FINAL

Noise Study Report

State Road 414 Expressway Extension
Project Development and Environment Study
From US 441 to SR 434
Orange County and Seminole County, Florida

CFX Project Number: 414-227

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CENTRAL FLORIDA EXPRESSWAY AUTHORITY

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Acronyms and Abbreviations

CFX	Central Florida Expressway Authority
CFR	Code of Federal Regulations
CNE	Common Noise Environment
dB(A)	decibels on the “A”-weighted scale
FDOT	Florida Department of Transportation
FHWA	Federal Highway Administration
I-4	Interstate 4
Leq(h)	Steady state equivalent sound level over a one-hour period
LOS	Level of Service
mph	mile(s) per hour
NAC	Noise Abatement Criteria
NSR	Noise Study Report
PD&E	Project Development and Environment
ROW	right-of-way
SLM	sound level meter
SR 414	State Road 414
SR 429	State Road 429
SR 434	State Road 434
TNM	Traffic Noise Model
US 441	U.S. Highway 441

1. Project Overview

1.1 Project Background and Description

The Central Florida Expressway Authority is conducting the State Road 414 Expressway Extension Project Development and Environment Study to evaluate alternatives for a proposed grade-separated expressway extension of the tolled SR 414 (John Land Apopka Expressway). The existing SR 414 Expressway provides regional connectivity from State Road 429 and U.S. Highway 441 in Apopka and extends south and east to SR 414 (Maitland Boulevard) just east of U.S. Route 441. Figure 1-1 presents the Regional Location Map. The study limits extend along the existing SR 414 (Maitland Boulevard) corridor from US 441 (Orange Blossom Trail) to State Road 434 (Forest City Road). Figure 1-2 presents the Project Location Map. The approximate 2.8-mile-long study corridor generally runs along the boundary of Orange County and Seminole County and is located within the cities of Maitland (Orange County) and Altamonte Springs (Seminole County). Both CFX and the Florida Department of Transportation own portions of SR 414 within the project study limits. CFX owns and operates the SR 414 (John Land Apopka Expressway) from SR 429 to just east of US 441, and FDOT owns and operates SR 414 (Maitland Boulevard) from just east of US 441 to U.S. Highway 17/U.S. Highway 92. The existing SR 414 (Maitland Boulevard) is a four-lane divided urban principal arterial with three major signalized intersections at Bear Lake Road/Rose Avenue, Eden Park Road and Magnolia Homes Road, and an unsignalized intersection at Gateway Drive between the grade-separated intersections of SR 414/US 441 and SR 414/ SR 434. A minor grade-separated overpass exists over the Little Wekiva Canal and an access road between the Lake Lotus Park and Ride lot and Lake Lotus Park.

The PD&E Study is evaluating alternatives for a proposed grade-separated SR 414 Expressway Extension to provide system linkage between the western terminus of the SR 414 (John Land Apopka Expressway) and Interstate 4. The SR 414 Expressway Extension includes alternatives for a facility with up to two lanes in each direction from US 441 to SR 434. Project alternatives involve various configurations of grade-separated express lanes on SR 414 (Maitland Boulevard) to provide needed capacity between US 441 and SR 434 while maintaining the existing local access lanes. Alternatives considered include reversible, bi-directional and convertible express lanes along the project corridor to avoid right-of-way acquisition needs.

Prior to the PD&E Study, CFX completed the SR 414 Reversible Express Lanes Schematic Report that included an assessment of tolled, directional express lanes within the median of SR 414 (CFX 2019). The Report recommended a two-lane reversible grade separated viaduct in the median of SR 414. The Report also found that a single lane bi-directional express lane would require a 75 percent wider bridge and was not considered viable.

The proposed improvements also include reconfiguring the existing at-grade SR 414 (Maitland Boulevard) to accommodate the SR 414 toll facility while maintaining two SR 414 local access lanes in each direction. The study will involve analysis of intersection improvements, bridge modifications at Lake Bosse and Little Wekiva Canal, stormwater management facilities, pedestrian and bicycle needs and access management modifications. The No-Build Alternative is a viable option throughout the study.

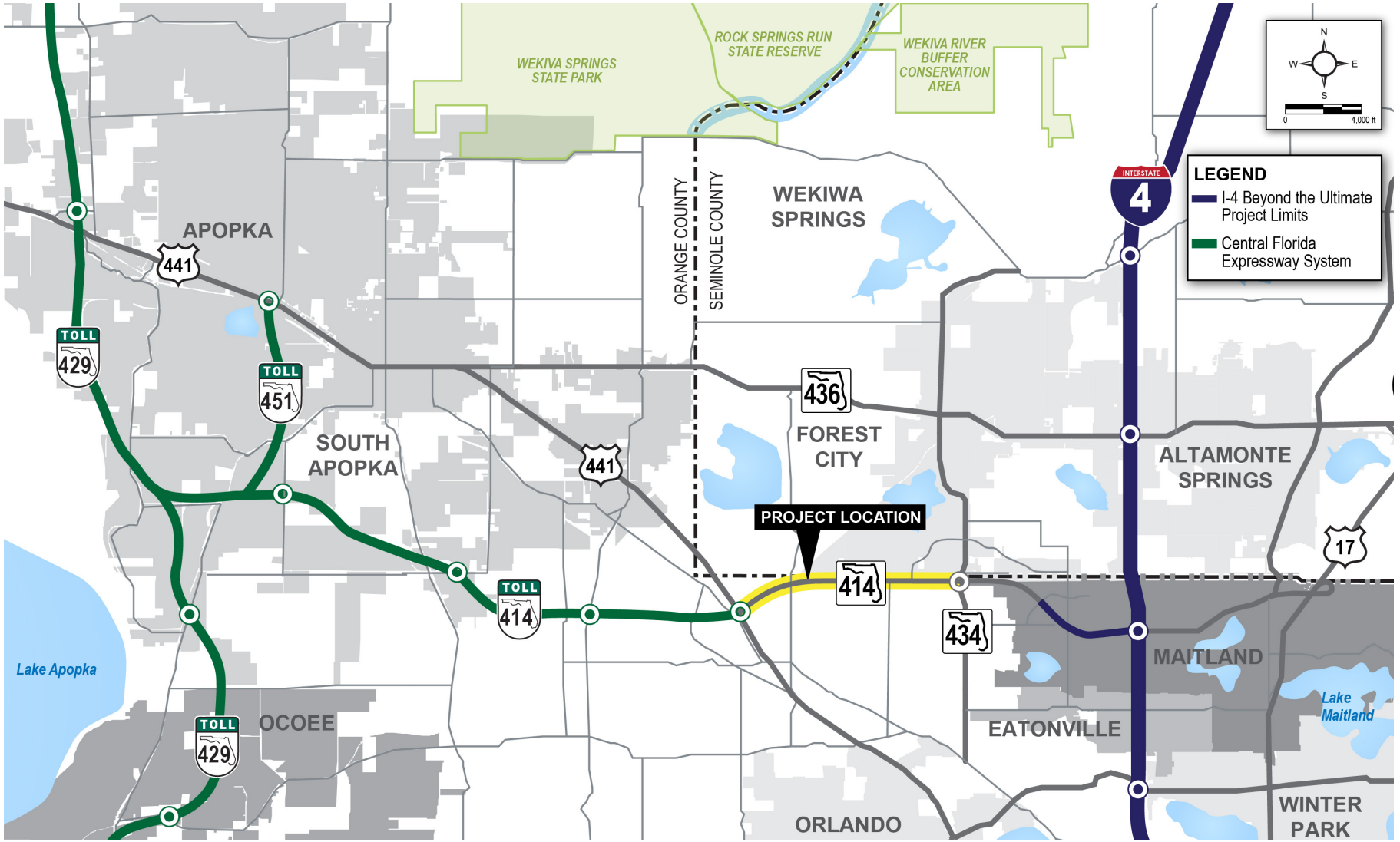

Figure 1-1. Regional Location Map

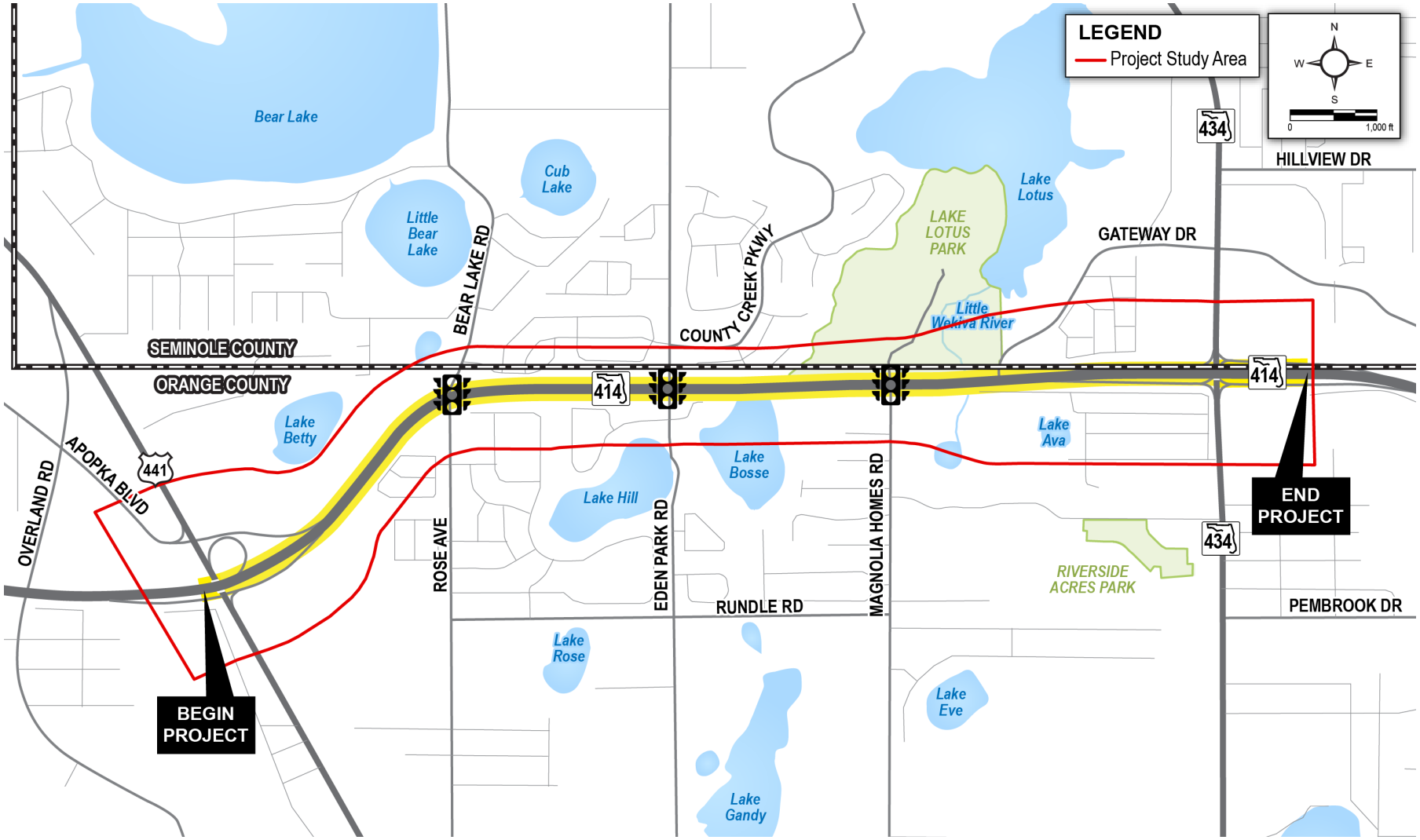

Figure 1-2. Project Location Map

1.2 Purpose and Need

The purpose of the SR 414 Expressway Extension PD&E Study is to provide needed capacity on SR 414 and improve system connectivity between SR 429 and I-4 to meet future traffic needs. The 2.8-mile-long project corridor of SR 414 is an arterial connecting two limited-access facilities. The proposed project will complete the limited-access gap between US 441 and SR 434 and provide limited-access regional connectivity between SR 429 and I-4. The proposed grade-separated SR 414 Expressway Extension will separate the through traffic from the local traffic, allowing for greater mobility and reduced congestion for both facilities. The proposed improvements are to 1) accommodate anticipated transportation demand, 2) improve safety, 3) improve system connectivity/linkage and 4) support multimodal opportunities.

1.3 Report Purpose

This Noise Study Report describes the methodologies that were used to prepare a highway traffic noise analysis for the proposed improvements to SR 414 and presents the analysis assumptions, data, and results.

1.4 Alternatives Considered

Alternatives were evaluated for environmental and operational constraints. An at-grade alternative within the median of SR 414 was eliminated because while it provided uninterrupted travel along SR 414, traffic from the local cross streets would not be able to cross Maitland Boulevard. Another alternative considered included an adjacent corridor to SR 414. However, because Maitland Boulevard is mostly developed, this alternative was not viable. Finally, an alternative that included individual overpasses at each of the existing intersections was also considered. However, due to the limited spacing between each intersection, this alternative was not feasible and therefore eliminated.

Viable alternatives were developed and presented for public input at the Alternatives Public Workshop held on February 10, 2021. These viable alternatives included roadway concepts for the SR 414 Expressway Extension project, including the SR 414 toll lanes and the Maitland Boulevard local access lanes. The viable alternatives were updated after the Alternatives Public Meeting to reflect ongoing alternatives refinements that avoid and minimize environmental impacts.

1.4.1 Preferred Alternative

As a result of the alternatives analyses conducted for the project, a Preferred Alternative was identified for further analysis and public input. The proposed typical sections can be found in **Appendix A** of this NSR. The Preferred Alternative involves an elevated SR 414 Expressway Extension toll facility to serve regional traffic and at-grade Maitland Boulevard local access lanes (non-tolled) from US 441 to SR 434. The proposed SR 414 Expressway Extension typical section for the Preferred Alternative includes the elevated SR 414 facility in the median, as four 12-foot-wide express lanes (two lanes per direction) separated by a median barrier wall. The Preferred Alternative also includes maintaining the existing Maitland Boulevard access lanes at-grade with two lanes per direction on either side and below the SR 414 Expressway Extension. The at-grade portion of the facility on Maitland Boulevard will maintain the existing pavement width (60 feet) but shifts and restripes the existing lanes to provide a 7-foot-wide buffered bike lane east of Bear Lake Road. Using these recommendations to minimize ROW and ongoing traffic analysis, the Preferred Alternative will be further evaluated as the study progresses. As part of the Preferred Alternative, operational improvements at intersections are anticipated to accommodate the

elevated SR 414 Expressway Extension while maintaining local access at cross streets. In addition, impacts to environmental resources including social, cultural, natural, and physical will be considered as the Preferred Alternative is further developed.

1.4.2 No-Build Alternative

The No-Build Alternative for the study area assumes previously programmed improvements are built including widening SR 414 to six lanes (at-grade with no elevated expressway) from US 441 to SR 434 as noted in MetroPlan Orlando's 2045 Metropolitan Transportation Plan Cost Feasible Plan, Adopted December 9, 2020. The No-Build Alternative is not funded in the FDOT 5-Year Work Program, adopted July 2020 and is no longer programmed. Consistency with local transportation plans to update this change will be coordinated during the PD&E Study. The previously programmed improvements to SR 414 do not meet the future traffic needs through the year 2045 nor the purpose and need for the project to accommodate future transportation demand or improve system connectivity. An at-grade widening of SR 414 to six lanes would result in precluding a four-lane expressway within the median (two lanes per direction) or require substantial ROW impacts. Similarly, at-grade widening of SR 414 to six lanes and a two-lane expressway within the median (one lane per direction) would result in ROW impacts and impact the ability to maximize the use of the existing median to accommodate infrastructure (such as utilities and drainage needs). Therefore, the No-Build Alternative is not the Preferred Alternative. However, the No-Build Alternative shall remain under consideration throughout the PD&E Study for public input and to provide a comparison to the Preferred Alternative.

2. Methodology

The methodologies used to prepare the highway traffic noise analysis are documented in FDOT's PD&E Manual (Chapter 18, the FDOT's Noise Policy)[3], the FDOT's *Traffic Noise Modeling and Analysis Practitioners Handbook*[4] and *A Method to Determine Reasonableness and Feasibility of Noise Abatement at Special Use Locations*[5]. Methodologies are also described in the Federal Highway Administration's *Noise Measurement Handbook – Final Report*[6].

This NSR section describes the sound level metrics and motor vehicle traffic data that were used to evaluate the SR 414 improvement, the criteria used to determine if a future design year (year 2045) traffic noise level with the improvement is considered an impact and discusses available highway traffic noise abatement measures for impacted properties.

2.1 Noise Metrics

The predicted highway traffic noise levels presented in this report are expressed in decibels on the A-weighted scale (dB(A)). The A-weighted scale most closely approximates the response characteristics of the human ear to traffic noise. All traffic noise levels are reported as equivalent levels (Leq(h)). Levels reported as Leq(h) are equivalent steady state sound levels that contain the same acoustic energy as time-varying sound levels over a period of one hour.

2.2 Traffic Data

Highway traffic noise levels are low when traffic volumes are low and operating conditions are good (level of service (LOS) A or B). Highway traffic noise levels are also low when traffic is so congested that movement is slow (LOS D, E, or F). For these reasons, and with the exception of interchange ramps, when demand volumes are forecast to be less than LOS C conditions, LOS A or B conditions are modeled (because the demand volume is not forecast to reach the LOS C level). Conversely, when demand volumes are forecast to be greater than LOS C conditions, LOS C conditions are modeled because use of the LOS C data provides conservative results. For ramps, demand volumes are used even if the volume is greater than the LOS C volume.

The detailed traffic data (i.e., vehicle volume, fleet mix, and motor vehicle speeds) that were used to perform the SR 414 analysis are provided in Appendix B of this NSR. Notably, although the forecast traffic condition for the elevated toll facility would be less than the LOS C condition, to be conservative, LOS C data were used in the analysis.

2.3 Noise Abatement Criteria

To evaluate highway traffic noise, the FHWA established Noise Abatement Criteria. As shown in Table 2-1, these criteria vary according to a land uses' activity category. For comparative purposes, typical sound levels produced by common indoor and outdoor activities are provided in Table 2-2.

Table 2-1. FHWA and FDOT Noise Abatement Criteria

Activity Category	Description of Activity Category	Activity Leq(h)[1]	
		FHWA	FDOT
A	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.	57 (Exterior)	56 (Exterior)
B[2]	Residential	67 (Exterior)	66 (Exterior)
C[2]	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.	67 (Exterior)	66 (Exterior)
D	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.	52 (Interior)	51 (Interior)
E[2]	Hotels, motels, offices, restaurants/bars and other developed lands, properties or activities not included in A-D or F.	72 (Exterior)	71 (Exterior)
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.	--	--

Sources: Table 1 of 23 CFR Part 772[7] and Table 18.1 of Chapter 18 of the FDOT's PD&E Manual (dated 7-1-20)[3].

[1] The Leq(h) activity criteria values are for impact determination only and are not design standards for noise abatement measures.

[2] Includes undeveloped lands permitted for this activity category.

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

Table 2-2. Typical Sound Levels

Common Outdoor Activities	Sound Level dB(A)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet		
	100	
Gas lawnmower at 3 feet		
	90	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noisy urban area daytime		
Gas lawnmower at 100 feet	70	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60	
		Large business office
Quiet urban daytime	50	Dishwasher in 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	
		Broadcast/recording studio
	10	
	0	

Source: California Dept. of Transportation Technical Noise Supplement, Nov. 2009, Page 2-21[8].

Following Part 23, Section 772 of the Code of Federal Regulations (23 CFR 772)[7], highway traffic noise is predicted to impact a land use for which there is an NAC when design year traffic noise levels with a roadway improvement approach, meet, or exceed the NAC or when design year levels with an improvement increase substantially when compared to existing levels. FDOT's Noise Policy considers an NAC to be "approached" when a traffic noise level is predicted to be within 1 dB(A) of the NAC and a substantial increase is predicted when future highway traffic noise levels with a roadway improvement increase 15 dB(A) or more when compared to existing levels.

2.4 Receptors and Analysis Considerations

A computer model is used to predict existing as well as future design year traffic noise levels with and without proposed roadway improvements. Following the requirements of the FDOT's Noise Policy, the FHWA's Traffic Noise Model[9] was used to predict traffic noise for the SR 414 improvements.

Receptors, part of the TNM input that is prepared by a highway traffic noise analyst, are modeled discrete representative locations of a land use for which there is an NAC. Within the SR 414 study area, the following four types of land use have the potential to be impacted by traffic noise—residences, recreational areas, a trail, and the exterior use of an office building. The locations of the evaluated receptors for these land uses are depicted on aerials in Appendix C of this NSR.

Although adjacent to SR 414, it was not necessary to evaluate a receptor at Lotus Lake Park. Based on the FDOT's special land use methodology, receptor locations for parks should be modeled at exterior locations that people use for a significant period of time. At Lotus Lake Park, these locations would include the playground, pavilions, fishing pier and boardwalk. However, these locations are more than 1,000 feet from the edge of pavement of SR 414, which is beyond the noise impact contour of 130 feet (refer to Section 5). Because of the distance from SR 414 to the park's frequently used exterior areas, the park is not expected to be impacted by traffic noise, and therefore it was not necessary to evaluate a receptor at the park.

The modeled receptors were segregated into Common Noise Environments. CNEs comprise receptors within the same activity category that are exposed to similar noise sources and levels, traffic volumes, traffic mix, speed, and topographic features. For the SR 414 analysis, one receptor was modeled for each evaluated residence and each recreational area. A grid of receptors was modeled for the trail. Table 2-3 lists the SR 414 CNEs, the receptor identification numbers and activity category/land use within each CNE, and the NAC for each activity category.

Table 2-3. Evaluated Receptors

CNE[a]	Receptor ID(s)[a]	Activity Category/Land Use[b]	Activity Category / NAC[b]
N1	1	Office: Northrup Grumman Volleyball and Basketball Courts	E / 71
N2	1-10	Trail: Seminole-Wekiva Trail	C / 66
N3	1-10	Residential: Enclave at Bear Lake Subdivision	B / 66
N4	1-33	Residential: Forest Edge Subdivision	B / 66
N5	1	Recreational Area: Basketball Court and Swimming Pool in Forest Edge Subdivision	C / 66
N6	1-25	Residential: Southridge Subdivision	B / 66
N7	1-50	Residential: Crescent Place Condominiums	B / 66
N8	1	Recreational Area: Tennis Court in Crescent Place Condominiums	C / 66
N9	1-3	Residential: Crescent Communities	B / 66
N10	1-2	Recreational Areas: Dog Park and Pool at Crescent Communities	C / 66
S1	1-22	Residential: Rose Pointe Subdivision	B / 66
S2	1-22	Residential: Tealwood Cove Subdivision	B / 66

Table 2-3. Evaluated Receptors

CNE[a]	Receptor ID(s)[a]	Activity Category/Land Use[b]	Activity Category / NAC[b]
S3	1-18	Residential: Lake Hill Woods Subdivision	B / 66
S4	1-3	Residential: Water's Edge Subdivision	B / 66
S5	1-8	Residential: Woodlands by the Lake Subdivision	B / 66
S6	1-5	Residential: West of Monroe Manor Subdivision and South of Oranole Road	B / 66
S7	1-36	Residential: Monroe Manor Subdivision	B / 66
S8	1	Recreational Area: Pool at Maitland West	B / 66

[a] The locations of the receptors are illustrated on aerials in Appendix C.
[b] See Table 2-1.

Figure 2-1. Existing FDOT Noise Barrier

Between SR 414 and the residences located in CNEs S1 and S3 (i.e., the Rose Pointe and Lake Hill Roads subdivisions) there are concrete walls that are 6 and 7 feet in height, respectively. Between SR 414 and the residences in CNEs N4, N5, N6, S2, S4, and S5 (i.e., the residences and recreational area in the Forest Edge subdivision and the residences in the Southridge, Tealwood Cove, Water's Edge, and Woodlands by the Lake subdivisions) there are highway traffic noise barriers that were constructed by the FDOT as part of a previous improvement to SR 414. The FDOT noise barriers are 12 feet in height. Both the concrete walls and noise barriers were considered in the highway traffic noise analysis.

2.5 Noise Abatement Measures

2.5.1 Traffic Management

Some traffic management measures can reduce motor vehicle-related noise. For example, trucks can be prohibited from certain streets and roads, or be permitted to only use certain streets and roads during daylight hours. The timing of traffic lights can also be changed to smooth out the flow of traffic and eliminate the need for frequent stops and starts. Reducing speed limits and increasing enforcement of speed limits is also an effective method of reducing motor vehicle noise.

2.5.2 Alignment Modifications

Modifying the alignment of a roadway can also be an effective traffic noise mitigation measure. When the horizontal alignment is shifted away from a noise sensitive land use, the sound level is reduced for the land uses that are farther from the roadway than before the shift. In certain circumstances, when a change is made to the vertical alignment (i.e., shifting the alignment so that it is below or above the elevation of a land use), highway traffic noise may be reduced due to shielding.

2.5.3 Buffer Zones

Providing a buffer between a roadway and future noise sensitive land uses is an abatement measure that can minimize/eliminate noise impacts in areas of future development. To encourage use of this abatement measure through local land use planning, noise contours have been developed and are further discussed in Section 5 of this NSR. To abate traffic noise for an existing land use using this abatement measure, the property would have to be acquired.

