17

Location of Count: 2482 SW 11TH ST. Time of Day: 11:30 A

Significant Noise From Nearby Scrapyard + RR Length of Time: 15 min.

Temp 33° wind 10 mph

Vehicle Type	NB / WB	SB / EB
Cars	334	312
Medium Trucks	7	10
Heavy Trucks	24	32

R2

Road Name: I-277 Date: 3-2-17

Location of Count: Ball Field behind 2824 Manchester Rd. Time of Day: 10:20

Akron Baptist Temple Length of Time: 15 min.

Active RR just W. of Ball Fields

Temp 32° wind 10 mph

Vehicle Type	NB / WB	SB / EB
Cars	345 E23	301
Medium Trucks	6	12
Heavy Trucks	23	34

R3

Road Name: I-277 Date: 3-2-17

Location of Count: 581 Fillmore Ave. Time of Day: 12:30

Length of Time: 15 min.

Temp 33° wind 10 mph

Vehicle Type	NB / WB	SB / EB
Cars	371	309
Medium Trucks	10	3
Heavy Trucks	16	32

TRAFFIC COUNTS

Project Name: Sum-277 Page 2 of 5

R4 Road Name: I-277 Date: 3-2-17 Temp 33° wind 10 mph

Location of Count: 2589 Belton Ave. Time of Day: 12:00

Length of Time: 15 min

Vehicle Type	NB / WB	SB / EB
Cars	404	296
Medium Trucks	7	4
Heavy Trucks	19	30

R5 Road Name: I-77 Date: 3-2-17 Temp 35° wind 10 mph

Location of Count: Walking/Bikepath Time of Day: 1:00 pm

Length of Time: 15 min.

Vehicle Type	NB / WB	SB / EB
Cars	429 E23	420
Medium Trucks	10	15
Heavy Trucks	18	29

R6 Road Name: I-277 Date: 3-2-17 Temp 34° wind 10 mph

Location of Count: Holy Cross Cemetary Time of Day: 3:50 pm

Holy Name Mausoleum SW corner Length of Time: 15 min

Blizzard started toward the end of this reading.

Vehicle Type	NB / WB	SB / EB
Cars	696	698
Medium Trucks	5	8
Heavy Trucks	18	17

8/17/2016 4:37 PM

TRAFFIC COUNTS

Project Name: Sum-277 Page 3 of 5

R7 Road Name: I-277 Date: 3-2-17 Temp 34° wind 10 mph

Location of Count: 320 Guys Run Rd. Time of Day: 2:00 p.m.

Villa at Marion Park - Retirement home Length of Time: 15 min.

Vehicle Type	NB / WB	SB / EB
Cars	401	303
Medium Trucks	5	5
Heavy Trucks	16	26

R8 Road Name: I-277 Date: 3-9-17 Temp 44° wind 7 mph

Location of Count: 638 Woodview Time of Day: 10:45 a

Across Woodview From above Length of Time: 15 min

Vehicle Type	NB / WB	SB / EB
Cars	373 E23	429
Medium Trucks	7	19
Heavy Trucks	27	46

R9 Road Name: I-277 Date: 3-9-17 Temp. 44° wind 8 mph

Location of Count: 535 Wykeham Ct. Time of Day: 11:05 a

Front yd. Length of Time: 15 min.

Vehicle Type	NB / WB	SB / EB
Cars #	385	399
Medium Trucks	11	6
Heavy Trucks	21	29

TRAFFIC COUNTS

Project Name: SUM-277 Page 4 of 5

R1A

Road Name: I-277 Date: 3-9-17

Location of Count: 519 Seaton Ct Time of Day: 11:30 AM

Length of Time: 15 min

Temp: 46° Wind: 7 mph

Vehicle Type	NB / WB	SB / EB
Cars	390	439
Medium Trucks	11	8
Heavy Trucks	23	16

R1B

Road Name: I-277 Date: 3-9-17

Location of Count: 2239 Markey Time of Day: 12:00 PM

Length of Time: 15 min.

Temp: 46° Wind: 7 mph

Vehicle Type	NB / WB	SB / EB
Cars	403	392
Medium Trucks	5	13
Heavy Trucks	29	31

R1A

Road Name: I-277 Date: 3-9-17

Location of Count: 2303 Swartz Time of Day: 12:30 PM

First Wesleyan Meth. Church - Residences in rear of signals Length of Time: 15 min.

