Appendix H – Noise Analysis Report

Detailed Noise Analysis Report

SC Highway 41 Corridor Improvements Project

Charleston and Berkeley Counties, South Carolina

July 7, 2022

Prepared for Charleston County

Prepared by HDR Engineering, Inc.

Executive Summary

Charleston County proposes to improve SC Highway 41 (SC 41) for a total of approximately 5.6 miles from US Highway 17 (US 17) across the Wando River Bridge to Clements Ferry Road, located in Berkeley and Charleston Counties, South Carolina. The proposed project also includes improvements to the intersection of SC 41 and US 17, a new tie-in road between SC 41 and Winnowing Way, and 1.3 mile new location roadway, Laurel Hill Parkway, between SC 41 and Park West Boulevard.

While there is no federal funding for the SC 41 Corridor Improvements project, a federal Clean Water Act Section 404 permit is required to construct the project because of anticipated impacts to wetlands and waters of the United States. Therefore, the project's design scope must be established in accordance with the National Environmental Policy Act (NEPA) process. The U.S. Army Corps of Engineers (USACE) will be the Lead Federal Agency for the project upon their review of the project's permit application and associated environmental report.

This Detailed Noise Analysis was prepared to assess noise impacts from the Compromise Alternative being considered by Charleston County (see Figure 1). The project team used SCDOT policies and FHWA regulations to prepare the noise study because USACE does not have a noise analysis policy and these policies and regulations represent an accepted method of assessing noise impacts for transportation projects. The SCDOT Traffic Noise Abatement Policy constitutes the official SCDOT noise policy and procedures for the purpose of meeting the requirements of Title 23 of the Code of Federal Regulations (CFR) Part 772 and applicable state laws. This analysis conforms to Federal Highway Administration (FHWA) Regulation 23 CFR 772, "Procedures for Abatement of Highway Traffic Noise and Construction Noise," and all applicable state laws.

The existing (2022) and design year (2045) traffic noise levels for the Existing, No-Build, and Build Alternatives were predicted for 1,366 receivers using the FHWA's latest traffic noise modeling software, TNM 2.5. The table below provides a summary of the impacts for the Build Alternative. The results of the noise analysis indicate traffic-related noise impacts occur for 41 receivers under the Build Alternative.

Impact Summary

Activity Category		Year 2045 Build Alternative Impacts
A	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.	0
B	Residential	36
C	Active sports 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, recreational areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.	1
D	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.	0
E	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.	4
Total		41

Barrier Analysis Summary

Maps of the locations of the investigated noise barriers are provided in Appendix B. Based on the detailed noise analysis of 7 potential barriers to shield impacts in the Build Alternative, all of the barriers were found to be not feasible due to access and safety issues.

Construction Impacts

The major construction elements of this project are expected to be earth removal, hauling, grading, and paving. Construction noise impacts – some of them potentially substantial – may occur due to the proximity of numerous noise-sensitive receivers to project construction activities. It is the recommendation of this traffic noise analysis that all reasonable efforts should be made to minimize exposure of noise-sensitive areas to construction noise impacts.

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1.0 Introduction

1.1 Project Description

Charleston County proposes to improve SC Highway 41 (SC 41) for a total of approximately 5.6 miles from US Highway 17 (US 17) across the Wando River Bridge to Clements Ferry Road, located in Berkeley and Charleston Counties, South Carolina. The proposed project also includes improvements to the intersection of SC 41 and US 17, a new tie-in road between SC 41 and Winnowing Way, and 1.3 mile new location roadway, Laurel Hill Parkway, between SC 41 and Park West Boulevard.

Along SC 41, the proposed typical section would include four travel lanes, curb and gutter with a planted median between US 17 and Joe Rouse Road, and from Dunes West Boulevard to Clements Ferry Road, with a 5-foot sidewalk on the west side and a 10-foot multi-use path on the east side. On SC 41 between Joe Rouse Road and Dunes West Boulevard, the proposed typical section would include a three-lane curb and gutter section with one travel lane in each direction, a center two-way left turn lane, and 5-foot sidewalk on both sides. The proposed typical section along Laurel Hill Parkway would include two lanes with curb and gutter and a 10-foot multi-use path on the east side.

Residential communities along SC 41 include the Phillips Community, Dunes West, Park West, Rivertowne, Planter's Pointe, The Colonnade, Brickyard Plantation, and Horlbeck Creek (Figure 1). Additionally, the project study area includes crossings over Horlbeck, Mill, and Wagner Creeks. While the study corridor includes the Wando River, no construction is anticipated within or directly adjacent to the river since the SC 41 bridge was recently replaced in 2017.

While there is no federal funding for the SC 41 Corridor Improvements project, a federal Clean Water Act Section 404 permit is required to construct the project because of anticipated impacts to wetlands and waters of the United States. Therefore, the project's design scope must be established in accordance with the National Environmental Policy Act (NEPA) process. Under the NEPA process, an extensive environmental review must take place in order to complete a rigorous analysis of the project area and to examine reasonable alternatives for the improvements. The environmental review is done in order to avoid, minimize or mitigate environmental impacts and to ensure public participation is incorporated into the decision making process. The U.S. Army Corps of Engineers (USACE) will be the Lead Federal Agency for the project upon their review of the project's permit application and associated environmental report.

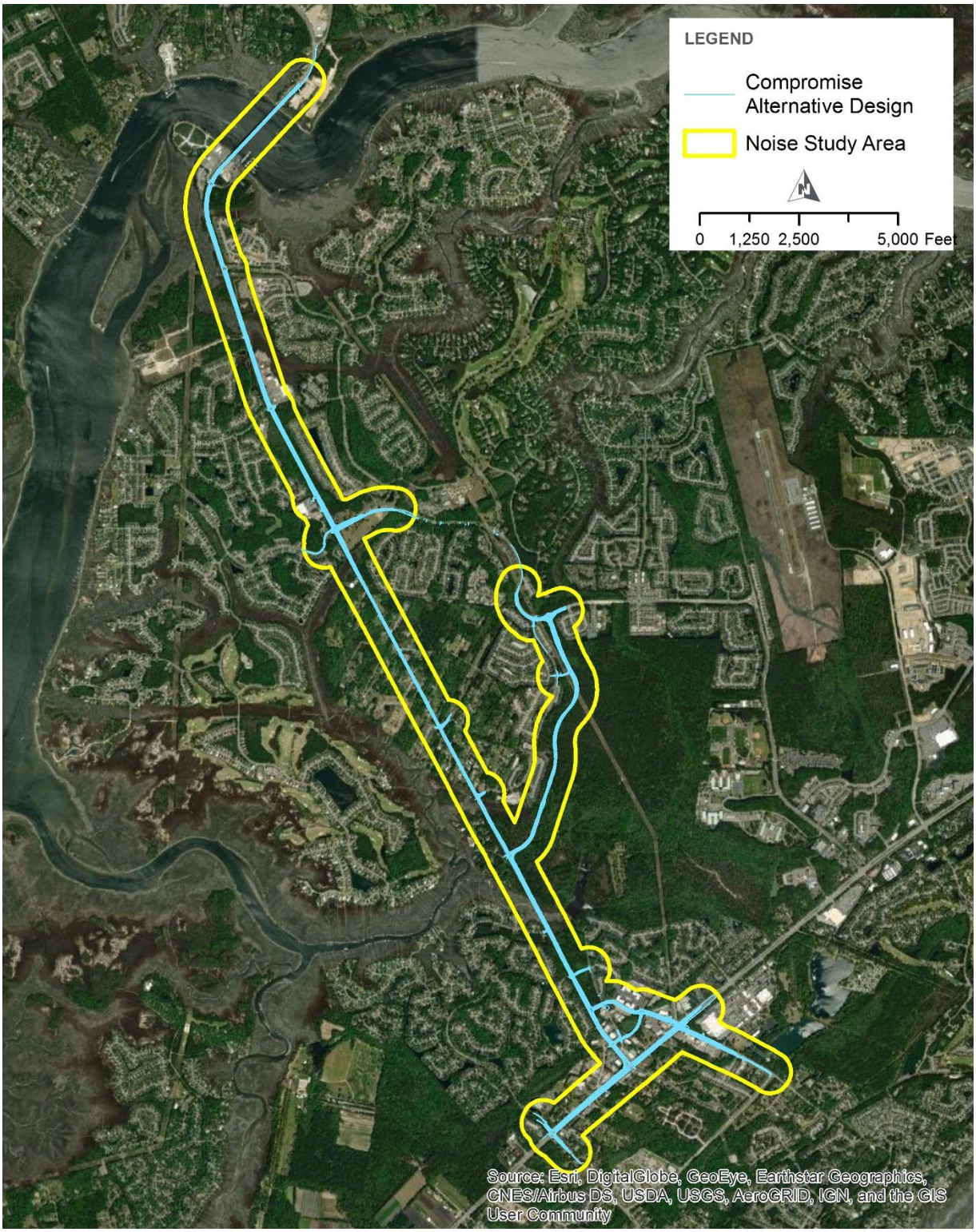

Figure 1. Project Location and Study Areas

1.2 Purpose

This Detailed Noise Analysis was prepared to assess noise impacts from the build alternative being considered by Charleston County (see Figure 1). The project team used SCDOT policies and FHWA regulations to prepare the noise study because USACE does not have a noise analysis policy and these policies and regulations represent an accepted method of assessing noise impacts for transportation projects. The SCDOT Traffic Noise Abatement Policy constitutes the official SCDOT noise policy and procedures for the purpose of meeting the requirements of Title 23 of the Code of Federal Regulations (CFR) Part 772 and applicable state laws. This analysis conforms to Federal Highway Administration (FHWA) Regulation 23 CFR 772, "Procedures for Abatement of Highway Traffic Noise and Construction Noise," and all applicable state laws.

1.3 Need for Improvement

The primary purpose of the proposed SC 41 corridor improvements project is to reduce traffic congestion within the SC 41 corridor to accommodate future traffic projections. The secondary purposes of the proposed SC 41 corridor improvements project are to:

- enhance safety throughout the corridor,
- improve transportation system and community connections,
- provide bicycle and pedestrian accommodations,
- minimize community and environmental impacts.

The proposed project is needed to address anticipated local and regional growth, increased traffic congestion, safety and emergency response concerns, and inadequate interconnections of transportation modes, including pedestrian and bicycle facilities.

2.0 Methodology

The Federal Highway Administration (FHWA) Traffic Noise Model, TNM2.5 was used to calculate existing noise levels and predict future design year noise levels for four distinct scenarios consisting of the current year (2022) Existing Alternative, and the design year (2045) No-Build Alternative and Build Alternative. Inputs to this model include noise sensitive receiver locations, existing and future roadway alignments, and features such as buildings, ground zones, and elevation. In addition, traffic volumes including vehicle mix and design speeds were used. The noise analysis for this project was prepared in accordance with the SCDOT *Traffic Noise Abatement Policy*, dated and effective October 10, 2019, to comply with the amended 23 CFR 772 which became effective July 2011.

2.1 Characteristics of Noise

Noise can be described as unwanted or excessive sound that may interfere with communication or disturb the community. It is emitted from many sources including airplanes, factories, railroads, commercial businesses, and highway vehicles. Roadway vehicle noise (traffic noise) consists of three primary parts: tire noise, engine noise, and exhaust noise. Of these sources, tire noise is typically the most offensive at unimpeded travel speeds.

The magnitude of noise is usually described by a ratio of its sound pressure to a reference sound pressure, which is usually 20 micropascals (20µPa). Since the range of sound pressure ratios varies greatly over

many orders of magnitude, a base-10 logarithmic scale is used to express sound levels in dimensionless units of decibels (dB). The commonly accepted limits of human hearing to detect sound magnitudes are between the threshold of hearing at 0 dB and the threshold of pain at 140 dB. Several frequency-weighting schemes have been used to develop composite decibel scales that approximate the way the human ear responds to sound levels. The A-weighted decibel (dBA) scale is most widely used for this purpose. Figure 2 shows typical noise levels of some common noise sources on the decibel scale.

The noise level descriptor used by SCDOT is the equivalent sound pressure level (L_{eq}). L_{eq} is defined as the continuous steady sound level that would have the same total A-weighted sound energy as the real fluctuating sound measured over a given period of time. Traffic noise levels are expressed with the hourly equivalent sound pressure level, notated as $L_{eq(h)}$.

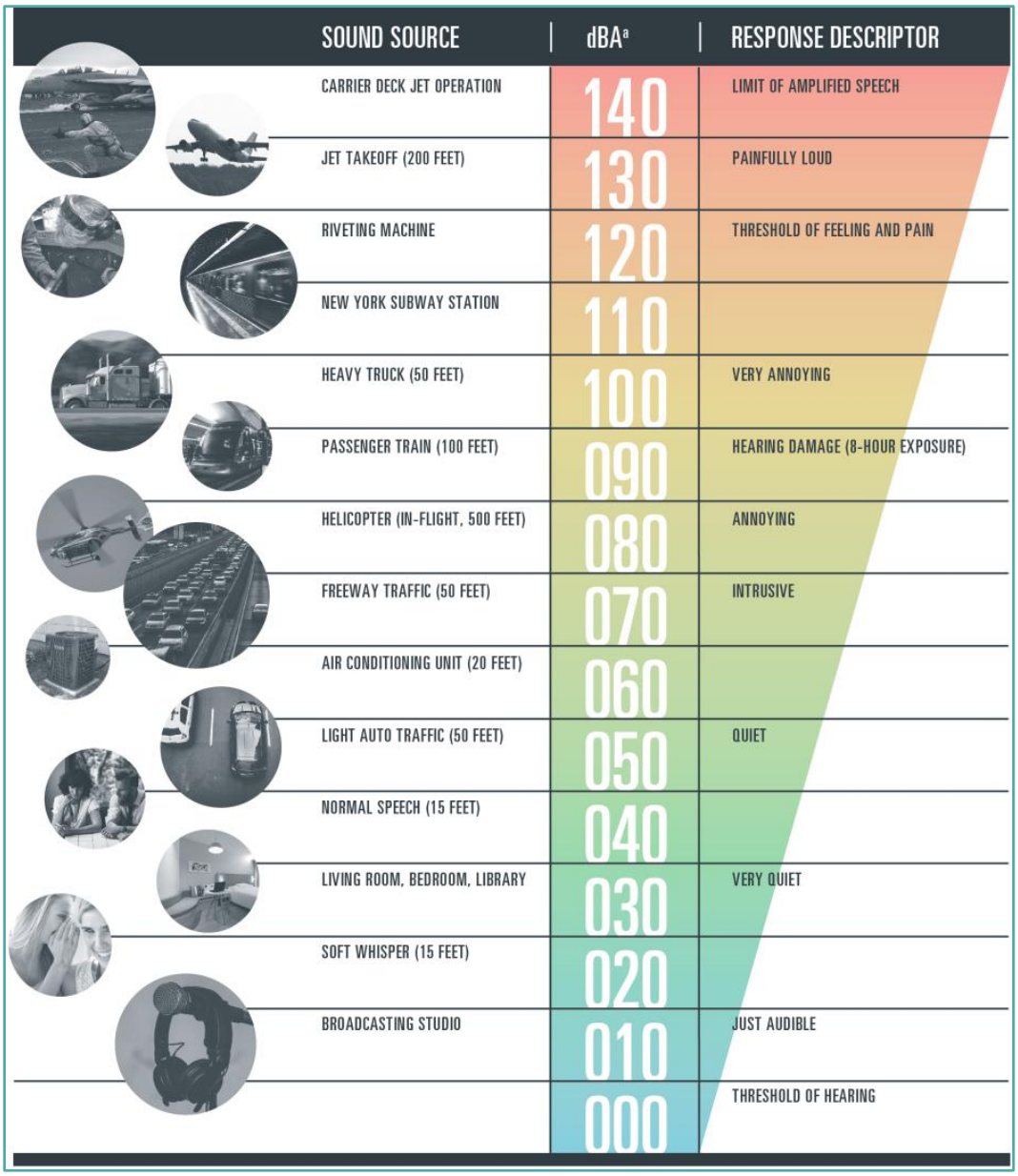

Figure 2. Weighted Noise Levels and Human Response

2.2 Model and Noise Metrics

The noise level descriptor used by SCDOT is the equivalent sound pressure level (L_{eq}). L_{eq} is defined as the continuous steady sound level that would have the same total A-weighted sound energy as the real fluctuating sound measured over a given period of time. Traffic noise levels are expressed with the hourly equivalent sound pressure level, notated as $L_{eq(h)}$.

The Federal Highway Administration (FHWA) Traffic Noise Model (TNM), version 2.5, was used to predict noise levels, perform noise barrier analysis, if needed, and develop noise contours.

2.3 Traffic Data

Traffic noise consists of three primary parts: tire/pavement noise, engine noise, and exhaust noise. Of these sources, tire noise is typically the most unpleasant at unimpeded travel speeds. Sporadic traffic noises such as horns, squealing brakes, screeching tires, etc. are considered abnormal and are not included within the predictive model algorithm. Traffic noise is not constant; it varies in time depending upon the number, speed, and type of vehicles that pass by a given receptor. A receptor is a discrete or representative location of a noise sensitive site or land area ("receiver"). Furthermore, since traffic noise emissions are different for various types of vehicles; the TNM algorithm distinguishes between source noise emissions from the following vehicle types: automobiles, medium trucks, heavy trucks, buses, and motorcycle (see Table 1).

Table 1: Traffic Noise Model (TNM) Vehicle Classification Types

TNM Vehicle Type	Description
Autos	All vehicles with two axles and four tires, including passenger cars and light trucks, weighing 10,000 pounds or less
Medium Trucks	All vehicles having two axles and six tires, weighing between 10,000 and 26,000 pounds
Heavy Trucks	All vehicles having three or more axles, weighing more than 26,000 pounds
Buses	All vehicles designed to carry more than nine passengers
Motorcycles	All vehicles with two or three tires and an open-air driver / passenger compartment

Sources: FHWA Measurement of Highway-Related Noise, § 5.1.3 Vehicle Types
FHWA Traffic Monitoring Guide § 4.1 Classification Schemes

The traffic volume and vehicle mix used in the model were based on information provided by Stantec. For both the existing (2022) and the design year (2045), worst noise hour traffic volumes for each roadway segment were compared with Level of Service (LOS) volumes for the corresponding roadway type. If the peak hour volume exceeded the LOS C volume, which represents the maximum volume for unimpeded traffic flow, the LOS C volume was used as input to the model instead of the peak hour volume, to represent the worst case for noise. Design speeds were used as the input speeds. The traffic parameters used in the noise model for prediction of future noise levels are presented in Appendix A.

3.0 Traffic Noise Analysis

3.1 Noise Sensitive Sites

A receptor is a discrete or representative location of a receiver, which is a noise sensitive site or area for any of the land use categories listed in Table 2. In determining traffic noise impacts, primary consideration is given to exterior areas where frequent human use occurs (i.e. patio of a restaurant or back yard of a single-family home), unless no exterior activities are evident based on field observation. The noise study area includes all noise sensitive areas within 500 feet of the nearest edge of the proposed roadway, a sufficient distance to identify all potential impacts. The location of each receptor is shown in Appendix B.

Existing land uses within the corridor are mainly residential (Category B) with various recreational (Category C), churches (Category D) and office or restaurant patios (Category E) land uses in the corridor. Some Category F locations are also present, for which noise impacts are not defined. There are no Category A land uses in the corridor.

The FHWA Noise Abatement Criteria (NAC), summarized in Table 2, establish criteria for traffic noise impact assessments with respect to various land uses. If one or more receivers are affected by project-related traffic noise levels that approach or exceed the abatement criteria, or that substantially exceed existing noise levels, then abatement measures must be considered. By SCDOT policy, as approved by FHWA, approaching the criteria means within 1 dBA of the appropriate FHWA abatement criteria. A substantial noise increase is defined as an increase in noise levels of 15 dBA or more in the design year above the existing noise level as a direct result of the transportation improvement project in question. If the abatement criteria are not approached or exceeded, or if projected traffic noise levels do not substantially exceed existing noise levels, abatement measures will not be considered.

Table 2: Noise Abatement Criteria

[Hourly A-Weighted Sound Level – decibels (dBA)]				
Activity Category	**Activity $L_{eq(h)}$[1]**		**Evaluation Location**	**Description of Activity Category**
	FHWA	**SCDOT**		
A	57	56	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[2]	67	66	Exterior	Residential
C[2]	67	66	Exterior	Active sports 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, recreational areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	51	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[2]	72	71	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.

(Based on Table 1 of 23 CFR Part 772)

[1] *The $L_{eq(h)}$ Activity Criteria values are for impact determination only, and are not design standards for noise abatement measures.*
[2] *Includes undeveloped lands permitted for this activity category.*

3.2 Measured Noise Levels

Existing traffic noise levels were measured in the field and then compared against TNM results to validate the traffic noise model. If the modeled and measured levels are within plus or minus 3 dBA of one another, this is an indication that the model is within the accepted level of accuracy.

3.2.1 Field Testing Procedure

Airhub and HDR staff measured traffic noise at locations that are representative of nearby noise-sensitive sites along the corridors of US 17, SC 41, Dunes West Boulevard, Park West Boulevard and Bessemer Road on both sides of the roadway. Airhub conducted measurements on September 19-21, 2017 and April 23, 2019, and HDR conducted measurements on May 2, 2018. Traffic noise measurements were conducted in accordance with the FHWA-PD-96-046 Measurement of Highway Related Noise (May 1996). The average meteorological conditions were reported as shown in Table 3 below.

Table 3: Meteorological Conditions

	09/19 to 09/21, 2017	05/02/2018	04/23/2019
Temperature	≅ 79-86° F	≅ Mid to High 70° F	≅ Clear 70/71° F
Wind	< 9 mph	< 9 mph	< 9 mph
Conditions	Partly Cloudy, Clear	Clear	Clear

3.2.2 Instrumentation

Noise monitoring was conducted using a Casella CEL-63X (SLM) on September 19 and 21, 2017, Norsonic AS (SLM) on May 02, 2017, and LXT SE (SLM) on April 23, 2019. The meters were set at a height of approximately 5 feet for all measurements. The microphone was covered with a windscreen. Table 4 summarizes the instruments used to collect the monitoring data for this noise analysis report.

Table 4: Noise Analysis Instrumentation Summary

Instrument	Make	Model	Serial Number
Date: September 19 – September 21, 2017			
Sound Level Meter	Casella	CEL-63X	2145345
Calibrator	Casella	CEL-120	2839253
Date: May 02, 2018			
Sound Level Meter	Norsonic	118	30596
Calibrator	Norsonic AS	1251	30768
Date: April 23, 2019			
Sound Level Meter	Larson Davis	SoundTrack LXT SE	0004864
Calibrator	Larson Davis	Cal200	10609

3.2.3 Field Measurement Methods

The SLM was programmed to compute the equivalent sound level (L_{eq}). L_{eq} is the steady-state sound level that contains the same amount of acoustic energy as the actual time varying sound level over the measurement period. L_{eq} is measured in A-weighted decibels (dBA), which closely approximates the range of frequencies a human ear can hear. The following procedures were used for noise monitoring:

- The duration of the L_{eq} measurements was 15-30 minutes.
- The SLM was calibrated before and after monitoring. No significant calibration drifts were detected during the analysis.
- The microphone was mounted on a tripod 5 feet above the ground.
- The microphone was covered with a windscreen.
- Traffic was counted manually, classified by vehicle type, and used as input in the validation of the FHWA Traffic Noise Model.
- Vehicle speeds were determined by posted speed.

3.2.4 Field Measurement Locations

Table 5 describes the locations of each of the validation sites within the project corridor.

Table 5: Noise Validation Location Summary

Measurement Location	Description
A	US-17 AB McConnell General Merchandise
B	US-17 Carolina Physical Therapy
C	Lake Crest Ct - Colonnade
D	WB/ Elijah Smalls Rd
E	Nehemiah Rd – Phillips Manor
F	2080 Kings Gate Lane
G	Easement
H	2571 SC-41 South
I	Harpers Ferry Way
J	Hamlin Road/ Residential area near US 17
K	Porchers Bluff at Church
L	Winnowing Way
M	Homes Southern End of Bessemer
N	Park West Baseline
O	Townhomes
P	County Park
Q	Homes at Kirby Lane
R	2576 Larch Lane
S	3101 Kilby lane
T	1646 Bridwell Lane
U	2451 Draymohr Court
V	3029 Park W. Blvd.
W	3015 Dunes W. Blvd.

Validation locations are shown in Figure 3 and are located throughout the project area. Data Collection Sheets are in Appendix D.

3.2.5 Model Validation Results

The measured and predicted noise levels for each of the monitoring sites selected along the project corridor are presented in Table 6. Each set of predicted and measured data was found to be within the acceptable plus or minus 3 dBA tolerance. Noise measurements M through Q were performed along the proposed new Laurel Hill Parkway alignment to help in establishing background ambient noise levels and were not used for validation of the noise model. The duration of each measurement was 15 minutes for all sites other than M through Q, where 30-minute measurements were used to establish background levels.

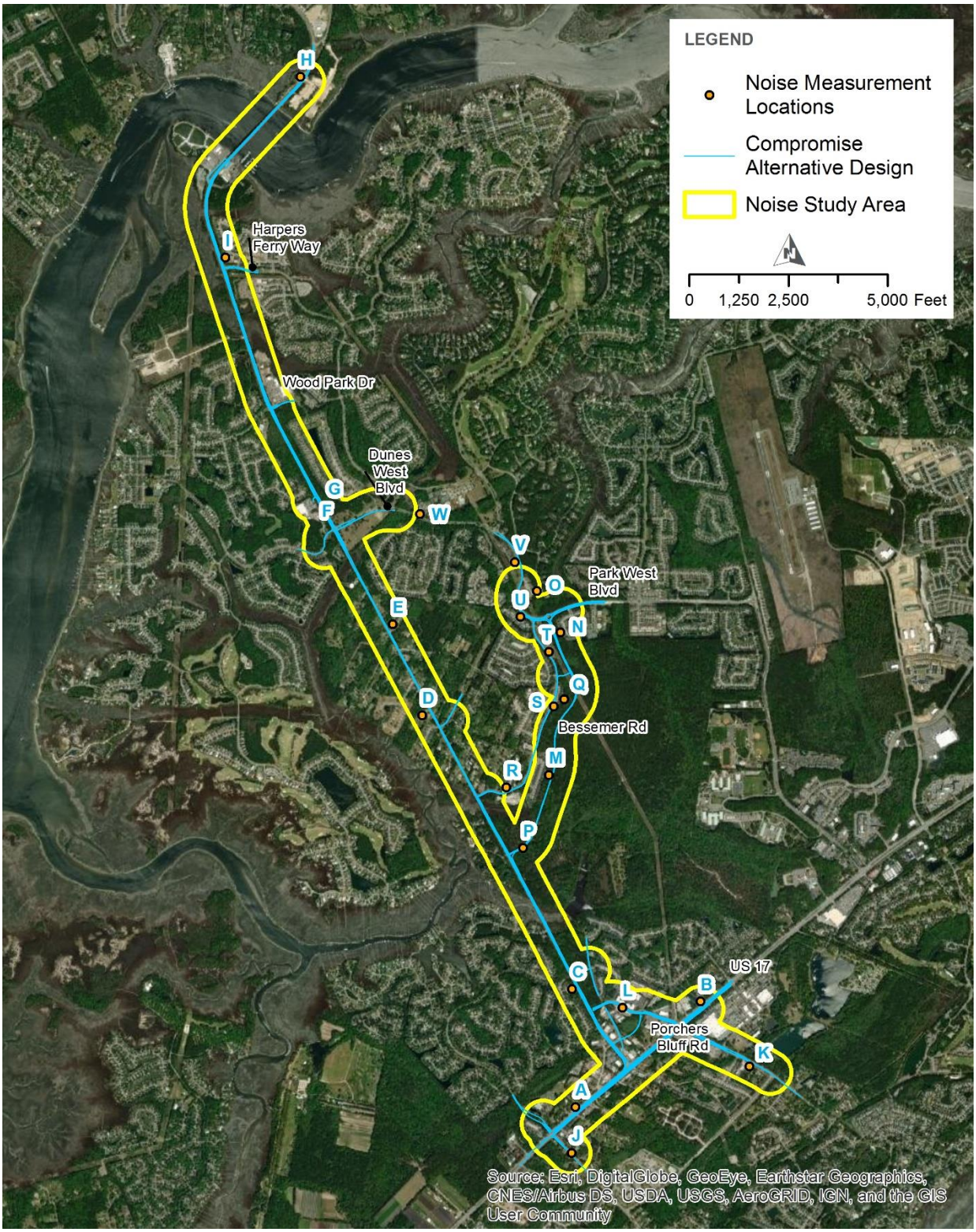

Figure 3: Field Measurement/Validation Locations

Table 6: Model Validation Results

Measurement Location	Date and Start Time	L_{Aeq1h} (dBA)		
		Measured	Predicted	Difference
A	9/21/17, 10:50 am	71.0	68.4	-2.6
B	9/21/17, 9:40 am	65.3	66.8	+1.5
C	9/20/17, 2:53 pm	58.9	61.6	+2.7
D	9/20/17, 11:46 am	55.6	53.8	-1.8
E	9/20/17, 11:15 am	57.1	57.2	+0.1
F	9/19/17, 2:25 pm	50.2	51.9	+1.7
G	9/19/17, 2:52 pm	57.9	60.5	+2.6
H	9/20/17, 10:37 am	65.2	67.8	-1.7
I	9/20/17, 9:39 am	62.3	59.8	-1.0
J	4/23/19, 6:35 pm	64.4	62.8	-1.9
K	4/23/19, 5:25 pm	54.5	55.6	+1.4
L	4/23/19, 5:02 pm	54.6	54.9	-2.9
M	4/23/19, 1:56 pm	49.1	[1]Background noise measurement	
N	4/23/19, 12:20 pm	45.1	[1]Background noise measurement	
O	4/23/19, 11:00 am	44.8	[1]Background noise measurement	
P	4/23/19, 2:55 pm	51.1	[1]Background noise measurement	
Q	4/23/19, 1:10 pm	44.6	[1]Background noise measurement	
R	5/2/18, 9:19 am	53.3	50.9	-2.4
S	5/2/18, 9:42 am	57.0	56.4	-0.6
T	5/2/18, 10:05 am	60.4	58.1	-2.3
U	5/2/18, 10:27 pm	54.3	53.8	-0.5
V	5/2/18, 10:52 am	51.0	53.8	+2.8
W	5/2/18, 11:13 am	54.1	56.8	+2.7

Note 1: These measurements were performed to establish ambient noise levels at areas where a new alignment is proposed.

3.3 Traffic Noise Modeling

To calculate existing noise levels and predict future design year noise levels, FHWA's TNM version 2.5 was used to model noise sensitive receiver locations on existing and future roadway alignment with traffic volumes and posted speeds. The modeled noise level results reflect the existing field conditions, no build and future conditions along the proposed roadway alignment alternatives (Table 10, Appendix C). The following was assumed for the modeling:

- All travel lanes were included in the TNM model.
- Worst noise hour traffic volumes and truck percentages were used. Traffic volumes represent the volume that is lower between the Level of Service C volume and peak hour volume. Traffic data is included in Appendix A.
- Vehicle speeds of 45 MPH were used on SC 41 and US 17.
- All requirements of the SCDOT noise policy are followed:
    - Terrain features larger than 5 feet are defined by terrain lines (none were identified within the study area).

  - Ground zones are included where there is a non-default ground type between the roadway and a receptor
  - Shoulders and medians are modeled as no-traffic roadways, or as ground zones if jersey barriers are present.
- Features including building barriers, terrain lines and ground zones are included only between receptors and roadways.
- Ground elevations for all inputs to the model, including roadways, receptors, building barriers, and barriers in the barrier analyses are defined.
- A land use survey was conducted for the project area. The corresponding Noise Abatement Criteria (NAC) category from the SCDOT Traffic Noise Abatement Policy was used for identified receivers. Noise sensitive receivers were assigned a NAC category B, C, D, E or F.

3.4 Noise Impact Analysis

The existing (2022) and design year (2045) traffic noise levels for the Existing, No-Build, and Build Alternatives were predicted for 1,366 sites (each representing 1 receiver) using the FHWA's traffic noise modeling software, TNM 2.5. Conceptual design plans overlaid on project aerials were used in conjunction with field reviews to develop the horizontal and vertical coordinate input data required by TNM for roadway centerlines and other features. Receptor locations were identified from both project aerials and from driving the corridor (See Appendix B). Results of the noise analysis are discussed below.

Existing and No-Build Alternatives

Based on the detailed noise analysis for the 2022 "Existing" Alternative, noise levels would approach or exceed the NAC established in the *SCDOT Traffic Noise Abatement Policy* for 37 out of 1,366 noise sensitive receivers. Noise levels for the existing condition ranged from 44.6 to 73.3 dBA.[1]

Based on the detailed noise analysis for the 2045 "No-Build" Alternative, noise levels would approach or exceed the NAC established in the *SCDOT Traffic Noise Abatement Policy* for 37 out of 1,366 noise sensitive receivers. Noise levels for the no-build condition ranged from 44.6 to 73.3 dBA, with an average increase of 0.3 dBA over the existing condition. Traffic noise levels resulting from the design year (2045) No-Build Alternative are expected to change between -2.0 to 4.7 dBA compared to the (2022) Existing Alternative. Decreases in noise level in the no-build results could be attributed to the predicted congestion pattern change within the roadway network that resulted in lower peak hour volumes in certain locations. Table 7 lists a summary of the noise impacts associated with the existing and no-build alternatives. The majority of the impacts would be to NAC Category B (residences). Appendix C lists detailed results for each receptor.

Build Alternative

Based on the detailed noise analysis for the 2045 Build Alternative, noise levels would approach or exceed the NAC established in the *SCDOT Traffic Noise Abatement Policy* for 41 out of 1,366 noise sensitive receivers, including 36 Category B receivers, 1 Catgory C receiever, and 4 Category E receivers. There are no impacts predicted due to a substantial increase in noise levels of at least 15 dB. Noise levels for the build condition ranged from 44.6 to 73.1 dBA. Traffic noise levels resulting from (2045) Build Alternative are expected to vary between -2.7 to 14.0 dBA compared to existing levels. Fluctuations in build traffic

[1] For all modeled scenarios, TNM results lower than the lowest measured ambient level of 44.6 dBA were replaced with 44.6 dBA.

noise levels over existing traffic noise levels can occur due to changes in predicted traffic or shifts in alignment closer or away from receptors. Table 7 lists a summary of the noise impacts associated with the Build Alternative. The majority of the impacts would be to NAC Category B (residences). Appendix C lists detailed results for each receiver.

Table 7: Modeled Noise Impacts along SC 41 & US 17

	Year 2022	Year 2045	
Activity Category	Existing	No-Build	Build
A	0	0	0
B	31	31	36
C	1	1	1
D	0	0	0
E	5	5	4
Total	37	37	41

3.5 Consideration of Noise Abatement Measures

In accordance with 23 CFR §772.13 (c) and SCDOT's Noise Abatement Policy, noise abatement measures must be considered for reducing or eliminating noise levels to impacted receivers. When considering noise abatement measures, primary consideration shall be given to exterior areas where frequent human use occurs. Since South Carolina is not part of the FHWA-approved Quiet Pavement Pilot Program, the use of quieter pavements was not considered as an abatement measure for the proposed project.

In addition, the planting of vegetation or landscaping was also not considered as a potential abatement measure, since it is not an acceptable Federal-aid noise abatement measure because only dense stands of evergreen vegetation planted 100 feet deep will reduce noise levels. The following measures were considered and evaluated as a means to reduce or eliminate the traffic noise impacts:

- Traffic management;
- Alteration of horizontal and vertical alignments;
- Acquisition of real property or interests therein (predominantly unimproved property) to serve as a buffer zone to preempt development;
- Noise insulation of public use or nonprofit institutional structures; and,
- Noise barriers.

Table 8 outlines the different types of noise abatement measures considered and whether they were eliminated from consideration or carried forward. Of the possible noise abatement measures considered for the proposed project, only noise barriers were carried forward for consideration due to the constraints listed in Table 8 for the other options, primarily because the preliminary design was modified to minimize impacts to the greatest extent to the natural and human environment. The acquisition of additional right-of-way to alter the alignment or create a buffer zone would result in an increase in impacts.

Table 8: Mitigation Types Considered for Noise Impacts

Mitigation Type	Status
Traffic management	Eliminated. Measures such as exclusive lane designations and signing for prohibition of certain vehicle type would prevent the project from serving its intended purpose, such as moving people, goods and services.
Alteration of horizontal and vertical alignments	Eliminated. Alignment modifications as a means of noise abatement may result in disruptive relocations for this project and may affect other natural resources.
Acquisition of real property or interests therein (predominantly unimproved property)	Eliminated. The taking of adequate property to create an effective buffer zone would most likely involve taking the impacted receivers and would require purchasing additional right-of-way. Additionally, receivers that are farther from the road are likely not impacted.
Noise insulation of public use or nonprofit institutional structures	Eliminated. No public use or nonprofit institutional structures would be impacted by the proposed project.
Noise barriers	Carried forward for further consideration.

There are feasibility and reasonableness criteria that must be met for the construction of noise walls. Noise walls are assessed under the feasibility criteria first, and if all conditions are met, are then considered for reasonableness. There are two feasibility criteria. Per SCDOT policy, acoustic feasibility means that a noise reduction of at least 5 dBA must be achieved for at least 75% of impacted receivers, including at least 3 impacted receivers. There are also engineering and design considerations that must be achieved to meet the engineering feasibility criteria. These considerations include topography, safety, drainage, utilities, maintenance, access, wall height, and constructability.

As with feasibility, there are several reasonableness criteria that must be met. These include:

- Noise Reduction Design Goal – It is SCDOT's policy that a noise reduction of at least 8 dBA must be achieved for 80% of those receivers determined to be in the first two building rows and considered benefited.
- Cost Effectiveness – The allowable cost of the abatement is based on $35.00 per square foot. This allowable cost is based on the cost effectiveness criteria found in SCDOT's Traffic Noise Abatement Policy. This construction cost will be divided by the number of benefited receivers. If the cost per benefited receiver is less than $30,000 then the barrier is determined to be cost effective.
- Viewpoints of Property Owners and Residents – SCDOT will solicit the viewpoints of all of the benefited receivers and document a decision on either desiring or not desiring the noise abatement measure. A noise wall will be constructed unless a majority (greater than 50% of the benefited receivers) of votes not desiring noise abatement is received. This third criterion is only considered if the noise wall meets the first two criteria.

The three mandatory reasonable factors must collectively be achieved in order for a noise abatement measure to be deemed reasonable. Failure to achieve any one of the reasonable factors will result in the noise abatement measure being deemed not reasonable.

Specific noise mitigation, including noise barriers, will be examined further in the detailed noise analysis for locations where at least 3 impacted receivers could conceivably be benefited. Noise barriers will be recommended for those areas that are able to meet the SCDOT specific feasibility and reasonableness criteria. SCDOT feasibility and reasonableness worksheets are included in Appendix E.

3.5.1 Barrier Analysis Results

This section discusses the evaluations of feasibility and reasonableness performed on the barriers that could potentially mitigate projected traffic noise impacts in the Build Alternative. Barrier locations are shown on receptor maps in Appendix B.

Barrier 1 – Impacted Receivers 0037, 0038, 0039

Barrier 1 is an approximately 400-foot long system of noise walls. This wall would be located on the west side of SC 41 south of Nehemiah Road.

Feasibility:

Engineering Feasibility: The barrier would either obstruct driveway access, or breaks in the barrier to preserve driveway access would obstruct sightlines and cause safety issues; therefore, the barrier would not be feasible.

Acoustic Feasibility: The acoustic feasibility analysis is not applicable because the engineering feasibility requirements were not met.

Reasonableness:

The reasonableness analysis is not applicable because feasibility requirements were not met.

Conclusion: Based on the above results of the detailed analysis, this abatement feature is not feasible, and is not proposed as part of this project.

Barrier 2 – Impacted Receivers 0241, 0243, 0244, 0245

Barrier 2 is an approximately 1,000-foot long system of noise walls. This wall would be located on the east side of SC 41 south of Canyon Lane.

Feasibility:

Engineering Feasibility: The barrier would either obstruct driveway access, or breaks in the barrier to preserve driveway access would obstruct sightlines and cause safety issues; therefore,the barrier would not be feasible.

Acoustic Feasibility: The acoustic feasibility analysis is not applicable because the engineering feasibility requirements were not met.

Reasonableness:

The reasonableness analysis is not applicable because feasibility requirements were not met.

Conclusion: Based on the above results of the detailed analysis, this abatement feature is not feasible, and is not proposed as part of this project.

Barrier 3 – Impacted Receivers 0044, 0045, 0046

Barrier 3 is an approximately 700-foot long system of noise walls. This wall would be located on the west side of SC 41 on either side of Bent Oak Road.

Feasibility:

Engineering Feasibility: The barrier would either obstruct driveway access, or breaks in the barrier to preserve driveway access would obstruct sightlines and cause safety issues; therefore,the barrier would not be feasible.

Acoustic Feasibility: The acoustic feasibility analysis is not applicable because the engineering feasibility requirements were not met.

Reasonableness:

The reasonableness analysis is not applicable because feasibility requirements were not met.

Conclusion: Based on the above results of the detailed analysis, this abatement feature is not feasible, and is not proposed as part of this project.

Barrier 4 – Impacted Receivers 0264, 0269

Barrier 4 is an approximately 500-foot long system of noise walls. This wall would be located on the east side of SC 41 north of Bessemer Road. Although only 2 receptors are impacted, receptor 0269 is a category C receptor representing outdoor use at a daycare facility, therefore the wall was analyzed on the chance of usage at receiver 0269 representing more than one receiver.

Feasibility:

Engineering Feasibility: The barrier would either obstruct driveway access, or breaks in the barrier to preserve driveway access would obstruct sightlines and cause safety issues; therefore,the barrier would not be feasible.

Acoustic Feasibility: The acoustic feasibility analysis is not applicable because the engineering feasibility requirements were not met.

Reasonableness:

The reasonableness analysis is not applicable because feasibility requirements were not met.

Conclusion: Based on the above results of the detailed analysis, this abatement feature is not feasible, and is not proposed as part of this project.

Barrier 5 – Impacted Receivers 0129, 0130, 0131, 0132, 0134

Barrier 15 is an approximately 1,250-foot long system of noise walls. This wall would be located on the north side of US 17 between Brickyard Parkway and the SC 41 access road.

Feasibility:

Engineering Feasibility: The barrier would either obstruct driveway access, or breaks in the barrier to preserve driveway access would obstruct sightlines and cause safety issues; therefore,the barrier would not be feasible.

Acoustic Feasibility: The acoustic feasibility analysis is not applicable because the engineering feasibility requirements were not met.

Reasonableness:

The reasonableness analysis is not applicable because feasibility requirements were not met.

Conclusion: Based on the above results of the detailed analysis, this abatement feature is not feasible, and is not proposed as part of this project.

Barrier 6 – Impacted Receivers 0331, 0333, 0334

Barrier 6 is an approximately 425-foot long system of noise walls. This wall would be located on the south side of US 17 east of Dingle Road.

Feasibility:

Engineering Feasibility: The barrier would either obstruct driveway access, or breaks in the barrier to preserve driveway access would obstruct sightlines and cause safety issues; therefore,the barrier would not be feasible.

Acoustic Feasibility: The acoustic feasibility analysis is not applicable because the engineering feasibility requirements were not met.

Reasonableness:

The reasonableness analysis is not applicable because feasibility requirements were not met.

Conclusion: Based on the above results of the detailed analysis, this abatement feature is not feasible, and is not proposed as part of this project.

Barrier 7 – Impacted Receivers 0287, 0288, 0289

Barrier 7 is an approximately 550-foot long system of noise walls. This wall would be located on the north side of US 17 east of SC 41.

Feasibility:

Engineering Feasibility: The barrier would either obstruct driveway access, or breaks in the barrier to preserve driveway access would obstruct sightlines and cause safety issues; therefore,the barrier would not be feasible.

Acoustic Feasibility: The acoustic feasibility analysis is not applicable because the engineering feasibility requirements were not met.

Reasonableness:

The reasonableness analysis is not applicable because feasibility requirements were not met.

Conclusion: Based on the above results of the detailed analysis, this abatement feature is not feasible, and is not proposed as part of this project.

Barrier Analysis Summary

Based on the detailed noise analysis of 7 potential barriers to shield impacts in the build alternative, each of the 7 barriers were found to be not feasible due to access and safety issues. The location of the investigated barriers is shown in Appendix B. SCDOT feasibility and reasonableness worksheets can be found in Appendix E.

3.6 Construction Noise

The major construction elements of this project are expected to include earth removal, hauling, grading, bridge construction, and paving. General construction noise impacts, such as temporary speech interference for passers-by and those individuals living or working near the project, can be expected particularly from paving operations, pile driving at bridges, and earth moving equipment during grading operations. Table 9 summarizes noise level ranges for typical highway construction equipment.

During evening and nighttime hours, steady-state construction noise emissions such as from paving operations will be audible and may cause impacts to activities such as sleep. Sporadic evening and nighttime construction equipment noise emissions such as from backup alarms, lift gate closures (“slamming” of dump truck gates), etc., will be perceived as distinctly louder than the steady-state acoustic environment, and could cause impacts to the general peace and usage of noise-sensitive areas – particularly residences.

There are 1366 receivers in the project noise study area, including Category B (residential), Category C (recreational), D (churches) and E (commercial) land uses in the corridor that may be exposed to construction noise. Extremely loud construction noise activities such as usage of pile-drivers and impact-hammers (jackhammer, hoe-ram) will provide sporadic, temporary, and significant construction noise impacts in the near vicinity of those activities (Table 9). Construction activities that will produce extremely loud noises are recommended to be scheduled during times of the day when such noises will create as minimal a disturbance as possible.

