NOISE STUDY REPORT UPDATE

Florida Department of Transportation

District Six

SR 860 / Miami Gardens Drive Re-evaluation

Limits of Project: East of Interstate I-75 Ramps (MP 0.438)

to SR 823 / NW 57th Avenue / Red Road (MP_3.664)

Miami-Dade County, Florida

Financial Management Number: 438864-1-22-01 (Formerly 407736-3-22-01)

ETDM Number: N/A

February 2020

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated December 14, 2016 and executed by FHWA and FDOT.

Noise Study Report Update

Florida Department of Transportation
District 6

SR 860 / Miami Gardens Drive Re-evaluation

Limits of Project: East of Interstate I-75 Ramps (MP 0.438) to SR 823 / NW 57th Avenue / Red Road (MP 3.664)

Financial Management Number: 438864-1-22-01 (Formerly 407736-3-22-01)

Miami-Dade County, Florida

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being or have been carried out by FDOT pursuant to 23 U.S.C. §327 and a Memorandum of Understanding dated December 14, 2016 and executed by FHWA and FDOT.

February 2020

.

FDOT

Table of Contents

List of Figures

List of Tables

List of Appendices

1.0 Introduction

The Florida Department of Transportation (FDOT), District 6, conducted a Project Development & Environment (PD&E) Study to widen Miami Gardens Drive. On September 15, 2006 the Federal Highway Administration (FHWA) granted Location and Design Concept Acceptance (LDCA) for SR 860 / Miami Gardens Drive / NW 186th Street / NW 183rd Street from east of I-75 to SR 823 / NW 57th Avenue / Red Road, Financial Management (FM) Number 407736-3-22-01. SR 860 / Miami Gardens Drive is a state east-west arterial located in northern Miami-Dade County, Florida. The preferred alternative, the Full Six-Lane Build Alternative (Alternative 4) included widening and reconstructing the arterial from a four-lane to a six-lane facility including median modifications for access management, drainage improvements, signalization, sidewalk and landscaping improvements, intersection improvements, and the installation of noise abatement barriers.

On July 29, 2009, the FHWA approved a Design Change/Construction Advertisement Re-evaluation of SR 860/Miami Gardens Drive / NW 186th Street / NW 183rd Street from east of I-75 to SR 823 / NW 57th Avenue / Red Road, FM Number 407736-3-22-01. Two roadway segments were advanced: Segment 1 - SR 860 / Miami Gardens Drive from NW 84th Court to NW 68th Avenue, FM No. 407736-1-52-01 - included milling and resurfacing, minor roadway reconstruction in localized areas, sidewalk reconstruction, curb and gutter, median adjustments, signalization, and lighting; Segment 2 - SR 860 / Miami Gardens Drive from NW 68th Avenue to NW 59th Avenue, FM No. 407736-2-52-01 – included minor widening from Station 186+00 to Station 190+00 Left (with no capacity increase), sidewalk reconstruction, curb and gutter, median adjustments, signalization, and lighting.

In 2015, residents of the community raised concerns to FDOT regarding recurring traffic congestion throughout the project corridor. As a result, the FDOT agreed to investigate their concerns and accordingly develop transportation improvement strategies. A planning study was completed in 2018 under FM No. 438864-1-22-01 and included public input at two public meetings held in the Corridor. Subsequently, FDOT District Six identified the need for a design change re-evaluation for this 3.2 mile segment of Miami Gardens Drive.

As part of the 2006 PD&E Study, a traffic noise study was performed. The results and recommendations are summarized in a Noise Study Report (NSR), dated March 2006. The purpose of the current study is to update the noise analysis to reflect the design changes since the approved 2006 PD&E Study design concept; and to re-evaluate the feasibility and reasonableness of noise barriers recommended for further consideration during the 2006 PD&E Study. Pages including figures from the 2006 PD&E NSR referenced in this report are included in **Appendix F**. It should be noted that the 2006 PD&E NSR states that the noise study was

developed in accordance with Federal regulations (CFR 772) and guidelines contained in Chapter 17 of the PD&E Manual. Since the completion of the 2006 PD&E NSR, FDOT's noise policies have been updated to accommodate the changes related to FHWA's National Environmental Policy Act (NEPA) delegation to FDOT. Chapter 17 *Noise* was renumbered to Chapter 18 and titled *Highway Traffic Noise* and has an effective date of January 14, 2019. As described in Section 2.0 Methodology, the current noise study is based on the January 14, 2019 guidelines.

1.1 Project Description

SR 860 / Miami Gardens Drive between NW 87th Avenue and NW 57th Avenue is currently a four-lane (two eastbound and two westbound) arterial roadway with a raised central median and a sidewalk on each side. The proposed improvements consist of widening and reconstruction of Miami Gardens Drive to provide six lanes, three in each direction, from east of I-75 to SR 823 / NW 57th Avenue (see **Figure 1-1**). The improvements will also include a bicycle lane in each direction, 6-foot sidewalks, access management modifications to median openings to improve safety and traffic operations, lighting, signalization, and landscaping.

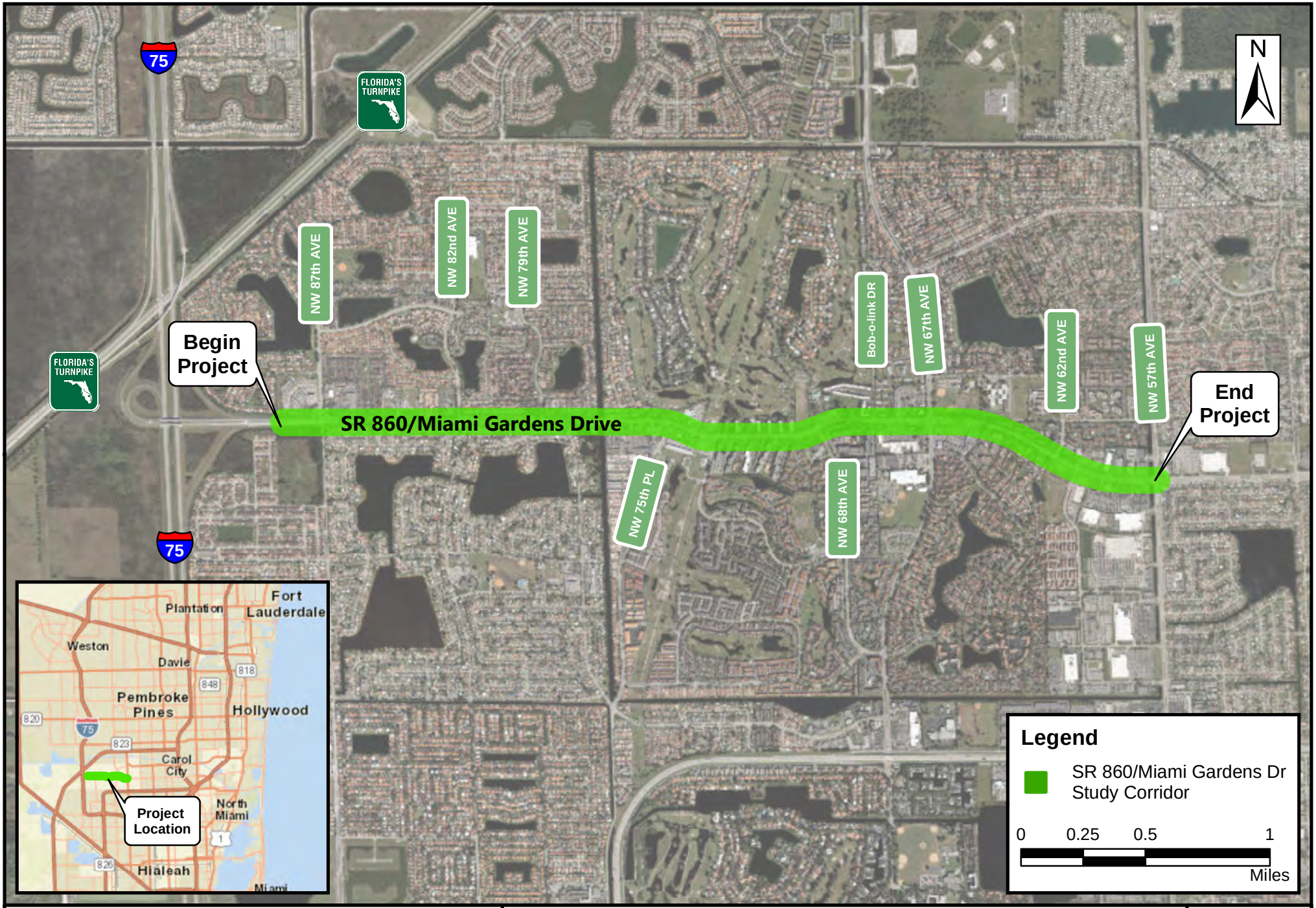
1.2 Summary of PD&E Results and Commitments

The PD&E phase NSR indicated that design year (2028) noise levels were predicted to exceed the FHWA's Noise Abatement Criteria (NAC) of 67 dB(A) at 324 receptor sites under the preferred Build Alternative and that noise barriers were evaluated for all impacted receptors.

An estimated 331 receptor sites including 135 of the impacted sites would be benefited by the recommended noise barriers (see **Section 5** and **Table 34** in **Appendix F**). Noise barriers were recommended for further consideration during the design phase at nine locations: Palm Springs North, Coral Gate, Country Club Towers, Mediterranean Village, Ibis Villas, Esplanade, Las Brisas, Country Club of Miami Condominiums, and Villa Esperanza. Noise barriers were not recommended at two locations including San Mateo and Country Club of Miami Estates.

The FDOT committed to the construction of feasible noise abatement measures at the noise-impacted locations identified in the 2006 NSR contingent upon the following:

- Detailed noise analyses during the design process continues to support the need for abatement;
- Reasonable cost analyses indicate that the economic cost of the noise barriers will not exceed the FDOT cost guideline of $35,000 per benefited receiver site (*Note: The current cost effectiveness or reasonableness criteria in 2019 and used in the current noise study is $42,000 per benefited site*);



FDOT

SR 860/ Miami Gardens Drive Re-evaluation

Project Location Map

Figure 1-1

- Community input regarding desires, types, heights, and locations of barriers has been solicited by the District Office;
- Preferences regarding compatibility with adjacent land uses, particularly as addressed by officials having jurisdiction over such land uses has been noted;
- Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed; and,
- Any other mitigating circumstances found in Section 17-4.6.1 of Chapter 17 of the FDOT PD&E Manual have been analyzed (*Note: The latest guidelines for noise abatement evaluations are found in Section 18.2.3 of Chapter 18 Highway Traffic Noise of the FDOT PD&E Manual (January 14, 2019)*.

.

2.0 Methodology

This traffic noise analysis was conducted based on the methodology described in the FDOT's PD&E Manual, Part 2, Chapter 18, *Highway Traffic Noise* (January 14, 2019) and in accordance with Title 23 CFR Part 772, *Procedures for Abatement of Highway Traffic Noise and Construction Noise* (July 13, 2010). The noise study involved the following procedures:

- Field Measurement of Existing Noise Levels and Noise Model Validation (see **Section 3.1**);
- Identification of Noise Sensitive Receptor Sites (see **Section 3.2**);
- Prediction of Future Traffic Noise Levels with the Build Alternative Design Concept (see **Section 3.2**);
- Assessment of Traffic Noise Impacts (see **Section 3.2**); and
- Consideration of Noise Barriers as a Noise Abatement Measure (see **Section 3.2**).

The latest approved version of the FHWA's Traffic Noise Model (TNM), Version 2.5 – dated February 2004, was used to predict traffic noise levels with the planned improvements and to analyze the effectiveness of noise barriers, where warranted. This model estimates the acoustic intensity at noise sensitive receptor sites from a series of roadway segments (the source). Model-predicted noise levels are influenced by several factors, such as vehicle speed and distribution of vehicle types. Noise levels are also affected by characteristics of the source-to-receptor site path, including the effects of intervening barriers, structures (houses, trees, etc.), ground surface type (hard or soft), and topography.

Representative receptor sites were used as inputs to the TNM to estimate noise levels associated with existing and future conditions within the project limits. These sites were chosen based on noise sensitivity, roadway proximity, anticipated impacts from the proposed project, and homogeneity (i.e., the site is representative of other nearby sites). For single family residences, traffic noise levels were predicted at the edge of the dwelling unit closest to the nearest primary roadway. For other noise sensitive sites, traffic noise levels were predicted where the exterior activity occurs. For the prediction of interior noise levels, receptor sites were placed approximately ten feet inside the building at the edge closest to the roadway. Building noise reduction factors and window conditions identified in Figure 18.3 in Part 2, Chapter 18 of the PD&E Manual (January 14, 2019) were used to estimate noise reduction due to the physical structure.

The following sections describe the noise metrics, traffic data, and noise abatement criteria used in this study.

2.1 Noise Metrics

Noise levels documented in this report represent the hourly equivalent sound level [Leq(h)]. Leq(h) is the steady-state sound level, which contains the same amount of acoustic energy as the actual time-varying sound level over a 1-hour period. Leq(h) is measured in A-weighted decibels [dB(A)], which closely approximate the human frequency response. Sound levels of typical noise sources and environments are provided in **Table 2.1-1** as a frame of reference.

Table 2.1-1: Sound Levels of Typical Noise Sources and Environments

COMMON OUTDOOR ACTIVITIES	NOISE LEVEL dB(A)	COMMON INDOOR ACTIVITIES
	---110---	Rock Band
Jet Fly-over at 1000 ft		
	---100---	
Gas Lawn Mower at 3 ft		
	---90---	
Diesel Truck at 50 ft, at 50 mph		Food Blender at 1 m (3 ft)
	---80---	Garbage Disposal at 1 m (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---	
	---0---	
Lowest Threshold of Human Hearing		Lowest Threshold of Human Hearing

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

2.2 Traffic Data

The traffic data used in the noise analysis is from *Project Traffic Analysis Report (PTAR)* dated October 2019. The design year (2040) traffic data used in the noise modeling to predict traffic noise levels for the Build Alternative is presented in **Table 2.2-1** in **Appendix A**. The traffic data table includes peak hour traffic volumes, Level of Service (LOS) C volumes, speeds, and the

traffic volumes by vehicle type (cars, medium trucks, heavy trucks, buses, and motorcycles) used to predict traffic noise levels. According to Chapter 18 of the PD&E Manual, “Maximum peak-hourly traffic representing LOS "C", or demand LOS of "A", "B", or "C" will be used (unless analysis shows that other conditions create a "worst-case" level)”. In cases where traffic volumes on project roadways were predicted to operate at worse than LOS C, the LOS C project data were used. In overcapacity situations, this represents the highest traffic volume traveling at the highest average speed, which typically generates the highest noise levels at a given site during a normal day.

2.3 Noise Abatement Criteria

The FHWA has established NAC for land use activity categories, which are presented in **Table 2.3-1**. Maximum noise threshold levels, or criteria levels, have been established for five of the seven activity categories. These criteria determine when an impact occurs and when consideration of noise abatement is required. Noise abatement measures must be considered when predicted noise levels approach, meet, or exceed the NAC levels or when a substantial noise increase occurs. A substantial noise increase occurs when the existing noise level is predicted to be exceeded by 15 dB(A) or more as a result of the transportation improvement project. The FDOT defines “approach” as within 1.0 dB(A) of the FHWA criteria.

Noise sensitive receptor sites include properties where frequent exterior human use occurs and where a lowered noise level would be of benefit. This includes residential land use (Activity Category B); a variety of non-residential land uses not specifically covered in Category A (i.e., lands on which serenity and quiet are of extraordinary significance) or B, including parks and recreational areas, medical facilities, schools, and places of worship (Activity Category C); and commercial and developed properties including offices, hotels, and restaurants with exterior areas of use (Activity Category E). Noise sensitive sites also include interior use areas where no exterior activities occur for facilities such as auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, recording studios, schools, and television studios (Activity Category D). Categories F and G, which include commercial and developed properties without exterior areas of use, do not have noise abatement criteria levels. Category F includes land uses such as industrial and retail facilities that are not considered noise sensitive. Category G includes undeveloped lands that are not permitted for development.

Table 2.3-1: Noise Abatement Criteria [Hourly A-Weighted Sound Level 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, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreational areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	51	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E[2]	72	71	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	–	–	–	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	–	–	–	Undeveloped lands that are not permitted.

(Based on Table 1 of 23 CFR Part 772)

[1] The Leq(h) Activity Criteria values are for impact determination only, and are not a design standard 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.

2.4 Noise Abatement Measures

When traffic noise associated with a proposed project is predicted to approach, meet, or exceed the NAC at a noise sensitive site, noise abatement measures must be considered in accordance with 23 CFR Part 772. The most common and effective noise abatement measure for projects such as this is the construction of noise barriers. Noise barriers reduce noise by blocking the sound path between a roadway and a noise sensitive area. To be effective, noise barriers must be long, continuous (i.e., no intermittent openings), and have sufficient height to block the path between the noise source and the receptor site. The FHWA's *Analysis and Abatement Guidance* (January 2011) indicates the ends of the noise barriers should, in general, extend in each direction approximately four times as far as the distance from the receptor site to the noise barrier.

Other abatement measures that were considered but were determined not to be feasible or reasonable for this project include traffic management, alignment modification, and property acquisition. Traffic management measures such as traffic control devices, prohibition of certain vehicle types, time-use restriction for certain vehicle types, modified speed limits, and exclusive lane designation applied for the purpose of reducing traffic noise levels would impede the operational characteristics of this facility. The project corridor includes existing commercial and residential development on both sides of Miami Gardens Drive. Shifting the alignments or modifications to the proposed alignments would directly impact these areas and result in substantial socio-economic effects and additional project costs. Acquisition of right-of-way from the noise sensitive properties impacted by the project would be more expensive and disruptive than the other noise abatement measures.

For noise abatement measures to be recommended for further consideration in the design phase of the project, they must be determined to be both feasible and reasonable. A wide range of factors are used to evaluate the feasibility and reasonableness of noise abatement measures. Feasibility deals with engineering considerations, including the ability to construct a noise barrier using standard construction methods and techniques as well as with the ability to provide a reduction of at least 5 dB(A) to the impacted receptor sites. For example, given the topography of a location, can the minimum noise reduction [5 dB(A)] be achieved given certain access, drainage, utility, safety, and maintenance requirements? In addition, for a noise barrier to be considered acoustically feasible, at least two impacted receptor sites must achieve at least a 5 dB(A) reduction.

Reasonableness implies that common sense and good judgment were applied in a decision related to noise abatement. Reasonableness includes the consideration of the cost of abatement, the amount of noise abatement benefit, and the consideration of the viewpoints of

the impacted and benefited property owners and tenants. To be deemed reasonable, the estimated cost of the noise barrier, or other noise abatement measure, needs to be equal to or below FDOT's reasonable cost criteria (described below), must attain FDOT's noise reduction design goal of 7 dB(A) at one or more impacted receptor sites, and it is the desire of FDOT to obtain a response for or against the noise barrier from a numerical majority (greater than 50%) of the benefited receptors (owners and residents) that provide a response to the noise barrier survey used to solicit their viewpoints. If not supported by a majority of the survey respondents, a noise barrier or abatement measure will not be deemed reasonable.

The evaluation of noise barriers for impacted residential (Activity Category B) and non-residential areas (Activity Categories A, C, D, and E) is based on different methods and are evaluated separately. When determining the cost reasonableness of a conceptual noise barrier design for a residential area, an estimated cost of $42,000 per benefited receptor is now considered the upper limit, using the FDOT's current standard construction cost of $30.00 per square foot. A benefited receptor site is defined as a noise sensitive site that will obtain a minimum of 5 dB(A) of noise reduction as a result of a specific noise abatement measure regardless of whether or not they are identified as impacted. Only benefited receptor sites are included in the calculation of reasonable cost for a particular noise abatement measure.

Noise barriers for non-residential areas are assessed using FDOT's "A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations" (July 22, 2009). The cost reasonableness of this method is based on the number of people (i.e., person-hours per day) benefited by a noise barrier under consideration. Using this methodology, to be considered cost reasonable, the cost of the noise barrier must have an Abatement Cost Factor less than $995,935 per person-hour per square foot. The Abatement Cost Factor represents the upper limit of the cost per person-hour per square foot of noise barrier and does not represent any direct relation to real noise barrier construction costs such as dollar per square foot of a noise barrier. The derivation of the Abatement Cost Factor is based on the FDOT's reasonable cost criteria of equal to or less than $42,000 per benefited receptor site.

If the noise abatement measure has been determined to be reasonable and feasible, the viewpoint of the impacted and benefited property owners must be considered. During a PD&E Study, the viewpoint of the potentially benefited receptors (property owners/tenants) regarding noise abatement is gathered during workshops and at the Public Hearing. During the design phase of the project, a more detailed process is implemented to include noise abatement workshops and/or public surveys, to determine the wishes of the benefited property owners and tenants, as applicable. Both the property owners and tenants are given the opportunity to provide input regarding their desires to have the recommended noise abatement measure constructed. The goal of this process is to obtain a response for or against the noise barrier from a majority

of property owners and tenants that respond to the survey. If not supported by a majority of the survey respondents, a noise barrier or abatement measure will not be deemed reasonable.

For this project, ground mounted noise barriers were evaluated to determine their effectiveness in providing noise abatement to the impacted noise sensitive receptor sites. Ground mounted noise barriers, which are also referred to as concrete post-and-panel noise barriers, are usually constructed in the vicinity of the right-of-way line. Ground mounted noise barriers are typically evaluated in heights ranging from 8 to 22 feet. Only the noise barrier heights and conceptual noise barrier designs that would likely be effective were analyzed and are presented in the noise barrier summary tables (**Tables 3.3.1-1** through **3.3.15-1**).

To facilitate the evaluation of noise barriers at the impacted receptor sites along the project corridor, contiguous noise study areas were grouped together into common noise environments (CNEs). A CNE represents a group of impacted receptor sites of the same Activity Category that are exposed to similar noise sources and levels, traffic volumes, traffic mix, speeds, and topographic features, 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/or cross-roads, or where defined by ground features such as canals or rivers. In addition, the primary method for determining the reasonable cost of a noise barrier involves a review of the cost per benefited receptor site for the construction of a noise barrier benefiting a single location or CNE (e.g., a subdivision or contiguous impact area).

3.0 Traffic Noise Analysis

3.1 Model Validation

Noise measurements were collected at seven representative locations representing 12 monitoring sites (MS-1A through MS-7) within the project limits to verify that TNM-predicted existing levels are representative of actual levels along Miami Gardens Drive and to confirm that traffic noise is the main, or dominant, source. Noise measurements at these sites were taken on August 6, 2018. The locations of these monitoring sites are described in **Table 3.1-1** in **Appendix B**, and depicted in **Figure 3-1**, which is in **Appendix C**.

The noise level monitoring was completed using Larson-Davis Model 870 sound-level analyzers, in accordance with the methodology established by the FHWA and documented in *Noise Measurement Handbook - Final Report*, June 2018 (FHWA-HEP-18-065). The A-weighted frequency scale was used and the sound meter was calibrated to 114 dB(A) using a Larson-Davis Model CA250 sound-level calibrator. Monitoring was conducted for three 10-minute intervals at each site with the microphone approximately five feet above the land surface. Weather conditions during the noise measurements were within acceptable ranges based on FHWA's established methodology. No precipitation occurred during the noise measurements resulting in dry pavement conditions.

Traffic information, such as the number of passenger cars and trucks, as well as, average speeds, were collected at the time of noise monitoring. A K15-K Doppler Radar Gun was used to obtain average operating speeds for cars, medium trucks, heavy trucks, buses, and motorcycles. The dates, times, traffic data, and the measured noise levels are presented in **Table 3.1-1**. Since all noise levels in this report are based on a 1-hour period, the field-recorded traffic volumes were adjusted upward in the table to reflect hourly volumes.

Traffic noise was the dominant noise source at each of the monitoring sites. To verify the computer noise model, the TNM-predicted noise levels for Monitoring Sites MS-1A through MS-7 were compared to measured noise levels. When measured noise levels are within +/- 3.0 dB(A) of the computer-predicted levels, the model is considered validated. All 36 measured noise levels at the 12 monitoring sites were within +/- 3.0 dB(A) of the TNM-predicted levels (see **Table 3.1.1**). Because the TNM-predicted noise levels are within +/- 3.0 dB(A) of the measured noise levels, the model has been validated and is considered acceptable for predicting existing and future traffic noise levels along Miami Gardens Drive.

3.2 Predicted Noise Levels and Abatement

As described in the 2006 PD&E Noise Study, the project area includes noise sensitive land uses that will be potentially impacted by traffic noise associated with the widening of Miami Gardens Drive. To determine the changes in land uses since the 2006 PD&E Study and to re-evaluate the potential for traffic noise impacts, the existing land uses along the corridor were reviewed and mapped by FHWA's Noise Activity Categories (see **Figure 3-1** in **Appendix C**). The noise sensitive land uses along the project corridor include single and multi-family residences, places of worship, schools, medical facilities, and recreational areas. Since the 2006 NSR, two new noise sensitive land uses have been developed, the North Point Community Center and a new apartment complex (i.e., Plaza Pointe Apartments). The North Point Community Center is located north of Miami Gardens Drive and east of NW 75th Place (see **Figure 3-1**, **Sheet 4**). The Plaza Pointe Apartments is located south of Miami Gardens Drive and east of NW 62nd Avenue (see **Figure 3-1**, **Sheet 7**).

The representative noise sensitive receptor sites used in assessment of impacts are presented in **Table 3.2-1** and depicted in **Figure 3-1**. **Table 3.2-1** in **Appendix D** lists and describes the general area, approximate location, and number of sites represented. **Table 3.2-1** also includes the predicted noise levels for the Build Alternative. Each of the representative receptor sites were given a unique designation, for example, PS-1. The alphanumeric character(s) represents the name and location of the noise sensitive receptor site (e.g., "PS" for Palm Springs North). The numerical value represents the unique/sequential receptor site number for that location (e.g., for Palm Springs North, Receptors Sites PS-1 through PS-97 were used to represent the noise sensitive sites within this residential community).

To facilitate comparisons to the 2006 PD&E Noise Study and the noise impact analysis, the same noise study areas were used. The names of the noise study areas were associated with the names of the residential communities (e.g., Palm Springs North) or to the non-residential uses (e.g., Country Village Park) versus a using a numbering system. In addition, each of the noise study areas were assigned a CNE identification number (i.e., E1 through E22).

Predicted design year (2040) noise levels for the Build Alternative were compared to the NAC to assess potential noise impacts associated with the project. As identified in **Table 3.2-1** and summarized in **Table 3.2-2: Summary of Traffic Noise Impacts by Common Noise Environment**, traffic noise impacts occur. With the recommended Build Alternative, design year (2040) traffic noise levels will approach, meet, or exceed the NAC at 354 residences (NAC B) within 14 of the CNEs and at three non-residential/special land use sites (NAC C)/CNEs (see **Table 3.2-2**). Therefore, consideration of noise barriers at each of these impacted residential and special land use sites is warranted.

Table 3.2-2: Summary of Traffic Noise Impacts by Common Noise Environments

Common Noise Environment (CNE) ID / General Location	Name of Noise Sensitive Site/Area	Noise Abatement Activity Category - Criteria	TNM Predicted Design Year (2040) Noise Levels dB(A)		Traffic Noise Impacts		Consideration of Noise Barriers? Yes or No	Potential Noise Barrier Constructability Issues		Noise Barrier Analysis Section
			Minimum	Maximum	Number of Residential Sites	Number of Special Land Uses		Potential Easement Involvement (Type & ID Number)?	Potential Utility Conflicts?	
E1 / South of Miami Gardens Drive between NW 87th Avenue and Peter's Pike Canal	Palm Springs North	Residential NAC B - 66 dB(A)	50.8	74.9	51	---	*YES*	YES (10' Planting Screen; PB85-71; PB84-96; PB84-41; & PB82-49)	YES (OE* Line - Being Relocated; Telephone & Cable TV Buried)	Section 3.2.1
E2 / South of Miami Gardens Drive between Peter's Pike Canal and NW 73rd Avenue	Option One Medical Center	Medical Facility Interior Use NAC D - 51 dB(A)	39.7	39.7	---	---	NO	---	---	---
	El Bakery @ 186	Sensitive Commercial NAC E - 71 dB(A)	61.4	61.4	---	---	NO	---	---	---
	Locos 4 Wine	Sensitive Commercial NAC E - 71 dB(A)	60.6	60.6	---	---	NO	---	---	---
E3 / South of Miami Gardens Drive between NW 73rd Avenue and NW 68th Avenue	Coral Gate West and Coral Gate East Condominiums	Residential NAC B - 66 dB(A)	55.9	72.8	75	---	*YES*	---	YES (Telephone Buried)	Section 3.2.2
E4 / South of Miami Gardens Drive and West of NW 68th Avenue	The Gate House Condominiums	Residential NAC B - 66 dB(A)	62.0	66.5	1	---	NO (Not Acoustically Feasible - Isolated Residence)	---	---	---
	The Gate House Condominiums - Community Playground	Recreational NAC C - 66 dB(A	61.9	67.1	---	1	NO (Not Feasible - Adjacent to Entrance Road; An Effective Noise Barrier Would Block Access)	---	---	---
E5 / South of Miami Gardens Drive between NW 68th Avenue and Bobolink Drive	Country Club Towers	Residential NAC B - 66 dB(A)	63.6	69.2	56	---	*YES*	---	YES (Telephone Buried)	Section 3.2.3
E6 / South of Miami Gardens Drive and East of Bobolink Drive	Panera Bread	Sensitive Commercial NAC E - 71 dB(A)	61.4	61.4	---	---	NO	---	---	---
E7 / South of Miami Gardens Drive between Ludlam Road and NW 62nd Avenue	Mediterranean Villas	Residential NAC B - 66 dB(A)	46.4	71.8	15	---	*YES*	YES (10' Utility, Landscaping, and Pedestrian; PB132-72 & PB131-11)	YES (Telephone and Cable TV Buried)	Section 3.2.4
E8 / South of Miami Gardens Drive between Ludlam Road and NW 57th Avenue	Checkers	Sensitive Commercial NAC E - 71 dB(A)	61.4	61.4	---	---	NO	---	---	---
	Pasteur Medical	Medical Facility Interior Use NAC D - 51 dB(A)	42.1	42.1	---	---	NO	---	---	---
E9 / South of Miami Gardens Drive and West of NW 62nd Avenue	The Moors	Residential NAC B - 66 dB(A)	50.4	65.6	---	---	NO	---	---	---
E10 / North of Miami Gardens Drive between NW 87th Avenue and NW 82nd Avenue	Ibis Villas	Residential NAC B - 66 dB(A)	64.7	72.1	5	---	*YES*	---	---	Section 3.2.5
E11 / North of Miami Gardens Drive between NW 87th Avenue and NW 82nd Avenue	Mother of Our Redeemer Catholic Church & School	Place of Worship Interior Use NAC D - 51 dB(A)	34.2	34.2	---	---	NO	---	---	---
E12 / North of Miami Gardens Drive between NW 87th Avenue and NW 82nd Avenue	San Mateo Condominiums	Residential NAC B - 66 dB(A)	59.5	70.9	5	---	*YES*	---	---	Section 3.2.6
E13 / North of Miami Gardens Drive between NW 87th Avenue and NW 82nd Avenue	The Church of Jesus Christ of Latter Day Saints	Place of Worship Interior Use NAC D - 51 dB(A)	43.4	43.4	---	---	NO	---	---	---
E14 / North of Miami Gardens Drive between NW 82nd Avenue and NW 79th Avenue	Hunters Point Subdivision	Residential NAC B - 66 dB(A)	47.7	70.9	23	---	*YES*	YES (Utility; PB123-97; PB150-17; PB13-95)	YES (Telephone & Cable TV Buried; 24" Water Main)	Section 3.2.7
E15 / North of Miami Gardens Drive between NW 79th Avenue and Peter's Pike Canal	Esplanade	Residential NAC B - 66 dB(A)	53.5	72.6	15	---	*YES*	YES (Utility and Canal Maintenance; PB129-79)	YES (OE* - Relocated; Telephone & Cable TV Buried; Water Main)	Section 3.2.8
E16 / North of Miami Gardens Drive between Peter's Pike Canal and NW 75th Place	Country Club of Miami Estates	Residential NAC B - 66 dB(A)	57.5	74.4	8	---	*YES*	---	---	Section 3.2.9
E17 / North of Miami Gardens Drive between NW 75th Place and NW 73rd Avenue	North Pointe Community Center	Recreational NAC C - 66 dB(A)	61.1	71.1	---	1	*YES*	---	---	Section 3.2.10
E18 / North of Miami Gardens Drive between NW 73rd Avenue and NW 68th Avenue	Las Brisas	Residential NAC B - 66 dB(A)	55	67.1	14	---	*YES*	YES (Utility; PB126-95)	YES (OE* - 2 Lines; Water Main)	Section 3.2.11
E19 / North of Miami Gardens Drive between NW 68th Avenue and Bobolink Drive	Country Club of Miami Condominiums	Residential NAC B - 66 dB(A)	62.2	73.1	7	---	*YES*	---	YES (OE* - 2 Lines; Buried Telephone)	Section 3.2.12
E20 / North of Miami Gardens Drive between Bobolink Drive and Ludlam Road	Country Lake Manor Townhomes	Residential NAC B - 66 dB(A)	70.6	71.3	7	---	*YES*	YES (Utility; PB132-100)	YES (OE* - 2 Lines; Cable TV Buried)	Section 3.2.13
E21 / North of Miami Gardens Drive between Ludlam Road and NW 62nd Avenue	Country Village Park	Recreational NAC C - 66 dB(A	60.6	69.6	---	1	*YES*	---	---	Section 3.2.14
	Joella C. Good Elementary School	Recreational NAC C - 66 dB(A	60.3	64.6	---	---	*NO*	---	---	---
E22 / North of Miami Gardens Drive between Ludlam Road and NW 62nd Avenue	Villa Esperanza Apartments	Residential NAC B - 66 dB(A)	66.1	72.5	72	---	*YES*	YES (Utility; PB153-48)	YES (OE* - 1 Line)	Section 3.2.15
Total Number of Residential Sites Equal to or Greater than the Noise Abatement Criteria (NAC) of 66 dB(A)					354	---	---	---	---	---
Total Number of Non-Residential / Special Land Use Sites Equal to or Greater than the Noise Abatement Criteria (NAC)					---	3	---	---	---	---

X:\P\Noise_Studies\Proposal\MGD_ComidorStudy\Re-eval\Noise Study Report Addendum\Tables\[Table3-2-1_PNLs_12-19-2019.xlsx]Table 3.2.2_Rev (2)

*Overhead Electric (OE)

Of the 17 CNEs, noise barriers were not considered a feasible abatement option for CNE E4 (i.e., The Gate House Condominiums). One residence (i.e., Receptor Site GH-1) in this community and a community playground (i.e., Receptor Site GH-7C) are predicted to experience design year (2040) noise levels that will approach, meet, or exceed the NAC. Since the residential receptor site represents an isolated impacted residence, noise barriers were not considered acoustically feasible. For a noise barrier to be considered an acoustically feasible abatement measure, it must benefit at least two impacted receptor sites. In addition, the access driveway to this community and to the adjacent property limit the ability to construct an effective continuous noise barrier for the impacted residence and community playground without blocking access to this residential area and adjacent property. Therefore, a noise barrier is not considered a feasible abatement measure at this location since it would restrict access to this residential community and to adjacent properties.

For the other 13 residential and two non-residential CNEs impacted by design year (2040) traffic noise levels, the analysis of noise barriers and recommendations are summarized by CNE in **Section 3.2.1** through **Section 3.2.15**. Due to the number of Noise Barrier Analysis Summary Tables (i.e., 3.3.1-1 through 3.3.15-1), these have been included in **Appendix D**. The locations and limits of the noise barriers (both recommended and not recommended) are depicted on **Figure 3-1** in **Appendix C**.

No other noise sensitive sites, including Activity Categories D and E sites, within the project corridor are predicted to experience traffic noise levels that will approach, meet, or exceed the NAC. It should be noted that some developed areas were not evaluated since they do not represent noise sensitive areas or were located beyond the expected area of traffic noise impacts. Only restaurants with outdoor seating represent noise sensitive commercial land uses on this project; therefore, the restaurants without outdoor seating were not evaluated. Other types of noise sensitive commercial land uses such as hotel pools and office buildings with exterior areas of use such as picnic tables do not occur along the project corridor. Multi-family residential developments without exterior areas of use such as patios, balconies, and community pools were not evaluated. Access hallways associated with multi-family residential developments are not considered noise sensitive.

Noise abatement was not considered for a new three story multi-family residential development that was under construction on the south side of Miami Gardens Drive between NW 62nd Avenue and NW 59th Avenue. Although the residential units represent noise sensitive sites, construction permits were not obtained prior to the project's date of public knowledge (i.e., September 15, 2006) and therefore, as indicated in Part 2, Chapter 19 of FDOT's PD&E Manual, FDOT is not responsible for considering or providing noise abatement.

3.2.1 Palm Springs North (Common Noise Environment E1)

Common Noise Environment E1 encompasses the impacted single family residences within the Palm Springs North community located south of Miami Gardens Drive between NW 87th Avenue and Peter's Pike Canal (see **Figure 3-1**, **Sheets 1, 2 and 3**). NW 84th Court and NW 82nd Avenue are used to access this residential community. The western side of the community is adjacent to NW 87th Avenue. The eastern side of the community is adjacent to a parcel that includes an access road to an AT&T utility building and other facilities. Currently, a 10-foot wide planting screen easement is located between the residences and Miami Gardens Drive. In addition, there are utilities located along the Miami Gardens Drive southern right-of-way line including overhead electric, telephone, and cable TV.

Design year (2040) noise levels for the Build Alternative are predicted to approach, meet, or exceed the NAC of 67 dB(A) at 51 residences within this community; therefore, noise barriers were evaluated at this location. The results of the noise barrier analysis for this area are summarized in **Table 3.3.1-1** in **Appendix E**. Eight conceptual noise barrier designs were evaluated to reduce traffic noise levels at the 51 impacted residences. Each of the conceptual designs evaluated include three ground mounted noise barrier segments. All eight conceptual noise barrier designs meet both the minimum noise reduction design goal of 7 dB(A) for at least one benefited residence and the reasonable cost criteria of equal to or less than $42,000 per benefited receptor site. The estimated construction cost of the conceptual noise barrier designs ranges from $1,132,800 to $3,115,200 or $20,596 to $38,940 per benefitted residence.

Based on the noise barrier analysis performed, noise barriers are considered preliminarily feasible and reasonable at this location since they do meet both FDOT's required noise abatement design goal and the reasonable cost criteria. Therefore, noise barriers are recommended for further consideration and public input during the project's design phase at this location. It should be noted that the final decisions on noise barrier dimensions are made during the project's design phase and based on input from adjacent residential properties benefitted by a noise barrier(s). The recommendation that noise barriers be further considered at this location is consistent with the 2006 PD&E Noise Study that recommended three 12-foot-tall ground mounted noise barrier segments be further evaluated during the project's design phase.

Although noise barriers are recommended for further consideration, based on a review of the site conditions and the potential constructability and sight distance issues, construction of a noise barrier at this location may not be feasible or meet FDOT's cost reasonableness criteria. The construction of a noise barrier at this location would impact an existing planting screen easement and require the relocation of the existing utilities along and immediately outside the right-of-way. Due to these impacts and potential increases in construction costs, further evaluation of the feasibility and reasonableness of noise barriers at this location is recommended

to be performed during the design phase when more detailed engineering design is available and the potential for utility conflicts and relocation costs are further evaluated.

3.2.2 Coral Gate West and Coral Gate East Condominiums (Common Noise Environment E3)

Common Noise Environment E3 encompasses the impacted multi-family residences within the Coral Gate West and Coral Gate East Condominiums communities located south of Miami Gardens Drive between NW 73rd Avenue and NW 68th Avenue (see **Figure 3-1**, **Sheet 4**). Miami Gardens Drive is used to access this residential community at two locations. The western side of the community is adjacent to NW 73rd Avenue. The eastern side of the community is adjacent to an entrance road to the Sunrise Presbyterian Church. The five story residential buildings associated with the community have patios and balconies exposed to traffic noise from Miami Gardens Drive. Currently, a 5-foot tall concrete block privacy wall is located between the residences and Miami Gardens Drive. In addition, there are utilities located along the Miami Gardens Drive southern right-of-way line including overhead electric and telephone.

Design year (2040) noise levels for the Build Alternative are predicted to approach, meet, or exceed the NAC of 67 dB(A) at 75 residences within this community; therefore, noise barriers were evaluated at this location. The results of the noise barrier analysis for this area are summarized in **Table 3.3.2-1** in **Appendix E**. Eight conceptual noise barrier designs were evaluated to reduce traffic noise levels at the 75 impacted residences. Each of the conceptual designs evaluated include three ground mounted noise barrier segments. Five of the eight conceptual noise barrier designs meet both the minimum noise reduction design goal of 7 dB(A) for at least one benefited residence and the reasonable cost criteria of equal to or less than $42,000 per benefited receptor site. The estimated construction cost of the conceptual noise barrier designs ranges from $520,800 to $818,400 or $15,318 to $10,768 per benefited residence.

