Appendix K:
Surface Transportation Assessment

Noise Analysis Report

NOISE ANALYSIS REPORT

ST. LOUIS LAMBERT INTERNATIONAL AIRPORT
CONSOLIDATED TERMINAL PROGRAM I-70 MODIFICATIONS

ST. LOUIS, ST. LOUIS COUNTY, MISSOURI
MAY 2024

PREPARED FOR:

MISSOURI DEPARTMENT OF TRANSPORTATION

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EXECUTIVE SUMMARY

St. Louis Lambert International Airport (STL) is proposing improvements to the airport terminal and associated facilities at STL, including improvements to on-airport parking and access drives. The Federal Aviation Authority (FAA) Consolidated Terminal Program (CTP) project NEPA study area is shown in the County Location, USGS Topographic, and Aerial maps in Appendix A.

As a result of the access changes, this project includes proposed changes to the portion of Interstate 70 (I-70) and associated interchanges and ramps that are adjacent to the terminal. The proposed highway changes are located in the section of I-70 from the split Cypress Road/Natural Bridge Road interchange on the west to the STL airport interchange at Airflight Drive on the east. The proposed highway changes include the following improvements:

- Removal of the westbound onramp from Lambert International Boulevard, west of the existing airport terminal
- Addition of an auxiliary lane adjacent to the north outside lane of I-70, beginning at the westbound onramp of the STL airport interchange and ending at the existing auxiliary lane that extends west from the Lambert International Boulevard onramp, which will be removed
- Reconfiguration of the lanes on Cypress Road, Natural Bridge Road, and the interchange ramps at the Natural Bridge Road/Cypress Road interchange

The project is a Type 1 project under 23 CFR 772.5 because it involves a new auxiliary lane that will extend approximately 2,800 feet. FHWA guidance does not exempt from noise analysis projects that include auxiliary lanes 2,500 feet or longer. The highway traffic noise study area, which includes the area within 500 feet from the portion of I-70 where the improvements are proposed, is shown in the Traffic Noise Study Area Map in Appendix A.

A total of 204 noise-sensitive receptors, represented by 205 TNM receivers, were evaluated for noise impacts as part of this study. The receptors include the following:

- 18 single-family residences (18 dwelling units) and a day care with outdoor playground in the neighborhood south of the westbound I-70 Cypress Road interchange ramps (the Cypress Road neighborhood)
- Receivers representing two team benches at the St. Ann Park ballfield
- 29 single-family residences (29 dwelling units) in the neighborhood along Ashby Road east of St. Ann Park (the Ashby Road neighborhood)
- 128 apartments (128 dwelling units) in the Pear Tree Apartments complex, as well as a receptor representing the pool for the apartment complex
- 23 single-family residences and duplexes (28 dwelling units) in the residential neighborhood south of the Pear Tree Apartments complex (the Pear Tree Lane neighborhood)
- Three hotels with outdoor pools

The evaluation was performed using Traffic Noise Model (TNM) 2.5. The TNM model was validated by field measurements, the locations of which may be seen in the NAC Activity Class Map with Proposed Field Measurements in Appendix A. Traffic noise impacts, which are determined by the 2037 Build scenario, are predicted for 67 receivers, including six in the Cypress Road neighborhood,

14 in the Ashby Road neighborhood, one of the two ballfield benches, 40 apartments and the pool in the Pear Tree Apartments, and five in the Pear Tree Lane neighborhood. Locations of the projected noise impacts are shown on the Projected Traffic Noise Impacts and Projected Traffic Noise Impacts at Pear Tree Apartments maps in Appendix A. Abatement measures were considered but were found not to be reasonable at the Cypress Road and Ashby Road neighborhoods and at St. Ann Park due to barriers not meeting the noise reduction design goal within a reasonable area per benefited receptor.

Based on consideration of abatement measures, one noise barrier has been recommended for consideration: the barrier at the line of the limited access right of way (ROW) in front of Pear Tree Apartments meets MoDOT's requirements for feasibility and reasonableness, with public involvement required to confirm public desire for the barrier. The recommended barrier and the insertion levels for each receptor in the apartment complex are showin in the Recommended Barrier Insertion Results map in Appendix A.

Based on the studies completed to date, MoDOT has identified 67 impacted receptors and has determined that noise abatement is likely, but not guaranteed, at one location.

Noise Barrier Name	Preliminary General Location	GIS Location Start/End (Lat./Long.)	Average Height (feet)	Length (feet)	Area (Square Ft.)	Material (Construction Material, Surface Texture, Foundation)
Pear Tree Apartments L/A ROW	I-70 Eastbound, at the edge of ROW at and west of the Pear Creek Apartments	Start 38.7416921°N, 90.3767954°W, End 38.7402450°N, 90.373835177°W	19.06	1,057	20,146	Precast Concrete, Absorptive, Ground Mounted

Noise abatement at this location is based upon preliminary design criteria. Noise abatement in these locations at this time has been estimated to reduce the noise level by a minimum of 7 dB(A) at all first-row, ground-floor benefited receptors. A re-evaluation of the noise analysis will occur during final design. If during final design it has been determined that conditions have changed such that noise abatement is not feasible and reasonable, the abatement measures might not be provided. The final decision on the installation of any abatement measure(s) will be made upon the completion of the project's final design and the public involvement process. The viewpoints of the benefited residents and property owners will be sought and will be considered in determining the reasonableness of highway traffic noise abatement measures for proposed highway construction projects. MoDOT and FAA will incorporate highway traffic noise consideration in on-going activities for public involvement in the highway program.

PROJECT DESCRIPTION

The STL CTP project is the result of STL master planning efforts that considered multiple concepts for terminal layouts, including multiple options that retain the existing two terminals and multiple options for a consolidated terminal. Five rounds of alternatives analysis resulted in a preferred alternative. In February 2023, STL finalized its master plan around the proposed STL CTP. The NEPA study area for the STL CTP is shown in the County Location, USGS Topographic and Aerial maps in Appendix A.

During the conceptual design phase of the STL CTP, it was determined that some off-airport roadway capacity improvements would be needed to better accommodate vehicular traffic demand that currently accesses two terminals at STL but would access a single terminal under the Proposed Action. The traffic noise impacts of these proposed off-airport roadway improvements are addressed in this noise analysis. Because roadway plans remain at the conceptual stage, this description and the noise analysis performed on its basis should be considered preliminary.

The I-70 modification project is located adjacent to the south side of STL, in Edmundson, St. Ann, and Bridgeton, Missouri. The traffic noise study area includes approximately 1.1 miles from the split Cypress Road/Natural Bridge Road interchange on the west to the STL Airport interchange at Airflight Drive on the east. The traffic noise study area may be seen in the Traffic Noise Study Area map in Appendix A.

At present, this section of I-70 has three lanes traveling in each direction, with acceleration and deceleration lanes at the ramps to and from Airflight Drive, Cypress Road and Natural Bridge Road and an acceleration ramp on the westbound side from Lambert International Drive between Airflight Drive and Cypress Road. An auxiliary lane is provided between the Lambert International Drive acceleration ramp and the Cypress Road deceleration lane.

Cypress Road has two traveling lanes in each direction with a center two-way left-turn lane along most of its length. Dedicated right and left turn lanes are provided on all legs at the intersection with the eastbound I-70 ramp south of I-70. At the T-intersection with Natural Bridge Road, Cypress Road has one southbound lane and three northbound turn lanes (two heading west and one heading east).

Airflight Drive has two southbound lanes and three northbound lanes, two through lanes and one turn lane. Lambert International Boulevard consists of three lanes in each direction with two through lanes and one turn lane in each direction. Pear Tree Drive/Lane has primarily one lane in each direction with turn lanes.

The proposed off-airport roadway improvements (preferred alternative) include the following improvements:

- Removal of the westbound onramp from Lambert International Boulevard, west of the existing airport terminal
- Addition of an auxiliary lane adjacent to the north outside lane of I-70, beginning at the westbound onramp of the STL airport interchange and ending at the existing auxiliary lane that extends west from the Lambert International Boulevard onramp that will be removed

- Reconfiguration of the lanes on Cypress Road, Natural Bridge Road, and the interchange ramps at the Natural Bridge Road/Cypress Road interchange

The project is a Type 1 project under 23 CFR 772.5 because it involves a new auxiliary lane that will extend approximately 2,800 feet. FHWA guidance does not exempt from noise analysis projects that include auxiliary lanes 2,500 feet or longer.

CRITERIA FOR DETERMINING IMPACTS

TRAFFIC NOISE TERMINOLOGY

Noise is generally defined as unwanted sound. Its loudness is measured in terms of sound pressure levels expressed in decibels (dB) and is composed of a wide range of frequencies. The decibel scale is logarithmic and expresses the ratio of the sound pressure unit being measured to a standard reference level. Most sounds occurring in the environment do not consist of a single frequency, but rather a broad band of differing frequencies. Frequencies are measured in hertz (Hz), which is the number of cycles per second. The human ear is typically capable of hearing frequencies from approximately 20 to 20,000 Hz and is less sensitive to higher and lower frequencies than mid-range frequencies. To compensate for low-end and high-end frequency insensitivity and to render noise levels readings more relevant to human experience, an "A-weighting" scale is used to approximate the response of the human ear. The A-weighted decibel (dB(A)) unit emphasizes measurement of perceptible sound energy and factors out the frequencies not perceptible to humans.

The dB(A) unit may indicate the level of environmental noise at an instant in time, but community noise levels vary continuously. Most environmental noise includes a composite of noise from different sources, creating a relatively steady background noise in which no particular source is identifiable. To describe the time-varying character of traffic noise, the equivalent hourly sound level Leq(h), is commonly used. Leq(h) is defined as the equivalent steady-state sound level over a one-hour period which contains the same acoustic energy as the time-varying sound level during the same period. Noise levels referred to in this report are stated as hourly-equivalent sound pressure levels Leq(h) expressed in units of dB(A).

As decibels are logarithmic units, sound levels cannot be added by ordinary arithmetic means. The following general relationships provide a basic understanding of sound generation and propagation:

- The noise level from a line source, such as moving traffic on a road, will decrease approximately 3 dB(A) with every doubling of distance from the source.
- Research has indicated that a difference of 10 dB(A) is perceived as twice as loud (or half as loud) to the human ear.
- Typically, the human ear can barely perceive a 3 dB(A) change in loudness.

FEDERAL REGULATIONS

The Federal Aid Highway Act of 1970 required the Federal Highway Administration (FHWA) to develop noise standards and abatement requirements for highway traffic noise. These standards are contained in Title 23, Code of Federal Regulations (CFR), Part 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise. This regulation applies to highway construction projects where a state department of transportation has requested Federal funding for participation in the project. 23 CFR 772 provides procedures for preparing operational and construction noise studies and evaluating noise abatement considered for federal and federal-aid highway projects. The regulations do not mandate that the abatement criteria be met in all situations, but rather require that reasonable and feasible efforts be made to provide noise mitigation when the abatement criteria are approached or exceeded. Per 23 CFR 772.3, all highway projects that are developed in conformance with this regulation are deemed to be in conformance with FHWA noise standards.

FHWA has developed three “project types” to assess noise analysis applicability. Federal regulations only apply to Type I and Type II projects. Type III projects are ones that do not meet the definition of a Type I or Type II project and do not require a noise analysis. The project is a Type 1 project under 23 CFR 772.5 because it involves the construction of a roadway on new location. Therefore, a traffic noise analysis is required for the full project limits. The FHWA regulations establish Noise Abatement Criteria (NAC) activity categories based on land use to assess potential traffic noise impacts as defined in 23 CFR 772. The FHWA NAC and description of activity categories are shown in Table 1. Traffic noise impacts occur when predicted design year noise levels under the build scenario approach, meet or exceed the NAC, or if there are substantial increases in traffic noise over existing conditions, independent of the NAC.

The FHWA NAC are used to identify locations where traffic noise impacts occur. The NAC are not used as goals for noise attenuation design criteria or design targets. FHWA requires use of FHWA Traffic Noise Model (TNM) 2.5 or 3.0 to determine current and future traffic noise levels created by a proposed project; TNM 2.5 has been used to perform this noise analysis. FHWA has deferred to the State agencies to define the noise level that “approaches” the NAC and to define a substantial increase in traffic noise levels.

TABLE 1: FHWA NOISE ABATEMENT CRITERIA (NAC) ACTIVITY CATEGORIES

Activity Category	Leq (1 hour)	Description of Activity Category
A	57 dB(A) (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 dB(A) (exterior)	Residential.
C	67 dB(A) (exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails and trail crossings.
D	52 dB(A) (interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools and television studios.
E	72 dB(A) (exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	-	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	-	Undeveloped lands that are not permitted.

Source: 23 CFR 772, Table 1

If one or both of these conditions (noise level approaching the NAC or substantial increase in noise level) are met as a result of the proposed project, 23 CFR 772 requires that noise abatement measures must be considered. Noise abatement measures may include the following:

- Noise barrier construction: Noise barriers reduce noise by blocking the path of sound between the source of the noise and the receiver. To be effective, a noise barrier should be located adjacent to either the noise source or the receiver. There must be a long, continuous break of the line-of-sight from the highway to the receiver.
- Traffic management measures: These may include restrictions on speed, restrictions on traffic volumes, restricted access for certain motor vehicle types, and restricted times of travel.
- Alteration of horizontal and vertical alignments: Alignment of the road refers to the physical layout and location of the highway. A highway's noise impacts may be altered by shifting it in the horizontal or vertical direction.
- Noise insulation of public use or non-profit institution structures: For buildings listed under Category D in Table 1, insulation may be considered as a noise mitigation strategy; this strategy is not available to other types of noise-sensitive development.
- Acquisition of real property: In this case, the DOT acquires, or acquires interest in, primarily undeveloped property near the roadway that is the noise source, to preempt its future development with noise-sensitive uses.

STATE POLICY

FHWA requires that all states have an approved policy to identify and address highway traffic noise impacts. The Missouri Department of Transportation (MoDOT) Engineering Policy Guide Section 127.13, Noise, was developed to implement the requirements of 23 CFR Part 772 and the noise-related requirements of the National Environmental Policy Act (NEPA) of 1969.

FHWA requires use of FHWA Traffic Noise Model (TNM) to determine current and future traffic noise levels created by a proposed project and has deferred to the State agencies to define the noise level that "approaches" the NAC and to define a substantial increase in traffic noise levels.

MoDOT defines noise impacts as modeled traffic-generated noise levels that are predicted to come within 1 dB(A) of, meet, or exceed the NAC for the appropriate activity category or that increase by 15 dB(A) or more over the existing traffic-generated noise levels. MoDOT defines a benefitted receptor as a receptor that receives at least a 7 dB(A) reduction in noise level after the addition of noise abatement measure(s).

MoDOT requires that noise barriers achieve a 5 dB(A) reduction for a minimum of two first row, impacted receivers. If a barrier cannot achieve this acoustic goal, abatement is considered not to be acoustically feasible. MoDOT also requires noise abatement measures to consider engineering feasibility. Engineering feasibility refers primarily to physical constraints and other constructability constraints, such as topography, access, drainage, safety, maintenance, and presence of other noise sources. In general, if these factors are too extreme or cannot be accommodated in providing the minimum noise reduction, noise abatement will be deemed infeasible. For reasons of safety (primarily wind load and clear space concerns), a noise wall's height is limited to 20 feet. The wall height criterion alone cannot be used to consider noise abatement infeasible.

MoDOT's goal for substantial noise reduction is to provide at least a 7.0 dB(A) reduction for all benefited first row receptors in the design year.

For a noise abatement measure to be reasonable the required barrier area (in square feet) per benefited receptor must be less than or equal to the allowable barrier area per benefited receptor of 1,300 square feet. Where noise walls are not options, other noise abatement techniques may be considered, but cannot exceed $46,000 per benefitted receptor.

The objectives of this noise study are to:

- Identify noise sensitive land uses within the traffic noise analysis area.
- Characterize the existing noise environment through field noise measurement at representative noise receptor sites.
- Validate the computer model using traffic data collected during the field measurement period.
- Use TNM to predict the existing year and design year traffic noise levels at noise receptor sites.
- Identify impacted receptor sites and use TNM to determine if noise abatement measures are reasonable and feasible.

IDENTIFICATION OF NOISE-SENSITIVE LAND USES AND NOISE STUDY AREAS

I-70 runs generally east to west through the traffic noise study area. The highway is elevated over local roads at the east and west ends of the traffic study area. In the middle of the traffic study area, I-70 descends and the surrounding land rises, resulting in sections of the highway level with or below the surrounding neighborhoods. A road ditch runs along the south side of I-70 through the central part of the traffic noise study area.

Lambert International Boulevard runs generally east to west along the north side of I-70 primarily on the western end of the study area. I-70 traffic is more than an order of magnitude greater than that of Lambert International Boulevard and other airport roads north of I-70; therefore, traffic noise generated by these roads is not expected to affect the overall noise levels at the noise-sensitive areas south of I-70, and the roads north of I-70 were not modeled.

Cypress Road runs generally north to south, under I-70, at the west end of the study area. Airflight Drive runs generally north to south, under I-70, at the east end of the study area. Between Cypress Road and Airflight Drive on the south side of I-70, the traffic noise study area also includes the following arteries and collector roads: Pear Tree Lane, which runs generally east to west on the south side of I-70 in the eastern half of the study area, Ashby Road, which runs generally north to south within the residential neighborhood adjacent to St. Ann Park in the west central part of the study area, and Country Lane, which connects Pear Tree Lane to the area to the south at the entrance to the Pear Tree Apartments complex.

The initial traffic noise study area was drawn to incorporate all areas within 500 feet perpendicular to the existing and proposed project alignment. Land uses in the noise study area include Noise Abatement Criterion Activity Category B (residential), Category C (recreational area), and Category E (office, restaurant or hotel). Although Activity Categories F (airport, parking or utility) and Category G (undeveloped) are present along the corridor, there are no noise abatement criteria associated with them, and therefore no receptors were modeled for these categories. Note that highway ROW is not assigned an activity category. The NAC Activity Categories Map with Proposed Field Measurements in Appendix A shows the classification of properties in the noise study area with respect to the FHWA NAC Activity Categories.

Because of the expectation that noise impacts will exist at worst-case locations throughout the traffic noise study area, common noise environments and representative receptors have not been assigned and all receptors will be modeled in TNM.

TNM MODELED OBJECTS

The Existing model includes sensitive receivers, applicable roadways and sufficient terrain to represent local conditions. The No Build model for design year 2037 retains the same features, while the 2037 Build model incorporates roadway changes proposed for the project. Specific features of models for each area are as follows:

Validation, 2024 Existing and 2037 No Build models

- Eastbound and westbound I-70 outside, middle and inside lanes and a no-traffic lane in each direction at the center to represent paved medians

- Westbound I-70 auxiliary lane between the Lambert International Boulevard onramp and the Cypress Road offramp
- All onramps and offramps at the Pear Tree Lane/Airflight Drive and Cypress Road interchanges and the Lambert International Boulevard onramp
- Cypress Road outside and inside lanes in both directions at the eastbound I-70 ramp intersection, with a no-traffic lane in the center to represent the two-way left-turn lane
- Ashby Road within the study area, one lane in each direction
- St. Nicholas Road, one lane to represent minimal traffic in both directions observed during the field noise measurements
- Country Lane within and just south of the study area, one lane in each direction south of the Pear Tree Apartments complex
- Country Lane within the Pear Tree Apartments complex, modeled with one lane to represent minimal traffic in both directions observed along this private road during the field noise measurements
- Pear Tree Lane within the study area, one lane in each direction, with turn lanes at the I-70 offramp and onramp (Airflight Drive) intersections
- Airflight Drive travel and turn lanes in both directions, north and south of the Pear Tree Lane intersection
- 204 receptors
- Terrain lines to establish the sloped areas and road ditches along the south side of I-70, as well as one major drainageway between the Cypress Road and Ashby Road neighborhoods
- Fixed-height barriers to represent multiple buildings in the eastern half of the traffic noise study area; each apartment building in the Pear Tree Apartments complex was modeled as a barrier to best reflect the noise impacts on upper balconies behind the front row of buildings
- Building rows at the first row of residences within the Cypress Road and Ashby Road neighborhoods
- Ground zones at large paved parking lots between the highway and receptors
- Fixed-height barriers to represent the hotel and restaurant buildings surrounding the hotel pools

2037 Build model

- Removes the westbound onramp from Lambert International Boulevard
- Extends the auxiliary lane previously located between the removed ramp and the Cypress Road interchange, east along mainline I-70 to meet the westbound onramp from Airflight Drive

TRAFFIC VOLUMES AND SPEED

WSP provided existing and projected traffic volumes for mainline I-70 and roadways near the interchanges. These volumes were calculated for the STL CTP study that observed Federal Aviation Administration (FAA) requirements for projections. This is the reason for projections to the year 2037 rather than the more extended period used by typical FHWA studies.

Mainline I-70's posted speed in the traffic noise study area is 60 miles per hour (mph), which matches the speeds observed by driving the corridor between field measurements. Similarly,

observed speeds on Cypress Road, Country Lane, Airflight Drive, and the smaller side streets tended to match the posted speeds, which were used in the models. Observed speeds were used in the TNM models for Ashby Road, Country Lane, and Pear Tree Lane, each of which tended to exceed the posted speeds. Traffic data tables may be found in Appendix D.

DETERMINATION OF EXISTING SOUND LEVELS

FIELD NOISE MEASUREMENTS

CMT collected field noise measurements on March 20, 2024. A total of five locations were selected. Four of the locations represent residential dwelling units and one location represents a ballfield at St. Ann Park. All locations are on the south side of I-70. The locations were chosen to represent each noise sensitive area with exterior areas of frequent human use. Two of the locations face I-70 at a relatively small distance, one faces the eastbound I-70 Cypress Road interchange ramps, one faces I-70 from a distance, and one is somewhat shielded from I-70 by residential development. Any noise sources other than the dominant roadway noise that could affect the sound level measurements have been recorded on the noise measurement sheets. These noise measurement locations are shown on the NAC Activity Categories Map with Proposed Field Measurements in Appendix A:

- NMP-1, collected in the staff parking lot of Dollar Rent-A-Car (4358 Cypress Road) to represent the adjacent residential rear yards, faces the Cypress Road interchange ramps.
- NMP-2, collected at the visitor's bench of the ballfield at St. Ann Park (4445 Ashby Road), faces I-70 from a distance of approximately 475 feet.
- NMP-3, collected in the public ROW near the residence at 11001 St. Nicholas Court, is located approximately 250 feet south of I-70 across a lawn and limited fence row of vegetation.
- NMP-4, collected from the lawn near the Pear Tree Apartments management office at 4616 Country Lane, faces I-70 across lawn at the I-70 limited access right of way (L/A ROW) fence.
- NMP-5, collected in the public ROW near the residence at 10832 Pear Tree Lane, is located approximately 200 feet south of I-70 across an EZ Park north parking lot and platted residential development.

Field data collection sheets are included in Appendix C and show measurement times, weather conditions and details of each measurement location. Traffic local to each noise measurement point was counted by the noise analyst at the measurement point. For example, traffic on Pear Tree Lane was counted at NMP-5 during that measurement. For all measurements, traffic on I-70 was counted at a point opposite the Pear Tree Apartments, using either MioVision traffic cameras or multiple personnel with manual count boards. During the measurements at NMP-1 and NMP-2, traffic was counted using a manual count board at the intersection of Cypress Road and the eastbound I-70 on- and offramps.

All noise measurements were collected with a Quest SoundPro DL2 sound level meter that had been calibrated with a Quest QC-10 acoustical calibrator. The meter was mounted on a tripod to establish a sampling height of five feet. The meter was set to Leq mode with slow response and 3 dB exchange rate, and the frequency response was set to the A-weighted scale as required by FHWA. All measurements were collected over 15-minute periods with simultaneous traffic counts on the applicable roadway(s). The sound level meter reports and calibration information for the meter and calibrator are also included in Appendix C.

Two noise measurement efforts each measured noise at all five noise measurement points. On March 20, 2024, the measurements were collected without incident and both Leq and Lmax results

for each measurement were recorded on the field data sheets. During data download from the meter, the data files became corrupted and could not be retrieved. Therefore, a second measurement effort was conducted on April 25, 2024. Data provided in Appendix C are from the April 2024 field effort.

TRAFFIC NOISE MODEL VALIDATION

A model is considered validated when the modeled and measured noise levels are within 3 dB(A). To create the validation model, the TNM model of the 2024 existing condition was adjusted to reflect atmospheric conditions observed during the noise measurements. The traffic data collected during noise measurements were used to validate the model by multiplying the traffic counts from the 15-minute measurement period by four to obtain hourly traffic counts that were then entered into the model. The model was validated for all five measurement locations. Model validation results are provided in Table 2.

TABLE 2: MODEL VALIDATION RESULTS

Model Measurement Location	Address	Field Measurement (dB(A))	TNM Model Result (dB(A))	Difference
NMP-1	4358 Cypress Road, St Ann, MO 63074	63.6	63.9	0.3
NMP-2	4445 Ashby Road, St Ann, MO 63074	62.8	64.4	1.6
NMP-3	St. Nicholas Court, St Ann, MO 63074	64.2	65.1	0.9
NMP-4	4616 Country Lane, St Ann, MO 63074	72.7	73	0.3
NMP-5	10832 Pear Tree Lane, St. Ann, MO 63074	63.9	65.5	1.6

MODELED EXISTING SOUND LEVELS

Once the model was determined valid, TNM was used to model existing traffic noise at noise sensitive land uses throughout the analysis area. Initially, only noise-sensitive receptors within 500 feet of mainline I-70 were modeled. Because this initial modeling identified impacted receptors near the edge of the study area, the study area was expanded to add receptors within approximately 600 feet of mainline I-70.

All but five of the receptors in the final study area, represented by six TNM receivers, are residential, consisting of a mix of single-family residences, duplexes and apartments with patios or balconies. The five remaining receptors included a ballfield at St. Ann Park (two receivers represent the two team benches), a day care center with a playground at the northeast corner of Cypress Road and St. Damian Drive, and the outdoor hotel pools for three hotels located along Pear Tree Lane. The receptor locations and traffic noise impact status are depicted in the Projected Traffic Noise Impacts

figure, with receptor locations at the Pear Tree Apartments complex appearing in the Projected Traffic Noise Impacts at Pear Tree Apartments figure. Both figures are provided in Appendix A. The modeled noise levels are provided in Table 3 in Appendix B.

DETERMINATION OF FUTURE SOUND LEVELS AND IMPACT DETERMINATION ANALYSIS

Using the validated model, TNM was used to predict future traffic noise impacts at the same noise sensitive land uses for which existing noise was modeled.

The 2037 No Build TNM model predicted traffic noise levels for the current roadway configuration in the design year, and the 2037 Build TNM model predicted traffic noise levels for the proposed roadway configuration in the design year. The Build TNM model results were evaluated to assess whether the proposed project results in noise levels that meet one or both of the traffic noise impact criteria described in the "Traffic Noise Analysis Overview" section on page 7.

Table 3 in Appendix B provides the TNM results for the project area receptors. Receptors that are predicted to experience traffic noise levels that approach, meet or exceed the Noise Abatement Criterion (NAC) are identified by shading in the Predicted Noise column. Receptors for which the design year "build" condition results in noise levels of at least 15 dB(A) over the existing condition, the substantial increase criterion, are identified by shading in the Increase/ Decrease column.

Based upon the identification of 67 traffic noise impacted receptors in the 2037 Build condition, modeling of abatement measures is required.

CONSIDERATION OF ABATEMENT

ABATEMENT MEASURES CONSIDERED

FHWA regulations (23 CFR 772.15C) list the types of traffic noise abatement to be considered if noise impacts from a highway project approach the NAC or exceed the substantial increase criterion. These include traffic management, horizontal and vertical alignment changes, noise insulation, undeveloped property acquisition and noise barrier construction.

I-70 is the primary traffic noise source in the traffic noise study area. Traffic management is not a feasible abatement measure for I-70 because of its assigned transportation purpose. Horizontal and vertical alignment changes to the travel lanes would cause extensive costs, environmental impacts and travel disruption and would likely have a negative impact on the purpose of the highway.

FHWA regulations allow consideration of noise insulation for noise-impacted buildings only for public use or nonprofit institutional structures. The noise-impacted property in this study area does not include any public use or nonprofit institutional structures, and therefore noise insulation is not an appropriate abatement measure.

The acquisition of undeveloped property was not considered because the only undeveloped property in the traffic noise study area is held by STL as mitigation areas for airport impacts and will not be developed in the future.

Noise barrier construction was considered by analyzing noise barrier design using FHWA's TNM 2.5. Abatement measures were considered for the three neighborhoods having noise impacts: the Cypress Road neighborhood, the Ashby Road neighborhood and St. Ann Park, and the Pear Tree Lane neighborhood and Pear Tree Apartments.

TRAFFIC NOISE BARRIER ANALYSIS

At Cypress Road, a barrier was modeled along the L/A ROW fence adjacent to the eastbound I-70 Cypress Road ramps. At a height of 20 feet, this barrier did not result in any benefited receptors, and additional height will not result in a barrier that both benefits the front-row receptors and remains under MoDOT's reasonable square footage limit of 1,300 square feet per benefitted receptor. Therefore, this barrier is not recommended. The TNM table showing barrier insertion losses with a 20-foot wall is included in Appendix E.

At Ashby Road, one barrier was modeled along the L/A ROW fence of eastbound I-70, and a second barrier was modeled partially along the L/A ROW fence and partially along the outside of the road ditch that parallels the eastbound I-70 lanes. At heights of 20 feet, each barrier benefited one receptor at 11001 St. Nicholas Road. As with the Cypress Road barrier, adding height to these walls will not result in a barrier that both benefits the front-row receptors and remains under MoDOT's reasonable square footage limit of 1,300 square feet per benefitted receptor. Therefore, these barriers are not recommended. The TNM tables showing barrier insertion losses with a 20-foot wall are included in Appendix E.

At the Pear Tree Apartments and Pear Tree Lane, one barrier was modeled along the L/A ROW fence of eastbound I-70, and a second barrier was modeled along the outside of the road ditch that

parallels the eastbound I-70 lanes. While the barrier located along the road ditch achieved benefits for two non-impacted and eight impacted receptors, the design did not satisfy MoDOT's noise reduction design goal and exceeded the allowable square footage per benefited receptor. The TNM tables showing barrier insertion losses with a 20-foot wall are included in Appendix E.

The barrier along the L/A ROW fence achieved benefits for 31 receptors, four non-impacted and 27 impacted, including all impacted first-row first-story receptors. Based on the results of modeling, this barrier appears feasible and reasonable. Tables 4 though 6 provide information concerning the barrier design, costs and benefits. Table 4 is located in Appendix B; Tables 5 and 6 appear below.

TABLE 5: BARRIER PHYSICAL FEATURES AND ESTIMATED COST

Barrier Identifier	ROW, Shoulder or Other?	Location Description	Barrier Length, ft	Average Barrier Height, ft	Square Footage
Pear Tree Apartments L/A ROW	ROW	I-70 Eastbound, at the edge of ROW at and west of the Pear Creek Apartments	1,057	19.06	20,146

TABLE 6: PREFERRED BARRIER EVALUATION

Barrier Identifier	Abatement Feasible?[1]	Noise Reduction Design Goal Reached?[2]	Area per Benefited Receptor	Allowed Area per Benefited Receptor	Recommendation
Pear Tree Apartments L/A ROW	Yes	Yes	650 sq. ft.	1,300 sq. ft.	Recommended

1 Insertion loss (noise level reduction due to barrier) is ≥5 dB(A) at least two first row receptors.
2 Insertion loss is ≥7 dB(A) at impacted first row, first story.

PREFERRED BARRIER

Preliminary indications are that a noise barrier is likely at the location listed in Table 6. The FAA process under which this barrier is being considered evaluates highway traffic noise at a point in the project development process when design has not advanced sufficiently to perform MoDOT's noise wall public involvement meeting. Owner and occupant balloting will be performed when design is advanced sufficiently to hold a public involvement meeting regarding the barrier.

The final decision on the implementation of noise barriers will be made by MoDOT during project design. When design is advanced sufficiently MoDOT will solicit the viewpoints of those affected as part of the evaluation of reasonableness. MoDOT may again solicit viewpoints during final design if conditions substantially change that impact the implementation of the likely barrier. Only barriers determined to be both reasonable and feasible will be constructed. Barriers that are no longer reasonable and feasible will be removed from the project.

CONSTRUCTION NOISE

Roadway plans are not sufficiently advanced to develop specific comments concerning construction noise. The following comments are general observations and recommendations that apply to typical highway projects.

Noise from construction activities will add to the average noise level during the construction phase of the project. However, construction activities will be temporary. All activities are expected to occur during normal daytime waking hours, avoiding the annoyance or disruption of sleep that may be caused by nighttime operations.

Noise may also be generated by increases in heavy truck traffic to and from the project area. This increase in noise is also expected to be confined to daytime hours.

MoDOT's noise policy specifies effectively addressing construction noise effects in proactive communication with the community. The following measures shall be incorporated:

- Inform the public in advance on construction activities that might generate particularly high noise level; and
- Noise barriers that are included in the design plans should be constructed as early in project construction as practical.

Increases in the average noise level due to construction are temporary, but measures should be taken to minimize the impact of additional noise. Recommended standard measures include:

- Limit operation of heavy equipment and other noisy procedures to daylight hours whenever possible.
- Install and maintain effective mufflers on equipment.
- Locate equipment and vehicle staging areas as far from noise sensitive areas as practicable.
- Limit unnecessary idling of equipment.

In all cases, construction operations will adhere to local construction noise ordinances.

INFORMATION FOR LOCAL OFFICIALS

FHWA and MoDOT policy requires communicating to local planning agencies the locations of undeveloped land projected to experience noise impacts in the future. Because there is no undeveloped land in the traffic noise study area except that which is maintained as undeveloped land for purposes of mitigating STL impacts, no modeling of undeveloped areas was performed.

Upon completion of the environmental document for this project, the MoDOT District Office will provide this noise study and the noise analysis information in the NEPA document to the St. Louis County planning authorities. MODOT encourages local governments with jurisdiction over undeveloped lands, as well as potential developers of these lands, to practice noise compatibility planning to avoid future noise impacts. Planners may also refer to FHWA guidance on noise compatible land use planning, including the following guidance documents:

- The Audible Landscape: A Manual for Highway Noise and Land Use (FHWA, November 1974)
- Entering the Quiet Zone: Noise Compatibility Land Use Planning (FHWA, May 2002)

REFERENCES

Federal Aid Highway Act of 1970. United States Congress. August 13, 1973.

Code of Federal Regulations, Title 23, Chapter I, Subchapter H, Part 772, Procedures For Abatement Of Highway Traffic Noise And Construction Noise. 2010.

Missouri Department of Transportation (MoDOT) Engineering Policy Guide 127.13 Noise. Amended and approved June 17, 2019.

National Environmental Policy Act (NEPA) of 1969. United States Congress. January 1, 1970.

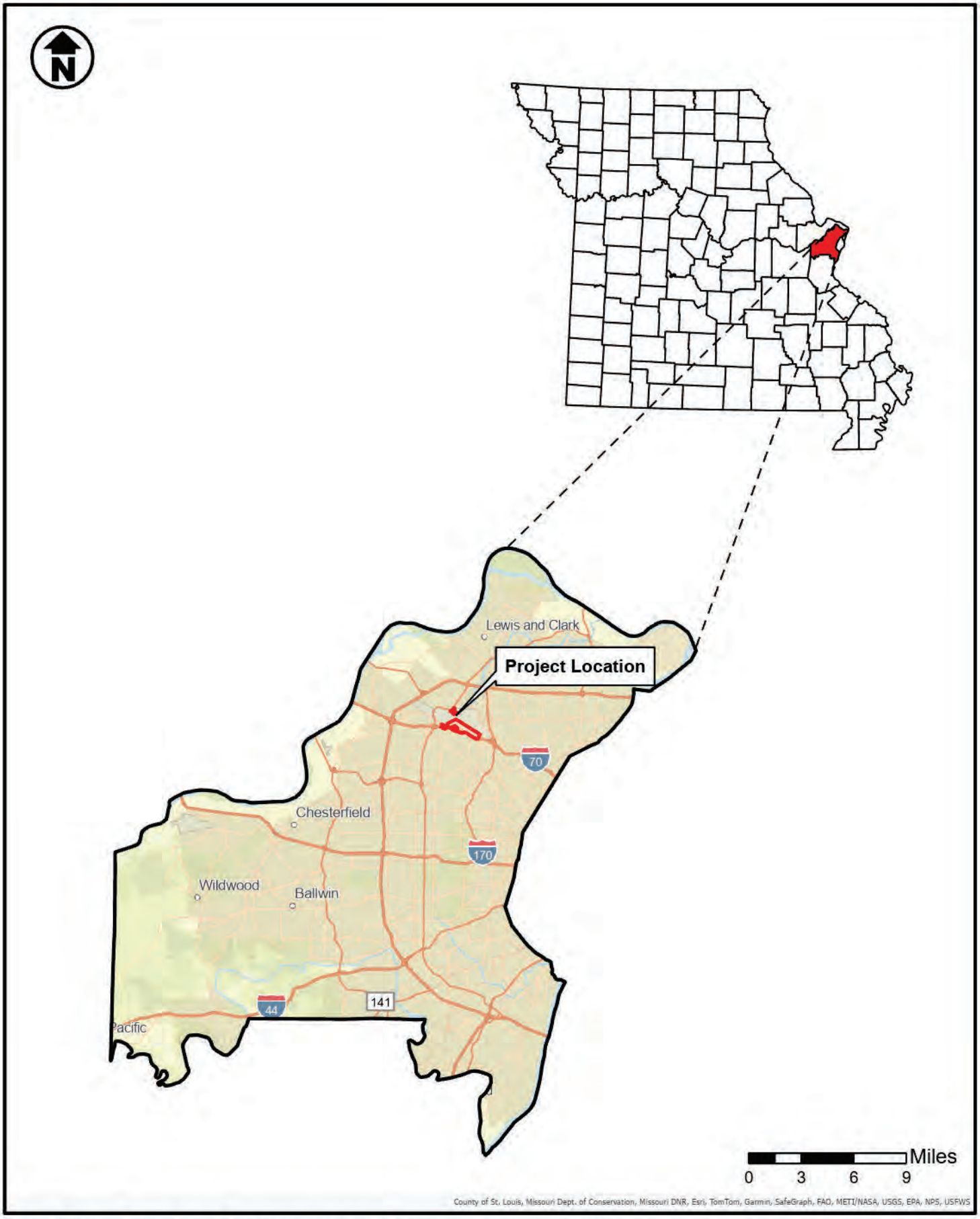
Traffic plates developed for STL CTP project and provided to CMT by WSP USA on March 5, 2024.

MoDOT TMS Data Zone. Available at https://datazoneapps.modot.mo.gov/bi/apps/publicmaps/Home/MapConfig/AADT. Accessed multiple times in March 2024.

STL CTP Traffic Noise

APPENDIX A: FIGURES

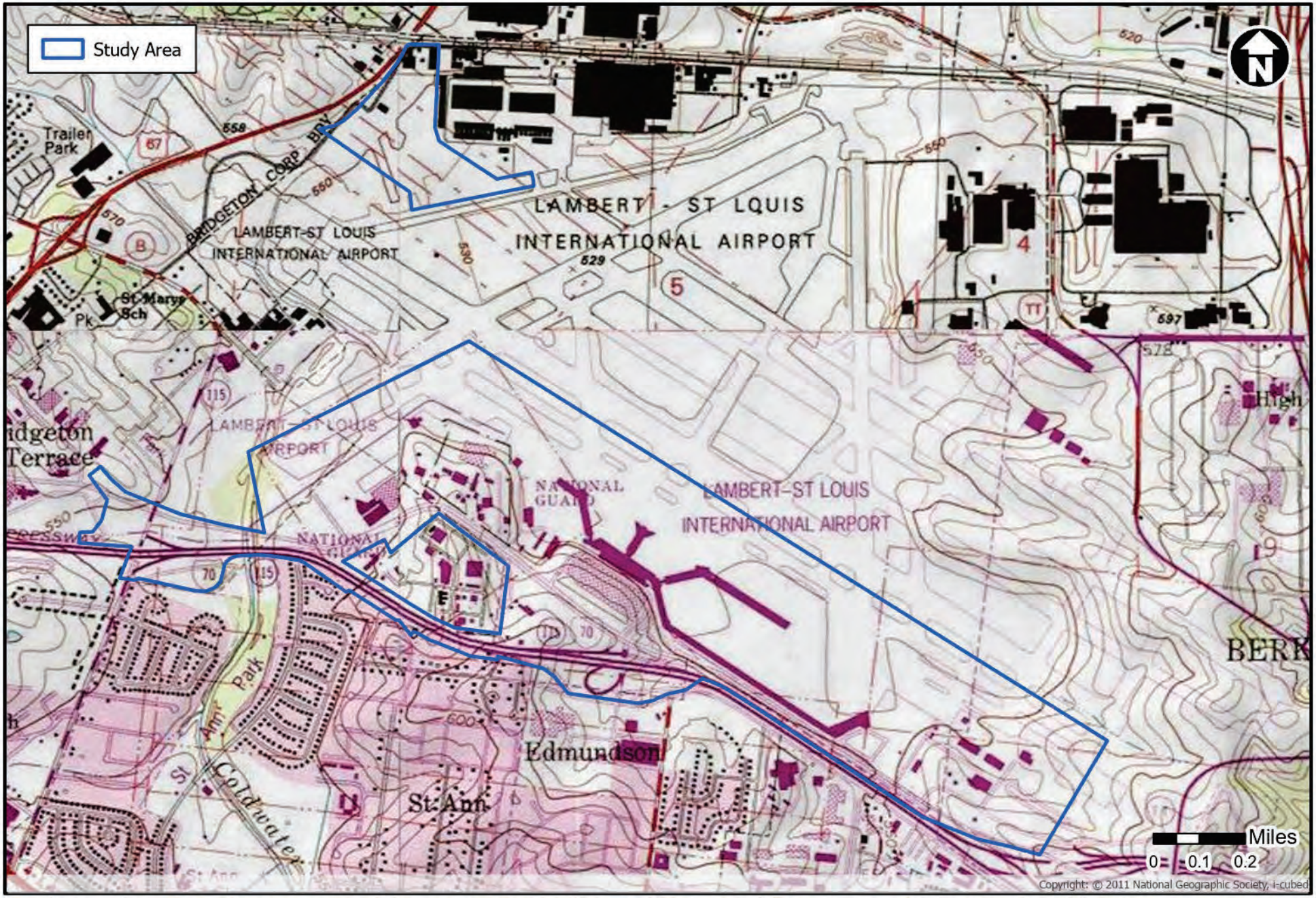
CMT



St. Louis Lambert International Airport - Consolidated Terminal Program - St. Louis Co., Mo

County Location Map

CMT
Crawford, Murphy & Tilly



St. Louis Lambert International Airport - Consolidated Terminal Program - St. Louis Co., Mo

USGS Topographic Map, St. Charles, Creve Coeur, Florissant, and Clayton, Mo., Quadrangles

CMT
Crawford, Murphy & Tilly

St. Louis Lambert International Airport - Consolidated Terminal Program - St. Louis Co., Mo

Aerial Map

CMT
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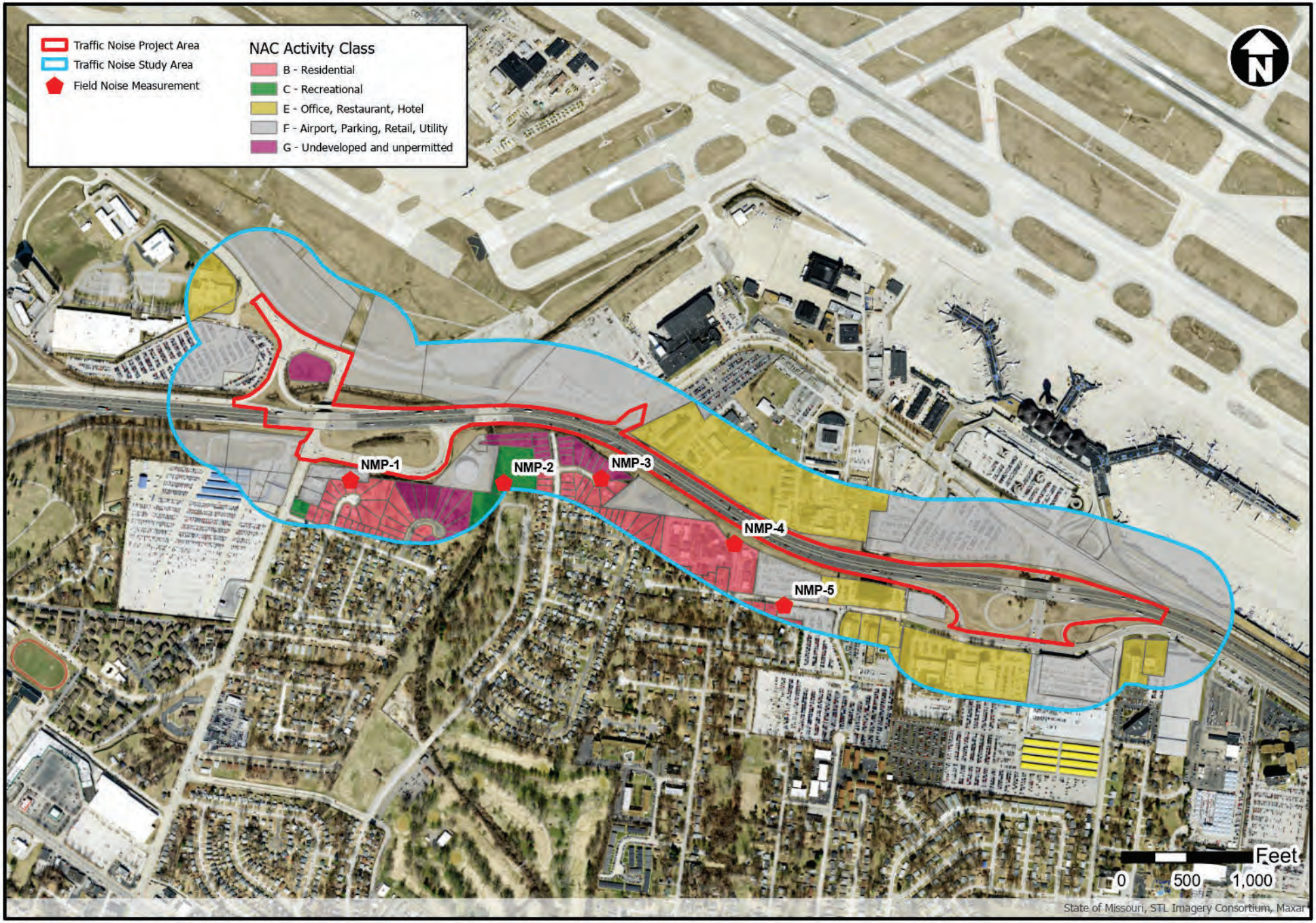
TRAFFIC NOISE STUDY AREA MAP

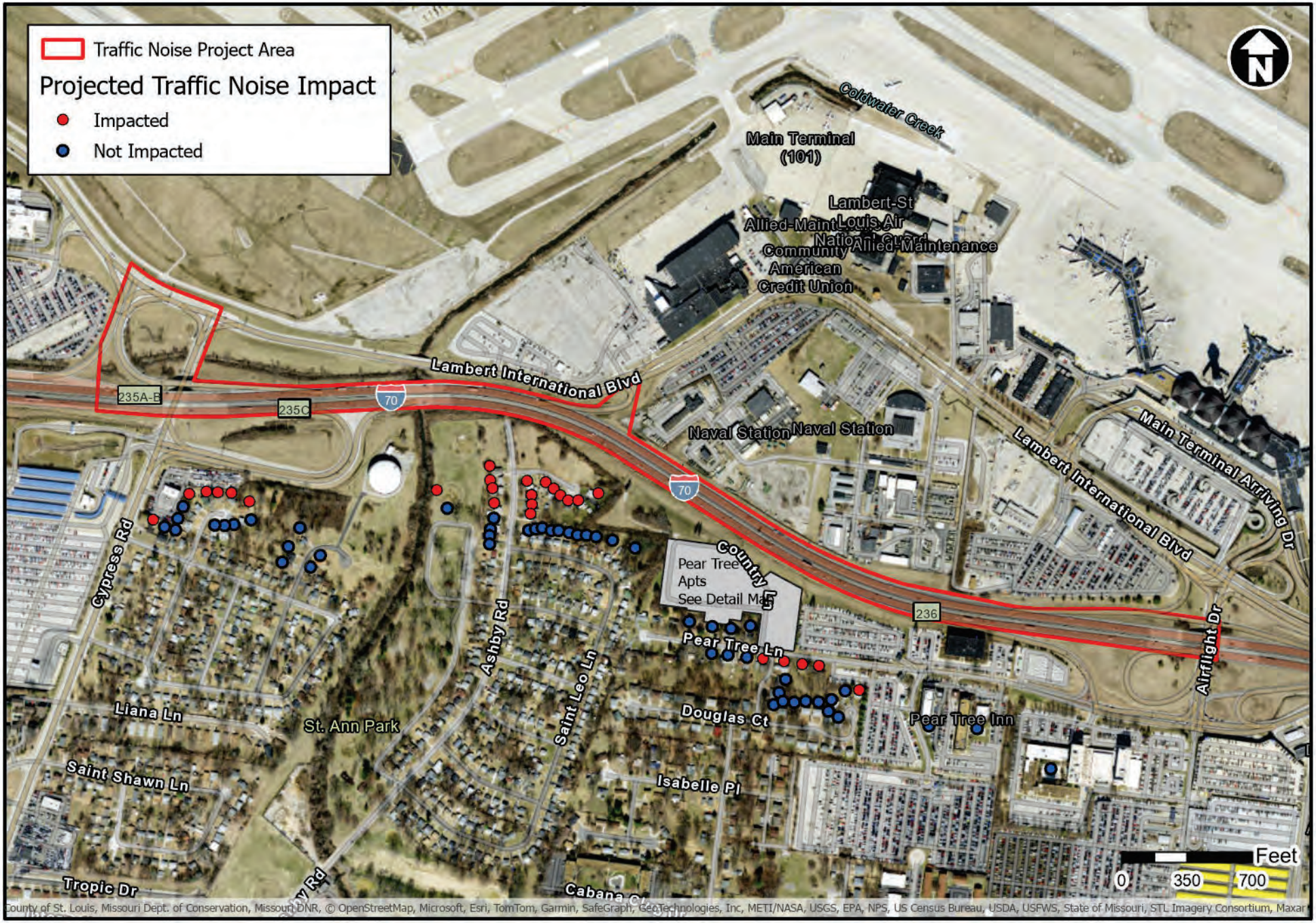
CMT
Crawford, Murphy & Tilly



St. Louis Lambert International Airport - Consolidated Terminal Program - St. Louis Co., MO

NAC ACTIVITY CLASS MAP WITH PROPOSED FIELD MEASUREMENTS

CMT
Crawford, Murphy & Tilly



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PROJECTED TRAFFIC NOISE IMPACTS

CMT
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PROJECTED TRAFFIC NOISE IMPACTS AT PEAR TREE APARTMENTS

CMT
Crawford, Murphy & Tilly

Ground Level Noise Receptors

CMT
Crawford, Murphy & Tilly

Impacts and Benefits
- Neither impacted nor benefited
- Benefited but not impacted
- Impacted but not benefited
- Both impacted and benefited
- Recommended barrier

N

Balcony Noise Receptors

St. Louis Lambert International Airport
Consolidated Terminal Program - St. Louis Co., MO