2.5.4 Noise Barriers

Noise barriers have the potential to reduce traffic noise by interrupting the sound path between the motor vehicles on a roadway and a noise sensitive land use next to the roadway. To effectively reduce traffic noise, a barrier must be relatively long, continuous, and sufficiently tall. Use of noise barriers is the most common traffic noise abatement measure. Generally, noise barriers are most effective when placed as close to the noise source or as close to the noise receptor as possible.

2.5.5 Feasible and Reasonable Abatement Measures

For PD&E studies, an abatement measure is considered a potential noise abatement measure if the following criteria are met:

- Minimum Noise Reduction – To meet the minimum noise reduction criteria, an abatement measure must provide at least a 5 dB(A) reduction in traffic noise for two or more impacted receptors and provide a 7 dB(A) reduction, the FDOT's Noise Reduction Design Goal, for one or more benefited receptors. Failure of a measure to provide at least a 5 dB(A) reduction for two or more impacted receptors results in a measure being deemed not feasible. Failure to achieve the Noise Reduction Design Goal results in a measure being deemed not reasonable.
- Cost Effectiveness Criteria –Based on FDOT's Noise Policy, to be considered a reasonable abatement measure, the measure should cost no more than $42,000 per benefited receptor. In a project's PD&E phase, the FDOT currently uses an estimated cost of $30 per square foot for noise barrier-related materials and labor.

If, in a project's design phase, it is confirmed that an abatement measure would provide at least the minimum required reduction in traffic noise at a cost that is less than the cost effectiveness criteria, additional factors are considered. Depending on the measure, feasibility factors relate to design and construction (i.e., given site-specific details, can an abatement measure be implemented), safety, accessibility, ROW requirements, maintenance, and impacts on utilities and/or drainage. In addition to achieving the minimum required reduction in traffic noise and the cost of the measure being considered effective (i.e., less than the effectiveness criteria), the viewpoints of the benefited property owners and/or residents of the benefited properties are considered. The above-mentioned feasibility and reasonableness factors are set by FDOT, however CFX is not bound to the criteria and can implement noise barriers for alternatives above these measures for design, aesthetics or to eliminate impacts if necessary.

3. Traffic Noise Analysis

This section presents sound level measurements that were obtained within the SR 414 study area, provides a summary of the predicted traffic noise levels for the land uses for which there are NAC, and presents the results of an abatement evaluation for the land uses that are predicted to have traffic noise levels in the project's future design year, with the preferred alternative, that would either approach, meet, or exceed the NAC or for which the increase in the future traffic noise, when compared to existing levels, would increase substantially.

3.1 Model Validation

To ensure that motor vehicle traffic is the primary source of noise within a project's study area and to verify that the TNM accurately predicts existing traffic noise levels, field measurements of sound levels are taken. During each measurement period, average vehicle travel speeds, vehicle count and fleet identification (i.e., automobiles, trucks, buses, and motorcycles), site conditions (i.e., typography, distance from the roadway(s)) and sources of sound other than motor vehicles (e.g., aircraft flyovers, birds, barking dogs) are noted. The motor vehicle data and site conditions are used to create input for the TNM, and the model is executed. Following FDOT's methodology, the TNM is considered valid to predict existing conditions if the field measured sound levels are within 3 dB(A) of the TNM predicted highway traffic noise levels.

The field measurements for SR 414 were conducted in accordance with the FHWA's *Noise Measurement Handbook – Final Report*. Field measurements were obtained at two locations using a Larson Davis sound level meter Model 831. The SLMs were calibrated before and after each monitoring period with a Larson Davis calibrator Model CAL200. Table 3-1 presents the field measurements and the SR 414 validation results. As shown, the ability of the model to predict noise levels within the FDOT limit of plus or minus 3 dB(A) was confirmed.

Table 3-1. TNM Validation Results

Location	Measurement Period	Measured Sound Level (dB(A))	Modeled Traffic Noise (dB(A))	Difference
Eastbound side of SR 414 south of the Rose Pointe subdivision	1	74.6	72.6	2.0
	2	73.8	72.8	1.0
	3	73.2	71.4	1.8
Eastbound side of SR 414 on Oranole Road	1	69.4	67.8	1.6
	2	70.4	67.6	2.8
	3	69.2	66.5	2.7

Note: The locations at which the field measurements were obtained are depicted on aerials in Appendix C of this NSR.

3.2 Predicted Noise Levels and Abatement Analysis

The predicted traffic noise levels for the Existing, No-Build and Preferred Alternatives for each of the evaluated receptors are provided in Appendix D of this NSR. The analysis results are summarized in Table 3-2. As shown, in the existing year (year 2019) with the current roadway geometry, traffic noise is predicted to range from 37.7 to 76.3 dB(A). As also shown, in the project's design year (year 2045) with the programmed improvements to SR 414 (the No-Build Alternative) traffic noise is predicted to range

from 40.5 to 78.3 dB(A) and with the improvements (the Preferred Alternative) traffic noise is predicted to range from 44.0 to 76.5 dBA. Additionally, based on the results of the traffic noise analysis, there are receptors in CNE N2, N7, S1, S2, S3, S6, and S7 for which the future (year 2045) predicted traffic noise level with the proposed SR 414 improvements would approach, meet, or exceed the NAC but the levels are not predicted to increase substantially from existing levels at any of the evaluated receptors.

Table 3-2. Predicted Traffic Noise Levels

CNE	Receptor Numbers	Land Use	Activity Category /NAC	Existing (Year 2019) Traffic Noise Level dB(A)	Future (Year 2045) Traffic Noise Level[a]			
					No-Build Alternative dB(A)	Preferred Alternative[b]		
						dB(A)	Approaches, Meets, or Exceeds the NAC?	Substantial Increase (Yes/No)
N1	1	Office: Northrup Grumman Volleyball and Basketball Courts	E / 71	58.7	59.2	62.6	No	No
N2	1-10	Trail: Seminole-Wekiva Trail	C / 66	67.8 to 76.3	69.5 to 78.3	66.2 to 76.5	Yes	No
N3	1-10	Residential: Enclave at Bear Lake Subdivision	B / 66	59.6 to 61.7	62.4 to 64.5	63.1 to 64.5	No	No
N4	1-33	Residential: Forest Edge Subdivision	B / 66	53.9 to 59.8	56 to 62.2	61.1 to 64.7	No	No
N5	1	Recreational Area: Basketball Court and Swimming Pool in Forest Edge Subdivision	C / 66	57.6	60.1	64.4	No	No
N6	1-25	Residential: Southridge Subdivision	B / 66	54.9 to 62.2	57.8 to 64.6	61.9 to 65.8	No	No
N7	1-50	Residential: Crescent Place Condominiums	B / 66	37.7 to 65.9	40.5 to 69.2	44.0 to 67.8	Yes	No
N8	1	Recreational Area: Tennis Court in Crescent Place Condominiums	C / 66	58.0	61.3	62.4	No	No
N9	1-3	Residential: Crescent Communities	B / 66	57.2 to 65.6	57.2 to 66.0	59.0 to 65.1	No	No
N10	1-2	Recreational Areas: Dog Park and Pool at Crescent Communities	C / 66	57.2 to 65.0	57.2 to 69.0	60.7 to 65.2	No	No

Table 3-2. Predicted Traffic Noise Levels

CNE	Receptor Numbers	Land Use	Activity Category /NAC	Existing (Year 2019) Traffic Noise Level dB(A)	Future (Year 2045) Traffic Noise Level[a]			
					No-Build Alternative dB(A)	Preferred Alternative[b]		
						dB(A)	Approaches, Meets, or Exceeds the NAC?	Substantial Increase (Yes/No)
S1	1-22	Residential: Rose Pointe Subdivision	B / 66	59.2 to 68.7	61.3 to 70.5	64.0 to 70.9	Yes	No
S2	1-22	Residential: Tealwood Cove Subdivision	B / 66	54.3 to 64.3	56.7 to 66.5	61.4 to 66.3	Yes	No
S3	1-18	Residential: Lake Hill Woods Subdivision	B / 66	57.6 to 65.1	60.4 to 67.2	62.4 to 66.0	Yes	No
S4	1-3	Residential: Water's Edge Subdivision	B / 66	60.3 to 63.0	62.7 to 65.5	63.5 to 65.7	No	No
S5	1-8	Residential: Woodlands by the Lake Subdivision	B / 66	55.9 to 63.1	58.1 to 65.4	61.7 to 65.7	No	No
S6	1-5	Residential: West of Monroe Manor Subdivision and South of Oranole Road	B / 66	63.3 to 66.0	66.2 to 69.0	67.1 to 68.7	Yes	No
S7	1-36	Residential: Monroe Manor Subdivision	B / 66	59.5 to 65.9	62.5 to 68.8	63.4 to 68.5	Yes	No
S8	1	Recreational Area: Pool at Maitland West	C / 66	47.1	47.2	49.1	No	No

[a] Traffic noise levels are reported as Leq(h).
[b] The receptors predicted to be impacted by highway traffic noise are individually identified in Section 3.3.4 and Appendix D of this NSR.

As stated previously, the No-Build Alternative assumes programmed improvements are constructed that would widen SR 414 from US 441 to west of SR 434 from four lanes to six lanes (at-grade with no elevated expressway). The additional two travel lanes will change the future traffic noise environment when compared to existing conditions. For informational purposes, the maximum predicted change in highway traffic noise from existing levels to levels with the No-Build Alternative and the Preferred Alternative (i.e., four lanes and the elevated toll facility) are provided in Table 3-3.

Table 3-3. Change in Traffic Noise

CNE	Receptor Numbers	Land Use	Change in Traffic Noise (dB(A))	
			Existing (2019) to No-Build (2045)	Existing (2019) to Build (2045)
N1	1	Office: Northrup Grumman Volleyball and Basketball Courts	0.5	3.4
N2	1-10	Trail: Seminole-Wekiva Trail	1.0 to 2.3	-6.5 to 0.5
N3	1-10	Residential: Enclave at Bear Lake Subdivision	2.7 to 2.9	2.8 to 3.5
N4	1-33	Residential: Forest Edge Subdivision	2.2 to 2.6	3.5 to 8.1
N5	1	Recreational Area: Basketball Court and Swimming Pool in Forest Edge Subdivision	2.5	4.3
N6	1-25	Residential: Southridge Subdivision	1.8 to 2.9	3.3 to 7.6
N7	1-50	Residential: Crescent Place Condominiums	2.7 to 3.6	1.5 to 7.1
N8	1	Recreational Area: Tennis Court in Crescent Place Condominiums	3.3	4.0
N9	1-3	Residential: Crescent Communities	-0.4 to 0.4	-0.5 to 3.5
N10	1	Recreational Areas: Dog Park and Pool at Crescent Communities	0 to 0.3	0.2 to 3.5
S1	1-22	Residential: Rose Pointe Subdivision	1.0 to 2.5	0.2 to 5.4
S2	1-22	Residential: Tealwood Cove Subdivision	2.2 to 2.7	2.9 to 7.2
S3	1-18	Residential: Lake Hill Woods Subdivision	1.9 to 2.9	0.7 to 4.8
S4	1-3	Residential: Water's Edge Subdivision	2.2 to 2.5	2.3 to 3.6
S5	1-8	Residential: Woodlands by the Lake Subdivision	2.0 to 2.4	2.6 to 5.8
S6	1-5	Residential: West of Monroe Manor Subdivision and South of Oranole Road	2.3 to 3.2	1.6 to 3.8
S7	1-36	Residential: Monroe Manor Subdivision	1.1 to 3.7	1.8 to 3.9
S8	1	Recreational Area: Pool at Maitland West	0.1	2.0

When comparing the predicted traffic noise levels with the No-Build Alternative to existing levels, the differences are a result of the motor vehicle traffic on the additional two travel lanes with the programmed improvement, a reduction in the posted travel speed for the at-grade lanes (from 50 to 45 miles per hour), the distance of each receptor from the roadway, whether there is a privacy or FDOT noise barrier between a receptor and the roadway and, if so, the distance of the receptor from the privacy wall or barrier. For example, with the No-Build Alternative traffic noise is not predicted to increase more than 4 dB(A) at any of the evaluated receptors with the increases primarily due to the additional travel lanes with the programmed improvement. A minimal increase of less than 1 dB(A) is predicted for the land use in CNE N1. The minimal increase results because the traffic noise at the evaluated receptor is primarily a result of traffic on the SR 414 westbound to US 441 ramp as well as the US 441 north to SR 414 westbound ramp.

When comparing predicted traffic noise levels with the Preferred Alternative to existing levels, the differences are primarily due to traffic noise from the elevated toll facility, whether there is a privacy or FDOT noise barrier between the receptor and the at-grade SR 414 travel lanes and if so, the distance of a receptor from the privacy wall or barrier, and the distance of a receptor from both the at-grade travel

lanes on SR 414 and the elevated toll facility structure. For example, the traffic noise in CNE N2 (the Seminole-Wekiva Trail) is predicted to increase only 0.5 dB(A) when compared to existing levels. A minimal increase is predicted because the trail would be shielded by the elevated structure. As another example, the maximum predicted traffic noise increase is 8.1 dB(A). This increase is predicted to occur at a receptor in CNE N4 (a residence in Forest Edge subdivision). The increase of 8.1 dB(A) is expected because the residence is located at some distance from SR 414 so there is no shielding of the sound from the motor vehicles on the elevated toll facility. The maximum predicted increases in traffic noise in CNE N6, N7, and S2 (7.6, 7.1, and 7.2 dB(A), respectively) would occur for the same reason.

3.3 Abatement Considerations

As previously stated, when traffic noise impacts are predicted, noise abatement measures are considered for the impacted properties. The following discusses the FDOT's consideration of each of the measures previously described in Section 2.5 of this NSR.

3.3.1 Traffic Management

Reducing traffic speeds and/or the traffic volume or changing the motor vehicle fleet is inconsistent with the goal of improving the ability of the roadway to handle the forecast traffic volume. Therefore, traffic management measures are not considered to be a reasonable measure to abate the predicted traffic noise impacts for the SR 414 project.

3.3.2 Alignment Modification

The proposed improvements would be constructed to follow the existing roadway alignment. Because shifting the alignment horizontally would require substantial ROW acquisitions and, because noise sensitive land uses are located on both sides of the roadway, a modification to the horizontal alignment for the purpose of reducing traffic impacts is not considered to be a reasonable noise abatement measure. Suppressing the roadway's vertical alignment to create a natural berm between the highway and receptors or raising the vertical alignment of the current at-grade roadway or further elevating the proposed toll facility are also not considered reasonable due to the cost to do so.

3.3.3 Buffer Zones

As previously stated, to abate predicted traffic noise at an existing noise sensitive land use, the impacted property would have to be acquired. As also previously stated, to be considered a cost-effective measure, the cost of abatement should cost no more than $42,000 per benefited receptor (i.e., property). A review of data from the Orange and Seminole County Property Appraisers indicates that the cost to acquire the impacted properties adjacent to SR 414 would exceed the cost-effective limit. Therefore, creating a buffer zone by acquiring the properties is not considered to be a reasonable noise abatement measure.

3.3.4 Noise Barriers

The TNM was used to evaluate the potential for noise barriers to reduce traffic noise levels for the impacted receptors in CNE N2, N7, S1, S6, and S7. Because there is only one impacted receptor in CNE S2 and CNE S3 (one residence in the Tealwood Cove subdivision and one residence in the Lake Hill Woods subdivision, respectively), noise barriers were not evaluated for either CNE. Barriers were not evaluated for the CNEs because it would not be possible to achieve the minimum required reduction in traffic noise for a barrier to be considered a feasible abatement measure (i.e., at least two impacted receptors must be benefited).

Where a barrier was evaluated within the SR 414 ROW, the height of the barrier ranged from 8 to 22 feet in 2-foot increments. Where barriers were evaluated on the edge of the elevated toll facility (i.e., on structure), following the requirements of FDOT's Noise Policy, the height of the barrier was limited to 8 feet. Using the TNM, the height of the ROW barriers and the length of the ROW and structure barriers were optimized to determine if at least the minimum noise reduction requirements (i.e., a minimum reduction of 5 dB(A) for two impacted receptors and a minimum reduction of 7 dB(A) for one benefitted receptor) could be achieved.

3.3.4.1 CNE N2 – Seminole-Wekiva Trail

A noise barrier was evaluated for the impacted portion of the Seminole-Wekiva Trail in CNE N2. The highest predicted traffic noise level on the trail with the improvements to SR 441 is 76.5 dB(A)—a level that exceeds the NAC. The impacted area can be described as a 1,000-foot segment of the trail that runs parallel with SR 414 between US 441 and Bear Lake Road. The FDOT's special land use methodology was used to determine if a noise barrier could be considered a potential abatement measure for the impacted area. Two noise barrier scenarios were evaluated. The first scenario would provide a noise barrier inside the SR 414 ROW and the second scenario would provide a noise barrier inside the ROW as well as a barrier on the edge of the toll facility structure.

For a barrier within the ROW, the optimal barrier height is 10 feet, and the length is 1,020 feet. At this height and length, a barrier would reduce predicted traffic noise levels within the impacted area from 5.5 to 11.7 dB(A). Because it is not known how frequently the impacted and benefited area of the trail would be used and by how many people, the minimum number of person-hours of use on an average day for a barrier to be considered cost effective was calculated. The cost effectiveness calculations were based on the formulas from the FDOT's special land use procedures. Assuming the optimal barrier length and height, 1,075 people would need to use the area for one hour per day for the barrier to be considered cost effective. Because it is not reasonable to assume that this level of activity would occur within the impacted area that would be benefited by a barrier, a ROW barrier is not considered a reasonable noise abatement measure.

The evaluation indicates that the optimal barrier height of the ROW barrier for a ROW/structure barrier combination is 18 feet and the length is 1,220 feet. The optimal length of the structure barrier is 701 feet. At this height and lengths, the combination barrier would reduce predicted traffic noise levels within the impacted area from 5.0 to 16.7 dB(A). Assuming the optimal barrier lengths and heights, 2,325 people would need to use the area for one hour per day for the barrier to be considered cost effective. Because it is not reasonable to assume that this level of activity would occur within the impacted area that would be benefited by a barrier, a ROW/structure barrier combination is not considered a reasonable noise abatement measure.

3.3.4.2 CNE N7 – Residences in Crescent Place Condominium Complex

In CNE N7, Receptors 3 through 8 (6 residences) are predicted to be impacted by highway traffic noise in the project's design year (year 2045) with the proposed improvements to SR 414. Two noise barrier scenarios were evaluated. The first scenario would provide a noise barrier inside the SR 414 ROW and the second scenario would provide a noise barrier inside the ROW and a barrier on the edge of the structure for the elevated toll facility. As stated above, noise barriers on structure are limited to a height of 8 feet.

The results of the noise barrier evaluation for the ROW only barrier indicate that a barrier less than 20 feet in height would not reduce traffic noise such that the impacted receptors would be benefited, and

the Noise Reduction Design Goal would be achieved. The results for barrier heights of 20 and 22 feet are provided in Table 3-4. As shown, at these heights, a ROW barrier would provide the 6 impacted receptors with a reduction of 5 dB(A) or more and the Noise Reduction Design Goal of 7 dB(A) would be achieved for 1 to 2 of the impacted receptors. However, the cost of the barrier would be above the FDOT's cost reasonable guideline. As such, a ROW barrier is not considered to be both a feasible and reasonable abatement measure for the impacted residences in CNE N7.

Table 3-4. CNE N7 – ROW Noise Barrier Evaluation Results

Barrier Height (feet)	Barrier Length (feet)	Traffic Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Cost		
		5.0-5.9	6.0-6.9	≥7.0	Impacted	Not Impacted	Total	Total[3]	Per Benefited Receptor[4]	Effective (Yes/No)
Number of Impacted Receptors = 6										
20	664	2	3	1	6	3	9	$398,400	$44,267	No
22	514	1	3	2	6	0	6	$339,240	$48,463	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Estimated cost based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.

The results of the noise barrier evaluation for the combination ROW/structure barrier indicate that a barrier less than 16 feet in height would not reduce traffic noise such that the impacted receptors would be benefited, and the Noise Reduction Design Goal would be achieved. The results for ROW barrier heights of 16 to 22 feet are provided in Table 3-5. As shown, although all barrier combinations would benefit all impacted receptors with a reduction of 5 dB(A) or more and the Noise Reduction Design Goal of 7 dB(A) would be achieved, the cost of the barrier would be above FDOT's cost reasonable guideline. The above-mentioned reasonableness factors are set by FDOT, however CFX is not bound to the criteria and can implement noise barriers for alternatives above these measures for design, aesthetics or to eliminate impacts if necessary. As such, a combination ROW/structure barrier is not considered to be both a feasible and reasonable abatement measure for the impacted residences in CNE N7.

Table 3-5. CNE N7 – ROW/Structure Noise Barrier Evaluation Results

Barrier Height ROW/Structure (feet)	Barrier Length ROW/Structure (feet)	Traffic Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Cost		
		5.0-5.9	6.0-6.9	≥7.0	Impacted	Not Impacted	Total	Total[3]	Per Benefited Receptor[4]	Effective (Yes/No)
Number of Impacted Receptors = 6										
16 / 8	564 / 1,970	2	3	1	6	5	11	$743,520	$61,960	No
18 / 8	514 / 1,498	1	3	2	6	3	9	$637,080	$63,708	No
20 / 8	464 / 1,199	1	3	2	6	2	8	$566,160	$62,907	No
22 / 8	464 / 300	2	3	1	6	0	6	$378,240	$54,034	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Estimated cost based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.

3.3.4.3 CNE S1 – Residences in Rose Pointe Subdivision

In CNE S1, Receptors 1 through 13 and Receptor 22 (14 residences) are predicted to be impacted by highway traffic noise in the project's design year (year 2045) with the proposed improvements to SR 414. Two noise barrier scenarios were evaluated. The first scenario would provide a noise barrier inside the SR 414 ROW and the second scenario would provide a noise barrier inside the ROW and a barrier on the edge of the structure for the elevated toll facility. As stated above, noise barriers on structure are limited to a height of 8 feet.

The results of the noise barrier evaluation for the ROW only barrier indicate that a barrier less than 16 feet in height would not reduce traffic noise such that the impacted receptors would be benefited, and the Noise Reduction Design Goal would be achieved. The results for barrier heights of 16 to 22 feet are provided in Table 3-6. As shown, at a height of 16 feet, a ROW barrier would provide 10 of the 14 impacted receptors with a reduction of 5 dB(A) or more, the noise reduction goal of 7 dB(A) would be achieved for five of the impacted receptors, and the cost of the barrier would be below FDOT's cost reasonable guideline. As such, based on the results of the PD&E phase analysis, a ROW barrier is a feasible and reasonable abatement measure for the impacted residences in CNE S1.

Table 3-6. CNE S1 – ROW Noise Barrier Evaluation Results

Barrier Height (feet)	Barrier Length (feet)	Traffic Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Cost		
		5.0-5.9	6.0-6.9	≥7.0	Impacted	Not Impacted	Total	Total[3]	Per Benefited Receptor[4]	Effective (Yes/No)
Number of Impacted Receptors = 14										
16	807	3	2	5	10	0	10	$387,360	$38,736	Yes
18	1,188	2	0	9	11	0	11	$641,520	$58,320	No
20	808	1	1	9	11	0	11	$484,800	$44,073	No
22	707	1	0	10	11	0	11	$466,620	$42,420	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Estimated cost based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.

Although the analysis indicates a ROW barrier is a feasible/reasonable abatement measure for CNE S1, additional analysis was performed to determine if a combination ROW/structure barrier would provide more benefit or be more cost effective. Based on the results of the analysis, a ROW barrier less than 14 feet in height would not reduce traffic noise such that the impacted receptors would be benefited, and the Noise Reduction Design Goal would be achieved. The results for ROW barrier heights of 14 to 22 feet are provided in Table 3-7. As shown, although all barrier combinations would benefit up to 11 of the 14 impacted receptors with a reduction of 5 dB(A) or more and the Noise Reduction Design Goal of 7 dB(A) would be achieved, the cost of the barrier would be above FDOT's cost reasonable guideline. As such, a combination ROW/structure barrier is not considered to be both a feasible and reasonable abatement measure for the impacted residences in CNE S1.

Table 3-7. CNE S1 – ROW/Structure Noise Barrier Evaluation Results

Barrier Height ROW/Structure (feet)	Barrier Length ROW/Structure (feet)	Traffic Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Cost		
		5.0-5.9	6.0-6.9	≥7.0	Impacted	Not Impacted	Total	Total[3]	Per Benefited Receptor[4]	Effective (Yes/No)
Number of Impacted Receptors = 14										
14/8	1,188/2,101	1	4	2	7	0	7	$1,003,200	$143,314	No
16/8	1,092/2,101	4	4	6	14	0	14	$1,028,400	$73,457	No
18/8	1,092/1,501	2	2	10	14	0	14	$949,920	$67,851	No
20/8	992/1,900	3	0	11	14	0	14	$1,051,200	$75,086	No
22/8	992/1,900	2	1	11	14	0	14	$1,110,720	$79,337	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Estimated cost based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.

As previously stated, if an abatement measure provides the minimum noise reduction and the estimate cost to implement the measure is less than the cost effectiveness criteria, additional factors are considered. For a ROW noise barrier for the impacted receptors in CNE S1, the additional feasibility considerations require a review of design and construction factors (can a barrier be constructed using standard methods and techniques), safety (will a noise barrier create a line of sight conflict for motorists on the roadway, maintenance (will maintenance crews have reasonable access to both sides of the noise barrier), drainage (can stormwater be directly along, under or away from the barrier), and utilities (are there conflicts with underground or overhead utilities). Additional reasonableness considerations require a review of any additional barrier-specific costs to provide the abatement measure and the viewpoints of the property owners and residents of the residences that would be benefited by the noise barrier. Because there is insufficient information in a project's PD&E phase to definitively determine the feasibility and reasonableness of providing the noise barrier for the impacted residences in CNE S1, the additional considerations will be addressed in the design phase for the SR 441 improvements.

