

MIAMI-DADE
COUNTY

836 EXPRESS



MIAMI-DADE TRANSIT
PLANNING AND SYSTEM DEVELOPMENT

FINAL CATEGORICAL EXCLUSION REPORT

STATE ROAD 836 EXPRESS BUS SERVICE



JUNE 2015

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PROBABLE CATEGORICAL EXCLUSIONS (23 CFR 771.118)

Pursuant to the Code of Federal Regulations (CFR), Categorical Exclusions (CEs) are actions which meet the definition contained in 40 CFR 1508.4, and, based on past experience with similar actions, do not involve significant environmental impacts. “They are actions which: do not induce significant impacts to planned growth or land use for the area; do not require the relocation of significant numbers of people; do not have a significant impact on any natural, cultural, recreational, historic or other resource; do not involve significant air, noise, or water quality impacts; do not have significant impacts on travel patterns; or do not otherwise, either individually or cumulatively, have any significant environmental impacts.”¹

The proposed Miami-Dade Transit project relates to 23 CFR 771.118 (c)(9) – “Assembly or construction of facilities” and to 23 CFR 771.118 (d)(1) “Modernization of a highway”. This project would provide a park-and-ride/transit terminal facility at the western terminus (Tamiami Station) and access improvements to a transit terminal facility (Panther Station) at Florida International University (FIU), being constructed on the Modesto A. Maidique Campus. Both proposed sites include bus transfer facilities that would support the State Road 836 (SR 836) Express Bus Service project.

A. DETAILED PROJECT DESCRIPTION

Miami-Dade Transit (MDT) operates the 15th largest transit system in the United States and the largest transit system in the State of Florida transporting an average of 353,000 passengers on a typical weekday². MDT is seeking infrastructure improvements to support its planned SR 836 Express Bus Service project.

Figure 1 illustrates the extent of the project area. The planned Express Bus Service will provide non-stop service, via SR-836/Dolphin Expressway, to activity centers including FIU, the Miami International Airport (MIA) and the existing Government Center Metrorail Station located in downtown Miami. Three express lines are planned. The first, the A-Line (Peak Period Only – 10 minute headways) will run between the Tamiami Station (SW 8th Street and SW 147th Avenue) and Government Center via US-41/SR-90/SW 8th Street/Tamiami Trail (hereafter SW 8th Street), SW 137th Avenue and SR-836. The B-Line (All Day – 20 minute headways), will run between the Panther Station (SW 8th Street and 109th Avenue) and the Miami Intermodal Center (MIC) at MIA, via SW 8th Street, SR-821/Homestead Extension of Florida’s Turnpike (HEFT), and SR-836. The C-Line (Peak Period Only – 10 minute headways) will run between the Dolphin Station (NW 12th Street and the HEFT) and Government Center. The SR 836 Express Bus Service will operate on existing roadways; therefore, the focus of this Categorical Exclusion (CE) will be on the infrastructure improvements (the Tamiami Station and the Panther Station) and adjacent areas. The Dolphin Station (park-and-ride/transit terminal facility) is not part of this CE evaluation. The SR 836 Express Bus Service is currently anticipated to start in 2019 and will be using 60-foot alternative fuel buses.

Transit services rely on support infrastructure to facilitate access to transit, transfers between routes, and mode shift (automobiles to transit, ride share to transit, etc.). The purpose of this project is to invest in transportation infrastructure that will enable MDT to provide improved passenger access for its customers, including the construction of the Tamiami Station and new