RECOMMENDED BARRIER INSERTION RESULTS

STL CTP Traffic Noise

APPENDIX B: SOUND LEVEL RESULTS TABLE

CMT

TABLE 3: NOISE MODEL RESULTS AND IMPACT ASSESSMENT

Receptor	Number of Dwelling Units (DUs)	NAC with MoDOT Approach Criterion (dB(A))	2024 Existing Traffic Noise (dB(A))	2037 No Build Traffic Noise (dB(A))	2037 Predicted Traffic Noise (dB(A))	Increase/ Decrease (dB(A))	# DUs Impacted
Cypress Road Neighborhood							
4373 St. Dominic Ln.	1	66	**66.1**	**66.2**	**66.4**	0.3	1
4369 St. Dominic Ln.	1	66	**67.4**	**67.5**	**67.8**	0.4	1
4365 St. Dominic Ln.	1	66	**67.2**	**67.4**	**67.6**	0.4	1
4361 St. Dominic Ln.	1	66	**66.9**	**67.1**	**67.3**	0.4	1
4357 St. Dominic Ln.	1	66	**67**	**67.2**	**67.3**	0.3	1
4353 St. Dominic Ln.	1	66	65	65.1	65.3	0.3	0
4349 St. Dominic Ln.	1	66	65	65.1	65.1	0.1	0
4374 St. Dominic Ln.	1	66	65.4	65.6	65.7	0.3	0
4372 St. Dominic Ln.	1	66	65.4	65.6	65.7	0.3	0
4370 St. Dominic Ln.	1	66	65.3	65.5	65.5	0.2	0
4362 St. Dominic Ln.	1	66	65.2	65.3	65.4	0.2	0
11267 St. Damian Dr.	1	66	64.5	64.6	64.8	0.3	0
11269 St. Damian Dr.	1	66	64.8	64.9	64.9	0.1	0
4344 Cypress Rd. – Little S.T.E.M.'s day care	1	66	**66.7**	**66.9**	**66.8**	0.1	1
4361 St. Regina Ln.	1	66	65.2	65.4	65.5	0.3	0
4353 St. Regina Ln.	1	66	64.2	64.4	64.4	0.2	0
4349 St. Regina Ln.	1	66	63.5	63.6	63.7	0.2	0
4362 St. Regina Ln.	1	66	64.2	64.3	64.4	0.2	0
4346 St. Regina Ln.	1	66	63.6	63.7	63.7	0.1	0
St. Ann Park							
St. Ann Park Ballfield Visitor Bench	1	66	**67.3**	**67.4**	**67.3**	0	1
St. Ann Park Ballfield Home Bench	1	66	65.7	65.8	65.7	0	0
Ashby Road Neighborhood							
11014 St. Nicholas Ct.	1	66	**69.1**	**69.2**	**69.5**	0.4	1
11010 St. Nicholas Ct.	1	66	**68.7**	**68.8**	**69**	0.3	1
11006 St. Nicholas Ct.	1	66	**67.9**	**68**	**68.2**	0.3	1

Receptor	Number of Dwelling Units (DUs)	NAC with MoDOT Approach Criterion (dB(A))	2024 Existing Traffic Noise (dB(A))	2037 No Build Traffic Noise (dB(A))	2037 Predicted Traffic Noise (dB(A))	Increase/ Decrease (dB(A))	# DUs Impacted
11002 St. Nicholas Ct.	1	66	**67.4**	**67.6**	**67.7**	0.3	1
11000 St. Nicholas Ct.	1	66	**67.5**	**67.6**	**67.8**	0.3	1
11001 St. Nicholas Ct.	1	66	**69.4**	**69.6**	**69.8**	0.4	1
4555 Ashby Rd.	1	66	**70.1**	**70.2**	**70.5**	0.4	1
4551 Ashby Rd.	1	66	**68.3**	**68.5**	**68.6**	0.3	1
4547 Ashby Rd.	1	66	**67.6**	**67.7**	**67.8**	0.2	1
4539 Ashby Rd.	1	66	**66.5**	**66.6**	**66.7**	0.2	1
4535 Ashby Rd.	1	66	65.6	65.7	65.6	0	0
4531 Ashby Rd.	1	66	64.9	65	64.9	0	0
4527 Ashby Rd.	1	66	64.9	65	65	0.1	0
4523 Ashby Rd.	1	66	64.4	64.5	64.5	0.1	0
4548 Ashby Rd.	1	66	**69.2**	**69.3**	**69.5**	0.3	1
4544 Ashby Rd.	1	66	**67.1**	**67.2**	**67.3**	0.2	1
4540 Ashby Rd.	1	66	**67.1**	**67.2**	**67.3**	0.2	1
4536 Ashby Rd.	1	66	**66.5**	**66.6**	**66.6**	0.1	1
4524 Ashby Rd.	1	66	65.4	65.5	65.5	0.1	0
11045 St. Pius Ln.	1	66	65.3	65.4	65.4	0.1	0
11041 St. Pius Ln.	1	66	65.2	65.3	65.3	0.1	0
11037 St. Pius Ln.	1	66	65	65.2	65.2	0.2	0
11033 St. Pius Ln.	1	66	65.2	65.3	65.4	0.2	0
11029 St. Pius Ln.	1	66	64.9	65	65.1	0.2	0
11025 St. Pius Ln.	1	66	64.7	64.8	64.9	0.2	0
11021 St. Pius Ln.	1	66	64.5	64.6	64.7	0.2	0
11017 St. Pius Ln.	1	66	64.7	64.8	64.9	0.2	0
11009 St. Pius Ln.	1	66	63	63.2	63.5	0.5	0
11005 St. Pius Ln.	1	66	59.9	60.1	60.3	0.4	0
Pear Tree Apartments							
4616 Country Ln. Clubhouse	1	66	**74**	**74.2**	**74.6**	0.6	1
10882 Pear Blossom NW patio apt.	1	66	**71.2**	**71.3**	**72.1**	0.9	1
10882 Pear Blossom NE patio apt.	1	66	**73.7**	**73.8**	**74.4**	0.7	1

Receptor	Number of Dwelling Units (DUs)	NAC with MoDOT Approach Criterion (dB(A))	2024 Existing Traffic Noise (dB(A))	2037 No Build Traffic Noise (dB(A))	2037 Predicted Traffic Noise (dB(A))	Increase/ Decrease (dB(A))	# DUs Impacted
10882 Pear Blossom SW patio apt.	1	66	62.1	62.2	62.7	0.6	0
10882 Pear Blossom SE patio apt.	1	66	**70.7**	**70.9**	**71.4**	0.7	1
10882 Pear Blossom NW balcony apt.	1	66	**70.9**	**71**	**74.6**	3.7	1
10882 Pear Blossom NE balcony apt.	1	66	**71.3**	**71.4**	**74.8**	3.5	1
10882 Pear Blossom SW balcony apt.	1	66	61.9	62	**66.8**	4.9	1
10882 Pear Blossom SE balcony apt.	1	66	60.3	60.4	65.9	5.6	0
10878 Pear Blossom NW patio apt.	1	66	61.9	62.1	62.5	0.6	0
10878 Pear Blossom NE patio apt.	1	66	59.2	59.4	59.8	0.6	0
10878 Pear Blossom SW patio apt.	1	66	61.5	61.7	62	0.5	0
10878 Pear Blossom SE patio apt.	1	66	61.3	61.4	61.7	0.4	0
10878 Pear Blossom NW balcony apt.	1	66	61.9	62	**66.6**	4.7	1
10878 Pear Blossom NE balcony apt.	1	66	59.3	59.4	64.9	5.6	0
10878 Pear Blossom SW balcony apt.	1	66	61.5	61.6	65	3.5	0
10878 Pear Blossom SE balcony apt.	1	66	61.3	61.4	64.6	3.3	0
4649 Country Ln. NW patio apt.	1	66	**72.8**	**73**	**73.6**	0.8	1
4649 Country Ln. NE patio apt.	1	66	**73.8**	**73.9**	**74.5**	0.7	1
4649 Country Ln. SE patio apt.	1	66	60.3	60.4	60.7	0.4	0
4649 Country Ln. NW balcony apt.	1	66	**72.9**	**73**	**75.4**	2.5	1
4649 Country Ln. NE balcony apt.	1	66	**73.9**	**74**	**76**	2.1	1

Receptor	Number of Dwelling Units (DUs)	NAC with MoDOT Approach Criterion (dB(A))	2024 Existing Traffic Noise (dB(A))	2037 No Build Traffic Noise (dB(A))	2037 Predicted Traffic Noise (dB(A))	Increase/ Decrease (dB(A))	# DUs Impacted
4649 Country Ln. SE balcony apt.	1	66	64.6	64.8	**67.8**	3.2	1
4641 Country Ln. W patio apt.	1	66	59.5	59.6	60	0.5	0
4641 Country Ln. E patio apt.	1	66	60.8	60.9	61.3	0.5	0
4641 Country Ln. W balcony apt.	1	66	59.6	59.7	64.2	4.6	0
4641 Country Ln. E balcony apt.	1	66	60.8	60.9	65.2	4.4	0
4645 Country Ln. NW patio apt.	1	66	**74.8**	**75**	**75.4**	0.6	1
4645 Country Ln. NE patio apt.	1	66	**75**	**75.1**	**75.6**	0.6	1
4645 Country Ln. SW patio apt.	1	66	63.6	63.8	64.7	1.1	0
4645 Country Ln. SE patio apt.	1	66	62.6	62.7	63.7	1.1	0
4645 Country Ln. NW balcony apt.	1	66	**74.9**	**75**	**76.9**	2	1
4645 Country Ln. NE balcony apt.	1	66	**75**	**75.2**	**77.1**	2.1	1
4645 Country Ln. SW balcony apt.	1	66	63.7	63.8	**67**	3.3	1
4645 Country Ln. SE balcony apt.	1	66	62.7	62.8	**66.4**	3.7	1
4633 Country Ln. NE patio apt.	1	66	**75.4**	**75.5**	**76**	0.6	1
4633 Country Ln. SW patio apt.	1	66	60.3	60.4	60.8	0.5	0
4633 Country Ln. SE patio apt.	1	66	**74.7**	**74.9**	**75.4**	0.7	1
4633 Country Ln. NE balcony apt.	1	66	**75.4**	**75.6**	**77.8**	2.4	1
4633 Country Ln. SW balcony apt.	1	66	60.2	60.4	62.7	2.5	0
4633 Country Ln. SE balcony apt.	1	66	**74.8**	**74.9**	**77.4**	2.6	1

Receptor	Number of Dwelling Units (DUs)	NAC with MoDOT Approach Criterion (dB(A))	2024 Existing Traffic Noise (dB(A))	2037 No Build Traffic Noise (dB(A))	2037 Predicted Traffic Noise (dB(A))	Increase/ Decrease (dB(A))	# DUs Impacted
4629 Country Ln. NW patio apt.	1	66	60.3	60.4	60.7	0.4	0
4629 Country Ln. NE patio apt.	1	66	**74.3**	**74.4**	**75**	0.7	1
4629 Country Ln. SW patio apt.	1	66	60	60.1	60.4	0.4	0
4629 Country Ln. SE patio apt.	1	66	**74**	**74.2**	**74.7**	0.7	1
4629 Country Ln. NW balcony apt.	1	66	60.3	60.4	62.9	2.6	0
4629 Country Ln. NE balcony apt.	1	66	**74.4**	**74.5**	**77.1**	2.7	1
4629 Country Ln. SW balcony apt.	1	66	60.1	60.2	62.4	2.3	0
4629 Country Ln. SE balcony apt.	1	66	**74.1**	**74.2**	**76.7**	2.6	1
4625 Country Ln. NW patio apt.	1	66	59.5	59.7	61.5	2	0
4625 Country Ln. NE patio apt.	1	66	**73.8**	**73.9**	**76.3**	2.5	1
4625 Country Ln. SE patio apt.	1	66	**72.4**	**72.5**	**75.2**	2.8	1
4625 Country Ln. NW balcony apt.	1	66	**67.1**	**67.5**	**67.7**	0.6	1
4625 Country Ln. NE balcony apt.	1	66	**67.9**	**68.2**	**68.5**	0.6	1
4625 Country Ln. SE balcony apt.	1	66	**68.5**	**68.8**	**69.2**	0.7	1
4637 Country Ln. NW patio apt.	1	66	62.7	62.9	63.8	1.1	0
4637 Country Ln. NE patio apt.	1	66	63	63.2	63.8	0.8	0
4637 Country Ln. SW patio apt.	1	66	60	60.2	60.5	0.5	0
4637 Country Ln. SE patio apt.	1	66	60	60.2	60.5	0.5	0
4637 Country Ln. NW balcony apt.	1	66	62.7	62.8	**66.3**	3.6	1

Receptor	Number of Dwelling Units (DUs)	NAC with MoDOT Approach Criterion (dB(A))	2024 Existing Traffic Noise (dB(A))	2037 No Build Traffic Noise (dB(A))	2037 Predicted Traffic Noise (dB(A))	Increase/ Decrease (dB(A))	# DUs Impacted
4637 Country Ln. NE balcony apt.	1	66	62.9	63	65.9	3	0
4637 Country Ln. SW balcony apt.	1	66	60	60.1	62.9	2.9	0
4637 Country Ln. SE balcony apt.	1	66	60	60.2	62.5	2.5	0
10844 Pear Blossom N patio apt.	1	66	**70.7**	**70.9**	**71.4**	0.7	1
10844 Pear Blossom SW patio apt.	1	66	57.6	57.7	58.1	0.5	0
10844 Pear Blossom SE patio apt.	1	66	55.3	55.5	55.8	0.5	0
10844 Pear Blossom N balcony apt.	1	66	**70.7**	**70.9**	**74**	3.3	1
10844 Pear Blossom SW balcony apt.	1	66	57.6	57.7	61.1	3.5	0
10844 Pear Blossom SE balcony apt.	1	66	55.4	55.6	61.3	5.9	0
10848 Pear Blossom NW patio apt.	1	66	62	62.1	62.5	0.5	0
10848 Pear Blossom SW patio apt.	1	66	56.8	57	57.3	0.5	0
10848 Pear Blossom SE patio apt.	1	66	56.9	57.1	57.4	0.5	0
10848 Pear Blossom NW balcony apt.	1	66	62	62.1	**66**	4	1
10848 Pear Blossom SW balcony apt.	1	66	56.8	57	60.2	3.4	0
10848 Pear Blossom SE balcony apt.	1	66	56.9	57.1	60.3	3.4	0
10852 Pear Blossom NW patio apt.	1	66	60.5	60.7	61	0.5	0
10852 Pear Blossom NE patio apt.	1	66	62.1	62.2	62.6	0.5	0
10852 Pear Blossom SW patio apt.	1	66	55.9	56.1	56.4	0.5	0
10852 Pear Blossom SE patio apt.	1	66	56.2	56.4	56.7	0.5	0

Receptor	Number of Dwelling Units (DUs)	NAC with MoDOT Approach Criterion (dB(A))	2024 Existing Traffic Noise (dB(A))	2037 No Build Traffic Noise (dB(A))	2037 Predicted Traffic Noise (dB(A))	Increase/ Decrease (dB(A))	# DUs Impacted
10852 Pear Blossom NW balcony apt.	1	66	60.5	60.7	64.3	3.8	0
10852 Pear Blossom NE balcony apt.	1	66	62.1	62.2	**66**	3.9	1
10852 Pear Blossom SW balcony apt.	1	66	55.9	56.1	59	3.1	0
10852 Pear Blossom SE balcony apt.	1	66	56.2	56.4	59.4	3.2	0
10858 Pear Blossom NW patio apt.	1	66	57	57.1	58.1	1.1	0
10858 Pear Blossom NE patio apt.	1	66	61	61.1	61.8	0.8	0
10858 Pear Blossom SW patio apt.	1	66	53.8	53.9	54.3	0.5	0
10858 Pear Blossom SE patio apt.	1	66	59.1	59.2	59.6	0.5	0
10858 Pear Blossom NW balcony apt.	1	66	55.6	55.7	60.1	4.5	0
10858 Pear Blossom NE balcony apt.	1	66	61	61.1	64.9	3.9	0
10858 Pear Blossom SW balcony apt.	1	66	53.5	53.7	58.5	5	0
10858 Pear Blossom SE balcony apt.	1	66	58.9	59.1	63.3	4.4	0
10862 Pear Blossom W patio apt.	1	66	52.3	52.5	52.9	0.6	0
10862 Pear Blossom E patio apt.	1	66	57.6	57.7	58.1	0.5	0
10862 Pear Blossom W balcony apt.	1	66	52.5	52.8	57.7	5.2	0
10862 Pear Blossom E balcony apt.	1	66	57.5	57.6	61.6	4.1	0
10866 Pear Blossom NW patio apt.	1	66	60.2	60.4	60.7	0.5	0
10866 Pear Blossom NE patio apt.	1	66	60.8	60.9	61.3	0.5	0
10866 Pear Blossom SE patio apt.	1	66	53.8	54	54.4	0.6	0

Receptor	Number of Dwelling Units (DUs)	NAC with MoDOT Approach Criterion (dB(A))	2024 Existing Traffic Noise (dB(A))	2037 No Build Traffic Noise (dB(A))	2037 Predicted Traffic Noise (dB(A))	Increase/ Decrease (dB(A))	# DUs Impacted
10866 Pear Blossom NW balcony apt.	1	66	60.5	60.6	64.3	3.8	0
10866 Pear Blossom NE balcony apt.	1	66	60.8	60.9	64.7	3.9	0
10866 Pear Blossom SE balcony apt.	1	66	53.6	53.7	58.3	4.7	0
10870 Pear Blossom NW patio apt.	1	66	58.7	58.8	59.4	0.7	0
10870 Pear Blossom NE patio apt.	1	66	52.1	52.3	52.6	0.5	0
10870 Pear Blossom SW patio apt.	1	66	53.1	53.3	53.7	0.6	0
10870 Pear Blossom SE patio apt.	1	66	54.1	54.3	54.7	0.6	0
10870 Pear Blossom NW balcony apt.	1	66	58.7	58.9	63.1	4.4	0
10870 Pear Blossom NE balcony apt.	1	66	51.9	52.1	56.9	5	0
10870 Pear Blossom SW balcony apt.	1	66	53.9	54.2	58	4.1	0
10870 Pear Blossom SE balcony apt.	1	66	54.1	54.2	58	3.9	0
10874 Pear Blossom NE patio apt.	1	66	59.3	59.4	59.9	0.6	0
10874 Pear Blossom SW patio apt.	1	66	61.1	61.2	61.6	0.5	0
10874 Pear Blossom SE patio apt.	1	66	52.7	53	53.3	0.6	0
10874 Pear Blossom NE balcony apt.	1	66	59.5	59.7	63.9	4.4	0
10874 Pear Blossom SW balcony apt.	1	66	61	61.2	64.1	3.1	0
10874 Pear Blossom SE balcony apt.	1	66	52.8	53.1	57.8	5	0
10885 Pear Blossom NW patio apt.	1	66	58	58.1	58.4	0.4	0
10885 Pear Blossom NE patio apt.	1	66	58.2	58.4	58.7	0.5	0

Receptor	Number of Dwelling Units (DUs)	NAC with MoDOT Approach Criterion (dB(A))	2024 Existing Traffic Noise (dB(A))	2037 No Build Traffic Noise (dB(A))	2037 Predicted Traffic Noise (dB(A))	Increase/ Decrease (dB(A))	# DUs Impacted
10885 Pear Blossom SW patio apt.	1	66	55.2	55.7	55.9	0.7	0
10885 Pear Blossom SE patio apt.	1	66	56.8	57.1	57.4	0.6	0
10885 Pear Blossom NW balcony apt.	1	66	58	58.1	62.5	4.5	0
10885 Pear Blossom NE balcony apt.	1	66	58.2	58.3	63	4.8	0
10885 Pear Blossom SW balcony apt.	1	66	54.6	55.1	58.6	4	0
10885 Pear Blossom SE balcony apt.	1	66	56.8	57.2	62.1	5.3	0
4610 Country Ln. patio apt.	1	66	**71**	**71.1**	**71.6**	0.6	1
4608 Country Ln. patio apt.	1	66	**70.4**	**70.5**	**71.1**	0.7	1
4606 Country Ln. patio apt.	1	66	**68.4**	**68.5**	**69**	0.6	1
4604 Country Ln. patio apt.	1	66	**68**	**68.1**	**68.6**	0.6	1
4602 Country Ln. patio apt.	1	66	**67.4**	**67.6**	**68**	0.6	1
4600 Country Ln. patio apt.	1	66	**67.4**	**67.5**	**68**	0.6	1
Pear Tree Lane Neighborhood							
10869 Pear Tree Ln.	1	66	62	62.2	62.9	0.9	0
10877 Pear Tree Ln.	1	66	59.9	60.2	60.6	0.7	0
10885 Pear Tree Ln.	1	66	59.1	59.4	59.6	0.5	0
10893 Pear Tree Ln.	1	66	59.7	59.9	60.2	0.5	0
10832 Pear Tree Ln.	1	66	**68.5**	**68.8**	**69.2**	0.7	1
10840 Pear Tree Ln.	1	66	**67.9**	**68.2**	**68.5**	0.6	1
10848 Pear Tree Ln.	1	66	**67.1**	**67.5**	**67.7**	0.6	1
10856 Pear Tree Ln.	1	66	65.5	**66**	**66.2**	0.7	1
10864 Pear Tree Ln.	1	66	62.5	63	63.2	0.7	0
10872 Pear Tree Ln.	1	66	61.1	61.7	61.8	0.7	0
10880 Pear Tree Ln.	1	66	60.7	61.3	61.5	0.8	0

Receptor	Number of Dwelling Units (DUs)	NAC with MoDOT Approach Criterion (dB(A))	2024 Existing Traffic Noise (dB(A))	2037 No Build Traffic Noise (dB(A))	2037 Predicted Traffic Noise (dB(A))	Increase/ Decrease (dB(A))	# DUs Impacted
4528 Country Ln.	1	66	63.9	64.1	64.4	0.5	0
4522/4524 Country Ln.	2	66	61.9	62.2	62.5	0.6	0
4520 Country Ln.	1	66	61.6	61.9	62.2	0.6	0
10057/10059 Douglas Ct.	2	66	61.3	61.5	61.9	0.6	0
10053/10055 Douglas Ct.	2	66	62.4	62.5	62.9	0.5	0
10049/10051 Douglas Ct.	2	66	63	63.2	63.6	0.6	0
10045/10047 Douglas Ct.	2	66	63.3	63.5	63.8	0.5	0
10043 Douglas Ct.	1	66	62.6	62.8	63.2	0.6	0
10037 Douglas Ct.	1	66	62.2	62.4	62.8	0.6	0
10033 Douglas Ct.	1	66	64.1	64.3	64.7	0.6	0
10029 Douglas Ct.	1	66	65.4	65.5	65.9	0.5	0
10025 Douglas Ct.	1	66	65.6	65.8	**66.2**	0.6	1
Hotel Pools							
Wingate hotel pool	1	71	54.4	54.6	54.9	0.5	0
Pear Tree Inn pool	1	71	61.5	61.6	62	0.5	0
Mariott hotel pool	1	71	51.1	51.2	51.6	0.5	0

TABLE 4: BARRIER INSERTION RESULTS, PEAR TREE APARTMENTS BARRIER AT L/A ROW

Shading indicates benefited receptor

Receptor	Build Noise Level, dB(A)[1]	First Row/ First Story?	Noise Impact?	Noise Level with Barrier, dB(A) [2]	Insertion Loss[2]
10882 Pear Blossom NW patio apt.	72.1	Y	Y	64.9	7
10882 Pear Blossom NE patio apt.	74.4	Y	Y	65	7.3
10882 Pear Blossom SW patio apt.	62.7	N	N	61.9	0.7
10882 Pear Blossom SE patio apt.	71.4	N	N	54	8.8
10882 Pear Blossom NW balcony apt.	74.6	N	Y	67.9	6.8
10882 Pear Blossom NE balcony apt.	74.8	N	Y	68.1	6.8
10882 Pear Blossom SW balcony apt.	66.8	N	Y	64.8	2.1
10882 Pear Blossom SE balcony apt.	65.9	N	N	58.9	7.1
10878 Pear Blossom NW patio apt.	62.5	N	N	61.9	0.7
10878 Pear Blossom NE patio apt.	59.8	N	N	54.2	7.5
10878 Pear Blossom SW patio apt.	62	N	N	61.4	0.5
10878 Pear Blossom SE patio apt.	61.7	N	N	61.1	0.6
10878 Pear Blossom NW balcony apt.	66.6	N	Y	64.7	2
10878 Pear Blossom NE balcony apt.	64.9	N	N	58.4	6.6
10878 Pear Blossom SW balcony apt.	65	N	N	63.9	1.2
10878 Pear Blossom SE balcony apt.	64.6	N	N	63.7	0.9
4649 Country Ln. NW patio apt.	73.6	Y	Y	65.2	8.7
4649 Country Ln. NE patio apt.	74.5	Y	Y	65.4	9.3
4649 Country Ln. SE patio apt.	60.7	N	N	56	10.3
4649 Country Ln. NW balcony apt.	75.4	N	Y	68.4	7.2
4649 Country Ln. NE balcony apt.	76	N	Y	68.7	7.4
4649 Country Ln. SE balcony apt.	67.8	N	Y	60.3	7.7
4641 Country Ln. W patio apt.	60	N	N	56.6	4.1
4641 Country Ln. E patio apt.	61.3	N	N	57.2	6.1
4641 Country Ln. W balcony apt.	64.2	N	N	59.7	4.6
4641 Country Ln. E balcony apt.	65.2	N	N	60.2	5.1
4645 Country Ln. NW patio apt.	75.4	Y	Y	65.4	10.2
4645 Country Ln. NE patio apt.	75.6	Y	Y	65.3	10.5
4645 Country Ln. SW patio apt.	64.7	N	N	56	9.5
4645 Country Ln. SE patio apt.	63.7	N	N	57.2	7.1
4645 Country Ln. NW balcony apt.	76.9	N	Y	68.8	8.2
4645 Country Ln. NE balcony apt.	77.1	N	Y	68.6	8.6

Receptor	Build Noise Level, dB(A)[1]	First Row/ First Story?	Noise Impact?	Noise Level with Barrier, dB(A) [2]	Insertion Loss[2]
4645 Country Ln. SW balcony apt.	67	N	Y	59.6	7.5
4645 Country Ln. SE balcony apt.	66.4	N	Y	60.2	6.5
4633 Country Ln. NE patio apt.	76	Y	Y	64.3	11.9
4633 Country Ln. SW patio apt.	60.8	N	N	56.4	4.4
4633 Country Ln. SE patio apt.	75.4	Y	Y	63.6	12
4633 Country Ln. NE balcony apt.	77.8	N	Y	67.1	10.8
4633 Country Ln. SW balcony apt.	62.7	N	N	58.9	3.9
4633 Country Ln. SE balcony apt.	77.4	N	Y	66.5	11
4629 Country Ln. NW patio apt.	60.7	N	N	56.4	4.3
4629 Country Ln. NE patio apt.	75	Y	Y	63.1	12
4629 Country Ln. SW patio apt.	60.4	N	N	56.3	4.1
4629 Country Ln. SE patio apt.	74.7	Y	Y	62.6	12.2
4629 Country Ln. NW balcony apt.	62.9	N	N	59.2	3.7
4629 Country Ln. NE balcony apt.	77.1	N	Y	65.8	11.3
4629 Country Ln. SW balcony apt.	62.4	N	N	58.6	3.7
4629 Country Ln. SE balcony apt.	76.7	N	Y	65.6	11.2
4625 Country Ln. NW patio apt.	61.5	N	N	56.1	3.9
4625 Country Ln. NE patio apt.	76.3	Y	Y	62.9	11.5
4625 Country Ln. SE patio apt.	75.2	Y	Y	62.3	10.8
4625 Country Ln. NW balcony apt.	67.7	N	N	58	3.6
4625 Country Ln. NE balcony apt.	68.5	N	Y	67.3	9
4625 Country Ln. SE balcony apt.	69.2	N	Y	67.8	7.4
4637 Country Ln. NW patio apt.	63.8	N	N	57.6	6.8
4637 Country Ln. NE patio apt.	63.8	N	N	57.6	6.5
4637 Country Ln. SW patio apt.	60.5	N	N	56.7	4.4
4637 Country Ln. SE patio apt.	60.5	N	N	56.5	4.3
4637 Country Ln. NW balcony apt.	66.3	N	Y	60.2	6.1
4637 Country Ln. NE balcony apt.	65.9	N	N	60.3	5.7
4637 Country Ln. SW balcony apt.	62.9	N	N	59	4
4637 Country Ln. SE balcony apt.	62.5	N	N	58.8	3.7
10844 Pear Blossom N patio apt.	71.4	Y	Y	64.6	7
10844 Pear Blossom SW patio apt.	58.1	N	N	56.1	2
10844 Pear Blossom SE patio apt.	55.8	N	N	52.3	3.7
10844 Pear Blossom N balcony apt.	74	N	Y	68.6	5.5
10844 Pear Blossom SW balcony apt.	61.1	N	N	59.7	1.4

Receptor	Build Noise Level, dB(A)[1]	First Row/ First Story?	Noise Impact?	Noise Level with Barrier, dB(A) [2]	Insertion Loss[2]
10844 Pear Blossom SE balcony apt.	61.3	N	N	58	3.4
10848 Pear Blossom NW patio apt.	62.5	N	N	60.7	2
10848 Pear Blossom SW patio apt.	57.3	N	N	56.5	0.9
10848 Pear Blossom SE patio apt.	57.4	N	N	56.5	1
10848 Pear Blossom NW balcony apt.	66	N	Y	64.7	1.4
10848 Pear Blossom SW balcony apt.	60.2	N	N	59.9	0.3
10848 Pear Blossom SE balcony apt.	60.3	N	N	59.8	0.5
10852 Pear Blossom NW patio apt.	61	N	N	56.9	5
10852 Pear Blossom NE patio apt.	62.6	N	N	60.8	2.1
10852 Pear Blossom SW patio apt.	56.4	N	N	55.8	0.7
10852 Pear Blossom SE patio apt.	56.7	N	N	56.1	0.6
10852 Pear Blossom NW balcony apt.	64.3	N	N	60.1	4.3
10852 Pear Blossom NE balcony apt.	66	N	Y	64.5	1.6
10852 Pear Blossom SW balcony apt.	59	N	N	59	0
10852 Pear Blossom SE balcony apt.	59.4	N	N	59.3	0.1
10858 Pear Blossom NW patio apt.	58.1	N	N	52.6	6.3
10858 Pear Blossom NE patio apt.	61.8	N	N	57.3	5
10858 Pear Blossom SW patio apt.	54.3	N	N	51.4	4.4
10858 Pear Blossom SE patio apt.	59.6	N	N	54.8	5.8
10858 Pear Blossom NW balcony apt.	60.1	N	N	56.5	3.7
10858 Pear Blossom NE balcony apt.	64.9	N	N	60.4	4.6
10858 Pear Blossom SW balcony apt.	58.5	N	N	55.9	2.8
10858 Pear Blossom SE balcony apt.	63.3	N	N	58.8	4.6
10862 Pear Blossom W patio apt.	52.9	N	N	50.8	3.2
10862 Pear Blossom E patio apt.	58.1	N	N	55	3.5
10862 Pear Blossom W balcony apt.	57.7	N	N	55	3
10862 Pear Blossom E balcony apt.	61.6	N	N	58.5	3.3
10866 Pear Blossom NW patio apt.	60.7	N	N	57.3	4.6
10866 Pear Blossom NE patio apt.	61.3	N	N	57.5	5.3
10866 Pear Blossom SE patio apt.	54.4	N	N	50.9	3.5
10866 Pear Blossom NW balcony apt.	64.3	N	N	60.1	4.4
10866 Pear Blossom NE balcony apt.	64.7	N	N	60.3	4.6
10866 Pear Blossom SE balcony apt.	58.3	N	N	55.8	2.5
10870 Pear Blossom NW patio apt.	59.4	N	N	58.6	0.7
10870 Pear Blossom NE patio apt.	52.6	N	N	50.3	2.3

Receptor	Build Noise Level, dB(A)[1]	First Row/ First Story?	Noise Impact?	Noise Level with Barrier, dB(A) [2]	Insertion Loss[2]
10870 Pear Blossom SW patio apt.	53.7	N	N	51.5	2.6
10870 Pear Blossom SE patio apt.	54.7	N	N	54.3	0.4
10870 Pear Blossom NW balcony apt.	63.1	N	N	62	1.1
10870 Pear Blossom NE balcony apt.	56.9	N	N	55.8	1.1
10870 Pear Blossom SW balcony apt.	58	N	N	55.3	2.9
10870 Pear Blossom SE balcony apt.	58	N	N	58.1	0
10874 Pear Blossom NE patio apt.	59.9	N	N	59	1.2
10874 Pear Blossom SW patio apt.	61.6	N	N	61.4	0.2
10874 Pear Blossom SE patio apt.	53.3	N	N	51.4	2.7
10874 Pear Blossom NE balcony apt.	63.9	N	N	62.5	1.5
10874 Pear Blossom SW balcony apt.	64.1	N	N	63.6	0.6
10874 Pear Blossom SE balcony apt.	57.8	N	N	55.8	2.6
10885 Pear Blossom NW patio apt.	58.4	N	N	57.5	1.1
10885 Pear Blossom NE patio apt.	58.7	N	N	58.1	0.7
10885 Pear Blossom SW patio apt.	55.9	N	N	56	-0.1
10885 Pear Blossom SE patio apt.	57.4	N	N	57.5	-0.1
10885 Pear Blossom NW balcony apt.	62.5	N	N	61.4	1.2
10885 Pear Blossom NE balcony apt.	63	N	N	62.4	0.6
10885 Pear Blossom SW balcony apt.	58.6	N	N	58.5	0.1
10885 Pear Blossom SE balcony apt.	62.1	N	N	62.1	0
4610 Country Ln. patio apt.	71.6	N	Y	70.3	1.7
4608 Country Ln. patio apt.	71.1	N	Y	70	1.5
4606 Country Ln. patio apt.	69	N	Y	68.5	0.7
4604 Country Ln. patio apt.	68.6	N	Y	68.1	0.6
4602 Country Ln. patio apt.	68	N	Y	67.7	0.4
4600 Country Ln. patio apt.	68	N	Y	67.7	0.4

[1] As calculated by the Existing 2024 model

[2] As calculated by the barrier evaluation model

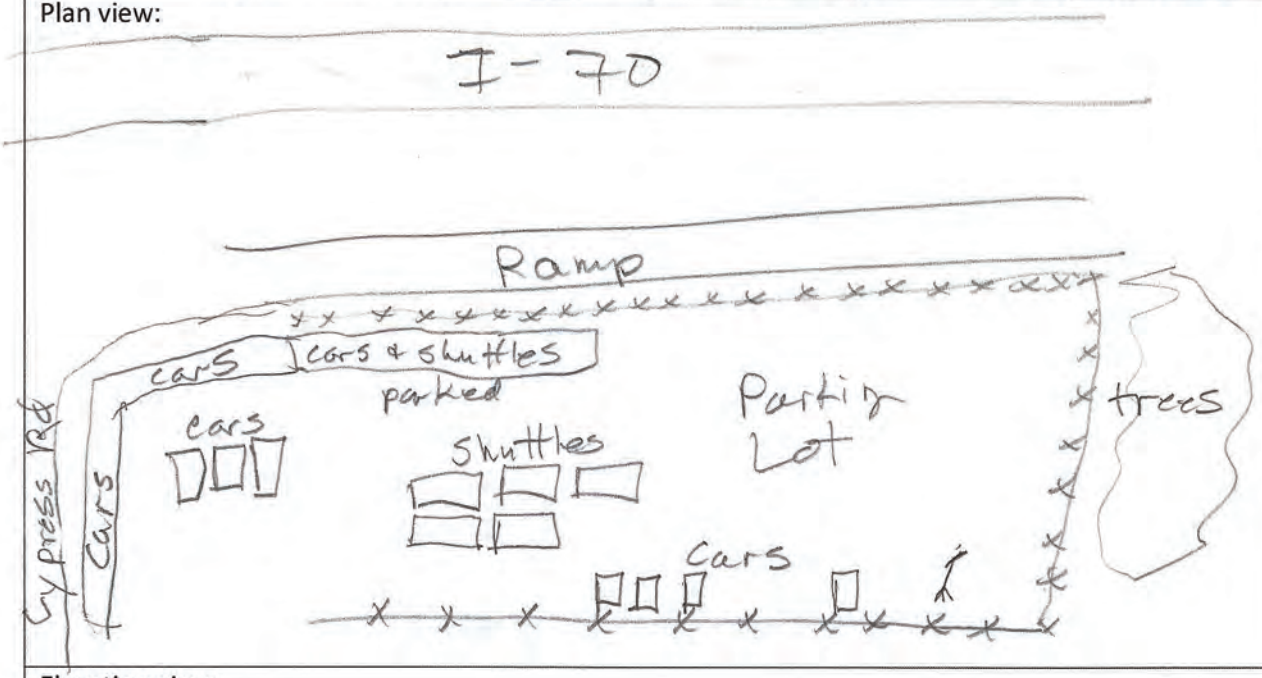
STL CTP Traffic Noise

APPENDIX C: FIELD DATA

CMT

Site ID:	STL CTP		Location	Dollar Rent-A-Car	
Observer	LJS	Date	4/25/24	Count location	NMP 1
Temperature	64°F	Cloud cover	0%	Humidity	41%
Wind direction	NE	Wind speed, avg	1-2 mph	Wind speed, max	3.2 mph
Start time	3:01pm	Stop time	3:16pm	Leq/avg and Lmax	63.7 dB 73.9 dB

Plan view:



Elevation view:

traffic slowing to stop-far WB lane

5:44pm shuttle bus turns around in PL in front of meter
7:35-8:19 dog barking
8:38-9:31 " "
14:00-14:39 " "
maybe other times as well.

Site ID:	STL CTP		Location	St. Ann Park Ballfield – visitors bench	
Observer	LJS	Date	4/25/24	Count location	NMP2
Temperature	64°F	Cloud cover	0%	Humidity	43%
Wind direction	NE	Wind speed, avg	2-4 mph	Wind speed, max	7 mph
Start time	3:33pm	Stop time	3:48pm	Leq/avg and Lmax	62.9 dB 78.2 dB

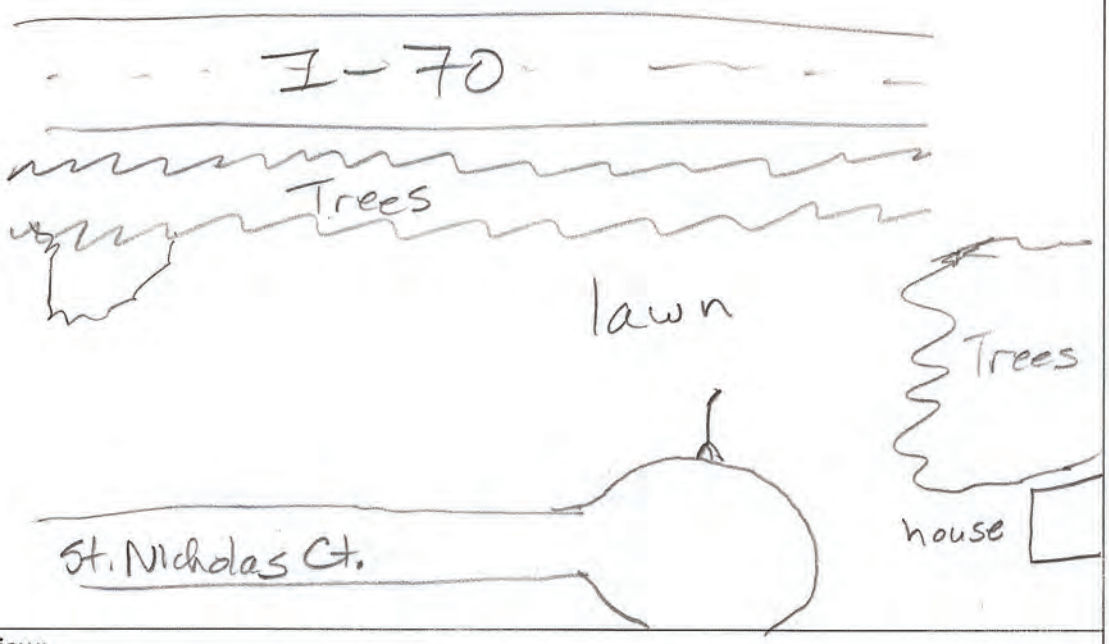
Plan view:

Elevation view:

1:20-2ish sirens

Site ID:	STL CTP		Location	St. Nicholas Court N. side of cul-de-sac	
Observer	LJS	Date	9/25/24	Count location	NMP 3
Temperature	69°F	Cloud cover	0%	Humidity	45%
Wind direction	NE	Wind speed, avg	calm	Wind speed, max	6.2 mph
Start time	3:57 pm	Stop time	4:12 pm	Leq/avg and Lmax	64.3 dB 80.8 dB

Plan view:



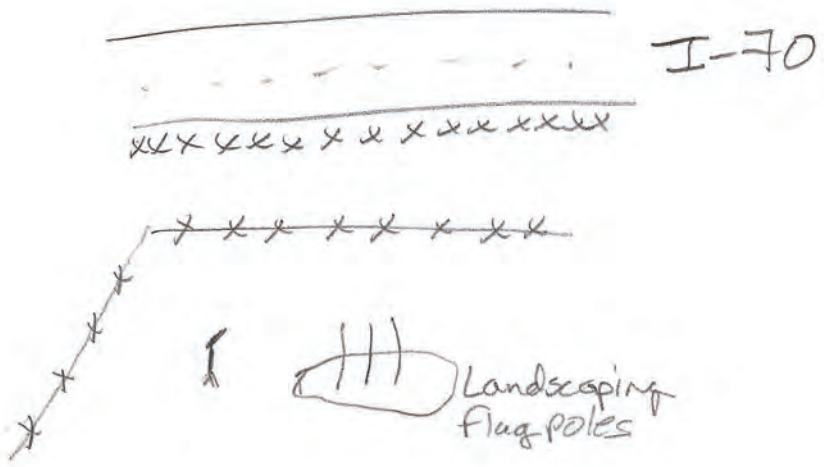
Elevation view:

traffic slow down/stop in for WB lane
birds chirping thru measurement

2:15 loud truck
8:00 " "
9:24 " "
10:22 recycling dumping in can at nearby house

Site ID:	STL CTP		Location	Pear Tree Apts. W. of Office	
Observer	LJS	Date	4/25/24	Count location	NMP4
Temperature	61°F	Cloud cover	0%	Humidity	48%
Wind direction	NE	Wind speed, avg	1-2 mph	Wind speed, max	7.6 mph
Start time	4:24 pm	Stop time	4:39 pm	Leq/avg and Lmax	72.8 dB 82.0 dB

Plan view:

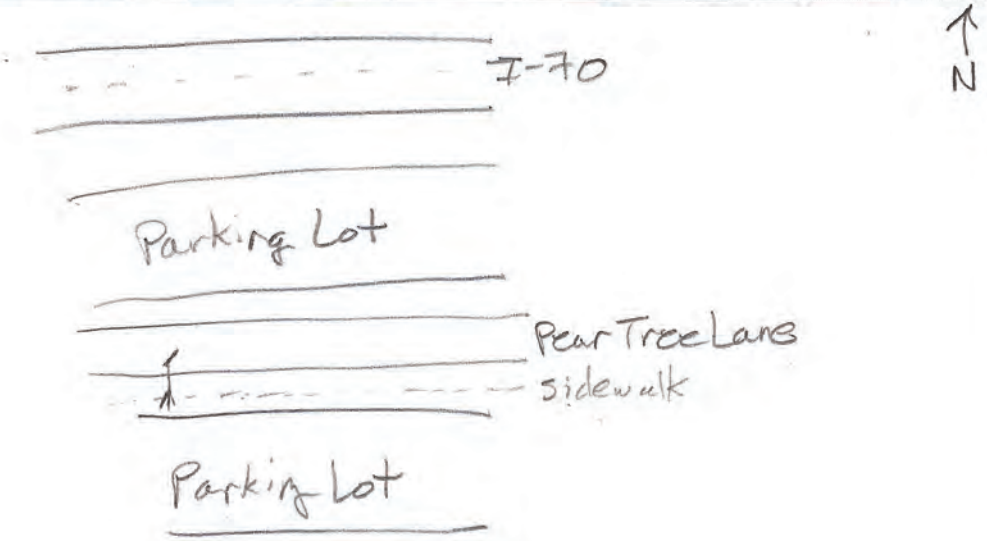


Elevation view:

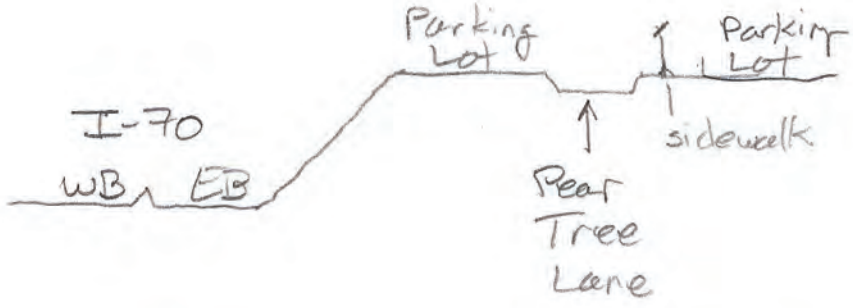
near start - WB far lane traffic stand still - short period of time

Site ID:	STL CTP		Location	Pear Tree Lane offset from 10832 Pear Tree Ln.	
Observer	LJS	Date	3/25/24	Count location	NMP5
Temperature	62°F	Cloud cover	0%	Humidity	47%
Wind direction	NE	Wind speed, avg	1-3 mph	Wind speed, max	3.2 mph
Start time	4:53pm	Stop time	5:08pm	Leq/avg and Lmax	64.0 78.4

Plan view:



Elevation view:



start - WB far lane, maybe middle lane, stand still/slow moving for a short while

Session Report

4/26/2024

Calibration History

Date	Calibration Action	Level	Cal. Model Type	Serial Number	Cert. Due Date
4/24/2024 1:19:08 PM	Calibration	114.0			

Session Report

4/26/2024

Information Panel - NMP 1

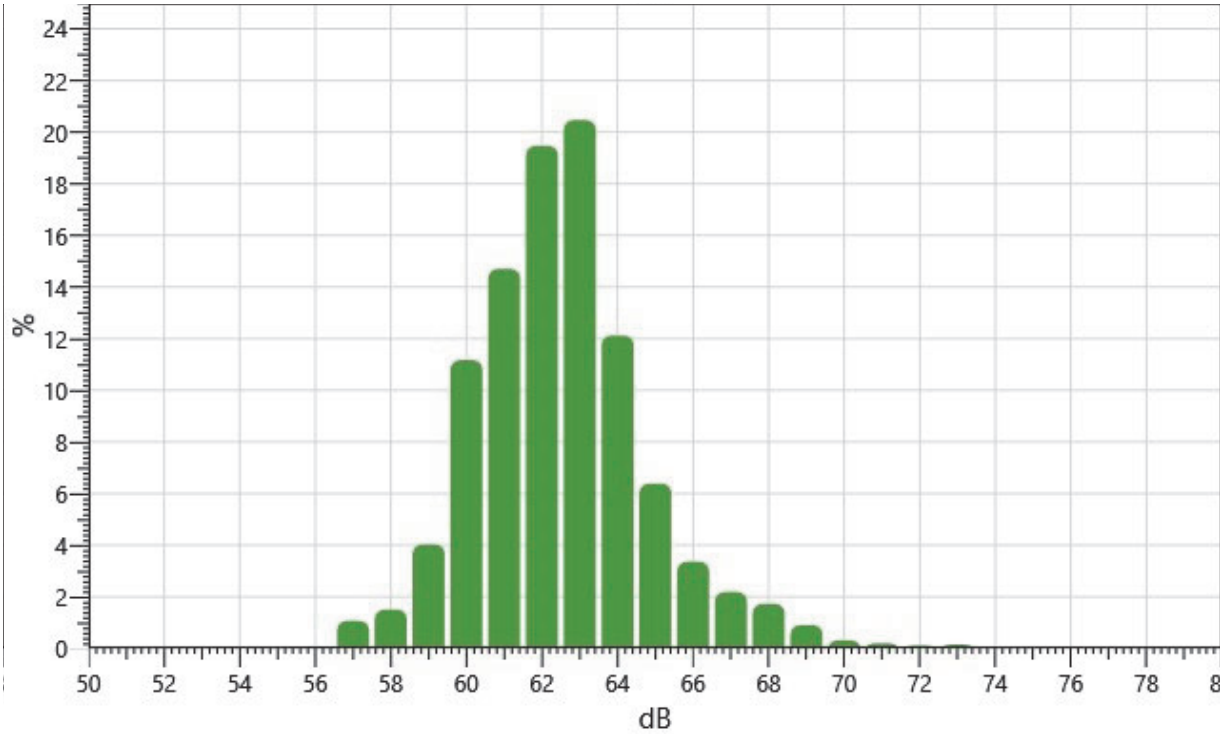
Name	S030_BLI020010_26042024_100949
Start Time	4/25/2024 3:00:58 PM
Stop Time	4/25/2024 3:15:58 PM
Device Name	BLI020010
Model Type	SoundPro DL
Device Firmware Rev	R.13J
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	63.6 dB	Lmax	1	73.9 dB
Lmin	1	56.8 dB	Lpk	1	89.7 dB
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW			
Weighting	2	A	Response	2	SLOW

Statistics Chart

S030_BLI020010_26042024_100949: Statistics Chart

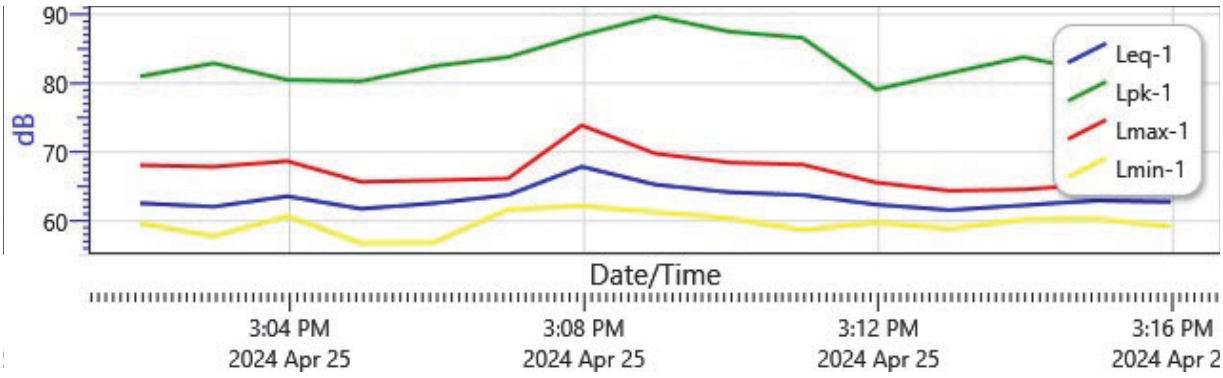


Logged Data Table

Date/Time	Leq-1
4/25/2024 3:01:58 PM	62.6
3:02:58 PM	62.1
3:03:58 PM	63.6
3:04:58 PM	61.8
3:05:58 PM	62.6
3:06:58 PM	63.8
3:07:58 PM	67.9
3:08:58 PM	65.3
3:09:58 PM	64.2
3:10:58 PM	63.8
3:11:58 PM	62.4
3:12:58 PM	61.6
3:13:58 PM	62.3
3:14:58 PM	63
3:15:58 PM	62.8

