PROJECT DEVELOPMENT & ENVIRONMENT
NOISE STUDY REPORT

Poinciana Parkway Extension from CR532 to N. of Sinclair Road
Project Development and Environment Study

Osceola County, Florida

Financial Project ID Number: 446581-1

Prepared For:
FLORIDA'S TURNPIKE ENTERPRISE

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Table of Contents

APPENDICES

LIST OF FIGURES

LIST OF TABLES

1. INTRODUCTION

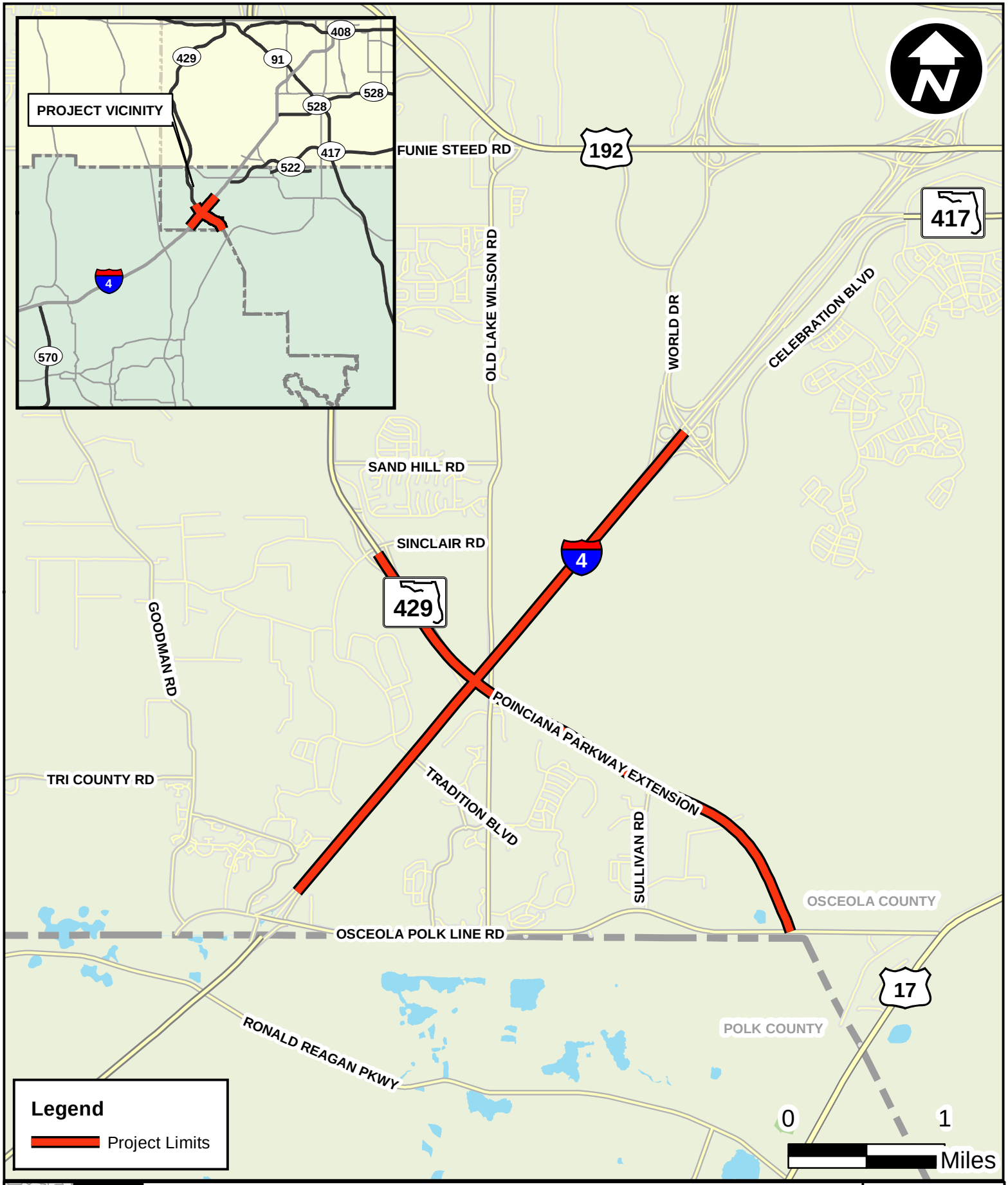
1.1. Project Description

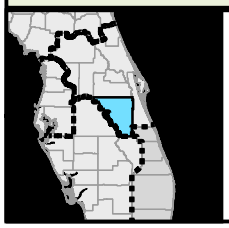
Florida's Turnpike Enterprise (FTE) is conducting a Project Development and Environment (PD&E) study to evaluate extending Poinciana Parkway (SR 538) from County Road 532 (CR 532) to the Interstate 4 (I-4)/State Road 429 (SR 429) interchange, modifying the I-4/SR 429 interchange to accommodate the Poinciana Parkway connection and increasing capacity of the segment of SR 429 from the I-4/SR 429 interchange to the SR 429/Sinclair Road interchange. The total project length is approximately four miles. Refer to Figure 1-1 for the Project Location Map.

The study area, which includes portions of Osceola and Polk Counties, is comprised of residential land uses, the 2,226-acre Reunion Resort, and conservation lands under the jurisdiction of the Reedy Creek Improvement District. There are also numerous undeveloped parcels with residential and planned development future land use designations, wetland systems, and overhead and underground utility corridors. CR 532 follows the county line between Polk County on the south and Osceola County on the north.

1.2. Purpose & Need

Poinciana Parkway is a section of a future limited access toll facility, often referred to as the "Southern Beltway." The Southern Beltway would provide a regional, limited access facility that connects I-4 on the west to the interchange of Boggy Creek Road/SR 417 on the east, a distance of approximately 50 miles. The westernmost portion of the Southern Beltway is referred to as the Poinciana Parkway.





Poinciana Parkway Extension
PD&E Noise Study Report
from CR 532 to I-4
Osceola & Polk Counties, Florida
Financial Project ID: 446581-1-22-01

PROJECT LOCATION MAP

Figure 1

2. METHODOLOGY

The traffic noise study was performed in accordance with Code of Federal Regulations, Title 23, Part 772 (23 CFR 772) Procedures for Abatement of Highway Traffic Noise and Construction Noise[1] using methodology established by the Florida Department of Transportation (FDOT) in the Project Development and Environment Manual[2], Part 2, Chapter 18 (FDOT, July 1, 2020) and FDOT's Traffic Noise Modeling and Analysis Practitioners Handbook[3]. Predicted noise levels were produced using the Federal Highway Administration (FHWA) Traffic Noise Model (TNM), version 2.5.

2.1. Noise Metrics

Noise levels developed for this analysis are expressed in decibels (dB) using an "A"-scale [dB(A)] weighting. This scale most closely approximates the response characteristics of the human ear. All noise levels are reported as hourly equivalent noise levels (L_{Aeq1h}). The L_{Aeq1h} is defined as the equivalent steady-state sound level that, in a given hourly period, contains the same acoustic energy as the time-varying sound level for the same hourly period. Use of the dB(A) and L_{Aeq1h} metrics to evaluate traffic noise is consistent with 23 CFR 772.

2.2. Traffic Data

Traffic noise is heavily dependent on both traffic speed and traffic volume, with the amount of noise generated by traffic increasing as the vehicle speed and number of vehicles increase. The traffic conditions that result in the highest noise levels for roadways are the hourly traffic volumes representing Level of Service (LOS) C traffic conditions because they represent maximized traffic volumes that continue to travel at free-flow speed.

Traffic volumes and vehicle mix (e.g., cars, medium trucks, heavy trucks, motorcycles, and buses) were predicted for the design year (2050) under the Build and No-Build condition. For all roadway segments, LOS C hourly traffic volumes were compared to predicted design year demand hourly volumes, and the lower of the two was used in the model. For interchange ramps, the predicted design year demand hourly volumes were used. Traffic volumes and speeds used in the analysis are provided in Appendix A.

2.3. Noise Abatement Criteria

Noise sensitive sites are any property where frequent human use occurs and where a lowered noise level would be a benefit. FHWA has established noise levels at which noise abatement must be considered for various types of noise sensitive sites. These levels, which the FTE uses for the purpose of evaluating traffic noise, are referred to as the Noise Abatement Criteria (NAC). As shown in Figure 2-1, the NAC vary by activity category. Noise sensitive sites are considered impacted when the future design year build alternative traffic noise level is predicted to approach, meet, or exceed the NAC for its respective category or experience a substantial increase in noise levels, defined as an increase of 15 dB(A) or more in the design year, over the existing noise levels. The FDOT defines "approach" as within one dB(A) of the applicable FHWA criterion. A substantial increase typically occurs in areas where traffic noise is a minor component of the existing noise environment but would become a major component after the project is constructed (e.g., a new alignment project). For comparison purposes, typical noise levels for common indoor and outdoor activities are provided in Figure 2-2.

Figure 2-1 – FHWA & FDOT Noise Abatement Criteria

NOISE ABATEMENT CRITERIA (NAC) [Hourly A-Weighted Sound Level-decibels (dB(A))]				
Activity Category	Activity Leq(h)[1]		Evaluation location	Description of activity category
	FHWA	FDOT		
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, daycare centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreational areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	51	Interior	Auditoriums, daycare centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and 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 Leq(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.

Note: FDOT defines that a substantial noise increase occurs when the existing noise level is predicted to be exceeded by 15 decibels or more as a result of the transportation improvement project. When this occurs, the requirement for abatement consideration will be followed.

Figure 2-2 – Typical Noise Levels

Common Outdoor Activities	Noise Level dB(A)	Common Indoor Activities
	---110---	Rock Band
Jet Fly-Over 1000 ft.		
	---100---	
Gas Lawn Mower at 3 ft.		
	---90---	
Diesel Truck at 50 ft., at 50 mph		Food Blender at 3 ft.
	---80---	Garbage Disposal at 3 ft.
Noise Urban Area (Daytime)		
Gas Lawn Mower at 100 ft.	**---70---**	Vacuum Cleaner at 10 ft.
Commercial Area		Normal Speech at 3 ft.
Heavy Traffic at 300 ft.	**---60---**	
		Large Business Office
Quiet Urban Daytime	**---50---**	Dishwasher Next Room
Quiet Urban Nighttime	**---40---**	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime		
	---30---	Library
Quiet Rural Nighttime		Bedroom at Night, Concert Hall (Background)
	---20---	
	---10---	
Lowest Threshold of Human Hearing	**---0---**	Lowest Threshold of Human Hearing

Source: California Dept. of Transportation; Technical Noise Supplement; Oct 1998; Page 18.

2.4. Noise Abatement

Noise abatement measures are considered when predicted traffic noise levels approach, meet, or exceed the NAC or when there is a substantial increase (15 dB(A)) in traffic noise levels. Predicted traffic noise levels, NAC classification, and impact criteria for all noise sensitive sites in this project are documented in Appendix B. As outlined in the PD&E Manual[2], these noise abatement measures may include traffic system management, alignment modifications, property acquisitions, land use controls, and noise barriers.

2.4.1. Traffic Management

Traffic control measures that limit motor vehicle speeds and restrict certain vehicle types can be effective noise mitigation measures; however, these measures may also negate a project's ability to meet the need of the facility. For example, if the posted speed on the Poinciana Parkway Extension were reduced, the capacity of the roadway to handle the forecasted motor vehicle demand would also be reduced. Therefore, reducing traffic speeds and/or traffic volumes is inconsistent with the goal of improving the ability of the roadway to handle the forecasted volumes. As such, although feasible, traffic management measures are not considered a reasonable noise mitigation measure for the project.

2.4.2. Alignment Modifications

Alignment modification involves orienting and/or siting the roadway at sufficient distances from noise sensitive sites to minimize traffic noise. Based on the noise contours developed for this project and shown in Appendix C**,** any alignment shift that would avoid traffic-related noise impacts of the proposed project would simply introduce noise impacts to other noise sensitive sites, and no net benefit would result. Therefore, alignment modifications are not considered a reasonable noise mitigation measure.

2.4.3. Buffer Zones & Land Use Controls

To be considered reasonable, the FDOT has determined that noise abatement should not exceed $42,000 per benefited receptor (noise sensitive site). Property and homes within this area far exceed this value; therefore, property acquisition is not considered a reasonable noise abatement measure.

Another noise abatement measure is using land use controls to minimize impacts on future development. This Noise Study Report will be made available to local planning authorities to assist in the siting of future compatible land uses. Noise contours were developed for the roadway segments, showing the best estimate of the distances from the proposed edge of the nearest travel lane at which traffic noise would approach or exceed the NAC for each activity category found within each segment of the project. The predicted noise contours for each segment of the Build alternative are shown in Appendix C.

2.4.4. Noise Barriers

Noise barriers reduce traffic noise by blocking the sound path between a highway and a noise sensitive site. To effectively reduce traffic noise, a noise barrier must be relatively long, continuous (with no intermittent openings), and of sufficient height. In addition to evaluating the cost reasonableness of noise barriers, certain feasibility factors must also be considered, including the Noise Reduction Factor, Safety, Maintenance, and Engineering factors.

3. TRAFFIC NOISE ANALYSIS AND ABATEMENT ASSESSMENT

3.1. Model Verification

To verify the accuracy of the TNM 2.5 noise model, field measurements were taken following procedures documented in FHWA's Noise Measurement Field Guide[4] (FHWA, September 2017). These measurements are taken to establish the validity of the noise model and are not used to establish existing noise levels or determine future noise impacts. Noise monitoring was performed on October 18, 2022, using an Extech Instruments Model 407780 Type 2 Integrating Sound Level Meter (noise monitor). All monitoring events were 10 minutes in duration, which is consistent with the methodology documented in the FDOT PD&E Manual[2]. The noise monitor was calibrated using an Extech Instruments Model 407766 calibrator before and after each event. Typical vehicle speeds were established by sampling with a Bushnell Speedster handheld radar gun. Vehicles generally traveled within a few miles per hour (mph) of the 70-mph posted speed limit on SR 429. Traffic volumes by vehicle classification were recorded for each monitoring event and then extrapolated to one-hour equivalent volumes for input within the TNM.

One location was used to validate the ability of the TNM to accurately predict traffic noise for this project. The location of the validation site is shown on the project aerials in Appendix D as receptor point VS-01. Receptor point VS-01 is located within the right-of-way (ROW) on the southbound side of SR 429 south of Sinclair Road at approximately Station 6381+00. Measurements were taken for three validation events. The results of the monitoring event are summarized in Table 3-1. As shown in Table 3-1, the variance between the measured and predicted noise levels were 3.0 or less for all validation events. Therefore, the noise model is predicting traffic-related noise for this project within the level of accuracy specified in the FDOT PD&E Manual[2].

Additional field measurements were taken to determine the existing noise levels in areas along the proposed Poinciana Parkway Extension new alignment in areas where traffic is not the predominant noise source. Because there is no existing traffic, ambient field measurements cannot be used to validate the noise model. Three 10-minute field measurements were taken on October 18, 2022, at a site located on Sullivan Road. The location of the field measurement site is shown on the project aerials in Appendix D as receptor point FMS-01. The results of the field measurements are also shown in Table 3-1.

Table 3-1 – TNM Validation Results Summary

Location	Validation Event	Field Measured (dB(A))	TNM Predicted (dB(A))	Variance (dB(A))
VS-01 (Validation)	V1-1	72.0	73.4	1.4
	V1-2	72.0	73.4	1.4
	V1-3	73.4	74.5	1.1
FMS-01 (Ambient)	FMS-1	42.5	n/a	n/a
	FMS-2	42.8	n/a	n/a
	FMS-3	42.5	n/a	n/a

3.2. Noise Sensitive Receptors

Within the project limits, TNM receptor points representing residences are located in accordance with the FDOT PD&E Manual[2] as follows:

- Residential receptor points are located at areas of frequent outdoor use or the corner of the residential building closest to the major traffic noise source.
- Where residences are clustered together, single receptor points are analyzed as representative of a group of residences with similar characteristics.
- Ground floor receptor points are assumed to be 5 feet above the ground elevation, and all receptors are assumed to be at ground level unless otherwise noted.
- Higher floor receptors are assumed to increase in elevation in 10-foot increments above the ground floor receptor.
- Non-residential receptor points are located at the edge of the outdoor use area closest to the major traffic noise source.

Noise levels were predicted at 601 receptor points, representing 905 residences(NAC B) and 30 special use (NAC C) receptor points. Predicted noise levels for the residential noise sensitive sites are provided in Appendix B-1, and non-residential sites in Appendix B-2. The locations of the receptor points representing the noise sensitive sites are depicted on the project aerials found in Appendix D.

A group of receptors within the same activity category that are exposed to similar noise sources and levels, traffic volumes, traffic mix, speed, and topographic features are said to share a Common Noise Environment (CNE). A CNE involves a group of impacted receptors that would benefit from the same noise barrier or noise barrier system (i.e., overlapping/continuous noise barriers). Generally, CNEs occur between two secondary noise sources, such as interchanges, intersections, and crossroads.

The alphanumeric identification for each receptor point associated with a noise sensitive receptor is formulated as follows:

- Receptor points are labeled according to the CNE within which they are located. CNEs are named as follows:
    - The first two letters (i.e., SB, NB, EB, or WB) describe on which side of the mainline road the CNE is located (e.g., "SB" indicates the receptor is located in a CNE on the southbound side of the mainline travel lanes).
    - The number following the first two letters is a numeric sequencing number (e.g., CNE SB03 is the 3rd CNE on the southbound side of the mainline road).
- The first letter of the receptor label is either an "R" or "N" and denotes whether the point is a residence or a non-residential receptor, respectively.
- The four characters following the first letter is the CNE name (e.g., NSB03 would be the prefix for all non-residential receptors located within CNE SB03).
- The final three characters are the individual receptor number and are separated from the first string of characters with a dash (e.g., NEB02-002 is the 2ND receptor, a non-residential receptor in this case, in the 2nd CNE on the eastbound side of the mainline road).

- Several non-residential receptor areas, such as a school playground, were subdivided into smaller areas for more accurate impact predictions (e.g., NNB01-022.2 is the second subdivided receptor point for the non-residential receptor NNBO1-022).

The predicted noise level for each receptor is shown separately within Appendix B, with residential properties in Appendix B-1 and non-residential sites in Appendix B-2. The project aerials in Appendix D show the locations of all impacted and/or benefited receptors.

The following abatement analysis summary is geographically organized by Noise Sensitive Areas (NSA) defined for this report as areas located along the I-4 eastbound or westbound lanes, or the northbound or southbound lanes on the Poinciana Parkway Extension or SR 429. Note that within a single NSA, there may be several CNEs.

3.3. Abatement Analysis

For the year 2050 Build condition, noise levels were modeled at 935 noise sensitive sites. These sites are grouped into CNEs to evaluate the potential feasibility and reasonableness of providing noise barriers to reduce traffic noise. Noise barriers reduce traffic noise by blocking the sound path between a traffic noise source and noise sensitive receptor. To effectively reduce traffic noise, a noise barrier must be relatively long, continuous (with no intermittent openings), and of sufficient height. For a noise barrier to be considered feasible and reasonable, the following conditions must be met.

To be considered feasible, it must:

- Demonstrate that it will benefit at least two impacted receptors by providing a reduction in traffic-related noise of at least 5 dB(A);
- Take into consideration several additional feasibility factors, including Design and Construction, Safety, Access, ROW, Maintenance, Drainage, and Utility factors.

To be considered reasonable, it must:

- Take into consideration the viewpoints of the benefited property owners and residents;
- The cost of the noise barrier must not exceed $42,000 per benefited receptor for residences or $995,935/person-hour/ft^2 for special use sites. A benefited receptor is defined as a receptor that would experience at least a 5 dB(A) reduction in noise levels as a result of providing a noise barrier. The current unit cost used to evaluate cost reasonableness is $30 per square foot for all noise barriers. This cost covers barrier materials and labor;
- Satisfy the FDOT's Noise Reduction Design Goal (NRDG) of 7 dB(A). Therefore, a noise barrier must provide a noise reduction of at least 7 dB(A) for at least one benefited receptor.

Within the project limits, noise barrier locations were evaluated for the project as follows:

- Non-shoulder noise barriers located outside the clear recovery zone but within the ROW, are initially considered at heights ranging from 8 feet to 22 feet in 2-foot increments.
- If a non-shoulder noise barrier cannot provide feasible and reasonable abatement to an impacted receptor, then a shoulder noise barrier is evaluated. When on a structure (e.g., bridge, retaining wall), a

shoulder noise barrier is limited to a maximum height of 8 feet. If on embankment or ground mounted, a shoulder noise barrier is limited to a maximum height of 14 feet.

Using the evaluation process, noise barriers for each CNE are evaluated to determine the maximum number of impacted receptors that could potentially be provided at least a 5 dB(A) reduction in traffic-related noise. These noise barriers may be constrained by specific conditions, such as overhead utilities. As a result of the site-specific conditions, noise barriers may not provide a 5 dB(A) reduction in traffic-related noise to all impacted receptors.

At some locations, noise barriers may benefit receptors that are not impacted. Since abatement consideration at these receptors is not required, noise barrier lengths or heights are not increased to benefit non-impacted receptors. However, if benefited because of the proximity to an impacted receptor, these receptors are included when determining the cost reasonableness of the noise barrier based on cost per benefited receptor. This methodology is consistent with FHWA policy and guidance.

3.3.1. Special Use Site Analysis

The methodology used to evaluate noise barrier systems for special use sites differs from those used for residential locations. The standard procedure for determining the reasonableness and feasibility of a noise barrier for a special use site is documented in *A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations* (FDOT 2009)[3]. This special use site analysis procedure starts with the established cost threshold for residential locations and generalizes it to a person-hours of use criteria that can be applied to non-residential sites using this equation from the above-referenced document.

$$\text{“abatement cost factor”} = \frac{\$42k}{residence} * \frac{\text{residence}}{2.46\text{persons}} * \frac{\text{useage}}{24\text{hours}} *(14\text{ft}*100\text{ft}) = \$995{,}935\ /\text{person-hr/ft}^2 \quad (2)$$

A noise barrier for a special use site is considered cost reasonable if the calculated "abatement cost factor" is below the $995,935/person-hr./ft^2 threshold established in the above calculation.

3.4. Noise Sensitive Area on Northbound Side of Poinciana Parkway Extension

3.4.1. Celebration Island Village (CNE NB01)

Celebration Village is located on the northbound side of the Poinciana Parkway Extension between the southern project terminus and I-4. In this area, 21 NAC B receptor points were added to the model to represent 21 residences that are either constructed, under construction, or have active building permits as of October 19, 2022. None of the analyzed residences are predicted to have traffic noise levels that approach or exceed the NAC for the Build Condition in the design year (2050). Noise levels are expected to increase up to 8.7 dB(A); therefore, no residences experience a substantial increase in traffic noise (15 dB(A)). Because no residential receptors are predicted to be impacted by traffic-related noise, noise abatement was not considered for the CNE NB01 residences.

When this area is re-analyzed during the design phase, another check for building permits will occur. All homes that receive a building permit prior to the date the Environmental Assessment (EA) is approved, otherwise

known as the Date of Public Knowledge (DOPK), will be included in the design analysis, including any homes that received a building permit between the time of the PD&E noise study began (October 19, 2022) and the date the DOPK is set.

The predicted noise levels are shown for residences in Appendix B-1. The receptor locations are shown on sheet 16 in the project aerials, located in Appendix D.

3.4.2. Celebration Island Elementary School (CNE NB01)

Also located in CNE NB01 is the Celebration Island Elementary School, currently under construction. Three NAC C receptor points, representing outdoor use areas at the school recreation facilities, were added to the model. Noise levels at these receptors are predicted to approach or exceed the NAC for the Build condition in the design year (2050). Noise levels are expected to increase, but not by 15 dB(A) at any receptor (the maximum predicted increase is 4.6 dB(A)); therefore, no special use receptors at the elementary school are impacted by a substantial increase in traffic noise.

A three-segment barrier system was evaluated following the FDOT Special Land Use procedures outlined in Section 3.3.1. The barrier system consists of a barrier segment along the northbound ramp to I-4 east, a barrier segment on the shoulder of the southbound ramp to I-4 east, and a segment on the ROW of eastbound I-4. Each barrier segment was analyzed at the maximum-allowable height (22 feet for ROW barriers and 14 feet for shoulder barriers). This maximum dimension barrier system cannot meet the Noise Reduction Design Goal of a 7 dB(A) reduction at any of the analyzed receptors. Since the barrier system with the maximum dimensions cannot benefit the impacted receptors, no further analysis was conducted. Based on this evaluation, noise barriers are not a potentially feasible and reasonable method to abate traffic-related noise for the special use sites at Celebration Island Elementary School.

Table 3-2 summarizes the various noise barrier configurations evaluated for Celebration Island Elementary School.

Table 3-2 – Celebration Island Elementary School (CNE NB01)

Height (feet)	Length[1] (feet)	Location	Total Cost[2]	Benefited Acreage within impact area	Percentage of Impacted Area Benefited	Does the barrier satisfy the Noise Reduction Design Goal (-7dB(A))	Required Person-Hours of Daily Use Within Benefited Area	Possible for Person-Hours of Daily Use Within Entire Facility to be met?
22	2348	ROW[3]	n/a [*5]	0	0%	No	n/a [*5]	n/a [*5]
14	1576	SH[4]						
14	352	SH[4]						

[1] Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.
[2] Unit cost of $30/ft^2
[3] ROW – Right of Way noise barrier on I-4.
[4] SH - Shoulder noise barrier on Poinciana Parkway Extension ramps.
[5] Noise barrier system did not meet the Noise Reduction Design Goal of a 7 dB(A) reduction at any receptor, so no further analysis was conducted.

The predicted noise levels are shown for special use sites in Appendix B-2. The receptor locations are shown on sheets 12-13 in the project aerials, located in Appendix D.

3.4.3. Encore at Reunion (CNE NB02 and CNE WB03) and Reunion at 400 Apartments (CNE NB02)

The Encore neighborhood is one entity sharing recreation areas and one main rental office. The two sections of Encore at Reunion, Encore East (CNE WB03) and Encore West (CNE NB02), are located in the same NSA: north of I-4, south of Sinclair Road, and east of SR 429. However, because Old Lake Wilson Road bifurcates them, they were analyzed as separate CNEs for project impacts based on the nearest major roadway, SR 429 or I-4. For the noise abatement evaluation, the entire Encore neighborhood was analyzed along with the three-story rental complex, Reunion at 400 apartments, located south of the SR 429/Sinclair Road interchange in CNE NB01.

In CNE NB02, 149 NAC B receptors, representing 264 dwelling units, were added to the model. Many of the Encore at Reunion-West residences have ground-floor patios and 2nd-floor balconies. The receptor point was placed at the second-floor balcony at these locations, where a noise impact is more likely than a first-floor elevation. In Appendix D, these receptors are labeled with a "B" and illustrated with a larger circle depicting a second-floor receptor.

Noise levels at 184 residences and two NAC C receptors are predicted to approach or exceed the NAC for the Build condition in the design year (2050). Noise levels are expected to increase, but not by 15 dB(A) at any receptor (the maximum predicted increase is 11.9 dB(A)); therefore, no Encore at Reunion West or Reunion at 400 residences are impacted by a substantial increase.

In the Encore East area (CNE WB03), 41 NAC B receptors, representing 91 dwelling units, and two NAC C receptor points, representing two outdoor use sites, were added to the model. Noise levels at 57 residences and one NAC C receptor are predicted to approach or exceed the NAC for the Build condition in the design year (2050). Noise levels are expected to increase, but not by 15 dB(A) at any receptor (the maximum predicted increase is 8.0 dB(A)); therefore, no Encore at Reunion East residences are impacted by a substantial increase.

A three-segment noise barrier system was evaluated for the 241 total impacted residences in CNE NB02 and CNE WB03 to abate traffic-related noise. The first segment is located within the I-4 westbound ROW. The second segment is located along the I-4 ramp to northbound SR 429 and is offset in the ROW. The final segment is located along the northbound SR 429 ROW. Each of these ROW barrier segments was analyzed with the maximum allowable height of 22 feet. Based on this evaluation, a potential noise barrier system could provide a 7 dB(A) reduction at one or more receptors and a 5 dB(A) reduction at two or more impacted receptors. This 3-segment noise barrier system would not exceed the allowable $42,000 per benefited receptor and, therefore, is cost reasonable. This would mean that a ROW barrier system would be considered reasonable and feasible for CNE NB02 and CNE WB03.

Since the barrier system with the maximum possible lengths and maximum height meets all FDOT reasonable and feasible criteria, no further analysis was conducted. Further evaluation of this potential noise barrier will occur in the design phase. This evaluation may change this potential noise barrier's length, height, or viability.

Table 3-3 summarizes the various noise barrier configurations evaluated for Encore at Reunion and Reunion at 400.

Table 3-3 – Encore at Reunion (CNE NB02/WB03) & Reunion at 400 (CNE NB02)

Height (feet)	Length[1] (feet)	Location	No. of Impacts	Noise Reduction at Impacted Residences			Number of Benefited Residences				Impacted Res. Not Benefited[4]	Total Estimated Cost[5]	Cost per Benefited Residence
				5-5.9 dB(A)	6.0-6.9 dB(A)	> 7 dB(A)	Impacted[2]	Not Impacted[3]	Total	Average Reduction dB(A)			
22	2,330	ROW *[6]	241	14	8	118	146	31	177	8.2	95	$5,232,480	$29,562*[8]
22	2,058	ROW *[7]											
22	3,540	ROW *[6]											

[1] Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.
[2] Benefited residences with predicted noise levels that approach or exceed the NAC.
[3] Benefited residences with predicted noise levels that do not approach the NAC.
[4] Impacted residences that do not receive a minimum 5 dB(A) reduction from proposed noise barrier.
[5] Unit cost of $30/ft[2].
[6] ROW – Right of Way noise barrier on I-4 or SR 429.
[7] ROW – Right of Way noise barrier offset on I-4/SR 429 ramp.
[8] Barrier meets all FDOT requirements, so no further analysis was conducted.

The predicted noise levels are shown for residences in Appendix B-1. The receptor locations are shown on sheets 6-7 and 12-13 in the project aerials, located in Appendix D.

3.4.4. Reunion at 400 Apartments Dog Park & Playground (CNE NB02)

Also located in CNE NB02 are several recreation sites. Three NAC C receptor points were added to the model, representing three outdoor use areas at the Reunion at 400 apartments (CNE NB02). Noise levels at two of these receptors, the dog park and adjacent playground, are predicted to approach or exceed the NAC for the Build condition in the design year (2050). Noise levels are expected to increase, but not by 15 dB(A) at any receptor (the maximum predicted increase is 6.1 dB(A)); therefore, no special use receptors in these areas are impacted by a substantial increase in traffic noise.

The two impacted NAC C receptors at the Reunion at 400 benefit from the residential NB02 noise barrier system, discussed previously. However, FDOT policy requires a special-use abatement evaluation to determine whether noise barriers solely for the NAC C sites are reasonable and feasible on their own merit.

In CNE NB02, noise barriers were evaluated following the FDOT Special Land Use procedures outlined in Section 3.3.1. Based on this evaluation, a potential noise barrier located along the northbound ROW could provide a 7 dB(A) reduction at one or more receptors and a 5 dB(A) reduction for the entire impacted area. However, for a 22-foot-tall ROW noise barrier to be cost reasonable, an average of 115 people would need to use the dog park and playground for one hour per day. That requirement is an average of 10 visitors per hour/per day throughout the year, which is unrealistic given the size of the apartment complex. For this reason, the person-hours necessary to make a noise barrier cost reasonable in this location cannot be met, and noise barriers are not a potentially feasible and reasonable method to abate traffic-related noise for the special use sites in CNE NB02. However, as noted above, noise barriers serving the residential uses in CNE NB02 will shield the dog park and playground.

Table 3-4 summarizes the various noise barrier configurations evaluated for the Reunion at 400 playground and dog park areas.