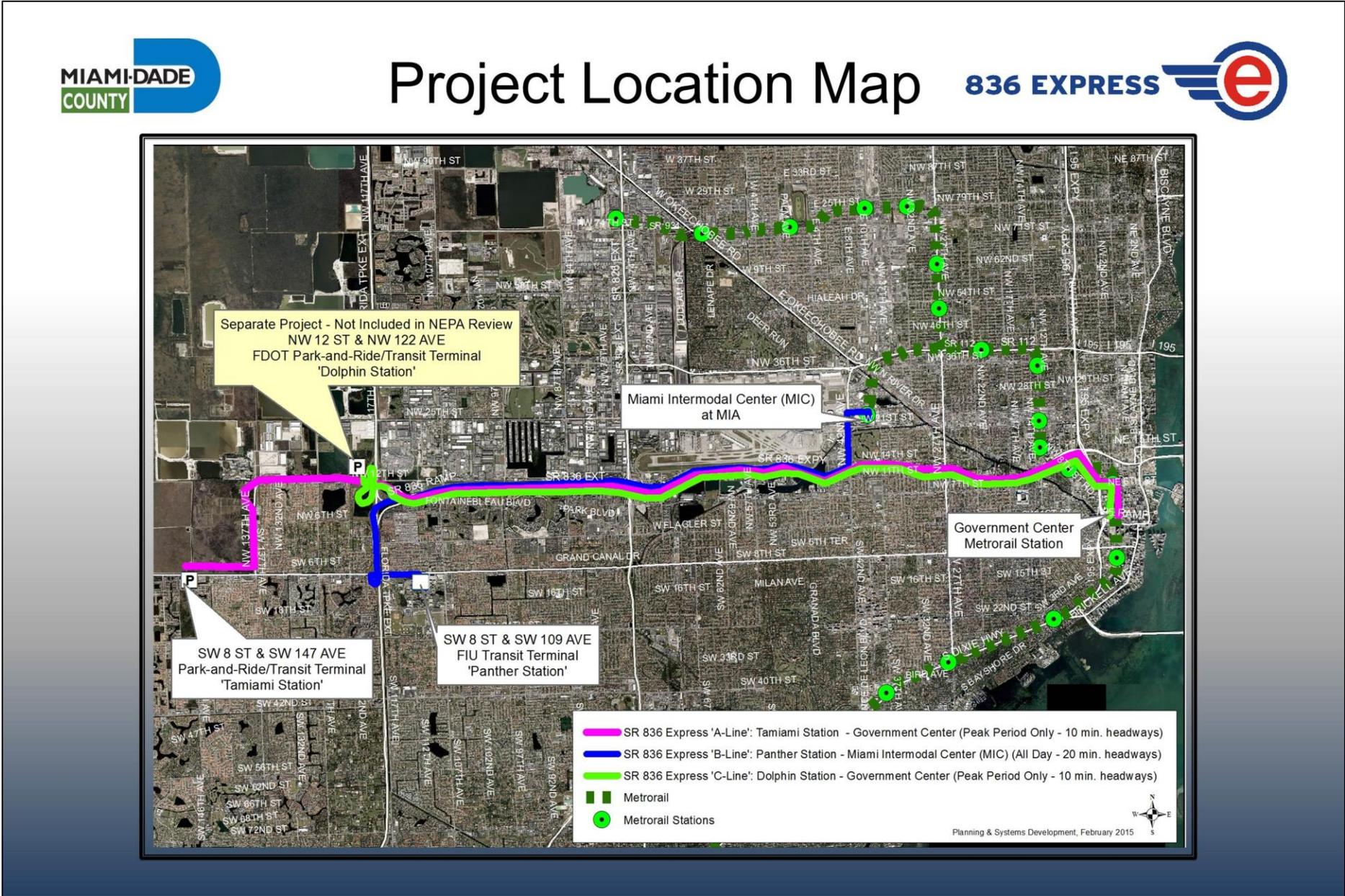
¹ [Electronic Code of Federal Regulations for Title 23 CFR Part 771.118](#)

² [MDT’s FY 2015 to FY 2024 Transit Development Plan: Major Update](#)

auxiliary/bus only lanes proposed along SW 8th Street to facilitate access to/from the Panther Station. The proposed Panther Station would also be integrated into FIU's newest Parking Garage 6 (PG-6), which is designed to include space for classrooms, offices and potential ground floor retail. In addition to the Tamiami and Dolphin Stations, the SR 836 Express Bus Service will benefit from transit signal priority (TSP) at congested intersections and bus queue jumps at the intersections where buses travel to and from the auxiliary/bus only lanes near the Panther Station. The Express Bus Service will also be allowed to travel conditionally on the paved shoulders of SR-836 when traffic speeds are less than 25 miles per hour, pursuant to an agreement with the Miami-Dade Expressway Authority (MDX).