Table 9: Equipment Noise Levels and Extent of Construction Noise

Equipment	Noise Level Emissions (dB(A)) at 50 Feet From Equipment[1]				
		70	80	90	100
Pile Driver					
Jack Hammer					
Tractor					
Road Grader					
Backhoe					
Truck					
Paver					
Pneumatic Wrench					
Crane					
Concrete Mixer					
Compressor					
Front-End Loader					
Generator					
Saws					
Roller (Compactor)					

Source: Adapted from Noise Construction Equipment and Operations, Building Equipment, and Home Appliances. U.S. Environmental Protection Agency. Washington D.C. 1971.

[1]Cited noise level ranges are typical for the equipment cited. Noise energy dissipates as a function of distance between the source and the receiver. For example, if the noise level from a pile driver at a distance of 50 feet = 100 decibels (dB(A)), then at 400 feet, it might be 82 decibels (dB(A)) or less.

Generally, low-cost and easily implemented construction noise control measures should be incorporated into the project plans and specifications to the extent possible. These measures include, but are not limited to, work-hour limits, equipment exhaust muffler requirements, haul-road locations, elimination of "tail gate banging", ambient-sensitive backup alarms, construction noise complaint mechanisms, and consistent and transparent community communication.

While discrete construction noise level prediction is difficult for a particular receiver or group of receivers, it can be assessed in a general capacity with respect to distance from known or likely project activities. For this project, earth removal, grading, hauling, paving, and pile driving are anticipated to occur near noise-sensitive areas. Although construction noise impact abatement should not place an undue burden upon the financial cost of the project or the project construction schedule, pursuant to the requirements of Title 23 CFR 772.19, it is the recommendation of this traffic noise analysis that:

- Earth removal, grading, hauling, and paving activities should be limited to weekday daytime hours.
- If meeting the project schedule requires that earth removal, grading, hauling and/or paving must occur during evening, nighttime, and/or weekend hours in the vicinity of residential neighborhoods, the Contractor shall notify Charleston County and SCDOT as soon as possible. In such instance(s), all reasonable attempts shall be made to notify and to make appropriate arrangements for the abatement of the predicted construction noise impacts upon the affected property owners and/or residents.
- If construction noise activities must occur during context-sensitive hours in the vicinity of noise-sensitive areas, discrete construction noise abatement measures including, but not limited to, portable noise barriers and/or other equipment-quieting devices shall be considered.
- Some construction activities will create extreme noise impacts for nearby noise sensitive land uses. For example, pile-driving activities can create noise impacts for distances of up to 0.25 mile. Considerations are recommended to be made for any nearby residences for all evening and/or nighttime periods (7:00 p.m. – 7:00 a.m.), and for all weekend hours throughout which extremely loud construction activities might occur.

For additional information on construction noise, please refer to the FHWA Construction Noise Handbook (FHWA-HEP-06-015) and the Roadway Construction Noise Model (RCNM), available online at: https://www.fhwa.dot.gov/environment/noise/construction_noise/index.cfm.

4.0 Public Coordination

The Highway 41 project team has held more than 85 meetings with stakeholders and the local community since the project began. The first public information meeting was held on November 13, 2017. During this meeting, numerous commenters expressed concerns about potential noise impacts on their properties. The project team has since met with homeowners association groups, local church leaders, business owners, stakeholder working groups, elected officials, and more. Additionally, a public meeting for alternatives (2018) and a virtual public meeting for the proposed alternative (2020) were held and public comments related to noise impacts were received. Concerns about noise impacts received during these meetings are consistent with those from the initial public information meeting.

Noise impacts will continue to be discussed at upcoming public meetings and community meetings as warranted.

5.0 Coordination with Local Officials

In order to help local officials and developers consider highway traffic noise in the vicinity of a proposed Type I project, Charleston County will inform them of the predicted future noise levels and the required distance from such projects needed to ensure that noise levels remain below the NAC for each type of land use in accordance with 23 CFR §772.17. The contour distances to the 66 and 71 dBA sound levels are shown in Table 10. Please note that the values in the table do not represent predicted levels at every location at a particular distance back from the roadway. Sound levels will vary with changes in terrain and will be affected by the shielding of objects such as buildings and tree zones. These locations were chosen in areas where there is potential for future development. Charleston County will provide this information to the Town of Mount Pleasant. Contact information for the local planning and development director is included below.

Mr. Jeff Ulma, Director
Planning and Development Department
100 Ann Edwards Lane
Mt. Pleasant, SC 29464

Table 10: Contour Distances for Land Use Planning (dBA)

Location	Distance to 66 dBA (Category B/C Impact)	Distance to 71 dBA (Category E Impact)
SC 41 north of Dunes	70 ft	30 ft
SC 41 between Dunes and Bessemer	80 ft	30 ft
SC 41 south of Laurel Hill	80 ft	40 ft
Porchers Bluff Rd	60 ft	20 ft
US 17 west of SC 41	120 ft	60 ft
US 17 east of SC 41	140 ft	60 ft
Laurel Hill Road	30 ft	Within ROW

6.0 Conclusion

Traffic noise and temporary construction noise can be a consequence of transportation projects, especially in areas near high-volume and high-speed existing steady-state traffic noise sources. This analysis was conducted to evaluate the potential noise impacts associated with the proposed realignment of SC 41 and improvements on US 17. This noise analysis utilized computer models created with the FHWA TNM 2.5 to predict existing and future noise levels and identify impacted receivers along the proposed new highway project. Receiver and roadway elevations, existing structures, and distinctive ground zones were used to assess existing and future noise levels and determine impacts.

The results of the noise analysis indicate that 41 traffic-related noise impacts would occur under the Build Alternative. Traffic noise levels resulting from the (2045) Build Alternative are expected to vary between -2.7 to 14.0 dBA compared to existing (2022) conditions.

Specific noise mitigation, including noise barriers, were examined further in the detailed noise analysis for all groups of at least three impacted recievers. Out of 7 barriers examined, none were found to meet the SCDOT feasibility criteria.

Construction noise impacts will occur due to the proximity of noise-sensitive receivers to project construction activities. Construction noise control measures will be incorporated into the project plans and specifications.

7.0 References

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2010. CFR 23 Part 772 – Procedures for Abatement of Highway Traffic Noise and Construction Noise. [75 FR 39820-39838, July 13, 2010].

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Lee, Cynthia S.Y. and Fleming, Gregg G. Measurement of Highway-Related Noise. U.S. Department of Transportation Research and Special Programs Administration John A. Volpe National Transportation Systems Center Acoustics Facility, DTS-75. Cambridge, MA. May 1996.

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HIGHWAY 41 CORRIDOR IMPROVEMENTS

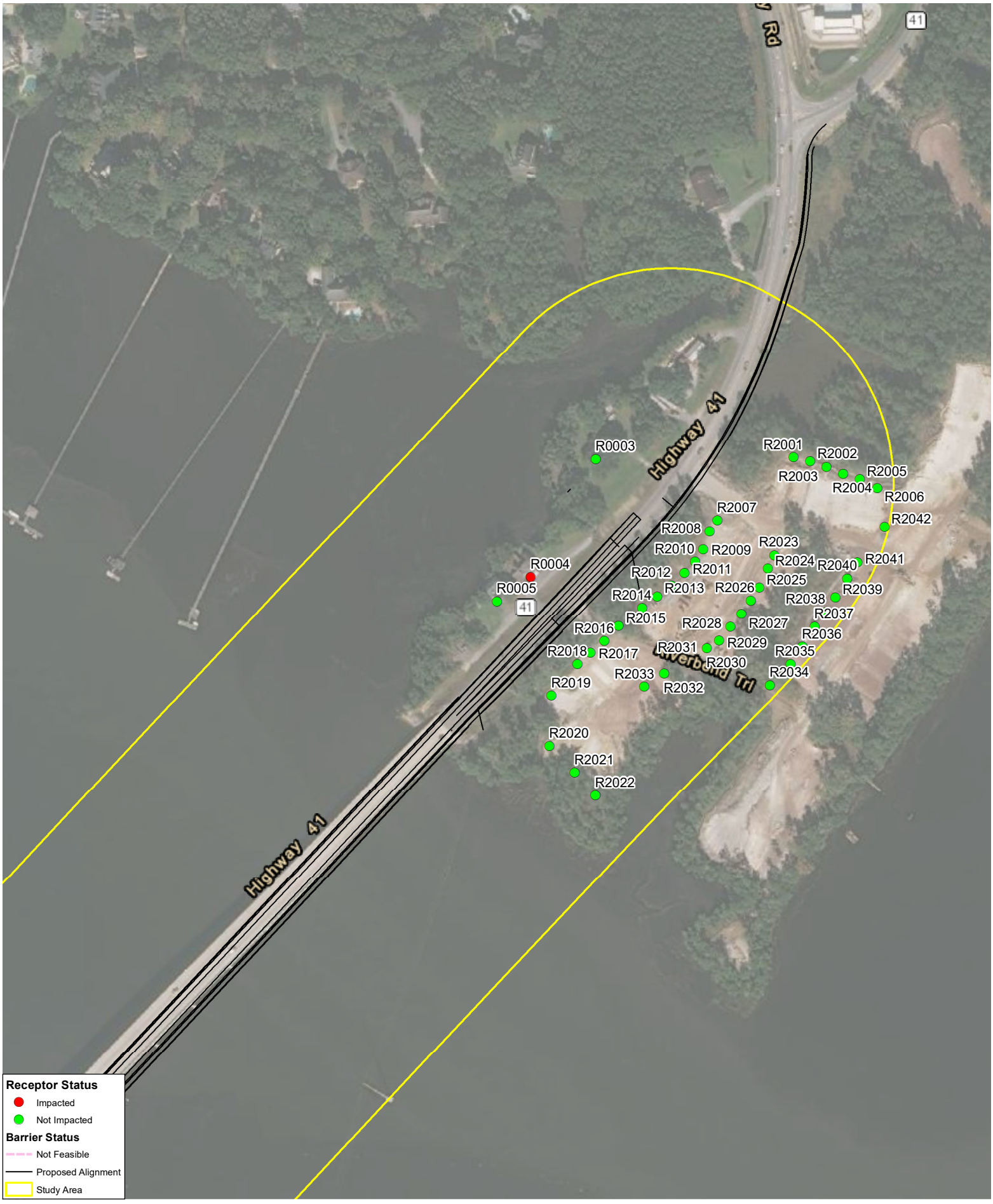
Appendix A – Traffic

Seg.	Links From	Links To	Dir.	Number of Lanes	2022 Existing Min. PHV (vph)	2022 Existing Auto (vph)	2022 Existing MT (vph)	2022 Existing HT (vph)	2022 Existing %Auto	2022 Existing %MT	2022 Existing %HT	2045 No Build Min. PHV (vph)	2045 No Build Auto (vph)	2045 No Build MT (vph)	2045 No Build HT (vph)	2045 No Build %Auto	2045 No Build %MT	2045 No Build %HT	2045 Build Min. PHV (vph)	2045 Build Auto (vph)	2045 Build MT (vph)	2045 Build HT (vph)	2045 Build %Auto	2045 Build %MT	2045 Build %HT
SC 41	Study Limit - North	Clements Ferry Road	NB	1	**604**	**545**	**57**	**2**	90.2%	9.5%	0.3%	**756**	**748**	**8**	**0**	99.0%	1.0%	0.0%	**940**	**931**	**9**	**0**	99.0%	1.0%	0.0%
			SB	1	**768**	**760**	**8**	**0**	99.0%	1.0%	0.0%	**845**	**837**	**8**	**0**	99.0%	1.0%	0.0%	**940**	**931**	**9**	**0**	99.0%	1.0%	0.0%
	Clements Ferry Road	Harpers Ferry Way	NB	2	**604**	**545**	**57**	**2**	90.2%	9.5%	0.3%	**756**	**748**	**8**	**0**	99.0%	1.0%	0.0%	**1,108**	**1,097**	**11**	**0**	99.0%	1.0%	0.0%
			SB	2	**768**	**760**	**8**	**0**	99.0%	1.0%	0.0%	**845**	**837**	**8**	**0**	99.0%	1.0%	0.0%	**1,337**	**1,324**	**13**	**0**	99.0%	1.0%	0.0%
	Harpers Ferry Way	Wood Park Drive	NB	2	**660**	**647**	**9**	**4**	98.0%	1.4%	0.6%	**794**	**778**	**11**	**5**	98.0%	1.4%	0.6%	**1,139**	**1,116**	**16**	**7**	98.0%	1.4%	0.6%
			SB	2	**750**	**741**	**9**	**0**	98.8%	1.2%	0.0%	**707**	**699**	**8**	**0**	98.8%	1.2%	0.0%	**1,294**	**1,222**	**72**	**0**	94.4%	5.6%	0.0%
	Wood Park Drive	Dunes West Boulevard	NB	2	**796**	**782**	**9**	**5**	98.3%	1.1%	0.6%	**880**	**865**	**10**	**5**	98.3%	1.1%	0.6%	**1,258**	**1,237**	**14**	**8**	98.3%	1.1%	0.6%
			SB	2	**804**	**797**	**7**	**0**	99.1%	0.9%	0.0%	**697**	**691**	**6**	**0**	99.1%	0.9%	0.0%	**1,349**	**1,337**	**12**	**0**	99.1%	0.9%	0.0%
	Dunes West Boulevard	Joe Rouse Road South	NB	1	**911**	**900**	**9**	**2**	98.8%	1.0%	0.2%	**825**	**815**	**8**	**2**	98.8%	1.0%	0.2%	**940**	**929**	**9**	**2**	98.8%	1.0%	0.2%
			SB	1	**838**	**828**	**9**	**1**	98.8%	1.1%	0.1%	**741**	**732**	**8**	**1**	98.8%	1.1%	0.1%	**940**	**929**	**10**	**1**	98.8%	1.1%	0.1%
	Joe Rouse Road South	SC 41 Bypass (Cardinal)	NB	2	**940**	**930**	**8**	**3**	98.9%	0.8%	0.3%	**940**	**930**	**8**	**3**	98.9%	0.8%	0.3%	**1,119**	**1,107**	**9**	**3**	98.9%	0.8%	0.3%
			SB	2	**940**	**918**	**6**	**16**	97.7%	0.6%	1.7%	**940**	**918**	**6**	**16**	97.7%	0.6%	1.7%	**1,395**	**1,374**	**4**	**17**	98.5%	0.3%	1.2%
	SC 41 Bypass (Cardinal)	Tradewind Drive	NB	2	**940**	**930**	**8**	**3**	98.9%	0.8%	0.3%	**940**	**930**	**8**	**3**	98.9%	0.8%	0.3%	**1,824**	**1,804**	**15**	**5**	98.9%	0.8%	0.3%
			SB	2	**940**	**918**	**6**	**16**	97.7%	0.6%	1.7%	**940**	**918**	**6**	**16**	97.7%	0.6%	1.7%	**1,880**	**1,837**	**11**	**32**	97.7%	0.6%	1.7%
	Tradewind Drive	Colonnade Drive	NB	2	**940**	**932**	**7**	**2**	99.1%	0.7%	0.2%	**940**	**932**	**7**	**2**	99.1%	0.7%	0.2%	**1,846**	**1,829**	**13**	**4**	99.1%	0.7%	0.2%
			SB	2	**940**	**927**	**12**	**1**	98.6%	1.3%	0.1%	**940**	**927**	**12**	**1**	98.6%	1.3%	0.1%	**1,880**	**1,854**	**24**	**2**	98.6%	1.3%	0.1%
	Colonnade Drive	Winnowing Way	NB	2	**940**	**932**	**8**	**0**	99.1%	0.9%	0.0%	**940**	**932**	**8**	**0**	99.1%	0.9%	0.0%	**1,876**	**1,859**	**17**	**0**	99.1%	0.9%	0.0%
			SB	2	**940**	**918**	**19**	**3**	97.7%	2.0%	0.3%	**940**	**918**	**19**	**3**	97.7%	2.0%	0.3%	**1,880**	**1,837**	**38**	**6**	97.7%	2.0%	0.3%
	Winnowing Way	Gregory Ferry/SC 41 Access Road	NB	2	**1,243**	**1,232**	**11**	**0**	99.1%	0.9%	0.0%	**1,177**	**1,166**	**11**	**0**	99.1%	0.9%	0.0%	**1,585**	**1,571**	**14**	**0**	99.1%	0.9%	0.0%
			SB	3	**940**	**918**	**19**	**3**	97.7%	2.0%	0.3%	**940**	**918**	**19**	**3**	97.7%	2.0%	0.3%	**1,647**	**1,621**	**23**	**3**	98.4%	1.4%	0.2%
	Gregory Ferry/SC 41 Access Road	US 17	NB	2	**1,309**	**1,295**	**10**	**4**	98.9%	0.8%	0.3%	**1,210**	**1,197**	**10**	**4**	98.9%	0.8%	0.3%	**1,611**	**1,593**	**13**	**5**	98.9%	0.8%	0.3%
			SB	3	**1,109**	**1,076**	**29**	**4**	97.0%	2.6%	0.4%	**1,011**	**981**	**26**	**4**	97.0%	2.6%	0.4%	**1,360**	**1,346**	**14**	**0**	99.0%	1.0%	0.0%
SC 41 Side Streets	Harpers Ferry Way		EB	1	**183**	**180**	**3**	**0**	98.1%	1.9%	0.0%	**168**	**165**	**3**	**0**	98.1%	1.9%	0.0%	**208**	**204**	**4**	**0**	98.1%	1.9%	0.0%
			WB	1	**200**	**187**	**12**	**1**	93.3%	6.2%	0.5%	**130**	**128**	**2**	**0**	98.1%	1.9%	0.0%	**254**	**237**	**16**	**1**	93.3%	6.2%	0.5%
	Planters Pointe Boulevard West of SC 41		EB	1	**189**	**182**	**7**	**0**	96.4%	3.6%	0.0%	**164**	**158**	**6**	**0**	96.4%	3.6%	0.0%	**210**	**202**	**8**	**0**	96.4%	3.6%	0.0%
			WB	1	**186**	**186**	**0**	**0**	100.0%	0.0%	0.0%	**130**	**130**	**0**	**0**	100.0%	0.0%	0.0%	**197**	**197**	**0**	**0**	100.0%	0.0%	0.0%
	Wood Park Drive East of SC 41		EB	1	**155**	**147**	**8**	**0**	95.0%	5.0%	0.0%	**84**	**80**	**4**	**0**	95.0%	5.0%	0.0%	**164**	**156**	**8**	**0**	95.0%	5.0%	0.0%
			WB	1	**20**	**19**	**1**	**0**	95.0%	5.0%	0.0%	**60**	**57**	**3**	**0**	95.0%	5.0%	0.0%	**57**	**54**	**3**	**0**	95.0%	5.0%	0.0%
	Rivertowne Pkwy West of SC 41		EB	1	**500**	**490**	**9**	**1**	98.0%	1.8%	0.2%	**334**	**332**	**2**	**0**	99.4%	0.6%	0.0%	**534**	**523**	**10**	**1**	98.0%	1.8%	0.2%
			WB	1	**439**	**436**	**3**	**0**	99.4%	0.6%	0.0%	**312**	**310**	**2**	**0**	99.4%	0.6%	0.0%	**420**	**417**	**3**	**0**	99.4%	0.6%	0.0%
	Joe Rouse Road South		EB	1	**445**	**436**	**9**	**0**	98.0%	2.0%	0.0%	**530**	**519**	**11**	**0**	98.0%	2.0%	0.0%	**262**	**259**	**2**	**1**	99.0%	0.6%	0.4%
			WB	1	**557**	**551**	**3**	**2**	99.0%	0.6%	0.4%	**472**	**463**	**9**	**0**	98.0%	2.0%	0.0%	**196**	**194**	**1**	**1**	99.0%	0.6%	0.4%
	Tradewind Drive		EB	1	**31**	**30**	**0**	**1**	96.8%	0.0%	3.2%	**76**	**76**	**0**	**0**	100.0%	0.0%	0.0%	**87**	**87**	**0**	**0**	100.0%	0.0%	0.0%
			WB	1	**40**	**40**	**0**	**0**	100.0%	0.0%	0.0%	**55**	**53**	**0**	**2**	96.8%	0.0%	3.2%	**58**	**58**	**0**	**0**	100.0%	0.0%	0.0%
	Emma Lane		EB	1															**102**	**102**	**0**	**0**	100.0%	0.0%	0.0%
			WB	1															**71**	**71**	**0**	**0**	100.0%	0.0%	0.0%
	Colonnade Drive		EB	1	**39**	**38**	**1**	**0**	97.5%	2.5%	0.0%	**77**	**76**	**1**	**0**	98.8%	0.8%	0.4%	**100**	**99**	**1**	**0**	98.8%	0.8%	0.4%
			WB	1	**39**	**39**	**0**	**0**	98.8%	0.8%	0.4%	**64**	**62**	**2**	**0**	97.5%	2.5%	0.0%	**66**	**64**	**2**	**0**	97.5%	2.5%	0.0%
	Winnowing Way - North of "Sink Zone" (halfway)		EB	2	**74**	**74**	**0**	**0**	100.0%	0.0%	0.0%	**79**	**79**	**0**	**0**	100.0%	0.0%	0.0%	**553**	**553**	**0**	**0**	100.0%	0.0%	0.0%
			WB	1	**33**	**33**	**0**	**0**	100.0%	0.0%	0.0%	**69**	**69**	**0**	**0**	100.0%	0.0%	0.0%	**615**	**615**	**0**	**0**	100.0%	0.0%	0.0%
	Winnowing Way - South of "Sink Zone" (halfway)		NB	2	**151**	**151**	**0**	**0**	100.0%	0.0%	0.0%	**143**	**143**	**0**	**0**	100.0%	0.0%	0.0%	**597**	**590**	**7**	**0**	98.8%	1.2%	0.0%
			SB	2	**166**	**164**	**2**	**0**	98.8%	1.2%	0.0%	**236**	**233**	**3**	**0**	98.8%	1.2%	0.0%	**926**	**915**	**11**	**0**	98.8%	1.2%	0.0%
	SC41 access road: US 17 to SC 41		EB	1	**9**	**9**	**0**	**0**	96.2%	3.8%	0.0%	**42**	**41**	**1**	**0**	97.5%	1.9%	0.6%	**46**	**45**	**1**	**0**	97.5%	1.9%	0.6%
			WB	1	**160**	**156**	**3**	**1**	97.5%	1.9%	0.6%	**122**	**117**	**5**	**0**	96.2%	3.8%	0.0%	**120**	**115**	**5**	**0**	96.2%	3.8%	0.0%
	SC41 access road: SC 41 to Winnowing Way		EB	1	**70**	**70**	**0**	**0**	100.0%	0.0%	0.0%	**121**	**121**	**0**	**0**	100.0%	0.0%	0.0%	**128**	**128**	**0**	**0**	100.0%	0.0%	0.0%
			WB	1	**209**	**200**	**9**	**0**	95.8%	4.2%	0.0%	**170**	**163**	**7**	**0**	95.8%	4.2%	0.0%	**201**	**193**	**8**	**0**	95.8%	4.2%	0.0%
SC 41 Bypass	SC41	Kings Gate Lane	NB	1	**489**	**480**	**9**	**0**	98.2%	1.8%	0.0%	**721**	**708**	**13**	**0**	98.2%	1.8%	0.0%	**790**	**776**	**14**	**0**	98.2%	1.8%	0.0%
			SB	2	**476**	**473**	**2**	**1**	99.4%	0.4%	0.2%	**653**	**649**	**3**	**1**	99.4%	0.4%	0.2%	**907**	**902**	**4**	**2**	99.4%	0.4%	0.2%
	Kings Gate Lane	Palmetto Hall Boulevard	NB	1	**494**	**485**	**9**	**0**	98.1%	1.9%	0.0%	**754**	**740**	**14**	**0**	98.1%	1.9%	0.0%	**790**	**775**	**15**	**0**	98.1%	1.9%	0.0%
			SB	1	**474**	**463**	**11**	**0**	97.7%	2.3%	0.0%	**682**	**666**	**16**	**0**	97.7%	2.3%	0.0%	**780**	**762**	**18**	**0**	97.7%	2.3%	0.0%
	Palmetto Hall Boulevard	Ellington Woods Boulevard	NB	1	**511**	**497**	**14**	**0**	97.3%	2.7%	0.0%	**780**	**759**	**21**	**0**	97.3%	2.7%	0.0%	**780**	**759**	**21**	**0**	97.3%	2.7%	0.0%
			SB	1	**544**	**508**	**36**	**0**	93.3%	6.7%	0.0%	**761**	**745**	**14**	**2**	97.9%	1.9%	0.2%	**780**	**764**	**15**	**2**	97.9%	1.9%	0.2%
	Ellington Woods Boulevard	Wando Plantation Way	NB	1								**780**	**759**	**21**	**0**	97.3%	2.7%	0.0%	**780**	**759**	**21**	**0**	97.3%	2.7%	0.0%
			SB	1								**737**	**722**	**14**	**1**	97.9%	1.9%	0.2%	**780**	**764**	**15**	**2**	97.9%	1.9%	0.2%
	Wando Plantation Way	Parkwest Boulevard	NB	1	**612**	**597**	**15**	**0**	97.5%	2.5%	0.0%	**780**	**761**	**20**	**0**	97.5%	2.5%	0.0%	**780**	**761**	**20**	**0**	97.5%	2.5%	0.0%
			SB	1	**790**	**752**	**38**	**0**	95.2%	4.8%	0.0%	**782**	**775**	**7**	**0**	99.1%	0.9%	0.0%	**790**	**752**	**38**	**0**	95.2%	4.8%	0.0%
	Parkwest Boulevard	Dumont Dr	NB	1															**790**	**776**	**14**	**0**	98.2%	1.8%	0.0%
			SB	2															**1,126**	**1,119**	**7**	**0**	99.4%	0.6%	0.0%
	Dumont Dr	SC 41	NB	1															**695**	**679**	**16**	**0**	97.7%	2.3%	0.0%
			SB	1															**780**	**772**	**5**	**3**	99.0%	0.6%	0.4%

Seg.	Links From	Links To	Dir.	Number of Lanes	2022 Existing Min. PHV (vph)	2022 Existing Auto (vph)	2022 Existing MT (vph)	2022 Existing HT (vph)	2022 Existing %Auto	2022 Existing %MT	2022 Existing %HT	2045 No Build Min. PHV (vph)	2045 No Build Auto (vph)	2045 No Build MT (vph)	2045 No Build HT (vph)	2045 No Build %Auto	2045 No Build %MT	2045 No Build %HT	2045 Build Min. PHV (vph)	2045 Build Auto (vph)	2045 Build MT (vph)	2045 Build HT (vph)	2045 Build %Auto	2045 Build %MT	2045 Build %HT
SC 41 Bypass Side Streets	Kings Gate Lane North of Bypass		NB	1	**63**	**59**	**4**	**0**	93.6%	6.4%	0.0%	**79**	**74**	**5**	**0**	93.6%	6.4%	0.0%	**103**	**96**	**7**	**0**	93.6%	6.4%	0.0%
			SB	1	**130**	**127**	**3**	**0**	97.5%	2.5%	0.0%	**105**	**102**	**3**	**0**	97.5%	2.5%	0.0%	**158**	**154**	**4**	**0**	97.5%	2.5%	0.0%
	Palmetto Hall Boulevard South of Bypass		NB	1	**122**	**107**	**15**	**0**	87.5%	12.5%	0.0%	**106**	**93**	**13**	**0**	87.5%	12.5%	0.0%	**134**	**117**	**17**	**0**	87.5%	12.5%	0.0%
			SB	1	**158**	**158**	**0**	**0**	100.0%	0.0%	0.0%	**180**	**180**	**0**	**0**	100.0%	0.0%	0.0%	**190**	**190**	**0**	**0**	100.0%	0.0%	0.0%
	Ellington Woods Boulevard South of Bypass		NB	1	**73**	**73**	**0**	**0**	100.0%	0.0%	0.0%	**65**	**65**	**0**	**0**	100.0%	0.0%	0.0%	**73**	**73**	**0**	**0**	100.0%	0.0%	0.0%
			SB	1	**69**	**69**	**0**	**0**	100.0%	0.0%	0.0%	**51**	**51**	**0**	**0**	100.0%	0.0%	0.0%	**73**	**73**	**0**	**0**	100.0%	0.0%	0.0%
	Wando Plantation Way North of Bypass		NB	1	**345**	**336**	**9**	**0**	97.4%	2.6%	0.0%	**214**	**208**	**6**	**0**	97.4%	2.6%	0.0%	**322**	**314**	**8**	**0**	97.4%	2.6%	0.0%
			SB	1	**428**	**423**	**5**	**0**	98.8%	1.2%	0.0%	**215**	**209**	**6**	**0**	97.4%	2.6%	0.0%	**502**	**496**	**6**	**0**	98.8%	1.2%	0.0%
	Parkwest Boulevard East of Bypass		EB	2	**695**	**689**	**6**	**0**	99.2%	0.8%	0.0%	**940**	**932**	**8**	**0**	99.2%	0.8%	0.0%	**910**	**903**	**7**	**0**	99.2%	0.8%	0.0%
			WB	2	**811**	**786**	**25**	**0**	96.9%	3.1%	0.0%	**829**	**822**	**7**	**0**	99.2%	0.8%	0.0%	**1,029**	**1,021**	**8**	**0**	99.2%	0.8%	0.0%
	Bessemer Road		EB	1	**412**	**405**	**7**	**0**	98.2%	1.8%	0.0%	**570**	**560**	**10**	**0**	98.2%	1.8%	0.0%	**247**	**234**	**13**	**0**	94.7%	5.3%	0.0%
			WB	1	**475**	**450**	**25**	**0**	94.7%	5.3%	0.0%	**520**	**511**	**9**	**0**	98.2%	1.8%	0.0%	**244**	**231**	**13**	**0**	94.7%	5.3%	0.0%
	Dumont Drive		EB	1															**268**	**268**	**0**	**0**	100.0%	0.0%	0.0%
			WB	1															**235**	**235**	**0**	**0**	100.0%	0.0%	0.0%
US 17	Study Limit - West	Hamlin Rd	NB	3	**2,790**	**2,723**	**45**	**22**	97.6%	1.6%	0.8%	**2,790**	**2,723**	**45**	**22**	97.6%	1.6%	0.8%	**2,790**	**2,723**	**45**	**22**	97.6%	1.6%	0.8%
			SB	3	**2,730**	**2,654**	**46**	**30**	97.2%	1.7%	1.1%	**2,730**	**2,654**	**46**	**30**	97.2%	1.7%	1.1%	**2,730**	**2,654**	**46**	**30**	97.2%	1.7%	1.1%
	Hamlin Rd	SC 41 Access Road	NB	3	**2,820**	**2,766**	**37**	**17**	98.1%	1.3%	0.6%	**2,820**	**2,766**	**37**	**17**	98.1%	1.3%	0.6%	**2,820**	**2,766**	**37**	**17**	98.1%	1.3%	0.6%
			SB	3	**2,730**	**2,654**	**46**	**30**	97.2%	1.7%	1.1%	**2,730**	**2,654**	**46**	**30**	97.2%	1.7%	1.1%	**2,730**	**2,654**	**46**	**30**	97.2%	1.7%	1.1%
	SC 41 Access Road	SC 41	NB	3	**2,820**	**2,786**	**23**	**11**	98.8%	0.8%	0.4%	**2,820**	**2,786**	**23**	**11**	98.8%	0.8%	0.4%	**2,820**	**2,786**	**23**	**11**	98.8%	0.8%	0.4%
			SB	3	**2,790**	**2,701**	**59**	**31**	96.8%	2.1%	1.1%	**2,790**	**2,701**	**59**	**31**	96.8%	2.1%	1.1%	**2,790**	**2,701**	**59**	**31**	96.8%	2.1%	1.1%
	SC 41	Porchers Bluff	NB	3	**2,293**	**2,263**	**18**	**11**	98.7%	0.8%	0.5%	**2,789**	**2,753**	**22**	**14**	98.7%	0.8%	0.5%	**2,559**	**2,526**	**20**	**13**	98.7%	0.8%	0.5%
			SB	3	**2,294**	**2,214**	**46**	**34**	96.5%	2.0%	1.5%	**2,634**	**2,542**	**53**	**40**	96.5%	2.0%	1.5%	**2,408**	**2,324**	**48**	**36**	96.5%	2.0%	1.5%
	Porchers Bluff	Study Limit - East	NB	3	**2,452**	**2,423**	**17**	**12**	98.8%	0.7%	0.5%	**2,820**	**2,786**	**20**	**14**	98.8%	0.7%	0.5%	**2,820**	**2,786**	**20**	**14**	98.8%	0.7%	0.5%
			SB	3	**2,376**	**2,295**	**40**	**40**	96.6%	1.7%	1.7%	**2,790**	**2,695**	**47**	**47**	96.6%	1.7%	1.7%	**2,564**	**2,477**	**44**	**44**	96.6%	1.7%	1.7%
US 17 Side Streets	Hamlin Road South of US 17		NB	1	**372**	**351**	**19**	**2**	94.3%	5.1%	0.6%	**522**	**492**	**27**	**3**	94.3%	5.1%	0.6%	**525**	**518**	**7**	**0**	98.7%	1.3%	0.0%
			SB	1	**270**	**258**	**12**	**0**	95.5%	4.5%	0.0%	**448**	**428**	**20**	**0**	95.5%	4.5%	0.0%	**566**	**541**	**25**	**0**	95.5%	4.5%	0.0%
	Brickyard Parkway North of US 17		NB	1	**190**	**185**	**4**	**1**	97.3%	2.3%	0.4%	**167**	**162**	**4**	**1**	97.3%	2.3%	0.4%	**204**	**198**	**5**	**1**	97.3%	2.3%	0.4%
			SB	1	**353**	**349**	**4**	**0**	98.9%	1.1%	0.0%	**363**	**359**	**4**	**0**	98.9%	1.1%	0.0%	**320**	**311**	**7**	**1**	97.3%	2.3%	0.4%
	Dingle Road		NB	1	**130**	**126**	**4**	**0**	97.1%	2.9%	0.0%	**106**	**103**	**3**	**0**	97.1%	2.9%	0.0%	**104**	**101**	**3**	**0**	97.1%	2.9%	0.0%
			SB	1	**144**	**140**	**4**	**0**	97.1%	2.9%	0.0%	**86**	**84**	**2**	**0**	97.1%	2.9%	0.0%	**109**	**106**	**3**	**0**	97.1%	2.9%	0.0%
Porchers Bluff	US 17	Billy Swails Boulevard	SB	2	**405**	**390**	**14**	**1**	96.2%	3.5%	0.3%	**790**	**781**	**7**	**2**	98.9%	0.9%	0.2%	**1,083**	**1,071**	**10**	**2**	98.9%	0.9%	0.2%
			NB	1	**510**	**504**	**5**	**1**	98.9%	0.9%	0.2%	**790**	**760**	**28**	**2**	96.2%	3.5%	0.3%	**790**	**760**	**28**	**2**	96.2%	3.5%	0.3%
	Billy Swails Boulevard	South of Billy Swails Boulevard	SB	1	**462**	**444**	**16**	**1**	96.2%	3.5%	0.3%	**790**	**781**	**7**	**2**	98.9%	0.9%	0.2%	**790**	**781**	**7**	**2**	98.9%	0.9%	0.2%
			NB	1	**457**	**452**	**4**	**1**	98.9%	0.9%	0.2%	**790**	**760**	**28**	**2**	96.2%	3.5%	0.3%	**790**	**781**	**7**	**2**	96.2%	3.5%	0.3%
Porchers	Billy Swails Boulevard		NB	1	**207**	**199**	**7**	**1**	96.2%	3.5%	0.3%	**80**	**77**	**3**	**0**	96.2%	3.5%	0.3%	**654**	**647**	**6**	**1**	98.9%	0.9%	0.2%
			SB	1	**33**	**33**	**0**	**0**	98.9%	0.9%	0.2%	**408**	**392**	**14**	**1**	96.2%	3.5%	0.3%	**619**	**612**	**6**	**1**	96.2%	3.5%	0.3%

HIGHWAY 41 CORRIDOR IMPROVEMENTS

Appendix B – Receptor Maps



Charleston County Transportation Development

HIGHWAY 41 CORRIDOR IMPROVEMENTS

N

0 300 600

Feet

RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B

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Charleston County Transportation Development

HIGHWAY 41 CORRIDOR IMPROVEMENTS

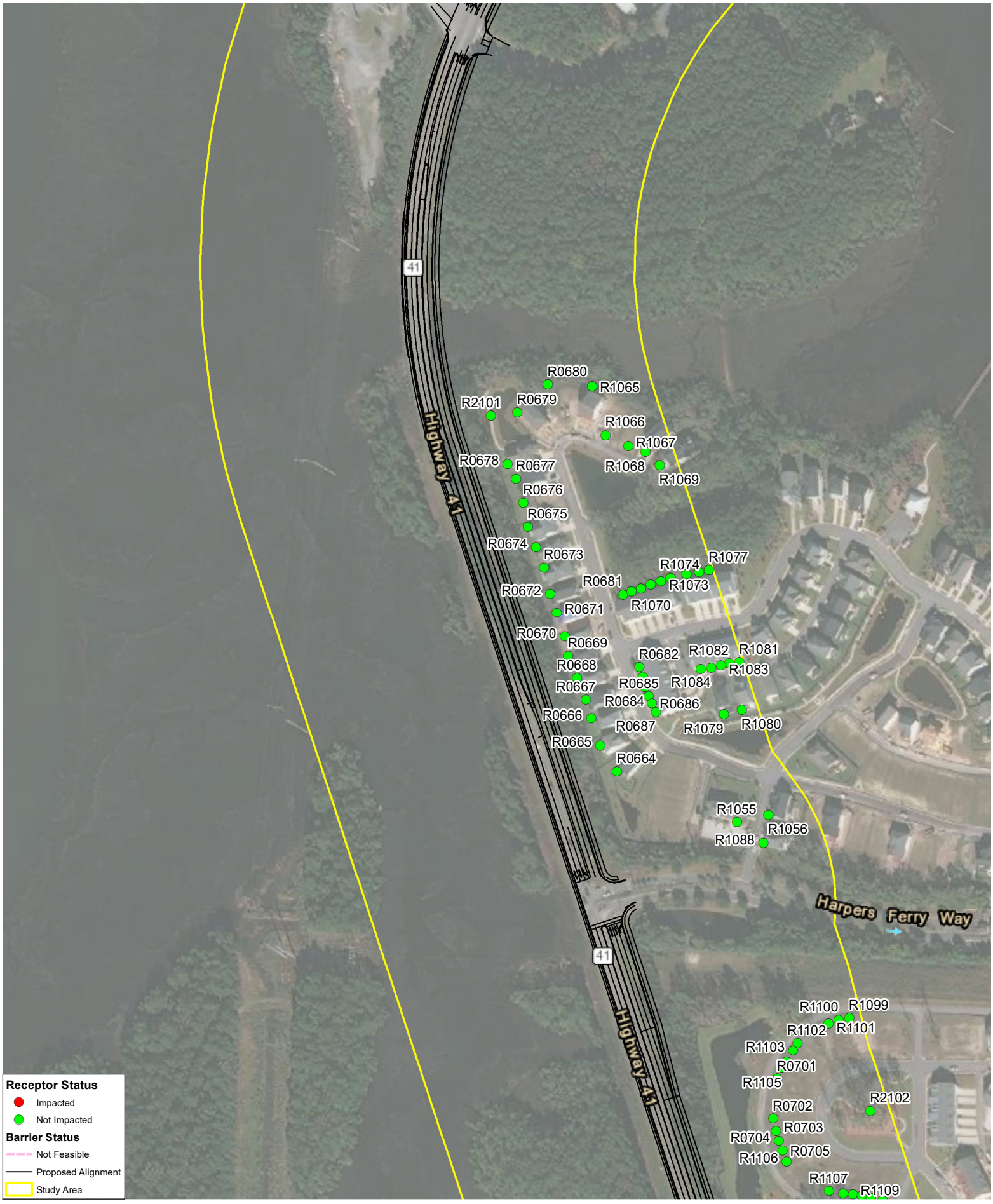
N

0 300 600

Feet

RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B

PATH: \\MSPE-SRV1\MPLSDATA\GISPROJ\SCDOT\10329321_SC41_PH2\7.2_WIP\MAP_DOCS\FIGURES\SC41_FIGB_06172022.MXD - USER: MPAL - DATE: 6/30/2022



Charleston County Transportation Development

HIGHWAY 41 CORRIDOR IMPROVEMENTS

RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B

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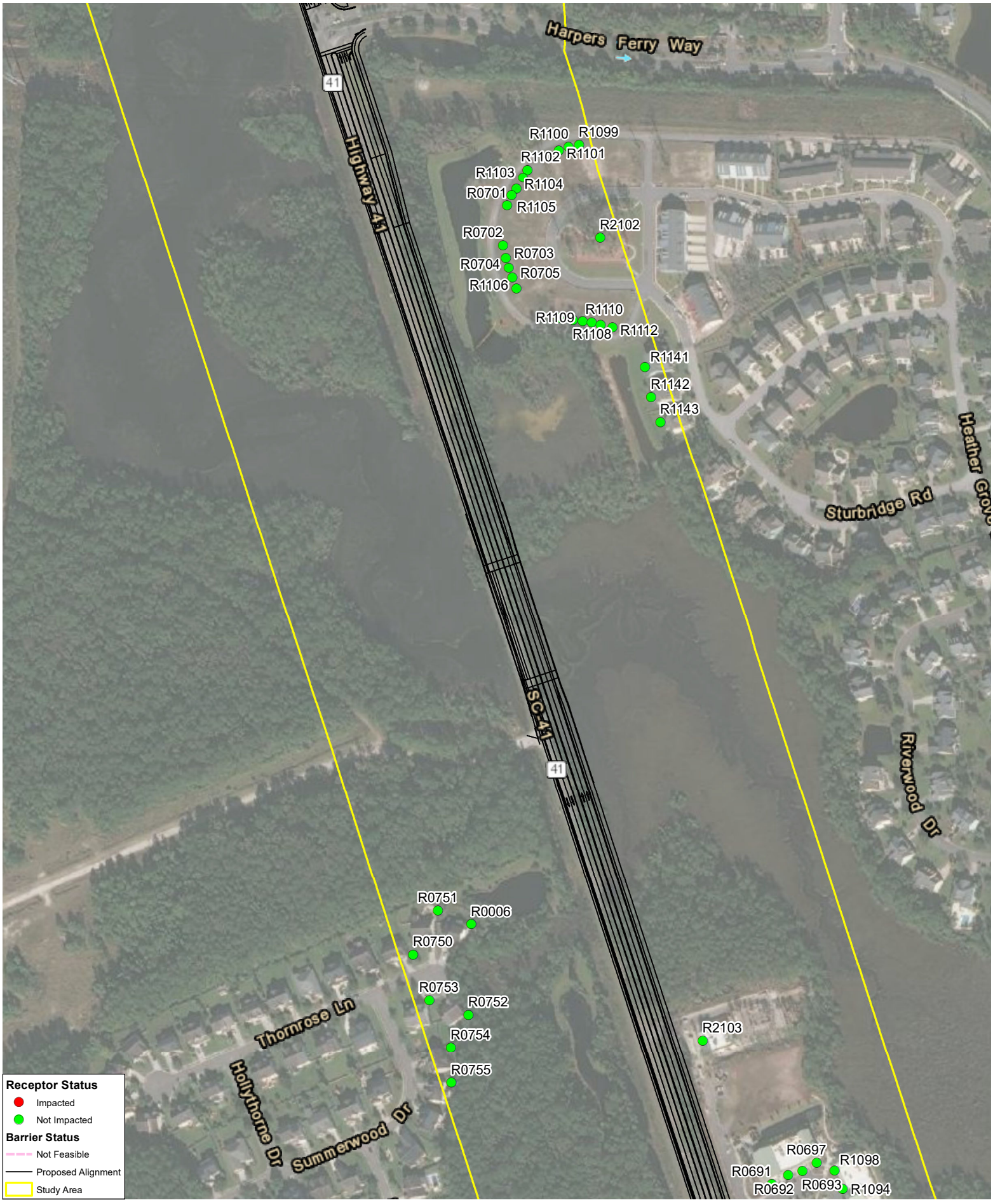