Table 3-4 – Reunion at 400 Playground & Dog Park (CNE NB02)

Height (feet)	Length[1] (feet)	Location	Total Cost[2]	Benefited Acreage within impact area	Percentage of Impacted Area Benefited	Does the barrier satisfy the Noise Reduction Design Goal (-7dB(A))	Required Person-Hours of Daily Use Within Benefited Area	Possible for Person-Hours of Daily Use Within Entire Facility to be met?
22	202	ROW [*3]	$133,320	0.1	100%	Yes	188	No [*4]
20	202	ROW [*3]	$121,200	0.1	100%	Yes	171	No [*4]
18	202	ROW [*3]	$109,080	0.1	100%	Yes	154	No [*4]
16	202	ROW [*3]	$96,960	0.1	100%	Yes	137	No [*4]
14	202	ROW [*3]	$84,840	0.1	100%	Yes	120	No [*4]
12	227	ROW [*3]	No [*5]	0.1	100%	No	No [*5]	No [*5]

[1] Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.
[2] Unit cost of $30/ft^2
[3] ROW – Right of Way noise barrier on SR 429.
[4] Assumes recreational areas are available for avg of 12 hours/day throughout the year.
[5] Noise barrier system did not meet the Noise Reduction Design Goal of a 7 dB(A) reduction at any receptor, so no further analysis was conducted.

The predicted noise levels are shown for special use sites in Appendix B-2. The receptor locations are shown on sheet 7 in the project aerials, located in Appendix D.

3.4.5. Reunion East Basketball Court (CNE WB03)

In Encore at Reunion (East-CNE WB03), noise barriers were evaluated along the westbound I-4 ROW following the FDOT Special Land Use procedures outlined in Section 3.3.1 to abate impacts to the basketball court. Based on this evaluation, noise barriers are not a potentially feasible and reasonable method to abate traffic-related noise for the special use site at Encore at Reunion-East. A maximum dimension barrier cannot meet the Noise reduction design goal of a 7 dB(A) reduction at any of the analyzed receptors. Since the barrier system with the maximum dimensions cannot benefit the impacted receptors, no further analysis was conducted. This impacted NAC C receptor does not benefit from the residential NB02 noise barrier system, discussed previously.

Table 3-5 summarizes the noise barrier configurations evaluated for the Encore at the Reunion-East basketball court (CNE WB03).

Table 3-5 – Encore at Reunion East Basketball Court (CNE WB03)

Height (feet)	Length[1] (feet)	Location	Total Cost[2]	Benefited Acreage within impact area	Percentage of Impacted Area Benefited	Does the barrier satisfy the Noise Reduction Design Goal (-7dB(A))	Required Person-Hours of Daily Use Within Benefited Area	Possible for Person-Hours of Daily Use Within Entire Facility to be met?
22	2,458	ROW *3	n/a *4	0	0%	No	No *4	No *4

[1] Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.
[2] Unit cost of $30/ft^2
[3] ROW – Right of Way noise barrier on I-4.
[4] Noise barrier system did not meet the Noise Reduction Design Goal of a 7 dB(A) reduction at any receptor, so no further analysis was conducted.

The predicted noise levels are shown for special use sites in Appendix B-2. The receptor location is shown on sheet 12 in the project aerials, located in Appendix D.

3.5. Noise Sensitive Area on Southbound Side of Poinciana Parkway Extension

3.5.1. 21 Palms RV Resort (CNE SB01)

The 21 Palms RV Resort is located on the southbound side of Poinciana Parkway Extension (CNE SB01) between the start of the project limits at CR 532 (Osceola Polk Line Road) and Sullivan Road. In this area, 59 NAC B receptor points representing 97 units and one NAC C receptor were added to the model. Of these 60 receptors, only one is expected to approach or exceed the NAC for the Build Condition in the design year (2050). However, noise levels are expected to increase substantially (15 dB(A) or more) at all receptors (the maximum predicted increase is 23.8 dB(A); therefore, all 97 NAC B and one NAC C receptors in 21 Palms RV Resort are impacted by a substantial increase.

Noise barriers were evaluated along the southbound Poinciana Parkway Extension ROW for the 97 impacted residences in CNE SB01 to abate traffic-related noise. Based on this evaluation, a potential noise barrier system located along the southbound ROW and shoulder could provide a 7 dB(A) reduction at one or more receptors and a 5 dB(A) reduction at two or more impacted receptors. However, the most cost-effective noise barrier evaluated would exceed the allowable $42,000 per benefited receptor and, therefore, is not cost reasonable. The noise barrier could not meet the cost criteria due to 77% of the receptors being located too far from the barrier to receive a benefit. With the small number of benefited residences in this CNE, the cost per benefitted receptor of any noise barrier evaluation cannot meet the cost requirement. Therefore, noise barriers are not a potentially feasible and reasonable method to abate traffic-related noise for the residences in CNE SB01.

Table 3-6 summarizes the various noise barrier configurations evaluated for CNE SB01.

Table 3-6 – 21 Palms RV Resort (CNE SB01)

Height (feet)	Length[1] (feet)	Location	No. of Impacts	Noise Reduction at Impacted Residences			Number of Benefited Residences				Impacted Res. Not Benefited[4]	Total Estimated Cost[5]	Cost per Benefited Residence
				5-5.9 dB(A)	6.0-6.9 dB(A)	> 7 dB(A)	Impacted[2]	Not Impacted[3]	Total	Average Reduction dB(A)			
22	2,093	ROW *[6]	97	14	4	4	22	0	22	6.2	75	$1,381,380	$62,790
22	1,994	ROW *[6]	97	13	4	4	21	0	21	6.3	76	$1,316,040	$62,669
20	1,874	ROW *[6]	97	7	4	2	13	0	13	6.2	84	$1,124,400	$86,492
18	1,694	ROW *[6]	97	4	0	2	6	0	6	6.1	91	$914,760	$152,460*[7]

[1] Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.
[2] Benefited residences with predicted noise levels that approach or exceed the NAC.
[3] Benefited residences with predicted noise levels that do not approach the NAC.
[4] Impacted residences that do not receive a minimum 5 dB(A) reduction from proposed noise barrier.
[5] Unit cost of $30/ft^2.
[6] ROW – Right of Way noise barrier on Poinciana Parkway Extension.
[7] Barrier cannot meet cost-reasonableness requirement of $42,000 per benefited residence, so no further analysis was conducted.

The predicted noise levels are shown for residences in Appendix B-1. The receptor locations are shown on sheet 2 in the project aerials, located in Appendix D.

3.5.2. 21 Palms RV Resort Pool (CNE SB01)

Also located in CNE SB01 is the 21 Palms RV Resort pool. Receptor points representing this outdoor use area were added to the model. Noise levels at these receptors are not predicted to approach or exceed the NAC for the Build condition in the design year (2050). However, noise levels are expected to increase by 17.3 dB(A), which is considered a substantial increase in traffic noise.

A ROW barrier was evaluated to abate this impact on the pool receptors following the FDOT Special Land Use procedures outlined in Section 3.3.1. Based on this evaluation, noise barriers are not a potentially feasible and reasonable method to abate traffic-related noise for the special use site at 21 Palms RV Resort. A maximum dimension barrier cannot meet the Noise Reduction Design Goal (NRDG) of a 7 dB(A) reduction at any receptor. Therefore, because no potential barrier could meet the NRDG, noise barriers are not a potentially feasible and reasonable method to abate traffic-related noise for the special use sites in CNE SB01.

Table 3-7 summarizes the various noise barrier configurations evaluated for the 21 Palms RV Resort pool area.

Table 3-7 – 21 Palms RV Resort Pool (CNE SB01)

Height (feet)	Length[1] (feet)	Location	Total Cost[2]	Benefited Acreage within impact area	Percentage of Impacted Area Benefited	Does the barrier satisfy the Noise Reduction Design Goal (-7dB(A))	Required Person-Hours of Daily Use Within Benefited Area	Possible for Person-Hours of Daily Use Within Entire Facility to be met?
22	2093	ROW[3]	n/a [*4]	0	0%	No	n/a [*4]	n/a [*4]

[1] Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.
[2] Unit cost of $30/ft^2.
[3] ROW – Right of Way noise barrier on Poinciana Parkway Extension.
[4] Noise barrier system did not meet the Noise Reduction Design Goal of a 7 dB(A) reduction at any receptor, so no further analysis was conducted.

The predicted noise levels are shown for special use sites in Appendix B-2. The receptor location is shown on sheet 2 in the project aerials, located in Appendix D.

3.5.3. Sullivan Road (CNE SB02)

The rural residential area on Sullivan Road is located on the southbound side of the Poinciana Parkway Extension (CNE SB02) from south of Sullivan Road to the Tom Watson Golf Course in Reunion. In this area, five NAC B receptor points representing five residences were added to the model. Noise levels at two receptors are expected to approach or exceed the NAC for the Build condition in the design year (2050). Noise levels are expected to increase substantially (15 dB(A) or more) at all five receptors (the maximum predicted increase is 26.2 dB(A); therefore, all five NAC B receptors on Sullivan Road are impacted by a substantial increase.

Noise barriers were evaluated along the southbound Poinciana Parkway Extension ROW to abate traffic-related noise for the five impacted residences in CNE SB02. Based on this evaluation, a potential noise barrier located along the southbound ROW could provide a 7 dB(A) reduction at one or more receptors and a 5 dB(A) reduction at two or more impacted receptors. However, the most cost-effective noise barrier evaluated would exceed the allowable $42,000 per benefited receptor and, therefore, is not cost reasonable. The noise barrier could not meet the cost criteria due to 60% of the receptors being located too far from the barrier to receive a benefit. Moreover, the distance between the receptors requires a long noise barrier; hence the associated cost is higher than a shorter-length barrier. With the small number of benefited residences in this CNE, the cost per benefitted receptor of any noise barrier evaluation cannot meet the cost requirement. Therefore, noise barriers are not a potentially feasible and reasonable method to abate traffic-related noise for the residences in CNE SB02.

Table 3-8 summarizes the various noise barrier configurations evaluated for CNE SB02.

Table 3-8 – Sullivan Road Residences (CNE SB02)

Height (feet)	Length[1] (feet)	Location	No. of Impacts	Noise Reduction at Impacted Residences			Number of Benefited Residences				Impacted Res. Not Benefited[4]	Total Estimated Cost[5]	Cost per Benefited Residence
				5-5.9 dB(A)	6.0-6.9 dB(A)	> 7 dB(A)	Impacted[2]	Not Impacted[3]	Total	Average Reduction dB(A)			
22	1,313	ROW *[6]	5	0	0	2	2	0	2	10.4	3	$866,580	$433,290
20	1,313	ROW *[6]	5	0	0	2	2	0	2	9.8	3	$787,800	$393,900
18	1,313	ROW *[6]	5	0	0	2	2	0	2	9.0	3	$709,020	$354,510
16	1,313	ROW *[6]	5	1	0	1	2	0	2	8.1	3	$630,240	$315,120*[7]

[1] Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.
[2] Benefited residences with predicted noise levels that approach or exceed the NAC.
[3] Benefited residences with predicted noise levels that do not approach the NAC.
[4] Impacted residences that do not receive a minimum 5 dB(A) reduction from proposed noise barrier.
[5] Unit cost of $30/ft^2.
[6] ROW – Right of Way noise barrier on Poinciana Parkway Extension.
[7] Barrier cannot meet cost-reasonableness requirement of $42,000 per benefited residence, so no further analysis was conducted.

The predicted noise levels are shown for residences in Appendix B-1, and the receptor locations are shown on sheets 3-4 in the project aerials, located in Appendix D.

3.5.4. Homestead at Reunion (CNE SB03)

The Homestead at Reunion residences are located on the southbound side of Poinciana Parkway Extension (CNE SB03) between the Tom Watson Golf Course's southern property line to the southern property line of the Carriage Point at Reunion neighborhood. In CNE SB03, five NAC B receptor points, representing 19 residences, were added to the model. Noise levels at the five NAC B receptors are not expected to approach or exceed the NAC for the Build condition in the design year (2050). However, noise levels are expected to increase by 15.2 dB(A) at one residence, which is considered a substantial increase in traffic noise. Because a minimum of two impacted residences must be benefited for noise abatement to be feasible, noise abatement was not considered for the isolated impacted single-family residence in SB03.

The predicted noise levels are shown for residences in Appendix B-1, and the receptor locations are shown on sheets 4-5 in the project aerials, located in Appendix D.

3.5.5. Tom Watson Golf Course (CNE SB03)

Also located in CNE SB03 is Tom Watson Golf Course. In this area, three NAC C receptor points, representing outdoor special-use locations on the golf course, were added to the model. Noise levels at both the special use receptors are not expected to approach or exceed the NAC for the Build condition in the design year (2050). However, noise levels are expected to increase above 15 dB(A) at all three receptors (the maximum predicted increase is 18.4 dB(A)); therefore, the Tom Watson Golf Course is impacted by a substantial increase.

Noise barriers were evaluated following the FDOT Special Land Use procedures outlined in Section 3.3.1. Based on this evaluation, a potential ROW noise barrier along the southbound Poinciana Parkway Extension cannot provide the Noise Reduction Design Goal (NRDG) of a 7 dB(A) reduction at any receptor. The reason no receptor was able to achieve a 7 dB(A) reduction was due to the distance of the receptors from the Poinciana Parkway Extension. Therefore, because no potential barrier could meet the NRDG, noise barriers are not a potentially

feasible and reasonable method to abate traffic-related noise for the special use sites at the Tom Watson Golf Course.

Table 3-9 summarizes the various noise barrier configurations that were evaluated for Tom Watson Golf Course.

Table 3-9 – Tom Watson Golf Course (CNE SB03)

Height (feet)	Length[1] (feet)	Location	Total Cost[2]	Benefited Acreage within impact area	Percentage of Impacted Area Benefited	Does the barrier satisfy the Noise Reduction Design Goal (-7dB(A))	Required Person-Hours of Daily Use Within Benefited Area	Possible for Person-Hours of Daily Use Within Entire Facility to be met?
22	2816	ROW[3]	n/a[5]	0	0	No	n/a[4]	n/a[4]

[1] Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.
[2] Unit cost of $30/ft^2
[3] ROW – Right of Way noise barrier on Poinciana Parkway
[4] Noise barrier system did not meet the Noise Reduction Design Goal of a 7 dB(A) reduction at any receptor, so no further analysis was conducted.

The predicted noise levels are shown for special use sites in Appendix B-2. The receptor locations are shown on sheets 4-5 in the project aerials, located in Appendix D.

3.5.6. Carriage Point at Reunion (CNE SB04)

The Carriage Point at Reunion subdivision (CNE SB04) is located on the southbound side of Poinciana Parkway Extension from the neighborhood's south property line to Old Lake Wilson Road. In this area, 57 NAC B receptor points, representing 57 residences, were added to the model. Noise levels at 52 residences within Carriage Point at Reunion are expected to approach or exceed the NAC for the Build condition in the design year (2050). Noise levels are expected to increase more than 15 dB(A) at two NAC B receptors (the maximum predicted increase is 15.8 dB(A)), which is considered a substantial increase in traffic noise.

Noise barriers were evaluated for the 52 impacted residences within Carriage Point at Reunion to abate traffic-related noise. Based on this evaluation, a potential noise barrier system located along the southbound ROW and shoulder cannot provide the required 5 dB(A) minimum noise reduction at two or more impacted receptors. The noise barrier system was unable to meet the minimum noise reduction requirement for several reasons. Through this area, the Poinciana Parkway Extension mainline and ramps are on bridge structures, which carry a lower noise barrier height limit of 8 feet. With that height restriction, a noise barrier does little to reduce traffic noise.

Furthermore, an overlapping ROW barrier is ineffective at reducing traffic noise on the impacted Carriage Point receptors because the elevation of the roadway is higher than the top of the maximum-height ROW barrier that could be constructed in this area. Lastly, the existing concrete safety barrier along the elevated outside travel lane shields the adjacent homes from some tire noise. Consequently, adding an 8-foot shoulder barrier does not contribute much more noise reduction. Therefore, noise barriers are not a potentially feasible and reasonable method to abate traffic-related noise for the residences in CNE SB04.

Table 3-10 summarizes the various noise barrier configurations that were evaluated for CNE SB04.

Table 3-10 – Carriage Point at Reunion (CNE SB04)

Height (feet)	Length[1] (feet)	Location	No. of Impacts	Noise Reduction at Impacted Residences			Number of Benefited Residences				Impacted Res. Not Benefited[4]	Total Estimated Cost[5]	Cost per Benefited Residence
				5-5.9 dB(A)	6.0-6.9 dB(A)	> 7 dB(A)	Impacted[2]	Not Impacted[3]	Total	Average Reduction dB(A)			
22	5,051	ROW [*6]	52	0	0	0	0	0	0	n/a [*4]	52	n/a [*9]	n/a [*9]
8	1,197	ST[*8]											
22	2,816	ROW [*6]	52	0	0	0	0	0	0	n/a [*4]	52	n/a [*9]	n/a [*9]
8	2,223	ST[*8]											
14	3,702	SH[*7]											

[1] Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.
[2] Benefited residences with predicted noise levels that approach or exceed the NAC.
[3] Benefited residences with predicted noise levels that do not approach the NAC.
[4] Impacted residences that do not receive a minimum 5 dB(A) reduction from proposed noise barrier.
[5] Unit cost of $30/ft^2
[6] ROW – Right of Way noise barrier on Poinciana Parkway Extension.
[7] SH - Noise barrier mounted on shoulder on Poinciana Parkway Extension.
[8] ST - Noise barrier mounted on bridge structure on Poinciana Parkway Extension and/or ramps.
[9] Noise barrier system did not meet the feasibility requirement of a 5 dB(A) reduction at two impacted receptors, so no cost analysis was conducted.

The predicted noise levels are shown for residences in Appendix B-1. The receptor locations are shown on sheet 5 in the project aerials, located in Appendix D.

3.5.7. Carriage Point Pool (CNE SB04)

Also located in CNE SB04 is the Carriage Point at Reunion outdoor pool. In this area, One NAC C receptor point, representing outdoor special-use locations around the pool, was added to the model. Noise levels at the special use receptor are expected to approach or exceed the NAC for the Build condition in the design year (2050). Noise levels are expected to increase, but not by 15 dB(A) at any receptor (the maximum predicted increase is 13.4 dB(A)); therefore, the CNE SB04 NAC C receptor is not impacted by a substantial increase.

Noise barriers were evaluated following the FDOT Special Land Use procedures outlined in Section 3.3.1. Based on this evaluation, a potential noise barrier mounted on the southbound Poinciana Parkway Extension outside shoulder of the bridge structure cannot provide the Noise Reduction Design Goal (NRDG) of a 7 dB(A) reduction at any receptor. The noise barrier was unable to meet the NRDG for several reasons. Through this area, the Poinciana Parkway Extension mainline and ramps are on bridge structures, which carry an 8-foot maximum height for noise barriers. Therefore, because no potential barrier could meet the NRDG, noise barriers are not a potentially feasible and reasonable method to abate traffic-related noise for the special use sites at the Carriage Point at Reunion outdoor pool.

Table 3-11 summarizes the noise barrier configuration evaluated at the Carriage Point at Reunion outdoor pool.

Table 3-11 – Carriage Point at Reunion Pool (CNE SB04)

Height (feet)	Length[1] (feet)	Location	Total Cost[2]	Benefited Acreage within impact area	Percentage of Impacted Area Benefited	Does the barrier satisfy the Noise Reduction Design Goal (-7dB(A))	Required Person-Hours of Daily Use Within Benefited Area	Possible for Person-Hours of Daily Use Within Entire Facility to be met?
8	2720	ST	n/a[4]	0	0	No	n/a[4]	n/a[4]

[1] Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.
[2] Unit cost of $30/ft[2]
[3] ST – Noise barrier mounted on Poinciana Parkway bridge structure.
[4] Noise barrier system did not meet the Noise Reduction Design Goal of a 7 dB(A) reduction at any receptor, so no further analysis was conducted.

The predicted noise levels are shown for special use sites in Appendix B-2. The receptor locations are shown on sheet 5 in the project aerials, located in Appendix D.

3.5.8. Legends Corner (CNE SB05)

The Legends Corner residences are located on the southbound side of SR 429 (CNE SB05) between I-4 and Sinclair Road. In CNE SB05, one NAC B receptor point, representing one residence, was added to the model. Noise levels at this receptor are not expected to approach or exceed the NAC for the Build condition in the design year (2050). Noise levels are expected to increase by 8.0 dB(A), which is not considered a substantial increase in traffic noise. Because no receptors are predicted to be impacted by traffic-related noise, noise abatement was not considered for CNE SB05.

One undeveloped area in this CNE is closer to the SR 429/I-4 interchange. As of October 19, 2022, there were no active building permits for noise-sensitive land uses. When this area is re-analyzed during the design phase, another check for building permits will occur. All homes that receive a building permit prior to the date the Environmental Assessment (EA) is approved, otherwise known as the Date of Public Knowledge (DOPK), will be included in the design analysis, including any homes that received a building permit between the time of the PD&E noise study (October 19, 2022) and the date the DOPK is set.

The predicted noise levels are shown for residences in Appendix B-1. The receptor locations are shown on sheet 7 in the project aerials, located in Appendix D.

3.5.9. Cortland at Reunion Apartments (CNE SB06)

The Cortland at Reunion is a three-story apartment complex located on the southbound side of SR 429 (CNE SB06) north of Sinclair Road and the extent of the project's north limit. In CNE SB06, nine NAC B receptor points, representing nine units, were added to the model. Noise levels at one NAC B receptor are expected to approach or exceed the NAC for the Build condition in the design year (2050). Noise levels are expected to increase up to 6.3 dB(A); therefore, no residences experience a substantial increase in traffic noise (15 dB(A)). Because a minimum of two impacted residences must be benefited for noise abatement to be feasible, noise abatement was not considered for the isolated impacted residence in CNE SB03.

The predicted noise levels are shown for residences in Appendix B-1. The receptor locations are shown on sheets 7-8 in the project aerials, located in Appendix D.

3.6. Noise Sensitive Area on Eastbound Side of I-4

3.6.1. Reunion Village & Spectrum Townhomes at Reunion (CNE EB01)

Reunion Village and the Spectrum Townhomes at Reunion are located on the eastbound side of I-4 (CNE EB01) between the project's west study limits east of CR 532 (Osceola Polk Line Road) and Tradition Boulevard. In this area, 19 NAC B receptor points, representing 46 residences, were added to the model. Because these two communities are partially developed and platted, the receptors modeled were those locations that are either constructed, under construction, or received a building permit prior to the start of the noise analysis (October 19, 2022).

Noise levels at 31 residences within Reunion Village are expected to approach or exceed the NAC for the Build condition in the design year (2050). Noise levels are expected to increase, but not by 15 dB(A) at any receptor (the maximum predicted increase is 7.4 dB(A)); therefore, no EB01 receptors are impacted by a substantial increase.

Because the Spectrum Townhomes at Reunion receptors are located further away from the I-4 mainline, these receptors are not predicted to be impacted by traffic-related noise. Consequently, noise abatement was not considered for this development.

Noise barriers were evaluated for the 31 impacted residences within Reunion Village to abate traffic-related noise. Based on this evaluation, a potential noise barrier located along the eastbound ROW could provide a 7 dB(A) reduction at one or more receptors and a 5 dB(A) reduction at two or more impacted receptors. A noise barrier system with one 22-foot tall, 1,804-foot-long ROW noise barrier would not exceed the allowable $42,000 per benefited receptor and, therefore, is cost reasonable. Therefore, noise barriers are a potentially feasible and reasonable method to abate traffic-related noise for the residences in Reunion Village (CNE EB01). Further evaluation of this potential noise barrier will occur in the design phase. This evaluation may change this potential noise barrier's length, height, or viability.

Table 3-12 summarizes the reasonable and feasible noise barrier configuration that was evaluated for CNE EB01.

Table 3-12 – Reunion Village (CNE EB01)

Height (feet)	Length[1] (feet)	Location	No. of Impacts	Noise Reduction at Impacted Residences			Number of Benefited Residences				Impacted Res. Not Benefited[4]	Total Estimated Cost[5]	Cost per Benefited Residence
				5-5.9 dB(A)	6.0-6.9 dB(A)	> 7 dB(A)	Impacted[2]	Not Impacted[3]	Total	Average Reduction dB(A)			
22	1,804	ROW[6]	31	0	1	30	31	7	38	10.2	0	$1,190,640	$31,333

[1] Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.
[2] Benefited residences with predicted noise levels that approach or exceed the NAC.
[3] Benefited residences with predicted noise levels that do not approach the NAC.
[4] Impacted residences that do not receive a minimum 5 dB(A) reduction from proposed noise barrier.
[5] Unit cost of $30/ft^2
[6] ROW – Right of Way noise barrier on I-4.

When this area is re-analyzed during the design phase, another check for building permits will occur. All homes that receive a building permit prior to the date the Environmental Assessment (EA) is approved, otherwise known as the Date of Public Knowledge (DOPK), will be included in the design analysis, including any homes that

received a building permit between the time of the PD&E noise study (October 19, 2022) and the date the DOPK is set.

The predicted noise levels are shown for residences in Appendix B-1. The receptor locations are shown on sheets 9-10 in the project aerials, located in Appendix D.

3.6.2. Spectrum Resort Orlando & Villas North at Reunion (CNE EB02)

The condos at Spectrum Resort Orlando are two-story buildings. The Villas North at Reunion are four-story condominium buildings. These condominiums are located on the eastbound side of I-4 (CNE EB02) between Tradition Boulevard and the SR 429/I-4/Poinciana Parkway interchange. In this area, 80 NAC B receptor points, representing 162 residences, were added to the model. Of these 162 receptors, noise levels at 68 NAC B receptor locations are expected to approach or exceed the NAC for the Build condition in the design year (2050). Noise levels are expected to increase, but not by 15 dB(A) at any receptor (the maximum predicted increase is 6.7 dB(A)); therefore, no EB02 receptors are impacted by a substantial increase.

Noise barriers were evaluated for these 68 impacted residences to abate traffic-related noise. Based on this evaluation, a potential noise barrier system located along the eastbound I-4 ROW and shoulder can provide a 5 dB(A) reduction at two impacted receptors but cannot meet the Noise Reduction Design Goal (NRDG) of a 7 dB(A) reduction at any receptor. The noise barrier system was unable to meet the NRDG for several reasons. CNE EB02 is directly adjacent to the I-4 interchange and the elevated ramps to northbound SR 429. The shoulder-mounted segment of the analyzed noise barrier system is limited in height to 14 feet. Because the analyzed ROW segment is lower than the ramp, it becomes ineffective at reducing traffic noise as it gets closer to the interchange.

Moreover, the receptors are located between 300 and 400 feet from the barrier system, which reduces their potential noise abatement benefit. Therefore, noise barriers are not a potentially feasible and reasonable method to abate traffic-related noise for the residences in CNE EB02.

Table 3-13 summarizes the various noise barrier configurations that were evaluated for CNE EB02.

Table 3-13 – Spectrum Resort Orlando & The Villas North at Reunion (CNE EB02)

Height (feet)	Length[1] (feet)	Location	No. of Impacts	Noise Reduction at Impacted Residences			Number of Benefited Residences				Impacted Res. Not Benefited[4]	Total Estimated Cost[5]	Cost per Benefited Residence
				5-5.9 dB(A)	6.0-6.9 dB(A)	> 7 dB(A)	Impacted[2]	Not Impacted[3]	Total	Average Reduction dB(A)			
22	1,258	ROW [*6]	68	5	0	0	5	0	5	5.1	63	n/a[*8]	n/a[*8]
14	1,705	SH[*7]											

[1] Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.
[2] Benefited residences with predicted noise levels that approach or exceed the NAC.
[3] Benefited residences with predicted noise levels that do not approach the NAC.
[4] Impacted residences that do not receive a minimum 5 dB(A) reduction from proposed noise barrier.
[5] Unit cost of $30/ft^2
[6] ROW – Right of Way noise barrier on I-4.
[7] SH - Noise barrier mounted on shoulder on I-4 ramp.
[8] Noise barrier system did not meet the Noise Reduction Design Goal of a 7 dB(A) reduction at any receptor, so no further analysis was conducted.

The predicted noise levels are shown for residences in Appendix B-1. The receptor locations are shown on sheets 10-11 in the project aerials, located in Appendix D.

3.6.3. Spectrum Resort Orlando Playground and Clubhouse (CNE EB02)

Also located in CNE EB02 are the Spectrum Resort Orlando playground and the outdoor seating area at the clubhouse. In this area, two NAC C receptor points, representing outdoor special-use locations, were added to the model. Noise levels at these special-use receptors are expected to approach or exceed the NAC for the Build condition in the design year (2050). Noise levels are expected to increase, but not by 15 dB(A) at any receptor (the maximum predicted increase is 3.7 dB(A)); therefore, the CNE EB02 NAC C receptor is not impacted by a substantial increase.

Noise barriers were evaluated following the FDOT Special Land Use procedures outlined in Section 3.3.1. Based on this evaluation, a potential noise barrier system located along the eastbound I-4 ROW and shoulder cannot meet the Noise Reduction Design Goal (NRDG) of a 7 dB(A) reduction at any receptor. The noise barrier system was unable to meet the NRDG for the same reasons discussed previously for the NAC B noise barrier: the shoulder-mounted segment of the analyzed noise barrier system is limited in height to 14 feet. Because the analyzed ROW segment is lower than the ramp, it becomes ineffective at reducing traffic noise as it gets closer to the interchange.

Moreover, the receptors are located between 300 and 400 feet from the barrier system, which reduces their potential noise abatement benefit. Therefore, noise barriers are not a potentially feasible and reasonable method to abate traffic-related noise for the special use outdoor sites in CNE EB02.

Table 3-14 summarizes the various noise barrier configurations that were evaluated for CNE EB02.

Table 3-14 – Spectrum Resort Orlando Playground & Clubhouse (CNE EB02)

Height (feet)	Length[1] (feet)	Location	Total Cost[2]	Benefited Acreage within impact area	Percentage of Impacted Area Benefited	Does the barrier satisfy the Noise Reduction Design Goal (-7dB(A))	Required Person-Hours of Daily Use Within Benefited Area	Possible for Person-Hours of Daily Use Within Entire Facility to be met?
22	1,258	ROW*[3]	n/a[5]	0.03	100%	No	n/a[5]	n/a[5]
14	1,101	SH*[4]						

[1] Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.
[2] Unit cost of $30/ft^{2}.
[3] ROW – Right of Way noise barrier on I-4.
[4] SH - Shoulder noise barrier on I-4 ramp.
[5] Noise barrier system did not meet the Noise Reduction Design Goal of a 7 dB(A) reduction at any receptor, so no further analysis was conducted.

The predicted noise levels are shown for special use sites in Appendix B-2. The receptor locations are shown on sheet 11 in the project aerials, located in Appendix D.

3.6.4. Emerson at Celebration (CNE EB03)

The Emerson at Celebration three-story condominium complex is located on the eastbound side of I-4 (CNE EB03) between the Poinciana Parkway Extension ramps at I-4 and World Drive. In this area, 52 NAC B receptor points, representing 52 residences, were added to the model. Of these 52 receptors, noise levels at 19 NAC B

receptor locations are expected to approach or exceed the NAC for the Build condition in the design year (2050). Noise levels are expected to increase, but not by 15 dB(A) at any receptor (the maximum predicted increase is 4.2 dB(A)); therefore, no EB03 receptors are impacted by a substantial increase.

Noise barriers were evaluated for the 19 impacted residences to abate traffic-related noise. Based on this evaluation, a potential noise barrier system located along the eastbound I-4 ROW and shoulder cannot provide a 5 dB(A) reduction at two impacted receptors. The receptor distances to the noise barrier are too great to receive a benefit. Therefore, noise barriers are not a potentially feasible and reasonable method to abate traffic-related noise for the residences in CNE EB03.

Table 3-15 summarizes the various noise barrier configurations that were evaluated for CNE EB03.

Table 3-15 – Emerson at Celebration (CNE EB03)

Height (feet)	Length[1] (feet)	Location	No. of Impacts	Noise Reduction at Impacted Residences			Number of Benefited Residences				Impacted Res. Not Benefited[4]	Total Estimated Cost[5]	Cost per Benefited Residence
				5-5.9 dB(A)	6.0-6.9 dB(A)	> 7 dB(A)	Impacted[2]	Not Impacted[3]	Total	Average Reduction dB(A)			
22	3,124	ROW [*6]	19	0	0	0	0	0	0	< 5.0	19	N/A [*7]	N/A [*7]

[1] Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.
[2] Benefited residences with predicted noise levels that approach or exceed the NAC.
[3] Benefited residences with predicted noise levels that do not approach the NAC.
[4] Impacted residences that do not receive a minimum 5 dB(A) reduction from proposed noise barrier.
[5] Unit cost of $30/ft^2
[6] ROW – Right of Way noise barrier on I-4.
[7] Noise barrier system did not meet the acoustic feasibility requirement of a 5 dB(A) reduction at two impacted receptors, so no cost analysis was conducted.