The infrastructure improvements would be funded, in part, with local funds, state funds - from the Florida Department of Transportation (FDOT), and federal funds. Thus, this project is subject to the requirements of the National Environmental Policy Act (NEPA).

Figure 1: Proposed SR 836 Express Bus Service Plan and Transit Station Locations



Tamiami Station

To facilitate the ease of transfer between modes for commuters using the planned Express Bus Service, construction of a park-and-ride/transit terminal facility is planned. The 7.8-acre parcel for the proposed Tamiami Station is located on the southwest corner of SW 8th Street and SW 147th Avenue (**Figure 2**). It is a critical infrastructure element of the planned SR 836 Express Bus Service.

The property is owned by FDOT and is currently vacant. On a letter dated April 1, 2011, FDOT indicated that they will convey the property at no cost to MDT (see **Appendix A – FDOT Letter**). As of 2014, the property is appraised at approximately \$1.3 million according to the Miami-Dade Property Appraiser.

The preliminary Tamiami Station design includes a total of eight (8) bus bays and 493 parking spaces.

Figure 2: Proposed Tamiami Station at SW 8th Street and SW 147th Avenue



Panther Station

A transit terminal facility integrated into the ground floor of PG-6 on the FIU Modesto A. Maidique campus allows MDT to relocate all MDT transit services from a nearby deficient bus terminal to this proposed location along SW 8th Street. Access to the proposed Panther Station will be improved by the construction of auxiliary/bus only lanes that will enable buses to accelerate, decelerate, turn and bypass automobile queues. The new lanes will be provided by widening SW 8th Street between SW 112th Avenue and SW 109th Avenue.

The preliminary Panther Station design includes a total of ten (10) bus bays. **Figure 3** depicts the proposed Panther Station and Access Concept. The Panther Station concept shows the auxiliary/bus only lanes in red while the bicycles lanes are shown in green.

B. LOCATION

The proposed Tamiami Station is located in unincorporated Miami-Dade County, Florida at the southwest corner of SW 8th Street and SW 147th Avenue. The property currently has no street address. The property Parcel/Folio number is 30-4094-000-0071³. The proposed Panther Station would be located on the south side of SW 8th Street, between SW 112th and SW 109th Avenues, on the north side of FIU PG-6. The Parcel/Folio number for the FIU Modesto A. Maidique Campus is 30-4007-000-0050. The PG-6 Station was completed in January 2015. **Appendix B - FIU Campus Map and PG-6 Panther Station Photos**, provides additional location and context information, but is shown as under construction in the in **Appendix B**.

C. METROPOLITAN PLANNING ORGANIZATION TIP AND AIR QUALITY CONFORMITY

The proposed project, including the Tamiami Station, Panther Station and the bus procurement is currently included in the approved Fiscal Year 2015-2019 Miami-Dade Metropolitan Planning Organization (MPO) Transportation Improvement Program (TIP) (**Appendix C – Miami-Dade Metropolitan Planning Organization TIP Excerpt**). All project components are also included in the Fiscal Year 2015 State Transportation Improvement Program (STIP) (**Appendix D – Florida Department of Transportation STIP Report Excerpt**). The proposed project is also included in the MPO's 2040 Long Range Transportation Plan (LRTP) (**Appendix E – Miami-Dade Metropolitan Planning Organization 2040 LRTP Excerpt**).

The Miami-Fort Lauderdale-West Palm Beach area is designated as being in attainment for the 8-hour ozone and 1-hour ozone National Ambient Air Quality Standards. The Miami-Dade Metropolitan Statistical Area (MSA) is also in attainment for all criteria pollutants. Therefore, air quality conformity does not currently apply to projects in this area. The project is not predicted to result in a project-specific air quality impact. The project seeks to reduce auto travel to destinations or to transit stations and would not have a direct negative impact on air quality.