Due to the elevation of the second through fifth floor residences (i.e., balconies) the effectiveness of noise barriers is limited and not all impacted residences can be benefited by a noise barrier at this location, even at a maximum noise barrier height of 22 feet. In addition, the existing adjacent cross streets limit the ability to construct a longer and continuous noise barrier at this location that would be more effective.

Based on the noise barrier analysis performed, noise barriers are considered preliminarily feasible and reasonable at this location since they do meet both FDOT's required noise abatement design goal and the reasonable cost criteria. Therefore, noise barriers are recommended for further consideration and public input during the project's design phase at this location. It should be noted that the final decisions on noise barrier dimensions are made during

the project's design phase and based on input from adjacent residential properties benefitted by a noise barrier(s). The recommendation that noise barriers be further considered at this location is consistent with the 2006 PD&E Noise Study that recommended three 19-foot-tall ground mounted noise barrier segments be further evaluated during the project's design phase.

Although noise barriers are recommended for further consideration, based on a review of the site conditions and the potential constructability and sight distance issues, construction of a noise barrier at this location may not be feasible or meet FDOT's cost reasonableness criteria. The construction of a noise barrier at this location would require the relocation of the existing utilities along and immediately outside the right-of-way. Due to these utility impacts and potential increases in construction costs, further evaluation of the feasibility and reasonableness of noise barriers at this location is recommended to be performed during the design phase when more detailed engineering design is available and the potential for utility conflicts and relocation costs are further evaluated.

3.2.3 Country Club Towers (Common Noise Environment E5)

Common Noise Environment E5 encompasses the impacted multi-family residences within the Country Club Towers community located south of Miami Gardens Drive between NW 68th Avenue and Bobolink Drive (see **Figure 3-1**, **Sheet 5**). Both NW 68th Avenue and Bobolink Drive are used to access this residential community. The western side of the community is adjacent to NW 68th Avenue. The eastern side of the community is adjacent to Bobolink Drive. The five story residential buildings associated with the community have patios and balconies exposed to traffic noise from Miami Gardens Drive. Currently, a 5-foot tall concrete block privacy wall is located between the residences and Miami Gardens Drive. In addition, there are utilities located along the Miami Gardens Drive southern right-of-way line including overhead electric and telephone.

Design year (2040) noise levels for the Build Alternative are predicted to approach, meet, or exceed the NAC of 67 dB(A) at 56 residences within this community; therefore, noise barriers were evaluated at this location. The results of the noise barrier analysis for this area are summarized in **Table 3.3.3-1** in **Appendix E**. Eight conceptual noise barrier designs were evaluated to reduce traffic noise levels at the 56 impacted residences. Five of the eight conceptual noise barrier designs meet both the minimum noise reduction design goal of 7 dB(A) for at least one benefited residence and the reasonable cost criteria of equal to or less than $42,000 per benefited receptor site. The estimated construction cost of the conceptual noise barrier designs ranges from $411,600 to $646,800 or $15,831 to $13,475 per benefited residence.

Due to the elevation of the second through fifth floor residences (i.e., balconies), not all impacted residences would be benefited by a noise barrier. In addition, the existing cross streets on either side of this community limit the ability to construct a longer and continuous noise barrier at this location that would be more effective.

Based on the noise barrier analysis performed, noise barriers are considered preliminarily feasible and reasonable at this location since they do meet both FDOT's required noise abatement design goal and the reasonable cost criteria. Therefore, noise barriers are recommended for further consideration and public input during the project's design phase at this location. It should be noted that the final decisions on noise barrier dimensions are made during the project's design phase and based on input from adjacent residential properties benefitted by a noise barrier(s). The recommendation that noise barriers at this location be further considered during the project's design phase is consistent with the 2006 PD&E Noise Study that recommended a 21-foot tall ground mounted noise barrier segment be further evaluated during the project's design phase.

Although a noise barrier is recommended for further consideration, based on a review of the site conditions and the potential constructability and sight distance issues, construction of a noise barrier at this location may not be feasible or meet FDOT's cost reasonableness criteria. The construction of a noise barrier at this location would require the relocation of the existing utilities along and immediately outside the right-of-way. Due to these utility impacts and potential increases in construction costs, further evaluation of the feasibility and reasonableness of a noise barrier at this location is recommended to be performed during the design phase when more detailed engineering design is available and the potential for utility conflicts and relocation costs are further evaluated.

3.2.4 Mediterranean Villas (Common Noise Environment E7)

Common Noise Environment E7 encompasses the impacted multi-family residences within the Mediterranean Villas community located south of Miami Gardens Drive between Ludlam Road and NW 62nd Avenue (see **Figure 3-1**, **Sheet 6**). Miami Gardens Drive is used to access this residential community. The western side of the community is adjacent to the Vista Center, a community shopping center that includes retail shops and restaurants. The eastern side of the community is adjacent to The Moors community. The two and three story residential buildings associated with the community have patios and balconies exposed to traffic noise from Miami Gardens Drive. Currently, a 5-foot tall concrete block privacy wall and 10 foot wide utility, landscaping, and pedestrian easement are located between the residences and Miami Gardens Drive. In addition, there are utilities located along the Miami Gardens Drive southern right-of-way line including overhead electric, telephone, and cable TV.

Design year (2040) noise levels for the Build Alternative are predicted to approach, meet, or exceed the NAC of 67 dB(A) at 15 residences within this community; therefore, noise barriers were evaluated at this location. The results of the noise barrier analysis for this area are summarized in **Table 3.3.4-1** in **Appendix E**. Ten conceptual noise barrier designs were evaluated to reduce traffic noise levels at the 15 impacted residences. Each of the conceptual designs evaluated include two ground mounted noise barrier segments. Six of the ten conceptual noise barrier designs meet both the minimum noise reduction design goal of 7 dB(A) for at least one benefited residence and the reasonable cost criteria of equal to or less than $42,000 per benefited receptor site. The estimated construction cost of the conceptual noise barrier designs ranges from $210,000 to $330,000 or $19,091 to $15,000 per benefited residence.

Due to the elevation of the second and third floor residences (i.e., balconies) the effectiveness of noise barriers is limited and not all impacted residences can be benefited by a noise barrier at this location, even at a maximum noise barrier height of 22 feet. In addition, the existing adjacent cross streets limit the ability to construct a longer and continuous noise barrier at this location that would be more effective.

Based on the noise barrier analysis performed, noise barriers are considered preliminarily feasible and reasonable at this location since they do meet both FDOT's required noise abatement design goal and the reasonable cost criteria. Therefore, noise barriers are recommended for further consideration and public input during the project's design phase at this location. It should be noted that the final decisions on noise barrier dimensions are made during the project's design phase and based on input from adjacent residential properties benefitted by a noise barrier(s). The recommendation that noise barriers be further considered at this location is consistent with the 2006 PD&E Noise Study that recommended two 21-foot-tall ground mounted noise barrier segments be further evaluated during the project's design phase.

Although noise barriers are recommended for further consideration, based on a review of the site conditions and the potential constructability and sight distance issues, construction of a noise barrier at this location may not be feasible or meet FDOT's cost reasonableness criteria. The construction of a noise barrier at this location would impact an existing utility, landscaping, and pedestrian easement and require the relocation of the existing utilities along and immediately outside the right-of-way. Due to these impacts and potential increases in construction costs, further evaluation of the feasibility and reasonableness of noise barriers at this location are recommended to be performed during the design phase when more detailed engineering design is available and potential for utility conflicts and relocation costs are further evaluated.

3.2.5 Ibis Villas (Common Noise Environment E10)

Common Noise Environment E10 encompasses the impacted multi-family residences within the Ibis Villas community located north of Miami Gardens Drive between NW 87th Avenue and NW 82nd Avenue (see **Figure 3-1**, **Sheet 2**). NW 84th Avenue is used to access this residential community. The western side of the community is adjacent to a parcel that includes an entrance road to McDonald's and the Garden Square Shopping Center. The eastern side of the community is adjacent to a parcel that includes an entrance road to Mother of Our Redeemer Catholic Church and School. The multi-family residential buildings associated with the community have patios exposed to traffic noise from Miami Gardens Drive.

Design year (2040) noise levels for the Build Alternative are predicted to approach, meet, or exceed the NAC of 67 dB(A) at five residences within this community; therefore, noise barriers were evaluated at this location. The results of the noise barrier analysis for this area are summarized in **Table 3.3.5-1** in **Appendix E**. Eight conceptual noise barrier designs were evaluated to reduce traffic noise levels at the five impacted residences. Each of the conceptual designs evaluated include two ground mounted noise barrier segments. None of the eight conceptual noise barrier designs meet the minimum noise reduction design goal of 7 dB(A) for at least one benefited residence or the reasonable cost criteria of equal to or less than $42,000 per benefited receptor site.

Based on the noise barrier analysis performed, noise barriers are not considered feasible or reasonable at this location since they do not meet FDOT's required noise abatement design goal or the reasonable cost criteria. The effectiveness of noise barriers at this location is reduced since a continuous noise barrier is not possible due to the entrance road to the community, the entrance road to the shopping center to the west, and the entrance road to the Mother of Our Redeemer Catholic Church and School to the east. Therefore, noise barriers at this location are not recommended for further consideration during the project's design phase. The recommendation that noise barriers at this location not be further considered during the project's design phase is inconsistent with the 2006 PD&E Noise Study that recommended two 12 foot-tall ground mounted noise barrier segments be further evaluated during the project's design phase.

3.2.6 San Mateo (Common Noise Environment E12)

Common Noise Environment E12 encompasses the impacted multi-family residences within the San Mateo community located north of Miami Gardens Drive between NW 87th Avenue and NW 82nd Avenue (see **Figure 3-1**, **Sheet 2**). NW 83rd Court and NW 83rd Avenue are used to access this residential community. The western side of the community is adjacent to a parcel that includes an entrance road to the Mother of Our Redeemer Catholic Church and School. The

eastern side of the community is adjacent to a parcel that includes an entrance to The Church of Jesus Christ of Latter Day Saints. The multi-family residential buildings associated with the community have patios exposed to traffic noise from Miami Gardens Drive. Currently, a 5-foot tall concrete block privacy wall is located between the residences and Miami Gardens Drive.

Design year (2040) noise levels for the Build Alternative are predicted to approach, meet, or exceed the NAC of 67 dB(A) at five residences within this community; therefore, noise barriers were evaluated at this location. The results of the noise barrier analysis for this area are summarized in **Table 3.3.6-1** in **Appendix E**. Eight conceptual noise barrier designs were evaluated to reduce traffic noise levels at the five impacted residences. Each of the conceptual designs evaluated include three ground mounted noise barrier segments. Five of the eight conceptual noise barrier designs meet the minimum noise reduction design goal of 7 dB(A) for at least one benefited residence. None of the eight conceptual noise barrier designs meet the reasonable cost criteria of equal to or less than $42,000 per benefited receptor site.

Based on the noise barrier analysis performed, noise barriers are not considered reasonable at this location since they do not meet FDOT's reasonable cost criteria. The effectiveness of noise barriers at this location is reduced since a continuous noise barrier is not possible due to the entrance road to the community, the entrance road to the Mother of Our Redeemer Catholic Church and School to the west, and the entrance road to The Church of Jesus Christ of Latter Day Saints to the east. Therefore, noise barriers at this location are not recommended for further consideration during the project's design phase. The recommendation that noise barriers not be further considered at this location is consistent with the 2006 PD&E Noise Study.

3.2.7 Hunters Point Subdivision (Common Noise Environment E14)

Common Noise Environment E14 encompasses the impacted single family residences within the Hunters Point community located north of Miami Gardens Drive between NW 82nd Avenue and NW 79th Avenue (see **Figure 3-1**, **Sheets 2 and 3**). NW 81st Court and NW 79th Place are used to access this residential community. The western side of the community is adjacent to NW 82nd Avenue. The eastern side of the community is adjacent to the Esplanade community. Currently, a 5-foot tall concrete block privacy wall and utility easement are located between the residences and Miami Gardens Drive. In addition, there are utilities located along the Miami Gardens Drive northern right-of-way line including telephone, water main, and cable TV.

Design year (2040) noise levels for the Build Alternative are predicted to approach, meet, or exceed the NAC of 67 dB(A) at 23 residences within this community; therefore, noise barriers were evaluated at this location. The results of the noise barrier analysis for this area are summarized in **Table 3.3.7-1** in **Appendix E**. Eight conceptual noise barrier designs were

evaluated to reduce traffic noise levels at the 23 impacted residences. Each of the conceptual designs evaluated include three ground mounted noise barrier segments. Three of the eight conceptual noise barrier designs meet both the minimum noise reduction design goal of 7 dB(A) for at least one benefited residence and the reasonable cost criteria of equal to or less than $42,000 per benefited receptor site. The estimated construction cost of the conceptual noise barrier designs ranges from $470,400 to $604,800 or $33,600 to $40,320 per benefited residence.

The existing driveways and cross streets in this area limit the ability to construct a longer and continuous noise barrier that would provide benefit to all of the impacted residences. The conceptual noise barrier designs for this area overlap with the noise barriers for the Esplanade community (CNE 15), as shown in **Figure 3-1**, **Sheet 3**.

Based on the noise barrier analysis performed, noise barriers are considered preliminarily feasible and reasonable at this location since they do meet both FDOT's required noise abatement design goal and the reasonable cost criteria. Therefore, noise barriers are recommended for further consideration and public input during the project's design phase at this location. It should be noted that the final decisions on noise barrier dimensions are made during the project's design phase and based on input from adjacent residential properties benefitted by a noise barrier(s). The recommendation that noise barriers at this location be further considered during the project's design phase is inconsistent with the 2006 PD&E Noise Study that didn't evaluate or recommend noise barriers be further evaluated during the project's design phase. Consideration of noise barriers at this location during the 2006 PD&E Noise Study was not warranted since no residences were determined to be impacted by traffic noise.

Although noise barriers are recommended for further consideration, based on a review of the site conditions and the potential constructability and sight distance issues, construction of a noise barrier at this location may not be feasible or meet FDOT's cost reasonableness criteria. The construction of a noise barrier at this location would impact an existing utility easement and require the relocation of the existing utilities along and immediately outside the right-of-way. Due to these impacts and potential increases in construction costs, further evaluation of the feasibility and reasonableness of noise barriers at this location are recommended to be performed during the design phase when more detailed engineering design is available and potential for utility conflicts and relocation costs are further evaluated.

3.2.8 Esplanade (Common Noise Environment E15)

Common Noise Environment E15 encompasses the impacted single family residences within the Esplanade community located north of Miami Gardens Drive between NW 79th Avenue and Peter's Pike Canal (see **Figure 3-1**, **Sheet 3**). NW 79th Avenue is used to access this residential

community. The western side of the community is adjacent to the Hunters Point Subdivision. The eastern side of the community is adjacent to the Peter's Pike Canal. Currently, a utility and canal maintenance easement are located between the residences and Miami Gardens Drive. In addition, there are utilities located along the Miami Gardens Drive northern right-of-way line including telephone, cable TV, and a water main.

Design year (2040) noise levels for the Build Alternative are predicted to approach, meet, or exceed the NAC of 67 dB(A) at 15 residences within this community; therefore, noise barriers were evaluated at this location. The results of the noise barrier analysis for this area are summarized in **Table 3.3.8-1** in **Appendix E**. Eight conceptual noise barrier designs were evaluated to reduce traffic noise levels at the 15 impacted residences. Each of the conceptual designs evaluated include two ground mounted noise barrier segments. All eight conceptual noise barrier designs meet both the minimum noise reduction design goal of 7 dB(A) for at least one benefited residence and the reasonable cost criteria of equal to or less than $42,000 per benefited receptor site. The estimated construction cost of the conceptual noise barrier designs ranges from $297,600 to $818,400 or $18,600 to $40,920 per benefited residence.

The existing cross streets in this area limit the ability to construct a longer and continuous noise barrier that would provide benefit to all of the impacted residences. The conceptual noise barrier designs for this area overlap with the noise barriers for the Hunters Point Subdivision community (CNE 14), as shown in **Figure 3-1**, **Sheet 3**.

Based on the noise barrier analysis performed, noise barriers are considered preliminarily feasible and reasonable at this location since they do meet both FDOT's required noise abatement design goal and the reasonable cost criteria. Therefore, noise barriers are recommended for further consideration and public input during the project's design phase at this location. It should be noted that the final decisions on noise barrier dimensions are made during the project's design phase and based on input from adjacent residential properties benefitted by a noise barrier(s). The recommendation that noise barriers at this location be further considered during the project's design phase is consistent with the 2006 PD&E Noise Study that two 12-foot-tall ground mounted noise barrier segments be further evaluated during the project's design phase.

Although noise barriers are recommended for further consideration, based on a review of the site conditions and the potential constructability and sight distance issues, construction of a noise barrier at this location may not be feasible or meet FDOT's cost reasonableness criteria. The construction of a noise barrier at this location would impact an existing utility and canal maintenance easement and require the relocation of the existing utilities along and immediately outside the right-of-way. Due to these impacts and potential increases in construction costs, further evaluation of the feasibility and reasonableness of noise barriers at this location are

recommended to be performed during the design phase when more detailed engineering design is available and potential for utility conflicts and relocation costs are further evaluated.

3.2.9 Country Club of Miami Estates (Common Noise Environment E-16)

Common Noise Environment E16 encompasses the impacted single family residences within the Country Club of Miami Estates community located north of Miami Gardens Drive between Peter's Pike Canal and NW 75th Place (see **Figure 3-1**, **Sheets 3 and 4**). Wentworth Drive, W Oakmont Drive, and Troon Drive are used to access this residential community. The western side of the community is adjacent to Peter's Pike Canal. The eastern side of the community is adjacent to the North Pointe Community Center.

Design year (2040) noise levels for the Build Alternative are predicted to approach, meet, or exceed the NAC of 67 dB(A) at eight residences within this community; therefore, noise barriers were evaluated at this location. The results of the noise barrier analysis for this area are summarized in **Table 3.3.9-1** in **Appendix E**. Eight conceptual noise barrier designs were evaluated to reduce traffic noise levels at the eight impacted residences. Each of the conceptual designs evaluated include four ground mounted noise barrier segments. All eight conceptual noise barrier designs meet the minimum noise reduction design goal of 7 dB(A) for at least one benefited residence but none meet the reasonable cost criteria of equal to or less than $42,000 per benefited receptor site. The estimated construction cost of the conceptual noise barrier designs ranges from $134,000 to $369,600 or $134,000 to $92,400 per benefitted receptor site.

The effectiveness of noise barriers at this location is reduced since a continuous noise barrier is not possible due to the entrance roads to the community and driveways to properties.

Based on the noise barrier analysis performed, noise barriers are not considered feasible or reasonable at this location since they do not meet both FDOT's required noise abatement design goal and the reasonable cost criteria. Therefore, noise barriers at this location are not recommended for further consideration during the project's design phase. The recommendation that noise barriers not be further considered at this location is consistent with the 2006 PD&E Noise Study.

3.2.10 North Pointe Community Center (Common Noise Environment E-17)

Common Noise Environment E17 encompasses the impacted exterior (i.e., recreational) areas associated with the North Pointe Community Center located north of Miami Gardens Drive between NW 75th Place and NW 73rd Avenue (see **Figure 3-1**, **Sheet 4**). Noise sensitive areas

within the North Pointe Community Center include a recreational trail adjacent to Miami Gardens Drive. Old Elm Drive is used to access this community center. The western side of the community center is adjacent to a residential driveway. The eastern side of the community center is adjacent to an entrance road to a Florida Power & Light substation.

Design year (2040) noise levels for the Build Alternative are predicted to approach, meet, or exceed the NAC of 67 dB(A) at seven of the 12 receptors modeled at this community center; therefore, noise barriers were evaluated at this location. The results of the noise barrier analysis for this area are summarized in **Table 3.3.10-1** in **Appendix E**. Three conceptual noise barrier designs were evaluated to reduce traffic noise levels at the seven impacted receptor sites (i.e., recreational trail) at this special land use. Each of the conceptual designs evaluated include two ground mounted noise barrier segments. All three of the conceptual noise barrier designs meet the minimum noise reduction design goal of 7 dB(A) for at least one benefited receptor site. A noise barrier would benefit between 55 and 65 percent of the impacted area. The estimated construction costs of the conceptual noise barrier designs ranges from $291,600 to $356,400.

The FDOT's special land use methodology was used to determine if the cost of a noise barrier would be reasonable, based on the level of activity expected at this facility. The minimum required daily usage rate (i.e., person-hours per day) for the lowest cost conceptual noise barrier design (i.e., CD1-E17) is 410 persons per day, each spending a minimum of one hour at this park (see **Table 3.3.10-2** in **Appendix E**). Due to the type of facility and intermittent use, it is not reasonable to assume that this area would experience this level of use on a typical day. Based on the noise barrier analysis performed, noise barriers are not considered feasible at this location since they do not meet FDOT's required noise abatement design goal. Therefore, noise barriers are not recommended for further consideration at this location. The recommendation that noise barriers at this location not be further considered during the project's design phase is consistent with the 2006 PD&E Noise Study that didn't evaluate or recommend noise barriers be further evaluated during the project's design phase. Consideration of noise barriers at this location during the 2006 PD&E Noise Study was not warranted since this area represented a "future park" and no noise sensitive sites were identified or evaluated for traffic noise impacts.

3.2.11 Las Brisas (**Common Noise Environment** E-18)

Common Noise Environment E18 encompasses the impacted multi-family residences within the Las Brisas community located north of Miami Gardens Drive between NW 73rd Avenue and NW 68th Avenue (see **Figure 3-1**, **Sheet 4**). Miami Gardens Drive is used to access this residential community. The western side of the community is adjacent to a Florida Power & Light substation. The eastern side of the community is adjacent to The Country Club of Miami Driving Range. The four story residential buildings associated with the community have patios and balconies exposed to traffic noise from Miami Gardens Drive. Currently, a utility easement is located

between the residences and Miami Gardens Drive. In addition, there are utilities located along the Miami Gardens Drive northern right-of-way line including overhead electric and a water main.

Design year (2040) noise levels for the Build Alternative are predicted to approach, meet, or exceed the NAC of 67 dB(A) at 14 residences within this community; therefore, noise barriers were evaluated at this location. The results of the noise barrier analysis for this area are summarized in **Table 3.3.11-1** in **Appendix E**. Eleven conceptual noise barrier designs were evaluated to reduce traffic noise levels at the 14 impacted residences. Ten of the 11 conceptual noise barrier designs meet both the minimum noise reduction design goal of 7 dB(A) for at least one benefited residence and the reasonable cost criteria of equal to or less than $42,000 per benefited receptor site. The estimated construction costs of the conceptual noise barrier designs ranges from $354,000 to $778,800 or $5,364 to $6,490 per benefited residence.

Due to the elevation of the second through fourth floor residences (i.e., balconies) the effectiveness of noise barriers is limited and not all impacted residences can be benefited by a noise barrier at this location, even at a maximum noise barrier height of 22 feet.

Based on the noise barrier analysis performed, noise barriers are considered preliminarily feasible and reasonable at this location since they do meet both FDOT's required noise abatement design goal and the reasonable cost criteria. Therefore, noise barriers are recommended for further consideration and public input during the project's design phase at this location. It should be noted that the final decisions on noise barrier dimensions are made during the project's design phase and based on input from adjacent residential properties benefitted by a noise barrier(s). The recommendation that a noise barrier at this location be further considered during the project's design phase is consistent with the 2006 PD&E Noise Study that recommended a 19-foot tall ground mounted noise barrier segment be further evaluated during the project's design phase.

Although noise barriers are recommended for further consideration, based on a review of the site conditions and the potential constructability and sight distance issues, construction of a noise barrier at this location may not be feasible or meet FDOT's cost reasonableness criteria. The construction of a noise barrier at this location would impact an existing utility easement and require the relocation of the existing utilities along and immediately outside the right-of-way. Due to these impacts and potential increases in construction costs, further evaluation of the feasibility and reasonableness of a noise barrier is recommended to be performed during the design phase when more detailed engineering design is available and potential for utility conflicts and relocation costs are further evaluated.

3.2.12 Country Club of Miami Condominiums (Common Noise Environment E-19)

Common Noise Environment E19 encompasses the impacted multi-family residences within the Country Club of Miami Condominiums community located north of Miami Gardens Drive between NW 68th Avenue and Bobolink Drive (see **Figure 3-1**, **Sheet 5**). Bobolink Drive is used to access this residential community. The western side of the community is approximately 800 feet east of an entrance road to the Country Club of Miami. The eastern side of the community is adjacent to Bobolink Drive. The two story residential buildings associated with the community have patios and balconies exposed to traffic noise from Miami Gardens Drive. Currently, a 5-foot tall concrete block privacy wall is located between the residences and Miami Gardens Drive. In addition, there are utilities located along the Miami Gardens Drive northern right-of-way line including overhead electric and telephone.

Design year (2040) noise levels for the Build Alternative are predicted to approach, meet, or exceed the NAC of 67 dB(A) at seven residences within this community; therefore, noise barriers were evaluated at this location. The results of the noise barrier analysis for this area are summarized in **Table 3.3.12-1** in **Appendix E**. Eight conceptual noise barrier designs were evaluated to reduce traffic noise levels at the seven impacted residences. Seven of the eight conceptual noise barrier designs meet both the minimum noise reduction design goal of 7 dB(A) for at least one benefited residence and the reasonable cost criteria of equal to or less than $42,000 per benefited receptor site. The estimated construction cost of the conceptual noise barrier designs ranges from $138,000 to $303,600 or $27,600 to $30,360 per benefited residence.

Based on the noise barrier analysis performed, noise barriers are considered preliminarily feasible and reasonable at this location since they do meet both FDOT's required noise abatement design goal and the reasonable cost criteria. Therefore, noise barriers are recommended for further consideration and public input during the project's design phase at this location. It should be noted that the final decisions on noise barrier dimensions are made during the project's design phase and based on input from adjacent residential properties benefitted by a noise barrier(s). The recommendation that a noise barrier at this location be further considered during the project's design phase is consistent with the 2006 PD&E Noise Study that a recommended a 12-foot tall ground mounted noise barrier segment be further evaluated during the project's design phase.

Although noise barriers are recommended for further consideration, based on a review of the site conditions and the potential constructability and sight distance issues, construction of a noise barrier at this location may not be feasible or meet FDOT's cost reasonableness criteria. The construction of a noise barrier at this location would require the relocation of the existing

utilities along and immediately outside the right-of-way. Due to these impacts and potential increases in construction costs, further evaluation of the feasibility and reasonableness of a noise barrier is recommended to be performed during the design phase when more detailed engineering design is available and potential for utility conflicts and relocation costs are further evaluated.

3.2.13 Country Lake Manor Townhomes (Common Noise Environment E-20)

Common Noise Environment E20 encompasses the impacted multi-family residences within the Country Lake Manor Townhomes community located north of Miami Gardens Drive between Bobolink Drive and Ludlam Road (see **Figure 3-1**, **Sheet 5**). NW 67th Place is used to access this residential community. The western side of the community is adjacent to Bobolink Drive. The eastern side of the community is adjacent to the Country Club Plaza North, a commercial center that includes retail shops and restaurants. One of the multi-family residential buildings associated with the community has patios exposed to traffic noise from Miami Gardens Drive. Currently, a utility easement is located between the residences and Miami Gardens Drive. In addition, there are utilities located along the Miami Gardens Drive northern right-of-way line including overhead electric and cable TV.

Design year (2040) noise levels for the Build Alternative are predicted to approach, meet, or exceed the NAC of 67 dB(A) at seven residences within this community; therefore, noise barriers were evaluated at this location. The results of the noise barrier analysis for this area are summarized in **Table 3.3.13-1** in **Appendix E**. Eight conceptual noise barrier designs were evaluated to reduce traffic noise levels at the seven impacted residences. Four of the eight conceptual noise barrier designs meet both the minimum noise reduction design goal of 7 dB(A) for at least one benefited residence and the reasonable cost criteria of equal to or less than $42,000 per benefited receptor site. The estimated construction cost of the conceptual noise barrier designs ranges from $96,000 to $132,000 or $19,200 to $26,400 per benefited residence.

The existing cross streets in this area limit the ability to construct a longer and continuous noise barrier that would provide benefit to all of the impacted residences.

Based on the noise barrier analysis performed, noise barriers are considered preliminarily feasible and reasonable at this location since they do meet both FDOT's required noise abatement design goal and the reasonable cost criteria. Therefore, noise barriers are recommended for further consideration and public input during the project's design phase at this location. It should be noted that the final decisions on noise barrier dimensions are made during the project's design phase and based on input from adjacent residential properties benefitted by a noise barrier(s). The recommendation that noise barriers at this location be further considered

during the project's design phase is inconsistent with the 2006 PD&E Noise Study that didn't assess traffic noise impacts or evaluate noise barriers at this location.

Although noise barriers are recommended for further consideration, based on a review of the site conditions and the potential constructability and sight distance issues, construction of a noise barrier at this location may not be feasible or meet FDOT's cost reasonableness criteria. The construction of a noise barrier at this location would impact an existing utility easement and require the relocation of the existing utilities along and immediately outside the right-of-way. Due to these impacts and potential increases in construction costs, further evaluation of the feasibility and reasonableness of a noise barrier is recommended to be performed during the design phase when more detailed engineering design is available and potential for utility conflicts and relocation costs are further evaluated.

3.2.14 Country Village Park (**Common Noise Environment** E-21)

Common Noise Environment E21 encompasses the impacted exterior (i.e., recreational) areas within the Country Village Park located north of Miami Gardens Drive between Ludlam Road and NW 62nd Avenue (see **Figure 3-1**, **Sheets 5 and 6**). Noise sensitive areas within the Country Village Park include a recreational trail, a sports field, and playground. NW 188th Terrace is used to access the park. The western side of the park is adjacent to Ludlam Road. The eastern side of the park is adjacent to the Joella C. Good Elementary School.

Design year (2040) noise levels for the Build Alternative are predicted to approach, meet, or exceed the NAC of 67 dB(A) at eight of the 16 receptors modeled at this park; therefore, noise barriers were evaluated at this location. The results of the noise barrier analysis for this area are summarized in **Table 3.3.14-1** in **Appendix E**. Three conceptual noise barrier designs were evaluated to reduce traffic noise levels at the eight impacted receptor sites (i.e., recreational trail) at this special land use. All three of the conceptual noise barrier designs meet the minimum noise reduction design goal of 7 dB(A) for at least one benefited receptor site. A noise barrier would benefit 85 percent of the impacted area. The estimated construction costs of the conceptual noise barrier designs ranges from $486,000 to $594,000.

The FDOT's special land use methodology was used to determine if the cost of a noise barrier would be reasonable, based on the level of activity expected at this facility. The minimum required daily usage rate (i.e., person-hours per day) for the lowest cost conceptual noise barrier design (i.e., CD1-E21) is 683 persons per day, each spending a minimum of one hour at this park (see **Table 3.3.14-2** in **Appendix E**). Due to the type of facility and intermittent use, it is not reasonable to assume that this area would experience this level of use on a typical day. Based on the noise barrier analysis performed, noise barriers are not considered feasible at this location since they do not meet FDOT's required noise abatement design goal. Therefore, noise barriers

are not recommended for further consideration at this location. The recommendation that noise barriers at this location not be further considered during the project's design phase is consistent with the 2006 PD&E Noise Study that didn't evaluate or recommend noise barriers be further evaluated during the project's design phase. Consideration of noise barriers at this location during the 2006 PD&E Noise Study was not warranted since the noise sensitive areas in this park were determined not to be impacted by traffic noise.

3.2.15 Villa Esperanza Apartments (**Common Noise Environment** E-22)

Common Noise Environment E22 encompasses the impacted multi-family residences within the Villa Esperanza community located north of Miami Gardens Drive between Ludlam Road and NW 62nd Avenue (see **Figure 3-1**, **Sheet 6**). NW 62nd Avenue is used to access this residential community. The western side of the community is adjacent to Joella C. Good Elementary School. The eastern side of the community is adjacent to an office park, the Miami Gardens Professional Center. The four story residential buildings associated with the community have patios and balconies exposed to traffic noise from Miami Gardens Drive. Currently, a utility easement is located between the residences and Miami Gardens Drive. In addition, there are utilities located along the Miami Gardens Drive northern right-of-way line including overhead electric.

Design year (2040) noise levels for the Build Alternative are predicted to approach, meet, or exceed the NAC of 67 dB(A) at 72 residences within this community; therefore, noise barriers were evaluated at this location. The results of the noise barrier analysis for this area are summarized in **Table 3.3.15-1** in **Appendix E**. Eleven conceptual noise barrier designs were evaluated to reduce traffic noise levels at the 72 impacted residences. Ten of the 11 conceptual noise barrier designs meet both the minimum noise reduction design goal of 7 dB(A) for at least one benefited residence and the reasonable cost criteria of equal to or less than $42,000 per benefited receptor site. The estimated construction costs of the conceptual noise barrier designs ranges from $300,000 to $660,000 or $13,636 to $11,186 per benefited residence.

Due to the elevation of the second through fourth floor residences (i.e., balconies) the effectiveness of noise barriers is limited and not all impacted residences can be benefited by a noise barrier at this location, even at a maximum noise barrier height of 22 feet.

Based on the noise barrier analysis performed, noise barriers are considered preliminarily feasible and reasonable at this location since they do meet both FDOT's required noise abatement design goal and the reasonable cost criteria. Therefore, noise barriers are recommended for further consideration and public input during the project's design phase at this location. It should be noted that the final decisions on noise barrier dimensions are made during the project's design phase and based on input from adjacent residential properties benefitted by a noise barrier(s). The recommendation that noise barriers at this location be further considered

during the project's design phase is consistent with the 2006 PD&E Noise Study that a 22-foot tall ground mounted noise barrier segment be further evaluated during the project's design phase.

Although noise barriers are recommended for further consideration, based on a review of the site conditions and the potential constructability and sight distance issues, construction of a noise barrier at this location may not be feasible or meet FDOT's cost reasonableness criteria. The construction of a noise barrier at this location would impact an existing utility easement and require the relocation of the existing utilities along and immediately outside the right-of-way. Due to these impacts and potential increases in construction costs, further evaluation of the feasibility and reasonableness of a noise barrier is recommended to be performed during the design phase when more detailed engineering design is available and potential for utility conflicts and relocation costs are further evaluated.

4.0 Conclusions

A traffic noise study was performed in accordance with 23 CFR 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise (July 13, 2010) and the FDOT's PD&E Manual, Part 2, Chapter 18, Highway Traffic Noise (January 14, 2019). The purpose of this noise study is to update the noise analysis to reflect the design changes since the approved 2006 PD&E Study. Design year (2040) traffic noise levels for the Build Alternative will approach, meet, or exceed the NAC at 354 residences and three special land use sites within the project limits. In accordance with FHWA and FDOT policies, the feasibility and reasonableness of noise barriers were considered for those impacted noise sensitive sites.

Noise barriers were not considered a feasible abatement option at The Gate House Condominiums (CNE E-4). Only one residence in this community and a community playground (i.e., special land use) are predicted to experience design year (2040) noise levels that will approach, meet, or exceed the NAC. Since the residential receptor site represents an isolated residence, noise barriers were not considered acoustically feasible for just one impacted residence. In addition, the access driveway to this community and to the adjacent property limit the ability to construct an effective continuous noise barrier for the impacted residence and community playground without blocking access to this residential area and adjacent property.

Noise barriers were evaluated for 353 of 354 residences located within 13 CNEs and two special land use sites that approach, meet, or exceed the NAC. Of the 13 residential CNEs, noise barriers are recommended for further consideration during the project's design phase and for public input at 10 locations. The minimum dimensions (i.e., conceptual noise barrier designs) that would be recommended at each of these residential areas are presented in **Table 4-1**. Taller noise barriers have been evaluated, and the optimal noise barrier will be determined in the design phase. Noise barriers are not recommended for further consideration at five locations including three residential communities and the two special land uses. The locations where noise barriers have been recommended and not recommended are depicted on **Figure 3-1** and listed in **Table 4-1**.