Logged Data Chart

S030_BLI020010_26042024_100949: Logged Data Chart



Session Report

4/26/2024

Information Panel - NMP 2

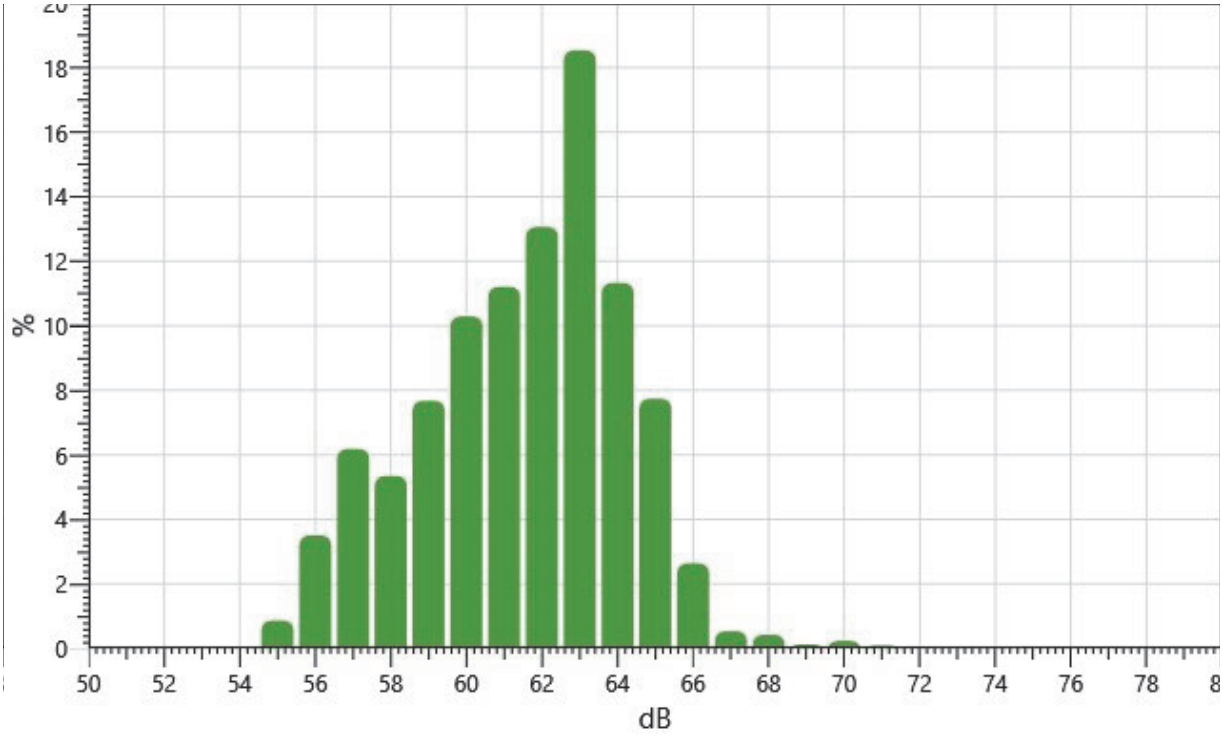
Name	S031_BLI020010_26042024_100950
Start Time	4/25/2024 3:32:49 PM
Stop Time	4/25/2024 3:47:49 PM
Device Name	BLI020010
Model Type	SoundPro DL
Device Firmware Rev	R.13J
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	62.8 dB	Lmax	1	78.2 dB
Lmin	1	55.3 dB	Lpk	1	107.8 dB
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW			
Weighting	2	A	Response	2	SLOW

Statistics Chart

S031_BLI020010_26042024_100950: Statistics Chart

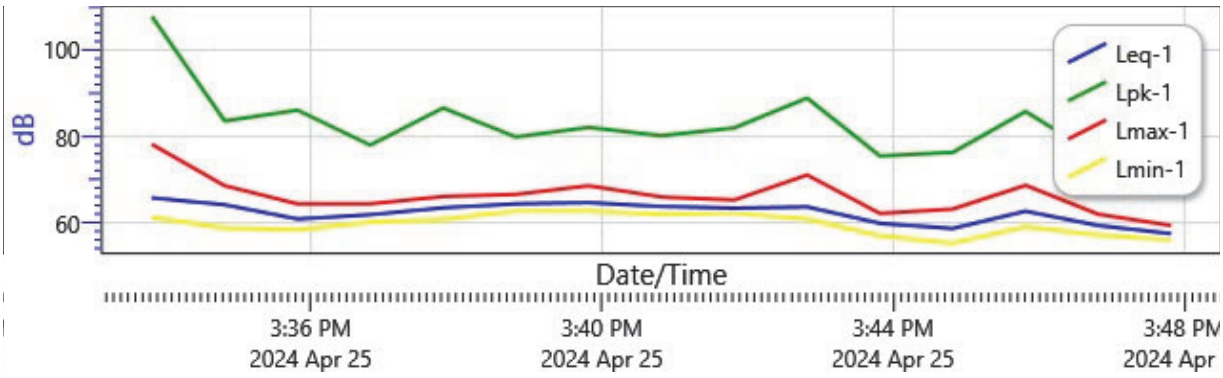


Logged Data Table

Date/Time	Leq-1
4/25/2024 3:33:49 PM	65.8
3:34:49 PM	64.2
3:35:49 PM	60.9
3:36:49 PM	61.9
3:37:49 PM	63.5
3:38:49 PM	64.4
3:39:49 PM	64.7
3:40:49 PM	63.8
3:41:49 PM	63.4
3:42:49 PM	63.7
3:43:49 PM	59.9
3:44:49 PM	58.7
3:45:49 PM	62.7
3:46:49 PM	59.4
3:47:49 PM	57.5

Logged Data Chart

S031_BLI020010_26042024_100950: Logged Data Chart



Session Report

4/26/2024

Information Panel - NMP 3

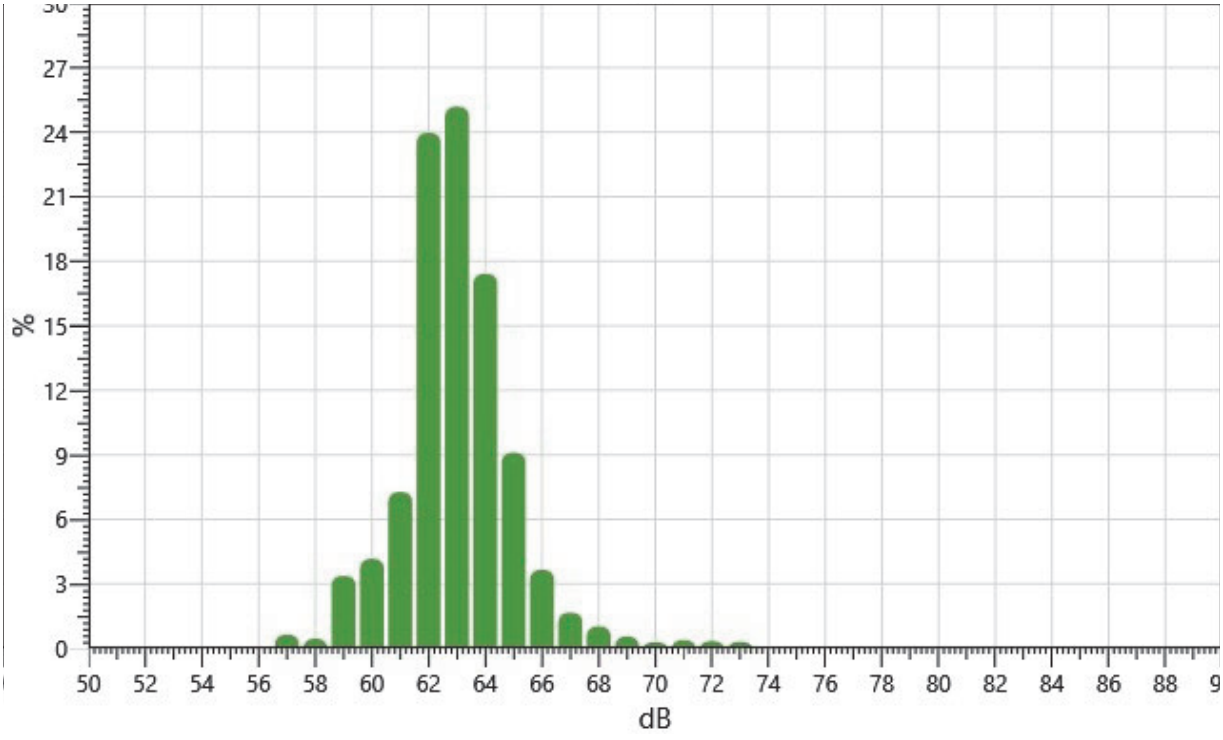
Name	S032_BLI020010_26042024_100950
Start Time	4/25/2024 3:57:09 PM
Stop Time	4/25/2024 4:12:09 PM
Device Name	BLI020010
Model Type	SoundPro DL
Device Firmware Rev	R.13J
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	64.2 dB	Lmax	1	80.8 dB
Lmin	1	57.4 dB	Lpk	1	110.7 dB
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW			
Weighting	2	A	Response	2	SLOW

Statistics Chart

S032_BLI020010_26042024_100950: Statistics Chart

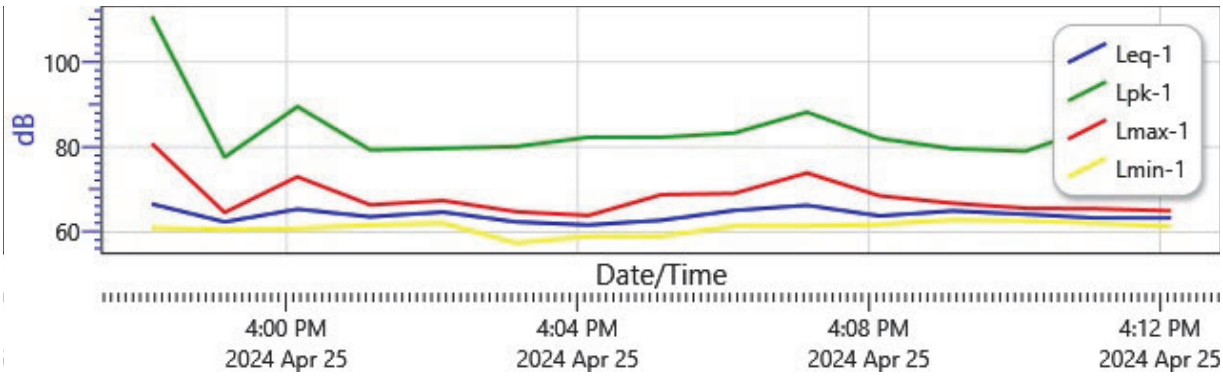


Logged Data Table

Date/Time	Leq-1
4/25/2024 3:58:09 PM	66.6
3:59:09 PM	62.4
4:00:09 PM	65.4
4:01:09 PM	63.6
4:02:09 PM	64.7
4:03:09 PM	62.4
4:04:09 PM	61.7
4:05:09 PM	62.8
4:06:09 PM	65.1
4:07:09 PM	66.3
4:08:09 PM	63.8
4:09:09 PM	65
4:10:09 PM	64.2
4:11:09 PM	63.3
4:12:09 PM	63.3

Logged Data Chart

S032_BLI020010_26042024_100950: Logged Data Chart



Session Report

4/26/2024

Information Panel - NMP 4

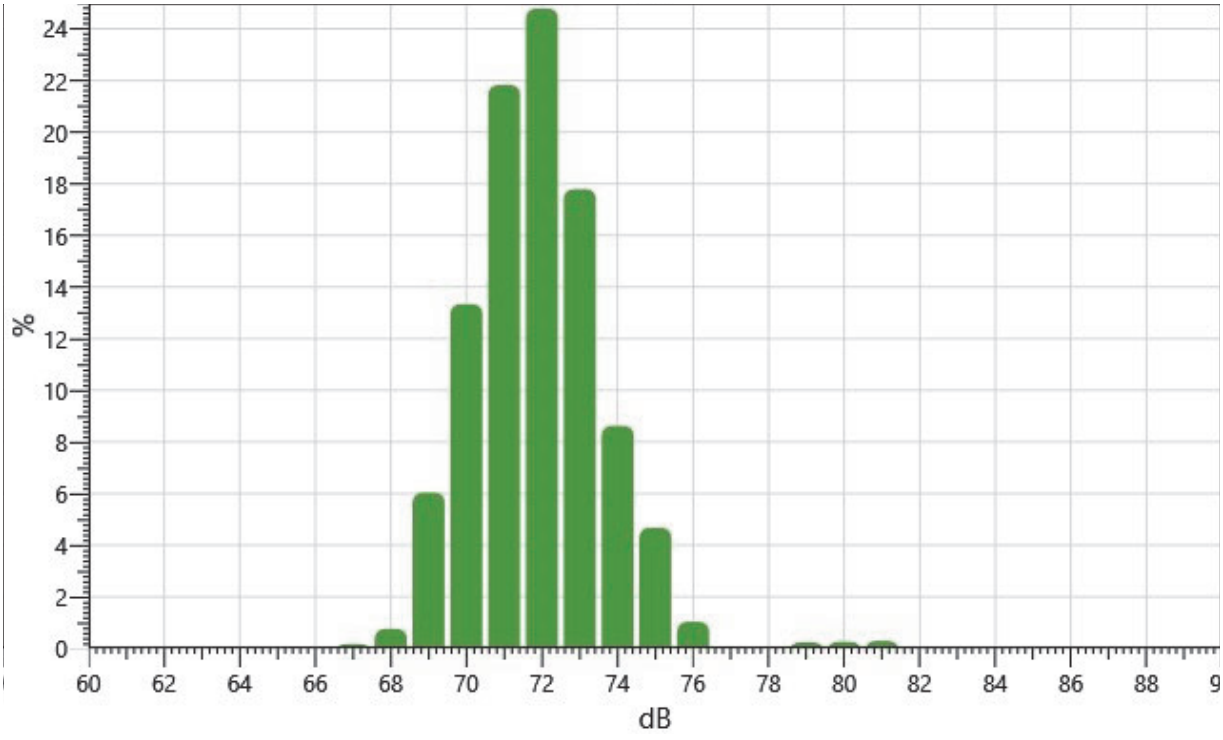
Name	S033_BLI020010_26042024_100951
Start Time	4/25/2024 4:24:20 PM
Stop Time	4/25/2024 4:39:20 PM
Device Name	BLI020010
Model Type	SoundPro DL
Device Firmware Rev	R.13J
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	72.7 dB	Lmax	1	82 dB
Lmin	1	67.3 dB	Lpk	1	94.2 dB
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW			
Weighting	2	A	Response	2	SLOW

Statistics Chart

S033_BLI020010_26042024_100951: Statistics Chart

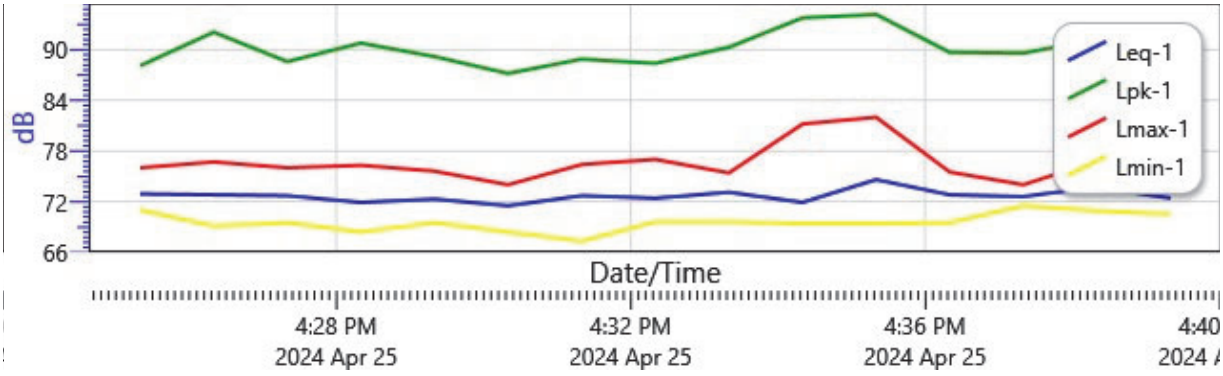


Logged Data Table

Date/Time	Leq-1
4/25/2024 4:25:20 PM	72.9
4:26:20 PM	72.8
4:27:20 PM	72.7
4:28:20 PM	71.9
4:29:20 PM	72.3
4:30:20 PM	71.5
4:31:20 PM	72.7
4:32:20 PM	72.4
4:33:20 PM	73.1
4:34:20 PM	71.9
4:35:20 PM	74.6
4:36:20 PM	72.8
4:37:20 PM	72.6
4:38:20 PM	73.7
4:39:20 PM	72.4

Logged Data Chart

S033_BLI020010_26042024_100951: Logged Data Chart



Session Report

4/26/2024

Information Panel - NMP 5

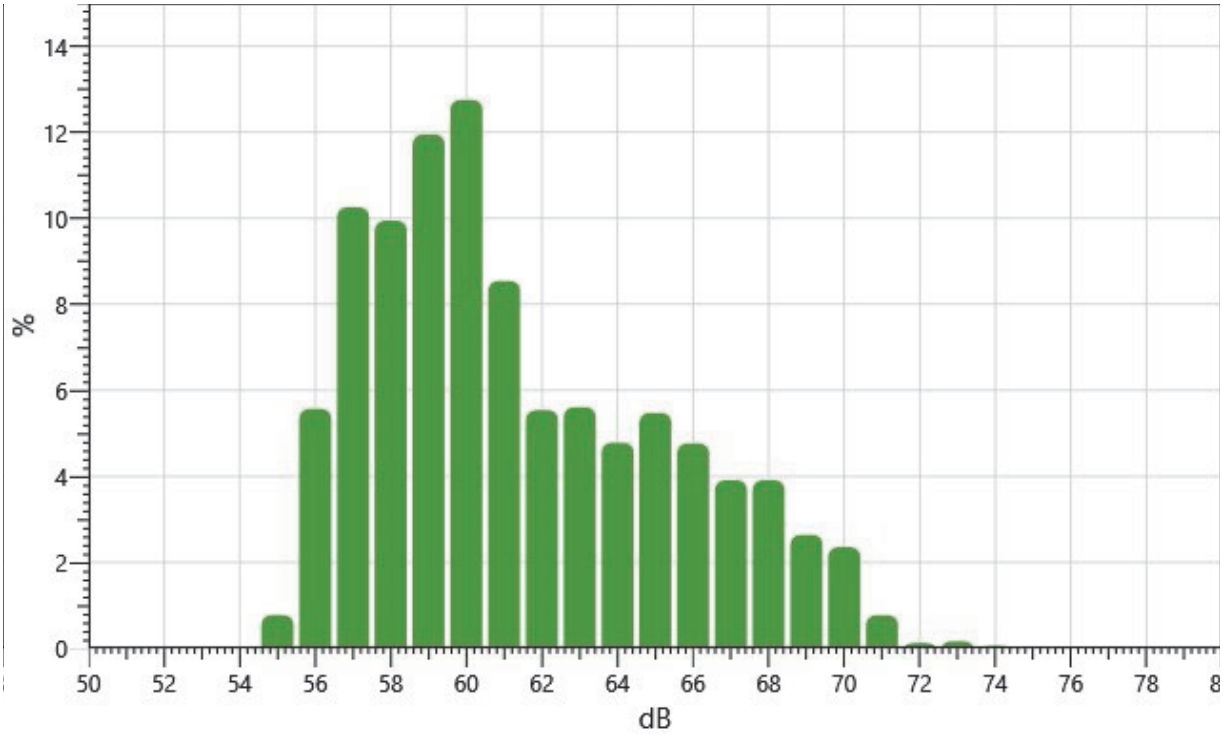
Name	S034_BLI020010_26042024_100951
Start Time	4/25/2024 4:53:21 PM
Stop Time	4/25/2024 5:08:21 PM
Device Name	BLI020010
Model Type	SoundPro DL
Device Firmware Rev	R.13J
Comments	

Summary Data Panel

Description	Meter	Value	Description	Meter	Value
Leq	1	63.9 dB	Lmax	1	78.4 dB
Lmin	1	55.2 dB	Lpk	1	113.1 dB
Exchange Rate	1	3 dB	Weighting	1	A
Response	1	SLOW			
Weighting	2	A	Response	2	SLOW

Statistics Chart

S034_BLI020010_26042024_100951: Statistics Chart

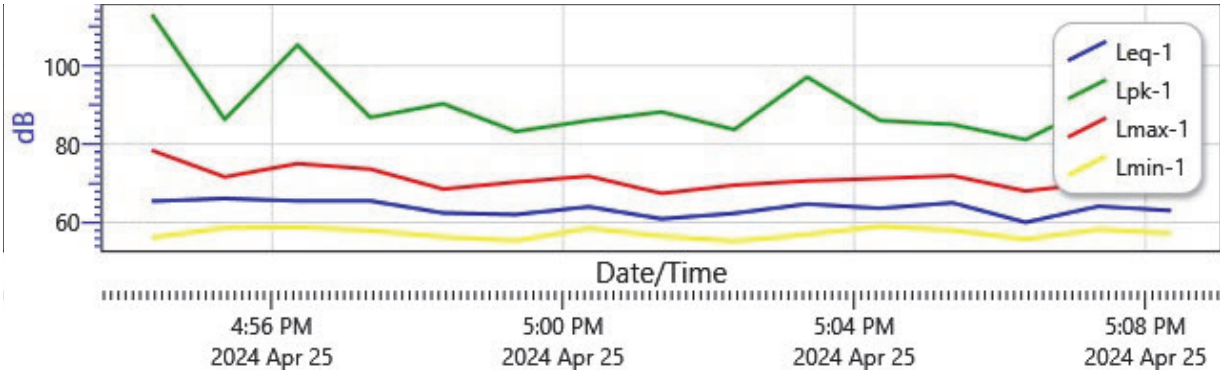


Logged Data Table

Date/Time	Leq-1
4/25/2024 4:54:21 PM	65.4
4:55:21 PM	66.1
4:56:21 PM	65.5
4:57:21 PM	65.5
4:58:21 PM	62.4
4:59:21 PM	62
5:00:21 PM	64
5:01:21 PM	60.9
5:02:21 PM	62.3
5:03:21 PM	64.7
5:04:21 PM	63.6
5:05:21 PM	65
5:06:21 PM	60
5:07:21 PM	64.1
5:08:21 PM	63

Logged Data Chart

S034_BLI020010_26042024_100951: Logged Data Chart



Session Report

4/26/2024

Calibration History

Date	Calibration Action	Level	Cal. Model Type	Serial Number	Cert. Due Date
4/25/2024 5:12:19 PM	Calibration	114.0			

I-70 WB	<-- 1 <-- 2 <-- 3
I-70 EB	--> 4<br--> 5<br--> 6

	Cars				
	NMP 1	NMP 2	NMP 3	NMP 4	NMP 5
	15:00	15:32	15:57	16:24	16:53
1	107	179	206	280	290
2	132	504	563	612	690
3	202	318	284	328	373
4	355	389	448	431	423
5	312	234	285	290	298
6	376	399	400	359	383

	BANK 1 (Medium Trucks)				
	NMP 1	NMP 2	NMP 3	NMP 4	NMP 5
	15:00	15:32	15:57	16:24	16:53
1	11	14	7	9	12
2	12	13	16	12	15
3	7	1	5	0	1
4	1	0	4	0	2
5	6	16	10	10	7
6	10	14	7	5	7

	BANK 2 (Heavy Trucks)				
	NMP 1	NMP 2	NMP 3	NMP 4	NMP 5
	15:00	15:32	15:57	16:24	16:53
1	16	21	21	17	22
2	13	25	18	21	13
3	0	1	1	1	0
4	2	1	0	2	0
5	30	51	56	33	39
6	22	23	13	12	17

		Cars	
		NMP 1	NMP 2
		14:59	15:31
From North (southbound)	Right (put into outside thru lane)	8	2
	Thru (outside lane)	84	81
	Left (inside lane of 2 thru lanes)	32	39
From East (Ramp) (Westbound)	Right (turn lanes)	10	15
	Thru	3	3
	Left	31	31
From South (Northbound)	Right	49	46
	Thru	43	50
	Left (add to thru traffic)	3	3
From West from parking lot, combine into 1 lane (Eastbound)	Right	0	0
	Thru	13	12
	Left	13	19

		BANK 1 (Medium Trucks)	
		NMP 1	NMP 2
		14:59	15:31
From North (southbound)	Right	5	4
	Thru	4	3
	Left	0	0
From East (Ramp) (Westbound)	Right	0	0
	Thru	0	0
	Left	0	0
From South (Northbound)	Right	2	1
	Thru	5	3
	Left	0	0
From West from parking lot, combine into 1 lane (Eastbound)	Right	0	0
	Thru	0	0
	Left	3	4

		BANK 2 (Heavy Trucks)	
		NMP 1	NMP 2
		14:59	15:31
From North (southbound)	Right	0	0
	Thru	0	0
	Left	0	1
From East (Ramp) (Westbound)	Right	0	0
	Thru	0	0
	Left	1	0
From South (Northbound)	Right	0	2
	Thru	0	2
	Left	0	0
From West from parking lot, combine into 1 lane (Eastbound)	Right	0	0
	Thru	0	0
	Left	0	0

STL CTP Traffic Noise

APPENDIX D: TRAFFIC DATA

CMT

Traffic for validation model

		NMP-1 15:00-15:15						NMP-2 15:32-15:47						NMP-3 15:57-16:12					
		Field count			Model count			Field count			Model count			Field count			Model count		
Route/Segment	Lane	P&A (cars)	B (medium trucks)	C (heavy trucks)	P&A	B	C	P&A	B	C	P&A	B	C	P&A	B	C	P&A	B	C
I-70 WB	Outside (1)	107	11	16	428	44	64	179	14	21	716	56	84	206	7	21	824	28	84
	Middle (2)	132	12	13	528	48	52	504	13	25	2016	52	100	563	16	18	2252	64	72
	Inside (3)	202	7	0	808	28	0	318	1	1	1272	4	4	284	5	1	1136	20	4
I-70 EB	Outside (6)	376	10	22	1504	40	88	399	14	23	1596	56	92	400	7	13	1600	28	52
	Middle (5)	312	6	30	1248	24	120	234	16	51	936	64	204	285	10	56	1140	40	224
	Inside (4)	355	1	2	1420	4	8	389	0	1	1556	0	4	448	4	0	1792	16	0
I-70 EB offramp (from Brian's sprea	LTL	31	0	1	124	0	4	31	0	0	124	0	0						
at Cypress	Thru	3	0	0	12	0	0	3	0	0	12	0	0						
	RTL	10	0	0	40	0	0	15	0	0	60	0	0						
I-70 EB onramp (calculated)	Only lane	94	2	0	376	8	0	97	1	3	388	4	12						
Cypress Rd NB (calculated)	LTL S of ramps	3	0	0	12	0	0	3	0	0	12	0	0						
	Thru S of ramps	43	5	0	172	20	0	50	3	2	200	12	8						
	Combined Inside	46	5	0	184	20	0	53	3	2	212	12	8						
	Thru/RTL S of ramps	49	2	0	196	8	0	46	1	2	184	4	8						
	Outside N of ramps	66	8	0	132	16	0	84	7	2	168	14	4						
	Inside N of ramps				132	16	0				168	14	4						
Cypress Rd SB (comes from spreads	LTL N of ramps	32	0	0	128	0	0	39	0	1	156	0	4						
	Combined Outside	92	9	0	368	36	0	83	7	0	332	28	0						
	Thru N of ramps	84	4	0	336	16	0	81	3	0	324	12	0						
	Thru/RTL N of ramps	8	5	0	32	20	0	2	4	0	8	16	0						
	Outside S of ramps	123	9	1	246	18	2	114	7	0	228	14	0						
	Inside S of ramps				246	18	2			0	228	14	0						
St Nicholas WB	Only lane													1	0	0	4	0	0
St Nicholas EB	Only lane													0	0	0	0	0	0
Pear Blossom Ln	WB and EB																		
Pear Tree Ln EB	Only lane																		
Pear Tree Ln WB	Only lane																		

Traffic for validation model

		NMP-4 16:24:00 - 16:39PM						NMP-5 16:53-17:08					
		Field count			Model count			Field count			Model count		
Route/Segment	Lane	P&A	B	C	P&A	B	C	P&A	B	C	P&A	B	C
I-70 WB	Outside (1)	280	9	17	1120	36	68	290	12	22	1160	48	88
	Middle (2)	612	12	21	2448	48	84	690	15	13	2760	60	52
	Inside (3)	328	0	1	1312	0	4	373	1	0	1492	4	0
I-70 EB	Outside (6)	359	5	12	1436	20	48	383	7	17	1532	28	68
	Middle (5)	290	10	33	1160	40	132	298	7	39	1192	28	156
	Inside (4)	431	0	2	1724	0	8	423	2	0	1692	8	0
I-70 EB offramp (from Brian's sprea	LTL												
at Cypress	Thru												
	RTL												
I-70 EB onramp (calculated)	Only lane												
Cypress Rd NB (calculated)	LTL S of ramps												
	Thru S of ramps												
	Combined Inside												
	Thru/RTL S of ramps												
	Outside N of ramps												
	Inside N of ramps												
Cypress Rd SB (comes from spreads	LTL N of ramps												
	Combined Outside												
	Thru N of ramps												
	Thru/RTL N of ramps												
	Outside S of ramps												
	Inside S of ramps												
St Nicholas WB	Only lane												
St Nicholas EB	Only lane												
Pear Blossom Ln	WB and EB	2	0	0	8	0	0						
Pear Tree Ln EB	Only lane							24	1	0	96	4	0
Pear Tree Ln WB	Only lane							34	2	0	136	8	0

Traffic for existing and future models							2023 Existing			2037 No Build			2037 Build		
							Model counts			Model counts			Model counts		
Route	Segment	Lane	Classification	Posted speed	Measured speed		P&A	B	C	P&A	B	C	P&A	B	C
I-70 WB	E of Airflight	Outside Lane	Interstate (Urban)	60	60		965	504	310	984	514	316	1037	541	333
		Middle Lane					858	300	204	875	306	208	922	322	219
		Inside Lane					778	105	106	792	106	107	835	112	113
	Airflight offramp to onramp	Outside Lane	Interstate (Urban)	60	60		881	460	283	884	462	284	967	505	310
		Middle Lane					784	274	187	787	275	187	860	300	205
		Inside Lane					710	95	96	713	95	96	779	105	106
	Airflight onramp to LIB onramp	Aux Lane	Interstate (Urban)	60	60								977	516	274
	(to Cypress offramp for Build)	Outside Lane					984	514	316	1006	525	323	799	340	378
		Middle Lane					875	306	208	895	312	213	826	157	65
		Inside Lane					793	106	108	810	110	109	413	40	1
	LIB onramp to Cypress offramp	Aux Lane	Interstate (Urban)	60	60		290	55	0	301	57	0			
		Outside Lane					984	514	316	1006	525	323			
		Middle Lane					875	306	208	895	312	213			
		Inside Lane					793	106	108	810	110	109			
	Cypress offramp to Lindbergh offramp	Outside Lane	Interstate (Urban)	60	60		1001	523	321	1024	535	329	930	486	299
		Middle Lane					891	311	212	911	318	217	828	289	197
		Inside Lane					807	109	110	825	111	111	750	101	101
	W of Lindbergh offramp	Outside Lane	Interstate (Urban)	60	60		887	463	285	907	474	291	824	431	264
		Middle Lane					789	276	188	807	282	192	733	256	175
		Inside Lane					715	96	96	730	98	99	664	89	90
WB I-70 Ramps	WB off to Airflight	Combined	Interstate ramp	30			317	43	0	374	51	0	261	36	0
		LTL					255	35	0	301	41	0	237	32	0
		R/LTL					62	8	0	73	10	0	25	3	0
	WB on from Airflight/LIB	Airflight track	Interstate ramp	NP			271	44	0	320	52	0			
		LIB track	Interstate ramp	NP			103	17	0	127	21	0	558	91	0
	WB on from LIB	WB LIB only	Interstate ramp	NP			286	54	0	297	56	0			
		EB LIB only		NP			4	1	0	4	1	0			
		Combined WB/EB LIB					290	55	0	301	57	0			
	WB off to Cypress/Natural Bridge	Combined	Interstate ramp		30		170	59	41	176	62	42	507	177	121
		Far RTL to Cypress					76	26	18	78	27	19	265	92	63
		RTL to Nat'l Bridge					25	9	6	27	9	6	170	60	41
		LTL to Nat'l Bridge					69	24	17	72	25	17	72	25	17
	WB off to Lindbergh CD Road	All	Interstate ramp	NP			308	108	74	316	110	75	287	100	68
	Natural Bridge to Lindbergh CD Road	EB Nat'l Bridge	Interstate ramp	NP			32	13	10	34	13	10	34	13	10
		WB Nat'l Bridge		NP			56	22	17	58	23	18	335	130	102
		Combined Nat'l Bridge					88	35	27	92	36	28	368	144	112
	Lindbergh CD Road E of NB ramp	Combined	Interstate ramp	NP			378	147	115	388	151	118	637	248	194
	Lindbergh CD Road W of NB ramp	Combined	Interstate ramp	NP			304	118	93	311	121	95	560	218	171
I-70 EB	W of Lindbergh onramp	Outside Lane	Interstate (Urban)	60	60		688	360	221	714	373	229	714	373	229
		Middle Lane					612	214	146	635	222	151	635	222	151
		Inside Lane					555	74	75	576	77	78	576	77	78
	Lindbergh onramp to Cypress offramp	Aux Lane	Interstate (Urban)	60	60		380	135	5	395	140	5	395	140	5
		Outside Lane					688	360	221	714	373	229	714	373	229
		Middle Lane					612	214	146	635	222	151	635	222	151
		Inside Lane					555	74	75	576	77	78	576	77	78

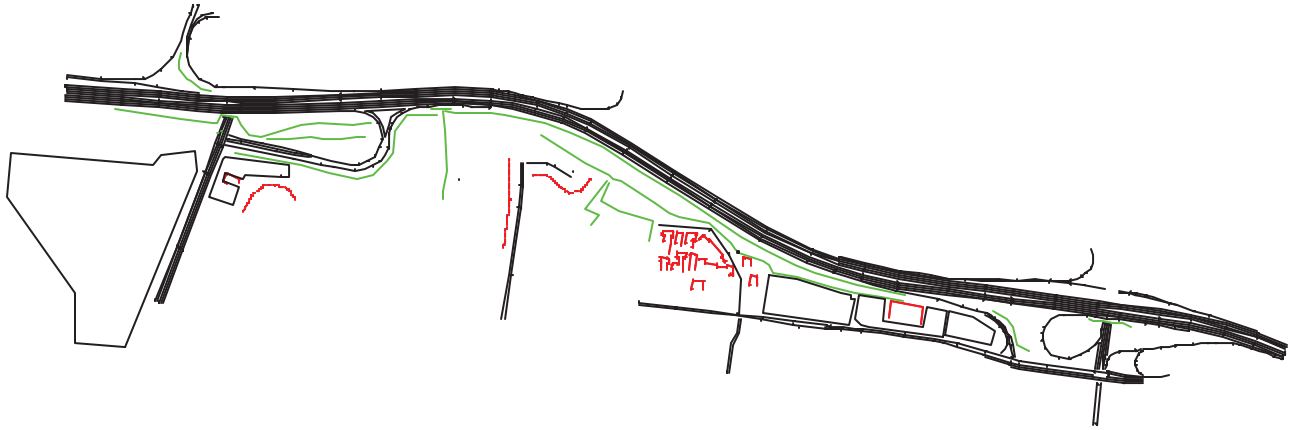
Traffic for existing and future models							2023 Existing			2037 No Build			2037 Build		
							Model counts			Model counts			Model counts		
Route	Segment	Lane	Classification	Posted speed	Measured speed		P&A	B	C	P&A	B	C	P&A	B	C
	Cypress offramp to Cypress onramp	Outside Lane	Interstate (Urban)	60	60		771	403	248	800	418	257	762	398	245
		Middle Lane					686	240	163	712	249	169	678	237	161
		Inside Lane					622	83	84	645	86	87	614	82	83
	Cypress onramp to Pear Tree offramp	Outside Lane	Interstate (Urban)	60	60		869	454	279	903	472	290	962	502	309
		Middle Lane					773	270	184	804	281	191	855	299	204
		Inside Lane					699	93	94	728	98	99	775	104	104
	Pear Tree offramp to SB Airflight onramp	Outside Lane	Interstate (Urban)	60	60		753	393	242	767	401	246	863	451	277
		Middle Lane					670	234	159	682	238	162	768	268	183
		Inside Lane					606	81	82	618	83	84	695	93	94
	SB Airflight onramp to NB Airflight onramp	Outside Lane	Interstate (Urban)	60	60		782	408	251	801	419	257	897	469	288
		Middle Lane					695	243	166	713	249	170	798	279	190
		Inside Lane					630	85	85	646	86	87	723	97	98
	E of NB Airflight onramp	Outside Lane	Interstate (Urban)	60	60		820	429	263	847	442	272	943	493	303
		Middle Lane					730	255	174	753	263	179	839	293	200
		Inside Lane					661	88	90	683	92	92	760	101	102
EB I-70 Ramps	EB on from Lindbergh	Combined	Interstate ramp	NP		Ramp	380	135	5	395	140	5	395	140	5
	EB off to Cypress	Combined	Interstate ramp	25			104	36	25	108	38	26	211	74	50
		RTL to NB Cypress					56	20	14	59	20	14	162	56	38
		Thru to car lot					6	2	2	7	3	2	7	3	2
		LTL to SB Cypress					41	14	10	42	15	10	42	15	10
	EB on from Cypress	Combined	Interstate ramp	NP		Ramp	357	54	4	381	58	4	734	111	9
	EB off to Pear Tree	Combined	Interstate ramp	30			431	59	5	509	70	6	367	51	4
		RTL to WB Pear Tree					52	7	1	61	9	1	61	9	1
		Thr/LTL to hotel etc					22	3	0	26	4	0	26	4	0
		LTL to EB Pear Tree					357	49	4	421	58	5	279	39	3
	EB on from SB Airflight	Combined	Interstate ramp	NP		Ramp	110	14	1	130	16	1	130	16	1
	EB on from NB Airflight/WB Nat'l Bridge	From NB Airflight	Interstate ramp	NP			14	1	0	17	1	0	17	1	0
		From WB Nat'l Bridge		NP			139	9	2	164	11	2	164	11	2
		Combined				Ramp	153	10	2	181	12	2	181	12	2
Cypress Rd NB	S of ramp intersection	Outside Lane	Urban principal arterial	35	35	N/A	143	78	2	152	83	2	152	83	2
		Inside Lane					142	78	2	151	83	3	151	83	3
		(dummy TWLTL)					0	0	0	0	0	0	0	0	0
	N of ramp intersection	Outside Lane	Urban principal arterial	35	35	Signal	105	58	2	112	61	2	164	90	3
		Inside Lane					106	58	1	111	62	2	164	90	2
		(dummy TWLTL)					0	0	0	0	0	0	0	0	0
Cypress Rd SB	N of ramp intersection	Outside Lane	Urban principal arterial	35	35	N/A	175	95	3	184	100	3	316	172	5
		Inside Lane					174	96	2	183	101	3	314	173	5
	S of ramp intersection	Outside Lane	Urban principal arterial	35	35	Signal	131	72	2	137	75	2	137	75	2
		Inside Lane					131	72	2	137	74	2	137	74	2
Ashby Rd NB	Within study area	One lane	Urban collector	20	30	N/A	273	56	3	273	56	3	273	56	3
Ashby Rd SB	Within study area	One lane	Urban collector	20	30	N/A	289	78	4	289	78	4	289	78	4
St Nicholas Rd	Within study area	Both directions	Local street	20	20	N/A	8	0	0	8	0	0	8	0	0
Country Ln NB	Within study area	One lane	Local street	20	20	N/A	102	56	2	121	66	2	121	66	2
Country Ln SB	Within study area	One lane	Local street	20	20	Stop	78	42	1	92	50	1	92	50	1
Pear Blossom Ct	Within study area	Both directions	Urban minor arterial	20	20	N/A	8	0	0	8	0	0	8	0	0

Traffic for existing and future models							2023 Existing			2037 No Build			2037 Build		
							Model counts			Model counts			Model counts		
Route	Segment	Lane	Classification	Posted speed	Measured speed		P&A	B	C	P&A	B	C	P&A	B	C
Pear Tree Ln EB	W of Country Ln	One lane	Urban minor arterial	20	20	N/A	118	15	1	140	17	2	140	17	2
	Country Ln to Skypark Parking entrance	One lane	Urban minor arterial	20	25	Stop	207	26	2	244	31	3	244	31	3
	Skypark Parking entrance to Edmundson line	One lane	Urban minor arterial	20	30	Stop	207	26	2	244	31	3	244	31	3
	Edmundson line to I-70 offramps	Combined	Urban minor arterial	35	35	Continuous	207	26	2	244	31	3	244	31	3
		Outside Lane					104	13	1	123	15	1	123	15	1
		Inside (LT) Lane					103	13	1	121	16	2	121	16	2
	I-70 offramps to Airflight Dr	Outside Lane		35	35	Signal	251	31	3	297	37	3	236	30	3
		Left LTL					180	23	2	213	27	2	172	21	2
		Right LTL					180	23	2	213	27	2	171	21	2
	E of Airflight Dr (becomes Natural Bridge Rd)	Through lane (left)	Urban minor arterial	35	35	Signal	368	176	6	435	208	7	350	167	5
		Parking Spot entry (right)	Local street				0	0	0	0	0	0	0	0	0
Pear Tree Ln WB	E of Airflight Dr (Natural Bridge Rd)	One lane	Urban minor arterial	35	35	N/A	175	87	3	207	103	3	207	103	3
		RTL					135	68	2	160	80	2	160	80	2
		Thru lane					32	17	1	39	19	1	39	19	1
		LTL					7	3	0	8	4	0	8	4	0
	Airflight Dr to I-70 offramps	One lane	Urban minor arterial	35	35	Signal	170	33	2	201	39	2	201	39	2
	I-70 offramps to Edmundson line	One lane	Urban minor arterial	35	35	Signal	179	34	2	210	41	3	210	41	3
	Edmundson line to Skypark Parking entrance	One lane	Urban minor arterial	20	30	Continuous	179	34	2	210	41	3	210	41	3
	Skypark Parking entrance to Country Ln	One lane	Urban minor arterial	20	25	Stop	179	34	2	210	41	3	210	41	3
	W of Country Ln	One lane	Urban minor arterial	20	20	Stop	112	21	1	131	25	2	131	25	2
Airflight Dr NB	S of Pear Tree Ln/Natural Bridge Rd	One lane	Driveway	NP	20	N/A	47	22	1	55	27	1	55	27	1
	Pear Tree Ln to EB onramp	LTL	Urban principal arterial	NP	25	Signal	202	110	3	238	130	4	348	190	5
		Thru lane					221	121	3	261	142	4	91	49	1
		RTL					10	5	0	12	6	0	12	6	0
	EB onramp to WB ramps	LTL	Urban principal arterial	NP	25	Continuous	202	110	3	238	130	4	348	190	5
		Departures lane					221	121	3	261	142	4	91	49	1
		Arrivals/T2 lane (dummy)					0	0	0	0	0	0	0	0	0
Airflight Dr SB	WB ramps to EB onramp	RTL ramp access	Urban principal arterial	NP	25	Continuous	80	44	1	95	51	1	95	51	1
		Thru lane					297	163	5	352	192	5	304	167	5
	EB onramp to Pear Tree Ln	RTL	Urban principal arterial	NP	25	Signal	99	54	2	117	64	2	117	64	2
		Thru/LTL					198	109	3	234	128	4	187	103	3
	S of Pear Tree Ln/Natural Bridge Rd	One lane	Driveway	NP	20	Signal	41	23	1	49	27	1	41	22	1

STL CTP Traffic Noise

APPENDIX E: TNM OUTPUT

CMT



Validation NMP-1 April 2024	Sheet 1 of 1 | 1 May 2024
	CMT, Inc.
Plan View	Project/Contract No. Lambert CTP
Run name: Val_NMP1_Rev3	TNM Version 2.5, Feb 2004
Scale: 1000 feet	Analysis By: JKMiller

Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

850000 851000 852000 853000 854000 855000 856000 857000 858000 859000 860000 861000 862000

CMT, Inc.
JKMiller

1 May 2024
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Lambert CTP
RUN: Validation NMP-1 April 2024
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 64 deg F, 41% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NMP-1	1	1	0.0	63.9	66	63.9	10	----	63.9	0.0	8	-8.0
NMP-2	2	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-3	3	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-4	4	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-5	5	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	5	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

CMT, Inc. 1 May 2024
JKMiller TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Lambert CTP
RUN: Validation NMP-2 April 2024
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 64 deg F, 43% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NMP-1	1	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-2	2	1	0.0	64.4	66	64.4	10	----	64.4	0.0	8	-8.0
NMP-3	3	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-4	4	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-5	5	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	5	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

CMT, Inc.
JKMiller

1 May 2024
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Lambert CTP
RUN: Validation NMP-3 April 2024
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 64 deg F, 43% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NMP-1	1	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-2	2	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-3	3	1	0.0	65.1	66	65.1	10	----	65.1	0.0	8	-8.0
NMP-4	4	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-5	5	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	5	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

CMT, Inc.
JKMiller
1 May 2024
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Lambert CTP
RUN: Validation NMP-4 April 2024
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 61 deg F, 48% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NMP-1	1	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-2	2	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-3	3	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-4	4	1	0.0	73.0	66	73.0	10	Snd Lvl	73.0	0.0	8	-8.0
NMP-5	5	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	5	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

CMT, Inc.
JKMiller

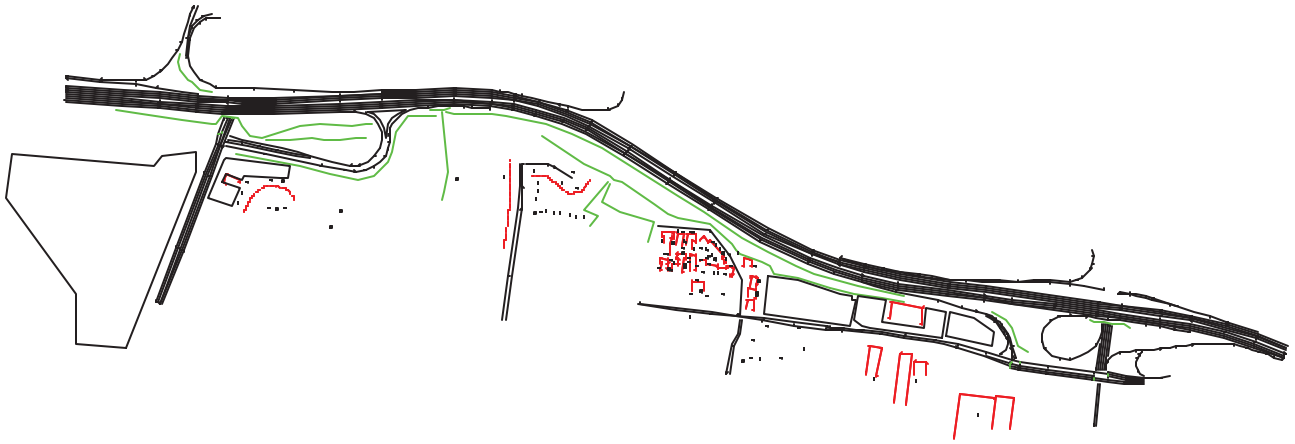
1 May 2024
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Lambert CTP
RUN: Validation NMP-5 April 2024
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 62 deg F, 47% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NMP-1	1	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-2	2	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-3	3	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-4	4	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-5	5	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	5	0.0	0.0	0.0
All Impacted	0	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0



2024 Existing		Sheet 1 of 1	30 Apr 2024
		CMT, Inc.	
Plan View		Project/Contract No. Lambert CTP	
Run name: Existing2024_AddlRecp		TNM Version 2.5, Feb 2004	
Scale:	1000 feet	Analysis By: JKMiller	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

50000 851000 852000 853000 854000 855000 856000 857000 858000 859000 860000 861000 862000

CMT, Inc. 30 April 2024
JKMiller TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Lambert CTP
RUN: 2024 Existing
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NMP-1	1	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-2	2	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-3	3	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-4	4	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
NMP-5	5	1	0.0	0.0	66	0.0	10	inactive	0.0	0.0	8	0.0
4373 St Dominic Ln	7	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0
4369 St Dominic Ln	8	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0
4365 St Dominic Ln	9	1	0.0	67.2	66	67.2	10	Snd Lvl	67.2	0.0	8	-8.0
4361 St Dominic Ln	10	1	0.0	66.9	66	66.9	10	Snd Lvl	66.9	0.0	8	-8.0
4357 St Dominic Ln	11	1	0.0	67.0	66	67.0	10	Snd Lvl	67.0	0.0	8	-8.0
4353 St Dominic Ln	12	1	0.0	65.0	66	65.0	10	----	65.0	0.0	8	-8.0
4349 St Dominic Ln	13	1	0.0	65.0	66	65.0	10	----	65.0	0.0	8	-8.0
11267 St Damian Dr	14	1	0.0	64.5	66	64.5	10	----	64.5	0.0	8	-8.0
11269 St Damian Dr	15	1	0.0	64.8	66	64.8	10	----	64.8	0.0	8	-8.0
4344 Cypress Rd - day care	16	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	8	-8.0
4362 St Dominic Ln	17	1	0.0	65.2	66	65.2	10	----	65.2	0.0	8	-8.0
4370 St Dominic Ln	18	1	0.0	65.3	66	65.3	10	----	65.3	0.0	8	-8.0
4372 St Dominic Ln	19	1	0.0	65.4	66	65.4	10	----	65.4	0.0	8	-8.0
4374 St Dominic Ln	20	1	0.0	65.4	66	65.4	10	----	65.4	0.0	8	-8.0
St Ann Park Ballfield Visitor Bench	21	1	0.0	67.3	66	67.3	10	Snd Lvl	67.3	0.0	8	-8.0
St Ann Park Ballfield Home Bench	22	1	0.0	65.7	66	65.7	10	----	65.7	0.0	8	-8.0
4555 Ashby Rd	23	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0
4551 Ashby Rd	24	1	0.0	68.3	66	68.3	10	Snd Lvl	68.3	0.0	8	-8.0
4547 Ashby Rd	25	1	0.0	67.6	66	67.6	10	Snd Lvl	67.6	0.0	8	-8.0