D. ZONING

The Miami-Dade County Regulatory and Economic Resource (RER) Department is the responsible agency for land use and zoning in the unincorporated part of the County. RER has developed a Comprehensive Development Master Plan (CDMP), a document governing growth and development in County. The CDMP also establishes an Urban Development Boundary (UDB)⁴. All project components are within the adopted UDB.

The site for the Tamiami Station currently has two zoning designations (**Figure 4**). The northern portion of the site has an EU-1 or "Estates, Single-Family, 1 acre or more in area" designation. The southern portion of the site has a GU or "Interim District" designation. For sites within the interim district, uses depend on the character of the neighborhood.

³ [Miami-Dade County Property Appraiser website for property search by Folio number](#)

⁴ [Miami-Dade County Comprehensive Development Master Plan - Transportation Element](#)

During the early stages of the final design phase, MDT will initiate a Governmental Facilities Hearing Application to be consistent with zoning requirements for facilities intended for transportation use.

Additionally, Section 33-303 of the Code of Miami-Dade County provides that, prior to the construction, erection or operation of a governmental facility in the unincorporated areas of Miami-Dade County, a favorable public hearing before the Board is required. The Board may only authorize the use, construction, erection and operation of such facilities in any zoning district after considering, among other factors, the public need for the facility, the type of function involved, existing land use patterns in that area and the nature of the impact of the facility on surrounding properties.

A public information meeting was held on November 21, 2014 which presented the environmental findings and preliminary concepts for the proposed SR 836 Express Bus Service to the surrounding communities. Additional public information meetings will be held during the final design phase to ensure continued community awareness, input and support.

The Land Use Map of the CDMP designates the subject site (Tamiami Station) for Business and Office. This category accommodates the full range of sales and service activities. Included are retail, wholesale, personal and professional services, call centers, commercial and professional offices, hotels, motels, hospitals, medical buildings, nursing homes, entertainment and cultural facilities, amusements and commercial recreation establishments such as private commercial marinas. The surrounding areas consist of Low Density Residential Communities to the south and west of the site as well as Business and Office to the east of the site. The Urban Development Boundary is located to the north of the site and runs along SW 8th Street.

The proposed Tamiami Station is illustrated in Figures 1, 2 and 3 of the Mass Transit Subelement of the CDMP (**Appendix F – Future Mass Transit Map Series**). As stated in the Future Mass Transit Map Series interpretative text of the CDMP, transit centers are locations where several routes or lines, or different modes converge. They are designed to handle the movement of transit vehicles and the boarding, alighting and transferring of passengers between transit routes, lines or transit modes.