The predicted noise levels are shown for residences in Appendix B-1. The receptor locations are shown on sheet 14 in the project aerials, located in Appendix D.

3.6.5. Emerson at Celebration Dog Park, Playground, & Pool (CNE EB03)

Also located in CNE EB02 are the Emerson at Celebration dog park, playground, and pool. Three NAC C receptor points, representing these three outdoor use areas, were added to the model. Of these three receptors, noise levels at one NAC C receptor location are expected to approach or exceed the NAC for the Build condition in the design year (2050). Noise levels are expected to increase, but not by 15 dB(A) at any receptor (the maximum predicted increase is 3.2 dB(A)); therefore, no EB03 receptors are impacted by a substantial increase.

Noise barriers were evaluated following the FDOT Special Land Use procedures outlined in Section 3.3.1. Based on this evaluation, a potential noise barrier located along the eastbound I-4 ROW cannot meet the Noise Reduction Design Goal (NRDG) of a 7 dB(A) reduction at any receptor. Therefore, noise barriers are not a potentially feasible and reasonable method to abate traffic-related noise for the special use outdoor sites in CNE EB03.

Table 3-16 summarizes the various noise barrier configurations that were evaluated for CNE EB02.

Table 3-16 – Emerson at Celebration Dog Park (CNE EB03)

Height (feet)	Length[1] (feet)	Location	Total Cost[2]	Benefited Acreage within impact area	Percentage of Impacted Area Benefited	Does the barrier satisfy the Noise Reduction Design Goal (-7dB(A))	Required Person-Hours of Daily Use Within Benefited Area	Possible for Person-Hours of Daily Use Within Entire Facility to be met?
22	2,810	ROW*[3]	n/a[4]	0.0	0%	No	n/a[4]	n/a[4]

[1] Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.
[2] Unit cost of $30/ft[2].
[3] ROW – Right of Way noise barrier on I-4.
[4] Noise barrier system did not meet the Noise Reduction Design Goal of a 7 dB(A) reduction at any receptor, so no further analysis was conducted.

The predicted noise levels are shown for special use sites in Appendix B-2. The receptor locations are shown on sheet 14 in the project aerials, located in Appendix D.

3.7. Noise Sensitive Area on Westbound Side of I-4

3.7.1. Tuscana Resort (CNE WB01)

The four-story Tuscana Resort condominium complex is located on the westbound side of I-4 (CNE WB01) between the project's west study limits east of CR 532 (Osceola Polk Line Road) south of Tradition Boulevard. In this area, 56 NAC B receptor points, representing 64 residential sites, were added to the model. Noise levels at 58 NAC B residences are expected to approach or exceed the NAC for the Build condition in the design year (2050). Noise levels are expected to increase, but not by 15 dB(A) at any receptor (the maximum predicted increase is 5.8 dB(A)); therefore, no WB01 receptors are impacted by a substantial increase.

Noise barriers were evaluated for the 58 impacted residences to abate traffic-related noise. Based on this evaluation, a potential noise barrier located along the westbound I-4 ROW could provide a 7 dB(A) reduction at one or more receptors and a 5 dB(A) reduction at two or more impacted receptors. A noise barrier with one 22-foot tall, 1,586-foot-long ROW noise barrier would not exceed the allowable $42,000 per benefited receptor and, therefore, is cost reasonable. Therefore, noise barriers are a potentially feasible and reasonable method to abate traffic-related noise for the residences in Tuscana Resort (CNE WB01). Further evaluation of this potential noise barrier will occur in the design phase. This evaluation may change this potential noise barrier's length, height, or viability.

Table 3-17 summarizes the reasonable and feasible noise barrier configuration that was evaluated for CNE WB01.

Table 3-17 – Tuscana Resort (CNE WB01)

Height (feet)	Length[1] (feet)	Location	No. of Impacts	Noise Reduction at Impacted Residences			Number of Benefited Residences				Impacted Res. Not Benefited[4]	Total Estimated Cost[5]	Cost per Benefited Residence
				5-5.9 dB(A)	6.0-6.9 dB(A)	> 7 dB(A)	Impacted[2]	Not Impacted[3]	Total	Average Reduction dB(A)			
22	1,586	ROW[6]	58	12	13	32	57	6	63	7.5	1	$1,046,760	$16,615

[1] Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.
[2] Benefited residences with predicted noise levels that approach or exceed the NAC.
[3] Benefited residences with predicted noise levels that do not approach the NAC.
[4] Impacted residences that do not receive a minimum 5 dB(A) reduction from proposed noise barrier.
[5] Unit cost of $30/ft2
[6] ROW – Right of Way noise barrier on I-4.

The predicted noise levels are shown for residences in Appendix B-1. The receptor locations are shown on sheet 9 in the project aerials, located in Appendix D.

3.7.2. Jack Nicklaus Golf Course (West) (CNE WB01)

Also located in CNE WB01 is the west section of the Jack Nicklaus Golf Course. In this area, four NAC C receptor points, representing outdoor special-use locations on the golf course, were added to the model. Noise levels at the special use receptors are not expected to approach or exceed the NAC for the Build condition in the design year (2050). Noise levels are expected to increase, but not by 15 dB(A) at any receptor (the maximum predicted increase is 4.8 dB(A)); therefore, no special use receptors at the Jack Nicklaus Golf Course (west) are impacted by a substantial increase.

Noise barriers were evaluated following the FDOT Special Land Use procedures outlined in Section 3.3.1. Ten additional receptor points were added to the model to better represent the entire impacted outdoor area on the golf course. Based on this evaluation, a potential noise barrier located along the westbound I-4 ROW could provide a 7 dB(A) reduction at one or more receptors and a 5 dB(A) reduction for the entire impacted area. However, for an 18-foot ROW noise barrier to be cost reasonable, an average of 1,900 people would need to use the four holes of the golf course for one hour per day. That would translate to roughly 135 concurrent golfers active on each hole for 10 hours every day, which is not possible. For this reason, the person-hours necessary to make a noise barrier cost reasonable in this location cannot be met, and noise barriers are not a potentially feasible and reasonable method to abate traffic-related noise for the special use sites in CNE WB01.

Table 3-18 summarizes the various noise barrier configurations that were evaluated for the Jack Nicklaus Golf Course (west).

Table 3-18 – Jack Nicklaus Golf Course (West) (CNE WB01)

Height (feet)	Length[1] (feet)	Location	Total Cost[2]	Benefited Acreage within impact area	Percentage of Impacted Area Benefited	Does the barrier satisfy the Noise Reduction Design Goal (-7dB(A))	Required Person-Hours of Daily Use Within Benefited Area	Possible for Person-Hours of Daily Use Within Entire Facility to be met?
22	2,027	ROW[3]	$1,337,820	7.8	100	Yes	1,881	No
20	2,124	ROW[3]	$1,274,400	7.8	100	Yes	1,792	No
18	2,320	ROW[3]	$1,252,800	7.8	100	Yes	1,762	No
16	2,417	ROW[3]	$1,160,160	7.6	98	Yes	1,631	No

[1] Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.
[2] Unit cost of $30/ft[2].
[3] ROW – Right of Way noise barrier on I-4.

The predicted noise levels are shown for special use sites in Appendix B-2. The receptor locations are shown on sheets 9-10 in the project aerials, located in Appendix D.

3.7.3. Masters Landing (CNE WB02)

The Masters Landing neighborhood is located on the westbound side of I-4 (CNE WB02) from south of Tradition Boulevard to the I-4/SR 429 interchange. In this area, 17 NAC B receptor points, representing 17 units, were added to the model. Noise levels at six residences are expected to approach or exceed the NAC for the Build condition in the design year (2050). Noise levels are expected to increase, but not by 15 dB(A) at any receptor (the maximum predicted increase is 6.4 dB(A)); therefore, no CNE WB02 receptors are impacted by a substantial increase.

Noise barriers were evaluated for the six impacted residences to abate traffic-related noise. Based on this evaluation, a potential noise barrier with the maximum length and height and located along the westbound I-4 ROW cannot provide a 5 dB(A) reduction at two impacted receptors. The receptor distances to the noise barrier are too great to receive a benefit. Therefore, noise barriers are not a potentially feasible and reasonable method to abate traffic-related noise for the residences in CNE WB02.

Table 3-19 summarizes the various noise barrier configurations that were evaluated for CNE WB02.

Table 3-19 – Masters Landing (CNE WB02)

Height (feet)	Length[1] (feet)	Location	No. of Impacts	Noise Reduction at Impacted Residences			Number of Benefited Residences				Impacted Res. Not Benefited[4]	Total Estimated Cost[5]	Cost per Benefited Residence
				5-5.9 dB(A)	6.0-6.9 dB(A)	> 7 dB(A)	Impacted[2]	Not Impacted[3]	Total	Average Reduction dB(A)			
22	3,368	ROW[6]	6	0	0	0	0	0	0	<5.0	6	n/a[7]	n/a[7]

[1] Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.
[2] Benefited residences with predicted noise levels that approach or exceed the NAC.
[3] Benefited residences with predicted noise levels that do not approach the NAC.
[4] Impacted residences that do not receive a minimum 5 dB(A) reduction from proposed noise barrier.
[5] Unit cost of $30/ft[2].
[6] ROW – Right of way noise barrier on I-4.
[7] Noise barrier system did not meet the acoustic feasibility requirement of a 5 dB(A) reduction at two impacted receptors, so no cost analysis was conducted.

The predicted noise levels are shown for residences in Appendix B-1. The receptor locations are shown on sheets 10-11 in the project aerials, located in Appendix D.

3.7.4. Jack Nicklaus Golf Course (East) (CNE WB02)

Also located in CNE WB02 is the Jack Nicklaus Golf Course's east section, which includes the holes east and west of Tradition Boulevard. In this area, eight NAC C receptor points, representing outdoor special-use locations on the golf course, were added to the model. Noise levels at the special use receptors are not expected to approach or exceed the NAC for the Build condition in the design year (2050). Noise levels are expected to increase, but not by 15 dB(A) at any receptor (the maximum predicted increase is 13.9 dB(A)); therefore, no special use receptors at the Jack Nicklaus Golf Course (east) are impacted by a substantial increase.

Noise barriers were evaluated following the FDOT Special Land Use procedures outlined in Section 3.3.1. Twenty additional receptor points were added to the model to better represent the entire impacted outdoor area on the golf course. Based on this evaluation, a maximum height and length noise barrier located along the westbound I-4 ROW could provide a 7 dB(A) reduction at one or more receptors and a 5 dB(A) reduction for 15% of the impacted area. However, for the ROW noise barrier to be cost reasonable, an average of 2,566 people would need to use the five benefited areas of the golf course for one hour per day. That would translate to roughly 467 concurrent golfers active on each hole for 10 hours every day, which is not possible. For this reason, the person-hours necessary to make a noise barrier cost reasonable in this location cannot be met, and noise barriers are not a potentially feasible and reasonable method to abate traffic-related noise for the special use sites in CNE WB02.

Table 3-20 summarizes the various noise barrier configurations that were evaluated for Jack Nicklaus Golf Course (east).

Table 3-20 – Jack Nicklaus Golf Course (East) (CNE WB02)

Height (feet)	Length[1] (feet)	Location	Total Cost[2]	Benefited Acreage within impact area	Percentage of Impacted Area Benefited	Does the barrier satisfy the Noise Reduction Design Goal (-7dB(A))	Required Person-Hours of Daily Use Within Benefited Area	Possible for Person-Hours of Daily Use Within Entire Facility to be met?
22	2,765	ROW[3]	$1,824,900	1.1	15	Yes	2,566	No
20	2,765	ROW[3]	$1,659,000	0.2	3	No	2,333	No

[1] Full height is for the length indicated. If a shoulder noise barrier location is indicated, the length of vertical height tapers at the shoulder barrier's terminus (See FDOT Standard Plans) would be in addition to the length indicated.
[2] Unit cost of $30/ft^2.
[3] ROW – Right of Way noise barrier on I-4.

The predicted noise levels are shown for special use sites in Appendix B-2. The receptor locations are shown on sheets 10-11 in the project aerials, located in Appendix D.

4. CONCLUSIONS

Noise levels at 579 residences and 26 special-use sites are predicted to approach or exceed the NAC for the design year 2050 Build Alternative. One hundred twenty-six residences and four special-use sites are expected to experience a substantial increase (15 dB(A)) in traffic noise compared to existing conditions.

Noise barriers were evaluated for all impacted sites identified in the noise modeling. The noise barrier analysis performed to date and summarized in Table 4-1 indicates that noise barriers could potentially provide reasonable and feasible noise abatement for 234 of the 579 impacted residences and provide a benefit to 44 non-impacted residences. The special use analysis determined that noise abatement was not feasible and reasonable for any of the 26 impacted special use sites; however, some special use locations will receive incidental benefits from noise barriers for the residential areas. The results of the noise barrier evaluations where noise abatement was determined to be potentially feasible and reasonable are summarized by noise sensitive area in Table 4-1.

The PD&E noise analysis indicates that noise barriers are feasible and reasonable in three noise-sensitive areas. These noise barriers may benefit 234 residences with predicted noise levels that approach or exceed the NAC. The noise barriers meet the FDOT's cost-per-benefit criteria with a preliminary cost under the $42,000 per benefited receptor criterion. Consequently, noise barriers are a potentially viable abatement measure at three locations along the project limits and will be given further consideration during the Design phase of this project. Table 4-1 shows the three noise sensitive areas where preliminary noise barriers were determined to be potentially feasible and reasonable.

4.1. Statement Of Likelihood

FTE is committed to the construction of feasible and reasonable noise abatement measures. Three potentially feasible and reasonable noise barrier systems have been identified for this project (see Table 4-1 for more detail on the noise barriers and their locations in the project aerials in Appendix D), contingent upon the following conditions:

- Final recommendations on the construction of abatement measures are determined during the project's final design and through the public involvement process;
- Detailed noise analyses during the final design process support the need, feasibility, and reasonableness of providing abatement;
- Cost analysis indicates that the cost of the noise barrier(s) will not exceed the cost-reasonable criterion;
- Community input supporting types, heights, and locations of the noise barrier(s) is provided to FTE; and
- Safety and engineering aspects have been reviewed, and any conflicts or issues resolved.

A land use review will be performed during the design phase to identify all noise-sensitive sites that may have received a building permit between the time the PD&E noise study began (October 19, 2022) and prior to the project's Date of Public Knowledge. The date that FTE approves the Environmental Assessment will be the Date of Public Knowledge. If the review identifies noise sensitive sites that have been permitted prior to the Date of Public Knowledge, then those sensitive sites will be evaluated for traffic noise impacts and abatement considerations.

Table 4-1 – Potentially Feasible and Reasonable Noise Barrier Evaluation Summary

Poinciana Parkway Extension from CR 532 to Sinclair Road - PD&E Study Report

Noise Sensitive Area	Number of Impacted Residences	Noise Barrier Approx. Begin Station	Noise Barrier Approx. End Station	Preliminary Noise Barrier Height (ft.)	Preliminary Noise Barrier Length (ft.)[1]	Preliminary Noise Barrier Location	Preliminary Noise Barrier Cost[2]	Number of Residences Potentially Benefited by a Noise Barrier[3]		Cost Per Benefited Residence
								Impacted	Total	
NOISE BARRIERS NORTHBOUND SIDE OF SR 429										
Encore West at Reunion, Reunion at 400 Apartments, & Encore East at Reunion (CNE NB02 & WB03)	241	5363+05	5381+80	22	2,330	ROW	$5,232,480	146	177	$29,562
		338+00	875+00	22	2,058	Offset ROW				
		874+00	20+ (ramp)	22	3,540	ROW				
NOISE BARRIERS EASTBOUND SIDE OF I-4										
Reunion Village (CNE EB01)	31	5268+00	5286+00	22	1,804	ROW	$1,190,640	31	38	$31,333
NOISE BARRIERS WESTBOUND SIDE OF I-4										
Tuscana Condos (CNE WB01)	58	5262+55	5278+00	22	1,586	ROW	$1,046,760	57	63	$16,615

[1] Full height is for length indicated. The length for any required taper in height at a shoulder noise barrier termination would be in addition to the length indicated.
[2] Unit cost of $30/ft2 for all non-shoulder noise barriers.
[3] Total includes impacted/benefited residences and residences with a predicted noise level that does not approach or exceed 67 dBA but are incidentally benefited.

5. CONSTRUCTION NOISE AND VIBRATION

Based on the existing land use within the limits of this project, the construction of the proposed roadway improvements will have temporary noise and vibration impacts. Construction noise sensitive sites include all noise sensitive sites detailed in Section 3.0 of this report. Vibration-sensitive sites on the project include residences and a school. Trucks, compaction equipment, earth-moving equipment, pumps, and generators are sources of construction noise and vibration. During the construction phase of the proposed project, short-term noise and vibration may be generated by stationary and mobile construction equipment. The construction noise and vibration will be temporary at any location and will be controlled by adherence to the most recent edition of the *FDOT Standard Specifications for Road and Bridge Construction*[6].

6. PUBLIC COORDINATION

Coordination with the public and local agencies and officials will be accomplished during the PD&E study. Local and community officials will be offered the opportunity to comment on the proposed project at the planned public meetings. A hybrid alternatives public information meeting was held at the start of the project on February 24, 2022, at the AdventHealth Nicholson Center (404 Celebration Place, Celebration, FL 34747), in addition to the virtual GoToMeeting component. The public hearing for this project is scheduled for Spring 2023. Any comments pertinent to the noise analysis will be noted in the final version of this report.

To promote compatibility between land development planning and the three main roadways that are part of this project: Poinciana Parkway Extension, SR 429, and I-4, the distance between the edge of the outside travel lane and the point where the roadway-related noise is predicted to reach the NAC for each activity category was estimated. These estimates are referred to as noise contours and are shown in Appendix C. These estimates provide the general distance at which the noise approaches or exceeds the NAC for each activity type.

7. REFERENCES

1. 23 CFR Part 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise; Federal Register, Vol. 75, No. 133, July 2010.

2. *Project Development and Environment Manual*; Florida Department of Transportation; Tallahassee, Florida; July 1, 2020.

3. *A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations*; Florida Department of Transportation; Tallahassee, Florida; July 2009.

4. *Measurement of Highway-Related Noise*; Federal Highway Administration; Springfield, Virginia; May 1996.

5. *Plans Preparation Manual*; Florida Department of Transportation; Tallahassee, Florida; 2017.

6. *Standard Specifications for Road and Bridge Construction*; Florida Department of Transportation; Tallahassee, Florida; 2022.

APPENDIX A: Noise Analysis Traffic Data

Noise Analysis Traffic Data

Poinciana Parkway Extension Connector
From CR 532 to North of I-4/SR 429 Interchange [Financial Project No: 446581-1]

Existing Conditions (2020)

Mainline

Mainline Traffic Segment	Number of Lanes	AADT	LOS C AADT	Peak Hour Peak Direction	LOS C Peak Hour Peak Direction	Design Hr. % T	Design Hr. % MT	Design Hr. % HT	Design Hr. % Buses	Design Hr. % Motorcycles	Standard K-factor	D-factor	Posted Speed (mph)
SR 429													
SR 429 from North of I-4 to Sinclair Road (MP 1)	4	31,800	61,300	1,735	3,730	5.65%	1.74%	3.26%	0.66%	0.06%	10.5%	58.0%	70
SR 429 from Sinclair Road (MP 1) to US 192 (MP 6)	4	33,300	61,300	1,968	3,730	5.65%	1.74%	3.26%	0.66%	0.06%	10.5%	58.0%	70
SR 429 from US 192 (MP 6) to Western Way (MP 8)	4	41,100	61,300	2,496	3,730	5.65%	1.74%	3.26%	0.66%	0.06%	10.5%	58.0%	70
SR 429 from Western Way (MP 8) to Seidel Road (MP 11)	4	49,700	61,300	2,457	3,750	5.65%	1.74%	3.26%	0.66%	0.06%	10.6%	58.0%	70
SR 429 north of Seidel Road (MP 11)	4	45,100	61,300	2,138	3,750	5.65%	1.74%	3.26%	0.66%	0.06%	10.6%	58.0%	70
I-4													
I-4 from CR 532 to SR 429	6	148,100	90,300	6,985	4,050	5.65%	1.74%	3.26%	0.66%	0.06%	8.0%	56.0%	65
I-4 from SR 429 to World Drive	6	128,300	90,300	5,465	4,050	5.65%	1.74%	3.26%	0.66%	0.06%	8.0%	56.0%	65

Ramps

Ramp	Number of Lanes	AADT	LOS C AADT	Peak Hour Peak Direction	LOS C Peak Hour Peak Direction	Design Hr. % T	Design Hr. % MT	Design Hr. % HT	Design Hr. % Buses	Design Hr. % Motorcycles	K-factor	D-factor	Operational Speed (mph)
SR 429													
Sinclair Road (MP 1)													
Sinclair Road (MP 1) - Southbound off	1	3,700	11,900	423	1,310	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
Sinclair Road (MP 1) - Northbound on	1	3,100	11,900	282	1,310	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	35
Sinclair Road (MP 1) - Southbound on	1	3,000	14,600	343	1,310	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	63.0%	40
Sinclair Road (MP 1) - Northbound off	1	2,300	14,600	231	1,310	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	63.0%	40
Poinciana Parkway /CR 532													
Poinciana Parkway /CR 532 - Southbound on	1	2,900	11,800	480	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
Poinciana Parkway /CR 532 - Northbound off	1	2,900	11,800	480	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
Poinciana Parkway / US 17/92													
Poinciana Parkway / US 17/92 - Southbound off	1	1,000	11,800	140	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
Poinciana Parkway / US 17/92 - Northbound on	1	1,000	11,800	140	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
Poinciana Parkway / US 17/92 - Southbound on	1	6,100	11,800	940	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
Poinciana Parkway / US 17/92 - Northbound off	1	6,100	11,800	940	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
I-4													
CR 532 (MP 58)													
CR 532 - Eastbound off	1	6,900	14,400	582	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	55.0%	45
CR 532 - Westbound on	1	6,100	14,400	560	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	55.0%	45
CR 532 - Eastbound on	1	14,000	14,400	1,291	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	55.0%	45
CR 532 - Westbound off	1	16,000	14,400	1,575	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	55.0%	45
SR 429 (MP 60)													
SR 429 - East to North Ramp	1	11,200	12,900	1,099	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	10.0%	58.0%	45
SR 429 - South to West Ramp	1	14,600	12,900	1,575	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	10.0%	58.0%	45
SR 429 - West to North Ramp	1	2,200	11,700	197	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	67.0%	45
SR 429 - South to East Ramp	1	3,800	11,700	589	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	67.0%	45
World Drive (MP 62)													
World Drive - I-4 Eastbound to SR 417 off	2	25,000	57,300	1,951	2,580	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Eastbound to World Drive off	1	2,800	14,300	273	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Eastbound to World Drive off (loop ramp)	1	6,700	14,100	499	1,270	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	25
World Drive - SR 417 Eastbound from World Drive on	1	3,300	14,300	377	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Eastbound CD Road	4	18,800	61,300	1,798	3,260	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Westbound CD Road	4	18,800	61,300	1,257	3,260	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Westbound to World Drive off	1	1,100	14,300	159	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Westbound to World Drive off (loop ramp)	1	1,800	14,100	128	1,270	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	25
World Drive - SR 417 Westbound from World Drive on	1	7,500	14,300	502	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Westbound to I-4 on	1	23,400	14,300	1,466	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45

Arterial Traffic Segment	Number of Lanes	AADT	LOS C AADT	Peak Hour Peak Direction	LOS C Peak Hour Peak Direction	Design Hr. % T	Design Hr. % MT	Design Hr. % HT	Design Hr. % Buses	Design Hr. % Motorcycles	K-factor	D-factor	Posted Speed (mph)
Sinclair Road													
SR 429 / Sinclair Road (MP 1) - East of SR 429	4	9,100	36,000	436	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	59.0%	45
SR 429 / Sinclair Road (MP 1) - West of SR 429	4	5,800	36,000	334	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	59.0%	45
Traditional Boulevard	2	2,400	7,400	193	620	2.49%	0.40%	1.97%	0.12%	0.12%	11.5%	73.0%	35
Old Lake Wilson Road													
North of I-4	2	21,400	13,600	1,006	620	2.49%	0.40%	1.97%	0.12%	0.12%	7.3%	63.0%	45
South of I-4	2	18,800	12,500	1,145	620	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	55.0%	45
Sand Hill Road	2	2,400	7,400	193	620	2.49%	0.40%	1.97%	0.12%	0.12%	11.5%	73.0%	45
Canary Island Drive	2	2,400	7,400	193	620	2.49%	0.40%	1.97%	0.12%	0.12%	11.5%	73.0%	35
Indian Creek Boulevard	2	2,400	7,400	193	620	2.49%	0.40%	1.97%	0.12%	0.12%	11.5%	73.0%	25
Funie Steed Road													
Westside Boulevard to Formosa Gardens Boulevard	2	9,400	19,400	355	800	2.49%	0.40%	1.97%	0.12%	0.12%	8.1%	51.0%	35
Formosa Gardens Boulevard to Old Lake Wilson Road	2	4,600	12,400	202	530	2.49%	0.40%	1.97%	0.12%	0.12%	7.3%	59.0%	35
Irlo Bronson Memorial Highway	6	40,400	53,600	2,433	2,940	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	61.0%	45
Formosa Gardens Blvd/Connector Road													
US 192 to Funie Steed Road	4	12,000	27,900	751	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	35
Funie Steed Road to Livingstone Road	2	7,800	9,100	478	620	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	35
Livingstone Road to Sinclair Road	4	7,800	27,900	478	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	35
Celebration Boulevard	4	15,200	29,700	1,002	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.7%	66.0%	40
East Orange Lake Boulevard													
North of US 192	4	5,400	39,300	333	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	54.0%	35
South of US 192	4	9,200	39,300	605	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	54.0%	35
West Orange Lake Boulevard (North of US 192)	2	2,800	17,100	140	830	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	54.0%	35
Hartzog Road (South of US 192)	4	7,600	27,900	348	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	40
Avalon Road (south of Seidel Road)	2	19,600	9,100	892	620	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	45
Osceola Polk Line Road													
West of I-4	4	25,800	27,900	1,142	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	45
East of I-5	2	29,400	12,100	1,302	830	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	45

Notes:

(1) Mainline, ramp and arterial traffic volumes (Annual Average Daily Traffic (AADT) and Peak Hour Peak Direction) are based on the ongoing Western Beltway (SR 429) Widening from I-4 to Seidel Road PD&E study

(2) Mainline and ramp Level of Service (LOS C) maximum service volumes are derived from the Highway Capacity Manual (HCM) 7th edition

(3) Arterial LOS C maximum service volumes are obtained from FDOT 2020 Generalized Service Volume Tables and then adjusted to reflect field conditions.

(4) Mainline and ramp vehicle classification factors are obtained from Telemetry Traffic Monitoring Site (TTMS) 75280000 while the Arterial factors are obtained from TTMS 92090000.

(5) Mainline, ramp and arterial K and D factors are based on the ongoing Western Beltway (SR 429) Widening from I-4 to Seidel Road PD&E study

(6) Posted speed obtained by field observation. Engineering judgement is used to estimate ramp speeds.

(7) Traditional Boulevard, Sand Hill Road, Canary Island Drive, Indian Creek Boulevard, Funie Steed Road, Irlo Bronson Memorial Highway, Formosa Gardens Blvd, Celebration Blvd, Hartzog Road and Avalon Road AADTs were considered from Osceola County's 2020 Roadway Network Capacity Report. If data not available, similar facility AADTs were used.