Temp: 46° Wind: 7 mph

Vehicle Type	NB / WB	SB / EB
Cars	418	456
Medium Trucks	14	6
Heavy Trucks	35	38

R1B

Road Name: I-277 Date: 3-9-17

Location of Count: 2643 Conrad Ave Time of Day: 1:10 PM

Length of Time: 15 min

Temp: 48° Wind: 7 mph

Vehicle Type	NB / WB	SB / EB
Cars	413	492
Medium Trucks	7	6
Heavy Trucks	22	29

TRAFFIC COUNTS

Project Name: SUM-277 Page 5 of 5

R14

Road Name: I-277 Date: 3-9-17

Location of Count: 2645 Manchester Time of Day: 1:40 PM

Length of Time: 15 min

Temp: 44° Wind: 7 mph

93 (Manchester) had big effect on reading

Vehicle Type	NB / WB	SB / EB
Cars	448	519
Medium Trucks	10	15
Heavy Trucks	24	25

R15

Road Name: I-277 Date: 3-9-17

Location of Count: Waters Edge & Nesmith Park Time of Day: 2:00 PM

Length of Time: 15 mins

Temp: 49° Wind: 7 mph

Vehicle Type	NB / WB	SB / EB
Cars	E23 350	340
Medium Trucks	3	9
Heavy Trucks	14	43

Side Rd.

Road Name: SR 93 Manchester Date: 3-9-17

Location of Count: S. of I-277 Time of Day: 1:40

Length of Time: 15 min

Vehicle Type	NB / WB	SB / EB
Cars	221	192
Medium Trucks	29	17
Heavy Trucks	18	11

APPENDIX A: PHOTOS

Noise Reading 1: Single-family residence, 2499 11th Street SW, Looking South

Noise Reading 2: Ballfields, Akron Baptist Temple, 2324 Manchester Road, Looking Southwest

Noise Reading 3: Single-family residence, 592 Fillmore Avenue, Looking West

Noise Reading 4: Single-family residence, 2588 Pelton Avenue, Looking South

Noise Reading 5: Recreational Trail, 2300 Ley Drive & Canal, Looking South

Noise Reading 6: Holy Name Mausoleum, Holy Cross Cemetery, 100 E Waterloo Road, Looking South

Noise Reading 7: Villa at Marian Park Retirement Center, 320 Guys Run Road, Looking South

Noise Reading 8: Single-family residence, 638 Woodview Drive, Looking North

Noise Reading 9: Single-family residence, 535 Wykeham Court, Looking North

Noise Reading 10: Single-family residence, 519 Seaton Court, Looking North

Noise Reading 11: Single-family residence, 2239 Markey Street, Looking North

Noise Reading 12: Residence at Akron First Wesleyan Church, 2303 Swartz Road, Looking North

Noise Reading 13: Single-family residence, 2643 Conrad Avenue, Looking North

Noise Reading 14: Childtime Daycare, 2645 Manchester Road, Looking North

Noise Reading 15: Ballfields, The Water's Edge at Lake Nesmith, 2666 Manchester Road, Looking Northeast

IE
MONITORING INSTRUMENTS
Industrial Environmental Monitoring Instruments, Inc.

7410 Worthington-Galena Road
Worthington, Ohio 43085
Phone: (614) 436-4933
Fax: (614) 436-9144

Website: www.ierents.com

Certificate of Calibration

Submitted By: IE Monitoring Instruments
7410 Worthington-Galena Road
Worthington, OH 43085

Serial No: QIE120114/ B18371B
Model: QC-10

Date Received: 10/26/2016
Date Issued: 10/26/2016
Valid Until: 10/26/2017

Test Conditions:
Temperature 71.0 F
Humidity 48.1 %
Barometric Pressure 29.238" Hg

Model Conditions:
As Received: Fully Functional and In Tolerance
Final Condition: Fully Functional and In Tolerance

Test Results:
Output: 114.0 dB Frequency: 0.999352 KHz VAC: 1.011

Standards:

Device	Serial Number	Last Calibration	Date Calibration Due
Quest SoundPro Type I	BKL120001	2/23/2016	2/23/2017
Quest AC-300	AC3000002327	2/23/2016	2/23/2017
Agilent 34401A	MY41002352	10/09/2015	10/09/2017

Calibrated By: Ryan Taylor, Service Technician **10/26/2016**

This report certifies that all calibration equipment used in the test is traceable to the NIST, and applies only to the unit identified above. All tolerances of accuracy are within the manufactures specifications.