Charleston County Transportation Development

HIGHWAY 41 CORRIDOR IMPROVEMENTS

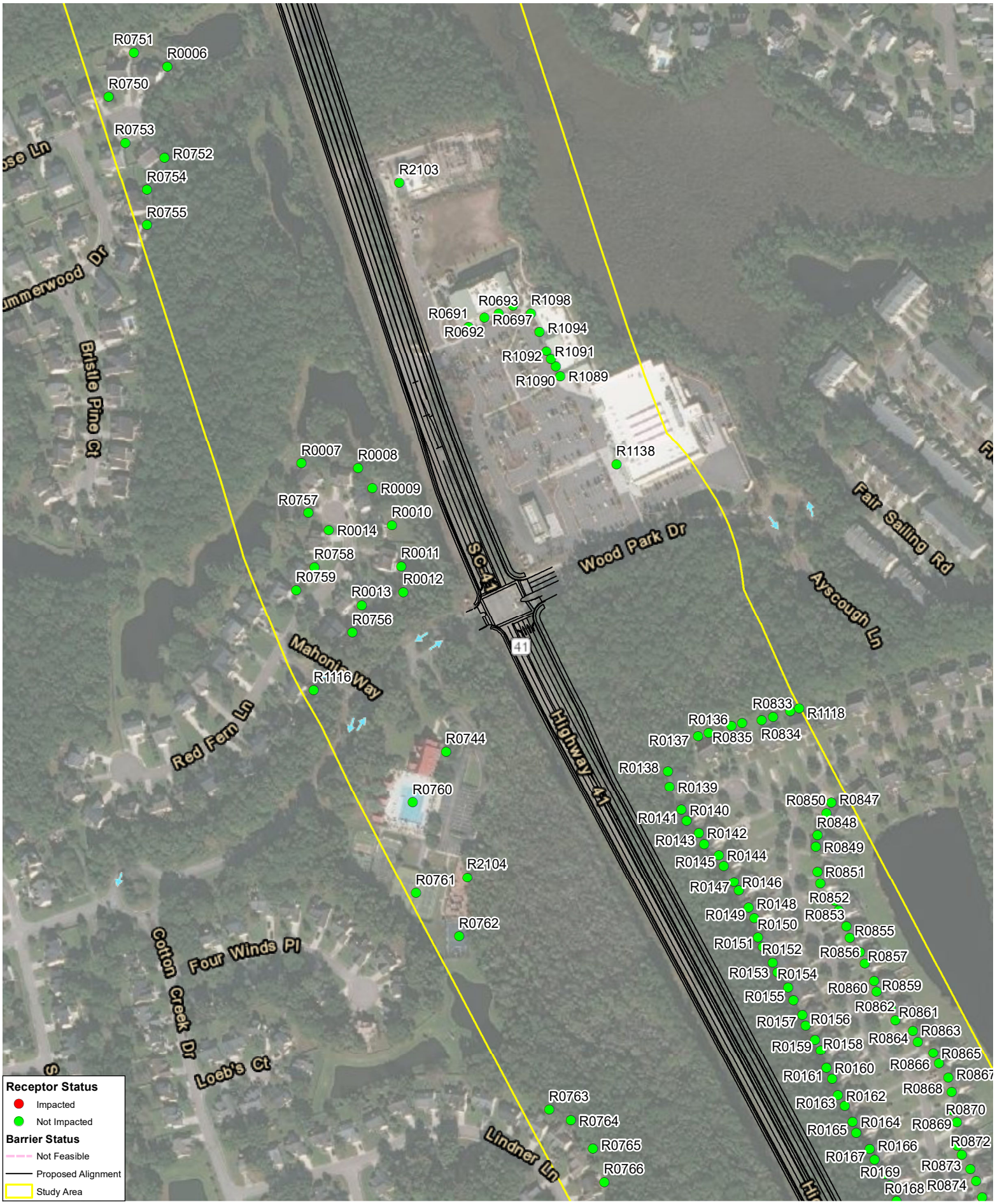
N

0 300 600

Feet

RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B

PATH: \\MSPE-SRV1\MPLSDATA\GISPROJ\SCDOT\10329321_SC41_PH2\7.2_WIP\MAP_DOCS\FIGURES\SC41_FIGB_06172022.MXD - USER: MPAL - DATE: 6/30/2022



Charleston County Transportation Development

HIGHWAY 41 CORRIDOR IMPROVEMENTS

RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B

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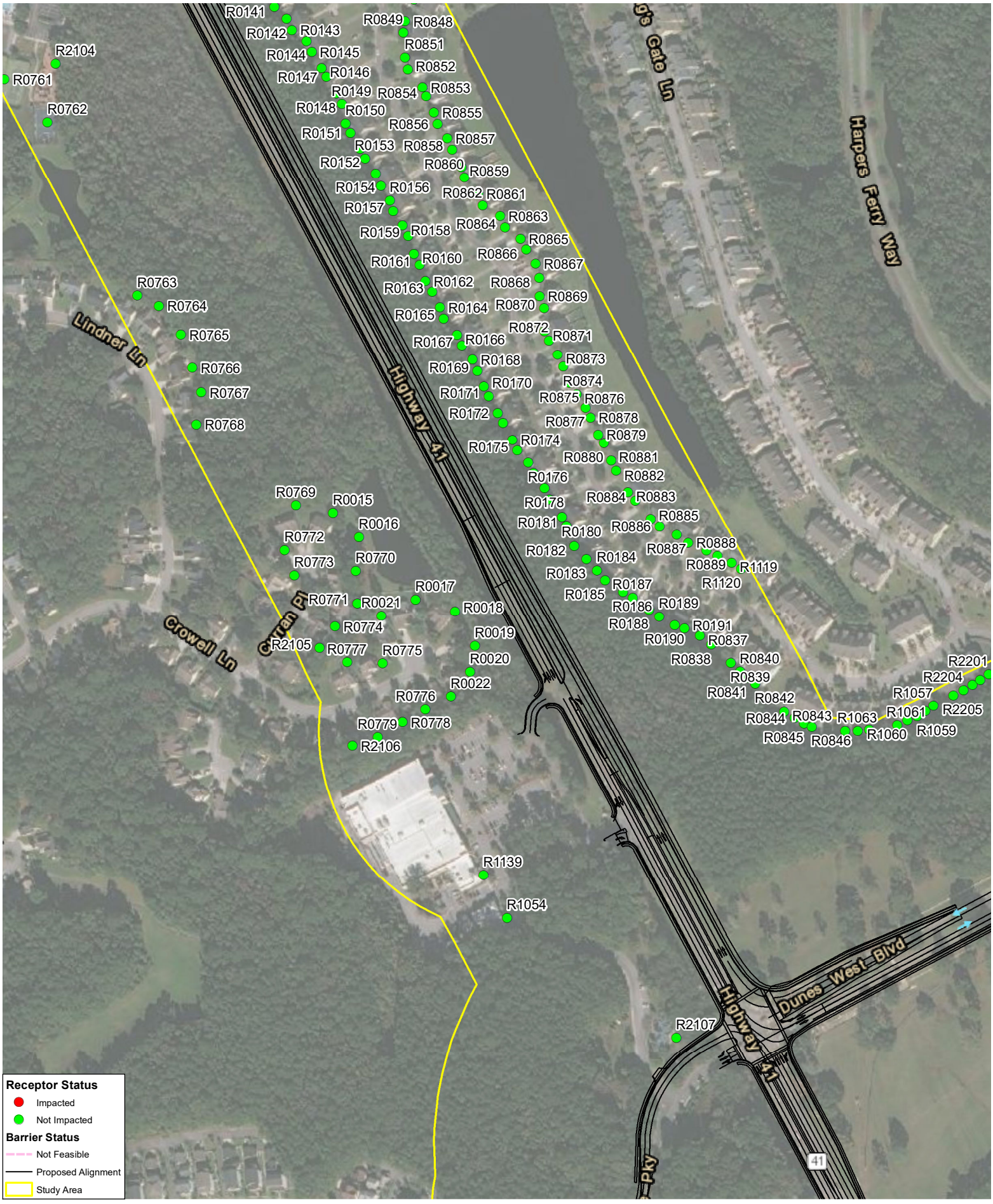

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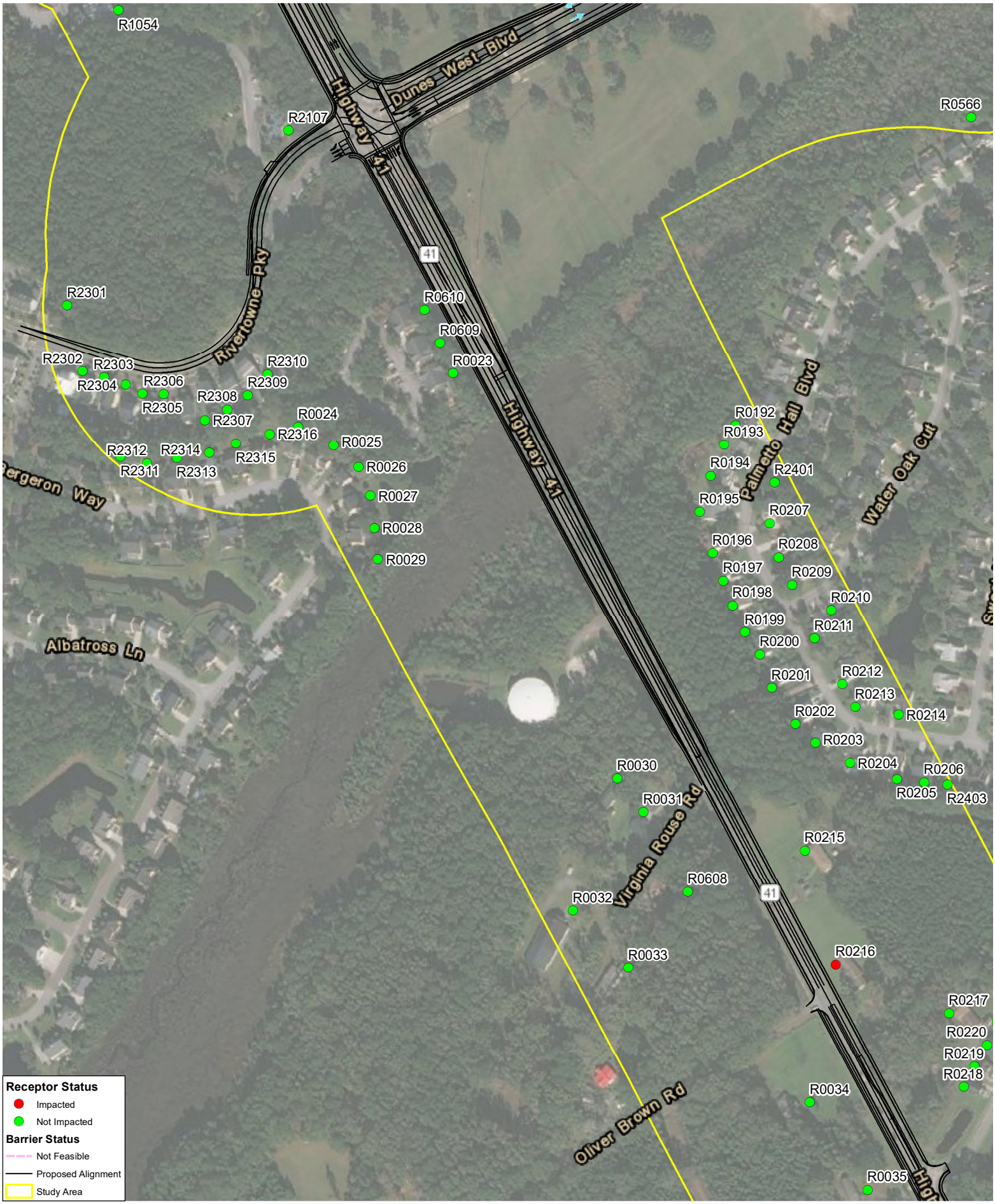
Feet

Charleston County Transportation Development

HIGHWAY 41 CORRIDOR IMPROVEMENTS

RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B

PATH: \\MSPE-SRV1\MPLSDATA\GISPROJ\SCDOT\10329321_SC41_PH2\7.2_WIP\MAP_DOCS\FIGURES\SC41_FIGB_06172022.MXD - USER: MPAL - DATE: 6/30/2022



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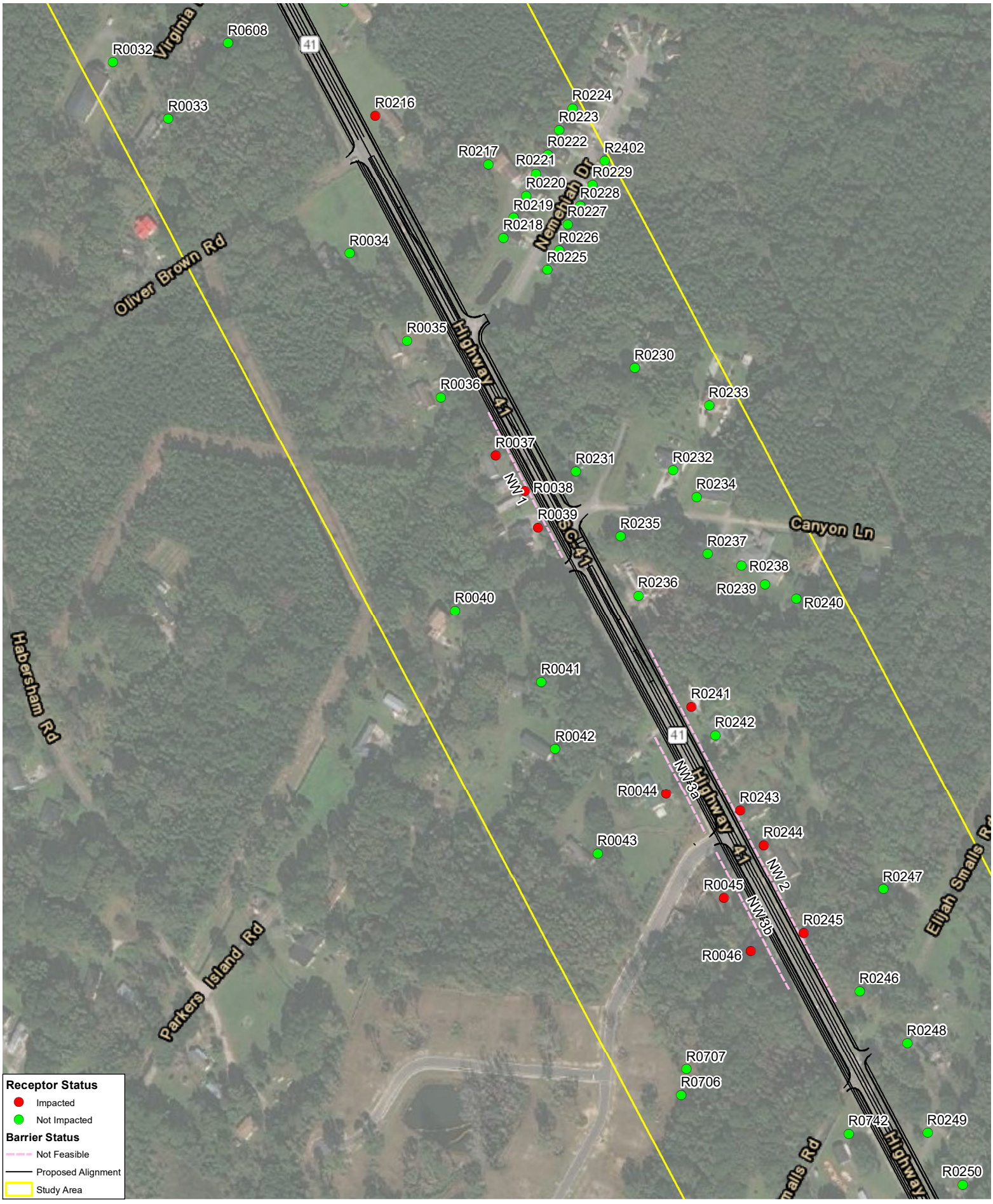
RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B

PATH: \\MSPE-SRV1\MPLSDATA\GISPROJ\SCDOT\10329321_SC41_PH2\7.2_WIP\MAP_DOCS\FIGURES\SC41_FIGB_06172022.MXD - USER: MPAL - DATE: 6/30/2022



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0 300 600
Feet

RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B

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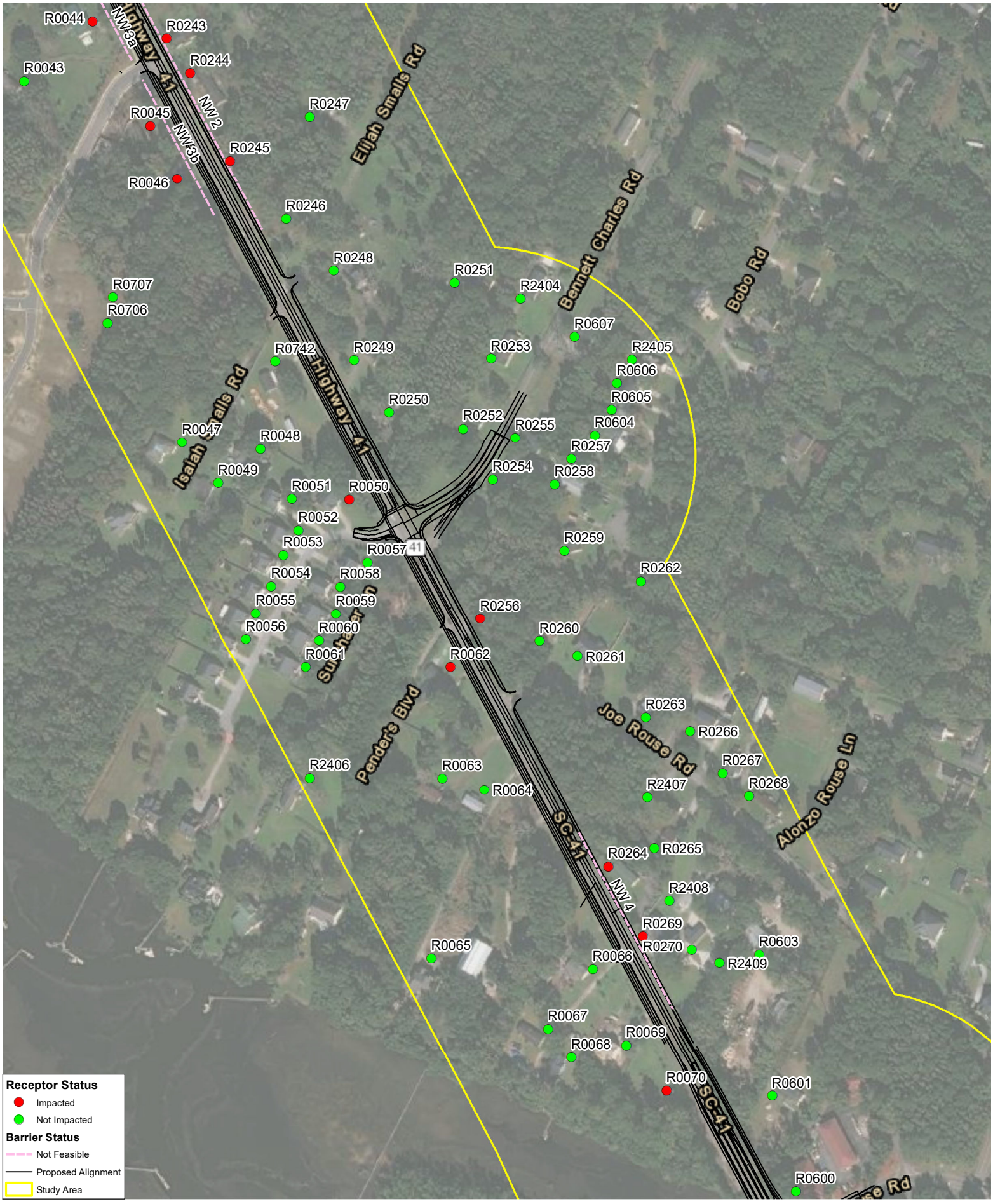


Charleston County Transportation Development

HIGHWAY 41 CORRIDOR IMPROVEMENTS

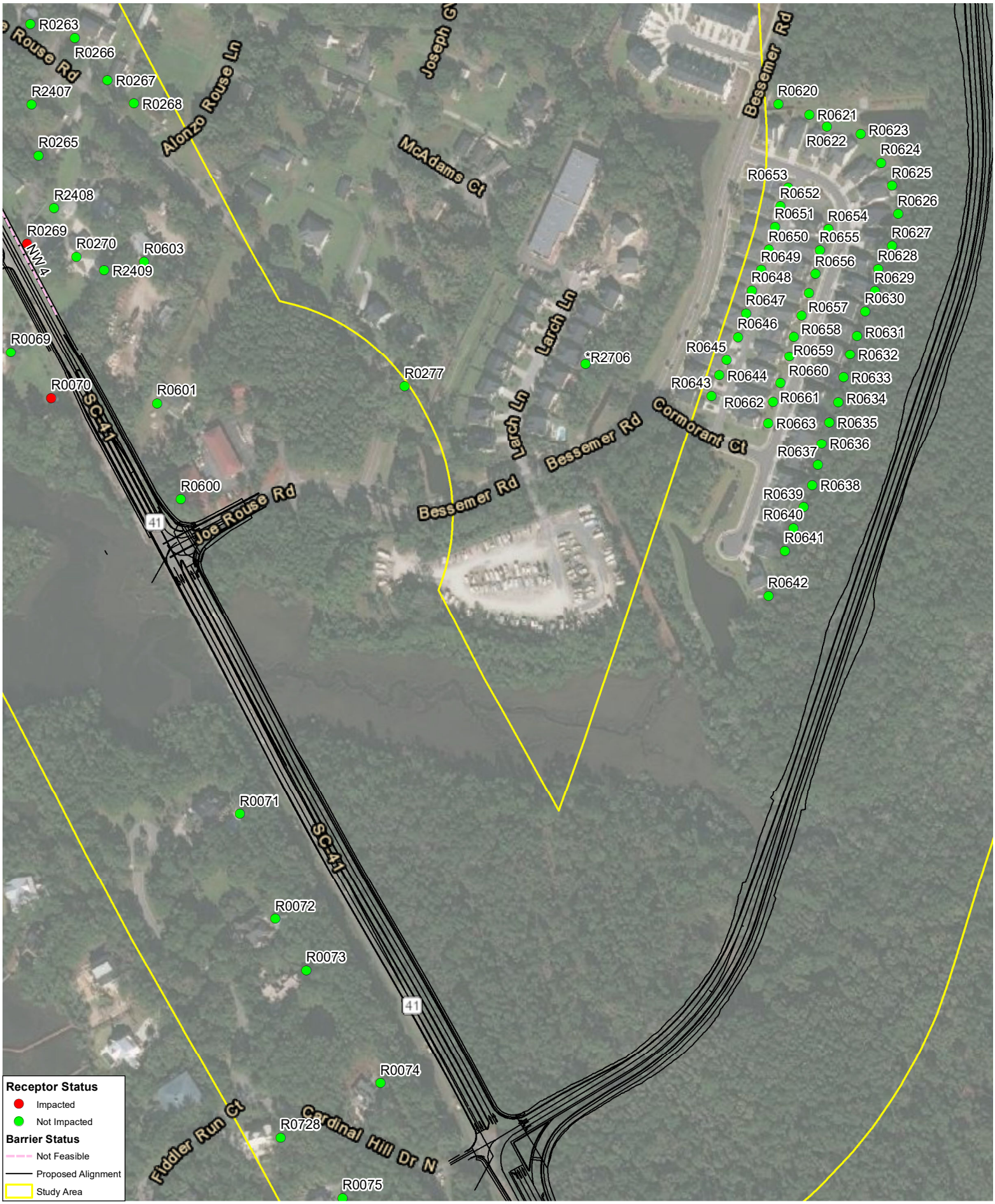
N

0 300 600

Feet

RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B

PATH: \\MSPE-SRV1\MPLSDATA\GISPROJ\SCDOT\10329321_SC41_PH2\7.2_WIP\MAP_DOCS\FIGURES\SC41_FIGB_06172022.MXD - USER: MPAL - DATE: 6/30/2022



Charleston County Transportation Development

HIGHWAY 41 CORRIDOR IMPROVEMENTS

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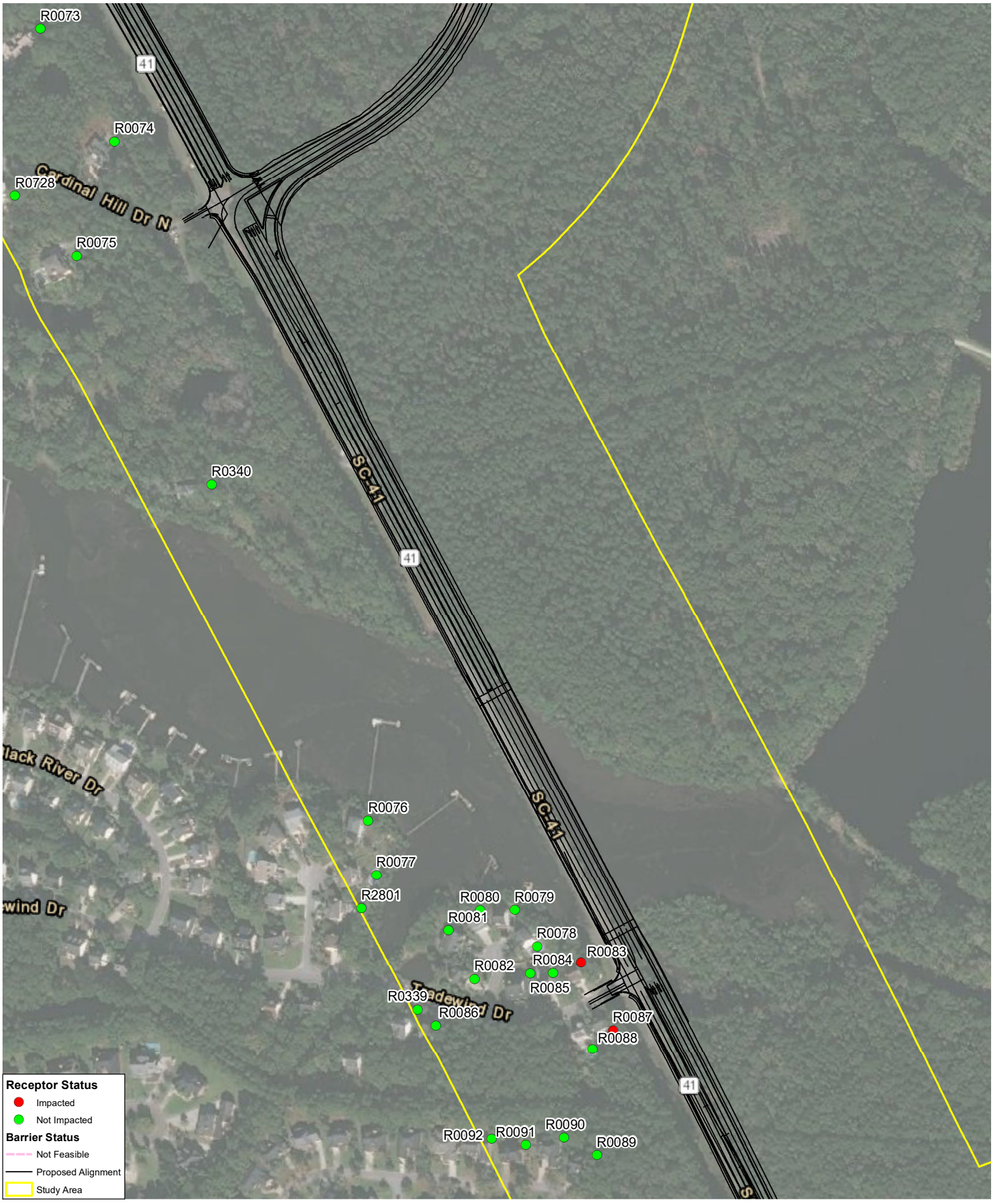
0 300 600

Feet

RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B

PATH: \\MSPE-SRV1\MPLSDATA\GISPROJ\SCDOT\10329321_SC41_PH2\7.2_WIP\MAP_DOCS\FIGURES\SC41_FIGB_06172022.MXD - USER: MPAL - DATE: 6/30/2022

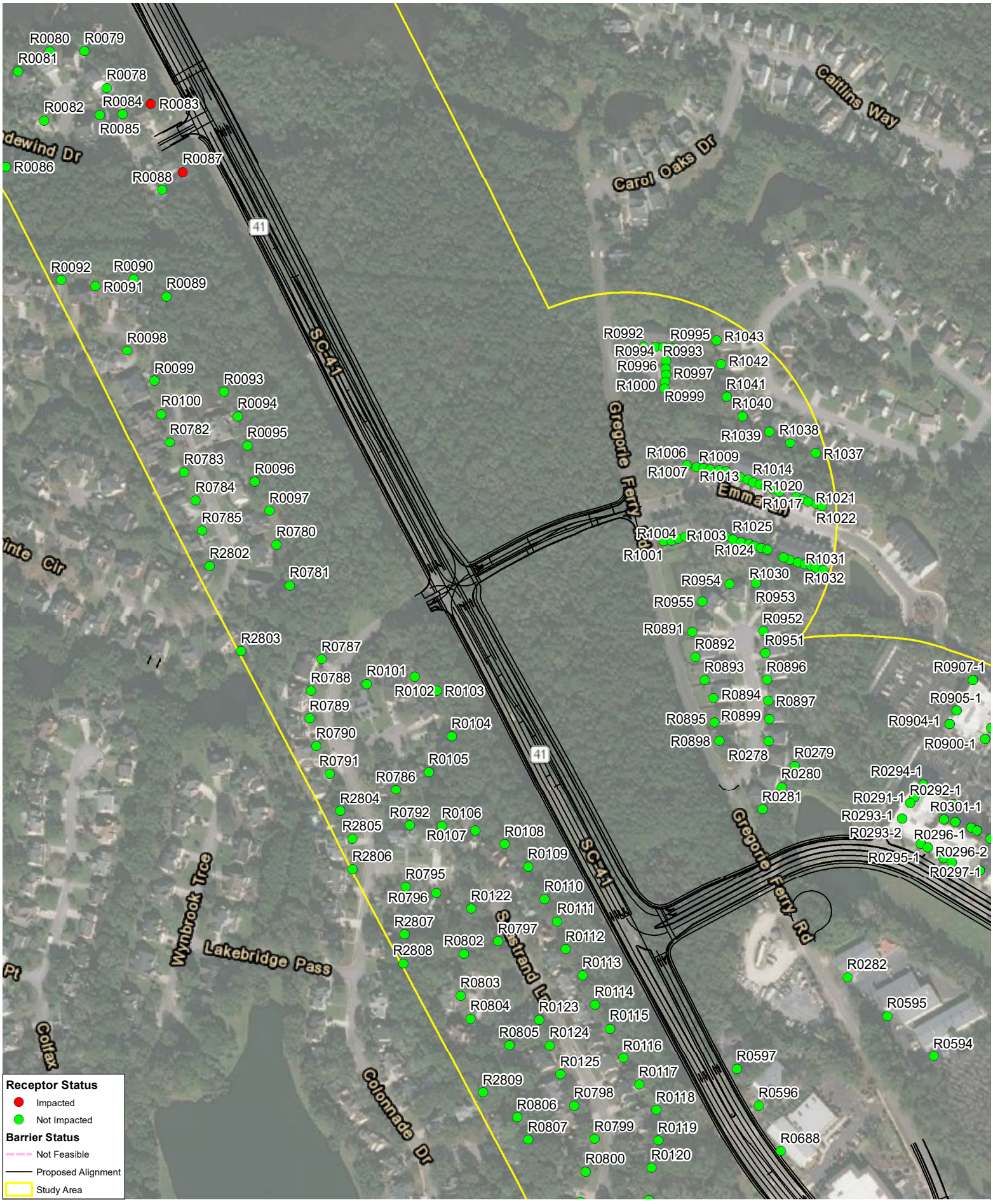


Charleston County Transportation Development

HIGHWAY 41 CORRIDOR IMPROVEMENTS

RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B

PATH: \\MSPE-SRV1\MPLSDATA\GISPROJ\SCDOT\10329321_SC41_PH2\7.2_WIP\MAP_DOCS\FIGURES\SC41_FIGB_06172022.MXD - USER: MPAL - DATE: 6/30/2022

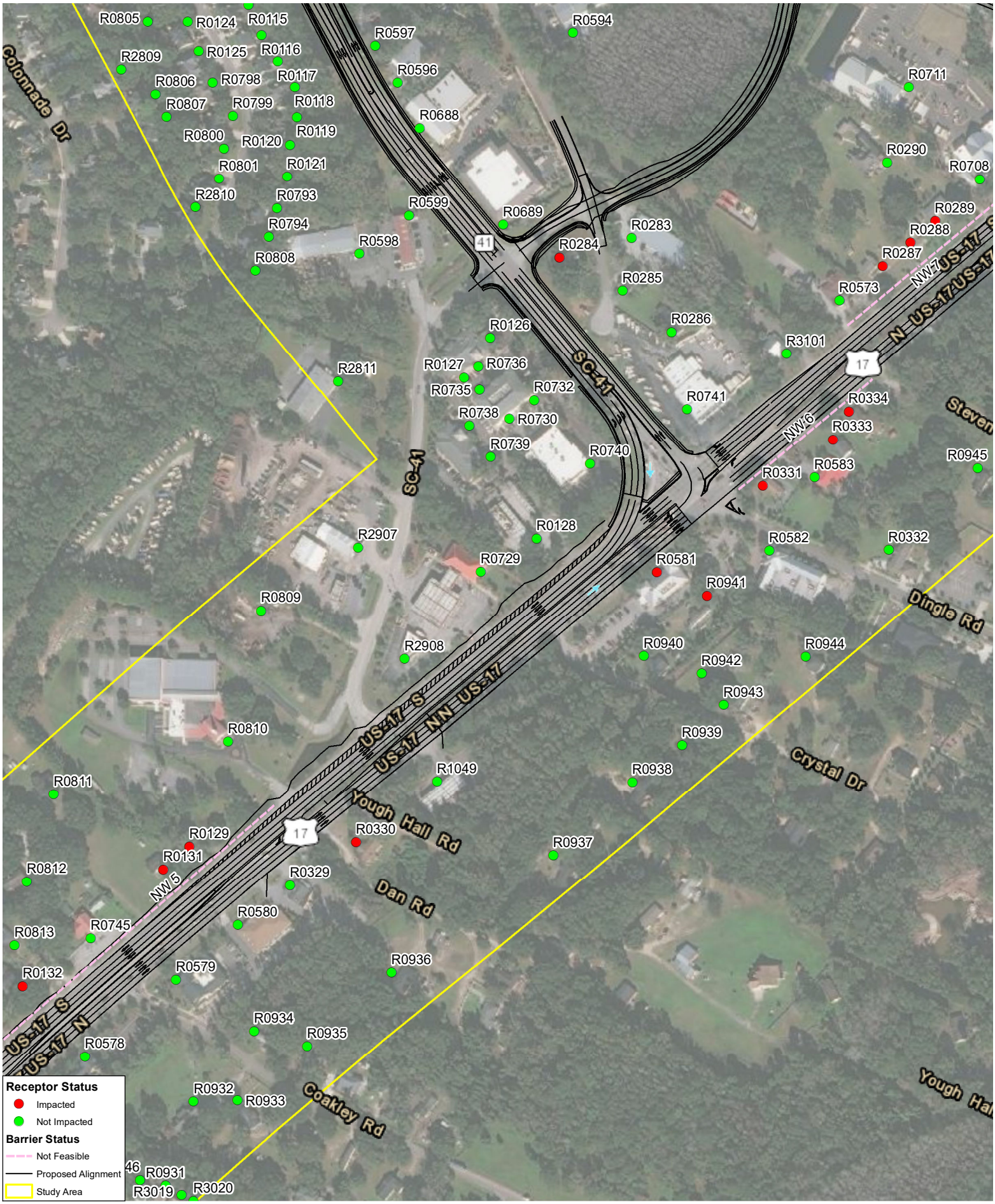


Charleston County Transportation Development

HIGHWAY 41 CORRIDOR IMPROVEMENTS

RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B

PATH: \\MSPE-SRV1\MPLSDATA\GISPROJ\SCDOT\10329321_SC41_PH2\7.2_WIP\MAP_DOCS\FIGURES\SC41_FIGB_06172022.MXD - USER: MPAL - DATE: 6/30/2022


R0805
R0124
R0115
R0597
R0594
R2809
R0125
R0116
R0596
R0711
R0806
R0798
R0117
R0807
R0799
R0118
R0688
R0800
R0120
R0119
R0290
R0708
R0801
R0121
R2810
R0793
R0599
R0689
R0289
R0794
R0283
R0288
R0598
R0284
R0287
R0808
R0285
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R0126
R0286
R3101
R2811
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R0732
R0741
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R0329
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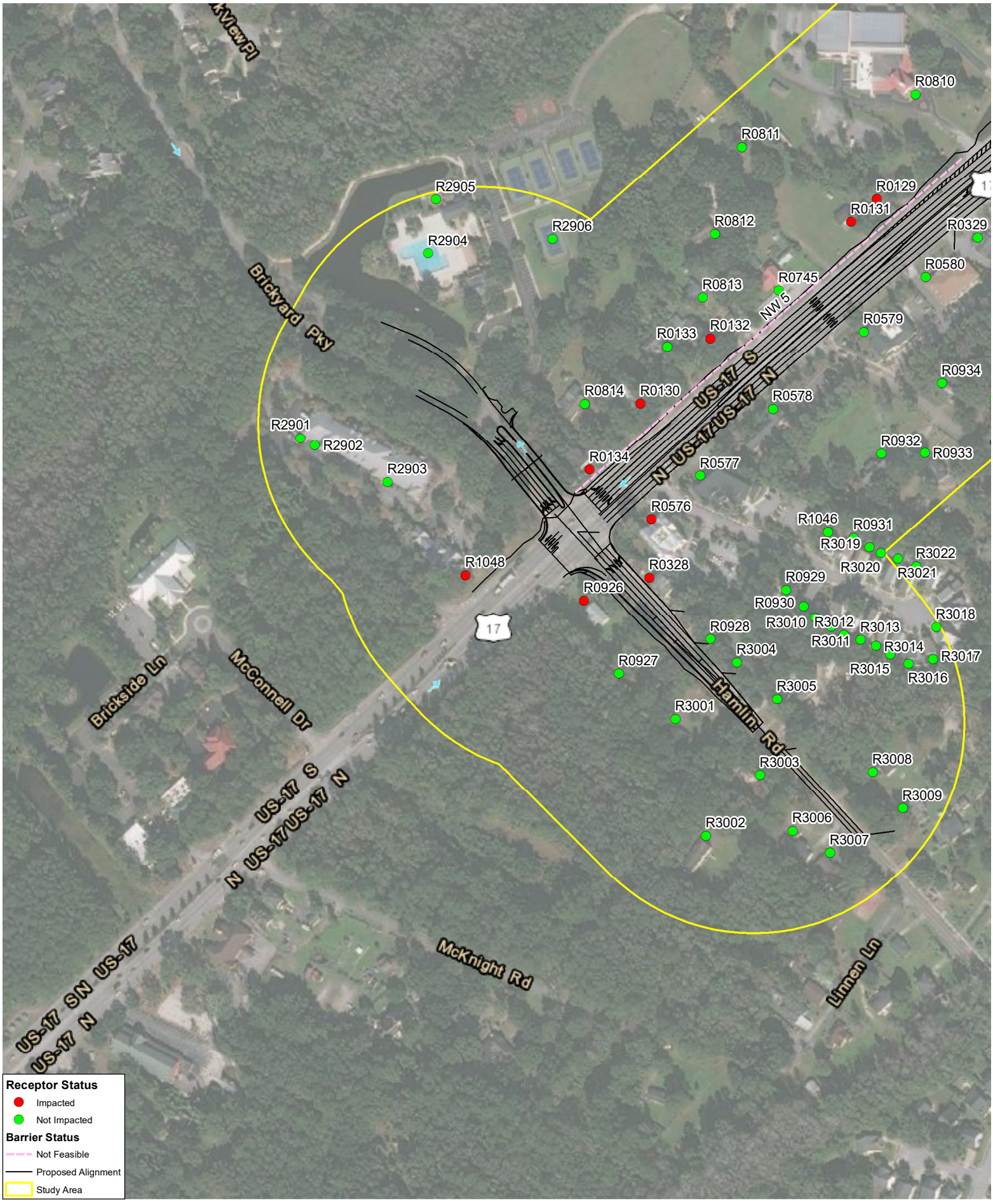
R0745
R0813
R0936
R0579
R0132
R0934
R0935
R0578
R0932
R0933
R0931
R3019
R3020
Colonnade Dr
SC-41
US-17 S
US-17 N
NW 5
NW 6
Yough Hall Rd
Dan Rd
Coakley Rd
Dingle Rd
Crystal Dr
Receptor Status
Impacted
Not Impacted
Barrier Status
Not Feasible
Proposed Alignment
Study Area
N
0
300
600
Feet
Charleston County
Transportation Development
HIGHWAY 41 CORRIDOR IMPROVEMENTS
RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B
PATH: \\MSPE-SRV1\MPLSDATA\GISPROJ\SCDOT\10329321_SC41_PH2\7.2_WIP\MAP_DOCS\FIGURES\SC41_FIGB_06172022.MXD - USER: MPAL - DATE: 6/30/2022



Charleston County Transportation Development

HIGHWAY 41 CORRIDOR IMPROVEMENTS

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Feet

RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B

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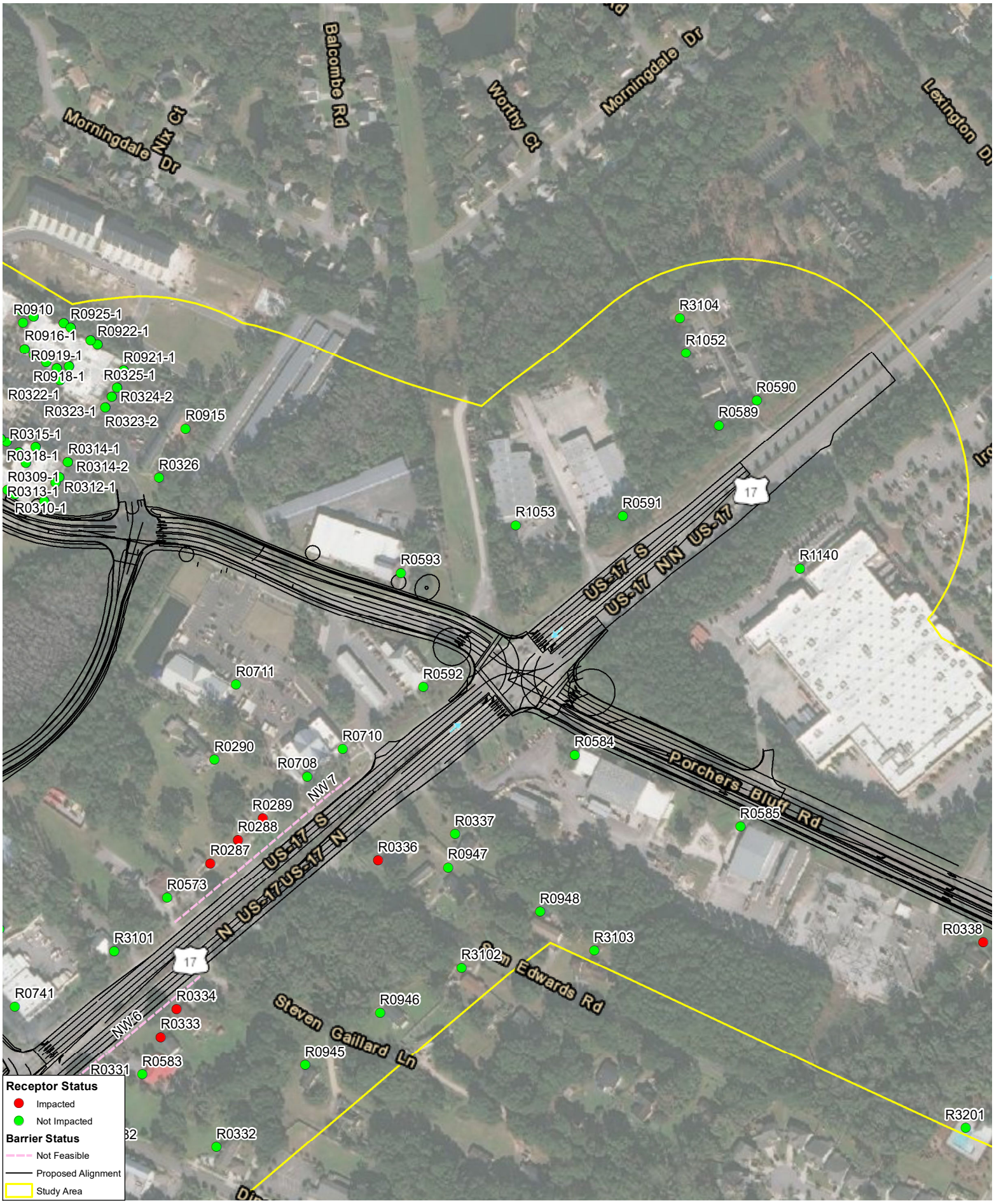

Charleston County Transportation Development

HIGHWAY 41 CORRIDOR IMPROVEMENTS

RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B

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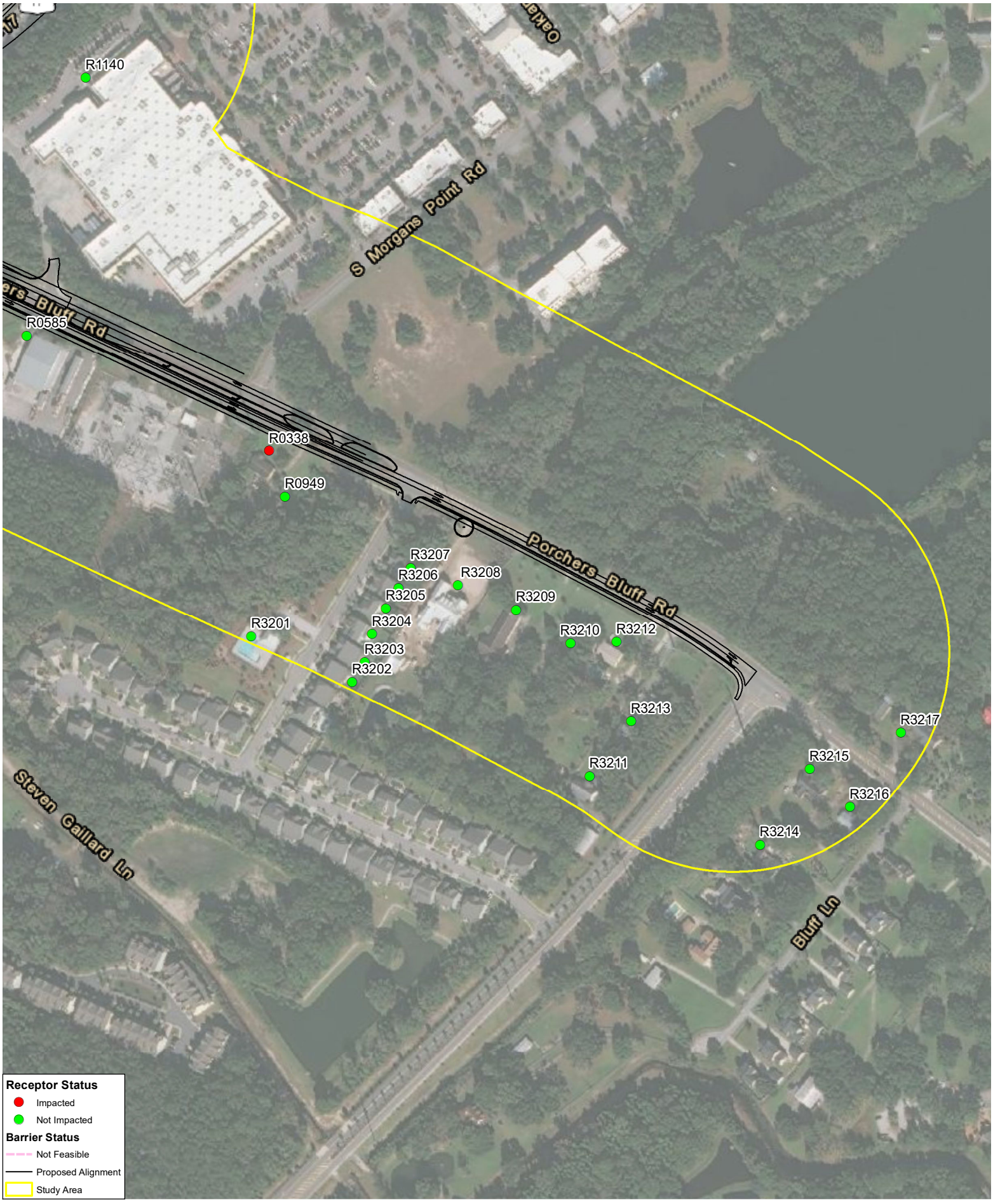