Noise Analysis Traffic Data

Poinciana Parkway Extension Connector
From CR 532 to North of I-4/SR 429 Interchange [Financial Project No: 446581-1]

No-Build (2050) Conditions

Mainline

Mainline Traffic Segment	Number of Lanes	AADT	LOS C AADT	Peak Hour Peak Direction	LOS C Peak Hour Peak Direction	Design Hr. % T	Design Hr. % MT	Design Hr. % HT	Design Hr. % Buses	Design Hr. % Motorcycles	Standard K-factor	D-factor	Posted Speed (mph)
SR 429													
SR 429 from North of I-4 to Sinclair Road (MP 1)	4	90,600	61,300	4,530	3,730	5.65%	1.74%	3.26%	0.66%	0.06%	10.5%	58.0%	70
SR 429 from Sinclair Road (MP 1) to US 192 (MP 6)	4	90,000	61,300	5,050	3,730	5.65%	1.74%	3.26%	0.66%	0.06%	10.5%	58.0%	70
SR 429 from US 192 (MP 6) to Western Way (MP 8)	4	100,800	61,300	6,080	3,730	5.65%	1.74%	3.26%	0.66%	0.06%	10.5%	58.0%	70
SR 429 from Western Way (MP 8) to Seidel Road (MP 11)	4	124,600	61,300	6,950	3,750	5.65%	1.74%	3.26%	0.66%	0.06%	10.6%	58.0%	70
SR 429 north of Seidel Road (MP 11)	4	113,000	61,300	6,220	3,750	5.65%	1.74%	3.26%	0.66%	0.06%	10.6%	58.0%	70
Poinciana Parkway Extension (PPE)													
Poinciana Parkway from US 17/92 to CR 532	4	12,200	63,100	840	4,160	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	60.0%	65
I-4													
I-4 from CR 532 to SR 429 (with ELs)	12	242,200	177,700	11,290	7,960	5.65%	1.74%	3.26%	0.66%	0.06%	8.0%	56.0%	65
I-4 from SR 429 to World Drive (with ELs)	12	196,800	177,700	10,120	7,960	5.65%	1.74%	3.26%	0.66%	0.06%	8.0%	56.0%	65

Ramps

Ramp	Number of Lanes	AADT	LOS C AADT	Peak Hour Peak Direction	LOS C Peak Hour Peak Direction	Design Hr. % T	Design Hr. % MT	Design Hr. % HT	Design Hr. % Buses	Design Hr. % Motorcycles	K-factor	D-factor	Operational Speed (mph)
SR 429													
Sinclair Road (MP 1)													
Sinclair Road (MP 1) - Southbound off	1	6,600	11,900	990	1,310	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
Sinclair Road (MP 1) - Northbound on	1	6,600	11,900	990	1,310	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	35
Sinclair Road (MP 1) - Southbound on	1	6,900	14,600	820	1,310	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	63.0%	40
Sinclair Road (MP 1) - Northbound off	1	6,900	14,600	820	1,310	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	63.0%	40
Poinciana Parkway /CR 532													
Poinciana Parkway /CR 532 - Southbound on	1	6,100	11,800	840	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
Poinciana Parkway /CR 532 - Northbound off	1	6,100	11,800	840	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
Poinciana Parkway / US 17/92													
Poinciana Parkway / US 17/92 - Southbound off	1	1,600	11,800	220	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
Poinciana Parkway / US 17/92 - Northbound on	1	1,600	11,800	220	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
Poinciana Parkway / US 17/92 - Southbound on	1	12,300	11,800	1,740	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
Poinciana Parkway / US 17/92 - Northbound off	1	12,300	11,800	1,740	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
I-4													
CR 532 (MP 58)													
CR 532 - Eastbound off	1	13,900	14,400	1,070	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	55.0%	45
CR 532 - Westbound on	1	13,900	14,400	1,280	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	55.0%	45
CR 532 - Eastbound on	2	31,200	57,800	3,090	2,600	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	55.0%	45
CR 532 - Westbound off	2	31,200	57,800	3,020	2,600	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	55.0%	45
SR 429 (MP 60)													
SR 429 - East to North Ramp	1	34,000	12,900	2,820	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	10.0%	58.0%	45
SR 429 - South to West Ramp	2	34,000	51,600	3,080	2,580	5.65%	1.74%	3.26%	0.66%	0.06%	10.0%	58.0%	45
SR 429 - West to North Ramp	1	11,300	11,700	1,160	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	67.0%	45
SR 429 - South to East Ramp	1	11,300	11,700	1,180	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	67.0%	45
World Drive (MP 62)													
World Drive - I-4 Eastbound to SR 417 off	2	34,600	57,300	4,150	2,580	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Eastbound to World Drive off	1	4,100	14,300	550	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Eastbound to World Drive off (loop ramp)	1	8,500	14,100	880	1,270	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Eastbound from World Drive on	1	7,300	14,300	740	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Eastbound CD Road	4	29,300	61,300	3,300	3,260	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Westbound CD Road	4	29,300	61,300	2,140	3,260	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Westbound to World Drive off	1	2,400	14,300	270	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Westbound to World Drive off (loop ramp)	1	2,100	14,100	190	1,270	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Westbound from World Drive on	1	9,000	14,300	860	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Westbound to I-4 on	2	34,600	57,300	2,550	2,580	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45

Arterial Traffic Segment	Number of Lanes	AADT	LOS C AADT	Peak Hour Peak Direction	LOS C Peak Hour Peak Direction	Design Hr. % T	Design Hr. % MT	Design Hr. % HT	Design Hr. % Buses	Design Hr. % Motorcycles	K-factor	D-factor	Posted Speed (mph)
SR 429 / Sinclair Road (MP 1)													
SR 429 / Sinclair Road (MP 1) - East of SR 429	4	16,600	36,000	870	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	59.0%	45
SR 429 / Sinclair Road (MP 1) - West of SR 429	4	21,400	36,000	1,280	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	59.0%	45
Traditional Boulevard	2	4,600	7,400	367	620	2.49%	0.40%	1.97%	0.12%	0.12%	11.5%	73.0%	35
Old Lake Wilson Road													
North of I-4	2	40,700	13,600	1,911	620	2.49%	0.40%	1.97%	0.12%	0.12%	7.3%	63.0%	45
South of I-4	2	35,700	12,500	2,176	620	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	55.0%	45
Sand Hill Road	2	4,600	7,400	367	620	2.49%	0.40%	1.97%	0.12%	0.12%	11.5%	73.0%	45
Canary Island Drive	2	4,600	7,400	367	620	2.49%	0.40%	1.97%	0.12%	0.12%	11.5%	73.0%	35
Indian Creek Boulevard	2	4,600	7,400	367	620	2.49%	0.40%	1.97%	0.12%	0.12%	11.5%	73.0%	25
Funie Steed Road													
Westside Boulevard to Formosa Gardens Boulevard	2	17,900	19,400	675	800	2.49%	0.40%	1.97%	0.12%	0.12%	8.1%	51.0%	35
Formosa Gardens Boulevard to Old Lake Wilson Road	2	8,700	12,400	384	530	2.49%	0.40%	1.97%	0.12%	0.12%	7.3%	59.0%	35
Irlo Bronson Memorial Highway	6	76,800	53,600	4,623	2,940	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	61.0%	45
Formosa Gardens Blvd/Connector Road													
US 192 to Funie Steed Road	4	22,800	27,900	1,427	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	35
Funie Steed Road to Livingstone Road	2	14,800	9,100	908	620	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	35
Livingstone Road to Sinclair Road	4	14,800	27,900	908	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	35
Celebration Boulevard	4	28,900	29,700	1,904	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.7%	66.0%	40
East Orange Lake Boulevard													
North of US 192	4	13,000	39,300	660	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	54.0%	35
South of US 192	4	16,800	39,300	960	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	54.0%	35
West Orange Lake Boulevard													
North of US 192	2	7,600	17,100	360	830	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	54.0%	35
South of US 192	2	15,200	17,100	850	830	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	54.0%	35
Hartzog Road (South of US 192)	4	14,600	27,900	820	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	40
Avalon Road (south of Seidel Road)	4	38,400	27,900	1,960	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	45
Osceola Polk Line Road													
West of I-4	4	39,800	27,900	2,670	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	45
East of I-5	2	47,600	12,100	2,630	830	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	45
Poinciana Parkway /CR 532													
Poinciana Parkway /CR 532 - East of Poinciana Parkway	4	33,600	37,900	1,660	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	56.0%	45
Poinciana Parkway /CR 532 - West of Poinciana Parkway	4	44,600	37,900	2,400	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	56.0%	45
Poinciana Parkway / US 17/92													
Poinciana Parkway / US 17/92 - North of Poinciana Parkway	4	36,600	37,900	1,940	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	56.0%	45
Poinciana Parkway / US 17/92 - South of Poinciana Parkway	4	39,200	37,900	2,140	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	56.0%	45

Notes:

(1) Mainline, ramp and arterial traffic volumes (Annual Average Daily Traffic (AADT) and Peak Hour Peak Direction) are based on the ongoing Western Beltway (SR 429) Widening from I-4 to Seidel Road PD&E study
(2) Mainline and ramp Level of Service (LOS C) maximum service volumes are derived from the Highway Capacity Manual (HCM) 7th edition
(3) Arterial LOS C maximum service volumes are obtained from FDOT 2020 Generalized Service Volume Tables and then adjusted to reflect field conditions.
(4) Mainline and ramp vehicle classification factors are obtained from Telemetry Traffic Monitoring Site (TTMS) 75280000 while the Arterial factors are obtained from TTMS 92090000.
(5) Mainline, ramp and arterial K and D factors are based on the ongoing Western Beltway (SR 429) Widening from I-4 to Seidel Road PD&E study
(6) Posted speed obtained by field observation. Engineering judgement is used to estimate ramp speeds.
(7) Traditional Boulevard, Sand Hill Road, Canary Island Drive, Indian Creek Boulevard, Funie Steed Road, Irlo Bronson Memorial Highway, Formosa Gardens Blvd, Celebration Blvd, Hartzog Road and Avalon Road AADTs were considered from Osceola County's 2020 Roadway Network Capacity Report. If data not available, similar facility AADTs were used. Assumed 3% growth rate based on Travel Demand Model Report
(8) I-4 imptovements were considred from I-4 BtU

Noise Analysis Traffic Data

Poinciana Parkway Extension Connector
From CR 532 to North of I-4/SR 429 Interchange [Financial Project No: 446581-1]

Build (2050) Conditions

Mainline

Mainline Traffic Segment	Number of Lanes	AADT	LOS C AADT	Peak Hour Peak Direction	LOS C Peak Hour Peak Direction	Design Hr. % T	Design Hr. % MT	Design Hr. % HT	Design Hr. % Buses	Design Hr. % Motorcycles	Standard K-factor	D-factor	Posted Speed (mph)
SR 429													
SR 429 from North of I-4 to Sinclair Road (MP 1)	8	99,400	119,000	5,470	7,250	5.65%	1.74%	3.26%	0.66%	0.06%	10.5%	58.0%	70
SR 429 from Sinclair Road (MP 1) to Livingstone Road	8	94,000	119,000	5,610	7,250	5.65%	1.74%	3.26%	0.66%	0.06%	10.5%	58.0%	70
SR 429 from Livingstone Road to US 192 (MP 6)	8	100,600	119,000	6,130	7,250	5.65%	1.74%	3.26%	0.66%	0.06%	10.5%	58.0%	70
SR 429 from US 192 (MP 6) to Western Way (MP 8)	8	106,000	119,000	6,770	7,250	5.65%	1.74%	3.26%	0.66%	0.06%	10.5%	58.0%	70
SR 429 from Western Way (MP 8) to Seidel Road (MP 11)	8	128,800	119,000	6,940	7,280	5.65%	1.74%	3.26%	0.66%	0.06%	10.6%	58.0%	70
SR 429 north of Seidel Road (MP 11)	8	116,400	119,000	6,150	7,280	5.65%	1.74%	3.26%	0.66%	0.06%	10.6%	58.0%	70
Poinciana Parkway Extension (PPE)													
Poinciana Parkway from US 17/92 to CR 532	4	31,800	63,100	2,200	4,160	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	60.0%	65
Poinciana Parkway Extension from CR 532 to I-4	4	46,000	63,100	3,210	4,160	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	60.0%	65
I-4													
I-4 from CR 532 to SR 429 (with ELs)	14	216,600	196,100	10,000	8,790	5.65%	1.74%	3.26%	0.66%	0.06%	8.0%	56.0%	65
I-4 from SR 429 to World Drive (with ELs)	14	204,800	196,100	10,710	8,790	5.65%	1.74%	3.26%	0.66%	0.06%	8.0%	56.0%	65

Ramps

Ramp	Number of Lanes	AADT	LOS C AADT	Peak Hour Peak Direction	LOS C Peak Hour Peak Direction	Design Hr. % T	Design Hr. % MT	Design Hr. % HT	Design Hr. % Buses	Design Hr. % Motorcycles	K-factor	D-factor	Operational Speed (mph)
SR 429													
Sinclair Road (MP 1)													
Sinclair Road (MP 1) - Southbound off	1	3,600	11,900	580	1,310	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
Sinclair Road (MP 1) - Northbound on	1	3,600	11,900	580	1,310	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	35
Sinclair Road (MP 1) - Southbound on	1	6,300	14,600	720	1,310	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	63.0%	40
Sinclair Road (MP 1) - Northbound off	2	6,300	58,200	720	2,620	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	63.0%	40
Poinciana Parkway /CR 532													
Poinciana Parkway /CR 532 - Southbound off	1	7,100	11,800	1,010	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
Poinciana Parkway /CR 532 - Northbound on	1	7,100	11,800	1,010	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
Poinciana Parkway / US 17/92													
Poinciana Parkway / US 17/92 - Southbound off	1	7,900	11,800	1,120	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
Poinciana Parkway / US 17/92 - Northbound on	1	7,900	11,800	1,120	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
Poinciana Parkway / US 17/92 - Southbound on	1	8,800	11,800	1,280	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
Poinciana Parkway / US 17/92 - Northbound off	1	8,800	11,800	1,280	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	11.0%	65.0%	45
I-4													
CR 532 (MP 58)													
CR 532 - Eastbound off	1	12,400	14,400	880	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	55.0%	45
CR 532 - Westbound on	1	12,400	14,400	1,060	1,300	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	55.0%	45
CR 532 - Eastbound on	2	23,300	57,800	2,380	2,600	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	55.0%	45
CR 532 - Westbound off	2	23,300	57,800	2,270	2,600	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	55.0%	45
SR 429 (MP 60)													
SR 429 - East to North Ramp	2	29,600	51,600	2,690	2,580	5.65%	1.74%	3.26%	0.66%	0.06%	10.0%	58.0%	50
SR 429 - East to South Ramp	1	1,500	12,900	180	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	10.0%	58.0%	50
SR 429 -North to West Ramp	1	1,500	12,900	180	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	10.0%	58.0%	50
SR 429 -South to West Ramp	2	29,600	51,600	3,480	2,580	5.65%	1.74%	3.26%	0.66%	0.06%	10.0%	58.0%	50
SR 429 - West to North Ramp	2	11,300	51,600	920	2,580	5.65%	1.74%	3.26%	0.66%	0.06%	10.0%	58.0%	50
SR 429 - West to South Ramp	2	12,700	51,600	1,800	2,580	5.65%	1.74%	3.26%	0.66%	0.06%	10.0%	58.0%	50
SR 429 - South to East Ramp	1	11,300	12,900	1,800	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	10.0%	58.0%	50
SR 429 - North to East Ramp	2	12,700	51,600	990	2,580	5.65%	1.74%	3.26%	0.66%	0.06%	10.0%	58.0%	50
World Drive (MP 62)													
World Drive - I-4 Eastbound to SR 417 off	3	36,000	129,000	4,380	3,870	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Eastbound to World Drive off	1	4,400	14,300	590	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Eastbound to World Drive off (loop ramp)	1	8,800	14,100	920	1,270	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Eastbound from World Drive on	1	7,300	14,300	740	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Eastbound CD Road	4	30,100	61,300	3,450	3,260	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Westbound CD Road	4	31,100	61,300	2,170	3,260	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Westbound to World Drive off	1	2,400	14,300	270	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Westbound to World Drive off (loop ramp)	1	2,100	14,100	190	1,270	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Westbound from World Drive on	1	9,400	14,300	880	1,290	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45
World Drive - SR 417 Westbound to I-4 on	3	36,000	129,000	2,600	3,870	5.65%	1.74%	3.26%	0.66%	0.06%	9.0%	59.0%	45

Arterial Traffic Segment	Number of Lanes	AADT	LOS C AADT	Peak Hour Peak Direction	LOS C Peak Hour Peak Direction	Design Hr. % T	Design Hr. % MT	Design Hr. % HT	Design Hr. % Buses	Design Hr. % Motorcycles	K-factor	D-factor	Posted Speed (mph)
SR 429 / Sinclair Road (MP 1)													
SR 429 / Sinclair Road (MP 1) - East of SR 429	4	16,400	36,000	680	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	59.0%	45
SR 429 / Sinclair Road (MP 1) - West of SR 429	4	21,000	36,000	1,210	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	59.0%	45
Traditional Boulevard	2	4,600	7,400	367	620	2.49%	0.40%	1.97%	0.12%	0.12%	11.5%	73.0%	35
Old Lake Wilson Road													
North of I-4	2	40,700	13,600	1,911	620	2.49%	0.40%	1.97%	0.12%	0.12%	7.3%	63.0%	45
South of I-4	2	35,700	12,500	2,176	620	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	55.0%	45
Sand Hill Road	2	4,600	7,400	367	620	2.49%	0.40%	1.97%	0.12%	0.12%	11.5%	73.0%	45
Canary Island Drive	2	4,600	7,400	367	620	2.49%	0.40%	1.97%	0.12%	0.12%	11.5%	73.0%	35
Indian Creek Boulevard	2	4,600	7,400	367	620	2.49%	0.40%	1.97%	0.12%	0.12%	11.5%	73.0%	25
Funie Steed Road													
Westside Boulevard to Formosa Gardens Boulevard	2	17,900	19,400	675	800	2.49%	0.40%	1.97%	0.12%	0.12%	8.1%	51.0%	35
Formosa Gardens Boulevard to Old Lake Wilson Road	2	8,700	12,400	384	530	2.49%	0.40%	1.97%	0.12%	0.12%	7.3%	59.0%	35
Irlo Bronson Memorial Highway	6	76,800	53,600	4,623	2,940	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	61.0%	45
Formosa Gardens Blvd/Connector Road													
US 192 to Funie Steed Road	4	22,800	27,900	1,427	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	35
Funie Steed Road to Livingstone Road	2	14,800	9,100	908	620	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	35
Livingstone Road to Sinclair Road	4	14,800	27,900	908	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	35
Celebration Boulevard	4	28,900	29,700	1,904	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.7%	66.0%	40
East Orange Lake Boulevard													
North of US 192	4	13,000	39,300	660	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	54.0%	35
South of US 192	4	16,800	39,300	1,060	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	54.0%	35
West Orange Lake Boulevard													
North of US 192	2	7,600	17,100	360	830	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	54.0%	35
South of US 192	2	13,600	17,100	770	830	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	54.0%	35
Hartzog Road (South of US 192)	4	15,000	27,900	820	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	40
Avalon Road (south of Seidel Road)	4	39,200	27,900	1,960	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	45
Osceola Polk Line Road													
West of I-4	4	34,600	27,900	2,220	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	45
East of I-5	4	36,400	27,900	1,940	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	11.8%	58.0%	45
Poinciana Parkway /CR 532													
Poinciana Parkway /CR 532 - East of Poinciana Parkway	4	36,200	37,900	1,740	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	56.0%	45
Poinciana Parkway /CR 532 - West of Poinciana Parkway	4	33,800	37,900	1,700	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	56.0%	45
Poinciana Parkway / US 17/92													
Poinciana Parkway / US 17/92 - North of Poinciana Parkway	4	36,000	37,900	1,860	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	56.0%	45
Poinciana Parkway / US 17/92 - South of Poinciana Parkway	4	43,800	37,900	2,450	1,910	2.49%	0.40%	1.97%	0.12%	0.12%	9.0%	56.0%	45

Notes:

(1) Mainline, ramp and arterial traffic volumes (Annual Average Daily Traffic (AADT) and Peak Hour Peak Direction) are based on the ongoing Western Beltway (SR 429) Widening from I-4 to Seidel Road PD&E study

(2) Mainline and ramp Level of Service (LOS C) maximum service volumes are derived from the Highway Capacity Manual (HCM) 7th edition

(3) Arterial LOS C maximum service volumes are obtained from FDOT 2020 Generalized Service Volume Tables and then adjusted to reflect field conditions.

(4) Mainline and ramp vehicle classification factors are obtained from Telemetry Traffic Monitoring Site (TTMS) 75280000 while the Arterial factors are obtained from TTMS 92090000.

(5) Mainline, ramp and arterial K and D factors are based on the ongoing Western Beltway (SR 429) Widening from I-4 to Seidel Road PD&E study

(6) Posted speed obtained by field observation. Engineering judgement is used to estimate ramp speeds.

(7) Traditional Boulevard, Sand Hill Road, Canary Island Drive, Indian Creek Boulevard, Funie Steed Road, Irlo Bronson Memorial Highway, Formosa Gardens Blvd, Celebration Blvd, Hartzog Road and Avalon Road AADTs were considered from Osceola County's 2020 Roadway Network Capacity Report. If data not available, similar facility AADTs were used. Assumed 3% growth rate

APPENDIX B: Predicted Noise Levels

Predicted Noise Levels
Residential Properties

Noise Sensitive Area (NSA)	Rec. Point	No. of Units	NAC	NAC Criteria (dBA)	FDOT Criteria (dBA)	2017 Existing LAeq1h (dBA)	2045 No-Build LAeq1h (dBA)	2045 Build LAeq1h (dBA)	Increase	NAC Approach or Exceeded	Subst. Increase (>15dB(A))	Description
NB01	RNB01-001	1	B	67	66	48.9	51.2	57.6	8.7	No	No	Celebration Island Village
NB01	RNB01-002	1	B	67	66	49.4	51.6	57.9	8.5	No	No	Celebration Island Village
NB01	RNB01-003	1	B	67	66	49.1	51.6	57.7	8.6	No	No	Celebration Island Village
NB01	RNB01-004	1	B	67	66	49.8	52.1	58.2	8.4	No	No	Celebration Island Village
NB01	RNB01-005	1	B	67	66	50.6	52.3	58.3	7.7	No	No	Celebration Island Village
NB01	RNB01-006	1	B	67	66	50.9	52.5	58.4	7.5	No	No	Celebration Island Village
NB01	RNB01-007	1	B	67	66	51.2	52.7	58.5	7.3	No	No	Celebration Island Village
NB01	RNB01-008	1	B	67	66	51.4	52.9	58.7	7.3	No	No	Celebration Island Village
NB01	RNB01-009	1	B	67	66	51.1	53.1	58.8	7.7	No	No	Celebration Island Village
NB01	RNB01-010	1	B	67	66	51.7	53.6	59.3	7.6	No	No	Celebration Island Village
NB01	RNB01-011	1	B	67	66	52.2	54.1	59.6	7.4	No	No	Celebration Island Village
NB01	RNB01-012	1	B	67	66	52.3	54.4	59.7	7.4	No	No	Celebration Island Village
NB01	RNB01-013	1	B	67	66	52.4	54.6	59.9	7.5	No	No	Celebration Island Village
NB01	RNB01-014	1	B	67	66	52.7	54.7	60.0	7.3	No	No	Celebration Island Village
NB01	RNB01-015	1	B	67	66	52.9	54.9	60.2	7.3	No	No	Celebration Island Village
NB01	RNB01-016	1	B	67	66	53.1	55.1	60.3	7.2	No	No	Celebration Island Village
NB01	RNB01-017	1	B	67	66	53.3	55.3	60.5	7.2	No	No	Celebration Island Village
NB01	RNB01-018	1	B	67	66	53.4	55.4	60.6	7.2	No	No	Celebration Island Village
NB01	RNB01-019	1	B	67	66	53.6	55.7	60.9	7.3	No	No	Celebration Island Village
NB01	RNB01-020	1	B	67	66	53.9	56.0	61.2	7.3	No	No	Celebration Island Village
NB01	RNB01-021	1	B	67	66	54.3	56.3	61.1	6.8	No	No	Celebration Island Village
NB02	RNB02-001B	1	B	67	66	67.5	69.6	**71.3**	3.8	Yes	No	Encore at Reunion (West)
NB02	RNB02-002B	1	B	67	66	67.2	69.5	**71.1**	3.9	Yes	No	Encore at Reunion (West)
NB02	RNB02-003B	1	B	67	66	66.5	68.9	**70.8**	4.3	Yes	No	Encore at Reunion (West)
NB02	RNB02-004B	1	B	67	66	65.6	68.0	**70.2**	4.6	Yes	No	Encore at Reunion (West)
NB02	RNB02-005B	1	B	67	66	65.2	67.6	**70.2**	5.0	Yes	No	Encore at Reunion (West)
NB02	RNB02-006B	1	B	67	66	64.3	66.9	**69.8**	5.5	Yes	No	Encore at Reunion (West)
NB02	RNB02-007B	1	B	67	66	63.9	66.5	**69.9**	6.0	Yes	No	Encore at Reunion (West)
NB02	RNB02-008B	1	B	67	66	63.1	66.0	**69.7**	6.6	Yes	No	Encore at Reunion (West)
NB02	RNB02-009B	1	B	67	66	62.5	65.7	**70.0**	7.5	Yes	No	Encore at Reunion (West)
NB02	RNB02-010B	1	B	67	66	62.0	65.6	**70.1**	8.1	Yes	No	Encore at Reunion (West)
NB02	RNB02-011B	1	B	67	66	61.8	65.8	**70.8**	9.0	Yes	No	Encore at Reunion (West)
NB02	RNB02-012B	1	B	67	66	61.4	66.0	**71.2**	9.8	Yes	No	Encore at Reunion (West)
NB02	RNB02-013B	1	B	67	66	61.5	66.6	**72.2**	10.7	Yes	No	Encore at Reunion (West)
NB02	RNB02-014B	1	B	67	66	61.4	67.0	**72.5**	11.1	Yes	No	Encore at Reunion (West)
NB02	RNB02-015B	1	B	67	66	62.0	68.0	**73.3**	11.3	Yes	No	Encore at Reunion (West)
NB02	RNB02-016	1	B	67	66	60.4	67.9	**72.0**	11.6	Yes	No	Encore at Reunion (West)
NB02	RNB02-017	1	B	67	66	60.2	68.5	**72.0**	11.8	Yes	No	Encore at Reunion (West)
NB02	RNB02-018	1	B	67	66	59.3	68.1	**71.1**	11.8	Yes	No	Encore at Reunion (West)
NB02	RNB02-019	1	B	67	66	59.0	67.1	**70.4**	11.4	Yes	No	Encore at Reunion (West)
NB02	RNB02-020	1	B	67	66	58.8	67.0	**70.2**	11.4	Yes	No	Encore at Reunion (West)
NB02	RNB02-021	1	B	67	66	58.0	66.0	**69.5**	11.5	Yes	No	Encore at Reunion (West)
NB02	RNB02-022	1	B	67	66	57.6	65.1	**69.0**	11.4	Yes	No	Encore at Reunion (West)
NB02	RNB02-023	1	B	67	66	56.7	62.9	**67.6**	10.9	Yes	No	Encore at Reunion (West)
NB02	RNB02-024	1	B	67	66	57.0	63.6	**68.0**	11.0	Yes	No	Encore at Reunion (West)
NB02	RNB02-025	1	B	67	66	57.3	64.4	**68.4**	11.1	Yes	No	Encore at Reunion (West)
NB02	RNB02-026	1	B	67	66	57.7	65.2	**69.1**	11.4	Yes	No	Encore at Reunion (West)
NB02	RNB02-027	1	B	67	66	58.5	66.7	**69.9**	11.4	Yes	No	Encore at Reunion (West)
NB02	RNB02-028	1	B	67	66	58.8	67.2	**70.3**	11.5	Yes	No	Encore at Reunion (West)
NB02	RNB02-029	1	B	67	66	59.7	68.2	**70.9**	11.2	Yes	No	Encore at Reunion (West)
NB02	RNB02-030	1	B	67	66	60.9	69.8	**71.8**	10.9	Yes	No	Encore at Reunion (West)
NB02	RNB02-031	1	B	67	66	62.4	71.6	**72.8**	10.4	Yes	No	Encore at Reunion (West)
NB02	RNB02-032	1	B	67	66	59.1	66.4	**69.7**	10.6	Yes	No	Encore at Reunion (West)
NB02	RNB02-033	1	B	67	66	54.7	59.9	63.5	8.8	No	No	Encore at Reunion (West)
NB02	RNB02-034	1	B	67	66	54.2	59.0	62.8	8.6	No	No	Encore at Reunion (West)
NB02	RNB02-035	1	B	67	66	54.2	58.4	62.9	8.7	No	No	Encore at Reunion (West)
NB02	RNB02-036	1	B	67	66	53.8	58.1	62.5	8.7	No	No	Encore at Reunion (West)
NB02	RNB02-037	1	B	67	66	53.7	57.6	62.7	9.0	No	No	Encore at Reunion (West)
NB02	RNB02-038	1	B	67	66	53.5	57.4	62.4	8.9	No	No	Encore at Reunion (West)
NB02	RNB02-039	1	B	67	66	54.0	57.9	63.9	9.9	No	No	Encore at Reunion (West)
NB02	RNB02-040	1	B	67	66	54.1	58.0	64.7	10.6	No	No	Encore at Reunion (West)
NB02	RNB02-041	1	B	67	66	54.1	57.8	64.8	10.7	No	No	Encore at Reunion (West)
NB02	RNB02-042	1	B	67	66	54.4	58.3	65.0	10.6	No	No	Encore at Reunion (West)
NB02	RNB02-043	1	B	67	66	54.5	58.6	65.2	10.7	No	No	Encore at Reunion (West)
NB02	RNB02-044	1	B	67	66	54.6	58.6	65.0	10.4	No	No	Encore at Reunion (West)
NB02	RNB02-045	1	B	67	66	54.9	59.2	65.0	10.1	No	No	Encore at Reunion (West)
NB02	RNB02-046	1	B	67	66	55.2	59.9	64.7	9.5	No	No	Encore at Reunion (West)
NB02	RNB02-047	1	B	67	66	58.2	65.1	**68.8**	10.6	Yes	No	Encore at Reunion (West)
NB02	RNB02-048	1	B	67	66	57.3	62.8	**68.9**	11.6	Yes	No	Encore at Reunion (West)
NB02	RNB02-049	1	B	67	66	55.9	61.3	**67.8**	11.9	Yes	No	Encore at Reunion (West)
NB02	RNB02-050	1	B	67	66	55.8	61.0	**67.3**	11.5	Yes	No	Encore at Reunion (West)
NB02	RNB02-051	1	B	67	66	55.7	61.2	**67.1**	11.4	Yes	No	Encore at Reunion (West)
NB02	RNB02-052	1	B	67	66	55.6	61.1	**66.8**	11.2	Yes	No	Encore at Reunion (West)
NB02	RNB02-053	1	B	67	66	55.2	60.5	65.9	10.7	No	No	Encore at Reunion (West)
NB02	RNB02-054	1	B	67	66	54.7	59.4	65.1	10.4	No	No	Encore at Reunion (West)
NB02	RNB02-055	1	B	67	66	54.5	59.0	64.6	10.1	No	No	Encore at Reunion (West)
NB02	RNB02-056B	1	B	67	66	56.5	61.0	65.8	9.3	No	No	Encore at Reunion (West)
NB02	RNB02-057B	1	B	67	66	57.2	62.1	**66.6**	9.4	Yes	No	Encore at Reunion (West)
NB02	RNB02-058B	1	B	67	66	57.6	62.6	**66.9**	9.3	Yes	No	Encore at Reunion (West)
NB02	RNB02-059B	1	B	67	66	58.1	63.3	**67.6**	9.5	Yes	No	Encore at Reunion (West)
NB02	RNB02-060B	1	B	67	66	58.7	64.0	**68.2**	9.5	Yes	No	Encore at Reunion (West)
NB02	RNB02-061B	1	B	67	66	59.3	64.7	**68.7**	9.4	Yes	No	Encore at Reunion (West)
NB02	RNB02-062B	1	B	67	66	60.7	66.0	**69.9**	9.2	Yes	No	Encore at Reunion (West)
NB02	RNB02-063B	1	B	67	66	62.6	67.9	**70.9**	8.3	Yes	No	Encore at Reunion (West)
NB02	RNB02-064B	1	B	67	66	65.1	69.3	**72.1**	7.0	Yes	No	Encore at Reunion (West)
NB02	RNB02-065B	1	B	67	66	66.2	70.4	**73.1**	6.9	Yes	No	Encore at Reunion (West)
NB02	RNB02-066B	1	B	67	66	67.8	72.1	**74.6**	6.8	Yes	No	Encore at Reunion (West)
NB02	RNB02-067B	1	B	67	66	68.3	72.5	**74.9**	6.6	Yes	No	Encore at Reunion (West)
NB02	RNB02-068B	1	B	67	66	69.9	74.1	**76.0**	6.1	Yes	No	Encore at Reunion (West)
NB02	RNB02-069B	1	B	67	66	69.7	73.9	**75.9**	6.2	Yes	No	Encore at Reunion (West)
NB02	RNB02-070	8	B	67	66	69.3	72.3	**75.1**	5.8	Yes	No	Encore at Reunion (West)
NB02	RNB02-071	1	B	67	66	67.4	71.6	**74.4**	7.0	Yes	No	Encore at Reunion (West)
NB02	RNB02-072	1	B	67	66	68.0	72.7	**75.2**	7.2	Yes	No	Encore at Reunion (West)
NB02	RNB02-073	1	B	67	66	67.5	72.0	**74.8**	7.3	Yes	No	Encore at Reunion (West)