The 10 CNEs where noise barriers are recommended for further consideration in the project's design phase include: E1 (Palm Springs North), E3 (Coral Gate Condominiums), E5 (Country Club Towers), E7 (Mediterranean Villas), E14 (Hunters Point Subdivision), E15 (Esplanade), E18 (Las Brisas), E19 (Country Club of Miami Condominiums), E20 (Country Lake Manor Townhomes), and E-22 (Villa Esperanza). Noise barriers at these 10 locations were determined to be preliminarily feasible and cost reasonable. For at least one of the conceptual noise barrier

Table 4.1: Noise Barrier Analysis Summary and Minimum Conceptual Noise Barrier Design by Common Noise Environment, Potential Easement Involvement, and Utility Conflicts (Sheet 1 of 2)

Common Noise Environment Area Identification Number	General Location	Relative Location	Type of Noise Sensitive Site (Noise Abatement Criteria Activity Category)	Conceptual Noise Barrier Design Number	Ground Mounted Noise Barrier		Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Number of Impacted/ Benefited Receptor Sites	Number of Benefited Receptor Sites/ Not Impacted	Total Number of Benefited Receptor Sites	Average Noise Reduction for all Benefited Receptor Sites dB(A)	Maximum Noise Reduction for all Benefited Receptor Sites dB(A)	Estimated Cost ($30.00 per square foot)	Average Cost/Site Benefited	Conceptual Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of $42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal	Conceptual Noise Barrier Design Recommended for further Consideration and Public Input during the Project's Design Phase?	Comments	Potential Easement Involvement (Type & ID Number)	Potential Utility Conflicts
					Height (feet)	Length (feet)															
Common Noise Environment E1 - Palm Springs North (Single Family Residences)																					
E1	Palm Springs North	South of Miami Gardens Drive between NW 87th Avenue and Peter's Pike Canal	Residential (Activity Category B)	CD1-E1	8	1,020	79+20	89+40	51	48	7	55	6.2	10.2	$1,132,800	$20,596	YES	YES	Represents the minimum noise barrier dimensions that would be recommended at this location. Recommendations to be finalized during the project's design phase.	YES (10' Planting Screen; PB85-71; PB84-96; PB84-41; & PB82-49)	YES (OE Line - Being Relocated; Telephone & Cable TV Buried)
					8	1,460	90+00	104+60													
					8	2,240	105+60	128+00													
2006 PD&E Study - Recommended Noise Barrier - Palm Springs North					12	1,037	79+20	89+40	11	9	11	20	8.4	---	$311,100	$15,555	PD&E Study - Conceptual Noise Barrier Design Recommended for further Consideration in the Project's Design Phase				
					12	1,496	90+00	104+70	15	13	15	28	8.5	---	$448,800	$16,029					
					12	2,186	105+70	127+25	24	20	24	44	8.4	---	$655,800	$14,905					
					---	4,719	---	---	50	42	50	92	8.4	---	$1,415,700	$15,388					
Common Noise Environment E3 - Coral Gate West and Coral Gate East Condominiums (Multi-Family Residences - 5 Stories)																					
E3	Coral Gate West and Coral Gate East Condominiums	South of Miami Gardens Drive between NW 73rd Avenue and NW 68th Avenue	Residential (Activity Category B)	CD4-E3	14	440	155+00	159+40	75	7	27	34	6.3	9.4	$520,800	$15,318	YES	YES	Represents the minimum noise barrier dimensions that would be recommended at this location. Recommendations to be finalized during the project's design phase.	NO	YES (No - OE; Telephone Buried)
					14	500	160+60	165+60													
					14	300	166+40	169+40													
2006 PD&E Study - Recommended Noise Barrier - Coral Gate					19	460	154+90	159+50	48	15	22	37	7.3	---	$636,500	$17,203	PD&E Study - Conceptual Noise Barrier Design Recommended for further Consideration in the Project's Design Phase				
					19	580	159+85	165+65													
					19	300	166+20	169+20													
Common Noise Environment E5 - Country Club Towers (Multi-Family Residences - 5 Stories)																					
E5	Country Club Towers	South of Miami Gardens Drive between NW 68th Avenue and Bobolink Drive	Residential (Activity Category B)	CD4-E5	14	980	174+80	184+60	56	16	10	26	6.4	7.3	$411,600	$15,831	YES	YES	Represents the minimum noise barrier dimensions that would be recommended at this location. Recommendations to be finalized during the project's design phase.	NO	YES (No - OE; Telephone Buried)
2006 PD&E Study - Recommended Noise Barrier - Country Club Towers					21	942	174+90	184+60	52	27	32	59	8.8	8.8	$494,550	$8,382	PD&E Study - Conceptual Noise Barrier Design Recommended for further Consideration in the Project's Design Phase				
Common Noise Environment E7 - Mediterranean Villas (Multi-Family Residences - 2 & 3 Stories)																					
E7	Mediterranean Villas	South of Miami Gardens Drive between Ludlam Road and NW 62nd Avenue	Residential (Activity Category B)	CD4-E7	14	120	206+00	207+20	15	3	8	11	6.9	9.4	$210,000	$19,091	YES	YES	Represents the minimum noise barrier dimensions that would be recommended at this location. Recommendations to be finalized during the project's design phase.	YES (10' Utility, Landscaping, and Pedestrian; PB132-72 & PB131-11)	YES (No - OE; Telephone and Cable TV Buried)
					14	380	208+20	212+00													
2006 PD&E Study - Recommended Noise Barrier - Mediterranean Villas					21	138	205+90	207+10	10	10	6	16	7.2	---	$217,875	$13,167	PD&E Study - Conceptual Noise Barrier Design Recommended for further Consideration in the Project's Design Phase				
					21	277	208+05	209+95													
Common Noise Environment E10 - Ibis Villas (Townhomes)																					
E10	Ibis Villas	North of Miami Gardens Drive between NW 87th Avenue and NW 82nd Avenue	Residential (Activity Category B)	CD7-E10	20	180	85+80	87+60	5	0	0	0	---	---	$216,000	---	NO	NO	Represents optimal conceptual noise barrier design. Not recommended for further consideration or public input during the project's design phase since the minimum noise reduction design goal of 7 dB(A) for at least one impacted residence and reasonableness cost criteria are not met.	N/A	N/A
					20	180	88+40	90+20													
2006 PD&E Study - Recommended Noise Barrier - Ibis Villas					12	165	85+70	87+35	4	4	0	4	6.3	---	$105,000	$26,250	PD&E Study - Conceptual Noise Barrier Design Recommended for further Consideration in the Project's Design Phase				
					12	185	88+45	90+30													
Common Noise Environment E12 - San Mateo (Townhomes)																					
E12	San Mateo	North of Miami Gardens Drive between NW 87th Avenue and NW 82nd Avenue	Residential (Activity Category B)	CD4-E12	14	120	97+00	98+20	5	1	2	3	6.2	7.2	$176,400	$58,800	NO	NO	Represents optimal conceptual noise barrier design. Not recommended for further consideration or public input during the project's design phase since the reasonableness cost criteria is not met.	N/A	N/A
					14	140	98+60	100+00													
					14	160	100+40	102+00													
2006 PD&E Study - Noise Barrier Not Recommended - San Mateo					12	75	97+40	98+15	4	2	0	2	5.0	---	$84,000	$42,000	PD&E Study - Noise Barriers Not Recommended for further Consideration at this Location in the Project's Design Phase				
					12	140	98+55	99+95													
					12	65	100+40	101+05													
Common Noise Environment E14 - Hunters Point (Single Family Residences)																					
E14	Hunters Point	North of Miami Gardens Drive between NW 82nd Avenue and NW 79th Avenue	Residential (Activity Category B)	CD4-E14	14	100	106+00	107+00	23	14	0	14	6.8	7.7	$470,400	$33,600	YES	YES	Represents the minimum noise barrier dimensions that would be recommended at this location. Recommendations to be finalized during the project's design phase.	YES (Utility; PB123-97; PB150-17; PB13-95)	YES (Telephone & Cable TV Buried; 24" Water Main)
					14	820	107+80	116+00													
					14	200	117+00	119+00													
2006 PD&E Study - Noise Barriers Not Evaluated; None of the Residences Impacted by Traffic Noise in Hunters Point					---	---	---	---	---	---	---	---	---	---	---	---	PD&E Study - Noise Barriers Not Evaluated; None of the Residences Impacted by Traffic Noise in Hunters Point				

Table 4.1: Noise Barrier Analysis Summary and Minimum Conceptual Noise Barrier Design by Common Noise Environment, Potential Easement Involvement, and Utility Conflicts (Sheet 2 of 2)

Common Noise Environment Area Identification Number	General Location	Relative Location	Type of Noise Sensitive Site (Noise Abatement Criteria Activity Category)	Conceptual Noise Barrier Design Number	Ground Mounted Noise Barrier		Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Number of Impacted/ Benefited Receptor Sites	Number of Benefited Receptor Sites/ Not Impacted	Total Number of Benefited Receptor Sites	Average Noise Reduction for all Benefited Receptor Sites dB(A)	Maximum Noise Reduction for all Benefited Receptor Sites dB(A)	Estimated Cost ($30.00 per square foot)	Average Cost/Site Benefited	Conceptual Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of $42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal	Conceptual Noise Barrier Design Recommended for further Consideration and Public Input during the Project's Design Phase?	Comments	Potential Easement Involvement (Type & ID Number)	Potential Utility Conflicts
					Height (feet)	Length (feet)															
Common Noise Environment E15 - Single Family Residences																					
E15	Esplanade	North of Miami Gardens Drive between NW 79th Avenue and Peter's Pike Canal	Residential (Activity Category B)	CD1-E15	8	200	118+00	120+00	15	10	6	16	5.8	7.9	$297,600	$18,600	YES	YES	Represents the minimum noise barrier dimensions that would be recommended at this location. Recommendations to be finalized during the project's design phase.	YES (Utility and Canal Maintenance; PB129-79)	YES (OE - Relocated; Telephone & Cable TV Buried; Water Main)
					8	1,040	121+60	132+00													
2006 PD&E Study - Recommended Noise Barrier - Esplanade					12	180	118+40	120+20	12	11	8	19	7.3	---	$360,000	$18,947	PD&E Study - Conceptual Noise Barrier Design Recommended for further Consideration in the Project's Design Phase				
					12	1,020	124+40	131+60													
Common Noise Environment E16 - Country Club of Miami Estates (Single Family Residences)																					
E16	Country Club of Miami Estates	North of Miami Gardens Drive between Peter's Pike Canal and NW 75th Place	Residential (Activity Category B)	CD2-E16	10	80	134+80	135+60	8	2	1	3	8.3	10.8	$168,000	$56,000	NO	NO	Represents optimal conceptual noise barrier design. Not recommended for further consideration or public input during the project's design phase since the reasonableness cost criteria is not met.	N/A	N/A
					10	220	136+60	138+80													
					10	120	139+80	141+00													
					10	140	142+00	143+40													
2006 PD&E Study - Noise Barriers Not Evaluated or Recommended due to Driveway Openings - Country Club of Miami Estates					---	---	---	---		---	---	---	---	---	---	---	PD&E Study - Noise Barriers Not Evaluated or Recommended for further Consideration at this Location in the Project's Design Phase				
E17	North Pointe Community Center (Trail)	North of Miami Gardens Drive between NW 75th Place and NW 73rd Avenue	Recreational NAC C - 66 dB(A)	CD1-E17	18	420	145+20	149+40	Special Land Use	---	---	---	7.9	11.1	$410,400	---	NO (Usage of trail less than required to meet reasonableness cost criteria)	NO	Represents lowest cost conceptual noise barrier design. Not recommended for further consideration or public input during the project's design phase since the reasonableness cost criteria is not met.	N/A	N/A
					18	120	150+40	151+60													
					18	220	152+20	154+40													
2006 PD&E Study - Noise Barriers Not Evaluated; No Noise Sensitive Sites Identified or Evaluated for Traffic Noise Impacts					---	---	---	---	---	---	---	---	---	---	---	---	PD&E Study - Noise Barriers Not Evaluated; No Noise Sensitive Sites Identified or Evaluated for Traffic Noise Impacts (Future Park)				
Common Noise Environment E18 - Las Brisas (Multi-Family Residences - 5 Stories)																					
E18	Las Brisas	North of Miami Gardens Drive between NW 73rd Avenue and NW 68th Avenue	Residential (Activity Category B)	CD2-E18	10	1,180	155+40	167+20	14	3	63	66	6.1	8.2	$354,000	$5,364	YES	YES	Represents the minimum noise barrier dimensions that would be recommended at this location. Recommendations to be finalized during the project's design phase	YES (Utility; PB126-95)	YES (OE - 2 Lines; Water Main)
2006 PD&E Study - Recommended Noise Barrier - Las Brisas					19	1,170	155+40	167+10	60	30	26	56	11.8	---	$555,750	$9,924	PD&E Study - Conceptual Noise Barrier Design Recommended for further Consideration in the Project's Design Phase				
Common Noise Environment E19 - Country Club of Miami Condominiums (Multi-Family Residences - 2 Stories)																					
E19	Country Club of Miami Condominiums	North of Miami Gardens Drive between NW 68th Avenue and Bobolink Drive	Residential (Activity Category B)	CD2-E19	10	460	180+00	184+60	7	5	0	5	6.5	7.8	$138,000	$27,600	YES	YES	Represents the minimum noise barrier dimensions that would be recommended at this location. Recommendations to be finalized during the project's design phase	NO	YES (OE - 2 Lines; Buried Telephone)
2006 PD&E Study - Recommended Noise Barrier - Country Club of Miami Condominiums					12	430	180+40	184+70	6	6	2	8	6.5	---	$129,000	$16,125	PD&E Study - Conceptual Noise Barrier Design Recommended for further Consideration in the Project's Design Phase				
Common Noise Environment E20 - Country Lake Manor Townhomes (Townhomes)																					
E20	Country Lake Manor Townhomes	North of Miami Gardens Drive between Bobolink Drive and Ludlam Road	Residential (Activity Category B)	CD5-E20	16	200	185+60	187+60	7	5	0	5	6.4	7.2	$96,000	$19,200	YES	YES	Represents the minimum noise barrier dimensions that would be recommended at this location. Recommendations to be finalized during the project's design phase	YES (Utility; PB132-100)	YES (OE - 2 Lines; Cable TV Buried)
2006 PD&E Study - Noise Barriers Not Evaluated; No Noise Sensitive Sites Identified or Evaluated for Traffic Noise Impacts at this Location					---	---	---	---	---	---	---	---	---	---	---	---	PD&E Study - Noise Barriers Not Evaluated; ; No Noise Sensitive Sites Identified or Evaluated for Traffic Noise Impacts at this Location				
Common Noise Environment E21 - North Pointe Community Center (Recreational)																					
E21	Country Village Park (Trail)	North of Miami Gardens Drive between Ludlam Road and NW 62nd Avenue	Recreational NAC C - 66 dB(A)	CD1-E21	18	900	197+00	206+00	Special Land Use	---	---	---	7.9	9.2	$486,000	---	NO (Usage of trail less than required to meet reasonableness cost criteria)	NO	Represents lowest cost conceptual noise barrier design. Not recommended for further consideration or public input during the project's design phase since the reasonableness cost criteria is not met.	N/A	N/A
2006 PD&E Study - Noise Barriers Not Evaluated; None of the Noise Sensitive Receptor Sites Impacted by Traffic Noise					---	---	---	---	---	---	---	---	---	---	---	---	PD&E Study - Noise Barriers Not Evaluated; None of the Noise Sensitive Receptor Sites Impacted by Traffic Noise				
Common Noise Environment E22 - Villa Esperanza (Multi-Family Residences - 4 Stories)																					
E22	Villa Esperanza	North of Miami Gardens Drive between Ludlam Road and NW 62nd Avenue	Residential (Activity Category B)	CD2-E22	10	1,000	209+00	219+00	72	22	0	22	7.2	9.5	$300,000	$13,636	YES	YES	Represents the minimum noise barrier dimensions that would be recommended at this location. Recommendations to be finalized during the project's design phase	YES (Utility; PB153-48)	YES (OE - 1 Line)
2006 PD&E Study - Recommended Noise Barrier - Villa Esperanza					22	857	210+60	219+05	70	32	8	40	8.6	---	$471,350	$11,784	PD&E Study - Conceptual Noise Barrier Design Recommended for further Consideration in the Project's Design Phase				

X:\P\Noise_Studies\Proposal\MGD_CorridorStudy\Re-eval\Noise Study Report Addendum\Tables\[MGD_Table4_2_PD&E_Noise Barrier Summary Table 11-13-2019_Util_Copy.xlsx]Table 3-4_Revised

designs evaluated at these locations, the cost per benefited receptor site is within FDOT's reasonable cost criteria of equal to or less than $42,000 per benefited receptor site and the FDOT's noise reduction reasonableness criteria of 7 dB(A) at one or more impacted sites is met. Except for Hunters Point Subdivision (E14) and Country Lake Manor Townhomes (E20), the locations where noise barriers are recommended include those identified in the 2006 PD&E Noise Study Report.

The minimum conceptual noise barrier designs that were evaluated at these 10 CNEs (see **Table 4.1**) are expected to reduce traffic noise by at least 5 dB(A) at 254 residences including 133 of the 354 impacted residences along the project corridor. The relatively low number of benefited receptor sites (i.e., 133 of 354 impacted residences) is attributed to the inability to provide noise reduction benefits to the second through fifth floor residences (i.e., balconies) that are located along the project corridor even with the maximum height noise barrier of 22 feet. The estimated cost of the minimum noise barrier design concepts presented in **Table 4-1** is $3,931,200. Taller noise barriers have also been evaluated and the optimal noise barrier designs will be determined during the design phase as described below.

Additional noise barrier analysis will be performed during the project's final design phase when more detailed project design information is available. It is during the project's final design phase that final decisions regarding noise barrier length and height are made and an engineering constructability review is conducted to confirm that the noise barrier is feasible and support for noise barriers from the benefited noise sensitive sites is determined. Therefore, the heights of the noise barriers and costs are still subject to change during the project's final design phase.

Noise barriers were not found to be feasible or cost reasonable at five CNEs. Three of the five CNEs represent residential areas including E10 (Ibis Villas), E12 (San Mateo), and E16 (Country Club of Miami Estates). The cost to construct noise barriers at these three locations exceeds FDOT's reasonable cost criteria of equal to or less than $42,000 per benefited receptor site and/or the optimal/lowest cost conceptual noise barrier design did not meet the minimum noise reduction design goal of 7 dB(A) for at least one benefited residence. For the three residential areas, the adjacent cross streets limit the ability to construct a longer and continuous noise barrier at these locations that would be more effective. Except for Ibis Villas (E10), the locations where noise barriers are not recommended are consistent with the 2006 PD&E Noise Study. Two CNEs represent non-residential/special land use sites at E17 (North Pointe Community Center - Recreational Trail) and E21 (Country Village Park - Recreational Trail). Noise barriers at these special land use areas are unable to meet the minimum required daily usage rate (i.e., person-hours per day) needed for the conceptual noise barrier designs to be considered cost reasonable.

With the minimum conceptual noise barrier designs that were evaluated at these 10 CNEs, up to 221 of the 354 impacted residences and three special land use sites along the project corridor would not be benefited. Therefore, impacts to these and other noise sensitive sites along the project corridor would be potentially an unavoidable consequence of the project.

Statement of Likelihood

FDOT remains committed to the construction of feasible noise abatement measures (i.e., recommended noise barriers) at the noise impacted locations identified in **Table 4-1** and **Figure 3-1** contingent upon the following conditions:

- Final recommendations on the construction of abatement measures is determined during the project's 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 the District Office; and
- Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues resolved.

It is likely that the noise abatement measures for the identified locations will be constructed if found feasible based on the conditions listed above. If, during the project's design phase, any of the contingency conditions listed above cause abatement to no longer be considered reasonable or feasible for a given location(s), such determination(s) will be made prior to requesting approval for construction advertisement. Commitments regarding the exact abatement measure locations, heights, and type (or approved alternatives) will be made during project re-evaluation and at a time before the construction advertisement is approved.

5.0 Construction Noise and Vibration

During construction of the project, there is the potential for noise impacts to be substantially greater than those resulting from normal traffic operations because heavy equipment is typically used to build roadways. In addition, construction activities may result in vibration impacts. Therefore, early identification of potential noise/vibration sensitive sites along the project corridor is important in minimizing noise and vibration impacts. The project area does include residential, commercial, and institutional land uses. Construction related noise and vibration impacts to these sites will be minimized by adherence to the controls listed in the latest edition of the FDOT's Standard Specifications for Road and Bridge Construction. A reassessment of the project corridor for additional sites particularly sensitive to construction noise and/or vibration will be performed during the project's final design phase to ensure that impacts to such sites are minimized.

6.0 Community Coordination

Coordination with local agencies and officials has been accomplished during the development of this project. In addition, local and community officials have had the opportunity to comment on the proposed project at the public meetings. As part of the current study, two public meetings were held including a Public Information Meeting and an Access Management Public Hearing. The Public Information Meeting was held on Tuesday, December 4, 2018 from 6:00 pm to 8:00 pm at the Dade Christian School located at 6601 NW 167th Street, Miami, Fl 33015. The Access Management Public Hearing was held on December 12, 2019 from 6:00 pm to 8:00 pm at the Country Club of Miami located at 6801 NW 186th Street, Miami FL 33015.

At the December 12, 2019 Management Public Hearing, the public (i.e., property owners and residents) were supportive of the locations where noise barriers were recommended for further consideration. Specifically, they were interested in the potential noise barrier locations, noise barrier heights, and when they would be constructed. The public was informed that additional noise barrier analysis will be performed during the project's design phase when more detailed project design information is available. In addition, they were informed that the final decisions regarding noise barrier locations, length, and height are made during the project's design phase after engineering constructability reviews has been completed and support for noise barriers from the benefited noise sensitive sites has been determined.

7.0 References

23 CFR Part 772, "Procedures for Abatement of Highway Traffic Noise and Construction Noise", Federal Register, Vol. 75, No. 133, Tuesday, July 13, 2010; pages 39834-39839.

Federal Highway Administration Report FHWA-HEP-10-025, “Highway Traffic Noise: Analysis and Abatement Guidance”, June 2010 (revised December 2010); 76 pages.

Federal Highway Administration Report FHWA-PD-96-009, “FHWA Traffic Noise Model, Version 1.0 User’s Guide”, January 1998; 192 pages + supplements.

Federal Highway Administration Report Number FHWA-PD-96-046, “Measurement of Highway-Related Noise”, Cynthia S.Y. Lee and Gregg Fleming; May, 1996; 206 pages.

Federal Highway Administration Report FHWA-HEP-06-015, “FHWA Highway Construction Noise Handbook: Final Report”. August 2006; 185 pages.

Florida Department of Transportation. "Highway Traffic Noise", Part 2, Chapter 18. Project Development and Environment Manual, Florida Department of Transportation, Tallahassee, January 14, 2019.

Florida Department of Transportation. "Design Manual, Topic No. 625-000-002”, Part 2, Section 264, Noise Walls and Perimeter Walls, 2018.

Florida Department of Transportation "Standard Specifications for Road and Bridge Construction", August 2019.

Florida Department of Transportation "Traffic Noise Modeling and Analysis Practitioners Handbook", January 2016.

University of Central Florida “A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations”, Roger L. Wayson and John M. MacDonald, Updated July 22, 2009; 64 pp. Available from: Florida Department of Transportation, Environmental Management Office, 605 Suwannee Street, M.S. 37, Tallahassee, FL 32399-0450.

APPENDIX A

Table 2.2-1: Traffic Data for Design Year (2040)

Build Alternative Noise Modeling

Table 2.2-1: Traffic Data for Design Year (2040) Build Alternative Noise Modeling (SR 860 - Miami Gardens Drive) FPIDs: 438864-1-22-01 / 407736-3-22-01 (Sheet 1 of 2)

Roadway Segment		Speed Limit	2040 Build Traffic (vph)		Number of Lanes	LOS C Volume*	Highest Peak Volume	Volume used in TNM	Percent Heavy Trucks[1]	Percent Medium Trucks[1]	Percent Buses[1]	Percent Motorcycles[1]	Volume used in TNM	Total Cars	Total Heavy Trucks	Total Medium Trucks	Total Buses	Total Motorcycles	Cars per lane	Heavy Trucks per lane	Medium Trucks per Lane	Buses per lane	Motorcycles per lane
			AM	PM																			
Eastbound / Northbound																							
Eastbound Miami Gardens Drive (SR 860)	West of NW 87th Ave to NW 87th Ave	35	1,677	4,126	2	767	4,126	767	0.45%	1.29%	0.26%	0.23%	767	750	3	10	2	2	376	2	5	1	1
	NW 87th Ave to NW 82nd Ave	40	1,359	3,041	3	2,940	3,041	2,940	0.45%	1.29%	0.26%	0.23%	2,940	2,874	13	38	8	7	963	4	13	3	2
	NW 82nd Ave to NW 79th Ave	40	1,467	2,807	3	2,940	2,807	2,807	0.45%	1.29%	0.26%	0.23%	2,807	2,745	13	36	7	6	920	4	12	2	2
	NW 79th Ave to W Oakmont Dr	40	1,870	2,734	3	2,940	2,734	2,734	0.45%	1.29%	0.26%	0.23%	2,734	2,674	12	35	7	6	895	4	12	2	2
	W Oakmont Dr to NW 75th Pl	40	1,741	2,465	3	2,940	2,465	2,465	0.45%	1.29%	0.26%	0.23%	2,465	2,410	11	32	6	6	807	4	11	2	2
	NW 75th Pl to NW 73rd Ave	40	1,778	2,577	3	2,940	2,577	2,577	0.45%	1.29%	0.26%	0.23%	2,577	2,519	12	33	7	6	844	4	11	2	2
	NW 73rd Ave to NW 68th Ave	40	1,799	2,268	3	2,940	2,268	2,268	0.45%	1.29%	0.26%	0.23%	2,268	2,218	10	29	6	5	743	3	10	2	2
	NW 68th Ave to Bob O Link Dr	40	2,125	2,243	3	2,940	2,243	2,243	0.45%	1.29%	0.26%	0.23%	2,243	2,193	10	29	6	5	735	3	10	2	2
	Bob O Link Dr to NW 67th Ave (Ludlam Rd)	40	2,582	2,243	3	2,940	2,582	2,582	0.45%	1.29%	0.26%	0.23%	2,582	2,524	12	33	7	6	846	4	11	2	2
	NW 67th Ave (Ludlam Rd) to NW 62nd Ave	40	2,503	2,070	3	2,940	2,503	2,503	0.45%	1.29%	0.26%	0.23%	2,503	2,448	11	32	6	6	819	4	11	2	2
	NW 62nd Ave to NW 57th Ave (Red Rd)	40	2,600	1,804	3	3,087	2,600	2,600	0.45%	1.29%	0.26%	0.23%	2,600	2,541	12	34	7	6	852	4	11	2	2
	NW 57th Ave (Red Rd) to East of NW 57th Ave (Red Rd)	45	2,145	1,833	3	2,940	2,145	2,145	0.45%	1.29%	0.26%	0.23%	2,145	2,097	10	28	5	5	703	3	9	2	2
Northbound NW 87th Ave	South of Miami Gardens Drive to Miami Gardens Drive	35	1,478	1,603	2	657	1,603	657	0.41%	1.48%	0.11%	0.23%	657	641	3	10	1	2	322	2	5	1	1
Northbound NW 82nd Ave	South of Miami Gardens Drive to Miami Gardens Drive	30	680	539	1	333	680	333	0.41%	1.48%	0.11%	0.23%	333	326	1	5	0	1	327	1	5	0	1
Northbound NW 67th Ave (Ludlam Rd)	South of Miami Gardens Drive to Miami Gardens Drive	40	1,664	1,964	3	2,646	1,964	1,964	1.17%	0.60%	0.23%	0.37%	1,964	1,918	23	12	4	7	643	8	4	1	2
Northbound NW 57th Ave (Red Rd)	South of Miami Gardens Drive to Miami Gardens Drive	45	2,238	3,000	3	2,940	3,000	2,940	0.41%	0.86%	0.30%	1.00%	2,940	2,865	12	25	9	29	968	4	8	3	10
Westbound / Southbound																							
Southbound NW 57th Ave (Red Rd)	North of Miami Gardens Drive to Miami Gardens Drive	45	3,024	2,144	3	2,940	3,024	2,940	0.41%	0.86%	0.30%	1.00%	2,940	2,865	12	25	9	29	968	4	8	3	10
Southbound NW 67th Ave (Ludlam Rd)	North of Miami Gardens Drive to Miami Gardens Drive	40	2,113	2,168	3	2,646	2,168	2,168	1.17%	0.60%	0.23%	0.37%	2,168	2,117	25	13	5	8	711	8	4	2	3
Southbound NW 82nd Ave	North of Miami Gardens Drive to Miami Gardens Drive	30	586	407	2	690	586	586	0.41%	1.48%	0.11%	0.23%	586	573	2	9	1	1	287	1	5	1	1

Table 2.2-1: Traffic Data for Design Year (2040) Build Alternative Noise Modeling (SR 860 - Miami Gardens Drive) FPIDs: 438864-1-22-01 / 407736-3-22-01 (Sheet 2 of 2)

Roadway Segment		Speed Limit	2040 Build Traffic (vph)		Number of Lanes	LOS C Volume*	Highest Peak Volume	Volume used in TNM	Percent Heavy Trucks[1]	Percent Medium Trucks[1]	Percent Buses[1]	Percent Motorcycles[1]	Volume used in TNM	Total Cars	Total Heavy Trucks	Total Medium Trucks	Total Buses	Total Motorcycles	Cars per lane	Heavy Trucks per lane	Medium Trucks per Lane	Buses per lane	Motorcycles per lane
			AM	PM																			
Southbound NW 87th Ave	North of Miami Gardens Drive to Miami Gardens Drive	35	1,371	905	2	657	1,371	657	0.41%	1.48%	0.11%	0.23%	657	641	3	10	1	2	322	2	5	1	1
Westbound Miami Gardens Drive (SR 860)	East of NW 57th Ave (Red Rd) to NW 57th Ave (Red Rd)	45	1,837	1,971	3	3,087	1,971	1,971	0.45%	1.29%	0.26%	0.23%	1,971	1,927	9	26	5	4	645	3	9	2	1
	NW 57th Ave (Red Rd) to NW 62nd Ave	40	1,844	2,097	3	2,940	2,097	2,097	0.45%	1.29%	0.26%	0.23%	2,097	2,051	9	27	5	5	687	3	9	2	2
	NW 62nd Ave to NW 67th Ave (Ludlam Rd)	40	2,075	2,341	3	2,940	2,341	2,341	0.45%	1.29%	0.26%	0.23%	2,341	2,289	11	30	6	5	766	4	10	2	2
	NW 67th Ave (Ludlam Rd) to Bob O Link Dr	40	2,258	2,633	3	2,940	2,633	2,633	0.45%	1.29%	0.26%	0.23%	2,633	2,574	12	34	7	6	863	4	11	2	2
	Bob O Link Dr to NW 68th Ave	40	2,317	2,230	3	2,940	2,317	2,317	0.45%	1.29%	0.26%	0.23%	2,317	2,266	10	30	6	5	759	3	10	2	2
	NW 68th Ave to NW 73rd Ave	40	2,515	2,296	3	2,940	2,515	2,515	0.45%	1.29%	0.26%	0.23%	2,515	2,459	11	33	6	6	823	4	11	2	2
	NW 73rd Ave to NW 75th Pl	40	2,487	2,288	3	2,940	2,487	2,487	0.45%	1.29%	0.26%	0.23%	2,487	2,432	11	32	6	6	814	4	11	2	2
	NW 75th Pl to W Oakmont Dr	40	2,369	2,379	3	2,940	2,379	2,379	0.45%	1.29%	0.26%	0.23%	2,379	2,326	11	31	6	5	779	4	10	2	2
	W Oakmont Dr to NW 79th Ave	40	2,873	2,416	3	2,940	2,873	2,873	0.45%	1.29%	0.26%	0.23%	2,873	2,810	13	37	7	6	942	4	12	2	2
	NW 79th Ave to NW 82nd Ave	40	2,579	2,107	3	2,940	2,579	2,579	0.45%	1.29%	0.26%	0.23%	2,579	2,521	12	33	7	6	845	4	11	2	2
	NW 82nd Ave to NW 87th Ave	40	2,972	2,136	3	2,940	2,972	2,940	0.45%	1.29%	0.26%	0.23%	2,940	2,874	13	38	8	7	963	4	13	3	2
	NW 87th Ave to West of NW 87th Ave	40	4,317	2,903	3	2,940	4,317	2,940	0.45%	1.29%	0.26%	0.23%	2,940	2,874	13	38	8	7	963	4	13	3	2

* LOS "C" volumes obtained from Table 7 of FDOT's Level of Service Handbook (2013) and HCM 2000 (Volume adjustments have been applied as appropriate)

[1] Vehicle split percentages based on Annual Vehicle Classification Counts from FDOT count stations: 872518, 871233, 878112, 877036, and 870038

I certify that the above information is accurate and appropriate for use with the traffic noise analysis.

Prepared By: Brian Kirkpatrick, P.E. (Print Name) Date: 11/4/2019

APPENDIX B

Table 3.1-1: Noise Monitoring Data and TNM 2.5 Validation Results

Table 3.1-1: Noise Monitoring Data and TNM 2.5 Validation Results (Sheet 1 of 3)

General Information		Begin Time	End Time	Travel Lanes (Miami Gardens Drive)	Distance to Nearest Traffic Lane (feet)	Cars		Medium Trucks		Heavy Trucks		Buses		Motorcycles		Monitored Leq (h) dB(A)	TNM Predicted Leq (h) dB(A)	Difference Leq (h) dB(A)	Predicted Levels Within +/- 3 dB(A) of Monitored Levels?
Monitor Site Identification Number	Monitoring Location					Vehicles per Hour	Speed (mph)	Vehicles per Hour	Speed (mph)	Vehicles per Hour	Speed (mph)	Vehicles per Hour	Speed (mph)	Vehicles per Hour	Speed (mph)				
Miami Gardens Drive Noise Monitoring Sites MS-1 through MS-7 - Monitored on August 6, 2018																			
MS-1A	Fenceline between County Village Park and Joella Good Elementary School	8:45 AM	8:55 AM	Westbound	50	864	42.0	0	0.0	6	38.5	6	41.0	6	35.0	65.0	65.3	0.3	YES
				Eastbound		996	42.1	12	35.3	18	40.9	6	41.0	6	45.0				
		8:55 AM	9:05 AM	Westbound		864	40.7	12	44.0	12	35.0	0	0.0	0	0.0	64.6	65.1	0.5	YES
				Eastbound		1,038	40.1	18	33.0	12	37.5	6	29.0	0	0.0				
		9:05 AM	9:15 AM	Westbound		780	38.9	6	44.0	0	0	6	41.0	0	0.0	63.6	63.9	0.3	YES
				Eastbound		978	37.6	6	34.5	24	35.0	0	0.0	6	40.0				
MS-1B	Fenceline between County Village Park and Joella Good Elementary School	8:45 AM	8:55 AM	Westbound	100	864	42.0	0	0.0	6	38.5	6	41.0	6	35.0	60.1	60.7	0.6	YES
				Eastbound		996	42.1	12	35.3	18	40.9	6	41.0	6	45.0				
		8:55 AM	9:05 AM	Westbound		864	40.7	12	44.0	12	35.0	0	0.0	0	0.0	58.9	60.4	1.5	YES
				Eastbound		1,038	40.1	18	33.0	12	37.5	6	29.0	0	0.0				
		9:05 AM	9:15 AM	Westbound		780	38.9	6	44.0	0	0	6	41.0	0	0.0	59.8	59.4	-0.4	YES
				Eastbound		978	37.6	6	34.5	24	35.0	0	0.0	6	40.0				
MS-2A	Country Club of Miami Condominiums	10:16 AM	10:26 AM	Westbound	50	756	32.5	24	26.5	12	30.5	6	31.0	6	24.0	61.6	63.0	1.4	YES
				Eastbound		990	32.4	6	26.0	6	30.0	18	30.0	0	0.0				
		10:26 AM	10:36 AM	Westbound		780	32.3	24	31.0	0	0.0	0	0.0	0	0.0	59.0	61.1	2.1	YES
				Eastbound		888	33.0	6	30.0	0	0.0	12	31.0	0	0.0				
		10:36 AM	10:46 AM	Westbound		810	31.3	12	31.7	0	0.0	6	29.0	0	0.0	60.3	61.3	1.0	YES
				Eastbound		852	31.7	6	29.0	12	30.0	6	28.5	6	29.0				
MS-2B	Country Club of Miami Condominiums	10:16 AM	10:26 AM	Westbound	60	756	32.5	24	26.5	12	30.5	6	31.0	6	24.0	63.8	65.3	1.5	YES
				Eastbound		990	32.4	6	26.0	6	30.0	18	30.0	0	0.0				
		10:26 AM	10:36 AM	Westbound		780	32.3	24	31.0	0	0.0	0	0.0	0	0.0	61.0	62.6	1.6	YES
				Eastbound		888	33.0	6	30.0	0	0.0	12	31.0	0	0.0				
		10:36 AM	10:46 AM	Westbound		810	31.3	12	31.7	0	0.0	6	29.0	0	0.0	63.0	62.5	-0.5	YES
				Eastbound		852	31.7	6	29.0	12	30.0	6	28.5	6	29.0				

Table 3.1-1: Noise Monitoring Data and TNM 2.5 Validation Results (Sheet 2 of 3)

General Information		Begin Time	End Time	Travel Lanes (Miami Gardens Drive)	Distance to Nearest Traffic Lane (feet)	Cars		Medium Trucks		Heavy Trucks		Buses		Motorcycles		Monitored Leq (h) dB(A)	TNM Predicted Leq (h) dB(A)	Difference Leq (h) dB(A)	Predicted Levels Within +/- 3 dB(A) of Monitored Levels?
Monitor Site Identification Number	Monitoring Location					Vehicles per Hour	Speed (mph)	Vehicles per Hour	Speed (mph)	Vehicles per Hour	Speed (mph)	Vehicles per Hour	Speed (mph)	Vehicles per Hour	Speed (mph)				
MS-3	Country Club of Miami Condominiums On Golf Course Green	10:16 AM	10:26 AM	Westbound	50	756	32.5	24	26.5	12	30.5	6	31.0	6	24.0	60.9	62.4	1.5	YES
				Eastbound		990	32.4	6	26.0	6	30.0	18	30.0	0	0.0				
		10:26 AM	10:36 AM	Westbound		780	32.3	24	31.0	0	0.0	0	0.0	0	0.0	60.1	59.8	-0.3	YES
				Eastbound		888	33.0	6	30.0	0	0.0	12	31.0	0	0.0				
		10:36 AM	10:46 AM	Westbound		810	31.3	12	31.7	0	0.0	6	29.0	0	0.0	59.9	60.0	0.1	YES
				Eastbound		852	31.7	6	29.0	12	30.0	6	28.5	6	29.0				
MS-4A	Esplanade Community, Corner of Miami Gardens Drive and NW 77th Court: 18641 NW 77th Ct	12:40 PM	12:50 PM	Westbound	40	834	33.7	18	30.0	0	0.0	0	0.0	0	0.0	63.9	63.4	-0.5	YES
				Eastbound		720	34.9	6	31.0	0	0.0	0	0.0	0	0.0				
		12:50 PM	1:00 PM	Westbound		792	35.3	0	0.0	0	0.0	0	0.0	0	0.0	62.9	63.2	0.3	YES
				Eastbound		726	35.6	6	45.0	0	55200.0	0	0.0	0	0.0				
		1:00 PM	1:10 PM	Westbound		864	39.2	6	35.0	0	0.0	0	0.0	0	0.0	64.1	65.1	1.0	YES
				Eastbound		708	38.9	6	37.0	6	30.0	6	31.0	6	33.0				
MS-4B	Esplanade Community, Corner of Miami Gardens Drive and NW 77th Court: 18640 NW 77th Ct	12:40 PM	12:50 PM	Westbound	75	834	33.7	18	30.0	0	0.0	0	0.0	0	0.0	61.0	59.2	-1.8	YES
				Eastbound		720	34.9	6	31.0	0	0.0	0	0.0	0	0.0				
		12:50 PM	1:00 PM	Westbound		792	35.3	0	0.0	0	0.0	0	0.0	0	0.0	60.4	59.1	-1.3	YES
				Eastbound		726	35.6	6	45.0	0	0.0	0	0.0	0	0.0				
		1:00 PM	1:10 PM	Westbound		864	39.2	6	35.0	0	0.0	0	0.0	0	0.0	60.7	61.0	0.3	YES
				Eastbound		708	38.9	6	37.0	6	30.0	6	31.0	6	33.0				
MS-5A	Coral Gate Condominiums	2:03 PM	2:13 PM	Westbound	85	1056	37.2	12	35.0	6	30.0	0	0.0	6	35.0	61.4	59.4	-2.0	YES
				Eastbound		870	38.2	12	36.7	12	38.0	0	0.0	0	0.0				
		2:13 PM	2:23 PM	Westbound		1,332	37.0	18	32.0	12	35.0	12	30.0	0	0.0	61.3	60.4	-0.9	YES
				Eastbound		810	38.0	12	33.2	12	33.0	0	0.0	0	0.0				
		2:23 PM	2:33 PM	Westbound		1140	37.6	12	35.0	0	0.0	18	35.3	0	0.0	61.0	58.7	-2.3	YES
				Eastbound		828	38.7	0	0.0	6	33.0	6	35.0	0	0.0				

Table 3.1-1: Noise Monitoring Data and TNM 2.5 Validation Results (Sheet 3 of 3)

General Information		Begin Time	End Time	Travel Lanes (Miami Gardens Drive)	Distance to Nearest Traffic Lane (feet)	Cars		Medium Trucks		Heavy Trucks		Buses		Motorcycles		Monitored Leq (h) dB(A)	TNM Predicted Leq (h) dB(A)	Difference Leq (h) dB(A)	Predicted Levels Within +/- 3 dB(A) of Monitored Levels?
Monitor Site Identification Number	Monitoring Location					Vehicles per Hour	Speed (mph)	Vehicles per Hour	Speed (mph)	Vehicles per Hour	Speed (mph)	Vehicles per Hour	Speed (mph)	Vehicles per Hour	Speed (mph)				
MS-5B	Coral Gate Condominiums	2:03 PM	2:13 PM	Westbound	120	1056	37.2	12	35.0	6	30.0	0	0.0	6	35.0	61.5	58.5	-3.0	YES
				Eastbound		870	38.2	12	36.7	12	38.0	0	0.0	0	0.0				
		2:13 PM	2:23 PM	Westbound		1,332	37.0	18	32.0	12	35.0	12	30.0	0	0.0	59.6	59.6	0.0	YES
				Eastbound		810	38.0	12	33.2	12	33.0	0	0.0	0	0.0				
		2:23 PM	2:33 PM	Westbound		1140	37.6	12	35.0	0	0.0	18	35.3	0	0.0	58.0	57.9	-0.1	YES
				Eastbound		828	38.7	0	0.0	6	33.0	6	35.0	0	0.0				
MS-6A	Miami Gardens Drive and Northwest 84th Court; 18550 NW 84th Court	4:03 PM	4:13 PM	Westbound	40	834	41.1	18	38.3	18	31.5	6	35.0	6	41.0	69.0	67.6	-1.4	YES
				Eastbound		1,170	39.4	0	0.0	0	0.0	0	0.0	6	40.0				
		4:13 PM	4:23 PM	Westbound		774	43.0	18	34.0	6	29.0	0	0.0	0	0.0	67.8	66.7	-1.1	YES
				Eastbound		954	39.2	12	35.0	0	0.0	0	0.0	0	0.0				
		4:23 PM	4:33 PM	Westbound		684	42.1	12	40.0	0	0.0	0	0.0	0	0.0	68.5	66.6	-1.9	YES
				Eastbound		1,236	36.1	24	33.0	0	0.0	0	0.0	0	0.0				
MS-6B	Miami Gardens Drive and Northwest 84th Court; 18550 NW 84th Court	4:03 PM	4:13 PM	Westbound	115	834	41.1	18	38.3	18	31.5	6	35.0	6	41.0	61.9	60.3	-1.6	YES
				Eastbound		1,170	39.4	0	0.0	0	0.0	0	0.0	6	40.0				
		4:13 PM	4:23 PM	Westbound		774	43.0	18	34.0	6	29.0	0	0.0	0	0.0	60.2	59.4	-0.8	YES
				Eastbound		954	39.2	12	35.0	0	0.0	0	0.0	0	0.0				
		4:23 PM	4:33 PM	Westbound		684	42.1	12	40.0	0	0.0	0	0.0	0	0.0	61.3	59.2	-2.1	YES
				Eastbound		1,236	36.1	24	33.0	0	0.0	0	0.0	0	0.0				
MS-7	Miami Gardens Drive and SW Corner of Mother of Our Redeemer Access Road	4:03 PM	4:13 PM	Westbound	40	834	41.1	18	38.3	18	31.5	6	35.0	6	41.0	66.2	66.6	0.4	YES
				Eastbound		1,170	39.4	0	0.0	0	0.0	0	0.0	6	40.0				
		4:13 PM	4:23 PM	Westbound		774	43.0	18	34.0	6	29.0	0	0.0	0	0.0	64.7	65.0	0.3	YES
				Eastbound		954	39.2	12	35.0	0	0.0	0	0.0	0	0.0				
		4:23 PM	4:33 PM	Westbound		684	42.1	12	40.0	0	0.0	0	0.0	0	0.0	65.6	65.4	-0.2	YES
				Eastbound		1,236	36.1	24	33.0	0	0.0	0	0.0	0	0.0				

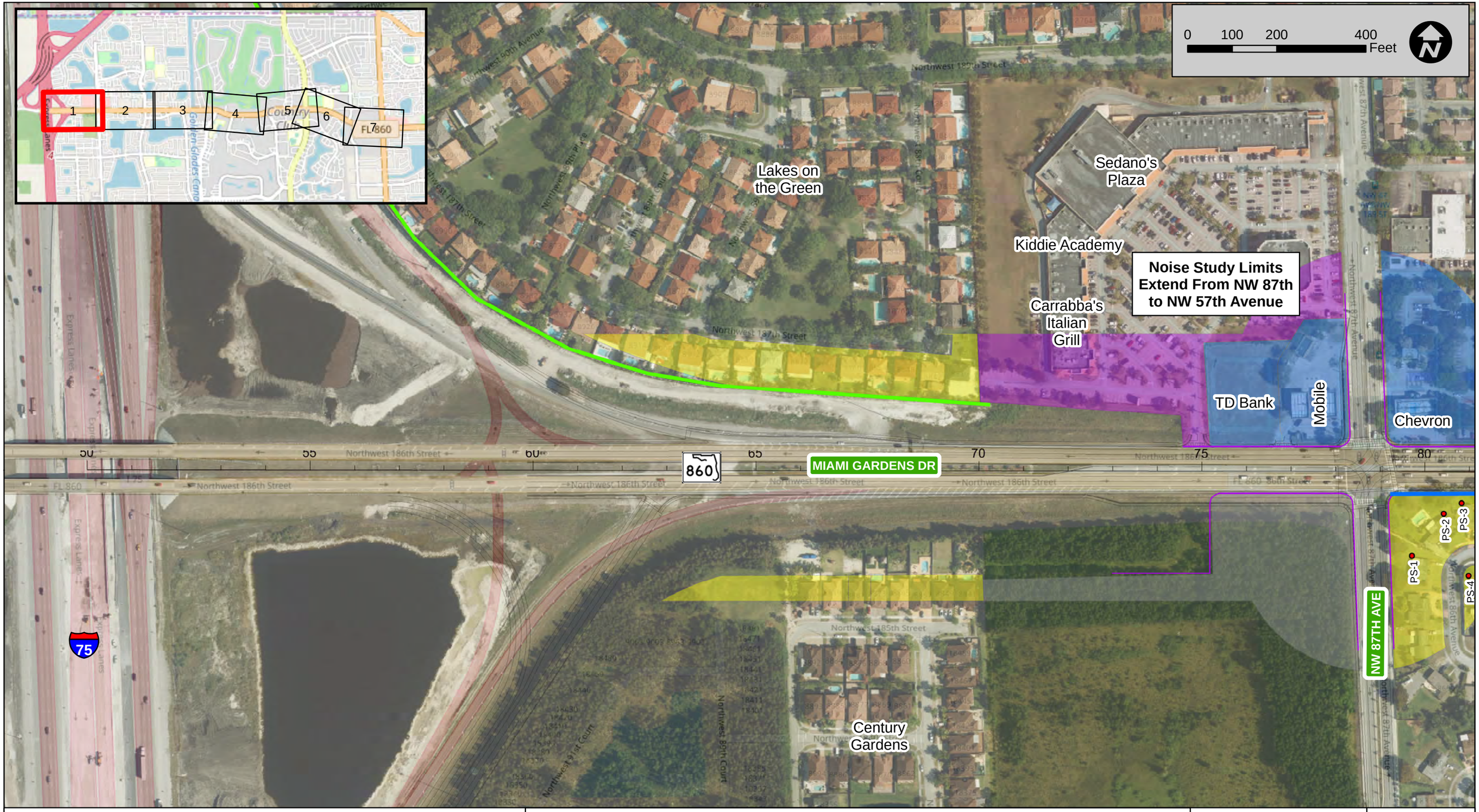
X:\P\Noise_Studies\Proposal\MGD_CorridorStudy\Noise_Monitoring_Data\[Table_3-1-1_MGD_Noise Monitoring Data Summary_11-4-2019.xlsx]Table 3.2.1

Note: Yellow Highlighted Cells Represent Monitored Noise Levels that Equal to or Exceed 66.0 dBA.