7410 Worthington-Galena Road
Worthington, Ohio 43085
Phone: (614) 436-4933
Fax: (614) 436-9144

Industrial Environmental Monitoring Instruments, Inc.

Website: www.ierents.com

Certificate of Calibration

Submitted By: IE Monitoring Instruments
7410 Worthington-Galena Road
Worthington, OH 43085

Serial No: BIG080015
Model: Soundpro SE/DL

Date Received: 10/26/2016
Date Issued: 10/26/2016
Valid Until: 10/26/2017

Test Conditions:
Temperature 71.0° F
Humidity 48.1 %
Barometric Pressure 29.238" Hg

Model Conditions:
As Received: Fully Functional and In Tolerance
Final Condition: Fully Functional and In Tolerance

Test Results:
A & C Weightings +/- 0.2 dB
Linearity +/- 0.1 dB

Type II Accuracy: +/- 2 dB
Linearity Accuracy: +/- 0.5dB

Reference Standards:

Device	Serial Number	Last Calibration	Date Calibration Due
Quest SoundPro Type 1	BKL120001	2/23/2016	2/23/2017
Quest AC-300	AC300002327	2/23/2016	2/23/2017

Calibrated By: Ryan Taylor, Service Technician **10/26/2016**

This report certifies that all calibration equipment used in the test is traceable to the NIST, and applies only to the unit identified above. All tolerances of accuracy are within the manufactures specifications.

SUM-277-0.16

		South Akron Knights of Columbus
Equivalent Receptors		**0.12**
# of Occupants Per Day		8
# of People per Eq. Residence		3
Usage Factor:		0.04
Hours Per Weekday	5	3
Hours Per Weekend-Sat	1	0
Hours Per Weekend-Sun	1	0
Days Per Week	7	5
Months Per Year	12	6

Grey: Constants
Blue: Enter Data
Bold/Red: Results

APPENDIX B

Traffic Data

This appendix contains the following materials:

1. Traffic Table

Roadways	Existing ADT						Speed Limit
	Existing ADT	K(%)	T24(%)	A	B	C	
I-277							
I-277 EB, West of I-76	74600	10%	10%	3357	261	112	60
I-277 WB, West of I-76		10%	10%	3357	261	112	60
I-277 EB, Btwn I-76 & Waterloo	54930	10%	10%	2472	192	82	60
I-277 WB, Btwn I-76 & Waterloo		10%	10%	2472	192	82	60
I-277 EB, Btwn Waterloo & SR93	45840	10%	10%	2063	160	69	60
I-277 WB, Btwn Waterloo & SR93		10%	10%	2063	160	69	60
I-277 EB, Btwn SR93 & S Main St	60870	10%	10%	2739	213	91	60
I-277 WB, Btwn SR93 & S Main St		10%	10%	2739	213	91	60
I-277 EB, Btwn S Main St & I-77	59830	10%	10%	2692	209	90	60
I-277 WB, Btwn S Main St & I-77		10%	10%	2692	209	90	60
I-76 NB from I-277 EB	55000	10%	10%	2475	193	83	55
I-76 SB to I-277 EB		10%	10%	2475	193	83	55
I-277 WB On Ramp from Waterloo Rd	5040	10%	10%	454	35	15	45
I-277 EB On Ramp from SR93	7940	10%	10%	715	56	24	45
I-277 WB Off Ramp to SR93	7603	10%	10%	684	53	23	45
I-277 EB Off Ramp to S Main St	6149	10%	10%	553	43	18	45
I-277 WB On Ramp from S Main St	6062	10%	10%	546	42	18	45
I-277 EB Off Ramp to I-77 SB	15536	10%	10%	1398	109	47	45
I-277 WB On Ramp from I-77 SB	9304	10%	10%	837	65	28	45
Additional Roads							
SR93/Manchester NB, South of I-277	24480	10%	4%	1175	34	15	35
SR93/Manchester SB, South of I-277		10%	4%	1175	34	15	35
SR93/Manchester NB, Btwn I-277 & Waterloo	26290	10%	4%	1262	37	16	35
SR93/Manchester SB, Btwn I-277 & Waterloo		10%	4%	1262	37	16	35
SR93/Manchester NB,Btwn Waterloo&School	11370	10%	4%	546	16	7	35
SR93/Manchester SB,Btwn Waterloo&School		10%	4%	546	16	7	35
SR93/Manchester NB, North of School	11370	10%	4%	546	16	7	35
SR93/Manchester SB, North of School		10%	4%	546	16	7	35
Waterloo EB, West of I-277	6310	10%	2%	309	4	2	35
Waterloo WB, West of I-277		10%	2%	309	4	2	35
Waterloo EB, Btwn I-277 & SR93	6310	10%	2%	309	4	2	35
Waterloo WB,Btwn I-277 & SR93		10%	2%	309	4	2	35
Waterloo EB, East of SR93	8890	10%	2%	436	6	3	35
Waterloo WB, East of SR93		10%	2%	436	6	3	35
Waterloo EB, East of S Main St	12640	10%	2%	619	9	4	35
Waterloo WB, East of S Main St		10%	2%	619	9	4	35
S Main St SB, South of Swartz Rd	11500	10%	4%	552	16	7	40
S Main St NB, South of Swartz Rd		10%	4%	552	16	7	40
S Main St SB, Btwn Swartz Rd & I-277 WB On Ramp	10860	10%	4%	521	15	7	40
S Main St NB, Btwn Swartz Rd & I-277 WB On Ramp		10%	4%	521	15	7	40
S Main St SB, North of I-277 WB On Ramp	17210	10%	4%	826	24	10	35
S Main St NB, North of I-277 WB On Ramp		10%	4%	826	24	10	35
Swartz Rd EB	5880	10%	1%	291	2	1	35
Swartz Rd WB		10%	1%	291	2	1	35
I-77 SB	100900	10%	10%	4541	353	151	65
I-77 NB		10%	10%	4541	353	151	65