Predicted Noise Levels
Residential Properties

Noise Sensitive Area (NSA)	Rec. Point	No. of Units	NAC	NAC Criteria (dBA)	FDOT Criteria (dBA)	2017 Existing LAeq1h (dBA)	2045 No-Build LAeq1h (dBA)	2045 Build LAeq1h (dBA)	Increase	NAC Approach or Exceeded	Subst. Increase (>15dB(A))	Description
NB02	RNB02-074	1	B	67	66	66.1	70.1	**73.4**	7.3	Yes	No	Encore at Reunion (West)
NB02	RNB02-075	1	B	67	66	65.4	69.4	**72.8**	7.4	Yes	No	Encore at Reunion (West)
NB02	RNB02-076	1	B	67	66	64.4	68.3	**72.1**	7.7	Yes	No	Encore at Reunion (West)
NB02	RNB02-077	1	B	67	66	63.1	66.7	**71.2**	8.1	Yes	No	Encore at Reunion (West)
NB02	RNB02-078	1	B	67	66	61.2	64.7	**69.8**	8.6	Yes	No	Encore at Reunion (West)
NB02	RNB02-079	1	B	67	66	60.7	64.3	**69.2**	8.5	Yes	No	Encore at Reunion (West)
NB02	RNB02-080	1	B	67	66	59.4	62.9	**68.0**	8.6	Yes	No	Encore at Reunion (West)
NB02	RNB02-081	1	B	67	66	59.1	62.8	**67.9**	8.8	Yes	No	Encore at Reunion (West)
NB02	RNB02-082	1	B	67	66	58.0	61.6	**66.8**	8.8	Yes	No	Encore at Reunion (West)
NB02	RNB02-083	1	B	67	66	56.4	60.1	65.1	8.7	No	No	Encore at Reunion (West)
NB02	RNB02-084	1	B	67	66	55.0	58.3	63.4	8.4	No	No	Encore at Reunion (West)
NB02	RNB02-085	1	B	67	66	52.0	55.7	60.4	8.4	No	No	Encore at Reunion (West)
NB02	RNB02-086	1	B	67	66	51.8	55.6	59.9	8.1	No	No	Encore at Reunion (West)
NB02	RNB02-087	1	B	67	66	51.9	55.3	59.9	8.0	No	No	Encore at Reunion (West)
NB02	RNB02-088	1	B	67	66	52.1	55.6	60.5	8.4	No	No	Encore at Reunion (West)
NB02	RNB02-089	9	B	67	66	53.9	57.6	63.8	9.9	No	No	Encore at Reunion (West)
NB02	RNB02-090	1	B	67	66	55.9	59.9	**66.5**	10.6	Yes	No	Encore at Reunion (West)
NB02	RNB02-091	1	B	67	66	56.8	60.7	**67.2**	10.4	Yes	No	Encore at Reunion (West)
NB02	RNB02-092	1	B	67	66	55.1	58.8	65.7	10.6	No	No	Encore at Reunion (West)
NB02	RNB02-093	1	B	67	66	56.7	60.4	**66.1**	9.4	Yes	No	Encore at Reunion (West)
NB02	RNB02-094	1	B	67	66	56.1	59.8	65.6	9.5	No	No	Encore at Reunion (West)
NB02	RNB02-095	1	B	67	66	53.3	56.5	62.4	9.1	No	No	Encore at Reunion (West)
NB02	RNB02-096	1	B	67	66	54.2	57.6	63.1	8.9	No	No	Encore at Reunion (West)
NB02	RNB02-097	1	B	67	66	54.1	57.6	62.9	8.8	No	No	Encore at Reunion (West)
NB02	RNB02-098	1	B	67	66	53.7	57.2	62.5	8.8	No	No	Encore at Reunion (West)
NB02	RNB02-099	1	B	67	66	54.0	57.6	62.6	8.6	No	No	Encore at Reunion (West)
NB02	RNB02-102A	1	B	67	66	66.8	70.5	**73.5**	6.7	Yes	No	Reunion at 400 Apts
NB02	RNB02-102B	1	B	67	66	68.8	72.9	**74.9**	6.1	Yes	No	Reunion at 400 Apts
NB02	RNB02-102C	1	B	67	66	70.2	74.4	**75.9**	5.7	Yes	No	Reunion at 400 Apts
NB02	RNB02-103A	2	B	67	66	63.0	66.6	**70.7**	7.7	Yes	No	Reunion at 400 Apts
NB02	RNB02-103B	2	B	67	66	65.7	69.8	**72.3**	6.6	Yes	No	Reunion at 400 Apts
NB02	RNB02-103C	2	B	67	66	67.2	71.5	**73.5**	6.3	Yes	No	Reunion at 400 Apts
NB02	RNB02-104A	1	B	67	66	59.1	62.8	**68.5**	9.4	Yes	No	Reunion at 400 Apts
NB02	RNB02-104B	1	B	67	66	63.0	67.0	**70.5**	7.5	Yes	No	Reunion at 400 Apts
NB02	RNB02-104C	1	B	67	66	64.6	69.0	**71.4**	6.8	Yes	No	Reunion at 400 Apts
NB02	RNB02-105A	4	B	67	66	66.8	70.3	**73.4**	6.6	Yes	No	Reunion at 400 Apts
NB02	RNB02-105B	4	B	67	66	68.6	72.6	**74.8**	6.2	Yes	No	Reunion at 400 Apts
NB02	RNB02-105C	4	B	67	66	70.1	74.1	**75.7**	5.6	Yes	No	Reunion at 400 Apts
NB02	RNB02-106A	6	B	67	66	65.4	69.1	**72.5**	7.1	Yes	No	Reunion at 400 Apts
NB02	RNB02-106B	6	B	67	66	67.6	71.5	**74.0**	6.4	Yes	No	Reunion at 400 Apts
NB02	RNB02-106C	6	B	67	66	68.9	72.8	**74.8**	5.9	Yes	No	Reunion at 400 Apts
NB02	RNB02-107A	4	B	67	66	61.8	66.1	**70.3**	8.5	Yes	No	Reunion at 400 Apts
NB02	RNB02-107B	4	B	67	66	65.8	69.9	**72.6**	6.8	Yes	No	Reunion at 400 Apts
NB02	RNB02-107C	4	B	67	66	66.9	71.0	**73.2**	6.3	Yes	No	Reunion at 400 Apts
NB02	RNB02-108A	6	B	67	66	60.7	65.3	**68.8**	8.1	Yes	No	Reunion at 400 Apts
NB02	RNB02-108B	6	B	67	66	64.2	68.5	**71.4**	7.2	Yes	No	Reunion at 400 Apts
NB02	RNB02-108C	6	B	67	66	65.9	70.0	**72.2**	6.3	Yes	No	Reunion at 400 Apts
NB02	RNB02-109A	1	B	67	66	60.3	64.9	**66.7**	6.4	Yes	No	Reunion at 400 Apts
NB02	RNB02-109B	1	B	67	66	63.4	67.6	**70.1**	6.7	Yes	No	Reunion at 400 Apts
NB02	RNB02-109C	1	B	67	66	65.4	69.3	**71.3**	5.9	Yes	No	Reunion at 400 Apts
NB02	RNB02-110A	2	B	67	66	58.4	63.5	65.3	6.9	No	No	Reunion at 400 Apts
NB02	RNB02-110B	2	B	67	66	61.4	66.1	**68.7**	7.3	Yes	No	Reunion at 400 Apts
NB02	RNB02-110C	2	B	67	66	64.2	68.1	**70.5**	6.3	Yes	No	Reunion at 400 Apts
NB02	RNB02-111A	1	B	67	66	56.8	61.6	62.9	6.1	No	No	Reunion at 400 Apts
NB02	RNB02-111B	1	B	67	66	59.2	63.6	**66.5**	7.3	Yes	No	Reunion at 400 Apts
NB02	RNB02-111C	1	B	67	66	62.3	66.3	**68.9**	6.6	Yes	No	Reunion at 400 Apts
NB02	RNB02-112A	1	B	67	66	55.5	59.7	60.5	5.0	No	No	Reunion at 400 Apts
NB02	RNB02-112B	1	B	67	66	57.8	61.8	64.1	6.3	No	No	Reunion at 400 Apts
NB02	RNB02-112C	1	B	67	66	59.9	64.2	**66.6**	6.7	Yes	No	Reunion at 400 Apts
NB02	RNB02-113A	2	B	67	66	54.9	58.8	59.8	4.9	No	No	Reunion at 400 Apts
NB02	RNB02-113B	2	B	67	66	57.6	61.3	63.2	5.6	No	No	Reunion at 400 Apts
NB02	RNB02-113C	2	B	67	66	59.2	63.5	65.6	6.4	No	No	Reunion at 400 Apts
NB02	RNB02-114A	1	B	67	66	55.7	59.3	59.8	4.1	No	No	Reunion at 400 Apts
NB02	RNB02-114B	1	B	67	66	58.8	62.2	63.2	4.4	No	No	Reunion at 400 Apts
NB02	RNB02-114C	1	B	67	66	60.0	63.7	65.2	5.2	No	No	Reunion at 400 Apts
NB02	RNB02-116A	6	B	67	66	52.2	55.8	58.0	5.8	No	No	Reunion at 400 Apts
NB02	RNB02-116B	6	B	67	66	55.4	59.1	62.5	7.1	No	No	Reunion at 400 Apts
NB02	RNB02-116C	6	B	67	66	58.1	61.9	64.8	6.7	No	No	Reunion at 400 Apts
NB02	RNB02-117A	4	B	67	66	54.1	57.9	62.2	8.1	No	No	Reunion at 400 Apts
NB02	RNB02-117B	4	B	67	66	58.0	61.9	65.0	7.0	No	No	Reunion at 400 Apts
NB02	RNB02-117C	4	B	67	66	61.0	65.0	**68.0**	7.0	Yes	No	Reunion at 400 Apts
NB02	RNB02-118A	6	B	67	66	60.2	64.1	**67.5**	7.3	Yes	No	Reunion at 400 Apts
NB02	RNB02-118B	6	B	67	66	62.8	66.8	**69.3**	6.5	Yes	No	Reunion at 400 Apts
NB02	RNB02-118C	6	B	67	66	66.1	70.1	**72.4**	6.3	Yes	No	Reunion at 400 Apts
NB02	RNB02-119B	3	B	67	66	62.3	65.1	**68.3**	6.0	Yes	No	Encore at Reunion (West)
NB02	RNB02-120B	3	B	67	66	60.6	63.7	**67.9**	7.3	Yes	No	Encore at Reunion (West)
SB01	RSB01-001	1	B	67	66	42.5	50.7	61.2	**18.7**	No	Yes	21 Palms RV Resort
SB01	RSB01-002	2	B	67	66	42.5	50.3	61.4	**18.9**	No	Yes	21 Palms RV Resort
SB01	RSB01-003	2	B	67	66	42.5	49.7	61.6	**19.1**	No	Yes	21 Palms RV Resort
SB01	RSB01-004	2	B	67	66	42.5	49.0	62.0	**19.5**	No	Yes	21 Palms RV Resort
SB01	RSB01-005	2	B	67	66	42.5	48.4	62.3	**19.8**	No	Yes	21 Palms RV Resort
SB01	RSB01-006	2	B	67	66	42.5	47.7	63.0	**20.5**	No	Yes	21 Palms RV Resort
SB01	RSB01-007	2	B	67	66	42.5	47.2	63.4	**20.9**	No	Yes	21 Palms RV Resort
SB01	RSB01-008	2	B	67	66	42.5	46.7	63.7	**21.2**	No	Yes	21 Palms RV Resort
SB01	RSB01-009	2	B	67	66	42.5	46.3	64.7	**22.2**	No	Yes	21 Palms RV Resort
SB01	RSB01-010	1	B	67	66	42.5	45.8	65.2	**22.7**	No	Yes	21 Palms RV Resort
SB01	RSB01-011	1	B	67	66	42.5	45.6	**66.3**	**23.8**	Yes	Yes	21 Palms RV Resort
SB01	RSB01-012	1	B	67	66	42.5	45.3	65.9	**23.4**	No	Yes	21 Palms RV Resort
SB01	RSB01-013	1	B	67	66	42.5	45.7	63.6	**21.1**	No	Yes	21 Palms RV Resort
SB01	RSB01-014	2	B	67	66	42.5	45.9	63.3	**20.8**	No	Yes	21 Palms RV Resort
SB01	RSB01-015	2	B	67	66	42.5	46.4	62.8	**20.3**	No	Yes	21 Palms RV Resort
SB01	RSB01-016	2	B	67	66	42.5	46.8	62.3	**19.8**	No	Yes	21 Palms RV Resort
SB01	RSB01-017	3	B	67	66	42.5	47.3	61.9	**19.4**	No	Yes	21 Palms RV Resort
SB01	RSB01-018	3	B	67	66	42.5	48.2	61.2	**18.7**	No	Yes	21 Palms RV Resort

Predicted Noise Levels
Residential Properties

Noise Sensitive Area (NSA)	Rec. Point	No. of Units	NAC	NAC Criteria (dBA)	FDOT Criteria (dBA)	2017 Existing LAeq1h (dBA)	2045 No-Build LAeq1h (dBA)	2045 Build LAeq1h (dBA)	Increase	NAC Approach or Exceeded	Subst. Increase (>15dB(A))	Description
SB01	RSB01-019	2	B	67	66	42.5	49.1	60.9	**18.4**	No	Yes	21 Palms RV Resort
SB01	RSB01-020	1	B	67	66	42.5	49.8	60.5	**18.0**	No	Yes	21 Palms RV Resort
SB01	RSB01-021	1	B	67	66	42.5	50.0	59.8	**17.3**	No	Yes	21 Palms RV Resort
SB01	RSB01-022	2	B	67	66	42.5	49.6	59.9	**17.4**	No	Yes	21 Palms RV Resort
SB01	RSB01-023	3	B	67	66	42.5	49.0	60.1	**17.6**	No	Yes	21 Palms RV Resort
SB01	RSB01-024	3	B	67	66	42.5	47.9	60.7	**18.2**	No	Yes	21 Palms RV Resort
SB01	RSB01-025	2	B	67	66	42.5	47.1	61.2	**18.7**	No	Yes	21 Palms RV Resort
SB01	RSB01-026	2	B	67	66	42.5	46.6	61.7	**19.2**	No	Yes	21 Palms RV Resort
SB01	RSB01-027	2	B	67	66	42.5	46.1	62.2	**19.7**	No	Yes	21 Palms RV Resort
SB01	RSB01-028	1	B	67	66	42.5	45.8	62.6	**20.1**	No	Yes	21 Palms RV Resort
SB01	RSB01-029	1	B	67	66	42.5	45.3	64.4	**21.9**	No	Yes	21 Palms RV Resort
SB01	RSB01-030	1	B	67	66	42.5	45.4	63.3	**20.8**	No	Yes	21 Palms RV Resort
SB01	RSB01-031	1	B	67	66	42.5	45.3	62.6	**20.1**	No	Yes	21 Palms RV Resort
SB01	RSB01-032	1	B	67	66	42.5	45.3	62.2	**19.7**	No	Yes	21 Palms RV Resort
SB01	RSB01-033	1	B	67	66	42.5	45.8	61.4	**18.9**	No	Yes	21 Palms RV Resort
SB01	RSB01-034	2	B	67	66	42.5	46.0	61.3	**18.8**	No	Yes	21 Palms RV Resort
SB01	RSB01-035	2	B	67	66	42.5	46.4	60.7	**18.2**	No	Yes	21 Palms RV Resort
SB01	RSB01-036	2	B	67	66	42.5	46.9	60.3	**17.8**	No	Yes	21 Palms RV Resort
SB01	RSB01-037	2	B	67	66	42.5	47.4	60.2	**17.7**	No	Yes	21 Palms RV Resort
SB01	RSB01-038	1	B	67	66	42.5	48.1	59.8	**17.3**	No	Yes	21 Palms RV Resort
SB01	RSB01-039	2	B	67	66	42.5	48.3	59.7	**17.2**	No	Yes	21 Palms RV Resort
SB01	RSB01-040	2	B	67	66	42.5	48.9	59.6	**17.1**	No	Yes	21 Palms RV Resort
SB01	RSB01-041	2	B	67	66	42.5	49.6	59.0	**16.5**	No	Yes	21 Palms RV Resort
SB01	RSB01-042	2	B	67	66	42.5	46.6	59.6	**17.1**	No	Yes	21 Palms RV Resort
SB01	RSB01-043	2	B	67	66	42.5	46.3	59.9	**17.4**	No	Yes	21 Palms RV Resort
SB01	RSB01-044	2	B	67	66	42.5	45.9	60.3	**17.8**	No	Yes	21 Palms RV Resort
SB01	RSB01-045	2	B	67	66	42.5	45.6	60.8	**18.3**	No	Yes	21 Palms RV Resort
SB01	RSB01-046	1	B	67	66	42.5	45.3	61.6	**19.1**	No	Yes	21 Palms RV Resort
SB01	RSB01-047	1	B	67	66	42.5	45.3	61.2	**18.7**	No	Yes	21 Palms RV Resort
SB01	RSB01-048	2	B	67	66	42.5	45.5	59.5	**17.0**	No	Yes	21 Palms RV Resort
SB01	RSB01-049	2	B	67	66	42.5	45.1	59.9	**17.4**	No	Yes	21 Palms RV Resort
SB01	RSB01-050	2	B	67	66	42.5	44.8	60.3	**17.8**	No	Yes	21 Palms RV Resort
SB01	RSB01-051	1	B	67	66	42.5	44.6	58.5	**16.0**	No	Yes	21 Palms RV Resort
SB01	RSB01-052	1	B	67	66	42.5	44.3	61.3	**18.8**	No	Yes	21 Palms RV Resort
SB01	RSB01-053	1	B	67	66	42.5	44.3	60.5	**18.0**	No	Yes	21 Palms RV Resort
SB01	RSB01-054	1	B	67	66	42.5	44.3	59.6	**17.1**	No	Yes	21 Palms RV Resort
SB01	RSB01-055	1	B	67	66	42.5	44.3	58.9	**16.4**	No	Yes	21 Palms RV Resort
SB01	RSB01-056	1	B	67	66	42.5	44.0	58.9	**16.4**	No	Yes	21 Palms RV Resort
SB01	RSB01-057	1	B	67	66	42.5	44.0	59.7	**17.2**	No	Yes	21 Palms RV Resort
SB01	RSB01-058	1	B	67	66	42.5	44.0	60.4	**17.9**	No	Yes	21 Palms RV Resort
SB01	RSB01-059	1	B	67	66	42.5	44.0	61.4	**18.9**	No	Yes	21 Palms RV Resort
SB02	RSB02-001	1	B	67	66	42.5	42.5	58.4	**15.9**	No	Yes	Sullivan Rd Residence
SB02	RSB02-002	1	B	67	66	42.5	42.5	**67.5**	**25.0**	Yes	Yes	Sullivan Rd Residence
SB02	RSB02-003	1	B	67	66	42.5	42.5	59.0	**16.5**	No	Yes	Sullivan Rd Residence
SB02	RSB02-004	1	B	67	66	42.5	42.5	**68.7**	**26.2**	Yes	Yes	Sullivan Rd Residence
SB02	RSB02-005	1	B	67	66	42.5	42.5	57.9	**15.4**	No	Yes	Sullivan Rd Residence
SB03	RSB03-002	6	B	67	66	46.5	48.5	60.6	14.1	No	No	Homestead @ Reunion
SB03	RSB03-003	1	B	67	66	48.0	50.3	63.2	**15.2**	No	Yes	Homestead @ Reunion
SB03	RSB03-004	1	B	67	66	48.1	50.3	62.2	14.1	No	No	Carriage Point @ Reunion
SB03	RSB03-005	1	B	67	66	48.3	50.4	61.6	13.3	No	No	Homestead @ Reunion
SB03	RSB03-006	10	B	67	66	44.8	46.8	58.6	13.8	No	No	Carriage Point @ Reunion
SB04	RSB04-001	1	B	67	66	51.6	53.1	**67.8**	**16.2**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-002	1	B	67	66	51.6	53.1	**68.0**	**16.4**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-003	1	B	67	66	51.7	53.2	**68.7**	**17.0**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-004	1	B	67	66	51.9	53.4	**69.3**	**17.4**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-005	1	B	67	66	52.0	53.6	**69.9**	**17.9**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-006	1	B	67	66	52.0	53.6	**70.0**	**18.0**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-007	1	B	67	66	52.2	53.8	**70.4**	**18.2**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-008	1	B	67	66	52.3	53.9	**70.6**	**18.3**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-009	1	B	67	66	52.5	54.1	**71.0**	**18.5**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-010	1	B	67	66	52.4	53.9	**71.1**	**18.7**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-011	1	B	67	66	52.4	54.1	**71.5**	**19.1**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-012	1	B	67	66	52.4	54.1	**71.6**	**19.2**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-013	1	B	67	66	52.6	54.3	**71.9**	**19.3**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-014	1	B	67	66	52.6	54.3	**72.1**	**19.5**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-015	1	B	67	66	52.8	54.5	**72.5**	**19.7**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-016	1	B	67	66	53.0	54.8	**73.2**	**20.2**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-017	1	B	67	66	53.2	55.1	**73.5**	**20.3**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-018	1	B	67	66	53.3	55.1	**73.6**	**20.3**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-019	1	B	67	66	54.0	55.9	**74.1**	**20.1**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-020	1	B	67	66	54.8	56.5	**74.3**	**19.5**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-021	1	B	67	66	56.6	58.0	**74.6**	**18.0**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-022	1	B	67	66	55.7	56.8	**67.3**	11.6	Yes	No	Carriage Point @ Reunion
SB04	RSB04-023	1	B	67	66	55.8	56.8	**67.7**	11.9	Yes	No	Carriage Point @ Reunion
SB04	RSB04-024	1	B	67	66	55.9	57.0	**68.2**	12.3	Yes	No	Carriage Point @ Reunion
SB04	RSB04-025	1	B	67	66	55.9	57.0	**68.3**	12.4	Yes	No	Carriage Point @ Reunion
SB04	RSB04-026	1	B	67	66	56.2	57.1	**68.6**	12.4	Yes	No	Carriage Point @ Reunion
SB04	RSB04-027	1	B	67	66	56.0	57.2	**68.8**	12.8	Yes	No	Carriage Point @ Reunion
SB04	RSB04-028	1	B	67	66	56.2	57.4	**69.2**	13.0	Yes	No	Carriage Point @ Reunion
SB04	RSB04-029	1	B	67	66	56.9	58.2	**70.1**	13.2	Yes	No	Carriage Point @ Reunion
SB04	RSB04-030	1	B	67	66	56.8	58.2	**70.1**	13.3	Yes	No	Carriage Point @ Reunion
SB04	RSB04-031	1	B	67	66	57.1	58.1	**69.9**	12.8	Yes	No	Carriage Point @ Reunion
SB04	RSB04-032	1	B	67	66	57.2	58.2	**69.9**	12.7	Yes	No	Carriage Point @ Reunion
SB04	RSB04-033	1	B	67	66	58.1	59.0	**69.4**	11.3	Yes	No	Carriage Point @ Reunion
SB04	RSB04-034	1	B	67	66	58.8	59.6	**69.1**	10.3	Yes	No	Carriage Point @ Reunion
SB04	RSB04-035	1	B	67	66	59.7	60.4	**69.0**	9.3	Yes	No	Carriage Point @ Reunion
SB04	RSB04-036	1	B	67	66	60.4	61.1	**69.0**	8.6	Yes	No	Carriage Point @ Reunion
SB04	RSB04-037	1	B	67	66	61.3	61.9	**68.9**	7.6	Yes	No	Carriage Point @ Reunion
SB04	RSB04-038	1	B	67	66	62.3	62.8	**69.0**	6.7	Yes	No	Carriage Point @ Reunion
SB04	RSB04-039	1	B	67	66	61.9	62.5	**71.1**	9.2	Yes	No	Carriage Point @ Reunion
SB04	RSB04-040	1	B	67	66	61.2	61.9	**71.1**	9.9	Yes	No	Carriage Point @ Reunion
SB04	RSB04-041	1	B	67	66	60.6	61.3	**71.1**	10.5	Yes	No	Carriage Point @ Reunion
SB04	RSB04-042	1	B	67	66	60.1	60.7	**71.2**	11.1	Yes	No	Carriage Point @ Reunion
SB04	RSB04-043	1	B	67	66	59.6	60.4	**71.3**	11.7	Yes	No	Carriage Point @ Reunion

Predicted Noise Levels
Residential Properties

Noise Sensitive Area (NSA)	Rec. Point	No. of Units	NAC	NAC Criteria (dBA)	FDOT Criteria (dBA)	2017 Existing LAeq1h (dBA)	2045 No-Build LAeq1h (dBA)	2045 Build LAeq1h (dBA)	Increase	NAC Approach or Exceeded	Subst. Increase (>15dB(A))	Description
SB04	RSB04-044	1	B	67	66	59.0	60.1	**71.4**	12.4	Yes	No	Carriage Point @ Reunion
SB04	RSB04-046	1	B	67	66	51.5	53.0	**67.3**	**15.8**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-047	1	B	67	66	51.4	53.0	**67.1**	**15.7**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-048	1	B	67	66	51.4	52.9	**66.6**	**15.2**	Yes	Yes	Carriage Point @ Reunion
SB04	RSB04-049	1	B	67	66	55.6	56.8	**67.0**	11.4	Yes	No	Carriage Point @ Reunion
SB04	RSB04-050	1	B	67	66	55.4	56.8	**66.7**	11.3	Yes	No	Carriage Point @ Reunion
SB04	RSB04-051	1	B	67	66	55.5	56.8	**66.5**	11.0	Yes	No	Carriage Point @ Reunion
SB04	RSB04-052	1	B	67	66	55.5	56.8	**66.3**	10.8	Yes	No	Carriage Point @ Reunion
SB04	RSB04-053	1	B	67	66	55.2	56.8	**66.1**	10.9	Yes	No	Carriage Point @ Reunion
SB04	RSB04-054	1	B	67	66	51.6	53.0	65.3	13.7	No	No	Carriage Point @ Reunion
SB04	RSB04-055	1	B	67	66	51.7	52.9	65.0	13.3	No	No	Carriage Point @ Reunion
SB04	RSB04-056	1	B	67	66	51.7	52.9	64.8	13.1	No	No	Carriage Point @ Reunion
SB04	RSB04-057	1	B	67	66	55.1	56.5	65.5	10.4	No	No	Carriage Point @ Reunion
SB04	RSB04-058	1	B	67	66	55.1	56.4	65.2	10.1	No	No	Carriage Point - pool
SB05	RSB05-001	1	B	67	66	53.5	57.4	61.5	8.0	No	No	Legends Corner
SB06	RSB06-001A	1	B	67	66	57.3	62.3	62.9	5.6	No	No	Cortland @ Reunion Apts
SB06	RSB06-001B	1	B	67	66	59.8	64.8	65.5	5.7	No	No	Cortland @ Reunion Apts
SB06	RSB06-001C	1	B	67	66	60.5	65.4	**66.4**	5.9	Yes	No	Cortland @ Reunion Apts
SB06	RSB06-002A	1	B	67	66	55.6	59.6	61.4	5.8	No	No	Cortland @ Reunion Apts
SB06	RSB06-002B	1	B	67	66	57.9	61.8	63.4	5.5	No	No	Cortland @ Reunion Apts
SB06	RSB06-002C	1	B	67	66	59.0	63.1	64.9	5.9	No	No	Cortland @ Reunion Apts
SB06	RSB06-003A	1	B	67	66	55.0	58.9	61.3	6.3	No	No	Cortland @ Reunion Apts
SB06	RSB06-003B	1	B	67	66	57.5	61.3	63.1	5.6	No	No	Cortland @ Reunion Apts
SB06	RSB06-003C	1	B	67	66	58.6	62.6	64.5	5.9	No	No	Cortland @ Reunion Apts
EB01	REB01-001	1	B	67	66	68.4	71.2	**72.1**	3.7	Yes	No	Reunion Village
EB01	REB01-002	1	B	67	66	72.5	76.3	**77.6**	5.1	Yes	No	Reunion Village
EB01	REB01-003	1	B	67	66	70.5	73.8	**75.1**	4.6	Yes	No	Reunion Village
EB01	REB01-004	1	B	67	66	68.2	71.0	**72.2**	4.0	Yes	No	Reunion Village
EB01	REB01-005	1	B	67	66	66.5	69.4	**70.4**	3.9	Yes	No	Reunion Village
EB01	REB01-006	8	B	67	66	70.6	73.8	**78.0**	7.4	Yes	No	Reunion Village
EB01	REB01-007	8	B	67	66	64.4	67.5	**71.4**	7.0	Yes	No	Reunion Village
EB01	REB01-008	8	B	67	66	61.6	64.4	**68.3**	6.7	Yes	No	Reunion Village
EB01	REB01-009	7	B	67	66	59.3	62.1	65.5	6.2	No	No	Reunion Village
EB01	REB01-010	1	B	67	66	74.9	78.3	**78.7**	3.8	Yes	No	Reunion Village
EB01	REB01-011	1	B	67	66	73.4	76.2	**76.7**	3.3	Yes	No	Reunion Village
EB01	REB01-012	1	B	67	66	61.0	64.9	65.1	4.1	No	No	Spectrum Townhomes
EB01	REB01-013	1	B	67	66	60.6	64.6	64.8	4.2	No	No	Spectrum Townhomes
EB01	REB01-014	1	B	67	66	60.3	64.3	64.6	4.3	No	No	Spectrum Townhomes
EB01	REB01-015	1	B	67	66	59.9	64.0	64.3	4.4	No	No	Spectrum Townhomes
EB01	REB01-016	1	B	67	66	59.6	63.7	63.9	4.3	No	No	Spectrum Townhomes
EB01	REB01-017	1	B	67	66	59.3	63.4	63.7	4.4	No	No	Spectrum Townhomes
EB01	REB01-018	1	B	67	66	59.0	62.9	63.4	4.4	No	No	Spectrum Townhomes
EB01	REB01-019	1	B	67	66	58.6	62.6	63.2	4.6	No	No	Spectrum Townhomes
EB02	REB02-001	1	B	67	66	62.5	64.9	**66.2**	3.7	Yes	No	Spectrum Resort Orlando Condominiums
EB02	REB02-003B	2	B	67	66	63.5	66.5	**67.2**	3.7	Yes	No	Spectrum Resort Orlando Condominiums
EB02	REB02-005B	2	B	67	66	64.1	66.2	**66.7**	2.6	Yes	No	Spectrum Resort Orlando Condominiums
EB02	REB02-006B	1	B	67	66	64.0	65.0	65.4	1.4	No	No	Spectrum Resort Orlando Condominiums
EB02	REB02-007	1	B	67	66	62.4	63.4	64.4	2.0	No	No	Spectrum Resort Orlando Condominiums
EB02	REB02-008	1	B	67	66	61.8	62.7	63.8	2.0	No	No	Spectrum Resort Orlando Condominiums
EB02	REB02-009A	4	B	67	66	62.3	62.4	63.4	1.1	No	No	Villas North @ Reunion
EB02	REB02-009B	4	B	67	66	64.5	64.4	64.8	0.3	No	No	Villas North @ Reunion
EB02	REB02-009C	4	B	67	66	66.1	66.5	**66.3**	0.2	Yes	No	Villas North @ Reunion
EB02	REB02-009D	2	B	67	66	66.8	67.5	**67.8**	1.0	Yes	No	Villas North @ Reunion
EB02	REB02-010A	4	B	67	66	62.3	61.6	63.0	0.7	No	No	Villas North @ Reunion
EB02	REB02-010B	4	B	67	66	64.5	63.9	64.4	-0.1	No	No	Villas North @ Reunion
EB02	REB02-010C	4	B	67	66	66.2	66.2	**66.1**	-0.1	Yes	No	Villas North @ Reunion
EB02	REB02-010D	2	B	67	66	66.9	67.3	**67.5**	0.6	Yes	No	Villas North @ Reunion
EB02	REB02-011A	4	B	67	66	62.3	61.2	62.5	0.2	No	No	Villas North @ Reunion
EB02	REB02-011B	4	B	67	66	64.5	63.3	63.9	-0.6	No	No	Villas North @ Reunion
EB02	REB02-011C	4	B	67	66	66.2	65.8	65.9	-0.3	No	No	Villas North @ Reunion
EB02	REB02-011D	2	B	67	66	66.9	67.0	**67.2**	0.3	Yes	No	Villas North @ Reunion
EB02	REB02-012A	4	B	67	66	62.2	61.0	62.4	0.2	No	No	Villas North @ Reunion
EB02	REB02-012B	4	B	67	66	64.5	63.1	63.6	-0.9	No	No	Villas North @ Reunion
EB02	REB02-012C	4	B	67	66	66.2	65.6	65.8	-0.4	No	No	Villas North @ Reunion
EB02	REB02-012D	2	B	67	66	66.9	66.7	**67.1**	0.2	Yes	No	Villas North @ Reunion
EB02	REB02-013A	4	B	67	66	61.4	60.9	62.6	1.2	No	No	Villas North @ Reunion
EB02	REB02-013B	4	B	67	66	64.1	62.6	63.3	-0.8	No	No	Villas North @ Reunion
EB02	REB02-013C	4	B	67	66	65.9	65.0	65.5	-0.4	No	No	Villas North @ Reunion
EB02	REB02-013D	2	B	67	66	66.8	66.6	**67.3**	0.5	Yes	No	Villas North @ Reunion
EB02	REB02-014A	4	B	67	66	60.3	60.9	63.2	2.9	No	No	Villas North @ Reunion
EB02	REB02-014B	4	B	67	66	63.4	62.7	63.7	0.3	No	No	Villas North @ Reunion
EB02	REB02-014C	4	B	67	66	65.4	64.9	65.7	0.3	No	No	Villas North @ Reunion
EB02	REB02-014D	2	B	67	66	66.5	66.4	**67.5**	1.0	Yes	No	Villas North @ Reunion
EB02	REB02-015A	4	B	67	66	59.5	61.1	63.9	4.4	No	No	Villas North @ Reunion
EB02	REB02-015B	4	B	67	66	62.3	63.0	64.4	2.1	No	No	Villas North @ Reunion
EB02	REB02-015C	4	B	67	66	64.9	64.9	65.9	1.0	No	No	Villas North @ Reunion
EB02	REB02-015D	2	B	67	66	66.1	66.4	**67.9**	1.8	Yes	No	Villas North @ Reunion
EB02	REB02-016A	4	B	67	66	59.6	61.6	64.5	4.9	No	No	Villas North @ Reunion
EB02	REB02-016B	4	B	67	66	62.1	63.3	65.3	3.2	No	No	Villas North @ Reunion
EB02	REB02-016C	4	B	67	66	64.4	65.3	**66.7**	2.3	Yes	No	Villas North @ Reunion
EB02	REB02-016D	2	B	67	66	65.7	66.6	**68.4**	2.7	Yes	No	Villas North @ Reunion
EB02	REB02-017A	1	B	67	66	59.6	61.8	65.0	5.4	No	No	Villas North @ Reunion
EB02	REB02-017B	1	B	67	66	61.9	63.5	65.8	3.9	No	No	Villas North @ Reunion
EB02	REB02-017C	1	B	67	66	64.0	65.4	**67.1**	3.1	Yes	No	Villas North @ Reunion
EB02	REB02-018A	1	B	67	66	59.7	61.9	65.2	5.5	No	No	Villas North @ Reunion
EB02	REB02-018B	1	B	67	66	61.9	63.7	**66.1**	4.2	Yes	No	Villas North @ Reunion
EB02	REB02-018C	1	B	67	66	64.0	65.5	**67.4**	3.4	Yes	No	Villas North @ Reunion
EB02	REB02-018D	1	B	67	66	65.4	66.7	**68.8**	3.4	Yes	No	Villas North @ Reunion
EB02	REB02-019A	1	B	67	66	59.9	62.1	65.4	5.5	No	No	Villas North @ Reunion
EB02	REB02-019B	1	B	67	66	62.0	63.9	**66.4**	4.4	Yes	No	Villas North @ Reunion
EB02	REB02-019C	1	B	67	66	64.0	65.6	**67.6**	3.6	Yes	No	Villas North @ Reunion
EB02	REB02-019D	1	B	67	66	65.4	66.8	**69.0**	3.6	Yes	No	Villas North @ Reunion
EB02	REB02-020A	1	B	67	66	60.2	62.2	65.6	5.4	No	No	Villas North @ Reunion
EB02	REB02-020B	1	B	67	66	62.0	64.0	**66.6**	4.6	Yes	No	Villas North @ Reunion