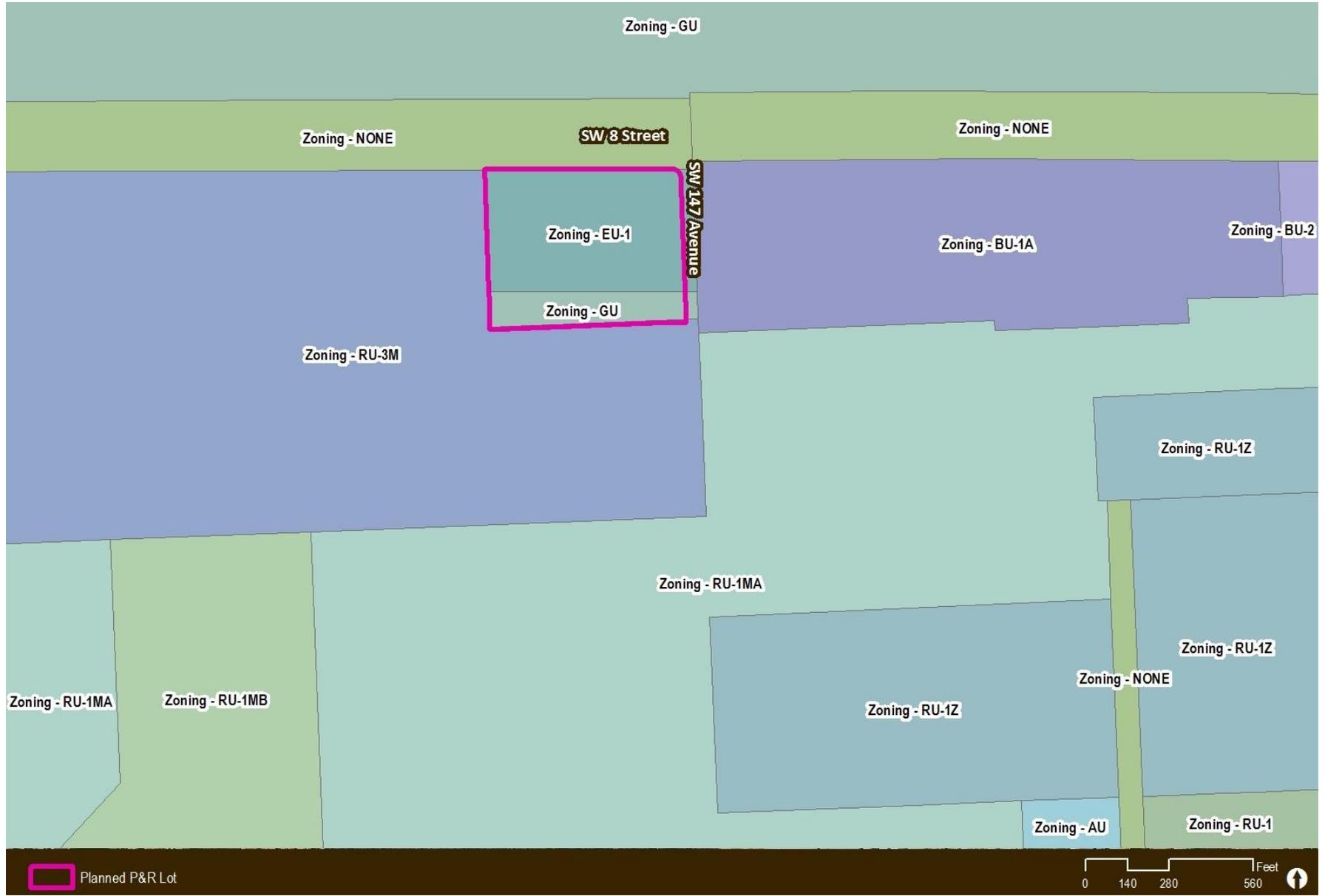
Future Community Urban Center Designation

To further support development of this premium transit corridor, Policy MT-2B of the Mass Transit Sub-element of the CDMP allows MDT to pursue future designation of this area as a Community Urban Center. Policy MDT-2B states that the area surrounding future rapid transit stations not yet sited or depicted on the Land Use Plan map shall be designed and developed, at minimum, as community urban centers, containing land use and development designs that promote transit use.

Approval of the Governmental Facilities Hearing Application will allow the construction of the Tamiami Station, which could be the catalyst for future designation of the site as a Community Urban Center. Miami-Dade County's CDMP defines urban centers as areas which are encouraged to become hubs for future urban development intensification in Miami-Dade County, around which a more compact and efficient urban structure will evolve. These Urban Centers are intended to be moderate- to high-intensity designed-unified areas which will contain a concentration of different urban functions integrated both horizontally and vertically. Three scales of centers have been designed: Regional, the largest, Metropolitan, and Community Urban Centers, which will serve localized areas. Such centers shall be characterized by physical cohesiveness, direct accessibility by mass transit service, and high quality urban design. **Appendix G** contains a letter of land use determination from the Deputy Mayor / Director of the Department of Regulatory and Economic Resources stating that the "planned park-and-ride/transit center is a public transportation facility/public institutional use that is **Consistent** with the CDMP."

Access improvements to the Panther Station would occur within public right-of-way. The proposed Panther Station is within the FIU Modesto A. Maidique Campus (MMC) campus property and does not require any zoning changes. The FIU campus map in **Appendix B** shows PG-6, which is located just south of SW 8th Street, as currently under construction.