Average Difference Between TNM 2.5 Predicted Levels and Monitored Levels for Validated Sites [Within +/- 3 dB(A)]	-0.2

APPENDIX C

Figure 3-1 Noise Analysis Map



SR 860 / Miami Gardens Drive Re-evaluation
From East of I-75 to SR 823 / NW 57th Avenue
FPID No.: 438864-1-22-01 (Formerly 407736-3-22-01)
FDOT - District 6 / Miami-Dade County

Legend

- Receptor Sites
- Monitoring Sites
- Existing Residential Privacy Wall
- Existing Noise Barriers
- Recommended Noise Barriers
- Not Recommended Noise Barriers

Land Uses by Noise Activity Category

- B: Residential
- C: Other Sensitive Land Use
- D: Institutional (Interior)
- E: Sensitive Commercial
- F: Non-Sensitive Developed
- G:Vacant

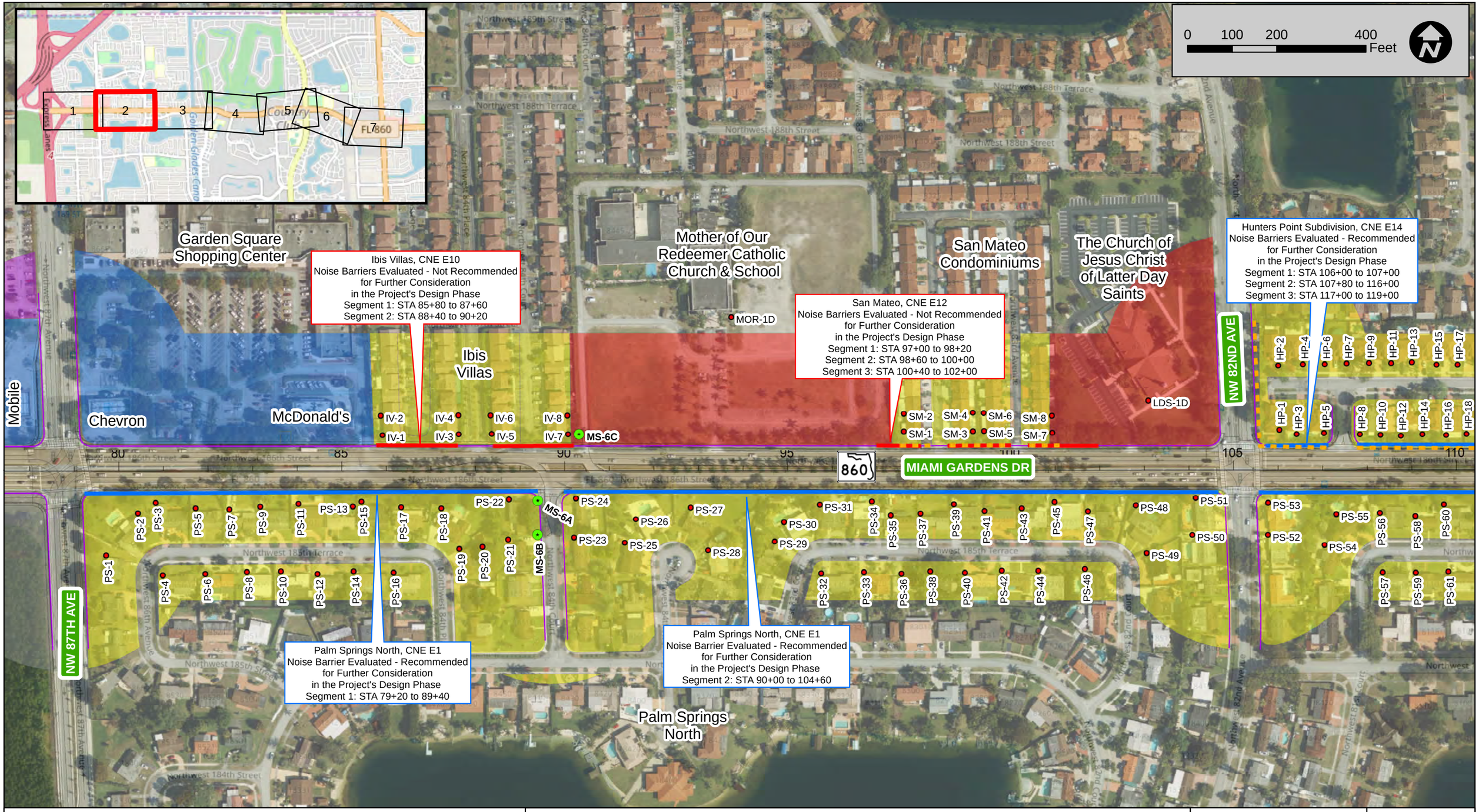
- Existing Right-of-Way Line
- Proposed Improvements

Note: The location, heights, and limits of the recommended noise barriers will be determined during the project's design phase and are subject to change based on engineering constructability reviews and public input.

Noise Analysis Map

Source: Miami-Dade County, 2018

Figure 3-1
Sheet 1 of 7



FDOT

SR 860 / Miami Gardens Drive Re-evaluation
From East of I-75 to SR 823 / NW 57th Avenue
FPID No.: 438864-1-22-01 (Formerly 407736-3-22-01)
FDOT - District 6 / Miami-Dade County

Legend

- Receptor Sites
- Monitoring Sites
- Existing Residential Privacy Wall
- Existing Noise Barriers
- Recommended Noise Barriers
- Not Recommended Noise Barriers

Land Uses by Noise Activity Category

- B: Residential
- C: Other Sensitive Land Use
- D: Institutional (Interior)
- E: Sensitive Commercial
- F: Non-Sensitive Developed
- G:Vacant

- Existing Right-of-Way Line
- Proposed Improvements

Note: The location, heights, and limits of the recommended noise barriers will be determined during the project's design phase and are subject to change based on engineering constructability reviews and public input.

Noise Analysis Map

Source: Miami-Dade County, 2018

Figure 3-1
Sheet 2 of 7

SR 860 / Miami Gardens Drive Re-evaluation
From East of I-75 to SR 823 / NW 57th Avenue
FPID No.: 438864-1-22-01 (Formerly 407736-3-22-01)
FDOT - District 6 / Miami-Dade County

Legend

- Receptor Sites
- Monitoring Sites
- Existing Residential Privacy Wall
- Existing Noise Barriers
- Recommended Noise Barriers
- Not Recommended Noise Barriers

Land Uses by Noise Activity Category

- B: Residential
- C: Other Sensitive Land Use
- D: Institutional (Interior)
- E: Sensitive Commercial
- F: Non-Sensitive Developed
- G:Vacant

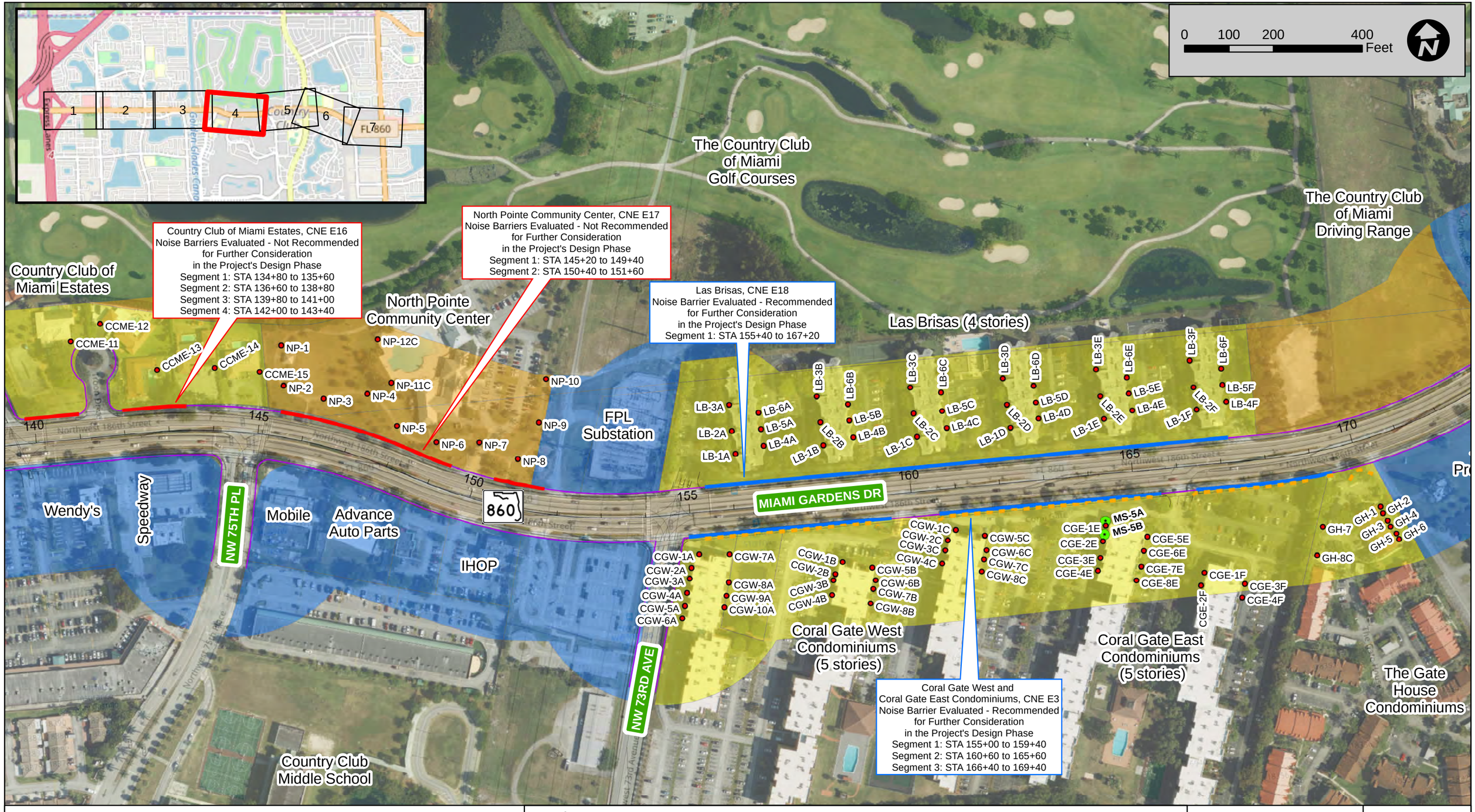
- Existing Right-of-Way Line
- Proposed Improvements

Note: The location, heights, and limits of the recommended noise barriers will be determined during the project's design phase and are subject to change based on engineering constructability reviews and public input.

Noise Analysis Map

Source: Miami-Dade County, 2018

Figure 3-1
Sheet 3 of 7



Legend

- Receptor Sites
- Monitoring Sites
- Existing Residential Privacy Wall
- Existing Noise Barriers
- Recommended Noise Barriers
- Not Recommended Noise Barriers

Land Uses by Noise Activity Category

- B: Residential
- C: Other Sensitive Land Use
- D: Institutional (Interior)
- E: Sensitive Commercial
- F: Non-Sensitive Developed
- G:Vacant

- Existing Right-of-Way Line
- Proposed Improvements

Note: The location, heights, and limits of the recommended noise barriers will be determined during the project's design phase and are subject to change based on engineering constructability reviews and public input.

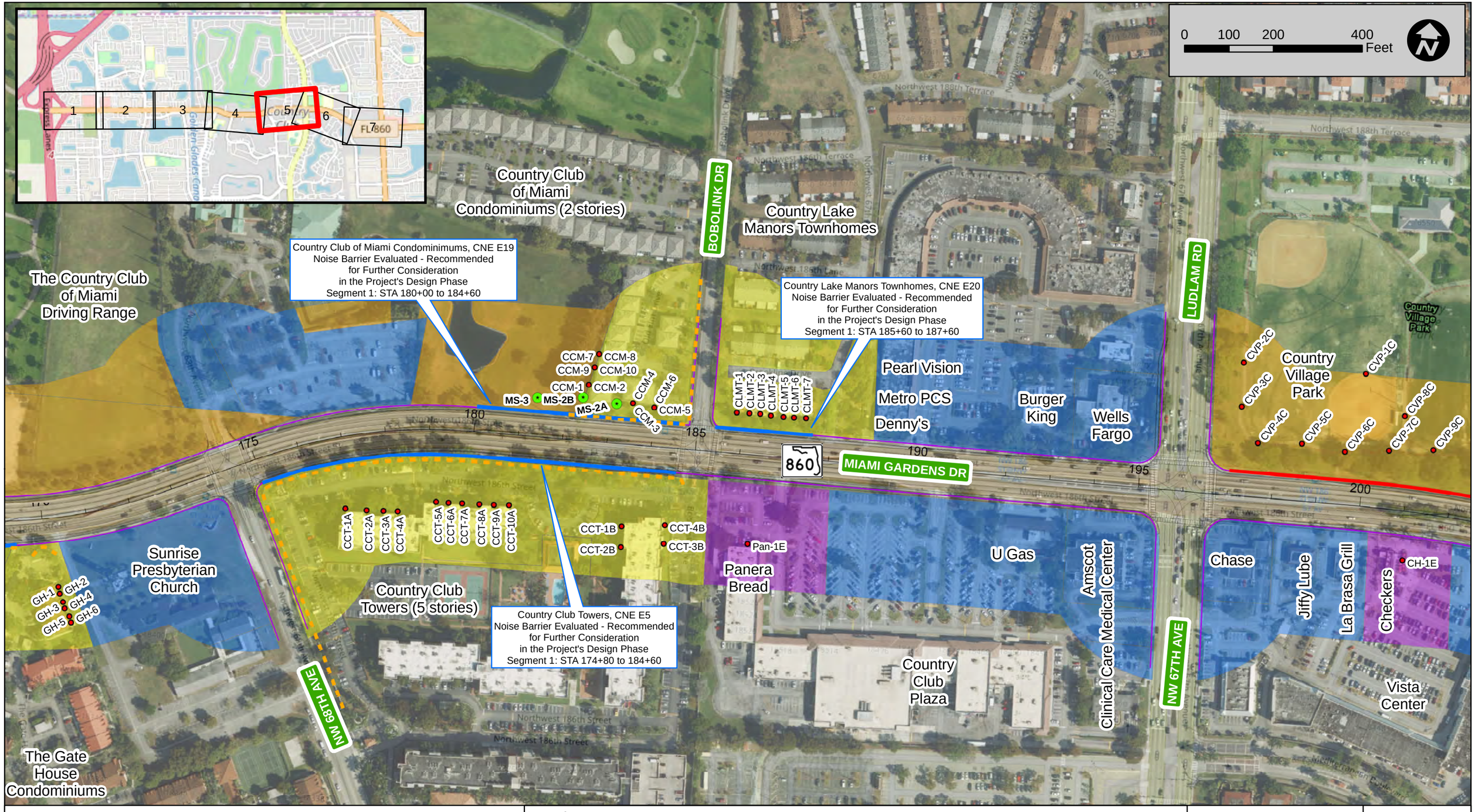
FDOT

SR 860 / Miami Gardens Drive Re-evaluation
From East of I-75 to SR 823 / NW 57th Avenue
FPID No.: 438864-1-22-01 (Formerly 407736-3-22-01)
FDOT - District 6 / Miami-Dade County

Noise Analysis Map

Source: Miami-Dade County, 2018

Figure 3-1
Sheet 4 of 7



FDOT

SR 860 / Miami Gardens Drive Re-evaluation
From East of I-75 to SR 823 / NW 57th Avenue
FPID No.: 438864-1-22-01 (Formerly 407736-3-22-01)
FDOT - District 6 / Miami-Dade County

Legend

- Receptor Sites
- Monitoring Sites
- Existing Residential Privacy Wall
- Existing Noise Barriers
- Recommended Noise Barriers
- Not Recommended Noise Barriers

Land Uses by Noise Activity Category

- B: Residential
- C: Other Sensitive Land Use
- D: Institutional (Interior)
- E: Sensitive Commercial
- F: Non-Sensitive Developed
- G:Vacant

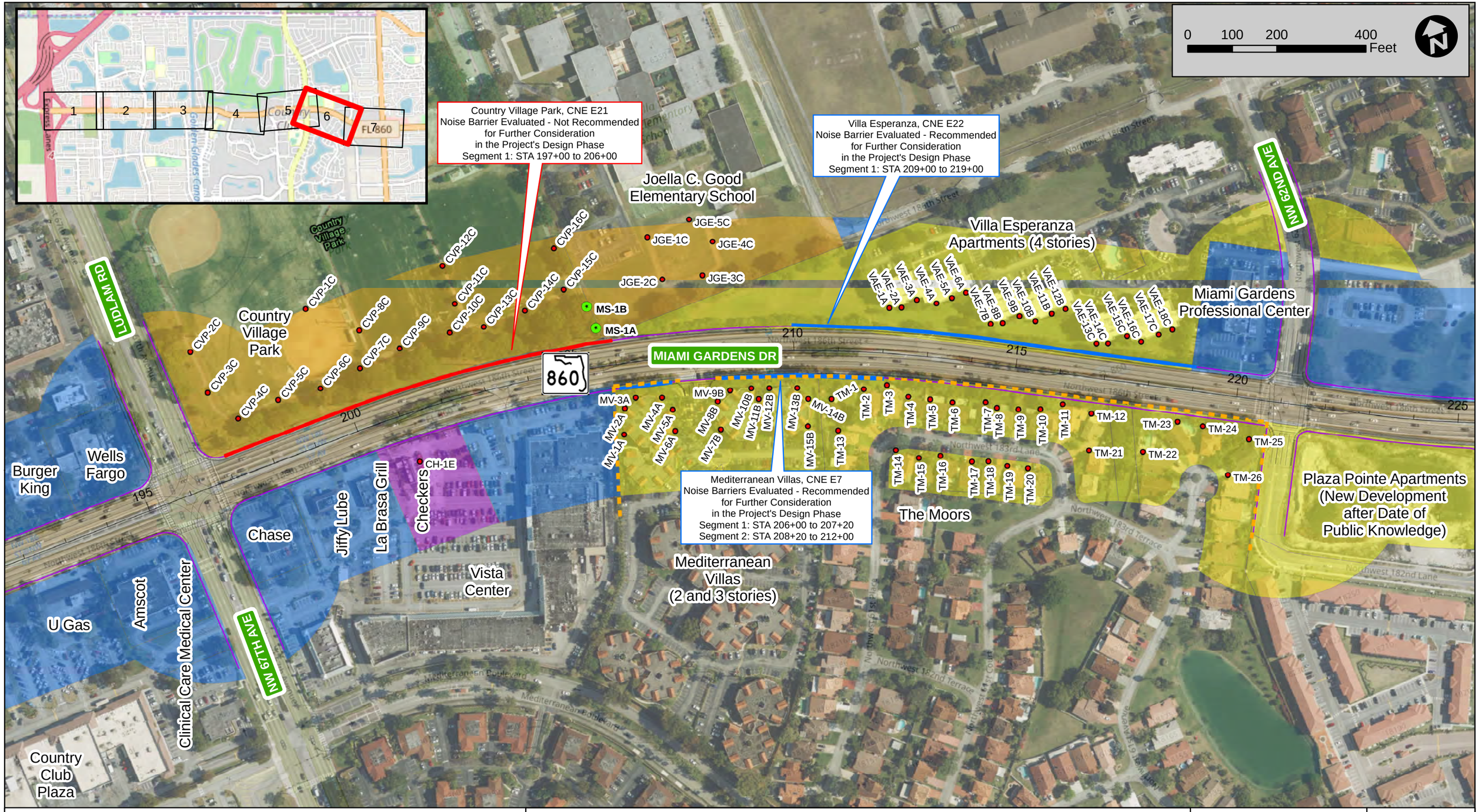
- Existing Right-of-Way Line
- Proposed Improvements

Note: The location, heights, and limits of the recommended noise barriers will be determined during the project's design phase and are subject to change based on engineering constructability reviews and public input.

Noise Analysis Map

Source: Miami-Dade County, 2018

Figure 3-1
Sheet 5 of 7



FDOT

SR 860 / Miami Gardens Drive Re-evaluation
From East of I-75 to SR 823 / NW 57th Avenue
FPID No.: 438864-1-22-01 (Formerly 407736-3-22-01)
FDOT - District 6 / Miami-Dade County

Legend

- Receptor Sites
- Monitoring Sites
- Existing Residential Privacy Wall
- Existing Noise Barriers
- Recommended Noise Barriers
- Not Recommended Noise Barriers

Land Uses by Noise Activity Category

- B: Residential
- C: Other Sensitive Land Use
- D: Institutional (Interior)
- E: Sensitive Commercial
- F: Non-Sensitive Developed
- G:Vacant

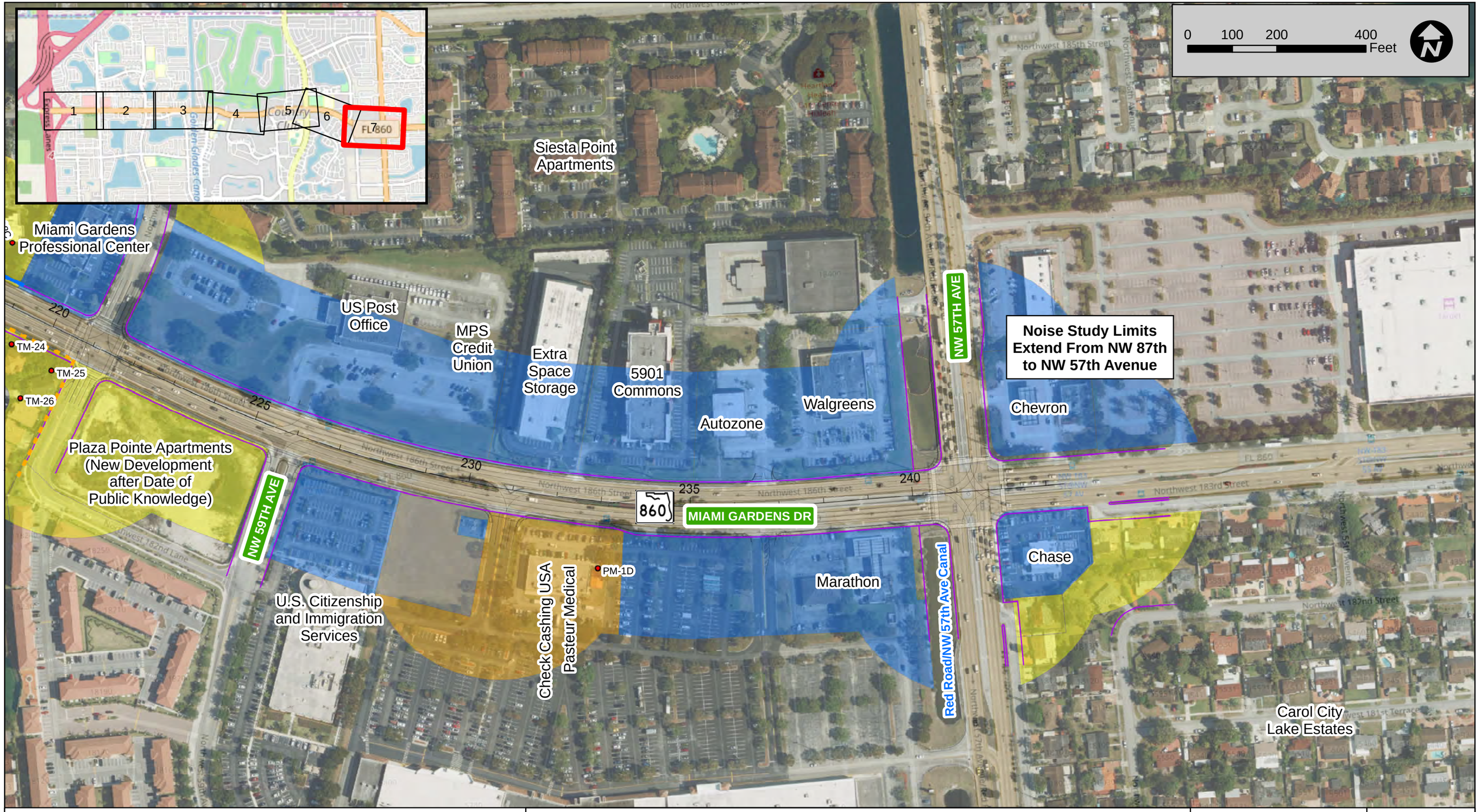
- Existing Right-of-Way Line
- Proposed Improvements

Note: The location, heights, and limits of the recommended noise barriers will be determined during the project's design phase and are subject to change based on engineering constructability reviews and public input.

Noise Analysis Map

Source: Miami-Dade County, 2018

Figure 3-1
Sheet 6 of 7



SR 860 / Miami Gardens Drive Re-evaluation
From East of I-75 to SR 823 / NW 57th Avenue
FPID No.: 438864-1-22-01 (Formerly 407736-3-22-01)
FDOT - District 6 / Miami-Dade County

Legend

- Receptor Sites
- Monitoring Sites
- Existing Residential Privacy Wall
- Existing Noise Barriers
- Recommended Noise Barriers
- Not Recommended Noise Barriers

Land Uses by Noise Activity Category

- B: Residential
- C: Other Sensitive Land Use
- D: Institutional (Interior)
- E: Sensitive Commercial
- F: Non-Sensitive Developed
- G:Vacant

- Existing Right-of-Way Line
- Proposed Improvements

Note: The location, heights, and limits of the recommended noise barriers will be determined during the project's design phase and are subject to change based on engineering constructability reviews and public input.

Noise Analysis Map

Source: Miami-Dade County, 2018

Figure 3-1
Sheet 7 of 7

APPENDIX D

Table 3.2-1: Location and Description of Representative Noise Receptor Sites and Noise Impact Analysis Results

Table 3.2-1: Location and Description of Representative Noise Sensitive Receptor Sites and Noise Impact Analysis Results (Sheet 1 of 18)

Name of Noise Sensitive Site/Area [Noise Abatement Activity Category - FDOT's Noise Abatement Criteria Category dB(A)]	Representative Noise Receptor Site Designation	Noise Sensitive Site Description	Number of Noise Sensitive Sites Represented	Station Number	Distance from the Nearest Proposed Travel Lane (feet)	TNM Predicted Design Year (2040) Noise Levels dB(A) with Proposed Roadway Design Concept	Noise Abatement Criteria Status / Consideration of Noise Abatement Warranted? Yes or No
South of Miami Gardens Drive between NW 87th Avenue and Peter's Pike Canal (Palm Springs North)							
Palm Springs North [NAC B - 66 dB(A)]	PS-1	Single Family Residence - Second Row	1	79+71	150	67.1	Exceeds / Yes
	PS-2	Single Family Residence - First Row	1	80+42	56	71.9	Exceeds / Yes
	PS-3	Single Family Residence - First Row	1	80+82	32	74.0	Exceeds / Yes
	PS-4	Single Family Residence - Second Row	1	81+08	190	58.6	Below / No
	PS-5	Single Family Residence - First Row	1	81+72	45	72.6	Exceeds / Yes
	PS-6	Single Family Residence - Second Row	1	81+93	192	57.6	Below / No
	PS-7	Single Family Residence - First Row	1	82+47	47	72.3	Exceeds / Yes
	PS-8	Single Family Residence - Second Row	1	82+87	187	52.8	Below / No
	PS-9	Single Family Residence - First Row	1	83+17	41	72.9	Exceeds / Yes
	PS-10	Single Family Residence - Second Row	1	83+63	186	52.2	Below / No
	PS-11	Single Family Residence - First Row	1	84+03	35	73.1	Exceeds / Yes
	PS-12	Single Family Residence - Second Row	1	84+45	192	51.9	Below / No
	PS-13	Single Family Residence - First Row	1	85+25	41	71.9	Exceeds / Yes
	PS-14	Single Family Residence - Second Row	1	85+26	186	52.2	Below / No
	PS-15	Single Family Residence - First Row	1	85+44	30	72.8	Exceeds / Yes
	PS-16	Single Family Residence - Second Row	1	86+16	189	54.5	Below / No
	PS-17	Single Family Residence - First Row	1	86+33	43	71.6	Exceeds / Yes
	PS-18	Single Family Residence - First Row	1	87+23	45	71.3	Exceeds / Yes
	PS-19	Single Family Residence - Second Row	1	87+63	136	58.0	Below / No
	PS-20	Single Family Residence - Second Row	1	88+15	131	62.2	Below / No
	PS-21	Single Family Residence - Second Row	1	88+73	115	63.3	Below / No
	PS-22	Single Family Residence - First Row	1	88+74	25	73.2	Exceeds / Yes
	PS-23	Single Family Residence - Second Row	1	90+20	110	62.2	Below / No
	PS-24	Single Family Residence - First Row	1	90+25	23	73.4	Exceeds / Yes
	PS-25	Single Family Residence - Second Row	1	91+34	122	63.4	Below / No
	PS-26	Single Family Residence - First Row	1	91+59	69	68.6	Exceeds / Yes
	PS-27	Single Family Residence - First Row	1	92+82	43	71.4	Exceeds / Yes
	PS-28	Single Family Residence - Second Row	1	93+21	139	61.6	Below / No
	PS-29	Single Family Residence - Second Row	1	94+71	120	64.6	Below / No
	PS-30	Single Family Residence - First Row	1	94+92	76	68.2	Exceeds / Yes
	PS-31	Single Family Residence - First Row	1	95+72	37	71.8	Exceeds / Yes
	PS-32	Single Family Residence - Second Row	1	95+75	192	57.3	Below / No
	PS-33	Single Family Residence - Second Row	1	96+71	189	54.4	Below / No
	PS-34	Single Family Residence - First Row	1	96+88	30	72.3	Exceeds / Yes
	PS-35	Single Family Residence - First Row	1	97+31	61	68.8	Exceeds / Yes
	PS-36	Single Family Residence - Second Row	1	97+55	192	52.9	Below / No
	PS-37	Single Family Residence - First Row	1	97+97	57	69.7	Exceeds / Yes
	PS-38	Single Family Residence - Second Row	1	98+19	187	51.9	Below / No
	PS-39	Single Family Residence - First Row	1	98+72	37	71.9	Exceeds / Yes
	PS-40	Single Family Residence - Second Row	1	98+97	190	51.0	Below / No
	PS-41	Single Family Residence - First Row	1	99+41	51	69.2	Exceeds / Yes
	PS-42	Single Family Residence - Second Row	1	99+80	185	50.8	Below / No
	PS-43	Single Family Residence - First Row	1	100+25	46	71.3	Exceeds / Yes
	PS-44	Single Family Residence - Second Row	1	100+62	186	52.9	Below / No
	PS-45	Single Family Residence - First Row	1	100+98	32	72.7	Exceeds / Yes
	PS-46	Single Family Residence - Second Row	1	101+66	182	55.9	Below / No
	PS-47	Single Family Residence - First Row	1	101+73	53	70.2	Exceeds / Yes
	PS-48	Single Family Residence - First Row	1	102+80	39	72.4	Exceeds / Yes
	PS-49	Single Family Residence - Second Row	1	103+05	146	58.4	Below / No
	PS-50	Single Family Residence - Second Row	1	104+07	105	64.6	Below / No
	PS-51	Single Family Residence - First Row	1	104+15	23	74.7	Exceeds / Yes
	PS-52	Single Family Residence - Second Row	1	105+77	105	67.5	Exceeds / Yes
	PS-53	Single Family Residence - First Row	1	105+77	34	74.9	Exceeds / Yes
	PS-54	Single Family Residence - Second Row	1	107+04	128	64.7	Below / No

Table 3.2-1: Location and Description of Representative Noise Sensitive Receptor Sites and Noise Impact Analysis Results (Sheet 2 of 18)

Name of Noise Sensitive Site/Area [Noise Abatement Activity Category - FDOT's Noise Abatement Criteria Category dB(A)]	Representative Noise Receptor Site Designation	Noise Sensitive Site Description	Number of Noise Sensitive Sites Represented	Station Number	Distance from the Nearest Proposed Travel Lane (feet)	TNM Predicted Design Year (2040) Noise Levels dB(A) with Proposed Roadway Design Concept	Noise Abatement Criteria Status / Consideration of Noise Abatement Warranted? Yes or No
Palm Springs North [NAC B - 66 dB(A)]	PS-55	Single Family Residence - First Row	1	107+30	59	70.6	Exceeds / Yes
	PS-56	Single Family Residence - First Row	1	108+28	57	69.7	Exceeds / Yes
	PS-57	Single Family Residence - Second Row	1	108+34	190	58.9	Below / No
	PS-58	Single Family Residence - First Row	1	109+07	63	69.4	Exceeds / Yes
	PS-59	Single Family Residence - Second Row	1	109+08	190	55.7	Below / No
	PS-60	Single Family Residence - First Row	1	109+71	38	72.8	Exceeds / Yes
	PS-61	Single Family Residence - Second Row	1	109+81	188	54.1	Below / No
	PS-62	Single Family Residence - First Row	1	110+57	47	71.2	Exceeds / Yes
	PS-63	Single Family Residence - Second Row	1	110+60	187	54.0	Below / No
	PS-64	Single Family Residence - First Row	1	111+26	43	70.5	Exceeds / Yes
	PS-65	Single Family Residence - Second Row	1	111+33	191	53.6	Below / No
	PS-66	Single Family Residence - First Row	1	112+12	49	70.3	Exceeds / Yes
	PS-67	Single Family Residence - Second Row	1	112+15	184	51.6	Below / No
	PS-68	Single Family Residence - First Row	1	112+82	36	71.8	Exceeds / Yes
	PS-69	Single Family Residence - Second Row	1	112+87	189	54.3	Below / No
	PS-70	Single Family Residence - First Row	1	113+61	28	72.7	Exceeds / Yes
	PS-71	Single Family Residence - First Row	1	114+65	84	65.6	Below / No
	PS-72	Single Family Residence - Second Row	1	114+90	151	56.1	Below / No
	PS-73	Single Family Residence - First Row	1	115+26	21	73.5	Exceeds / Yes
	PS-74	Single Family Residence - Second Row	1	115+35	116	61.9	Below / No
	PS-75	Single Family Residence - First Row	1	117+21	28	72.9	Exceeds / Yes
	PS-76	Single Family Residence - Second Row	1	117+29	120	63.0	Below / No
	PS-77	Single Family Residence - First Row	1	118+14	84	67.5	Exceeds / Yes
	PS-78	Single Family Residence - Second Row	1	118+52	258	52.8	Below / No
	PS-79	Single Family Residence - First Row	1	118+93	77	69.1	Exceeds / Yes
	PS-80	Single Family Residence - Second Row	1	119+34	230	54.7	Below / No
	PS-81	Single Family Residence - First Row	1	119+75	60	70.8	Exceeds / Yes
	PS-82	Single Family Residence - Second Row	1	120+25	211	55.0	Below / No
	PS-83	Single Family Residence - First Row	1	120+49	31	74.3	Exceeds / Yes
	PS-84	Single Family Residence - Second Row	1	121+09	208	56.2	Below / No
	PS-85	Single Family Residence - First Row	1	121+39	38	74.7	Exceeds / Yes
	PS-86	Single Family Residence - Second Row	1	121+88	204	57.2	Below / No
	PS-87	Single Family Residence - First Row	1	122+21	60	71.5	Exceeds / Yes
	PS-88	Single Family Residence - Second Row	1	122+73	207	55.4	Below / No
	PS-89	Single Family Residence - First Row	1	123+11	60	70.9	Exceeds / Yes
	PS-90	Single Family Residence - Second Row	1	123+41	208	55.5	Below / No
	PS-91	Single Family Residence - First Row	1	123+97	48	71.7	Exceeds / Yes
	PS-92	Single Family Residence - Second Row	1	124+28	197	56.0	Below / No
	PS-93	Single Family Residence - Second Row	1	125+17	227	55.6	Below / No
	PS-94	Single Family Residence - First Row	1	125+31	62	67.9	Exceeds / Yes
	PS-95	Single Family Residence - First Row	1	125+96	42	71.8	Exceeds / Yes
	PS-96	Single Family Residence - First Row	1	126+64	47	71.0	Exceeds / Yes
	PS-97	Single Family Residence - Second Row	1	126+81	142	59.8	Below / No
					Minimum	50.8	---
					Maximum	74.9	---
					Total Number of Residential Sites Equal to or Greater than the Noise Abatement Criteria (NAC) of 66 dB(A)	51	---
					Common Noise Environment (CNE) Identification Number - Palm Springs North	---	E1

Table 3.2-1: Location and Description of Representative Noise Sensitive Receptor Sites and Noise Impact Analysis Results (Sheet 3 of 18)