Predicted Noise Levels
Residential Properties

Noise Sensitive Area (NSA)	Rec. Point	No. of Units	NAC	NAC Criteria (dBA)	FDOT Criteria (dBA)	2017 Existing LAeq1h (dBA)	2045 No-Build LAeq1h (dBA)	2045 Build LAeq1h (dBA)	Increase	NAC Approach or Exceeded	Subst. Increase (>15dB(A))	Description
EB02	REB02-020C	1	B	67	66	64.0	65.6	**67.8**	3.8	Yes	No	Villas North @ Reunion
EB02	REB02-021A	1	B	67	66	60.2	62.2	65.8	5.6	No	No	Villas North @ Reunion
EB02	REB02-021B	1	B	67	66	62.1	64.0	**66.8**	4.7	Yes	No	Villas North @ Reunion
EB02	REB02-021C	1	B	67	66	63.9	65.6	**68.1**	4.2	Yes	No	Villas North @ Reunion
EB02	REB02-022A	1	B	67	66	59.7	62.1	65.8	6.1	No	No	Villas North @ Reunion
EB02	REB02-022B	1	B	67	66	62.1	64.1	**66.9**	4.8	Yes	No	Villas North @ Reunion
EB02	REB02-022C	1	B	67	66	63.9	65.5	**68.2**	4.3	Yes	No	Villas North @ Reunion
EB02	REB02-022D	1	B	67	66	65.2	66.7	**69.4**	4.2	Yes	No	Villas North @ Reunion
EB02	REB02-023A	1	B	67	66	59.9	62.2	**66.0**	6.1	Yes	No	Villas North @ Reunion
EB02	REB02-023B	1	B	67	66	62.2	64.2	**67.2**	5.0	Yes	No	Villas North @ Reunion
EB02	REB02-023C	1	B	67	66	63.9	65.6	**68.4**	4.5	Yes	No	Villas North @ Reunion
EB02	REB02-023D	1	B	67	66	65.2	66.7	**69.7**	4.5	Yes	No	Villas North @ Reunion
EB02	REB02-024A	1	B	67	66	59.4	62.1	**66.1**	6.7	Yes	No	Villas North @ Reunion
EB02	REB02-024B	1	B	67	66	62.2	64.1	**67.3**	5.1	Yes	No	Villas North @ Reunion
EB02	REB02-024C	1	B	67	66	63.9	65.5	**68.5**	4.6	Yes	No	Villas North @ Reunion
EB02	REB02-025A	1	B	67	66	59.6	62.0	**66.2**	6.6	Yes	No	Villas North @ Reunion
EB02	REB02-025B	1	B	67	66	62.3	64.1	**67.5**	5.2	Yes	No	Villas North @ Reunion
EB02	REB02-025C	1	B	67	66	64.2	65.6	**68.8**	4.6	Yes	No	Villas North @ Reunion
EB02	REB02-026A	1	B	67	66	60.0	62.2	**66.4**	6.4	Yes	No	Villas North @ Reunion
EB02	REB02-026B	1	B	67	66	62.6	64.1	**67.7**	5.1	Yes	No	Villas North @ Reunion
EB02	REB02-026C	1	B	67	66	64.6	65.8	**69.0**	4.4	Yes	No	Villas North @ Reunion
EB02	REB02-026D	1	B	67	66	65.6	66.7	**70.0**	4.4	Yes	No	Villas North @ Reunion
EB02	REB02-027A	1	B	67	66	60.5	62.4	**66.7**	6.2	Yes	No	Villas North @ Reunion
EB02	REB02-027B	1	B	67	66	63.0	64.3	**67.9**	4.9	Yes	No	Villas North @ Reunion
EB02	REB02-027C	1	B	67	66	64.9	66.0	**69.2**	4.3	Yes	No	Villas North @ Reunion
EB02	REB02-027D	1	B	67	66	65.7	66.8	**70.2**	4.5	Yes	No	Villas North @ Reunion
EB02	REB02-028A	1	B	67	66	61.4	62.9	**66.9**	5.5	Yes	No	Villas North @ Reunion
EB02	REB02-028B	1	B	67	66	64.0	65.0	**68.4**	4.4	Yes	No	Villas North @ Reunion
EB02	REB02-028C	1	B	67	66	65.3	66.3	**69.4**	4.1	Yes	No	Villas North @ Reunion
EB03	REB03-001A	1	B	67	66	57.9	62.1	62.1	4.2	No	No	Emerson Ridge Condos
EB03	REB03-001B	1	B	67	66	61.4	64.1	64.2	2.8	No	No	Emerson Ridge Condos
EB03	REB03-001C	1	B	67	66	62.9	65.4	65.6	2.7	No	No	Emerson Ridge Condos
EB03	REB03-002A	1	B	67	66	57.3	61.3	61.5	4.2	No	No	Emerson Ridge Condos
EB03	REB03-002B	1	B	67	66	60.8	63.5	63.6	2.8	No	No	Emerson Ridge Condos
EB03	REB03-002C	1	B	67	66	62.4	64.9	65.0	2.6	No	No	Emerson Ridge Condos
EB03	REB03-003A	1	B	67	66	62.0	65.1	65.2	3.2	No	No	Emerson Ridge Condos
EB03	REB03-003B	1	B	67	66	64.9	67.1	**67.3**	2.4	Yes	No	Emerson Ridge Condos
EB03	REB03-003C	1	B	67	66	66.4	68.4	**68.6**	2.2	Yes	No	Emerson Ridge Condos
EB03	REB03-004A	1	B	67	66	62.1	65.2	65.3	3.2	No	No	Emerson Ridge Condos
EB03	REB03-004B	1	B	67	66	65.0	67.2	**67.4**	2.4	Yes	No	Emerson Ridge Condos
EB03	REB03-004C	1	B	67	66	66.5	68.5	**68.7**	2.2	Yes	No	Emerson Ridge Condos
EB03	REB03-005A	1	B	67	66	61.2	64.2	64.4	3.2	No	No	Emerson Ridge Condos
EB03	REB03-005B	1	B	67	66	64.0	66.4	**66.5**	2.5	Yes	No	Emerson Ridge Condos
EB03	REB03-005C	1	B	67	66	65.6	67.7	**67.9**	2.3	Yes	No	Emerson Ridge Condos
EB03	REB03-006A	1	B	67	66	61.3	64.4	64.5	3.2	No	No	Emerson Ridge Condos
EB03	REB03-006B	1	B	67	66	64.1	66.5	**66.7**	2.6	Yes	No	Emerson Ridge Condos
EB03	REB03-006C	1	B	67	66	65.7	67.8	**68.1**	2.4	Yes	No	Emerson Ridge Condos
EB03	REB03-007A	1	B	67	66	60.4	63.7	63.8	3.4	No	No	Emerson Ridge Condos
EB03	REB03-007B	1	B	67	66	63.2	65.7	65.8	2.6	No	No	Emerson Ridge Condos
EB03	REB03-007C	1	B	67	66	65.2	67.2	**67.5**	2.3	Yes	No	Emerson Ridge Condos
EB03	REB03-008A	1	B	67	66	61.9	65.0	65.1	3.2	No	No	Emerson Ridge Condos
EB03	REB03-008B	1	B	67	66	65.0	67.3	**67.4**	2.4	Yes	No	Emerson Ridge Condos
EB03	REB03-008C	1	B	67	66	66.4	68.5	**68.8**	2.4	Yes	No	Emerson Ridge Condos
EB03	REB03-009A	1	B	67	66	61.4	64.6	64.7	3.3	No	No	Emerson Ridge Condos
EB03	REB03-009B	1	B	67	66	64.5	66.9	**67.0**	2.5	Yes	No	Emerson Ridge Condos
EB03	REB03-009C	1	B	67	66	66.1	68.1	**68.4**	2.3	Yes	No	Emerson Ridge Condos
EB03	REB03-010A	1	B	67	66	60.7	63.8	63.9	3.2	No	No	Emerson Ridge Condos
EB03	REB03-010B	1	B	67	66	63.8	66.1	**66.3**	2.5	Yes	No	Emerson Ridge Condos
EB03	REB03-010C	1	B	67	66	65.4	67.5	**67.7**	2.3	Yes	No	Emerson Ridge Condos
EB03	REB03-011A	1	B	67	66	60.5	63.5	63.7	3.2	No	No	Emerson Ridge Condos
EB03	REB03-011B	1	B	67	66	63.5	65.8	**66.0**	2.5	Yes	No	Emerson Ridge Condos
EB03	REB03-011C	1	B	67	66	65.2	67.2	**67.5**	2.3	Yes	No	Emerson Ridge Condos
EB03	REB03-012A	1	B	67	66	59.6	62.4	62.7	3.1	No	No	Emerson Ridge Condos
EB03	REB03-012B	1	B	67	66	62.1	64.6	64.8	2.7	No	No	Emerson Ridge Condos
EB03	REB03-012C	1	B	67	66	64.2	66.3	**66.5**	2.3	Yes	No	Emerson Ridge Condos
EB03	REB03-013A	1	B	67	66	59.1	61.9	62.1	3.0	No	No	Emerson Ridge Condos
EB03	REB03-013B	1	B	67	66	61.5	64.1	64.3	2.8	No	No	Emerson Ridge Condos
EB03	REB03-013C	1	B	67	66	63.7	65.9	**66.1**	2.4	Yes	No	Emerson Ridge Condos
EB03	REB03-014B	1	B	67	66	59.2	61.8	61.9	2.7	No	No	Emerson Ridge Condos
EB03	REB03-015B	1	B	67	66	61.9	64.6	64.8	2.9	No	No	Emerson Ridge Condos
EB03	REB03-016A	1	B	67	66	58.9	62.0	62.2	3.3	No	No	Emerson Ridge Condos
EB03	REB03-016B	1	B	67	66	61.5	64.3	64.5	3.0	No	No	Emerson Ridge Condos
EB03	REB03-017A	1	B	67	66	58.7	61.8	62.0	3.3	No	No	Emerson Ridge Condos
EB03	REB03-017B	1	B	67	66	61.3	64.3	64.5	3.2	No	No	Emerson Ridge Condos
EB03	REB03-018A	1	B	67	66	58.3	61.4	61.6	3.3	No	No	Emerson Ridge Condos
EB03	REB03-018B	1	B	67	66	61.0	63.9	64.1	3.1	No	No	Emerson Ridge Condos
EB03	REB03-019A	1	B	67	66	57.6	60.6	60.9	3.3	No	No	Emerson Ridge Condos
EB03	REB03-019B	1	B	67	66	60.0	62.9	63.1	3.1	No	No	Emerson Ridge Condos
EB03	REB03-020A	1	B	67	66	57.4	60.2	60.5	3.1	No	No	Emerson Ridge Condos
EB03	REB03-020B	1	B	67	66	59.9	62.8	63.0	3.1	No	No	Emerson Ridge Condos
EB03	REB03-023C	1	B	67	66	62.0	64.3	64.6	2.6	No	No	Emerson Ridge Condos
WB01	RWB01-001A	1	B	67	66	72.2	75.2	**75.5**	3.3	Yes	No	Tuscana Resort
WB01	RWB01-001B	1	B	67	66	73.5	76.9	**77.4**	3.9	Yes	No	Tuscana Resort
WB01	RWB01-001C	1	B	67	66	74.3	77.5	**77.9**	3.6	Yes	No	Tuscana Resort
WB01	RWB01-001D	1	B	67	66	74.5	77.5	**77.9**	3.4	Yes	No	Tuscana Resort
WB01	RWB01-002A	1	B	67	66	70.8	73.2	**73.6**	2.8	Yes	No	Tuscana Resort
WB01	RWB01-002B	1	B	67	66	72.2	75.3	**75.3**	3.1	Yes	No	Tuscana Resort
WB01	RWB01-002C	1	B	67	66	73.0	76.1	**76.5**	3.5	Yes	No	Tuscana Resort
WB01	RWB01-002D	1	B	67	66	73.3	76.3	**76.8**	3.5	Yes	No	Tuscana Resort
WB01	RWB01-003A	1	B	67	66	68.9	70.9	**71.4**	2.5	Yes	No	Tuscana Resort
WB01	RWB01-003B	1	B	67	66	70.9	73.5	**73.6**	2.7	Yes	No	Tuscana Resort
WB01	RWB01-003C	1	B	67	66	71.4	74.5	**74.8**	3.4	Yes	No	Tuscana Resort
WB01	RWB01-003D	1	B	67	66	72.0	75.0	**75.4**	3.4	Yes	No	Tuscana Resort
WB01	RWB01-004A	1	B	67	66	67.7	70.0	**70.5**	2.8	Yes	No	Tuscana Resort

Predicted Noise Levels
Residential Properties

Noise Sensitive Area (NSA)	Rec. Point	No. of Units	NAC	NAC Criteria (dBA)	FDOT Criteria (dBA)	2017 Existing LAeq1h (dBA)	2045 No-Build LAeq1h (dBA)	2045 Build LAeq1h (dBA)	Increase	NAC Approach or Exceeded	Subst. Increase (>15dB(A))	Description
WB01	RWB01-004B	1	B	67	66	70.1	72.4	**72.6**	2.5	Yes	No	Tuscana Resort
WB01	RWB01-004C	1	B	67	66	70.6	73.5	**73.6**	3.0	Yes	No	Tuscana Resort
WB01	RWB01-004D	1	B	67	66	71.3	74.2	**74.6**	3.3	Yes	No	Tuscana Resort
WB01	RWB01-005A	1	B	67	66	65.5	67.8	**68.4**	2.9	Yes	No	Tuscana Resort
WB01	RWB01-005B	1	B	67	66	68.9	70.7	**71.0**	2.1	Yes	No	Tuscana Resort
WB01	RWB01-005C	1	B	67	66	69.5	71.9	**72.2**	2.7	Yes	No	Tuscana Resort
WB01	RWB01-005D	1	B	67	66	70.0	72.9	**73.0**	3.0	Yes	No	Tuscana Resort
WB01	RWB01-006A	1	B	67	66	64.8	67.2	**67.8**	3.0	Yes	No	Tuscana Resort
WB01	RWB01-006B	1	B	67	66	68.4	69.9	**70.3**	1.9	Yes	No	Tuscana Resort
WB01	RWB01-006C	1	B	67	66	69.1	71.3	**71.6**	2.5	Yes	No	Tuscana Resort
WB01	RWB01-006D	1	B	67	66	69.5	72.3	**72.4**	2.9	Yes	No	Tuscana Resort
WB01	RWB01-007A	1	B	67	66	63.8	66.5	**67.1**	3.3	Yes	No	Tuscana Resort
WB01	RWB01-007B	1	B	67	66	67.7	69.1	**69.5**	1.8	Yes	No	Tuscana Resort
WB01	RWB01-007C	1	B	67	66	68.5	70.5	**70.8**	2.3	Yes	No	Tuscana Resort
WB01	RWB01-007D	1	B	67	66	68.8	71.4	**71.6**	2.8	Yes	No	Tuscana Resort
WB01	RWB01-008A	1	B	67	66	63.2	66.0	**66.6**	3.4	Yes	No	Tuscana Resort
WB01	RWB01-008B	1	B	67	66	67.1	68.6	**69.0**	1.9	Yes	No	Tuscana Resort
WB01	RWB01-008C	1	B	67	66	68.1	70.0	**70.3**	2.2	Yes	No	Tuscana Resort
WB01	RWB01-008D	1	B	67	66	68.5	70.8	**71.1**	2.6	Yes	No	Tuscana Resort
WB01	RWB01-009A	1	B	67	66	61.4	64.9	65.5	4.1	No	No	Tuscana Resort
WB01	RWB01-009B	1	B	67	66	66.1	67.3	**67.8**	1.7	Yes	No	Tuscana Resort
WB01	RWB01-009C	1	B	67	66	67.3	68.8	**69.2**	1.9	Yes	No	Tuscana Resort
WB01	RWB01-009D	1	B	67	66	67.7	69.7	**70.1**	2.4	Yes	No	Tuscana Resort
WB01	RWB01-010A	1	B	67	66	60.9	64.4	65.0	4.1	No	No	Tuscana Resort
WB01	RWB01-010B	1	B	67	66	65.7	66.8	**67.3**	1.6	Yes	No	Tuscana Resort
WB01	RWB01-010C	1	B	67	66	66.9	68.2	**68.6**	1.7	Yes	No	Tuscana Resort
WB01	RWB01-010D	1	B	67	66	67.3	69.2	**69.6**	2.3	Yes	No	Tuscana Resort
WB01	RWB01-011A	1	B	67	66	60.1	63.9	64.5	4.4	No	No	Tuscana Resort
WB01	RWB01-011B	1	B	67	66	65.1	66.3	**66.8**	1.7	Yes	No	Tuscana Resort
WB01	RWB01-011C	1	B	67	66	66.4	67.7	**68.2**	1.8	Yes	No	Tuscana Resort
WB01	RWB01-011D	1	B	67	66	66.9	68.7	**69.1**	2.2	Yes	No	Tuscana Resort
WB01	RWB01-012A	1	B	67	66	59.8	63.6	64.1	4.3	No	No	Tuscana Resort
WB01	RWB01-012B	1	B	67	66	64.7	65.9	**66.4**	1.7	Yes	No	Tuscana Resort
WB01	RWB01-012C	1	B	67	66	66.0	67.4	**67.8**	1.8	Yes	No	Tuscana Resort
WB01	RWB01-012D	1	B	67	66	66.5	68.3	**68.7**	2.2	Yes	No	Tuscana Resort
WB01	RWB01-014A	2	B	67	66	60.5	64.1	65.6	5.1	No	No	Tuscana Resort
WB01	RWB01-014B	2	B	67	66	65.3	66.4	**68.0**	2.7	Yes	No	Tuscana Resort
WB01	RWB01-014C	2	B	67	66	66.6	67.9	**69.0**	2.4	Yes	No	Tuscana Resort
WB01	RWB01-014D	2	B	67	66	67.1	68.9	**69.7**	2.6	Yes	No	Tuscana Resort
WB01	RWB01-015A	2	B	67	66	60.6	64.2	**66.4**	5.8	Yes	No	Tuscana Resort
WB01	RWB01-015B	2	B	67	66	65.4	66.5	**68.7**	3.3	Yes	No	Tuscana Resort
WB01	RWB01-015C	2	B	67	66	66.8	68.1	**69.7**	2.9	Yes	No	Tuscana Resort
WB01	RWB01-015D	2	B	67	66	67.2	69.1	**70.2**	3.0	Yes	No	Tuscana Resort
WB02	RWB02-001	1	B	67	66	61.9	64.4	64.6	2.7	No	No	Masters Landing
WB02	RWB02-002	1	B	67	66	62.2	64.8	65.2	3.0	No	No	Masters Landing
WB02	RWB02-003	1	B	67	66	62.8	65.4	**66.1**	3.3	Yes	No	Masters Landing
WB02	RWB02-004	1	B	67	66	60.0	62.5	65.0	5.0	No	No	Masters Landing
WB02	RWB02-005	1	B	67	66	59.5	61.8	65.0	5.5	No	No	Masters Landing
WB02	RWB02-006	1	B	67	66	59.1	61.6	65.3	6.2	No	No	Masters Landing
WB02	RWB02-007	1	B	67	66	59.3	61.7	65.7	6.4	No	No	Masters Landing
WB02	RWB02-008	1	B	67	66	60.3	62.8	**66.3**	6.0	Yes	No	Masters Landing
WB02	RWB02-009	1	B	67	66	60.9	63.4	**66.5**	5.6	Yes	No	Masters Landing
WB02	RWB02-010	1	B	67	66	60.5	63.0	**66.4**	5.9	Yes	No	Masters Landing
WB02	RWB02-011	1	B	67	66	60.6	63.2	**66.3**	5.7	Yes	No	Masters Landing
WB02	RWB02-012	1	B	67	66	60.7	63.3	**66.1**	5.4	Yes	No	Masters Landing
WB02	RWB02-013	1	B	67	66	59.5	62.2	65.2	5.7	No	No	Masters Landing
WB02	RWB02-014	1	B	67	66	58.8	61.6	64.3	5.5	No	No	Masters Landing
WB02	RWB02-015	1	B	67	66	59.1	62.1	64.0	4.9	No	No	Masters Landing
WB02	RWB02-016	1	B	67	66	58.9	61.8	63.7	4.8	No	No	Masters Landing
WB02	RWB02-017	1	B	67	66	59.3	61.8	63.6	4.3	No	No	Masters Landing
WB03	RWB03-001	1	B	67	66	66.3	68.5	**69.0**	2.7	Yes	No	Encore @ Reunion (East)
WB03	RWB03-002	1	B	67	66	66.6	68.9	**69.5**	2.9	Yes	No	Encore @ Reunion (East)
WB03	RWB03-003	1	B	67	66	67.8	70.0	**70.7**	2.9	Yes	No	Encore @ Reunion (East)
WB03	RWB03-004	1	B	67	66	69.2	71.5	**72.0**	2.8	Yes	No	Encore @ Reunion (East)
WB03	RWB03-005	1	B	67	66	70.0	72.3	**72.8**	2.8	Yes	No	Encore @ Reunion (East)
WB03	RWB03-006	1	B	67	66	70.7	73.0	**73.4**	2.7	Yes	No	Encore @ Reunion (East)
WB03	RWB03-007	3	B	67	66	70.6	73.1	**73.5**	2.9	Yes	No	Encore @ Reunion (East)
WB03	RWB03-008	2	B	67	66	70.5	73.6	**74.4**	3.9	Yes	No	Encore @ Reunion (East)
WB03	RWB03-009	3	B	67	66	70.9	73.9	**75.1**	4.2	Yes	No	Encore @ Reunion (East)
WB03	RWB03-010	5	B	67	66	70.8	73.9	**75.3**	4.5	Yes	No	Encore @ Reunion (East)
WB03	RWB03-011	2	B	67	66	69.7	73.1	**75.0**	5.3	Yes	No	Encore @ Reunion (East)
WB03	RWB03-012	2	B	67	66	68.0	72.0	**74.3**	6.3	Yes	No	Encore @ Reunion (East)
WB03	RWB03-013	2	B	67	66	64.8	69.8	**72.0**	7.2	Yes	No	Encore @ Reunion (East)
WB03	RWB03-014	3	B	67	66	62.8	67.7	**70.2**	7.4	Yes	No	Encore @ Reunion (East)
WB03	RWB03-015	1	B	67	66	59.1	64.8	**66.3**	7.2	Yes	No	Encore @ Reunion (East)
WB03	RWB03-016	1	B	67	66	59.4	65.4	**66.8**	7.4	Yes	No	Encore @ Reunion (East)
WB03	RWB03-017	1	B	67	66	60.4	65.5	**67.0**	6.6	Yes	No	Encore @ Reunion (East)
WB03	RWB03-018	1	B	67	66	61.7	66.4	**68.0**	6.3	Yes	No	Encore @ Reunion (East)
WB03	RWB03-019	2	B	67	66	62.2	66.6	**68.2**	6.0	Yes	No	Encore @ Reunion (East)
WB03	RWB03-022	3	B	67	66	61.5	66.1	**67.6**	6.1	Yes	No	Encore @ Reunion (East)
WB03	RWB03-023	3	B	67	66	61.2	66.0	**67.3**	6.1	Yes	No	Encore @ Reunion (East)
WB03	RWB03-024	4	B	67	66	62.5	66.9	**67.8**	5.3	Yes	No	Encore @ Reunion (East)
WB03	RWB03-025	1	B	67	66	63.4	67.2	**67.7**	4.3	Yes	No	Encore @ Reunion (East)
WB03	RWB03-026	1	B	67	66	63.5	67.1	**67.5**	4.0	Yes	No	Encore @ Reunion (East)
WB03	RWB03-027	1	B	67	66	63.5	66.9	**67.5**	4.0	Yes	No	Encore @ Reunion (East)
WB03	RWB03-028	1	B	67	66	62.8	66.3	**66.9**	4.1	Yes	No	Encore @ Reunion (East)
WB03	RWB03-029	1	B	67	66	62.8	65.9	**66.9**	4.1	Yes	No	Encore @ Reunion (East)
WB03	RWB03-030	1	B	67	66	62.5	65.5	**66.6**	4.1	Yes	No	Encore @ Reunion (East)
WB03	RWB03-031	1	B	67	66	62.0	65.3	**66.4**	4.4	Yes	No	Encore @ Reunion (East)
WB03	RWB03-032	3	B	67	66	61.3	64.9	65.9	4.6	No	No	Encore @ Reunion (East)
WB03	RWB03-033	7	B	67	66	59.5	64.6	65.6	6.1	No	No	Encore @ Reunion (East)
WB03	RWB03-034	3	B	67	66	59.3	64.3	65.6	6.3	No	No	Encore @ Reunion (East)
WB03	RWB03-035	2	B	67	66	59.6	65.2	**67.6**	8.0	Yes	No	Encore @ Reunion (East)
WB03	RWB03-036	2	B	67	66	59.2	64.5	**66.9**	7.7	Yes	No	Encore @ Reunion (East)

Predicted Noise Levels
Residential Properties

Noise Sensitive Area (NSA)	Rec. Point	No. of Units	NAC	NAC Criteria (dBA)	FDOT Criteria (dBA)	2017 Existing LAeq1h (dBA)	2045 No-Build LAeq1h (dBA)	2045 Build LAeq1h (dBA)	Increase	NAC Approach or Exceeded	Subst. Increase (>15dB(A))	Description
WB03	RWB03-037	2	B	67	66	58.9	63.7	**66.0**	7.1	Yes	No	Encore @ Reunion (East)
WB03	RWB03-038	2	B	67	66	58.1	62.9	65.4	7.3	No	No	Encore @ Reunion (East)
WB03	RWB03-039	2	B	67	66	57.3	61.9	64.6	7.3	No	No	Encore @ Reunion (East)
WB03	RWB03-040	2	B	67	66	56.6	61.4	64.0	7.4	No	No	Encore @ Reunion (East)
WB03	RWB03-041	2	B	67	66	55.7	60.1	63.0	7.3	No	No	Encore @ Reunion (East)
WB03	RWB03-042	7	B	67	66	54.3	58.2	60.1	5.8	No	No	Encore @ Reunion (East)
WB03	RWB03-043	6	B	67	66	54.2	58.1	59.9	5.7	No	No	Encore @ Reunion (East)

Predicted Noise Levels
Special Land Uses

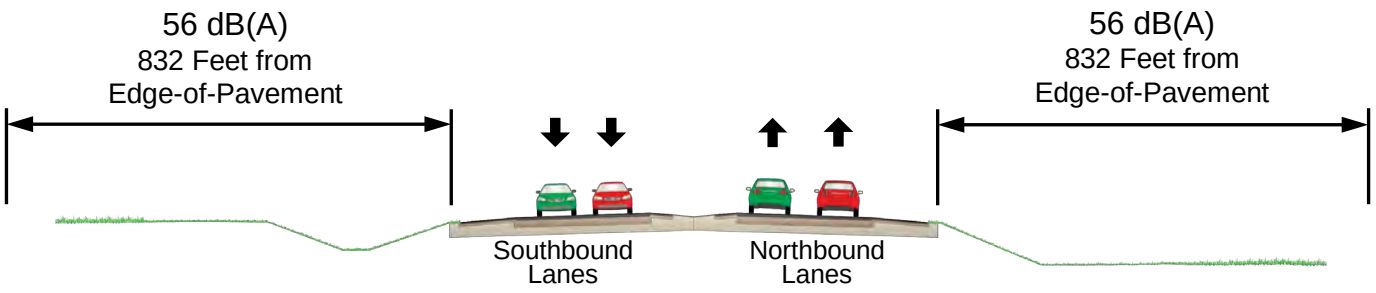
Noise Sensitive Area (NSA)	Rec. Point	No. of Units	NAC	NAC Criteria (dBA)	FDOT Criteria (dBA)	2016 Existing LAeq1h (dBA)	2042 No-Build LAeq1h (dBA)	2042 Build LAeq1h (dBA)	Increase	NAC Approach or Exceeded	Subst. Increase (>15dB(A))	Description
XX.X	Impacted Receptor											
NB01	NNB01-022.1	1	C	67	66	62.4	67	**67.0**	4.6	Yes	No	Celebration Island School playground
NB01	NNB01-022.2	1	C	67	66	62.9	67.4	**67.3**	4.4	Yes	No	Celebration Island School playground
NB01	NNB01-023	1	C	67	66	64.2	68.5	**68.6**	4.4	Yes	No	Celebration Island School basketball Ct
NB02	NNB02-100	1	C	67	66	69	73	**75.1**	6.1	Yes	No	Reunion at 400 dog park
NB02	NNB02-101	1	C	67	66	68.8	72.7	**74.9**	6.1	Yes	No	Reunion at 400 playground
NB02	NNB02-115	1	C	67	66	53.3	57.3	58.4	5.1	No	No	Reunion at 400 Pool
SB01	NSB01-060	1	C	67	66	42.5	51.2	59.8	17.3	No	Yes	21 Palms RV Resort-Pool
SB03	NSB03-001.1	1	C	67	66	44.4	46.3	60.7	16.3	No	Yes	Tom Watson Golf Course
SB03	NSB03-001.2	1	C	67	66	46.3	48.1	64.7	18.4	No	Yes	Tom Watson Golf Course
SB03	NSB03-001.3	1	C	67	66	46.7	48.8	63.8	17.1	No	Yes	Tom Watson Golf Course
SB04	NSB04-045	1	C	67	66	59.5	60.6	**72.9**	13.4	Yes	No	Carriage Point - pool
EB02	NEB02-002	1	C	67	66	63	65.4	**66.7**	3.7	Yes	No	Spectrum Resort Orlando Playground
EB02	NEB02-004	1	C	67	66	63	64.9	**66.1**	3.1	Yes	No	Spectrum Resort Orlando - Office patio
EB03	NEB03-021	1	C	67	66	65.1	68.3	**68.3**	3.2	Yes	No	Emerson Ridge Condos - Dog park
EB03	NEB03-022	1	C	67	66	57.6	60.2	60.4	2.8	No	No	Emerson Ridge Condos - Playground
EB03	NEB03-023	1	C	67	66	57.4	60.1	60.3	2.9	No	No	Emerson Ridge Condos - pool
WB01	NWB01-013.1	1	C	67	66	62.2	65.8	**66.0**	3.8	Yes	No	Jack Nicklaus Golf Course - Green
WB01	NWB01-013.2	1	C	67	66	69.5	72.4	**72.4**	2.9	Yes	No	Jack Nicklaus Golf Course - Tee
WB01	NWB01-013.3	1	C	67	66	67.1	69.8	**69.9**	2.8	Yes	No	Jack Nicklaus Golf Course - Tee
WB01	NWB01-013.4	1	C	67	66	65.7	68.6	**68.7**	3.0	Yes	No	Jack Nicklaus Golf Course - Tee
WB02	NWB02-018.1	1	C	67	66	63.4	66.3	**66.5**	3.1	Yes	No	Jack Nicklaus Golf Course - Green
WB02	NWB02-018.2	1	C	67	66	65.4	68.2	**68.9**	3.5	Yes	No	Jack Nicklaus Golf Course - Tee
WB02	NWB02-018-3	1	C	67	66	68.5	71.2	**71.9**	3.4	Yes	No	Jack Nicklaus Golf Course - Tee
WB02	NWB02-019.1	1	C	67	66	58.4	60.9	**70.5**	12.1	Yes	No	Jack Nicklaus Golf Course - Green
WB02	NWB02-019.2	1	C	67	66	59.6	63	**73.5**	13.9	Yes	No	Jack Nicklaus Golf Course - Tee
WB02	NWB02-019.3	1	C	67	66	58.5	61.8	**69.8**	11.3	Yes	No	Jack Nicklaus Golf Course - Tee
WB02	NWB02-019.4	1	C	67	66	58.5	61	**66.3**	7.8	Yes	No	Jack Nicklaus Golf Course - Green
WB02	NWB02-019.5	1	C	67	66	61.8	64.6	**66.4**	4.6	Yes	No	Jack Nicklaus Golf Course - Tee
WB03	NWB03-020	1	C	67	66	62.2	66.6	**68.3**	6.1	Yes	No	Encore @ Reunion - Basketball Ct.
WB03	NWB03-021	1	C	67	66	58.6	64.3	65.5	6.9	No	No	Encore @ Reunion Playground