3.3.4.4 CNE S6 and CNE S7 – Residences West of, and in, Monroe Manor Subdivision

In CNE S6 Receptors 1 through 5, and in CNE S7 Receptors 1 through 18 and Receptor 36 (24 residences), are predicted to be impacted by highway traffic noise in the project's design year (year 2045) with the proposed improvements to SR 414. Two noise barrier scenarios were evaluated. The first scenario would provide a noise barrier inside the SR 414 ROW and the second scenario would provide a noise barrier

inside the ROW and a barrier on the edge of the structure for the elevated toll facility. As stated above, noise barriers on structure are limited to a height of 8 feet.

The results of the noise barrier evaluation for the ROW only barrier indicate that a barrier less than 20 feet in height would not reduce traffic noise such that the impacted receptors would be benefited, and the Noise Reduction Design Goal would be achieved. The results for barrier heights of 20 and 22 feet are provided in Table 3-8. As shown, at 20 and 22 feet in height, a ROW barrier would provide 11 and 17 of the 24 impacted receptors, respectively, with a reduction of 5 dB(A) or more and the Noise Reduction Design Goal of 7 dB(A) would be achieved. However, the cost of the barrier would be above the FDOT's cost reasonable guideline. As such, a ROW barrier is not considered to be both a feasible and reasonable abatement measure for the impacted residences in CNEs S6 and S7.

Table 3-8. CNEs S6 and S7 – ROW Noise Barrier Evaluation Results

Barrier Height (feet)	Barrier Length (feet)	Traffic Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Cost		
		5.0-5.9	6.0-6.9	≥7.0	Impacted	Not Impacted	Total	Total[3]	Per Benefited Receptor[4]	Effective (Yes/No)
Number of Impacted Receptors = 24										
20	2,223	5	4	2	11	0	11	$1,333,800	$44,460	No
22	2,524	7	4	6	17	0	17	$1,665,840	$55,528	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Estimated cost based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.

The results of the noise barrier evaluation for the combination ROW/structure barrier indicate that a ROW barrier less than 16 feet in height would not reduce traffic noise such that the impacted receptors would be benefited, and the Noise Reduction Design Goal would be achieved. The results for ROW barrier heights of 16 to 22 feet are provided in Table 3-9. As shown, with a ROW barrier at 16 to 22 feet in height, the evaluated barrier combinations would benefit up to 23 of the 24 impacted receptors with a reduction of 5 dB(A) or more and the Noise Reduction Design Goal of 7 dB(A) would be achieved. However, the cost of the barrier would be above FDOT's cost reasonable guideline. The above-mentioned reasonableness factors are set by FDOT, however CFX is not bound to the criteria and can implement noise barriers for alternatives above these measures for design, aesthetics or to eliminate impacts if necessary. As such, a ROW/structure barrier combination is not considered to be both a feasible and reasonable abatement measure for the impacted residences in CNEs S6 and S7.

Table 3-9. CNEs S6 and S7 – ROW/Structure Noise Barrier Evaluation Results

Barrier Height ROW/Structure (feet)	Barrier Length ROW/Structure (feet)	Traffic Noise Reduction at Impacted Receptors (dB(A))[1]			Number of Benefited Receptors[2]			Cost		
		5.0-5.9	6.0-6.9	≥7.0	Impacted	Not Impacted	Total	Total[3]	Per Benefited Receptor[4]	Effective (Yes/No)
Number of Impacted Receptors = 24										
16 / 8	3.027 / 3,314	17	4	1	22	1	23	$2,248,320	$48,432	No
18 / 8	3,027 / 3,117	8	10	4	22	2	24	$2,382,660	$54,486	No
20 / 8	3,027 / 2,572	5	6	11	22	5	27	$2,433,480	$60,540	No
22 / 8	3,131 / 3,300	3	2	18	23	0	23	$2,858,460	$68,882	No

[1] Receptors with a predicted noise level of 66 dB(A) or greater.
[2] Receptors with a predicted reduction of 5 dB(A) or more are considered benefited.
[3] Estimated cost based on a unit cost of $30 per square foot.
[4] FDOT cost reasonable criterion is $42,000 per benefited receptor.

4. Summary

CFX is conducting the SR 414 Expressway Extension PD&E Study to evaluate alternatives for a proposed grade-separated expressway extension of SR 414. The improvement would provide needed capacity on SR 414 and improve system connectivity between SR 429 and I-4 to meet future traffic needs. This NSR documents the results of an analysis that was performed for the PD&E Study to identify land uses that would be impacted by highway traffic noise in the design year with the SR 414 improvements.

The results of the highway traffic noise analysis indicate that 46 properties with residential land use (Activity Category B) and a trail (Activity Category C) would be impacted by traffic noise in the design year (2045) of the SR 414 project. Of the 46 impacted residences, 14 are in CNE S1 (the Rose Pointe subdivision), one is in CNE S2 (the Tealwood Cove subdivision), one is in CNE S3 (the Lake Hill Woods subdivision), five are in CNE S6 (the residential area west of Monroe Manor), 19 are in CNE S7 (the Monroe Manor subdivision) and six are in CNE N7 (the Crescent Place Condominiums). Noise abatement measures were evaluated for the impacted properties (e.g., traffic management measures, alignment modifications, buffer zones, and noise barriers).

Two noise barrier scenarios were evaluated for impacted residences. The first scenario would provide a noise barrier inside the SR 414 ROW, and the second scenario would provide both a noise barrier inside the ROW and a noise barrier on the edge of the elevated toll facility (i.e., on structure). The noise barrier within the SR 414 ROW was evaluated at heights ranging from 8 to 22 feet, and the noise barrier on the edge of the elevated toll facility was evaluated at a height of 8 feet, following the requirements of FDOT's Noise Policy.

The results of the evaluation indicate that a ROW barrier may be a feasible and reasonable abatement measure for 10 of the 46 impacted residences. The 10 properties are in CNE S1. There appear to be no feasible and reasonable measures to abate predicted traffic noise impacts for the remaining 36 residences or the trail.

The following noise commitments have been made for the project:

- Construction of feasible and reasonable noise abatement measures recommended in the Noise Study Report are contingent upon the following conditions:
  - Final recommendations on the construction of abatement measures are determined during the project's final design and through the public involvement process.
  - Detailed noise analyses during the final design process support the need, feasibility and reasonableness of providing abatement.
  - Community input supporting types, heights and locations of the noise barrier(s) is provided to CFX.
- During the Design phase, the noise abatement locations, noise barrier types, lengths and heights will be determined. A Noise Study Addendum will be prepared during the final design phase to re-evaluate the need for noise barriers on the proposed SR 414 elevated expressway, identify and evaluate any new noise sensitive sites, re-evaluate the effectiveness of the existing noise barriers and re-evaluate any existing noise sensitive sites based on alignment and profile changes in design. As part of this noise re-evaluation, noise sensitive sites without existing noise walls (such as Lake Hill Woods, Crescent Place at Lake Lotus, Oranole Road, and Enclave at Bear Lake) will be re-evaluated in consideration of both existing noise levels and future noise levels.

5. Noise Contours

The land uses in Table 2-1 of this NSR are considered incompatible with highway noise levels that approach, meet, or exceed the NAC. To reduce the potential for these land uses to be permitted for construction in areas where traffic noise impacts have been predicted, noise contours were developed. The contours delineate a distance from the improved roadway's edge-of-pavement where a traffic noise level of 56 dB(A)—the FDOT approach criteria for land uses classified as Activity Category A, 66 dB(A)—the approach criteria for land uses classified as Activity Category B and C, and 71 dB(A)—the approach criteria for land uses classified as Activity Category E, are predicted. For convenience, the land uses for which there are NAC are repeated in Table 5-1 with their corresponding contour distances.

Table 5-1. Noise Impact Areas

Activity Category	Description of Activity Category	Activity Leq(h)	
		FDOT Approach Criteria (Leq(h))	Distance from Edge-of-Pavement (Feet)
A	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.	56 (Exterior)	750
B	Residential	66 (Exterior)	130
C	Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreational areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.	66 (Exterior)	130
D	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.	51 (Interior)	50
E	Hotels, motels, offices, restaurants/bars and other developed lands, properties or activities not included in A-D or F.	71 (Exterior)	50

6. Construction Noise and Vibration

The residences adjacent to SR 414 are identified in FDOT's Noise Policy as being noise- and vibration-sensitive sites. Construction of the proposed roadway improvements could have the potential to cause significant noise or vibration effects. Additionally, the application of the FDOT *Standard Specifications for Road and Bridge Construction*[10] may minimize or eliminate potential issues. Should unanticipated noise or vibration issues arise during the construction process, the Project Engineer, in coordination with the District Noise Specialist and the Contractor, will investigate additional methods of controlling these impacts.

7. Community Coordination

As stated in Section 1.4 of this NSR, the viable alternatives were presented for public input at a Public Alternatives Workshop that was held February 10, 2021. The workshop was held virtually. During the workshop, noise sensitive areas were identified as being one of the PD&E Study evaluation criteria and the limits of the noise study area as well as the locations of the existing FDOT noise barriers were illustrated on a project graphic. During the Public Alternatives Workshop, the community expressed concern over increases in highway traffic noise with the SR 414 improvements and requested information on the noise abatement measures that would be implemented during construction and with the improved roadway.

The Preferred Alternative was presented for public input at the hybrid Public Hearing held on March 31, 2022. The Public Hearing was held to give the public an opportunity to view the study information and express their views concerning the location, conceptual design and potential environmental impacts of the proposed improvements. The Public Hearing displays and presentation illustrated the location of existing noise barriers and the location of one proposed noise barrier at the Rose Pointe neighborhood. During the Public Hearing comment period, which ended on April 11, 2022, several comments were received expressing concerns about the potential for increased highway traffic noise resulting from the proposed improvements. As a result, CFX updated the study commitments (Section 5) to re-evaluate the need for noise barriers during the design phase once more detailed engineering plans for the Preferred Alternative are available.

8. References

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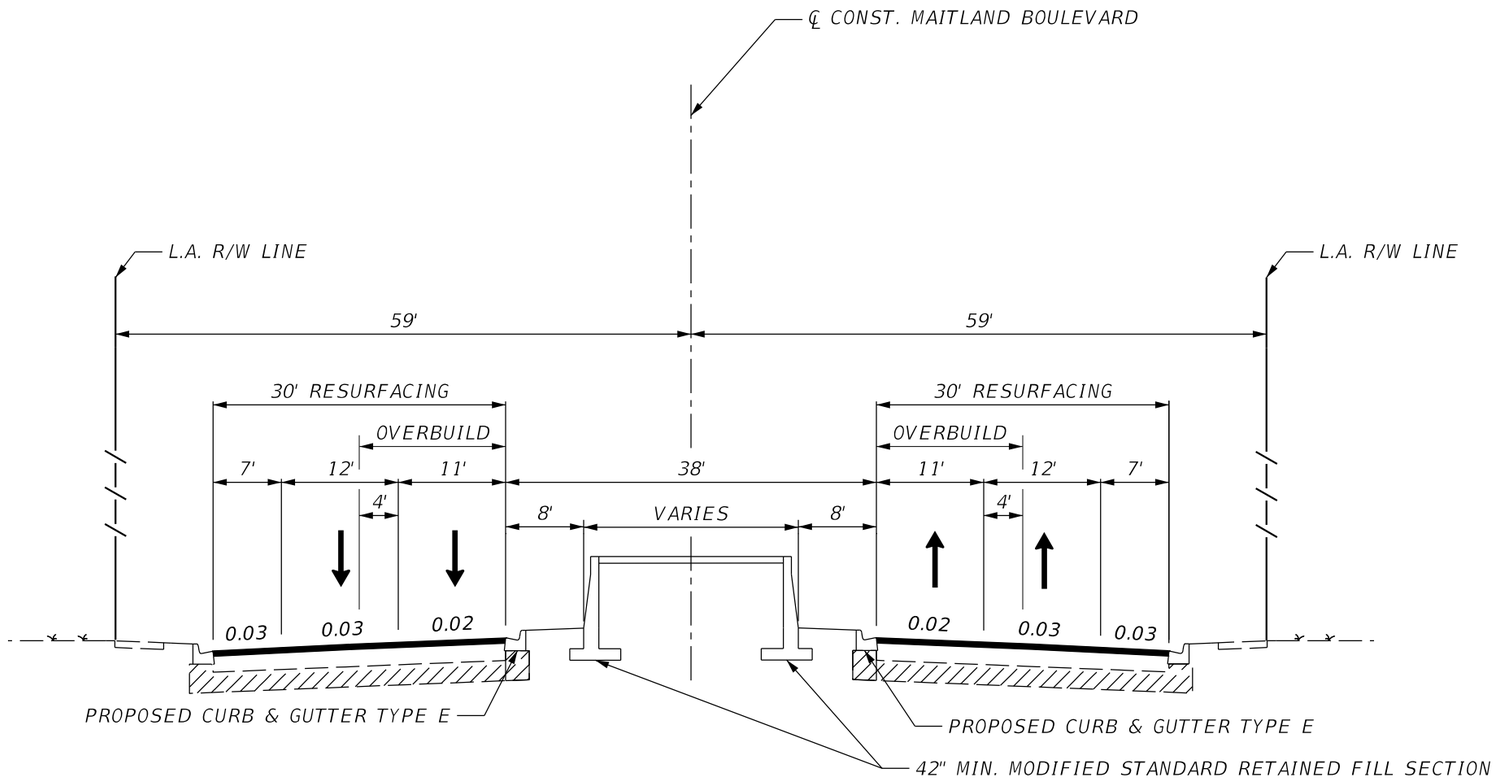
Florida Department of Transportation. 2018. *Standard Specifications for Road and Bridge Construction*. July.

Appendix A
Typical Sections



TYPICAL SECTION 1
MAITLAND BOULEVARD OVERBUILD AND RESTRIPE BETWEEN PIER LOCATIONS

DESIGN SPEED = 45 MPH

PRELIMINARY - SUBJECT TO CHANGE

ENGINEER OF RECORD: KRYSTAL H. BURNS, P.E.
P.E. LICENSE NO. 60883

JACOBS ENGINEERING GROUP INC.
200 S. ORANGE AVENUE, STE 900
ORLANDO, FL 32801; PHONE (407) 903-5001
CERTIFICATE OF AUTHORIZATION No. 000072

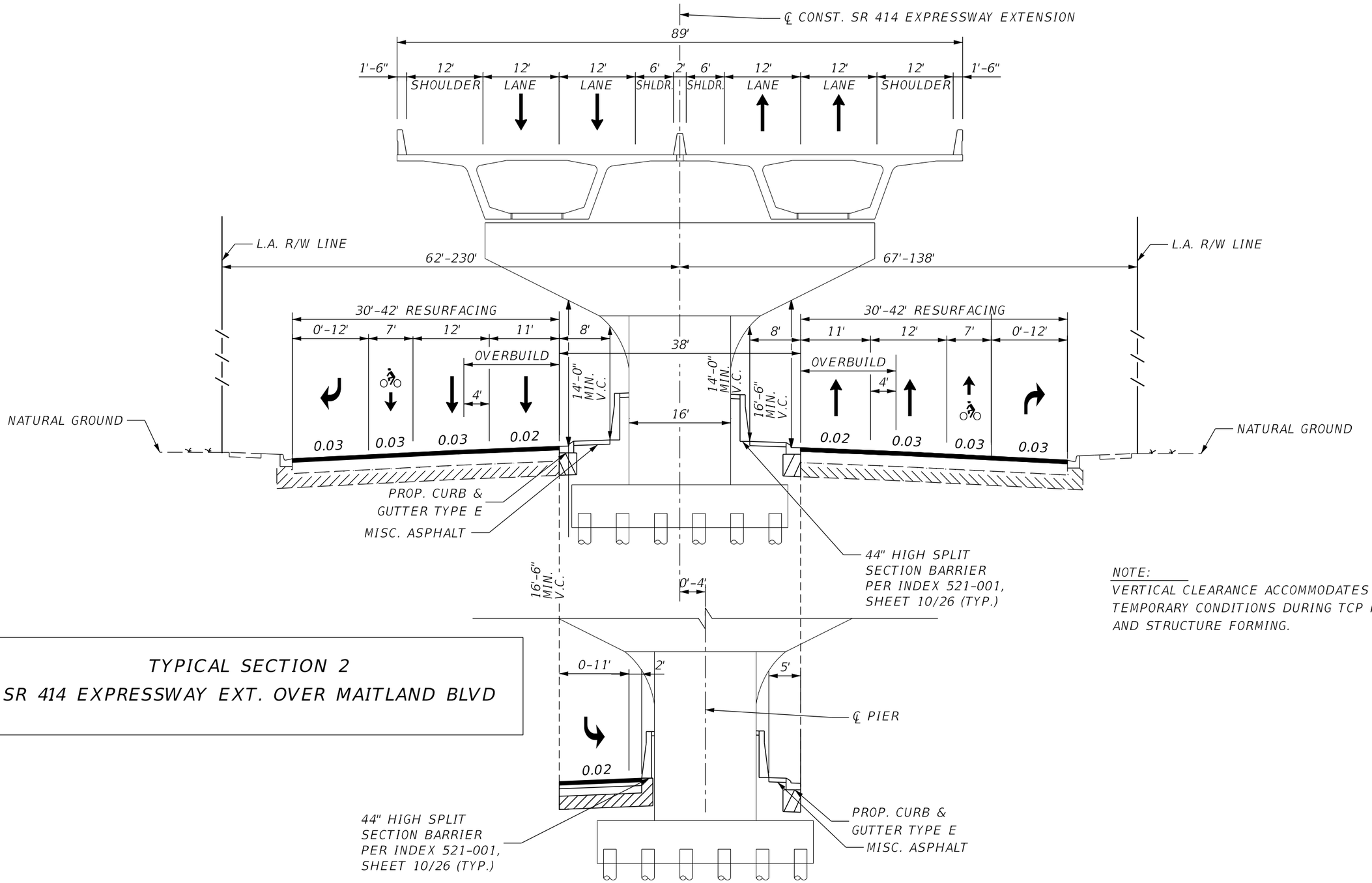
SR 414 MAITLAND BLVD.
EXPRESSWAY EXTENSION
US 441 TO SR 434

ROAD NO.	PROJECT NO.
SR 414	414-227

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

TYPICAL SECTIONS

SHEET NO. 001



TYPICAL SECTION 2
SR 414 EXPRESSWAY EXT. OVER MAITLAND BLVD

LEFT TURN LANE ON MAITLAND BOULEVARD
(WESTBOUND SHOWN, MIRROR FOR EASTBOUND)

NOTE:
VERTICAL CLEARANCE ACCOMMODATES TEMPORARY CONDITIONS DURING TCP PHASING AND STRUCTURE FORMING.

DESIGN SPEED:
EXPRESSWAY = 50 MPH
MAITLAND BLVD = 45 MPH

PRELIMINARY - SUBJECT TO CHANGE

ENGINEER OF RECORD: KRYSTAL H. BURNS, P.E.
P.E. LICENSE NO. 60883

JACOBS ENGINEERING GROUP INC.
200 S. ORANGE AVENUE, STE 900
ORLANDO, FL 32801; PHONE (407) 903-5001
CERTIFICATE OF AUTHORIZATION No. 000072

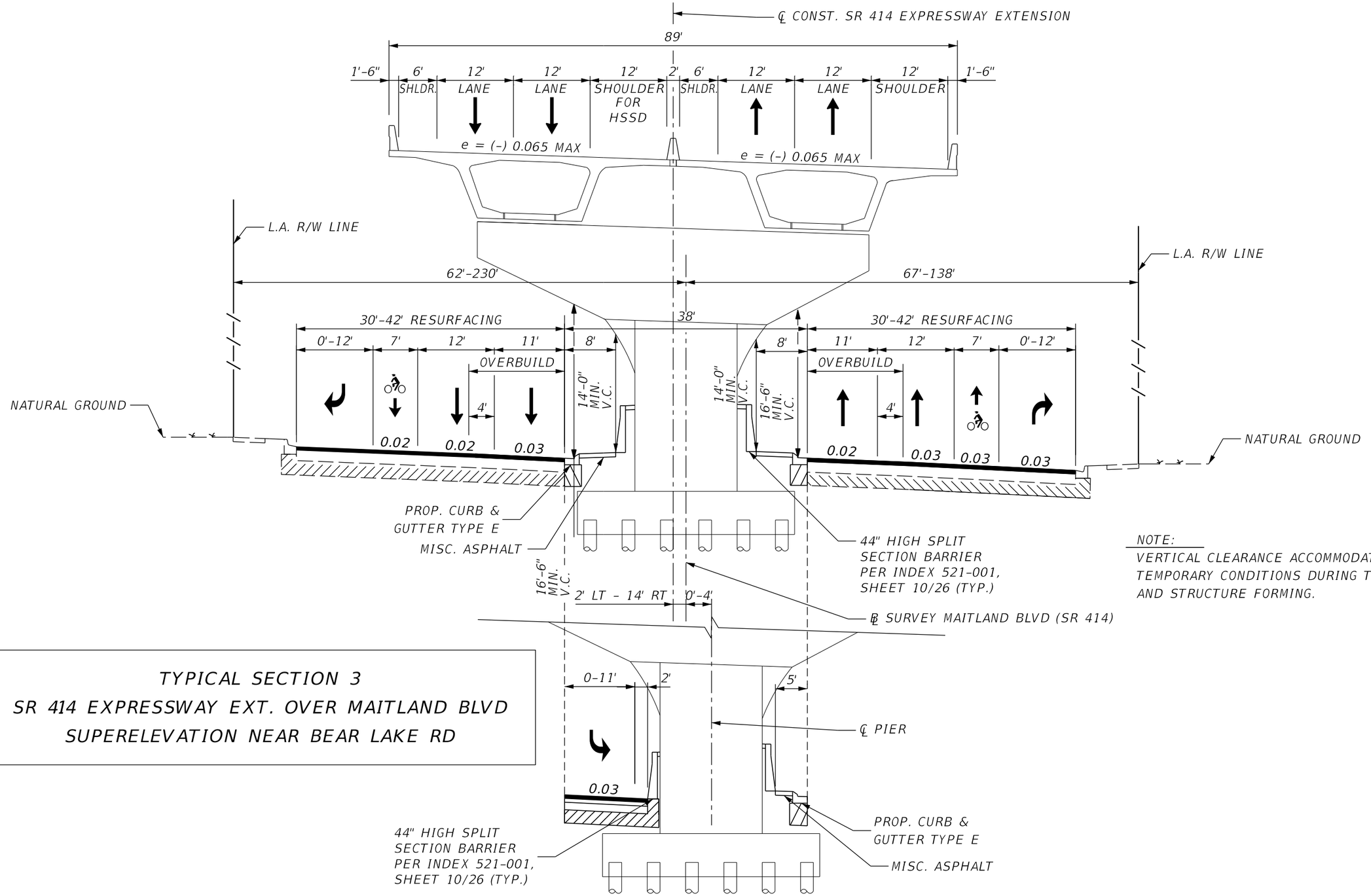
SR 414 MAITLAND BLVD.
EXPRESSWAY EXTENSION
US 441 TO SR 434

ROAD NO.	PROJECT NO.
SR 414	414-227

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

TYPICAL SECTIONS

SHEET NO. 002



NOTE:
VERTICAL CLEARANCE ACCOMMODATES TEMPORARY CONDITIONS DURING TCP PHASING AND STRUCTURE FORMING.