4539 Ashby Rd	26	1	0.0	66.5	66	66.5	10	Snd Lvl	66.5	0.0	8	-8.0
4535 Ashby Rd	28	1	0.0	65.6	66	65.6	10	----	65.6	0.0	8	-8.0
4548 Ashby Rd	29	1	0.0	69.2	66	69.2	10	Snd Lvl	69.2	0.0	8	-8.0
11014 St Nicholas Ct	30	1	0.0	69.1	66	69.1	10	Snd Lvl	69.1	0.0	8	-8.0
11010 St Nicholas Ct	31	1	0.0	68.7	66	68.7	10	Snd Lvl	68.7	0.0	8	-8.0
11006 St Nicholas Ct	32	1	0.0	67.9	66	67.9	10	Snd Lvl	67.9	0.0	8	-8.0
11002 St Nicholas Ct	33	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0
11000 St Nicholas Ct	34	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
11001 St Nicholas Ct	35	1	0.0	69.4	66	69.4	10	Snd Lvl	69.4	0.0	8	-8.0
4544 Ashby Rd	36	1	0.0	67.1	66	67.1	10	Snd Lvl	67.1	0.0	8	-8.0
4540 Ashby Rd	37	1	0.0	67.1	66	67.1	10	Snd Lvl	67.1	0.0	8	-8.0
4536 Ashby Rd	38	1	0.0	66.5	66	66.5	10	Snd Lvl	66.5	0.0	8	-8.0
4524 Ashby Rd	39	1	0.0	65.4	66	65.4	10	----	65.4	0.0	8	-8.0
11045 St Pius Ln	40	1	0.0	65.3	66	65.3	10	----	65.3	0.0	8	-8.0
11041 St Pius Ln	41	1	0.0	65.2	66	65.2	10	----	65.2	0.0	8	-8.0
11037 St Pius Ln	42	1	0.0	65.0	66	65.0	10	----	65.0	0.0	8	-8.0
11033 St Pius Ln	43	1	0.0	65.2	66	65.2	10	----	65.2	0.0	8	-8.0
11029 St Pius Ln	44	1	0.0	64.9	66	64.9	10	----	64.9	0.0	8	-8.0
11025 St Pius Ln	45	1	0.0	64.7	66	64.7	10	----	64.7	0.0	8	-8.0
11021 St Pius Ln	46	1	0.0	64.5	66	64.5	10	----	64.5	0.0	8	-8.0
11017 St Pius Ln	47	1	0.0	64.7	66	64.7	10	----	64.7	0.0	8	-8.0
11009 St Pius Ln	49	1	0.0	63.0	66	63.0	10	----	63.0	0.0	8	-8.0
11005 St Pius Ln	50	1	0.0	59.9	66	59.9	10	----	59.9	0.0	8	-8.0
10882 Pear Blossom NW patio apt	51	1	0.0	70.8	66	70.8	10	Snd Lvl	70.8	0.0	8	-8.0
10882 Pear Blossom NE patio apt	52	1	0.0	71.2	66	71.2	10	Snd Lvl	71.2	0.0	8	-8.0
4649 Country Ln NW patio apt	53	1	0.0	72.8	66	72.8	10	Snd Lvl	72.8	0.0	8	-8.0
4649 Country Ln NE patio apt	54	1	0.0	73.8	66	73.8	10	Snd Lvl	73.8	0.0	8	-8.0
4645 Country Ln NW patio apt	55	1	0.0	74.8	66	74.8	10	Snd Lvl	74.8	0.0	8	-8.0
4645 Country Ln NE patio apt	56	1	0.0	75.0	66	75.0	10	Snd Lvl	75.0	0.0	8	-8.0
4633 Country Ln NE patio apt	57	1	0.0	75.4	66	75.4	10	Snd Lvl	75.4	0.0	8	-8.0
4633 Country Ln SE patio apt	58	1	0.0	74.7	66	74.7	10	Snd Lvl	74.7	0.0	8	-8.0
4629 Country Ln NE patio apt	59	1	0.0	74.3	66	74.3	10	Snd Lvl	74.3	0.0	8	-8.0
4629 Country Ln SE patio apt	60	1	0.0	74.0	66	74.0	10	Snd Lvl	74.0	0.0	8	-8.0
4625 Country Ln NE patio apt	61	1	0.0	73.7	66	73.7	10	Snd Lvl	73.7	0.0	8	-8.0
4625 Country Ln SE patio apt	62	1	0.0	72.3	66	72.3	10	Snd Lvl	72.3	0.0	8	-8.0
10844 Pear Blossom N patio apt	63	1	0.0	70.7	66	70.7	10	Snd Lvl	70.7	0.0	8	-8.0
10844 Pear Blossom SE patio apt	64	1	0.0	55.3	66	55.3	10	----	55.3	0.0	8	-8.0
Pear Tree Apts Clubhouse	65	1	0.0	74.0	66	74.0	10	Snd Lvl	74.0	0.0	8	-8.0
10882 Pear Blossom SW patio apt	66	1	0.0	62.1	66	62.1	10	----	62.1	0.0	8	-8.0
10878 Pear Blossom NW patio apt	67	1	0.0	61.9	66	61.9	10	----	61.9	0.0	8	-8.0
10882 Pear Blossom SE patio apt	68	1	0.0	60.0	66	60.0	10	----	60.0	0.0	8	-8.0

10878 Pear Blossom NE patio apt	69	1	0.0	59.2	66	59.2	10	----	59.2	0.0	8	-8.0
4649 Country Ln SE patio apt	70	1	0.0	64.6	66	64.6	10	----	64.6	0.0	8	-8.0
4641 Country Ln E patio apt	71	1	0.0	60.8	66	60.8	10	----	60.8	0.0	8	-8.0
4641 Country Ln W patio apt	72	1	0.0	59.5	66	59.5	10	----	59.5	0.0	8	-8.0
10878 Pear Blossom SE patio apt	73	1	0.0	61.3	66	61.3	10	----	61.3	0.0	8	-8.0
10878 Pear Blossom SW patio apt	74	1	0.0	61.5	66	61.5	10	----	61.5	0.0	8	-8.0
4645 Country Ln SW patio apt	75	1	0.0	63.6	66	63.6	10	----	63.6	0.0	8	-8.0
4625 Country Ln NW patio apt	76	1	0.0	59.6	66	59.6	10	----	59.6	0.0	8	-8.0
4629 Country Ln SW patio apt	77	1	0.0	60.0	66	60.0	10	----	60.0	0.0	8	-8.0
4629 Country Ln NW patio apt	78	1	0.0	60.3	66	60.3	10	----	60.3	0.0	8	-8.0
4633 Country Ln SW patio apt	79	1	0.0	60.3	66	60.3	10	----	60.3	0.0	8	-8.0
4637 Country Ln NE patio apt	80	1	0.0	63.0	66	63.0	10	----	63.0	0.0	8	-8.0
4637 Country Ln NW patio apt	81	1	0.0	62.7	66	62.7	10	----	62.7	0.0	8	-8.0
4637 Country Ln SE patio apt	82	1	0.0	60.0	66	60.0	10	----	60.0	0.0	8	-8.0
4637 Country Ln SW patio apt	83	1	0.0	60.0	66	60.0	10	----	60.0	0.0	8	-8.0
10874 Pear Blossom SW patio apt	84	1	0.0	61.1	66	61.1	10	----	61.1	0.0	8	-8.0
10866 Pear Blossom NW patio apt	85	1	0.0	60.2	66	60.2	10	----	60.2	0.0	8	-8.0
10866 Pear Blossom NE patio apt	86	1	0.0	60.8	66	60.8	10	----	60.8	0.0	8	-8.0
10866 Pear Blossom SE patio apt	87	1	0.0	53.8	66	53.8	10	----	53.8	0.0	8	-8.0
10870 Pear Blossom NE patio apt	88	1	0.0	52.1	66	52.1	10	----	52.1	0.0	8	-8.0
10874 Pear Blossom NE patio apt	89	1	0.0	59.3	66	59.3	10	----	59.3	0.0	8	-8.0
10874 Pear Blossom SE patio apt	90	1	0.0	52.7	66	52.7	10	----	52.7	0.0	8	-8.0
10858 Pear Blossom NW patio apt	91	1	0.0	57.0	66	57.0	10	----	57.0	0.0	8	-8.0
10858 Pear Blossom SW patio apt	92	1	0.0	53.8	66	53.8	10	----	53.8	0.0	8	-8.0
10862 Pear Blossom W patio apt	93	1	0.0	52.3	66	52.3	10	----	52.3	0.0	8	-8.0
10862 Pear Blossom E patio apt	94	1	0.0	57.6	66	57.6	10	----	57.6	0.0	8	-8.0
10858 Pear Blossom SE patio apt	95	1	0.0	59.1	66	59.1	10	----	59.1	0.0	8	-8.0
10858 Pear Blossom NE patio apt	96	1	0.0	61.0	66	61.0	10	----	61.0	0.0	8	-8.0
10852 Pear Blossom NE patio apt	97	1	0.0	62.1	66	62.1	10	----	62.1	0.0	8	-8.0
10848 Pear Blossom NW patio apt	98	1	0.0	62.0	66	62.0	10	----	62.0	0.0	8	-8.0
10844 Pear Blossom SW patio apt	99	1	0.0	57.6	66	57.6	10	----	57.6	0.0	8	-8.0
10848 Pear Blossom SE patio apt	100	1	0.0	56.9	66	56.9	10	----	56.9	0.0	8	-8.0
10848 Pear Blossom SW patio apt	101	1	0.0	56.8	66	56.8	10	----	56.8	0.0	8	-8.0
10852 Pear Blossom SE patio apt	102	1	0.0	56.2	66	56.2	10	----	56.2	0.0	8	-8.0
10852 Pear Blossom SW patio apt	103	1	0.0	55.9	66	55.9	10	----	55.9	0.0	8	-8.0
10885 Pear Blossom NE patio apt	104	1	0.0	58.2	66	58.2	10	----	58.2	0.0	8	-8.0
10885 Pear Blossom NW patio apt	105	1	0.0	58.0	66	58.0	10	----	58.0	0.0	8	-8.0
10885 Pear Blossom SE patio apt	106	1	0.0	56.8	66	56.8	10	----	56.8	0.0	8	-8.0
10885 Pear Blossom SW patio apt	107	1	0.0	55.2	66	55.2	10	----	55.2	0.0	8	-8.0
10877 Pear Tree Ln	108	1	0.0	59.9	66	59.9	10	----	59.9	0.0	8	-8.0
10885 Pear Tree Ln	109	1	0.0	59.1	66	59.1	10	----	59.1	0.0	8	-8.0

10893 Pear Tree Ln	110	1	0.0	59.7	66	59.7	10	----	59.7	0.0	8	-8.0
10848 Pear Tree Ln	111	1	0.0	67.1	66	67.1	10	Snd Lvl	67.1	0.0	8	-8.0
10840 Pear Tree Ln	112	1	0.0	67.9	66	67.9	10	Snd Lvl	67.9	0.0	8	-8.0
10832 Pear Tree Ln	113	1	0.0	68.5	66	68.5	10	Snd Lvl	68.5	0.0	8	-8.0
10869 Pear Tree Ln	114	1	0.0	62.0	66	62.0	10	----	62.0	0.0	8	-8.0
10870 Pear Blossom NW patio apt	115	1	0.0	58.7	66	58.7	10	----	58.7	0.0	8	-8.0
10870 Pear Blossom SW patio apt	116	1	0.0	53.1	66	53.1	10	----	53.1	0.0	8	-8.0
10870 Pear Blossom SE patio apt	117	1	0.0	54.1	66	54.1	10	----	54.1	0.0	8	-8.0
4610 Country Ln patio apt	118	1	0.0	71.0	66	71.0	10	Snd Lvl	71.0	0.0	8	-8.0
4608 Country Ln patio apt	119	1	0.0	70.4	66	70.4	10	Snd Lvl	70.4	0.0	8	-8.0
4606 Country Ln patio apt	120	1	0.0	68.4	66	68.4	10	Snd Lvl	68.4	0.0	8	-8.0
4604 Country Ln patio apt	121	1	0.0	68.0	66	68.0	10	Snd Lvl	68.0	0.0	8	-8.0
4602 Country Ln patio apt	122	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0
4600 Country Ln patio apt	123	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0
10885 Pear Blossom NE balc apt	124	1	0.0	58.2	66	58.2	10	----	58.2	0.0	8	-8.0
10885 Pear Blossom NW balc apt	125	1	0.0	58.0	66	58.0	10	----	58.0	0.0	8	-8.0
10885 Pear Blossom SE balc apt	126	1	0.0	56.8	66	56.8	10	----	56.8	0.0	8	-8.0
10885 Pear Blossom SW balc apt	127	1	0.0	54.6	66	54.6	10	----	54.6	0.0	8	-8.0
10844 Pear Blossom N balc apt	128	1	0.0	70.7	66	70.7	10	Snd Lvl	70.7	0.0	8	-8.0
10844 Pear Blossom SE balc apt	129	1	0.0	55.4	66	55.4	10	----	55.4	0.0	8	-8.0
10844 Pear Blossom SW balc apt	130	1	0.0	57.6	66	57.6	10	----	57.6	0.0	8	-8.0
10848 Pear Blossom SE balc apt	131	1	0.0	56.9	66	56.9	10	----	56.9	0.0	8	-8.0
10848 Pear Blossom NW balc apt	132	1	0.0	62.0	66	62.0	10	----	62.0	0.0	8	-8.0
10848 Pear Blossom SW balc apt	133	1	0.0	56.8	66	56.8	10	----	56.8	0.0	8	-8.0
10852 Pear Blossom NE balc apt	134	1	0.0	62.1	66	62.1	10	----	62.1	0.0	8	-8.0
10852 Pear Blossom SE balc apt	135	1	0.0	56.2	66	56.2	10	----	56.2	0.0	8	-8.0
10852 Pear Blossom SW balc apt	136	1	0.0	55.9	66	55.9	10	----	55.9	0.0	8	-8.0
10852 Pear Blossom NW patio apt	137	1	0.0	60.5	66	60.5	10	----	60.5	0.0	8	-8.0
10852 Pear Blossom NW balc apt	138	1	0.0	60.5	66	60.5	10	----	60.5	0.0	8	-8.0
10858 Pear Blossom NW balc apt	139	1	0.0	55.6	66	55.6	10	----	55.6	0.0	8	-8.0
10858 Pear Blossom SW balc apt	140	1	0.0	53.5	66	53.5	10	----	53.5	0.0	8	-8.0
10862 Pear Blossom W balc apt	141	1	0.0	52.5	66	52.5	10	----	52.5	0.0	8	-8.0
10862 Pear Blossom E balc apt	142	1	0.0	57.5	66	57.5	10	----	57.5	0.0	8	-8.0
10858 Pear Blossom SE balc apt	143	1	0.0	58.9	66	58.9	10	----	58.9	0.0	8	-8.0
10858 Pear Blossom NE balc apt	144	1	0.0	61.0	66	61.0	10	----	61.0	0.0	8	-8.0
10866 Pear Blossom NW balc apt	145	1	0.0	60.5	66	60.5	10	----	60.5	0.0	8	-8.0
10866 Pear Blossom NE balc apt	146	1	0.0	60.8	66	60.8	10	----	60.8	0.0	8	-8.0
10866 Pear Blossom SE balc apt	147	1	0.0	53.6	66	53.6	10	----	53.6	0.0	8	-8.0
10870 Pear Blossom NE balc apt	148	1	0.0	51.9	66	51.9	10	----	51.9	0.0	8	-8.0
10870 Pear Blossom NW balc apt	149	1	0.0	58.7	66	58.7	10	----	58.7	0.0	8	-8.0
10870 Pear Blossom SW balc apt	150	1	0.0	53.9	66	53.9	10	----	53.9	0.0	8	-8.0

10870 Pear Blossom SE balc apt	151	1	0.0	54.1	66	54.1	10	----	54.1	0.0	8	-8.0
10874 Pear Blossom SW balc apt	152	1	0.0	61.0	66	61.0	10	----	61.0	0.0	8	-8.0
10874 Pear Blossom NE balc apt	153	1	0.0	59.5	66	59.5	10	----	59.5	0.0	8	-8.0
10874 Pear Blossom SE balc apt	154	1	0.0	52.8	66	52.8	10	----	52.8	0.0	8	-8.0
4637 Country Ln NE balc apt	155	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0
4637 Country Ln NW balc apt	156	1	0.0	62.7	66	62.7	10	----	62.7	0.0	8	-8.0
4637 Country Ln SE balc apt	157	1	0.0	60.0	66	60.0	10	----	60.0	0.0	8	-8.0
4637 Country Ln SW balc apt	158	1	0.0	60.0	66	60.0	10	----	60.0	0.0	8	-8.0
10878 Pear Blossom NW balc apt	159	1	0.0	61.9	66	61.9	10	----	61.9	0.0	8	-8.0
10878 Pear Blossom NE balc apt	160	1	0.0	59.3	66	59.3	10	----	59.3	0.0	8	-8.0
10878 Pear Blossom SE balc apt	161	1	0.0	61.3	66	61.3	10	----	61.3	0.0	8	-8.0
10878 Pear Blossom SW balc apt	162	1	0.0	61.5	66	61.5	10	----	61.5	0.0	8	-8.0
10882 Pear Blossom NW balc apt	163	1	0.0	70.9	66	70.9	10	Snd Lvl	70.9	0.0	8	-8.0
10882 Pear Blossom NE balc apt	164	1	0.0	71.3	66	71.3	10	Snd Lvl	71.3	0.0	8	-8.0
10882 Pear Blossom SW balc apt	165	1	0.0	61.9	66	61.9	10	----	61.9	0.0	8	-8.0
10882 Pear Blossom SE balc apt	166	1	0.0	60.3	66	60.3	10	----	60.3	0.0	8	-8.0
4649 Country Ln NW balc apt	167	1	0.0	72.9	66	72.9	10	Snd Lvl	72.9	0.0	8	-8.0
4649 Country Ln NE balc apt	168	1	0.0	73.9	66	73.9	10	Snd Lvl	73.9	0.0	8	-8.0
4649 Country Ln SE balc apt	169	1	0.0	64.6	66	64.6	10	----	64.6	0.0	8	-8.0
4641 Country Ln E balc apt	170	1	0.0	60.8	66	60.8	10	----	60.8	0.0	8	-8.0
4641 Country Ln W balc apt	171	1	0.0	59.6	66	59.6	10	----	59.6	0.0	8	-8.0
4645 Country Ln SE patio apt	172	1	0.0	62.6	66	62.6	10	----	62.6	0.0	8	-8.0
4645 Country Ln SE balc apt	173	1	0.0	62.7	66	62.7	10	----	62.7	0.0	8	-8.0
4645 Country Ln NW balc apt	174	1	0.0	74.9	66	74.9	10	Snd Lvl	74.9	0.0	8	-8.0
4645 Country Ln NE balc apt	175	1	0.0	75.0	66	75.0	10	Snd Lvl	75.0	0.0	8	-8.0
4645 Country Ln SW balc apt	176	1	0.0	63.7	66	63.7	10	----	63.7	0.0	8	-8.0
4633 Country Ln NE balc apt	177	1	0.0	75.4	66	75.4	10	Snd Lvl	75.4	0.0	8	-8.0
4633 Country Ln SE balc apt	178	1	0.0	74.8	66	74.8	10	Snd Lvl	74.8	0.0	8	-8.0
4633 Country Ln SW balc apt	179	1	0.0	60.2	66	60.2	10	----	60.2	0.0	8	-8.0
4629 Country Ln NE balc apt	180	1	0.0	74.4	66	74.4	10	Snd Lvl	74.4	0.0	8	-8.0
4629 Country Ln SE balc apt	181	1	0.0	74.1	66	74.1	10	Snd Lvl	74.1	0.0	8	-8.0
4629 Country Ln SW balc apt	182	1	0.0	60.1	66	60.1	10	----	60.1	0.0	8	-8.0
4629 Country Ln NW balc apt	183	1	0.0	60.3	66	60.3	10	----	60.3	0.0	8	-8.0
4625 Country Ln NE balc apt	184	1	0.0	73.8	66	73.8	10	Snd Lvl	73.8	0.0	8	-8.0
4625 Country Ln SE balc apt	185	1	0.0	72.4	66	72.4	10	Snd Lvl	72.4	0.0	8	-8.0
4625 Country Ln NW balc apt	186	1	0.0	59.5	66	59.5	10	----	59.5	0.0	8	-8.0
4361 St Regina Ln	188	1	0.0	65.2	66	65.2	10	----	65.2	0.0	8	-8.0
4353 St Regina Ln	189	1	0.0	64.2	66	64.2	10	----	64.2	0.0	8	-8.0
4349 St Regina Ln	190	1	0.0	63.5	66	63.5	10	----	63.5	0.0	8	-8.0
4362 St Regina Ln	191	1	0.0	64.2	66	64.2	10	----	64.2	0.0	8	-8.0
4346 St Regina Ln	192	1	0.0	63.6	66	63.6	10	----	63.6	0.0	8	-8.0

4531 Ashby Rd	193	1	0.0	64.9	66	64.9	10	----	64.9	0.0	8	-8.0
10856 Pear Tree Ln	194	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0
10864 Pear Tree Ln	195	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
10872 Pear Tree Ln	196	1	0.0	61.1	66	61.1	10	----	61.1	0.0	8	-8.0
10880 Pear Tree Ln	197	1	0.0	60.7	66	60.7	10	----	60.7	0.0	8	-8.0
4527 Ashby Rd	198	1	0.0	64.9	66	64.9	10	----	64.9	0.0	8	-8.0
4523 Ashby Rd	199	1	0.0	64.4	66	64.4	10	----	64.4	0.0	8	-8.0
4528 Country Ln	200	1	0.0	63.9	66	63.9	10	----	63.9	0.0	8	-8.0
4522/4524 Country Ln	201	2	0.0	61.9	66	61.9	10	----	61.9	0.0	8	-8.0
4520 Country Ln	202	1	0.0	61.6	66	61.6	10	----	61.6	0.0	8	-8.0
10057/10059 Douglas Ct	203	2	0.0	61.3	66	61.3	10	----	61.3	0.0	8	-8.0
10053/10055 Douglas Ct	204	2	0.0	62.4	66	62.4	10	----	62.4	0.0	8	-8.0
10049/10051 Douglas Ct	205	2	0.0	63.0	66	63.0	10	----	63.0	0.0	8	-8.0
10045/10047 Douglas Ct	206	2	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0
10043 Douglas Ct	207	1	0.0	62.6	66	62.6	10	----	62.6	0.0	8	-8.0
10037 Douglas Ct	208	1	0.0	62.2	66	62.2	10	----	62.2	0.0	8	-8.0
10033 Douglas Ct	209	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
10029 Douglas Ct	210	1	0.0	65.4	66	65.4	10	----	65.4	0.0	8	-8.0
10027 Douglas Ct	211	1	0.0	65.6	66	65.6	10	----	65.6	0.0	8	-8.0
Wingate hotel pool	212	1	0.0	54.4	66	54.4	10	----	54.4	0.0	8	-8.0
Pear Tree Inn pool	213	1	0.0	61.5	66	61.5	10	----	61.5	0.0	8	-8.0
Mariott hotel pool	214	1	0.0	51.1	66	51.1	10	----	51.1	0.0	8	-8.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	215	0.0	0.0	0.0
All Impacted	57	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

2037 No Build		Sheet 1 of 1	30 Apr 2024
		CMT, Inc.	
Plan View		Project/Contract No. Lambert CTP	
Run name: NoBuild2037_AddlRecp		TNM Version 2.5, Feb 2004	
Scale:	1000 feet	Analysis By: JKMiller	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

0000 851000 852000 853000 854000 855000 856000 857000 858000 859000 860000 861000 862000

CMT, Inc. 30 April 2024
JKMiller TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Lambert CTP
RUN: 2037 No Build
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NMP-1	1	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
NMP-2	2	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
NMP-3	3	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
NMP-4	4	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
NMP-5	5	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4373 St Dominic Ln	7	1	0.0	66.2	66	66.2	15	Snd Lvl	66.2	0.0	8	-8.0
4369 St Dominic Ln	8	1	0.0	67.5	66	67.5	15	Snd Lvl	67.5	0.0	8	-8.0
4365 St Dominic Ln	9	1	0.0	67.4	66	67.4	15	Snd Lvl	67.4	0.0	8	-8.0
4361 St Dominic Ln	10	1	0.0	67.1	66	67.1	15	Snd Lvl	67.1	0.0	8	-8.0
4357 St Dominic Ln	11	1	0.0	67.2	66	67.2	15	Snd Lvl	67.2	0.0	8	-8.0
4353 St Dominic Ln	12	1	0.0	65.1	66	65.1	15	----	65.1	0.0	8	-8.0
4349 St Dominic Ln	13	1	0.0	65.1	66	65.1	15	----	65.1	0.0	8	-8.0
11267 St Damian Dr	14	1	0.0	64.6	66	64.6	15	----	64.6	0.0	8	-8.0
11269 St Damian Dr	15	1	0.0	64.9	66	64.9	15	----	64.9	0.0	8	-8.0
4344 Cypress Rd - day care	16	1	0.0	66.9	66	66.9	15	Snd Lvl	66.9	0.0	8	-8.0
4362 St Dominic Ln	17	1	0.0	65.3	66	65.3	15	----	65.3	0.0	8	-8.0
4370 St Dominic Ln	18	1	0.0	65.5	66	65.5	15	----	65.5	0.0	8	-8.0
4372 St Dominic Ln	19	1	0.0	65.6	66	65.6	15	----	65.6	0.0	8	-8.0
4374 St Dominic Ln	20	1	0.0	65.6	66	65.6	15	----	65.6	0.0	8	-8.0
St Ann Park Ballfield Visitor Bench	21	1	0.0	67.4	66	67.4	15	Snd Lvl	67.4	0.0	8	-8.0
St Ann Park Ballfield Home Bench	22	1	0.0	65.8	66	65.8	15	----	65.8	0.0	8	-8.0
4555 Ashby Rd	23	1	0.0	70.2	66	70.2	15	Snd Lvl	70.2	0.0	8	-8.0
4551 Ashby Rd	24	1	0.0	68.5	66	68.5	15	Snd Lvl	68.5	0.0	8	-8.0
4547 Ashby Rd	25	1	0.0	67.7	66	67.7	15	Snd Lvl	67.7	0.0	8	-8.0

4539 Ashby Rd	26	1	0.0	66.6	66	66.6	15	Snd Lvl	66.6	0.0	8	-8.0
4535 Ashby Rd	27	1	0.0	65.7	66	65.7	15	----	65.7	0.0	8	-8.0
4548 Ashby Rd	28	1	0.0	69.3	66	69.3	15	Snd Lvl	69.3	0.0	8	-8.0
11014 St Nicholas Ct	29	1	0.0	69.2	66	69.2	15	Snd Lvl	69.2	0.0	8	-8.0
11010 St Nicholas Ct	30	1	0.0	68.8	66	68.8	15	Snd Lvl	68.8	0.0	8	-8.0
11006 St Nicholas Ct	31	1	0.0	68.0	66	68.0	15	Snd Lvl	68.0	0.0	8	-8.0
11002 St Nicholas Ct	32	1	0.0	67.6	66	67.6	15	Snd Lvl	67.6	0.0	8	-8.0
11000 St Nicholas Ct	33	1	0.0	67.6	66	67.6	15	Snd Lvl	67.6	0.0	8	-8.0
11001 St Nicholas Ct	34	1	0.0	69.6	66	69.6	15	Snd Lvl	69.6	0.0	8	-8.0
4544 Ashby Rd	35	1	0.0	67.2	66	67.2	15	Snd Lvl	67.2	0.0	8	-8.0
4540 Ashby Rd	36	1	0.0	67.2	66	67.2	15	Snd Lvl	67.2	0.0	8	-8.0
4536 Ashby Rd	37	1	0.0	66.6	66	66.6	15	Snd Lvl	66.6	0.0	8	-8.0
4524 Ashby Rd	38	1	0.0	65.5	66	65.5	15	----	65.5	0.0	8	-8.0
11045 St Pius Ln	39	1	0.0	65.4	66	65.4	15	----	65.4	0.0	8	-8.0
11041 St Pius Ln	40	1	0.0	65.3	66	65.3	15	----	65.3	0.0	8	-8.0
11037 St Pius Ln	41	1	0.0	65.2	66	65.2	15	----	65.2	0.0	8	-8.0
11033 St Pius Ln	42	1	0.0	65.3	66	65.3	15	----	65.3	0.0	8	-8.0
11029 St Pius Ln	43	1	0.0	65.0	66	65.0	15	----	65.0	0.0	8	-8.0
11025 St Pius Ln	44	1	0.0	64.8	66	64.8	15	----	64.8	0.0	8	-8.0
11021 St Pius Ln	45	1	0.0	64.6	66	64.6	15	----	64.6	0.0	8	-8.0
11017 St Pius Ln	46	1	0.0	64.8	66	64.8	15	----	64.8	0.0	8	-8.0
11009 St Pius Ln	47	1	0.0	63.2	66	63.2	15	----	63.2	0.0	8	-8.0
11005 St Pius Ln	48	1	0.0	60.1	66	60.1	15	----	60.1	0.0	8	-8.0
10882 Pear Blossom NW patio apt	49	1	0.0	70.9	66	70.9	15	Snd Lvl	70.9	0.0	8	-8.0
10882 Pear Blossom NE patio apt	50	1	0.0	71.3	66	71.3	15	Snd Lvl	71.3	0.0	8	-8.0
4649 Country Ln NW patio apt	51	1	0.0	73.0	66	73.0	15	Snd Lvl	73.0	0.0	8	-8.0
4649 Country Ln NE patio apt	52	1	0.0	73.9	66	73.9	15	Snd Lvl	73.9	0.0	8	-8.0
4645 Country Ln NW patio apt	53	1	0.0	75.0	66	75.0	15	Snd Lvl	75.0	0.0	8	-8.0
4645 Country Ln NE patio apt	54	1	0.0	75.1	66	75.1	15	Snd Lvl	75.1	0.0	8	-8.0
4633 Country Ln NE patio apt	55	1	0.0	75.5	66	75.5	15	Snd Lvl	75.5	0.0	8	-8.0
4633 Country Ln SE patio apt	56	1	0.0	74.9	66	74.9	15	Snd Lvl	74.9	0.0	8	-8.0
4629 Country Ln NE patio apt	57	1	0.0	74.4	66	74.4	15	Snd Lvl	74.4	0.0	8	-8.0
4629 Country Ln SE patio apt	58	1	0.0	74.2	66	74.2	15	Snd Lvl	74.2	0.0	8	-8.0
4625 Country Ln NE patio apt	59	1	0.0	73.8	66	73.8	15	Snd Lvl	73.8	0.0	8	-8.0
4625 Country Ln SE patio apt	60	1	0.0	72.4	66	72.4	15	Snd Lvl	72.4	0.0	8	-8.0
10844 Pear Blossom N patio apt	61	1	0.0	70.9	66	70.9	15	Snd Lvl	70.9	0.0	8	-8.0
10844 Pear Blossom SE patio apt	62	1	0.0	55.5	66	55.5	15	----	55.5	0.0	8	-8.0
Pear Tree Apts Clubhouse	63	1	0.0	74.2	66	74.2	15	Snd Lvl	74.2	0.0	8	-8.0
10882 Pear Blossom SW patio apt	64	1	0.0	62.2	66	62.2	15	----	62.2	0.0	8	-8.0
10878 Pear Blossom NW patio apt	65	1	0.0	62.1	66	62.1	15	----	62.1	0.0	8	-8.0
10882 Pear Blossom SE patio apt	66	1	0.0	60.1	66	60.1	15	----	60.1	0.0	8	-8.0

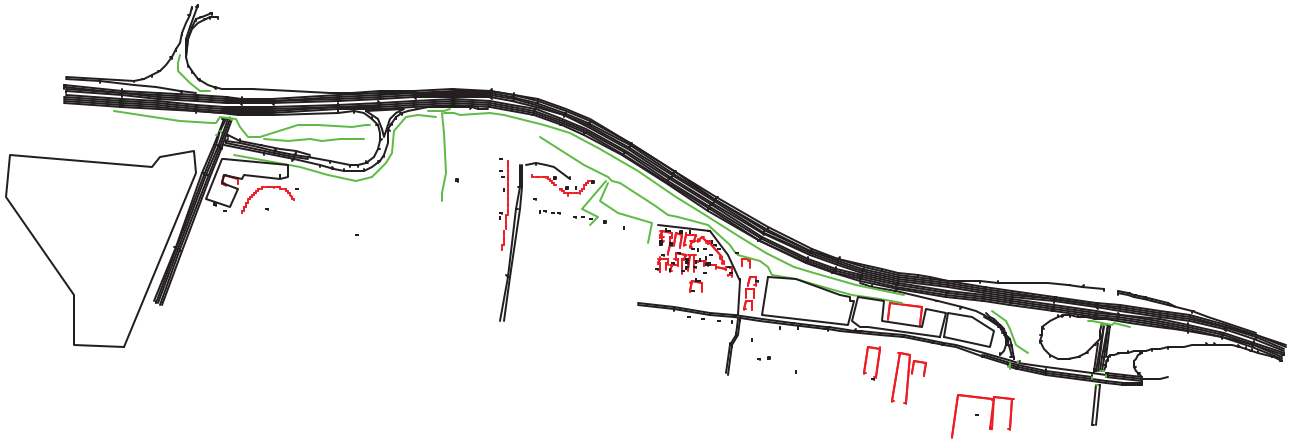
10878 Pear Blossom NE patio apt	67	1	0.0	59.4	66	59.4	15	----	59.4	0.0	8	-8.0
4649 Country Ln SE patio apt	68	1	0.0	64.7	66	64.7	15	----	64.7	0.0	8	-8.0
4641 Country Ln E patio apt	69	1	0.0	60.9	66	60.9	15	----	60.9	0.0	8	-8.0
4641 Country Ln W patio apt	70	1	0.0	59.6	66	59.6	15	----	59.6	0.0	8	-8.0
10878 Pear Blossom SE patio apt	71	1	0.0	61.4	66	61.4	15	----	61.4	0.0	8	-8.0
10878 Pear Blossom SW patio apt	72	1	0.0	61.7	66	61.7	15	----	61.7	0.0	8	-8.0
4645 Country Ln SW patio apt	73	1	0.0	63.8	66	63.8	15	----	63.8	0.0	8	-8.0
4625 Country Ln NW patio apt	74	1	0.0	59.7	66	59.7	15	----	59.7	0.0	8	-8.0
4629 Country Ln SW patio apt	75	1	0.0	60.1	66	60.1	15	----	60.1	0.0	8	-8.0
4629 Country Ln NW patio apt	76	1	0.0	60.4	66	60.4	15	----	60.4	0.0	8	-8.0
4633 Country Ln SW patio apt	77	1	0.0	60.4	66	60.4	15	----	60.4	0.0	8	-8.0
4637 Country Ln NE patio apt	78	1	0.0	63.2	66	63.2	15	----	63.2	0.0	8	-8.0
4637 Country Ln NW patio apt	79	1	0.0	62.9	66	62.9	15	----	62.9	0.0	8	-8.0
4637 Country Ln SE patio apt	80	1	0.0	60.2	66	60.2	15	----	60.2	0.0	8	-8.0
4637 Country Ln SW patio apt	81	1	0.0	60.2	66	60.2	15	----	60.2	0.0	8	-8.0
10874 Pear Blossom SW patio apt	82	1	0.0	61.2	66	61.2	15	----	61.2	0.0	8	-8.0
10866 Pear Blossom NW patio apt	83	1	0.0	60.4	66	60.4	15	----	60.4	0.0	8	-8.0
10866 Pear Blossom NE patio apt	84	1	0.0	60.9	66	60.9	15	----	60.9	0.0	8	-8.0
10866 Pear Blossom SE patio apt	85	1	0.0	54.0	66	54.0	15	----	54.0	0.0	8	-8.0
10870 Pear Blossom NE patio apt	86	1	0.0	52.3	66	52.3	15	----	52.3	0.0	8	-8.0
10874 Pear Blossom NE patio apt	87	1	0.0	59.4	66	59.4	15	----	59.4	0.0	8	-8.0
10874 Pear Blossom SE patio apt	88	1	0.0	53.0	66	53.0	15	----	53.0	0.0	8	-8.0
10858 Pear Blossom NW patio apt	89	1	0.0	57.1	66	57.1	15	----	57.1	0.0	8	-8.0
10858 Pear Blossom SW patio apt	90	1	0.0	53.9	66	53.9	15	----	53.9	0.0	8	-8.0
10862 Pear Blossom W patio apt	91	1	0.0	52.5	66	52.5	15	----	52.5	0.0	8	-8.0
10862 Pear Blossom E patio apt	92	1	0.0	57.7	66	57.7	15	----	57.7	0.0	8	-8.0
10858 Pear Blossom SE patio apt	93	1	0.0	59.2	66	59.2	15	----	59.2	0.0	8	-8.0
10858 Pear Blossom NE patio apt	94	1	0.0	61.1	66	61.1	15	----	61.1	0.0	8	-8.0
10852 Pear Blossom NE patio apt	95	1	0.0	62.2	66	62.2	15	----	62.2	0.0	8	-8.0
10848 Pear Blossom NW patio apt	96	1	0.0	62.1	66	62.1	15	----	62.1	0.0	8	-8.0
10844 Pear Blossom SW patio apt	97	1	0.0	57.7	66	57.7	15	----	57.7	0.0	8	-8.0
10848 Pear Blossom SE patio apt	98	1	0.0	57.1	66	57.1	15	----	57.1	0.0	8	-8.0
10848 Pear Blossom SW patio apt	99	1	0.0	57.0	66	57.0	15	----	57.0	0.0	8	-8.0
10852 Pear Blossom SE patio apt	100	1	0.0	56.4	66	56.4	15	----	56.4	0.0	8	-8.0
10852 Pear Blossom SW patio apt	101	1	0.0	56.1	66	56.1	15	----	56.1	0.0	8	-8.0
10885 Pear Blossom NE patio apt	102	1	0.0	58.4	66	58.4	15	----	58.4	0.0	8	-8.0
10885 Pear Blossom NW patio apt	103	1	0.0	58.1	66	58.1	15	----	58.1	0.0	8	-8.0
10885 Pear Blossom SE patio apt	104	1	0.0	57.1	66	57.1	15	----	57.1	0.0	8	-8.0
10885 Pear Blossom SW patio apt	105	1	0.0	55.7	66	55.7	15	----	55.7	0.0	8	-8.0
10877 Pear Tree Ln	106	1	0.0	60.2	66	60.2	15	----	60.2	0.0	8	-8.0
10885 Pear Tree Ln	107	1	0.0	59.4	66	59.4	15	----	59.4	0.0	8	-8.0

10893 Pear Tree Ln	108	1	0.0	59.9	66	59.9	15	----	59.9	0.0	8	-8.0
10848 Pear Tree Ln	109	1	0.0	67.5	66	67.5	15	Snd Lvl	67.5	0.0	8	-8.0
10840 Pear Tree Ln	110	1	0.0	68.2	66	68.2	15	Snd Lvl	68.2	0.0	8	-8.0
10832 Pear Tree Ln	111	1	0.0	68.8	66	68.8	15	Snd Lvl	68.8	0.0	8	-8.0
10869 Pear Tree Ln	112	1	0.0	62.2	66	62.2	15	----	62.2	0.0	8	-8.0
10870 Pear Blossom NW patio apt	113	1	0.0	58.8	66	58.8	15	----	58.8	0.0	8	-8.0
10870 Pear Blossom SW patio apt	114	1	0.0	53.3	66	53.3	15	----	53.3	0.0	8	-8.0
10870 Pear Blossom SE patio apt	115	1	0.0	54.3	66	54.3	15	----	54.3	0.0	8	-8.0
4610 Country Ln patio apt	116	1	0.0	71.1	66	71.1	15	Snd Lvl	71.1	0.0	8	-8.0
4608 Country Ln patio apt	117	1	0.0	70.5	66	70.5	15	Snd Lvl	70.5	0.0	8	-8.0
4606 Country Ln patio apt	118	1	0.0	68.5	66	68.5	15	Snd Lvl	68.5	0.0	8	-8.0
4604 Country Ln patio apt	119	1	0.0	68.1	66	68.1	15	Snd Lvl	68.1	0.0	8	-8.0
4602 Country Ln patio apt	120	1	0.0	67.6	66	67.6	15	Snd Lvl	67.6	0.0	8	-8.0
4600 Country Ln patio apt	121	1	0.0	67.5	66	67.5	15	Snd Lvl	67.5	0.0	8	-8.0
10885 Pear Blossom NE balc apt	122	1	0.0	58.3	66	58.3	15	----	58.3	0.0	8	-8.0
10885 Pear Blossom NW balc apt	123	1	0.0	58.1	66	58.1	15	----	58.1	0.0	8	-8.0
10885 Pear Blossom SE balc apt	124	1	0.0	57.2	66	57.2	15	----	57.2	0.0	8	-8.0
10885 Pear Blossom SW balc apt	125	1	0.0	55.1	66	55.1	15	----	55.1	0.0	8	-8.0
10844 Pear Blossom N balc apt	126	1	0.0	70.9	66	70.9	15	Snd Lvl	70.9	0.0	8	-8.0
10844 Pear Blossom SE balc apt	127	1	0.0	55.6	66	55.6	15	----	55.6	0.0	8	-8.0
10844 Pear Blossom SW balc apt	128	1	0.0	57.7	66	57.7	15	----	57.7	0.0	8	-8.0
10848 Pear Blossom SE balc apt	129	1	0.0	57.1	66	57.1	15	----	57.1	0.0	8	-8.0
10848 Pear Blossom NW balc apt	130	1	0.0	62.1	66	62.1	15	----	62.1	0.0	8	-8.0
10848 Pear Blossom SW balc apt	131	1	0.0	57.0	66	57.0	15	----	57.0	0.0	8	-8.0
10852 Pear Blossom NE balc apt	132	1	0.0	62.2	66	62.2	15	----	62.2	0.0	8	-8.0
10852 Pear Blossom SE balc apt	133	1	0.0	56.4	66	56.4	15	----	56.4	0.0	8	-8.0
10852 Pear Blossom SW balc apt	134	1	0.0	56.1	66	56.1	15	----	56.1	0.0	8	-8.0
10852 Pear Blossom NW patio apt	135	1	0.0	60.7	66	60.7	15	----	60.7	0.0	8	-8.0
10852 Pear Blossom NW balc apt	136	1	0.0	60.7	66	60.7	15	----	60.7	0.0	8	-8.0
10858 Pear Blossom NW balc apt	137	1	0.0	55.7	66	55.7	15	----	55.7	0.0	8	-8.0
10858 Pear Blossom SW balc apt	138	1	0.0	53.7	66	53.7	15	----	53.7	0.0	8	-8.0
10862 Pear Blossom W balc apt	139	1	0.0	52.8	66	52.8	15	----	52.8	0.0	8	-8.0
10862 Pear Blossom E balc apt	140	1	0.0	57.6	66	57.6	15	----	57.6	0.0	8	-8.0
10858 Pear Blossom SE balc apt	141	1	0.0	59.1	66	59.1	15	----	59.1	0.0	8	-8.0
10858 Pear Blossom NE balc apt	142	1	0.0	61.1	66	61.1	15	----	61.1	0.0	8	-8.0
10866 Pear Blossom NW balc apt	143	1	0.0	60.6	66	60.6	15	----	60.6	0.0	8	-8.0
10866 Pear Blossom NE balc apt	144	1	0.0	60.9	66	60.9	15	----	60.9	0.0	8	-8.0
10866 Pear Blossom SE balc apt	145	1	0.0	53.7	66	53.7	15	----	53.7	0.0	8	-8.0
10870 Pear Blossom NE balc apt	146	1	0.0	52.1	66	52.1	15	----	52.1	0.0	8	-8.0
10870 Pear Blossom NW balc apt	147	1	0.0	58.9	66	58.9	15	----	58.9	0.0	8	-8.0
10870 Pear Blossom SW balc apt	148	1	0.0	54.2	66	54.2	15	----	54.2	0.0	8	-8.0

10870 Pear Blossom SE balc apt	149	1	0.0	54.2	66	54.2	15	----	54.2	0.0	8	-8.0
10874 Pear Blossom SW balc apt	150	1	0.0	61.2	66	61.2	15	----	61.2	0.0	8	-8.0
10874 Pear Blossom NE balc apt	151	1	0.0	59.7	66	59.7	15	----	59.7	0.0	8	-8.0
10874 Pear Blossom SE balc apt	152	1	0.0	53.1	66	53.1	15	----	53.1	0.0	8	-8.0
4637 Country Ln NE balc apt	5	1	0.0	63.0	66	63.0	15	----	63.0	0.0	8	-8.0
4637 Country Ln NW balc apt	153	1	0.0	62.8	66	62.8	15	----	62.8	0.0	8	-8.0
4637 Country Ln SE balc apt	154	1	0.0	60.2	66	60.2	15	----	60.2	0.0	8	-8.0
4637 Country Ln SW balc apt	155	1	0.0	60.1	66	60.1	15	----	60.1	0.0	8	-8.0
10878 Pear Blossom NW balc apt	156	1	0.0	62.0	66	62.0	15	----	62.0	0.0	8	-8.0
10878 Pear Blossom NE balc apt	157	1	0.0	59.4	66	59.4	15	----	59.4	0.0	8	-8.0
10878 Pear Blossom SE balc apt	158	1	0.0	61.4	66	61.4	15	----	61.4	0.0	8	-8.0
10878 Pear Blossom SW balc apt	159	1	0.0	61.6	66	61.6	15	----	61.6	0.0	8	-8.0
10882 Pear Blossom NW balc apt	160	1	0.0	71.0	66	71.0	15	Snd Lvl	71.0	0.0	8	-8.0
10882 Pear Blossom NE balc apt	161	1	0.0	71.4	66	71.4	15	Snd Lvl	71.4	0.0	8	-8.0
10882 Pear Blossom SW balc apt	162	1	0.0	62.0	66	62.0	15	----	62.0	0.0	8	-8.0
10882 Pear Blossom SE balc apt	163	1	0.0	60.4	66	60.4	15	----	60.4	0.0	8	-8.0
4649 Country Ln NW balc apt	164	1	0.0	73.0	66	73.0	15	Snd Lvl	73.0	0.0	8	-8.0
4649 Country Ln NE balc apt	165	1	0.0	74.0	66	74.0	15	Snd Lvl	74.0	0.0	8	-8.0
4649 Country Ln SE balc apt	166	1	0.0	64.8	66	64.8	15	----	64.8	0.0	8	-8.0
4641 Country Ln E balc apt	167	1	0.0	60.9	66	60.9	15	----	60.9	0.0	8	-8.0
4641 Country Ln W balc apt	168	1	0.0	59.7	66	59.7	15	----	59.7	0.0	8	-8.0
4645 Country Ln SE patio apt	169	1	0.0	62.7	66	62.7	15	----	62.7	0.0	8	-8.0
4645 Country Ln SE balc apt	170	1	0.0	62.8	66	62.8	15	----	62.8	0.0	8	-8.0
4645 Country Ln NW balc apt	171	1	0.0	75.0	66	75.0	15	Snd Lvl	75.0	0.0	8	-8.0
4645 Country Ln NE balc apt	172	1	0.0	75.2	66	75.2	15	Snd Lvl	75.2	0.0	8	-8.0
4645 Country Ln SW balc apt	173	1	0.0	63.8	66	63.8	15	----	63.8	0.0	8	-8.0
4633 Country Ln NE balc apt	174	1	0.0	75.6	66	75.6	15	Snd Lvl	75.6	0.0	8	-8.0
4633 Country Ln SE balc apt	175	1	0.0	74.9	66	74.9	15	Snd Lvl	74.9	0.0	8	-8.0
4633 Country Ln SW balc apt	176	1	0.0	60.4	66	60.4	15	----	60.4	0.0	8	-8.0
4629 Country Ln NE balc apt	177	1	0.0	74.5	66	74.5	15	Snd Lvl	74.5	0.0	8	-8.0
4629 Country Ln SE balc apt	178	1	0.0	74.2	66	74.2	15	Snd Lvl	74.2	0.0	8	-8.0
4629 Country Ln SW balc apt	179	1	0.0	60.2	66	60.2	15	----	60.2	0.0	8	-8.0
4629 Country Ln NW balc apt	180	1	0.0	60.4	66	60.4	15	----	60.4	0.0	8	-8.0
4625 Country Ln NE balc apt	181	1	0.0	73.9	66	73.9	15	Snd Lvl	73.9	0.0	8	-8.0
4625 Country Ln SE balc apt	182	1	0.0	72.5	66	72.5	15	Snd Lvl	72.5	0.0	8	-8.0
4625 Country Ln NW balc apt	184	1	0.0	59.7	66	59.7	15	----	59.7	0.0	8	-8.0
4361 St Regina Ln	186	1	0.0	65.4	66	65.4	15	----	65.4	0.0	8	-8.0
4353 St Regina Ln	187	1	0.0	64.4	66	64.4	15	----	64.4	0.0	8	-8.0
4349 St Regina Ln	188	1	0.0	63.6	66	63.6	15	----	63.6	0.0	8	-8.0
4362 St Regina Ln	189	1	0.0	64.3	66	64.3	15	----	64.3	0.0	8	-8.0
4346 St Regina Ln	190	1	0.0	63.7	66	63.7	15	----	63.7	0.0	8	-8.0

4531 Ashby Rd	191	1	0.0	65.0	66	65.0	15	----	65.0	0.0	8	-8.0
10856 Pear Tree Ln	192	1	0.0	66.0	66	66.0	15	Snd Lvl	66.0	0.0	8	-8.0
10864 Pear Tree Ln	193	1	0.0	63.0	66	63.0	15	----	63.0	0.0	8	-8.0
10872 Pear Tree Ln	194	1	0.0	61.7	66	61.7	15	----	61.7	0.0	8	-8.0
10880 Pear Tree Ln	195	1	0.0	61.3	66	61.3	15	----	61.3	0.0	8	-8.0
4527 Ashby Rd	196	1	0.0	65.0	66	65.0	15	----	65.0	0.0	8	-8.0
4523 Ashby Rd	197	1	0.0	64.5	66	64.5	15	----	64.5	0.0	8	-8.0
4528 Country Ln	198	1	0.0	64.1	66	64.1	15	----	64.1	0.0	8	-8.0
4522/4524 Country Ln	199	2	0.0	62.2	66	62.2	15	----	62.2	0.0	8	-8.0
4520 Country Ln	200	1	0.0	61.9	66	61.9	15	----	61.9	0.0	8	-8.0
10057/10059 Douglas Ct	201	2	0.0	61.5	66	61.5	15	----	61.5	0.0	8	-8.0
10053/10055 Douglas Ct	202	2	0.0	62.5	66	62.5	15	----	62.5	0.0	8	-8.0
10049/10051 Douglas Ct	203	2	0.0	63.2	66	63.2	15	----	63.2	0.0	8	-8.0
10045/10047 Douglas Ct	204	2	0.0	63.5	66	63.5	15	----	63.5	0.0	8	-8.0
10043 Douglas Ct	205	1	0.0	62.8	66	62.8	15	----	62.8	0.0	8	-8.0
10037 Douglas Ct	206	1	0.0	62.4	66	62.4	15	----	62.4	0.0	8	-8.0
10033 Douglas Ct	207	1	0.0	64.3	66	64.3	15	----	64.3	0.0	8	-8.0
10029 Douglas Ct	208	1	0.0	65.5	66	65.5	15	----	65.5	0.0	8	-8.0
10027 Douglas Ct	209	1	0.0	65.8	66	65.8	15	----	65.8	0.0	8	-8.0
Wingate hotel pool	210	1	0.0	54.6	71	54.6	15	----	54.6	0.0	8	-8.0
Pear Tree Inn pool	211	1	0.0	61.6	71	61.6	15	----	61.6	0.0	8	-8.0
Mariott hotel pool	212	1	0.0	51.2	71	51.2	15	----	51.2	0.0	8	-8.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	215	0.0	0.0	0.0
All Impacted	58	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0



2037 Build		Sheet 1 of 1	30 Apr 2024
		CMT, Inc.	
Plan View		Project/Contract No. Lambert CTP	
Run name: Build2037_AddlRecp		TNM Version 2.5, Feb 2004	
Scale:	1000 feet	Analysis By: JKMiller	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

50000 851000 852000 853000 854000 855000 856000 857000 858000 859000 860000 861000 862000

CMT, Inc. 30 April 2024
JKMiller TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Lambert CTP
RUN: 2037 Build
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NMP-1	1	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
NMP-2	2	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
NMP-3	3	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
NMP-4	4	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
NMP-5	5	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4373 St Dominic Ln	7	1	0.0	66.4	66	66.4	15	Snd Lvl	66.4	0.0	8	-8.0
4369 St Dominic Ln	8	1	0.0	67.8	66	67.8	15	Snd Lvl	67.8	0.0	8	-8.0
4365 St Dominic Ln	9	1	0.0	67.6	66	67.6	15	Snd Lvl	67.6	0.0	8	-8.0
4361 St Dominic Ln	10	1	0.0	67.3	66	67.3	15	Snd Lvl	67.3	0.0	8	-8.0
4357 St Dominic Ln	11	1	0.0	67.3	66	67.3	15	Snd Lvl	67.3	0.0	8	-8.0
4353 St Dominic Ln	12	1	0.0	65.3	66	65.3	15	----	65.3	0.0	8	-8.0
4349 St Dominic Ln	13	1	0.0	65.1	66	65.1	15	----	65.1	0.0	8	-8.0
11267 St Damian Dr	14	1	0.0	64.8	66	64.8	15	----	64.8	0.0	8	-8.0
11269 St Damian Dr	15	1	0.0	64.9	66	64.9	15	----	64.9	0.0	8	-8.0
4344 Cypress Rd - day care	16	1	0.0	66.8	66	66.8	15	Snd Lvl	66.8	0.0	8	-8.0
4362 St Dominic Ln	17	1	0.0	65.4	66	65.4	15	----	65.4	0.0	8	-8.0
4370 St Dominic Ln	18	1	0.0	65.5	66	65.5	15	----	65.5	0.0	8	-8.0
4372 St Dominic Ln	19	1	0.0	65.7	66	65.7	15	----	65.7	0.0	8	-8.0
4374 St Dominic Ln	20	1	0.0	65.7	66	65.7	15	----	65.7	0.0	8	-8.0
St Ann Park Ballfield Visitor Bench	21	1	0.0	67.3	66	67.3	15	Snd Lvl	67.3	0.0	8	-8.0
St Ann Park Ballfield Home Bench	22	1	0.0	65.7	66	65.7	15	----	65.7	0.0	8	-8.0
4555 Ashby Rd	23	1	0.0	70.5	66	70.5	15	Snd Lvl	70.5	0.0	8	-8.0
4551 Ashby Rd	24	1	0.0	68.6	66	68.6	15	Snd Lvl	68.6	0.0	8	-8.0
4547 Ashby Rd	25	1	0.0	67.8	66	67.8	15	Snd Lvl	67.8	0.0	8	-8.0