Figure 4: Current Zoning Designation of the Tamiami Station



E. TRAFFIC IMPACTS

Tamiami Station

The Tamiami Station is planned to include a total of 493 parking spaces. Main access to and from the proposed facility will be provided via a two-way driveway on SW 147th Avenue and will align with an existing shopping plaza driveway, east of SW 147th Avenue. Another driveway will be provided on SW 8th Street, but it will serve as an exit only for buses (right-turn only onto SW 8th Street). The preliminary site plan is provided in **Section A – Detailed Project Description**. Construction related traffic impacts are addressed in **Section T – Impacts Caused by Construction**. Traffic analysis for this site was originally performed for existing 2011 conditions; for an opening year of 2016 and a design year of 2036. These were the planning horizon years at the time of the initial traffic analysis study. Project implementation schedules have since slightly changed. However, the analysis impacts and results remain valid as current studies along SW 8th Street, as well as the current traffic analysis conducted for the access improvements at the Panther Station, indicate that the area will experience very low traffic growth rates (1 to 2%) within the 20 year planning horizon.

Data Collection

Forty-eight (48) hour machine approach (hose) counts were conducted at SW 152nd and 147th Avenues on Wednesday, November 30, 2011 and on Thursday, December 1, 2011. The hose counts were conducted for all directions. Based on the counts, for SW 8th Street, the morning peak period occurs from 6:45 AM to 8:45 AM and the afternoon peak period from 5:00 PM to 7:00 PM. Consistent with these peak period hours, turning movement counts were then conducted at the intersections of SW 8th Street/SW 152nd Avenue, SW 8th Street/SW 147th Avenue, and the existing shopping plaza driveway/SW 147th Avenue on Wednesday, December 7, 2011 and on Tuesday, January 10, 2012. From the turning movement counts, the morning and afternoon peak hours were established as 6:45 AM to 7:45 AM and 5:15 PM to 6:15 PM respectively.

Existing Intersection Level of Service Analysis

Existing turning movements were adjusted to reflect average seasonal conditions by applying the corresponding FDOT seasonal adjustment factor. The existing signal timing and phasing for the intersection of SW 8th Street/SW 152nd Avenue was obtained from Miami-Dade County Public Works and Waste Management (PWWM) Department and specifically the Traffic Signals & Signs Division. In addition, a field review was conducted to obtain the existing intersection lane configurations.

To evaluate the traffic operations at the study intersections, an intersection level of service (LOS) was calculated utilizing the Synchro Version 8 traffic operations software, based on the 2000 Highway Capacity Manual (HCM). It should be noted that HCM does not allow the analysis of stop controlled intersections with more than two lanes per approach, which is the case at the intersections of SW 8th Street/SW 147th Avenue and the existing shopping plaza driveway/SW 147th Avenue. However, Synchro does provide an alternative intersection level of service based on comparing the current volume to the intersection's theoretical capacity [Intersection Capacity Utilization (ICU)]. Therefore, for the stop controlled intersections, the Synchro derived ICU is reported providing an indication of LOS.

Based on the analysis conducted, the intersections of SW 8th Street/SW 147th Avenue and existing shopping plaza driveway/SW 147th Avenue are operating at satisfactory level of service (LOS) D or better, while the intersection of SW 8th Street/SW 152nd

Avenue experiences significant delay during the existing PM peak hour and operates at an unsatisfactory level of service F during the AM peak hour. A summary of LOS and delay for existing traffic conditions is provided in **Table 1**.

Table 1: Tamiami Station Existing Conditions Level of Service (2011)

Intersection	Control Type	AM Peak Hour	PM Peak Hour
SW 8 th St & SW 152 nd Ave	Signalized	F	D
SW 8 th St & SW 147 th Ave	Stop controlled on minor approach*	B	A
Shopping Plaza Driveway & SW 147 th Ave	Stop controlled on minor approach*	A	A

*Level of Service reported is based on Synchro ICU.