TYPICAL SECTION 3
SR 414 EXPRESSWAY EXT. OVER MAITLAND BLVD
SUPERELEVATION NEAR BEAR LAKE RD

LEFT TURN LANE ON MAITLAND BOULEVARD
(WESTBOUND SHOWN, MIRROR FOR EASTBOUND)

DESIGN SPEED:
EXPRESSWAY = 50 MPH
MAITLAND BLVD = 45 MPH

PRELIMINARY - SUBJECT TO CHANGE

ENGINEER OF RECORD: KRYSTAL H. BURNS, P.E.
P.E. LICENSE NO. 60883

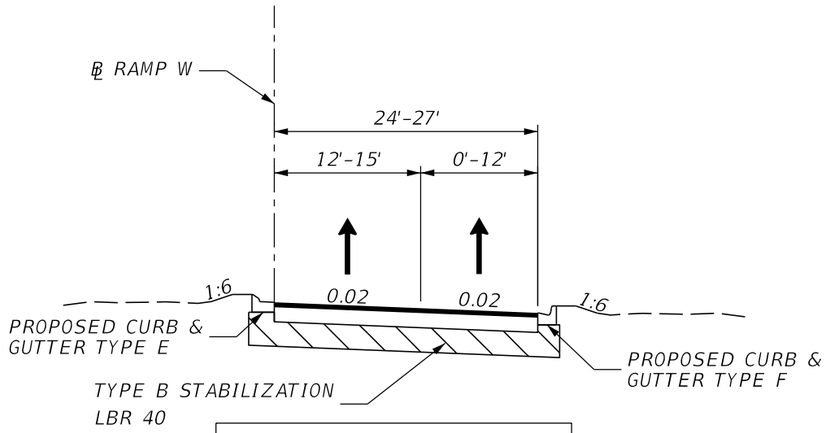
JACOBS ENGINEERING GROUP INC.
200 S. ORANGE AVENUE, STE 900
ORLANDO, FL 32801; PHONE (407) 903-5001
CERTIFICATE OF AUTHORIZATION No. 000072

SR 414 MAITLAND BLVD. EXPRESSWAY EXTENSION US 441 TO SR 434	
ROAD NO.	PROJECT NO.
SR 414	414-227

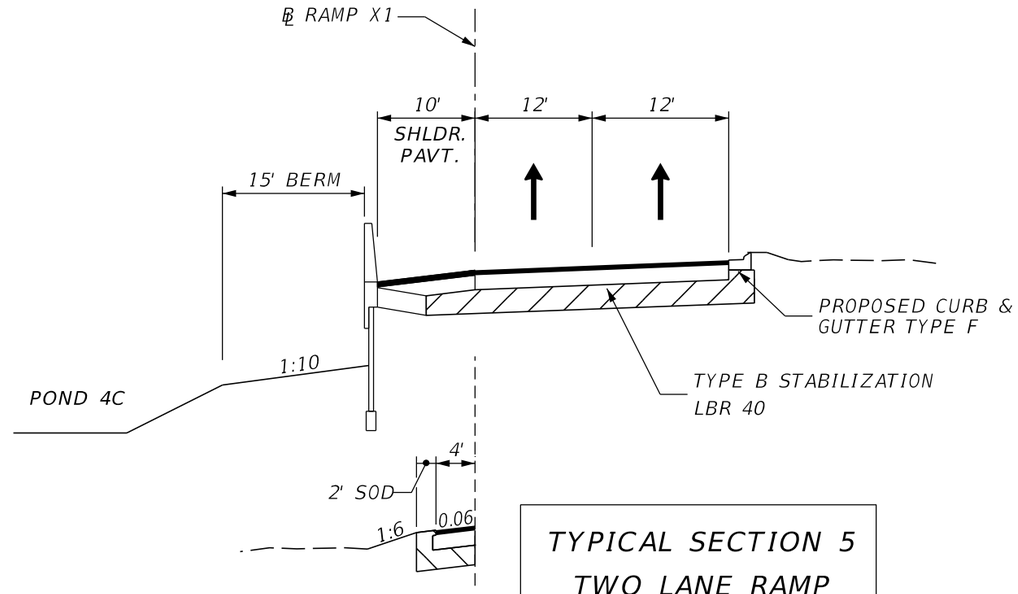
CENTRAL FLORIDA EXPRESSWAY AUTHORITY

TYPICAL SECTIONS

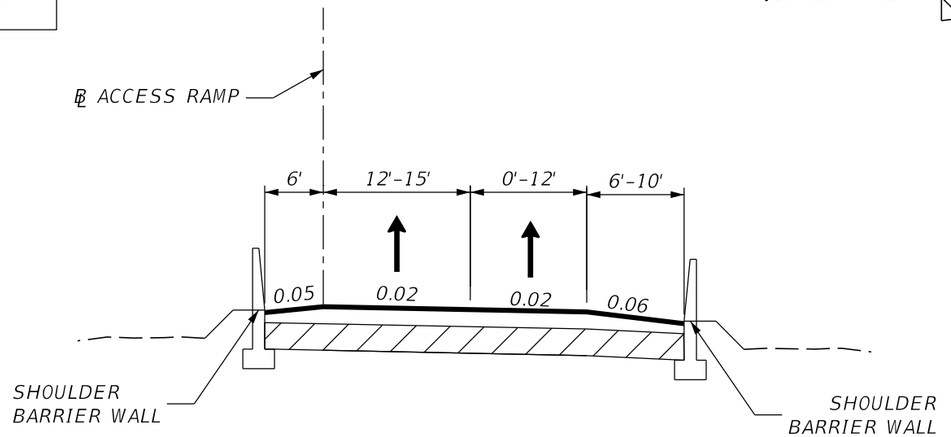
SHEET NO. 003



TYPICAL SECTION 4
TWO LANE RAMP



TYPICAL SECTION 5
TWO LANE RAMP



TYPICAL SECTION 6
ONE/TWO LANE RAMP
(EASTBOUND SHOWN, MIRROR FOR WESTBOUND)

DESIGN SPEED:
ACCESS RAMP A, B = 50 MPH
ACCESS RAMP W = 50 MPH
ACCESS RAMP X = VARIES 45-50 MPH
RAMP A, B = 40 MPH
RAMP W, X1 = 45 MPH

PRELIMINARY - SUBJECT TO CHANGE

ENGINEER OF RECORD: KRYSTAL H. BURNS, P.E.
P.E. LICENSE NO. 60883

JACOBS ENGINEERING GROUP INC.
200 S. ORANGE AVENUE, STE 900
ORLANDO, FL 32801; PHONE (407) 903-5001
CERTIFICATE OF AUTHORIZATION No. 000072

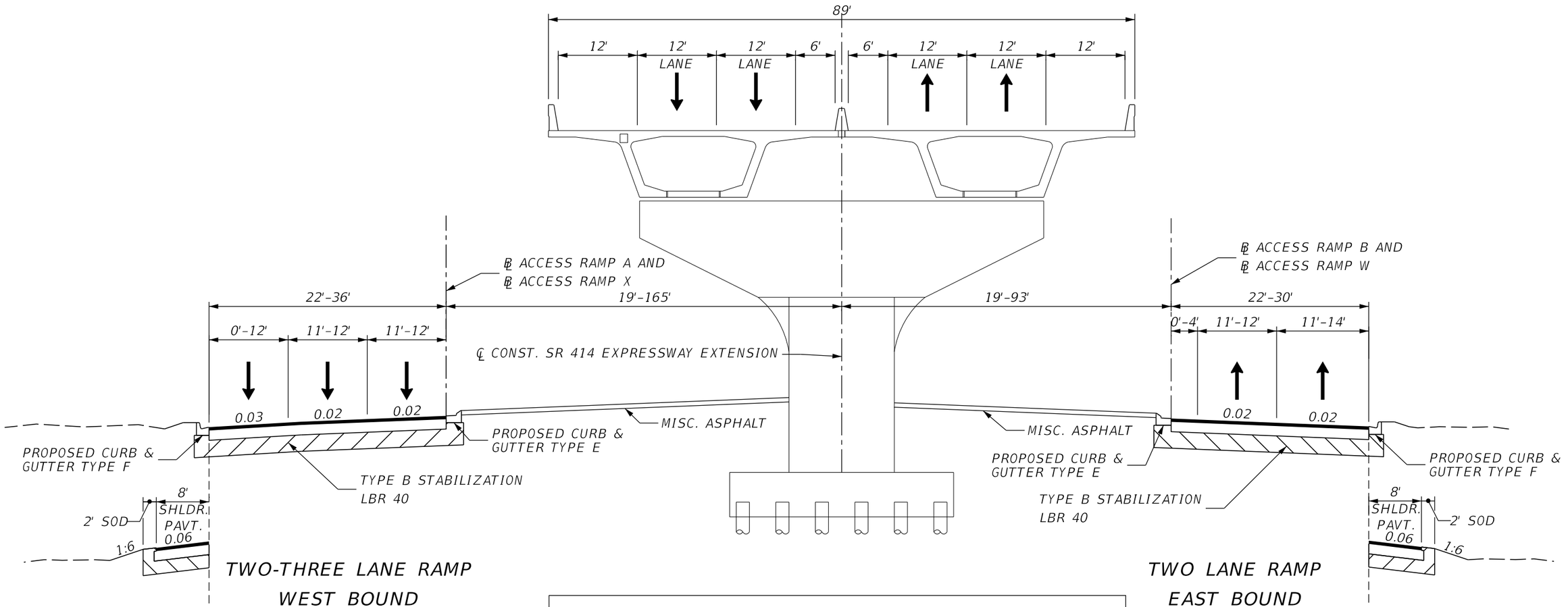
SR 414 MAITLAND BLVD.
EXPRESSWAY EXTENSION
US 441 TO SR 434

ROAD NO.	PROJECT NO.
SR 414	414-227

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

TYPICAL SECTIONS

SHEET NO. 004



TYPICAL SECTION 7
EXPRESSWAY ACCESS AT PROJECT TERMINALS

DESIGN SPEED:
ACCESS RAMP A, B = 50 MPH
ACCESS RAMP W = 50 MPH
ACCESS RAMP X = VARIES 45-50 MPH
RAMP A, B = 40 MPH
RAMP W, X1 = 45 MPH

PRELIMINARY - SUBJECT TO CHANGE

ENGINEER OF RECORD: KRYSTAL H. BURNS, P.E.
P.E. LICENSE NO. 60883

JACOBS ENGINEERING GROUP INC.
200 S. ORANGE AVENUE, STE 900
ORLANDO, FL 32801; PHONE (407) 903-5001
CERTIFICATE OF AUTHORIZATION No. 000072

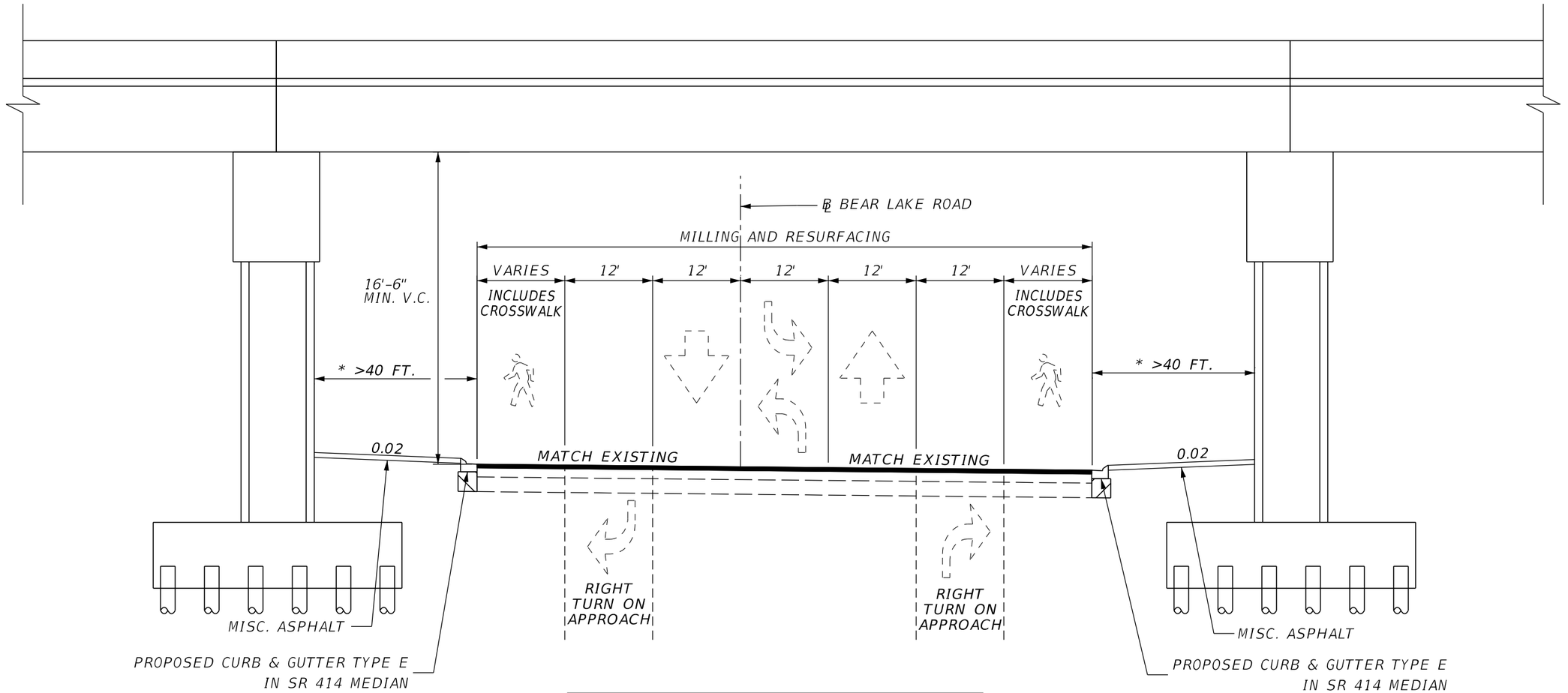
SR 414 MAITLAND BLVD.
EXPRESSWAY EXTENSION
US 441 TO SR 434

ROAD NO.	PROJECT NO.
SR 414	414-227

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

TYPICAL SECTIONS

SHEET NO. 005



TYPICAL SECTION 8
BEAR LAKE ROAD / ROSE AVE
(LOOKING NORTH)

* EXCEEDS REQUIREMENTS FOR CLEARZONE AND LATERAL OFFSET.

POSTED SPEED:
BEAR LAKE RD = 35 MPH
ROSE AVE = 40 MPH

PRELIMINARY - SUBJECT TO CHANGE

ENGINEER OF RECORD: KRYSTAL H. BURNS, P.E.
P.E. LICENSE NO. 60883

JACOBS ENGINEERING GROUP INC.
200 S. ORANGE AVENUE, STE 900
ORLANDO, FL 32801; PHONE (407) 903-5001
CERTIFICATE OF AUTHORIZATION No. 000072

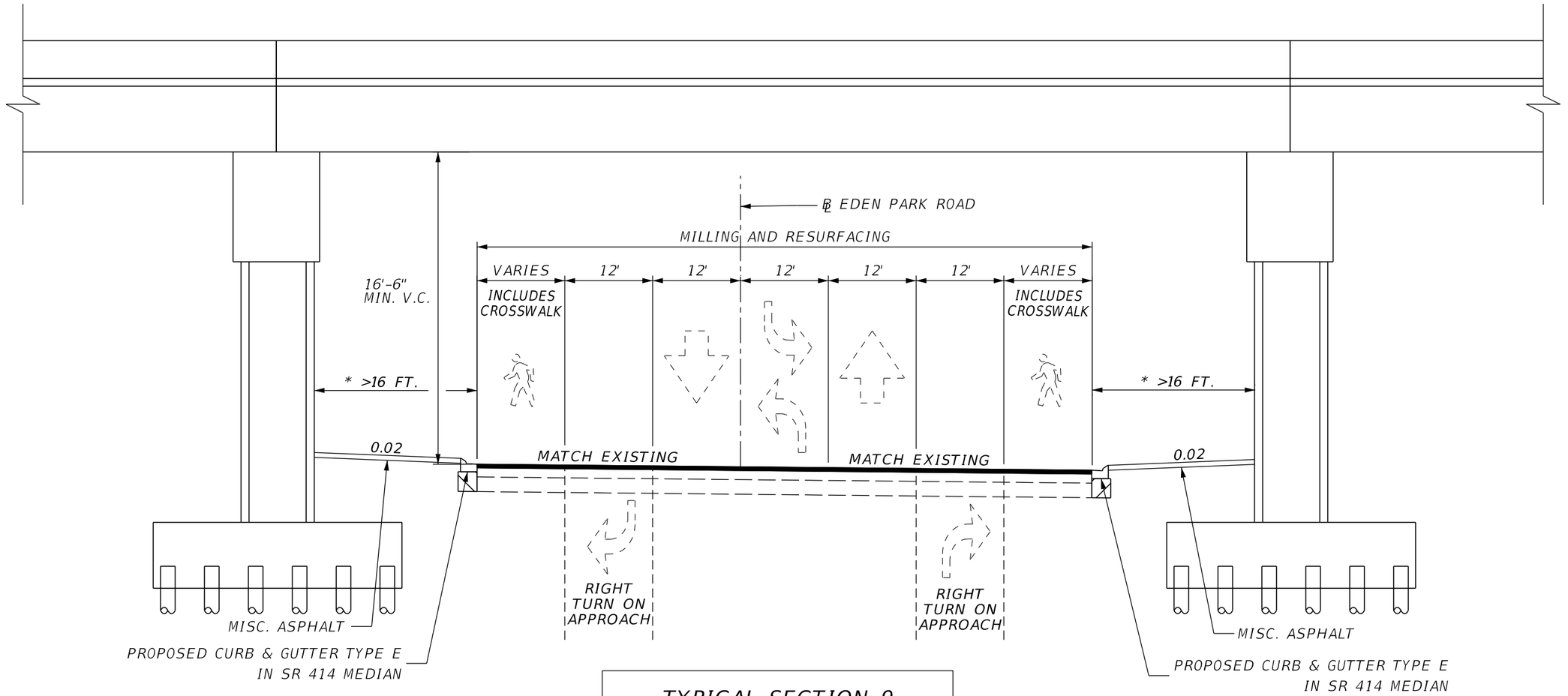
SR 414 MAITLAND BLVD. EXPRESSWAY EXTENSION
US 441 TO SR 434

ROAD NO.	PROJECT NO.
SR 414	414-227

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

TYPICAL SECTIONS

SHEET NO. 006



TYPICAL SECTION 9
EDEN PARK ROAD

* EXCEEDS REQUIREMENTS FOR CLEARZONE AND LATERAL OFFSET.

POSTED SPEED
EDEN PARK RD (SOUTH OF SR 414) = 35 MPH
EDEN PARK RD (NORTH OF SR 414) = 40 MPH

PRELIMINARY - SUBJECT TO CHANGE

ENGINEER OF RECORD: KRYSTAL H. BURNS, P.E.
P.E. LICENSE NO. 60883

JACOBS ENGINEERING GROUP INC.
200 S. ORANGE AVENUE, STE 900
ORLANDO, FL 32801; PHONE (407) 903-5001
CERTIFICATE OF AUTHORIZATION No. 000072

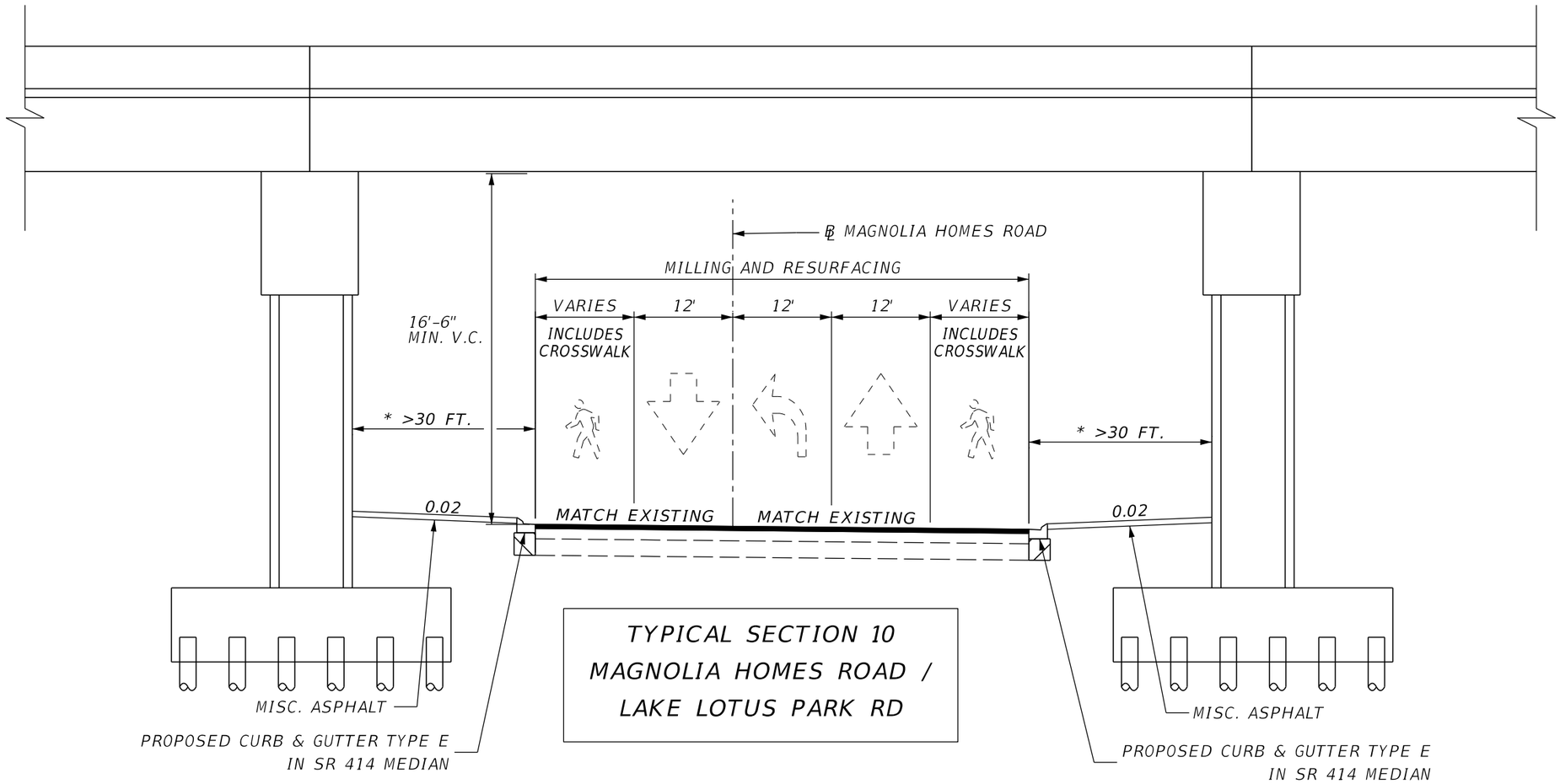
SR 414 MAITLAND BLVD. EXPRESSWAY EXTENSION US 441 TO SR 434

ROAD NO.	PROJECT NO.
SR 414	414-227

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

TYPICAL SECTIONS

SHEET NO. 007



TYPICAL SECTION 10
MAGNOLIA HOMES ROAD / LAKE LOTUS PARK RD

* EXCEEDS REQUIREMENTS FOR CLEARZONE AND LATERAL OFFSET.

POSTED SPEED:
MAGNOLIA HOMES RD = 40 MPH

PRELIMINARY - SUBJECT TO CHANGE

ENGINEER OF RECORD: KRYSTAL H. BURNS, P.E.
P.E. LICENSE NO. 60883

JACOBS ENGINEERING GROUP INC.
200 S. ORANGE AVENUE, STE 900
ORLANDO, FL 32801; PHONE (407) 903-5001
CERTIFICATE OF AUTHORIZATION No. 000072

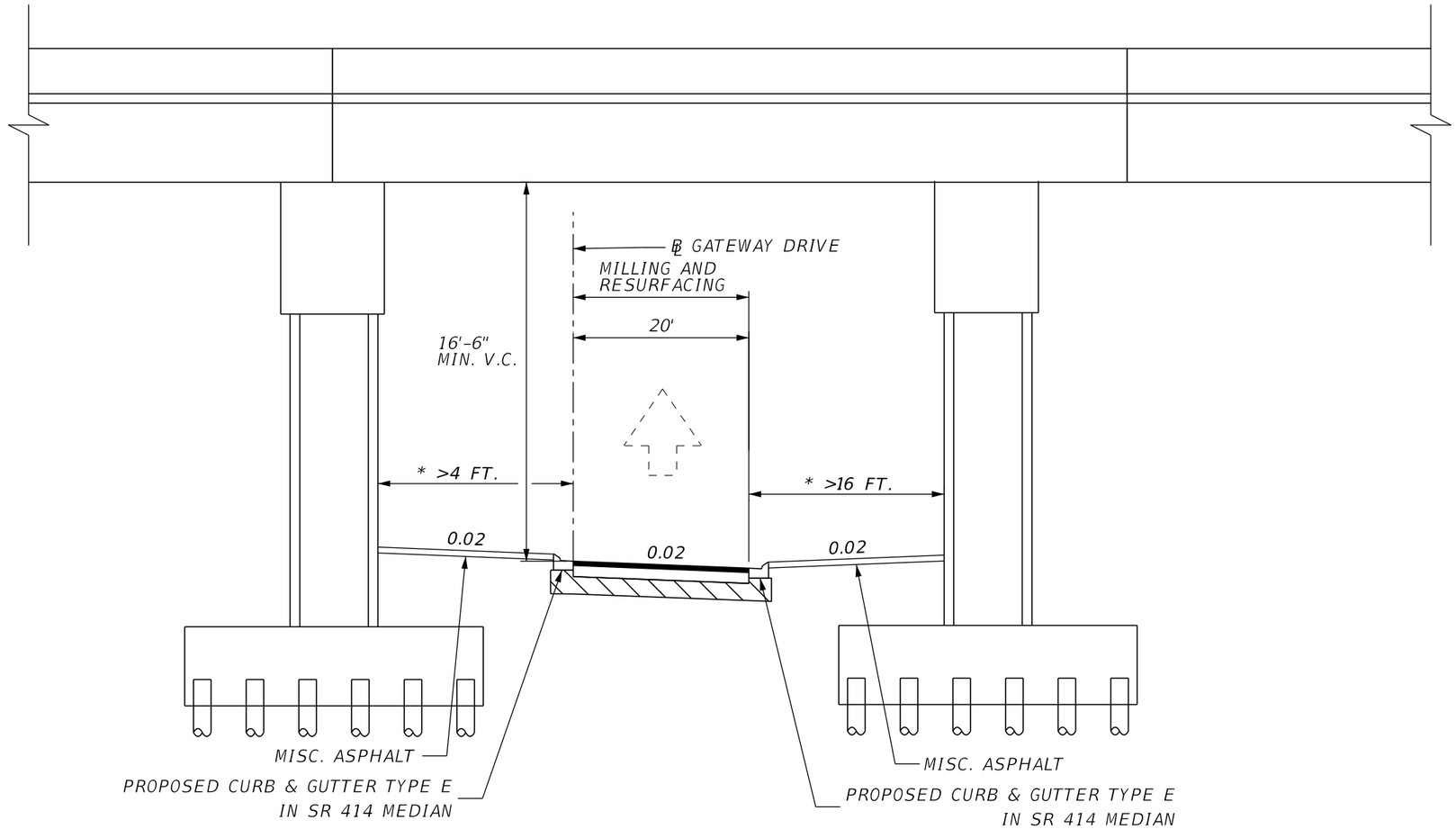
SR 414 MAITLAND BLVD. EXPRESSWAY EXTENSION US 441 TO SR 434

ROAD NO.	PROJECT NO.
SR 414	414-227

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

TYPICAL SECTIONS

SHEET NO. 008



TYPICAL SECTION 11
GATEWAY DRIVE

* EXCEEDS REQUIREMENTS FOR CLEARZONE AND LATERAL OFFSET.