Note 1:Traffic data gathered from AMATS & ODOT TIMS

Note 2: Grey boxes contain the provided traffic data, white boxes contain calculations.\

A = Cars

B = Medium Trucks

C = Heavy Trucks

APPENDIX C

TNM Input & Output Tables

This appendix contains the following materials:

1. Calibration Models, Plan View & Tables
2. Existing Models, Plan View & Tables
3. Barrier 3, Plan View & Barrier Input Table
4. Barrier 3-Alternative 1, Barrier Analysis View & Tables
5. Barrier 3-Alternative 2, Barrier Analysis View & Tables
6. Barrier 3-Alternative 3, Barrier Analysis View & Tables
7. Barrier 4, Plan View & Barrier Input Table
8. Barrier 4-Alternative 1, Barrier Analysis View & Tables
9. Barrier 4-Alternative 2, Barrier Analysis View & Tables
10. Barrier 4-Alternative 3, Barrier Analysis View & Tables
11. Barrier 4-Alternative 4, Barrier Analysis View & Tables
12. Barrier 5, Plan View & Barrier Input Table
13. Barrier 5-Alternative 1, Barrier Analysis View & Tables
14. Barrier 5-Alternative 2, Barrier Analysis View & Tables
15. Barrier 5-Alternative 3, Barrier Analysis View & Tables
16. Barrier 6&7, Plan View & Barrier Input Table
17. Barrier 6&7-Alternative 1, Barrier Analysis View & Tables
18. Barrier 6&7-Alternative 2, Barrier Analysis View & Tables
19. Barrier 6&7-Alternative 3, Barrier Analysis View & Tables

Please note: the materials for this Appendix are provided in a separate file.

APPENDIX D

Property Owner Tables

This appendix contains the following materials:

1. Benefitted Property Owner Mailing List for:
    a. Barrier 1-Alternative 3
    b. Barrier 4-Alternative 4
    c. Barrier 5-Alternative 1