APPENDIX C: Project Noise Contours

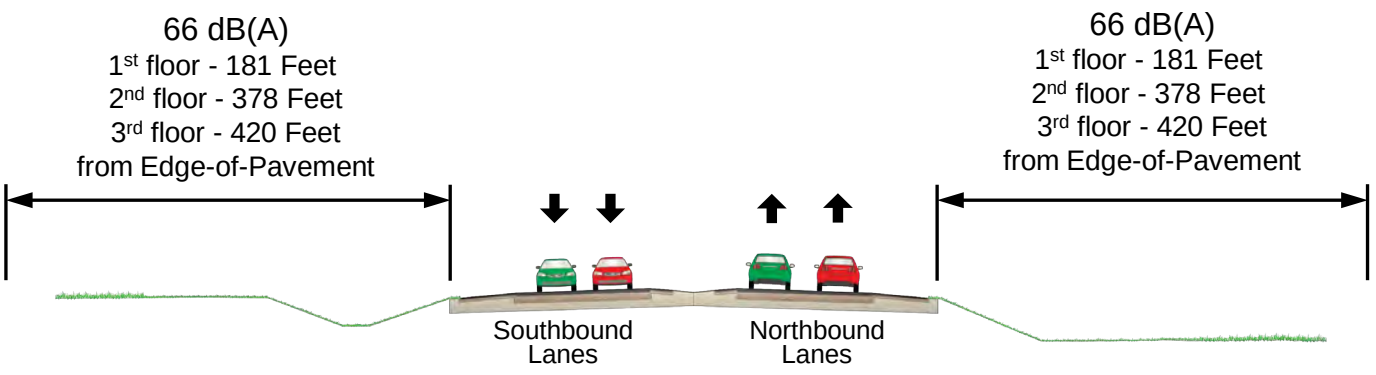
Poinciana Parkway Extension Noise Contours

4-Lane Segment on Poinciana Parkway

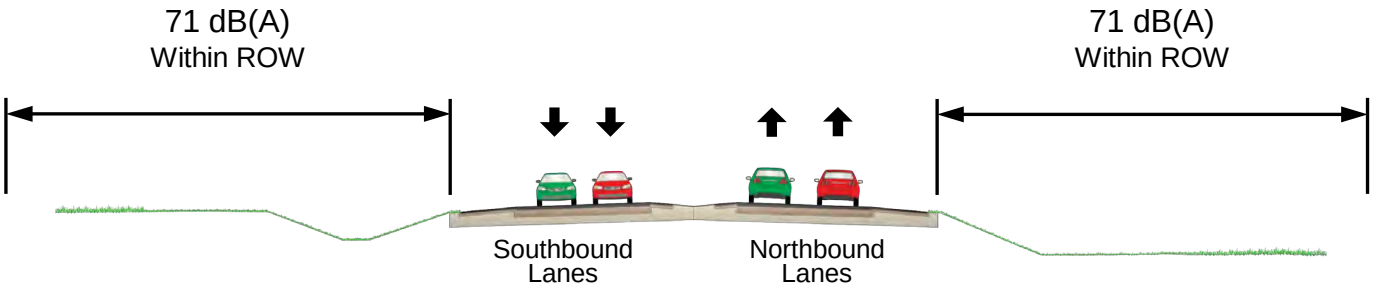
From north of County Road 532 to Interstate 4



Activity Category A



Activity Category B/C

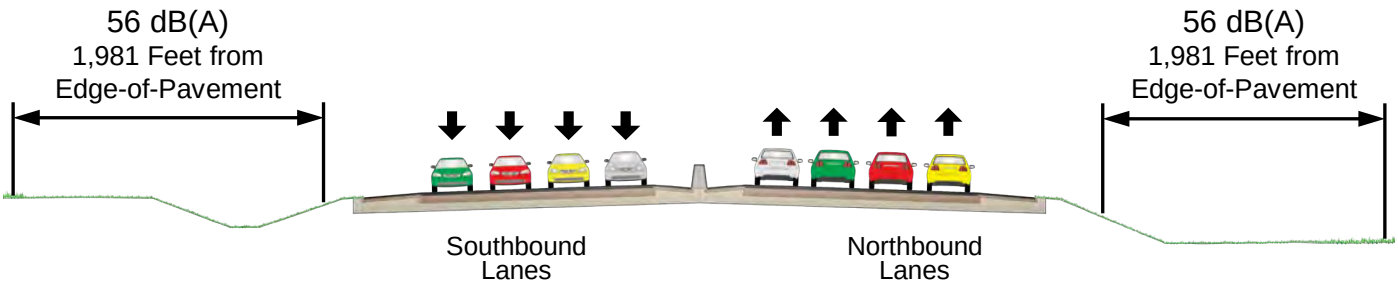


Activity Category E

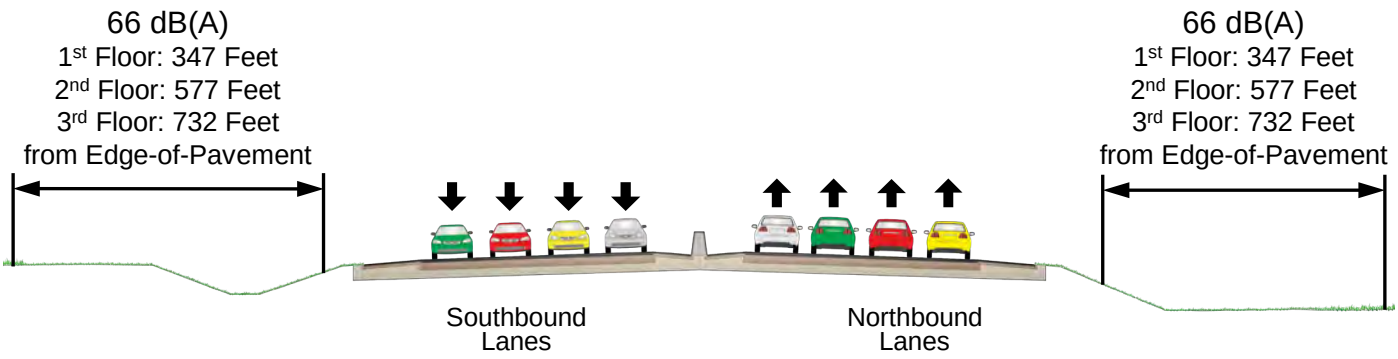
Poinciana Parkway Extension Noise Contours

8-Lane Segment on State Road 429

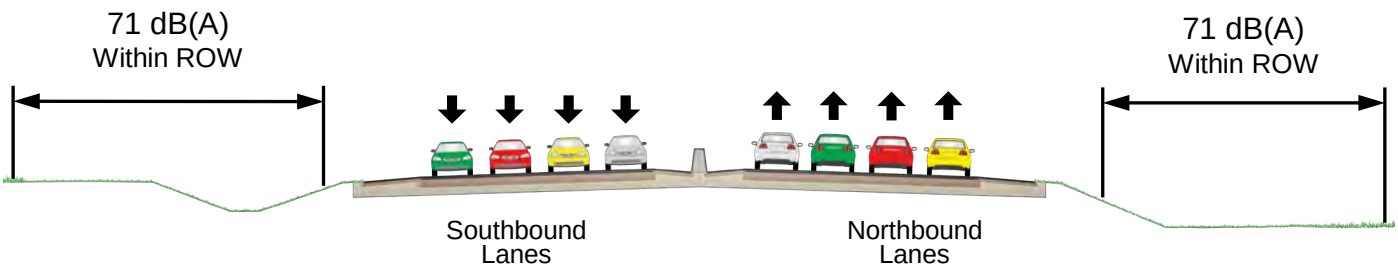
From north of Interstate 4 to Sinclair Road (MP 1)



Activity Category A



Activity Category B/C

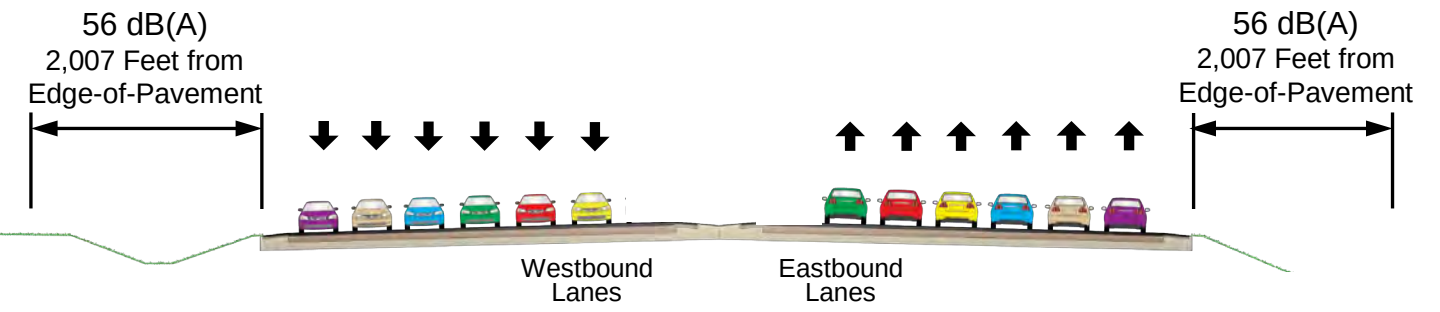


Activity Category E

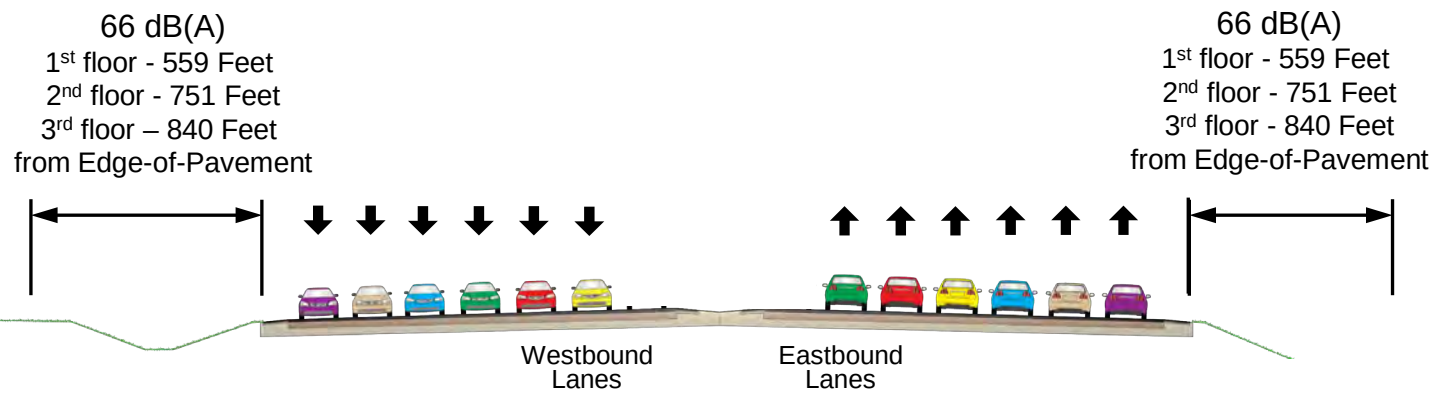
Poinciana Parkway Extension Noise Contours

12-Lane Segment on Interstate 4

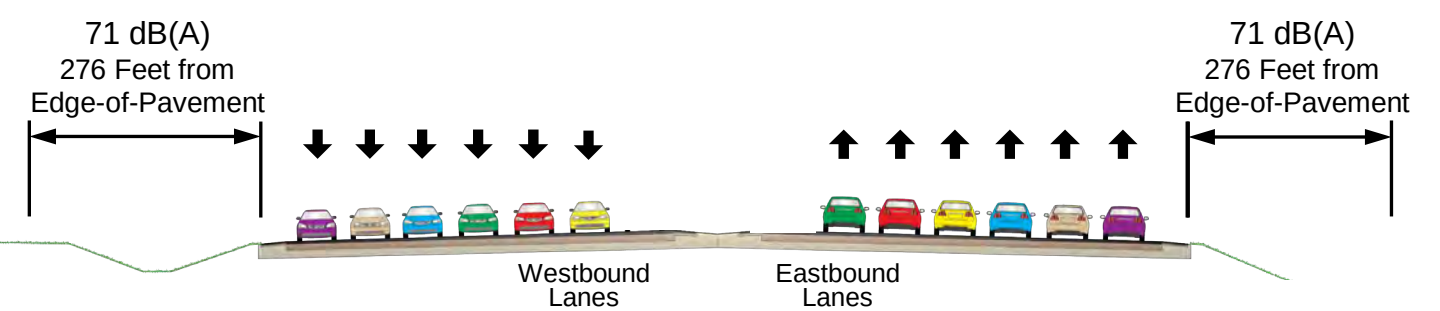
From east of County Road 532 (MP 58) to west of State Road 429 (MP 60)



Activity Category A



Activity Category B/C

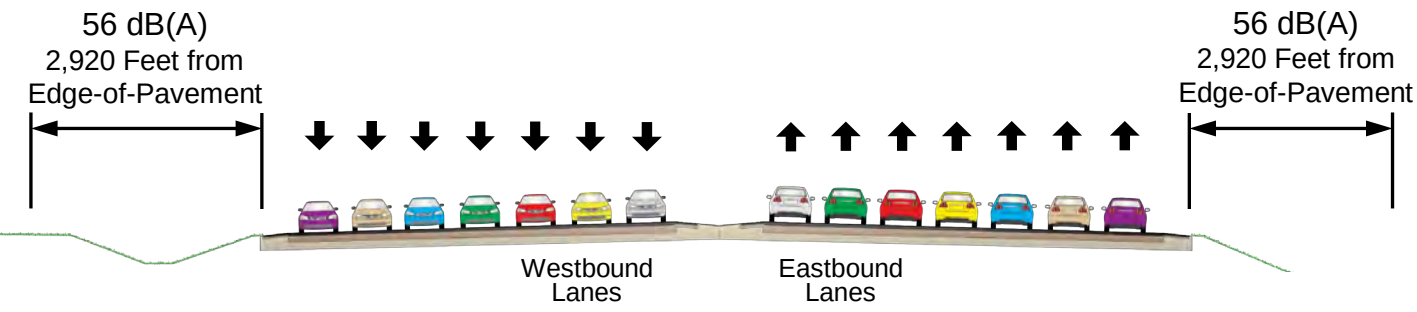


Activity Category E

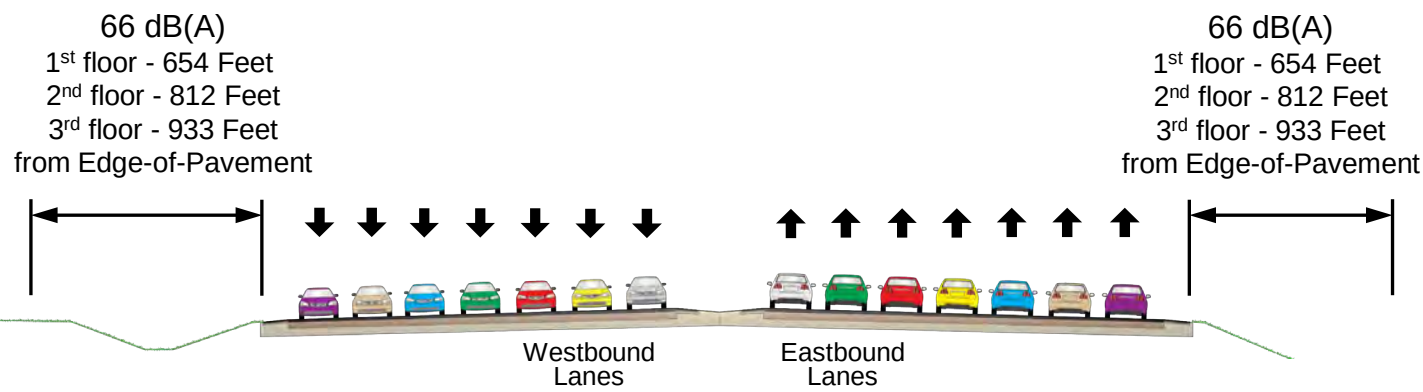
Poinciana Parkway Extension Noise Contours

14-Lane Segment on Interstate 4

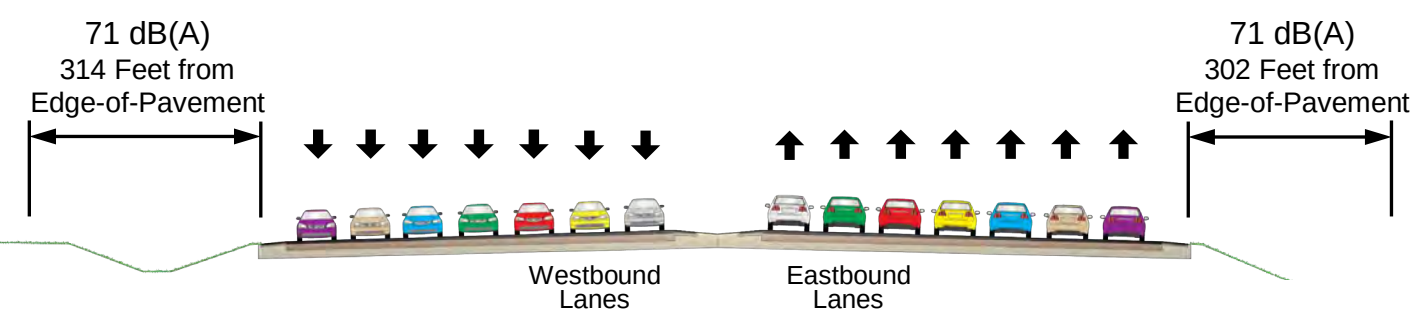
From east of State Road 429 (MP 60) to west of World Drive (MP 62)



Activity Category A

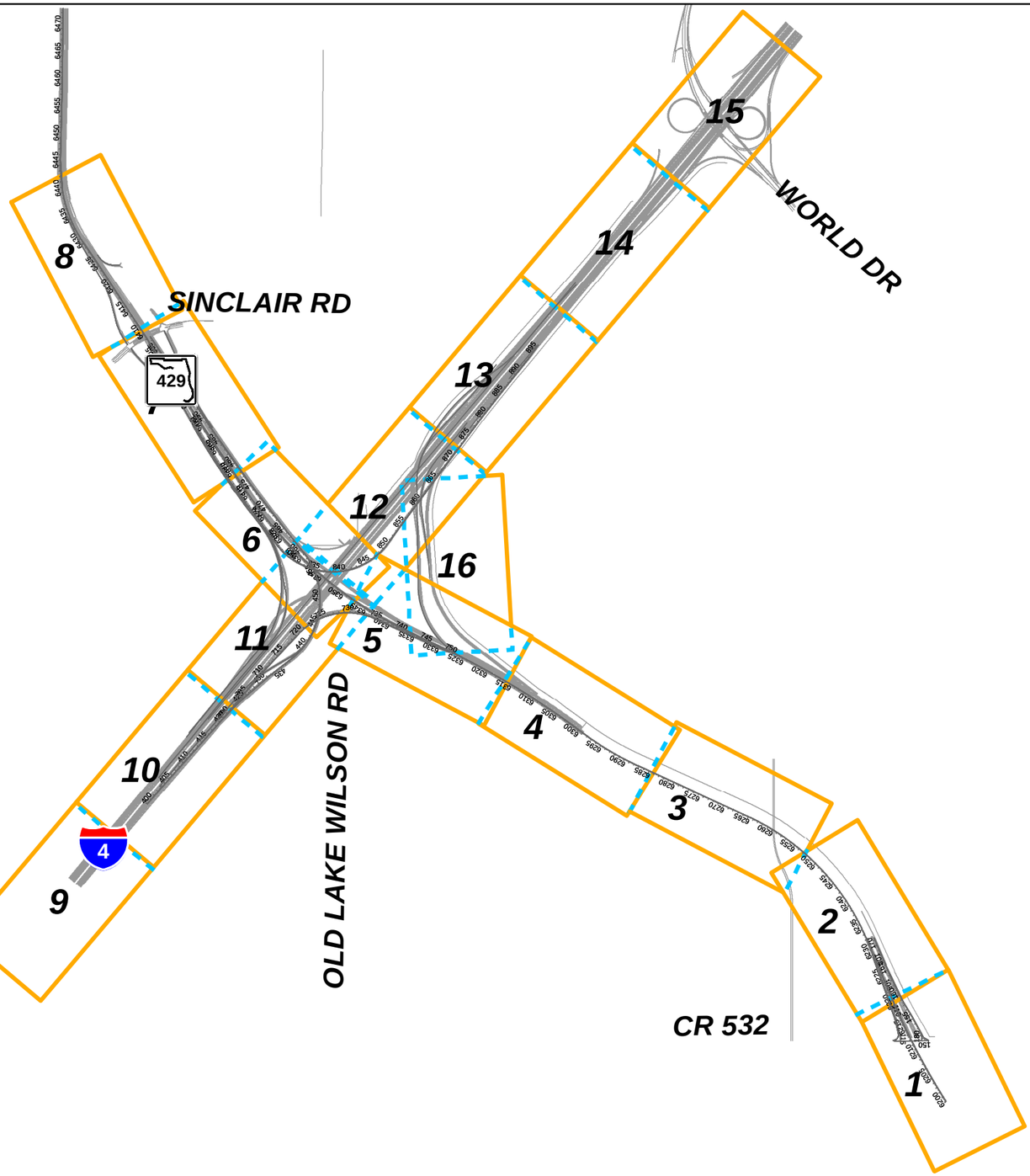


Activity Category B/C



Activity Category E

APPENDIX D: Project Aerials



Feet
0 1,250 2,500

Aerial Sheet Boundary
Aerial Sheet Overlap

Poinciana Parkway Extension

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	*COUNTY*	*FINANCIAL PROJECT ID*
429 / I-4	OSCEOLA/ POLK	446851-1

NOISE STUDY REPORT PROJECT AERIALS

Sheet No.
Key

Impacted - Benefitted
Impacted - Not Benefitted
Not Impacted - Benefitted
Not Impacted - Not Benefitted
Validation Sites
ROW Barrier (Proposed)
Design Lines
Common Noise Environment

NOTE: Some not impacted receptors fall outside the display area of the map figures.

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DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
429 / I-4	OSCEOLA/ POLK	446851-1

NOISE STUDY REPORT PROJECT AERIALS

Sheet No. 1

Impacted - Benefitted
Impacted - Not Benefitted
Not Impacted - Benefitted
Not Impacted - Not Benefitted
Validation Sites
ROW Barrier (Proposed)
Design Lines
Common Noise Environment

NOTE: Some not impacted receptors fall outside the display area of the map figures.

Poinciana Parkway Extension

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

ROAD NO.	*COUNTY*	*FINANCIAL PROJECT ID*
429 / I-4	OSCEOLA/ POLK	446851-1

NOISE STUDY REPORT PROJECT AERIALS

Sheet No. **2**

- Impacted - Benefitted
- Impacted - Not Benefitted
- Not Impacted - Benefitted
- Not Impacted - Not Benefitted
- Validation Sites
- ROW Barrier (Proposed)
- Design Lines
- Common Noise Environment

NOTE: Some not impacted receptors fall outside the display area of the map figures.

Poinciana Parkway Extension

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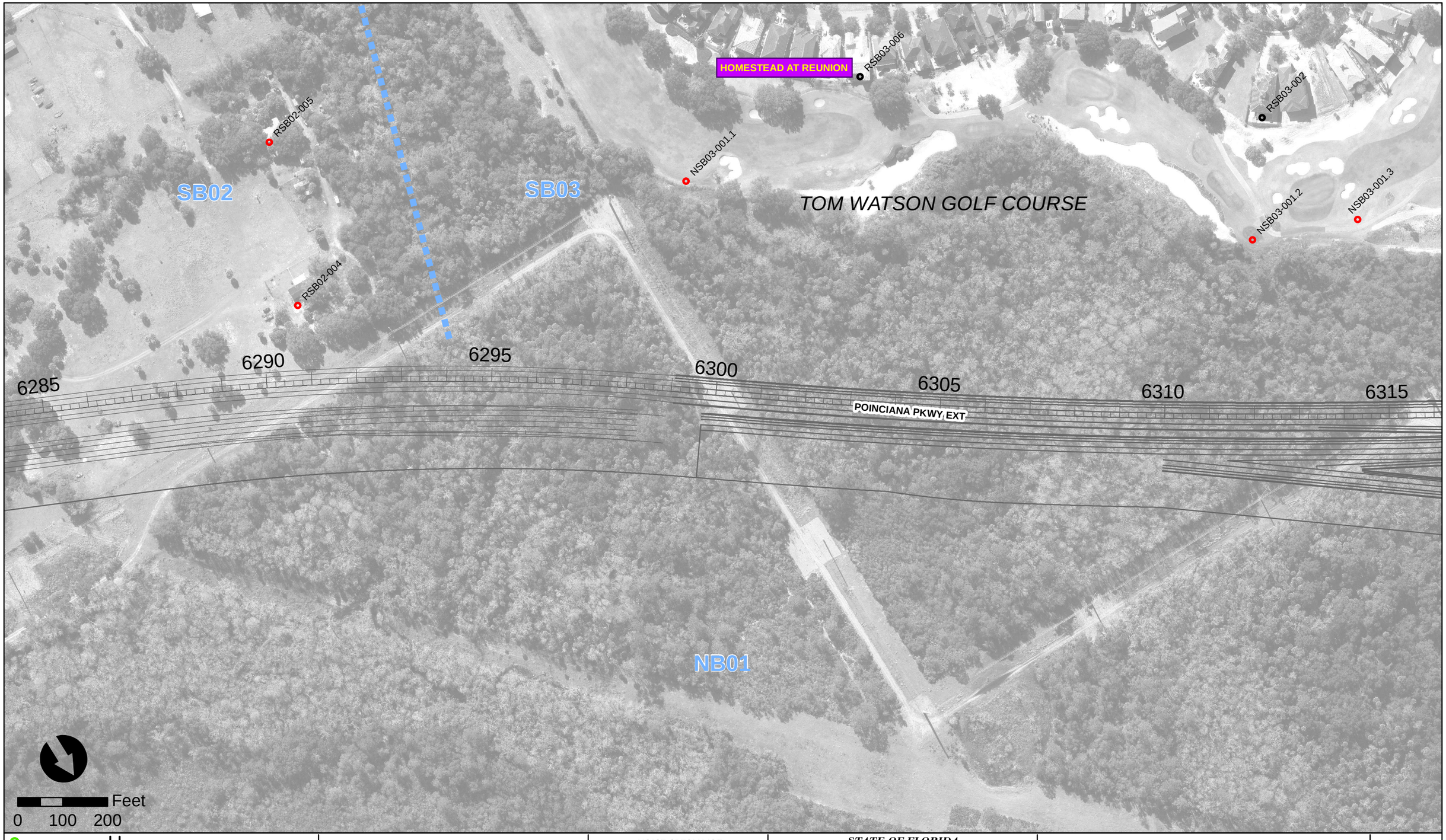
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

ROAD NO.	*COUNTY*	*FINANCIAL PROJECT ID*
429 / I-4	OSCEOLA/ POLK	446851-1

NOISE STUDY REPORT PROJECT AERIALS

Sheet No. **3**



- Impacted - Benefitted
- Impacted - Not Benefitted
- Not Impacted - Benefitted
- Not Impacted - Not Benefitted
- Validation Sites
- ROW Barrier (Proposed)
- Design Lines
- Common Noise Environment

NOTE: Some not impacted receptors fall outside the display area of the map figures.

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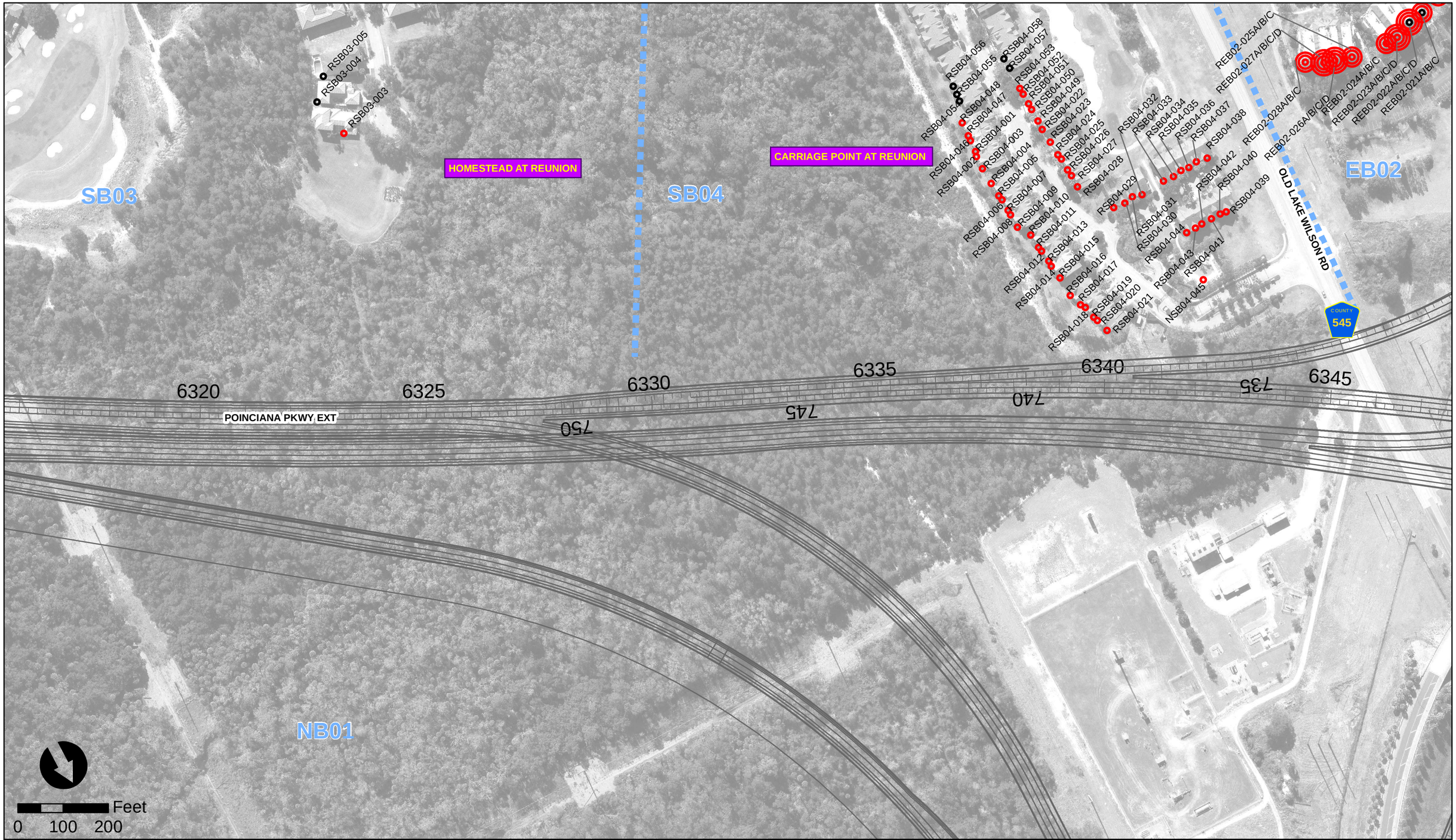
ROAD NO.	*COUNTY*	*FINANCIAL PROJECT ID*
429 / I-4	OSCEOLA/ POLK	446851-1

NOISE STUDY REPORT PROJECT AERIALS

Sheet No. **4**



Impacted - Benefitted
Impacted - Not Benefitted
Not Impacted - Benefitted
Not Impacted - Not Benefitted
Validation Sites
ROW Barrier (Proposed)
Design Lines
Common Noise Environment

NOTE: Some not impacted receptors fall outside the display area of the map figures.