Charleston County Transportation Development

HIGHWAY 41 CORRIDOR IMPROVEMENTS

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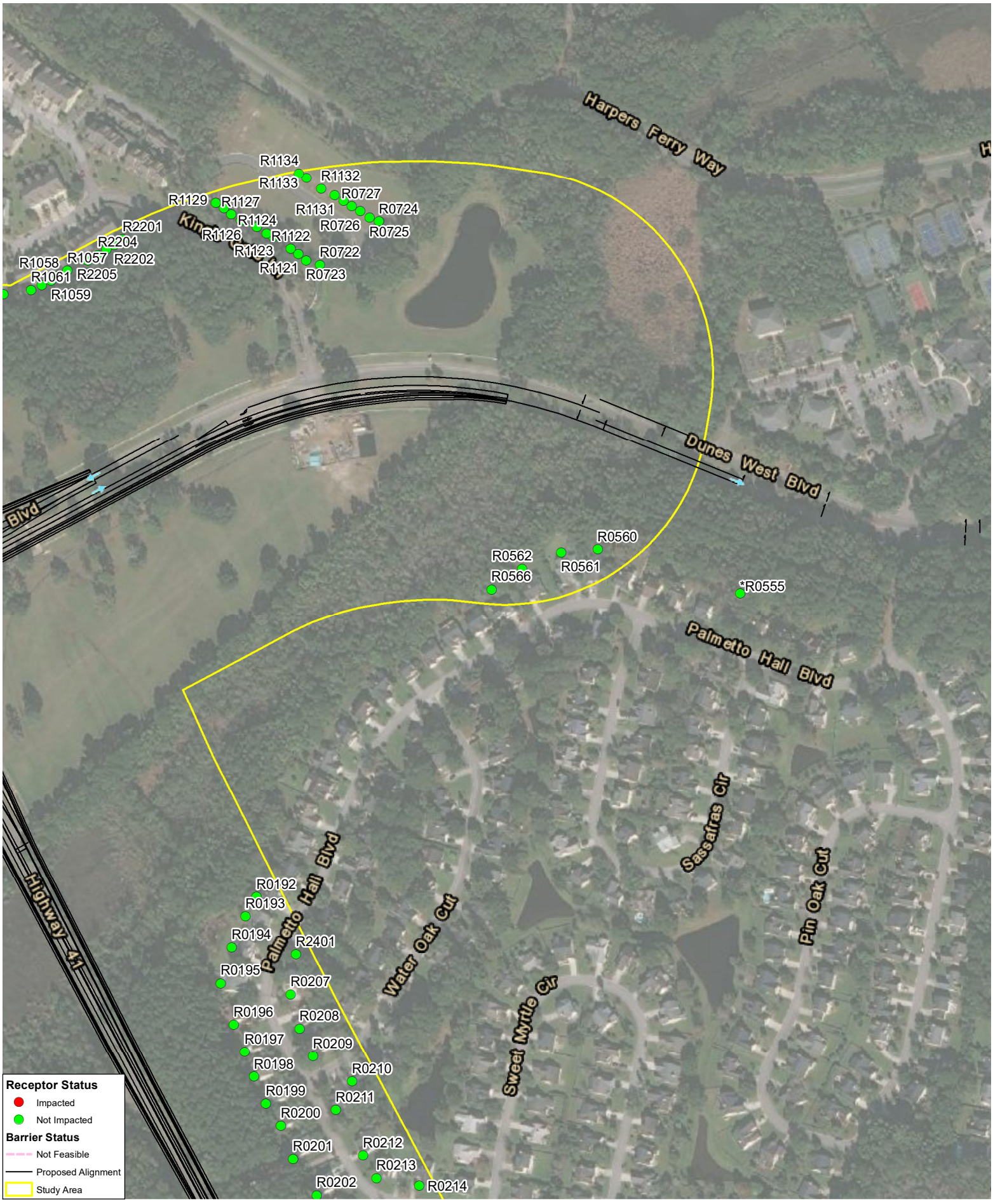
Feet

RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B

PATH: \\MSPE-SRV1\MPLSDATA\GISPROJ\SCDOT\10329321_SC41_PH2\7.2_WIP\MAP_DOCS\FIGURES\SC41_FIGB_06172022.MXD - USER: MPAL - DATE: 6/30/2022



Charleston County Transportation Development

HIGHWAY 41 CORRIDOR IMPROVEMENTS

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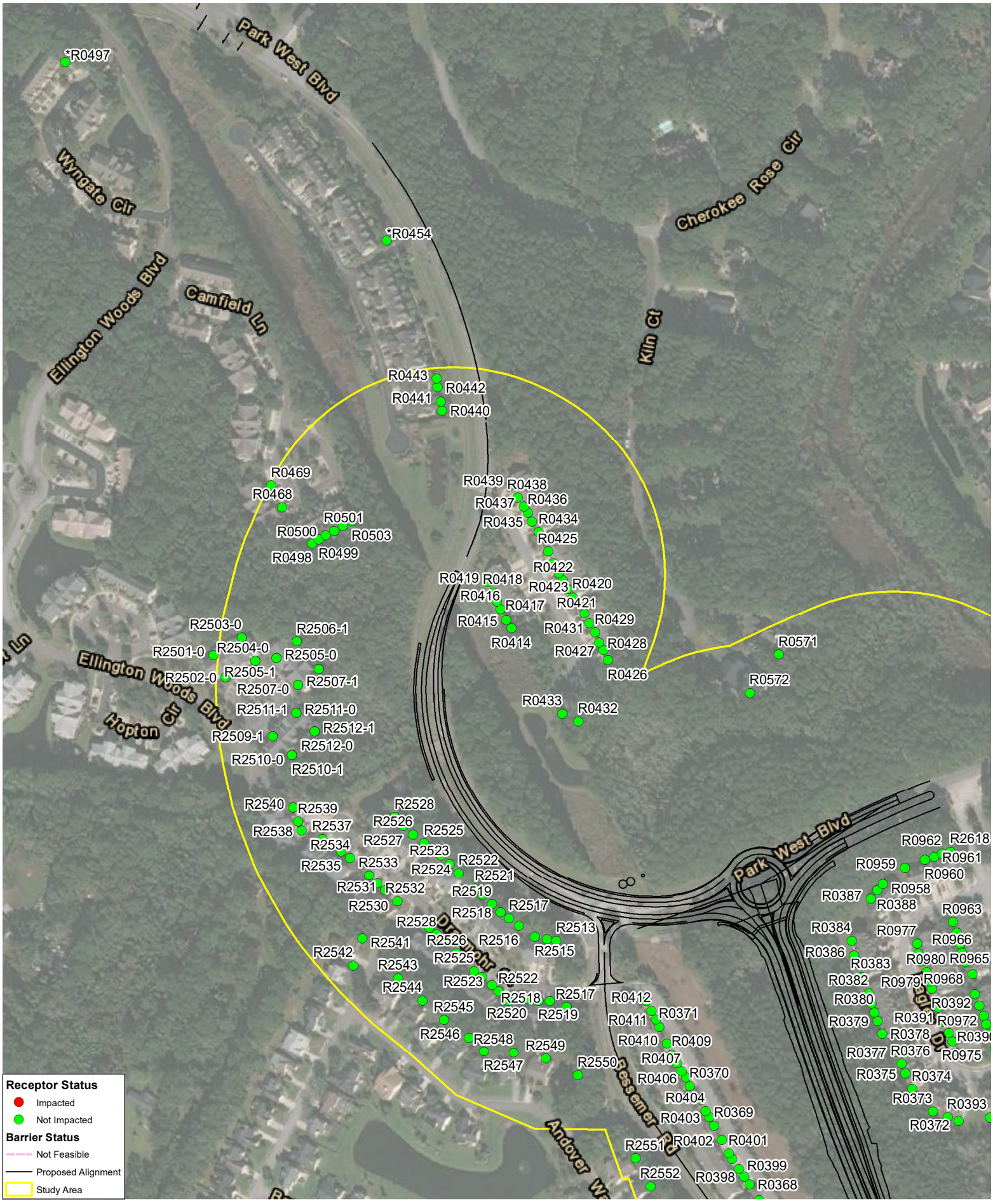
Feet

RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B

PATH: \\MSPE-SRV1\MPLSDATA\GISPROJ\SCDOT\10329321_SC41_PH2\7.2_WIP\MAP_DOCS\FIGURES\SC41_FIGB_06172022.MXD - USER: MPAL - DATE: 6/30/2022

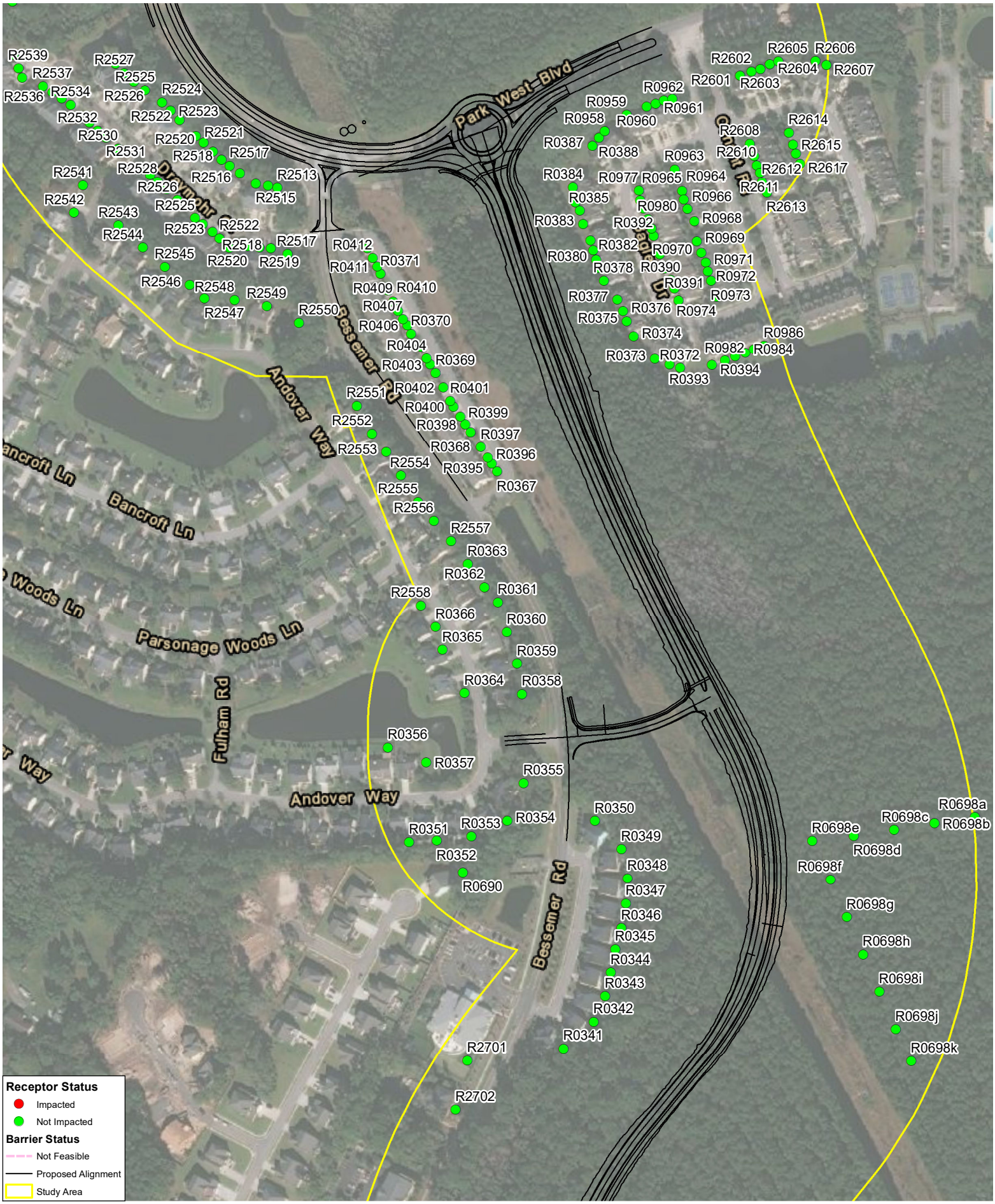


Charleston County Transportation Development

HIGHWAY 41 CORRIDOR IMPROVEMENTS

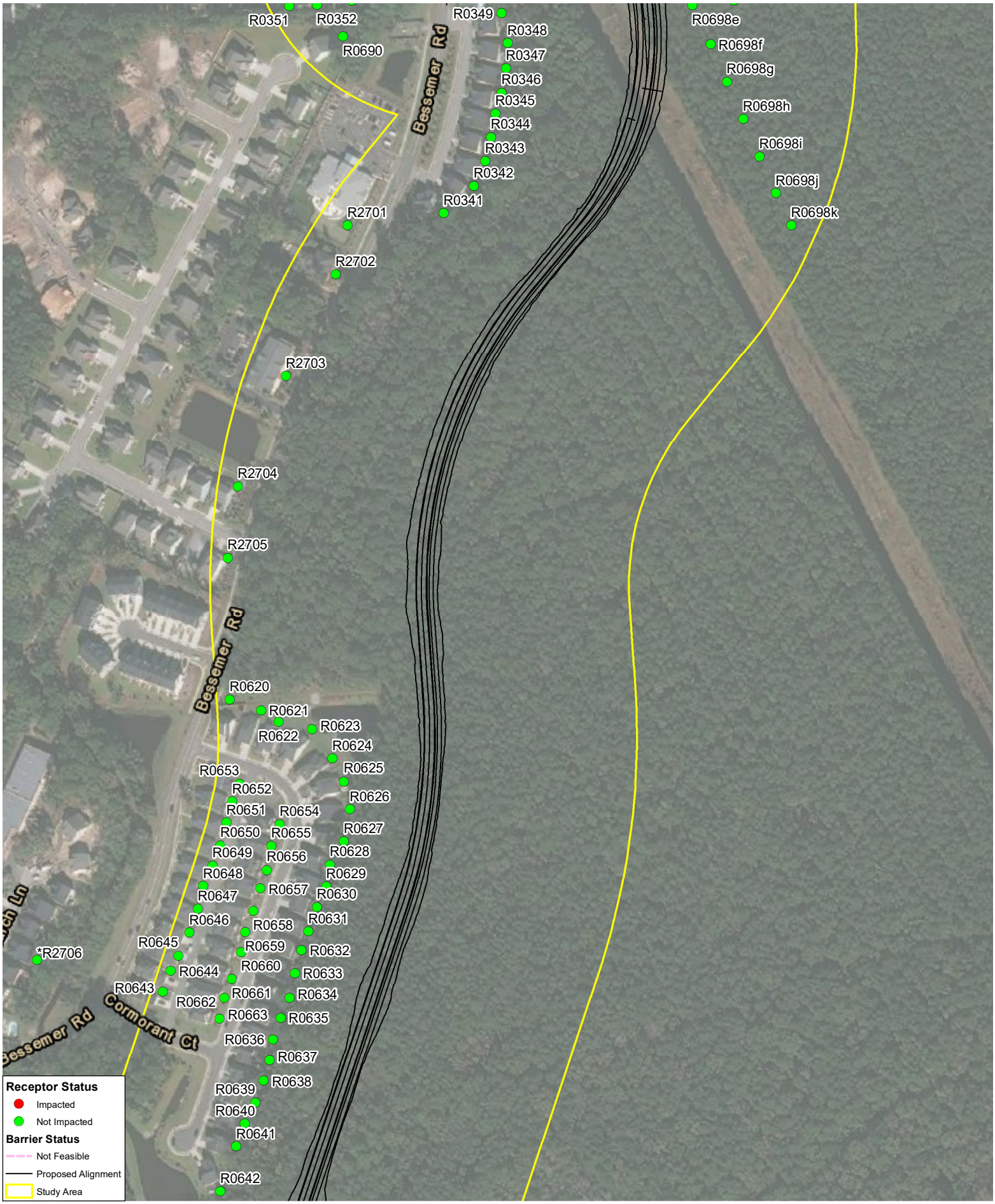
RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B

PATH: \\MSPE-SRV1\IMPLSDATA\GISPROJ\SCDOT\10329321_SC41_PH2\7.2_WIP\MAP_DOCS\FIGURES\SC41_FIGB_06172022.MXD - USER: MPAL - DATE: 6/30/2022



RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B

PATH: \\MSPE-SRV1\IMPLSDATA\GISPROJ\SCDOT\10329321_SC41_PH2\7.2_WIP\MAP_DOCS\FIGURES\SC41_FIGB_06172022.MXD - USER: MPAL - DATE: 6/30/2022



Charleston County Transportation Development

HIGHWAY 41 CORRIDOR IMPROVEMENTS

RECEPTORS
SC41
COMPROMISE ALTERNATIVE
FIGURE B

PATH: \\MSPE-SRV1\MPLSDATA\GISPROJ\SCDOT\10329321_SC41_PH2\7.2_WIP\MAP_DOCS\FIGURES\SC41_FIGB_06172022.MXD - USER: MPAL - DATE: 6/30/2022

HIGHWAY 41 CORRIDOR IMPROVEMENTS

Appendix C – Modeled Noise Level Results

Table 11: Modeled Noise Levels without Abatement

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0003	Residential	B / 66	59.5	59.4	61.2	1.7	No
R0004	Residential	B / 66	64.0	64.0	66.2	2.2	Yes
R0005	Residential	B / 66	62.2	62.1	63.1	0.9	No
R0006	Residential	B / 66	52.3	52.6	55.4	3.1	No
R0007	Residential	B / 66	51.8	52.2	54.1	2.3	No
R0008	Residential	B / 66	59.4	59.9	61.3	1.9	No
R0009	Residential	B / 66	60.3	60.8	62.3	2.0	No
R0010	Residential	B / 66	61.1	61.5	63.4	2.3	No
R0011	Residential	B / 66	60.8	61.1	63.1	2.3	No
R0012	Residential	B / 66	60.4	60.6	62.6	2.2	No
R0013	Residential	B / 66	53.7	53.6	56.1	2.4	No
R0014	Residential	B / 66	49.8	50.1	52.6	2.8	No
R0015	Residential	B / 66	52.6	52.6	56.2	3.6	No
R0016	Residential	B / 66	53.8	53.8	57.4	3.6	No
R0017	Residential	B / 66	54.2	54.2	57.9	3.7	No
R0018	Residential	B / 66	59.3	59.3	63.0	3.7	No
R0019	Residential	B / 66	59.8	59.7	63.2	3.4	No
R0020	Residential	B / 66	57.8	57.8	60.8	3.0	No
R0021	Residential	B / 66	50.7	50.7	54.0	3.3	No
R0022	Residential	B / 66	55.0	55.1	57.5	2.5	No
R0023	Restaurant	E / 71	65.5	65.1	66.8	1.3	No
R0024	Residential	B / 66	51.8	51.5	53.2	1.4	No
R0025	Residential	B / 66	52.1	51.9	53.6	1.5	No
R0026	Residential	B / 66	52.2	51.9	53.6	1.4	No
R0027	Residential	B / 66	51.9	51.6	53.3	1.4	No
R0028	Residential	B / 66	50.8	50.6	52.4	1.6	No
R0029	Residential	B / 66	50.0	49.7	51.2	1.2	No
R0030	Residential	B / 66	56.3	55.9	58.9	2.6	No
R0031	Residential	B / 66	57.2	56.7	59.9	2.7	No
R0032	Church	D / 66	48.4	48.0	50.9	2.5	No
R0033	Residential	B / 66	49.5	49.0	52.8	3.3	No
R0034	Residential	B / 66	58.7	58.3	61.9	3.2	No
R0035	Residential	B / 66	61.0	60.5	63.2	2.2	No
R0036	Residential	B / 66	61.3	60.8	63.6	2.3	No
R0037	Residential	B / 66	66.9	66.4	68.4	1.5	Yes
R0038	Residential	B / 66	70.1	69.6	70.7	0.6	Yes
R0039	Residential	B / 66	68.3	67.8	69.2	0.9	Yes
R0040	Residential	B / 66	50.2	49.7	53.7	3.5	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0041	Residential	B / 66	54.2	53.7	58.1	3.9	No
R0042	Residential	B / 66	52.3	51.9	56.4	4.1	No
R0043	Residential	B / 66	51.3	50.8	55.4	4.1	No
R0044	Residential	B / 66	64.0	63.5	66.0	2.0	Yes
R0045	Residential	B / 66	64.6	64.1	66.4	1.8	Yes
R0046	Residential	B / 66	64.2	63.8	66.1	1.9	Yes
R0047	Residential	B / 66	48.6	48.1	51.9	3.3	No
R0048	Residential	B / 66	54.2	53.8	57.8	3.6	No
R0049	Residential	B / 66	48.5	48.1	52.1	3.6	No
R0050	Residential	B / 66	65.2	64.8	66.7	1.5	Yes
R0051	Residential	B / 66	54.6	54.2	58.4	3.8	No
R0052	Residential	B / 66	55.1	54.7	58.1	3.0	No
R0053	Residential	B / 66	52.5	52.1	55.4	2.9	No
R0054	Residential	B / 66	50.2	49.7	52.5	2.3	No
R0055	Residential	B / 66	46.4	46.0	48.7	2.3	No
R0056	Residential	B / 66	45.1	44.7	47.9	2.8	No
R0057	Residential	B / 66	62.8	62.3	64.5	1.7	No
R0058	Residential	B / 66	53.9	53.5	57.4	3.5	No
R0059	Residential	B / 66	54.6	54.1	57.8	3.2	No
R0060	Residential	B / 66	52.1	51.7	55.1	3.0	No
R0061	Residential	B / 66	50.4	49.9	53.1	2.7	No
R0062	Residential	B / 66	68.4	67.9	69.3	0.9	Yes
R0063	Residential	B / 66	55.7	55.3	59.2	3.5	No
R0064	Residential	B / 66	60.7	60.2	63.2	2.5	No
R0065	Residential	B / 66	47.8	47.4	50.2	2.4	No
R0066	Residential	B / 66	63.4	63.0	65.1	1.7	No
R0067	Residential	B / 66	54.0	53.6	56.9	2.9	No
R0068	Residential	B / 66	54.4	54.0	56.5	2.1	No
R0069	Residential	B / 66	63.2	62.8	63.4	0.2	No
R0070	Residential	B / 66	66.3	65.9	66.2	-0.1	Yes
R0071	Residential	B / 66	61.3	61.3	61.8	0.5	No
R0072	Residential	B / 66	58.1	58.1	59.1	1.0	No
R0073	Residential	B / 66	56.6	56.6	58.0	1.4	No
R0074	Residential	B / 66	55.3	55.2	58.1	2.8	No
R0075	Residential	B / 66	51.7	51.7	57.6	5.9	No
R0076	Residential	B / 66	55.6	55.6	59.6	4.0	No
R0077	Residential	B / 66	51.4	51.4	56.1	4.7	No
R0078	Residential	B / 66	59.8	59.9	62.8	3.0	No
R0079	Residential	B / 66	60.1	60.1	62.6	2.5	No
R0080	Residential	B / 66	54.8	54.8	58.5	3.7	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0081	Residential	B / 66	54.3	54.4	58.5	4.2	No
R0082	Residential	B / 66	54.8	55.7	57.9	3.1	No
R0083	Residential	B / 66	67.3	67.3	69.4	2.1	Yes
R0084	Residential	B / 66	62.8	62.9	65.2	2.4	No
R0085	Residential	B / 66	59.1	59.2	61.9	2.8	No
R0086	Residential	B / 66	53.1	54.4	56.2	3.1	No
R0087	Residential	B / 66	66.8	66.8	69.0	2.2	Yes
R0088	Residential	B / 66	62.1	62.1	64.1	2.0	No
R0089	Residential	B / 66	54.1	54.2	59.2	5.1	No
R0090	Residential	B / 66	51.5	51.6	56.6	5.1	No
R0091	Residential	B / 66	47.2	47.6	52.1	4.9	No
R0092	Residential	B / 66	45.3	45.8	50.5	5.2	No
R0093	Residential	B / 66	54.5	54.5	59.7	5.2	No
R0094	Residential	B / 66	54.6	54.6	59.9	5.3	No
R0095	Residential	B / 66	54.3	54.3	59.9	5.6	No
R0096	Residential	B / 66	53.7	53.7	59.5	5.8	No
R0097	Residential	B / 66	53.9	53.9	59.7	5.8	No
R0098	Residential	B / 66	49.2	49.3	54.1	4.9	No
R0099	Residential	B / 66	50.2	50.3	55.1	4.9	No
R0100	Residential	B / 66	49.0	49.0	53.7	4.7	No
R0101	Residential	B / 66	55.3	55.8	59.7	4.4	No
R0102	Residential	B / 66	60.4	60.5	64.5	4.1	No
R0103	Residential	B / 66	62.3	62.3	65.9	3.6	No
R0104	Residential	B / 66	60.3	60.3	64.8	4.5	No
R0105	Residential	B / 66	53.2	53.2	60.2	7.0	No
R0106	Residential	B / 66	52.4	52.5	59.6	7.2	No
R0107	Residential	B / 66	56.0	56.0	62.5	6.5	No
R0108	Residential	B / 66	58.5	58.5	64.5	6.0	No
R0109	Residential	B / 66	59.8	59.9	65.7	5.9	No
R0110	Residential	B / 66	59.7	59.7	65.6	5.9	No
R0111	Residential	B / 66	59.8	59.8	65.9	6.1	No
R0112	Residential	B / 66	59.0	59.1	65.3	6.3	No
R0113	Residential	B / 66	59.5	59.5	65.3	5.8	No
R0114	Residential	B / 66	59.2	59.2	64.2	5.0	No
R0115	Residential	B / 66	59.6	59.7	64.4	4.8	No
R0116	Residential	B / 66	59.6	59.6	64.0	4.4	No
R0117	Residential	B / 66	60.0	60.1	64.1	4.1	No
R0118	Residential	B / 66	60.8	60.9	64.5	3.7	No
R0119	Residential	B / 66	59.6	59.7	63.0	3.4	No
R0120	Residential	B / 66	57.5	57.7	59.7	2.2	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0121	Residential	B / 66	55.4	55.6	56.9	1.5	No
R0122	Residential	B / 66	48.7	48.8	54.5	5.8	No
R0123	Residential	B / 66	47.8	48.0	52.2	4.4	No
R0124	Residential	B / 66	48.0	48.2	51.9	3.9	No
R0125	Residential	B / 66	48.0	48.3	51.1	3.1	No
R0126	Restaurant	E / 71	65.0	65.5	66.9	1.9	No
R0127	Restaurant	E / 71	57.9	57.9	59.3	1.4	No
R0128	Restaurant	E / 71	69.3	69.4	68.7	-0.6	No
R0129	Residential	B / 66	70.3	70.3	69.6	-0.7	Yes
R0130	Residential	B / 66	70.4	70.4	69.7	-0.7	Yes
R0131	Residential	B / 66	70.4	70.4	69.7	-0.7	Yes
R0132	Residential	B / 66	70.1	70.1	68.4	-1.7	Yes
R0133	Residential	B / 66	66.9	67.0	65.0	-1.9	No
R0134	Residential	B / 66	73.3	73.3	73.1	-0.2	Yes
R0136	Residential	B / 66	53.9	53.7	57.0	3.1	No
R0137	Residential	B / 66	54.8	54.6	57.9	3.1	No
R0138	Residential	B / 66	59.4	59.2	61.7	2.3	No
R0139	Residential	B / 66	60.0	59.8	62.2	2.2	No
R0140	Residential	B / 66	60.2	60.0	62.3	2.1	No
R0141	Residential	B / 66	60.1	60.0	62.2	2.1	No
R0142	Residential	B / 66	59.2	59.1	61.4	2.2	No
R0143	Residential	B / 66	58.5	58.4	60.8	2.3	No
R0144	Residential	B / 66	57.9	57.8	60.1	2.2	No
R0145	Residential	B / 66	57.9	57.8	60.1	2.2	No
R0146	Residential	B / 66	57.6	57.6	59.9	2.3	No
R0147	Residential	B / 66	57.5	57.5	59.8	2.3	No
R0148	Residential	B / 66	57.3	57.3	59.6	2.3	No
R0149	Residential	B / 66	57.2	57.2	59.5	2.3	No
R0150	Residential	B / 66	57.9	57.8	60.1	2.2	No
R0151	Residential	B / 66	57.9	57.8	60.1	2.2	No
R0152	Residential	B / 66	56.7	56.7	59.3	2.6	No
R0153	Residential	B / 66	56.8	56.7	59.3	2.5	No
R0154	Residential	B / 66	56.6	56.6	59.1	2.5	No
R0155	Residential	B / 66	56.7	56.6	59.2	2.5	No
R0156	Residential	B / 66	56.5	56.5	59.1	2.6	No
R0157	Residential	B / 66	56.8	56.7	59.3	2.5	No
R0158	Residential	B / 66	56.5	56.5	59.1	2.6	No
R0159	Residential	B / 66	56.5	56.5	59.1	2.6	No
R0160	Residential	B / 66	56.9	56.9	59.4	2.5	No
R0161	Residential	B / 66	57.0	56.9	59.5	2.5	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0162	Residential	B / 66	57.3	57.3	59.7	2.4	No
R0163	Residential	B / 66	57.1	57.1	59.6	2.5	No
R0164	Residential	B / 66	57.2	57.2	59.6	2.4	No
R0165	Residential	B / 66	57.5	57.4	59.9	2.4	No
R0166	Residential	B / 66	56.9	56.9	59.4	2.5	No
R0167	Residential	B / 66	57.0	57.0	59.5	2.5	No
R0168	Residential	B / 66	56.7	56.6	59.2	2.5	No
R0169	Residential	B / 66	56.8	56.8	59.3	2.5	No
R0170	Residential	B / 66	57.0	57.0	59.5	2.5	No
R0171	Residential	B / 66	57.1	57.0	59.6	2.5	No
R0172	Residential	B / 66	57.1	57.0	59.6	2.5	No
R0173	Residential	B / 66	57.1	57.1	59.6	2.5	No
R0174	Residential	B / 66	57.1	57.0	59.5	2.4	No
R0175	Residential	B / 66	57.2	57.1	59.6	2.4	No
R0176	Residential	B / 66	56.7	56.6	59.2	2.5	No
R0177	Residential	B / 66	56.8	56.7	59.3	2.5	No
R0178	Residential	B / 66	56.5	56.4	59.0	2.5	No
R0179	Residential	B / 66	56.6	56.6	59.1	2.5	No
R0180	Residential	B / 66	56.4	56.3	58.9	2.5	No
R0181	Residential	B / 66	56.4	56.4	59.0	2.6	No
R0182	Residential	B / 66	56.8	56.7	59.2	2.4	No
R0183	Residential	B / 66	56.4	56.3	58.9	2.5	No
R0184	Residential	B / 66	56.1	56.0	58.7	2.6	No
R0185	Residential	B / 66	55.9	55.8	58.5	2.6	No
R0186	Residential	B / 66	55.2	55.1	57.9	2.7	No
R0187	Residential	B / 66	54.7	54.6	57.7	3.0	No
R0188	Residential	B / 66	54.3	54.2	57.4	3.1	No
R0189	Residential	B / 66	54.0	53.9	57.2	3.2	No
R0190	Residential	B / 66	53.6	53.5	57.0	3.4	No
R0191	Residential	B / 66	53.2	53.2	56.7	3.5	No
R0192	Residential	B / 66	49.7	49.6	51.7	2.0	No
R0193	Residential	B / 66	50.4	50.2	52.3	1.9	No
R0194	Residential	B / 66	51.8	51.5	53.4	1.6	No
R0195	Residential	B / 66	53.5	53.1	55.1	1.6	No
R0196	Residential	B / 66	53.7	53.3	55.5	1.8	No
R0197	Residential	B / 66	53.7	53.3	55.7	2.0	No
R0198	Residential	B / 66	53.9	53.5	56.1	2.2	No
R0199	Residential	B / 66	54.0	53.6	56.4	2.4	No
R0200	Residential	B / 66	53.7	53.3	56.4	2.7	No
R0201	Residential	B / 66	54.1	53.6	57.1	3.0	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0202	Residential	B / 66	53.7	53.2	57.1	3.4	No
R0203	Residential	B / 66	52.8	52.3	56.3	3.5	No
R0204	Residential	B / 66	50.8	50.3	54.1	3.3	No
R0205	Residential	B / 66	48.6	48.2	51.2	2.6	No
R0206	Residential	B / 66	47.3	46.8	49.7	2.4	No
R0207	Residential	B / 66	46.7	46.4	48.1	1.4	No
R0208	Residential	B / 66	46.7	46.4	48.4	1.7	No
R0209	Residential	B / 66	45.7	45.3	47.0	1.3	No
R0210	Residential	B / 66	44.6	44.6	45.3	0.7	No
R0211	Residential	B / 66	45.7	45.3	47.4	1.7	No
R0212	Residential	B / 66	46.4	46.0	48.3	1.9	No
R0213	Residential	B / 66	46.0	45.5	48.0	2.0	No
R0214	Residential	B / 66	44.6	44.6	46.0	1.4	No
R0215	Residential	B / 66	60.1	59.6	62.5	2.4	No
R0216	Residential	B / 66	67.0	66.5	68.3	1.3	Yes
R0217	Residential	B / 66	54.4	54.0	58.0	3.6	No
R0218	Residential	B / 66	57.4	57.0	60.2	2.8	No
R0219	Residential	B / 66	54.9	54.4	57.7	2.8	No
R0220	Residential	B / 66	51.9	51.4	54.9	3.0	No
R0221	Residential	B / 66	49.6	49.1	51.6	2.0	No
R0222	Residential	B / 66	48.0	47.6	50.0	2.0	No
R0223	Residential	B / 66	47.4	47.0	49.3	1.9	No
R0224	Residential	B / 66	46.6	46.3	48.4	1.8	No
R0225	Residential	B / 66	55.8	55.3	58.5	2.7	No
R0226	Residential	B / 66	52.8	52.4	54.9	2.1	No
R0227	Residential	B / 66	50.9	50.4	52.4	1.5	No
R0228	Residential	B / 66	48.7	48.3	49.7	1.0	No
R0229	Residential	B / 66	47.3	46.9	48.5	1.2	No
R0230	Residential	B / 66	52.1	51.6	55.1	3.0	No
R0231	Residential	B / 66	63.8	63.3	65.8	2.0	No
R0232	Residential	B / 66	51.5	51.1	54.2	2.7	No
R0233	Residential	B / 66	48.7	48.3	51.0	2.3	No
R0234	Residential	B / 66	50.8	50.3	53.2	2.4	No
R0235	Residential	B / 66	61.4	61.0	63.5	2.1	No
R0236	Landscaping	F / --	64.7	64.2	66.4	1.7	No
R0237	Residential	B / 66	50.8	50.3	53.7	2.9	No
R0238	Residential	B / 66	49.6	49.2	52.2	2.6	No
R0239	Residential	B / 66	49.2	48.7	51.7	2.5	No
R0240	Residential	B / 66	48.6	48.1	50.7	2.1	No
R0241	Residential	B / 66	66.6	66.2	68.1	1.5	Yes

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0242	Residential	B / 66	64.0	63.5	65.8	1.8	No
R0243	Residential	B / 66	68.8	68.3	69.5	0.7	Yes
R0244	Residential	B / 66	67.1	66.6	68.4	1.3	Yes
R0245	Residential	B / 66	69.2	68.7	69.9	0.7	Yes
R0246	Residential	B / 66	62.1	61.6	64.5	2.4	No
R0247	Residential	B / 66	51.5	51.0	55.4	3.9	No
R0248	Residential	B / 66	58.5	58.0	61.7	3.2	No
R0249	Residential	B / 66	63.9	63.5	65.9	2.0	No
R0250	Residential	B / 66	62.7	62.3	64.9	2.2	No
R0251	Residential	B / 66	50.2	49.7	52.7	2.5	No
R0252	Residential	B / 66	55.8	55.4	58.6	2.8	No
R0253	Residential	B / 66	50.1	49.7	53.1	3.0	No
R0254	Residential	B / 66	56.0	55.5	58.9	2.9	No
R0255	Church	D / 66	52.2	51.7	54.5	2.3	No
R0256	Residential	B / 66	67.4	66.9	68.6	1.2	Yes
R0257	Residential	B / 66	49.1	48.7	50.6	1.5	No
R0258	Residential	B / 66	51.8	51.4	53.9	2.1	No
R0259	Residential	B / 66	53.5	53.0	55.7	2.2	No
R0260	Residential	B / 66	58.7	58.2	61.3	2.6	No
R0261	Residential	B / 66	55.7	55.2	58.9	3.2	No
R0262	Residential	B / 66	49.7	49.2	51.4	1.7	No
R0263	Residential	B / 66	52.4	52.0	55.9	3.5	No
R0264	Residential	B / 66	68.5	68.0	69.2	0.7	Yes
R0265	Residential	B / 66	56.4	55.9	59.1	2.7	No
R0266	Residential	B / 66	49.8	49.4	52.9	3.1	No
R0267	Residential	B / 66	48.9	48.5	51.2	2.3	No
R0268	Residential	B / 66	47.8	47.5	50.2	2.4	No
R0269	Adult Day Care	C / 66	69.3	68.9	69.9	0.6	Yes
R0270	Residential	B / 66	59.7	59.3	61.5	1.8	No
R0277	Residential	B / 66	53.0	53.0	52.5	-0.5	No
R0278	Residential	B / 66	48.3	48.4	55.6	7.3	No
R0279	Residential	B / 66	47.9	49.6	54.3	6.4	No
R0280	Residential	B / 66	50.1	51.7	56.7	6.6	No
R0281	Residential	B / 66	55.7	56.4	60.1	4.4	No
R0282	Church	D / 66	57.4	57.6	56.3	-1.1	No
R0283	Commercial	F / --	59.0	59.4	60.4	1.4	No
R0284	Residential	B / 66	66.4	67.0	67.3	0.9	Yes
R0285	Residential	B / 66	63.6	63.9	64.3	0.7	No
R0286	Residential	B / 66	63.1	63.3	63.8	0.7	No
R0287	Residential	B / 66	68.3	69.0	68.6	0.3	Yes