4539 Ashby Rd	26	1	0.0	66.7	66	66.7	15	Snd Lvl	66.7	0.0	8	-8.0
4535 Ashby Rd	27	1	0.0	65.6	66	65.6	15	----	65.6	0.0	8	-8.0
4548 Ashby Rd	28	1	0.0	69.5	66	69.5	15	Snd Lvl	69.5	0.0	8	-8.0
11014 St Nicholas Ct	29	1	0.0	69.5	66	69.5	15	Snd Lvl	69.5	0.0	8	-8.0
11010 St Nicholas Ct	30	1	0.0	69.0	66	69.0	15	Snd Lvl	69.0	0.0	8	-8.0
11006 St Nicholas Ct	31	1	0.0	68.2	66	68.2	15	Snd Lvl	68.2	0.0	8	-8.0
11002 St Nicholas Ct	32	1	0.0	67.7	66	67.7	15	Snd Lvl	67.7	0.0	8	-8.0
11000 St Nicholas Ct	33	1	0.0	67.8	66	67.8	15	Snd Lvl	67.8	0.0	8	-8.0
11001 St Nicholas Ct	34	1	0.0	69.8	66	69.8	15	Snd Lvl	69.8	0.0	8	-8.0
4544 Ashby Rd	35	1	0.0	67.3	66	67.3	15	Snd Lvl	67.3	0.0	8	-8.0
4540 Ashby Rd	36	1	0.0	67.3	66	67.3	15	Snd Lvl	67.3	0.0	8	-8.0
4536 Ashby Rd	37	1	0.0	66.6	66	66.6	15	Snd Lvl	66.6	0.0	8	-8.0
4524 Ashby Rd	38	1	0.0	65.5	66	65.5	15	----	65.5	0.0	8	-8.0
11045 St Pius Ln	39	1	0.0	65.4	66	65.4	15	----	65.4	0.0	8	-8.0
11041 St Pius Ln	40	1	0.0	65.3	66	65.3	15	----	65.3	0.0	8	-8.0
11037 St Pius Ln	41	1	0.0	65.2	66	65.2	15	----	65.2	0.0	8	-8.0
11033 St Pius Ln	42	1	0.0	65.4	66	65.4	15	----	65.4	0.0	8	-8.0
11029 St Pius Ln	43	1	0.0	65.1	66	65.1	15	----	65.1	0.0	8	-8.0
11025 St Pius Ln	44	1	0.0	64.9	66	64.9	15	----	64.9	0.0	8	-8.0
11021 St Pius Ln	45	1	0.0	64.7	66	64.7	15	----	64.7	0.0	8	-8.0
11017 St Pius Ln	46	1	0.0	64.9	66	64.9	15	----	64.9	0.0	8	-8.0
11009 St Pius Ln	47	1	0.0	63.5	66	63.5	15	----	63.5	0.0	8	-8.0
11005 St Pius Ln	48	1	0.0	60.3	66	60.3	15	----	60.3	0.0	8	-8.0
10882 Pear Blossom NW patio apt	49	1	0.0	71.6	66	71.6	15	Snd Lvl	71.6	0.0	8	-8.0
10882 Pear Blossom NE patio apt	50	1	0.0	72.1	66	72.1	15	Snd Lvl	72.1	0.0	8	-8.0
4649 Country Ln NW patio apt	51	1	0.0	73.6	66	73.6	15	Snd Lvl	73.6	0.0	8	-8.0
4649 Country Ln NE patio apt	52	1	0.0	74.5	66	74.5	15	Snd Lvl	74.5	0.0	8	-8.0
4645 Country Ln NW patio apt	53	1	0.0	75.4	66	75.4	15	Snd Lvl	75.4	0.0	8	-8.0
4645 Country Ln NE patio apt	54	1	0.0	75.6	66	75.6	15	Snd Lvl	75.6	0.0	8	-8.0
4633 Country Ln NE patio apt	55	1	0.0	76.0	66	76.0	15	Snd Lvl	76.0	0.0	8	-8.0
4633 Country Ln SE patio apt	56	1	0.0	75.4	66	75.4	15	Snd Lvl	75.4	0.0	8	-8.0
4629 Country Ln NE patio apt	57	1	0.0	75.0	66	75.0	15	Snd Lvl	75.0	0.0	8	-8.0
4629 Country Ln SE patio apt	58	1	0.0	74.7	66	74.7	15	Snd Lvl	74.7	0.0	8	-8.0
4625 Country Ln NE patio apt	59	1	0.0	74.4	66	74.4	15	Snd Lvl	74.4	0.0	8	-8.0
4625 Country Ln SE patio apt	60	1	0.0	73.0	66	73.0	15	Snd Lvl	73.0	0.0	8	-8.0
10844 Pear Blossom N patio apt	61	1	0.0	71.4	66	71.4	15	Snd Lvl	71.4	0.0	8	-8.0
10844 Pear Blossom SE patio apt	63	1	0.0	55.8	66	55.8	15	----	55.8	0.0	8	-8.0
Pear Tree Apts Clubhouse	64	1	0.0	74.6	66	74.6	15	Snd Lvl	74.6	0.0	8	-8.0
10882 Pear Blossom SW patio apt	65	1	0.0	62.7	66	62.7	15	----	62.7	0.0	8	-8.0
10878 Pear Blossom NW patio apt	66	1	0.0	62.5	66	62.5	15	----	62.5	0.0	8	-8.0
10882 Pear Blossom SE patio apt	67	1	0.0	60.6	66	60.6	15	----	60.6	0.0	8	-8.0

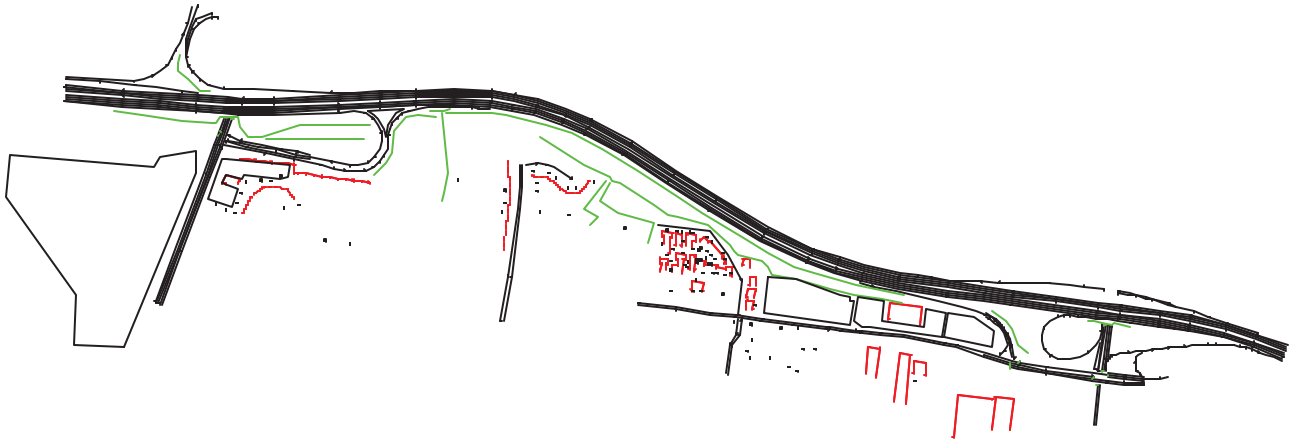
10878 Pear Blossom NE patio apt	68	1	0.0	59.8	66	59.8	15	----	59.8	0.0	8	-8.0
4649 Country Ln SE patio apt	69	1	0.0	65.6	66	65.6	15	----	65.6	0.0	8	-8.0
4641 Country Ln E patio apt	70	1	0.0	61.3	66	61.3	15	----	61.3	0.0	8	-8.0
4641 Country Ln W patio apt	71	1	0.0	60.0	66	60.0	15	----	60.0	0.0	8	-8.0
10878 Pear Blossom SE patio apt	72	1	0.0	61.7	66	61.7	15	----	61.7	0.0	8	-8.0
10878 Pear Blossom SW patio apt	73	1	0.0	62.0	66	62.0	15	----	62.0	0.0	8	-8.0
4645 Country Ln SW patio apt	74	1	0.0	64.7	66	64.7	15	----	64.7	0.0	8	-8.0
4625 Country Ln NW patio apt	75	1	0.0	60.0	66	60.0	15	----	60.0	0.0	8	-8.0
4629 Country Ln SW patio apt	76	1	0.0	60.4	66	60.4	15	----	60.4	0.0	8	-8.0
4629 Country Ln NW patio apt	77	1	0.0	60.7	66	60.7	15	----	60.7	0.0	8	-8.0
4633 Country Ln SW patio apt	78	1	0.0	60.8	66	60.8	15	----	60.8	0.0	8	-8.0
4637 Country Ln NE patio apt	79	1	0.0	63.8	66	63.8	15	----	63.8	0.0	8	-8.0
4637 Country Ln NW patio apt	80	1	0.0	63.8	66	63.8	15	----	63.8	0.0	8	-8.0
4637 Country Ln SE patio apt	81	1	0.0	60.5	66	60.5	15	----	60.5	0.0	8	-8.0
4637 Country Ln SW patio apt	82	1	0.0	60.5	66	60.5	15	----	60.5	0.0	8	-8.0
10874 Pear Blossom SW patio apt	85	1	0.0	61.6	66	61.6	15	----	61.6	0.0	8	-8.0
10866 Pear Blossom NW patio apt	86	1	0.0	60.7	66	60.7	15	----	60.7	0.0	8	-8.0
10866 Pear Blossom NE patio apt	87	1	0.0	61.3	66	61.3	15	----	61.3	0.0	8	-8.0
10866 Pear Blossom SE patio apt	88	1	0.0	54.4	66	54.4	15	----	54.4	0.0	8	-8.0
10870 Pear Blossom NE patio apt	89	1	0.0	52.6	66	52.6	15	----	52.6	0.0	8	-8.0
10874 Pear Blossom NE patio apt	90	1	0.0	59.9	66	59.9	15	----	59.9	0.0	8	-8.0
10874 Pear Blossom SE patio apt	91	1	0.0	53.3	66	53.3	15	----	53.3	0.0	8	-8.0
10858 Pear Blossom NW patio apt	92	1	0.0	58.1	66	58.1	15	----	58.1	0.0	8	-8.0
10858 Pear Blossom SW patio apt	93	1	0.0	54.3	66	54.3	15	----	54.3	0.0	8	-8.0
10862 Pear Blossom W patio apt	94	1	0.0	52.9	66	52.9	15	----	52.9	0.0	8	-8.0
10862 Pear Blossom E patio apt	95	1	0.0	58.1	66	58.1	15	----	58.1	0.0	8	-8.0
10858 Pear Blossom SE patio apt	96	1	0.0	59.6	66	59.6	15	----	59.6	0.0	8	-8.0
10858 Pear Blossom NE patio apt	97	1	0.0	61.8	66	61.8	15	----	61.8	0.0	8	-8.0
10852 Pear Blossom NE patio apt	98	1	0.0	62.6	66	62.6	15	----	62.6	0.0	8	-8.0
10848 Pear Blossom NW patio apt	99	1	0.0	62.5	66	62.5	15	----	62.5	0.0	8	-8.0
10844 Pear Blossom SW patio apt	100	1	0.0	58.1	66	58.1	15	----	58.1	0.0	8	-8.0
10848 Pear Blossom SE patio apt	101	1	0.0	57.4	66	57.4	15	----	57.4	0.0	8	-8.0
10848 Pear Blossom SW patio apt	102	1	0.0	57.3	66	57.3	15	----	57.3	0.0	8	-8.0
10852 Pear Blossom SE patio apt	103	1	0.0	56.7	66	56.7	15	----	56.7	0.0	8	-8.0
10852 Pear Blossom SW patio apt	104	1	0.0	56.4	66	56.4	15	----	56.4	0.0	8	-8.0
10885 Pear Blossom NE patio apt	105	1	0.0	58.7	66	58.7	15	----	58.7	0.0	8	-8.0
10885 Pear Blossom NW patio apt	106	1	0.0	58.4	66	58.4	15	----	58.4	0.0	8	-8.0
10885 Pear Blossom SE patio apt	107	1	0.0	57.4	66	57.4	15	----	57.4	0.0	8	-8.0
10885 Pear Blossom SW patio apt	108	1	0.0	55.9	66	55.9	15	----	55.9	0.0	8	-8.0
10877 Pear Tree Ln	109	1	0.0	60.6	66	60.6	15	----	60.6	0.0	8	-8.0
10885 Pear Tree Ln	110	1	0.0	59.6	66	59.6	15	----	59.6	0.0	8	-8.0

10893 Pear Tree Ln	111	1	0.0	60.2	66	60.2	15	----	60.2	0.0	8	-8.0
10848 Pear Tree Ln	112	1	0.0	67.7	66	67.7	15	Snd Lvl	67.7	0.0	8	-8.0
10840 Pear Tree Ln	113	1	0.0	68.5	66	68.5	15	Snd Lvl	68.5	0.0	8	-8.0
10832 Pear Tree Ln	114	1	0.0	69.2	66	69.2	15	Snd Lvl	69.2	0.0	8	-8.0
10869 Pear Tree Ln	116	1	0.0	62.9	66	62.9	15	----	62.9	0.0	8	-8.0
10870 Pear Blossom NW patio apt	118	1	0.0	59.4	66	59.4	15	----	59.4	0.0	8	-8.0
10870 Pear Blossom SW patio apt	119	1	0.0	53.7	66	53.7	15	----	53.7	0.0	8	-8.0
10870 Pear Blossom SE patio apt	120	1	0.0	54.7	66	54.7	15	----	54.7	0.0	8	-8.0
4610 Country Ln patio apt	121	1	0.0	71.6	66	71.6	15	Snd Lvl	71.6	0.0	8	-8.0
4608 Country Ln patio apt	122	1	0.0	71.1	66	71.1	15	Snd Lvl	71.1	0.0	8	-8.0
4606 Country Ln patio apt	123	1	0.0	69.0	66	69.0	15	Snd Lvl	69.0	0.0	8	-8.0
4604 Country Ln patio apt	124	1	0.0	68.6	66	68.6	15	Snd Lvl	68.6	0.0	8	-8.0
4602 Country Ln patio apt	125	1	0.0	68.0	66	68.0	15	Snd Lvl	68.0	0.0	8	-8.0
4600 Country Ln patio apt	126	1	0.0	68.0	66	68.0	15	Snd Lvl	68.0	0.0	8	-8.0
10885 Pear Blossom NE balc apt	128	1	0.0	63.0	66	63.0	15	----	63.0	0.0	8	-8.0
10885 Pear Blossom NW balc apt	129	1	0.0	62.5	66	62.5	15	----	62.5	0.0	8	-8.0
10885 Pear Blossom SE balc apt	130	1	0.0	62.1	66	62.1	15	----	62.1	0.0	8	-8.0
10885 Pear Blossom SW balc apt	131	1	0.0	58.6	66	58.6	15	----	58.6	0.0	8	-8.0
10844 Pear Blossom N balc apt	133	1	0.0	74.0	66	74.0	15	Snd Lvl	74.0	0.0	8	-8.0
10844 Pear Blossom SE balc apt	134	1	0.0	61.3	66	61.3	15	----	61.3	0.0	8	-8.0
10844 Pear Blossom SW balc apt	136	1	0.0	61.1	66	61.1	15	----	61.1	0.0	8	-8.0
10848 Pear Blossom SE balc apt	137	1	0.0	60.3	66	60.3	15	----	60.3	0.0	8	-8.0
10848 Pear Blossom NW balc apt	139	1	0.0	66.0	66	66.0	15	Snd Lvl	66.0	0.0	8	-8.0
10848 Pear Blossom SW balc apt	140	1	0.0	60.2	66	60.2	15	----	60.2	0.0	8	-8.0
10852 Pear Blossom NE balc apt	142	1	0.0	66.0	66	66.0	15	Snd Lvl	66.0	0.0	8	-8.0
10852 Pear Blossom SE balc apt	143	1	0.0	59.4	66	59.4	15	----	59.4	0.0	8	-8.0
10852 Pear Blossom SW balc apt	144	1	0.0	59.0	66	59.0	15	----	59.0	0.0	8	-8.0
10852 Pear Blossom NW patio apt	146	1	0.0	61.0	66	61.0	15	----	61.0	0.0	8	-8.0
10852 Pear Blossom NW balc apt	148	1	0.0	64.3	66	64.3	15	----	64.3	0.0	8	-8.0
10858 Pear Blossom NW balc apt	149	1	0.0	60.1	66	60.1	15	----	60.1	0.0	8	-8.0
10858 Pear Blossom SW balc apt	150	1	0.0	58.5	66	58.5	15	----	58.5	0.0	8	-8.0
10862 Pear Blossom W balc apt	151	1	0.0	57.7	66	57.7	15	----	57.7	0.0	8	-8.0
10862 Pear Blossom E balc apt	152	1	0.0	61.6	66	61.6	15	----	61.6	0.0	8	-8.0
10858 Pear Blossom SE balc apt	153	1	0.0	63.3	66	63.3	15	----	63.3	0.0	8	-8.0
10858 Pear Blossom NE balc apt	154	1	0.0	64.9	66	64.9	15	----	64.9	0.0	8	-8.0
10866 Pear Blossom NW balc apt	155	1	0.0	64.3	66	64.3	15	----	64.3	0.0	8	-8.0
10866 Pear Blossom NE balc apt	156	1	0.0	64.7	66	64.7	15	----	64.7	0.0	8	-8.0
10866 Pear Blossom SE balc apt	157	1	0.0	58.3	66	58.3	15	----	58.3	0.0	8	-8.0
10870 Pear Blossom NE balc apt	158	1	0.0	56.9	66	56.9	15	----	56.9	0.0	8	-8.0
10870 Pear Blossom NW balc apt	159	1	0.0	63.1	66	63.1	15	----	63.1	0.0	8	-8.0
10870 Pear Blossom SW balc apt	160	1	0.0	58.0	66	58.0	15	----	58.0	0.0	8	-8.0

10870 Pear Blossom SE balc apt	161	1	0.0	58.0	66	58.0	15	----	58.0	0.0	8	-8.0
10874 Pear Blossom SW balc apt	163	1	0.0	64.1	66	64.1	15	----	64.1	0.0	8	-8.0
10874 Pear Blossom NE balc apt	164	1	0.0	63.9	66	63.9	15	----	63.9	0.0	8	-8.0
10874 Pear Blossom SE balc apt	165	1	0.0	57.8	66	57.8	15	----	57.8	0.0	8	-8.0
4637 Country Ln NE balc apt	167	1	0.0	65.9	66	65.9	15	----	65.9	0.0	8	-8.0
4637 Country Ln NW balc apt	168	1	0.0	66.3	66	66.3	15	Snd Lvl	66.3	0.0	8	-8.0
4637 Country Ln SE balc apt	169	1	0.0	62.5	66	62.5	15	----	62.5	0.0	8	-8.0
4637 Country Ln SW balc apt	170	1	0.0	62.9	66	62.9	15	----	62.9	0.0	8	-8.0
10878 Pear Blossom NW balc apt	172	1	0.0	66.6	66	66.6	15	Snd Lvl	66.6	0.0	8	-8.0
10878 Pear Blossom NE balc apt	173	1	0.0	64.9	66	64.9	15	----	64.9	0.0	8	-8.0
10878 Pear Blossom SE balc apt	174	1	0.0	64.6	66	64.6	15	----	64.6	0.0	8	-8.0
10878 Pear Blossom SW balc apt	175	1	0.0	65.0	66	65.0	15	----	65.0	0.0	8	-8.0
10882 Pear Blossom NW balc apt	177	1	0.0	74.6	66	74.6	15	Snd Lvl	74.6	0.0	8	-8.0
10882 Pear Blossom NE balc apt	178	1	0.0	74.8	66	74.8	15	Snd Lvl	74.8	0.0	8	-8.0
10882 Pear Blossom SW balc apt	179	1	0.0	66.8	66	66.8	15	Snd Lvl	66.8	0.0	8	-8.0
10882 Pear Blossom SE balc apt	180	1	0.0	65.9	66	65.9	15	----	65.9	0.0	8	-8.0
4649 Country Ln NW balc apt	182	1	0.0	75.4	66	75.4	15	Snd Lvl	75.4	0.0	8	-8.0
4649 Country Ln NE balc apt	183	1	0.0	76.0	66	76.0	15	Snd Lvl	76.0	0.0	8	-8.0
4649 Country Ln SE balc apt	184	1	0.0	67.8	66	67.8	15	Snd Lvl	67.8	0.0	8	-8.0
4641 Country Ln E balc apt	185	1	0.0	65.2	66	65.2	15	----	65.2	0.0	8	-8.0
4641 Country Ln W balc apt	186	1	0.0	64.2	66	64.2	15	----	64.2	0.0	8	-8.0
4645 Country Ln SE patio apt	188	1	0.0	63.7	66	63.7	15	----	63.7	0.0	8	-8.0
4645 Country Ln SE balc apt	189	1	0.0	66.4	66	66.4	15	Snd Lvl	66.4	0.0	8	-8.0
4645 Country Ln NW balc apt	190	1	0.0	76.9	66	76.9	15	Snd Lvl	76.9	0.0	8	-8.0
4645 Country Ln NE balc apt	191	1	0.0	77.1	66	77.1	15	Snd Lvl	77.1	0.0	8	-8.0
4645 Country Ln SW balc apt	192	1	0.0	67.0	66	67.0	15	Snd Lvl	67.0	0.0	8	-8.0
4633 Country Ln NE balc apt	194	1	0.0	77.8	66	77.8	15	Snd Lvl	77.8	0.0	8	-8.0
4633 Country Ln SE balc apt	195	1	0.0	77.4	66	77.4	15	Snd Lvl	77.4	0.0	8	-8.0
4633 Country Ln SW balc apt	196	1	0.0	62.7	66	62.7	15	----	62.7	0.0	8	-8.0
4629 Country Ln NE balc apt	198	1	0.0	77.1	66	77.1	15	Snd Lvl	77.1	0.0	8	-8.0
4629 Country Ln SE balc apt	199	1	0.0	76.7	66	76.7	15	Snd Lvl	76.7	0.0	8	-8.0
4629 Country Ln SW balc apt	200	1	0.0	62.4	66	62.4	15	----	62.4	0.0	8	-8.0
4629 Country Ln NW balc apt	201	1	0.0	62.9	66	62.9	15	----	62.9	0.0	8	-8.0
4625 Country Ln NE balc apt	203	1	0.0	76.3	66	76.3	15	Snd Lvl	76.3	0.0	8	-8.0
4625 Country Ln SE balc apt	204	1	0.0	75.2	66	75.2	15	Snd Lvl	75.2	0.0	8	-8.0
4625 Country Ln NW balc apt	205	1	0.0	61.5	66	61.5	15	----	61.5	0.0	8	-8.0
4361 St Regina Ln	207	1	0.0	65.5	66	65.5	15	----	65.5	0.0	8	-8.0
4353 St Regina Ln	208	1	0.0	64.4	66	64.4	15	----	64.4	0.0	8	-8.0
4349 St Regina Ln	209	1	0.0	63.7	66	63.7	15	----	63.7	0.0	8	-8.0
4362 St Regina Ln	210	1	0.0	64.4	66	64.4	15	----	64.4	0.0	8	-8.0
4346 St Regina Ln	211	1	0.0	63.7	66	63.7	15	----	63.7	0.0	8	-8.0

4531 Ashby Rd	213	1	0.0	64.9	66	64.9	15	----	64.9	0.0	8	-8.0
10856 Pear Tree Ln	214	1	0.0	66.2	66	66.2	15	Snd Lvl	66.2	0.0	8	-8.0
10864 Pear Tree Ln	215	1	0.0	63.2	66	63.2	15	----	63.2	0.0	8	-8.0
10872 Pear Tree Ln	216	1	0.0	61.8	66	61.8	15	----	61.8	0.0	8	-8.0
10880 Pear Tree Ln	217	1	0.0	61.5	66	61.5	15	----	61.5	0.0	8	-8.0
4527 Ashby Rd	219	1	0.0	65.0	66	65.0	15	----	65.0	0.0	8	-8.0
4523 Ashby Rd	220	1	0.0	64.5	66	64.5	15	----	64.5	0.0	8	-8.0
4528 Country Ln	221	1	0.0	64.4	66	64.4	15	----	64.4	0.0	8	-8.0
4522/4524 Country Ln	222	2	0.0	62.5	66	62.5	15	----	62.5	0.0	8	-8.0
4520 Country Ln	223	1	0.0	62.2	66	62.2	15	----	62.2	0.0	8	-8.0
10057/10059 Douglas Ct	224	2	0.0	61.9	66	61.9	15	----	61.9	0.0	8	-8.0
10053/10055 Douglas Ct	225	2	0.0	62.9	66	62.9	15	----	62.9	0.0	8	-8.0
10049/10051 Douglas Ct	226	2	0.0	63.6	66	63.6	15	----	63.6	0.0	8	-8.0
10045/10047 Douglas Ct	227	2	0.0	63.8	66	63.8	15	----	63.8	0.0	8	-8.0
10043 Douglas Ct	228	1	0.0	63.2	66	63.2	15	----	63.2	0.0	8	-8.0
10037 Douglas Ct	229	1	0.0	62.8	66	62.8	15	----	62.8	0.0	8	-8.0
10033 Douglas Ct	230	1	0.0	64.7	66	64.7	15	----	64.7	0.0	8	-8.0
10029 Douglas Ct	231	1	0.0	65.9	66	65.9	15	----	65.9	0.0	8	-8.0
10027 Douglas Ct	232	1	0.0	66.2	66	66.2	15	Snd Lvl	66.2	0.0	8	-8.0
Wingate hotel pool	234	1	0.0	54.9	71	54.9	15	----	54.9	0.0	8	-8.0
Pear Tree Inn pool	235	1	0.0	62.0	71	62.0	15	----	62.0	0.0	8	-8.0
Mariott hotel pool	236	1	0.0	51.6	71	51.6	15	----	51.6	0.0	8	-8.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	215	0.0	0.0	0.0
All Impacted	67	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0



Cypress Road Area Barrier		Sheet 1 of 1	30 Apr 2024
		CMT, Inc.	
Plan View		Project/Contract No. Lambert CTP	
Run name: BarrierCypress		TNM Version 2.5, Feb 2004	
Scale:	1000 feet	Analysis By: JKMiller	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

0000 851000 852000 853000 854000 855000 856000 857000 858000 859000 860000 861000 862000

CMT, Inc. 28 April 2024
JKMiller TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Lambert CTP
RUN: Cypress Road Area Barrier
BARRIER DESIGN: 20ft All
ATMOSPHERICS: 68 deg F, 50% RH

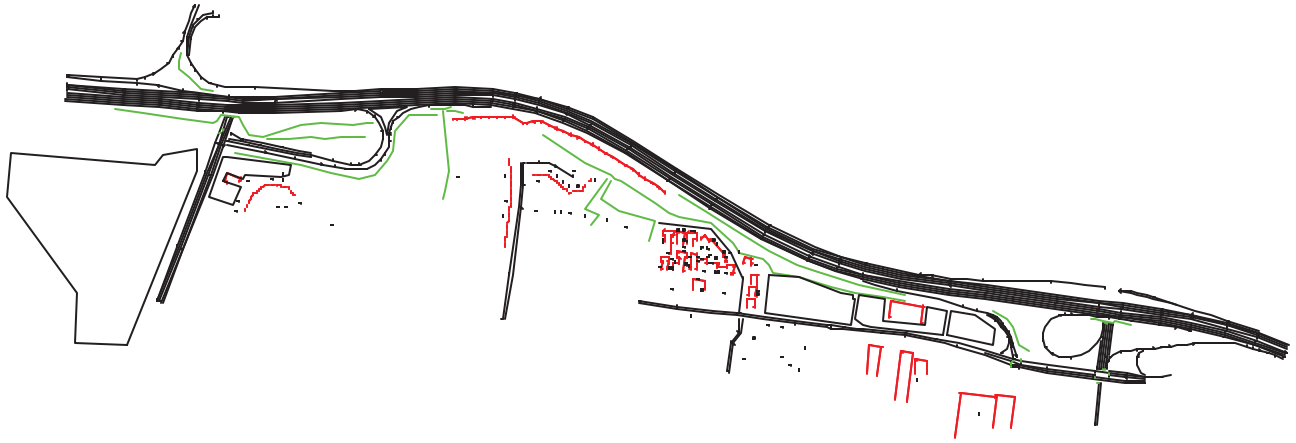
Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
4373 St Dominic Ln	7	1	0.0	66.4	66	66.4	15	Snd Lvl	60.9	5.5	8	-2.5
4369 St Dominic Ln	8	1	0.0	67.9	66	67.9	15	Snd Lvl	62.3	5.6	8	-2.4
4365 St Dominic Ln	9	1	0.0	67.6	66	67.6	15	Snd Lvl	63.2	4.4	8	-3.6
4361 St Dominic Ln	10	1	0.0	67.3	66	67.3	15	Snd Lvl	63.5	3.8	8	-4.2
4357 St Dominic Ln	11	1	0.0	67.3	66	67.3	15	Snd Lvl	64.9	2.4	8	-5.6
4353 St Dominic Ln	12	1	0.0	65.3	66	65.3	15	----	62.5	2.8	8	-5.2
4349 St Dominic Ln	13	1	0.0	65.1	66	65.1	15	----	63.1	2.0	8	-6.0
11267 St Damian Dr	14	1	0.0	64.8	66	64.8	15	----	63.1	1.7	8	-6.3
11269 St Damian Dr	15	1	0.0	64.9	66	64.9	15	----	64.1	0.8	8	-7.2
4344 Cypress Rd - day care	16	1	0.0	66.9	66	66.9	15	Snd Lvl	66.7	0.2	8	-7.8
4362 St Dominic Ln	17	1	0.0	65.4	66	65.4	15	----	61.7	3.7	8	-4.3
4370 St Dominic Ln	18	1	0.0	65.6	66	65.6	15	----	62.5	3.1	8	-4.9
4372 St Dominic Ln	19	1	0.0	65.7	66	65.7	15	----	61.9	3.8	8	-4.2
4374 St Dominic Ln	20	1	0.0	65.7	66	65.7	15	----	61.0	4.7	8	-3.3
4361 St Regina Ln	207	1	0.0	65.5	66	65.5	15	----	61.1	4.4	8	-3.6
4353 St Regina Ln	208	1	0.0	64.4	66	64.4	15	----	61.0	3.4	8	-4.6
4349 St Regina Ln	209	1	0.0	63.7	66	63.7	15	----	60.9	2.8	8	-5.2
4362 St Regina Ln	210	1	0.0	64.4	66	64.4	15	----	62.6	1.8	8	-6.2
4346 St Regina Ln	211	1	0.0	63.8	66	63.8	15	----	61.9	1.9	8	-6.1

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	19	0.2	3.1	5.6

All Impacted		6	0.2	3.7	5.6							
All that meet NR Goal		0	0.0	0.0	0.0							

CMT, Inc.				**30 April 2024**						
JKMiller				**TNM 2.5**						
RESULTS: BARRIER DESCRIPTIONS										
PROJECT/CONTRACT:	**Lambert CTP**									
RUN:	**Cypress Road Area Barrier**									
BARRIER DESIGN:	**20ft All**									
Barriers										
Name	**Type**	**Heights along Barrier**			**Length**	**If Wall**	**If Berm**			**Cost**
		Min	**Avg**	**Max**		**Area**	**Volume**	**Top Width**	**Run:Rise**	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
CypressBarrier	W	20.00	20.00	20.00	882	17638				0
									Total Cost:	0



Ashby Barrier at L/A ROW & Ditch		Sheet 1 of 1	30 Apr 2024
		CMT, Inc.	
Plan View		Project/Contract No. Lambert CTP	
Run name: BarrierAshby_Ditch		TNM Version 2.5, Feb 2004	
Scale:	1000 feet	Analysis By: JKMiller	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

0000 851000 852000 853000 854000 855000 856000 857000 858000 859000 860000 861000 862000

CMT, Inc. 28 April 2024
JKMiller TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Lambert CTP
RUN: Ashby Barrier at L/A ROW & Ditch
BARRIER DESIGN: 20ft All
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NMP-3	3	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
St Ann Park Ballfield Visitor Bench	21	1	0.0	67.5	66	67.5	15	Snd Lvl	65.8	1.7	8	-6.3
St Ann Park Ballfield Home Bench	22	1	0.0	65.8	66	65.8	15	----	64.2	1.6	8	-6.4
4555 Ashby Rd	23	1	0.0	70.7	66	70.7	15	Snd Lvl	65.6	5.1	8	-2.9
4551 Ashby Rd	24	1	0.0	68.8	66	68.8	15	Snd Lvl	65.0	3.8	8	-4.2
4547 Ashby Rd	25	1	0.0	68.0	66	68.0	15	Snd Lvl	64.6	3.4	8	-4.6
4539 Ashby Rd	26	1	0.0	66.8	66	66.8	15	Snd Lvl	64.1	2.7	8	-5.3
4535 Ashby Rd	27	1	0.0	65.7	66	65.7	15	----	63.5	2.2	8	-5.8
4548 Ashby Rd	28	1	0.0	69.6	66	69.6	15	Snd Lvl	64.5	5.1	8	-2.9
11014 St Nicholas Ct	29	1	0.0	69.5	66	69.5	15	Snd Lvl	63.3	6.2	8	-1.8
11010 St Nicholas Ct	30	1	0.0	69.1	66	69.1	15	Snd Lvl	62.9	6.2	8	-1.8
11006 St Nicholas Ct	31	1	0.0	68.3	66	68.3	15	Snd Lvl	61.9	6.4	8	-1.6
11002 St Nicholas Ct	32	1	0.0	67.8	66	67.8	15	Snd Lvl	61.7	6.1	8	-1.9
11000 St Nicholas Ct	33	1	0.0	68.0	66	68.0	15	Snd Lvl	61.6	6.4	8	-1.6
11001 St Nicholas Ct	34	1	0.0	70.1	66	70.1	15	Snd Lvl	62.0	8.1	8	0.1
4544 Ashby Rd	35	1	0.0	67.4	66	67.4	15	Snd Lvl	63.4	4.0	8	-4.0
4540 Ashby Rd	36	1	0.0	67.3	66	67.3	15	Snd Lvl	63.3	4.0	8	-4.0
4536 Ashby Rd	37	1	0.0	66.7	66	66.7	15	Snd Lvl	63.1	3.6	8	-4.4
4524 Ashby Rd	38	1	0.0	65.6	66	65.6	15	----	62.6	3.0	8	-5.0
11045 St Pius Ln	39	1	0.0	65.5	66	65.5	15	----	62.1	3.4	8	-4.6
11041 St Pius Ln	40	1	0.0	65.4	66	65.4	15	----	61.7	3.7	8	-4.3
11037 St Pius Ln	41	1	0.0	65.3	66	65.3	15	----	61.2	4.1	8	-3.9
11033 St Pius Ln	42	1	0.0	65.4	66	65.4	15	----	61.1	4.3	8	-3.7
11029 St Pius Ln	43	1	0.0	65.2	66	65.2	15	----	60.8	4.4	8	-3.6

11025 St Pius Ln	44	1	0.0	65.1	66	65.1	15	----	60.6	4.5	8	-3.5
11021 St Pius Ln	45	1	0.0	64.8	66	64.8	15	----	60.5	4.3	8	-3.7
11017 St Pius Ln	46	1	0.0	65.0	66	65.0	15	----	60.6	4.4	8	-3.6
11009 St Pius Ln	47	1	0.0	63.8	66	63.8	15	----	60.1	3.7	8	-4.3
11005 St Pius Ln	48	1	0.0	60.3	66	60.3	15	----	58.3	2.0	8	-6.0
4531 Ashby Rd	213	1	0.0	65.0	66	65.0	15	----	63.0	2.0	8	-6.0
4527 Ashby Rd	219	1	0.0	65.1	66	65.1	15	----	63.1	2.0	8	-6.0
4523 Ashby Rd	220	1	0.0	64.6	66	64.6	15	----	62.8	1.8	8	-6.2

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	32	0.0	3.9	8.1
All Impacted	15	1.7	4.9	8.1
All that meet NR Goal	1	8.1	8.1	8.1

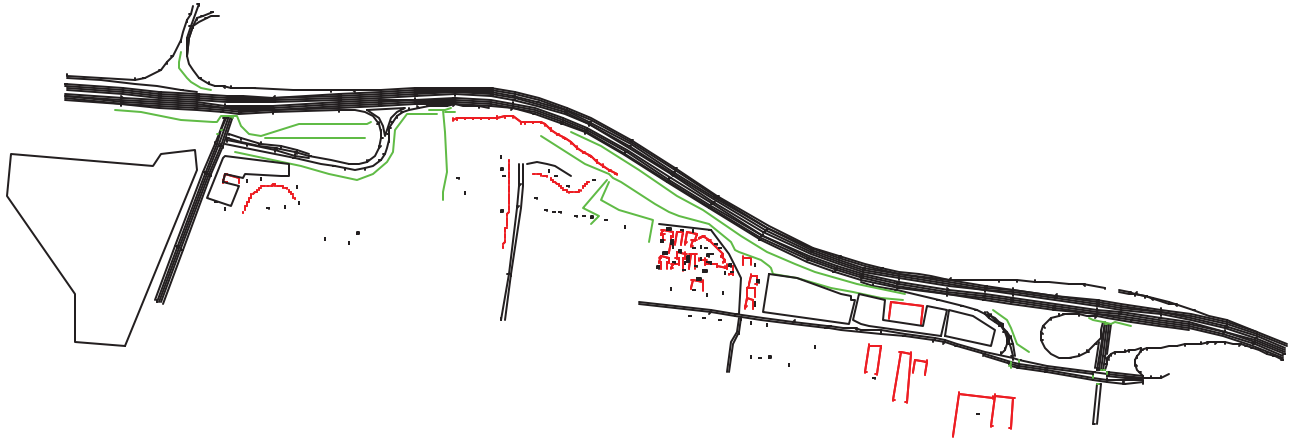
CMT, Inc.	30 April 2024
JKMiller	TNM 2.5

RESULTS: BARRIER DESCRIPTIONS

PROJECT/CONTRACT:	Lambert CTP
RUN:	Ashby Barrier at L/A ROW & Ditch
BARRIER DESIGN:	20ft All

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
East Ashby barrier at ditch	W	20.00	20.00	20.00	900	17991				0
West Ashby barrier at L/A ROW	W	20.00	20.00	20.00	572	11449				0
									Total Cost:	0



Ashby Barrier all at L/A ROW		Sheet 1 of 1	30 Apr 2024
		CMT, Inc.	
Plan View		Project/Contract No. Lambert CTP	
Run name: BarrierAshby_LAROW		TNM Version 2.5, Feb 2004	
Scale:	1000 feet	Analysis By: JKMiller	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

000 851000 852000 853000 854000 855000 856000 857000 858000 859000 860000 861000 862000

CMT, Inc. 28 April 2024
JKMiller TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Lambert CTP
RUN: Ashby Barrier all at L/A ROW
BARRIER DESIGN: 20ft All
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NMP-3	3	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
St Ann Park Ballfield Visitor Bench	21	1	0.0	67.5	66	67.5	15	Snd Lvl	65.8	1.7	8	-6.3
St Ann Park Ballfield Home Bench	22	1	0.0	65.8	66	65.8	15	----	64.2	1.6	8	-6.4
4555 Ashby Rd	23	1	0.0	70.7	66	70.7	15	Snd Lvl	65.6	5.1	8	-2.9
4551 Ashby Rd	24	1	0.0	68.8	66	68.8	15	Snd Lvl	65.0	3.8	8	-4.2
4547 Ashby Rd	25	1	0.0	68.0	66	68.0	15	Snd Lvl	64.7	3.3	8	-4.7
4539 Ashby Rd	26	1	0.0	66.8	66	66.8	15	Snd Lvl	64.1	2.7	8	-5.3
4535 Ashby Rd	27	1	0.0	65.7	66	65.7	15	----	63.5	2.2	8	-5.8
4548 Ashby Rd	28	1	0.0	69.6	66	69.6	15	Snd Lvl	64.6	5.0	8	-3.0
11014 St Nicholas Ct	29	1	0.0	69.5	66	69.5	15	Snd Lvl	63.5	6.0	8	-2.0
11010 St Nicholas Ct	30	1	0.0	69.1	66	69.1	15	Snd Lvl	63.1	6.0	8	-2.0
11006 St Nicholas Ct	31	1	0.0	68.2	66	68.2	15	Snd Lvl	62.2	6.0	8	-2.0
11002 St Nicholas Ct	32	1	0.0	67.7	66	67.7	15	Snd Lvl	62.0	5.7	8	-2.3
11000 St Nicholas Ct	33	1	0.0	67.8	66	67.8	15	Snd Lvl	61.9	5.9	8	-2.1
11001 St Nicholas Ct	34	1	0.0	69.7	66	69.7	15	Snd Lvl	62.5	7.2	8	-0.8
4544 Ashby Rd	35	1	0.0	67.3	66	67.3	15	Snd Lvl	63.6	3.7	8	-4.3
4540 Ashby Rd	36	1	0.0	67.3	66	67.3	15	Snd Lvl	63.4	3.9	8	-4.1
4536 Ashby Rd	37	1	0.0	66.6	66	66.6	15	Snd Lvl	63.2	3.4	8	-4.6
4524 Ashby Rd	38	1	0.0	65.6	66	65.6	15	----	62.8	2.8	8	-5.2
11045 St Pius Ln	39	1	0.0	65.5	66	65.5	15	----	62.2	3.3	8	-4.7
11041 St Pius Ln	40	1	0.0	65.4	66	65.4	15	----	61.9	3.5	8	-4.5
11037 St Pius Ln	41	1	0.0	65.2	66	65.2	15	----	61.4	3.8	8	-4.2
11033 St Pius Ln	42	1	0.0	65.4	66	65.4	15	----	61.4	4.0	8	-4.0
11029 St Pius Ln	43	1	0.0	65.2	66	65.2	15	----	61.1	4.1	8	-3.9

11025 St Pius Ln	44	1	0.0	64.9	66	64.9	15	----	60.9	4.0	8	-4.0
11021 St Pius Ln	45	1	0.0	64.8	66	64.8	15	----	60.6	4.2	8	-3.8
11017 St Pius Ln	46	1	0.0	64.9	66	64.9	15	----	60.7	4.2	8	-3.8
11009 St Pius Ln	47	1	0.0	63.8	66	63.8	15	----	60.3	3.5	8	-4.5
11005 St Pius Ln	48	1	0.0	60.4	66	60.4	15	----	58.5	1.9	8	-6.1
4531 Ashby Rd	213	1	0.0	65.0	66	65.0	15	----	63.0	2.0	8	-6.0
4527 Ashby Rd	219	1	0.0	65.1	66	65.1	15	----	63.1	2.0	8	-6.0
4523 Ashby Rd	220	1	0.0	64.6	66	64.6	15	----	62.9	1.7	8	-6.3

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	32	0.0	3.7	7.2
All Impacted	15	1.7	4.6	7.2
All that meet NR Goal	0	0.0	0.0	0.0

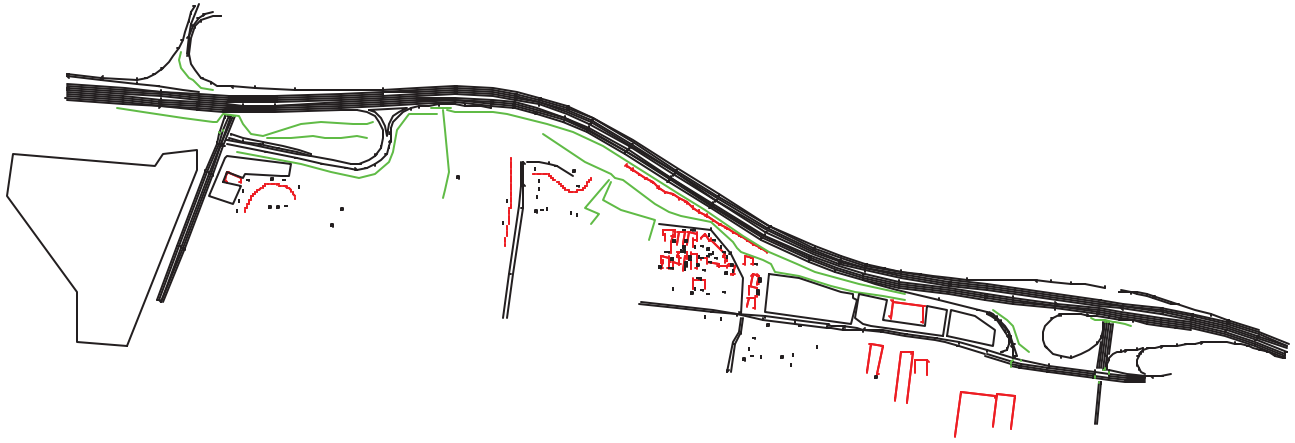
CMT, Inc.	30 April 2024
JKMiller	TNM 2.5

RESULTS: BARRIER DESCRIPTIONS

PROJECT/CONTRACT:	Lambert CTP
RUN:	Ashby Barrier all at L/A ROW
BARRIER DESIGN:	20ft All

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
East Ashby barrier at L/A ROW	W	20.00	20.00	20.00	582	11645				0
West Ashby barrier at L/A ROW	W	20.00	20.00	20.00	572	11449				0
									Total Cost:	0



Pear Tree Apts Barrier - at ditch		Sheet 1 of 1	30 Apr 2024
		CMT, Inc.	
Plan View		Project/Contract No. Lambert CTP	
Run name: BarrierApts_Ditch		TNM Version 2.5, Feb 2004	
Scale:	1000 feet	Analysis By: JKMiller	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

850000 851000 852000 853000 854000 855000 856000 857000 858000 859000 860000 861000 862000

CMT, Inc. 1 May 2024
JKMiller TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Lambert CTP
RUN: Pear Tree Apts Barrier - at ditch
BARRIER DESIGN: INPUT HEIGHTS
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NMP-1	1	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
NMP-2	2	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
NMP-3	3	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
NMP-4	4	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
NMP-5	5	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4373 St Dominic Ln	7	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4369 St Dominic Ln	8	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4365 St Dominic Ln	9	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4361 St Dominic Ln	10	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4357 St Dominic Ln	11	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4353 St Dominic Ln	12	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4349 St Dominic Ln	13	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
11267 St Damian Dr	14	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
11269 St Damian Dr	15	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4344 Cypress Rd - day care	16	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4362 St Dominic Ln	17	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4370 St Dominic Ln	18	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4372 St Dominic Ln	19	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4374 St Dominic Ln	20	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
St Ann Park Ballfield Visitor Bench	21	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
St Ann Park Ballfield Home Bench	22	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4555 Ashby Rd	23	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4551 Ashby Rd	24	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4547 Ashby Rd	25	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0

4539 Ashby Rd	26	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4535 Ashby Rd	27	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4548 Ashby Rd	28	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
11014 St Nicholas Ct	29	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
11010 St Nicholas Ct	30	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
11006 St Nicholas Ct	31	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
11002 St Nicholas Ct	32	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
11000 St Nicholas Ct	33	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
11001 St Nicholas Ct	34	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4544 Ashby Rd	35	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4540 Ashby Rd	36	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4536 Ashby Rd	37	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4524 Ashby Rd	38	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
11045 St Pius Ln	39	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
11041 St Pius Ln	40	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
11037 St Pius Ln	41	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
11033 St Pius Ln	42	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
11029 St Pius Ln	43	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
11025 St Pius Ln	44	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
11021 St Pius Ln	45	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
11017 St Pius Ln	46	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
11009 St Pius Ln	47	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
11005 St Pius Ln	48	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
10882 Pear Blossom NW patio apt	49	1	0.0	71.8	66	71.8	15	Snd Lvl	68.3	3.5	8	-4.5
10882 Pear Blossom NE patio apt	50	1	0.0	72.2	66	72.2	15	Snd Lvl	68.5	3.7	8	-4.3
4649 Country Ln NW patio apt	51	1	0.0	73.8	66	73.8	15	Snd Lvl	69.6	4.2	8	-3.8
4649 Country Ln NE patio apt	52	1	0.0	74.6	66	74.6	15	Snd Lvl	70.4	4.2	8	-3.8
4645 Country Ln NW patio apt	53	1	0.0	75.6	66	75.6	15	Snd Lvl	71.3	4.3	8	-3.7
4645 Country Ln NE patio apt	54	1	0.0	75.7	66	75.7	15	Snd Lvl	71.3	4.4	8	-3.6
4633 Country Ln NE patio apt	55	1	0.0	76.2	66	76.2	15	Snd Lvl	70.8	5.4	8	-2.6
4633 Country Ln SE patio apt	56	1	0.0	75.6	66	75.6	15	Snd Lvl	70.2	5.4	8	-2.6
4629 Country Ln NE patio apt	57	1	0.0	75.1	66	75.1	15	Snd Lvl	70.1	5.0	8	-3.0
4629 Country Ln SE patio apt	58	1	0.0	74.9	66	74.9	15	Snd Lvl	70.3	4.6	8	-3.4
4625 Country Ln NE patio apt	59	1	0.0	74.5	66	74.5	15	Snd Lvl	70.6	3.9	8	-4.1
4625 Country Ln SE patio apt	60	1	0.0	73.1	66	73.1	15	Snd Lvl	69.5	3.6	8	-4.4
10844 Pear Blossom N patio apt	61	1	0.0	71.6	66	71.6	15	Snd Lvl	68.6	3.0	8	-5.0
10844 Pear Blossom SE patio apt	63	1	0.0	55.9	66	55.9	15	----	55.0	0.9	8	-7.1
Pear Tree Apts Clubhouse	64	1	0.0	74.9	66	74.9	15	Snd Lvl	73.5	1.4	8	-6.6
10882 Pear Blossom SW patio apt	65	1	0.0	62.7	66	62.7	15	----	62.3	0.4	8	-7.6
10878 Pear Blossom NW patio apt	66	1	0.0	62.6	66	62.6	15	----	62.3	0.3	8	-7.7
10882 Pear Blossom SE patio apt	67	1	0.0	60.6	66	60.6	15	----	57.5	3.1	8	-4.9