POSTED SPEED:
GATEWAY DR = 30 MPH

PRELIMINARY - SUBJECT TO CHANGE

ENGINEER OF RECORD: KRYSTAL H. BURNS, P.E.
P.E. LICENSE NO. 60883

JACOBS ENGINEERING GROUP INC.
200 S. ORANGE AVENUE, STE 900
ORLANDO, FL 32801; PHONE (407) 903-5001
CERTIFICATE OF AUTHORIZATION No. 000072

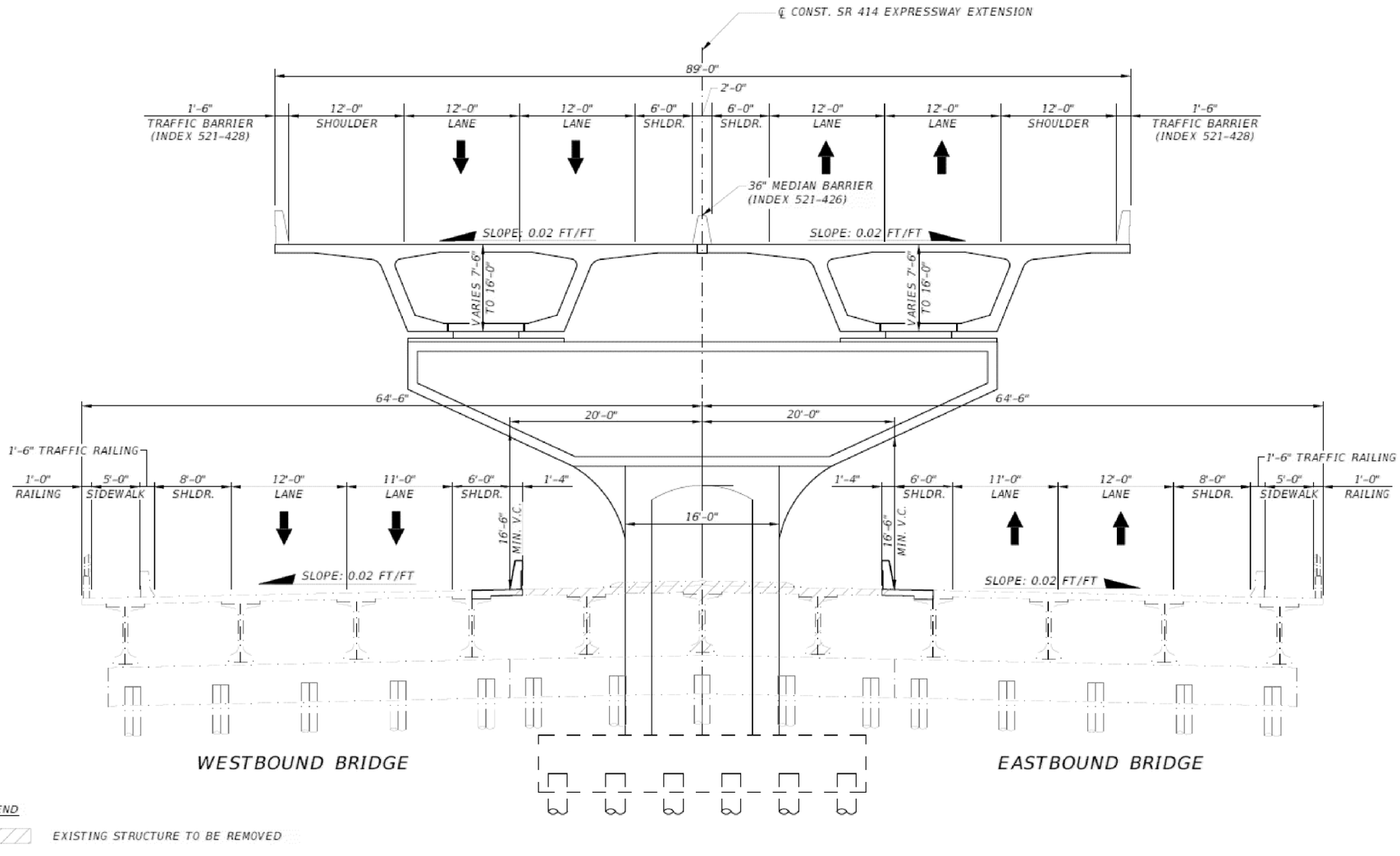
SR 414 MAITLAND BLVD.
EXPRESSWAY EXTENSION
US 441 TO SR 434

ROAD NO.	PROJECT NO.
SR 414	414-227

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

TYPICAL SECTIONS

SHEET NO. 009



EXISTING BRIDGE TYPICAL SECTION 1
MAITLAND BLVD. OVER LAKE BOSSE
WITH PROPOSED SR 414 VIADUCT

DESIGN SPEED:
EXPRESSWAY = 50 MPH
MAITLAND BLVD = 45 MPH

PRELIMINARY - SUBJECT TO CHANGE

ENGINEER OF RECORD: KRYSTAL H. BURNS, P.E.
P.E. LICENSE NO. 60883

JACOBS ENGINEERING GROUP INC.
200 S. ORANGE AVENUE, STE 900
ORLANDO, FL 32801; PHONE (407) 903-5001
CERTIFICATE OF AUTHORIZATION No. 000072

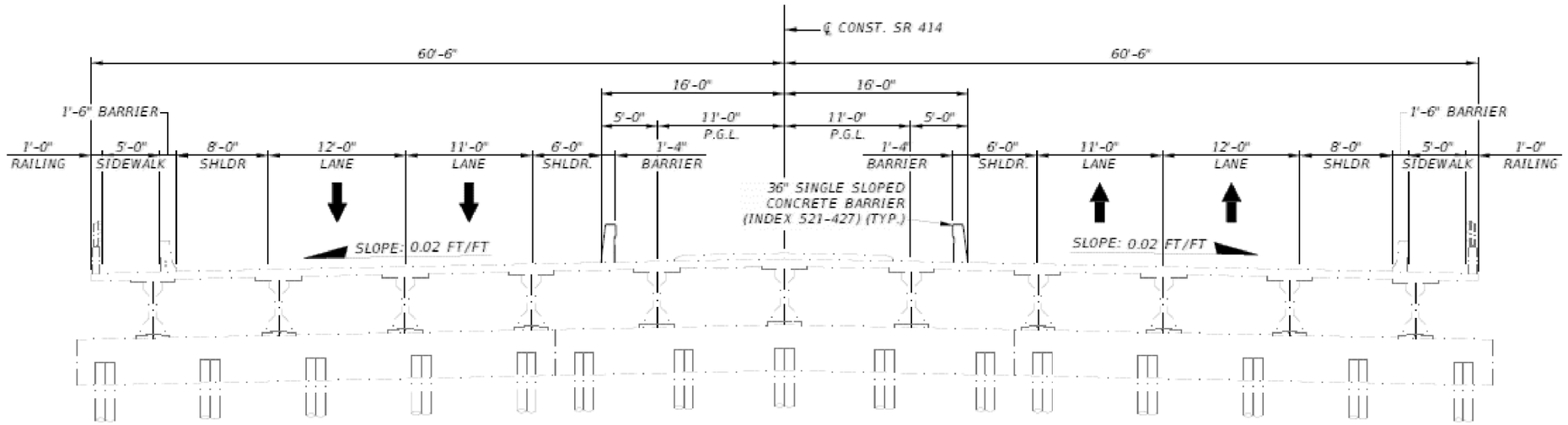
SR 414 MAITLAND BLVD.
EXPRESSWAY EXTENSION
US 441 TO SR 434

ROAD NO.	PROJECT NO.
SR 414	414-227

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

TYPICAL SECTIONS

SHEET NO. 010



EXISTING BRIDGE TYPICAL SECTION 2
MAITLAND BLVD. OVER LITTLE WEKIVA CANAL
(EXPRESSWAY SPANS BRIDGE)

DESIGN SPEED:
MAITLAND BLVD = 45 MPH

PRELIMINARY - SUBJECT TO CHANGE

ENGINEER OF RECORD: KRYSTAL H. BURNS, P.E.
P.E. LICENSE NO. 60883

JACOBS ENGINEERING GROUP INC.
200 S. ORANGE AVENUE, STE 900
ORLANDO, FL 32801; PHONE (407) 903-5001
CERTIFICATE OF AUTHORIZATION No. 000072

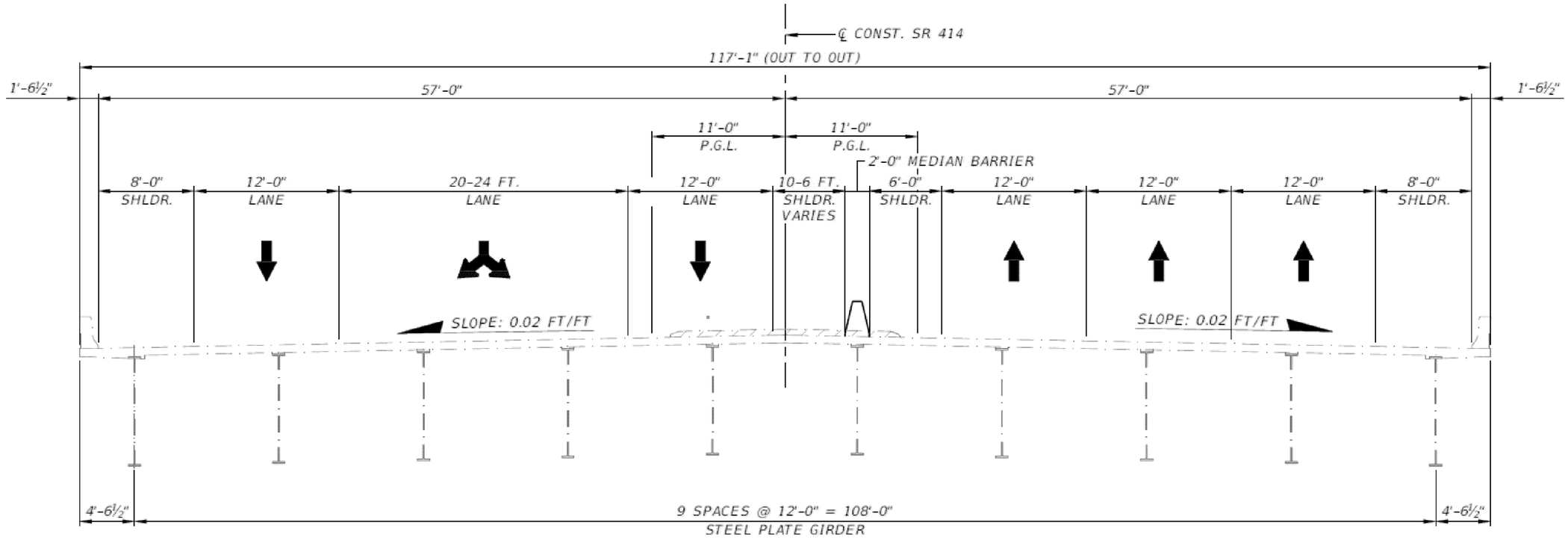
SR 414 MAITLAND BLVD.
EXPRESSWAY EXTENSION
US 441 TO SR 434

ROAD NO.	PROJECT NO.
SR 414	414-227

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

TYPICAL SECTIONS

SHEET NO. 011



LEGEND

EXISTING STRUCTURE TO BE REMOVED

PROPOSED TYPICAL SECTION

EXISTING BRIDGE TYPICAL SECTION 3
SR 414 (MAITLAND BLVD.) OVER SR 434

DESIGN SPEED:
MAITLAND BLVD = 45 MPH

PRELIMINARY - SUBJECT TO CHANGE

ENGINEER OF RECORD: KRYSTAL H. BURNS, P.E.
P.E. LICENSE NO. 60883

JACOBS ENGINEERING GROUP INC.
200 S. ORANGE AVENUE, STE 900
ORLANDO, FL 32801; PHONE (407) 903-5001
CERTIFICATE OF AUTHORIZATION No. 000072

SR 414 MAITLAND BLVD.
EXPRESSWAY EXTENSION
US 441 TO SR 434

ROAD NO.	PROJECT NO.
SR 414	414-227

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

TYPICAL SECTIONS

SHEET NO. 012

$USER$ $DATE$ $TIME$ $MODELNAME$ $FILE$

Appendix B
Traffic Data

Maitland Boulevard

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 2/10/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX 414-227

Federal Aid Number(s):

Segment Description: SR 414 (Maitland Blvd.) - US 441 to Bear Lake Rd.

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility			No-Build (Design Year)			Build (Design Year)		
Lanes:	4		Lanes:	6		Lanes:	4	
Year:	2019 (PM Peak)		Year:	2045 (PM Peak)		Year:	2045 (PM Peak)	
ADT: LOS (C)	37,900		ADT: LOS (C)	58,400		ADT: LOS (C)	37,900	
Demand	52,310		Demand	65,900		Demand	36,400	
Speed:	50	mph	Speed:	45	mph	Speed:	45	mph
	80	kmh		72	kmh		72	kmh
K=	8.1	%	K=	9.8	%	K=	9.2	%
D=	59.0	%	D=	62.2	%	D=	56.1	%
T=	6.0	% for 24 hrs.	T=	6.0	% for 24 hrs.	T=	6.0	% for 24 hrs.
T=	3.0	% Design hr	T=	3.0	% Design hr	T=	3.0	% Design hr
2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV	
3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV	
0.1	% Buses DHV		0.1	% Buses DHV		0.1	% Buses DHV	
0.3	% Motorcycles DHV		0.3	% Motorcycles DHV		0.3	% Motorcycles DHV	

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 2/10/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

Segment Description: SR 414/Maitland Blvd. - Bear Lake Rd. to Eden Park Rd.

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	4	Lanes:	6	Lanes:	4
Year:	2019 (AM Peak)	Year:	2045 (AM Peak)	Year:	2045 (AM Peak)
ADT: LOS (C)	37,900	ADT: LOS (C)	58,400	ADT: LOS (C)	37,900
Demand	52,650	Demand	66,300	Demand	38,200
Speed:	50 mph / 80 kmh	Speed:	45 mph / 72 kmh	Speed:	45 mph / 72 kmh
K=	7.4 %	K=	9.2 %	K=	9.1 %
D=	58.1 %	D=	61.3 %	D=	58.6 %
T=	6.0 % for 24 hrs.	T=	6.0 % for 24 hrs.	T=	6.0 % for 24 hrs.
T=	3.0 % Design hr	T=	3.0 % Design hr	T=	3.0 % Design hr
2.2	% Medium Trucks DHV	2.2	% Medium Trucks DHV	2.2	% Medium Trucks DHV
3.7	% Heavy Trucks DHV	3.7	% Heavy Trucks DHV	3.7	% Heavy Trucks DHV
0.1	% Buses DHV	0.1	% Buses DHV	0.1	% Buses DHV
0.3	% Motorcycles DHV	0.3	% Motorcycles DHV	0.3	% Motorcycles DHV

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 2/11/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

Segment Description: SR 414/Maitland Blvd. - Eden Park Rd. to Magnolia Homes Rd.

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility			No-Build (Design Year)			Build (Design Year)		
Lanes:	4		Lanes:	6		Lanes:	4	
Year:	2019 (AM Peak)		Year:	2045 (AM Peak)		Year:	2045 (AM Peak)	
ADT: LOS (C)	37,900		ADT: LOS (C)	58,400		ADT: LOS (C)	37,900	
Demand	55,000		Demand	69,100		Demand	40,100	
Speed:	50	mph	Speed:	45	mph	Speed:	45	mph
	80	kmh		72	kmh		72	kmh
K=	7.7	%	K=	9.3	%	K=	9.1	%
D=	61.5	%	D=	63.6	%	D=	61.3	%
T=	6.0	% for 24 hrs.	T=	6.0	% for 24 hrs.	T=	6.0	% for 24 hrs.
T=	3.0	% Design hr	T=	3.0	% Design hr	T=	3.0	% Design hr
2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV	
3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV	
0.1	% Buses DHV		0.1	% Buses DHV		0.1	% Buses DHV	
0.3	% Motorcycles DHV		0.3	% Motorcycles DHV		0.3	% Motorcycles DHV	

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 2/11/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

Segment Description: SR 414/Maitland Blvd. - Magnolia Homes Rd. to Gateway Dr.

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	4	Lanes:	6	Lanes:	4
Year:	2019 (AM Peak)	Year:	2045 (AM Peak)	Year:	2045 (AM Peak)
ADT: LOS (C)	37,900	ADT: LOS (C)	58,400	ADT: LOS (C)	37,900
Demand	59,910	Demand	75,300	Demand	46,000
Speed:	50 mph	Speed:	45 mph	Speed:	45 mph
	80 kmh		72 kmh		72 kmh
K=	7.3 %	K=	8.8 %	K=	8.5 %
D=	61.6 %	D=	63.6 %	D=	61.4 %
T=	6.0 % for 24 hrs.	T=	6.0 % for 24 hrs.	T=	6.0 % for 24 hrs.
T=	3.0 % Design hr	T=	3.0 % Design hr	T=	3.0 % Design hr
2.2	% Medium Trucks DHV	2.2	% Medium Trucks DHV	2.2	% Medium Trucks DHV
3.7	% Heavy Trucks DHV	3.7	% Heavy Trucks DHV	3.7	% Heavy Trucks DHV
0.1	% Buses DHV	0.1	% Buses DHV	0.1	% Buses DHV
0.3	% Motorcycles DHV	0.3	% Motorcycles DHV	0.3	% Motorcycles DHV

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 2/11/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

Segment Description: SR 414/Maitland Blvd. - Gateway Dr. to SR 434

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	4	Lanes:	6	Lanes:	4
Year:	2019 (AM Peak)	Year:	2045 (AM Peak)	Year:	2045 (AM Peak)
ADT: LOS (C)	37,900	ADT: LOS (C)	58,400	ADT: LOS (C)	37,900
Demand	56,430	Demand	70,900	Demand	41,200
Speed:	55 mph	Speed:	45 mph	Speed:	45 mph
	89 kmh		72 kmh		72 kmh
K=	7.3 %	K=	8.9 %	K=	8.4 %
D=	60.8 %	D=	63.1 %	D=	62.3 %
T=	6.0 % for 24 hrs.	T=	6.0 % for 24 hrs.	T=	6.0 % for 24 hrs.
T=	3.0 % Design hr	T=	3.0 % Design hr	T=	3.0 % Design hr
2.2	% Medium Trucks DHV	2.2	% Medium Trucks DHV	2.2	% Medium Trucks DHV
3.7	% Heavy Trucks DHV	3.7	% Heavy Trucks DHV	3.7	% Heavy Trucks DHV
0.1	% Buses DHV	0.1	% Buses DHV	0.1	% Buses DHV
0.3	% Motorcycles DHV	0.3	% Motorcycles DHV	0.3	% Motorcycles DHV

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 4/9/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

Segment Description: SR 414 - btwn SR 434 Ramps

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	4	Lanes:	6	Lanes:	6
Year:	2019 (AM Peak)	Year:	2045 (PM Peak)	Year:	2045 (PM Peak)
ADT: LOS (C)	52,600	ADT: LOS (C)	97,800	ADT: LOS (C)	97,800
Demand	44,090	Demand	55,300	Demand	85,200
Speed:	55 mph	Speed:	50 mph	Speed:	50 mph
	89 kmh		80 kmh		80 kmh
K=	6.9 %	K=	8.5 %	K=	9.0 %
D=	64.5 %	D=	67.0 %	D=	60.0 %
T=	6.0 % for 24 hrs.	T=	6.0 % for 24 hrs.	T=	6.0 % for 24 hrs.
T=	3.0 % Design hr	T=	3.0 % Design hr	T=	3.0 % Design hr
2.2	% Medium Trucks DHV	2.2	% Medium Trucks DHV	2.2	% Medium Trucks DHV
3.7	% Heavy Trucks DHV	3.7	% Heavy Trucks DHV	3.7	% Heavy Trucks DHV
0.1	% Buses DHV	0.1	% Buses DHV	0.1	% Buses DHV
0.3	% Motorcycles DHV	0.3	% Motorcycles DHV	0.3	% Motorcycles DHV

SR 414 – Expressway

TRAFFIC DATA FOR NOISE STUDIES

Project:	SR 414 Expressway Extension PD&E Study	Date:	2/11/2021
State Project Number(s):		Prepared By:	Michael Baker
Financial Project ID:	CFX Project No 414-227		
Federal Aid Number(s):			
Segment Description:	SR 414 - btwn US 441 Ramps		

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility			No-Build (Design Year)			Build (Design Year)		
Lanes:	6		Lanes:	6		Lanes:	6	
Year:	2019 (PM Peak)		Year:	2045 (PM Peak)		Year:	2045 (PM Peak)	
ADT: LOS (C)	97,800		ADT: LOS (C)	97,800		ADT: LOS (C)	97,800	
Demand	40,240		Demand	50,600		Demand	84,000	
Speed:	50	mph	Speed:	50	mph	Speed:	55	mph
	80	kmh		80	kmh		89	kmh
K=	8.7	%	K=	10.8	%	K=	9.2	%
D=	62.6	%	D=	67.4	%	D=	58.7	%
T=	6.0	% for 24 hrs.	T=	6.0	% for 24 hrs.	T=	6.0	% for 24 hrs.
T=	3.0	% Design hr	T=	3.0	% Design hr	T=	3.0	% Design hr
2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV	
3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV	
0.1	% Buses DHV		0.1	% Buses DHV		0.1	% Buses DHV	
0.3	% Motorcycles DHV		0.3	% Motorcycles DHV		0.3	% Motorcycles DHV	

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 2/11/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

Segment Description: SR 414 Expressway Extension - US 441 to SR 434

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility			No-Build (Design Year)			Build (Design Year)		
Lanes:	0		Lanes:	0		Lanes:	4	
Year:	2019		Year:	2045		Year:	2045 (PM Peak)	
ADT:			ADT:			ADT:		
LOS (C)	n/a		LOS (C)	n/a		LOS (C)	66,400	
Demand	0		Demand	0		Demand	66,000	
Speed:	0	mph	Speed:	0	mph	Speed:	50	mph
	0	kmh		0	kmh		80	kmh
K=	0.0	%	K=	0.0	%	K=	9.1	%
D=	0.0	%	D=	0.0	%	D=	59.5	%
T=	0.0	% for 24 hrs.	T=	0.0	% for 24 hrs.	T=	6.0	% for 24 hrs.
T=	0.0	% Design hr	T=	0.0	% Design hr	T=	3.0	% Design hr
		% Medium Trucks DHV			% Medium Trucks DHV	2.2		% Medium Trucks DHV
		% Heavy Trucks DHV			% Heavy Trucks DHV	3.7		% Heavy Trucks DHV
		% Buses DHV			% Buses DHV	0.1		% Buses DHV
		% Motorcycles DHV			% Motorcycles DHV	0.3		% Motorcycles DHV

Ramps

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 2/11/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

Segment Description: U.S. 441 WB Off-Ramp (Ramp X1)

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	1	Lanes:	1	Lanes:	1
Year:	2019 (AM Peak)	Year:	2045 (PM Peak)	Year:	2045 (PM Peak)
ADT:		ADT:		ADT:	
LOS (C)	n/a	LOS (C)	n/a	LOS (C)	n/a
Demand	12,070	Demand	15,300	Demand	18,400
Speed:	45 mph	Speed:	45 mph	Speed:	45 mph
	72 kmh		72 kmh		72 kmh
K=	7.2 %	K=	6.3 %	K=	8.7 %
D=	100.0 %	D=	100.0 %	D=	100.0 %
T=	6.0 % for 24 hrs.	T=	6.0 % for 24 hrs.	T=	6.0 % for 24 hrs.
T=	3.0 % Design hr	T=	3.0 % Design hr	T=	3.0 % Design hr
2.2	% Medium Trucks DHV	2.2	% Medium Trucks DHV	2.2	% Medium Trucks DHV
3.7	% Heavy Trucks DHV	3.7	% Heavy Trucks DHV	3.7	% Heavy Trucks DHV
0.1	% Buses DHV	0.1	% Buses DHV	0.1	% Buses DHV
0.3	% Motorcycles DHV	0.3	% Motorcycles DHV	0.3	% Motorcycles DHV

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 2/11/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

Segment Description: U.S. 441 EB On-Ramp (Ramp W)