Name of Noise Sensitive Site/Area [Noise Abatement Activity Category - FDOT's Noise Abatement Criteria Category dB(A)]	Representative Noise Receptor Site Designation	Noise Sensitive Site Description	Number of Noise Sensitive Sites Represented	Station Number	Distance from the Nearest Proposed Travel Lane (feet)	TNM Predicted Design Year (2040) Noise Levels dB(A) with Proposed Roadway Design Concept	Noise Abatement Criteria Status / Consideration of Noise Abatement Warranted? Yes or No
South of Miami Gardens Drive between Peter's Pike Canal and NW 73rd Avenue (Country Club Shopping Center)							
Option One Medical Center [NAC D - 51 dB(A)]	CCSC-1D	Medical Facility - Interior Use	1 (Special Land Use)	135+42	90	39.7	Below / No
El Bakery @ 186 [NAC E - 71 dB(A)]	CCSC-2E	Restaurant with Outdoor Seating - Sensitive Commercial	1 (Special Land Use)	135+45	153	61.4	Below / No
Locos 4 Wine [NAC E - 71 dB(A)]	CCSC-3E	Restaurant with Outdoor Seating - Sensitive Commercial	1 (Special Land Use)	135+45	174	60.6	Below / No
					Minimum	39.7	---
					Maximum	61.4	---
					Total Number of Non-Residential / Special Land Use Receptor Sites Equal to or Greater than the Noise Abatement Criteria (NAC)	0	---
					Common Noise Environment (CNE) Identification Number - Country Club Shopping Center	---	E2
South of Miami Gardens Drive between NW 73rd Avenue and NW 68th Avenue (Coral Gate West and Coral Gate East Condominiums)							
Coral Gate West and Coral Gate East Condominiums [NAC B - 66 dB(A)]	CGW-1 _A1	Multi-Family Residence - Patio	1	155+12	49	71.2	Exceeds / Yes
	CGW-1 _A2	Multi-Family Residence - Second Floor Balcony	1	155+12	49	72.8	Exceeds / Yes
	CGW-1 _A3	Multi-Family Residence - Third Floor Balcony	1	155+12	49	72.7	Exceeds / Yes
	CGW-1 _A4	Multi-Family Residence - Fourth Floor Balcony	1	155+12	49	72.5	Exceeds / Yes
	CGW-1 _A5	Multi-Family Residence - Fifth Floor Balcony	1	155+12	49	72.3	Exceeds / Yes
	CGW-2 _A1	Multi-Family Residence - Patio	1	154+92	79	69.0	Exceeds / Yes
	CGW-2 _A2	Multi-Family Residence - Second Floor Balcony	1	154+92	79	70.2	Exceeds / Yes
	CGW-2 _A3	Multi-Family Residence - Third Floor Balcony	1	154+92	79	70.2	Exceeds / Yes
	CGW-2 _A4	Multi-Family Residence - Fourth Floor Balcony	1	154+92	79	70.0	Exceeds / Yes
	CGW-2 _A5	Multi-Family Residence - Fifth Floor Balcony	1	154+92	79	69.9	Exceeds / Yes
	CGW-3 _A1	Multi-Family Residence - Patio	1	154+86	103	67.4	Exceeds / Yes
	CGW-3 _A2	Multi-Family Residence - Second Floor Balcony	1	154+86	103	68.9	Exceeds / Yes
	CGW-3 _A3	Multi-Family Residence - Third Floor Balcony	1	154+86	103	69.1	Exceeds / Yes
	CGW-3 _A4	Multi-Family Residence - Fourth Floor Balcony	1	154+86	103	68.9	Exceeds / Yes
	CGW-3 _A5	Multi-Family Residence - Fifth Floor Balcony	1	154+86	103	68.9	Exceeds / Yes
	CGW-4 _A1	Multi-Family Residence - Patio	1	154+77	135	65.8	Below / No
	CGW-4 _A2	Multi-Family Residence - Second Floor Balcony	1	154+77	135	67.5	Exceeds / Yes
	CGW-4 _A3	Multi-Family Residence - Third Floor Balcony	1	154+77	135	67.9	Exceeds / Yes
	CGW-4 _A4	Multi-Family Residence - Fourth Floor Balcony	1	154+77	135	67.9	Exceeds / Yes
	CGW-4 _A5	Multi-Family Residence - Fifth Floor Balcony	1	154+77	135	67.7	Exceeds / Yes
	CGW-5 _A1	Multi-Family Residence - Patio	1	154+69	164	64.4	Below / No
	CGW-5 _A2	Multi-Family Residence - Second Floor Balcony	1	154+69	164	66.2	Approaches / Yes
	CGW-5 _A3	Multi-Family Residence - Third Floor Balcony	1	154+69	164	66.8	Approaches / Yes
	CGW-5 _A4	Multi-Family Residence - Fourth Floor Balcony	1	154+69	164	67.0	Meets / Yes
	CGW-5 _A5	Multi-Family Residence - Fifth Floor Balcony	1	154+69	164	66.9	Approaches / Yes
	CGW-6 _A1	Multi-Family Residence - Patio	1	154+61	192	63.3	Below / No
	CGW-6 _A2	Multi-Family Residence - Second Floor Balcony	1	154+61	192	65.2	Below / No
	CGW-6 _A3	Multi-Family Residence - Third Floor Balcony	1	154+61	192	66.0	Approaches / Yes
	CGW-6 _A4	Multi-Family Residence - Fourth Floor Balcony	1	154+61	192	66.2	Approaches / Yes
	CGW-6 _A5	Multi-Family Residence - Fifth Floor Balcony	1	154+61	192	66.3	Approaches / Yes
	CGW-7 _A1	Multi-Family Residence - Patio	1	155+80	55	68.0	Exceeds / Yes
	CGW-7 _A2	Multi-Family Residence - Second Floor Balcony	1	155+80	55	71.7	Exceeds / Yes
	CGW-7 _A3	Multi-Family Residence - Third Floor Balcony	1	155+80	55	71.9	Exceeds / Yes
	CGW-7 _A4	Multi-Family Residence - Fourth Floor Balcony	1	155+80	55	71.7	Exceeds / Yes
	CGW-7 _A5	Multi-Family Residence - Fifth Floor Balcony	1	155+80	55	71.6	Exceeds / Yes
	CGW-8 _A1	Multi-Family Residence - Patio	1	155+72	119	58.2	Below / No
	CGW-8 _A2	Multi-Family Residence - Second Floor Balcony	1	155+72	119	62.3	Below / No
	CGW-8 _A3	Multi-Family Residence - Third Floor Balcony	1	155+72	119	64.3	Below / No
	CGW-8 _A4	Multi-Family Residence - Fourth Floor Balcony	1	155+72	119	64.9	Below / No
	CGW-8 _A5	Multi-Family Residence - Fifth Floor Balcony	1	155+72	119	64.8	Below / No
	CGW-9 _A1	Multi-Family Residence - Patio	1	155+64	148	56.9	Below / No
	CGW-9 _A2	Multi-Family Residence - Second Floor Balcony	1	155+64	148	60.5	Below / No

Table 3.2-1: Location and Description of Representative Noise Sensitive Receptor Sites and Noise Impact Analysis Results (Sheet 4 of 18)

Name of Noise Sensitive Site/Area [Noise Abatement Activity Category - FDOT's Noise Abatement Criteria Category dB(A)]	Representative Noise Receptor Site Designation	Noise Sensitive Site Description	Number of Noise Sensitive Sites Represented	Station Number	Distance from the Nearest Proposed Travel Lane (feet)	TNM Predicted Design Year (2040) Noise Levels dB(A) with Proposed Roadway Design Concept	Noise Abatement Criteria Status / Consideration of Noise Abatement Warranted? Yes or No
Coral Gate West and Coral Gate East Condominiums [NAC B - 66 dB(A)]	CGW-9 _A3	Multi-Family Residence - Third Floor Balcony	1	155+64	148	62.5	Below / No
	CGW-9 _A4	Multi-Family Residence - Fourth Floor Balcony	1	155+64	148	63.3	Below / No
	CGW-9 _A5	Multi-Family Residence - Fifth Floor Balcony	1	155+64	148	63.8	Below / No
	CGW-10 _A1	Multi-Family Residence - Patio	1	155+57	174	55.9	Below / No
	CGW-10 _A2	Multi-Family Residence - Second Floor Balcony	1	155+57	174	58.7	Below / No
	CGW-10 _A3	Multi-Family Residence - Third Floor Balcony	1	155+57	174	61.4	Below / No
	CGW-10 _A4	Multi-Family Residence - Fourth Floor Balcony	1	155+57	174	62.2	Below / No
	CGW-10 _A5	Multi-Family Residence - Fifth Floor Balcony	1	155+57	174	62.7	Below / No
	CGW-1 _B1	Multi-Family Residence - Patio	1	158+31	97	63.6	Below / No
	CGW-1 _B2	Multi-Family Residence - Second Floor Balcony	1	158+31	97	67.9	Exceeds / Yes
	CGW-1 _B3	Multi-Family Residence - Third Floor Balcony	1	158+31	97	69.2	Exceeds / Yes
	CGW-1 _B4	Multi-Family Residence - Fourth Floor Balcony	1	158+31	97	69.3	Exceeds / Yes
	CGW-1 _B5	Multi-Family Residence - Fifth Floor Balcony	1	158+31	97	69.2	Exceeds / Yes
	CGW-2 _B1	Multi-Family Residence - Patio	1	158+13	123	61.4	Below / No
	CGW-2 _B2	Multi-Family Residence - Second Floor Balcony	1	158+13	123	65.0	Below / No
	CGW-2 _B3	Multi-Family Residence - Third Floor Balcony	1	158+13	123	66.8	Approaches / Yes
	CGW-2 _B4	Multi-Family Residence - Fourth Floor Balcony	1	158+13	123	67.3	Exceeds / Yes
	CGW-2 _B5	Multi-Family Residence - Fifth Floor Balcony	1	158+13	123	67.1	Exceeds / Yes
	CGW-3 _B1	Multi-Family Residence - Patio	1	158+07	136	60.8	Below / No
	CGW-3 _B2	Multi-Family Residence - Second Floor Balcony	1	158+07	136	64.2	Below / No
	CGW-3 _B3	Multi-Family Residence - Third Floor Balcony	1	158+07	136	66.1	Approaches / Yes
	CGW-3 _B4	Multi-Family Residence - Fourth Floor Balcony	1	158+07	136	66.6	Approaches / Yes
	CGW-3 _B5	Multi-Family Residence - Fifth Floor Balcony	1	158+07	136	66.5	Approaches / Yes
	CGW-4 _B1	Multi-Family Residence - Patio	1	158+01	168	58.6	Below / No
	CGW-4 _B2	Multi-Family Residence - Second Floor Balcony	1	158+01	168	61.4	Below / No
	CGW-4 _B3	Multi-Family Residence - Third Floor Balcony	1	158+01	168	63.7	Below / No
	CGW-4 _B4	Multi-Family Residence - Fourth Floor Balcony	1	158+01	168	64.5	Below / No
	CGW-4 _B5	Multi-Family Residence - Fifth Floor Balcony	1	158+01	168	65.0	Below / No
	CGW-5 _B1	Multi-Family Residence - Patio	1	158+97	116	62.9	Below / No
	CGW-5 _B2	Multi-Family Residence - Second Floor Balcony	1	158+97	116	66.0	Approaches / Yes
	CGW-5 _B3	Multi-Family Residence - Third Floor Balcony	1	158+97	116	67.4	Exceeds / Yes
	CGW-5 _B4	Multi-Family Residence - Fourth Floor Balcony	1	158+97	116	67.7	Exceeds / Yes
	CGW-5 _B5	Multi-Family Residence - Fifth Floor Balcony	1	158+97	116	67.5	Exceeds / Yes
	CGW-6 _B1	Multi-Family Residence - Patio	1	159+02	145	59.6	Below / No
	CGW-6 _B2	Multi-Family Residence - Second Floor Balcony	1	159+02	145	61.7	Below / No
	CGW-6 _B3	Multi-Family Residence - Third Floor Balcony	1	159+02	145	62.7	Below / No
	CGW-6 _B4	Multi-Family Residence - Fourth Floor Balcony	1	159+02	145	63.0	Below / No
	CGW-6 _B5	Multi-Family Residence - Fifth Floor Balcony	1	159+02	145	62.9	Below / No
	CGW-7 _B1	Multi-Family Residence - Patio	1	158+95	163	58.2	Below / No
	CGW-7 _B2	Multi-Family Residence - Second Floor Balcony	1	158+95	163	60.1	Below / No
	CGW-7 _B3	Multi-Family Residence - Third Floor Balcony	1	158+95	163	61.2	Below / No
	CGW-7 _B4	Multi-Family Residence - Fourth Floor Balcony	1	158+95	163	61.5	Below / No
	CGW-7 _B5	Multi-Family Residence - Fifth Floor Balcony	1	158+95	163	61.6	Below / No
	CGW-8 _B1	Multi-Family Residence - Patio	1	158+86	195	56.5	Below / No
	CGW-8 _B2	Multi-Family Residence - Second Floor Balcony	1	158+86	195	58.4	Below / No
	CGW-8 _B3	Multi-Family Residence - Third Floor Balcony	1	158+86	195	59.5	Below / No
	CGW-8 _B4	Multi-Family Residence - Fourth Floor Balcony	1	158+86	195	59.9	Below / No
	CGW-8 _B5	Multi-Family Residence - Fifth Floor Balcony	1	158+86	195	60.1	Below / No
	CGW-1 _C1	Multi-Family Residence - Patio	1	160+92	49	66.1	Approaches / Yes
	CGW-1 _C2	Multi-Family Residence - Second Floor Balcony	1	160+92	49	71.0	Exceeds / Yes
	CGW-1 _C3	Multi-Family Residence - Third Floor Balcony	1	160+92	49	70.9	Exceeds / Yes
	CGW-1 _C4	Multi-Family Residence - Fourth Floor Balcony	1	160+92	49	70.6	Exceeds / Yes
	CGW-1 _C5	Multi-Family Residence - Fifth Floor Balcony	1	160+92	49	70.5	Exceeds / Yes
	CGW-2 _C1	Multi-Family Residence - Patio	1	160+72	70	64.9	Below / No
	CGW-2 _C2	Multi-Family Residence - Second Floor Balcony	1	160+72	70	68.0	Exceeds / Yes

Table 3.2-1: Location and Description of Representative Noise Sensitive Receptor Sites and Noise Impact Analysis Results (Sheet 5 of 18)

Name of Noise Sensitive Site/Area [Noise Abatement Activity Category - FDOT's Noise Abatement Criteria Category dB(A)]	Representative Noise Receptor Site Designation	Noise Sensitive Site Description	Number of Noise Sensitive Sites Represented	Station Number	Distance from the Nearest Proposed Travel Lane (feet)	TNM Predicted Design Year (2040) Noise Levels dB(A) with Proposed Roadway Design Concept	Noise Abatement Criteria Status / Consideration of Noise Abatement Warranted? Yes or No
Coral Gate West and Coral Gate East Condominiums [NAC B - 66 dB(A)]	CGW-2 _C3	Multi-Family Residence - Third Floor Balcony	1	160+72	70	68.2	Exceeds / Yes
	CGW-2 _C4	Multi-Family Residence - Fourth Floor Balcony	1	160+72	70	68.0	Exceeds / Yes
	CGW-2 _C5	Multi-Family Residence - Fifth Floor Balcony	1	160+72	70	67.8	Exceeds / Yes
	CGW-3 _C1	Multi-Family Residence - Patio	1	160+64	92	63.9	Below / No
	CGW-3 _C2	Multi-Family Residence - Second Floor Balcony	1	160+64	92	66.7	Approaches / Yes
	CGW-3 _C3	Multi-Family Residence - Third Floor Balcony	1	160+64	92	67.3	Exceeds / Yes
	CGW-3 _C4	Multi-Family Residence - Fourth Floor Balcony	1	160+64	92	67.1	Exceeds / Yes
	CGW-3 _C5	Multi-Family Residence - Fifth Floor Balcony	1	160+64	92	67.0	Meets / Yes
	CGW-4 _C1	Multi-Family Residence - Patio	1	160+54	121	62.7	Below / No
	CGW-4 _C2	Multi-Family Residence - Second Floor Balcony	1	160+54	121	65.1	Below / No
	CGW-4 _C3	Multi-Family Residence - Third Floor Balcony	1	160+54	121	66.1	Approaches / Yes
	CGW-4 _C4	Multi-Family Residence - Fourth Floor Balcony	1	160+54	121	66.3	Approaches / Yes
	CGW-4 _C5	Multi-Family Residence - Fifth Floor Balcony	1	160+54	121	66.1	Approaches / Yes
	CGW-5 _C1	Multi-Family Residence - Patio	1	161+56	67	62.7	Below / No
	CGW-5 _C2	Multi-Family Residence - Second Floor Balcony	1	161+56	67	68.7	Exceeds / Yes
	CGW-5 _C3	Multi-Family Residence - Third Floor Balcony	1	161+56	67	69.4	Exceeds / Yes
	CGW-5 _C4	Multi-Family Residence - Fourth Floor Balcony	1	161+56	67	69.2	Exceeds / Yes
	CGW-5 _C5	Multi-Family Residence - Fifth Floor Balcony	1	161+56	67	68.9	Exceeds / Yes
	CGW-6 _C1	Multi-Family Residence - Patio	1	161+56	100	58.8	Below / No
	CGW-6 _C2	Multi-Family Residence - Second Floor Balcony	1	161+56	100	63.7	Below / No
	CGW-6 _C3	Multi-Family Residence - Third Floor Balcony	1	161+56	100	65.2	Below / No
	CGW-6 _C4	Multi-Family Residence - Fourth Floor Balcony	1	161+56	100	65.5	Below / No
	CGW-6 _C5	Multi-Family Residence - Fifth Floor Balcony	1	161+56	100	65.4	Below / No
	CGW-7 _C1	Multi-Family Residence - Patio	1	161+49	120	57.6	Below / No
	CGW-7 _C2	Multi-Family Residence - Second Floor Balcony	1	161+49	120	62.2	Below / No
	CGW-7 _C3	Multi-Family Residence - Third Floor Balcony	1	161+49	120	64.0	Below / No
	CGW-7 _C4	Multi-Family Residence - Fourth Floor Balcony	1	161+49	120	64.5	Below / No
	CGW-7 _C5	Multi-Family Residence - Fifth Floor Balcony	1	161+49	120	64.4	Below / No
	CGW-8 _C1	Multi-Family Residence - Patio	1	161+41	147	56.2	Below / No
	CGW-8 _C2	Multi-Family Residence - Second Floor Balcony	1	161+41	147	60.0	Below / No
	CGW-8 _C3	Multi-Family Residence - Third Floor Balcony	1	161+41	147	62.1	Below / No
	CGW-8 _C4	Multi-Family Residence - Fourth Floor Balcony	1	161+41	147	62.8	Below / No
	CGW-8 _C5	Multi-Family Residence - Fifth Floor Balcony	1	161+41	147	63.2	Below / No
	CGE-1 _E1	Multi-Family Residence - Patio	1	164+29	71	62.6	Below / No
	CGE-1 _E2	Multi-Family Residence - Second Floor Balcony	1	164+29	71	68.5	Exceeds / Yes
	CGE-1 _E3	Multi-Family Residence - Third Floor Balcony	1	164+29	71	69.5	Exceeds / Yes
	CGE-1 _E4	Multi-Family Residence - Fourth Floor Balcony	1	164+29	71	69.3	Exceeds / Yes
	CGE-1 _E5	Multi-Family Residence - Fifth Floor Balcony	1	164+29	71	69.0	Exceeds / Yes
	CGE-2 _E1	Multi-Family Residence - Patio	1	164+19	105	59.9	Below / No
	CGE-2 _E2	Multi-Family Residence - Second Floor Balcony	1	164+19	105	64.7	Below / No
	CGE-2 _E3	Multi-Family Residence - Third Floor Balcony	1	164+19	105	66.4	Approaches / Yes
	CGE-2 _E4	Multi-Family Residence - Fourth Floor Balcony	1	164+19	105	66.7	Approaches / Yes
	CGE-2 _E5	Multi-Family Residence - Fifth Floor Balcony	1	164+19	105	66.5	Approaches / Yes
	CGE-3 _E1	Multi-Family Residence - Patio	1	164+10	142	58.0	Below / No
	CGE-3 _E2	Multi-Family Residence - Second Floor Balcony	1	164+10	142	61.9	Below / No
	CGE-3 _E3	Multi-Family Residence - Third Floor Balcony	1	164+10	142	64.0	Below / No
	CGE-3 _E4	Multi-Family Residence - Fourth Floor Balcony	1	164+10	142	64.7	Below / No
	CGE-3 _E5	Multi-Family Residence - Fifth Floor Balcony	1	164+10	142	64.9	Below / No
	CGE-4 _E1	Multi-Family Residence - Patio	1	164+02	170	56.8	Below / No
	CGE-4 _E2	Multi-Family Residence - Second Floor Balcony	1	164+02	170	59.3	Below / No
	CGE-4 _E3	Multi-Family Residence - Third Floor Balcony	1	164+02	170	62.6	Below / No
	CGE-4 _E4	Multi-Family Residence - Fourth Floor Balcony	1	164+02	170	63.6	Below / No
	CGE-4 _E5	Multi-Family Residence - Fifth Floor Balcony	1	164+02	170	63.9	Below / No
	CGE-5 _E1	Multi-Family Residence - Patio	1	165+20	104	62.3	Below / No
	CGE-5 _E2	Multi-Family Residence - Second Floor Balcony	1	165+20	104	65.9	Below / No

Table 3.2-1: Location and Description of Representative Noise Sensitive Receptor Sites and Noise Impact Analysis Results (Sheet 6 of 18)

Name of Noise Sensitive Site/Area [Noise Abatement Activity Category - FDOT's Noise Abatement Criteria Category dB(A)]	Representative Noise Receptor Site Designation	Noise Sensitive Site Description	Number of Noise Sensitive Sites Represented	Station Number	Distance from the Nearest Proposed Travel Lane (feet)	TNM Predicted Design Year (2040) Noise Levels dB(A) with Proposed Roadway Design Concept	Noise Abatement Criteria Status / Consideration of Noise Abatement Warranted? Yes or No
Coral Gate West and Coral Gate East Condominiums [NAC B - 66 dB(A)]	CGE-5 _E3	Multi-Family Residence - Third Floor Balcony	1	165+20	104	66.6	Approaches / Yes
	CGE-5 _E4	Multi-Family Residence - Fourth Floor Balcony	1	165+20	104	66.5	Approaches / Yes
	CGE-5 _E5	Multi-Family Residence - Fifth Floor Balcony	1	165+20	104	66.4	Approaches / Yes
	CGE-6 _E1	Multi-Family Residence - Patio	1	165+08	135	60.2	Below / No
	CGE-6 _E2	Multi-Family Residence - Second Floor Balcony	1	165+08	135	63.4	Below / No
	CGE-6 _E3	Multi-Family Residence - Third Floor Balcony	1	165+08	135	64.4	Below / No
	CGE-6 _E4	Multi-Family Residence - Fourth Floor Balcony	1	165+08	135	64.6	Below / No
	CGE-6 _E5	Multi-Family Residence - Fifth Floor Balcony	1	165+08	135	64.6	Below / No
	CGE-7 _E1	Multi-Family Residence - Patio	1	164+99	170	58.9	Below / No
	CGE-7 _E2	Multi-Family Residence - Second Floor Balcony	1	164+99	170	61.8	Below / No
	CGE-7 _E3	Multi-Family Residence - Third Floor Balcony	1	164+99	170	63.1	Below / No
	CGE-7 _E4	Multi-Family Residence - Fourth Floor Balcony	1	164+99	170	63.5	Below / No
	CGE-7 _E5	Multi-Family Residence - Fifth Floor Balcony	1	164+99	170	63.7	Below / No
	CGE-8 _E1	Multi-Family Residence - Patio	1	164+86	200	57.8	Below / No
	CGE-8 _E2	Multi-Family Residence - Second Floor Balcony	1	164+86	200	60.4	Below / No
	CGE-8 _E3	Multi-Family Residence - Third Floor Balcony	1	164+86	200	62.0	Below / No
	CGE-8 _E4	Multi-Family Residence - Fourth Floor Balcony	1	164+86	200	62.4	Below / No
	CGE-8 _E5	Multi-Family Residence - Fifth Floor Balcony	1	164+86	200	62.6	Below / No
	CGE-1 _F1	Multi-Family Residence - Patio	1	166+40	197	58.6	Below / No
	CGE-1 _F2	Multi-Family Residence - Second Floor Balcony	1	166+40	197	60.6	Below / No
	CGE-1 _F3	Multi-Family Residence - Third Floor Balcony	1	166+40	197	62.7	Below / No
	CGE-1 _F4	Multi-Family Residence - Fourth Floor Balcony	1	166+40	197	63.4	Below / No
	CGE-1 _F5	Multi-Family Residence - Fifth Floor Balcony	1	166+40	197	63.6	Below / No
	CGE-2 _F1	Multi-Family Residence - Patio	1	166+29	225	57.2	Below / No
	CGE-2 _F2	Multi-Family Residence - Second Floor Balcony	1	166+29	225	59.2	Below / No
	CGE-2 _F3	Multi-Family Residence - Third Floor Balcony	1	166+29	225	61.1	Below / No
	CGE-2 _F4	Multi-Family Residence - Fourth Floor Balcony	1	166+29	225	61.9	Below / No
	CGE-2 _F5	Multi-Family Residence - Fifth Floor Balcony	1	166+29	225	62.3	Below / No
	CGE-3 _F1	Multi-Family Residence - Patio	1	167+28	230	57.8	Below / No
	CGE-3 _F2	Multi-Family Residence - Second Floor Balcony	1	167+28	230	60.0	Below / No
	CGE-3 _F3	Multi-Family Residence - Third Floor Balcony	1	167+28	230	61.7	Below / No
	CGE-3 _F4	Multi-Family Residence - Fourth Floor Balcony	1	167+28	230	62.4	Below / No
	CGE-3 _F5	Multi-Family Residence - Fifth Floor Balcony	1	167+28	230	62.8	Below / No
	CGE-4 _F1	Multi-Family Residence - Patio	1	167+19	260	56.8	Below / No
	CGE-4 _F2	Multi-Family Residence - Second Floor Balcony	1	167+19	260	59.0	Below / No
	CGE-4 _F3	Multi-Family Residence - Third Floor Balcony	1	167+19	260	60.5	Below / No
	CGE-4 _F4	Multi-Family Residence - Fourth Floor Balcony	1	167+19	260	61.3	Below / No
	CGE-4 _F5	Multi-Family Residence - Fifth Floor Balcony	1	167+19	260	61.6	Below / No
					Minimum	55.9	---
					Maximum	72.8	---
					Total Number of Residential Sites Equal to or Greater than the Noise Abatement Criteria (NAC) of 66 dB(A)	75	---
					Common Noise Environment (CNE) Identification Number - Coral Gate West and Coral Gate East Condominiums	---	E3

Table 3.2-1: Location and Description of Representative Noise Sensitive Receptor Sites and Noise Impact Analysis Results (Sheet 7 of 18)

Name of Noise Sensitive Site/Area [Noise Abatement Activity Category - FDOT's Noise Abatement Criteria Category dB(A)]	Representative Noise Receptor Site Designation	Noise Sensitive Site Description	Number of Noise Sensitive Sites Represented	Station Number	Distance from the Nearest Proposed Travel Lane (feet)	TNM Predicted Design Year (2040) Noise Levels dB(A) with Proposed Roadway Design Concept	Noise Abatement Criteria Status / Consideration of Noise Abatement Warranted? Yes or No
South of Miami Gardens Drive and West of NW 68th Avenue (The Gate House Condominiums)							
The Gate House Condominiums [NAC B - 66 dB(A)]	GH-1	Multi-Family Residence - Patio	1	170+19	112	66.5	Approaches / Yes
	GH-2	Multi-Family Residence - Patio	1	170+20	128	64.9	Below / No
	GH-3	Multi-Family Residence - Patio	1	170+25	147	63.9	Below / No
	GH-4	Multi-Family Residence - Patio	1	170+26	162	63.2	Below / No
	GH-5	Multi-Family Residence - Patio	1	170+33	181	62.6	Below / No
	GH-6	Multi-Family Residence - Patio	1	170+35	195	62.0	Below / No
The Gate House Condominiums [NAC C - 66 dB(A)]	GH-7C	Community Playground	1 (Special Land Use)	169+35	25	67.1	Exceeds / Yes
	GH-8C	Community Playground	1 (Special Land Use)	168+79	186	61.9	Below / No
					Minimum	61.9	---
					Maximum	67.1	---
					Total Number of Residential Sites Equal to or Greater than the Noise Abatement Criteria (NAC) of 66 dB(A)	1	---
					Total Number of Non-Residential / Special Land Use Receptor Sites Equal to or Greater than the Noise Abatement Criteria (NAC)	1	---
					Common Noise Environment (CNE) Identification Number - The Gate House Condominiums	---	E4
South of Miami Gardens Drive between NW 68th Avenue and Bobolink Drive (Country Club Towers)							
Country Club Towers [NAC B - 66 dB(A)]	CCT-1 _A1	Multi-Family Residence - Patio	1	176+79	115	65.8	Below / No
	CCT-1 _A2	Multi-Family Residence - Second Floor Balcony	1	176+79	115	67.3	Exceeds / Yes
	CCT-1 _A3	Multi-Family Residence - Third Floor Balcony	1	176+79	115	67.8	Exceeds / Yes
	CCT-1 _A4	Multi-Family Residence - Fourth Floor Balcony	1	176+79	115	67.8	Exceeds / Yes
	CCT-1 _A5	Multi-Family Residence - Fifth Floor Balcony	1	176+79	115	67.7	Exceeds / Yes
	CCT-2 _A1	Multi-Family Residence - Patio	1	177+33	126	65.2	Below / No
	CCT-2 _A2	Multi-Family Residence - Second Floor Balcony	1	177+33	126	66.8	Approaches / Yes
	CCT-2 _A3	Multi-Family Residence - Third Floor Balcony	1	177+33	126	67.4	Exceeds / Yes
	CCT-2 _A4	Multi-Family Residence - Fourth Floor Balcony	1	177+33	126	67.5	Exceeds / Yes
	CCT-2 _A5	Multi-Family Residence - Fifth Floor Balcony	1	177+33	126	67.4	Exceeds / Yes
	CCT-3 _A1	Multi-Family Residence - Patio	1	177+78	132	64.9	Below / No
	CCT-3 _A2	Multi-Family Residence - Second Floor Balcony	1	177+78	132	66.6	Approaches / Yes
	CCT-3 _A3	Multi-Family Residence - Third Floor Balcony	1	177+78	132	67.2	Exceeds / Yes
	CCT-3 _A4	Multi-Family Residence - Fourth Floor Balcony	1	177+78	132	67.3	Exceeds / Yes
	CCT-3 _A5	Multi-Family Residence - Fifth Floor Balcony	1	177+78	132	67.2	Exceeds / Yes
	CCT-4 _A1	Multi-Family Residence - Patio	1	178+15	136	64.7	Below / No
	CCT-4 _A2	Multi-Family Residence - Second Floor Balcony	1	178+15	136	66.4	Approaches / Yes
	CCT-4 _A3	Multi-Family Residence - Third Floor Balcony	1	178+15	136	67.1	Exceeds / Yes
	CCT-4 _A4	Multi-Family Residence - Fourth Floor Balcony	1	178+15	136	67.2	Exceeds / Yes
	CCT-4 _A5	Multi-Family Residence - Fifth Floor Balcony	1	178+15	136	67.1	Exceeds / Yes
	CCT-5 _A1	Multi-Family Residence - Patio	1	179+17	117	65.5	Below / No
	CCT-5 _A2	Multi-Family Residence - Second Floor Balcony	1	179+17	117	67.1	Exceeds / Yes
	CCT-5 _A3	Multi-Family Residence - Third Floor Balcony	1	179+17	117	67.7	Exceeds / Yes
	CCT-5 _A4	Multi-Family Residence - Fourth Floor Balcony	1	179+17	117	67.7	Exceeds / Yes
	CCT-5 _A5	Multi-Family Residence - Fifth Floor Balcony	1	179+17	117	67.6	Exceeds / Yes
	CCT-6 _A1	Multi-Family Residence - Patio	1	179+50	118	65.5	Below / No
	CCT-6 _A2	Multi-Family Residence - Second Floor Balcony	1	179+50	118	67.1	Exceeds / Yes
	CCT-6 _A3	Multi-Family Residence - Third Floor Balcony	1	179+50	118	67.6	Exceeds / Yes
	CCT-6 _A4	Multi-Family Residence - Fourth Floor Balcony	1	179+50	118	67.7	Exceeds / Yes
	CCT-6 _A5	Multi-Family Residence - Fifth Floor Balcony	1	179+50	118	67.6	Exceeds / Yes
	CCT-7 _A1	Multi-Family Residence - Patio	1	179+86	118	65.5	Below / No
	CCT-7 _A2	Multi-Family Residence - Second Floor Balcony	1	179+86	118	67.1	Exceeds / Yes
	CCT-7 _A3	Multi-Family Residence - Third Floor Balcony	1	179+86	118	67.7	Exceeds / Yes
	CCT-7 _A4	Multi-Family Residence - Fourth Floor Balcony	1	179+86	118	67.7	Exceeds / Yes
	CCT-7 _A5	Multi-Family Residence - Fifth Floor Balcony	1	179+86	118	67.6	Exceeds / Yes
	CCT-8 _A1	Multi-Family Residence - Patio	1	180+25	117	65.6	Below / No
	CCT-8 _A2	Multi-Family Residence - Second Floor Balcony	1	180+25	117	67.2	Exceeds / Yes
	CCT-8 _A3	Multi-Family Residence - Third Floor Balcony	1	180+25	117	67.7	Exceeds / Yes
	CCT-8 _A4	Multi-Family Residence - Fourth Floor Balcony	1	180+25	117	67.8	Exceeds / Yes

Table 3.2-1: Location and Description of Representative Noise Sensitive Receptor Sites and Noise Impact Analysis Results (Sheet 8 of 18)

Name of Noise Sensitive Site/Area [Noise Abatement Activity Category - FDOT's Noise Abatement Criteria Category dB(A)]	Representative Noise Receptor Site Designation	Noise Sensitive Site Description	Number of Noise Sensitive Sites Represented	Station Number	Distance from the Nearest Proposed Travel Lane (feet)	TNM Predicted Design Year (2040) Noise Levels dB(A) with Proposed Roadway Design Concept	Noise Abatement Criteria Status / Consideration of Noise Abatement Warranted? Yes or No
Country Club Towers [NAC B - 66 dB(A)]	CCT-8 _A5	Multi-Family Residence - Fifth Floor Balcony	1	180+25	117	67.7	Exceeds / Yes
	CCT-9 _A1	Multi-Family Residence - Patio	1	180+58	116	65.6	Below / No
	CCT-9 _A2	Multi-Family Residence - Second Floor Balcony	1	180+58	116	67.3	Exceeds / Yes
	CCT-9 _A3	Multi-Family Residence - Third Floor Balcony	1	180+58	116	67.8	Exceeds / Yes
	CCT-9 _A4	Multi-Family Residence - Fourth Floor Balcony	1	180+58	116	67.9	Exceeds / Yes
	CCT-9 _A5	Multi-Family Residence - Fifth Floor Balcony	1	180+58	116	67.8	Exceeds / Yes
	CCT-10 _A1	Multi-Family Residence - Patio	1	180+92	114	65.8	Below / No
	CCT-10 _A2	Multi-Family Residence - Second Floor Balcony	1	180+92	114	67.5	Exceeds / Yes
	CCT-10 _A3	Multi-Family Residence - Third Floor Balcony	1	180+92	114	68.0	Exceeds / Yes
	CCT-10 _A4	Multi-Family Residence - Fourth Floor Balcony	1	180+92	114	68.0	Exceeds / Yes
	CCT-10 _A5	Multi-Family Residence - Fifth Floor Balcony	1	180+92	114	67.9	Exceeds / Yes
	CCT-1 _B1	Multi-Family Residence - Patio	1	183+48	140	65.4	Below / No
	CCT-1 _B2	Multi-Family Residence - Second Floor Balcony	1	183+48	140	67.4	Exceeds / Yes
	CCT-1 _B3	Multi-Family Residence - Third Floor Balcony	1	183+48	140	68.1	Exceeds / Yes
	CCT-1 _B4	Multi-Family Residence - Fourth Floor Balcony	1	183+48	140	68.3	Exceeds / Yes
	CCT-1 _B5	Multi-Family Residence - Fifth Floor Balcony	1	183+48	140	68.2	Exceeds / Yes
	CCT-2 _B1	Multi-Family Residence - Patio	1	183+50	187	63.6	Below / No
	CCT-2 _B2	Multi-Family Residence - Second Floor Balcony	1	183+50	187	65.8	Below / No
	CCT-2 _B3	Multi-Family Residence - Third Floor Balcony	1	183+50	187	66.8	Approaches / Yes
	CCT-2 _B4	Multi-Family Residence - Fourth Floor Balcony	1	183+50	187	67.1	Exceeds / Yes
	CCT-2 _B5	Multi-Family Residence - Fifth Floor Balcony	1	183+50	187	67.2	Exceeds / Yes
	CCT-3 _B1	Multi-Family Residence - Patio	1	184+46	175	64.5	Below / No
	CCT-3 _B2	Multi-Family Residence - Second Floor Balcony	1	184+46	175	66.8	Approaches / Yes
	CCT-3 _B3	Multi-Family Residence - Third Floor Balcony	1	184+46	175	67.8	Exceeds / Yes
	CCT-3 _B4	Multi-Family Residence - Fourth Floor Balcony	1	184+46	175	68.0	Exceeds / Yes
	CCT-3 _B5	Multi-Family Residence - Fifth Floor Balcony	1	184+46	175	68.0	Exceeds / Yes
	CCT-4 _B1	Multi-Family Residence - Patio	1	184+45	133	66.4	Approaches / Yes
	CCT-4 _B2	Multi-Family Residence - Second Floor Balcony	1	184+45	133	68.6	Exceeds / Yes
	CCT-4 _B3	Multi-Family Residence - Third Floor Balcony	1	184+45	133	69.1	Exceeds / Yes
	CCT-4 _B4	Multi-Family Residence - Fourth Floor Balcony	1	184+45	133	69.2	Exceeds / Yes
	CCT-4 _B5	Multi-Family Residence - Fifth Floor Balcony	1	184+45	133	69.0	Exceeds / Yes
					Minimum	63.6	---
					Maximum	69.2	---
					Total Number of Residential Sites Equal to or Greater than the Noise Abatement Criteria (NAC) of 66 dB(A)	56	---
					Common Noise Environment (CNE) Identification Number - Country Club Towers	---	E5
South of Miami Gardens Drive and East of Bobolink Drive (Panera Bread)							
Panera Bread [NAC E - 71 dB(A)]	CCSC-2E	Restaurant with Outdoor Seating - Sensitive Commercial	1 (Special Land Use)	186+34	164	61.4	Below / No
					Minimum	61.4	---
					Maximum	61.4	---
					Total Number of Non-Residential / Special Land Use Receptor Sites Equal to or Greater than the Noise Abatement Criteria (NAC)	0	---
					Common Noise Environment (CNE) Identification Number - Country Club Shopping Center	---	E6
South of Miami Gardens Drive between Ludlam Road and NW 62nd Avenue (Mediterranean Villas)							
Mediterranean Villas [NAC B - 66 dB(A)]	MV-1 _A1	Multi-Family Residence - Patio	1	205+94	121	61.6	Below / No
	MV-1 _A2	Multi-Family Residence - Second Floor Balcony	1	205+94	121	64.4	Below / No
	MV-2 _A1	Multi-Family Residence - Patio	1	206+05	64	65.8	Below / No
	MV-2 _A2	Multi-Family Residence - Second Floor Balcony	1	206+05	64	69.5	Exceeds / Yes
	MV-3 _A1	Multi-Family Residence - Patio	1	206+33	43	65.8	Below / No
	MV-3 _A2	Multi-Family Residence - Second Floor Balcony	1	206+33	43	71.8	Exceeds / Yes
	MV-4 _A1	Multi-Family Residence - Patio	1	206+93	50	64.8	Below / No
	MV-4 _A2	Multi-Family Residence - Second Floor Balcony	1	206+93	50	71.0	Exceeds / Yes
	MV-5 _A1	Multi-Family Residence - Patio	1	207+15	80	63.4	Below / No
	MV-5 _A2	Multi-Family Residence - Second Floor Balcony	1	207+15	80	67.5	Exceeds / Yes
	MV-6 _A1	Multi-Family Residence - Patio	1	207+15	128	59.1	Below / No

Table 3.2-1: Location and Description of Representative Noise Sensitive Receptor Sites and Noise Impact Analysis Results (Sheet 9 of 18)