10878 Pear Blossom NE patio apt	68	1	0.0	59.9	66	59.9	15	----	57.0	2.9	8	-5.1
4649 Country Ln SE patio apt	69	1	0.0	65.7	66	65.7	15	----	61.1	4.6	8	-3.4
4641 Country Ln E patio apt	70	1	0.0	61.5	66	61.5	15	----	59.5	2.0	8	-6.0
4641 Country Ln W patio apt	71	1	0.0	60.0	66	60.0	15	----	58.2	1.8	8	-6.2
10878 Pear Blossom SE patio apt	72	1	0.0	61.8	66	61.8	15	----	61.5	0.3	8	-7.7
10878 Pear Blossom SW patio apt	73	1	0.0	62.1	66	62.1	15	----	61.8	0.3	8	-7.7
4645 Country Ln SW patio apt	74	1	0.0	64.8	66	64.8	15	----	59.8	5.0	8	-3.0
4625 Country Ln NW patio apt	75	1	0.0	60.0	66	60.0	15	----	59.1	0.9	8	-7.1
4629 Country Ln SW patio apt	76	1	0.0	60.4	66	60.4	15	----	59.5	0.9	8	-7.1
4629 Country Ln NW patio apt	77	1	0.0	60.7	66	60.7	15	----	59.8	0.9	8	-7.1
4633 Country Ln SW patio apt	78	1	0.0	60.8	66	60.8	15	----	59.8	1.0	8	-7.0
4637 Country Ln NE patio apt	79	1	0.0	63.9	66	63.9	15	----	61.2	2.7	8	-5.3
4637 Country Ln NW patio apt	80	1	0.0	64.1	66	64.1	15	----	61.9	2.2	8	-5.8
4637 Country Ln SE patio apt	81	1	0.0	60.5	66	60.5	15	----	59.6	0.9	8	-7.1
4637 Country Ln SW patio apt	82	1	0.0	60.5	66	60.5	15	----	59.5	1.0	8	-7.0
10874 Pear Blossom SW patio apt	85	1	0.0	61.6	66	61.6	15	----	61.5	0.1	8	-7.9
10866 Pear Blossom NW patio apt	86	1	0.0	60.8	66	60.8	15	----	59.6	1.2	8	-6.8
10866 Pear Blossom NE patio apt	87	1	0.0	61.3	66	61.3	15	----	59.7	1.6	8	-6.4
10866 Pear Blossom SE patio apt	88	1	0.0	54.5	66	54.5	15	----	53.3	1.2	8	-6.8
10870 Pear Blossom NE patio apt	89	1	0.0	52.7	66	52.7	15	----	52.4	0.3	8	-7.7
10874 Pear Blossom NE patio apt	90	1	0.0	60.0	66	60.0	15	----	59.5	0.5	8	-7.5
10874 Pear Blossom SE patio apt	91	1	0.0	53.3	66	53.3	15	----	52.1	1.2	8	-6.8
10858 Pear Blossom NW patio apt	92	1	0.0	58.2	66	58.2	15	----	56.0	2.2	8	-5.8
10858 Pear Blossom SW patio apt	93	1	0.0	54.3	66	54.3	15	----	53.1	1.2	8	-6.8
10862 Pear Blossom W patio apt	94	1	0.0	52.9	66	52.9	15	----	52.1	0.8	8	-7.2
10862 Pear Blossom E patio apt	95	1	0.0	58.2	66	58.2	15	----	57.6	0.6	8	-7.4
10858 Pear Blossom SE patio apt	96	1	0.0	59.8	66	59.8	15	----	58.8	1.0	8	-7.0
10858 Pear Blossom NE patio apt	97	1	0.0	61.8	66	61.8	15	----	60.8	1.0	8	-7.0
10852 Pear Blossom NE patio apt	98	1	0.0	62.6	66	62.6	15	----	62.0	0.6	8	-7.4
10848 Pear Blossom NW patio apt	99	1	0.0	62.5	66	62.5	15	----	62.0	0.5	8	-7.5
10844 Pear Blossom SW patio apt	100	1	0.0	58.1	66	58.1	15	----	57.8	0.3	8	-7.7
10848 Pear Blossom SE patio apt	101	1	0.0	57.4	66	57.4	15	----	57.4	0.0	8	-8.0
10848 Pear Blossom SW patio apt	102	1	0.0	57.4	66	57.4	15	----	57.4	0.0	8	-8.0
10852 Pear Blossom SE patio apt	103	1	0.0	56.7	66	56.7	15	----	56.8	-0.1	8	-8.1
10852 Pear Blossom SW patio apt	104	1	0.0	56.5	66	56.5	15	----	56.5	0.0	8	-8.0
10885 Pear Blossom NE patio apt	105	1	0.0	58.7	66	58.7	15	----	58.6	0.1	8	-7.9
10885 Pear Blossom NW patio apt	106	1	0.0	58.5	66	58.5	15	----	58.4	0.1	8	-7.9
10885 Pear Blossom SE patio apt	107	1	0.0	57.4	66	57.4	15	----	57.5	-0.1	8	-8.1
10885 Pear Blossom SW patio apt	108	1	0.0	55.9	66	55.9	15	----	56.0	-0.1	8	-8.1
10877 Pear Tree Ln	109	1	0.0	60.6	66	60.6	15	----	60.5	0.1	8	-7.9
10885 Pear Tree Ln	110	1	0.0	59.6	66	59.6	15	----	59.6	0.0	8	-8.0

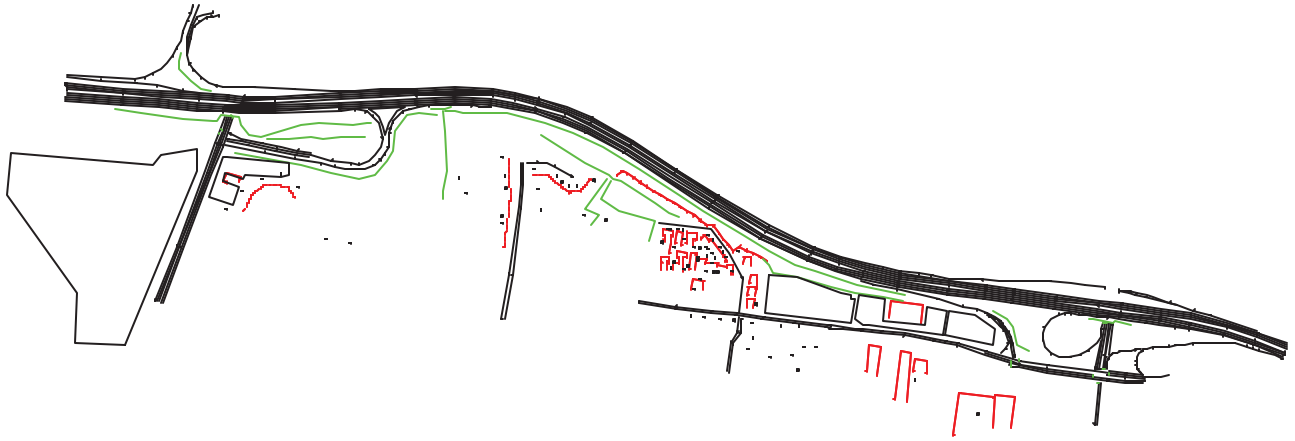
10893 Pear Tree Ln	111	1	0.0	60.2	66	60.2	15	----	60.1	0.1	8	-7.9
10848 Pear Tree Ln	112	1	0.0	67.8	66	67.8	15	Snd Lvl	67.7	0.1	8	-7.9
10840 Pear Tree Ln	113	1	0.0	68.5	66	68.5	15	Snd Lvl	68.5	0.0	8	-8.0
10832 Pear Tree Ln	114	1	0.0	69.2	66	69.2	15	Snd Lvl	69.2	0.0	8	-8.0
10869 Pear Tree Ln	116	1	0.0	62.9	66	62.9	15	----	62.6	0.3	8	-7.7
10870 Pear Blossom NW patio apt	118	1	0.0	59.4	66	59.4	15	----	59.0	0.4	8	-7.6
10870 Pear Blossom SW patio apt	119	1	0.0	53.7	66	53.7	15	----	52.1	1.6	8	-6.4
10870 Pear Blossom SE patio apt	120	1	0.0	54.6	66	54.6	15	----	54.7	-0.1	8	-8.1
4610 Country Ln patio apt	121	1	0.0	72.0	66	72.0	15	Snd Lvl	71.4	0.6	8	-7.4
4608 Country Ln patio apt	122	1	0.0	71.4	66	71.4	15	Snd Lvl	71.0	0.4	8	-7.6
4606 Country Ln patio apt	123	1	0.0	69.1	66	69.1	15	Snd Lvl	69.0	0.1	8	-7.9
4604 Country Ln patio apt	124	1	0.0	68.7	66	68.7	15	Snd Lvl	68.6	0.1	8	-7.9
4602 Country Ln patio apt	125	1	0.0	68.1	66	68.1	15	Snd Lvl	68.0	0.1	8	-7.9
4600 Country Ln patio apt	126	1	0.0	68.0	66	68.0	15	Snd Lvl	68.0	0.0	8	-8.0
10885 Pear Blossom NE balc apt	128	1	0.0	63.0	66	63.0	15	----	62.8	0.2	8	-7.8
10885 Pear Blossom NW balc apt	129	1	0.0	62.6	66	62.6	15	----	62.1	0.5	8	-7.5
10885 Pear Blossom SE balc apt	130	1	0.0	62.1	66	62.1	15	----	62.1	0.0	8	-8.0
10885 Pear Blossom SW balc apt	131	1	0.0	58.6	66	58.6	15	----	58.5	0.1	8	-7.9
10844 Pear Blossom N balc apt	133	1	0.0	74.1	66	74.1	15	Snd Lvl	72.3	1.8	8	-6.2
10844 Pear Blossom SE balc apt	134	1	0.0	61.4	66	61.4	15	----	60.5	0.9	8	-7.1
10844 Pear Blossom SW balc apt	136	1	0.0	61.2	66	61.2	15	----	60.9	0.3	8	-7.7
10848 Pear Blossom SE balc apt	137	1	0.0	60.3	66	60.3	15	----	60.2	0.1	8	-7.9
10848 Pear Blossom NW balc apt	139	1	0.0	66.0	66	66.0	15	Snd Lvl	65.6	0.4	8	-7.6
10848 Pear Blossom SW balc apt	140	1	0.0	60.2	66	60.2	15	----	60.2	0.0	8	-8.0
10852 Pear Blossom NE balc apt	142	1	0.0	66.1	66	66.1	15	Snd Lvl	65.5	0.6	8	-7.4
10852 Pear Blossom SE balc apt	143	1	0.0	59.4	66	59.4	15	----	59.4	0.0	8	-8.0
10852 Pear Blossom SW balc apt	144	1	0.0	59.0	66	59.0	15	----	59.0	0.0	8	-8.0
10852 Pear Blossom NW patio apt	146	1	0.0	61.1	66	61.1	15	----	60.2	0.9	8	-7.1
10852 Pear Blossom NW balc apt	148	1	0.0	64.3	66	64.3	15	----	63.0	1.3	8	-6.7
10858 Pear Blossom NW balc apt	149	1	0.0	60.1	66	60.1	15	----	58.6	1.5	8	-6.5
10858 Pear Blossom SW balc apt	150	1	0.0	58.5	66	58.5	15	----	57.1	1.4	8	-6.6
10862 Pear Blossom W balc apt	151	1	0.0	57.7	66	57.7	15	----	56.3	1.4	8	-6.6
10862 Pear Blossom E balc apt	152	1	0.0	61.7	66	61.7	15	----	60.5	1.2	8	-6.8
10858 Pear Blossom SE balc apt	153	1	0.0	63.3	66	63.3	15	----	61.8	1.5	8	-6.5
10858 Pear Blossom NE balc apt	154	1	0.0	65.0	66	65.0	15	----	63.6	1.4	8	-6.6
10866 Pear Blossom NW balc apt	155	1	0.0	64.4	66	64.4	15	----	62.4	2.0	8	-6.0
10866 Pear Blossom NE balc apt	156	1	0.0	64.7	66	64.7	15	----	62.5	2.2	8	-5.8
10866 Pear Blossom SE balc apt	157	1	0.0	58.4	66	58.4	15	----	57.0	1.4	8	-6.6
10870 Pear Blossom NE balc apt	158	1	0.0	56.9	66	56.9	15	----	56.4	0.5	8	-7.5
10870 Pear Blossom NW balc apt	159	1	0.0	63.1	66	63.1	15	----	62.3	0.8	8	-7.2
10870 Pear Blossom SW balc apt	160	1	0.0	58.1	66	58.1	15	----	56.4	1.7	8	-6.3

10870 Pear Blossom SE balc apt	161	1	0.0	58.0	66	58.0	15	----	58.0	0.0	8	-8.0
10874 Pear Blossom SW balc apt	163	1	0.0	64.2	66	64.2	15	----	63.9	0.3	8	-7.7
10874 Pear Blossom NE balc apt	164	1	0.0	64.0	66	64.0	15	----	63.1	0.9	8	-7.1
10874 Pear Blossom SE balc apt	165	1	0.0	57.8	66	57.8	15	----	56.9	0.9	8	-7.1
4637 Country Ln NE balc apt	167	1	0.0	66.0	66	66.0	15	Snd Lvl	63.9	2.1	8	-5.9
4637 Country Ln NW balc apt	168	1	0.0	66.4	66	66.4	15	Snd Lvl	64.4	2.0	8	-6.0
4637 Country Ln SE balc apt	169	1	0.0	62.5	66	62.5	15	----	61.5	1.0	8	-7.0
4637 Country Ln SW balc apt	170	1	0.0	62.9	66	62.9	15	----	61.6	1.3	8	-6.7
10878 Pear Blossom NW balc apt	172	1	0.0	66.7	66	66.7	15	Snd Lvl	65.6	1.1	8	-6.9
10878 Pear Blossom NE balc apt	173	1	0.0	65.0	66	65.0	15	----	60.8	4.2	8	-3.8
10878 Pear Blossom SE balc apt	174	1	0.0	64.7	66	64.7	15	----	64.3	0.4	8	-7.6
10878 Pear Blossom SW balc apt	175	1	0.0	65.1	66	65.1	15	----	64.5	0.6	8	-7.4
10882 Pear Blossom NW balc apt	177	1	0.0	74.7	66	74.7	15	Snd Lvl	71.6	3.1	8	-4.9
10882 Pear Blossom NE balc apt	178	1	0.0	74.8	66	74.8	15	Snd Lvl	71.8	3.0	8	-5.0
10882 Pear Blossom SW balc apt	179	1	0.0	66.9	66	66.9	15	Snd Lvl	65.8	1.1	8	-6.9
10882 Pear Blossom SE balc apt	180	1	0.0	65.9	66	65.9	15	----	61.7	4.2	8	-3.8
4649 Country Ln NW balc apt	182	1	0.0	75.5	66	75.5	15	Snd Lvl	72.8	2.7	8	-5.3
4649 Country Ln NE balc apt	183	1	0.0	76.1	66	76.1	15	Snd Lvl	73.8	2.3	8	-5.7
4649 Country Ln SE balc apt	184	1	0.0	67.9	66	67.9	15	Snd Lvl	64.4	3.5	8	-4.5
4641 Country Ln E balc apt	185	1	0.0	65.3	66	65.3	15	----	62.5	2.8	8	-5.2
4641 Country Ln W balc apt	186	1	0.0	64.2	66	64.2	15	----	61.4	2.8	8	-5.2
4645 Country Ln SE patio apt	188	1	0.0	63.8	66	63.8	15	----	61.3	2.5	8	-5.5
4645 Country Ln SE balc apt	189	1	0.0	66.5	66	66.5	15	Snd Lvl	64.3	2.2	8	-5.8
4645 Country Ln NW balc apt	190	1	0.0	77.1	66	77.1	15	Snd Lvl	74.9	2.2	8	-5.8
4645 Country Ln NE balc apt	191	1	0.0	77.3	66	77.3	15	Snd Lvl	75.1	2.2	8	-5.8
4645 Country Ln SW balc apt	192	1	0.0	67.0	66	67.0	15	Snd Lvl	63.1	3.9	8	-4.1
4633 Country Ln NE balc apt	194	1	0.0	78.0	66	78.0	15	Snd Lvl	75.4	2.6	8	-5.4
4633 Country Ln SE balc apt	195	1	0.0	77.5	66	77.5	15	Snd Lvl	74.8	2.7	8	-5.3
4633 Country Ln SW balc apt	196	1	0.0	62.8	66	62.8	15	----	61.9	0.9	8	-7.1
4629 Country Ln NE balc apt	198	1	0.0	77.1	66	77.1	15	Snd Lvl	74.3	2.8	8	-5.2
4629 Country Ln SE balc apt	199	1	0.0	76.8	66	76.8	15	Snd Lvl	74.2	2.6	8	-5.4
4629 Country Ln SW balc apt	200	1	0.0	62.4	66	62.4	15	----	61.6	0.8	8	-7.2
4629 Country Ln NW balc apt	201	1	0.0	62.9	66	62.9	15	----	62.1	0.8	8	-7.2
4625 Country Ln NE balc apt	203	1	0.0	76.4	66	76.4	15	Snd Lvl	74.1	2.3	8	-5.7
4625 Country Ln SE balc apt	204	1	0.0	75.3	66	75.3	15	Snd Lvl	73.2	2.1	8	-5.9
4625 Country Ln NW balc apt	205	1	0.0	61.6	66	61.6	15	----	60.7	0.9	8	-7.1
4361 St Regina Ln	207	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4353 St Regina Ln	208	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4349 St Regina Ln	209	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4362 St Regina Ln	210	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4346 St Regina Ln	211	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0

4531 Ashby Rd	213	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
10856 Pear Tree Ln	214	1	0.0	66.2	66	66.2	15	Snd Lvl	66.1	0.1	8	-7.9
10864 Pear Tree Ln	215	1	0.0	63.2	66	63.2	15	----	63.1	0.1	8	-7.9
10872 Pear Tree Ln	216	1	0.0	61.8	66	61.8	15	----	61.7	0.1	8	-7.9
10880 Pear Tree Ln	217	1	0.0	61.5	66	61.5	15	----	61.4	0.1	8	-7.9
4527 Ashby Rd	219	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4523 Ashby Rd	220	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
4528 Country Ln	221	1	0.0	64.4	66	64.4	15	----	64.3	0.1	8	-7.9
4522/4524 Country Ln	222	2	0.0	62.5	66	62.5	15	----	62.4	0.1	8	-7.9
4520 Country Ln	223	1	0.0	62.2	66	62.2	15	----	62.1	0.1	8	-7.9
10057/10059 Douglas Ct	224	2	0.0	61.9	66	61.9	15	----	61.8	0.1	8	-7.9
10053/10055 Douglas Ct	225	2	0.0	62.9	66	62.9	15	----	62.8	0.1	8	-7.9
10049/10051 Douglas Ct	226	2	0.0	63.6	66	63.6	15	----	63.5	0.1	8	-7.9
10045/10047 Douglas Ct	227	2	0.0	63.9	66	63.9	15	----	63.7	0.2	8	-7.8
10043 Douglas Ct	228	1	0.0	63.2	66	63.2	15	----	63.0	0.2	8	-7.8
10037 Douglas Ct	229	1	0.0	62.8	66	62.8	15	----	62.6	0.2	8	-7.8
10033 Douglas Ct	230	1	0.0	64.7	66	64.7	15	----	64.6	0.1	8	-7.9
10029 Douglas Ct	231	1	0.0	66.0	66	66.0	15	Snd Lvl	65.9	0.1	8	-7.9
10027 Douglas Ct	232	1	0.0	66.2	66	66.2	15	Snd Lvl	66.1	0.1	8	-7.9
Wingate hotel pool	234	1	0.0	0.0	71	0.0	15	inactive	0.0	0.0	8	0.0
Pear Tree Inn pool	235	1	0.0	0.0	71	0.0	15	inactive	0.0	0.0	8	0.0
Mariott hotel pool	236	1	0.0	0.0	71	0.0	15	inactive	0.0	0.0	8	0.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	215	-0.1	1.0	5.4
All Impacted	48	0.0	2.2	5.4
All that meet NR Goal	0	0.0	0.0	0.0

CMT, Inc.				**30 April 2024**						
JKMiller				**TNM 2.5**						
RESULTS: BARRIER DESCRIPTIONS										
PROJECT/CONTRACT:	**Lambert CTP**									
RUN:	**Pear Tree Apts Barrier - at ditch**									
BARRIER DESIGN:	**20ft All**									
Barriers										
Name	**Type**	**Heights along Barrier**			**Length**	**If Wall**	**If Berm**			**Cost**
		Min	**Avg**	**Max**		**Area**	**Volume**	**Top Width**	**Run:Rise**	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
Apartments Barrier outside ditch	W	20.00	20.00	20.00	1050	21000				0
									Total Cost:	0



Apts Barrier - at L/A ROW		Sheet 1 of 1	30 Apr 2024
		CMT, Inc.	
Plan View		Project/Contract No. Lambert CTP	
Run name: BarrierApts_LAROW		TNM Version 2.5, Feb 2004	
Scale:	1000 feet	Analysis By: JKMiller	
Roadway:		Ground Zone:	polygon
Receiver:		Tree Zone:	dashed polygon
Barrier:		Contour Zone:	polygon
Building Row:		Parallel Barrier:	
Terrain Line:		Skew Section:	

850000 851000 852000 853000 854000 855000 856000 857000 858000 859000 860000 861000 862000

CMT, Inc. 30 April 2024
JKMiller TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: Lambert CTP
RUN: Apts Barrier - at L/A ROW
BARRIER DESIGN: Apts LA/ROW Final
ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type Impact	With Barrier Calculated LAeq1h	Noise Reduction		
				Calculated	Crit'n	Calculated	Crit'n Sub'l Inc			Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
NMP-5	5	1	0.0	0.0	66	0.0	15	inactive	0.0	0.0	8	0.0
10882 Pear Blossom NW patio apt	49	1	0.0	71.9	66	71.9	15	Snd Lvl	64.9	7.0	8	-1.0
10882 Pear Blossom NE patio apt	50	1	0.0	72.3	66	72.3	15	Snd Lvl	65.0	7.3	8	-0.7
4649 Country Ln NW patio apt	51	1	0.0	73.9	66	73.9	15	Snd Lvl	65.2	8.7	8	0.7
4649 Country Ln NE patio apt	52	1	0.0	74.7	66	74.7	15	Snd Lvl	65.4	9.3	8	1.3
4645 Country Ln NW patio apt	53	1	0.0	75.6	66	75.6	15	Snd Lvl	65.4	10.2	8	2.2
4645 Country Ln NE patio apt	54	1	0.0	75.8	66	75.8	15	Snd Lvl	65.3	10.5	8	2.5
4633 Country Ln NE patio apt	55	1	0.0	76.2	66	76.2	15	Snd Lvl	64.3	11.9	8	3.9
4633 Country Ln SE patio apt	56	1	0.0	75.6	66	75.6	15	Snd Lvl	63.6	12.0	8	4.0
4629 Country Ln NE patio apt	57	1	0.0	75.1	66	75.1	15	Snd Lvl	63.1	12.0	8	4.0
4629 Country Ln SE patio apt	58	1	0.0	74.8	66	74.8	15	Snd Lvl	62.6	12.2	8	4.2
4625 Country Ln NE patio apt	59	1	0.0	74.4	66	74.4	15	Snd Lvl	62.9	11.5	8	3.5
4625 Country Ln SE patio apt	60	1	0.0	73.1	66	73.1	15	Snd Lvl	62.3	10.8	8	2.8
10844 Pear Blossom N patio apt	61	1	0.0	71.6	66	71.6	15	Snd Lvl	64.6	7.0	8	-1.0
10844 Pear Blossom SE patio apt	63	1	0.0	56.0	66	56.0	15	----	52.3	3.7	8	-4.3
10882 Pear Blossom SW patio apt	65	1	0.0	62.6	66	62.6	15	----	61.9	0.7	8	-7.3
10878 Pear Blossom NW patio apt	66	1	0.0	62.6	66	62.6	15	----	61.9	0.7	8	-7.3
10882 Pear Blossom SE patio apt	67	1	0.0	62.8	66	62.8	15	----	54.0	8.8	8	0.8
10878 Pear Blossom NE patio apt	68	1	0.0	61.7	66	61.7	15	----	54.2	7.5	8	-0.5
4649 Country Ln SE patio apt	69	1	0.0	66.3	66	66.3	15	Snd Lvl	56.0	10.3	8	2.3
4641 Country Ln E patio apt	70	1	0.0	63.3	66	63.3	15	----	57.2	6.1	8	-1.9
4641 Country Ln W patio apt	71	1	0.0	60.7	66	60.7	15	----	56.6	4.1	8	-3.9
10878 Pear Blossom SE patio apt	72	1	0.0	61.7	66	61.7	15	----	61.1	0.6	8	-7.4
10878 Pear Blossom SW patio apt	73	1	0.0	61.9	66	61.9	15	----	61.4	0.5	8	-7.5

4645 Country Ln SW patio apt	74	1	0.0	65.5	66	65.5	15	----	56.0	9.5	8	1.5
4625 Country Ln NW patio apt	75	1	0.0	60.0	66	60.0	15	----	56.1	3.9	8	-4.1
4629 Country Ln SW patio apt	76	1	0.0	60.4	66	60.4	15	----	56.3	4.1	8	-3.9
4629 Country Ln NW patio apt	77	1	0.0	60.7	66	60.7	15	----	56.4	4.3	8	-3.7
4633 Country Ln SW patio apt	78	1	0.0	60.8	66	60.8	15	----	56.4	4.4	8	-3.6
4637 Country Ln NE patio apt	79	1	0.0	64.1	66	64.1	15	----	57.6	6.5	8	-1.5
4637 Country Ln NW patio apt	80	1	0.0	64.4	66	64.4	15	----	57.6	6.8	8	-1.2
4637 Country Ln SE patio apt	81	1	0.0	60.8	66	60.8	15	----	56.5	4.3	8	-3.7
4637 Country Ln SW patio apt	82	1	0.0	61.1	66	61.1	15	----	56.7	4.4	8	-3.6
10874 Pear Blossom SW patio apt	85	1	0.0	61.6	66	61.6	15	----	61.4	0.2	8	-7.8
10866 Pear Blossom NW patio apt	86	1	0.0	61.9	66	61.9	15	----	57.3	4.6	8	-3.4
10866 Pear Blossom NE patio apt	87	1	0.0	62.8	66	62.8	15	----	57.5	5.3	8	-2.7
10866 Pear Blossom SE patio apt	88	1	0.0	54.4	66	54.4	15	----	50.9	3.5	8	-4.5
10870 Pear Blossom NE patio apt	89	1	0.0	52.6	66	52.6	15	----	50.3	2.3	8	-5.7
10874 Pear Blossom NE patio apt	90	1	0.0	60.2	66	60.2	15	----	59.0	1.2	8	-6.8
10874 Pear Blossom SE patio apt	91	1	0.0	54.1	66	54.1	15	----	51.4	2.7	8	-5.3
10858 Pear Blossom NW patio apt	92	1	0.0	58.9	66	58.9	15	----	52.6	6.3	8	-1.7
10858 Pear Blossom SW patio apt	93	1	0.0	55.8	66	55.8	15	----	51.4	4.4	8	-3.6
10862 Pear Blossom W patio apt	94	1	0.0	54.0	66	54.0	15	----	50.8	3.2	8	-4.8
10862 Pear Blossom E patio apt	95	1	0.0	58.5	66	58.5	15	----	55.0	3.5	8	-4.5
10858 Pear Blossom SE patio apt	96	1	0.0	60.6	66	60.6	15	----	54.8	5.8	8	-2.2
10858 Pear Blossom NE patio apt	97	1	0.0	62.3	66	62.3	15	----	57.3	5.0	8	-3.0
10852 Pear Blossom NE patio apt	98	1	0.0	62.9	66	62.9	15	----	60.8	2.1	8	-5.9
10848 Pear Blossom NW patio apt	99	1	0.0	62.7	66	62.7	15	----	60.7	2.0	8	-6.0
10844 Pear Blossom SW patio apt	100	1	0.0	58.1	66	58.1	15	----	56.1	2.0	8	-6.0
10848 Pear Blossom SE patio apt	101	1	0.0	57.5	66	57.5	15	----	56.5	1.0	8	-7.0
10848 Pear Blossom SW patio apt	102	1	0.0	57.4	66	57.4	15	----	56.5	0.9	8	-7.1
10852 Pear Blossom SE patio apt	103	1	0.0	56.7	66	56.7	15	----	56.1	0.6	8	-7.4
10852 Pear Blossom SW patio apt	104	1	0.0	56.5	66	56.5	15	----	55.8	0.7	8	-7.3
10885 Pear Blossom NE patio apt	105	1	0.0	58.8	66	58.8	15	----	58.1	0.7	8	-7.3
10885 Pear Blossom NW patio apt	106	1	0.0	58.6	66	58.6	15	----	57.5	1.1	8	-6.9
10885 Pear Blossom SE patio apt	107	1	0.0	57.4	66	57.4	15	----	57.5	-0.1	8	-8.1
10885 Pear Blossom SW patio apt	108	1	0.0	55.9	66	55.9	15	----	56.0	-0.1	8	-8.1
10877 Pear Tree Ln	109	1	0.0	60.8	66	60.8	15	----	59.7	1.1	8	-6.9
10885 Pear Tree Ln	110	1	0.0	59.6	66	59.6	15	----	59.5	0.1	8	-7.9
10893 Pear Tree Ln	111	1	0.0	60.2	66	60.2	15	----	60.0	0.2	8	-7.8
10848 Pear Tree Ln	112	1	0.0	67.8	66	67.8	15	Snd Lvl	67.6	0.2	8	-7.8
10840 Pear Tree Ln	113	1	0.0	68.5	66	68.5	15	Snd Lvl	68.3	0.2	8	-7.8
10832 Pear Tree Ln	114	1	0.0	69.2	66	69.2	15	Snd Lvl	68.9	0.3	8	-7.7
10869 Pear Tree Ln	116	1	0.0	63.0	66	63.0	15	----	60.7	2.3	8	-5.7
10870 Pear Blossom NW patio apt	118	1	0.0	59.3	66	59.3	15	----	58.6	0.7	8	-7.3

10870 Pear Blossom SW patio apt	119	1	0.0	54.1	66	54.1	15	----	51.5	2.6	8	-5.4
10870 Pear Blossom SE patio apt	120	1	0.0	54.7	66	54.7	15	----	54.3	0.4	8	-7.6
4610 Country Ln patio apt	121	1	0.0	72.0	66	72.0	15	Snd Lvl	70.3	1.7	8	-6.3
4608 Country Ln patio apt	122	1	0.0	71.5	66	71.5	15	Snd Lvl	70.0	1.5	8	-6.5
4606 Country Ln patio apt	123	1	0.0	69.2	66	69.2	15	Snd Lvl	68.5	0.7	8	-7.3
4604 Country Ln patio apt	124	1	0.0	68.7	66	68.7	15	Snd Lvl	68.1	0.6	8	-7.4
4602 Country Ln patio apt	125	1	0.0	68.1	66	68.1	15	Snd Lvl	67.7	0.4	8	-7.6
4600 Country Ln patio apt	126	1	0.0	68.1	66	68.1	15	Snd Lvl	67.7	0.4	8	-7.6
10885 Pear Blossom NE balc apt	128	1	0.0	63.0	66	63.0	15	----	62.4	0.6	8	-7.4
10885 Pear Blossom NW balc apt	129	1	0.0	62.6	66	62.6	15	----	61.4	1.2	8	-6.8
10885 Pear Blossom SE balc apt	130	1	0.0	62.1	66	62.1	15	----	62.1	0.0	8	-8.0
10885 Pear Blossom SW balc apt	131	1	0.0	58.6	66	58.6	15	----	58.5	0.1	8	-7.9
10844 Pear Blossom N balc apt	133	1	0.0	74.1	66	74.1	15	Snd Lvl	68.6	5.5	8	-2.5
10844 Pear Blossom SE balc apt	134	1	0.0	61.4	66	61.4	15	----	58.0	3.4	8	-4.6
10844 Pear Blossom SW balc apt	136	1	0.0	61.1	66	61.1	15	----	59.7	1.4	8	-6.6
10848 Pear Blossom SE balc apt	137	1	0.0	60.3	66	60.3	15	----	59.8	0.5	8	-7.5
10848 Pear Blossom NW balc apt	139	1	0.0	66.1	66	66.1	15	Snd Lvl	64.7	1.4	8	-6.6
10848 Pear Blossom SW balc apt	140	1	0.0	60.2	66	60.2	15	----	59.9	0.3	8	-7.7
10852 Pear Blossom NE balc apt	142	1	0.0	66.1	66	66.1	15	Snd Lvl	64.5	1.6	8	-6.4
10852 Pear Blossom SE balc apt	143	1	0.0	59.4	66	59.4	15	----	59.3	0.1	8	-7.9
10852 Pear Blossom SW balc apt	144	1	0.0	59.0	66	59.0	15	----	59.0	0.0	8	-8.0
10852 Pear Blossom NW patio apt	146	1	0.0	61.9	66	61.9	15	----	56.9	5.0	8	-3.0
10852 Pear Blossom NW balc apt	148	1	0.0	64.4	66	64.4	15	----	60.1	4.3	8	-3.7
10858 Pear Blossom NW balc apt	149	1	0.0	60.2	66	60.2	15	----	56.5	3.7	8	-4.3
10858 Pear Blossom SW balc apt	150	1	0.0	58.7	66	58.7	15	----	55.9	2.8	8	-5.2
10862 Pear Blossom W balc apt	151	1	0.0	58.0	66	58.0	15	----	55.0	3.0	8	-5.0
10862 Pear Blossom E balc apt	152	1	0.0	61.8	66	61.8	15	----	58.5	3.3	8	-4.7
10858 Pear Blossom SE balc apt	153	1	0.0	63.4	66	63.4	15	----	58.8	4.6	8	-3.4
10858 Pear Blossom NE balc apt	154	1	0.0	65.0	66	65.0	15	----	60.4	4.6	8	-3.4
10866 Pear Blossom NW balc apt	155	1	0.0	64.5	66	64.5	15	----	60.1	4.4	8	-3.6
10866 Pear Blossom NE balc apt	156	1	0.0	64.9	66	64.9	15	----	60.3	4.6	8	-3.4
10866 Pear Blossom SE balc apt	157	1	0.0	58.3	66	58.3	15	----	55.8	2.5	8	-5.5
10870 Pear Blossom NE balc apt	158	1	0.0	56.9	66	56.9	15	----	55.8	1.1	8	-6.9
10870 Pear Blossom NW balc apt	159	1	0.0	63.1	66	63.1	15	----	62.0	1.1	8	-6.9
10870 Pear Blossom SW balc apt	160	1	0.0	58.2	66	58.2	15	----	55.3	2.9	8	-5.1
10870 Pear Blossom SE balc apt	161	1	0.0	58.1	66	58.1	15	----	58.1	0.0	8	-8.0
10874 Pear Blossom SW balc apt	163	1	0.0	64.2	66	64.2	15	----	63.6	0.6	8	-7.4
10874 Pear Blossom NE balc apt	164	1	0.0	64.0	66	64.0	15	----	62.5	1.5	8	-6.5
10874 Pear Blossom SE balc apt	165	1	0.0	58.4	66	58.4	15	----	55.8	2.6	8	-5.4
4637 Country Ln NE balc apt	167	1	0.0	66.0	66	66.0	15	Snd Lvl	60.3	5.7	8	-2.3
4637 Country Ln NW balc apt	168	1	0.0	66.3	66	66.3	15	Snd Lvl	60.2	6.1	8	-1.9

4637 Country Ln SE balc apt	169	1	0.0	62.5	66	62.5	15	----	58.8	3.7	8	-4.3
4637 Country Ln SW balc apt	170	1	0.0	63.0	66	63.0	15	----	59.0	4.0	8	-4.0
10878 Pear Blossom NW balc apt	172	1	0.0	66.7	66	66.7	15	Snd Lvl	64.7	2.0	8	-6.0
10878 Pear Blossom NE balc apt	173	1	0.0	65.0	66	65.0	15	----	58.4	6.6	8	-1.4
10878 Pear Blossom SE balc apt	174	1	0.0	64.6	66	64.6	15	----	63.7	0.9	8	-7.1
10878 Pear Blossom SW balc apt	175	1	0.0	65.1	66	65.1	15	----	63.9	1.2	8	-6.8
10882 Pear Blossom NW balc apt	177	1	0.0	74.7	66	74.7	15	Snd Lvl	67.9	6.8	8	-1.2
10882 Pear Blossom NE balc apt	178	1	0.0	74.9	66	74.9	15	Snd Lvl	68.1	6.8	8	-1.2
10882 Pear Blossom SW balc apt	179	1	0.0	66.9	66	66.9	15	Snd Lvl	64.8	2.1	8	-5.9
10882 Pear Blossom SE balc apt	180	1	0.0	66.0	66	66.0	15	Snd Lvl	58.9	7.1	8	-0.9
4649 Country Ln NW balc apt	182	1	0.0	75.6	66	75.6	15	Snd Lvl	68.4	7.2	8	-0.8
4649 Country Ln NE balc apt	183	1	0.0	76.1	66	76.1	15	Snd Lvl	68.7	7.4	8	-0.6
4649 Country Ln SE balc apt	184	1	0.0	68.0	66	68.0	15	Snd Lvl	60.3	7.7	8	-0.3
4641 Country Ln E balc apt	185	1	0.0	65.3	66	65.3	15	----	60.2	5.1	8	-2.9
4641 Country Ln W balc apt	186	1	0.0	64.3	66	64.3	15	----	59.7	4.6	8	-3.4
4645 Country Ln SE patio apt	188	1	0.0	64.3	66	64.3	15	----	57.2	7.1	8	-0.9
4645 Country Ln SE balc apt	189	1	0.0	66.7	66	66.7	15	Snd Lvl	60.2	6.5	8	-1.5
4645 Country Ln NW balc apt	190	1	0.0	77.0	66	77.0	15	Snd Lvl	68.8	8.2	8	0.2
4645 Country Ln NE balc apt	191	1	0.0	77.2	66	77.2	15	Snd Lvl	68.6	8.6	8	0.6
4645 Country Ln SW balc apt	192	1	0.0	67.1	66	67.1	15	Snd Lvl	59.6	7.5	8	-0.5
4633 Country Ln NE balc apt	194	1	0.0	77.9	66	77.9	15	Snd Lvl	67.1	10.8	8	2.8
4633 Country Ln SE balc apt	195	1	0.0	77.5	66	77.5	15	Snd Lvl	66.5	11.0	8	3.0
4633 Country Ln SW balc apt	196	1	0.0	62.8	66	62.8	15	----	58.9	3.9	8	-4.1
4629 Country Ln NE balc apt	198	1	0.0	77.1	66	77.1	15	Snd Lvl	65.8	11.3	8	3.3
4629 Country Ln SE balc apt	199	1	0.0	76.8	66	76.8	15	Snd Lvl	65.6	11.2	8	3.2
4629 Country Ln SW balc apt	200	1	0.0	62.3	66	62.3	15	----	58.6	3.7	8	-4.3
4629 Country Ln NW balc apt	201	1	0.0	62.9	66	62.9	15	----	59.2	3.7	8	-4.3
4625 Country Ln NE balc apt	203	1	0.0	76.3	66	76.3	15	Snd Lvl	67.3	9.0	8	1.0
4625 Country Ln SE balc apt	204	1	0.0	75.2	66	75.2	15	Snd Lvl	67.8	7.4	8	-0.6
4625 Country Ln NW balc apt	205	1	0.0	61.6	66	61.6	15	----	58.0	3.6	8	-4.4
10856 Pear Tree Ln	214	1	0.0	66.2	66	66.2	15	Snd Lvl	65.9	0.3	8	-7.7
10864 Pear Tree Ln	215	1	0.0	63.2	66	63.2	15	----	62.8	0.4	8	-7.6
10872 Pear Tree Ln	216	1	0.0	61.8	66	61.8	15	----	61.5	0.3	8	-7.7
10880 Pear Tree Ln	217	1	0.0	61.5	66	61.5	15	----	61.2	0.3	8	-7.7
4528 Country Ln	221	1	0.0	64.4	66	64.4	15	----	64.2	0.2	8	-7.8
4522/4524 Country Ln	222	2	0.0	62.5	66	62.5	15	----	62.3	0.2	8	-7.8
4520 Country Ln	223	1	0.0	62.2	66	62.2	15	----	62.0	0.2	8	-7.8
10057/10059 Douglas Ct	224	2	0.0	61.9	66	61.9	15	----	61.7	0.2	8	-7.8
10053/10055 Douglas Ct	225	2	0.0	62.9	66	62.9	15	----	62.7	0.2	8	-7.8
10049/10051 Douglas Ct	226	2	0.0	63.6	66	63.6	15	----	63.3	0.3	8	-7.7
10045/10047 Douglas Ct	227	2	0.0	63.9	66	63.9	15	----	63.6	0.3	8	-7.7

10043 Douglas Ct	228	1	0.0	63.2	66	63.2	15	----	62.9	0.3	8	-7.7
10037 Douglas Ct	229	1	0.0	62.8	66	62.8	15	----	62.5	0.3	8	-7.7
10033 Douglas Ct	230	1	0.0	64.7	66	64.7	15	----	64.4	0.3	8	-7.7
10029 Douglas Ct	231	1	0.0	66.0	66	66.0	15	Snd Lvl	65.7	0.3	8	-7.7
10027 Douglas Ct	232	1	0.0	66.3	66	66.3	15	Snd Lvl	66.0	0.3	8	-7.7

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	157	-0.1	3.7	12.2
All Impacted	49	0.2	6.3	12.2
All that meet NR Goal	20	8.2	10.4	12.2

CMT, Inc.	30 April 2024
JKMiller	TNM 2.5

RESULTS: BARRIER DESCRIPTIONS

PROJECT/CONTRACT:	Lambert CTP
RUN:	Apts Barrier - at L/A ROW
BARRIER DESIGN:	Apts LA/ROW Final

Barriers

Name	Type	Heights along Barrier			Length	If Wall	If Berm			Cost
		Min	Avg	Max		Area	Volume	Top Width	Run:Rise	
		ft	ft	ft	ft	sq ft	cu yd	ft	ft:ft	$
Apts Barrier at L/A ROW	W	18.00	19.06	20.00	1057	20146				0
									Total Cost:	0

CMT, Inc. 30 April 2024
JKMiller TNM 2.5

RESULTS: BARRIER-SEGMENT DESCRIPTIONS
PROJECT/CONTRACT: Lambert CTP
RUN: Apts Barrier - at L/A ROW
BARRIER DESIGN: Apts LA/ROW Final

Barriers		Segments										
Name	Type	Name	No.	Heights			Length	If Wall			If Berm	Cost
				First	Average	Second		Area	On	Important	Volume	
				Point		Point			Struc?	Reflections?		
				ft	ft	ft	ft	sq ft			cu yd	$
Apts Barrier at L/A ROW	W	point143	143	0.00	0.00	0.00	0	0				0
		point144	144	0.00	0.00	0.00	0	0				0
		point145	145	0.00	0.00	0.00	0	0				0
		point146	146	18.00	18.00	18.00	50	900				0
		point147	147	18.00	18.00	18.00	50	901				0
		point148	148	18.00	18.00	18.00	50	899				0
		point149	149	18.00	18.00	18.00	50	900				0
		point150	150	18.00	18.00	18.00	50	900				0
		point151	151	18.00	18.00	18.00	50	900				0
		point152	152	19.00	19.00	19.00	50	950				0
		point153	153	19.00	19.00	19.00	50	950				0
		point154	154	19.00	19.00	19.00	50	949				0
		point155	155	19.00	19.00	19.00	50	951				0
		point156	156	19.00	19.00	19.00	50	950				0
		point157	157	19.00	19.00	19.00	45	860				0
		point158	158	20.00	20.00	20.00	58	1158				0
		point159	159	20.00	20.00	20.00	50	999				0
		point160	160	20.00	20.00	20.00	50	1001				0
		point161	161	20.00	20.00	20.00	50	999				0
		point162	162	20.00	20.00	20.00	54	1080				0
		point163	163	20.00	20.00	20.00	50	1000				0
		point164	164	20.00	20.00	20.00	50	1001				0
		point165	165	19.00	19.00	19.00	50	950				0
		point166	166	19.00	19.00	19.00	50	950				0

Traffic Safety and Operations Report

Consolidated Terminal Program

DRAFT

Traffic Safety & Operations Report

2/23/2024

Prepared for:

Missouri Department of Transportation

105 W. Capitol Avenue

Jefferson City, MO 65102

Prepared by:

WSP USA

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St. Louis, MO 63102

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1 Introduction

1.1 Project Background

VISSIM modeling was started in 2020 as part of the St. Louis Lambert International (STL) Airport Layout Plan Update (ALPU), which later became the STL Master Plan. During the STL Master Plan, the intent of the modeling was to determine and analyze existing and future conditions of the airport's roadways that serve the airport, including Terminal 1 and Terminal 2. During the initial effort, only the airport roadways were modeled, and I-70 was excluded, as the analysis focused on the curbside and areas immediately surrounding the airport terminals. More recently, new airport roadway alternatives were studied that would serve a consolidated terminal at the site of the current Terminal 1, known as the Consolidated Terminal Program (CTP). These new roadway alternatives studied how terminal loop roads could connect to I-70 to improve and lengthen the distance from the interstate to the curbside. To better understand how these alternatives work in conjunction with the existing interchanges on I-70, Existing models were created and calibrated to use as a basis in comparison to future construction year (2032) and design year (2037) models based on Build and No Build scenarios. During the master plan process, it was determined that the airport peak hour and roadways peak hour aligned for the AM and PM peak periods. Airport peak hours are controlled by airline flight schedules and can change over time. Typically, airport peak hours do not align with roadway peak hours. In order to provide a conservative representation of conditions, the peak hours are assumed to be aligned for purposes of this study. Therefore, for the conceptual phase of the project, there are two modeled periods: AM Peak conditions (8:00am-9:00am) and PM peak conditions (4:30pm-5:30pm). The intent of this report is to study the safety and operational impacts of alternatives for connecting I-70 to the CTP for airport traffic.

1.2 Study Area

As shown in **Figure 1** and **Figure 2**, the study area includes I-70 from MO 180 to the west side of the I-170 interchange. The conceptual roadway conditions are expected to impact the existing interchanges at Cypress Road and Airflight Drive. It is common in traffic modeling to include adjacent interchanges to control traffic volumes entering the network. This study area was further expanded to the east to include the westside of the I-170 interchange per MoDOT's request to study the interaction of traffic to and from Lambert International Boulevard (LIB). All intersections studied for this analysis can be seen below in **Figure 3** and **Figure 4**. All the intersections were either stop-controlled or signalized for this study. Similar to the operational summary results presented in later sections, intersections that are stop-controlled can be seen with an asterisk at the end of their names in **Figure 3** and **Figure 4**. All other intersections are signalized.

Figure 1 – West Side of Study Area (aerial image source: Google Earth)

Figure 2 – East Side of Study Area (aerial image source: Google Earth)

Figure 3 – Intersections on West Side of Study Area (aerial image source: Microsoft Corporation)

Figure 4 – Intersections on East Side of Study Area (aerial image source: Microsoft Corporation)

1.3 Problem Definition

A consolidated terminal provides an opportunity for improvement at the airport and its connecting roadways. The existing service roadway configurations create less than desirable operational and safety conditions around the existing terminals. Currently, with two terminals drivers are required to make a number of decisions from where they exit I-70 to where they reach the terminal areas. Furthermore, each terminal requires decisions for either departures, arrivals or parking. The close proximity to I-70 requires short entrance roadways to the terminals that provide little time for this decision making for drivers entering the terminal parking and curbside areas. Currently, the terminals are as close as 400 feet from I-70 with roadways leading directly into the terminal curbsides and parking garages. These short roadway segments require drivers, many that are new or unfamiliar with the area, to navigate through many directional signs in a short time resulting in many last second and unsafe lane change maneuvers. The CTP provides an opportunity to improve safety and mobility around the airport by providing one main path into and out of the terminal curbside and parking that is rerouted to provide approximately one mile from I-70 to the terminal.

1.4 Design Alternatives

The CTP proposes a new consolidated terminal to be constructed in the location of the existing Terminal 1 location. The CTP also proposes a new parking garage and ground transportation center in the location of the existing Terminal 1 garage. During the conceptual phase, numerous alternatives were studied to accommodate the demand for airport traffic to and from a single terminal utilizing existing interchanges and reconfigured interchanges. For this analysis, two variations were considered for an alternative that re-routes traffic to the existing Cypress Road interchange, creating a new, signed airport exit on I-70. By using the Cypress Road interchange as the entryway into the CTP it allows for an optimal one mile spacing between interstate and terminal. This was one of the primary objectives of the consolidated terminal as it maximizes operations going to and from the new consolidated terminal with less driver confusion.

As mentioned, the two studied alternatives are variations of the same alternative with Alternative 1 utilizing the existing lane configurations within the study area while Alternative 2 provides improvements on I-70 and at the Cypress Road interchange where impacts are anticipated. Both alternatives include the permanent closure of the I-70 WB entrance ramp from LIB between Cypress Road and Airflight Drive. Both alternatives also assume the same CTP curbside and parking garage. Although, it should be noted that the curbside and parking garage details have not been finalized at this time but were considered inconsequential for purposes of this analysis. The primary impact of the proposed alternatives is the redistribution of traffic from the Airflight Drive interchange to the Cypress Road interchange due to the relocation of the terminal access road and disconnection of Airflight Drive into the terminal area. Alternative 1 is studied in order to measure the impacts of the redistribution of traffic without improvements to the roadway network.

Alternative 2 includes a new continuous auxiliary lane in the westbound direction of I-70 from the Airflight Drive entrance ramp to the Cypress Road exit ramp with removal of the existing westbound I-70 on ramp from LIB. Additional changes are proposed at the MO 115 & I-70 WB

intersection to the west of Cypress Road with the addition of a second westbound left turn lane for traffic returning to the interstate. Alternative 2 is studied in order to measure the impacts of the redistribution of traffic with improvements at key locations where impacts are expected. A comparison of Alternative 1 versus Alternative 2 provides an understanding of warranted improvements that mitigate the impacts of the redistribution of traffic for the CTP. Alternative 2 roadway improvements can be seen in the Alternative 2 models and detailed drawings included in **Appendix F**.

2 Existing and Future Year No Build Traffic Operations and Safety Analysis

2.1 Background (Future No Build) Forecasting

There were two separate forecasts done for the future construction (2032) and design year (2037) mentioned in Section 1.1. The first forecast was provided from the STL Master Plan Aviation Demand Forecast Review and Proposed Interim Adjustments Technical Memo (dated September 30, 2022) and is attached in **Appendix D**. This forecast concerns origin and destination trips which only include airline passenger traffic that is from or destined for St. Louis and does not include passenger traffic that connects to other flights. As seen in **Table 1** below, a growth rate of 1.2% was determined from the STL Master Plan and this rate is applied to all movements in and out of the airport as well as movements in and out of airport facilities. The movements in and out of the airport terminal area consists of passenger pickup/dropoff, parking, passenger shuttles, employees and other terminal related traffic. The second forecast was derived from the Missouri Department of Transportation's Traffic Volume Maps and concerns all movements which do not directly serve airport facilities. Historical volumes on I-70 in and near the study area were reviewed and showed no growth over the previous 10 years as seen in **Figure 5**. Regional traffic model data was also obtained from East-West Gateway which forecasts a 0.25% annual growth rate for I-70 within the study area for 2023-2030 and a 1.5% annual growth rate after 2030 until 2045. It is our understanding that MoDOT is beginning a more detailed forecasting analysis that will be completed in early 2024. In order to balance the historic growth and regional future forecasts, it was decided to use the agreed upon 0.25% annual growth rate to forecast future volumes for non-airport movements and 1.2% for all airport related movements. **Table 1** below indicates the 10-year and 15-year compounded growth factors used for future volume projections.