Appendix D: Property Owner Tables

Receiver	Barrier	Owner Name	Physical Address	Mailing Address
A23	3	Stephen Martin Sr & Aprel Brant	536 Brenneman Blvd, Akron OH 44314	N/A
A24	3	Daniel Kelly	2626 Nesbitt Ave, Akron OH 44314	N/A
A25	3	Lori Ditomaso	506 Brenneman Blvd, Akron OH 44314	2876 Erie Dr, Akron, OH 44333
A26	3	Randal & Cindy McEuen	500 Brenneman Blvd, Akron OH 44314	3145 Wheeling Dr., Akron OH 44319
A27	3	Kelley Properties Inc	494 Brenneman Blvd, Akron OH 44314	PO Box 772, Bath OH 44210
A28	3	Andrew & Collee Wamsley	2636 Pelton Ave, Akron OH 44314	N/A
A44	3	Ruth Ann & Thomas Samaras	2644 Pelton Ave, Akron OH 44314	3451 Saddleboror Dr, Uniontown OH 44685
A45	3	Rebound Property Management Inc	2648 Pelton Ave, Akron OH 44314	9244 Mennonite Rd, Wadsworth OH 44281
A48	3	Good Samarigan II LLC	2645 Pelton Ave, Akron OH 44314	2198 Copley Rd, Akron OH 44320
A49	3	Dennis Graves	2648 Conrad Ave. Akron OH 44314	N/A
A51	3	Patricia Mitchell	2643 Conrad Ave. Akron OH 44314	N/A
A52	3	Chris & Kristen Fleischer	2638 Edwin Ave, Akron OH 44314	3655 Lovell Ln, Medina OH 44256
A53	3	Jack & Debra Starkey	2637 Edwin Ave, Akron OH 44314	N/A
A54	3	TXS Property Services LLC	2658 Christensen Ave, Akron OH 44314	71 Cotter Ave, Akron OH 44305
A55	3	Rosemary Fausnight	2657 Christensen Ave, Akron OH 44314	N/A
A56	3	Janet Simcox	2670 Nesmith Lake Blvd, Akron OH 44314	N/A
A58	3	David & Victoria Zeiner	2649 Pelton Ave, Akron OH 44314	N/A
	3	Steven Dalessandro	2653 Pelton Ave, Akron OH 44314	N/A
A61	3	Richard & Betty Spindler	2654 Conrad Ave, Akron OH 44314	N/A
A62	3	Barbara Meyer	2660 Conrad Ave, Akron OH 44314	N/A
A66	3	Jeanne Finnerty	2647 Conrad Ave, Akron OH 44314	N/A
A67	3	Theresa & Charles Gallo	2651 Conrad Ave, Akron OH 44314	N/A
A68	3	Donald McCann Sr	2659 Conrad Ave, Akron OH 44314	N/A
A69	3	Walter & Tonia Hoffman	2665 Conrad Ave, Akron OH 44314	N/A
A76	3	Jason & Tiffany Spencer	2642 Edwin Ave, Akron OH 44314	N/A
A77	3	Patricia & Phillip Albro	2650 Edwin Ave, Akron OH 44314	N/A
A84	3	Chadwick Hills	2641 Edwin Ave, Akron OH 44314	22104 N Dietz Dr, Maricopa AZ 85138
A85	3	John Resch Co-Trustee & Anna Resch Co-Trustee	2651 Edwin Ave, Akron OH 44314	N/A
A97	3	Michael & Donna Rentals LLC	2662 Christensen Ave, Akron OH 44314	1288 Cedar Wood Way, Uniontown OH 44685
A98	3	Michael Clappe	2666 Christensen Ave, Akron OH 44314	N/A
A99	3	Michael Clowser	2670 Christensen Ave, Akron OH 44314	3409 Kendall Cir, Cuyahoga Falls OH 44221
A100	3	Shane Lawless	2676 Christensen Ave, Akron OH 44314	N/A