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility			No-Build (Design Year)			Build (Design Year)		
Lanes:	1		Lanes:	1		Lanes:	1	
Year:	2019 (AM Peak)		Year:	2045 (PM Peak)		Year:	2045 (PM Peak)	
ADT:			ADT:			ADT:		
LOS (C)	n/a		LOS (C)	n/a		LOS (C)	n/a	
Demand	12,070		Demand	15,300		Demand	18,400	
Speed:	45	mph	Speed:	45	mph	Speed:	45	mph
	72	kmh		72	kmh		72	kmh
K=	7.2	%	K=	6.3	%	K=	8.7	%
D=	100.0	%	D=	100.0	%	D=	100.0	%
T=	6.0	% for 24 hrs.	T=	6.0	% for 24 hrs.	T=	6.0	% for 24 hrs.
T=	3.0	% Design hr	T=	3.0	% Design hr	T=	3.0	% Design hr
2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV	
3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV	
0.1	% Buses DHV		0.1	% Buses DHV		0.1	% Buses DHV	
0.3	% Motorcycles DHV		0.3	% Motorcycles DHV		0.3	% Motorcycles DHV	

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 2/11/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

Segment Description: S.R. 434 WB On-Ramp (Ramp A)

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	1	Lanes:	1	Lanes:	1
Year:	2019 (AM Peak)	Year:	2045 (AM Peak)	Year:	2045 (PM Peak)
ADT:		ADT:		ADT:	
LOS (C)	n/a	LOS (C)	n/a	LOS (C)	n/a
Demand	12,340	Demand	15,600	Demand	22,000
Speed:	40 mph	Speed:	40 mph	Speed:	40 mph
	64 kmh		64 kmh		64 kmh
K=	8.7 %	K=	9.6 %	K=	8.1 %
D=	100.0 %	D=	100.0 %	D=	100.0 %
T=	6.0 % for 24 hrs.	T=	6.0 % for 24 hrs.	T=	6.0 % for 24 hrs.
T=	3.0 % Design hr	T=	3.0 % Design hr	T=	3.0 % Design hr
2.2	% Medium Trucks DHV	2.2	% Medium Trucks DHV	2.2	% Medium Trucks DHV
3.7	% Heavy Trucks DHV	3.7	% Heavy Trucks DHV	3.7	% Heavy Trucks DHV
0.1	% Buses DHV	0.1	% Buses DHV	0.1	% Buses DHV
0.3	% Motorcycles DHV	0.3	% Motorcycles DHV	0.3	% Motorcycles DHV

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 2/11/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

Segment Description: S.R. 434 WB On-Ramp (Ramp A)

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	1	Lanes:	1	Lanes:	1
Year:	2019 (AM Peak)	Year:	2045 (AM Peak)	Year:	2045 (PM Peak)
ADT:		ADT:		ADT:	
LOS (C)	n/a	LOS (C)	n/a	LOS (C)	n/a
Demand	12,340	Demand	15,600	Demand	22,000
Speed:	40 mph	Speed:	40 mph	Speed:	40 mph
	64 kmh		64 kmh		64 kmh
K=	8.7 %	K=	9.6 %	K=	8.1 %
D=	100.0 %	D=	100.0 %	D=	100.0 %
T=	6.0 % for 24 hrs.	T=	6.0 % for 24 hrs.	T=	6.0 % for 24 hrs.
T=	3.0 % Design hr	T=	3.0 % Design hr	T=	3.0 % Design hr
2.2	% Medium Trucks DHV	2.2	% Medium Trucks DHV	2.2	% Medium Trucks DHV
3.7	% Heavy Trucks DHV	3.7	% Heavy Trucks DHV	3.7	% Heavy Trucks DHV
0.1	% Buses DHV	0.1	% Buses DHV	0.1	% Buses DHV
0.3	% Motorcycles DHV	0.3	% Motorcycles DHV	0.3	% Motorcycles DHV

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 2/11/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

Segment Description: S.R. 434 EB Off Ramp (Ramp B)

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	1	Lanes:	1	Lanes:	1
Year:	2019 (AM Peak)	Year:	2045 (AM Peak)	Year:	2045 (PM Peak)
ADT:		ADT:		ADT:	
LOS (C)	n/a	LOS (C)	n/a	LOS (C)	n/a
Demand	12,340	Demand	15,600	Demand	22,000
Speed:	40 mph	Speed:	40 mph	Speed:	40 mph
	64 kmh		64 kmh		64 kmh
K=	8.7 %	K=	9.6 %	K=	8.1 %
D=	100.0 %	D=	100.0 %	D=	100.0 %
T=	6.0 % for 24 hrs.	T=	6.0 % for 24 hrs.	T=	6.0 % for 24 hrs.
T=	3.0 % Design hr	T=	3.0 % Design hr	T=	3.0 % Design hr
2.2	% Medium Trucks DHV	2.2	% Medium Trucks DHV	2.2	% Medium Trucks DHV
3.7	% Heavy Trucks DHV	3.7	% Heavy Trucks DHV	3.7	% Heavy Trucks DHV
0.1	% Buses DHV	0.1	% Buses DHV	0.1	% Buses DHV
0.3	% Motorcycles DHV	0.3	% Motorcycles DHV	0.3	% Motorcycles DHV

Cross Streets

TRAFFIC DATA FOR NOISE STUDIES

Project:	SR 414 Expressway Extension PD&E Study	Date:	3/31/2021
State Project Number(s):		Prepared By:	Michael Baker
Financial Project ID:	CFX Project No 414-227		
Federal Aid Number(s):			
Segment Description:	US 441 (North of SR 414)		

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	4	Lanes:	4	Lanes:	4
Year:	2019 (PM Peak)	Year:	2045 (PM Peak)	Year:	2045 (AM Peak)
ADT: LOS (C)	37,900	ADT: LOS (C)	37,900	ADT: LOS (C)	37,900
Demand	30,820	Demand	42,700	Demand	37,500
Speed:	55 mph	Speed:	55 mph	Speed:	55 mph
	89 kmh		89 kmh		89 kmh
K=	7.9 %	K=	7.5 %	K=	8.4 %
D=	59.6 %	D=	58.7 %	D=	59.4 %
T=	6.0 % for 24 hrs.	T=	6.0 % for 24 hrs.	T=	6.0 % for 24 hrs.
T=	3.0 % Design hr	T=	3.0 % Design hr	T=	3.0 % Design hr
2.1	% Medium Trucks DHV	2.1	% Medium Trucks DHV	2.1	% Medium Trucks DHV
2.8	% Heavy Trucks DHV	2.8	% Heavy Trucks DHV	2.8	% Heavy Trucks DHV
0.7	% Buses DHV	0.7	% Buses DHV	0.7	% Buses DHV
0.5	% Motorcycles DHV	0.5	% Motorcycles DHV	0.5	% Motorcycles DHV

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 4/1/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

Segment Description: US 441 (South of SR 414)

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility			No-Build (Design Year)			Build (Design Year)		
Lanes:	4		Lanes:	4		Lanes:	4	
Year:	2019 (AM Peak)		Year:	2045 (AM Peak)		Year:	2045 (AM Peak)	
ADT: LOS (C)	37,900		ADT: LOS (C)	37,900		ADT: LOS (C)	37,900	
Demand	26,340		Demand	34,600		Demand	31,900	
Speed:	55	mph	Speed:	55	mph	Speed:	55	mph
	89	kmh		89	kmh		89	kmh
K=	11.5	%	K=	11.9	%	K=	12.1	%
D=	72.9	%	D=	74.3	%	D=	62.0	%
T=	6.0	% for 24 hrs.	T=	6.0	% for 24 hrs.	T=	6.0	% for 24 hrs.
T=	3.0	% Design hr	T=	3.0	% Design hr	T=	3.0	% Design hr
2.1	% Medium Trucks DHV		2.1	% Medium Trucks DHV		2.1	% Medium Trucks DHV	
2.8	% Heavy Trucks DHV		2.8	% Heavy Trucks DHV		2.8	% Heavy Trucks DHV	
0.7	% Buses DHV		0.7	% Buses DHV		0.7	% Buses DHV	
0.5	% Motorcycles DHV		0.5	% Motorcycles DHV		0.5	% Motorcycles DHV	

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 2/11/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

Segment Description: Bear Lake Rd

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility			No-Build (Design Year)			Build (Design Year)		
Lanes:	2		Lanes:	2		Lanes:	2	
Year:	2019 (AM Peak)		Year:	2045 (AM Peak)		Year:	2045 (AM Peak)	
ADT: LOS (C)	7,300		ADT: LOS (C)	7,300		ADT: LOS (C)	7,300	
Demand	9,470		Demand	10,900		Demand	11,500	
Speed:	35	mph	Speed:	35	mph	Speed:	35	mph
	56	kmh		56	kmh		56	kmh
K=	8.0	%	K=	8.0	%	K=	9.2	%
D=	64.0	%	D=	63.8	%	D=	59.2	%
T=	4.0	% for 24 hrs.	T=	4.0	% for 24 hrs.	T=	4.0	% for 24 hrs.
T=	2.0	% Design hr	T=	2.0	% Design hr	T=	2.0	% Design hr
2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV	
3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV	
0.1	% Buses DHV		0.1	% Buses DHV		0.1	% Buses DHV	
0.3	% Motorcycles DHV		0.3	% Motorcycles DHV		0.3	% Motorcycles DHV	

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 2/11/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

Segment Description: Rose Ave

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility			No-Build (Design Year)			Build (Design Year)		
Lanes:	2		Lanes:	2		Lanes:	2	
Year:	2019 (PM Peak)		Year:	2045 (PM Peak)		Year:	2045 (PM Peak)	
ADT: LOS (C)	7,300		ADT: LOS (C)	7,300		ADT: LOS (C)	7,300	
Demand	13,850		Demand	15,800		Demand	16,500	
Speed:	40	mph	Speed:	40	mph	Speed:	40	mph
	64	kmh		64	kmh		64	kmh
K=	7.3	%	K=	7.3	%	K=	7.6	%
D=	50.0	%	D=	50.0	%	D=	50.0	%
T=	4.0	% for 24 hrs.	T=	4.0	% for 24 hrs.	T=	4.0	% for 24 hrs.
T=	2.0	% Design hr	T=	2.0	% Design hr	T=	2.0	% Design hr
2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV	
3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV	
0.1	% Buses DHV		0.1	% Buses DHV		0.1	% Buses DHV	
0.3	% Motorcycles DHV		0.3	% Motorcycles DHV		0.3	% Motorcycles DHV	

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 2/11/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

Segment Description: Eden Park Rd (North of SR 414)

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility			No-Build (Design Year)			Build (Design Year)		
Lanes:	2		Lanes:	2		Lanes:	2	
Year:	2019 (AM Peak)		Year:	2045 (AM Peak)		Year:	2045 (AM Peak)	
ADT: LOS (C)	7,300		ADT: LOS (C)	7,300		ADT: LOS (C)	7,300	
Demand	7,920		Demand	9,200		Demand	10,400	
Speed:	40	mph	Speed:	40	mph	Speed:	40	mph
	64	kmh		64	kmh		64	kmh
K=	7.9	%	K=	7.9	%	K=	8.6	%
D=	70.0	%	D=	69.2	%	D=	62.9	%
T=	4.0	% for 24 hrs.	T=	4.0	% for 24 hrs.	T=	4.0	% for 24 hrs.
T=	2.0	% Design hr	T=	2.0	% Design hr	T=	2.0	% Design hr
2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV	
3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV	
0.1	% Buses DHV		0.1	% Buses DHV		0.1	% Buses DHV	
0.3	% Motorcycles DHV		0.3	% Motorcycles DHV		0.3	% Motorcycles DHV	

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 2/11/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

Segment Description: Eden Park Rd (South of SR 414)

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility			No-Build (Design Year)			Build (Design Year)		
Lanes:	2		Lanes:	2		Lanes:	2	
Year:	2019 (PM Peak)		Year:	2045 (PM Peak)		Year:	2045 (PM Peak)	
ADT: LOS (C)	7,300		ADT: LOS (C)	7,300		ADT: LOS (C)	7,300	
Demand	3,530		Demand	4,100		Demand	5,100	
Speed:	35	mph	Speed:	35	mph	Speed:	35	mph
	56	kmh		56	kmh		56	kmh
K=	10.8	%	K=	10.9	%	K=	10.5	%
D=	62.4	%	D=	61.8	%	D=	50.5	%
T=	4.0	% for 24 hrs.	T=	4.0	% for 24 hrs.	T=	4.0	% for 24 hrs.
T=	2.0	% Design hr	T=	2.0	% Design hr	T=	2.0	% Design hr
2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV	
3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV	
0.1	% Buses DHV		0.1	% Buses DHV		0.1	% Buses DHV	
0.3	% Motorcycles DHV		0.3	% Motorcycles DHV		0.3	% Motorcycles DHV	

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 2/11/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

Segment Description: Lake Lotus Park Rd

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility			No-Build (Design Year)			Build (Design Year)		
Lanes:	2		Lanes:	2		Lanes:	2	
Year:	2019 (AM Peak)		Year:	2045 (AM Peak)		Year:	2045 (PM Peak)	
ADT: LOS (C)	7,300		ADT: LOS (C)	7,300		ADT: LOS (C)	7,300	
Demand	40		Demand	60		Demand	60	
Speed:	n/a	mph	Speed:	n/a	mph	Speed:	n/a	mph
	#VALUE!	kmh		#VALUE!	kmh		#VALUE!	kmh
K=	5.0	%	K=	50.0	%	K=	50.0	%
D=	100.0	%	D=	50.0	%	D=	50.0	%
T=	4.0	% for 24 hrs.	T=	4.0	% for 24 hrs.	T=	4.0	% for 24 hrs.
T=	2.0	% Design hr	T=	2.0	% Design hr	T=	2.0	% Design hr
2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV	
3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV	
0.1	% Buses DHV		0.1	% Buses DHV		0.1	% Buses DHV	
0.3	% Motorcycles DHV		0.3	% Motorcycles DHV		0.3	% Motorcycles DHV	

TRAFFIC DATA FOR NOISE STUDIES

Project:	SR 414 Expressway Extension PD&E Study	Date:	2/11/2021
State Project Number(s):		Prepared By:	Michael Baker
Financial Project ID:	CFX Project No 414-227		
Federal Aid Number(s):			
Segment Description:	Magnolia Homes Rd (S of SR 414)		

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	2	Lanes:	2	Lanes:	2
Year:	2019 (PM Peak)	Year:	2045 (PM Peak)	Year:	2045 (PM Peak)
ADT: LOS (C)	7,300	ADT: LOS (C)	7,300	ADT: LOS (C)	7,300
Demand	6,620	Demand	7,800	Demand	9,700
Speed:	40 mph	Speed:	40 mph	Speed:	40 mph
	64 kmh		64 kmh		64 kmh
K=	6.2 %	K=	6.2 %	K=	6.2 %
D=	58.4 %	D=	57.7 %	D=	55.8 %
T=	4.0 % for 24 hrs.	T=	4.0 % for 24 hrs.	T=	4.0 % for 24 hrs.
T=	2.0 % Design hr	T=	2.0 % Design hr	T=	2.0 % Design hr
2.2	% Medium Trucks DHV	2.2	% Medium Trucks DHV	2.2	% Medium Trucks DHV
3.7	% Heavy Trucks DHV	3.7	% Heavy Trucks DHV	3.7	% Heavy Trucks DHV
0.1	% Buses DHV	0.1	% Buses DHV	0.1	% Buses DHV
0.3	% Motorcycles DHV	0.3	% Motorcycles DHV	0.3	% Motorcycles DHV

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 2/11/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

Segment Description: Gateway Dr

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility			No-Build (Design Year)			Build (Design Year)		
Lanes:	2		Lanes:	2		Lanes:	2	
Year:	2019 (AM Peak)		Year:	2045 (AM Peak)		Year:	2045 (AM Peak)	
ADT: LOS (C)	7,300		ADT: LOS (C)	7,300		ADT: LOS (C)	7,300	
Demand	3,920		Demand	4,500		Demand	5,600	
Speed:	30	mph	Speed:	30	mph	Speed:	30	mph
	48	kmh		48	kmh		48	kmh
K=	7.7	%	K=	7.8	%	K=	8.6	%
D=	71.7	%	D=	71.4	%	D=	56.3	%
T=	4.0	% for 24 hrs.	T=	4.0	% for 24 hrs.	T=	4.0	% for 24 hrs.
T=	2.0	% Design hr	T=	2.0	% Design hr	T=	2.0	% Design hr
2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV		2.2	% Medium Trucks DHV	
3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV		3.7	% Heavy Trucks DHV	
0.1	% Buses DHV		0.1	% Buses DHV		0.1	% Buses DHV	
0.3	% Motorcycles DHV		0.3	% Motorcycles DHV		0.3	% Motorcycles DHV	

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 4/1/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

Segment Description: SR 434 (North of SR 414)

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility			No-Build (Design Year)			Build (Design Year)		
Lanes:	6		Lanes:	4		Lanes:	4	
Year:	2019 (AM Peak)		Year:	2045 (AM Peak)		Year:	2045 (AM Peak	
ADT: LOS (C)	37,900		ADT: LOS (C)	58,400		ADT: LOS (C)	58,400	
Demand	41,900		Demand	49,200		Demand	46,900	
Speed:	45	mph	Speed:	45	mph	Speed:	45	mph
	72	kmh		72	kmh		72	kmh
K=	8.6	%	K=	7.3	%	K=	9.5	%
D=	63.1	%	D=	63.0	%	D=	54.8	%
T=	4.0	% for 24 hrs.	T=	4.0	% for 24 hrs.	T=	4.0	% for 24 hrs.
T=	2.0	% Design hr	T=	2.0	% Design hr	T=	2.0	% Design hr
6.1	% Medium Trucks DHV		6.1	% Medium Trucks DHV		6.1	% Medium Trucks DHV	
1.9	% Heavy Trucks DHV		1.9	% Heavy Trucks DHV		1.9	% Heavy Trucks DHV	
0.4	% Buses DHV		0.4	% Buses DHV		0.4	% Buses DHV	
0.3	% Motorcycles DHV		0.3	% Motorcycles DHV		0.3	% Motorcycles DHV	

TRAFFIC DATA FOR NOISE STUDIES

Project: SR 414 Expressway Extension PD&E Study

Date: 3/31/2021

State Project Number(s):

Prepared By: Michael Baker

Financial Project ID: CFX Project No 414-227

Federal Aid Number(s):

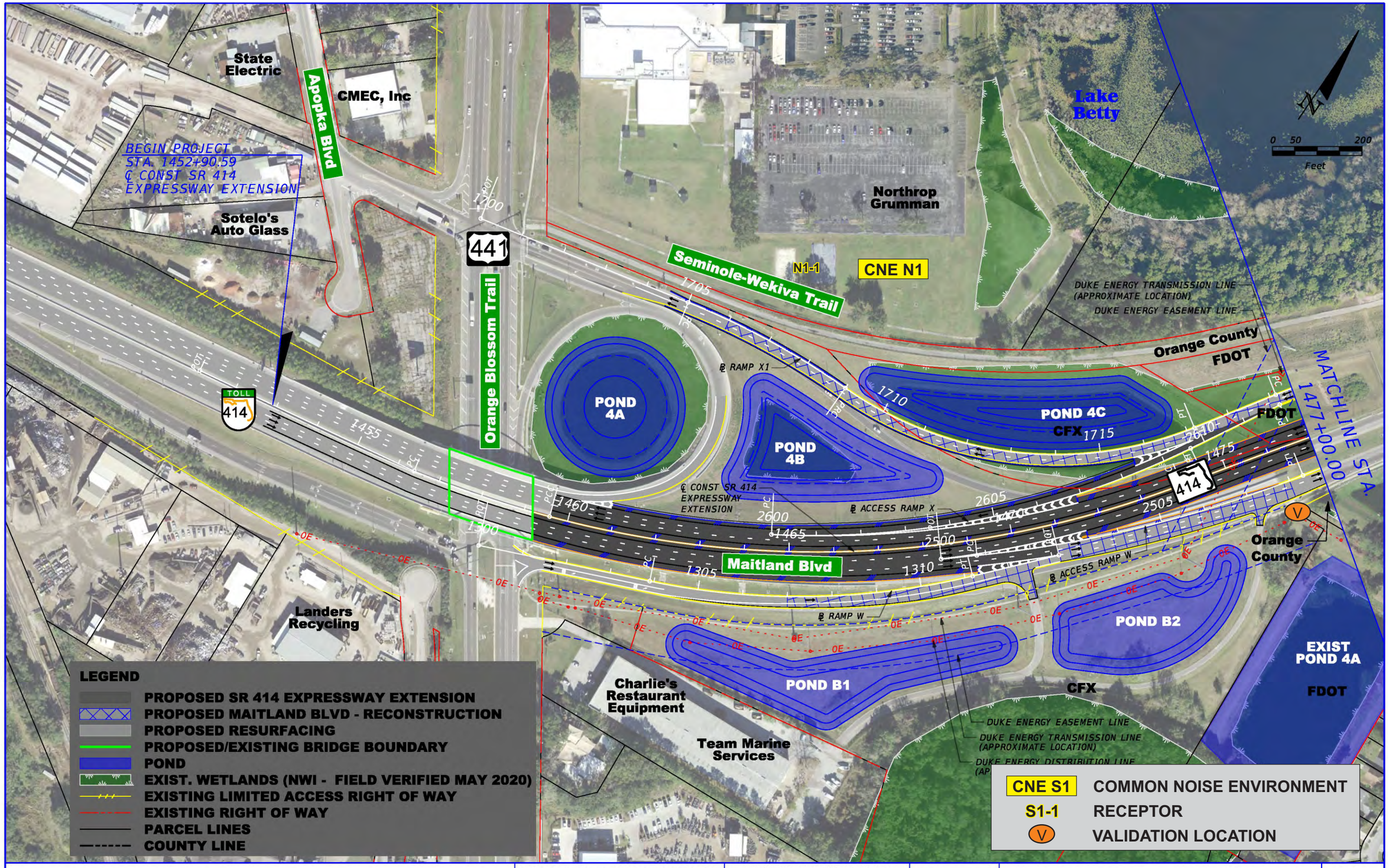
Segment Description: SR 434 (South of SR 414)

(Data sheets are to be filled out for every segment having a change in traffic parameters such as volumes, posted speeds, typical section, etc.)

NOTE: Modeled ADT is the LOS(C) volume referenced in the FDOT LOS tables or demand, whichever is less.