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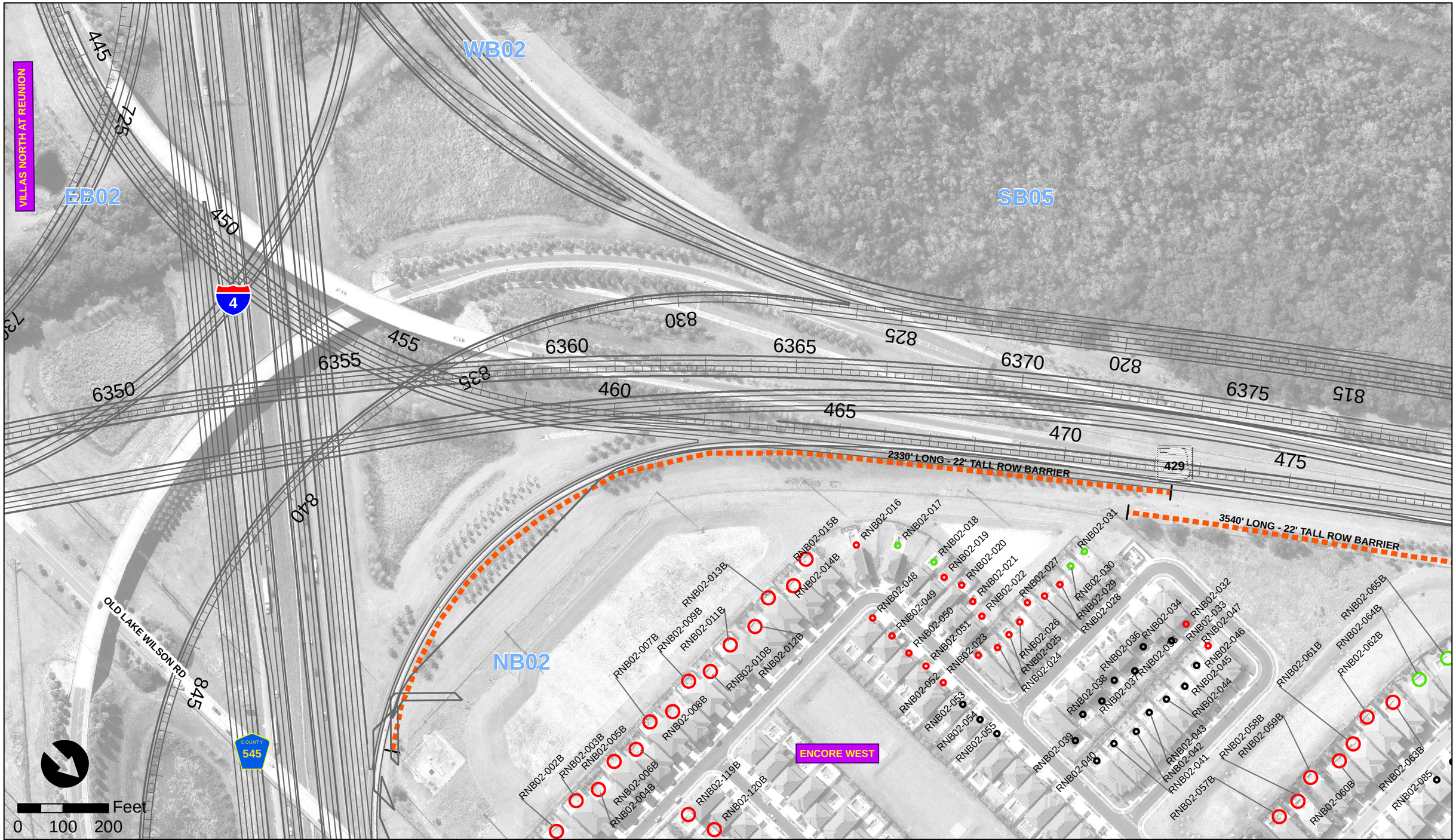
ROAD NO.	*COUNTY*	*FINANCIAL PROJECT ID*
429 / I-4	OSCEOLA/ POLK	446851-1

NOISE STUDY REPORT PROJECT AERIALS

Sheet No.

5



Impacted - Benefitted
Impacted - Not Benefitted
Not Impacted - Benefitted
Not Impacted - Not Benefitted
Validation Sites
ROW Barrier (Proposed)
Design Lines
Common Noise Environment

NOTE: Some not impacted receptors fall outside the display area of the map figures.

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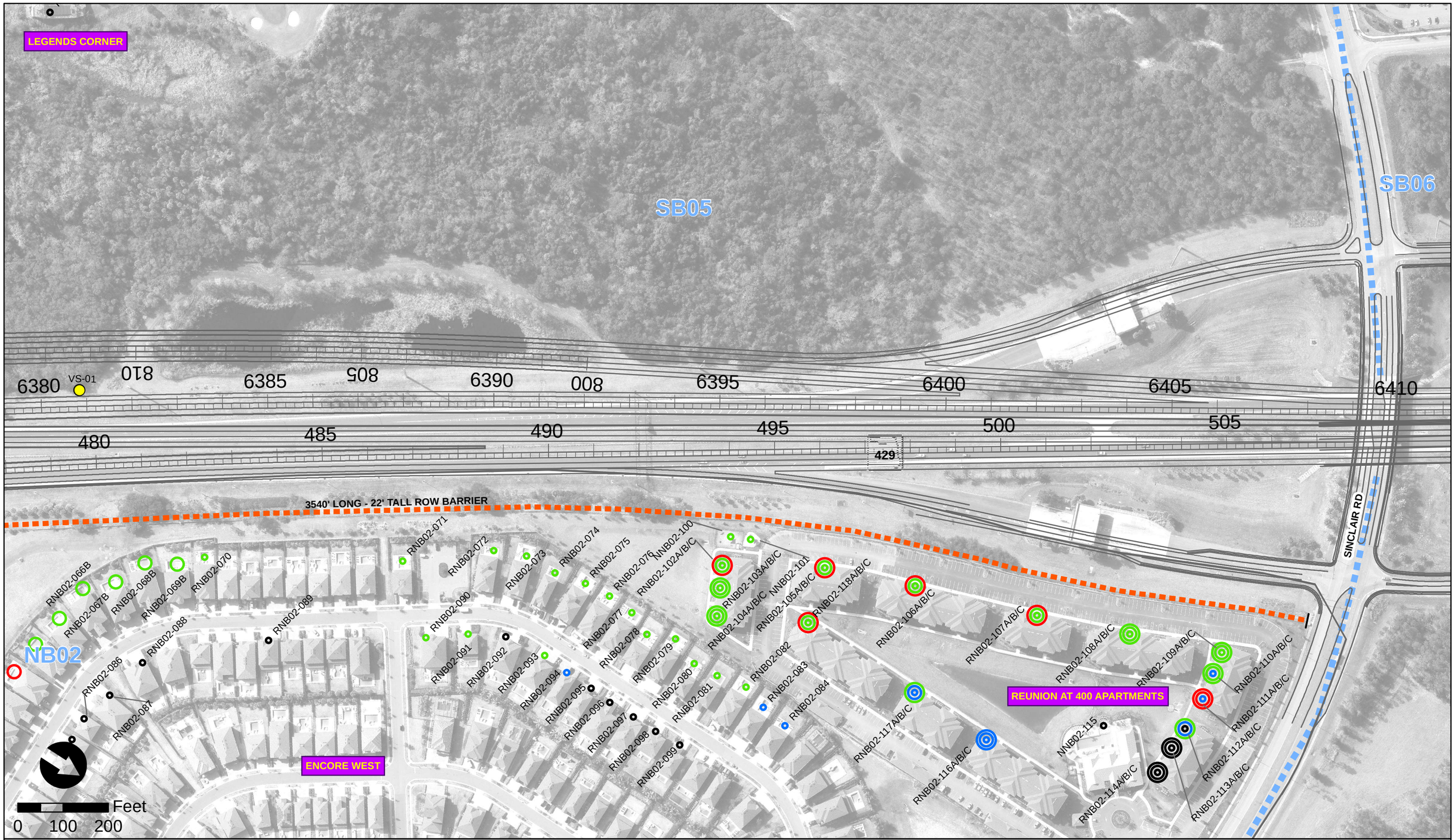
429 / I-4	OSCEOLA/ POLK	446851-1

NOISE STUDY REPORT PROJECT AERIALS

Sheet No. **6**



Impacted - Benefitted
Impacted - Not Benefitted
Not Impacted - Benefitted
Not Impacted - Not Benefitted
Validation Sites
ROW Barrier (Proposed)
Design Lines
Common Noise Environment

NOTE: Some not impacted receptors fall outside the display area of the map figures.

Poinciana Parkway Extension

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STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
429 / I-4	OSCEOLA/ POLK	446851-1

NOISE STUDY REPORT
PROJECT AERIALS

Sheet No. 7

Impacted - Benefitted
Impacted - Not Benefitted
Not Impacted - Benefitted
Not Impacted - Not Benefitted
Validation Sites
ROW Barrier (Proposed)
Design Lines
Common Noise Environment

NOTE: Some not impacted receptors fall outside the display area of the map figures.

Poinciana Parkway Extension

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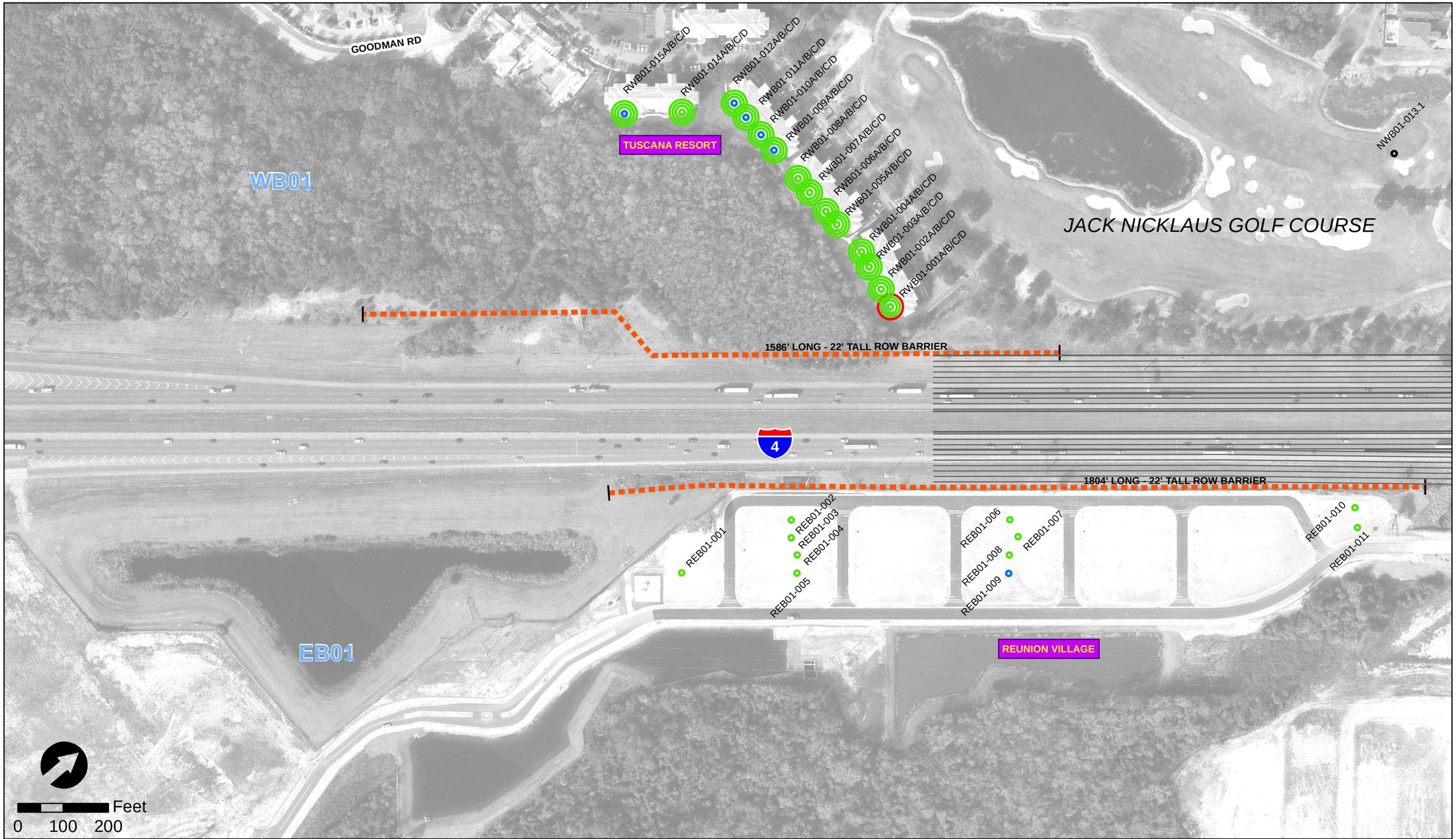
ROAD NO.	*COUNTY*	*FINANCIAL PROJECT ID*
429 / I-4	OSCEOLA/ POLK	446851-1

NOISE STUDY REPORT PROJECT AERIALS

Sheet No. **8**



Impacted - Benefitted
Impacted - Not Benefitted
Not Impacted - Benefitted
Not Impacted - Not Benefitted
Validation Sites
ROW Barrier (Proposed)
Design Lines
Common Noise Environment

NOTE: Some not impacted receptors fall outside the display area of the map figures.

Poinciana Parkway Extension

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

ROAD NO.	*COUNTY*	*FINANCIAL PROJECT ID*
429 / I-4	OSCEOLA/ POLK	446851-1

NOISE STUDY REPORT PROJECT AERIALS

Sheet No. **9**

Impacted - Benefitted
Impacted - Not Benefitted
Not Impacted - Benefitted
Not Impacted - Not Benefitted
Validation Sites

ROW Barrier (Proposed)
Design Lines
Common Noise Environment

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Poinciana Parkway Extension

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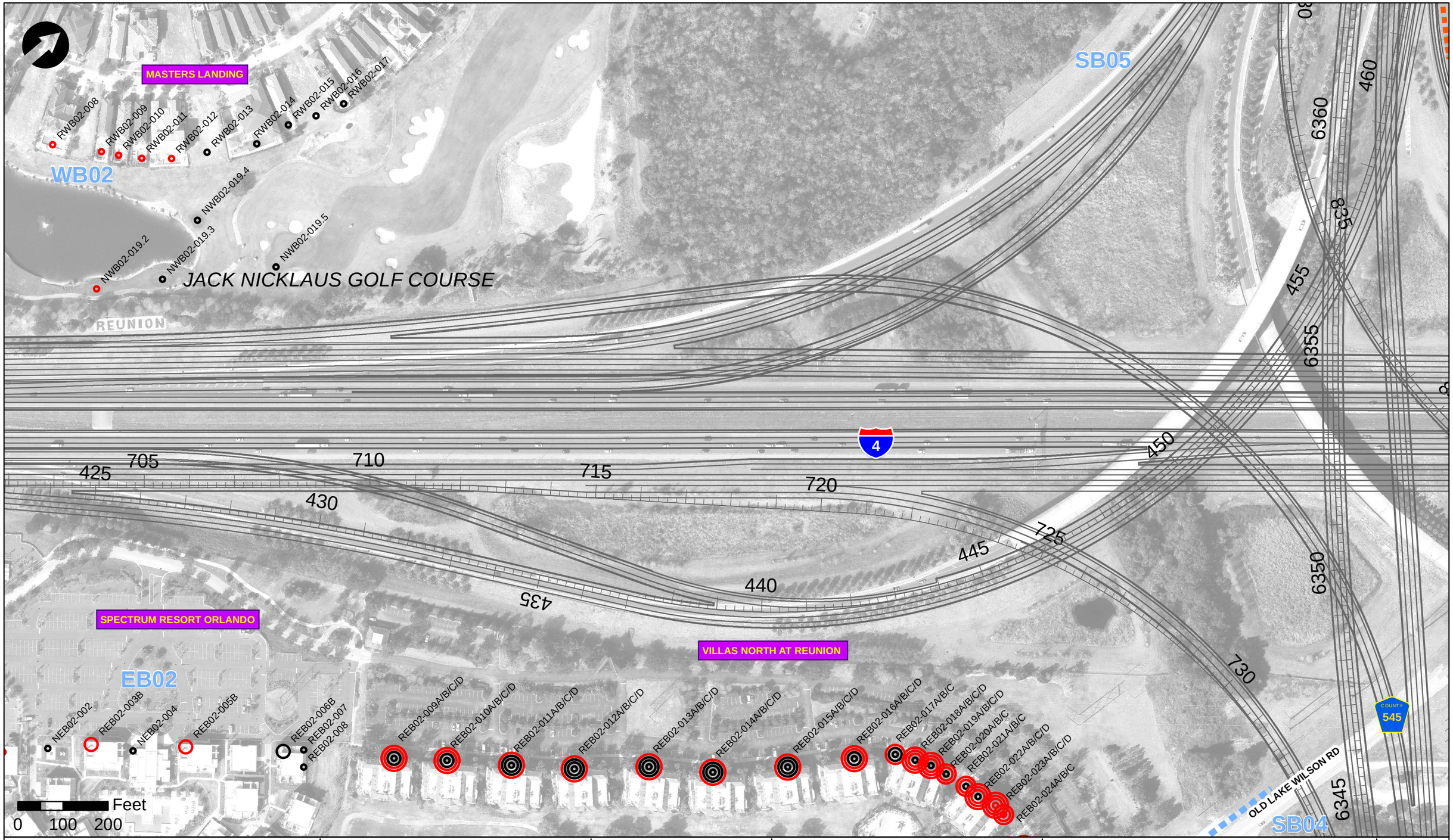
STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
429 / I-4	OSCEOLA/ POLK	446851-1

NOISE STUDY REPORT
PROJECT AERIALS

Sheet No. 10



Impacted - Benefitted
Impacted - Not Benefitted
Not Impacted - Benefitted
Not Impacted - Not Benefitted
Validation Sites

ROW Barrier (Proposed)
Design Lines
Common Noise Environment

NOTE: Some not impacted receptors fall outside the display area of the map figures.

Poinciana Parkway Extension

NOISE SPECIALIST

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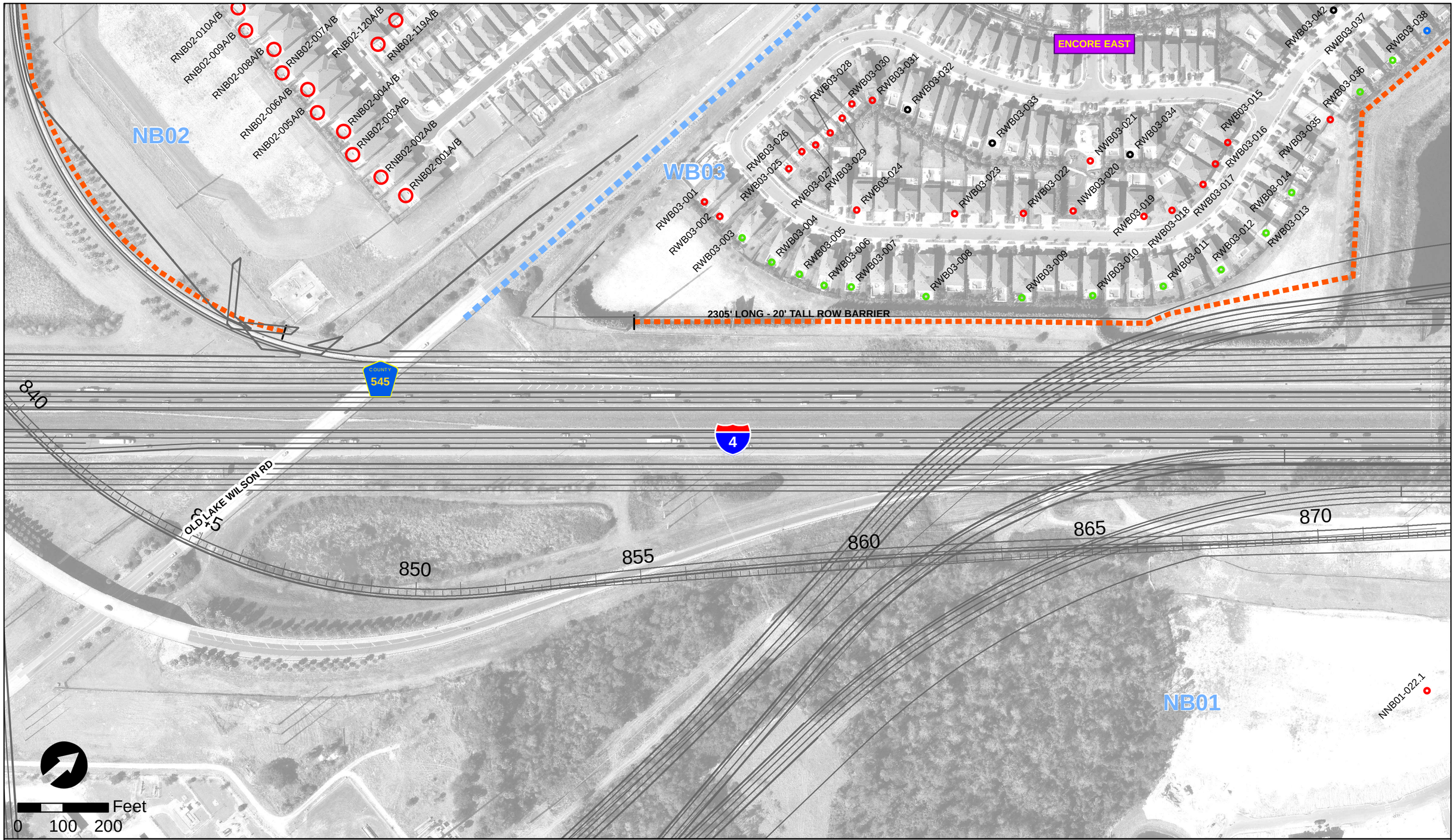
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

ROAD NO.	*COUNTY*	*FINANCIAL PROJECT ID*
429 / I-4	OSCEOLA/ POLK	446851-1

NOISE STUDY REPORT PROJECT AERIALS

Sheet No. **11**



Impacted - Benefitted
Impacted - Not Benefitted
Not Impacted - Benefitted
Not Impacted - Not Benefitted
Validation Sites
ROW Barrier (Proposed)
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NOISE STUDY REPORT PROJECT AERIALS

Sheet No. **12**

Impacted - Benefitted
Impacted - Not Benefitted
Not Impacted - Benefitted
Not Impacted - Not Benefitted
Validation Sites
ROW Barrier (Proposed)
Design Lines
Common Noise Environment

NOTE: Some not impacted receptors fall outside the display area of the map figures.

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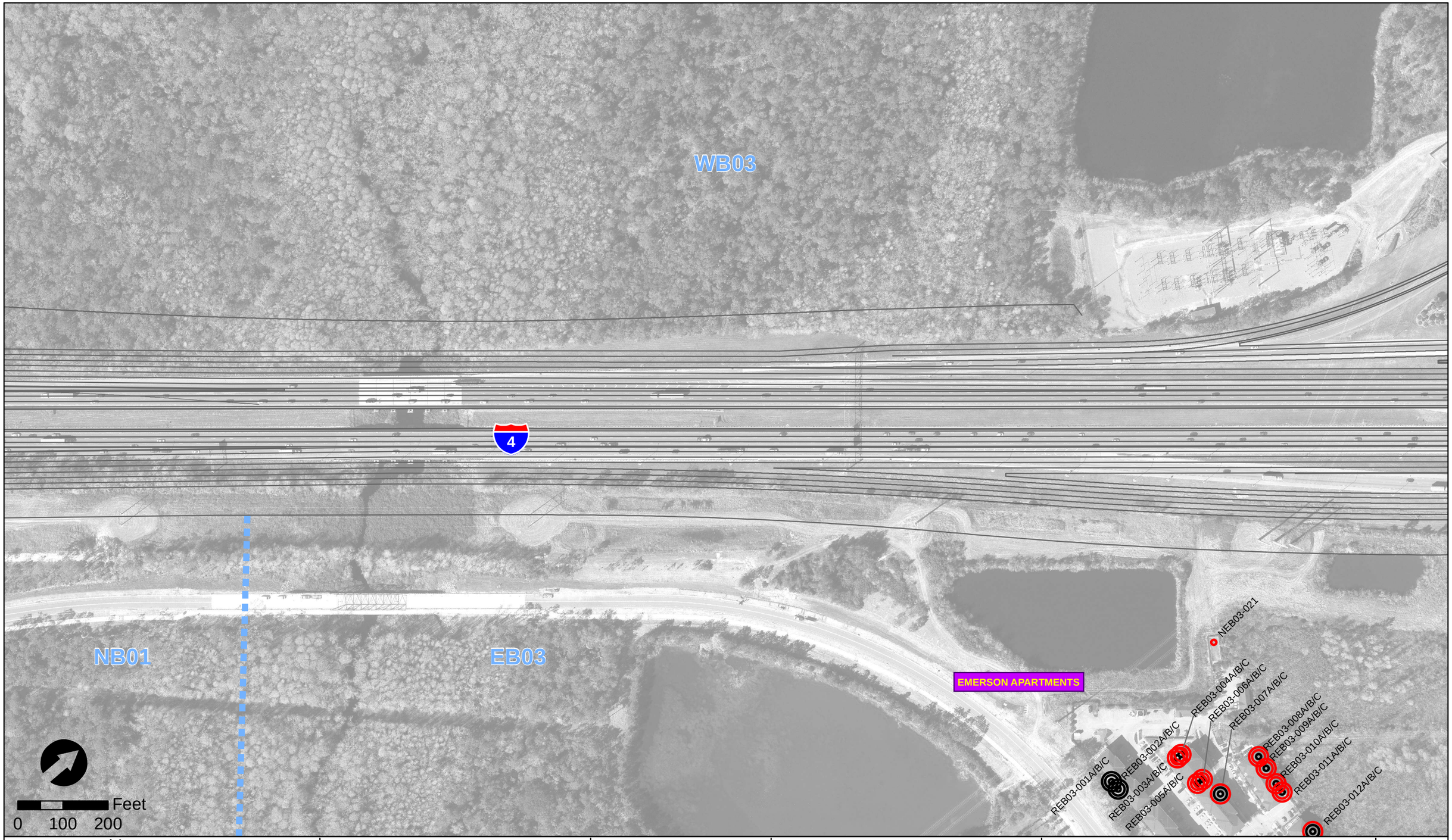
429 / I-4	OSCEOLA/ POLK	446851-1

NOISE STUDY REPORT PROJECT AERIALS

Sheet No. **13**



Impacted - Benefitted
Impacted - Not Benefitted
Not Impacted - Benefitted
Not Impacted - Not Benefitted
Validation Sites

ROW Barrier (Proposed)
Design Lines
Common Noise Environment

NOTE: Some not impacted receptors fall outside the display area of the map figures.

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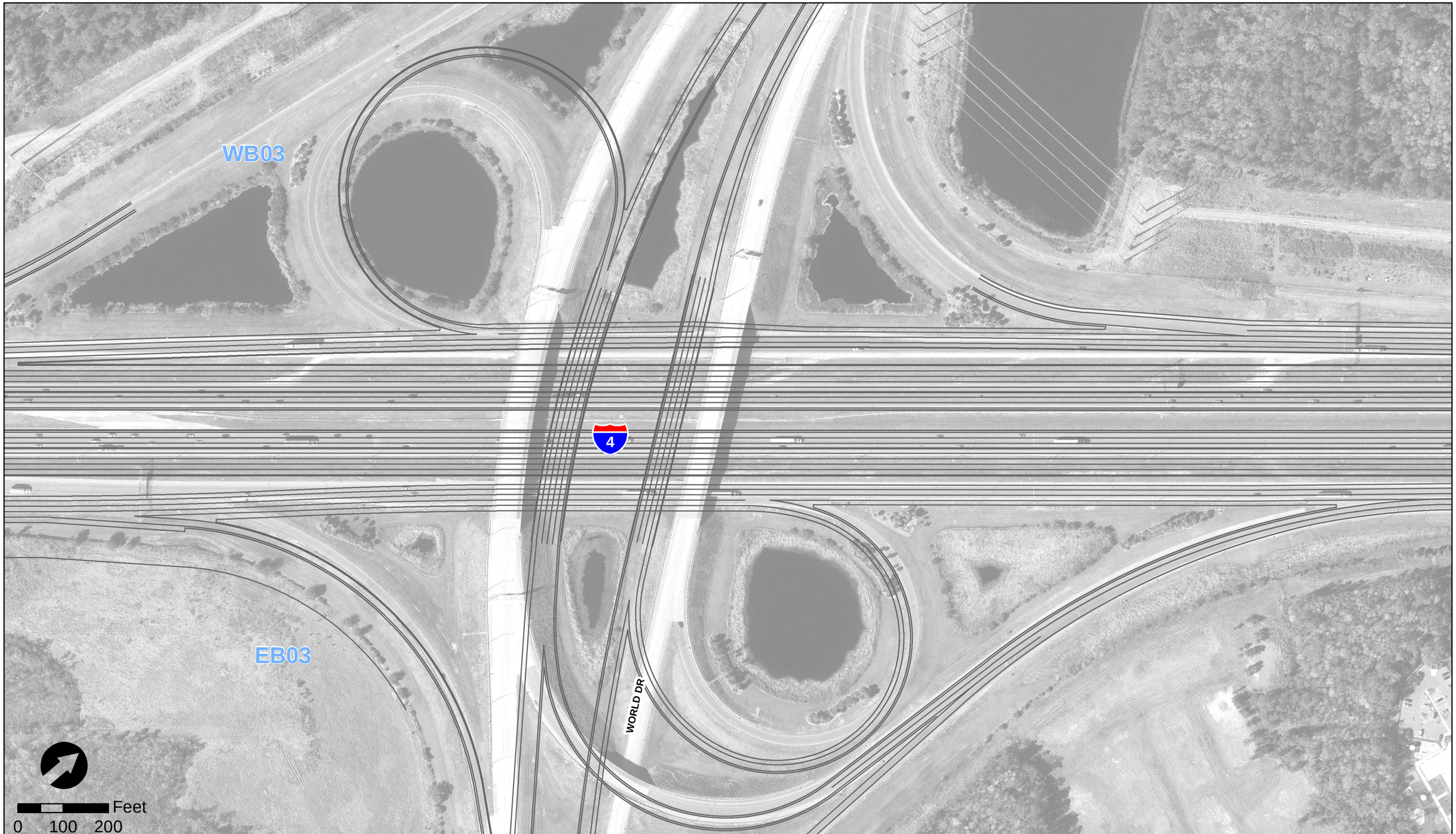
NOISE STUDY REPORT PROJECT AERIALS

Sheet No.

14



Impacted - Benefitted
Impacted - Not Benefitted
Not Impacted - Benefitted
Not Impacted - Not Benefitted
Validation Sites

ROW Barrier (Proposed)
Design Lines
Common Noise Environment

NOTE: Some not impacted receptors fall outside the display area of the map figures.

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NOISE STUDY REPORT PROJECT AERIALS

Sheet No. **15**

Impacted - Benefitted
Impacted - Not Benefitted
Not Impacted - Benefitted
Not Impacted - Not Benefitted
Validation Sites
ROW Barrier (Proposed)
Design Lines
Common Noise Environment

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NOISE STUDY REPORT PROJECT AERIALS

Sheet No. **16**