Name of Noise Sensitive Site/Area [Noise Abatement Activity Category - FDOT's Noise Abatement Criteria Category dB(A)]	Representative Noise Receptor Site Designation	Noise Sensitive Site Description	Number of Noise Sensitive Sites Represented	Station Number	Distance from the Nearest Proposed Travel Lane (feet)	TNM Predicted Design Year (2040) Noise Levels dB(A) with Proposed Roadway Design Concept	Noise Abatement Criteria Status / Consideration of Noise Abatement Warranted? Yes or No
Mediterranean Villas [NAC B - 66 dB(A)]	MV-6 _A2	Multi-Family Residence - Second Floor Balcony	1	207+15	128	62.1	Below / No
	MV-7 _B1	Multi-Family Residence - Patio	1	208+24	133	59.0	Below / No
	MV-7 _B2	Multi-Family Residence - Second Floor Balcony	1	208+24	133	61.8	Below / No
	MV-7 _B3	Multi-Family Residence - Third Floor Balcony	1	208+24	133	63.2	Below / No
	MV-8 _B1	Multi-Family Residence - Patio	1	208+21	70	64.9	Below / No
	MV-8 _B2	Multi-Family Residence - Second Floor Balcony	1	208+21	70	68.9	Exceeds / Yes
	MV-8 _B3	Multi-Family Residence - Third Floor Balcony	1	208+21	70	69.1	Exceeds / Yes
	MV-9 _B1	Multi-Family Residence - Patio	1	208+52	47	64.9	Below / No
	MV-9 _B2	Multi-Family Residence - Second Floor Balcony	1	208+52	47	71.0	Exceeds / Yes
	MV-9 _B3	Multi-Family Residence - Third Floor Balcony	1	208+52	47	70.8	Exceeds / Yes
	MV-10 _B1	Multi-Family Residence - Patio	1	209+01	45	46.4	Below / No
	MV-10 _B2	Multi-Family Residence - Second Floor Balcony	1	209+01	45	49.4	Below / No
	MV-10 _B3	Multi-Family Residence - Third Floor Balcony	1	209+01	45	52.8	Below / No
	MV-11 _B1	Multi-Family Residence - Patio	1	209+17	70	58.5	Below / No
	MV-11 _B2	Multi-Family Residence - Second Floor Balcony	1	209+17	70	65.7	Below / No
	MV-11 _B3	Multi-Family Residence - Third Floor Balcony	1	209+17	70	66.0	Approaches / Yes
	MV-12 _B1	Multi-Family Residence - Patio	1	209+42	46	63.0	Below / No
	MV-12 _B2	Multi-Family Residence - Second Floor Balcony	1	209+42	46	71.1	Exceeds / Yes
	MV-12 _B3	Multi-Family Residence - Third Floor Balcony	1	209+42	46	70.8	Exceeds / Yes
	MV-13 _B1	Multi-Family Residence - Patio	1	210+07	47	63.1	Below / No
	MV-13 _B2	Multi-Family Residence - Second Floor Balcony	1	210+07	47	70.7	Exceeds / Yes
	MV-13 _B3	Multi-Family Residence - Third Floor Balcony	1	210+07	47	70.4	Exceeds / Yes
	MV-14 _B1	Multi-Family Residence - Patio	1	210+32	71	61.7	Below / No
	MV-14 _B2	Multi-Family Residence - Second Floor Balcony	1	210+32	71	68.3	Exceeds / Yes
	MV-14 _B3	Multi-Family Residence - Third Floor Balcony	1	210+32	71	68.7	Exceeds / Yes
	MV-15 _B1	Multi-Family Residence - Patio	1	210+32	132	51.5	Below / No
	MV-15 _B2	Multi-Family Residence - Second Floor Balcony	1	210+32	132	55.1	Below / No
	MV-15 _B3	Multi-Family Residence - Third Floor Balcony	1	210+32	132	58.2	Below / No
					Minimum	46.4	---
					Maximum	71.8	---
					Total Number of Residential Sites Equal to or Greater than the Noise Abatement Criteria (NAC) of 66 dB(A)	15	---
					Common Noise Environment (CNE) Identification Number - Mediterranean Villas	---	E7
South of Miami Gardens Drive between Ludlam Road and NW 57th Avenue (Checkers and Pasteur Medical)							
Checkers [NAC E - 71 dB(A)]	CH-1E	Restaurant with Outdoor Seating - Sensitive Commercial	1 (Special Land Use)	233+06	111	61.4	Below / No
Pasteur Medical [NAC D - 51 dB(A)]	PM-1D	Medical Facility - Interior Use	1 (Special Land Use)	201+10	74	42.1	Below / No
					Minimum	42.1	---
					Maximum	61.4	---
					Total Number of Non-Residential / Special Land Use Receptor Sites Equal to or Greater than the Noise Abatement Criteria (NAC)	0	---
					Common Noise Environment (CNE) Identification Number - Checkers and Pasteur Medical	---	E8
South of Miami Gardens Drive and West of NW 62nd Avenue (The Moors)							
The Moors [NAC B - 66 dB(A)]	TM-1	Single Family Residence - First Row	1	210+87	71	62.1	Below / No
	TM-2	Single Family Residence - First Row	1	211+61	46	64.1	Below / No
	TM-3	Single Family Residence - First Row	1	212+13	34	63.1	Below / No
	TM-4	Single Family Residence - First Row	1	212+65	57	62.8	Below / No
	TM-5	Single Family Residence - First Row	1	213+16	57	61.6	Below / No
	TM-6	Single Family Residence - First Row	1	213+68	53	62.6	Below / No
	TM-7	Single Family Residence - First Row	1	214+43	41	63.6	Below / No
	TM-8	Single Family Residence - First Row	1	214+70	50	63.5	Below / No
	TM-9	Single Family Residence - First Row	1	215+18	47	62.8	Below / No
	TM-10	Single Family Residence - First Row	1	215+67	40	63.1	Below / No
	TM-11	Single Family Residence - First Row	1	216+15	23	65.1	Below / No
	TM-12	Single Family Residence - First Row	1	216+81	35	63.5	Below / No

Table 3.2-1: Location and Description of Representative Noise Sensitive Receptor Sites and Noise Impact Analysis Results (Sheet 10 of 18)

Name of Noise Sensitive Site/Area [Noise Abatement Activity Category - FDOT's Noise Abatement Criteria Category dB(A)]	Representative Noise Receptor Site Designation	Noise Sensitive Site Description	Number of Noise Sensitive Sites Represented	Station Number	Distance from the Nearest Proposed Travel Lane (feet)	TNM Predicted Design Year (2040) Noise Levels dB(A) with Proposed Roadway Design Concept	Noise Abatement Criteria Status / Consideration of Noise Abatement Warranted? Yes or No
The Moors [NAC B - 66 dB(A)]	TM-13	Single Family Residence - Second Row	1	211+04	141	52.3	Below / No
	TM-14	Single Family Residence - Second Row	1	212+46	178	50.4	Below / No
	TM-15	Single Family Residence - Second Row	1	213+03	190	50.8	Below / No
	TM-16	Single Family Residence - Second Row	1	213+55	176	51.6	Below / No
	TM-17	Single Family Residence - Second Row	1	214+30	177	53.2	Below / No
	TM-18	Single Family Residence - Second Row	1	214+66	171	53.6	Below / No
	TM-19	Single Family Residence - Second Row	1	215+10	176	53.3	Below / No
	TM-20	Single Family Residence - Second Row	1	215+56	175	52.6	Below / No
	TM-21	Single Family Residence - Second Row	1	216+87	117	53.6	Below / No
	TM-22	Single Family Residence - Second Row	1	218+07	104	58.6	Below / No
	TM-23	Single Family Residence - First Row	1	218+75	27	65.6	Below / No
	TM-24	Single Family Residence - First Row	1	219+33	30	65.2	Below / No
	TM-25	Single Family Residence - First Row	1	220+40	45	63.8	Below / No
	TM-26	Single Family Residence - Second Row	1	220+03	131	51.8	Below / No
					Minimum	50.4	---
					Maximum	65.6	---
					Total Number of Residential Sites Equal to or Greater than the Noise Abatement Criteria (NAC) of 66 dB(A)	0	---
					Common Noise Environment (CNE) Identification Number - The Moors	---	E9
North of Miami Gardens Drive between NW 87th Avenue and NW 82nd Avenue (Ibis Villas)							
Ibis Villas [NAC B - 66 dB(A)]	IV-1	Multi-Family Residence - Patio	1	85+91	35	72.1	Exceeds / Yes
	IV-2	Multi-Family Residence - Patio	1	85+87	78	66.7	Approaches / Yes
	IV-3	Multi-Family Residence - Patio	1	87+62	37	71.2	Exceeds / Yes
	IV-4	Multi-Family Residence - Patio	1	87+61	79	64.7	Below / No
	IV-5	Multi-Family Residence - Patio	1	88+36	37	71.1	Exceeds / Yes
	IV-6	Multi-Family Residence - Patio	1	88+33	78	65.0	Below / No
	IV-7	Multi-Family Residence - Patio	1	90+07	36	71.8	Exceeds / Yes
	IV-8	Multi-Family Residence - Patio	1	90+06	78	65.9	Below / No
					Minimum	64.7	---
					Maximum	72.1	---
					Total Number of Residential Sites Equal to or Greater than the Noise Abatement Criteria (NAC) of 66 dB(A)	5	---
					Common Noise Environment (CNE) Identification Number - Ibis Villas	---	E10
North of Miami Gardens Drive between NW 87th Avenue and NW 82nd Avenue (Mother of Our Redeemer Catholic Church & School)							
Mother of Our Redeemer Catholic Church & School [NAC D - 51 dB(A)]	MOR-1D	Place of Worship - Interior Use	1 (Special Land Use)	93+73	299	34.2	Below / No
					Minimum	34.2	---
					Maximum	34.2	---
					Total Number of Non-Residential / Special Land Use Receptor Sites Equal to or Greater than the Noise Abatement Criteria (NAC)	0	---
					Common Noise Environment (CNE) Identification Number - Mother of Our Redeemer Catholic Church & Schoo1	---	E11
North of Miami Gardens Drive between NW 87th Avenue and NW 82nd Avenue (San Mateo Condominiums)							
San Mateo Condominiums [NAC B - 66 dB(A)]	SM-1	Multi-Family Residence - Patio	1	97+60	42	69.5	Exceeds / Yes
	SM-2	Multi-Family Residence - Patio	1	97+60	82	65.3	Below / No
	SM-3	Multi-Family Residence - Patio	1	99+15	43	68.7	Exceeds / Yes
	SM-4	Multi-Family Residence - Patio	1	99+15	84	59.5	Below / No
	SM-5	Multi-Family Residence - Patio	1	99+40	43	68.8	Exceeds / Yes
	SM-6	Multi-Family Residence - Patio	1	99+39	83	59.7	Below / No
	SM-7	Multi-Family Residence - Patio	1	100+93	39	70.9	Exceeds / Yes
	SM-8	Multi-Family Residence - Patio	1	100+92	77	66.9	Approaches / Yes
					Minimum	59.5	---
					Maximum	70.9	---
					Total Number of Residential Sites Equal to or Greater than the Noise Abatement Criteria (NAC) of 66 dB(A)	5	---
					Common Noise Environment (CNE) Identification Number - San Mateo Condominiums	---	E12

Table 3.2-1: Location and Description of Representative Noise Sensitive Receptor Sites and Noise Impact Analysis Results (Sheet 11 of 18)

Name of Noise Sensitive Site/Area [Noise Abatement Activity Category - FDOT's Noise Abatement Criteria Category dB(A)]	Representative Noise Receptor Site Designation	Noise Sensitive Site Description	Number of Noise Sensitive Sites Represented	Station Number	Distance from the Nearest Proposed Travel Lane (feet)	TNM Predicted Design Year (2040) Noise Levels dB(A) with Proposed Roadway Design Concept	Noise Abatement Criteria Status / Consideration of Noise Abatement Warranted? Yes or No
North of Miami Gardens Drive between NW 87th Avenue and NW 82nd Avenue (The Church of Jesus Christ of Latter Day Saints)							
The Church of Jesus Christ of Latter Day Saints [NAC D - 51 dB(A)]	LDS-1D	Place of Worship - Interior Use	1 (Special Land Use)	103+09	111	43.4	Below / No
					Minimum	43.4	---
					Maximum	43.4	---
					Total Number of Non-Residential / Special Land Use Receptor Sites Equal to or Greater than the Noise Abatement Criteria (NAC)	0	---
					Common Noise Environment (CNE) Identification Number - The Church of Jesus Christ of Latter Day Saints	---	E13
North of Miami Gardens Drive between NW 82nd Avenue and NW 79th Avenue (Hunters Point Subdivision)							
Hunters Point Subdivision [NAC B - 66 dB(A)]	HP-1	Single Family Residence - First Row	1	106+02	45	69.6	Exceeds / Yes
	HP-2	Single Family Residence - Second Row	1	106+00	190	60.6	Below / No
	HP-3	Single Family Residence - First Row	1	106+41	36	69.2	Exceeds / Yes
	HP-4	Single Family Residence - Second Row	1	106+55	192	57.2	Below / No
	HP-5	Single Family Residence - First Row	1	107+02	38	70.6	Exceeds / Yes
	HP-6	Single Family Residence - Second Row	1	107+04	193	57.5	Below / No
	HP-7	Single Family Residence - Second Row	1	107+53	194	57.8	Below / No
	HP-8	Single Family Residence - First Row	1	107+83	35	70.1	Exceeds / Yes
	HP-9	Single Family Residence - Second Row	1	108+04	195	56.3	Below / No
	HP-10	Single Family Residence - First Row	1	108+29	34	68.8	Exceeds / Yes
	HP-11	Single Family Residence - Second Row	1	108+53	195	52.2	Below / No
	HP-12	Single Family Residence - First Row	1	108+75	32	67.3	Exceeds / Yes
	HP-13	Single Family Residence - Second Row	1	109+00	197	49.9	Below / No
	HP-14	Single Family Residence - First Row	1	109+23	35	67.2	Exceeds / Yes
	HP-15	Single Family Residence - Second Row	1	109+55	191	49.6	Below / No
	HP-16	Single Family Residence - First Row	1	109+76	34	66.8	Approaches / Yes
	HP-17	Single Family Residence - Second Row	1	110+02	191	49.7	Below / No
	HP-18	Single Family Residence - First Row	1	110+22	36	66.7	Approaches / Yes
	HP-19	Single Family Residence - Second Row	1	110+50	195	48.2	Below / No
	HP-20	Single Family Residence - First Row	1	110+72	35	67.3	Exceeds / Yes
	HP-21	Single Family Residence - Second Row	1	111+01	192	48.4	Below / No
	HP-22	Single Family Residence - First Row	1	111+26	34	66.9	Approaches / Yes
	HP-23	Single Family Residence - Second Row	1	111+49	191	47.9	Below / No
	HP-24	Single Family Residence - First Row	1	111+95	37	66.8	Approaches / Yes
	HP-25	Single Family Residence - Second Row	1	111+96	195	48.1	Below / No
	HP-26	Single Family Residence - Second Row	1	112+49	192	48.7	Below / No
	HP-27	Single Family Residence - First Row	1	112+62	34	67.0	Meets / Yes
	HP-28	Single Family Residence - Second Row	1	113+01	195	48.2	Below / No
	HP-29	Single Family Residence - First Row	1	113+17	36	67.0	Meets / Yes
	HP-30	Single Family Residence - Second Row	1	113+52	192	47.9	Below / No
	HP-31	Single Family Residence - First Row	1	113+62	34	66.6	Approaches / Yes
	HP-32	Single Family Residence - Second Row	1	113+97	194	47.7	Below / No
	HP-33	Single Family Residence - First Row	1	114+16	33	66.8	Approaches / Yes
	HP-34	Single Family Residence - Second Row	1	114+53	196	48.1	Below / No
	HP-35	Single Family Residence - First Row	1	114+64	39	66.5	Approaches / Yes
	HP-36	Single Family Residence - Second Row	1	115+03	194	50.0	Below / No
	HP-37	Single Family Residence - First Row	1	115+10	33	67.6	Exceeds / Yes
	HP-38	Single Family Residence - Second Row	1	115+51	192	52.8	Below / No
	HP-39	Single Family Residence - First Row	1	115+63	35	68.5	Exceeds / Yes
	HP-40	Single Family Residence - Second Row	1	116+04	193	57.1	Below / No
	HP-41	Single Family Residence - First Row	1	116+05	37	70.9	Exceeds / Yes
	HP-42	Single Family Residence - Second Row	1	116+53	195	58.1	Below / No
	HP-43	Single Family Residence - First Row	1	116+89	41	70.2	Exceeds / Yes
	HP-44	Single Family Residence - Second Row	1	117+00	192	57.1	Below / No
	HP-45	Single Family Residence - First Row	1	117+52	47	69.6	Exceeds / Yes
	HP-46	Single Family Residence - Second Row	1	117+54	193	54.3	Below / No

Table 3.2-1: Location and Description of Representative Noise Sensitive Receptor Sites and Noise Impact Analysis Results (Sheet 12 of 18)

Name of Noise Sensitive Site/Area [Noise Abatement Activity Category - FDOT's Noise Abatement Criteria Category dB(A)]	Representative Noise Receptor Site Designation	Noise Sensitive Site Description	Number of Noise Sensitive Sites Represented	Station Number	Distance from the Nearest Proposed Travel Lane (feet)	TNM Predicted Design Year (2040) Noise Levels dB(A) with Proposed Roadway Design Concept	Noise Abatement Criteria Status / Consideration of Noise Abatement Warranted? Yes or No
Hunters Point Subdivision [NAC B - 66 dB(A)]	HP-47	Single Family Residence - First Row	1	118+13	34	70.9	Exceeds / Yes
	HP-48	Single Family Residence - Second Row	1	118+11	195	55.0	Below / No
					Minimum	47.7	---
					Maximum	70.9	---
					Total Number of Residential Sites Equal to or Greater than the Noise Abatement Criteria (NAC) of 66 dB(A)	23	---
					Common Noise Environment (CNE) Identification Number - Hunters Point Subdivision	---	E14
North of Miami Gardens Drive between NW 79th Avenue and Peter's Pike Canal (Esplanade)							
Esplanade [NAC B - 66 dB(A)]	ESP-1	Single Family Residence - Second Row	1	118+36	153	53.5	Below / No
	ESP-2	Single Family Residence - Second Row	1	118+45	96	66.1	Approaches / Yes
	ESP-3	Single Family Residence - First Row	1	119+19	54	71.5	Exceeds / Yes
	ESP-4	Single Family Residence - First Row	1	119+98	55	72.2	Exceeds / Yes
	ESP-5	Single Family Residence - Second Row	1	119+98	223	60.6	Below / No
	ESP-6	Single Family Residence - First Row	1	121+57	67	71.1	Exceeds / Yes
	ESP-7	Single Family Residence - Second Row	1	121+49	122	66.2	Approaches / Yes
	ESP-8	Single Family Residence - First Row	1	123+30	65	70.1	Exceeds / Yes
	ESP-9	Single Family Residence - Second Row	1	123+27	127	59.4	Below / No
	ESP-10	Single Family Residence - First Row	1	123+53	63	70.2	Exceeds / Yes
	ESP-11	Single Family Residence - Second Row	1	123+49	127	59.2	Below / No
	ESP-12	Single Family Residence - First Row	1	125+20	71	69.4	Exceeds / Yes
	ESP-13	Single Family Residence - Second Row	1	125+16	123	61.3	Below / No
	ESP-14	Single Family Residence - First Row	1	125+50	68	69.6	Exceeds / Yes
	ESP-15	Single Family Residence - Second Row	1	125+47	125	61.3	Below / No
	ESP-16	Single Family Residence - First Row	1	127+24	71	68.3	Exceeds / Yes
	ESP-17	Single Family Residence - Second Row	1	127+19	126	59.8	Below / No
	ESP-18	Single Family Residence - First Row	1	127+48	69	69.0	Exceeds / Yes
	ESP-19	Single Family Residence - Second Row	1	127+46	123	60.5	Below / No
	ESP-20	Single Family Residence - First Row	1	129+23	71	68.9	Exceeds / Yes
	ESP-21	Single Family Residence - Second Row	1	129+18	133	56.7	Below / No
	ESP-22	Single Family Residence - First Row	1	129+41	73	68.7	Exceeds / Yes
	ESP-23	Single Family Residence - Second Row	1	129+45	134	58.6	Below / No
	ESP-24	Single Family Residence - First Row	1	131+20	30	72.6	Exceeds / Yes
	ESP-25	Single Family Residence - Second Row	1	131+16	88	66.3	Approaches / Yes
					Minimum	53.5	---
					Maximum	72.6	---
					Total Number of Residential Sites Equal to or Greater than the Noise Abatement Criteria (NAC) of 66 dB(A)	15	---
					Common Noise Environment (CNE) Identification Number - Esplanade	---	E15
North of Miami Gardens Drive between Peter's Pike Canal and NW 75th Place (Country Club of Miami Estates)							
Country Club of Miami Estates [NAC B - 66 dB(A)]	CCME-1	Single Family Residence - First Row	1	133+00	42	71.6	Exceeds / Yes
	CCME-2	Single Family Residence - Second Row	1	133+03	145	62.9	Below / No
	CCME-3	Single Family Residence - First Row	1	133+93	41	71.5	Exceeds / Yes
	CCME-4	Single Family Residence - Second Row	1	133+87	145	57.5	Below / No
	CCME-5	Single Family Residence - First Row	1	134+86	40	72.6	Exceeds / Yes
	CCME-6	Single Family Residence - Second Row	1	135+37	154	57.9	Below / No
	CCME-7	Single Family Residence - First Row	1	137+33	29	74.4	Exceeds / Yes
	CCME-8	Single Family Residence - Second Row	1	137+24	132	60.6	Below / No

Table 3.2-1: Location and Description of Representative Noise Sensitive Receptor Sites and Noise Impact Analysis Results (Sheet 13 of 18)

Name of Noise Sensitive Site/Area [Noise Abatement Activity Category - FDOT's Noise Abatement Criteria Category dB(A)]	Representative Noise Receptor Site Designation	Noise Sensitive Site Description	Number of Noise Sensitive Sites Represented	Station Number	Distance from the Nearest Proposed Travel Lane (feet)	TNM Predicted Design Year (2040) Noise Levels dB(A) with Proposed Roadway Design Concept	Noise Abatement Criteria Status / Consideration of Noise Abatement Warranted? Yes or No
Country Club of Miami Estates [NAC B - 66 dB(A)]	CCME-9	Single Family Residence - First Row	1	138+51	46	73.6	Exceeds / Yes
	CCME-10	Single Family Residence - Second Row	1	138+40	155	62.7	Below / No
	CCME-11	Single Family Residence - First Row	1	140+98	181	63.6	Below / No
	CCME-12	Single Family Residence - First Row	1	141+68	214	61.4	Below / No
	CCME-13	Single Family Residence - First Row	1	142+83	99	72.1	Exceeds / Yes
	CCME-14	Single Family Residence - First Row	1	143+98	101	67.6	Exceeds / Yes
	CCME-15	Single Family Residence - First Row	1	144+89	99	69.5	Exceeds / Yes
					Minimum	57.5	---
					Maximum	74.4	---
					Total Number of Residential Sites Equal to or Greater than the Noise Abatement Criteria (NAC) of 66 dB(A)	8	---
					Common Noise Environment (CNE) Identification Number - Esplanade	---	E16
North of Miami Gardens Drive between NW 75th Place and NW 73rd Avenue (North Pointe Community Center)							
North Pointe Community Center [NAC C - 66 dB(A)]	NP-1	Recreational - Trail	1 (Special Land Use)	145+24	167	63.6	Below / No
	NP-2	Recreational - Trail	1 (Special Land Use)	145+40	80	70.1	Exceeds / Yes
	NP-3	Recreational - Trail	1 (Special Land Use)	146+26	72	70.2	Exceeds / Yes
	NP-4	Recreational - Trail	1 (Special Land Use)	147+10	108	67.3	Exceeds / Yes
	NP-5	Recreational - Trail	1 (Special Land Use)	147+88	62	70.7	Exceeds / Yes
	NP-6	Recreational - Trail	1 (Special Land Use)	148+83	61	71.1	Exceeds / Yes
	NP-7	Recreational - Trail	1 (Special Land Use)	149+84	93	68.6	Exceeds / Yes
	NP-8	Recreational - Trail	1 (Special Land Use)	150+88	79	69.5	Exceeds / Yes
	NP-9	Recreational - Trail	1 (Special Land Use)	151+23	168	64.6	Below / No
	NP-10	Recreational - Trail	1 (Special Land Use)	151+22	267	61.1	Below / No
	NP-11C	Recreational - Pool Area	1 (Special Land Use)	147+48	149	64.9	Below / No
	NP-12C	Recreational - Pool Area	1 (Special Land Use)	146+98	232	61.5	Below / No
					Minimum	61.1	---
					Maximum	71.1	---
					Total Number of Non-Residential / Special Land Use Receptor Sites Equal to or Greater than the Noise Abatement Criteria (NAC)	7	---
					Common Noise Environment (CNE) Identification Number - North Pointe Community Center	---	E17
North of Miami Gardens Drive between NW 73rd Avenue and NW 68th Avenue (Las Brisas)							
Las Brisas [NAC B - 66 dB(A)]	LB-1 _A1	Multi-Family Residence - Patio	1	156+14	91	64.6	Below / No
	LB-1 _A2	Multi-Family Residence - Second Floor Balcony	1	156+14	91	66.9	Approaches / Yes
	LB-1 _A3	Multi-Family Residence - Third Floor Balcony	1	156+14	91	67.1	Exceeds / Yes
	LB-1 _A4	Multi-Family Residence - Fourth Floor Balcony	1	156+14	91	67.1	Exceeds / Yes
	LB-2 _A1	Multi-Family Residence - Patio	1	156+11	143	61.8	Below / No
	LB-2 _A2	Multi-Family Residence - Second Floor Balcony	1	156+11	143	64.5	Below / No
	LB-2 _A3	Multi-Family Residence - Third Floor Balcony	1	156+11	143	65.2	Below / No
	LB-2 _A4	Multi-Family Residence - Fourth Floor Balcony	1	156+11	143	65.4	Below / No
	LB-3 _A1	Multi-Family Residence - Patio	1	156+10	203	58.9	Below / No
	LB-3 _A2	Multi-Family Residence - Second Floor Balcony	1	156+10	203	61.5	Below / No
	LB-3 _A3	Multi-Family Residence - Third Floor Balcony	1	156+10	203	62.8	Below / No
	LB-3 _A4	Multi-Family Residence - Fourth Floor Balcony	1	156+10	203	63.2	Below / No
	LB-4 _A1	Multi-Family Residence - Patio	1	156+79	103	62.8	Below / No
	LB-4 _A2	Multi-Family Residence - Second Floor Balcony	1	156+79	103	65.2	Below / No
	LB-4 _A3	Multi-Family Residence - Third Floor Balcony	1	156+79	103	65.4	Below / No
	LB-4 _A4	Multi-Family Residence - Fourth Floor Balcony	1	156+79	103	65.2	Below / No
	LB-5 _A1	Multi-Family Residence - Patio	1	156+77	141	60.0	Below / No
	LB-5 _A2	Multi-Family Residence - Second Floor Balcony	1	156+77	141	62.9	Below / No
	LB-5 _A3	Multi-Family Residence - Third Floor Balcony	1	156+77	141	63.4	Below / No
	LB-5 _A4	Multi-Family Residence - Fourth Floor Balcony	1	156+77	141	63.4	Below / No
	LB-6 _A1	Multi-Family Residence - Patio	1	156+74	179	57.7	Below / No
	LB-6 _A2	Multi-Family Residence - Second Floor Balcony	1	156+74	179	60.7	Below / No
	LB-6 _A3	Multi-Family Residence - Third Floor Balcony	1	156+74	179	61.7	Below / No
	LB-6 _A4	Multi-Family Residence - Fourth Floor Balcony	1	156+74	179	61.8	Below / No
	LB-1 _B1	Multi-Family Residence - Patio	1	158+13	92	64.2	Below / No

Table 3.2-1: Location and Description of Representative Noise Sensitive Receptor Sites and Noise Impact Analysis Results (Sheet 14 of 18)

Name of Noise Sensitive Site/Area [Noise Abatement Activity Category - FDOT's Noise Abatement Criteria Category dB(A)]	Representative Noise Receptor Site Designation	Noise Sensitive Site Description	Number of Noise Sensitive Sites Represented	Station Number	Distance from the Nearest Proposed Travel Lane (feet)	TNM Predicted Design Year (2040) Noise Levels dB(A) with Proposed Roadway Design Concept	Noise Abatement Criteria Status / Consideration of Noise Abatement Warranted? Yes or No
Las Brisas [NAC B - 66 dB(A)]	LB-1 _B2	Multi-Family Residence - Second Floor Balcony	1	158+13	92	66.5	Approaches / Yes
	LB-1 _B3	Multi-Family Residence - Third Floor Balcony	1	158+13	92	66.5	Approaches / Yes
	LB-1 _B4	Multi-Family Residence - Fourth Floor Balcony	1	158+13	92	66.3	Approaches / Yes
	LB-2 _B1	Multi-Family Residence - Patio	1	158+11	145	59.1	Below / No
	LB-2 _B2	Multi-Family Residence - Second Floor Balcony	1	158+11	145	62.1	Below / No
	LB-2 _B3	Multi-Family Residence - Third Floor Balcony	1	158+11	145	62.6	Below / No
	LB-2 _B4	Multi-Family Residence - Fourth Floor Balcony	1	158+11	145	62.7	Below / No
	LB-3 _B1	Multi-Family Residence - Patio	1	158+08	203	55.7	Below / No
	LB-3 _B2	Multi-Family Residence - Second Floor Balcony	1	158+08	203	58.6	Below / No
	LB-3 _B3	Multi-Family Residence - Third Floor Balcony	1	158+08	203	59.8	Below / No
	LB-3 _B4	Multi-Family Residence - Fourth Floor Balcony	1	158+08	203	60.0	Below / No
	LB-4 _B1	Multi-Family Residence - Patio	1	158+82	103	62.8	Below / No
	LB-4 _B2	Multi-Family Residence - Second Floor Balcony	1	158+82	103	65.0	Below / No
	LB-4 _B3	Multi-Family Residence - Third Floor Balcony	1	158+82	103	65.1	Below / No
	LB-4 _B4	Multi-Family Residence - Fourth Floor Balcony	1	158+82	103	64.9	Below / No
	LB-5 _B1	Multi-Family Residence - Patio	1	158+76	142	58.9	Below / No
	LB-5 _B2	Multi-Family Residence - Second Floor Balcony	1	158+76	142	61.6	Below / No
	LB-5 _B3	Multi-Family Residence - Third Floor Balcony	1	158+76	142	62.0	Below / No
	LB-5 _B4	Multi-Family Residence - Fourth Floor Balcony	1	158+76	142	62.0	Below / No
	LB-6 _B1	Multi-Family Residence - Patio	1	158+77	179	57.6	Below / No
	LB-6 _B2	Multi-Family Residence - Second Floor Balcony	1	158+77	179	60.3	Below / No
	LB-6 _B3	Multi-Family Residence - Third Floor Balcony	1	158+77	179	61.2	Below / No
	LB-6 _B4	Multi-Family Residence - Fourth Floor Balcony	1	158+77	179	61.3	Below / No
	LB-1 _C1	Multi-Family Residence - Patio	1	160+24	91	63.6	Below / No
	LB-1 _C2	Multi-Family Residence - Second Floor Balcony	1	160+24	91	65.7	Below / No
	LB-1 _C3	Multi-Family Residence - Third Floor Balcony	1	160+24	91	65.7	Below / No
	LB-1 _C4	Multi-Family Residence - Fourth Floor Balcony	1	160+24	91	65.6	Below / No
	LB-2 _C1	Multi-Family Residence - Patio	1	160+22	144	59.1	Below / No
	LB-2 _C2	Multi-Family Residence - Second Floor Balcony	1	160+22	144	61.9	Below / No
	LB-2 _C3	Multi-Family Residence - Third Floor Balcony	1	160+22	144	62.3	Below / No
	LB-2 _C4	Multi-Family Residence - Fourth Floor Balcony	1	160+22	144	62.4	Below / No
	LB-3 _C1	Multi-Family Residence - Patio	1	160+20	203	55.0	Below / No
	LB-3 _C2	Multi-Family Residence - Second Floor Balcony	1	160+20	203	57.9	Below / No
	LB-3 _C3	Multi-Family Residence - Third Floor Balcony	1	160+20	203	59.0	Below / No
	LB-3 _C4	Multi-Family Residence - Fourth Floor Balcony	1	160+20	203	59.2	Below / No
	LB-4 _C1	Multi-Family Residence - Patio	1	160+93	105	63.0	Below / No
	LB-4 _C2	Multi-Family Residence - Second Floor Balcony	1	160+93	105	65.3	Below / No
	LB-4 _C3	Multi-Family Residence - Third Floor Balcony	1	160+93	105	65.4	Below / No
	LB-4 _C4	Multi-Family Residence - Fourth Floor Balcony	1	160+93	105	65.2	Below / No
	LB-5 _C1	Multi-Family Residence - Patio	1	160+86	144	59.1	Below / No
	LB-5 _C2	Multi-Family Residence - Second Floor Balcony	1	160+86	144	61.9	Below / No
	LB-5 _C3	Multi-Family Residence - Third Floor Balcony	1	160+86	144	62.3	Below / No
	LB-5 _C4	Multi-Family Residence - Fourth Floor Balcony	1	160+86	144	62.3	Below / No
	LB-6 _C1	Multi-Family Residence - Patio	1	160+88	186	57.2	Below / No
	LB-6 _C2	Multi-Family Residence - Second Floor Balcony	1	160+88	186	60.0	Below / No
	LB-6 _C3	Multi-Family Residence - Third Floor Balcony	1	160+88	186	61.0	Below / No
	LB-6 _C4	Multi-Family Residence - Fourth Floor Balcony	1	160+88	186	61.1	Below / No
	LB-1 _D1	Multi-Family Residence - Patio	1	162+36	92	63.6	Below / No
	LB-1 _D2	Multi-Family Residence - Second Floor Balcony	1	162+36	92	65.8	Below / No
	LB-1 _D3	Multi-Family Residence - Third Floor Balcony	1	162+36	92	65.8	Below / No
	LB-1 _D4	Multi-Family Residence - Fourth Floor Balcony	1	162+36	92	65.6	Below / No
	LB-2 _D1	Multi-Family Residence - Patio	1	162+33	144	59.2	Below / No
	LB-2 _D2	Multi-Family Residence - Second Floor Balcony	1	162+33	144	62.1	Below / No
	LB-2 _D3	Multi-Family Residence - Third Floor Balcony	1	162+33	144	62.5	Below / No
	LB-2 _D4	Multi-Family Residence - Fourth Floor Balcony	1	162+33	144	62.6	Below / No

Table 3.2-1: Location and Description of Representative Noise Sensitive Receptor Sites and Noise Impact Analysis Results (Sheet 15 of 18)

Name of Noise Sensitive Site/Area [Noise Abatement Activity Category - FDOT's Noise Abatement Criteria Category dB(A)]	Representative Noise Receptor Site Designation	Noise Sensitive Site Description	Number of Noise Sensitive Sites Represented	Station Number	Distance from the Nearest Proposed Travel Lane (feet)	TNM Predicted Design Year (2040) Noise Levels dB(A) with Proposed Roadway Design Concept	Noise Abatement Criteria Status / Consideration of Noise Abatement Warranted? Yes or No
Las Brisas [NAC B - 66 dB(A)]	LB-3 _D1	Multi-Family Residence - Patio	1	162+29	204	56.6	Below / No
	LB-3 _D2	Multi-Family Residence - Second Floor Balcony	1	162+29	204	59.5	Below / No
	LB-3 _D3	Multi-Family Residence - Third Floor Balcony	1	162+29	204	60.6	Below / No
	LB-3 _D4	Multi-Family Residence - Fourth Floor Balcony	1	162+29	204	60.8	Below / No
	LB-4 _D1	Multi-Family Residence - Patio	1	163+00	107	61.6	Below / No
	LB-4 _D2	Multi-Family Residence - Second Floor Balcony	1	163+00	107	64.2	Below / No
	LB-4 _D3	Multi-Family Residence - Third Floor Balcony	1	163+00	107	64.3	Below / No
	LB-4 _D4	Multi-Family Residence - Fourth Floor Balcony	1	163+00	107	64.2	Below / No
	LB-5 _D1	Multi-Family Residence - Patio	1	162+98	143	58.6	Below / No
	LB-5 _D2	Multi-Family Residence - Second Floor Balcony	1	162+98	143	61.6	Below / No
	LB-5 _D3	Multi-Family Residence - Third Floor Balcony	1	162+98	143	62.0	Below / No
	LB-5 _D4	Multi-Family Residence - Fourth Floor Balcony	1	162+98	143	62.1	Below / No
	LB-6 _D1	Multi-Family Residence - Patio	1	162+96	181	56.7	Below / No
	LB-6 _D2	Multi-Family Residence - Second Floor Balcony	1	162+96	181	59.8	Below / No
	LB-6 _D3	Multi-Family Residence - Third Floor Balcony	1	162+96	181	60.8	Below / No
	LB-6 _D4	Multi-Family Residence - Fourth Floor Balcony	1	162+96	181	60.9	Below / No
	LB-1 _E1	Multi-Family Residence - Patio	1	164+47	93	63.8	Below / No
	LB-1 _E2	Multi-Family Residence - Second Floor Balcony	1	164+47	93	66.1	Approaches / Yes
	LB-1 _E3	Multi-Family Residence - Third Floor Balcony	1	164+47	93	66.0	Approaches / Yes
	LB-1 _E4	Multi-Family Residence - Fourth Floor Balcony	1	164+47	93	65.8	Below / No
	LB-2 _E1	Multi-Family Residence - Patio	1	164+44	144	59.7	Below / No
	LB-2 _E2	Multi-Family Residence - Second Floor Balcony	1	164+44	144	62.6	Below / No
	LB-2 _E3	Multi-Family Residence - Third Floor Balcony	1	164+44	144	63.0	Below / No
	LB-2 _E4	Multi-Family Residence - Fourth Floor Balcony	1	164+44	144	63.0	Below / No
	LB-3 _E1	Multi-Family Residence - Patio	1	164+40	204	56.8	Below / No
	LB-3 _E2	Multi-Family Residence - Second Floor Balcony	1	164+40	204	59.7	Below / No
	LB-3 _E3	Multi-Family Residence - Third Floor Balcony	1	164+40	204	60.9	Below / No
	LB-3 _E4	Multi-Family Residence - Fourth Floor Balcony	1	164+40	204	61.0	Below / No
	LB-4 _E1	Multi-Family Residence - Patio	1	165+12	105	62.7	Below / No
	LB-4 _E2	Multi-Family Residence - Second Floor Balcony	1	165+12	105	65.0	Below / No
	LB-4 _E3	Multi-Family Residence - Third Floor Balcony	1	165+12	105	65.1	Below / No
	LB-4 _E4	Multi-Family Residence - Fourth Floor Balcony	1	165+12	105	64.9	Below / No
	LB-5 _E1	Multi-Family Residence - Patio	1	165+08	144	58.9	Below / No
	LB-5 _E2	Multi-Family Residence - Second Floor Balcony	1	165+08	144	61.8	Below / No
	LB-5 _E3	Multi-Family Residence - Third Floor Balcony	1	165+08	144	62.2	Below / No
	LB-5 _E4	Multi-Family Residence - Fourth Floor Balcony	1	165+08	144	62.3	Below / No
	LB-6 _E1	Multi-Family Residence - Patio	1	165+07	180	57.0	Below / No
	LB-6 _E2	Multi-Family Residence - Second Floor Balcony	1	165+07	180	60.0	Below / No
	LB-6 _E3	Multi-Family Residence - Third Floor Balcony	1	165+07	180	60.9	Below / No
	LB-6 _E4	Multi-Family Residence - Fourth Floor Balcony	1	165+07	180	61.0	Below / No
	LB-1 _F1	Multi-Family Residence - Patio	1	166+56	94	64.2	Below / No
	LB-1 _F2	Multi-Family Residence - Second Floor Balcony	1	166+56	94	66.3	Approaches / Yes
	LB-1 _F3	Multi-Family Residence - Third Floor Balcony	1	166+56	94	66.3	Approaches / Yes
	LB-1 _F4	Multi-Family Residence - Fourth Floor Balcony	1	166+56	94	66.1	Approaches / Yes
	LB-2 _F1	Multi-Family Residence - Patio	1	166+54	144	59.2	Below / No
	LB-2 _F2	Multi-Family Residence - Second Floor Balcony	1	166+54	144	62.1	Below / No
	LB-2 _F3	Multi-Family Residence - Third Floor Balcony	1	166+54	144	62.5	Below / No
	LB-2 _F4	Multi-Family Residence - Fourth Floor Balcony	1	166+54	144	62.5	Below / No
	LB-3 _F1	Multi-Family Residence - Patio	1	166+51	205	55.8	Below / No
	LB-3 _F2	Multi-Family Residence - Second Floor Balcony	1	166+51	205	58.8	Below / No
	LB-3 _F3	Multi-Family Residence - Third Floor Balcony	1	166+51	205	59.9	Below / No
	LB-3 _F4	Multi-Family Residence - Fourth Floor Balcony	1	166+51	205	60.0	Below / No
	LB-4 _F1	Multi-Family Residence - Patio	1	167+24	105	63.9	Below / No
	LB-4 _F2	Multi-Family Residence - Second Floor Balcony	1	167+24	105	66.2	Approaches / Yes
	LB-4 _F3	Multi-Family Residence - Third Floor Balcony	1	167+24	105	66.5	Approaches / Yes

Table 3.2-1: Location and Description of Representative Noise Sensitive Receptor Sites and Noise Impact Analysis Results (Sheet 16 of 18)