A107	3	Ellannye Shoup & Stephen Harding	2665 Christensen Ave, Akron OH 44314	N/A
A108	3	Maria Tallman	2669 Christensen Ave, Akron OH 44314	N/A
A109	3	Michael & Susan Hess	2675 Christensen Ave, Akron OH 44314	N/A
A110	3	Patricia Faith	2679 Christensen Ave, Akron OH 44314	N/A
A116	3	Dakota Shield II Limited Partnership	2680 Nesmith Lake Blvd, Akron OH 44314	5775 Fairview Dr, Clinton OH 44216
A153	4	Vacant lot	Vacant lot	N/A
A154	4	Anna Marie Chapman	2515 SW 7th St, Akron OH 44314	N/A
A155	4	Kelley Properties Inc	2511 SW 7th St, Akron OH 44314	PO Box 772, Bath OH 44210
A156	4	Charles Stoll & Robin Hartline	2501 SW 7th St, Akron OH 44314	1501 Charlotte Dr, Sebring FL 33875
A157	4	Samuel Tucker & Janice Dorothy	659 Robin St, Akron OH 44314	N/A
A158	4	William Miller Jr	2473 SW 7th St, Akron OH 44314	N/A
A159	4	Ralph Powell Jr	2469 SW 7th St, Akron OH 44314	N/A
A160	4	Robby Amshey	2470 SW 7th St, Akron OH 44314	N/A
A162	4	Joseph Jones	2465 SW 7th St, Akron OH 44314	N/A
A163	4	Wilbur & Emma Hodgman	2468 SW 7th St, Akron OH 44314	2445 8th St SW, Akron OH 44314
A165	4	Akron Baptist Temple	2324 Manchester Rd, Akron OH 44314	N/A
A166	4			
A167	4			
A169	4			
A176	4	Cheryl & Terry Hinkle	2471 Gilbert St, Akron OH 44314	294 Mill Race Run, Akron OH 44312
		Cheryl & Terry Hinkle	2473 Gilbert St, Akron OH 44314	294 Mill Race Run, Akron OH 44312
A177	4	Paul Cortel	566 Fillmore Ave, Akron OH 44314	2305 Copley Rd, Akron OH 44320
		Paul Cortel	568 Fillmore Ave, Akron OH 44314	2305 Copley Rd, Akron OH 44320
A178	4	Scott & Holly Shears	560 Fillmore Ave, Akron OH 44314	N/A
A179	4	Riley Hill	556 Fillmore Ave, Akron OH 44314	N/A
A180	4	Doris Thanos	581 Fillmore Ave, Akron OH 44314	N/A
A181	4	Terry & Patricia Gaugler	2455 Gilbert St, Akron OH 44314	N/A
		Terry & Patricia Gaugler	2457 Gilbert St, Akron OH 44314	2455 Gilbert St, Akron OH 44314
A182	4	Judith Callesen & Deborah Miller	565 Fillmore Ave, Akron OH 44314	N/A
A183	4	Meagan Greathouse	561 Fillmore Ave, Akron OH 44314	N/A
A184	4	Nancy Burkett	555 Fillmore Ave, Akron OH 44314	N/A
A191	4	Norman & Rhonda Gilbert	596 Maringo Ave, Akron OH 44314	669 Etter Rd, Mogadore OH 44260
A192	4	Madeline Orndorff	588 Maringo Ave, Akron OH 44314	N/A
A193	4	Arthur & Cynthia Litten	584 Maringo Ave, Akron OH 44314	1170 Robinson Ave, Barberton OH 44203
A194	4	Peggy Brooks	2445 Gilbert St, Akron OH 44314	298 Calero Ave, San Jose CA 95123
A195	4	David Szalay & Kethleen Esterle	564 Maringo Ave, Akron OH 44314	3870 Brush Rd, Richfield OH 44286