Existing Facility		No-Build (Design Year)		Build (Design Year)	
Lanes:	4	Lanes:	6	Lanes:	6
Year:	2019 (AM Peak)	Year:	2045 (AM Peak)	Year:	2045 (PM Peak
ADT: LOS (C)	37,900	ADT: LOS (C)	58,400	ADT: LOS (C)	58,400
Demand	33,400	Demand	38,600	Demand	41,400
Speed:	45 mph	Speed:	45 mph	Speed:	45 mph
	72 kmh		72 kmh		72 kmh
K=	8.0 %	K=	6.9 %	K=	8.9 %
D=	66.5 %	D=	66.4 %	D=	58.7 %
T=	4.0 % for 24 hrs.	T=	4.0 % for 24 hrs.	T=	4.0 % for 24 hrs.
T=	2.0 % Design hr	T=	2.0 % Design hr	T=	2.0 % Design hr
6.1	% Medium Trucks DHV	6.1	% Medium Trucks DHV	6.1	% Medium Trucks DHV
1.9	% Heavy Trucks DHV	1.9	% Heavy Trucks DHV	1.9	% Heavy Trucks DHV
0.4	% Buses DHV	0.4	% Buses DHV	0.4	% Buses DHV
0.3	% Motorcycles DHV	0.3	% Motorcycles DHV	0.3	% Motorcycles DHV

Appendix C
Aerials



PRELIMINARY - SUBJECT TO CHANGE

ENGINEER OF RECORD: KRYSTAL H. BURNS, P.E.
P.E. LICENSE NO. 60883

JACOBS ENGINEERING GROUP INC.
200 S. ORANGE AVENUE, STE 900
ORLANDO, FL 32801; PHONE (407) 903-5001
CERTIFICATE OF AUTHORIZATION No. 000072

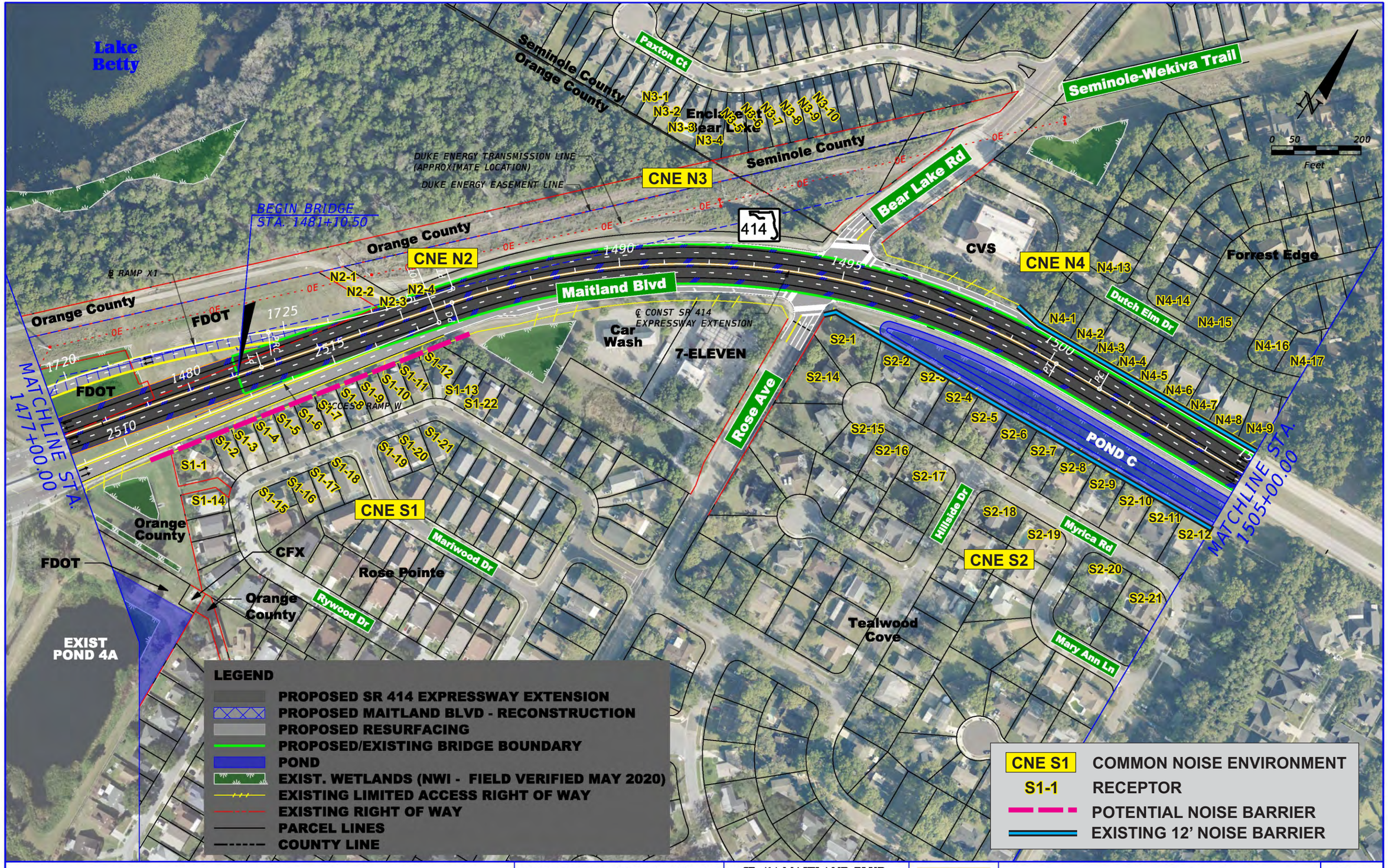
SR 414 MAITLAND BLVD.
EXPRESSWAY EXTENSION
US 441 TO SR 434

ROAD NO.	PROJECT NO.
SR 414	414-227

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

SR 414 ELEVATED PLAN SHEET (1)

SHEET NO. 1



PRELIMINARY - SUBJECT TO CHANGE

ENGINEER OF RECORD: KRYSTAL H. BURNS, P.E.
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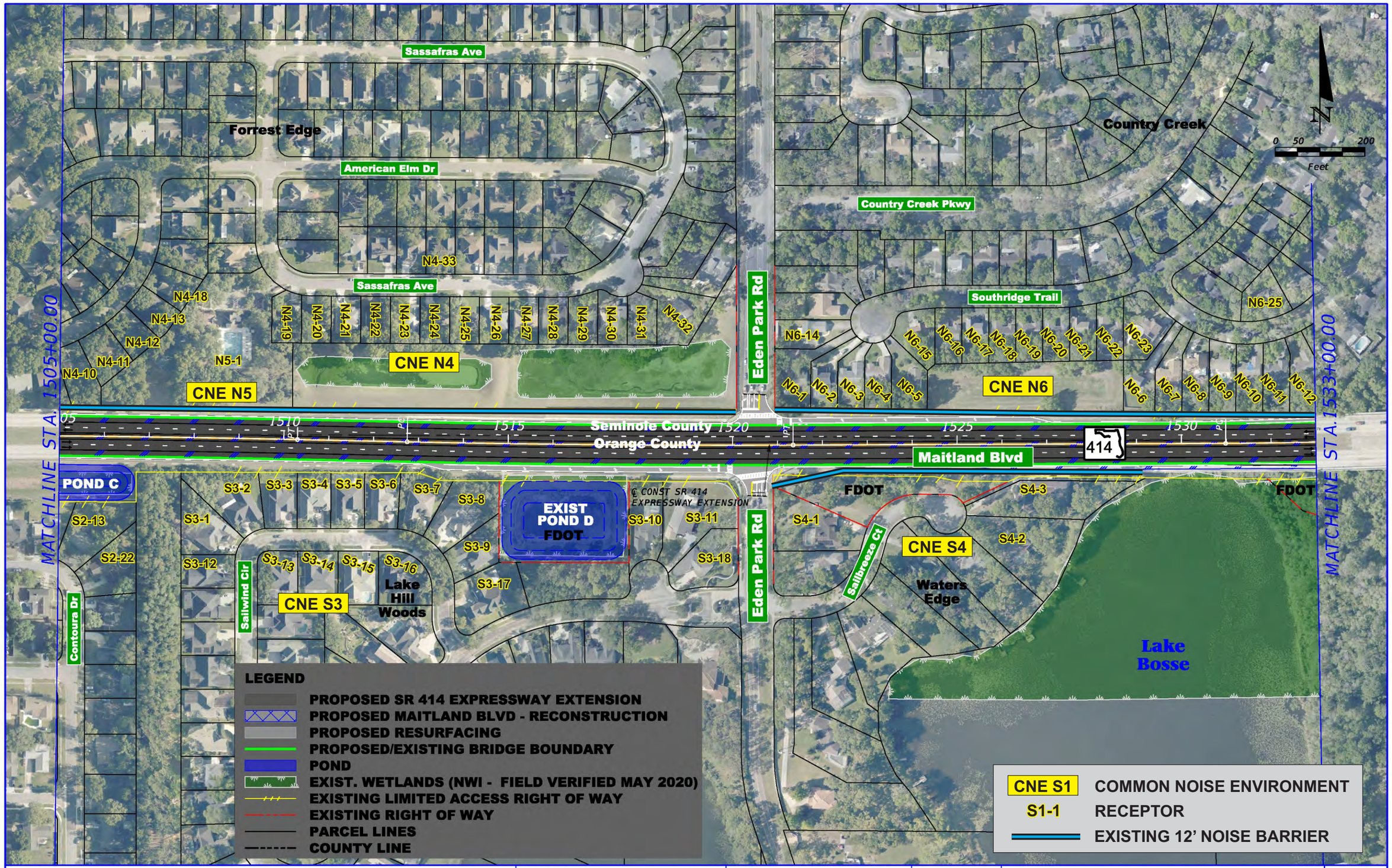
SR 414 MAITLAND BLVD. EXPRESSWAY EXTENSION US 441 TO SR 434

ROAD NO.	PROJECT NO.
SR 414	414-227

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

SR 414 ELEVATED PLAN SHEET (2)

SHEET NO. 2



PRELIMINARY - SUBJECT TO CHANGE

ENGINEER OF RECORD: KRYSTAL H. BURNS, P.E.
P.E. LICENSE NO. 60883

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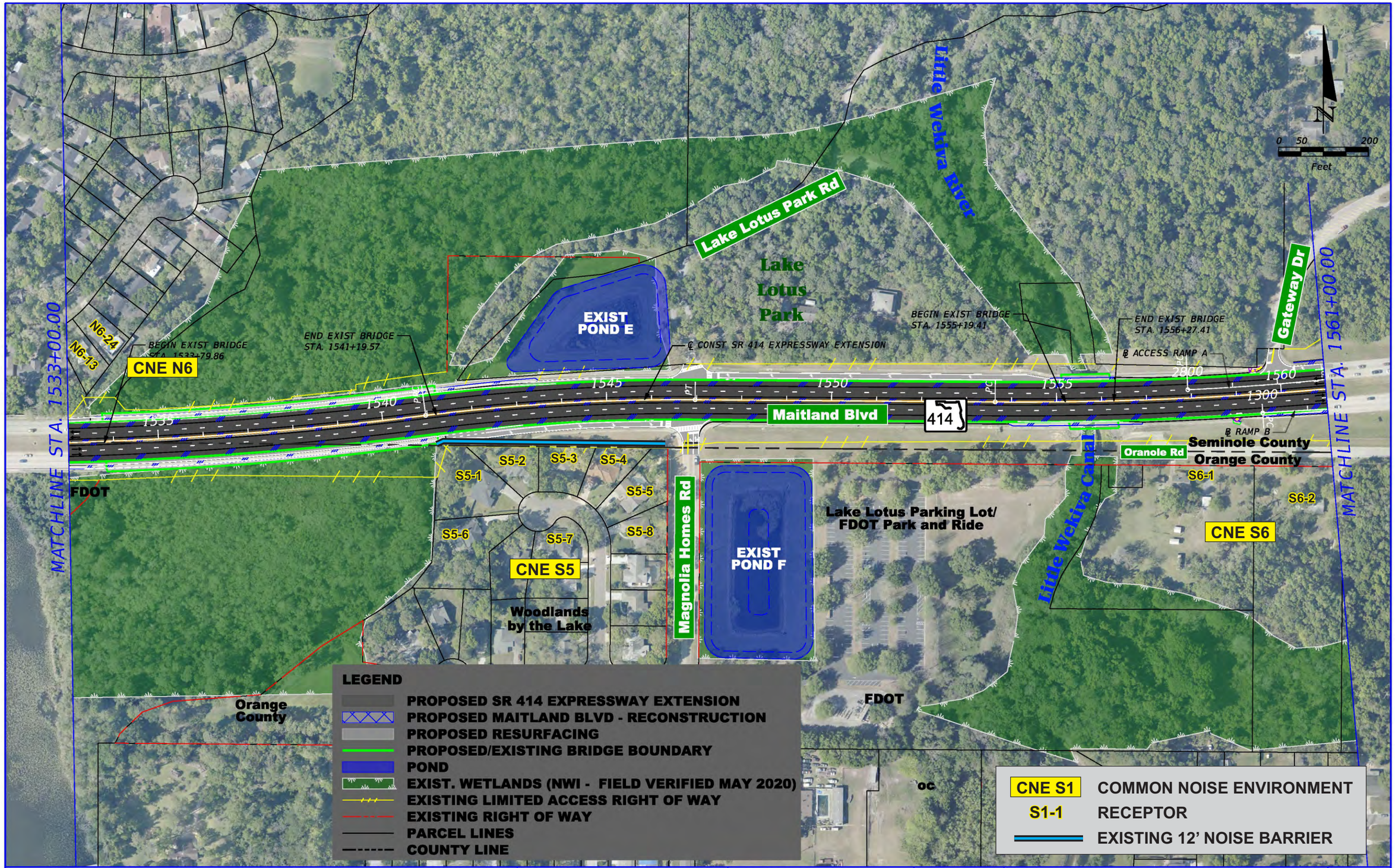
SR 414 MAITLAND BLVD. EXPRESSWAY EXTENSION US 441 TO SR 434

ROAD NO.	PROJECT NO.
SR 414	414-227

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

SR 414 ELEVATED PLAN SHEET (3)

SHEET NO. 3



PRELIMINARY - SUBJECT TO CHANGE

ENGINEER OF RECORD: KRYSTAL H. BURNS, P.E.
P.E. LICENSE NO. 60883

JACOBS ENGINEERING GROUP INC.
200 S. ORANGE AVENUE, STE 900
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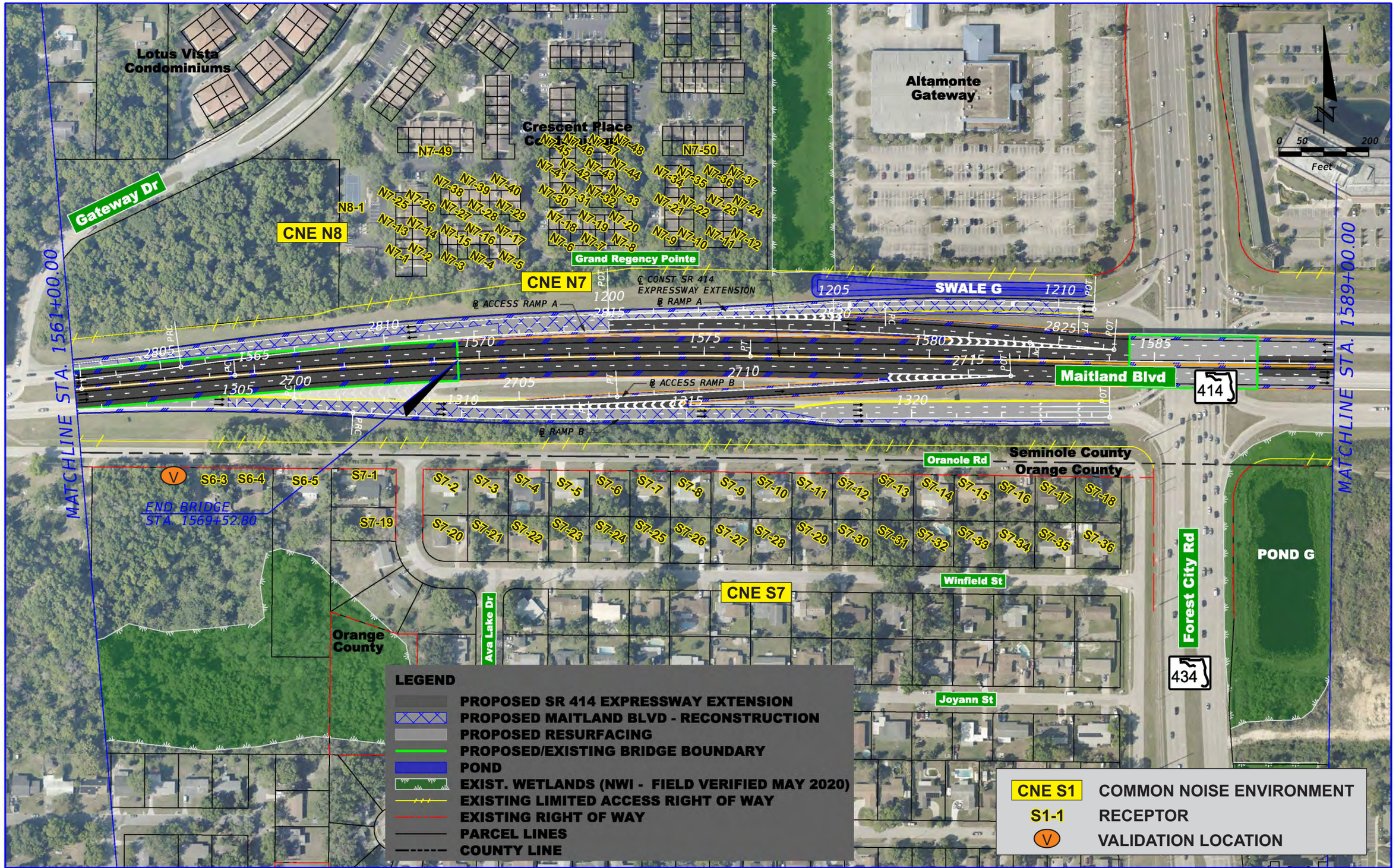
SR 414 MAITLAND BLVD. EXPRESSWAY EXTENSION US 441 TO SR 434

ROAD NO.	PROJECT NO.
SR 414	414-227

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

SR 414 ELEVATED PLAN SHEET (4)

SHEET NO. 4



LEGEND

- PROPOSED SR 414 EXPRESSWAY EXTENSION
- PROPOSED MAITLAND BLVD - RECONSTRUCTION
- PROPOSED RESURFACING
- PROPOSED/EXISTING BRIDGE BOUNDARY
- POND
- EXIST. WETLANDS (NWI - FIELD VERIFIED MAY 2020)
- EXISTING LIMITED ACCESS RIGHT OF WAY
- EXISTING RIGHT OF WAY
- PARCEL LINES
- COUNTY LINE

CNE S1	COMMON NOISE ENVIRONMENT
S1-1	RECEPTOR
(V)	VALIDATION LOCATION

PRELIMINARY - SUBJECT TO CHANGE

ENGINEER OF RECORD: KRYSTAL H. BURNS, P.E.
P.E. LICENSE NO. 60883

JACOBS ENGINEERING GROUP INC.
200 S. ORANGE AVENUE, STE 900
ORLANDO, FL 32801; PHONE (407) 903-5001
CERTIFICATE OF AUTHORIZATION No. 000072

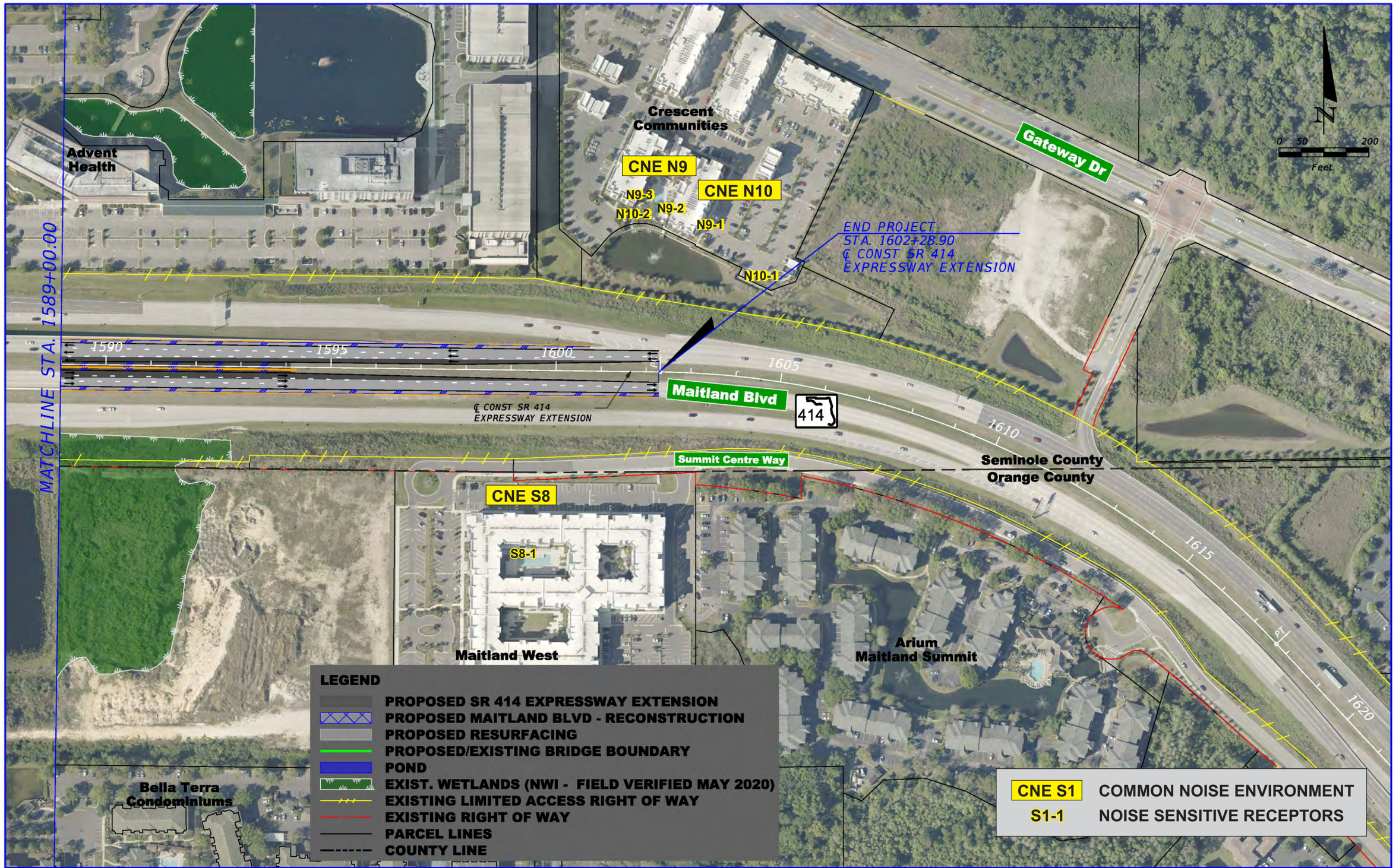
SR 414 MAITLAND BLVD. EXPRESSWAY EXTENSION US 441 TO SR 434

ROAD NO.	PROJECT NO.
SR 414	414-227

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

SR 414 ELEVATED PLAN SHEET (5)

SHEET NO. 5



PRELIMINARY - SUBJECT TO CHANGE

ENGINEER OF RECORD: KRYSTAL H. BURNS, P.E.
P.E. LICENSE NO. 60883

JACOBS ENGINEERING GROUP INC.
200 S. ORANGE AVENUE, STE 900
ORLANDO, FL 32801; PHONE (407) 903-5001
CERTIFICATE OF AUTHORIZATION No. 000072

SR 414 MAITLAND BLVD.
EXPRESSWAY EXTENSION
US 441 TO SR 434

ROAD NO.	PROJECT NO.
SR 414	414-227

CENTRAL FLORIDA EXPRESSWAY AUTHORITY

SR 414 ELEVATED PLAN SHEET (6)

SHEET NO. 6

Appendix D
Predicted Traffic Noise Levels

CNE	Receptor Numbers	Land Use	Activity Category / NAC	Predicted Traffic Noise Levels (Leq(h))				
				Existing	No-Build Alternative dB(A)	Preferred Alternative		
				dB(A)		dB(A)	Approaches, Meets, or Exceeds the NAC?	Substantial Increase (Yes/No)
N1	1	Office: Northrup Grumman Volleyball and Basketball Courts	E / 71	58.7	59.2	62.6	No	No
N2	1	Trail: Seminole-Wekiva Trail	C / 66	67.8	69.5	66.2	Yes	No
N2	2	Trail: Seminole-Wekiva Trail	C / 66	71.5	73.0	67.1	Yes	No
N2	3	Trail: Seminole-Wekiva Trail	C / 66	74.7	76.2	68.2	Yes	No
N2	4	Trail: Seminole-Wekiva Trail	C / 66	76.3	77.6	69.8	Yes	No
N2	5	Trail: Seminole-Wekiva Trail	C / 66	76.3	77.3	75.2	Yes	No
N2	6	Trail: Seminole-Wekiva Trail	C / 66	76.3	77.7	75.9	Yes	No
N2	7	Trail: Seminole-Wekiva Trail	C / 66	75.5	77.6	75.8	Yes	No
N2	8	Trail: Seminole-Wekiva Trail	C / 66	75.3	77.5	75.7	Yes	No
N2	9	Trail: Seminole-Wekiva Trail	C / 66	75.3	77.6	75.7	Yes	No
N2	10	Trail: Seminole-Wekiva Trail	C / 66	76.0	78.3	76.5	Yes	No
N3	1	Residential: Enclave at Bear Lake Subdivision	B / 66	59.6	62.4	63.1	No	No
N3	2	Residential: Enclave at Bear Lake Subdivision	B / 66	60.0	62.9	63.3	No	No
N3	3	Residential: Enclave at Bear Lake Subdivision	B / 66	61.3	64.1	64.1	No	No
N3	4	Residential: Enclave at Bear Lake Subdivision	B / 66	61.7	64.5	64.5	No	No
N3	5	Residential: Enclave at Bear Lake Subdivision	B / 66	61.6	64.5	64.4	No	No
N3	6	Residential: Enclave at Bear Lake Subdivision	B / 66	61.2	64.1	64.2	No	No
N3	7	Residential: Enclave at Bear Lake Subdivision	B / 66	61.4	64.3	64.3	No	No
N3	8	Residential: Enclave at Bear Lake Subdivision	B / 66	60.7	63.5	63.9	No	No
N3	9	Residential: Enclave at Bear Lake Subdivision	B / 66	60.6	63.4	63.8	No	No
N3	10	Residential: Enclave at Bear Lake Subdivision	B / 66	60.4	63.1	63.8	No	No
N4	1	Residential: Forest Edge Subdivision	B / 66	58.7	61.1	64.6	No	No
N4	2	Residential: Forest Edge Subdivision	B / 66	59.1	61.5	63.2	No	No
N4	3	Residential: Forest Edge Subdivision	B / 66	59.3	61.7	63.4	No	No
N4	4	Residential: Forest Edge Subdivision	B / 66	59.2	61.7	62.8	No	No
N4	5	Residential: Forest Edge Subdivision	B / 66	59.4	61.9	62.9	No	No
N4	6	Residential: Forest Edge Subdivision	B / 66	59.3	61.8	62.8	No	No
N4	7	Residential: Forest Edge Subdivision	B / 66	59.4	61.9	62.9	No	No
N4	8	Residential: Forest Edge Subdivision	B / 66	59.5	61.9	63.0	No	No
N4	9	Residential: Forest Edge Subdivision	B / 66	59.8	62.2	63.3	No	No
N4	10	Residential: Forest Edge Subdivision	B / 66	59.1	61.6	64.7	No	No