Name of Noise Sensitive Site/Area [Noise Abatement Activity Category - FDOT's Noise Abatement Criteria Category dB(A)]	Representative Noise Receptor Site Designation	Noise Sensitive Site Description	Number of Noise Sensitive Sites Represented	Station Number	Distance from the Nearest Proposed Travel Lane (feet)	TNM Predicted Design Year (2040) Noise Levels dB(A) with Proposed Roadway Design Concept	Noise Abatement Criteria Status / Consideration of Noise Abatement Warranted? Yes or No
Las Brisas [NAC B - 66 dB(A)]	LB-4 _F4	Multi-Family Residence - Fourth Floor Balcony	1	167+24	105	66.5	Approaches / Yes
	LB-5 _F1	Multi-Family Residence - Patio	1	167+19	143	62.5	Below / No
	LB-5 _F2	Multi-Family Residence - Second Floor Balcony	1	167+19	143	65.1	Below / No
	LB-5 _F3	Multi-Family Residence - Third Floor Balcony	1	167+19	143	65.7	Below / No
	LB-5 _F4	Multi-Family Residence - Fourth Floor Balcony	1	167+19	143	65.8	Below / No
	LB-6 _F1	Multi-Family Residence - Patio	1	167+20	180	61.3	Below / No
	LB-6 _F2	Multi-Family Residence - Second Floor Balcony	1	167+20	180	64.0	Below / No
	LB-6 _F3	Multi-Family Residence - Third Floor Balcony	1	167+20	180	65.0	Below / No
	LB-6 _F4	Multi-Family Residence - Fourth Floor Balcony	1	167+20	180	65.2	Below / No
					Minimum	55.0	---
					Maximum	67.1	---
					Total Number of Residential Sites Equal to or Greater than the Noise Abatement Criteria (NAC) of 66 dB(A)	14	---
					Common Noise Environment (CNE) Identification Number - Las Brisas	---	E18
North of Miami Gardens Drive between NW 68th Avenue and Bobolink Drive (Country Club of Miami Condominiums)							
Country Club of Miami Condominiums [NAC B - 66 dB(A)]	CCM-1	Multi-Family Residence - Patio	1	182+48	94	67.1	Exceeds / Yes
	CCM-2	Multi-Family Residence - Second Floor Balcony	1	182+48	94	69.4	Exceeds / Yes
	CCM-3	Multi-Family Residence - Patio	1	183+51	61	71.1	Exceeds / Yes
	CCM-4	Multi-Family Residence - Second Floor Balcony	1	183+51	61	72.2	Exceeds / Yes
	CCM-5	Multi-Family Residence - Patio	1	183+99	56	72.4	Exceeds / Yes
	CCM-6	Multi-Family Residence - Second Floor Balcony	1	183+99	56	73.1	Exceeds / Yes
	CCM-7	Multi-Family Residence - Patio	1	182+66	165	62.2	Below / No
	CCM-8	Multi-Family Residence - Second Floor Balcony	1	182+66	165	65.1	Below / No
	CCM-9	Multi-Family Residence - Patio	1	182+58	135	63.9	Below / No
	CCM-10	Multi-Family Residence - Second Floor Balcony	1	182+58	135	66.5	Approaches / Yes
					Minimum	62.2	---
					Maximum	73.1	---
					Total Number of Residential Sites Equal to or Greater than the Noise Abatement Criteria (NAC) of 66 dB(A)	7	---
					Common Noise Environment (CNE) Identification Number - Country Club of Miami Condominiums	---	E19
North of Miami Gardens Drive between Bobolink Drive and Ludlam Road (Country Lake Manor Townhomes)							
Country Lake Manor Townhomes [NAC B - 66 dB(A)]	CLMT-1	Multi-Family Residence - Patio	1	185+85	60	71.3	Exceeds / Yes
	CLMT-2	Multi-Family Residence - Patio	1	186+14	60	71.0	Exceeds / Yes
	CLMT-3	Multi-Family Residence - Patio	1	186+38	61	70.8	Exceeds / Yes
	CLMT-4	Multi-Family Residence - Patio	1	186+62	59	70.9	Exceeds / Yes
	CLMT-5	Multi-Family Residence - Patio	1	186+91	58	70.8	Exceeds / Yes
	CLMT-6	Multi-Family Residence - Patio	1	187+14	59	70.7	Exceeds / Yes
	CLMT-7	Multi-Family Residence - Patio	1	187+41	60	70.6	Exceeds / Yes
					Minimum	70.6	---
					Maximum	71.3	---
					Total Number of Residential Sites Equal to or Greater than the Noise Abatement Criteria (NAC) of 66 dB(A)	7	---
					Common Noise Environment (CNE) Identification Number - Country Lake Manor Townhomes	---	E20
North of Miami Gardens Drive between Ludlam Road and NW 62nd Avenue (Country Village Park)							
Country Village Park [NAC C - 66 dB(A)]	CVP-1C	Recreational - Sports Field	1 (Special Land Use)	199+87	266	61.9	Below / No
	CVP-2C	Recreational - Trail	1 (Special Land Use)	197+12	268	66.7	Approaches / Yes
	CVP-3C	Recreational - Trail	1 (Special Land Use)	197+16	169	68.2	Exceeds / Yes
	CVP-4C	Recreational - Trail	1 (Special Land Use)	197+59	90	69.6	Exceeds / Yes
	CVP-5C	Recreational - Trail	1 (Special Land Use)	198+58	97	68.2	Exceeds / Yes
	CVP-6C	Recreational - Trail	1 (Special Land Use)	199+56	87	68.1	Exceeds / Yes
	CVP-7C	Recreational - Trail	1 (Special Land Use)	200+51	100	67.0	Meets / Yes
	CVP-8C	Recreational - Sports Field	1 (Special Land Use)	200+76	180	63.4	Below / No
	CVP-9C	Recreational - Trail	1 (Special Land Use)	201+45	113	66.0	Approaches / Yes
	CVP-10C	Recreational - Trail	1 (Special Land Use)	202+39	114	65.8	Below / No
	CVP-11C	Recreational - Sports Field	1 (Special Land Use)	202+91	165	63.5	Below / No
	CVP-12C	Recreational - Sports Field	1 (Special Land Use)	202+79	264	60.6	Below / No
	CVP-13C	Recreational - Trail	1 (Special Land Use)	203+31	106	66.2	Approaches / Yes

Table 3.2-1: Location and Description of Representative Noise Sensitive Receptor Sites and Noise Impact Analysis Results (Sheet 17 of 18)

Name of Noise Sensitive Site/Area [Noise Abatement Activity Category - FDOT's Noise Abatement Criteria Category dB(A)]	Representative Noise Receptor Site Designation	Noise Sensitive Site Description	Number of Noise Sensitive Sites Represented	Station Number	Distance from the Nearest Proposed Travel Lane (feet)	TNM Predicted Design Year (2040) Noise Levels dB(A) with Proposed Roadway Design Concept	Noise Abatement Criteria Status / Consideration of Noise Abatement Warranted? Yes or No
Country Village Park [NAC C - 66 dB(A)]	CVP-14C	Recreational - Trail	1 (Special Land Use)	204+24	116	65.6	Below / No
	CVP-15C	Recreational - Trail	1 (Special Land Use)	205+13	146	64.3	Below / No
	CVP-16C	Recreational - Trail	1 (Special Land Use)	205+08	241	61.0	Below / No
					Minimum	60.6	---
					Maximum	69.6	---
					Total Number of Non-Residential / Special Land Use Receptor Sites Equal to or Greater than the Noise Abatement Criteria (NAC)	0	---
					Common Noise Environment (CNE) Identification Number - North Pointe Community Center	---	E21
North of Miami Gardens Drive between Ludlam Road and NW 62nd Avenue (Joella C. Good Elementary School)							
Joella C. Good Elementary School [NAC C - 66 dB(A)]	JGE-1C	Recreational - Playground	1 (Special Land Use)	207+01	234	61.1	Below / No
	JGE-2C	Recreational - Playground	1 (Special Land Use)	207+23	136	64.6	Below / No
	JGE-3C	Recreational - Playground	1 (Special Land Use)	208+08	136	64.5	Below / No
	JGE-4C	Recreational - Playground	1 (Special Land Use)	208+34	210	61.7	Below / No
	JGE-5C	Recreational - Playground	1 (Special Land Use)	207+89	263	60.3	Below / No
					Minimum	60.3	---
					Maximum	64.6	---
					Total Number of Non-Residential / Special Land Use Receptor Sites Equal to or Greater than the Noise Abatement Criteria (NAC)	0	---
					Common Noise Environment (CNE) Identification Number - Joella C. Good Elementary School	---	E21
North of Miami Gardens Drive between Ludlam Road and NW 62nd Avenue (Villa Esperanza Apartments)							
Villa Esperanza Apartments [NAC B - 66 dB(A)]	VAE-1 _A1	Multi-Family Residence - Patio	1	212+07	61	69.0	Exceeds / Yes
	VAE-1 _A2	Multi-Family Residence - Second Floor Balcony	1	212+07	61	70.1	Exceeds / Yes
	VAE-1 _A3	Multi-Family Residence - Third Floor Balcony	1	212+07	61	70.0	Exceeds / Yes
	VAE-1 _A4	Multi-Family Residence - Fourth Floor Balcony	1	212+07	61	69.8	Exceeds / Yes
	VAE-2 _A1	Multi-Family Residence - Patio	1	212+34	65	68.8	Exceeds / Yes
	VAE-2 _A2	Multi-Family Residence - Second Floor Balcony	1	212+34	65	70.0	Exceeds / Yes
	VAE-2 _A3	Multi-Family Residence - Third Floor Balcony	1	212+34	65	69.9	Exceeds / Yes
	VAE-2 _A4	Multi-Family Residence - Fourth Floor Balcony	1	212+34	65	69.7	Exceeds / Yes
	VAE-3 _A1	Multi-Family Residence - Patio	1	212+65	85	67.6	Exceeds / Yes
	VAE-3 _A2	Multi-Family Residence - Second Floor Balcony	1	212+65	85	69.0	Exceeds / Yes
	VAE-3 _A3	Multi-Family Residence - Third Floor Balcony	1	212+65	85	69.1	Exceeds / Yes
	VAE-3 _A4	Multi-Family Residence - Fourth Floor Balcony	1	212+65	85	69.0	Exceeds / Yes
	VAE-4 _A1	Multi-Family Residence - Patio	1	213+08	82	67.7	Exceeds / Yes
	VAE-4 _A2	Multi-Family Residence - Second Floor Balcony	1	213+08	82	69.2	Exceeds / Yes
	VAE-4 _A3	Multi-Family Residence - Third Floor Balcony	1	213+08	82	69.2	Exceeds / Yes
	VAE-4 _A4	Multi-Family Residence - Fourth Floor Balcony	1	213+08	82	69.1	Exceeds / Yes
	VAE-5 _A1	Multi-Family Residence - Patio	1	213+40	98	66.9	Approaches / Yes
	VAE-5 _A2	Multi-Family Residence - Second Floor Balcony	1	213+40	98	68.5	Exceeds / Yes
	VAE-5 _A3	Multi-Family Residence - Third Floor Balcony	1	213+40	98	68.7	Exceeds / Yes
	VAE-5 _A4	Multi-Family Residence - Fourth Floor Balcony	1	213+40	98	68.6	Exceeds / Yes
	VAE-6 _A1	Multi-Family Residence - Patio	1	213+69	113	66.1	Approaches / Yes
	VAE-6 _A2	Multi-Family Residence - Second Floor Balcony	1	213+69	113	67.9	Exceeds / Yes
	VAE-6 _A3	Multi-Family Residence - Third Floor Balcony	1	213+69	113	68.2	Exceeds / Yes
	VAE-6 _A4	Multi-Family Residence - Fourth Floor Balcony	1	213+69	113	68.1	Exceeds / Yes
	VAE-7 _B1	Multi-Family Residence - Patio	1	214+31	50	70.0	Exceeds / Yes
	VAE-7 _B2	Multi-Family Residence - Second Floor Balcony	1	214+31	50	70.8	Exceeds / Yes
	VAE-7 _B3	Multi-Family Residence - Third Floor Balcony	1	214+31	50	70.7	Exceeds / Yes
	VAE-7 _B4	Multi-Family Residence - Fourth Floor Balcony	1	214+31	50	70.4	Exceeds / Yes
	VAE-8 _B1	Multi-Family Residence - Patio	1	214+57	55	69.6	Exceeds / Yes
	VAE-8 _B2	Multi-Family Residence - Second Floor Balcony	1	214+57	55	70.6	Exceeds / Yes
	VAE-8 _B3	Multi-Family Residence - Third Floor Balcony	1	214+57	55	70.4	Exceeds / Yes
	VAE-8 _B4	Multi-Family Residence - Fourth Floor Balcony	1	214+57	55	70.2	Exceeds / Yes
	VAE-9 _B1	Multi-Family Residence - Patio	1	214+93	76	68.2	Exceeds / Yes
	VAE-9 _B2	Multi-Family Residence - Second Floor Balcony	1	214+93	76	69.6	Exceeds / Yes
	VAE-9 _B3	Multi-Family Residence - Third Floor Balcony	1	214+93	76	69.6	Exceeds / Yes

Table 3.2-1: Location and Description of Representative Noise Sensitive Receptor Sites and Noise Impact Analysis Results (Sheet 18 of 18)

Name of Noise Sensitive Site/Area [Noise Abatement Activity Category - FDOT's Noise Abatement Criteria Category dB(A)]	Representative Noise Receptor Site Designation	Noise Sensitive Site Description	Number of Noise Sensitive Sites Represented	Station Number	Distance from the Nearest Proposed Travel Lane (feet)	TNM Predicted Design Year (2040) Noise Levels dB(A) with Proposed Roadway Design Concept	Noise Abatement Criteria Status / Consideration of Noise Abatement Warranted? Yes or No
Villa Esperanza Apartments [NAC B - 66 dB(A)]	VAE-9 _B4	Multi-Family Residence - Fourth Floor Balcony	1	214+93	76	69.5	Exceeds / Yes
	VAE-10 _B1	Multi-Family Residence - Patio	1	215+29	69	68.7	Exceeds / Yes
	VAE-10 _B2	Multi-Family Residence - Second Floor Balcony	1	215+29	69	70.0	Exceeds / Yes
	VAE-10 _B3	Multi-Family Residence - Third Floor Balcony	1	215+29	69	70.0	Exceeds / Yes
	VAE-10 _B4	Multi-Family Residence - Fourth Floor Balcony	1	215+29	69	69.8	Exceeds / Yes
	VAE-11 _B1	Multi-Family Residence - Patio	1	215+64	91	67.6	Exceeds / Yes
	VAE-11 _B2	Multi-Family Residence - Second Floor Balcony	1	215+64	91	69.2	Exceeds / Yes
	VAE-11 _B3	Multi-Family Residence - Third Floor Balcony	1	215+64	91	69.3	Exceeds / Yes
	VAE-11 _B4	Multi-Family Residence - Fourth Floor Balcony	1	215+64	91	69.1	Exceeds / Yes
	VAE-12 _B1	Multi-Family Residence - Patio	1	215+93	105	67.0	Meets / Yes
	VAE-12 _B2	Multi-Family Residence - Second Floor Balcony	1	215+93	105	68.6	Exceeds / Yes
	VAE-12 _B3	Multi-Family Residence - Third Floor Balcony	1	215+93	105	68.9	Exceeds / Yes
	VAE-12 _B4	Multi-Family Residence - Fourth Floor Balcony	1	215+93	105	68.7	Exceeds / Yes
	VAE-13 _C1	Multi-Family Residence - Patio	1	216+72	37	72.2	Exceeds / Yes
	VAE-13 _C2	Multi-Family Residence - Second Floor Balcony	1	216+72	37	72.5	Exceeds / Yes
	VAE-13 _C3	Multi-Family Residence - Third Floor Balcony	1	216+72	37	72.2	Exceeds / Yes
	VAE-13 _C4	Multi-Family Residence - Fourth Floor Balcony	1	216+72	37	71.9	Exceeds / Yes
	VAE-14 _C1	Multi-Family Residence - Patio	1	216+98	41	71.9	Exceeds / Yes
	VAE-14 _C2	Multi-Family Residence - Second Floor Balcony	1	216+98	41	72.3	Exceeds / Yes
	VAE-14 _C3	Multi-Family Residence - Third Floor Balcony	1	216+98	41	72.1	Exceeds / Yes
	VAE-14 _C4	Multi-Family Residence - Fourth Floor Balcony	1	216+98	41	71.7	Exceeds / Yes
	VAE-15 _C1	Multi-Family Residence - Patio	1	217+38	63	70.0	Exceeds / Yes
	VAE-15 _C2	Multi-Family Residence - Second Floor Balcony	1	217+38	63	71.0	Exceeds / Yes
	VAE-15 _C3	Multi-Family Residence - Third Floor Balcony	1	217+38	63	70.9	Exceeds / Yes
	VAE-15 _C4	Multi-Family Residence - Fourth Floor Balcony	1	217+38	63	70.7	Exceeds / Yes
	VAE-16 _C1	Multi-Family Residence - Patio	1	217+71	55	70.7	Exceeds / Yes
	VAE-16 _C2	Multi-Family Residence - Second Floor Balcony	1	217+71	55	71.5	Exceeds / Yes
	VAE-16 _C3	Multi-Family Residence - Third Floor Balcony	1	217+71	55	71.4	Exceeds / Yes
	VAE-16 _C4	Multi-Family Residence - Fourth Floor Balcony	1	217+71	55	71.1	Exceeds / Yes
	VAE-17 _C1	Multi-Family Residence - Patio	1	218+08	76	69.3	Exceeds / Yes
	VAE-17 _C2	Multi-Family Residence - Second Floor Balcony	1	218+08	76	70.5	Exceeds / Yes
	VAE-17 _C3	Multi-Family Residence - Third Floor Balcony	1	218+08	76	70.5	Exceeds / Yes
	VAE-17 _C4	Multi-Family Residence - Fourth Floor Balcony	1	218+08	76	70.4	Exceeds / Yes
	VAE-18 _C1	Multi-Family Residence - Patio	1	218+37	91	68.5	Exceeds / Yes
	VAE-18 _C2	Multi-Family Residence - Second Floor Balcony	1	218+37	91	69.8	Exceeds / Yes
	VAE-18 _C3	Multi-Family Residence - Third Floor Balcony	1	218+37	91	70.0	Exceeds / Yes
	VAE-18 _C4	Multi-Family Residence - Fourth Floor Balcony	1	218+37	91	69.8	Exceeds / Yes
					Minimum	66.1	---
					Maximum	72.5	---
					Total Number of Residential Sites Equal to or Greater than the Noise Abatement Criteria (NAC) of 66 dB(A)	72	---
					Common Noise Environment (CNE) Identification Number - Villa Esperanza Apartments	---	E22

APPENDIX E

Noise Barrier Analyses Tables

(3.3.1-1 through 3.3.15-1)

Table 3.3.1-1: Palm Springs North (Common Noise Environment E1) Noise Barrier Analysis Summary

Noise Sensitive Area (General Location)	Conceptual Barrier Design Number	Noise Barrier Segment	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Number of Impacted/ Benefited Receptor Sites	Number of Benefited Receptor Sites/ Not Impacted	Total Number of Benefited Receptor Sites	Average Noise Reduction for all Benefited Receptor Sites dB(A)	Maximum Noise Reduction for all Benefited Receptor Sites dB(A)	Estimated Cost ($30 per square foot)	Average Cost/Site Benefited	Conceptual Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of $42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal	Comments
Common Noise Environment E1 / Palm Springs North (South of Miami Gardens Drive between NW 87th Avenue and Peter's Pike Canal)	CD1-E1	Segment 1 of 3	8	1,020	79+20	89+40	51	48	7	55	6.2	10.2	$1,132,800	$20,596	YES	An optimized noise barrier will be determined during the project's design phase.
		Segment 2 of 3	8	1,460	90+00	104+60										
		Segment 3 of 3	8	2,240	105+60	128+00										
	CD2-E1	Segment 1 of 3	10	1,020	79+20	89+40	51	48	10	58	9.3	12.3	$1,416,000	$24,414	YES	
		Segment 2 of 3	10	1,460	90+00	104+60										
		Segment 3 of 3	10	2,240	105+60	128+00										
	CD3-E1	Segment 1 of 3	12	1,020	79+20	89+40	51	48	14	62	9.2	13.6	$1,699,200	$27,406	YES	
		Segment 2 of 3	12	1,460	90+00	104+60										
		Segment 3 of 3	12	2,240	105+60	128+00										
	CD4-E1	Segment 1 of 3	14	1,020	79+20	89+40	51	48	19	66	9.8	14.8	$1,982,400	$30,036	YES	
		Segment 2 of 3	14	1,460	90+00	104+60										
		Segment 3 of 3	14	2,240	105+60	128+00										
	CD5-E1	Segment 1 of 3	16	1,020	79+20	89+40	51	48	21	69	10.4	16.0	$2,265,600	$32,835	YES	
		Segment 2 of 3	16	1,460	90+00	104+60										
		Segment 3 of 3	16	2,240	105+60	128+00										
	CD6-E1	Segment 1 of 3	18	1,020	79+20	89+40	51	48	31	79	10.6	16.8	$2,548,800	$32,263	YES	
		Segment 2 of 3	18	1,460	90+00	104+60										
		Segment 3 of 3	18	2,240	105+60	128+00										
	CD7-E1	Segment 1 of 3	20	1,020	79+20	89+40	51	48	32	80	11.0	17.5	$2,832,000	$35,400	YES	
		Segment 2 of 3	20	1,460	90+00	104+60										
		Segment 3 of 3	20	2,240	105+60	128+00										
	CD8-E1	Segment 1 of 3	22	1,020	79+20	89+40	51	48	32	80	11.5	18.2	$3,115,200	$38,940	YES	
		Segment 2 of 3	22	1,460	90+00	104+60										
		Segment 3 of 3	22	2,240	105+60	128+00										
	2006 PD&E Study - Recommended Noise Barrier - Palm Springs North															
	---	Segment 1 of 3	12	1,037	79+20	89+40	11	9	11	20	8.4	---	$311,100	$15,555	---	PD&E Study Recommended Noise Barrier.
		Segment 2 of 3	12	1,496	90+00	104+70	15	13	15	28	8.5	---	$448,800	$16,029		
		Segment 3 of 3	12	2,186	105+70	127+25	24	20	24	44	8.4	---	$655,800	$14,905		
		Totals	---	4,719	---	---	50	42	50	92	8.4	---	$1,415,700	$15,388		

X:\P\Noise_Studies\Proposal\MGD_CorridorStudy\Re-eval\Noise Study Report Addendum\Tables\[MGD_Table3_BarrierDesign_11-1-2019.xlsx]E21 Country Village Park

Conceptual noise barrier design that meets FDOT's reasonable cost criteria and noise reduction design goal of at least a 7.0 dB(A) reduction for at least one impacted receptor site and recommended for further consideration and public input.

Table 3.3.2-1: Coral Gate West and Coral Gate East Condominiums (Common Noise Environment E3) Noise Barrier Analysis Summary

Noise Sensitive Area (General Location)	Conceptual Barrier Design Number	Noise Barrier Segment	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Number of Impacted/ Benefited Receptor Sites	Number of Benefited Receptor Sites/ Not Impacted	Total Number of Benefited Receptor Sites	Average Noise Reduction for all Benefited Receptor Sites dB(A)	Maximum Noise Reduction for all Benefited Receptor Sites dB(A)	Estimated Cost ($30 per square foot)	Average Cost/Site Benefited	Conceptual Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of $42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal	Comments
Common Noise Environment E3 / Coral Gate West and Coral Gate East Condominiums (South of Miami Gardens Drive between NW 73rd Avenue and NW 68th Avenue)	CD1-E3	Segment 1 of 3	8	440	155+00	159+40	75	0	0	0	---	---	$297,600	---	NO	---
		Segment 2 of 3	8	500	160+60	165+60										
		Segment 3 of 3	8	300	166+40	169+40										
	CD2-E3	Segment 1 of 3	10	440	155+00	159+40	75	0	0	0	---	---	$372,000	---	NO	---
		Segment 2 of 3	10	500	160+60	165+60										
		Segment 3 of 3	10	300	166+40	169+40										
	CD3-E3	Segment 1 of 3	12	440	155+00	159+40	75	2	5	7	5.6	6.1	$446,400	$63,771	NO	---
		Segment 2 of 3	12	500	160+60	165+60										
		Segment 3 of 3	12	300	166+40	169+40										
	CD4-E3	Segment 1 of 3	14	440	155+00	159+40	75	7	27	34	6.3	9.4	$520,800	$15,318	YES	An optimized noise barrier will be determined during the project's design phase.
		Segment 2 of 3	14	500	160+60	165+60										
		Segment 3 of 3	14	300	166+40	169+40										
	CD5-E3	Segment 1 of 3	16	440	155+00	159+40	75	12	39	51	6.7	10.6	$595,200	$11,671	YES	
		Segment 2 of 3	16	500	160+60	165+60										
		Segment 3 of 3	16	300	166+40	169+40										
	CD6-E3	Segment 1 of 3	18	440	155+00	159+40	75	15	45	60	7.4	11.7	$669,600	$11,160	YES	
		Segment 2 of 3	18	500	160+60	165+60										
		Segment 3 of 3	18	300	166+40	169+40										
	CD7-E3	Segment 1 of 3	20	440	155+00	159+40	75	19	48	67	7.9	12.3	$744,000	$11,104	YES	
		Segment 2 of 3	20	500	160+60	165+60										
		Segment 3 of 3	20	300	166+40	169+40										
	CD8-E3	Segment 1 of 3	22	440	155+00	159+40	75	24	52	76	8.2	13.1	$818,400	$10,768	YES	
		Segment 2 of 3	22	500	160+60	165+60										
		Segment 3 of 3	22	300	166+40	169+40										
	2006 PD&E Study - Recommended Noise Barrier - Coral Gate															
	---	Segment 1 of 3	19	460	154+90	159+50	48	15	22	37	7.3	---	$636,500	$17,203	---	PD&E Study Recommended Noise Barrier.
		Segment 2 of 3	19	580	159+85	165+65										
		Segment 3 of 3	19	300	166+20	169+20										

X:\P\Noise_Studies\Proposal\MGD_CorridorStudy\Re-eval\Noise Study Report Addendum\Tables\[MGD_Table3_BarrierDesign_11-1-2019.xlsx]E21 Country Village Park

Conceptual noise barrier design that meets FDOT's reasonable cost criteria and noise reduction design goal of at least a 7.0 dB(A) reduction for at least one impacted receptor site and recommended for further consideration and public input.

Table 3.3.3-1: Country Club Towers (Common Noise Environment E5) Noise Barrier Analysis Summary

Noise Sensitive Area (General Location)	Conceptual Barrier Design Number	Noise Barrier Segment	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Number of Impacted/ Benefited Receptor Sites	Number of Benefited Receptor Sites/ Not Impacted	Total Number of Benefited Receptor Sites	Average Noise Reduction for all Benefited Receptor Sites dB(A)	Maximum Noise Reduction for all Benefited Receptor Sites dB(A)	Estimated Cost ($30 per square foot)	Average Cost/Site Benefited	Conceptual Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of $42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal	Comments
Common Noise Environment E5 / Country Club Towers - 5 Story Buildings (South of Miami Gardens Drive between NW 68th Avenue and Bobolink Drive)	CD1-E5	Segment 1 of 1	8	980	174+80	184+60	56	0	0	0	---	---	$235,200	---	NO	---
	CD2-E5	Segment 1 of 1	10	980	174+80	184+60	56	0	6	6	5.3	5.4	$294,000	$49,000	NO	---
	CD3-E5	Segment 1 of 1	12	980	174+80	184+60	56	6	10	16	5.8	6.8	$352,800	$22,050	NO	---
	CD4-E5	Segment 1 of 1	14	980	174+80	184+60	56	16	10	26	6.4	7.3	$411,600	$15,831	YES	An optimized noise barrier will be determined during the project's design phase.
	CD5-E5	Segment 1 of 1	16	980	174+80	184+60	56	20	10	30	6.8	7.7	$470,400	$15,680	YES	
	CD6-E5	Segment 1 of 1	18	980	174+80	184+60	56	28	10	38	7.1	8.0	$529,200	$13,926	YES	
	CD7-E5	Segment 1 of 1	20	980	174+80	184+60	56	30	10	40	7.4	8.3	$588,000	$14,700	YES	
	CD8-E5	Segment 1 of 1	22	980	174+80	184+60	56	38	10	48	7.5	8.5	$646,800	$13,475	YES	
	2006 PD&E Study - Recommended Noise Barrier - County Club Towers															
	---	Segment 1 of 1	21	942	174+90	184+60	52	27	32	59	8.8	8.8	$494,550	$8,382	---	PD&E Study Recommended Noise Barrier.

X:\P\Noise_Studies\Proposal\MGD_CorridorStudy\Re-eval\Noise Study Report Addendum\Tables\[MGD_Table3_BarrierDesign_11-1-2019.xlsx]E21 Country Village Park

Conceptual noise barrier design that meets FDOT's reasonable cost criteria and noise reduction design goal of at least a 7.0 dB(A) reduction for at least one impacted receptor site and recommended for further consideration and public input.

Table 3.3.4-1: Mediterranean Villas (Common Noise Environment E7) Noise Barrier Analysis Summary

Noise Sensitive Area (General Location)	Conceptual Barrier Design Number	Noise Barrier Segment	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Number of Impacted/ Benefited Receptor Sites	Number of Benefited Receptor Sites/ Not Impacted	Total Number of Benefited Receptor Sites	Average Noise Reduction for all Benefited Receptor Sites dB(A)	Maximum Noise Reduction for all Benefited Receptor Sites dB(A)	Estimated Cost ($30 per square foot)	Average Cost/Site Benefited	Conceptual Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of $42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal	Comments
Common Noise Environment E7 / Mediterranean Villas (South of Miami Gardens Drive between Ludlam Road and NW 62nd Avenue)	CD1-E7	Segment 1 of 2	8	120	206+00	207+20	15	0	0	0	---	---	$120,000	---	NO	---
		Segment 2 of 2	8	380	208+20	212+00										
	CD2-E7	Segment 1 of 2	10	120	206+00	207+20	15	0	0	0	---	---	$150,000	---	NO	---
		Segment 2 of 2	10	380	208+20	212+00										
	CD3-E7	Segment 1 of 2	12	120	206+00	207+20	15	1	2	3	5.8	6.5	$180,000	$60,000	NO	---
		Segment 2 of 2	12	380	208+20	212+00										
	CD3A-E7	Segment 1 of 2	12	220	205+00	207+20	15	1	2	3	5.8	6.5	$216,000	$72,000	NO	Extended barrier limit to the west extends into to commercial property.
		Segment 2 of 2	12	380	208+20	212+00										
	CD4-E7	Segment 1 of 2	14	120	206+00	207+20	15	3	8	11	6.9	9.4	$210,000	$19,091	YES	An optimized noise barrier will be determined during the project's design phase.
		Segment 2 of 2	14	380	208+20	212+00										
	CD5-E7	Segment 1 of 2	16	120	206+00	207+20	15	6	8	14	7.8	12.6	$240,000	$17,143	YES	
		Segment 2 of 2	16	380	208+20	212+00										
	CD5A-E7	Segment 1 of 2	16	220	205+00	207+20	15	7	10	17	7.7	12.6	$288,000	$16,941	YES	
		Segment 2 of 2	16	380	208+20	212+00										
	CD6-E7	Segment 1 of 2	18	120	206+00	207+20	15	8	8	16	8.5	14.5	$270,000	$16,875	YES	
		Segment 2 of 2	18	380	208+20	212+00										
	CD7-E7	Segment 1 of 2	20	120	206+00	207+20	15	10	8	18	9.0	15.8	$300,000	$16,667	YES	
		Segment 2 of 2	20	380	208+20	212+00										
	CD8-E7	Segment 1 of 2	22	120	206+00	207+20	15	12	10	22	9.4	16.8	$330,000	$15,000	YES	
		Segment 2 of 2	22	380	208+20	212+00										
	2006 PD&E Study - Recommended Noise Barrier - Mediterranean Village															
	---	Segment 1 of 2	21	138	205+90	207+10	10	10	6	16	7.2	---	$217,875	$13,167	---	PD&E Study Recommended Noise Barrier.
		Segment 2 of 2	21	277	208+05	209+95										

X:\P\Noise_Studies\Proposal\MGD_CorridorStudy\Re-eval\Noise Study Report Addendum\Tables\[MGD_Table3_BarrierDesign_11-1-2019.xlsx]E21 Country Village Park

Conceptual noise barrier design that meets FDOT's reasonable cost criteria and noise reduction design goal of at least a 7.0 dB(A) reduction for at least one impacted receptor site and recommended for further consideration and public input.

Table 3.3.5-1: Ibis Villas (Common Noise Environment E10) Noise Barrier Analysis Summary

Noise Sensitive Area (General Location)	Conceptual Barrier Design Number	Noise Barrier Segment	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Number of Impacted/ Benefited Receptor Sites	Number of Benefited Receptor Sites/ Not Impacted	Total Number of Benefited Receptor Sites	Average Noise Reduction for all Benefited Receptor Sites dB(A)	Maximum Noise Reduction for all Impacted Receptor Sites dB(A)	Estimated Cost ($30 per square foot)	Average Cost/Site Benefited	Conceptual Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of $42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal	Comments
Common Noise Environment E10 / Ibis Villas (North of Miami Gardens Drive between NW 87th Avenue and NW 82nd Avenue)	CD1-E10	Segment 1 of 2	8	180	85+80	87+60	5	0	0	0	---	3.4	$86,400	---	NO	---
		Segment 2 of 2	8	180	88+40	90+20										
	CD2-E10	Segment 1 of 2	10	180	85+80	87+60	5	0	0	0	---	3.8	$108,000	---	NO	---
		Segment 2 of 2	10	180	88+40	90+20										
	CD3-E10	Segment 1 of 2	12	180	85+80	87+60	5	0	0	0	---	4.0	$129,600	---	NO	---
		Segment 2 of 2	12	180	88+40	90+20										
	CD4-E10	Segment 1 of 2	14	180	85+80	87+60	5	0	0	0	---	4.1	$151,200	---	NO	---
		Segment 2 of 2	14	180	88+40	90+20										
	CD5-E10	Segment 1 of 2	16	180	85+80	87+60	5	0	0	0	---	4.2	$172,800	---	NO	---
		Segment 2 of 2	16	180	88+40	90+20										
	CD6-E10	Segment 1 of 2	18	180	85+80	87+60	5	0	0	0	---	4.2	$194,400	---	NO	---
		Segment 2 of 2	18	180	88+40	90+20										
	CD7-E10	Segment 1 of 2	20	180	85+80	87+60	5	0	0	0	---	4.3	$216,000	---	NO	Most effective conceptual noise barrier design. Not recommended for further consideration or public input during the project's design phase since the minimum noise reduction design goal of 7 dB(A) for at least one impacted residence and reasonableness cost criteria are not met.
		Segment 2 of 2	20	180	88+40	90+20										
	CD8-E10	Segment 1 of 2	22	180	85+80	87+60	5	0	0	0	---	4.3	$237,600	---	NO	---
		Segment 2 of 2	22	180	88+40	90+20										
	2006 PD&E Study - Recommended Noise Barrier - Ibis Villas															
	---	Segment 1 of 2	12	165	85+70	87+35	4	4	0	4	6.3	---	$105,000	$26,250	---	PD&E Study Recommended Noise Barrier.
		Segment 2 of 2	12	185	88+45	90+30										

Table 3.3.6-1: San Mateo (Common Noise Environment E12) Noise Barrier Analysis Summary

Noise Sensitive Area (General Location)	Conceptual Barrier Design Number	Noise Barrier Segment	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Number of Impacted/ Benefited Receptor Sites	Number of Benefited Receptor Sites/ Not Impacted	Total Number of Benefited Receptor Sites	Average Noise Reduction for all Benefited Receptor Sites dB(A)	Maximum Noise Reduction for all Benefited Receptor Sites dB(A)	Estimated Cost ($30 per square foot)	Average Cost/Site Benefited	Conceptual Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of $42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal	Comments
Common Noise Environment E12 / San Mateo (North of Miami Gardens Drive between NW 87th Avenue and NW 82nd Avenue)	CD1-E12	Segment 1 of 3	8	120	97+00	98+20	5	0	0	0	---	---	$100,800	---	NO	---
		Segment 2 of 3	8	140	98+60	100+00										
		Segment 3 of 3	8	160	100+40	102+00										
	CD2-E12	Segment 1 of 3	10	120	97+00	98+20	5	0	0	0	---	---	$126,000	---	NO	---
		Segment 2 of 3	10	140	98+60	100+00										
		Segment 3 of 3	10	160	100+40	102+00										
	CD3-E12	Segment 1 of 3	12	120	97+00	98+20	5	1	2	3	5.6	6.2	$151,200	$50,400	NO	---
		Segment 2 of 3	12	140	98+60	100+00										
		Segment 3 of 3	12	160	100+40	102+00										
	CD4-E12	Segment 1 of 3	14	120	97+00	98+20	5	1	2	3	6.2	7.2	$176,400	$58,800	NO	Most effective conceptual noise barrier design. Not recommended for further consideration or public input during the project's design phase since the reasonableness cost criteria is not met.
		Segment 2 of 3	14	140	98+60	100+00										
		Segment 3 of 3	14	160	100+40	102+00										
	CD5-E12	Segment 1 of 3	16	120	97+00	98+20	5	1	2	3	6.8	8.1	$201,600	$67,200	NO	---
		Segment 2 of 3	16	140	98+60	100+00										
		Segment 3 of 3	16	160	100+40	102+00										
	CD6-E12	Segment 1 of 3	18	120	97+00	98+20	5	1	2	3	7.2	8.9	$226,800	$75,600	NO	---
		Segment 2 of 3	18	140	98+60	100+00										
		Segment 3 of 3	18	160	100+40	102+00										
	CD7-E12	Segment 1 of 3	20	120	97+00	98+20	5	2	2	4	7.4	9.5	$252,000	$63,000	NO	---
		Segment 2 of 3	20	140	98+60	100+00										
		Segment 3 of 3	20	160	100+40	102+00										
	CD8-E12	Segment 1 of 3	22	120	97+00	98+20	5	2	2	4	7.7	9.9	$277,200	$69,300	NO	---
		Segment 2 of 3	22	140	98+60	100+00										
		Segment 3 of 3	22	160	100+40	102+00										
	2006 PD&E Study - Noise Barrier Not Recommended - San Mateo															
	---	Segment 1 of 3	12	75	97+40	98+15	4	2	0	2	5.0	---	$84,000	$42,000	---	Noise Barrier Not Recommended at this Location in PD&E Study.
		Segment 2 of 3	12	140	98+55	99+95										
		Segment 3 of 3	12	65	100+40	101+05										

Table 3.3.7-1: Hunters Point Subdivision (Common Noise Environment E14) Noise Barrier Analysis Summary

Noise Sensitive Area (General Location)	Conceptual Barrier Design Number	Noise Barrier Segment	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Number of Impacted/ Benefited Receptor Sites	Number of Benefited Receptor Sites/ Not Impacted	Total Number of Benefited Receptor Sites	Average Noise Reduction for all Benefited Receptor Sites dB(A)	Maximum Noise Reduction for all Benefited Receptor Sites dB(A)	Estimated Cost ($30 per square foot)	Average Cost/Site Benefited	Conceptual Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of $42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal	Comments
Common Noise Environment E14 / Hunters Point Subdivision (North of Miami Gardens Drive between NW 82nd Avenue and NW 79th Avenue)	CD1-E14	Segment 1 of 3	8	100	106+00	107+00	23	0	0	0	---	---	$268,800	---	NO	---
		Segment 2 of 3	8	820	107+80	116+00										
		Segment 3 of 3	8	200	117+00	119+00										
	CD2-E14	Segment 1 of 3	10	100	106+00	107+00	23	6	0	6	5.2	5.5	$336,000	$56,000	NO	---
		Segment 2 of 3	10	820	107+80	116+00										
		Segment 3 of 3	10	200	117+00	119+00										
	CD3-E14	Segment 1 of 3	12	100	106+00	107+00	23	12	0	12	6.1	6.6	$403,200	$33,600	NO	---
		Segment 2 of 3	12	820	107+80	116+00										
		Segment 3 of 3	12	200	117+00	119+00										
	CD4-E14	Segment 1 of 3	14	100	106+00	107+00	23	14	0	14	6.8	7.7	$470,400	$33,600	YES	An optimized noise barrier will be determined during the project's design phase.
		Segment 2 of 3	14	820	107+80	116+00										
		Segment 3 of 3	14	200	117+00	119+00										
	CD5-E14	Segment 1 of 3	16	100	106+00	107+00	23	15	0	15	7.4	8.6	$537,600	$35,840	YES	
		Segment 2 of 3	16	820	107+80	116+00										
		Segment 3 of 3	16	200	117+00	119+00										
	CD6-E14	Segment 1 of 3	18	100	106+00	107+00	23	15	0	15	8.1	9.5	$604,800	$40,320	YES	
		Segment 2 of 3	18	820	107+80	116+00										
		Segment 3 of 3	18	200	117+00	119+00										
	CD7-E14	Segment 1 of 3	20	100	106+00	107+00	23	15	0	15	8.7	10.3	$672,000	$44,800	NO	---
		Segment 2 of 3	20	820	107+80	116+00										
		Segment 3 of 3	20	200	117+00	119+00										
	CD8-E14	Segment 1 of 3	22	100	106+00	107+00	23	15	0	15	9.1	10.9	$739,200	$49,280	NO	---
		Segment 2 of 3	22	820	107+80	116+00										
		Segment 3 of 3	22	200	117+00	119+00										
	2006 PD&E Study - Noise Barriers Not Evaluated; None of the Residences Impacted by Traffic Noise in Hunters Point															
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

X:\P\Noise_Studies\Proposal\MGD_CorridorStudy\Re-eval\Noise Study Report Addendum\Tables\[MGD_Table3_BarrierDesign_11-1-2019.xlsx]E21 Country Village Park

Conceptual noise barrier design that meets FDOT's reasonable cost criteria and noise reduction design goal of at least a 7.0 dB(A) reduction for at least one impacted receptor site and recommended for further consideration and public input.