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0288	Residential	B / 66	68.5	69.1	68.7	0.2	Yes
R0289	Residential	B / 66	68.5	69.1	68.7	0.2	Yes
R0290	Residential	B / 66	57.9	58.5	58.4	0.5	No
R0291-0	Apartments	B / 66	46.0	48.9	54.7	8.7	No
R0291-1	Apartments	B / 66	48.0	50.9	56.6	8.6	No
R0291-2	Apartments	B / 66	50.2	52.2	57.2	7.0	No
R0291-3	Apartments	B / 66	52.1	53.5	58.0	5.9	No
R0292-0	Apartments	B / 66	46.5	49.7	55.6	9.1	No
R0292-1	Apartments	B / 66	48.9	51.8	57.3	8.4	No
R0292-2	Apartments	B / 66	51.0	53.1	57.9	6.9	No
R0292-3	Apartments	B / 66	52.8	54.3	58.6	5.8	No
R0293-0	Apartments	B / 66	48.5	52.6	57.8	9.3	No
R0293-1	Apartments	B / 66	50.6	54.1	59.3	8.7	No
R0293-2	Apartments	B / 66	52.2	54.8	59.5	7.3	No
R0293-3	Apartments	B / 66	53.8	55.7	59.9	6.1	No
R0294-0	Apartments	B / 66	44.9	47.4	53.5	8.6	No
R0294-1	Apartments	B / 66	46.9	49.4	55.3	8.4	No
R0294-2	Apartments	B / 66	49.2	51.0	56.1	6.9	No
R0294-3	Apartments	B / 66	51.3	52.5	57.1	5.8	No
R0295-1	Apartments	B / 66	55.0	59.6	63.9	8.9	No
R0295-2	Apartments	B / 66	55.7	59.7	63.7	8.0	No
R0295-3	Apartments	B / 66	56.4	59.8	63.7	7.3	No
R0296-1	Apartments	B / 66	55.0	59.7	64.0	9.0	No
R0296-2	Apartments	B / 66	55.7	59.7	63.8	8.1	No
R0296-3	Apartments	B / 66	56.4	59.8	63.8	7.4	No
R0297-1	Apartments	B / 66	55.1	59.8	64.3	9.2	No
R0297-2	Apartments	B / 66	55.8	59.9	64.1	8.3	No
R0297-3	Apartments	B / 66	56.4	60.0	64.0	7.6	No
R0298-1	Apartments	B / 66	55.0	59.7	64.1	9.1	No
R0298-2	Apartments	B / 66	55.7	59.7	63.9	8.2	No
R0298-3	Apartments	B / 66	56.3	59.8	63.9	7.6	No
R0299-1	Apartments	B / 66	52.4	56.6	60.6	8.2	No
R0299-2	Apartments	B / 66	53.2	56.7	60.4	7.2	No
R0299-3	Apartments	B / 66	53.9	56.9	60.3	6.4	No
R0300-0	Apartments	B / 66	44.6	44.6	46.0	1.4	No
R0300-1	Apartments	B / 66	44.6	44.6	46.0	1.4	No
R0300-2	Apartments	B / 66	44.6	44.6	47.8	3.2	No
R0300-3	Apartments	B / 66	45.9	46.8	49.7	3.8	No
R0301-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0301-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0301-2	Apartments	B / 66	44.6	44.6	45.4	0.8	No
R0301-3	Apartments	B / 66	44.6	44.9	47.5	2.9	No
R0302-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0302-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0302-2	Apartments	B / 66	44.6	44.6	45.3	0.7	No
R0302-3	Apartments	B / 66	44.7	45.3	48.0	3.3	No
R0303-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0303-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0303-2	Apartments	B / 66	44.6	44.6	45.7	1.1	No
R0303-3	Apartments	B / 66	44.9	45.6	48.2	3.3	No
R0304-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0304-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0304-2	Apartments	B / 66	44.6	44.6	45.5	0.9	No
R0304-3	Apartments	B / 66	44.6	45.3	48.0	3.4	No
R0305-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0305-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0305-2	Apartments	B / 66	44.6	44.6	44.9	0.3	No
R0305-3	Apartments	B / 66	44.6	44.6	47.5	2.9	No
R0306-1	Apartments	B / 66	51.8	56.5	61.0	9.2	No
R0306-2	Apartments	B / 66	52.7	56.5	60.9	8.2	No
R0306-3	Apartments	B / 66	53.3	56.7	60.9	7.6	No
R0307-1	Apartments	B / 66	55.2	59.7	63.9	8.7	No
R0307-2	Apartments	B / 66	55.8	59.7	63.7	7.9	No
R0307-3	Apartments	B / 66	56.4	59.7	63.6	7.2	No
R0308-1	Apartments	B / 66	55.2	59.6	63.9	8.7	No
R0308-2	Apartments	B / 66	55.8	59.7	63.6	7.8	No
R0308-3	Apartments	B / 66	56.3	59.7	63.6	7.3	No
R0309-1	Apartments	B / 66	55.5	59.9	64.3	8.8	No
R0309-2	Apartments	B / 66	56.2	60.0	64.1	7.9	No
R0309-3	Apartments	B / 66	56.7	60.1	64.0	7.3	No
R0310-1	Apartments	B / 66	55.5	60.0	64.4	8.9	No
R0310-2	Apartments	B / 66	56.2	60.0	64.3	8.1	No
R0310-3	Apartments	B / 66	56.7	60.1	64.2	7.5	No
R0311-0	Apartments	B / 66	52.6	56.2	62.6	10.0	No
R0311-1	Apartments	B / 66	54.5	57.9	62.8	8.3	No
R0311-2	Apartments	B / 66	55.3	58.1	62.6	7.3	No
R0311-3	Apartments	B / 66	55.9	58.3	62.6	6.7	No
R0312-0	Apartments	B / 66	51.5	53.2	58.9	7.4	No
R0312-1	Apartments	B / 66	53.4	55.7	60.2	6.8	No
R0312-2	Apartments	B / 66	54.4	56.4	60.4	6.0	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0312-3	Apartments	B / 66	55.1	56.7	60.5	5.4	No
R0313-0	Apartments	B / 66	51.3	52.9	58.4	7.1	No
R0313-1	Apartments	B / 66	53.2	55.3	59.8	6.6	No
R0313-2	Apartments	B / 66	54.3	56.1	60.0	5.7	No
R0313-3	Apartments	B / 66	55.0	56.5	60.1	5.1	No
R0314-0	Apartments	B / 66	50.8	52.0	57.2	6.4	No
R0314-1	Apartments	B / 66	52.6	54.2	58.6	6.0	No
R0314-2	Apartments	B / 66	53.9	55.3	59.1	5.2	No
R0314-3	Apartments	B / 66	54.7	55.9	59.3	4.6	No
R0315-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0315-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0315-2	Apartments	B / 66	44.6	44.6	45.4	0.8	No
R0315-3	Apartments	B / 66	45.7	46.2	48.3	2.6	No
R0316-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0316-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0316-2	Apartments	B / 66	44.6	44.6	46.1	1.5	No
R0316-3	Apartments	B / 66	44.9	45.6	48.1	3.2	No
R0317-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0317-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0317-2	Apartments	B / 66	44.6	44.6	45.6	1.0	No
R0317-3	Apartments	B / 66	45.6	46.3	48.5	2.9	No
R0318-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0318-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0318-2	Apartments	B / 66	44.6	44.6	45.2	0.6	No
R0318-3	Apartments	B / 66	45.7	46.3	48.3	2.6	No
R0319-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0319-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0319-2	Apartments	B / 66	44.6	44.6	45.0	0.4	No
R0319-3	Apartments	B / 66	45.4	46.0	47.9	2.5	No
R0320-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0320-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0320-2	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0320-3	Apartments	B / 66	45.1	45.7	47.6	2.5	No
R0321	Pool	C / 66	45.9	47.0	50.1	4.2	No
R0322-0	Apartments	B / 66	44.6	44.6	47.2	2.6	No
R0322-1	Apartments	B / 66	44.6	44.7	48.3	3.7	No
R0322-2	Apartments	B / 66	44.6	45.8	49.3	4.7	No
R0322-3	Apartments	B / 66	46.1	47.3	50.3	4.2	No
R0323-0	Apartments	B / 66	48.8	49.7	53.7	4.9	No
R0323-1	Apartments	B / 66	50.8	51.5	55.3	4.5	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0323-2	Apartments	B / 66	52.5	53.2	56.4	3.9	No
R0323-3	Apartments	B / 66	53.4	54.0	56.9	3.5	No
R0324-0	Apartments	B / 66	48.3	49.1	52.9	4.6	No
R0324-1	Apartments	B / 66	50.3	51.0	54.5	4.2	No
R0324-2	Apartments	B / 66	52.2	52.8	55.8	3.6	No
R0324-3	Apartments	B / 66	53.1	53.7	56.5	3.4	No
R0325-0	Apartments	B / 66	47.7	48.5	52.3	4.6	No
R0325-1	Apartments	B / 66	50.0	50.6	54.0	4.0	No
R0325-2	Apartments	B / 66	51.9	52.4	55.4	3.5	No
R0325-3	Apartments	B / 66	52.8	53.4	56.1	3.3	No
R0326	Playground	C / 66	53.3	53.3	59.8	6.5	No
R0328	Residential	B / 66	68.5	69.2	68.9	0.4	Yes
R0329	Restaurant	E / 71	70.1	70.1	69.7	-0.4	No
R0330	Residential	B / 66	68.4	68.4	68.2	-0.2	Yes
R0331	Office	E / 71	72.1	72.6	72.4	0.3	Yes
R0332	Residential	B / 66	60.7	60.9	60.8	0.1	No
R0333	Residential	B / 66	69.0	69.7	69.4	0.4	Yes
R0334	Residential	B / 66	71.2	71.9	71.7	0.5	Yes
R0336	Residential	B / 66	68.2	69.0	68.7	0.5	Yes
R0337	Residential	B / 66	65.1	65.9	65.6	0.5	No
R0338	Residential	B / 66	63.7	66.1	67.1	3.4	Yes
R0339	Residential	B / 66	53.4	54.8	56.1	2.7	No
R0340	Residential	B / 66	51.6	51.6	55.6	4.0	No
R0341	Residential	B / 66	51.1	51.4	53.2	2.1	No
R0342	Residential	B / 66	49.0	49.4	56.7	7.7	No
R0343	Residential	B / 66	44.6	44.6	52.1	7.5	No
R0344	Residential	B / 66	44.6	44.6	52.8	8.2	No
R0345	Residential	B / 66	45.4	45.8	55.7	10.3	No
R0346	Residential	B / 66	44.6	44.6	51.2	6.6	No
R0347	Residential	B / 66	44.6	44.6	52.2	7.6	No
R0348	Residential	B / 66	45.5	45.9	55.8	10.3	No
R0349	Residential	B / 66	47.9	48.3	53.0	5.1	No
R0350	Residential	B / 66	57.6	58.1	56.9	-0.7	No
R0351	Residential	B / 66	44.6	44.6	44.6	0.0	No
R0352	Residential	B / 66	44.6	44.6	44.6	0.0	No
R0353	Residential	B / 66	47.5	47.7	47.1	-0.4	No
R0354	Residential	B / 66	52.5	52.7	52.3	-0.2	No
R0355	Residential	B / 66	55.3	55.5	55.1	-0.2	No
R0356	Residential	B / 66	44.6	44.6	46.0	1.4	No
R0357	Residential	B / 66	44.6	44.6	47.6	3.0	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0358	Residential	B / 66	56.7	56.9	56.4	-0.3	No
R0359	Residential	B / 66	56.9	57.1	56.1	-0.8	No
R0360	Residential	B / 66	56.9	57.1	56.0	-0.9	No
R0361	Residential	B / 66	58.8	58.9	57.4	-1.4	No
R0362	Residential	B / 66	57.8	57.9	56.5	-1.3	No
R0363	Residential	B / 66	57.8	57.9	56.4	-1.4	No
R0364	Residential	B / 66	46.5	46.7	48.5	2.0	No
R0365	Residential	B / 66	44.9	45.0	45.3	0.4	No
R0366	Residential	B / 66	44.9	45.1	45.1	0.2	No
R0367	Residential	B / 66	49.7	50.1	54.9	5.2	No
R0368	Residential	B / 66	44.6	44.6	52.9	8.3	No
R0369	Residential	B / 66	44.7	45.2	52.3	7.6	No
R0370	Residential	B / 66	46.3	46.8	51.9	5.6	No
R0371	Residential	B / 66	51.7	52.1	53.7	2.0	No
R0372	Residential	B / 66	45.7	45.9	55.2	9.5	No
R0373	Residential	B / 66	47.3	47.6	57.1	9.8	No
R0374	Residential	B / 66	48.2	48.5	58.3	10.1	No
R0375	Residential	B / 66	48.9	49.2	58.8	9.9	No
R0376	Residential	B / 66	49.1	49.4	58.8	9.7	No
R0377	Residential	B / 66	49.6	49.9	59.1	9.5	No
R0378	Residential	B / 66	50.3	50.7	59.6	9.3	No
R0379	Residential	B / 66	51.1	51.5	60.0	8.9	No
R0380	Residential	B / 66	51.5	51.9	60.1	8.6	No
R0381	Residential	B / 66	51.9	52.3	60.1	8.2	No
R0382	Residential	B / 66	52.4	52.8	60.1	7.7	No
R0383	Residential	B / 66	53.5	54.0	60.5	7.0	No
R0384	Residential	B / 66	56.7	57.2	61.2	4.5	No
R0385	Residential	B / 66	54.4	54.8	60.5	6.1	No
R0386	Residential	B / 66	55.3	55.8	60.9	5.6	No
R0387	Residential	B / 66	59.5	60.0	61.8	2.3	No
R0388	Residential	B / 66	60.0	60.6	62.2	2.2	No
R0389	Residential	B / 66	44.6	44.6	45.0	0.4	No
R0390	Residential	B / 66	44.6	44.6	45.7	1.1	No
R0391	Residential	B / 66	44.6	44.6	45.6	1.0	No
R0392	Residential	B / 66	44.6	44.6	44.6	0.0	No
R0393	Residential	B / 66	46.3	46.6	56.2	9.9	No
R0394	Residential	B / 66	44.6	44.6	52.1	7.5	No
R0395	Residential	B / 66	44.6	44.6	54.4	9.8	No
R0396	Residential	B / 66	44.6	44.6	53.7	9.1	No
R0397	Residential	B / 66	44.6	44.6	53.3	8.7	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0398	Residential	B / 66	44.6	44.6	52.7	8.1	No
R0399	Residential	B / 66	44.6	44.6	52.6	8.0	No
R0400	Residential	B / 66	44.6	44.6	52.4	7.8	No
R0401	Residential	B / 66	44.6	44.6	52.4	7.8	No
R0402	Residential	B / 66	44.6	44.9	52.4	7.8	No
R0403	Residential	B / 66	44.9	45.4	52.2	7.3	No
R0404	Residential	B / 66	45.1	45.6	52.1	7.0	No
R0405	Residential	B / 66	45.9	46.4	52.0	6.1	No
R0406	Residential	B / 66	46.7	47.2	52.0	5.3	No
R0407	Residential	B / 66	46.9	47.4	51.9	5.0	No
R0408	Residential	B / 66	47.4	47.9	52.0	4.6	No
R0409	Residential	B / 66	48.0	48.5	52.2	4.2	No
R0410	Residential	B / 66	49.0	49.5	52.6	3.6	No
R0411	Residential	B / 66	52.7	52.9	53.6	0.9	No
R0412	Residential	B / 66	54.8	55.1	54.4	-0.4	No
R0413	Residential	B / 66	57.4	57.6	56.3	-1.1	No
R0414	Residential	B / 66	55.1	55.3	56.6	1.5	No
R0415	Residential	B / 66	56.0	56.1	57.5	1.5	No
R0416	Residential	B / 66	57.2	57.4	58.7	1.5	No
R0417	Residential	B / 66	58.2	58.4	59.5	1.3	No
R0418	Residential	B / 66	59.5	59.7	60.6	1.1	No
R0419	Residential	B / 66	62.0	62.3	62.8	0.8	No
R0420	Residential	B / 66	51.1	51.2	52.0	0.9	No
R0421	Residential	B / 66	51.6	51.7	52.3	0.7	No
R0422	Residential	B / 66	52.4	52.5	53.1	0.7	No
R0423	Residential	B / 66	53.2	53.2	53.7	0.5	No
R0424	Residential	B / 66	54.3	54.3	54.8	0.5	No
R0425	Residential	B / 66	55.6	55.7	56.1	0.5	No
R0426	Residential	B / 66	49.5	49.7	50.6	1.1	No
R0427	Residential	B / 66	49.3	49.4	50.3	1.0	No
R0428	Residential	B / 66	49.4	49.5	50.4	1.0	No
R0429	Residential	B / 66	49.9	50.0	50.9	1.0	No
R0430	Residential	B / 66	50.1	50.2	51.1	1.0	No
R0431	Residential	B / 66	50.1	50.3	51.2	1.1	No
R0432	Residential	B / 66	52.0	52.2	52.4	0.4	No
R0433	Residential	B / 66	52.7	52.9	53.2	0.5	No
R0434	Residential	B / 66	58.0	58.1	58.6	0.6	No
R0435	Residential	B / 66	59.6	59.7	60.1	0.5	No
R0436	Residential	B / 66	60.6	60.7	61.1	0.5	No
R0437	Residential	B / 66	61.6	61.7	62.1	0.5	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0438	Residential	B / 66	63.0	63.2	63.6	0.6	No
R0439	Residential	B / 66	64.6	64.8	65.2	0.6	No
R0440	Residential	B / 66	61.5	61.5	61.9	0.4	No
R0441	Residential	B / 66	61.4	61.3	61.8	0.4	No
R0442	Residential	B / 66	61.1	61.1	61.6	0.5	No
R0443	Residential	B / 66	61.4	61.3	61.8	0.4	No
R0468	Residential	B / 66	47.3	47.5	48.7	1.4	No
R0469	Residential	B / 66	48.2	48.4	48.8	0.6	No
R0498	Residential	B / 66	49.1	49.2	49.9	0.8	No
R0499	Residential	B / 66	49.6	49.6	50.2	0.6	No
R0500	Residential	B / 66	50.1	50.2	50.6	0.5	No
R0501	Residential	B / 66	50.7	50.8	51.2	0.5	No
R0502	Residential	B / 66	51.3	51.3	51.8	0.5	No
R0503	Residential	B / 66	52.0	52.0	52.3	0.3	No
R0560	Residential	B / 66	50.7	52.1	52.4	1.7	No
R0561	Residential	B / 66	50.3	51.6	51.8	1.5	No
R0562	Residential	B / 66	49.8	51.0	51.2	1.4	No
R0566	Residential	B / 66	49.3	50.4	50.3	1.0	No
R0571	Residential	B / 66	48.3	48.6	49.6	1.3	No
R0572	Residential	B / 66	49.6	50.0	51.0	1.4	No
R0573	Office	E / 71	68.0	68.7	68.4	0.4	No
R0576	Childrens Health	E / 71	72.2	72.2	72.2	0.0	Yes
R0577	Office	E / 71	71.4	71.4	70.9	-0.5	No
R0578	Car Wash	F / --	71.4	71.4	70.7	-0.7	No
R0579	Retail	F / --	70.7	70.7	70.1	-0.6	No
R0580	Office	E / 71	70.7	70.7	70.2	-0.5	No
R0581	Office	E / 71	72.6	72.7	72.8	0.2	Yes
R0582	Retail	F / --	67.1	67.2	67.2	0.1	No
R0583	Office	E / 71	65.6	66.3	65.9	0.3	No
R0584	Commercial	F / --	67.0	68.1	68.5	1.5	No
R0585	Commercial	F / --	64.1	66.4	67.9	3.8	No
R0589	Office	E / 71	67.3	67.9	67.6	0.3	No
R0590	Office	E / 71	68.1	68.8	68.5	0.4	No
R0591	Commercial	F / --	69.2	69.9	69.2	0.0	No
R0592	Gas Station	F / --	70.2	70.9	70.7	0.5	No
R0593	Storage	F / --	62.4	62.7	64.7	2.3	No
R0594	Commercial	F / --	52.6	52.9	55.2	2.6	No
R0595	Commercial	F / --	54.1	54.4	55.2	1.1	No
R0596	Commercial	F / --	67.8	67.9	69.7	1.9	No
R0597	Commercial	F / --	66.9	67.0	69.8	2.9	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0598	Auto repair	F / --	56.7	57.0	58.3	1.6	No
R0599	Commercial	F / --	66.3	66.4	69.0	2.7	No
R0600	Commercial	F / --	68.0	67.8	68.1	0.1	No
R0601	Residential	B / 66	62.3	62.0	61.8	-0.5	No
R0603	Commercial	F / --	53.2	52.9	54.7	1.5	No
R0604	Residential	B / 66	47.0	46.6	47.9	0.9	No
R0605	Residential	B / 66	45.5	45.1	47.2	1.7	No
R0606	Residential	B / 66	44.6	44.6	46.4	1.8	No
R0607	Residential	B / 66	46.9	46.5	48.4	1.5	No
R0608	Residential	B / 66	57.4	56.9	60.8	3.4	No
R0609	Restaurant	E / 71	66.4	65.9	68.0	1.6	No
R0610	Commercial	F / --	66.8	66.3	68.5	1.7	No
R0611	Sports Complex	C / 66	54.4	54.1	55.7	1.3	No
R0612	Restaurant	E / 71	55.4	55.2	57.0	1.6	No
R0620	Residential	B / 66	60.4	61.0	58.7	-1.7	No
R0621	Residential	B / 66	50.9	51.3	51.0	0.1	No
R0622	Residential	B / 66	47.4	47.7	49.7	2.3	No
R0623	Residential	B / 66	44.6	44.8	51.4	6.8	No
R0624	Residential	B / 66	44.6	44.6	52.6	8.0	No
R0625	Residential	B / 66	44.6	44.6	53.7	9.1	No
R0626	Residential	B / 66	44.6	44.6	54.7	10.1	No
R0627	Residential	B / 66	44.6	44.6	54.7	10.1	No
R0628	Residential	B / 66	44.6	44.6	53.5	8.9	No
R0629	Residential	B / 66	44.6	44.6	54.0	9.4	No
R0630	Residential	B / 66	44.6	44.6	53.5	8.9	No
R0631	Residential	B / 66	44.6	44.6	53.6	9.0	No
R0632	Residential	B / 66	44.6	44.6	53.6	9.0	No
R0633	Residential	B / 66	44.6	44.6	53.6	9.0	No
R0634	Residential	B / 66	44.6	44.6	54.0	9.4	No
R0635	Residential	B / 66	44.6	44.6	53.8	9.2	No
R0636	Residential	B / 66	44.6	44.6	53.8	9.2	No
R0637	Residential	B / 66	44.6	44.6	54.1	9.5	No
R0638	Residential	B / 66	44.6	44.6	54.5	9.9	No
R0639	Residential	B / 66	44.6	44.6	54.5	9.9	No
R0640	Residential	B / 66	44.6	44.6	54.4	9.8	No
R0641	Residential	B / 66	44.6	44.6	55.9	11.3	No
R0642	Residential	B / 66	44.9	44.9	55.7	10.8	No
R0643	Residential	B / 66	44.6	44.6	46.3	1.7	No
R0644	Residential	B / 66	44.6	44.7	46.4	1.8	No
R0645	Residential	B / 66	44.6	44.6	45.5	0.9	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0646	Residential	B / 66	44.6	44.6	45.3	0.7	No
R0647	Residential	B / 66	45.3	45.6	46.7	1.4	No
R0648	Residential	B / 66	44.6	44.6	44.6	0.0	No
R0649	Residential	B / 66	44.6	44.6	45.3	0.7	No
R0650	Residential	B / 66	44.6	44.6	44.6	0.0	No
R0651	Residential	B / 66	44.6	44.6	45.7	1.1	No
R0652	Residential	B / 66	44.6	44.6	45.8	1.2	No
R0653	Residential	B / 66	45.4	45.7	46.1	0.7	No
R0654	Residential	B / 66	44.6	44.6	46.8	2.2	No
R0655	Residential	B / 66	44.6	44.6	45.6	1.0	No
R0656	Residential	B / 66	44.6	44.6	45.8	1.2	No
R0657	Residential	B / 66	44.6	44.6	45.3	0.7	No
R0658	Residential	B / 66	44.6	44.6	44.6	0.0	No
R0659	Residential	B / 66	44.6	44.6	44.8	0.2	No
R0660	Residential	B / 66	44.6	44.6	45.0	0.4	No
R0661	Residential	B / 66	44.6	44.6	45.2	0.6	No
R0662	Residential	B / 66	44.6	44.6	45.3	0.7	No
R0663	Residential	B / 66	44.6	44.6	45.8	1.2	No
R0664	Residential	B / 66	59.6	59.5	62.6	3.0	No
R0665	Residential	B / 66	60.5	60.5	63.1	2.6	No
R0666	Residential	B / 66	60.4	60.4	62.8	2.4	No
R0667	Residential	B / 66	60.2	60.2	62.4	2.2	No
R0668	Residential	B / 66	60.3	60.4	62.4	2.1	No
R0669	Residential	B / 66	60.4	60.5	62.5	2.1	No
R0670	Residential	B / 66	59.8	59.8	61.7	1.9	No
R0671	Residential	B / 66	59.6	59.6	61.4	1.8	No
R0672	Residential	B / 66	59.5	59.5	61.3	1.8	No
R0673	Residential	B / 66	58.8	58.8	60.8	2.0	No
R0674	Residential	B / 66	58.8	58.8	60.9	2.1	No
R0675	Residential	B / 66	58.8	58.8	61.1	2.3	No
R0676	Residential	B / 66	58.1	58.0	60.5	2.4	No
R0677	Residential	B / 66	57.8	57.8	60.4	2.6	No
R0678	Residential	B / 66	58.4	58.3	61.0	2.6	No
R0679	Residential	B / 66	55.4	55.2	58.0	2.6	No
R0680	Residential	B / 66	52.3	52.1	54.8	2.5	No
R0681	Residential	B / 66	46.2	46.0	48.5	2.3	No
R0682	Residential	B / 66	46.5	46.4	49.6	3.1	No
R0683	Residential	B / 66	47.6	47.5	50.2	2.6	No
R0684	Residential	B / 66	47.5	47.3	50.5	3.0	No
R0685	Residential	B / 66	48.1	48.0	51.7	3.6	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0686	Residential	B / 66	48.7	48.6	52.5	3.8	No
R0687	Residential	B / 66	49.4	49.2	53.2	3.8	No
R0688	Commercial	F / --	70.6	70.6	71.9	1.3	No
R0689	Commercial	F / --	69.9	70.4	71.0	1.1	No
R0690	Residential	B / 66	48.3	48.5	48.4	0.1	No
R0691	Restaurant	E / 71	58.6	58.7	61.6	3.0	No
R0692	Retail	F / --	56.4	56.5	59.7	3.3	No
R0693	Commercial	F / --	55.6	55.8	59.1	3.5	No
R0697	Restuarant	E / 71	54.4	54.5	58.2	3.8	No
R0698a	Laurel Hill Park Trail	C / 66	44.6	44.6	46.1	1.5	No
R0698b	Laurel Hill Park Trail	C / 66	44.6	44.6	48.0	3.4	No
R0698c	Laurel Hill Park Trail	C / 66	44.6	44.6	49.9	5.3	No
R0698d	Laurel Hill Park Trail	C / 66	44.6	44.6	53.7	9.1	No
R0698e	Laurel Hill Park Trail	C / 66	44.6	44.6	58.6	14.0	No
R0698f	Laurel Hill Park Trail	C / 66	44.6	44.6	56.4	11.8	No
R0698g	Laurel Hill Park Trail	C / 66	44.6	44.6	54.3	9.7	No
R0698h	Laurel Hill Park Trail	C / 66	44.6	44.6	51.7	7.1	No
R0698i	Laurel Hill Park Trail	C / 66	44.6	44.6	50.0	5.4	No
R0698j	Laurel Hill Park Trail	C / 66	44.6	44.6	48.3	3.7	No
R0698k	Laurel Hill Park Trail	C / 66	44.6	44.6	47.3	2.7	No
R0701	Residential	B / 66	54.1	54.1	57.5	3.4	No
R0702	Residential	B / 66	54.9	54.9	58.2	3.3	No
R0703	Residential	B / 66	54.8	54.8	58.1	3.3	No
R0704	Residential	B / 66	54.7	54.8	58.1	3.4	No
R0705	Residential	B / 66	54.6	54.6	58.0	3.4	No
R0706	Residential	B / 66	49.3	48.9	52.7	3.4	No
R0707	Residential	B / 66	50.2	49.7	54.0	3.8	No
R0708	Restaurant	E / 71	68.3	68.9	68.7	0.4	No
R0710	Dentist	E / 71	68.9	69.6	69.4	0.5	No
R0711	School	D / 66	58.2	58.8	59.4	1.2	No
R0722	Residential	B / 66	52.5	54.2	54.6	2.1	No
R0723	Residential	B / 66	52.7	54.3	54.6	1.9	No
R0724	Residential	B / 66	49.4	51.1	51.7	2.3	No
R0725	Residential	B / 66	49.1	50.8	51.4	2.3	No
R0726	Residential	B / 66	49.1	50.8	51.4	2.3	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0727	Residential	B / 66	48.9	50.6	51.2	2.3	No
R0728	Residential	B / 66	49.1	49.1	54.2	5.1	No
R0729	Gas Station	F / --	54.7	54.8	54.4	-0.3	No
R0730	Dentist	E / 71	61.4	61.5	61.8	0.4	No
R0732	Restaurant	E / 71	63.8	63.8	64.9	1.1	No
R0735	Office	E / 71	57.4	57.7	59.5	2.1	No
R0736	Restaurant	E / 71	58.5	58.5	60.9	2.4	No
R0738	Office	E / 71	57.7	57.9	58.1	0.4	No
R0739	Gym	F / --	60.7	60.7	61.1	0.4	No
R0740	Retail	F / --	56.7	56.9	57.4	0.7	No
R0741	Retail	F / --	69.7	69.8	69.7	0.0	No
R0742	AC shop	F / --	64.6	64.1	66.3	1.7	No
R0744	Clubhouse	C / 66	56.2	56.2	59.4	3.2	No
R0745	Retail	F / --	71.2	71.2	70.2	-1.0	No
R0749	Baseball Field	C / 66	50.0	49.7	51.6	1.6	No
R0750	Residential	B / 66	45.2	45.6	48.0	2.8	No
R0751	Residential	B / 66	49.2	49.5	52.7	3.5	No
R0752	Residential	B / 66	50.3	50.6	53.2	2.9	No
R0753	Residential	B / 66	45.5	45.8	48.6	3.1	No
R0754	Residential	B / 66	48.5	48.9	51.3	2.8	No
R0755	Residential	B / 66	48.3	48.6	51.1	2.8	No
R0756	Residential	B / 66	54.0	53.9	56.6	2.6	No
R0757	Residential	B / 66	47.6	48.0	50.7	3.1	No
R0758	Residential	B / 66	47.4	47.6	50.7	3.3	No
R0759	Residential	B / 66	45.2	45.3	47.9	2.7	No
R0760	Pool	C / 66	50.0	49.8	52.7	2.7	No
R0761	Tennis courts	C / 66	49.3	49.3	52.5	3.2	No
R0762	Basketball Court	C / 66	49.3	49.4	52.6	3.3	No
R0763	Residential	B / 66	48.5	48.5	51.9	3.4	No
R0764	Residential	B / 66	49.0	49.1	52.5	3.5	No
R0765	Residential	B / 66	49.3	49.3	52.9	3.6	No
R0766	Residential	B / 66	49.0	49.1	52.6	3.6	No
R0767	Residential	B / 66	48.8	48.8	52.4	3.6	No
R0768	Residential	B / 66	48.0	48.0	51.4	3.4	No
R0769	Residential	B / 66	50.0	49.9	53.7	3.7	No
R0770	Residential	B / 66	51.9	51.9	55.5	3.6	No
R0771	Residential	B / 66	50.1	50.0	53.9	3.8	No
R0772	Residential	B / 66	45.5	45.5	48.5	3.0	No
R0773	Residential	B / 66	46.6	46.6	49.7	3.1	No
R0774	Residential	B / 66	45.6	45.6	48.8	3.2	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0775	Residential	B / 66	47.3	47.3	50.4	3.1	No
R0776	Residential	B / 66	53.2	53.2	55.7	2.5	No
R0777	Residential	B / 66	46.0	46.0	49.2	3.2	No
R0778	Residential	B / 66	52.0	52.1	54.7	2.7	No
R0779	Residential	B / 66	49.7	49.9	52.9	3.2	No
R0780	Residential	B / 66	53.4	53.5	59.2	5.8	No
R0781	Residential	B / 66	53.5	53.6	58.9	5.4	No
R0782	Residential	B / 66	48.1	48.2	52.6	4.5	No
R0783	Residential	B / 66	47.3	47.4	51.7	4.4	No
R0784	Residential	B / 66	46.8	46.9	50.7	3.9	No
R0785	Residential	B / 66	46.0	46.1	50.5	4.5	No
R0786	Residential	B / 66	49.8	50.3	57.0	7.2	No
R0787	Residential	B / 66	57.6	58.2	60.9	3.3	No
R0788	Residential	B / 66	52.8	54.1	57.2	4.4	No
R0789	Residential	B / 66	51.9	53.4	56.4	4.5	No
R0790	Residential	B / 66	50.8	52.7	55.1	4.3	No
R0791	Residential	B / 66	50.9	53.1	55.1	4.2	No
R0792	Residential	B / 66	49.7	50.0	57.2	7.5	No
R0793	Residential	B / 66	57.7	57.8	59.6	1.9	No
R0794	Residential	B / 66	51.8	52.0	53.2	1.4	No
R0795	Residential	B / 66	46.5	47.8	50.9	4.4	No
R0796	Residential	B / 66	47.3	47.6	53.1	5.8	No
R0797	Residential	B / 66	48.6	48.7	53.9	5.3	No
R0798	Residential	B / 66	48.7	48.9	51.0	2.3	No
R0799	Residential	B / 66	49.4	49.9	51.2	1.8	No
R0800	Residential	B / 66	47.3	47.9	49.3	2.0	No
R0801	Residential	B / 66	46.2	46.6	47.8	1.6	No
R0802	Residential	B / 66	46.4	46.6	51.9	5.5	No
R0803	Residential	B / 66	44.6	44.6	48.9	4.3	No
R0804	Residential	B / 66	44.6	44.7	49.9	5.3	No
R0805	Residential	B / 66	44.9	45.2	49.5	4.6	No
R0806	Residential	B / 66	44.6	44.6	46.3	1.7	No
R0807	Residential	B / 66	44.6	44.6	45.6	1.0	No
R0808	Residential	B / 66	52.2	52.8	53.4	1.2	No
R0809	Residential	B / 66	59.5	59.6	59.4	-0.1	No
R0810	Church	D / 66	64.8	64.8	64.0	-0.8	No
R0811	Residential	B / 66	58.9	58.9	58.0	-0.9	No
R0812	Residential	B / 66	61.4	61.4	59.7	-1.7	No
R0813	Residential	B / 66	64.5	64.5	61.8	-2.7	No
R0814	Residential	B / 66	64.6	64.6	64.2	-0.4	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0832	Restaurant	E / 71	55.8	55.5	58.5	2.7	No
R0833	Residential	B / 66	49.5	49.5	53.2	3.7	No
R0834	Residential	B / 66	50.2	50.1	53.9	3.7	No
R0835	Residential	B / 66	51.1	51.0	54.8	3.7	No
R0836	Residential	B / 66	52.0	51.9	55.6	3.6	No
R0837	Residential	B / 66	52.9	52.8	56.5	3.6	No
R0838	Residential	B / 66	52.7	52.7	56.4	3.7	No
R0839	Residential	B / 66	52.6	52.6	56.4	3.8	No
R0840	Residential	B / 66	52.6	52.5	56.4	3.8	No
R0841	Residential	B / 66	52.5	52.5	56.4	3.9	No
R0842	Residential	B / 66	52.4	52.4	56.3	3.9	No
R0843	Residential	B / 66	52.3	52.4	56.2	3.9	No
R0844	Residential	B / 66	52.2	52.4	56.0	3.8	No
R0845	Residential	B / 66	52.4	52.6	56.1	3.7	No
R0846	Residential	B / 66	52.2	52.6	55.9	3.7	No
R0847	Residential	B / 66	47.0	46.9	49.9	2.9	No
R0848	Residential	B / 66	46.9	46.8	50.0	3.1	No
R0849	Residential	B / 66	47.3	47.3	50.2	2.9	No
R0850	Residential	B / 66	47.8	47.7	50.7	2.9	No
R0851	Residential	B / 66	47.6	47.5	50.6	3.0	No
R0852	Residential	B / 66	47.4	47.4	50.4	3.0	No
R0853	Residential	B / 66	47.0	47.0	50.1	3.1	No
R0854	Residential	B / 66	47.0	47.0	50.0	3.0	No
R0855	Residential	B / 66	46.9	46.9	50.0	3.1	No
R0856	Residential	B / 66	47.9	47.9	50.8	2.9	No
R0857	Residential	B / 66	47.8	47.8	50.7	2.9	No
R0858	Residential	B / 66	47.8	47.8	50.6	2.8	No
R0859	Residential	B / 66	47.8	47.8	50.6	2.8	No
R0860	Residential	B / 66	48.0	48.0	50.7	2.7	No
R0861	Residential	B / 66	47.9	47.9	50.6	2.7	No
R0862	Residential	B / 66	48.1	48.1	50.7	2.6	No
R0863	Residential	B / 66	47.6	47.6	50.4	2.8	No
R0864	Residential	B / 66	47.6	47.6	50.4	2.8	No
R0865	Residential	B / 66	47.4	47.4	50.2	2.8	No
R0866	Residential	B / 66	47.3	47.3	50.1	2.8	No
R0867	Residential	B / 66	47.2	47.2	50.0	2.8	No
R0868	Residential	B / 66	47.4	47.4	50.1	2.7	No
R0869	Residential	B / 66	47.7	47.7	50.4	2.7	No
R0870	Residential	B / 66	47.8	47.8	50.5	2.7	No
R0871	Residential	B / 66	48.3	48.3	51.0	2.7	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0872	Residential	B / 66	48.4	48.4	51.1	2.7	No
R0873	Residential	B / 66	48.4	48.4	51.1	2.7	No
R0874	Residential	B / 66	48.5	48.5	51.2	2.7	No
R0875	Residential	B / 66	48.5	48.5	51.2	2.7	No
R0876	Residential	B / 66	48.5	48.5	51.1	2.6	No
R0877	Residential	B / 66	48.4	48.5	51.1	2.7	No
R0878	Residential	B / 66	48.5	48.5	51.2	2.7	No
R0879	Residential	B / 66	48.7	48.7	51.3	2.6	No
R0880	Residential	B / 66	48.8	48.8	51.4	2.6	No
R0881	Residential	B / 66	49.0	49.0	51.7	2.7	No
R0882	Residential	B / 66	49.2	49.2	51.7	2.5	No
R0883	Residential	B / 66	48.9	49.0	51.8	2.9	No
R0884	Residential	B / 66	48.9	48.9	51.7	2.8	No
R0885	Residential	B / 66	49.3	49.3	51.9	2.6	No
R0886	Residential	B / 66	48.6	48.7	51.6	3.0	No
R0887	Residential	B / 66	49.1	49.1	51.7	2.6	No
R0888	Residential	B / 66	49.1	49.1	51.8	2.7	No
R0889	Residential	B / 66	47.3	47.4	50.5	3.2	No
R0890	Residential	B / 66	48.5	48.6	51.5	3.0	No
R0891	Residential	B / 66	55.8	56.0	58.5	2.7	No
R0892	Residential	B / 66	56.7	56.9	58.5	1.8	No
R0893	Residential	B / 66	56.2	56.4	59.1	2.9	No
R0894	Residential	B / 66	55.6	55.7	59.0	3.4	No
R0895	Residential	B / 66	57.6	57.8	59.6	2.0	No
R0896	Residential	B / 66	44.8	44.8	49.9	5.1	No
R0897	Residential	B / 66	45.7	45.7	52.7	7.0	No
R0898	Residential	B / 66	58.1	58.3	59.4	1.3	No
R0899	Residential	B / 66	46.7	46.9	53.5	6.8	No
R0900-0	Apartments	B / 66	45.1	46.0	50.2	5.1	No
R0900-1	Apartments	B / 66	45.2	46.0	50.7	5.5	No
R0900-2	Apartments	B / 66	45.9	46.8	51.3	5.4	No
R0900-3	Apartments	B / 66	46.9	47.7	51.8	4.9	No
R0901-0	Apartments	B / 66	45.5	46.0	50.4	4.9	No
R0901-1	Apartments	B / 66	45.7	46.1	51.3	5.6	No
R0901-2	Apartments	B / 66	46.7	47.0	51.9	5.2	No
R0901-3	Apartments	B / 66	47.7	48.0	52.5	4.8	No
R0902-0	Apartments	B / 66	44.6	44.7	46.5	1.9	No
R0902-1	Apartments	B / 66	44.6	44.7	46.9	2.3	No
R0902-2	Apartments	B / 66	45.1	45.3	47.5	2.4	No
R0902-3	Apartments	B / 66	45.9	46.2	48.3	2.4	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0903-0	Apartments	B / 66	45.6	46.0	49.1	3.5	No
R0903-1	Apartments	B / 66	45.8	46.2	50.1	4.3	No
R0903-2	Apartments	B / 66	46.9	47.1	50.8	3.9	No
R0903-3	Apartments	B / 66	47.9	48.2	51.7	3.8	No
R0904-0	Apartments	B / 66	46.2	47.1	51.6	5.4	No
R0904-1	Apartments	B / 66	46.8	47.8	52.9	6.1	No
R0904-2	Apartments	B / 66	48.5	49.4	54.1	5.6	No
R0904-3	Apartments	B / 66	50.3	51.0	55.3	5.0	No
R0905-0	Apartments	B / 66	44.6	44.6	49.5	4.9	No
R0905-1	Apartments	B / 66	44.6	44.8	51.2	6.6	No
R0905-2	Apartments	B / 66	46.0	47.0	52.5	6.5	No
R0905-3	Apartments	B / 66	48.2	49.0	53.7	5.5	No
R0906-0	Apartments	B / 66	44.6	44.6	49.2	4.6	No
R0906-1	Apartments	B / 66	44.6	44.6	50.6	6.0	No
R0906-2	Apartments	B / 66	45.7	46.6	52.0	6.3	No
R0906-3	Apartments	B / 66	47.8	48.5	53.3	5.5	No
R0907-0	Apartments	B / 66	44.6	44.6	48.7	4.1	No
R0907-1	Apartments	B / 66	44.6	44.6	49.9	5.3	No
R0907-2	Apartments	B / 66	45.0	45.9	51.3	6.3	No
R0907-3	Apartments	B / 66	47.3	47.9	52.6	5.3	No
R0908-0	Apartments	B / 66	45.6	46.2	48.7	3.1	No
R0908-1	Apartments	B / 66	45.9	46.4	49.5	3.6	No
R0908-2	Apartments	B / 66	47.1	47.4	50.5	3.4	No
R0908-3	Apartments	B / 66	48.2	48.6	51.5	3.3	No
R0909-0	Apartments	B / 66	45.5	46.1	48.7	3.2	No
R0909-1	Apartments	B / 66	45.7	46.3	49.4	3.7	No
R0909-2	Apartments	B / 66	46.7	47.2	50.2	3.5	No
R0909-3	Apartments	B / 66	47.7	48.3	51.2	3.5	No
R0910	Apartments Courtyard	C / 66	44.6	44.6	44.6	0.0	No
R0911-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0911-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0911-2	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0911-3	Apartments	B / 66	44.6	44.6	46.9	2.3	No
R0912-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0912-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0912-2	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0912-3	Apartments	B / 66	44.6	44.6	46.7	2.1	No
R0913-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0913-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0913-2	Apartments	B / 66	44.6	44.6	44.6	0.0	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0913-3	Apartments	B / 66	44.6	44.6	46.4	1.8	No
R0914-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0914-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0914-2	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0914-3	Apartments	B / 66	44.6	44.6	45.8	1.2	No
R0915	Apartments Courtyard	C / 66	54.6	54.9	58.2	3.6	No
R0916-0	Apartments	B / 66	45.2	46.0	49.0	3.8	No
R0916-1	Apartments	B / 66	45.6	46.3	49.6	4.0	No
R0916-2	Apartments	B / 66	46.6	47.3	50.5	3.9	No
R0916-3	Apartments	B / 66	47.8	48.4	51.4	3.6	No
R0917-0	Apartments	B / 66	44.6	45.2	48.7	4.1	No
R0917-1	Apartments	B / 66	44.7	45.5	49.4	4.7	No
R0917-2	Apartments	B / 66	45.8	46.6	50.3	4.5	No
R0917-3	Apartments	B / 66	47.2	48.0	51.2	4.0	No
R0918-0	Apartments	B / 66	44.6	44.7	48.5	3.9	No
R0918-1	Apartments	B / 66	44.6	45.2	49.2	4.6	No
R0918-2	Apartments	B / 66	45.4	46.4	50.1	4.7	No
R0918-3	Apartments	B / 66	47.0	48.0	51.0	4.0	No
R0919-0	Apartments	B / 66	44.6	44.6	46.7	2.1	No
R0919-1	Apartments	B / 66	44.6	44.6	47.7	3.1	No
R0919-2	Apartments	B / 66	44.6	45.0	48.5	3.9	No
R0919-3	Apartments	B / 66	45.7	46.7	49.7	4.0	No
R0920-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0920-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0920-2	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0920-3	Apartments	B / 66	44.6	44.6	45.7	1.1	No
R0921-0	Apartments	B / 66	47.2	47.9	51.4	4.2	No
R0921-1	Apartments	B / 66	49.2	49.8	53.0	3.8	No
R0921-2	Apartments	B / 66	51.4	51.8	54.6	3.2	No
R0921-3	Apartments	B / 66	52.3	52.8	55.4	3.1	No
R0922-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0922-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0922-2	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0922-3	Apartments	B / 66	44.6	44.6	45.8	1.2	No
R0923-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0923-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0923-2	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0923-3	Apartments	B / 66	44.6	44.6	45.9	1.3	No
R0924-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0924-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0924-2	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0924-3	Apartments	B / 66	44.6	44.6	44.8	0.2	No
R0925-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0925-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0925-2	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R0925-3	Apartments	B / 66	44.6	44.6	45.2	0.6	No
R0926	Residential	B / 66	70.5	70.6	70.7	0.2	Yes
R0927	Residential	B / 66	62.0	62.3	62.4	0.4	No
R0928	Residential	B / 66	64.0	65.5	65.0	1.0	No
R0929	Residential	B / 66	57.3	57.6	57.4	0.1	No
R0930	Residential	B / 66	56.7	56.9	56.8	0.1	No
R0931	Residential	B / 66	56.3	56.3	55.7	-0.6	No
R0932	Residential	B / 66	59.6	59.6	58.8	-0.8	No
R0933	Residential	B / 66	57.7	57.7	57.1	-0.6	No
R0934	Residential	B / 66	59.1	59.1	58.5	-0.6	No
R0935	Residential	B / 66	56.5	56.5	56.1	-0.4	No
R0936	Residential	B / 66	56.9	57.0	57.0	0.1	No
R0937	Residential	B / 66	57.1	57.2	57.0	-0.1	No
R0938	Residential	B / 66	57.5	57.6	57.6	0.1	No
R0939	Residential	B / 66	57.0	57.2	57.0	0.0	No
R0940	Residential	B / 66	64.0	64.0	63.9	-0.1	No
R0941	Residential	B / 66	66.1	66.4	66.3	0.2	Yes
R0942	Residential	B / 66	57.4	57.6	57.6	0.2	No
R0943	Residential	B / 66	55.6	55.8	55.9	0.3	No
R0944	Residential	B / 66	58.5	58.7	58.9	0.4	No
R0945	Residential	B / 66	58.9	59.6	59.2	0.3	No
R0946	Residential	B / 66	58.4	59.1	58.9	0.5	No
R0947	Residential	B / 66	61.9	62.6	62.4	0.5	No
R0948	Residential	B / 66	58.4	59.2	59.2	0.8	No
R0949	Residential	B / 66	57.1	59.4	59.7	2.6	No
R0951	Residential	B / 66	45.9	46.0	50.0	4.1	No
R0952	Residential	B / 66	44.6	44.6	48.8	4.2	No
R0953	Residential	B / 66	44.7	44.8	49.0	4.3	No
R0954	Residential	B / 66	47.2	47.3	51.0	3.8	No
R0955	Residential	B / 66	51.8	51.8	55.6	3.8	No
R0958	Residential	B / 66	60.4	61.0	62.5	2.1	No
R0959	Residential	B / 66	61.2	61.7	63.1	1.9	No
R0960	Residential	B / 66	61.1	61.6	62.9	1.8	No
R0961	Residential	B / 66	61.0	61.5	62.8	1.8	No
R0962	Residential	B / 66	61.0	61.5	62.9	1.9	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R0963	Residential	B / 66	48.7	49.2	51.3	2.6	No
R0964	Residential	B / 66	44.6	44.9	46.5	1.9	No
R0965	Residential	B / 66	44.6	44.6	45.9	1.3	No
R0966	Residential	B / 66	44.6	44.6	45.3	0.7	No
R0967	Residential	B / 66	44.6	44.6	44.6	0.0	No
R0968	Residential	B / 66	44.6	44.6	44.6	0.0	No
R0969	Residential	B / 66	44.6	44.6	44.6	0.0	No
R0970	Residential	B / 66	44.6	44.6	44.6	0.0	No
R0971	Residential	B / 66	44.6	44.6	44.6	0.0	No
R0972	Residential	B / 66	44.6	44.6	44.6	0.0	No
R0973	Residential	B / 66	44.6	44.6	44.6	0.0	No
R0974	Residential	B / 66	44.6	44.6	44.6	0.0	No
R0975	Residential	B / 66	44.6	44.6	45.2	0.6	No
R0976	Residential	B / 66	44.6	44.6	44.6	0.0	No
R0977	Residential	B / 66	44.6	44.9	46.8	2.2	No
R0978	Residential	B / 66	44.6	44.6	46.5	1.9	No
R0979	Residential	B / 66	44.6	44.6	44.6	0.0	No
R0980	Residential	B / 66	44.6	44.6	45.4	0.8	No
R0981	Residential	B / 66	44.6	44.6	46.6	2.0	No
R0982	Residential	B / 66	44.6	44.6	50.9	6.3	No
R0983	Residential	B / 66	44.6	44.6	49.9	5.3	No
R0984	Residential	B / 66	44.6	44.6	49.2	4.6	No
R0985	Residential	B / 66	44.6	44.6	48.7	4.1	No
R0986	Residential	B / 66	44.6	44.6	48.3	3.7	No
R0992	Residential	B / 66	55.3	55.3	56.5	1.2	No
R0993	Residential	B / 66	53.1	53.1	55.2	2.1	No
R0994	Residential	B / 66	52.1	52.2	54.6	2.5	No
R0995	Residential	B / 66	51.5	51.5	54.3	2.8	No
R0996	Residential	B / 66	53.2	53.2	55.6	2.4	No
R0997	Residential	B / 66	53.3	53.4	55.7	2.4	No
R0998	Residential	B / 66	53.5	53.6	55.8	2.3	No
R0999	Residential	B / 66	53.8	53.8	56.0	2.2	No
R1000	Residential	B / 66	54.0	54.0	56.1	2.1	No
R1001	Residential	B / 66	55.4	55.6	56.1	0.7	No
R1002	Residential	B / 66	52.9	53.1	55.1	2.2	No
R1003	Residential	B / 66	51.6	51.8	55.1	3.5	No
R1004	Residential	B / 66	50.5	50.6	54.4	3.9	No
R1005	Residential	B / 66	49.6	49.7	53.8	4.2	No
R1006	Residential	B / 66	53.1	53.2	56.0	2.9	No
R1007	Residential	B / 66	51.7	51.7	55.0	3.3	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R1008	Residential	B / 66	50.9	51.0	54.8	3.9	No
R1009	Residential	B / 66	50.5	50.5	54.6	4.1	No
R1010	Residential	B / 66	49.8	49.9	54.3	4.5	No
R1011	Residential	B / 66	49.4	49.5	54.0	4.6	No
R1012	Residential	B / 66	48.8	48.9	53.4	4.6	No
R1013	Residential	B / 66	48.4	48.5	52.9	4.5	No
R1014	Residential	B / 66	48.4	48.5	52.7	4.3	No
R1015	Residential	B / 66	47.7	47.8	52.1	4.4	No
R1016	Residential	B / 66	47.1	47.2	51.5	4.4	No
R1017	Residential	B / 66	46.2	46.3	50.8	4.6	No
R1018	Residential	B / 66	45.6	45.7	50.3	4.7	No
R1019	Residential	B / 66	44.6	44.6	48.9	4.3	No
R1020	Residential	B / 66	44.6	44.6	48.5	3.9	No
R1021	Residential	B / 66	44.6	44.6	48.2	3.6	No
R1022	Residential	B / 66	44.6	44.6	47.9	3.3	No
R1023	Residential	B / 66	44.6	44.6	47.7	3.1	No
R1024	Residential	B / 66	47.5	47.6	51.6	4.1	No
R1025	Residential	B / 66	47.2	47.3	51.6	4.4	No
R1026	Residential	B / 66	46.6	46.7	51.0	4.4	No
R1027	Residential	B / 66	46.1	46.3	50.5	4.4	No
R1028	Residential	B / 66	45.8	46.0	50.1	4.3	No
R1029	Residential	B / 66	45.4	45.7	49.6	4.2	No
R1030	Residential	B / 66	44.6	44.6	48.1	3.5	No
R1031	Residential	B / 66	44.6	44.6	47.6	3.0	No
R1032	Residential	B / 66	44.6	44.6	47.4	2.8	No
R1033	Residential	B / 66	44.6	44.6	47.2	2.6	No
R1034	Residential	B / 66	44.6	44.6	47.0	2.4	No
R1035	Residential	B / 66	44.6	44.6	46.9	2.3	No
R1037	Residential	B / 66	44.6	44.6	44.6	0.0	No
R1038	Residential	B / 66	44.6	44.6	44.6	0.0	No
R1039	Residential	B / 66	44.6	44.6	45.1	0.5	No
R1040	Residential	B / 66	44.6	44.6	47.8	3.2	No
R1041	Residential	B / 66	45.1	45.2	49.5	4.4	No
R1042	Residential	B / 66	44.6	44.6	47.6	3.0	No
R1043	Residential	B / 66	44.6	44.6	48.3	3.7	No
R1046	Residential	B / 66	58.1	58.2	57.7	-0.4	No
R1048	Bank	E / 71	71.4	71.4	71.4	0.0	Yes
R1049	Car Wash	F / --	67.1	67.2	67.6	0.5	No
R1052	Taekwondo	F / --	58.6	59.2	58.6	0.0	No
R1053	Retail	F / --	64.6	65.3	64.5	-0.1	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R1054	Restaurant	E / 71	55.1	55.2	57.7	2.6	No
R1055	Office	E / 71	52.3	51.6	56.2	3.9	No
R1056	Residential	B / 66	50.3	49.8	53.5	3.2	No
R1057	Residential	B / 66	50.2	51.1	52.8	2.6	No
R1058	Residential	B / 66	50.3	51.2	53.0	2.7	No
R1059	Residential	B / 66	50.5	51.4	53.3	2.8	No
R1060	Residential	B / 66	50.6	51.5	53.5	2.9	No
R1061	Residential	B / 66	50.7	51.6	53.7	3.0	No
R1062	Residential	B / 66	51.1	51.8	54.2	3.1	No
R1063	Residential	B / 66	51.3	51.9	54.5	3.2	No
R1064	Residential	B / 66	51.5	52.1	54.9	3.4	No
R1065	Residential	B / 66	49.6	49.4	51.9	2.3	No
R1066	Residential	B / 66	47.8	47.5	50.7	2.9	No
R1067	Residential	B / 66	47.8	47.6	50.2	2.4	No
R1068	Residential	B / 66	46.2	46.0	48.6	2.4	No
R1069	Residential	B / 66	45.3	45.0	47.6	2.3	No
R1070	Residential	B / 66	45.6	45.4	48.0	2.4	No
R1071	Residential	B / 66	45.0	44.8	47.3	2.3	No
R1072	Residential	B / 66	44.6	44.6	46.4	1.8	No
R1073	Residential	B / 66	44.6	44.6	46.3	1.7	No
R1074	Residential	B / 66	44.6	44.6	46.6	2.0	No
R1075	Residential	B / 66	44.7	44.6	46.6	1.9	No
R1076	Residential	B / 66	44.6	44.6	46.3	1.7	No
R1077	Residential	B / 66	44.6	44.6	46.0	1.4	No
R1079	Residential	B / 66	48.4	48.1	52.4	4.0	No
R1080	Residential	B / 66	47.5	47.2	51.4	3.9	No
R1081	Residential	B / 66	44.6	44.6	44.6	0.0	No
R1082	Residential	B / 66	44.6	44.6	45.3	0.7	No
R1083	Residential	B / 66	45.3	45.1	49.2	3.9	No
R1084	Residential	B / 66	46.4	46.2	50.2	3.8	No
R1085	Residential	B / 66	45.3	45.2	48.8	3.5	No
R1088	Residential	B / 66	53.6	52.4	56.8	3.2	No
R1089	Restaurant	E / 71	55.9	56.1	59.8	3.9	No
R1090	Salon	F / --	55.9	56.0	59.7	3.8	No
R1091	Office	E / 71	55.8	56.0	59.5	3.7	No
R1092	Retail	F / --	55.9	56.0	59.6	3.7	No
R1094	Restaurant	E / 71	55.4	55.6	59.1	3.7	No
R1098	Restuarant	E / 71	55.0	55.2	58.7	3.7	No
R1099	Residential	B / 66	50.0	49.5	52.7	2.7	No
R1100	Residential	B / 66	50.4	50.0	53.4	3.0	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R1101	Residential	B / 66	50.9	50.5	53.8	2.9	No
R1102	Residential	B / 66	52.5	52.3	55.8	3.3	No
R1103	Residential	B / 66	52.8	52.6	56.1	3.3	No
R1104	Residential	B / 66	53.2	53.1	56.6	3.4	No
R1105	Residential	B / 66	53.6	53.6	57.0	3.4	No
R1106	Residential	B / 66	54.3	54.4	57.9	3.6	No
R1107	Residential	B / 66	50.1	50.4	54.5	4.4	No
R1108	Residential	B / 66	48.5	48.8	53.0	4.5	No
R1109	Residential	B / 66	47.8	48.1	52.4	4.6	No
R1110	Residential	B / 66	47.3	47.6	51.9	4.6	No
R1111	Residential	B / 66	46.9	47.2	51.5	4.6	No
R1112	Residential	B / 66	46.4	46.7	50.9	4.5	No
R1116	Residential	B / 66	52.0	51.5	53.8	1.8	No
R1117	Residential	B / 66	48.7	48.6	52.3	3.6	No
R1118	Residential	B / 66	48.3	48.2	51.9	3.6	No
R1119	Residential	B / 66	46.9	47.0	49.6	2.7	No
R1120	Residential	B / 66	46.5	46.7	49.6	3.1	No
R1121	Residential	B / 66	52.5	53.9	54.3	1.8	No
R1122	Residential	B / 66	52.5	53.9	54.2	1.7	No
R1123	Residential	B / 66	52.2	53.5	53.8	1.6	No
R1124	Residential	B / 66	52.2	53.4	53.7	1.5	No
R1125	Residential	B / 66	51.8	53.0	53.3	1.5	No
R1126	Residential	B / 66	51.6	52.7	53.1	1.5	No
R1127	Residential	B / 66	51.3	52.3	52.7	1.4	No
R1128	Residential	B / 66	50.8	51.8	52.3	1.5	No
R1129	Residential	B / 66	50.4	51.4	51.9	1.5	No
R1130	Residential	B / 66	48.8	50.4	51.0	2.2	No
R1131	Residential	B / 66	48.6	50.2	50.8	2.2	No
R1132	Residential	B / 66	48.4	49.9	50.6	2.2	No
R1133	Residential	B / 66	48.0	49.4	50.2	2.2	No
R1134	Residential	B / 66	47.8	49.3	50.0	2.2	No
R1138	Commercial	F / --	55.8	55.9	59.6	3.8	No
R1139	Commercial	F / --	55.5	55.5	58.2	2.7	No
R1140	Retail	F / --	63.2	63.9	63.6	0.4	No
R1141	Residential	B / 66	46.7	47.0	51.1	4.4	No
R1142	Residential	B / 66	47.0	47.3	51.5	4.5	No
R1143	Residential	B / 66	47.1	47.3	51.5	4.4	No
R2001	Residential	B / 66	57.5	57.5	58.2	0.7	No
R2002	Residential	B / 66	55.3	55.2	56.1	0.8	No
R2003	Residential	B / 66	54.1	54.0	54.9	0.8	No