CNE	Receptor Numbers	Land Use	Activity Category / NAC	Predicted Traffic Noise Levels (Leq(h))				
				Existing	No-Build Alternative dB(A)	Preferred Alternative		
				dB(A)		dB(A)	Approaches, Meets, or Exceeds the NAC?	Substantial Increase (Yes/No)
N4	11	Residential: Forest Edge Subdivision	B / 66	57.5	60.0	63.6	No	No
N4	12	Residential: Forest Edge Subdivision	B / 66	56.8	59.3	63.8	No	No
N4	13	Residential: Forest Edge Subdivision	B / 66	58.9	61.5	64.6	No	No
N4	14	Residential: Forest Edge Subdivision	B / 66	55.3	57.8	63.2	No	No
N4	15	Residential: Forest Edge Subdivision	B / 66	55.1	57.6	62.9	No	No
N4	16	Residential: Forest Edge Subdivision	B / 66	54.5	57.0	62.4	No	No
N4	17	Residential: Forest Edge Subdivision	B / 66	53.9	56.5	62.0	No	No
N4	18	Residential: Forest Edge Subdivision	B / 66	55.0	57.5	62.2	No	No
N4	19	Residential: Forest Edge Subdivision	B / 66	56.2	58.7	63.2	No	No
N4	20	Residential: Forest Edge Subdivision	B / 66	56.5	59.1	63.3	No	No
N4	21	Residential: Forest Edge Subdivision	B / 66	56.9	59.5	63.5	No	No
N4	22	Residential: Forest Edge Subdivision	B / 66	56.2	58.8	63.1	No	No
N4	23	Residential: Forest Edge Subdivision	B / 66	56.1	58.7	62.9	No	No
N4	24	Residential: Forest Edge Subdivision	B / 66	56.0	58.5	62.8	No	No
N4	25	Residential: Forest Edge Subdivision	B / 66	56.3	58.8	62.9	No	No
N4	26	Residential: Forest Edge Subdivision	B / 66	56.6	59.1	63.1	No	No
N4	27	Residential: Forest Edge Subdivision	B / 66	56.7	59.2	63.0	No	No
N4	28	Residential: Forest Edge Subdivision	B / 66	56.9	59.4	63.0	No	No
N4	29	Residential: Forest Edge Subdivision	B / 66	57.4	59.8	63.2	No	No
N4	30	Residential: Forest Edge Subdivision	B / 66	57.9	60.3	63.4	No	No
N4	31	Residential: Forest Edge Subdivision	B / 66	58.5	60.9	63.5	No	No
N4	32	Residential: Forest Edge Subdivision	B / 66	59.6	61.8	63.9	No	No
N4	33	Residential: Forest Edge Subdivision	B / 66	54.5	56.9	61.1	No	No
N5	1	Recreational Area: Basketball Court and Swimming Pool in Forest Edge Subdivision	C / 66	57.6	60.1	64.4	No	No
N6	1	Residential: Southridge Subdivision	B / 66	62.2	64.6	65.8	No	No
N6	2	Residential: Southridge Subdivision	B / 66	58.1	60.5	61.9	No	No
N6	3	Residential: Southridge Subdivision	B / 66	60.3	62.7	64.0	No	No
N6	4	Residential: Southridge Subdivision	B / 66	60.0	62.4	65.0	No	No
N6	5	Residential: Southridge Subdivision	B / 66	59.8	62.2	63.9	No	No
N6	6	Residential: Southridge Subdivision	B / 66	58.6	60.9	62.9	No	No

CNE	Receptor Numbers	Land Use	Activity Category / NAC	Predicted Traffic Noise Levels (Leq(h))				
				Existing	No-Build Alternative dB(A)	Preferred Alternative		
				dB(A)		dB(A)	Approaches, Meets, or Exceeds the NAC?	Substantial Increase (Yes/No)
N6	7	Residential: Southridge Subdivision	B / 66	59.8	62.2	64.5	No	No
N6	8	Residential: Southridge Subdivision	B / 66	58.7	61.3	63.8	No	No
N6	9	Residential: Southridge Subdivision	B / 66	58.7	61.1	63.9	No	No
N6	10	Residential: Southridge Subdivision	B / 66	59.1	61.5	63.9	No	No
N6	11	Residential: Southridge Subdivision	B / 66	59.4	61.8	64.1	No	No
N6	12	Residential: Southridge Subdivision	B / 66	60.9	63.3	64.6	No	No
N6	13	Residential: Southridge Subdivision	B / 66	60.8	63.2	64.1	No	No
N6	14	Residential: Southridge Subdivision	B / 66	59.9	61.7	64.3	No	No
N6	15	Residential: Southridge Subdivision	B / 66	56.6	59.0	63.5	No	No
N6	16	Residential: Southridge Subdivision	B / 66	56.5	58.9	63.6	No	No
N6	17	Residential: Southridge Subdivision	B / 66	56.6	59.0	63.7	No	No
N6	18	Residential: Southridge Subdivision	B / 66	56.5	58.9	63.6	No	No
N6	19	Residential: Southridge Subdivision	B / 66	56.0	58.4	63.3	No	No
N6	20	Residential: Southridge Subdivision	B / 66	55.7	58.1	63.2	No	No
N6	21	Residential: Southridge Subdivision	B / 66	55.8	58.2	63.2	No	No
N6	22	Residential: Southridge Subdivision	B / 66	55.5	57.9	63.1	No	No
N6	23	Residential: Southridge Subdivision	B / 66	58.6	61.3	64.6	No	No
N6	24	Residential: Southridge Subdivision	B / 66	60.6	63.0	64.0	No	No
N6	25	Residential: Southridge Subdivision	B / 66	54.9	57.8	62.4	No	No
N7	1	Residential: Crescent Place Condominiums	B / 66	59.6	62.3	61.9	No	No
N7	2	Residential: Crescent Place Condominiums	B / 66	62.1	65.5	64.2	No	No
N7	3	Residential: Crescent Place Condominiums	B / 66	65.5	68.7	67.4	Yes	No
N7	4	Residential: Crescent Place Condominiums	B / 66	65.8	69.0	67.7	Yes	No
N7	5	Residential: Crescent Place Condominiums	B / 66	65.9	69.2	67.8	Yes	No
N7	6	Residential: Crescent Place Condominiums	B / 66	64.9	68.3	67.1	Yes	No
N7	7	Residential: Crescent Place Condominiums	B / 66	64.9	68.4	67.2	Yes	No
N7	8	Residential: Crescent Place Condominiums	B / 66	65.0	68.4	67.2	Yes	No
N7	9	Residential: Crescent Place Condominiums	B / 66	60.2	63.7	63.2	No	No
N7	10	Residential: Crescent Place Condominiums	B / 66	58.6	62.1	60.5	No	No
N7	11	Residential: Crescent Place Condominiums	B / 66	58.7	62.2	61.7	No	No
N7	12	Residential: Crescent Place Condominiums	B / 66	60.9	64.1	62.4	No	No

CNE	Receptor Numbers	Land Use	Activity Category / NAC	Predicted Traffic Noise Levels (Leq(h))				
				Existing	No-Build Alternative dB(A)	Preferred Alternative		
				dB(A)		dB(A)	Approaches, Meets, or Exceeds the NAC?	Substantial Increase (Yes/No)
N7	13	Residential: Crescent Place Condominiums	B / 66	57.2	60.0	60.9	No	No
N7	14	Residential: Crescent Place Condominiums	B / 66	57.2	60.2	59.5	No	No
N7	15	Residential: Crescent Place Condominiums	B / 66	40.5	43.3	46.0	No	No
N7	16	Residential: Crescent Place Condominiums	B / 66	40.7	43.5	46.0	No	No
N7	17	Residential: Crescent Place Condominiums	B / 66	40.7	43.4	45.9	No	No
N7	18	Residential: Crescent Place Condominiums	B / 66	40.2	43.1	45.3	No	No
N7	19	Residential: Crescent Place Condominiums	B / 66	40.4	43.3	45.3	No	No
N7	20	Residential: Crescent Place Condominiums	B / 66	40.4	43.3	45.3	No	No
N7	21	Residential: Crescent Place Condominiums	B / 66	57.6	61.1	61.1	No	No
N7	22	Residential: Crescent Place Condominiums	B / 66	55.4	58.9	58.3	No	No
N7	23	Residential: Crescent Place Condominiums	B / 66	55.3	58.9	58.7	No	No
N7	24	Residential: Crescent Place Condominiums	B / 66	59.7	62.8	61.5	No	No
N7	25	Residential: Crescent Place Condominiums	B / 66	55.7	58.6	61	No	No
N7	26	Residential: Crescent Place Condominiums	B / 66	54.0	56.8	56.5	No	No
N7	27	Residential: Crescent Place Condominiums	B / 66	48.7	51.5	53.5	No	No
N7	28	Residential: Crescent Place Condominiums	B / 66	50.3	53.7	54.5	No	No
N7	29	Residential: Crescent Place Condominiums	B / 66	53.4	56.9	57.2	No	No
N7	30	Residential: Crescent Place Condominiums	B / 66	55.6	58.8	57.7	No	No
N7	31	Residential: Crescent Place Condominiums	B / 66	45.6	48.3	51.4	No	No
N7	32	Residential: Crescent Place Condominiums	B / 66	44.2	46.9	50.2	No	No
N7	33	Residential: Crescent Place Condominiums	B / 66	52.4	55.8	55.6	No	No
N7	34	Residential: Crescent Place Condominiums	B / 66	55.0	58.6	58.7	No	No
N7	35	Residential: Crescent Place Condominiums	B / 66	53.0	56.5	56.6	No	No
N7	36	Residential: Crescent Place Condominiums	B / 66	52.7	56.3	56.8	No	No
N7	37	Residential: Crescent Place Condominiums	B / 66	58.6	61.7	60.6	No	No
N7	38	Residential: Crescent Place Condominiums	B / 66	37.8	40.5	44.0	No	No
N7	39	Residential: Crescent Place Condominiums	B / 66	37.7	40.6	44.1	No	No
N7	40	Residential: Crescent Place Condominiums	B / 66	37.8	40.6	44.0	No	No
N7	41	Residential: Crescent Place Condominiums	B / 66	53.8	57.0	56.1	No	No
N7	42	Residential: Crescent Place Condominiums	B / 66	44.8	47.6	51.1	No	No
N7	43	Residential: Crescent Place Condominiums	B / 66	43.3	46.0	49.9	No	No

CNE	Receptor Numbers	Land Use	Activity Category / NAC	Predicted Traffic Noise Levels (Leq(h))				
				Existing	No-Build Alternative dB(A)	Preferred Alternative		
				dB(A)		dB(A)	Approaches, Meets, or Exceeds the NAC?	Substantial Increase (Yes/No)
N7	44	Residential: Crescent Place Condominiums	B / 66	52.9	56.3	56.9	No	No
N7	45	Residential: Crescent Place Condominiums	B / 66	52.6	55.9	55.4	No	No
N7	46	Residential: Crescent Place Condominiums	B / 66	44.6	47.5	51.0	No	No
N7	47	Residential: Crescent Place Condominiums	B / 66	42.7	45.4	49.8	No	No
N7	48	Residential: Crescent Place Condominiums	B / 66	52.4	55.9	56.6	No	No
N7	49	Residential: Crescent Place Condominiums	B / 66	52.6	55.8	58.5	No	No
N7	50	Residential: Crescent Place Condominiums	B / 66	52.0	55.6	56.4	No	No
N8	1	Recreational Area: Tennis Court in Crescent Place Condominiums	C / 66	58.0	61.3	62.4	No	No
N9	1	Residential: Crescent Communities	B / 66	57.2	57.2	60.7	No	No
N9	1b	Residential: Crescent Communities	B / 66	60.3	59.9	62.8	No	No
N9	1c	Residential: Crescent Communities	B / 66	61.8	61.4	63.7	No	No
N9	1d	Residential: Crescent Communities	B / 66	62.8	62.4	64.3	No	No
N9	2	Residential: Crescent Communities	B / 66	60.1	60.5	60.4	No	No
N9	2b	Residential: Crescent Communities	B / 66	63.0	63.4	62.8	No	No
N9	2c	Residential: Crescent Communities	B / 66	64.8	65.2	64.5	No	No
N9	2d	Residential: Crescent Communities	B / 66	65.6	66.0	65.1	No	No
N9	3	Residential: Crescent Communities	B / 66	58.3	58.7	59.0	No	No
N9	3a	Residential: Crescent Communities	B / 66	60.1	60.5	60.2	No	No
N9	3b	Residential: Crescent Communities	B / 66	62.0	62.4	61.9	No	No
N9	3c	Residential: Crescent Communities	B / 66	63.3	63.7	63.0	No	No
N9	3d	Residential: Crescent Communities	B / 66	60.3	60.5	62.6	No	No
N10	1	Recreational Area: Dog Park at Crescent Communities	C / 66	65.0	65.3	65.2	No	No
N10	2	Recreational Area: Pool at Crescent Communities	C / 66	57.2	57.2	60.7	No	No
S1	1	Residential: Rose Pointe Subdivision	B / 66	68.0	69.0	68.4	Yes	No
S1	2	Residential: Rose Pointe Subdivision	B / 66	67.2	68.9	68.1	Yes	No
S1	3	Residential: Rose Pointe Subdivision	B / 66	66.7	68.5	67.9	Yes	No
S1	4	Residential: Rose Pointe Subdivision	B / 66	68.7	70.5	68.9	Yes	No
S1	5	Residential: Rose Pointe Subdivision	B / 66	66.9	68.7	68.7	Yes	No
S1	6	Residential: Rose Pointe Subdivision	B / 66	67.7	69.5	70.0	Yes	No
S1	7	Residential: Rose Pointe Subdivision	B / 66	66.7	68.5	70.2	Yes	No
S1	8	Residential: Rose Pointe Subdivision	B / 66	67.4	69.2	70.9	Yes	No

CNE	Receptor Numbers	Land Use	Activity Category / NAC	Predicted Traffic Noise Levels (Leq(h))				
				Existing		Preferred Alternative		
				dB(A)	No-Build Alternative dB(A)	dB(A)	Approaches, Meets, or Exceeds the NAC?	Substantial Increase (Yes/No)
S1	9	Residential: Rose Pointe Subdivision	B / 66	67.2	69.0	70.9	Yes	No
S1	10	Residential: Rose Pointe Subdivision	B / 66	67.1	68.9	70.4	Yes	No
S1	11	Residential: Rose Pointe Subdivision	B / 66	66.8	68.6	69.0	Yes	No
S1	12	Residential: Rose Pointe Subdivision	B / 66	66.0	67.8	67.7	Yes	No
S1	13	Residential: Rose Pointe Subdivision	B / 66	65.0	66.8	67.1	Yes	No
S1	14	Residential: Rose Pointe Subdivision	B / 66	63.1	65.6	65.1	No	No
S1	15	Residential: Rose Pointe Subdivision	B / 66	59.7	61.8	64.0	No	No
S1	16	Residential: Rose Pointe Subdivision	B / 66	59.5	61.6	64.3	No	No
S1	17	Residential: Rose Pointe Subdivision	B / 66	59.5	61.6	64.4	No	No
S1	18	Residential: Rose Pointe Subdivision	B / 66	59.2	61.3	64.5	No	No
S1	19	Residential: Rose Pointe Subdivision	B / 66	59.3	61.4	64.7	No	No
S1	20	Residential: Rose Pointe Subdivision	B / 66	59.5	61.6	64.7	No	No
S1	21	Residential: Rose Pointe Subdivision	B / 66	59.5	61.7	64.5	No	No
S1	22	Residential: Rose Pointe Subdivision	B / 66	64.7	66.5	66.9	Yes	No
S2	1	Residential: Tealwood Cove Subdivision	B / 66	63.4	65.6	66.3	Yes	No
S2	2	Residential: Tealwood Cove Subdivision	B / 66	61.2	63.7	65.4	No	No
S2	3	Residential: Tealwood Cove Subdivision	B / 66	59.6	62.1	64.7	No	No
S2	4	Residential: Tealwood Cove Subdivision	B / 66	59.1	61.7	64.4	No	No
S2	5	Residential: Tealwood Cove Subdivision	B / 66	58.3	61.0	64.3	No	No
S2	6	Residential: Tealwood Cove Subdivision	B / 66	58.0	60.7	63.9	No	No
S2	7	Residential: Tealwood Cove Subdivision	B / 66	58.2	60.8	64.4	No	No
S2	8	Residential: Tealwood Cove Subdivision	B / 66	57.7	60.3	63.7	No	No
S2	9	Residential: Tealwood Cove Subdivision	B / 66	57.3	59.8	63.4	No	No
S2	10	Residential: Tealwood Cove Subdivision	B / 66	57.2	59.7	63.3	No	No
S2	11	Residential: Tealwood Cove Subdivision	B / 66	57.1	59.6	63.3	No	No
S2	12	Residential: Tealwood Cove Subdivision	B / 66	57.8	60.3	63.5	No	No
S2	13	Residential: Tealwood Cove Subdivision	B / 66	57.3	59.7	63.3	No	No
S2	14	Residential: Tealwood Cove Subdivision	B / 66	62.4	64.8	65.6	No	No
S2	15	Residential: Tealwood Cove Subdivision	B / 66	58.0	60.6	63.0	No	No
S2	16	Residential: Tealwood Cove Subdivision	B / 66	57.0	59.5	62.5	No	No
S2	17	Residential: Tealwood Cove Subdivision	B / 66	55.8	58.3	62.1	No	No

CNE	Receptor Numbers	Land Use	Activity Category / NAC	Predicted Traffic Noise Levels (Leq(h))				
				Existing	No-Build Alternative dB(A)	Preferred Alternative		
				dB(A)		dB(A)	Approaches, Meets, or Exceeds the NAC?	Substantial Increase (Yes/No)
S2	18	Residential: Tealwood Cove Subdivision	B / 66	54.7	57.2	61.6	No	No
S2	19	Residential: Tealwood Cove Subdivision	B / 66	54.5	56.9	61.5	No	No
S2	20	Residential: Tealwood Cove Subdivision	B / 66	54.3	56.7	61.5	No	No
S2	21	Residential: Tealwood Cove Subdivision	B / 66	54.4	56.9	61.4	No	No
S2	22	Residential: Tealwood Cove Subdivision	B / 66	56.4	58.9	62.1	No	No
S3	1	Residential: Lake Hill Woods Subdivision	B / 66	62.8	65.6	65.5	No	No
S3	2	Residential: Lake Hill Woods Subdivision	B / 66	64.3	66.8	66.0	Yes	No
S3	3	Residential: Lake Hill Woods Subdivision	B / 66	62.2	64.6	64.3	No	No
S3	4	Residential: Lake Hill Woods Subdivision	B / 66	62.4	64.7	64.3	No	No
S3	5	Residential: Lake Hill Woods Subdivision	B / 66	64.3	66.5	65.7	No	No
S3	6	Residential: Lake Hill Woods Subdivision	B / 66	63.8	66.1	65.2	No	No
S3	7	Residential: Lake Hill Woods Subdivision	B / 66	62.9	65.2	64.8	No	No
S3	8	Residential: Lake Hill Woods Subdivision	B / 66	63.5	65.8	65.0	No	No
S3	9	Residential: Lake Hill Woods Subdivision	B / 66	62.3	65.1	64.4	No	No
S3	10	Residential: Lake Hill Woods Subdivision	B / 66	65.1	67.2	65.8	No	No
S3	11	Residential: Lake Hill Woods Subdivision	B / 66	64.8	66.7	65.8	No	No
S3	12	Residential: Lake Hill Woods Subdivision	B / 66	58.7	61.6	63.0	No	No
S3	13	Residential: Lake Hill Woods Subdivision	B / 66	57.6	60.4	62.4	No	No
S3	14	Residential: Lake Hill Woods Subdivision	B / 66	58.1	60.8	62.6	No	No
S3	15	Residential: Lake Hill Woods Subdivision	B / 66	58.2	6.01	62.6	No	No
S3	16	Residential: Lake Hill Woods Subdivision	B / 66	58.6	61.5	62.7	No	No
S3	17	Residential: Lake Hill Woods Subdivision	B / 66	59.3	61.6	62.4	No	No
S3	18	Residential: Lake Hill Woods Subdivision	B / 66	61.3	63.6	63.6	No	No
S4	1	Residential: Water’s Edge Subdivision	B / 66	63.0	65.5	65.7	No	No
S4	2	Residential: Water’s Edge Subdivision	B / 66	60.3	62.7	63.9	No	No
S4	3	Residential: Water’s Edge Subdivision	B / 66	61.2	63.4	63.5	No	No
S5	1	Residential: Woodlands by the Lake Subdivision	B / 66	59.8	62.1	62.8	No	No
S5	2	Residential: Woodlands by the Lake Subdivision	B / 66	58.4	60.5	61.8	No	No
S5	3	Residential: Woodlands by the Lake Subdivision	B / 66	59.7	61.8	62.8	No	No
S5	4	Residential: Woodlands by the Lake Subdivision	B / 66	61.4	63.4	64.1	No	No
S5	5	Residential: Woodlands by the Lake Subdivision	B / 66	63.1	65.4	65.7	No	No

CNE	Receptor Numbers	Land Use	Activity Category / NAC	Predicted Traffic Noise Levels (Leq(h))				
				Existing		Preferred Alternative		
				dB(A)	No-Build Alternative dB(A)	dB(A)	Approaches, Meets, or Exceeds the NAC?	Substantial Increase (Yes/No)
S5	6	Residential: Woodlands by the Lake Subdivision	B / 66	57.9	60.3	62.4	No	No
S5	7	Residential: Woodlands by the Lake Subdivision	B / 66	55.9	58.1	61.7	No	No
S5	8	Residential: Woodlands by the Lake Subdivision	B / 66	61.3	63.5	64.4	No	No
S6	1	Residential: West of Monroe Manor Subdivision and South of Oranole Rd	B / 66	65.9	68.2	67.5	Yes	No
S6	2	Residential: West of Monroe Manor Subdivision and South of Oranole Rd	B / 66	63.3	66.2	67.1	Yes	No
S6	3	Residential: West of Monroe Manor Subdivision and South of Oranole Rd	B / 66	65.9	68.7	68.7	Yes	No
S6	4	Residential: West of Monroe Manor Subdivision and South of Oranole Rd	B / 66	66.0	69.0	68.7	Yes	No
S6	5	Residential: West of Monroe Manor Subdivision and South of Oranole Rd	B / 66	65.6	68.8	68.3	Yes	No
S7	1	Residential: Monroe Manor Subdivision	B / 66	65.2	68.6	68.5	Yes	No
S7	2	Residential: Monroe Manor Subdivision	B / 66	64.7	68.3	68.5	Yes	No
S7	3	Residential: Monroe Manor Subdivision	B / 66	65.0	68.6	68.4	Yes	No
S7	4	Residential: Monroe Manor Subdivision	B / 66	64.6	68.3	67.9	Yes	No
S7	5	Residential: Monroe Manor Subdivision	B / 66	64.7	68.3	67.7	Yes	No
S7	6	Residential: Monroe Manor Subdivision	B / 66	65.0	68.5	67.6	Yes	No
S7	7	Residential: Monroe Manor Subdivision	B / 66	65.2	68.7	67.5	Yes	No
S7	8	Residential: Monroe Manor Subdivision	B / 66	65.3	68.7	67.5	Yes	No
S7	9	Residential: Monroe Manor Subdivision	B / 66	65.5	68.8	67.5	Yes	No
S7	10	Residential: Monroe Manor Subdivision	B / 66	65.6	68.8	67.6	Yes	No
S7	11	Residential: Monroe Manor Subdivision	B / 66	65.6	68.6	67.7	Yes	No
S7	12	Residential: Monroe Manor Subdivision	B / 66	65.4	68.3	67.7	Yes	No
S7	13	Residential: Monroe Manor Subdivision	B / 66	65.1	67.9	67.5	Yes	No
S7	14	Residential: Monroe Manor Subdivision	B / 66	64.9	67.5	67.4	Yes	No
S7	15	Residential: Monroe Manor Subdivision	B / 66	64.5	66.9	67.0	Yes	No
S7	16	Residential: Monroe Manor Subdivision	B / 66	64.7	67.0	67.2	Yes	No
S7	17	Residential: Monroe Manor Subdivision	B / 66	65.4	67.4	67.8	Yes	No
S7	18	Residential: Monroe Manor Subdivision	B / 66	65.9	67.7	68.2	Yes	No
S7	19	Residential: Monroe Manor Subdivision	B / 66	62.3	65.8	65.5	No	No
S7	20	Residential: Monroe Manor Subdivision	B / 66	60.9	64.4	64.2	No	No
S7	21	Residential: Monroe Manor Subdivision	B / 66	61.4	65.0	65.2	No	No
S7	22	Residential: Monroe Manor Subdivision	B / 66	60.6	64.3	64.3	No	No
S7	23	Residential: Monroe Manor Subdivision	B / 66	61.0	64.7	64.6	No	No

CNE	Receptor Numbers	Land Use	Activity Category / NAC	Predicted Traffic Noise Levels (Leq(h))				
				Existing	No-Build Alternative dB(A)	Preferred Alternative		
				dB(A)		dB(A)	Approaches, Meets, or Exceeds the NAC?	Substantial Increase (Yes/No)
S7	24	Residential: Monroe Manor Subdivision	B / 66	60.6	64.2	64.3	No	No
S7	25	Residential: Monroe Manor Subdivision	B / 66	60.8	64.4	64.2	No	No
S7	26	Residential: Monroe Manor Subdivision	B / 66	59.5	62.5	63.4	No	No
S7	27	Residential: Monroe Manor Subdivision	B / 66	61.9	65.2	64.9	No	No
S7	28	Residential: Monroe Manor Subdivision	B / 66	61.6	64.9	64.7	No	No
S7	29	Residential: Monroe Manor Subdivision	B / 66	62.7	65.8	65.5	No	No
S7	30	Residential: Monroe Manor Subdivision	B / 66	62.0	65.0	65.0	No	No
S7	31	Residential: Monroe Manor Subdivision	B / 66	61.6	64.3	64.5	No	No
S7	32	Residential: Monroe Manor Subdivision	B / 66	61.5	63.9	64.3	No	No
S7	33	Residential: Monroe Manor Subdivision	B / 66	62.0	64.3	64.7	No	No
S7	34	Residential: Monroe Manor Subdivision	B / 66	62.8	6.05	65.5	No	No
S7	35	Residential: Monroe Manor Subdivision	B / 66	63.6	65.5	65.9	No	No
S7	36	Residential: Monroe Manor Subdivision	B / 66	65.2	66.3	67.0	Yes	No
S8	1	Recreational Area: Pool at Maitland West	C / 66	47.1	47.2	49.1	No	No