Table 1: FYNB Forecast Volume Projections

Roadway	***Future Year Growth Rate***	***Future Year Growth Factors***	
		10-Year Compounded Growth	***15-Year Compounded Growth***
All Airflight Drive & Pear Tree Lane Movements, All Movements In And Out of Airport Facilities	1.2%	1.12	1.18
All Other Movements in the Study Area	0.25%	1.025	1.0375

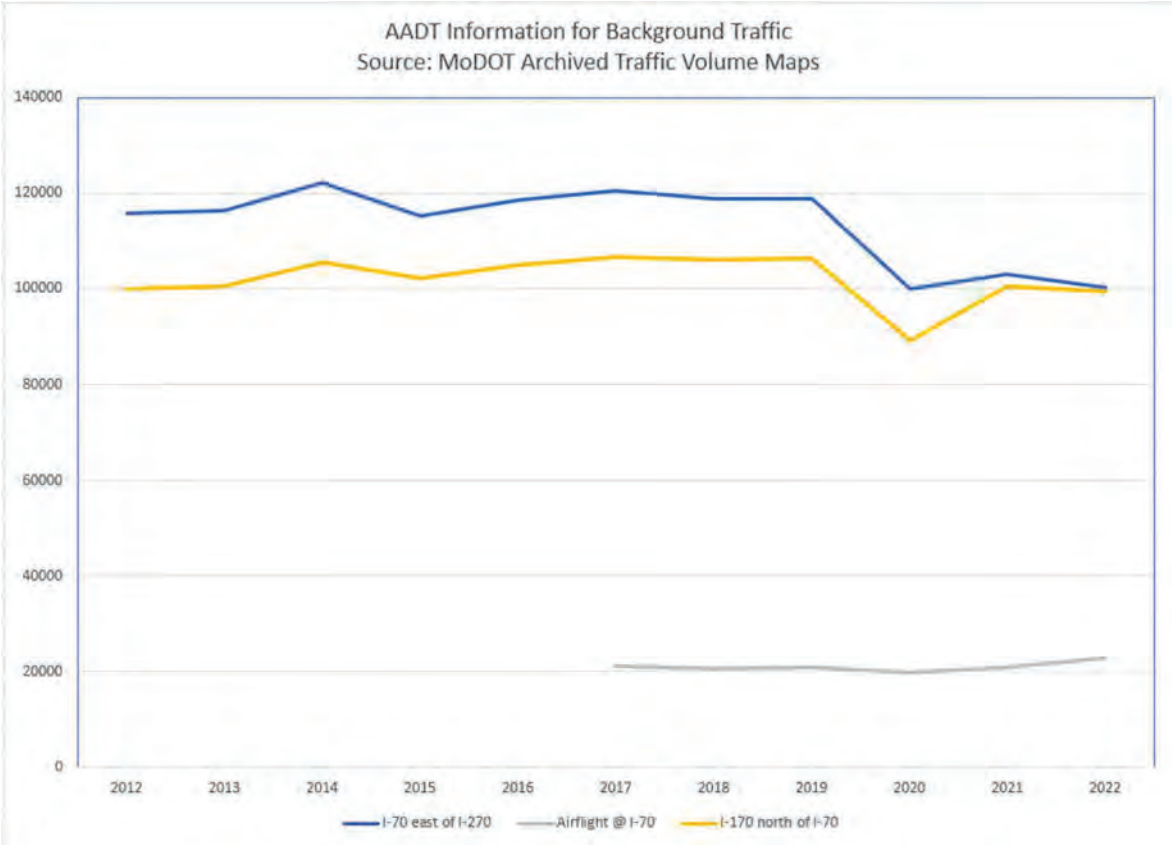

Figure 5 – I-70 Historic Growth (source: Missouri Department of Transportation's Traffic Volume Map)

2.2 Traffic Operations

Existing and future No Build conditions were modeled using VISSIM microsimulation models. Both the Existing and No Build models were developed using the existing roadway configurations with airport traffic traveling to the existing two airport terminals. Additional details regarding development and calibration of the Existing and No Build models can be seen in the Calibration Report. Mainline speeds are typically above the 60-mph speed limit and are free flow throughout the study area in the Existing and No Build models. For a comparison of the RITIS speeds to the calibrated Existing model and the methodology for applying speed distributions, refer to the Calibration Report in **Appendix B**. Comparison of the travel times from No Build and Existing models can be seen in **Table 2**, **Table 3, Table 4,** and **Table 5**. The vehicle speeds on mainline for the No Build models can be seen compared to the Existing in **Table 6** through **Table 13**. Minor fluctuations amongst the 5 minute intervals are seen due to the randomness of events which can occur resulting from vehicle decisions during free flow conditions. As seen in **Appendix E**, all mainline segments maintain a level of service C or better in the Existing and No Build models. A comparison for each of the models for all the recorded measures of effectiveness can be seen in **Appendix E**.

There were minimal changes observed when comparing the Existing (2022) and No Build construction year (2032) and design year (2037) models. All signalized intersections operate as a level of service C or better in both the AM and PM peak periods for the Existing and No Build scenarios. Although a few individual movements show an increase in delay and some changes in level of service, total intersection level of service does not change from model to model. In Existing and No Build conditions, intersections which serve the terminals tend to have at least one approach with a level of service D. Similarly, intersections around Airflight Drive have at least one approach which is a level of service D in the Existing and No Build scenarios. Existing and No Build intersection operation level of service and delay can be seen in **Table 14**. More detailed analysis of intersection operations are provided in **Appendix E**.

Table 2: 2032 AM No Build Vehicle Travel Times

AM Travel Time (I-70) - All Vehicles							
Segment ID	**Corridor**	**Section**	**EXISTING VISSIM Travel Time (min)**	**Travel Time Percent Difference***	**Travel Time Difference (min)**	**2032 No Build VISSIM Travel Time (min)**	**VISSIM Distance**
119+04295	I-70 Westbound	I170 - STL Airport	0.7	0.0%	0.0	0.7	0.7
119+04296		STL Airport - Airflight Dr	1.1	-0.2%	0.0	1.1	1.1
119+04297		Airflight Dr - LIB	0.5	-0.2%	0.0	0.5	0.5
119+04298		LIB - Cyprus Rd	0.4	-0.1%	0.0	0.4	0.4
119+04299		Cyprus Rd - US 67	0.8	-0.1%	0.0	0.8	0.8
119+04300		US 67 - MO 180	0.6	-0.1%	0.0	0.6	0.6
Total			**4.0**	**-0.1%**	**0.0**	**4.0**	**4.2**
119-04299	I-70 Eastbound	MO 180 - Us 67	1.1	-0.2%	0.0	1.1	1.2
119-04298		US 67 - Cypress Rd	0.5	0.0%	0.0	0.5	0.5
119-04297[1]		Cypress Rd - Airflight Dr	1.0	-0.2%	0.0	1.0	1.0
119-04295		Airflight Dr - MO 115	1.1	-0.2%	0.0	1.1	1.2
119-04294		MO 115 - I170	0.9	-0.1%	0.0	0.9	0.9
Total			**5.7**	**-0.2%**	**0.0**	**5.7**	**5.9**

* MoDOT Guidance 5.3.2.3.4 - Travel times should be within 15% (or 1 minute maximum) of real-world travel times for greater than 85% of cases
[1]RITIS Segments 119-04297 and 119-04296 were combined due to the short length of 119-04296

Table 3: 2032 PM No Build Vehicle Travel Times

PM Travel Time (I-70) - All Vehicles							
Segment ID	**Corridor**	**Section**	**EXISTING VISSIM Travel Time (min)**	**Travel Time Percent Difference***	**Travel Time Difference (min)**	**2032 No Build VISSIM Travel Time (min)**	**VISSIM Distance**
119+04295	I-70 Westbound	I170 - STL Airport	0.7	-0.2%	0.0	0.7	0.7
119+04296		STL Airport - Airflight Dr	1.1	-0.2%	0.0	1.1	1.1
119+04297		Airflight Dr - LIB	0.5	-0.1%	0.0	0.5	0.5
119+04298		LIB - Cyprus Rd	0.4	0.2%	0.0	0.4	0.4
119+04299		Cyprus Rd - US 67	0.8	-0.2%	0.0	0.8	0.8
119+04300		US 67 - MO 180	0.6	-0.1%	0.0	0.6	0.6
Total			**4.1**	**-0.1%**	**0.0**	**4.1**	**4.2**
119-04299	I-70 Eastbound	MO 180 - Us 67	1.1	-0.1%	0.0	1.1	1.2
119-04298		US 67 - Cypress Rd	0.5	0.1%	0.0	0.5	0.5
119-04297[1]		Cypress Rd - Airflight Dr	1.0	-0.2%	0.0	1.0	1.0
119-04295		Airflight Dr - MO 115	1.1	0.0%	0.0	1.1	1.2
119-04294		MO 115 - I170	0.9	-0.4%	0.0	0.9	0.9
Total			**5.7**	**-0.2%**	**0.0**	**5.7**	**5.9**

* MoDOT Guidance 5.3.2.3.4 - Travel times should be within 15% (or 1 minute maximum) of real-world travel times for greater than 85% of cases
[1]RITIS Segments 119-04297 and 119-04296 were combined due to the short length of 119-04296

Table 4: 2037 AM No Build Vehicle Travel Times

AM Travel Time (I-70) - All Vehicles							
Segment ID	**Corridor**	**Section**	**EXISTING VISSIM Travel Time (min)**	**Travel Time Percent Difference***	**Travel Time Difference (min)**	**2037 No Build VISSIM Travel Time (min)**	**VISSIM Distance**
119+04295	I-70 Westbound	I170 - STL Airport	0.7	-0.1%	0.0	0.7	0.7
119+04296		STL Airport - Airflight Dr	1.1	-0.2%	0.0	1.1	1.1
119+04297		Airflight Dr - LIB	0.5	-0.3%	0.0	0.5	0.5
119+04298		LIB - Cyprus Rd	0.4	0.0%	0.0	0.4	0.4
119+04299		Cyprus Rd - US 67	0.8	-0.1%	0.0	0.8	0.8
119+04300		US 67 - MO 180	0.6	-0.1%	0.0	0.6	0.6
Total			**4.0**	**-0.1%**	**0.0**	**4.0**	**4.2**
119-04299	I-70 Eastbound	MO 180 - Us 67	1.1	-0.1%	0.0	1.1	1.2
119-04298		US 67 - Cypress Rd	0.5	-0.1%	0.0	0.5	0.5
119-04297[1]		Cypress Rd - Airflight Dr	1.0	-0.3%	0.0	1.0	1.0
119-04295		Airflight Dr - MO 115	1.1	-0.3%	0.0	1.1	1.2
119-04294		MO 115 - I170	0.9	-0.3%	0.0	0.9	0.9
Total			**5.7**	**-0.2%**	**0.0**	**5.7**	**5.9**

* MoDOT Guidance 5.3.2.3.4 - Travel times should be within 15% (or 1 minute maximum) of real-world travel times for greater than 85% of cases
[1]RITIS Segments 119-04297 and 119-04296 were combined due to the short length of 119-04296

Table 5: 2037 PM No Build Vehicle Travel Times

PM Travel Time (I-70) - All Vehicles							
Segment ID	**Corridor**	**Section**	**EXISTING VISSIM Travel Time (min)**	**Travel Time Percent Difference***	**Travel Time Difference (min)**	**2037 No Build VISSIM Travel Time (min)**	**VISSIM Distance**
119+04295	I-70 Westbound	I170 - STL Airport	0.7	-0.6%	0.0	0.7	0.7
119+04296		STL Airport - Airflight Dr	1.1	-0.6%	0.0	1.1	1.1
119+04297		Airflight Dr - LIB	0.5	-0.4%	0.0	0.5	0.5
119+04298		LIB - Cyprus Rd	0.4	-1.1%	0.0	0.4	0.4
119+04299		Cyprus Rd - US 67	0.8	-0.3%	0.0	0.8	0.8
119+04300		US 67 - MO 180	0.6	-0.1%	0.0	0.6	0.6
Total			**4.1**	**-0.5%**	**0.0**	**4.1**	**4.2**
119-04299	I-70 Eastbound	MO 180 - Us 67	1.1	-0.1%	0.0	1.1	1.2
119-04298		US 67 - Cypress Rd	0.5	0.0%	0.0	0.5	0.5
119-04297[1]		Cypress Rd - Airflight Dr	1.0	-0.4%	0.0	1.0	1.0
119-04295		Airflight Dr - MO 115	1.1	-0.3%	0.0	1.1	1.2
119-04294		MO 115 - I170	0.9	-0.2%	0.0	0.9	0.9
Total			**5.7**	**-0.3%**	**0.0**	**5.7**	**5.9**

* MoDOT Guidance 5.3.2.3.4 - Travel times should be within 15% (or 1 minute maximum) of real-world travel times for greater than 85% of cases
[1]RITIS Segments 119-04297 and 119-04296 were combined due to the short length of 119-04296

Table 6: 2032 AM Westbound No Build Mainline Speeds

Existing VISSIM Westbound I-70															
Segment ID	**Corridor**	**Section**	**Length**	**8:00 AM**	**8:05 AM**	**8:10 AM**	**8:15 AM**	**8:20 AM**	**8:25 AM**	**8:30 AM**	**8:35 AM**	**8:40 AM**	**8:45 AM**	**8:50 AM**	**8:55 AM**	**AVG**
119+04295	I-70 Mainline Westbound	I170 - STL Airport	0.7	63.4	63.3	63.2	63.1	63.4	63.4	63.4	63.3	63.5	63.5	63.4	63.3	63.3
119+04296		STL Airport - Airflight Dr	1.1	62.3	62.8	62.9	62.9	62.9	62.8	62.9	62.7	63.0	62.9	62.7	62.7	62.8
119+04297		Airflight Dr - LIB	0.5	62.3	62.5	62.5	62.6	62.6	62.5	62.5	62.5	62.3	62.9	62.7	62.3	62.5
119+04298		LIB - Cyprus Rd	0.4	61.6	61.9	62.4	62.2	62.4	62.2	61.9	61.8	60.2	62.5	62.3	61.5	61.9
119+04299		Cyprus Rd - US 67	0.8	63.0	62.9	63.0	63.0	63.0	62.9	62.9	63.0	62.7	63.2	63.2	62.8	63.0
119+04300		US 67 - MO 180	0.6	63.0	62.9	63.2	63.0	63.2	63.0	63.0	63.1	62.9	63.3	63.2	63.0	63.1
2032 No Build VISSIM Westbound I-70																
Segment ID	**Corridor**	**Section**	**Length**	**8:00 AM**	**8:05 AM**	**8:10 AM**	**8:15 AM**	**8:20 AM**	**8:25 AM**	**8:30 AM**	**8:35 AM**	**8:40 AM**	**8:45 AM**	**8:50 AM**	**8:55 AM**	**AVG**
119+04295	I-70 Mainline Westbound	I170 - STL Airport	0.7	63.4	63.4	63.3	63.3	63.3	63.3	63.4	63.3	63.4	63.4	63.3	63.2	63.3
119+04296		STL Airport - Airflight Dr	1.1	62.5	62.7	62.7	62.6	62.8	62.7	62.8	62.5	62.8	62.7	62.6	62.6	62.7
119+04297		Airflight Dr - LIB	0.5	62.3	62.5	62.4	62.6	62.4	62.5	62.4	62.4	62.6	62.4	62.3	62.3	62.4
119+04298		LIB - Cyprus Rd	0.4	61.9	61.4	61.5	61.7	61.9	62.1	62.4	62.0	61.4	61.6	61.9	62.0	61.8
119+04299		Cyprus Rd - US 67	0.8	62.9	62.6	63.0	62.8	62.9	62.9	62.9	62.9	62.9	62.8	63.0	62.9	62.9
119+04300		US 67 - MO 180	0.6	63.1	63.0	63.1	62.7	63.0	63.1	63.0	63.0	63.0	63.2	63.1	63.1	63.0

Table 7: 2032 AM Eastbound No Build Mainline Speeds

Existing VISSIM - Eastbound I-70															
Segment ID	**Corridor**	**Section**	**Length**	**8:00 AM**	**8:05 AM**	**8:10 AM**	**8:15 AM**	**8:20 AM**	**8:25 AM**	**8:30 AM**	**8:35 AM**	**8:40 AM**	**8:45 AM**	**8:50 AM**	**8:55 AM**	**AVG**
119-04299	I-70 Mainline Eastbound	MO 180 - Us 67	1.2	62.4	62.3	62.5	62.4	62.5	62.4	62.4	62.1	62.4	62.5	62.6	62.0	62.4
119-04298		US 67 - Cypress Rd	0.5	61.9	61.5	61.9	61.8	61.9	61.8	61.7	61.9	61.9	62.1	62.2	61.5	61.8
119-04297[1]		Cypress Rd - Airflight Dr	1.0	62.3	61.9	61.8	62.3	62.4	62.1	61.8	61.9	61.6	62.5	62.4	62.2	62.1
119-04295		Airflight Dr - MO 115	1.2	61.9	61.8	61.9	61.9	61.7	61.9	61.7	61.6	61.8	61.9	61.8	62.0	61.8
119-04294		MO 115 - I170	0.9	62.9	63.0	63.2	63.0	62.9	62.8	62.9	63.0	62.8	62.8	63.0	63.2	63.0
2032 No Build VISSIM - Eastbound I-70																
Segment ID	**Corridor**	**Section**	**Length**	**8:00 AM**	**8:05 AM**	**8:10 AM**	**8:15 AM**	**8:20 AM**	**8:25 AM**	**8:30 AM**	**8:35 AM**	**8:40 AM**	**8:45 AM**	**8:50 AM**	**8:55 AM**	**AVG**
119-04299	I-70 Mainline Eastbound	MO 180 - Us 67	1.2	62.1	62.2	62.0	62.4	62.5	62.2	62.3	61.9	62.2	62.3	62.6	62.1	62.2
119-04298		US 67 - Cypress Rd	0.5	61.9	62.0	61.8	61.2	61.9	61.8	61.9	61.6	61.9	62.1	62.1	61.8	61.8
119-04297[1]		Cypress Rd - Airflight Dr	1.0	62.1	61.4	61.7	61.9	62.2	62.2	62.0	61.8	62.1	62.1	62.2	61.8	62.0
119-04295		Airflight Dr - MO 115	1.2	61.9	61.6	61.8	61.5	61.8	61.8	61.4	61.7	61.3	61.8	61.9	61.8	61.7
119-04294		MO 115 - I170	0.9	63.1	62.9	62.5	63.0	63.0	62.7	62.7	62.9	62.7	63.1	63.0	63.0	62.9

Table 8: 2032 PM Westbound No Build Mainline Speeds

Existing VISSIM Westbound I-70															
Segment ID	**Corridor**	**Section**	**Length**	**4:30 PM**	**4:35 PM**	**4:40 PM**	**4:45 PM**	**4:50 PM**	**4:55 PM**	**5:00 PM**	**5:05 PM**	**5:10 PM**	**5:15 PM**	**5:20 PM**	**5:25 PM**	**AVG**
119+04295	I-70 Mainline Westbound	I170 - STL Airport	0.7	63.2	63.3	63.4	62.7	62.5	62.8	63.3	63.3	63.5	63.0	62.7	62.6	63.0
119+04296		STL Airport - Airflight Dr	1.1	62.2	62.6	62.9	62.2	61.5	61.3	62.0	62.5	62.6	61.9	61.6	61.0	62.0
119+04297		Airflight Dr - LIB	0.5	61.9	62.4	62.4	62.1	61.4	60.8	61.3	61.9	62.5	61.9	61.0	60.8	61.7
119+04298		LIB - Cyprus Rd	0.4	61.3	61.9	61.8	61.1	60.4	58.0	59.3	61.2	61.9	61.5	59.9	56.3	60.4
119+04299		Cyprus Rd - US 67	0.8	62.0	62.7	62.6	62.4	61.7	61.4	62.0	62.5	62.7	62.6	61.7	61.5	62.2
119+04300		US 67 - MO 180	0.6	62.3	62.9	62.6	62.6	62.2	62.0	61.5	62.6	62.9	62.9	62.1	62.1	62.4
2032 No Build VISSIM Westbound I-70																
Segment ID	**Corridor**	**Section**	**Length**	**4:30 PM**	**4:35 PM**	**4:40 PM**	**4:45 PM**	**4:50 PM**	**4:55 PM**	**5:00 PM**	**5:05 PM**	**5:10 PM**	**5:15 PM**	**5:20 PM**	**5:25 PM**	**AVG**
119+04295	I-70 Mainline Westbound	I170 - STL Airport	0.7	63.0	63.3	63.4	62.9	61.8	62.7	62.8	63.3	63.3	62.9	62.2	62.8	62.9
119+04296		STL Airport - Airflight Dr	1.1	62.3	62.6	62.7	61.9	61.1	61.2	61.7	62.4	62.5	62.1	61.3	61.4	61.9
119+04297		Airflight Dr - LIB	0.5	62.0	62.0	62.3	61.9	60.9	60.8	61.0	62.2	62.4	61.8	61.2	60.6	61.6
119+04298		LIB - Cyprus Rd	0.4	61.1	61.2	61.9	61.2	60.0	60.2	59.5	61.8	61.6	60.1	58.7	58.5	60.5
119+04299		Cyprus Rd - US 67	0.8	62.1	62.4	62.7	62.5	61.7	61.8	62.0	62.5	62.7	62.0	61.4	60.5	62.0
119+04300		US 67 - MO 180	0.6	62.5	62.6	62.8	62.6	62.2	62.0	62.1	62.7	62.7	62.7	62.0	61.5	62.4

Table 9: 2032 PM Eastbound No Build Mainline Speeds

Existing VISSIM - Eastbound I-70															
Segment ID	**Corridor**	**Section**	**Length**	**4:30 PM**	**4:35 PM**	**4:40 PM**	**4:45 PM**	**4:50 PM**	**4:55 PM**	**5:00 PM**	**5:05 PM**	**5:10 PM**	**5:15 PM**	**5:20 PM**	**5:25 PM**	**AVG**
119-04299	I-70 Mainline Eastbound	MO 180 - Us 67	1.2	62.6	62.7	62.5	61.9	62.0	62.2	62.4	62.7	62.7	62.1	61.4	62.0	62.3
119-04298		US 67 - Cypress Rd	0.5	62.0	62.0	62.0	61.6	61.6	61.6	61.9	62.2	62.2	60.3	61.1	61.4	61.7
119-04297[1]		Cypress Rd - Airflight Dr	1.0	62.5	62.5	62.5	62.2	61.7	61.6	62.0	62.5	62.6	62.4	61.5	61.2	62.1
119-04295		Airflight Dr - MO 115	1.2	62.0	62.0	61.4	61.4	61.1	61.2	61.6	62.1	62.2	61.8	61.5	61.4	61.6
119-04294		MO 115 - I170	0.9	63.0	62.9	62.9	62.7	62.5	62.5	62.5	63.2	63.1	63.0	62.7	62.6	62.8
2032 No Build VISSIM - Eastbound I-70																
Segment ID	**Corridor**	**Section**	**Length**	**4:30 PM**	**4:35 PM**	**4:40 PM**	**4:45 PM**	**4:50 PM**	**4:55 PM**	**5:00 PM**	**5:05 PM**	**5:10 PM**	**5:15 PM**	**5:20 PM**	**5:25 PM**	**AVG**
119-04299	I-70 Mainline Eastbound	MO 180 - Us 67	1.2	62.4	62.8	62.2	62.0	62.0	61.7	62.3	62.6	62.5	61.9	61.9	62.1	62.2
119-04298		US 67 - Cypress Rd	0.5	61.8	62.1	62.0	61.6	61.3	61.3	61.8	62.2	62.2	61.5	61.6	61.3	61.7
119-04297[1]		Cypress Rd - Airflight Dr	1.0	62.1	62.4	62.5	61.8	61.9	60.8	61.8	62.4	62.5	62.0	61.6	61.5	61.9
119-04295		Airflight Dr - MO 115	1.2	61.7	62.2	62.2	61.7	61.2	61.0	61.4	61.9	62.1	61.8	61.2	61.1	61.6
119-04294		MO 115 - I170	0.9	62.5	62.9	63.0	63.0	62.0	61.9	61.9	62.7	63.1	63.1	62.4	61.9	62.6

Table 10: 2037 AM Westbound No Build Mainline Speeds

Existing VISSIM Westbound I-70															
Segment ID	**Corridor**	**Section**	**Length**	**8:00 AM**	**8:05 AM**	**8:10 AM**	**8:15 AM**	**8:20 AM**	**8:25 AM**	**8:30 AM**	**8:35 AM**	**8:40 AM**	**8:45 AM**	**8:50 AM**	**8:55 AM**	**AVG**
119+04295	I-70 Mainline Westbound	I170 - STL Airport	0.7	63.4	63.3	63.2	63.1	63.4	63.4	63.4	63.3	63.5	63.5	63.4	63.3	63.3
119+04296		STL Airport - Airflight Dr	1.1	62.3	62.8	62.9	62.9	62.9	62.8	62.9	62.7	63.0	62.9	62.7	62.7	62.8
119+04297		Airflight Dr - LIB	0.5	62.3	62.5	62.5	62.6	62.6	62.5	62.5	62.5	62.3	62.9	62.7	62.3	62.5
119+04298		LIB - Cyprus Rd	0.4	61.6	61.9	62.4	62.2	62.4	62.2	61.9	61.8	60.2	62.5	62.3	61.5	61.9
119+04299		Cyprus Rd - US 67	0.8	63.0	62.9	63.0	63.0	63.0	62.9	62.9	63.0	62.7	63.2	63.2	62.8	63.0
119+04300		US 67 - MO 180	0.6	63.0	62.9	63.2	63.0	63.2	63.0	63.0	63.1	62.9	63.3	63.2	63.0	63.1
2037 No Build VISSIM Westbound I-70																
Segment ID	**Corridor**	**Section**	**Length**	**8:00 AM**	**8:05 AM**	**8:10 AM**	**8:15 AM**	**8:20 AM**	**8:25 AM**	**8:30 AM**	**8:35 AM**	**8:40 AM**	**8:45 AM**	**8:50 AM**	**8:55 AM**	**AVG**
119+04295	I-70 Mainline Westbound	I170 - STL Airport	0.7	63.2	63.4	63.2	63.1	63.2	63.3	63.3	63.4	63.5	63.2	63.3	63.4	63.3
119+04296		STL Airport - Airflight Dr	1.1	62.6	62.7	62.7	62.8	62.6	62.7	62.5	62.7	62.9	62.7	62.8	62.6	62.7
119+04297		Airflight Dr - LIB	0.5	62.3	62.5	62.4	62.4	62.2	62.3	62.1	62.4	62.4	62.3	62.3	62.2	62.3
119+04298		LIB - Cyprus Rd	0.4	61.9	62.1	62.1	61.9	62.0	61.9	62.0	61.9	62.1	61.5	62.0	61.5	61.9
119+04299		Cyprus Rd - US 67	0.8	62.9	62.8	63.0	62.9	62.9	63.0	62.8	62.9	63.1	62.9	63.0	62.6	62.9
119+04300		US 67 - MO 180	0.6	63.0	63.0	63.1	63.1	63.0	63.2	62.9	63.1	63.1	62.9	63.1	63.0	63.0

Table 11: 2037 AM Eastbound No Build Mainline Speeds

Existing VISSIM - Eastbound I-70															
Segment ID	**Corridor**	**Section**	**Length**	**8:00 AM**	**8:05 AM**	**8:10 AM**	**8:15 AM**	**8:20 AM**	**8:25 AM**	**8:30 AM**	**8:35 AM**	**8:40 AM**	**8:45 AM**	**8:50 AM**	**8:55 AM**	**AVG**
119-04299	I-70 Mainline Eastbound	MO 180 - Us 67	1.2	62.4	62.3	62.5	62.4	62.5	62.4	62.4	62.1	62.4	62.5	62.6	62.0	62.4
119-04298		US 67 - Cypress Rd	0.5	61.9	61.5	61.9	61.8	61.9	61.8	61.7	61.9	61.9	62.1	62.2	61.5	61.8
119-04297[1]		Cypress Rd - Airflight Dr	1.0	62.3	61.9	61.8	62.3	62.4	62.1	61.8	61.9	61.6	62.5	62.4	62.2	62.1
119-04295		Airflight Dr - MO 115	1.2	61.9	61.8	61.9	61.9	61.7	61.9	61.7	61.6	61.8	61.9	61.8	62.0	61.8
119-04294		MO 115 - I170	0.9	62.9	63.0	63.2	63.0	62.9	62.8	62.9	63.0	62.8	62.8	63.0	63.2	63.0
2037 No Build VISSIM - Eastbound I-70																
Segment ID	**Corridor**	**Section**	**Length**	**8:00 AM**	**8:05 AM**	**8:10 AM**	**8:15 AM**	**8:20 AM**	**8:25 AM**	**8:30 AM**	**8:35 AM**	**8:40 AM**	**8:45 AM**	**8:50 AM**	**8:55 AM**	**AVG**
119-04299	I-70 Mainline Eastbound	MO 180 - Us 67	1.2	62.2	62.3	62.4	62.2	62.5	62.0	62.5	62.2	62.4	62.3	62.5	62.2	62.3
119-04298		US 67 - Cypress Rd	0.5	61.8	61.9	62.0	61.5	61.8	61.8	60.9	61.9	62.0	62.0	62.0	61.7	61.8
119-04297[1]		Cypress Rd - Airflight Dr	1.0	62.2	62.4	62.6	62.7	62.3	62.0	61.7	62.3	62.2	62.5	62.6	62.3	62.3
119-04295		Airflight Dr - MO 115	1.2	61.9	61.6	61.5	61.7	61.4	61.8	61.5	61.6	61.7	61.8	61.8	61.7	61.7
119-04294		MO 115 - I170	0.9	63.0	62.9	62.8	62.8	62.5	62.7	62.8	62.7	62.8	62.9	63.0	62.7	62.8

Table 12: 2037 PM Westbound No Build Mainline Speeds

Existing VISSIM Westbound I-70															
Segment ID	**Corridor**	**Section**	**Length**	**4:30 PM**	**4:35 PM**	**4:40 PM**	**4:45 PM**	**4:50 PM**	**4:55 PM**	**5:00 PM**	**5:05 PM**	**5:10 PM**	**5:15 PM**	**5:20 PM**	**5:25 PM**	**AVG**
119+04295	I-70 Mainline Westbound	I170 - STL Airport	0.7	63.2	63.3	63.4	62.7	62.5	62.8	63.3	63.3	63.5	63.0	62.7	62.6	63.0
119+04296		STL Airport - Airflight Dr	1.1	62.2	62.6	62.9	62.2	61.5	61.3	62.0	62.5	62.6	61.9	61.6	61.0	62.0
119+04297		Airflight Dr - LIB	0.5	61.9	62.4	62.4	62.1	61.4	60.8	61.3	61.9	62.5	61.9	61.0	60.8	61.7
119+04298		LIB - Cyprus Rd	0.4	61.3	61.9	61.8	61.1	60.4	58.0	59.3	61.2	61.9	61.5	59.9	56.3	60.4
119+04299		Cyprus Rd - US 67	0.8	62.0	62.7	62.6	62.4	61.7	61.4	62.0	62.5	62.7	62.6	61.7	61.5	62.2
119+04300		US 67 - MO 180	0.6	62.3	62.9	62.6	62.6	62.2	62.0	61.5	62.6	62.9	62.9	62.1	62.1	62.4
2037 No Build VISSIM Westbound I-70																
Segment ID	**Corridor**	**Section**	**Length**	**4:30 PM**	**4:35 PM**	**4:40 PM**	**4:45 PM**	**4:50 PM**	**4:55 PM**	**5:00 PM**	**5:05 PM**	**5:10 PM**	**5:15 PM**	**5:20 PM**	**5:25 PM**	**AVG**
119+04295	I-70 Mainline Westbound	I170 - STL Airport	0.7	63.0	63.4	63.3	61.4	62.4	62.2	62.8	63.2	63.3	62.2	62.7	61.9	62.7
119+04296		STL Airport - Airflight Dr	1.1	62.0	62.6	62.6	61.9	60.6	61.3	61.5	62.5	62.5	61.2	59.9	61.4	61.7
119+04297		Airflight Dr - LIB	0.5	61.7	62.0	62.3	61.8	60.9	61.0	60.9	62.2	62.4	61.8	59.9	60.9	61.5
119+04298		LIB - Cyprus Rd	0.4	61.2	61.4	61.1	58.8	57.9	58.2	56.2	61.1	62.1	60.6	59.5	58.7	59.7
119+04299		Cyprus Rd - US 67	0.8	62.1	62.6	62.8	62.1	61.6	61.4	60.4	62.5	63.0	62.4	61.5	61.4	62.0
119+04300		US 67 - MO 180	0.6	62.4	62.7	62.9	62.7	62.1	61.4	62.0	62.6	63.0	62.6	61.9	61.7	62.3

Table 13: 2037 PM Eastbound No Build Mainline Speeds

Existing VISSIM - Eastbound I-70															
Segment ID	**Corridor**	**Section**	**Length**	**4:30 PM**	**4:35 PM**	**4:40 PM**	**4:45 PM**	**4:50 PM**	**4:55 PM**	**5:00 PM**	**5:05 PM**	**5:10 PM**	**5:15 PM**	**5:20 PM**	**5:25 PM**	**AVG**
119-04299	I-70 Mainline Eastbound	MO 180 - Us 67	1.2	62.6	62.7	62.5	61.9	62.0	62.2	62.4	62.7	62.7	62.1	61.4	62.0	62.3
119-04298		US 67 - Cypress Rd	0.5	62.0	62.0	62.0	61.6	61.6	61.6	61.9	62.2	62.2	60.3	61.1	61.4	61.7
119-04297[1]		Cypress Rd - Airflight Dr	1.0	62.5	62.5	62.5	62.2	61.7	61.6	62.0	62.5	62.6	62.4	61.5	61.2	62.1
119-04295		Airflight Dr - MO 115	1.2	62.0	62.0	61.4	61.4	61.1	61.2	61.6	62.1	62.2	61.8	61.5	61.4	61.6
119-04294		MO 115 - I170	0.9	63.0	62.9	62.9	62.7	62.5	62.5	62.5	63.2	63.1	63.0	62.7	62.6	62.8
2037 No Build VISSIM - Eastbound I-70																
Segment ID	**Corridor**	**Section**	**Length**	**4:30 PM**	**4:35 PM**	**4:40 PM**	**4:45 PM**	**4:50 PM**	**4:55 PM**	**5:00 PM**	**5:05 PM**	**5:10 PM**	**5:15 PM**	**5:20 PM**	**5:25 PM**	**AVG**
119-04299	I-70 Mainline Eastbound	MO 180 - Us 67	1.2	62.3	62.8	62.2	62.0	62.0	62.0	62.3	62.6	62.7	62.0	61.6	61.7	62.2
119-04298		US 67 - Cypress Rd	0.5	61.6	62.1	62.0	61.5	61.6	61.2	61.8	62.1	62.2	61.5	61.4	61.2	61.7
119-04297[1]		Cypress Rd - Airflight Dr	1.0	62.4	62.9	63.0	62.3	61.7	61.8	62.3	62.7	62.8	62.3	61.3	61.2	62.2
119-04295		Airflight Dr - MO 115	1.2	61.8	62.1	62.0	61.5	60.5	60.8	61.6	61.9	62.1	61.6	61.1	60.9	61.5
119-04294		MO 115 - I170	0.9	62.8	63.2	63.2	62.9	62.7	61.9	62.6	63.0	62.8	62.8	62.1	62.2	62.7

Table 14: Existing and No Build Intersection Operation Results AM(PM)

Intersection	Existing				2032 No Build				2037 No Build			
	LOS		Delay		LOS		Delay		LOS		Delay	
Natural Bridge Rd @ Lot D*	A	(A)	5.5	(6.1)	A	(A)	5.4	(6.3)	A	(A)	5.5	(6.3)
I-70 WB @ Natural Bridge Rd	A	(A)	7.8	(8.9)	A	(A)	7.9	(9.4)	A	(A)	8.0	(9.4)
Cypress Rd & Natural Bridge Rd	A	(A)	4.8	(5.5)	A	(A)	4.6	(5.9)	A	(A)	4.7	(6.1)
I-70 EB @ Cypress Rd	A	(A)	6.2	(9.4)	A	(A)	6.5	(9.8)	A	(A)	6.9	(9.8)
LIB @ T1 Cell Phone Lot*	A	(A)	0.8	(0.9)	A	(A)	0.8	(0.9)	A	(A)	0.7	(0.8)
I-70 WB @ LIB (E of Cypress)	A	(A)	1.6	(3.1)	A	(A)	1.8	(3.1)	A	(A)	1.5	(3.1)
LIB @ Lot B*	A	(A)	1.1	(1.1)	A	(A)	1.1	(1.1)	A	(A)	1.2	(1.1)
LIB @ Lambert Field Dr	A	(A)	3.5	(4.6)	A	(A)	3.8	(5.4)	A	(A)	4.0	(5.4)
Air Cargo Rd @ Terminal 2 Entrance	A	(A)	6.4	(8.6)	A	(A)	6.7	(8.8)	A	(A)	6.9	(8.6)
LIB @ Terminal 1 Exit	C	(C)	29.5	(29.4)	C	(C)	29.8	(29.7)	C	(C)	30.1	(30.1)
I-70 WB @ Airlfight Dr	B	(B)	13.4	(17.4)	B	(B)	13.9	(17.9)	B	(B)	14.2	(18.2)
I-70 EB @ Pear Tree Ln	B	(B)	16.5	(19.2)	B	(B)	16.8	(19.3)	B	(B)	16.9	(19.8)
Airflight Dr @ Pear Tree Ln	B	(C)	16.8	(20.8)	B	(C)	17.8	(22.2)	B	(C)	18.2	(22.6)
Pear Tree Ln @ Edmunson Rd	A	(A)	9.8	(9.6)	B	(B)	10.2	(10.1)	B	(B)	10.3	(10.1)
LIB @ Terminal 2 Exit	B	(B)	18.0	(15.6)	B	(B)	18.2	(15.6)	B	(B)	18.5	(15.7)
LIB @ Terminal 2 Parking *	E	(E)	44.5	(37.5)	E	(E)	41.1	(36.3)	E	(E)	40.3	(36.6)
LIB @ Terminal 2 Entrance	C	(B)	20.8	(16.1)	C	(B)	23.9	(17.4)	C	(B)	23.9	(17.9)
Air Cargo Rd @ Lot E*	A	(A)	1.4	(1.7)	A	(A)	1.4	(1.6)	A	(A)	1.4	(1.8)
Air Cargo Rd @ James S McDonnell*	A	(A)	6.5	(6.4)	A	(A)	5.9	(5.9)	A	(A)	6.0	(6.2)
I-70 SOR @ Natural Bridge Rd	B	(B)	13.1	(15.4)	B	(B)	13.4	(15.7)	B	(B)	13.4	(15.8)

*Stop controlled intersection level of service follows methodlogies described in Chapter 20 & Chapter 21 of the 6th Edition HCM

Red intersections are owned by the Missouri Department of Transportation

2.3 Safety

The Highway Safety Manual (HSM) was used to analyze road safety of Existing and No Build conditions along I-70. The HSM introduces a science-based technical approach to incorporating safety into traditional roadway planning and safety analyses. The first edition of the HSM (2010) provides information and tools to facilitate roadway planning, design, operations, and maintenance decisions based on precise consideration of their safety consequences. The primary focus of the HSM is the introduction and development of analytical tools for predicting the impact of transportation projects and program decisions on road safety.

There are spreadsheets available for the rural roadways and urban arterial segments and intersections, and for freeway segments and interchange elements. The Enhanced Interchange Safety Analysis Tool (ISATe) is for freeway segments and speed-change lanes (HSM Chapter 18), ramps, and ramp terminals (HSM Chapter 19). For this analysis, it was agreed upon that ramp terminals would not be included. ISATe was utilized to analyze the safety of the Existing, No Build, and Alternative conditions along Interstate 70 freeway segments and ramps. The empirical-bayes method was used to predict the number of annual crashes in each of the modeled conditions. The empirical-bayes method combines the estimate from a predictive model with observed crash data to obtain a more reliable estimate of the predicted crash frequency.

This section compares the existing safety conditions to the estimated safety conditions at the construction year (2032) and design year (2037) No Build models, which assume no changes to the existing roadway. A summary of the ISATe results are provided in **Table 15**. Overall, I-70 is estimated to experience an increase of 4.90 annual crashes in the next 15 years if no roadway changes are implemented. The complete output from the ISATe spreadsheets can be seen in **Appendix G**.

Table 15: No-Build ISATe Results Summary

Estimated Annual Crashes		***2022 Existing***	***2032 No Build***	***2037 No Build***	***15 year change***
Freeway	*PDO*	75.08	77.07	78.09	+3.01
	Fatal/Injury	25.73	26.54	26.61	+0.88
Ramps	*PDO*	9.42	9.86	10.09	+0.67
	Fatal/Injury	6.01	6.24	6.35	+0.34
	Fatal/Injury Total	**31.74**	**32.78**	**32.96**	**+1.22**
	Total	**116.24**	**119.70**	**121.13**	**+4.90**

3 Design Alternatives Traffic Operations and Safety Analysis

3.1 Future Build Forecasting

Growth seen in the future Build forecasting was done in the same manner as the future construction year (2032) and design year (2035) No Build models as described in section 2.1. The same number of vehicles entering into and exiting the model can be observed in the similarly modeled scenarios for Build and No Build (i.e.,2032 AM No Build and 2032 AM Build). The difference in volumes observed within the model for mainline and arterial segments are a result of the redistribution of traffic which a new consolidated terminal would generate and can be seen in **Appendix H**. MoDOT owned and operated ramp terminal intersections were studied and the results for these intersections can be seen in section 3.2.

Currently the Airflight Drive interchange is signed as the STL Airport exit (Exit 236) for traffic traveling on eastbound I-70. For traffic traveling on westbound I-70, there are two exits signed for the STL Airport. The first exit (Exit 238A) brings traffic onto LIB near Terminal 2 and the second exit (Exit 236) at Airflight Drive provides access to LIB near Terminal 1. With the proposed alternatives, the Cypress Rd Interchange (Exit 235C) would be signed for the STL Airport for eastbound and westbound I-70. Exit 236 would remain open however Airflight Drive would no longer have northbound access to the CTP. The redistribution of traffic follows these changes and shifts airport related traffic from Airflight Drive to Cypress Road. Exit 238A and the corresponding I-70 entrance ramp would also remain open but would not be signed for STL Airport traffic. However, it is assumed that local and experienced traffic would continue to utilize these ramps to access the CTP. For the redistribution it was conservatively assumed that 50% of AM peak hour traffic and 60% of PM peak hour traffic would remain on this route while the remainder would be shifted to Cypress Road.

In addition to the redistribution of existing travel patterns, the new CTP garage is expected to increase the amount of on-airport parking. Details of the new garage have not been finalized at this time of planning, but it is expected to provide more spaces than the current on-airport parking lots provide to meet current and future demand. On-airport occupancy of parking spaces is 94% during peak times and passenger surveys conducted during the Master Plan established that parking directly in front of the terminal is a high priority. To recognize meeting this demand for close-in parking, it is anticipated that the new CTP garage will result in a shift of parking from off-airport to on airport parking. For purposes of this report and a conservative approach to the traffic model, it is assumed that there will be a 20% shift in traffic related to parking. The exact amount will be dependent on other variables besides the number of available spaces which include the competition of pricing and its convenience as well as the degree to which future passengers use public transportation or ride share apps. Parking and its impacts to traffic are dynamic and will fluctuate over time.

Changes in traffic from the No-Build and Build models due to the terminal consolidation can be seen below in **Figure 5** and **Figure 6**. These two figures depict the change in ramp volume from the No Build to the Build future models for both peak periods. Any volume taken from a ramp is seen added to mainline and any volume added to a ramp is removed from mainline. Detailed analysis of the volumes as well as the difference in volumes found in the Build models can be seen in the exhibits provided in **Appendix C** and **Appendix H**.

3.2 Traffic Operations

The minimum levels of service and mobility targets as defined in the Traffic Methods and Assumptions Report (attached as **Appendix A**) states that all signalized intersections must maintain a level of service of D or better. In cases where existing level of service is already worse than D, that level of service must be maintained through future conditions.

Intersection level of service and delay results for the 2032 and 2037 Build conditions can be seen compared to the No Build conditions in **Table 16** and **Table 17** below. As seen in these tables, intersection LOS for both alternatives meet the required criteria set in the Traffic Methods and Assumptions Report. Detailed results of the node evaluations collected from all models can be seen in **Appendix E**.

At the I-70 Westbound and Natural Bridge Road exit the westbound left turn serves 333 vph during the AM peak hour and 570 vph during the PM peak hour. Alternative 2 provides a second turn lane for this movement operating as a protected only left turn while Alternative 1 utilizes the existing configuration with a protected-permissive left turn. According to MoDOT's EPG section 233.4.2, when the peak hour left-turning traffic exceeds 300 vph, dual left-turn lanes are to be considered. Due to the projected high peak hour left turn volumes, an additional westbound left turn lane is warranted to accommodate the new influx of vehicles coming from the consolidated terminal as provided in Alternative 2.

Table 16: 2032 Build & No Build Intersection Operation Results

Intersection	2032 No Build				2032 Alt 1				2032 Alt 2			
	LOS		Delay		LOS		Delay		LOS		Delay	
Natural Bridge Rd @ Lot D*	A	(A)	5.4	(6.3)	A	(A)	5.4	(6.9)	A	(A)	5.4	(6.9)
I-70 WB @ Natural Bridge Rd	A	(A)	7.9	(9.4)	B	(C)	11.4	(24.4)	B	(C)	18.6	(24.1)
Cypress Rd & Natural Bridge Rd	A	(A)	4.6	(5.9)	B	(B)	12.6	(14.5)	B	(B)	12.0	(12.8)
I-70 EB @ Cypress Rd	A	(A)	6.5	(9.8)	B	(B)	11.5	(14.1)	B	(B)	11.7	(14)
LIB @ T1 Cell Phone Lot*	A	(A)	0.8	(0.9)	A	(A)	3.5	(3.9)	A	(A)	3.0	(4.2)
I-70 WB @ LIB (E of Cypress)	A	(A)	1.8	(3.1)	A	(A)	0.7	(1.6)	A	(A)	0.8	(1.6)
LIB @ Lot B*	A	(A)	1.1	(1.1)	A	(A)	0.8	(2.8)	A	(A)	0.8	(2.8)
LIB @ Lambert Field Dr	A	(A)	3.8	(5.4)	N/A	(N/A)	N/A	(N/A)	N/A	(N/A)	N/A	(N/A)
Air Cargo Rd @ Terminal 2 Entrance	A	(A)	6.7	(8.8)	C	(C)	22.6	(21.8)	C	(C)	22.2	(21.8)
LIB @ Terminal 1 Exit	C	(C)	29.8	(29.7)	N/A	(N/A)	N/A	(N/A)	N/A	(N/A)	N/A	(N/A)
I-70 WB @ Airlfight Dr	B	(B)	13.9	(17.9)	B	(C)	17.4	(20.7)	B	(C)	17.1	(21.2)
I-70 EB @ Pear Tree Ln	B	(B)	16.8	(19.3)	B	(C)	17.9	(21.8)	B	(C)	18.0	(21.7)
Airflight Dr @ Pear Tree Ln	B	(C)	17.8	(22.2)	B	(C)	15.1	(22.1)	B	(C)	15.2	(22.6)
Pear Tree Ln @ Edmunson Rd	B	(B)	10.2	(10.1)	B	(B)	11.5	(11.8)	B	(B)	11.4	(11.8)
LIB @ Terminal 2 Exit	B	(B)	18.2	(15.6)	A	(A)	1.8	(3.1)	A	(A)	1.7	(3.2)
LIB @ Terminal 2 Parking *	E	(E)	41.1	(36.3)	D	(D)	41.7	(36.2)	D	(D)	41.7	(36.7)
LIB @ Terminal 2 Entrance	C	(B)	23.9	(17.4)	B	(B)	12.4	(14.7)	B	(B)	12.9	(14.6)
Air Cargo Rd @ Lot E*	A	(A)	1.4	(1.6)	A	(A)	0.4	(0.6)	A	(A)	0.4	(0.6)
Air Cargo Rd @ James S McDonnell*	A	(A)	5.9	(5.9)	A	(A)	0.3	(0.4)	A	(A)	7.7	(0.4)
I-70 SOR @ Natural Bridge Rd	B	(B)	13.4	(15.7)	B	(B)	13.5	(15.9)	B	(B)	13.2	(15.9)

*Stop controlled intersection level of service follows methodlogies described in Chapter 20 & Chapter 21 of the 6th Edition HCM

Red intersections are owned by the Missouri Department of Transportation

Table 17: 2037 Build & No Build Intersection Operation Results

Intersection	2037 No Build				2037 Alt 1				2037 Alt 2			
	LOS		Delay		LOS		Delay		LOS		Delay	
Natural Bridge Rd @ Lot D*	A	(A)	5.5	(6.3)	A	(A)	5.5	(6.9)	A	(A)	5.5	(6.8)
I-70 WB @ Natural Bridge Rd	A	(A)	8.0	(9.4)	B	(C)	14.0	(25.2)	B	(C)	14.0	(25.2)
Cypress Rd & Natural Bridge Rd	A	(A)	4.7	(6.1)	B	(B)	12.7	(16.6)	B	(B)	10.8	(14)
I-70 EB @ Cypress Rd	A	(A)	6.9	(9.8)	B	(B)	11.2	(14.4)	A	(B)	8.6	(14.4)
LIB @ T1 Cell Phone Lot*	A	(A)	0.7	(0.8)	A	(A)	2.8	(3.3)	A	(A)	2.7	(3.6)
I-70 WB @ LIB (E of Cypress)	A	(A)	1.5	(3.1)	A	(A)	1.0	(1.9)	A	(A)	1.3	(2)
LIB @ Lot B*	A	(A)	1.2	(1.1)	A	(A)	0.8	(3)	A	(A)	0.7	(3.4)
LIB @ Lambert Field Dr	A	(A)	4.0	(5.4)	N/A	(N/A)	N/A	(N/A)	N/A	(N/A)	N/A	(N/A)
Air Cargo Rd @ Terminal 2 Entrance	A	(A)	6.9	(8.6)	C	(C)	22.7	(20.9)	C	(C)	22.8	(20.7)
LIB @ Terminal 1 Exit	C	(C)	30.1	(30.1)	N/A	(N/A)	N/A	(N/A)	N/A	(N/A)	N/A	(N/A)
I-70 WB @ Airlfight Dr	B	(B)	14.2	(18.2)	B	(C)	18.6	(23.5)	B	(C)	18.9	(24.3)
I-70 EB @ Pear Tree Ln	B	(B)	16.9	(19.8)	B	(C)	17.9	(21.4)	B	(C)	17.8	(21.4)
Airflight Dr @ Pear Tree Ln	B	(C)	18.2	(22.6)	B	(C)	16.0	(21.8)	B	(C)	15.8	(21.9)
Pear Tree Ln @ Edmunson Rd	B	(B)	10.3	(10.1)	B	(B)	11.5	(12.1)	B	(B)	11.4	(12.2)
LIB @ Terminal 2 Exit	B	(B)	18.5	(15.7)	A	(A)	1.9	(3.3)	A	(A)	1.9	(3.2)
LIB @ Terminal 2 Parking *	E	(E)	40.3	(36.6)	D	(D)	40.3	(37.5)	D	(D)	41.5	(38.5)
LIB @ Terminal 2 Entrance	C	(B)	23.9	(17.9)	B	(B)	12.7	(14.8)	B	(B)	12.6	(14.9)
Air Cargo Rd @ Lot E*	A	(A)	1.4	(1.8)	A	(A)	0.5	(0.6)	A	(A)	0.5	(0.6)
Air Cargo Rd @ James S McDonnell*	A	(A)	6.0	(6.2)	A	(A)	0.3	(0.4)	A	(B)	9.5	(10.2)
I-70 SOR @ Natural Bridge Rd	B	(B)	13.4	(15.8)	B	(B)	13.5	(15.9)	B	(B)	13.6	(16)

*Stop controlled intersection level of service follows methodlogies described in Chapter 20 & Chapter 21 of the 6th Edition HCM

Red intersections are owned by the Missouri Department of Transportation

The minimum levels of service and mobility targets as defined in the Traffic Methods and Assumptions Report state that all existing interstate segments must maintain a level of service of D or better. In cases where existing level of service is already worse than D, that level of service must be maintained through future conditions.

2037 No Build and Alternative freeway level of service determined by density thresholds as described in the highway Capacity Manual for basic, merge, diverge, and weave segments can be seen below in **Table 18** and **Table 19**. Only segments which had a change in volume from the No Build to the Alternative conditions were considered. With the additional traffic on westbound I-70, the segment between Airflight Drive and Natural Bridge Road operates at a LOS D during the PM peak hour in the 2037 Alternative 1 model. While this meets the desired LOS threshold, the speeds do fall below free flow conditions. Alternative 2 provides an auxiliary lane in this segment resulting in a LOS B operating condition with free flow speeds. In isolated locations along mainline, such as at the merge following the entrance ramp onto I-70 Westbound from Airflight Drive, the level of service slightly worsens due to the redistributed traffic however, LOS still remains at acceptable levels. Across all models, the interstate level of service maintains at least a C or better.