Receiver ID	Receiver Description	Activity Category / CDOT NAC (dBA)	Existing (2022)	No Action (2045)	Compromise Alternative		
					Proposed Action (2045)	Proposed Action Change From Existing (dBA)	Proposed Action Causes Impact?
			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R2004	Residential	B / 66	53.6	53.5	54.4	0.8	No
R2005	Residential	B / 66	52.9	52.8	53.7	0.8	No
R2006	Residential	B / 66	52.3	52.1	53.1	0.8	No
R2007	Residential	B / 66	57.0	56.9	57.9	0.9	No
R2008	Residential	B / 66	56.1	55.9	57.0	0.9	No
R2009	Residential	B / 66	54.7	54.6	55.8	1.1	No
R2010	Residential	B / 66	54.1	54.0	55.3	1.2	No
R2011	Residential	B / 66	53.8	53.7	55.1	1.3	No
R2012	Residential	B / 66	54.0	53.9	55.4	1.4	No
R2013	Residential	B / 66	52.9	52.7	54.4	1.5	No
R2014	Residential	B / 66	52.6	52.4	54.2	1.6	No
R2015	Residential	B / 66	53.1	52.9	54.7	1.6	No
R2016	Residential	B / 66	53.9	53.7	55.5	1.6	No
R2017	Residential	B / 66	54.4	54.2	56.1	1.7	No
R2018	Residential	B / 66	54.9	54.7	56.7	1.8	No
R2019	Residential	B / 66	56.5	56.2	58.0	1.5	No
R2020	Residential	B / 66	55.0	54.7	56.2	1.2	No
R2021	Residential	B / 66	52.8	52.5	54.4	1.6	No
R2022	Residential	B / 66	52.1	51.8	53.5	1.4	No
R2023	Residential	B / 66	53.0	52.8	54.0	1.0	No
R2024	Residential	B / 66	52.6	52.4	53.7	1.1	No
R2025	Residential	B / 66	52.0	51.9	53.2	1.2	No
R2026	Residential	B / 66	52.0	51.8	53.2	1.2	No
R2027	Residential	B / 66	51.8	51.7	53.1	1.3	No
R2028	Residential	B / 66	51.8	51.7	53.2	1.4	No
R2029	Residential	B / 66	51.6	51.5	53.0	1.4	No
R2030	Residential	B / 66	51.7	51.5	53.1	1.4	No
R2031	Residential	B / 66	52.1	52.0	53.6	1.5	No
R2032	Residential	B / 66	52.5	52.4	54.1	1.6	No
R2033	Residential	B / 66	53.1	53.0	54.7	1.6	No
R2034	Residential	B / 66	49.9	49.7	51.2	1.3	No
R2035	Residential	B / 66	49.9	49.7	51.1	1.2	No
R2036	Residential	B / 66	50.0	49.8	51.3	1.3	No
R2037	Residential	B / 66	50.1	49.9	51.3	1.2	No
R2038	Residential	B / 66	50.2	50.0	51.4	1.2	No
R2039	Residential	B / 66	50.4	50.2	51.5	1.1	No
R2040	Residential	B / 66	50.5	50.4	51.6	1.1	No
R2041	Residential	B / 66	50.9	50.7	51.8	0.9	No
R2042	Residential	B / 66	51.1	50.9	52.0	0.9	No
R2101	Green Space	C / 66	58.9	58.8	61.6	2.7	No

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			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R2102	Townhome courtyard	C / 66	45.6	45.6	48.6	3.0	No
R2103	Dentist	E / 71	61.2	61.3	64.7	3.5	No
R2104	Playground	C / 66	51.7	51.8	55.1	3.4	No
R2105	Residential	B / 66	44.8	44.8	48.0	3.2	No
R2106	Residential	B / 66	46.3	46.4	49.2	2.9	No
R2107	Veterinarian	E / 71	65.2	64.9	65.9	0.7	No
R2201	Residential	B / 66	50.4	51.4	52.4	2.0	No
R2202	Residential	B / 66	50.1	51.1	52.2	2.1	No
R2203	Residential	B / 66	49.9	50.9	52.2	2.3	No
R2204	Residential	B / 66	49.9	51.0	52.3	2.4	No
R2205	Residential	B / 66	50.0	50.9	52.4	2.4	No
R2301	Residential	B / 66	55.1	53.7	55.5	0.4	No
R2302	Residential	B / 66	63.0	61.0	63.2	0.2	No
R2303	Residential	B / 66	63.3	61.4	63.5	0.2	No
R2304	Residential	B / 66	62.9	61.0	63.1	0.2	No
R2305	Residential	B / 66	61.2	59.3	61.4	0.2	No
R2306	Residential	B / 66	61.2	59.3	61.4	0.2	No
R2307	Residential	B / 66	47.2	45.9	47.7	0.5	No
R2308	Residential	B / 66	47.4	46.5	48.5	1.1	No
R2309	Residential	B / 66	48.5	47.7	49.9	1.4	No
R2310	Residential	B / 66	54.2	53.4	55.4	1.2	No
R2311	Residential	B / 66	45.1	44.6	45.9	0.8	No
R2312	Residential	B / 66	45.3	44.6	46.2	0.9	No
R2313	Residential	B / 66	44.6	44.6	45.3	0.7	No
R2314	Residential	B / 66	44.8	44.6	46.1	1.3	No
R2315	Residential	B / 66	47.5	47.5	48.5	1.0	No
R2316	Residential	B / 66	50.3	50.0	51.7	1.4	No
R2401	Residential	B / 66	45.7	45.7	47.2	1.5	No
R2402	Residential	B / 66	45.7	45.3	46.9	1.2	No
R2403	Residential	B / 66	46.8	46.5	48.8	2.0	No
R2404	Residential	B / 66	47.5	47.0	49.9	2.4	No
R2405	Residential	B / 66	44.6	44.6	46.1	1.5	No
R2406	Residential	B / 66	47.9	47.5	50.2	2.3	No
R2407	Residential	B / 66	55.1	54.7	58.6	3.5	No
R2408	Residential	B / 66	57.4	57.0	59.5	2.1	No
R2409	Residential	B / 66	57.7	57.3	59.4	1.7	No
R2501-0	Residential	B / 66	44.6	44.6	44.6	0.0	No
R2501-1	Residential	B / 66	44.6	44.6	44.6	0.0	No
R2502-0	Residential	B / 66	44.6	44.6	44.6	0.0	No
R2502-1	Residential	B / 66	44.7	44.8	45.8	1.1	No

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			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R2503-0	Residential	B / 66	44.6	44.6	44.6	0.0	No
R2503-1	Residential	B / 66	45.6	45.8	46.3	0.7	No
R2504-0	Residential	B / 66	45.1	45.3	46.3	1.2	No
R2504-1	Residential	B / 66	47.9	48.1	49.0	1.1	No
R2505-0	Residential	B / 66	44.6	44.6	44.6	0.0	No
R2505-1	Residential	B / 66	44.6	44.6	44.9	0.3	No
R2506-0	Residential	B / 66	49.5	49.6	50.6	1.1	No
R2506-1	Residential	B / 66	53.9	54.0	54.8	0.9	No
R2507-0	Residential	B / 66	46.2	46.5	47.8	1.6	No
R2507-1	Residential	B / 66	49.2	49.4	50.5	1.3	No
R2508-0	Residential	B / 66	51.1	51.2	52.4	1.3	No
R2508-1	Residential	B / 66	55.7	55.8	56.8	1.1	No
R2509-0	Residential	B / 66	44.6	44.6	44.6	0.0	No
R2509-1	Residential	B / 66	44.6	44.7	45.3	0.7	No
R2510-0	Residential	B / 66	48.8	49.0	50.1	1.3	No
R2510-1	Residential	B / 66	52.9	53.1	54.3	1.4	No
R2511-0	Residential	B / 66	44.6	44.6	44.6	0.0	No
R2511-1	Residential	B / 66	48.6	48.7	49.5	0.9	No
R2512-0	Residential	B / 66	50.7	50.9	52.1	1.4	No
R2512-1	Residential	B / 66	55.1	55.2	56.5	1.4	No
R2513	Residential	B / 66	62.9	63.1	61.7	-1.2	No
R2514	Residential	B / 66	62.0	62.3	61.0	-1.0	No
R2515	Residential	B / 66	61.3	61.6	60.3	-1.0	No
R2516	Residential	B / 66	61.0	61.4	60.7	-0.3	No
R2517	Residential	B / 66	60.8	61.2	60.9	0.1	No
R2517	Residential	B / 66	60.8	61.2	60.9	0.1	No
R2518	Residential	B / 66	60.7	61.1	61.2	0.5	No
R2518	Residential	B / 66	60.7	61.1	61.2	0.5	No
R2519	Residential	B / 66	60.7	61.0	61.4	0.7	No
R2519	Residential	B / 66	60.7	61.0	61.4	0.7	No
R2520	Residential	B / 66	60.5	60.9	61.6	1.1	No
R2520	Residential	B / 66	60.5	60.9	61.6	1.1	No
R2521	Residential	B / 66	60.2	60.6	61.5	1.3	No
R2521	Residential	B / 66	60.2	60.6	61.5	1.3	No
R2522	Residential	B / 66	59.7	60.0	61.5	1.8	No
R2522	Residential	B / 66	59.7	60.0	61.5	1.8	No
R2523	Residential	B / 66	59.3	59.6	61.3	2.0	No
R2523	Residential	B / 66	59.3	59.6	61.3	2.0	No
R2524	Residential	B / 66	59.0	59.2	61.1	2.1	No
R2524	Residential	B / 66	59.0	59.2	61.1	2.1	No

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			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R2525	Residential	B / 66	57.7	57.9	59.8	2.1	No
R2525	Residential	B / 66	57.7	57.9	59.8	2.1	No
R2526	Residential	B / 66	57.0	57.2	59.0	2.0	No
R2526	Residential	B / 66	57.0	57.2	59.0	2.0	No
R2527	Residential	B / 66	56.5	56.7	58.5	2.0	No
R2527	Residential	B / 66	56.5	56.7	58.5	2.0	No
R2528	Residential	B / 66	56.2	56.4	58.2	2.0	No
R2528	Residential	B / 66	56.2	56.4	58.2	2.0	No
R2529	Residential	B / 66	47.5	47.7	48.1	0.6	No
R2530	Residential	B / 66	45.9	46.1	47.2	1.3	No
R2531	Residential	B / 66	45.8	46.0	46.9	1.1	No
R2532	Residential	B / 66	45.2	45.3	45.8	0.6	No
R2533	Residential	B / 66	44.8	45.0	45.3	0.5	No
R2534	Residential	B / 66	48.4	48.6	49.8	1.4	No
R2535	Residential	B / 66	48.7	48.8	49.7	1.0	No
R2536	Residential	B / 66	48.3	48.4	49.1	0.8	No
R2537	Residential	B / 66	48.3	48.4	49.0	0.7	No
R2538	Residential	B / 66	46.7	46.8	48.1	1.4	No
R2539	Residential	B / 66	46.8	46.9	48.0	1.2	No
R2540	Residential	B / 66	46.9	47.0	48.2	1.3	No
R2541	Residential	B / 66	44.6	44.6	44.6	0.0	No
R2542	Residential	B / 66	44.6	44.6	44.6	0.0	No
R2543	Residential	B / 66	44.6	44.6	44.6	0.0	No
R2544	Residential	B / 66	44.6	44.6	44.6	0.0	No
R2545	Residential	B / 66	44.6	44.6	44.6	0.0	No
R2546	Residential	B / 66	44.6	44.6	44.6	0.0	No
R2547	Residential	B / 66	45.2	45.3	44.9	-0.3	No
R2548	Residential	B / 66	47.7	47.7	46.8	-0.9	No
R2549	Residential	B / 66	53.1	53.0	51.0	-2.1	No
R2550	Residential	B / 66	57.9	57.8	55.4	-2.5	No
R2551	Residential	B / 66	58.6	58.7	56.5	-2.1	No
R2552	Residential	B / 66	57.3	57.5	55.4	-1.9	No
R2553	Residential	B / 66	57.4	57.6	55.5	-1.9	No
R2554	Residential	B / 66	56.9	57.1	55.1	-1.8	No
R2555	Residential	B / 66	56.6	56.8	54.9	-1.7	No
R2556	Residential	B / 66	57.0	57.2	55.4	-1.6	No
R2557	Residential	B / 66	57.6	57.8	56.1	-1.5	No
R2558	Residential	B / 66	45.2	45.3	44.9	-0.3	No
R2601	Residential	B / 66	60.8	61.3	62.8	2.0	No
R2602	Residential	B / 66	60.9	61.5	62.9	2.0	No

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			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R2603	Residential	B / 66	60.9	61.5	62.9	2.0	No
R2604	Residential	B / 66	61.3	61.8	63.2	1.9	No
R2605	Residential	B / 66	61.3	61.9	63.3	2.0	No
R2606	Residential	B / 66	60.1	60.6	62.2	2.1	No
R2607	Residential	B / 66	59.1	59.6	61.2	2.1	No
R2608	Residential	B / 66	46.1	46.5	48.5	2.4	No
R2609	Residential	B / 66	44.8	45.2	47.2	2.4	No
R2610	Residential	B / 66	44.6	44.6	46.4	1.8	No
R2611	Residential	B / 66	44.6	44.6	45.8	1.2	No
R2612	Residential	B / 66	44.6	44.6	45.2	0.6	No
R2613	Residential	B / 66	44.6	44.6	44.6	0.0	No
R2614	Residential	B / 66	48.0	48.4	49.4	1.4	No
R2615	Residential	B / 66	44.6	44.6	44.6	0.0	No
R2616	Residential	B / 66	44.6	44.6	44.6	0.0	No
R2617	Residential	B / 66	44.6	44.6	44.6	0.0	No
R2618	Residential	B / 66	60.8	61.3	62.7	1.9	No
R2701	Daycare playground	C / 66	58.5	58.7	56.7	-1.8	No
R2702	Office	E / 71	62.3	62.5	60.2	-2.1	No
R2703	Condo assoc.	E / 71	61.8	62.0	59.8	-2.0	No
R2704	Residential	B / 66	59.0	59.1	57.1	-1.9	No
R2705	Residential	B / 66	61.6	61.8	59.6	-2.0	No
R2801	Residential	B / 66	49.4	49.5	54.5	5.1	No
R2802	Residential	B / 66	47.6	47.7	51.1	3.5	No
R2803	Residential	B / 66	48.2	48.4	52.9	4.7	No
R2804	Residential	B / 66	49.7	51.8	54.9	5.2	No
R2805	Residential	B / 66	50.9	53.1	55.7	4.8	No
R2806	Residential	B / 66	50.3	52.7	54.2	3.9	No
R2807	Residential	B / 66	45.0	46.2	49.0	4.0	No
R2808	Residential	B / 66	45.0	46.0	49.2	4.2	No
R2809	Residential	B / 66	44.6	44.6	47.6	3.0	No
R2810	Residential	B / 66	47.1	47.4	47.5	0.4	No
R2811	Retail	F / --	55.7	56.1	56.2	0.5	No
R2901	Residential	B / 66	45.1	45.4	49.2	4.1	No
R2901	Residential	B / 66	45.1	45.4	49.2	4.1	No
R2902	Apartments	B / 66	44.6	44.6	48.3	3.7	No
R2902	Apartments	B / 66	44.6	44.6	48.3	3.7	No
R2903	Restaurant	E / 71	58.5	58.6	58.6	0.1	No
R2904	Swimming Pool	C / 66	54.5	54.6	54.4	-0.1	No
R2905	Playground	C / 66	52.1	52.2	52.0	-0.1	No
R2906	Tennis court	C / 66	55.9	55.9	55.4	-0.5	No

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			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R2907	Landscaping	F / --	60.6	60.6	60.4	-0.2	No
R2908	Restaurant	E / 71	69.5	69.5	69.3	-0.2	No
R3001	Residential	B / 66	60.6	61.4	61.2	0.6	No
R3002	Residential	B / 66	53.3	53.9	53.9	0.6	No
R3003	Residential	B / 66	62.2	63.8	64.0	1.8	No
R3004	Residential	B / 66	63.1	64.5	64.1	1.0	No
R3005	Residential	B / 66	60.7	62.2	62.4	1.7	No
R3006	Residential	B / 66	58.3	59.9	59.9	1.6	No
R3007	Residential	B / 66	61.5	63.2	63.4	1.9	No
R3008	Residential	B / 66	55.9	57.2	57.1	1.2	No
R3009	Residential	B / 66	55.9	57.3	57.2	1.3	No
R3010	Residential	B / 66	55.4	55.7	55.6	0.2	No
R3011	Residential	B / 66	54.1	54.5	54.4	0.3	No
R3012	Residential	B / 66	52.9	53.3	53.3	0.4	No
R3013	Residential	B / 66	51.8	52.2	52.2	0.4	No
R3014	Residential	B / 66	51.0	51.5	51.5	0.5	No
R3015	Residential	B / 66	50.3	50.8	50.8	0.5	No
R3016	Residential	B / 66	49.7	50.3	50.2	0.5	No
R3017	Residential	B / 66	45.7	46.6	46.4	0.7	No
R3018	Residential	B / 66	50.1	50.2	50.0	-0.1	No
R3019	Residential	B / 66	54.5	54.5	54.0	-0.5	No
R3020	Residential	B / 66	53.7	53.8	53.4	-0.3	No
R3021	Residential	B / 66	52.6	52.7	52.2	-0.4	No
R3022	Residential	B / 66	52.0	52.1	51.7	-0.3	No
R3101	Dentist	E / 71	69.9	70.5	70.4	0.5	No
R3102	Residential	B / 66	57.9	58.6	58.5	0.6	No
R3103	Residential	B / 66	56.5	57.3	57.3	0.8	No
R3104	Taekwondo outdoor area	C / 66	56.5	57.2	56.4	-0.1	No
R3201	Swimming Pool	C / 66	50.2	51.7	51.7	1.5	No
R3202	Residential	B / 66	48.1	49.7	50.1	2.0	No
R3203	Residential	B / 66	44.6	45.0	45.9	1.3	No
R3204	Residential	B / 66	44.6	46.6	47.7	3.1	No
R3205	Residential	B / 66	46.6	49.0	50.4	3.8	No
R3206	Residential	B / 66	50.5	53.0	54.2	3.7	No
R3207	Residential	B / 66	55.6	58.1	59.0	3.4	No
R3208	Residential	B / 66	57.3	59.8	60.6	3.3	No
R3209	Residential	D / 66	58.2	60.8	61.5	3.3	No
R3210	Residential	B / 66	57.6	60.2	60.6	3.0	No
R3211	Residential	B / 66	51.4	54.2	55.3	3.9	No
R3212	Residential	B / 66	61.0	63.6	64.0	3.0	No

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			L_{eq} (dBA)	L_{eq} (dBA)	L_{eq} (dBA)		(Yes or No)
R3213	Residential	B / 66	55.5	58.3	58.4	2.9	No
R3214	Residential	B / 66	52.6	55.6	56.6	4.0	No
R3215	Residential	B / 66	61.8	64.3	64.4	2.6	No
R3216	Residential	B / 66	60.6	63.1	63.0	2.4	No
R3217	Residential	B / 66	60.9	63.4	63.3	2.4	No
R3301-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R3301-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R3301-2	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R3301-3	Apartments	B / 66	44.6	44.6	44.9	0.3	No
R3302-0	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R3302-1	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R3302-2	Apartments	B / 66	44.6	44.6	44.6	0.0	No
R3302-3	Apartments	B / 66	44.6	44.6	44.9	0.3	No

HIGHWAY 41 CORRIDOR IMPROVEMENTS

Appendix D – Field Data Collection Sheets

Site A

Tally Sheet

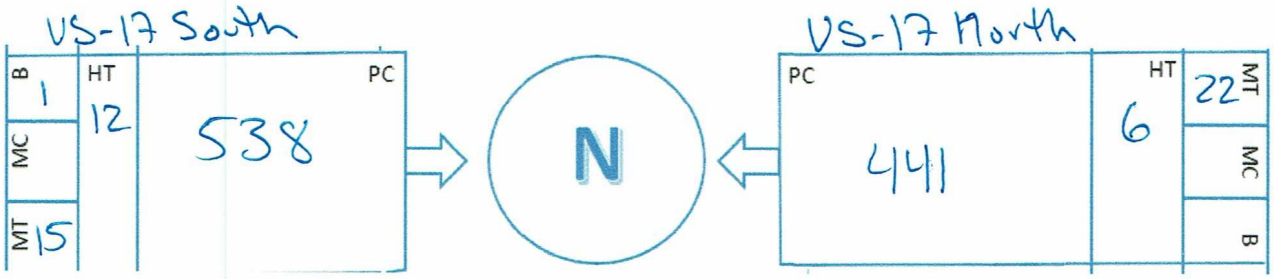
Date: 9/21/17 Start Time: 10:50 Finish Time: 11:05

Location: McConnell Weather: 79° sunny Road Conditions: free flow

Observer: Sciarro

Noise Conditions:

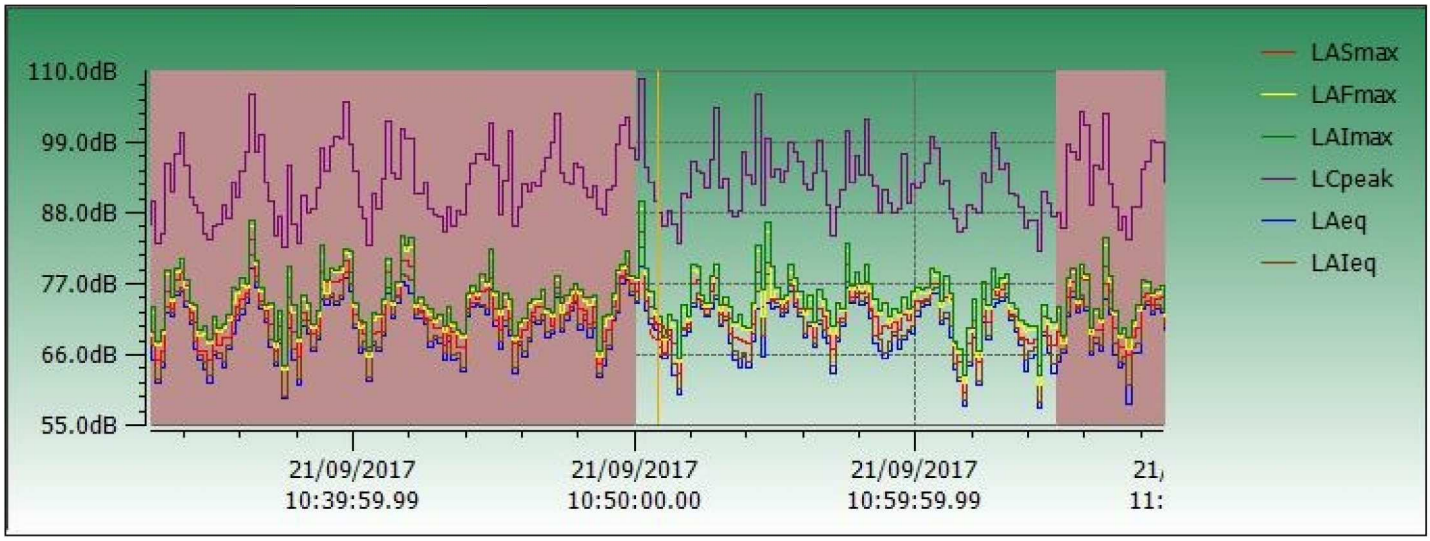
used video for count

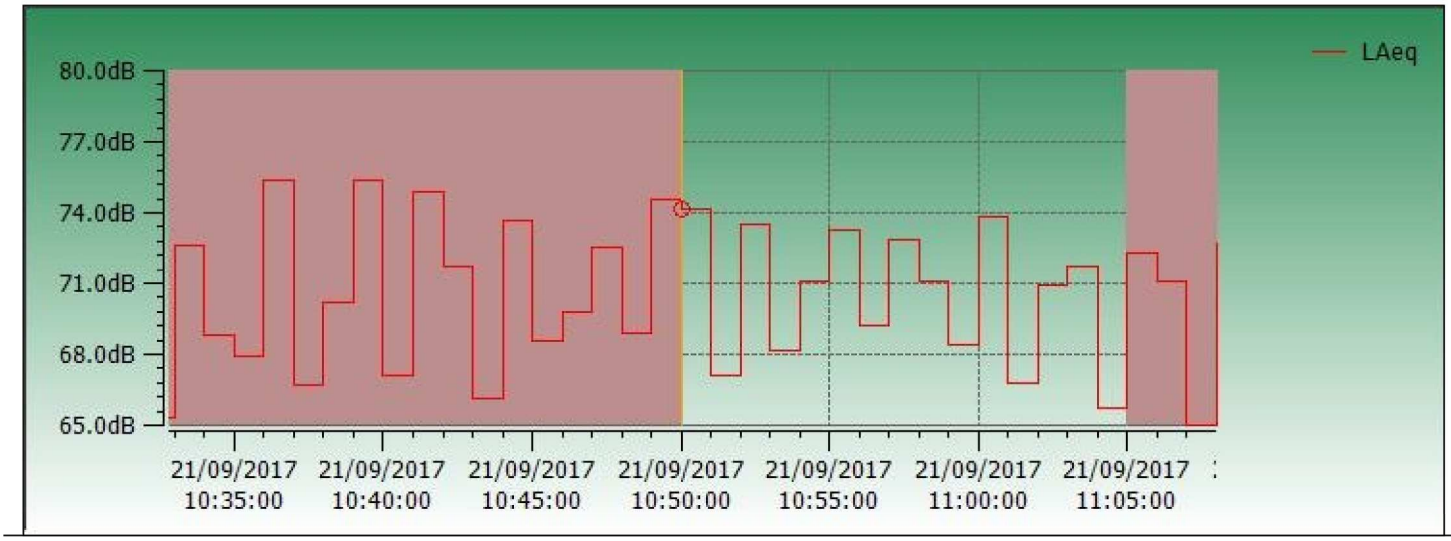


SC 41 Traffic Noise Measurements

Air Hub Project No: CHS-17-062

Instrument Model	**CEL-633A**		
Duration	00:36:06 HH:MM:SS	Start Date & Time	9/21/2017 10:32:49 AM
LAeq	71.6 dB	End Date & Time	9/21/2017 11:08:55 AM
LAeq Inclusion Zone	71.0 dB		





Site B

Tally Sheet

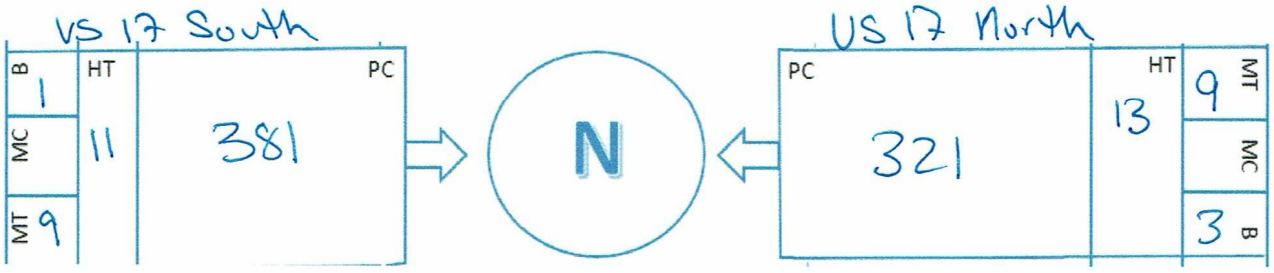
Date: 9/21/17 Start Time: 9:40 Finish Time: 9:55

Location: Caroline Therapy Weather: 79° sunny Road Conditions: free flow

Observer: Sciarro

Noise Conditions:

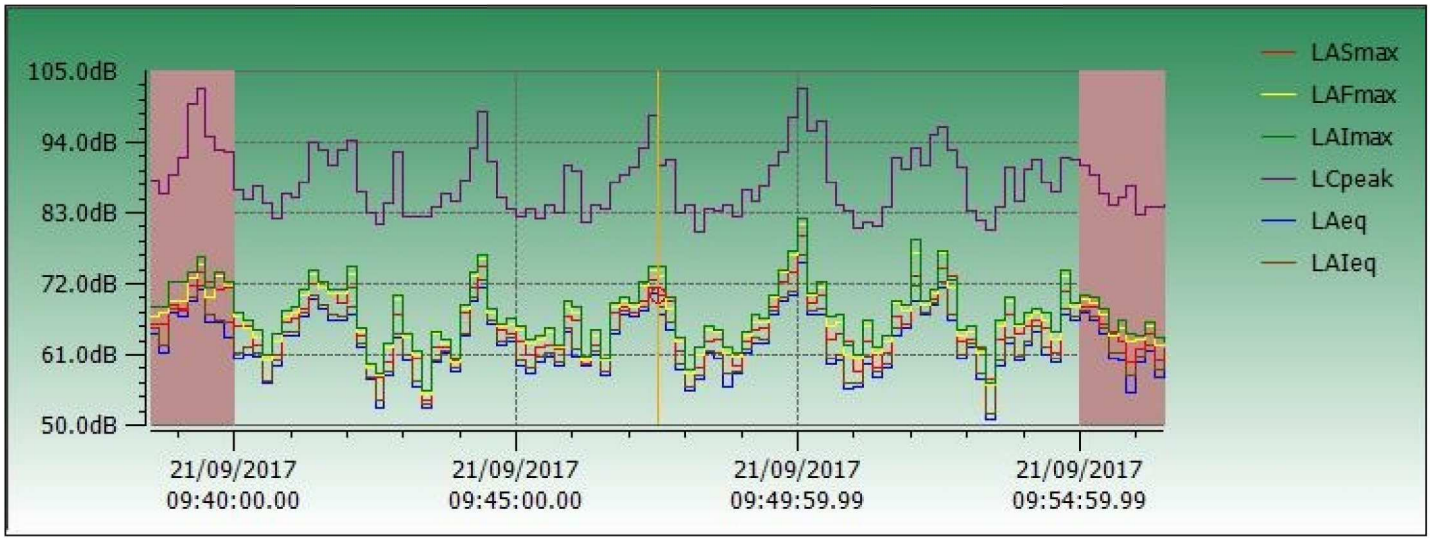
video used for count

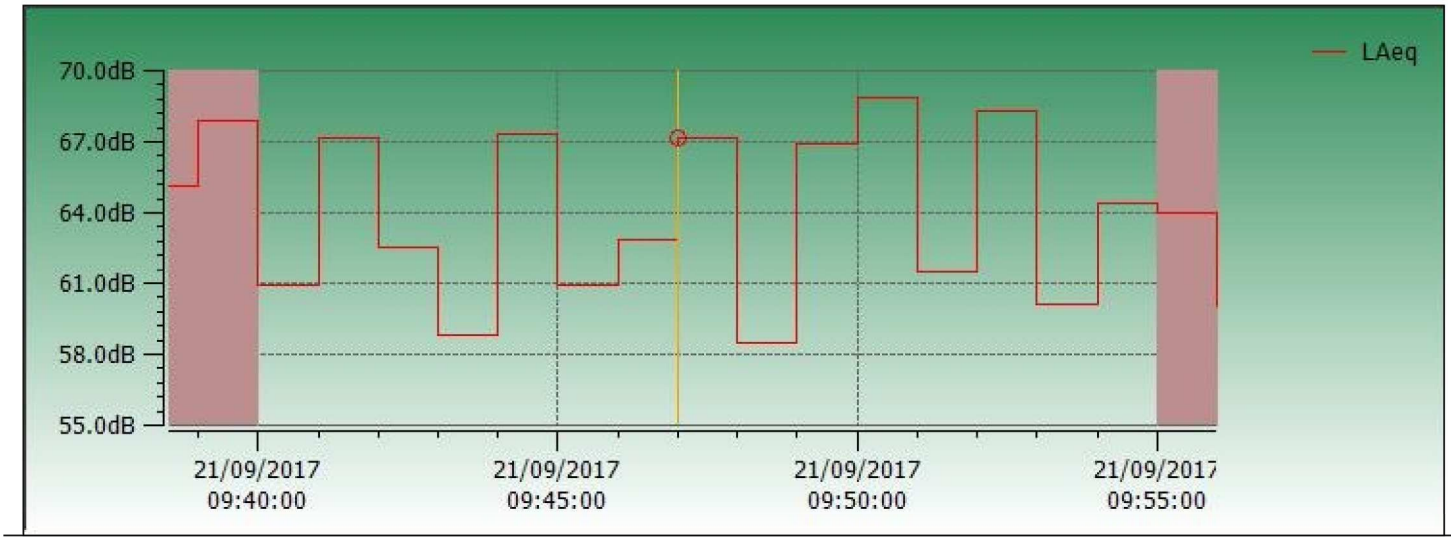


SC 41 Traffic Noise Measurements

Air Hub Project No: CHS-17-062

Instrument Model	**CEL-633A**		
Duration	00:17:59 HH:MM:SS	Start Date & Time	9/21/2017 9:38:31 AM
LAeq	65.1 dB	End Date & Time	9/21/2017 9:56:30 AM
LAeq Inclusion Zone	65.3 dB		





Site C

Tally Sheet

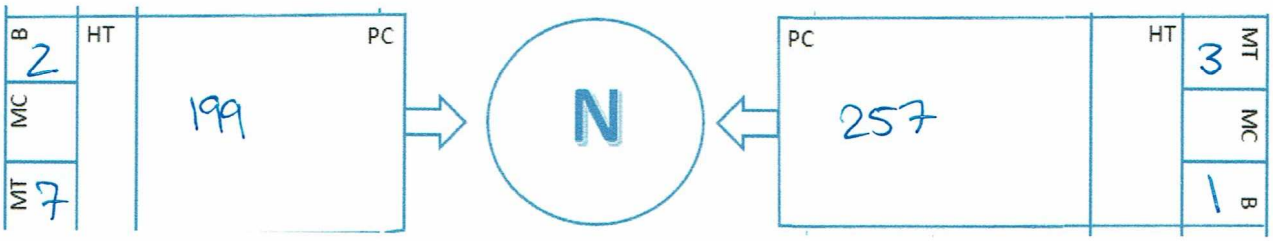
Date: 9/20/17 Start Time: 2:53 Finish Time: 3:08

Location: Lakecrest Weather: 81° sunny Road Conditions: free flow

Observer: Sciarro

Noise Conditions:

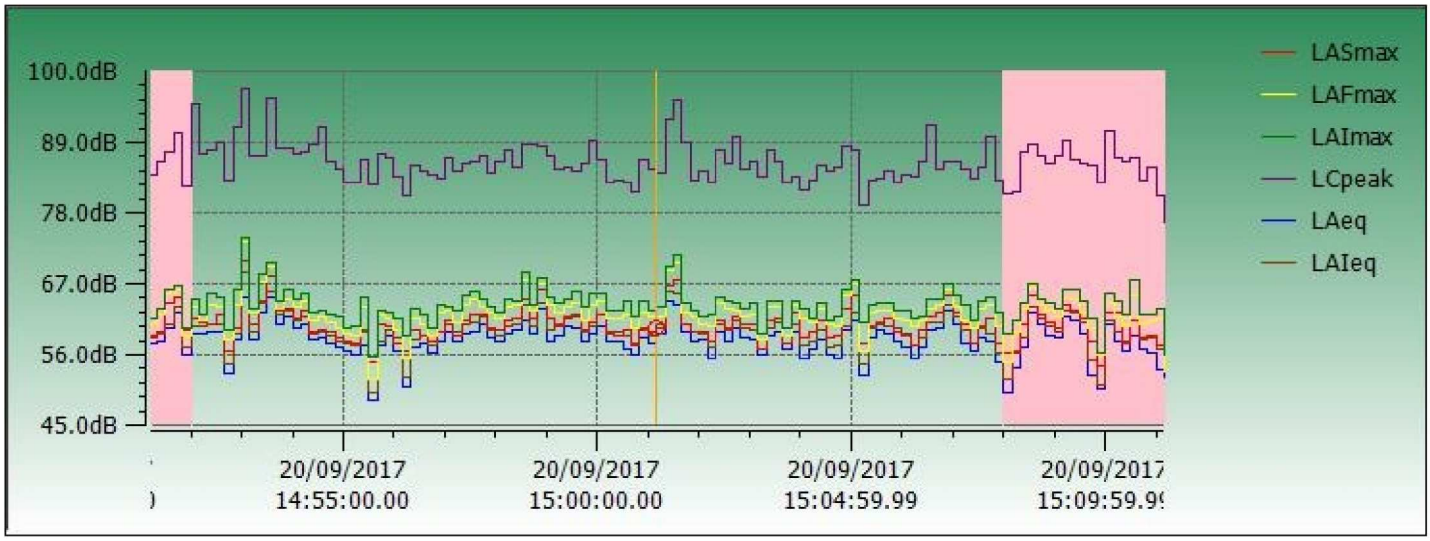
612277, 3636891

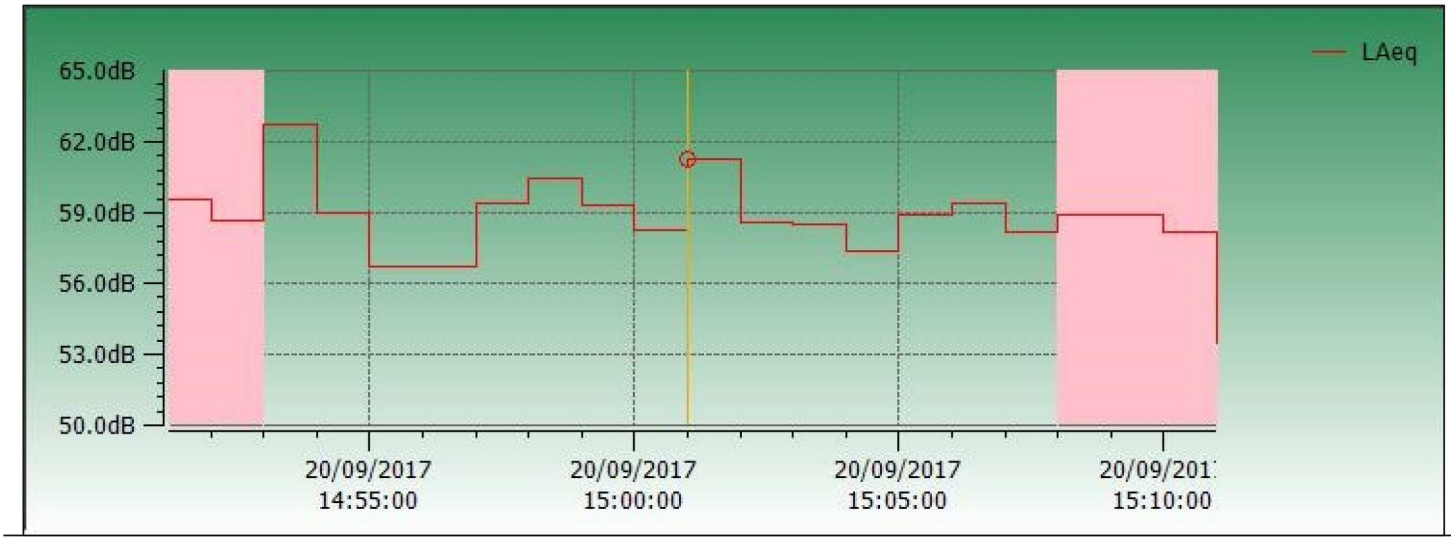


SC 41 Traffic Noise Measurements

Air Hub Project No: CHS-17-062

Instrument Model	**CEL-633A**
Duration	00:19:57 HH:MM:SS
LAeq	59.2 dB
LAeq Inclusion Zone	58.9 dB
Start Date & Time	9/20/2017 2:51:13 PM
End Date & Time	9/20/2017 3:11:10 PM