Appendix D: Property Owner Tables

Receiver	Barrier	Owner Name	Physical Address	Mailing Address
A196	4	Mark & Betsy Victor	554 Maringo Ave, Akron OH 44314	N/A
A200	4	Brenda Carroll	601 Maringo Ave, Akron OH 44314	N/A
A201	4	Jack Shiflett	595 Maringo Ave, Akron OH 44314	N/A
A202	4	Opal Lane Properties LLC	589 Maringo Ave, Akron OH 44314	1209 Harpster Ave, Akron OH 44314
A203	4	Kurt Rudd	583 Maringo Ave, Akron OH 44314	N/A
A204	4	Jody Phillips	577 Maringo Ave, Akron OH 44314	N/A
A205	4	Ronald Brigley Jr	563 Maringo Ave, Akron OH 44314	N/A
A213	5	Tera & Daniel Plasity	2560 Nesbitt Ave, Akron OH 44314	N/A
A214	5	Andrew Becht	2556 Nesbitt Ave, Akron OH 44314	N/A
A215	5	Ronnald Erb	2552 Nesbitt Ave, Akron OH 44314	N/A
A222	5	Nicholas Triola	2573 Nesbitt Ave, Akron OH 44314	1405 Steese Rd, Uniontown OH 44685
A223	5	Patricia Goffee	2569 Nesbitt Ave, Akron OH 44314	N/A
A224	5	Terry Ragland	495 Fritch Ave, Akron OH 44314	N/A
A225	5	David Stetler	2551 Nesbitt Ave, Akron OH 44314	N/A
A234	5	Michael & Jame Rohr	2588 Pelton Ave, Akron OH 44314	14587 Moine Rd, Doylestown OH 44230
A235	5	Janet Miller	2580 Pelton Ave, Akron OH 44314	N/A
A236	5	Veronica Hunyadi	483 Fritch Ave, Akron OH 44314	N/A
A237	5	William & Rosalie Smith	2560 Pelton Ave, Akron OH 44314	N/A
A242	5	Robert Kuba	2591 Pelton Ave, Akron OH 44314	N/A
A243	5	Cheryl Boyes	2581 Pelton Ave, Akron OH 44314	280 Kings Church Ave, Hartville OH 44632
A244	5	Robert Stewart II	2563 Pelton Ave, Akron OH 44314	N/A
A245	5	Bobbie Jo Scarito	2559 Pelton Ave, Akron OH 44314	P.O. Box 3792, Akron OH 44314
A246	5	Andrew Zager	2555 Pelton Ave, Akron OH 44314	N/A
A253	5	Buddy & Sanja Canterbury	2596 Pelton Ave, Akron OH 44314	N/A
A254	5	Lifeline Property Solutions Inc	2586 Conrad Ave, Akron OH 44314	1961 E Maple St Suite 123, North Canton OH 44720
A255	5	Larry Stalcup	2570 Conrad Ave, Akron OH 44314	2983 Pickle Rd, Akron OH 44312
A256	5	Betty & Gary Garner	2562 Conrad Ave, Akron OH 44314	N/A
A260	5	Carol Jones & Belinda Wood	2597 Conrad Ave, Akron OH 44314	N/A
A261	5	Carol Jones	2589 Conrad Ave, Akron OH 44314	2597 Conrad Ave, Akron OH 44314
A262	5	Page Craft	440 Fritch Ave, Akron OH 44314	N/A
A263	5	Don Rowan	2571 Conrad Ave, Akron OH 44314	2301 West Big Beaver Rd Suite 525, Troy MI 48084
A264	5	Milorad & Svetomira Radic	2565 Conrad Ave, Akron OH 44314	N/A
A265	5	Gary Carr	2559 Conrad Ave, Akron OH 44314	12467 Pleasant Home Rd, Marshallville OH 44645
A270	5	John & Leah McGraw	2592 Edwin Ave, Akron OH 44314	N/A
A271	5	Lynn Vanca	2588 Edwin Ave, Akron OH 44314	N/A
A272	5	Jennings Davission Jr	2582 Edwin Ave, Akron OH 44314	N/A
A273	5	John Toth	422 Fritch Ave, Akron OH 44314	N/A
A274	5	Jeffrey Dawson	2568 Edwin Ave, Akron OH 44314	N/A
A275	5	Barbara Graham	2564 Edwin Ave, Akron OH 44314	N/A
A278	5	Pietro Cursio	2591 Edwin Ave, Akron OH 44314	650 E Baird Ave, Barberton OH 44203
A279	5	Robert Gossard	2587 Edwin Ave, Akron OH 44314	N/A
A280	5	Michael Holloway	2577 Edwin Ave, Akron OH 44314	N/A
A281	5	Karen Bennett	2573 Edwin Ave, Akron OH 44314	N/A
A291	5	Dean Keiser	2612 Christensen Ave, Akron OH 44314	1678 Limbach Rd, Clinton OH 44216
A292	5	Jessica Balogh	2608 Christensen Ave, Akron OH 44314	5 State House Plaza Ste #500, Little Rock AR 72201
A293	5	James & Megan King	2600 Christensen Ave, Akron OH 44314	N/A
A294	5	Maurice Coleman	2596 Christensen Ave, Akron OH 44314	N/A
A299	5	Richard Jones & Sharon Mutch	2613 Christensen Ave, Akron OH 44314	351 Waterford St, Akron OH 44314
A300	5	Clement & Rosealee Knapp	2607 Christensen Ave, Akron OH 44314	N/A
A301	5	Cory Andreff	2597 Christensen Ave, Akron OH 44314	3401 Morse Crossing, Columbus OH 43219
A309	5	Virgil & William Wilmot	2626 Nesmith Lake Blvd, Akron OH 44314	N/A
A310	5	Mark Williams	2620 Nesmith Lake Blvd, Akron OH 44314	N/A
A311	5	Jeffrey Affolter	2616 Nesmith Lake Blvd, Akron OH 44314	1404 Lockwood Rd, Barberton OH 44203
A319	5	Michael & Theresa Donze	2625 Nesmith Lake Blvd, Akron OH 44314	N/A