Table 18: 2037 AM Densities – No Build and Alternative Models

2037 AM I-70 EB Densities						
	2032 No Build		2037 Alt 1		2037 Alt 2	
Segments	Density	LOS	Density	LOS	Density	LOS
Cypress Gore to Gore	20.57	C	19.16	C	19.06	C
Cypress Merge	16.48	B	16.96	B	17.01	B
Basic Segment Following Cypress	21.81	C	22.15	C	22.20	C
Airflight Diverge	17.45	B	16.93	B	17.22	B
Airflight Gore to Gore	17.98	B	19.35	B	19.52	C
Airflight Loop Merge	13.81	B	14.83	B	14.89	B
Airflight Merge	14.26	B	15.33	B	15.37	B
Basic Segment Following Airflight	18.72	C	20.10	C	20.14	C
MO 115 Diverge	19.10	B	20.51	C	20.66	C
MO 115 Gore to Gore	17.69	B	19.16	C	19.24	C
2037 AM I-70 WB Densities						
	2032 No Build		2037 Alt 1		2037 Alt 2	
Segments	Density	LOS	Density	LOS	Density	LOS
MO 115 Gore to Gore	17.07	B	18.51	C	18.51	C
MO 115 Merge	13.96	B	16.02	B	15.08	B
Basic Segment Following MO 115	18.40	C	19.87	C	19.87	C
Airflight Diverge	15.20	B	16.02	B	15.37	B
Airflight Gore to Gore	16.73	B	18.91	C	18.92	C
Airflight Merge	14.51	B	17.36	B	16.68	B
Basic Segment following Airflight	18.85	C	22.63	C		
LIB to Cypress Weave/Diverge*	15.40	B	16.82	B		
Diverge to CD	19.15	B	17.68	B	17.78	B

*For Alt 1 this segments LOS criteria was based on merge/diverge thresholds as opposed to the existing weave

Table 19: 2037 AM Densities – No Build and Alternative Models

2037 PM I-70 EB Densities						
	2032 No Build		2037 Alt 1		2037 Alt 2	
Segments	**Density**	**LOS**	**Density**	**LOS**	**Density**	**LOS**
Cypress Gore to Gore	18.12	C	17.27	B	17.16	B
Cypress Merge	15.83	B	17.22	B	17.17	B
Basic Segment Following Cypress	20.59	C	22.43	C	22.14	C
Airflight Diverge	16.23	B	17.05	B	17.04	B
Airflight Gore to Gore	17.38	B	19.52	C	19.44	C
Airflight Loop Merge	13.77	B	15.4	B	15.35	B
Airflight Merge	14.62	B	16.33	B	16.3	B
Basic Segment Following Airflight	19.07	C	21.29	C	21.12	C
MO 115 Diverge	19.52	B	22.15	C	21.54	C
MO 115 Gore to Gore	17.5	B	19.87	C	19.66	C
2037 PM I-70 WB Densities						
	2032 No Build		2037 Alt 1		2037 Alt 2	
Segments	**Density**	**LOS**	**Density**	**LOS**	**Density**	**LOS**
MO 115 Gore to Gore	19.88	C	21.1	C	21.1	C
MO 115 Merge	16.86	B	17.83	B	17.83	B
Basic Segment Following MO 115	22.15	C	23.48	C	23.49	C
Airflight Diverge	19.37	B	19.81	B	19.53	B
Airflight Gore to Gore	20.16	C	22.74	C	21.99	C
Airflight Merge	17.61	B	21.77	C	19.5	B
Basic Segment following Airflight	22.77	C	26.69	D		
LIB to Cypress Weave	19.38	B	19.12	B		
Diverge to CD	24.62	C	21.15	C	21.42	C

*For Alt 1 this segments LOS criteria was based on merge/diverge thresholds as opposed to the existing weave

Mainline speeds and travel times changed very little between No Build and Build conditions. AM and PM peak period mainline average travel speeds for the alternatives can be seen in **Table 20** through **Table 27**. AM and PM peak period vehicle travel times from all the modeled scenarios can be seen in **Table 28** and **Table 29**. The vehicle speed compared across all models can be seen in **Appendix D**. Additionally, the level of service along mainline I-70 can be seen for all models in **Appendix E**.

Table 20: 2032 AM Westbound Alternative Mainline Speed

2032 Alternative 1 VISSIM Westbound I-70														
Segment ID	**Corridor**	**Section**	**Length**	**8:00 AM**	**8:05 AM**	**8:10 AM**	**8:15 AM**	**8:20 AM**	**8:25 AM**	**8:30 AM**	**8:35 AM**	**8:40 AM**	**8:45 AM**	**8:50 AM**	**8:55 AM**	**AVG**
119+04295	I-70 Mainline Westbound	I170 - STL Airport	0.7	63.0	63.0	62.9	62.9	63.0	63.0	63.0	63.0	63.1	63.0	62.9	62.9	63.0
119+04296		STL Airport - Airflight Dr	1.1	62.6	62.7	62.9	62.9	62.8	62.7	62.7	62.7	62.7	62.7	62.8	62.6	62.7
119+04297		Airflight Dr - LIB	0.5	61.3	61.3	61.0	61.3	61.5	61.5	61.5	61.4	61.5	61.4	61.4	61.2	61.4
119+04298		LIB - Cyprus Rd	0.4	62.6	62.7	62.3	62.7	62.7	62.2	61.7	62.3	62.4	62.6	62.6	62.0	62.4
119+04299		Cyprus Rd - US 67	0.8	62.5	62.8	62.7	62.7	62.7	62.7	62.7	62.7	62.6	62.8	62.7	62.4	62.7
119+04300		US 67 - MO 180	0.6	62.7	62.7	62.7	62.9	63.0	62.7	62.8	62.9	62.8	63.2	63.0	62.8	62.8
2032 Alternative 2 VISSIM Westbound I-70																
Segment ID	**Corridor**	**Section**	**Length**	**8:00 AM**	**8:05 AM**	**8:10 AM**	**8:15 AM**	**8:20 AM**	**8:25 AM**	**8:30 AM**	**8:35 AM**	**8:40 AM**	**8:45 AM**	**8:50 AM**	**8:55 AM**	**AVG**
119+04295	I-70 Mainline Westbound	I170 - STL Airport	0.7	63.0	63.0	62.9	62.9	63.0	63.0	63.0	63.0	63.1	63.0	62.9	62.9	63.0
119+04296		STL Airport - Airflight Dr	1.1	62.6	62.7	62.9	62.8	62.7	62.7	62.7	62.7	62.7	62.7	62.8	62.7	62.7
119+04297		Airflight Dr - LIB	0.5	62.5	62.5	62.4	62.7	62.6	62.5	62.6	62.5	62.6	62.5	62.5	62.5	62.5
119+04298		LIB - Cyprus Rd	0.4	62.1	61.2	61.4	62.5	62.7	62.5	62.3	61.8	62.7	62.7	62.4	62.4	62.2
119+04299		Cyprus Rd - US 67	0.8	62.3	62.6	62.8	62.8	62.7	62.7	62.6	62.5	62.8	62.7	62.8	62.7	62.7
119+04300		US 67 - MO 180	0.6	62.7	62.7	62.9	62.7	62.9	62.8	62.7	62.9	62.8	63.0	62.9	62.7	62.8

Table 21: 2032 AM Eastbound Alternative Mainline Speed

2032 Alternative 1 VISSIM - Eastbound I-70														
Segment ID	**Corridor**	**Section**	**Length**	**8:00 AM**	**8:05 AM**	**8:10 AM**	**8:15 AM**	**8:20 AM**	**8:25 AM**	**8:30 AM**	**8:35 AM**	**8:40 AM**	**8:45 AM**	**8:50 AM**	**8:55 AM**	**AVG**
119-04299	I-70 Mainline Eastbound	MO 180 - Us 67	1.2	62.1	62.2	62.0	62.4	62.5	62.2	62.3	61.5	62.2	62.2	62.6	62.2	62.2
119-04298		US 67 - Cypress Rd	0.5	62.0	62.0	61.9	61.8	61.9	61.9	61.7	61.9	62.0	62.1	62.1	61.9	61.9
119-04297[1]		Cypress Rd - Airflight Dr	1.0	61.8	62.0	61.6	61.9	61.9	61.4	61.6	61.8	61.3	62.1	62.1	61.6	61.8
119-04295		Airflight Dr - MO 115	1.2	61.7	61.7	61.5	61.5	61.0	61.5	61.5	61.5	61.4	61.7	61.7	61.3	61.5
119-04294		MO 115 - I170	0.9	62.9	63.1	63.0	62.5	62.8	63.0	63.0	63.0	62.9	63.0	63.1	62.7	62.9
2032 Alternative 2 VISSIM - Eastbound I-70																
Segment ID	**Corridor**	**Section**	**Length**	**8:00 AM**	**8:05 AM**	**8:10 AM**	**8:15 AM**	**8:20 AM**	**8:25 AM**	**8:30 AM**	**8:35 AM**	**8:40 AM**	**8:45 AM**	**8:50 AM**	**8:55 AM**	**AVG**
119-04299	I-70 Mainline Eastbound	MO 180 - Us 67	1.2	62.1	62.2	62.0	62.4	62.5	62.2	62.3	61.5	62.2	62.2	62.6	62.2	62.2
119-04298		US 67 - Cypress Rd	0.5	62.0	62.0	61.9	61.8	61.9	61.9	61.7	61.9	62.0	62.1	62.1	61.9	61.9
119-04297[1]		Cypress Rd - Airflight Dr	1.0	61.9	61.9	61.4	61.8	62.0	61.7	62.0	61.7	62.1	61.8	61.6	62.0	61.8
119-04295		Airflight Dr - MO 115	1.2	61.8	61.7	61.3	61.1	61.7	61.6	61.5	61.7	61.7	61.5	61.8	61.6	61.6
119-04294		MO 115 - I170	0.9	63.0	62.9	62.8	63.1	63.0	63.0	62.9	63.2	62.9	62.5	63.2	63.0	63.0

Table 22: 2032 PM Westbound Alternative Mainline Speed

2032 Alternative 1 VISSIM Westbound I-70															
Segment ID	**Corridor**	**Section**	**Length**	**4:30 PM**	**4:35 PM**	**4:40 PM**	**4:45 PM**	**4:50 PM**	**4:55 PM**	**5:00 PM**	**5:05 PM**	**5:10 PM**	**5:15 PM**	**5:20 PM**	**5:25 PM**	**AVG**
119+04295	I-70 Mainline Westbound	I170 - STL Airport	0.7	62.8	63.0	63.0	62.6	62.1	62.2	62.8	63.0	63.0	62.0	61.8	62.3	62.5
119+04296		STL Airport - Airflight Dr	1.1	62.3	62.6	62.6	61.7	61.6	61.2	60.2	62.2	62.6	61.9	61.2	61.4	61.8
119+04297		Airflight Dr - LIB	0.5	61.5	61.9	61.6	60.1	59.6	58.2	57.7	59.7	61.8	60.9	57.8	57.6	59.9
119+04298		LIB - Cyprus Rd	0.4	61.9	62.3	61.6	61.9	61.4	58.6	61.6	62.2	62.5	62.1	60.8	61.2	61.5
119+04299		Cyprus Rd - US 67	0.8	61.3	62.5	62.5	62.3	60.6	60.5	60.4	62.4	62.5	61.6	60.7	59.9	61.4
119+04300		US 67 - MO 180	0.6	61.7	62.8	62.9	62.6	61.6	61.4	61.5	62.1	62.8	62.1	61.6	60.9	62.0
2032 Alternative 2 VISSIM Westbound I-70																
Segment ID	**Corridor**	**Section**	**Length**	**4:30 PM**	**4:35 PM**	**4:40 PM**	**4:45 PM**	**4:50 PM**	**4:55 PM**	**5:00 PM**	**5:05 PM**	**5:10 PM**	**5:15 PM**	**5:20 PM**	**5:25 PM**	**AVG**
119+04295	I-70 Mainline Westbound	I170 - STL Airport	0.7	62.8	63.0	63.0	62.6	62.1	62.2	62.8	63.0	63.0	62.0	61.8	62.3	62.5
119+04296		STL Airport - Airflight Dr	1.1	62.4	62.6	62.6	61.8	61.4	60.2	60.3	62.7	62.7	61.8	61.0	61.2	61.7
119+04297		Airflight Dr - LIB	0.5	62.5	62.5	62.4	62.3	61.8	61.7	62.0	62.6	62.7	62.2	61.9	61.9	62.2
119+04298		LIB - Cyprus Rd	0.4	62.4	62.4	62.6	61.9	61.7	59.1	60.5	62.5	62.6	61.6	60.1	57.6	61.2
119+04299		Cyprus Rd - US 67	0.8	61.9	62.4	62.6	61.7	61.0	59.8	59.0	62.5	62.3	61.7	60.9	59.6	61.3
119+04300		US 67 - MO 180	0.6	62.1	62.5	62.6	62.4	61.4	61.5	60.0	62.5	62.6	62.3	61.5	60.8	61.8

Table 23: 2032 PM Eastbound Alternative Mainline Speed

2032 Alternative 1 VISSIM - Eastbound I-70															
Segment ID	**Corridor**	**Section**	**Length**	**4:30 PM**	**4:35 PM**	**4:40 PM**	**4:45 PM**	**4:50 PM**	**4:55 PM**	**5:00 PM**	**5:05 PM**	**5:10 PM**	**5:15 PM**	**5:20 PM**	**5:25 PM**	**AVG**
119-04299	I-70 Mainline Eastbound	MO 180 - Us 67	1.2	62.4	62.8	62.3	62.0	62.0	61.7	62.2	62.6	62.5	61.9	61.8	62.1	62.2
119-04298		US 67 - Cypress Rd	0.5	61.8	62.1	61.8	61.6	61.6	61.4	61.9	62.2	62.1	61.5	61.3	61.4	61.7
119-04297[1]		Cypress Rd - Airflight Dr	1.0	61.7	61.5	61.3	61.1	60.7	59.6	60.8	61.1	61.4	60.9	60.8	59.1	60.8
119-04295		Airflight Dr - MO 115	1.2	61.5	61.8	61.7	61.2	61.2	60.5	60.8	61.6	61.8	61.6	60.9	60.9	61.3
119-04294		MO 115 - I170	0.9	63.0	63.0	63.3	63.1	62.4	62.5	62.6	62.9	62.9	62.9	62.7	62.7	62.8
2032 Alternative 2 VISSIM - Eastbound I-70																
Segment ID	**Corridor**	**Section**	**Length**	**4:30 PM**	**4:35 PM**	**4:40 PM**	**4:45 PM**	**4:50 PM**	**4:55 PM**	**5:00 PM**	**5:05 PM**	**5:10 PM**	**5:15 PM**	**5:20 PM**	**5:25 PM**	**AVG**
119-04299	I-70 Mainline Eastbound	MO 180 - Us 67	1.2	62.4	62.8	62.3	62.0	62.0	61.7	62.2	62.6	62.5	61.9	61.8	62.1	62.2
119-04298		US 67 - Cypress Rd	0.5	61.8	62.1	61.8	61.6	61.6	61.4	61.9	62.2	62.1	61.5	61.3	61.4	61.7
119-04297[1]		Cypress Rd - Airflight Dr	1.0	61.6	61.2	61.2	61.0	60.4	59.7	61.0	61.2	61.4	60.9	60.7	60.4	60.9
119-04295		Airflight Dr - MO 115	1.2	61.3	61.4	61.9	61.4	60.9	60.7	61.2	61.7	61.8	61.5	60.8	60.7	61.3
119-04294		MO 115 - I170	0.9	62.8	63.0	63.4	63.2	62.7	62.1	62.5	63.2	63.2	63.2	62.5	62.8	62.9

Table 24: 2037 AM Westbound Alternative Mainline Speed

2037 Alternative 1 VISSIM Westbound I-70														
Segment ID	**Corridor**	**Section**	**Length**	**8:00 AM**	**8:05 AM**	**8:10 AM**	**8:15 AM**	**8:20 AM**	**8:25 AM**	**8:30 AM**	**8:35 AM**	**8:40 AM**	**8:45 AM**	**8:50 AM**	**8:55 AM**	**AVG**
119+04295	I-70 Mainline Westbound	I170 - STL Airport	0.7	62.9	63.0	63.0	62.8	62.9	63.0	62.9	63.0	63.1	62.8	63.0	63.0	62.9
119+04296		STL Airport - Airflight Dr	1.1	62.7	62.9	62.7	62.2	62.6	62.8	62.7	62.7	62.7	62.8	62.6	62.6	62.7
119+04297		Airflight Dr - LIB	0.5	60.9	61.2	61.0	61.3	61.1	61.2	61.1	61.0	61.5	61.1	61.1	61.4	61.2
119+04298		LIB - Cyprus Rd	0.4	62.4	62.7	62.6	62.3	61.4	62.3	62.4	62.3	62.4	62.5	62.6	62.8	62.4
119+04299		Cyprus Rd - US 67	0.8	62.7	62.9	62.8	62.7	62.5	62.6	62.6	62.7	62.8	62.5	62.6	62.8	62.7
119+04300		US 67 - MO 180	0.6	62.7	63.0	63.0	62.7	62.8	62.9	62.9	62.8	63.0	62.8	62.5	62.8	62.8
2037 Alternative 2 VISSIM Westbound I-70																
Segment ID	**Corridor**	**Section**	**Length**	**8:00 AM**	**8:05 AM**	**8:10 AM**	**8:15 AM**	**8:20 AM**	**8:25 AM**	**8:30 AM**	**8:35 AM**	**8:40 AM**	**8:45 AM**	**8:50 AM**	**8:55 AM**	**AVG**
119+04295	I-70 Mainline Westbound	I170 - STL Airport	0.7	62.9	63.0	63.0	62.8	62.9	63.0	62.9	63.0	63.1	62.8	63.0	63.0	62.9
119+04296		STL Airport - Airflight Dr	1.1	62.7	62.8	62.7	62.0	62.6	62.8	62.7	62.5	62.7	62.8	62.6	62.6	62.6
119+04297		Airflight Dr - LIB	0.5	62.4	62.5	62.4	62.6	62.5	62.4	62.5	62.4	62.5	62.6	62.5	62.5	62.5
119+04298		LIB - Cyprus Rd	0.4	61.5	62.1	62.5	61.9	61.6	61.4	62.4	62.4	62.3	62.7	61.7	62.5	62.1
119+04299		Cyprus Rd - US 67	0.8	62.7	62.7	62.5	62.7	62.6	62.4	62.5	62.7	62.7	62.6	62.6	62.8	62.6
119+04300		US 67 - MO 180	0.6	62.8	62.9	62.9	62.9	62.8	62.8	62.8	62.7	63.0	62.9	62.7	62.8	62.8

Table 25: 2037 AM Eastbound Alternative Mainline Speed

2037 Alternative 1 VISSIM - Eastbound I-70														
Segment ID	**Corridor**	**Section**	**Length**	**8:00 AM**	**8:05 AM**	**8:10 AM**	**8:15 AM**	**8:20 AM**	**8:25 AM**	**8:30 AM**	**8:35 AM**	**8:40 AM**	**8:45 AM**	**8:50 AM**	**8:55 AM**	**AVG**
119-04299	I-70 Mainline Eastbound	MO 180 - Us 67	1.2	62.1	62.3	62.4	62.3	62.6	62.0	62.5	62.3	62.5	62.3	62.5	62.1	62.3
119-04298		US 67 - Cypress Rd	0.5	61.4	62.0	61.5	61.6	61.9	62.0	61.9	62.1	61.3	62.0	62.0	61.8	61.8
119-04297[1]		Cypress Rd - Airflight Dr	1.0	61.5	62.1	61.5	61.9	62.0	61.9	61.8	62.0	61.9	62.1	61.9	61.5	61.8
119-04295		Airflight Dr - MO 115	1.2	61.1	61.3	61.4	61.6	61.7	61.7	61.5	61.6	61.6	61.8	61.6	61.5	61.5
119-04294		MO 115 - I170	0.9	62.9	62.9	63.0	62.9	63.0	63.2	62.9	62.8	62.9	63.3	63.0	62.9	63.0
2037 Alternative 2 VISSIM - Eastbound I-70																
Segment ID	**Corridor**	**Section**	**Length**	**8:00 AM**	**8:05 AM**	**8:10 AM**	**8:15 AM**	**8:20 AM**	**8:25 AM**	**8:30 AM**	**8:35 AM**	**8:40 AM**	**8:45 AM**	**8:50 AM**	**8:55 AM**	**AVG**
119-04299	I-70 Mainline Eastbound	MO 180 - Us 67	1.2	62.2	62.3	62.4	62.2	62.5	62.0	62.5	62.2	62.4	62.3	62.5	62.2	62.3
119-04298		US 67 - Cypress Rd	0.5	61.8	61.9	62.0	61.5	61.8	61.8	60.9	61.9	62.0	62.0	62.0	61.7	61.8
119-04297[1]		Cypress Rd - Airflight Dr	1.0	62.2	62.4	62.6	62.7	62.3	62.0	61.7	62.3	62.2	62.5	62.6	62.3	62.3
119-04295		Airflight Dr - MO 115	1.2	61.9	61.6	61.5	61.7	61.4	61.8	61.5	61.6	61.7	61.8	61.8	61.7	61.7
119-04294		MO 115 - I170	0.9	63.0	62.9	62.8	62.8	62.5	62.7	62.8	62.7	62.8	62.9	63.0	62.7	62.8

Table 26: 2037 PM Westbound Alternative Mainline Speed

2037 Alternative 1 VISSIM Westbound I-70															
Segment ID	**Corridor**	**Section**	**Length**	**4:30 PM**	**4:35 PM**	**4:40 PM**	**4:45 PM**	**4:50 PM**	**4:55 PM**	**5:00 PM**	**5:05 PM**	**5:10 PM**	**5:15 PM**	**5:20 PM**	**5:25 PM**	**AVG**
119+04295	I-70 Mainline Westbound	I170 - STL Airport	0.7	62.7	63.1	63.0	61.5	62.1	62.4	62.6	62.9	62.9	62.2	62.4	62.1	62.5
119+04296		STL Airport - Airflight Dr	1.1	61.6	62.7	62.6	61.6	60.4	60.5	60.1	62.1	62.5	61.8	60.7	59.8	61.4
119+04297		Airflight Dr - LIB	0.5	60.9	61.3	61.4	60.7	59.0	55.9	55.7	59.5	61.8	60.4	56.7	54.7	59.0
119+04298		LIB - Cyprus Rd	0.4	62.7	62.4	62.8	62.2	61.1	60.3	61.1	62.3	62.7	62.2	61.2	60.0	61.7
119+04299		Cyprus Rd - US 67	0.8	61.6	62.1	62.2	61.9	60.6	60.9	60.5	62.2	62.3	61.8	61.1	59.2	61.4
119+04300		US 67 - MO 180	0.6	62.1	62.2	62.4	62.6	61.2	61.4	61.2	62.2	62.5	62.2	62.0	61.2	61.9
2037 Alternative 2 VISSIM Westbound I-70																
Segment ID	**Corridor**	**Section**	**Length**	**4:30 PM**	**4:35 PM**	**4:40 PM**	**4:45 PM**	**4:50 PM**	**4:55 PM**	**5:00 PM**	**5:05 PM**	**5:10 PM**	**5:15 PM**	**5:20 PM**	**5:25 PM**	**AVG**
119+04295	I-70 Mainline Westbound	I170 - STL Airport	0.7	62.7	63.1	63.0	61.5	62.1	62.4	62.6	62.9	62.9	62.2	62.4	62.1	62.5
119+04296		STL Airport - Airflight Dr	1.1	62.2	62.6	62.6	61.4	60.7	61.4	61.9	62.6	62.6	61.8	61.7	60.0	61.8
119+04297		Airflight Dr - LIB	0.5	62.1	62.5	62.4	62.3	61.6	61.5	61.7	62.5	62.6	62.3	61.8	61.5	62.1
119+04298		LIB - Cyprus Rd	0.4	61.4	62.1	62.6	62.2	60.5	61.2	57.0	62.2	62.3	61.8	59.8	61.0	61.2
119+04299		Cyprus Rd - US 67	0.8	61.3	62.2	62.5	61.8	61.0	60.2	60.9	62.1	62.3	61.6	60.2	60.3	61.4
119+04300		US 67 - MO 180	0.6	62.0	62.5	62.6	62.2	61.7	61.2	61.0	62.4	62.7	62.4	61.1	59.3	61.8

Table 27: 2037 PM Eastbound Alternative Mainline Speed

2037 Alternative 1 VISSIM - Eastbound I-70															
Segment ID	**Corridor**	**Section**	**Length**	**4:30 PM**	**4:35 PM**	**4:40 PM**	**4:45 PM**	**4:50 PM**	**4:55 PM**	**5:00 PM**	**5:05 PM**	**5:10 PM**	**5:15 PM**	**5:20 PM**	**5:25 PM**	**AVG**
119-04299	I-70 Mainline Eastbound	MO 180 - Us 67	1.2	62.3	62.8	62.2	61.9	62.0	62.1	62.3	62.6	62.7	62.0	61.6	61.7	62.2
119-04298		US 67 - Cypress Rd	0.5	61.6	62.1	62.0	61.6	61.4	61.3	61.9	62.1	62.2	61.5	61.3	61.3	61.7
119-04297[1]		Cypress Rd - Airflight Dr	1.0	61.6	61.0	61.3	60.5	60.2	59.7	60.4	61.1	61.1	60.2	60.1	60.2	60.6
119-04295		Airflight Dr - MO 115	1.2	61.2	61.1	61.6	60.9	60.2	59.6	60.3	61.6	61.9	61.3	60.6	60.9	60.9
119-04294		MO 115 - I170	0.9	62.9	63.0	62.9	63.0	62.2	62.2	62.3	63.0	63.2	63.0	62.3	62.6	62.7
2037 Alternative 2 VISSIM - Eastbound I-70																
Segment ID	**Corridor**	**Section**	**Length**	**4:30 PM**	**4:35 PM**	**4:40 PM**	**4:45 PM**	**4:50 PM**	**4:55 PM**	**5:00 PM**	**5:05 PM**	**5:10 PM**	**5:15 PM**	**5:20 PM**	**5:25 PM**	**AVG**
119-04299	I-70 Mainline Eastbound	MO 180 - Us 67	1.2	62.3	62.8	62.2	62.0	62.0	62.0	62.3	62.6	62.7	62.0	61.6	61.7	62.2
119-04298		US 67 - Cypress Rd	0.5	61.6	62.1	62.0	61.5	61.6	61.2	61.8	62.1	62.2	61.5	61.4	61.2	61.7
119-04297[1]		Cypress Rd - Airflight Dr	1.0	62.4	62.9	63.0	62.3	61.7	61.8	62.3	62.7	62.8	62.3	61.3	61.2	62.2
119-04295		Airflight Dr - MO 115	1.2	61.8	62.1	62.0	61.5	60.5	60.8	61.6	61.9	62.1	61.6	61.1	60.9	61.5
119-04294		MO 115 - I170	0.9	62.8	63.2	63.2	62.9	62.7	61.9	62.6	63.0	62.8	62.8	62.1	62.2	62.7

Table 28: AM Vehicle Travel Time (All Models)

AM Travel Time (I-70) - All Vehicles										
Segment ID	**Corridor**	**Section**	**VISSIM Distance**	**EXISTING VISSIM Travel Time (min)**	**2032 No Build VISSIM Travel Time (min)**	**2032 Alt 1 VISSIM Travel Time (min)**	**2032 Alt 2 VISSIM Travel Time (min)**	**2037 No Build VISSIM Travel Time (min)**	**2037 Alt 1 VISSIM Travel Time (min)**	**2037 Alt 2 VISSIM Travel Time (min)**
119+04295	I-70 Westbound	I170 - STL Airport	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
119+04296		STL Airport - Airflight Dr	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
119+04297		Airflight Dr - LIB	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
119+04298		LIB - Cyprus Rd	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
119+04299		Cyprus Rd - US 67	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
119+04300		US 67 - MO 180	0.6	0.6	0.6	0.5	0.5	0.6	0.5	0.5
Total			**4.2**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**	**4.0**
119-04299	I-70 Eastbound	MO 180 - Us 67	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
119-04298		US 67 - Cypress Rd	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
119-04297[1]		Cypress Rd - Airflight Dr	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
119-04295		Airflight Dr - MO 115	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
119-04294		MO 115 - I170	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Total			**5.9**	**5.7**	**5.7**	**5.8**	**5.8**	**5.7**	**5.8**	**5.8**

[1]RITIS Segments 119-04297 and 119-04296 were combined due to the short length of 119-04296

Table 29: PM Vehicle Travel Time (All Models)

AM Travel Time (I-70) - All Vehicles										
Segment ID	**Corridor**	**Section**	**VISSIM Distance**	**EXISTING VISSIM Travel Time (min)**	**2032 No Build VISSIM Travel Time (min)**	**2032 Alt 1 VISSIM Travel Time (min)**	**2032 Alt 2 VISSIM Travel Time (min)**	**2037 No Build VISSIM Travel Time (min)**	**2037 Alt 1 VISSIM Travel Time (min)**	**2037 Alt 2 VISSIM Travel Time (min)**
119+04295	I-70 Westbound	I170 - STL Airport	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
119+04296		STL Airport - Airflight Dr	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
119+04297		Airflight Dr - LIB	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
119+04298		LIB - Cyprus Rd	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
119+04299		Cyprus Rd - US 67	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
119+04300		US 67 - MO 180	0.6	0.6	0.6	0.5	0.5	0.6	0.5	0.5
Total			**4.2**	**4.1**	**4.1**	**4.0**	**4.0**	**4.1**	**4.1**	**4.0**
119-04299	I-70 Eastbound	MO 180 - Us 67	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1
119-04298		US 67 - Cypress Rd	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
119-04297[1]		Cypress Rd - Airflight Dr	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
119-04295		Airflight Dr - MO 115	1.2	1.1	1.1	1.2	1.2	1.1	1.2	1.2
119-04294		MO 115 - I170	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Total			**5.9**	**5.7**	**5.7**	**5.8**	**5.8**	**5.7**	**5.8**	**5.8**

[1]RITIS Segments 119-04297 and 119-04296 were combined due to the short length of 119-04296

As a result of the consolidated terminal and additional lanes in key locations, a large reduction in total stopped delay, number of stops, total delay, average number of stops, and average stopped delay can be seen across the entire model in each of the peak period Alternative models. These network performance results which measure performance over the entirety of the modeled network can be seen below in **Table 30** comparing the results between all models.

Table 30: Network Performance Evaluation (All Models)

Metric	Average Vehicular Delay	Average Number of Stops	Average Speed	Average Stopped Delay	Total Distance Traveled (VMT)	Total Travel Time (VHT)	Total Delay	Total Number of Stops	Total Stopped Delay	Vehicles Arrived	Latent Total Delay	Latent Demand
Unit	**seconds/ vehicle**	**stops/ vehicle**	**miles/ hour**	**seconds/ vehicle**	**miles**	**Seconds**	**Seconds**	**stops**	**Seconds**	**vehicles**	**Seconds**	**vehicles**
AM Existing VISSIM	24	0.84	48.34	12	37,838	2,817,735	266,880	9,118	128,142	10,102	464	0.2
AM 2032 No Build VISSIM	27	0.97	47.22	13	38,804	2,958,163	308,105	10,928	148,172	10,465	514	0.3
AM 2032 Alt 1 VISSIM	21	0.45	50.00	8	41,055	2,955,881	234,297	5,083	93,327	10,450	513	0.3
AM 2032 Alt 2 VISSIM	22	0.49	49.84	9	41,061	2,965,721	243,830	5,473	101,688	10,450	514	0.3
AM 2037 No Build VISSIM	29	1.02	46.75	14	39,307	3,026,768	328,393	11,699	158,839	10,656	541	0.2
AM 2037 Alt 1 VISSIM	22	0.49	49.51	9	41,602	3,025,119	252,232	5,608	102,038	10,596	537	0.2
AM 2037 Alt 2 VISSIM	22	0.53	49.48	8	41,736	3,036,568	248,908	6,100	94,597	10,659	539	0.2
	Averaged Performance MOE Statistics				Aggregated Performance MOE Statistics					Throughput MOE Statistics		
Metric	**Average Vehicular Delay**	**Average Number of Stops**	**Average Speed**	**Average Stopped Delay**	**Total Distance Traveled (VMT)**	**Total Travel Time (VHT)**	**Total Delay**	**Total Number of Stops**	**Total Stopped Delay**	**Vehicles Arrived**	**Latent Total Delay**	**Latent Demand**
Unit	**seconds/ vehicle**	**stops/ vehicle**	**miles/ hour**	**seconds/ vehicle**	**miles**	**Seconds**	**Seconds**	**stops**	**Seconds**	**vehicles**	**Seconds**	**vehicles**
PM Existing VISSIM	29	1.05	46.52	14	41,400	3,203,686	374,283	13,459	176,416	11,789	883	0.4
PM 2032 No Build VISSIM	32	1.22	45.43	15	42,572	3,373,847	433,222	16,306	204,691	12,262	964	0.2
PM 2032 Alt 1 VISSIM	28	0.64	47.22	12	44,903	3,423,614	375,834	8,527	160,576	12,190	966	0.2
PM 2032 Alt 2 VISSIM	28	0.59	47.33	12	44,915	3,416,122	367,439	7,894	160,134	12,200	965	0.2
PM 2037 No Build VISSIM	34	1.31	44.92	16	43,195	3,462,020	463,813	17,742	215,615	12,506	1,002	0.3
PM 2037 Alt 1 VISSIM	31	0.73	46.48	13	45,718	3,541,401	419,733	9,938	176,785	12,428	1,009	0.3
PM 2037 Build VISSIM	30	0.69	46.63	13	45,731	3,530,747	404,403	9,380	175,523	12,437	1,006	0.3
	Averaged Performance MOE Statistics				Aggregated Performance MOE Statistics					Throughput MOE Statistics		

3.2.1 Collector-Distributor Analysis

Qualitative and quantitative analysis was conducted to analyze the collector-distributor (C-D) for each of the modeled conditions to verify that operations along the C-D were sufficient given the increase in demand between models. Qualitative analysis of the C-D included observations of vehicle operations and performance amongst each of the runs for each of the modeled conditions. Through this analysis it was observed that the C-D operated well throughout the simulations.

Quantative analysis in the form of average speeds was also studied. Average speeds were recorded during the peak hour for each of the modeled conditions and can be seen in **Appendix**

E. The posted speed for this section was not found on the roadside, therefore an assumed speed distribution based on a speed of 50 miles per hour was coded for vehicles traversing this segment. The average speeds were roughly the same in each of the modeled scenarios as seen in **Appendix E**. As expected, the lowest average speed along the C-D was found in the weave portion between the two ramps connecting to N Lindbergh Blvd. Diggin deeper into the link results, we found that the lowest average speed on the weave segment of the C-D was 41 miles per hour, in the 2037 PM Alternative models. The highest average speed on this section during the PM peak hour is only 1 mile per hour faster and occurs for the existing conditions.

After analyzing the results from the peak hour simulation observations and the peak hour average speed it was concluded that no operational issues arise in the model as the result of the increased demand along this section resulting from a consolidated terminal.

3.2.2 I-70 & I-170 Weave Analysis

As requested by MoDOT, the weave section along I-70 Eastbound was analyzed to determine if the area was impacted by the CTP alternatives. For this analysis, the density of the weave segment and vehicle speeds were considered. The number of total vehicles using this weave segment did not differ from each respective model year's No Build and Build scenario. This is due to having the same number of vehicles entering and exiting the modeled study area extents. Although the No Build and Build scenarios have the same number of vehicles traversing the weave, the origin of these vehicles differs in each of the models. Because of the limited access to Lambert International Boulevard east from the new consolidated terminal, there is much less traffic entering the weave on I-70 eastbound before I-170 in the Build Scenario than in the No Build scenario. **Figure 6** and **Figure 7** depict the level of service based on density for the weave segment for the 2037 No Build and Build AM scenarios. **Figure 8** and **Figure 9** depict the level of service based on density for the weave segment for the 2037 No Build and Build PM scenarios. Because the total volumes remain the same across the weave section, so do the densities, and therefore, the level of service does not change from the Build to No Build scenarios. As seen in **Table 28** and **Table 29** above, the travel times for the weave segment (RITIS segment 119-04294) remain the same and do not change in any of the models even with the minimal growth applied to this section across the future models.

Figure 6 – I-70 & I-170 Weave Level of Service, AM 2037 No Build

Figure 7 – I-70 & I-170 Weave Level of Service, AM 2037 Build

Figure 8 – I-70 & I-170 Weave Level of Service, PM 2037 No Build

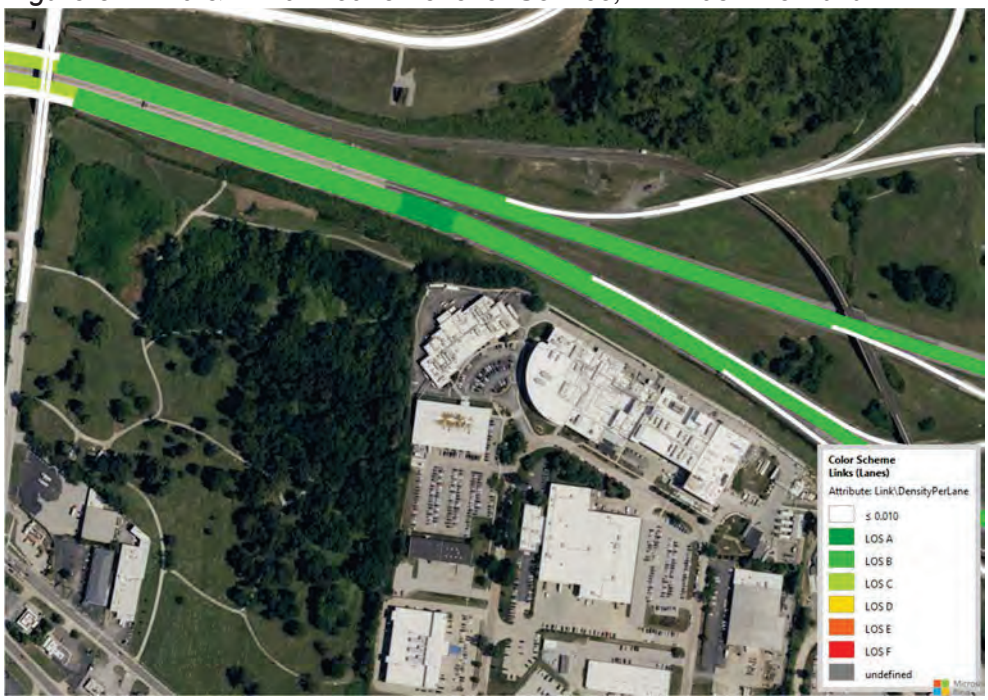

Figure 9 – I-70 & I-170 Weave Level of Service, PM 2037 Build

3.2.3 Travel Paths

Distances for common travel paths for shuttle buses were evaluated while studying the proposed Alternatives. A majority of the airport passenger traffic enters the airport via I-70 and will experience similar travel distances to the terminal as compared to existing conditions. However, there is currently a significant amount of shuttle buses that transport passengers between the terminals and off airport properties. A majority of these shuttle buses serve both terminals and travel along a consistent path as seen in **Figure 6** and **Figure 7**. These figures depict the total travel distance and number of intersections encountered for existing and No Build conditions.

Currently, inbound shuttles going from the southern communities travel approximately 1.6 miles and traverse through seven signalized intersections. The proposed alternatives provide two routes for accessing the CTP using either the Cypress Road interchange or by using LIB to turnaround at Terminal 2 and accessing the CTP loop from the east. It is assumed that shuttle buses will prefer to remain off of I-70 and will use the second path. **Figure 8** represents the inbound shuttle path for the CTP and has a total distance of 2.3 miles while encountering seven signalized intersections. While this path is longer than the current inbound condition it is expected to encounter less congestion due to the redistribution of traffic from Terminal 2.

Currently, outbound shuttles leave from Terminal 2 and travel to Terminal 1 before traveling to south of I-70 traveling approximately 1.3 miles and encountering three signalized intersections, as seen in **Figure 7**. **Figure 9** represents the outbound bound shuttle path for the CTP and has a total distance of 0.6 miles and only encounters one signalized intersection. The total distance of inbound and outbound traffic equals 2.9 miles for both existing conditions and for the CTP. With the CTP, shuttles will encounter two less signalized intersections than the existing conditions and will experience less delay along the route due to the redistribution of terminal traffic.

Figure 6 – Existing Inbound Shuttle Travel Distance (aerial image source: Google Earth)

Figure 7 – Existing Outbound Southern Travel Distance (aerial image source: Google Earth)

Figure 8 – CTP Inbound Southern Travel Distance (aerial image source: Google Earth)

Figure 9 – CTP Outbound Southern Travel Distance (aerial image source: Google Earth)

3.3 Safety

This section compares the safety conditions on Interstate 70 for the construction year (2032) and design year (3027) Alternative scenarios compared to the 2032 and 2037 No Build scenarios. Alternative 1 and Alternative 2 both have the same volumes for their respective construction (2032) and design (2037) years which are based on redistributed volumes resulting from a consolidated terminal. Alternative 1 matches the No Build geometries aside from the closure of the LIB entrance ramp onto Interstate 70 westbound. Alternative 2 accounts for the proposed improvements to add a westbound auxiliary lane between the on-ramp at Airflight Drive and the on-ramp at LIB, and the closure of the on-ramp at LIB. Modeling the two alternatives provides a way to compare the safety conditions with and without an auxiliary lane between Airflight Drive and Cypress Road.

A summary of the ISATe results are provided in **Table 31**. The empirical-bayes derived results between the construction year (2032) and design year (2037) No Build, Alternative 1, and Alternative 2 conditions are similar as seen in **Table 31**. For the construction year (2032) and the design year (2037) Alternative 1 and Alternative 2 estimated annual crashes are within 0.5 crashes. Similar to the freeway segments, the Alternative ramp conditions are estimated to experience a small increase in crashes versus the No Build ramp conditions due to increases in volumes for specific ramps. Decreases and increases in total ramps crashes can be seen below in **Figure 10**, **Figure 11**, and **Figure 12**. The construction year (2032) increase or decrease in crashes is the top number, while the design year (2037) increase or reduction in crashes along the studied ramp is the bottom number in parentheses.

Although ISATe is great for analyzing projects in which weaving sections are added to a freeway, limitations of ISATe does not allow for the analysis of complete removal of ramps, therefore, the removal of the ramp in the Alternative conditions was accounted for by reducing the volume to nearly 0. The complete output from the ISATe spreadsheets can be seen in **Appendix G**.

Table 31: Build ISATe Results Comparison

Estimated Annual Crashes		**2032**			**2037**		
		No Build	**Alt 1**	**Alt 2**	**No Build**	**Alt 1**	**Alt 2**
Freeway	*PDO*	77.07	78.83	79.15	78.09	80.11	80.44
	Fatal/Injury	26.31	26.54	26.63	26.61	26.89	26.99
Ramps	*PDO*	9.86	10.47	10.47	10.09	10.71	10.71
	Fatal/Injury	6.24	7.26	7.26	6.35	7.41	7.41
Total		119.48	123.1	123.51	121.14	125.12	125.55
Fatal/Injury Total		32.55	33.8	33.89	32.96	34.3	34.4

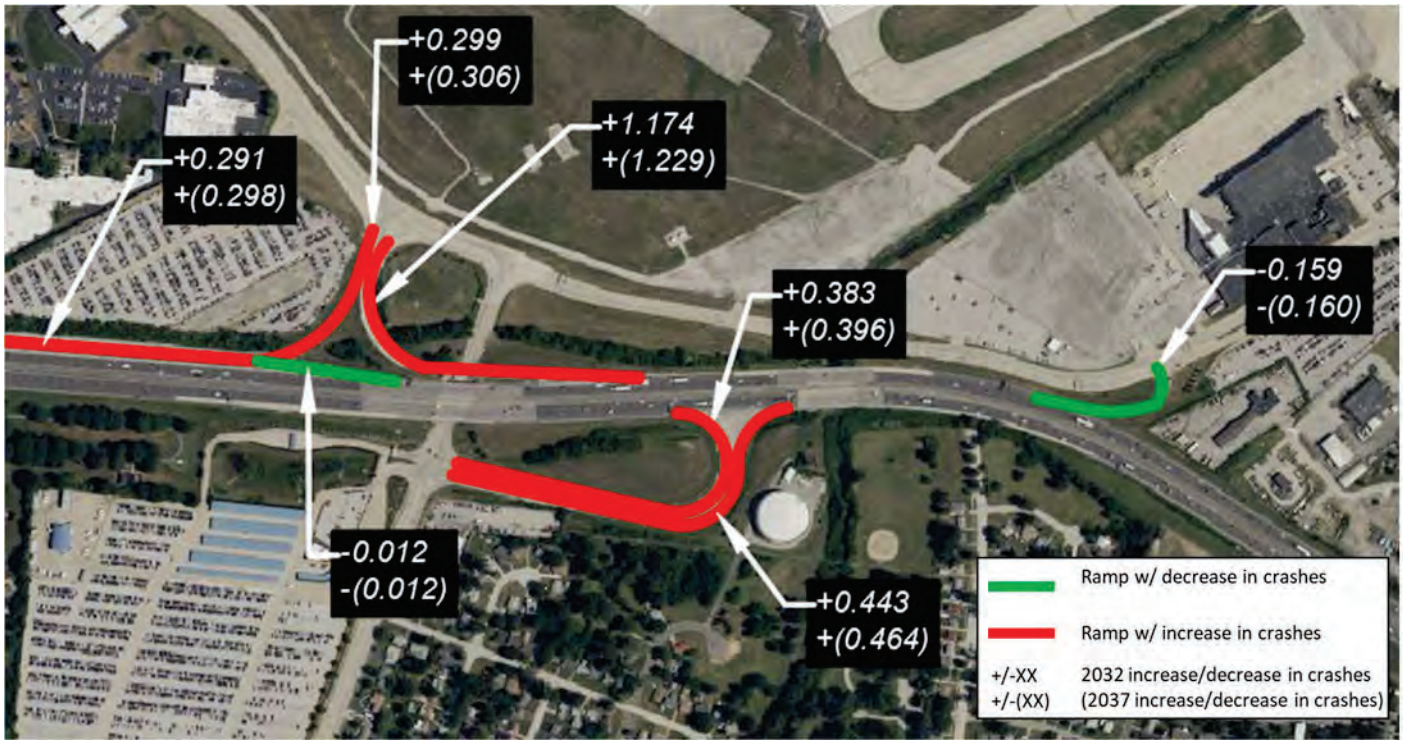

Figure 10 – No Build & Alternative Change in Crashes on Ramps (West Study Area)

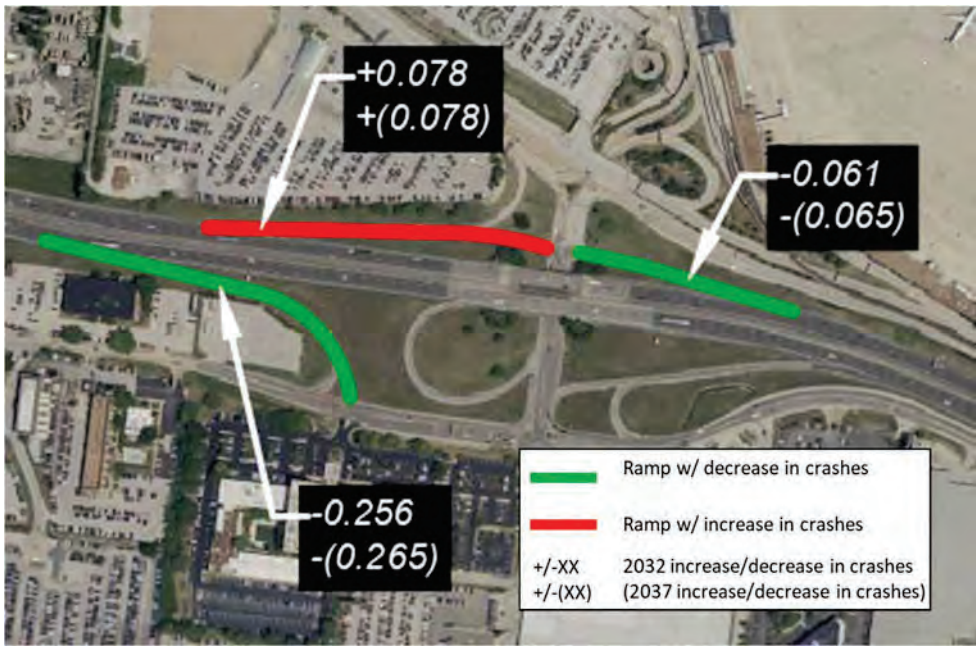

Figure 11 – No Build & Alternative Change in Crashes on Ramps (Central Study Area)

Figure 12 – No Build & Alternative Change in Crashes on Ramps (East Study Area)

4 Preferred Design Alternative

4.1 Coordination with Future Development

This project is coordinating with MoDOT's I-70 study (I-170 to Missouri River) and was designed to not conflict with any improvements that may be considered for that project. As part of the STL master plan, the planning team has engaged with surrounding communities to provide updates on the planning process and to document their concerns and feedback. The team most recently met with the surrounding communities in November 2023 to show the studied alternatives. The studied alternatives do not conflict or prevent a local connection to Woodson Terrace that has been proposed by the City of Woodson Terrace.

4.2 Coordination with NEPA Process

The Airport's Consolidated Terminal Program is currently conducting an Environmental Assessment with the Federal Aviation Administration (FAA) as lead agency. The landside elements of the program interfacing with the interstate will be reviewed by MoDOT and the Federal Highway Administration (FHWA) to conform with FAA's National Environmental Policy Act (NEPA) process. It was agreed with MoDOT that when design begins an Access Justification Report (AJR) will be developed for MoDOT and FHWA approval.

4.3 Conclusion

The Consolidated Terminal Program at Lambert St. Louis Airport will have regional impacts for air travel in the St. Louis metropolitan area. The studied alternatives provide improvements in mobility and safety for passengers, employees and vendors that travel to and from the terminal by vehicle. The existing service roadway configurations create less than desirable operational and safety conditions around the existing terminals. Currently, with two terminals drivers are required to make a number of decisions from where they exit I-70 to where they reach the terminal areas. Furthermore, each terminal requires decisions for either departures, arrivals or parking. The close proximity to I-70 requires short entrance roadways to the terminals that provide little time for this decision making for drivers entering the terminal parking and curbside areas. The redistribution of traffic to the Cypress Road interchange in order to provide an optimal one mile terminal roadway discussed in this report allow for a much-improved experience for airport traffic traveling between I-70 and the new terminal.

Future projects in the area were considered and accommodated when the studied alternatives. The nature of the alternatives provide flexibility for future improvements along I-70 that may extend outside of the study area of this project. The studied alternatives also maintain safe and efficient local access for businesses and communities within the immediate area around the airport.

As seen in sections 3.2 and 3.3 of this report, the proposed consolidated terminal has minimal impact on interstate and safety and operations in both of the studied alternatives. Both alternatives provide redistributed volumes away from Airflight Drive to the Cypress Road interchange while Alternative 2 provides new roadway improvements that mitigate the impact of increased volumes at key locations.

Based on results of the operational and safety analysis, it was determined that of the studied alternatives Alternative 2 best meets the criteria set forth in the Methods and Assumptions Report. For Alternative 2, average speeds and travel times on I-70 remain at or near free flow conditions during peak hours and crashes on I-70 are expected to increase by 1.44 fatal & injury crashes over No Build conditions through the studied future years. Furthermore, the auxiliary lane raises the LOS from a LOS C in No Build Conditions to a LOS B in the Alternative 2 conditions. While Alternative 1 provides acceptable LOS on mainline I-70 (LOS D), average speeds fall below free flow conditions between Airflight Drive and Cypress Road and results in a similar increase in crashes as compared to Alternative 2. Based on these results, it was concluded that the auxiliary lane included in Alternative 2 would be warranted in order to maintain average speeds on I-70.

Alternative 2 also includes improvements at the I-70 WB and Natural Bridge Road ramp terminal with the addition of a second westbound left turn lane. This additional lane is warranted based on the increase in traffic volumes per MoDOT EPG guidelines for left turn movements. With Alternative 2, the remaining intersections and other segments of I-70 operate at acceptable LOS. Both alternatives maintain access to Air Flight Drive with connections to airport related businesses on Pear Tree Drive and Natural Bridge Road to the south of I-70. Based on the two warranted improvements, Alternative 2 is recommended in order to mitigate the operational and safety impacts of the redistribution of traffic while providing a safe, clear and direct path to the CTP with low delay.