Site D

Tally Sheet

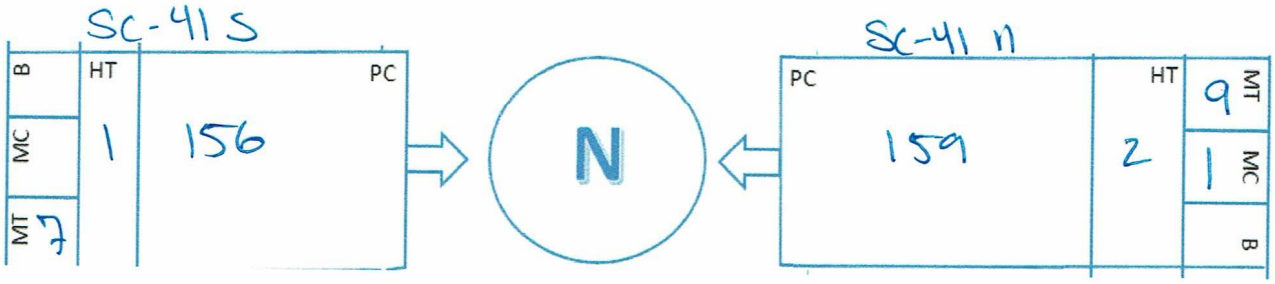
Date: 9/20/17 Start Time: 11:46 Finish Time: 12:01

Location: Smalls Weather: 81° Road Conditions: flowing

Observer: Sciarro

Noise Conditions:

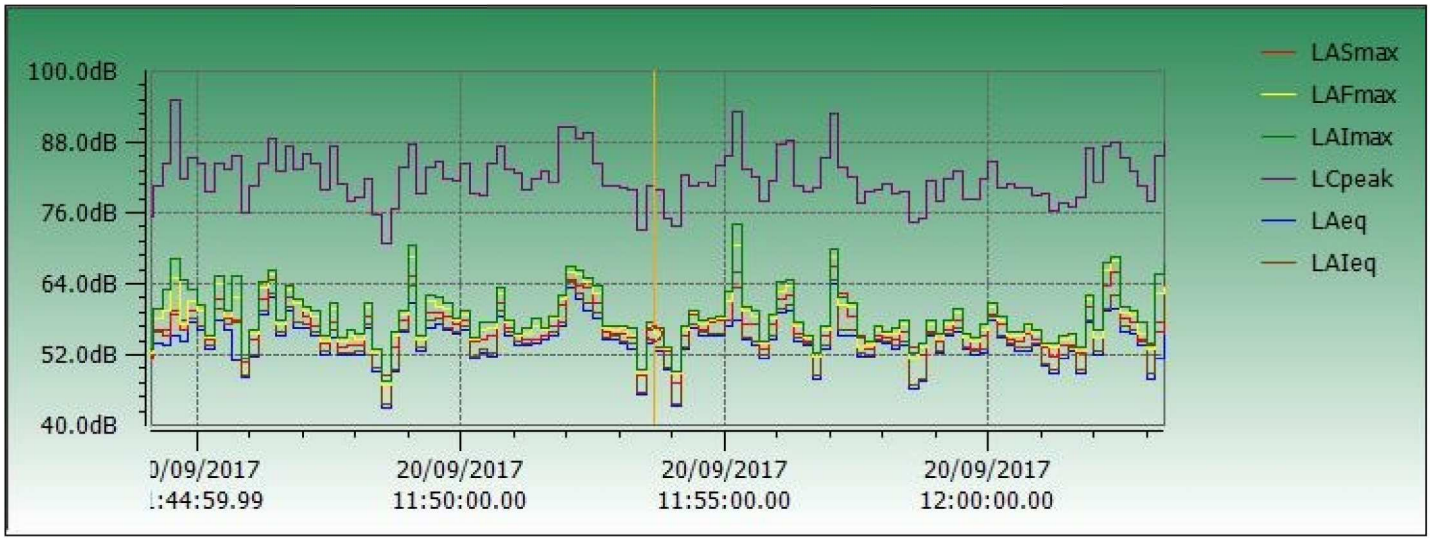
611129, 3638992

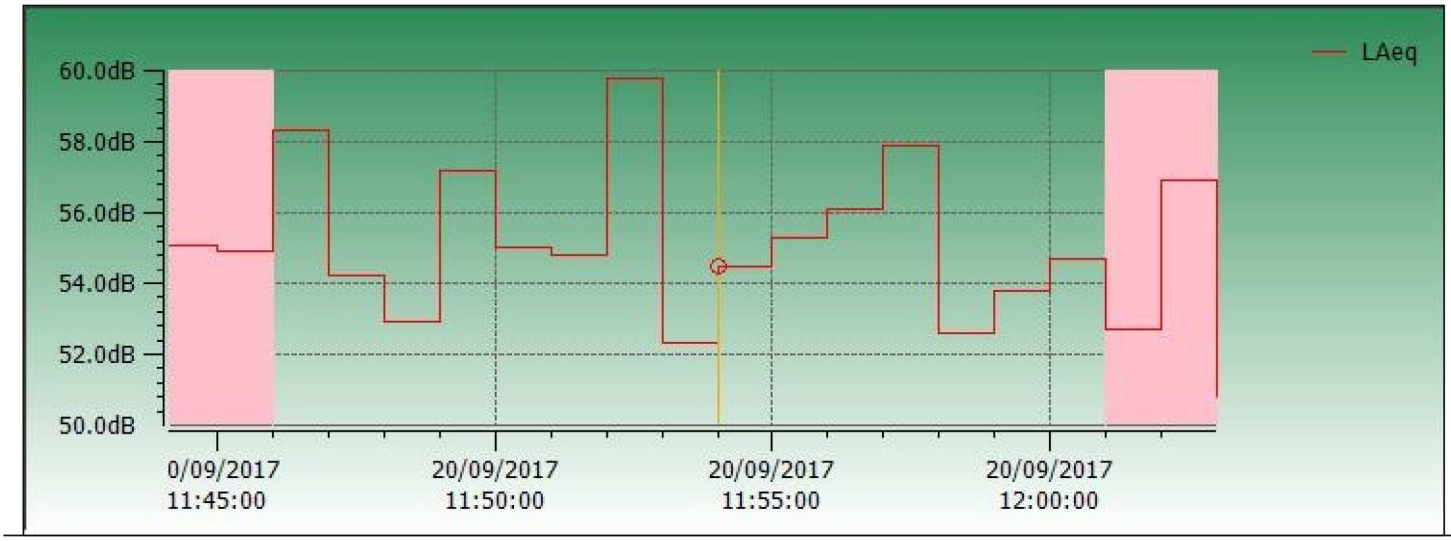


SC 41 Traffic Noise Measurements

Air Hub Project No: CHS-17-062

Instrument Model	**CEL-633A**		
Duration	00:19:14 HH:MM:SS	Start Date & Time	9/20/2017 11:44:08 AM
LAeq	55.7 dB	End Date & Time	9/20/2017 12:03:22 PM
LAeq Inclusion Zone	55.6 dB		





Site E

Tally Sheet

Date: 9/20/17 Start Time: 11:15 - 11:30 Finish Time:

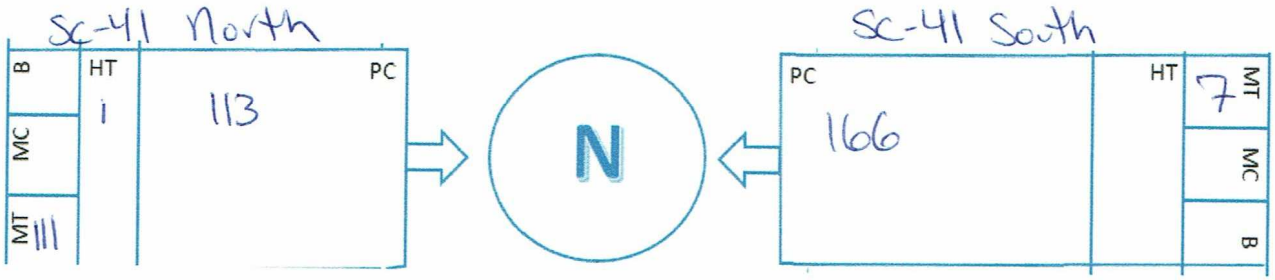
Location: Phillip Manor Weather: 81° sunny Road Conditions: freeflow

Observer: Sciarro

Noise Conditions:

610903, 3639692

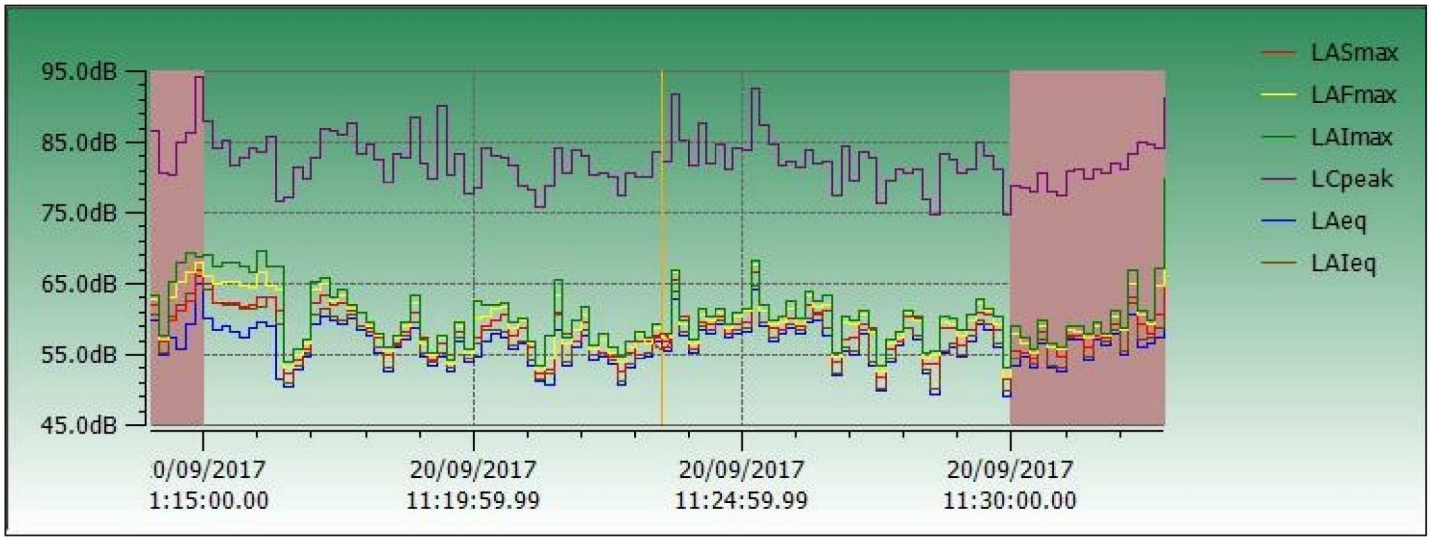
Zone E



SC 41 Traffic Noise Measurements

Air Hub Project No: CHS-17-062

Instrument Model	**CEL-633A**		
Duration	00:18:50 HH:MM:SS	Start Date & Time	9/20/2017 11:14:01 AM
LAeq	57.5 dB	End Date & Time	9/20/2017 11:32:51 AM
LAeq Inclusion Zone	57.1 dB		



Site F

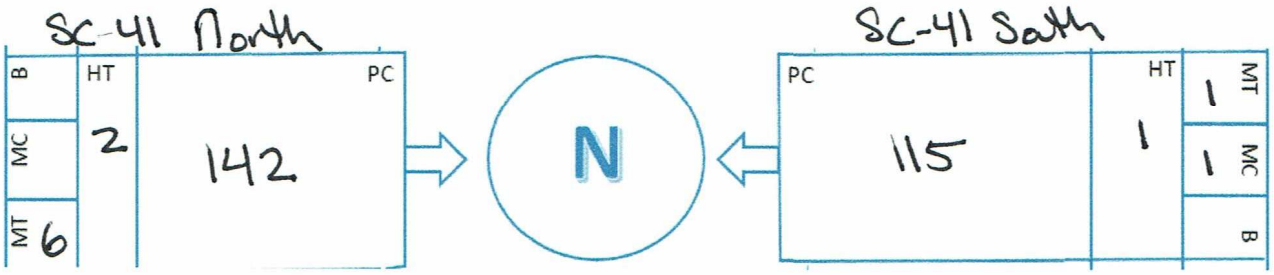
Tally Sheet

Date: 9/19/17 Start Time: 2:25 Finish Time: 2:40

Location: Weather: Road Conditions: flowing

Observer: Sciarro

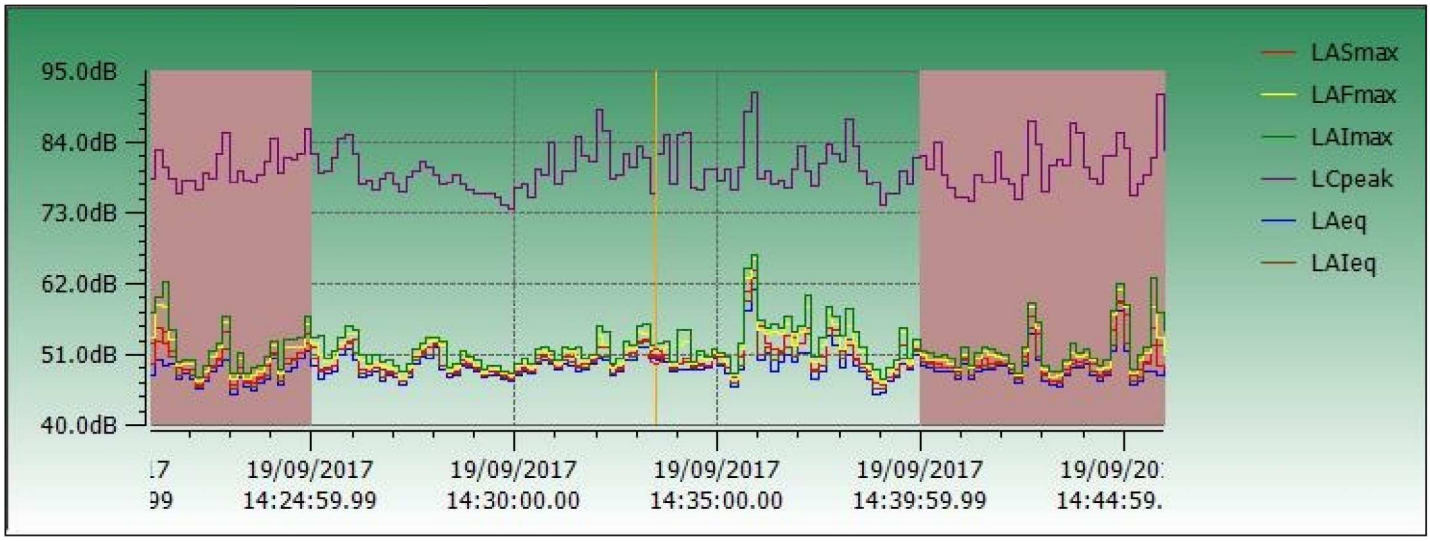
Noise Conditions: 2080 Kings Gate Ln
610436, 3640698

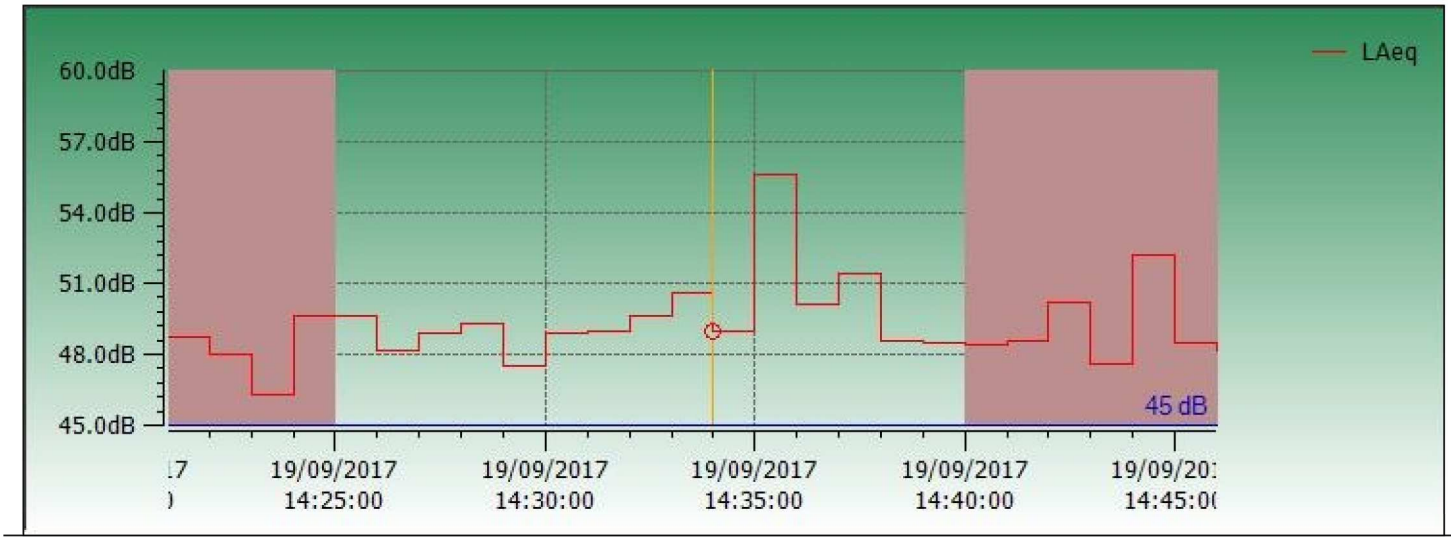


SC 41 Traffic Noise Measurements

Air Hub Project No: CHS-17-062

Instrument Model	**CEL-633A**		
Duration	00:24:58 HH:MM:SS	Start Date & Time	9/19/2017 2:21:03 PM
LAeq	49.8 dB	End Date & Time	9/19/2017 2:46:01 PM
LAeq Inclusion Zone	50.2 dB		





Site G

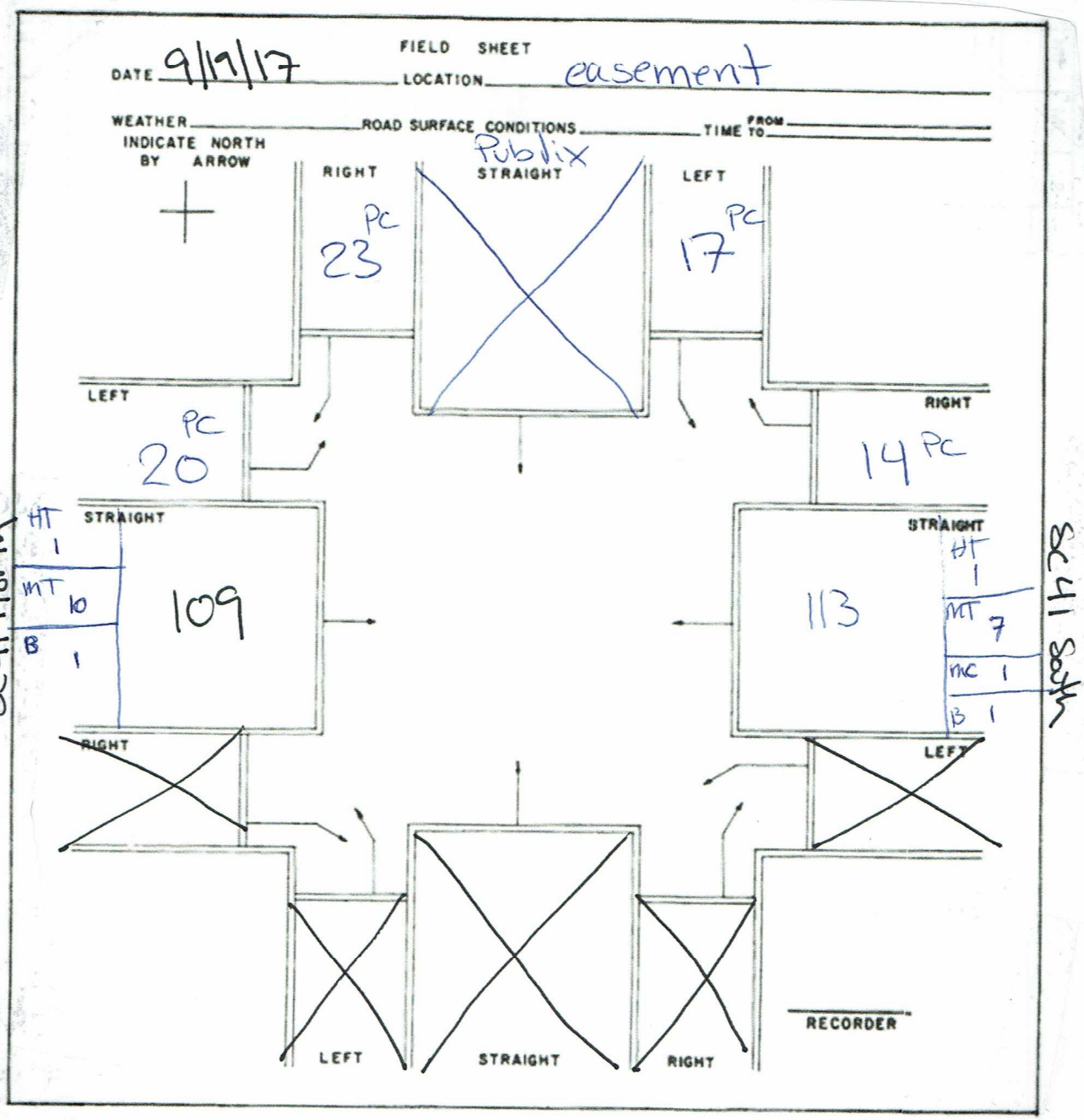
Tally Sheet

Date: 9/19/17 Start Time: 2:52 Finish Time: 3:08

Location: easement Weather: 86 Road Conditions: flow

Observer: Sciarro

Noise Conditions:

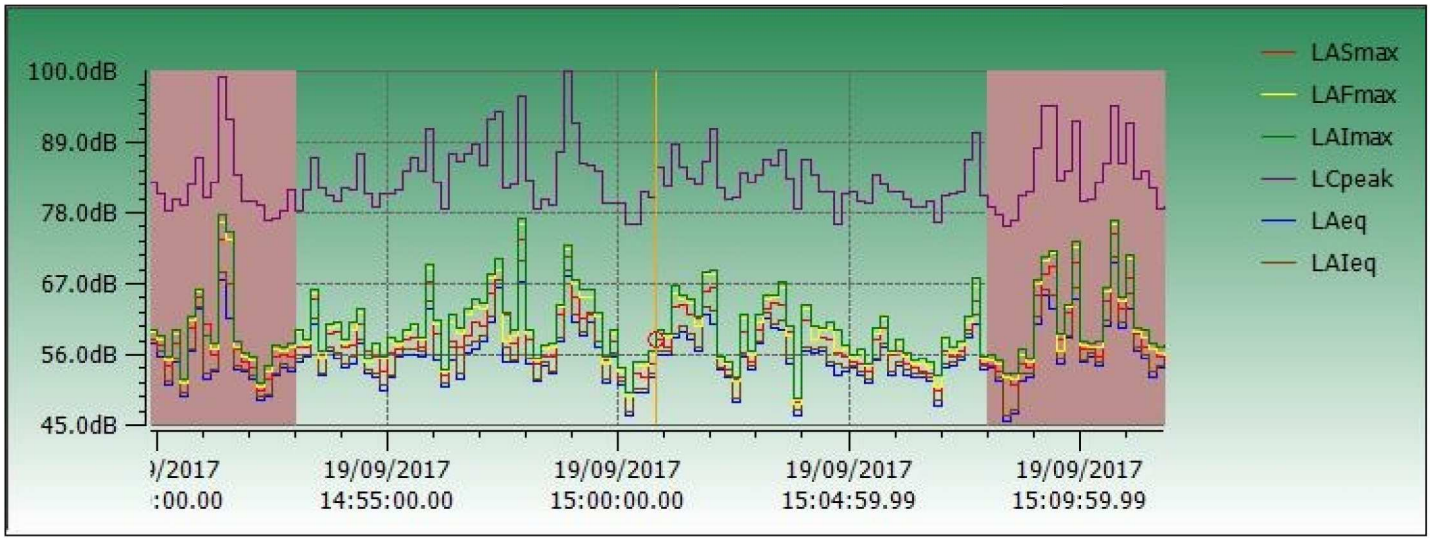


Motor Vehicle Volume Field Sheet

SC 41 Traffic Noise Measurements

Air Hub Project No: CHS-17-062

Instrument Model	**CEL-633A**		
Duration	00:22:01 HH:MM:SS	Start Date & Time	9/19/2017 2:49:53 PM
LAeq	58.6 dB	End Date & Time	9/19/2017 3:11:54 PM
LAeq Inclusion Zone	57.9 dB		



Site H

Tally Sheet

Date: 9/20/17 Start Time: 10:37 Finish Time: 10:52

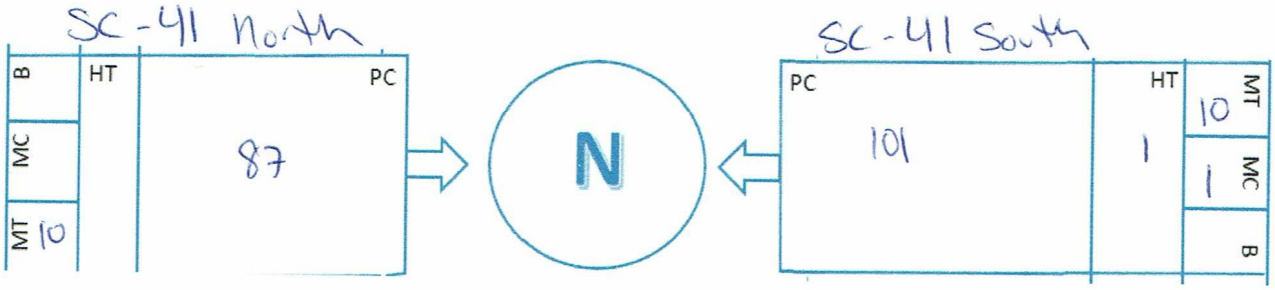
Location: SC-41 N Weather: 81° sunny Road Conditions: freeflow

Observer: Sciarro

Noise Conditions: had to restart b/c a heavy truck idled directly in front of the meter. construction area ditch maintenance

Zone H

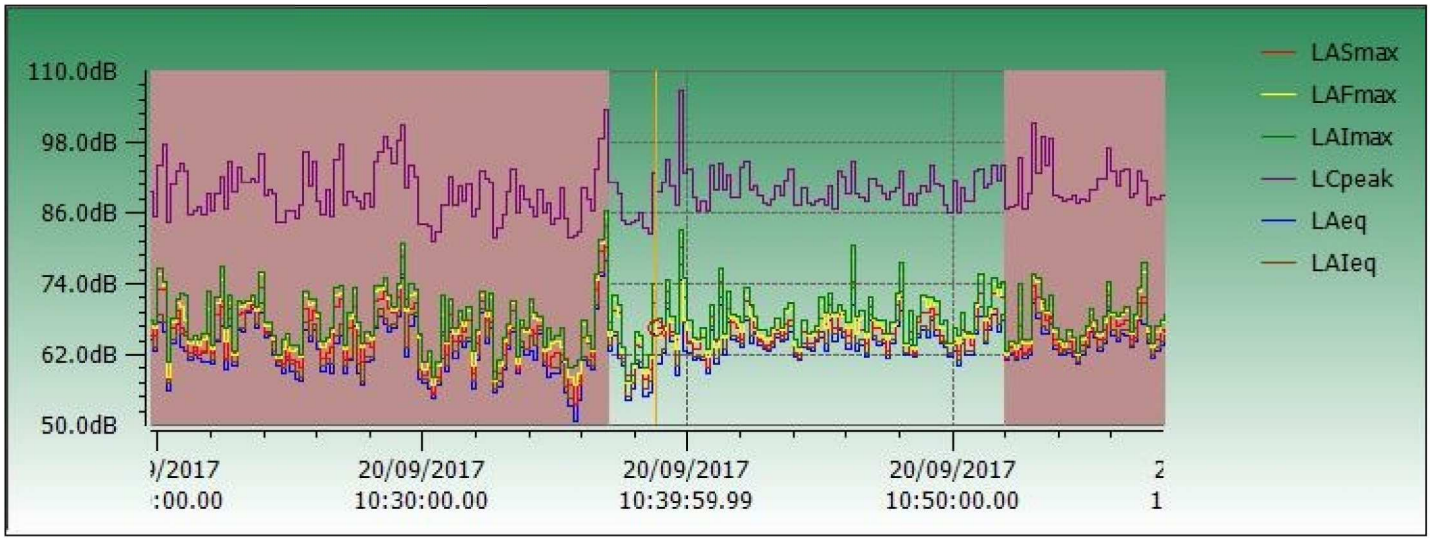
610197 3643895

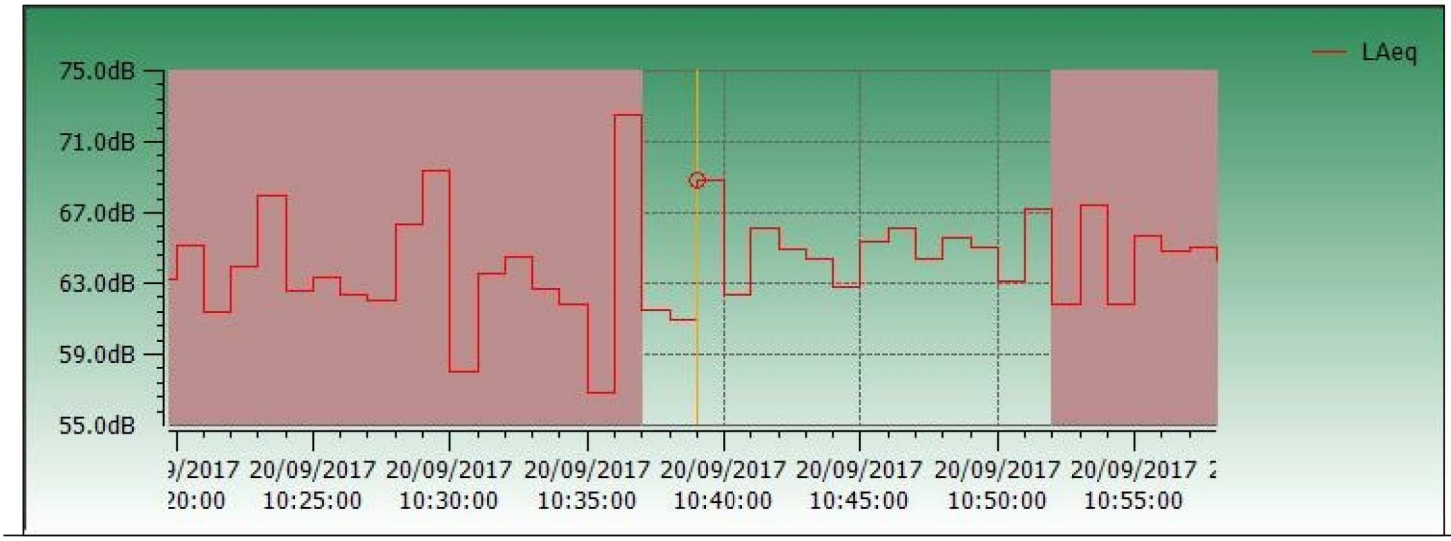


SC 41 Traffic Noise Measurements

Air Hub Project No: CHS-17-062

Instrument Model	**CEL-633A**		
Duration	00:38:22 HH:MM:SS	Start Date & Time	9/20/2017 10:19:45 AM
LAeq	65.3 dB	End Date & Time	9/20/2017 10:58:07 AM
LAeq Inclusion Zone	65.2 dB		





Site I

Tally Sheet

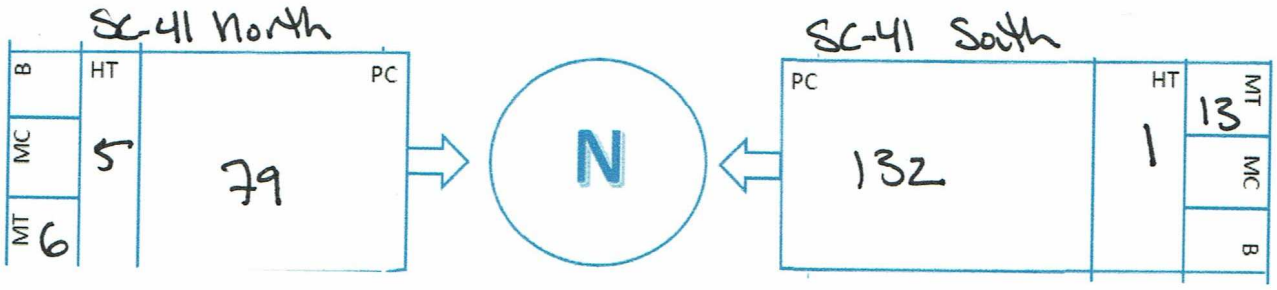
Date: 9/20/17 Start Time: 9:39 Finish Time: 9:54

Location: Harpers Ferry Weather: 79°F sunny Road Conditions: slow

Observer: Sciarra

Noise Conditions: Construction + landscaping noise

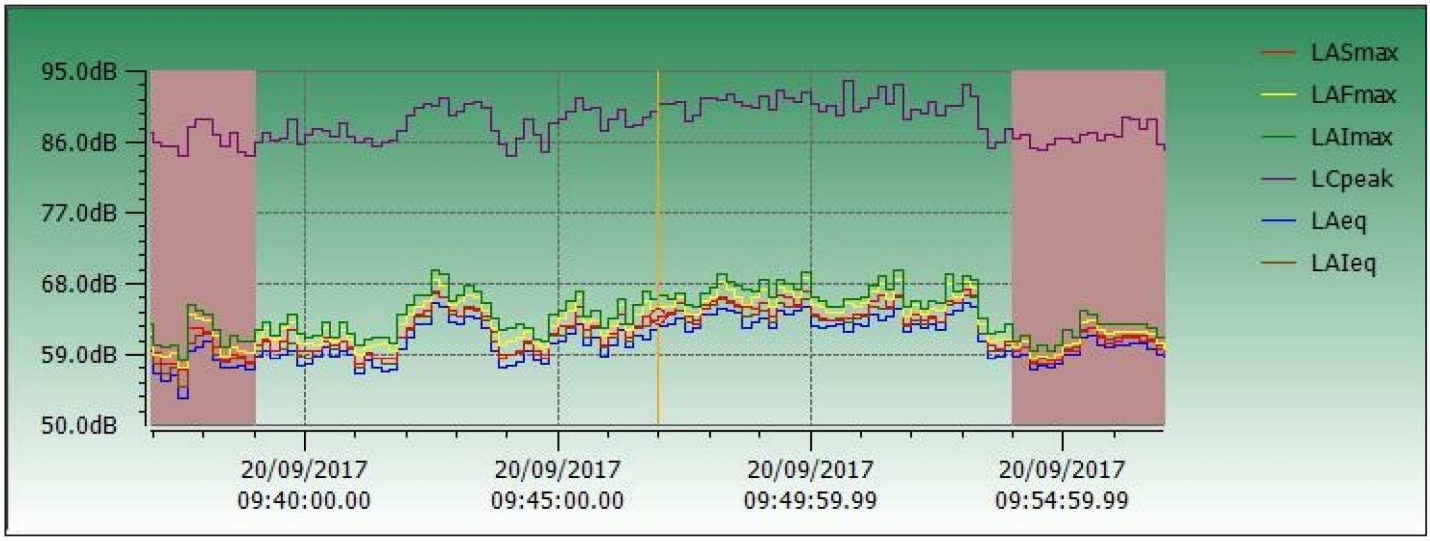
609619, 3612507

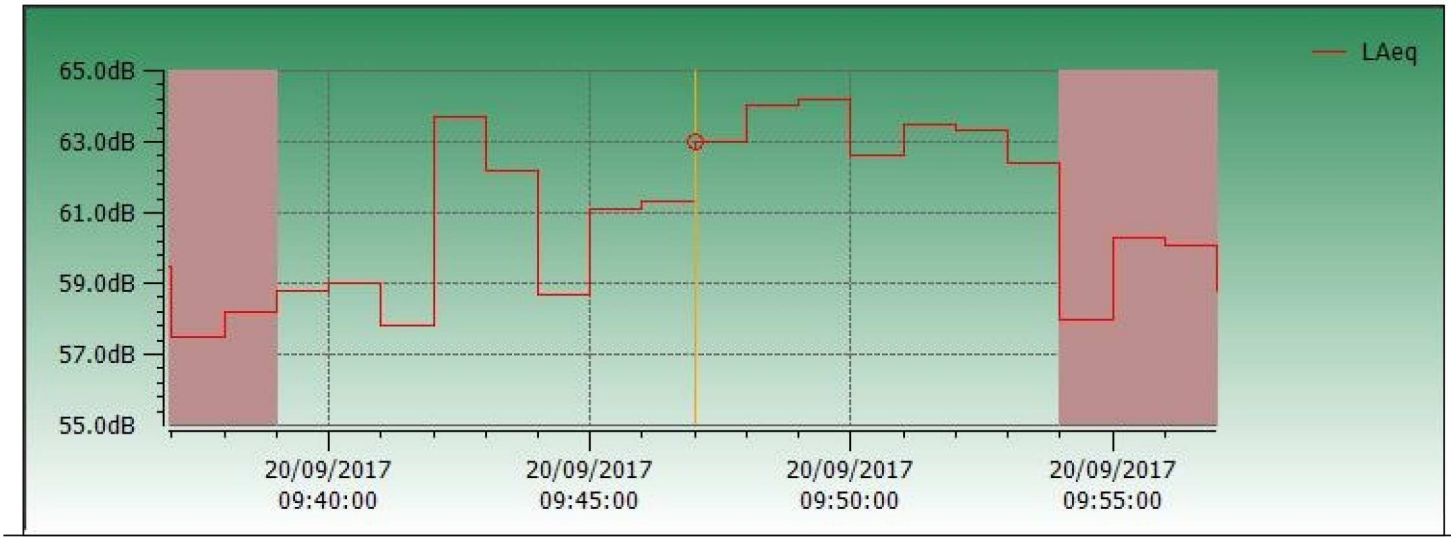


SC 41 Traffic Noise Measurements

Air Hub Project No: CHS-17-062

Instrument Model	**CEL-633A**		
Duration	00:20:03 HH:MM:SS	Start Date & Time	9/20/2017 9:36:57 AM
LAeq	61.5 dB	End Date & Time	9/20/2017 9:57:00 AM
LAeq Inclusion Zone	62.3 dB		





Calibration Certificates-
2017 measurements

INSTRUMENT CALIBRATION REPORT

Advanced Labs, Inc.

Pine Environmental Services, Inc

Instrument ID 24152
Description Casella CEL-120/2 Acoustic Calibrator
Calibrated 5/3/2017

Manufacturer Casella
Model Number CEL-120/2
Serial Number 2839253
Location New Jersey
Temp 77

Classification
Status pass
Frequency Yearly EOM
Department Lab
Humidity 30

Calibration Specifications

Group # 1
Group Name Acoustic Tests Performed
Test Performed: Yes **As Found Result: Pass** **As Left Result: Pass**

Test Instruments Used During the Calibration

Test Instrument ID	Description	Manufacturer	Serial Number	(As Of Cal Entry Date) Last Cal Date	Next Cal Date
B&K 4226	Brüel & Kjær 4226	Brüel & Kjær	2590968	4/24/2017	4/24/2018
B&K 4228	Brüel & Kjær 4228	Brüel & Kjær	2667476	4/5/2017	4/5/2018
FLUKE 114	Fluke 114 NIST Traceable Multimeter	Fluke	15310288	5/6/2016	5/6/2017
SOUNDPRO DL-1-1/3	3M SoundPro DL-1-1/3	Quest Technologies	BLL070002	4/17/2017	4/17/2018

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Kevin Cole

Advanced Labs, Inc. hereby certifies that this instrument is calibrated and functions to meet the manufacture's specifications using NIST traceable standards, or is derived from accepted values of physical constants.

INSTRUMENT CALIBRATION REPORT

Advanced Labs, Inc.

Pine Environmental Services, Inc

Instrument ID R220141
Description CEL-63X Sound Level Meter
Calibrated 12/29/2016

Manufacturer Casella
Model Number CEL-63X
Serial Number 2145345
Location New Jersey
Temp 70

Classification
Status pass
Frequency Yearly EOM
Department Lab
Humidity 25

Calibration Specifications

Group # 1
Group Name Acoustic Tests Performed
Test Performed: Yes **As Found Result: Fail** **As Left Result: Pass**

Test Instruments Used During the Calibration

Test Instrument ID	Description	Manufacturer	Serial Number	(As Of Cal Entry Date) Last Cal Date	Next Cal Date
B&K 4226	Brüel & Kjær 4226	Brüel & Kjær	2590968	3/15/2016	3/15/2017
B&K 4228	Brüel & Kjær 4228	Brüel & Kjær	2667476	3/15/2016	3/15/2017
FLUKE 114	Fluke 114 NIST Traceable Multimeter	Fluke	15310288	5/6/2016	5/6/2017

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Kevin Cole

Advanced Labs, Inc. hereby certifies that this instrument is calibrated and functions to meet the manufacture's specifications using NIST traceable standards, or is derived from accepted values of physical constants.