Table 3.3.8-1: Esplanade (Common Noise Environment E15) Noise Barrier Analysis Summary

Noise Sensitive Area (General Location)	Conceptual Barrier Design Number	Noise Barrier Segment	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Number of Impacted/ Benefited Receptor Sites	Number of Benefited Receptor Sites/ Not Impacted	Total Number of Benefited Receptor Sites	Average Noise Reduction for all Benefited Receptor Sites dB(A)	Maximum Noise Reduction for all Benefited Receptor Sites dB(A)	Estimated Cost ($30 per square foot)	Average Cost/Site Benefited	Conceptual Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of $42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal	Comments
Common Noise Environment E15 / Esplanade (North of Miami Gardens Drive between NW 79th Avenue and Peter's Pike Canale)	CD1-E15	Segment 1 of 2	8	200	118+00	120+00	15	10	6	16	5.8	7.9	$297,600	$18,600	YES	An optimized noise barrier will be determined during the project's design phase.
		Segment 2 of 2	8	1,040	121+60	132+00										
	CD2-E15	Segment 1 of 2	10	200	118+00	120+00	15	11	8	19	7.2	9.2	$372,000	$19,579	YES	
		Segment 2 of 2	10	1,040	121+60	132+00										
	CD3-E15	Segment 1 of 2	12	200	118+00	120+00	15	11	9	20	8.9	10.4	$446,400	$22,320	YES	
		Segment 2 of 2	12	1,040	121+60	132+00										
	CD4-E15	Segment 1 of 2	14	200	118+00	120+00	15	11	9	20	9.8	11.5	$520,800	$26,040	YES	
		Segment 2 of 2	14	1,040	121+60	132+00										
	CD5-E15	Segment 1 of 2	16	200	118+00	120+00	15	11	9	20	10.5	12.4	$595,200	$29,760	YES	
		Segment 2 of 2	16	1,040	121+60	132+00										
	CD6-E15	Segment 1 of 2	18	200	118+00	120+00	15	11	9	20	11.1	13.1	$669,600	$33,480	YES	
		Segment 2 of 2	18	1,040	121+60	132+00										
	CD7-E15	Segment 1 of 2	20	200	118+00	120+00	15	11	9	20	11.5	13.8	$744,000	$37,200	YES	
		Segment 2 of 2	20	1,040	121+60	132+00										
	CD8-E15	Segment 1 of 2	22	200	118+00	120+00	15	11	9	20	12.0	14.8	$818,400	$40,920	YES	
		Segment 2 of 2	22	1,040	121+60	132+00										
	2006 PD&E Study - Recommended Noise Barrier - Esplanade															
	---	Segment 1 of 2	12	180	118+40	120+20	12	11	8	19	7.3	---	$360,000	$18,947	---	PD&E Study Recommended Noise Barrier.
		Segment 2 of 2	12	1,020	124+40	131+60										

X:\P\Noise_Studies\Proposal\MGD_CorridorStudy\Re-eval\Noise Study Report Addendum\Tables\[MGD_Table3_BarrierDesign_11-1-2019.xlsx]E21 Country Village Park

Conceptual noise barrier design that meets FDOT's reasonable cost criteria and noise reduction design goal of at least a 7.0 dB(A) reduction for at least one impacted receptor site and recommended for further consideration and public input.

Table 3.3.9-1: Country Club of Miami Estates (Common Noise Environment E16) Noise Barrier Analysis Summary

Noise Sensitive Area (General Location)	Conceptual Barrier Design Number	Noise Barrier Segment (Ground Mounted)	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Number of Impacted/ Benefited Receptor Sites	Number of Benefited Receptor Sites/ Not Impacted	Total Number of Benefited Receptor Sites	Average Noise Reduction for all Benefited Receptor Sites dB(A)	Maximum Noise Reduction for all Benefited Receptor Sites dB(A)	Estimated Cost ($30 per square foot)	Average Cost/Site Benefited	Conceptual Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of $42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal	Comments
Common Noise Environment E16 / Country Club of Miami Estates (North of Miami Gardens Drive between Peter's Pike Canal and NW 75th Place)	CD1-E16	Segment 1 of 4	8	80	134+80	135+60	8	1	0	1	9.0	9.0	$134,400	$134,400	NO	---
		Segment 2 of 4	8	220	136+60	138+80										
		Segment 3 of 4	8	120	139+80	141+00										
		Segment 4 of 4	8	140	142+00	143+40										
	CD2-E16	Segment 1 of 4	10	80	134+80	135+60	8	2	1	3	8.3	10.8	$168,000	$56,000	NO	Optimal conceptual noise barrier design. Not recommended for further consideration or public input during the project's design phase since the reasonableness cost criteria is not met.
		Segment 2 of 4	10	220	136+60	138+80										
		Segment 3 of 4	10	120	139+80	141+00										
		Segment 4 of 4	10	140	142+00	143+40										
	CD3-E16	Segment 1 of 4	12	80	134+80	135+60	8	2	1	3	9.2	12.3	$201,600	$67,200	NO	---
		Segment 2 of 4	12	220	136+60	138+80										
		Segment 3 of 4	12	120	139+80	141+00										
		Segment 4 of 4	12	140	142+00	143+40										
	CD4-E16	Segment 1 of 4	14	80	134+80	135+60	8	2	1	3	9.8	13.2	$235,200	$78,400	NO	---
		Segment 2 of 4	14	220	136+60	138+80										
		Segment 3 of 4	14	120	139+80	141+00										
		Segment 4 of 4	14	140	142+00	143+40										
	CD5-E16	Segment 1 of 4	16	80	134+80	135+60	8	3	1	4	8.5	13.8	$268,800	$67,200	NO	---
		Segment 2 of 4	16	220	136+60	138+80										
		Segment 3 of 4	16	120	139+80	141+00										
		Segment 4 of 4	16	140	142+00	143+40										
	CD6-E16	Segment 1 of 4	18	80	134+80	135+60	8	3	1	4	8.8	14.4	$302,400	$75,600	NO	---
		Segment 2 of 4	18	220	136+60	138+80										
		Segment 3 of 4	18	120	139+80	141+00										
		Segment 4 of 4	18	140	142+00	143+40										
	CD7-E16	Segment 1 of 4	20	80	134+80	135+60	8	3	1	4	9.0	14.9	$336,000	$84,000	NO	---
		Segment 2 of 4	20	220	136+60	138+80										
		Segment 3 of 4	20	120	139+80	141+00										
		Segment 4 of 4	20	140	142+00	143+40										
	CD8-E16	Segment 1 of 4	22	80	134+80	135+60	8	3	1	4	9.2	15.4	$369,600	$92,400	NO	---
		Segment 2 of 4	22	220	136+60	138+80										
		Segment 3 of 4	22	120	139+80	141+00										
		Segment 4 of 4	22	140	142+00	143+40										
	2006 PD&E Study - Noise Barriers Not Evaluated or Recommended due to Driveway Openings - Country Club of Miami Estates															
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Table 3.3.10-1: North Pointe Community Center (Common Noise Environment E17) Noise Barrier Analysis Summary

Noise Sensitive Area (General Location)	Conceptual Barrier Design Number	Noise Barrier Segment (Ground Mounted)	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Estimated Cost ($30 per square foot)	Average Noise Reduction for all Benefited Receptor Sites dB(A)	Maximum Noise Reduction for all Benefited Receptor Sites dB(A)	Percent of Impacted Area Benefited	Does Barrier Design Meet 7 dB(A) Noise Reduction Goal At Any Site?	Does Barrier Design Provide 5 dB(A) Noise Reduction For Entire Exterior Area of Use Impacted?	Usage Required to be Cost Reasonable (Person Hours per Day)	Actual Usage Likely to Exceed Required Usage to be Cost Reasonable	Comments
Common Noise Environment E17 / North Pointe Community Center (North of Miami Gardens Drive between NW 75th Place and NW 73rd Avenue)	CD1-E17	Segment 1 of 2	18	420	145+20	149+40	$291,600	8.3	11.0	55%	YES	NO	410	NO	Lowest cost conceptual noise barrier design. Not recommended for further consideration or public input during the project's design phase since the reasonableness cost criteria is not met.
		Segment 2 of 2	18	120	150+40	151+60									
	CD2-E17	Segment 1 of 2	20	420	145+20	149+40	$324,000	8.0	11.4	65%	YES	NO	455	NO	---
		Segment 2 of 2	20	120	150+40	151+60									
	CD3-E17	Segment 1 of 2	22	420	145+20	149+40	$356,400	8.2	11.8	65%	YES	NO	501	NO	---
		Segment 2 of 2	22	120	150+40	151+60									
	2006 PD&E Study - Noise Barriers Not Evaluated or Recommended; No Noise Sensitive Sites Identified or Evaluated for Traffic Noise Impacts (Future Park)														
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Table 3.3.10-2: Conceptual Noise Barrier Design - Usage Analysis for North Pointe Community Center (CNE E17)

Item	Criteria	Actual Usage	Needed Usage to Meet FDOT's Cost Reasonableness Criteria (Input Data)			Units
			Conceptual Noise Barrier Design Number			
			CD1-E17	CD2-E17	CD3-E17	
1	Enter Length of Proposed Noise Barrier (Segments 1 through 3)	---	420/120	420/120	420/120	feet
2	Enter Height of Proposed Noise Barrier	---	18	20	22	feet
3	Total Square Feet of Proposed Noise Barrier (Multiply item 1 by Item 2)	---	9,720	10,800	11,880	$feet^2$
4	Enter the average amount of time that a person stays at the site per visit	**Unknown**	1	1	1	hours
5	Enter the average number of people that use this site per day that will receive at least 5 dB(A) benefit from abatement at the site	**Unknown**	**410**	**455**	**501**	persons
6	Total Person Hours per Day Benefited by Noise Barrier (Multiply Item 4 by Item 5)	---	410	455	501	person-hours
7	Average Square Foot of Noise Barrier per Person Hour (Divide Item 3 by Item 6)	---	23.71	23.71	23.71	$feet^2$/person-hours
8	Cost per Person Hour per Square Foot of Noise Barrier (Multiply Item 7 by $42,000)	N/A	$995,935	$995,935	$995,935	$/person-hours/$ft^2$
9	Does item 8 exceed the "abatement cost factor" of: $995,935/person-hour/$ft^2$?	N/A	No	No	No	Yes/No
10	If item 9 is no, abatement is cost reasonable.	N/A	N/A	N/A	N/A	---
11	If item 9 is yes, abatement is not cost reasonable.	N/A	N/A	N/A	N/A	---

X:\P\Noise_Studies\Proposal\MOD_CorridorStudy\Re-eval\Noise Study Report Addendum\Tables\[Table_3_2_3-2_SLU Worksheet_SR826EL_8-11-2019.xlsx]North Pointe CNE E17

Source: FDOT Report - A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations (2009)

Table 3.3.11-1: Las Brisas (Common Noise Environment E18) Noise Barrier Analysis Summary

Noise Sensitive Area (General Location)	Conceptual Barrier Design Number	Noise Barrier Segment	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Number of Impacted/ Benefited Receptor Sites	Number of Benefited Receptor Sites/ Not Impacted	Total Number of Benefited Receptor Sites	Average Noise Reduction for all Benefited Receptor Sites dB(A)	Maximum Noise Reduction for all Benefited Receptor Sites dB(A)	Estimated Cost ($30 per square foot)	Average Cost/Site Benefited	Conceptual Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of $42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal	Comments
Common Noise Environment E18 / Las Brisas (North of Miami Gardens Drive between NW 73rd Avenue and NW 68th Avenue)	CD1-E18	Segment 1 of 1	8	1,180	155+40	167+20	14	0	28	28	5.4	5.8	$283,200	$10,114	NO	---
	CD2-E18	Segment 1 of 1	10	1,180	155+40	167+20	14	3	63	66	6.1	8.2	$354,000	$5,364	YES	---
	CD3-E18	Segment 1 of 1	12	1,180	155+40	167+20	14	3	81	84	7.5	9.9	$424,800	$5,057	YES	---
	CD4-E18	Segment 1 of 1	14	1,180	155+40	167+20	14	4	92	96	9.1	11.1	$495,600	$5,163	YES	---
	CD4A-E18	Segment 1 of 2	14	1,180	155+40	167+20	14	4	92	96	9.1	11.1	$588,000	$6,125	YES	Barrier extension crosses golf course property along Miami Garden Drive. Provides no additional benefit.
		Segment 2 of 2	14	220	167+80	170+00										
	CD5-E18	Segment 1 of 1	16	1,180	155+40	167+20	14	6	104	110	9.9	12.8	$566,400	$5,149	YES	---
	CD5A-E18	Segment 1 of 2	16	1,180	155+40	167+20	14	6	104	110	9.9	12.8	$672,000	$6,109	YES	Barrier extension crosses golf course property along Miami Garden Drive. Provides no additional benefit.
		Segment 2 of 2	16	220	167+80	170+00										
	CD6-E18	Segment 1 of 1	18	1,180	153+00	154+40	14	6	106	112	11.5	14.2	$637,200	$5,689	YES	---
	CD6A-E18	Segment 1 of 2	18	1,180	155+40	167+20	14	6	106	112	11.5	14.2	$756,000	$6,750	YES	Barrier extension crosses golf course property along Miami Garden Drive. Provides no additional benefit.
		Segment 2 of 2	18	220	167+80	170+00										
	CD7-E18	Segment 1 of 1	20	1,180	155+40	167+20	14	7	112	119	12.5	15.2	$708,000	$5,950	YES	---
	CD8-E18	Segment 1 of 1	22	1,180	155+40	167+20	14	8	112	120	13.4	16.4	$778,800	$6,490	YES	---
	2006 PD&E Study - Recommended Noise Barrier - Las Brisas															
	---	Segment 1 of 1	19	1,170	155+40	167+10	60	30	26	56	11.8	---	$555,750	$9,924	---	PD&E Study Recommended Noise Barrier.

X:\P\Noise_Studies\Proposal\MGD_CorridorStudy\Re-eval\Noise Study Report Addendum\Tables\[MGD_Table3_BarrierDesign_11-1-2019.xlsx]E21 Country Village Park

Conceptual noise barrier design that meets FDOT's reasonable cost criteria and noise reduction design goal of at least a 7.0 dB(A) reduction for at least one impacted receptor site and recommended for further consideration and public input.

Table 3.3.12-1: Country Club of Miami Condominiums (Common Noise Environment E19) Noise Barrier Analysis Summary

Noise Sensitive Area (General Location)	Conceptual Barrier Design Number	Noise Barrier Segment	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Number of Impacted/ Benefited Receptor Sites	Number of Benefited Receptor Sites/ Not Impacted	Total Number of Benefited Receptor Sites	Average Noise Reduction for all Benefited Receptor Sites dB(A)	Maximum Noise Reduction for all Benefited Receptor Sites dB(A)	Estimated Cost ($30 per square foot)	Average Cost/Site Benefited	Conceptual Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of $42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal	Comments
Common Noise Environment E19 / Country Club of Miami Condominiums (North of Miami Gardens Drive between NW 68th Avenue and Bobolink Drive)	CD1-E19	Segment 1 of 1	8	460	180+00	184+60	7	2	0	2	5.9	5.9	$110,400	$55,200	NO	---
	CD2-E19	Segment 1 of 1	10	460	180+00	184+60	7	5	0	5	6.5	7.8	$138,000	$27,600	YES	An optimized noise barrier will be determined during the project's design phase.
	CD3-E19	Segment 1 of 1	12	460	180+00	184+60	7	6	1	7	7.1	8.6	$165,600	$23,657	YES	
	CD4-E19	Segment 1 of 1	14	460	180+00	184+60	7	7	2	9	8.4	9.5	$193,200	$21,467	YES	
	CD5-E19	Segment 1 of 1	16	460	180+00	184+60	7	7	2	9	9.2	10.9	$220,800	$24,533	YES	
	CD6-E19	Segment 1 of 1	18	460	180+00	184+60	7	7	2	9	9.7	11.7	$248,400	$27,600	YES	
	CD7-E19	Segment 1 of 1	20	460	180+00	184+60	7	7	3	10	10.1	12.6	$276,000	$27,600	YES	
	CD8-E19	Segment 1 of 1	22	460	180+00	184+60	7	7	3	10	10.4	13.1	$303,600	$30,360	YES	
	2006 PD&E Study - Recommended Noise Barrier - County Club of Miami Condominiums															
	---	Segment 1 of 1	12	430	180+40	184+70	6	6	2	8	6.5	---	$129,000	$16,125	---	PD&E Study Recommended Noise Barrier.

Conceptual noise barrier design that meets FDOT's reasonable cost criteria and noise reduction design goal of at least a 7.0 dB(A) reduction for at least one impacted receptor site and recommended for further consideration and public input.

Table 3.3.13-1: Country Lake Manor Townhomes (Common Noise Environment E20) Noise Barrier Analysis Summary

Noise Sensitive Area (General Location)	Conceptual Barrier Design Number	Noise Barrier Segment	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Number of Impacted/ Benefited Receptor Sites	Number of Benefited Receptor Sites/ Not Impacted	Total Number of Benefited Receptor Sites	Average Noise Reduction for all Benefited Receptor Sites dB(A)	Maximum Noise Reduction for all Benefited Receptor Sites dB(A)	Estimated Cost ($30 per square foot)	Average Cost/Site Benefited	Conceptual Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of $42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal	Comments
Common Noise Environment E20 / Country Lake Manor Townhomes (North of Miami Gardens Drive between Bobolink Drive and Ludlam Road)	CD1-E20	Segment 1 of 1	8	200	185+60	187+60	7	0	0	0	---	---	$48,000	---	NO	---
	CD2-E20	Segment 1 of 1	10	200	185+60	187+60	7	4	0	4	5.7	6.1	$60,000	$15,000	NO	---
	CD3-E20	Segment 1 of 1	12	200	185+60	187+60	7	5	0	5	5.9	6.6	$72,000	$14,400	NO	---
	CD4-E20	Segment 1 of 1	14	200	185+60	187+60	7	5	0	5	6.2	6.9	$84,000	$16,800	NO	---
	CD5-E20	Segment 1 of 1	16	200	185+60	187+60	7	5	0	5	6.4	7.2	$96,000	$19,200	YES	An optimized noise barrier will be determined during the project's design phase.
	CD6-E20	Segment 1 of 1	18	200	185+60	187+60	7	5	0	5	6.6	7.4	$108,000	$21,600	YES	
	CD7-E20	Segment 1 of 1	20	200	185+60	187+60	7	5	0	5	6.7	7.6	$120,000	$24,000	YES	
	CD8-E20	Segment 1 of 1	22	200	185+60	187+60	7	5	0	5	6.8	7.7	$132,000	$26,400	YES	
	2006 PD&E Study - Noise Barriers Not Evaluated; No Noise Sensitive Sites Identified or Evaluated for Traffic Noise Impacts at this Location															
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Conceptual noise barrier design that meets FDOT's reasonable cost criteria and noise reduction design goal of at least a 7.0 dB(A) reduction for at least one impacted receptor site and recommended for further consideration and public input.

Table 3.3.14-1: Country Village Park (Common Noise Environment E21) Noise Barrier Analysis Summary

Noise Sensitive Area (General Location)	Conceptual Barrier Design Number	Noise Barrier Segment (Ground Mounted)	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Estimated Cost ($30 per square foot)	Average Noise Reduction for all Benefited Receptor Sites dB(A)	Maximum Noise Reduction for all Benefited Receptor Sites dB(A)	Percent of Impacted Area Benefited	Does Barrier Design Meet 7 dB(A) Noise Reduction Goal At Any Site?	Does Barrier Design Provide 5 dB(A) Noise Reduction For Entire Exterior Area of Use Impacted?	Usage Required to be Cost Reasonable (Person Hours per Day)	Actual Usage Likely to Exceed Required Usage to be Cost Reasonable	Comments
Common Noise Environment E21 / Country Village Park (North of Miami Gardens Drive between Ludlam Road and NW 62nd Avenue)	CD1-E21	Segment 1 of 1	18	900	197+00	206+00	$486,000	7.9	9.2	85%	NO	NO	683	NO	Lowest cost conceptual noise barrier design. Not recommended for further consideration or public input during the project's design phase since the reasonableness cost criteria is not met.
	CD2-E21	Segment 1 of 1	20	900	197+00	206+00	$540,000	8.2	9.4	85%	NO	NO	759	NO	---
	CD3-E21	Segment 1 of 1	22	900	197+00	206+00	$594,000	8.1	9.9	85%	NO	NO	835	NO	---
	2006 PD&E Study - Noise Barriers Not Evaluated or Recommended; None of the Noise Sensitive Receptor Sites Impacted by Traffic Noise														
	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

X:\P\Noise_Studies\Proposal\MGD_CorridorStudy\Re-eval\Noise Study Report Addendum\Tables\[MGD_Table3_BarrierDesign_11-1-2019.xlsx]E21 Country Village Park

Table 3.2.14-2: Conceptual Noise Barrier Design - College Village Park (CNE E21)

Item	Criteria	Actual Usage	Needed Usage to Meet FDOT's Cost Reasonableness Criteria (Input Data)			Units
			Conceptual Noise Barrier Design Number			
			CD1-E21	CD2-E21	CD3-E21	
1	Enter Length of Proposed Noise Barrier	---	900	900	900	feet
2	Enter Height of Proposed Noise Barrier	---	18	20	22	feet
3	Total Square Feet of Proposed Noise Barrier (Multiply item 1 by Item 2)	---	16,200	18,000	19,800	$feet^2$
4	Enter the average amount of time that a person stays at the site per visit	**Unknown**	1	1	1	hours
5	Enter the average number of people that use this site per day that will receive at least 5 dB(A) benefit from abatement at the site	**Unknown**	**683**	**759**	**835**	persons
6	Total Person Hours per Day Benefited by Noise Barrier (Multiply Item 4 by Item 5)	---	683	759	835	person-hours
7	Average Square Foot of Noise Barrier per Person Hour (Divide Item 3 by Item 6)	---	23.71	23.71	23.71	$feet^2$/person-hours
8	Cost per Person Hour per Square Foot of Noise Barrier (Multiply Item 7 by $42,000)	N/A	$995,935	$995,935	$995,935	$/person-hours/$ft^2$
9	Does item 8 exceed the "abatement cost factor" of: $995,935/person-hour/$ft^2$?	N/A	No	No	No	Yes/No
10	If item 9 is no, abatement is cost reasonable.	N/A	N/A	N/A	N/A	---
11	If item 9 is yes, abatement is not cost reasonable.	N/A	N/A	N/A	N/A	---

X:\P\Noise_Studies\Proposal\MGD_CorridorStudy\Re-eval\Noise Study Report Addendum\Tables\[MGD_Table4_2_PD&E_Noise Barrier Summary Table 11-2-2019_Util.xlsx]Table 3-4_Revised

Source: FDOT Report - A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations (2009)

Table 3.3.15-1: Villa Esperanza Apartments (Common Noise Environment E22) Noise Barrier Analysis Summary

Noise Sensitive Area (General Location)	Conceptual Barrier Design Number	Noise Barrier Segment	Height (feet)	Length (feet)	Begin Station Number	End Station Number	Number of Impacted Receptor Sites	Number of Impacted/ Benefited Receptor Sites	Number of Benefited Receptor Sites/ Not Impacted	Total Number of Benefited Receptor Sites	Average Noise Reduction for all Benefited Receptor Sites dB(A)	Maximum Noise Reduction for all Benefited Receptor Sites dB(A)	Estimated Cost ($30 per square foot)	Average Cost/Site Benefited	Conceptual Barrier Design Meets FDOT's Reasonable Noise Abatement Cost Criteria of $42,000 per Benefited Receptor Site and 7.0 dB(A) Noise Reduction Design Goal	Comments
Common Noise Environment E22 / Villa Esperanza Apartments (North of Miami Gardens Drive between Ludlam Road and NW 62nd Avenue)	CD1-E22	Segment 1 of 1	8	1,000	209+00	219+00	72	16	0	16	6.0	6.8	$240,000	$15,000	NO	---
	CD2-E22	Segment 1 of 1	10	1,000	209+00	219+00	72	22	0	22	7.2	9.5	$300,000	$13,636	YES	An optimized noise barrier will be determined during the project's design phase.
	CD3-E22	Segment 1 of 1	12	1,000	209+00	219+00	72	31	0	31	7.8	11.1	$360,000	$11,613	YES	
	CD4-E22	Segment 1 of 1	14	1,000	209+00	219+00	72	35	0	35	8.9	12.3	$420,000	$12,000	YES	
	CD4A-E22	Segment 1 of 1	14	900	210+00	219+00	72	35	0	35	8.8	12.3	$378,000	$10,800	YES	
	CD5-E22	Segment 1 of 1	16	1,000	209+00	219+00	72	40	0	40	9.8	13.3	$480,000	$12,000	YES	
	CD5A-E22	Segment 1 of 1	16	900	210+00	219+00	72	40	0	40	9.6	13.3	$432,000	$10,800	YES	
	CD6-E22	Segment 1 of 1	18	1,000	209+00	219+00	72	46	0	46	10.2	14.2	$540,000	$11,739	YES	
	CD6A-E22	Segment 1 of 1	18	900	210+00	219+00	72	46	0	46	10.0	14.2	$486,000	$10,565	YES	
	CD7-E22	Segment 1 of 1	20	1,000	209+00	219+00	72	52	0	52	10.6	14.9	$600,000	$11,538	YES	
	CD8-E22	Segment 1 of 1	22	1,000	209+00	219+00	72	59	0	59	10.9	15.5	$660,000	$11,186	YES	
	2006 PD&E Study - Recommended Noise Barrier - Villa Esperanza															
	---	Segment 1 of 1	22	857	210+60	219+05	70	32	8	40	8.6	---	$471,350	$11,784	---	PD&E Study Recommended Noise Barrier.

X:\P\Noise_Studies\Proposal\MGD_CorridorStudy\Re-eval\Noise Study Report Addendum\Tables\[MGD_Table3_BarrierDesign_11-1-2019.xlsx]E21 Country Village Park

Conceptual noise barrier design that meets Dot's reasonable cost criteria and noise reduction design goal of at least a 7.0 dB(A) reduction for at least one impacted receptor site and recommended for further consideration and public input.

APPENDIX F

Referenced Pages from

2006 PD&E Noise Study Report

NOISE STUDY REPORT

SR 860/Miami Gardens Drive/NW 186th Street/NW 183rd Street
From: East of Interstate (I)-75
To: SR-823/NW 57th Avenue/Red Road

Miami-Dade County, Florida

Financial Management Number: 407736-3-22-01
Federal Aid Project Number: Not Assigned

Prepared For:

Florida Department of Transportation
District Six
Miami-Dade , Florida

March 2006

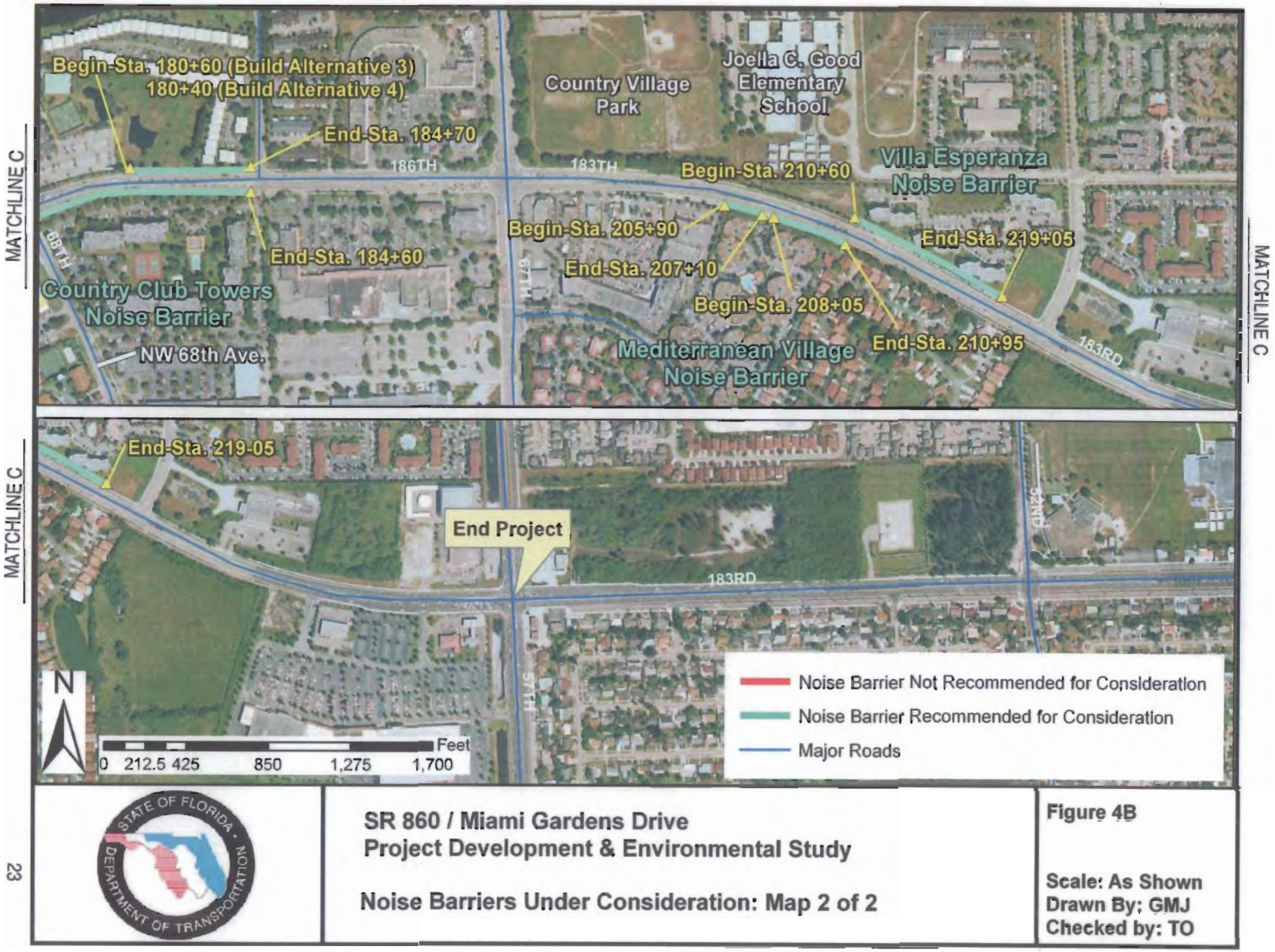
STATE OF FLORIDA · DEPARTMENT OF TRANSPORTATION

SR 860 / Miami Gardens Drive
Project Development and Environmental Study

Noise Barriers Under Consideration: Map 1 of 2

Figure 4A

Scale: As Shown
Drawn by: GMJ
Checked by: TO



STATE OF FLORIDA · DEPARTMENT OF TRANSPORTATION

SR 860 / Miami Gardens Drive
Project Development & Environmental Study

Noise Barriers Under Consideration: Map 2 of 2

Figure 4B

Scale: As Shown
Drawn By: GMJ
Checked by: TO

4.9.4 Acquisition of Property Rights (either in fee or lesser interest) for Construction of Noise Barriers by Donation, by Purchase or by Condemnation

Sufficient right-of-way exists for potential construction of the noise barrier designs presented in this report. Therefore, acquisition of property rights for the construction of noise barriers is not necessary.

4.9.5 Acquisition (by purchase or by condemnation) of Right-of-way for Landscaping Adjacent to Noise Barriers and for Buffer Zones

Sufficient right-of-way exists for potential construction of the noise barrier designs presented in this report. Therefore, acquisition of property rights adjacent to noise barriers for landscaping or for buffer zones is not necessary.

4.9.6 Acquisition of the Balance of a Noise-sensitive Property from Which There Is a Taking, If Acquisition Is less Expensive and Disruptive than the Methods Shown Above

This noise abatement alternative is not applicable since partial acquisition of noise sensitive property is not proposed with this project.

5.0 SUMMARY

In summary, traffic noise levels were predicted for noise sensitive locations along the project corridor for the existing conditions and the design year (2028) No-Build and two build alternatives (Build Alternatives 3 and 4). Traffic noise impacts associated with construction of the project are predicted to occur by the project's design year.

Approximately 250 noise sensitive sites with Build Alternative 3 are predicted to experience traffic noise levels equal to, or exceeding, the FDOT NAAC for LUAC B (66.0 dBA). However, of these sites, only 113 are located near capacity improvements proposed with Build Alternative 3. The remaining sites are adjacent to sections of the corridor where improvements affecting noise levels are not planned with Build Alternative 3 and higher noise levels are expected to occur regardless of project construction. With Build Alternative 4, approximately 324 sites are predicted to experience traffic noise levels equal to, or exceeding, the 66.0 dBA. No other potentially noise sensitive sites, including outdoor areas at the park, school or any of the nearby religious facilities along the project corridor are predicted to experience traffic noise levels equal to, or exceeding the

FDOT NAAC, or experience noise levels at least 15.0 dBA greater than existing noise levels with the build alternatives.

Given the predicted noise impacts, roadway improvements proposed with this project were determined to affect traffic noise levels at nearby noise sensitive land use in several of the nearby neighborhoods and apartment/condominium/townhome complexes. In accordance with FHWA requirements, noise abatement was considered for all noise sensitive locations where design year traffic noise levels were predicted to equal or exceed the FDOT NAAC for residential land use, or where they were predicted to be at least 15.0 dBA greater than existing levels. Following analysis of predicted traffic noise levels, abatement alternatives, available right-of-way, safety criteria, constructability and maintenance issues associated with providing noise abatement along this project corridor, noise barriers were determined to be the most reasonable and feasible abatement alternative to reduce noise levels at all of these communities. Generally, the design goal was to provide a noise level reduction of 10 dBA at most of the nearby noise sensitive sites. At locations where this was not possible, a minimum acceptable noise level reduction of 5 dBA was used in adherence to FDOT criteria. The FDOT's current cost estimate for constructing noise barriers is $25.00 per square foot, which is generally applicable to the noise barrier evaluated with this project since it will be located at-grade and sufficient right-of-way exists. The FDOT's cost guideline of $35,000 per benefitted receiver site was also used to evaluate the noise barrier designs.

Based on the results of this PD&E phase traffic noise analysis, it appears that noise barriers could provide a minimum 5.0 dBA of noise reduction at 123 noise sensitive sites (48 of which are predicted to be impacted) with Build Alternative 3 for a cost of less than the FDOT cost guideline ($35,000). With Build Alternative 4, 331 sites (135 of which are predicted to be impacted) can be befitted for less than $35,000 per site. A summary of the noise barriers proposed for further evaluation is presented in *Table 34*. The proposed noise barrier alignments are shown in *Figure 4*. These noise barriers will be further evaluated during the design phase of this project where specific dimensions and locations will be determined. During the design phase, the FDOT will also continue to coordinate with the owners of properties located adjacent to the noise barriers recommended in this PD&E analysis in order to evaluate their opinions regarding construction of noise barriers near their property. This coordination will include the following important components:

- Notifying the adjacent property owners of the noise barrier locations and heights selected for construction;

TABLE 34
SUMMARY OF RECOMMENDED NOISE BARRIERS

LOCATION		BUILD ALTERNATIVE	LIMITS (Station) Begin	LIMITS (Station) End	TOTAL LENGTH (Feet)	HEIGHT RECOMMENDED TO BENEFIT MAXIMUM NUMBER OF IMPACTED SITES (Feet)	NUMBER OF SITES PREDICTED TO EXPERIENCE A NOISE LEVEL REDUCTION OF AT LEAST 5 dBA: Number of Impacted Receivers That Will be Benefitted[2]	Percent of Total Impacted[3]	Number of Receivers That Are Not Predicted to be Impacted That Will be Benefitted [4]	Total Number of Receivers that will be Benefitted[5]	AVERAGE PREDICTED NOISE LEVEL REDUCTION (dBA)	ESTIMATED COST	ESTIMATED COST PER BENEFITTED SITE
Palm Springs North	Seg.-1	4	79+20	89+40	1,037	12	11	100%	9	20	8.4	$311,100	$15,555
	Seg.-2	4	90+00	104+70	1,496	12	15	100%	13	28	8.5	$448,800	$16,029
	Seg.-3	4	105+70	127+25	2,186	12	24	100%	20	44	8.4	$655,800	$14,905
Coral Gate		4	154+90	159+50	460	19	15	31%	22	37	7.3	$636,500	$17,203
			159+85	165+65	580								
			166+20	169+20	300								
Country Club Towers		3	174+90	184+60	942	21	27	100%	32	59	8.8	$494,550	$8,382
		4	174+90	184+60	942	21	38	73%	21	59	8.8	$494,550	$8,382
Mediterranean Village		3 & 4	205+90	207+10	138	21	10	100%	6	16	7.2	$217,875	$13,617
		3 & 4	208+05	209+95	277								
Ibis Villas		4	85+70	87+35	165	12	4	100%	0	4	6.3	$105,000	$26,250
			88+45	90+30	185								
Esplanade		4	118+40	120+20	180	12	11	92%	8	19	7.3	$360,000	$18,947
			121+40	131+60	1,020								
Las Brisas		4	155+40	167+10	1,170	19	30	50%	26	56	11.8	$555,750	$9,924
Country Club of Miami Condominiums		3	180+60	184+70	410	12	6	100%	2	8	6.5	$123,000	$15,375
		4	180+40	184+70	430	12	6	100%	2	8	6.5	$129,000	$16,125
Villa Esperanza		3 & 4	210+60	219+05	857	22	32	46%	8	40	8.6	$471,350	$11,784
Summary		Build Alternative 3			2,624	12 -22	75	66%	48	123	6.5 -8.8	$1,306,775	$8,382- $15,375
		Build Alternative 4			11,423	12 -22	196	63%	135	331	6.3 -11.8	$4,385,725	$8,382- $26,250

Notes:
1 - Benefitted receivers are those that are predicted to experience noise level reductions of at least 5 decibels.
2 - Impacted and Benefitted refers to the number of impacted receivers (receivers predicted to experience noise levels greater than 66.0 dBA) that are predicted to be benefitted with this noise barrier.
3 - Percent of Total Impacted refers to the percentage of the total impacted receivers that are benefitted with this noise barrier.
4 - Not Impacted but Benefitted refers to the number of receivers that are not predicted to experience noise levels greater than 66.0 dBA that are predicted to be benefitted incidentally with this noise barrier.
5 - Total refers to the total number of impacted and not-impacted receivers that are predicted to benefit from this noise barrier.

- Property owner surveys to evaluate owner preferences for aesthetic attributes of the noise barriers; and,

- Noise barrier workshops conducted for the affected property owners in order to present the final noise barrier designs selected for construction and to discuss specific elements of the noise barriers and their construction.

Noise barriers were considered with Build Alternative 4 at two additional locations but were determined to be infeasible due to access requirements. These locations are presented in *Table 35*. A noise barrier considered adjacent to the San Mateo condominiums was determined to perform poorly due to openings required for two access driveways onto the property. It was not possible to provide insertion losses of at least 5 dBA at 2 of the 4 impacted sites and the estimated cost exceeded the FDOT's $35,000 per benefitted site cost guideline. Also, it was not possible to provide effective noise abatement for 8 homes in the Country Club of Miami Estates predicted to be impacted with Build Alternative 4 given the numerous driveways and side streets (9 total) that provide access between this neighborhood and Miami Gardens Drive. Noise abatement will not be considered further for these neighborhoods as part of this roadway improvement project.

TABLE 35
SUMMARY OF NOISE BARRIERS NOT RECOMMENDED

LOCATION	BUILD ALTERNATIVE	NUMBER OF IMPACTED RECEIVERS	GENERAL LIMITS (Station)		APPROXIMATE TOTAL LENGTH (Feet)	REASON NOT RECOMMENDED
			Begin	End		
San Mateo	4	4	97+40	101+05	280	Numerous driveway openings resulting in noise barrier performance less than FDOT's criteria. Cost greater than FDOT's $35,000 cost guideline.
Country Club of Miami Estates	4	8	132+50 (Peters Pike Canal)	145+00 (NW 75th Place)	1,250	Numerous driveway openings resulting in noise barrier performance less than FDOT's criteria.

The Florida Department of Transportation is committed to the construction of feasible noise abatement measures at the noise-impacted locations identified in this report contingent upon the following:

- Detailed noise analyses during the final design process continues to support the need for abatement;

- Reasonable cost analyses indicates that the economic cost of the noise barriers will not exceed the FDOT cost guideline of $35,000 per benefitted receiver site;

- Community input regarding desires, types, heights, and locations of barriers has been solicited by the District Office;

- Preferences regarding compatibility with adjacent land uses, particularly as addressed by officials having jurisdiction over such land uses has been noted;

- Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed; and,

- Any other mitigating circumstances found in Section 17-4.6.1 of Chapter 17 of the FDOT PD&E Manual have been analyzed.

6.0 CONSTRUCTION NOISE AND VIBRATION

There are no known County or local ordinances that set specific limitations on construction noise levels applicable to FDOT projects. The potential exists for noise impacts from equipment during the construction phase of this proposed project. To mitigate those impacts, the contractor will be required to adhere to the latest edition of FDOT *Standard Specifications for Road and Bridge Construction*. Specifications include noise screening guidelines for stationary equipment, exhaust noise, noise from loose equipment parts, and excessive tailgate banging.

No known businesses particularly sensitive to construction noise and/or vibration exist along the project corridor. A reassessment of the project corridor for such sites will be performed during design to ensure that impacts to such sites are minimized. Coordination between the FDOT and the owners of any other vibration sensitive businesses identified during design should occur and Technical Special Provisions should be developed for the project's contract package in order to ensure that impacts to such businesses are minimized.

7.0 COORDINATION WITH LOCAL AGENCIES

For the purposes of long range planning for land uses identified under LUAC B, 66 dBA L_{Aeq1h} noise level isopleths were estimated for the Build Alternative. The typical 66 dBA isopleth across flat ground that does not include any abatement measures for LUAC B properties extends approximately 70 feet from the edge of the near traffic lane along Miami Gardens Drive.