M-J Hamlin Road

Date: 04/23/2019

Photographer: Terri Sciarro

M-J Hamlin Road

Date: 04/23/2019

Photographer: Terri Sciarro

Field Notes

Date:	4/23/2019
Start Time:	6:35
Location:	M-J Hamlin Road
Weather:	clear 71º
Road Conditions:	free flowing
Observer:	Terri Sciarro Air Hub, LLC
Noise Conditions:	quiet
Coordinates:	612010.00 m E 3639947.00 m N
Time Range:	15 minutes
Equipment ID:	LxT - 011
Calibration:	pass

Comments: residential area, EMS could be heard in distance during reading

Measurement Report

Report Summary

Meter's File Name	CHAUNCYs.011	Computer's File Name	SLM_0004864_CHAUNCYs_011.00.ldbin
Meter	LxT SE 0004864		
Firmware	2.302		
User	Terri Sciarro	Location	
Description	HDR		
Note	04/23/2019		
Start Time	2019-04-23 18:35:10	Duration	0:17:18.4
End Time	2019-04-23 18:52:29	Run Time	0:17:18.4
		Pause Time	0:00:00.0

Results

Overall Metrics

LA_{eq}	64.4 dB		
LAE	94.6 dB	SEA	--- dB
EA	319.3 µPa²h		
LA_{peak}	94.4 dB	2019-04-23 18:48:26	
LAF_{max}	80.1 dB	2019-04-23 18:48:26	
LAF_{min}	46.3 dB	2019-04-23 18:42:16	
LA_{eq}	64.4 dB		
LC_{eq}	69.1 dB	LC_{eq} - LA_{eq}	4.7 dB
LAI_{eq}	66.3 dB	LAI_{eq} - LA_{eq}	1.9 dB

Exceedances	Count	Duration
LAF > 85.0 dB	0	0:00:00.0
LAF > 115.0 dB	0	0:00:00.0
LApeak > 135.0 dB	0	0:00:00.0
LApeak > 137.0 dB	0	0:00:00.0
LApeak > 140.0 dB	0	0:00:00.0

Community Noise	LDN	LDay	LNight
	64.4 dB	64.4 dB	0.0 dB

	LDEN	LDay	LEve	LNight
	64.4 dB	64.4 dB	--- dB	--- dB

Any Data	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	64.4 dB		69.1 dB		--- dB	
$LF_{(max)}$	80.1 dB	2019-04-23 18:48:26	--- dB		--- dB	
$LF_{(min)}$	46.3 dB	2019-04-23 18:42:16	--- dB		--- dB	
$L_{Peak(max)}$	94.4 dB	2019-04-23 18:48:26	--- dB		--- dB	

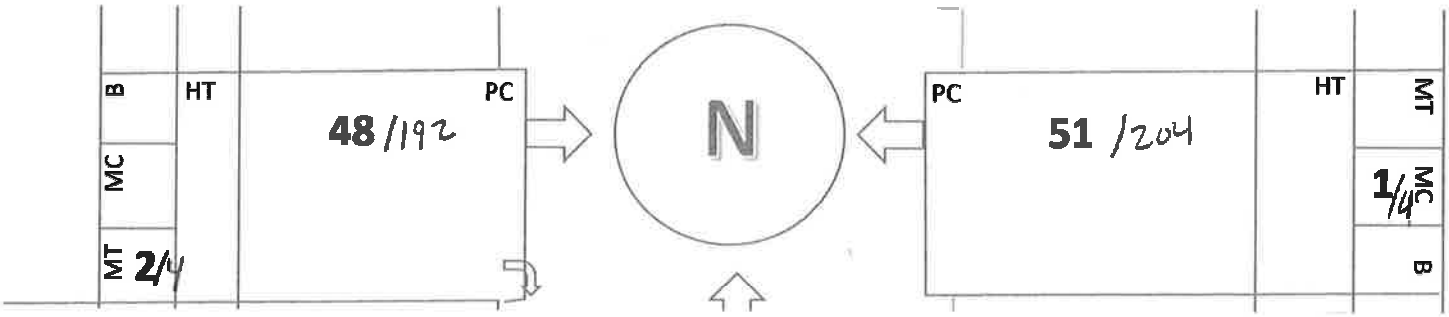
Overloads	Count	Duration	OBA Count	OBA Duration
	0	0:00:00.0	0	0:00:00.0

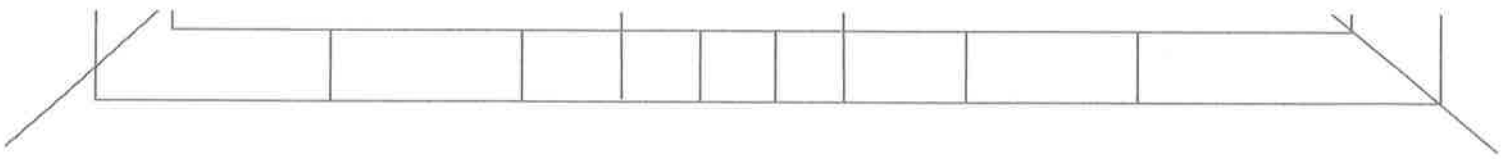
Statistics

LAF 5.0	71.3 dB
LAF 10.0	69.1 dB
LAF 33.3	60.3 dB
LAF 50.0	55.5 dB
LAF 66.6	53.1 dB
LAF 90.0	49.8 dB

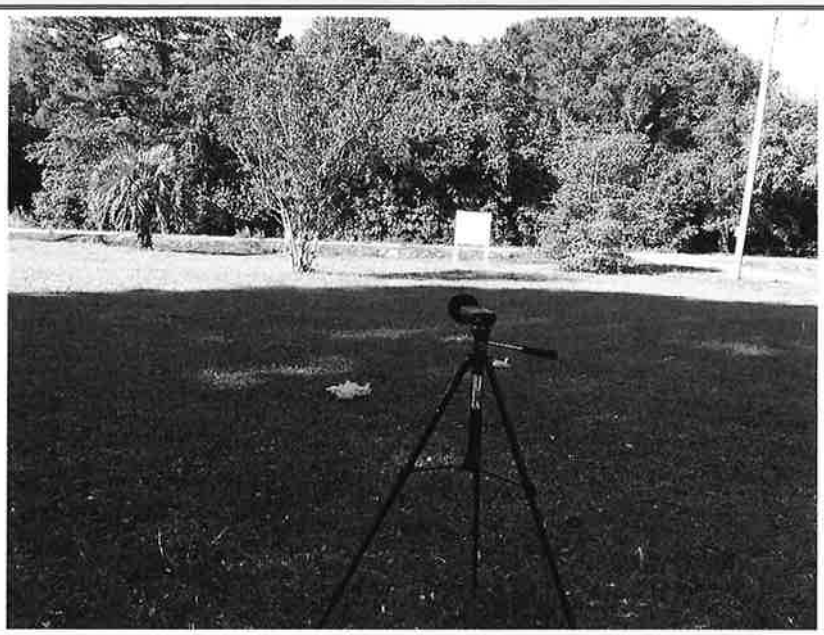
Intersection Tally Sheet

Date: 4/23/2019	Start Time: 6:35	Finish Time: 6:50
Location: M-J Hamlin	Weather: clear	Road: light traffic
Observer: T. Sciarro		
Noise Conditions: Residential area near US-17		





M-K Porchers Bluff at Church



Date: 04/23/2019

Photographer: Terri Sciarro

M-K Porchers Bluff at Church

Date: 04/23/2019

Photographer: Terri Sciarro

Field Notes

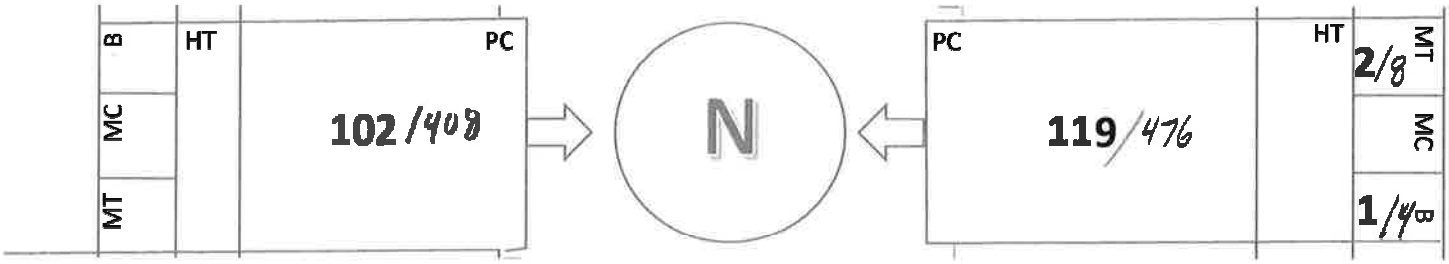
Date:	4/23/2019
Start Time:	5:25
Location:	M-K Porchers Bluff at Church
Weather:	clear 71º
Road Conditions:	free flowing
Observer:	Terri Sciarro Air Hub, LLC
Noise Conditions:	quiet
Coordinates:	613652 m E 3636299 m N
Time Range:	15 minutes
Equipment ID:	LxT - 008
Calibration:	pass

Comments: medium free flowing traffic

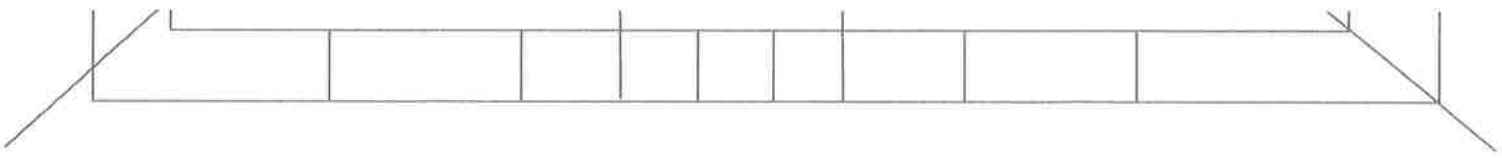
Intersection Tally Sheet

Date: 4/23/2019	Start Time: 5:27	Finish Time: 5:42
Location: M-K Porchers	Weather: clear	Road: light traffic
Observer: T. Sciarro		
Noise Conditions: Near condemned properties in residential and commercial development		

Oakland Plantation



Closed church



Measurement Report

Report Summary

Meter's File Name	CHAUNCYs.008	Computer's File Name	SLM_0004864_CHAUNCYs_008.00.ldbin
Meter	LxT SE 0004864		
Firmware	2.302		
User	Terri Sciarro	Location	
Description	HDR		
Note	04/23/2019		
Start Time	2019-04-23 17:25:02	Duration	0:15:26.7
End Time	2019-04-23 17:40:29	Run Time	0:15:26.7
		Pause Time	0:00:00.0

Results

Overall Metrics

LA_{eq}	54.5 dB		
LAE	84.1 dB	SEA	--- dB
EA	28.8 µPa²h		
LA_{peak}	80.5 dB	2019-04-23 17:33:38	
LAF_{max}	66.2 dB	2019-04-23 17:33:38	
LAF_{min}	41.4 dB	2019-04-23 17:30:11	
LA_{eq}	54.5 dB		
LC_{eq}	65.4 dB	$LC_{eq} - LA_{eq}$	10.9 dB
LAI_{eq}	55.1 dB	$LAI_{eq} - LA_{eq}$	0.7 dB

Exceedances

	Count	Duration
LAF > 85.0 dB	0	0:00:00.0
LAF > 115.0 dB	0	0:00:00.0
LApeak > 135.0 dB	0	0:00:00.0
LApeak > 137.0 dB	0	0:00:00.0
LApeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
54.5 dB	54.5 dB	0.0 dB

LDEN	LDay	LEve	LNight
54.5 dB	54.5 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	54.5 dB		65.4 dB		--- dB	
$L_{F(max)}$	66.2 dB	2019-04-23 17:33:38	--- dB		--- dB	
$L_{F(min)}$	41.4 dB	2019-04-23 17:30:11	--- dB		--- dB	
$L_{Peak(max)}$	80.5 dB	2019-04-23 17:33:38	--- dB		--- dB	

Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAF 5.0	58.2 dB
LAF 10.0	57.2 dB
LAF 33.3	55.0 dB
LAF 50.0	53.6 dB
LAF 66.6	52.0 dB
LAF 90.0	48.0 dB

M-L Winnowing Way

Date: 04/23/2019

Photographer: Terri Sciarro

M-L Winnowing Way

Date: 04/23/2019

Photographer: Terri Sciarro

Field Notes

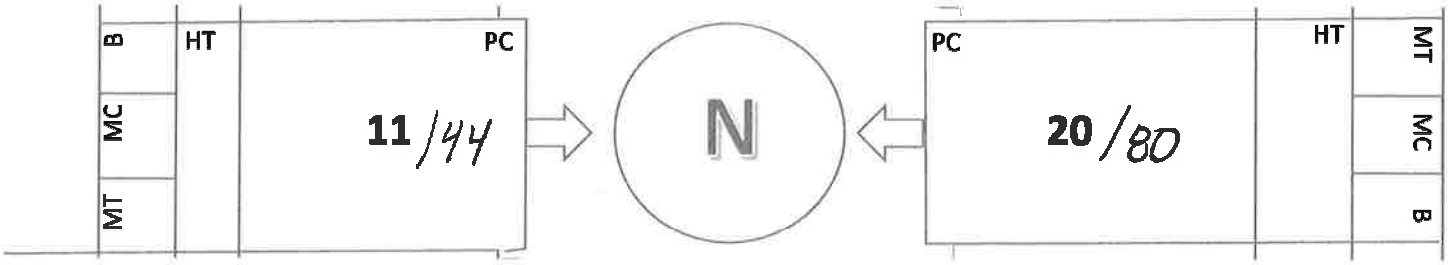
Date:	4/23/2019
Start Time:	5:02
Location:	M-L Winnowing Way
Weather:	clear 71º
Road Conditions:	free flowing
Observer:	Terri Sciarro Air Hub, LLC
Noise Conditions:	quiet
Coordinates:	612664 m E 3636748 m N
Time Range:	15 minutes
Equipment ID:	LxT - 007
Calibration:	pass

Comments: residential area, US-17 audible

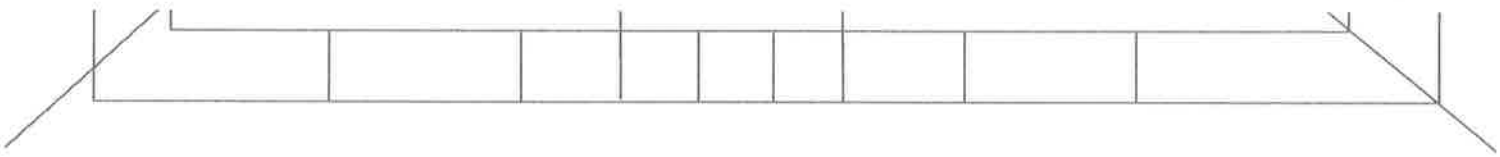
Intersection Tally Sheet

Date: 4/23/2019	Start Time: 5:02	Finish Time: 5:17
Location: M-L Winnowing Way Weather: clear		Road: light traffic
Observer: T. Sciarro		
Noise Conditions: Near undeveloped properties and residential development		

The Sage at 1240 Apartments



undeveloped



Measurement Report

Report Summary

Meter's File Name	CHAUNCYs.007	Computer's File Name	SLM_0004864_CHAUNCYs_007.00.ldbin
Meter	LxT SE 0004864		
Firmware	2.302		
User	Terri Sciarro	Location	
Description	HDR		
Note	04/23/2019		
Start Time	2019-04-23 17:02:40	Duration	0:16:00.3
End Time	2019-04-23 17:18:41	Run Time	0:16:00.3
Pause Time	0:00:00.0		

Results

Overall Metrics

LA_{eq}	54.6 dB		
LAE	84.4 dB	SEA	--- dB
EA	30.4 µPa²h		
LA_{peak}	91.9 dB	2019-04-23 17:18:31	
LAF_{max}	72.7 dB	2019-04-23 17:13:12	
LAF_{min}	47.1 dB	2019-04-23 17:04:43	
LA_{eq}	54.6 dB		
LC_{eq}	66.6 dB	$LC_{eq} - LA_{eq}$	12.0 dB
LAI_{eq}	57.1 dB	$LAI_{eq} - LA_{eq}$	2.5 dB

Exceedances

	Count	Duration
LAF > 85.0 dB	0	0:00:00.0
LAF > 115.0 dB	0	0:00:00.0
LApeak > 135.0 dB	0	0:00:00.0
LApeak > 137.0 dB	0	0:00:00.0
LApeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
54.6 dB	54.6 dB	0.0 dB

LDEN	LDay	LEve	LNight
54.6 dB	54.6 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	54.6 dB		66.6 dB		--- dB	
$LF_{(max)}$	72.7 dB	2019-04-23 17:13:12	--- dB		--- dB	
$LF_{(min)}$	47.1 dB	2019-04-23 17:04:43	--- dB		--- dB	
$L_{Peak(max)}$	91.9 dB	2019-04-23 17:18:31	--- dB		--- dB	

Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAF 5.0	59.7 dB
LAF 10.0	56.7 dB
LAF 33.3	52.0 dB
LAF 50.0	51.1 dB
LAF 66.6	50.3 dB
LAF 90.0	49.1 dB

M-M Homes Southern End of Bessemer

Photographer: Terri Sciarro

Date: 04/23/2019

M-M Homes Southern End of Bessemer

Photographer: Terri Sciarro

Date: 04/23/2019

Field Notes

Date:	4/23/2019
Start Time:	1:56
Location:	M-M New Homes Southern End of Bessemer
Weather:	clear 71º
Road Conditions:	free flowing
Observer:	Terri Sciarro Air Hub, LLC
Noise Conditions:	quiet
Coordinates:	612099.00 m E 3638534.00 m N
Time Range:	15 minutes
Equipment ID:	LxT - 005
Calibration:	pass

Comments: wooded, near significant construction

Measurement Report

Report Summary

Meter's File Name	CHAUNCYs.005	Computer's File Name	SLM_0004864_CHAUNCYs_005.00.ldbin
Meter	LxT SE 0004864		
Firmware	2.302		
User	Terri Sciarro	Location	
Description	HDR		
Note	04/23/2019		
Start Time	2019-04-23 13:56:46	Duration	0:23:01.4
End Time	2019-04-23 14:19:48	Run Time	0:23:01.4
		Pause Time	0:00:00.0

Results

Overall Metrics

LA_{eq}	49.1 dB		
LAE	80.5 dB	SEA	--- dB
EA	12.5 µPa²h		
LA_{peak}	90.9 dB	2019-04-23 13:57:43	
LAF_{max}	70.5 dB	2019-04-23 14:19:39	
LAF_{min}	42.2 dB	2019-04-23 14:18:56	
LA_{eq}	49.1 dB		
LC_{eq}	58.1 dB	LC_{eq} - LA_{eq}	9.0 dB
LAI_{eq}	54.1 dB	LAI_{eq} - LA_{eq}	5.0 dB

Exceedances

	Count	Duration
LAF > 85.0 dB	0	0:00:00.0
LAF > 115.0 dB	0	0:00:00.0
LApeak > 135.0 dB	0	0:00:00.0
LApeak > 137.0 dB	0	0:00:00.0
LApeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
49.1 dB	49.1 dB	0.0 dB

LDEN	LDay	LEve	LNight
49.1 dB	49.1 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	49.1 dB		58.1 dB		--- dB	
$LF_{(max)}$	70.5 dB	2019-04-23 14:19:39	--- dB		--- dB	
$LF_{(min)}$	42.2 dB	2019-04-23 14:18:56	--- dB		--- dB	
$L_{Peak(max)}$	90.9 dB	2019-04-23 13:57:43	--- dB		--- dB	

Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAF 5.0	52.4 dB
LAF 10.0	49.8 dB
LAF 33.3	46.4 dB
LAF 50.0	45.7 dB
LAF 66.6	45.1 dB
LAF 90.0	44.3 dB

M-N Park West Baseline

Date: 04/23/2019

Photographer: Terri Sciarro

M-N Park West Baseline

Date: 04/23/2019

Photographer: Terri Sciarro

Field Notes

Date:	4/23/2019
Start Time:	12:20
Location:	M-N Park West Baseline
Weather:	clear 71º
Road Conditions:	free flowing
Observer:	Terri Sciarro Air Hub, LLC
Noise Conditions:	quiet
Coordinates:	612188.5 m E 3639630.15 m N
Time Range:	30 minutes
Equipment ID:	LxT - 003
Calibration:	pass

Comments: wooded

Measurement Report

Report Summary

Meter's File Name	CHAUNCYs.003	Computer's File Name	SLM_0004864_CHAUNCYs_003.00.ldbin
Meter	LxT SE 0004864		
Firmware	2.302		
User	Terri Sciarro	Location	
Description	HDR		
Note	04/23/2019		
Start Time	2019-04-23 12:20:21	Duration	0:38:16.6
End Time	2019-04-23 12:58:38	Run Time	0:38:16.6
		Pause Time	0:00:00.0

Results

Overall Metrics

LA_{eq}	45.1 dB		
LAE	78.7 dB	SEA	--- dB
EA	8.3 µPa²h		
LA_{peak}	89.8 dB	2019-04-23 12:20:36	
LAF_{max}	65.0 dB	2019-04-23 12:53:12	
LAF_{min}	36.2 dB	2019-04-23 12:33:08	
LA_{eq}	45.1 dB		
LC_{eq}	59.9 dB	LC_{eq} - LA_{eq}	14.8 dB
LAI_{eq}	49.4 dB	LAI_{eq} - LA_{eq}	4.3 dB

Exceedances	Count	Duration
LAF > 85.0 dB	0	0:00:00.0
LAF > 115.0 dB	0	0:00:00.0
LApeak > 135.0 dB	0	0:00:00.0
LApeak > 137.0 dB	0	0:00:00.0
LApeak > 140.0 dB	0	0:00:00.0

Community Noise	LDN	LDay	LNight
	45.1 dB	45.1 dB	0.0 dB

	LDEN	LDay	LEve	LNight
	45.1 dB	45.1 dB	--- dB	--- dB

Any Data	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	45.1 dB		59.9 dB		--- dB	
$LF_{(max)}$	65.0 dB	2019-04-23 12:53:12	--- dB		--- dB	
$LF_{(min)}$	36.2 dB	2019-04-23 12:33:08	--- dB		--- dB	
$L_{Peak(max)}$	89.8 dB	2019-04-23 12:20:36	--- dB		--- dB	

Overloads	Count	Duration	OBA Count	OBA Duration
	0	0:00:00.0	0	0:00:00.0

Statistics

LAF 5.0	48.8 dB
LAF 10.0	45.7 dB
LAF 33.3	43.6 dB
LAF 50.0	42.5 dB
LAF 66.6	41.3 dB
LAF 90.0	39.7 dB

M-O Townhomes

Date: 04/23/2019

Photographer: Terri Sciarro

M-O Townhomes

Date: 04/23/2019

Photographer: Terri Sciarro

Field Notes

Date:	4/23/2019
Start Time:	11:00
Location:	M-O Townhomes
Weather:	clear 71º
Road Conditions:	free flowing
Observer:	Terri Sciarro Air Hub, LLC
Noise Conditions:	quiet
Coordinates:	612010.00 m E 3639947.00 m N
Time Range:	30 minutes
Equipment ID:	LxT - 002
Calibration:	pass

Comments: wooded, several dogs, Parkwest Blvd shielded by townhomes, neighbor asking a lot of questions

Measurement Report

Report Summary

Meter's File Name	CHAUNCYs.002	Computer's File Name	SLM_0004864_CHAUNCYs_002.00.ldbin
Meter	LxT SE 0004864		
Firmware	2.302		
User	Terri Sciarro	Location	
Description	HDR		
Note	04/23/2019		
Start Time	2019-04-23 11:00:55	Duration	0:31:31.2
End Time	2019-04-23 11:32:27	Run Time	0:31:26.8
		Pause Time	0:00:04.4

Results

Overall Metrics

LA_{eq}	44.8 dB		
LAE	77.5 dB	SEA	--- dB
EA	6.3 µPa²h		
LA_{peak}	88.4 dB	2019-04-23 11:32:15	
LAF_{max}	75.6 dB	2019-04-23 11:32:22	
LAF_{min}	34.9 dB	2019-04-23 11:23:35	
LA_{eq}	44.8 dB		
LC_{eq}	57.2 dB	LC_{eq} - LA_{eq}	12.4 dB
LAI_{eq}	49.7 dB	LAI_{eq} - LA_{eq}	4.9 dB

Exceedances

	Count	Duration
LAF > 85.0 dB	0	0:00:00.0
LAF > 115.0 dB	0	0:00:00.0
LApeak > 135.0 dB	0	0:00:00.0
LApeak > 137.0 dB	0	0:00:00.0
LApeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
44.8 dB	44.8 dB	0.0 dB

LDEN	LDay	LEve	LNight
44.8 dB	44.8 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	44.8 dB		57.2 dB		--- dB	
$LF_{(max)}$	75.6 dB	2019-04-23 11:32:22	--- dB		--- dB	
$LF_{(min)}$	34.9 dB	2019-04-23 11:23:35	--- dB		--- dB	
$L_{Peak(max)}$	88.4 dB	2019-04-23 11:32:15	--- dB		--- dB	

Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAF 5.0	47.5 dB
LAF 10.0	45.2 dB
LAF 33.3	41.5 dB
LAF 50.0	40.4 dB
LAF 66.6	39.4 dB
LAF 90.0	37.8 dB

M-P County Park

Date: 04/23/2019

Photographer: Terri Sciarro

M-P County Park

Date: 04/23/2019

Photographer: Terri Sciarro

Field Notes

Date:	4/23/2019
Start Time:	2:55
Location:	M-P County Park
Weather:	clear 71º
Road Conditions:	free flowing
Observer:	Terri Sciarro Air Hub, LLC
Noise Conditions:	quiet
Coordinates:	611903.5 m E 3637974.2 m N
Time Range:	30 minutes
Equipment ID:	LxT - 006
Calibration:	pass

Comments: wooded, SC-41 was audible but not visible

Measurement Report

Report Summary

Meter's File Name	CHAUNCYs.006	Computer's File Name	SLM_0004864_CHAUNCYs_006.00.ldbin
Meter	LxT SE 0004864		
Firmware	2.302		
User	Terri Sciarro	Location	
Description	HDR		
Note	04/23/2019		
Start Time	2019-04-23 14:55:12	Duration	0:33:11.1
End Time	2019-04-23 15:28:23	Run Time	0:33:11.1
Pause Time	0:00:00.0		

Results

Overall Metrics

LA_{eq}	51.1 dB		
LAE	84.1 dB	SEA	--- dB
EA	28.4 µPa²h		
LA_{peak}	86.9 dB	2019-04-23 15:28:20	
LAF_{max}	72.6 dB	2019-04-23 14:57:10	
LAF_{min}	41.8 dB	2019-04-23 15:02:55	
LA_{eq}	51.1 dB		
LC_{eq}	65.0 dB	LC_{eq} - LA_{eq}	13.9 dB
LAI_{eq}	52.8 dB	LAI_{eq} - LA_{eq}	1.7 dB

Exceedances

	Count	Duration
LAF > 85.0 dB	0	0:00:00.0
LAF > 115.0 dB	0	0:00:00.0
LApeak > 135.0 dB	0	0:00:00.0
LApeak > 137.0 dB	0	0:00:00.0
LApeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
51.1 dB	51.1 dB	0.0 dB

LDEN	LDay	LEve	LNight
51.1 dB	51.1 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	51.1 dB		65.0 dB		--- dB	
$LF_{(max)}$	72.6 dB	2019-04-23 14:57:10	--- dB		--- dB	
$LF_{(min)}$	41.8 dB	2019-04-23 15:02:55	--- dB		--- dB	
$L_{Peak(max)}$	86.9 dB	2019-04-23 15:28:20	--- dB		--- dB	

Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAF 5.0	53.9 dB
LAF 10.0	51.9 dB
LAF 33.3	49.9 dB
LAF 50.0	49.1 dB
LAF 66.6	48.4 dB
LAF 90.0	47.0 dB

M-Q Homes at Kirby Lane

Date: 04/23/2019

Photographer: Terri Sciarro

M-Q Homes at Kirby Lane

Date: 04/23/2019

Photographer: Terri Sciarro

Field Notes

Date:	4/23/2019
Start Time:	1:10
Location:	M-Q Homes at Kirby Lane
Weather:	clear 71º
Road Conditions:	free flowing
Observer:	Terri Sciarro Air Hub, LLC
Noise Conditions:	quiet
Coordinates:	612218.00 m E 3639116.00 m N
Time Range:	30 minutes
Equipment ID:	LxT - 004
Calibration:	pass

Comments: wooded, Parkwest Blvd shielded by homes

Measurement Report

Report Summary

Meter's File Name	CHAUNCYs.004	Computer's File Name	SLM_0004864_CHAUNCYs_004.00.ldbin
Meter	LxT SE 0004864		
Firmware	2.302		
User	Terri Sciarro	Location	
Description	HDR		
Note	04/23/2019		
Start Time	2019-04-23 13:10:03	Duration	0:34:19.6
End Time	2019-04-23 13:44:22	Run Time	0:34:19.6
		Pause Time	0:00:00.0

Results

Overall Metrics

LA_{eq}	44.6 dB		
LAE	77.7 dB	SEA	--- dB
EA	6.5 µPa²h		
LA_{peak}	91.5 dB	2019-04-23 13:44:20	
LAF_{max}	69.1 dB	2019-04-23 13:44:19	
LAF_{min}	36.8 dB	2019-04-23 13:24:26	
LA_{eq}	44.6 dB		
LC_{eq}	57.9 dB	LC_{eq} - LA_{eq}	13.4 dB
LAI_{eq}	48.2 dB	LAI_{eq} - LA_{eq}	3.6 dB

Exceedances

	Count	Duration
LAF > 85.0 dB	0	0:00:00.0
LAF > 115.0 dB	0	0:00:00.0
LApeak > 135.0 dB	0	0:00:00.0
LApeak > 137.0 dB	0	0:00:00.0
LApeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight
44.6 dB	44.6 dB	0.0 dB

LDEN	LDay	LEve	LNight
44.6 dB	44.6 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L_{eq}	44.6 dB		57.9 dB		--- dB	
$LF_{(max)}$	69.1 dB	2019-04-23 13:44:19	--- dB		--- dB	
$LF_{(min)}$	36.8 dB	2019-04-23 13:24:26	--- dB		--- dB	
$L_{Peak(max)}$	91.5 dB	2019-04-23 13:44:20	--- dB		--- dB	

Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAF 5.0	47.5 dB
LAF 10.0	46.1 dB
LAF 33.3	43.6 dB
LAF 50.0	42.6 dB
LAF 66.6	41.5 dB
LAF 90.0	39.5 dB

R

TRAFFIC NOISE FIELD MEASUREMENT WORKSHEET

Leq 53.3

Project Name: **SC 41** Sunny mid-to-high 70's	Site #: 1 2576 Larch Ln	Date: 5/2/2018
Traffic Counts	**Direction of Travel:**	Westbound ~~Northbound~~
Autos:	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 ||	52/208
Medium Trucks:	||	2/8
Heavy Trucks:		
Buses:		
Motorcycles:		

HDR

Field Personnel: Wayne Hall, Miles Spenrath

Start 9:19
Finish: 9:34

R

TRAFFIC NOISE FIELD MEASUREMENT WORKSHEET

Project Name: SC 41	Site #: 1	Date:
Traffic Counts	Direction of Travel:	~~Eastbound~~ Southbound
Autos:	86/344	
Medium Trucks:	1/4	
Heavy Trucks:		
Buses:		
Motorcycles:		

birds, hawk, squirrels, geese, ducks, noise associated with SC 41 and adjacent development

HDR

Field Personnel: Wayne Hall, Miles Spenrath

start: 9:42
finish: 9:57

5

TRAFFIC NOISE FIELD MEASUREMENT WORKSHEET

Leq 57.0

Project Name: **SC 41**	Site #: 2 3101 Kilby Ln	Date: 5/2/2018
Traffic Counts	Direction of Travel:	~~Eastbound~~ Northbound
Autos:	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 || 37/148	
Medium Trucks:		
Heavy Trucks:	| 1/4	
Buses:		
Motorcycles:	| 1/4	

HDR

Field Personnel: Wayne Hall, Miles Spenrath

TRAFFIC NOISE FIELD MEASUREMENT WORKSHEET

Project Name: **SC 41**	Site #: 2	Date:
Traffic Counts	Direction of Travel:	~~Westbound~~ Southbound
Autos:	80/320	
Medium Trucks:	1 1/4	
Heavy Trucks:		
Buses:		
Motorcycles:		

roofing noises, nail guns, hammers, lots of home construction, yelling crows, circular saws,

HDR **Field Personnel: Wayne Hall, Miles Spenrath**

T

TRAFFIC NOISE FIELD MEASUREMENT WORKSHEET

Leq 60.4

Project Name: **SC 41**	Site #: 3 1646 Bridwell Ln	Date: 5/2/2018
Traffic Counts	Direction of Travel:	~~Eastbound~~ Northbound
Autos:	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 |||| 44/176	
Medium Trucks:	1 1/4	
Heavy Trucks:	1 1/4	
Buses:		
Motorcycles:		

HDR

Field Personnel: Wayne Hall, Miles Spenrath

1646 Bridwell Ln

Start: 16:05
Finish 16:20

T

TRAFFIC NOISE FIELD MEASUREMENT WORKSHEET

Project Name: SC 41	Site #: 3	Date:
Traffic Counts	**Direction of Travel:**	~~Westbound~~ ~~Southbound~~
Autos:	74/296	
Medium Trucks:	2/8	
Heavy Trucks:	1/4	
Buses:		
Motorcycles:	1/4	

water fountain ≥ 100', crows, gator

HDR

Field Personnel: Wayne Hall, Miles Spenrath

U

TRAFFIC NOISE FIELD MEASUREMENT WORKSHEET

Leq 54.3

Project Name: SC 41	Site #: 4 2451 Draymoh Ct	Date: 5/2/2018
Traffic Counts	Direction of Travel:	~~Eastbound~~ Northbound
Autos:	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 IIII 64/256	
Medium Trucks:	I 1/4	
Heavy Trucks:		
Buses:		
Motorcycles:		

HDR

Field Personnel: Wayne Hall, Miles Spenrath

Start: 10:27
Finish: 10:42

U

TRAFFIC NOISE FIELD MEASUREMENT WORKSHEET

Project Name: SC 41	Site #: 4	Date:
Traffic Counts	Direction of Travel:	~~Westbound~~ Southbound

Autos:	卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 卌 IIII 64/256
Medium Trucks:	
Heavy Trucks:	II 2/8
Buses:	
Motorcycles:	

birds, crows, hitch trailers, hawk, air conditioner (10:39)

HDR

Field Personnel: Wayne Hall, Miles Spenrath

TRAFFIC NOISE FIELD MEASUREMENT WORKSHEET

Leq 51.0

Project Name: SC 41	Site #: 5 3029 Park W Blvd	Date: 5/2/2018
Traffic Counts	Direction of Travel:	~~Eastbound~~ ~~Northbound~~
Autos:	𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 𝍸 | 61/244	
Medium Trucks:	| 1/4	
Heavy Trucks:		
Buses:		
Motorcycles:		

HDR

Field Personnel: Wayne Hall, Miles Spenrath

Start: 10:48:52
Finish: 11:07

V

TRAFFIC NOISE FIELD MEASUREMENT WORKSHEET

Project Name: SC 41	**Site #: 5**	Date: May 4, 2018
Traffic Counts	**Direction of Travel:**	~~Westbound~~ Southbound
Autos:	77/308	
Medium Trucks:	1 1/4	
Heavy Trucks:		
Buses:		
Motorcycles:		

dogs barking, birds, people talking,

HDR **Field Personnel: Wayne Hall, Miles Spenrath**

W

TRAFFIC NOISE FIELD MEASUREMENT WORKSHEET

Leq 54.1

Project Name: **SC 41**	Site #: 6 3015 Dunes W Blvd, #103	Date: 5/2/2018
Traffic Counts	**Direction of Travel:** ~~Eastbound~~ ~~Northbound~~	
Autos:	57/228	
Medium Trucks:	1/4	
Heavy Trucks:	1/4	
Buses:		
Motorcycles:		

HDR

Field Personnel: Wayne Hall, Miles Spenrath

1 2576 Larch Ln
2 3101 Kilby Ln

Start: 11:18
Finish: 11:28

W

TRAFFIC NOISE FIELD MEASUREMENT WORKSHEET

Project Name: **SC 41**	Site #: 6	Date:
Traffic Counts	Direction of Travel:	~~Westbound~~ Southbound
Autos:	47/188	
Medium Trucks:		
Heavy Trucks:		
Buses:		
Motorcycles:		

"The Commons"

HDR

Field Personnel: Wayne Hall, Miles Spenrath

Appendix E – SCDOT Feasibility and Reasonableness Worksheets

SCDOT Feasibility and Reasonableness Worksheet

Date: June 16, 2022

Project Name SC 41

Highway Traffic Noise Abatement Measure Barrier 1

Feasibility

Number of Impacted Receivers: 3

Number of Benefited Receivers:

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure:

Is the proposed noise abatement measure acoustically feasible?
NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible. ☐ Yes ☐ No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

Topography	☐ Yes	☒ No
Safety	☒ Yes	☐ No
Drainage	☐ Yes	☒ No
Utilities	☐ Yes	☒ No
Maintenance	☐ Yes	☒ No
Access	☒ Yes	☐ No
Exposed Height of Wall	☐ Yes	☒ No

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

The barrier would either obstruct driveway access, or breaks in the barrier to preserve driveway access would obstruct sightlines and cause safety issues, therefore the barrier would not be feasible.

Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

#1: Noise Reduction Design Goal

Number of Benefited Receivers

Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal? ☐ Yes ☐ No

If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.

#2: Cost Effectiveness

Estimated cost per square foot for noise abatement measure

Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of $30,000 per Benefited Receiver, would the abatement measure be reasonable? NOTE: SCDOT Policy states that the preliminary noise analysis is based on $35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation. ☐ Yes ☐ No

If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.

#3: Viewpoints of the property owners and residents of the benefitted receivers

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure

Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure

Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement. ☐ Yes ☐ No

Final Determination for Noise Abatement Measure

Not feasible

SCDOT Feasibility and Reasonableness Worksheet

Date: June 16, 2022

Project Name SC 41

Highway Traffic Noise Abatement Measure Barrier 2

Feasibility

Number of Impacted Receivers: 4

Number of Benefited Receivers:

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure:

Is the proposed noise abatement measure acoustically feasible?
NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible. ☐ Yes ☐ No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

Topography	☐ Yes	☒ No
Safety	☒ Yes	☐ No
Drainage	☐ Yes	☒ No
Utilities	☐ Yes	☒ No
Maintenance	☐ Yes	☒ No
Access	☒ Yes	☐ No
Exposed Height of Wall	☐ Yes	☒ No

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

The barrier would either obstruct driveway access, or breaks in the barrier to preserve driveway access would obstruct sightlines and cause safety issues, therefore the barrier would not be feasible.

Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

#1: Noise Reduction Design Goal

Number of Benefited Receivers

Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal? ☐ Yes ☐ No

If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.

#2: Cost Effectiveness

Estimated cost per square foot for noise abatement measure

Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of $30,000 per Benefited Receiver, would the abatement measure be reasonable? NOTE: SCDOT Policy states that the preliminary noise analysis is based on $35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation. ☐ Yes ☐ No

If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.

#3: Viewpoints of the property owners and residents of the benefitted receivers

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure

Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure

Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement. ☐ Yes ☐ No

Final Determination for Noise Abatement Measure

Not feasible

SCDOT Feasibility and Reasonableness Worksheet

Date: June 16, 2022

Project Name SC 41

Highway Traffic Noise Abatement Measure Barrier 3

Feasibility

Number of Impacted Receivers: 3

Number of Benefited Receivers:

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure:

Is the proposed noise abatement measure acoustically feasible?
NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible. ☐ Yes ☐ No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

Topography	☐ Yes	☒ No
Safety	☒ Yes	☐ No
Drainage	☐ Yes	☒ No
Utilities	☐ Yes	☒ No
Maintenance	☐ Yes	☒ No
Access	☒ Yes	☐ No
Exposed Height of Wall	☐ Yes	☒ No

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

The barrier would either obstruct driveway access, or breaks in the barrier to preserve driveway access would obstruct sightlines and cause safety issues, therefore the barrier would not be feasible.

Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

#1: Noise Reduction Design Goal

Number of Benefited Receivers

Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal? ☐ Yes ☐ No

If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.

#2: Cost Effectiveness

Estimated cost per square foot for noise abatement measure

Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of $30,000 per Benefited Receiver, would the abatement measure be reasonable? NOTE: SCDOT Policy states that the preliminary noise analysis is based on $35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation. ☐ Yes ☐ No

If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.

#3: Viewpoints of the property owners and residents of the benefitted receivers

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure

Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure

Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement. ☐ Yes ☐ No

Final Determination for Noise Abatement Measure

Not feasible

SCDOT Feasibility and Reasonableness Worksheet

Date: June 16, 2022

Project Name SC 41

Highway Traffic Noise Abatement Measure Barrier 4

Feasibility

Number of Impacted Receivers: 2+

Number of Benefited Receivers:

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure:

Is the proposed noise abatement measure acoustically feasible?
NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible.

☐ Yes ☐ No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

Topography	☐ Yes	☒ No
Safety	☒ Yes	☐ No
Drainage	☐ Yes	☒ No
Utilities	☐ Yes	☒ No
Maintenance	☐ Yes	☒ No
Access	☒ Yes	☐ No
Exposed Height of Wall	☐ Yes	☒ No

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

The barrier would either obstruct driveway access, or breaks in the barrier to preserve driveway access would obstruct sightlines and cause safety issues, therefore the barrier would not be feasible.

Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

#1: Noise Reduction Design Goal

Number of Benefited Receivers

Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal? ☐ Yes ☐ No

If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.

#2: Cost Effectiveness

Estimated cost per square foot for noise abatement measure

Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of $30,000 per Benefited Receiver, would the abatement measure be reasonable? NOTE: SCDOT Policy states that the preliminary noise analysis is based on $35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation. ☐ Yes ☐ No

If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.

#3: Viewpoints of the property owners and residents of the benefitted receivers

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure

Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure

Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement. ☐ Yes ☐ No

Final Determination for Noise Abatement Measure

Not feasible

SCDOT Feasibility and Reasonableness Worksheet

Date: June 16, 2022

Project Name SC 41

Highway Traffic Noise Abatement Measure Barrier 5

Feasibility

Number of Impacted Receivers: 5

Number of Benefited Receivers:

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure:

Is the proposed noise abatement measure acoustically feasible?
NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible. ☐ Yes ☐ No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

Topography	☐ Yes	☒ No
Safety	☒ Yes	☐ No
Drainage	☐ Yes	☒ No
Utilities	☐ Yes	☒ No
Maintenance	☐ Yes	☒ No
Access	☒ Yes	☐ No
Exposed Height of Wall	☐ Yes	☒ No

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

The barrier would either obstruct driveway access, or breaks in the barrier to preserve driveway access would obstruct sightlines and cause safety issues, therefore the barrier would not be feasible.

Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

#1: Noise Reduction Design Goal

Number of Benefited Receivers

Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal? ☐ Yes ☐ No

If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.

#2: Cost Effectiveness

Estimated cost per square foot for noise abatement measure

Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of $30,000 per Benefited Receiver, would the abatement measure be reasonable? NOTE: SCDOT Policy states that the preliminary noise analysis is based on $35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation. ☐ Yes ☐ No

If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.

#3: Viewpoints of the property owners and residents of the benefitted receivers

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure

Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure

Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement. ☐ Yes ☐ No

Final Determination for Noise Abatement Measure

Not feasible

SCDOT Feasibility and Reasonableness Worksheet

Date: June 16, 2022

Project Name SC 41

Highway Traffic Noise Abatement Measure Barrier 6

Feasibility

Number of Impacted Receivers: 3

Number of Benefited Receivers:

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure:

Is the proposed noise abatement measure acoustically feasible?
NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible. ☐ Yes ☐ No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

Topography	☐ Yes	☒ No
Safety	☒ Yes	☐ No
Drainage	☐ Yes	☒ No
Utilities	☐ Yes	☒ No
Maintenance	☐ Yes	☒ No
Access	☒ Yes	☐ No
Exposed Height of Wall	☐ Yes	☒ No

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

The barrier would either obstruct driveway access, or breaks in the barrier to preserve driveway access would obstruct sightlines and cause safety issues, therefore the barrier would not be feasible.

Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

#1: Noise Reduction Design Goal

Number of Benefited Receivers

Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal? ☐ Yes ☐ No

If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.

#2: Cost Effectiveness

Estimated cost per square foot for noise abatement measure

Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of $30,000 per Benefited Receiver, would the abatement measure be reasonable? NOTE: SCDOT Policy states that the preliminary noise analysis is based on $35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation. ☐ Yes ☐ No

If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.

#3: Viewpoints of the property owners and residents of the benefitted receivers

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure

Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure

Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement. ☐ Yes ☐ No

Final Determination for Noise Abatement Measure

Not feasible

SCDOT Feasibility and Reasonableness Worksheet

Date: June 16, 2022

Project Name SC 41

Highway Traffic Noise Abatement Measure Barrier 7

Feasibility

Number of Impacted Receivers: 3

Number of Benefited Receivers:

Percentage of Impacted Receivers that would achieve a 5 dBA reduction from the proposed noise abatement measure:

Is the proposed noise abatement measure acoustically feasible?
NOTE:SCDOT Policy indicates that 75% of the impacted receivers must achieve at least a 5 dBA reduction for it to be acoustically feasible. ☐ Yes ☐ No

Would any of the following issues limit the ability of the abatement measure to achieve the noise reduction goal?

Topography	☐ Yes	☒ No
Safety	☒ Yes	☐ No
Drainage	☐ Yes	☒ No
Utilities	☐ Yes	☒ No
Maintenance	☐ Yes	☒ No
Access	☒ Yes	☐ No
Exposed Height of Wall	☐ Yes	☒ No

If "Yes" was marked for any of the questions above, please explain below.

Detailed Description

The barrier would either obstruct driveway access, or breaks in the barrier to preserve driveway access would obstruct sightlines and cause safety issues, therefore the barrier would not be feasible.

Reasonableness

According to 23 CFR 772.13(d)(2)(iv) the abatement measure must collectively achieve each of these criteria to be reasonable. Therefore if any of the three mandatory reasonable factors are not achieved, then the abatement measure is determined NOT to be reasonable. When completing the form it is not necessary to detail each of the criteria if one was determined not to be reasonable.

#1: Noise Reduction Design Goal

Number of Benefited Receivers

Number of Benefited Receivers that achieve at least an 8 dBA reduction

Percentage of Benefited Receivers in the first two building rows that would achieve at least a 8 dBA reduction from the proposed noise abatement measure. NOTE: SCDOT Policy indicates that 80% of the benefited receivers in the first two building rows must achieve at least a 8 dBA reduction for it to be reasonable.

Does the proposed noise abatement measure meet the noise reduction design goal? ☐ Yes ☐ No

If "Yes" is marked, continue to #2. If "No" is marked, then abatement is determined NOT to be reasonable.

#2: Cost Effectiveness

Estimated cost per square foot for noise abatement measure

Estimated construction cost for noise abatement measure

Estimated cost per Benefited Receiver

Based on the SCDOT policy of $30,000 per Benefited Receiver, would the abatement measure be reasonable? NOTE: SCDOT Policy states that the preliminary noise analysis is based on $35.00 per square foot and a more project-specific construction cost should be applied at a cost per square foot basis during the detailed noise abatement evaluation. ☐ Yes ☐ No

If "Yes" is marked, continue to #3. If "No" is marked, then abatement is determined NOT to be reasonable.

#3: Viewpoints of the property owners and residents of the benefitted receivers

Number of Benefited Receivers (same as above)

Number of Benefited Receivers in **support** of noise abatement measure

Percentage of Benefited Receivers in **support** of noise abatement measure

Number of Benefited Receivers **opposed** to noise abatement measure

Percentage of Benefited Receivers **opposed** to noise abatement measure

Number of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Percentage of Benefited Receivers **that did not respond** to solicitation on noise abatement measure

Based on the viewpoints of the property owners and residents of the Benefited Receivers, would the abatement measure be reasonable? NOTE: SCDOT Policy indicates that the noise abatement shall be constructed unless greater than 50% of the benefited receptors are opposed to noise abatement. ☐ Yes ☐ No

Final Determination for Noise Abatement Measure

Not feasible