Project Trip Generation and Distribution

As mentioned earlier, main access to and from the Tamiami Station will be provided via a two-way driveway on SW 147th Avenue and will align with an existing shopping plaza driveway, east of SW 147th Avenue. Another driveway will be provided on SW 8th Street, but it will serve as an exit only for buses (right-turn only onto SW 8th Street). The driveway permits will be processed during the design phase of the project. The trip generation rates used in the traffic evaluation were determined from the “Park-and-Ride Lot with Bus Service (090)” land use category of the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 7th Edition*, which was the latest version at the time of the initial traffic analysis. The trip generation rates in the manual were derived for a facility operating on a weekday with a peak hour of adjacent street traffic between 7:00 AM and 9:00 AM; and 4:00 PM and 6:00 PM. During the AM Peak Hour, 80 percent of the trips are entering the site and 20 percent exiting the site. During the PM Peak Hour, 23 percent is entering the site and 77 percent is exiting the site. Based on a review of the potential trip generation element, the proposed project is anticipated to add approximately 373 and 299 trips during the morning and afternoon peak hours, respectively. It should be mentioned that for a conservative analysis, it was assumed that the Tamiami Station will be used at capacity from the opening year. The project trip generation for this proposed project is provided in **Table 2**.

Table 2: Trip Generation

Land Use	Size	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Park-and-Ride (LU 090)	493 Parking Spaces	298	75	373	69	230	299

*Trip Generation Manual, 7th Edition.

The generated project trips were distributed to the surrounding street network based on the Miami-Dade County cardinal distribution. The cardinal distribution, which is based on the 2035 LRTP, provides the direction of travel to/from a given traffic analysis zone (TAZ).

Development of Future Traffic Volumes

Consistent with FDOT methodologies, the FDOT Excel spreadsheet tool called "TURNS5" was used to forecast future traffic volumes. This spreadsheet was used for the estimation of the No Build 2016 (Opening Year) and 2036 (Design Year) turning movement volumes. TURNS5A is designed to develop future turning volumes based on Annual Average Daily Traffic (AADT) volumes for the existing year by applying a simple compounding growth rate. The average 48-hour machine counts were used to develop existing AADT. Then, traffic trends using FDOT historical traffic data in the area were used to determine a growth rate. Traffic trends revealed that the study area has experienced substantial growth over the last several years, but growth is tapering off. A growth rate of 0.7% was used in the analysis which is reasonable considering that the study area is approaching a built-out condition.

The peak hour (K_{30}) and directional distribution (D_{30}) factors to establish directional design hour volumes (DDHV) were applied. The K_{30} factor from the closest FDOT count station was used along with the D_{30} factors established from the existing AM and PM turning movement counts. The forecasted turning movements were then manually balanced to reflect existing turning percentages. To develop future build conditions, the trips generated by the Tamiami Station were then distributed to the roadway network and added to the base 2016 and 2036 traffic volumes.

Future Intersection Level of Service Analysis

Traffic analysis was completed for the opening year, 2016, and the design year, 2036 conditions with and without the project using Synchro. The signal timing and phasing for the intersection of SW 8th Street/SW 152nd Avenue was assumed to remain the same. **Tables 3 and 4** provide the 2016 and 2036 level of service summary, respectively.

The future conditions analysis with and without the project indicates that there is a minor increase in intersection delay (between 0.1 and 5 seconds). All intersections within the study area will operate at the same acceptable LOS with or without the project in future years except for the AM Peak Hour at the SW 8th Street/SW 147th Avenue intersection, where the LOS deteriorates from a C to a D. However, even with the project, this intersection will continue to operate at an acceptable level of service. Consideration for signalization at this location, as well as at SW 147th Avenue near the proposed entrance to the Tamiami Station as seen in **Figure 2** will be determined by MDT during the design phase.

In conclusion, when comparing the future no build to the future build conditions, the overall traffic analysis indicates that traffic generated by the proposed Tamiami Station will be minimal and will not have a detrimental impact to the area. Therefore, it is anticipated that the Level of Impact for Traffic at the Tamiami Station is **Not Significant**.

Table 3: Tamiami Station Future 2016 Level of Service

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		No Build	Build	No Build	Build
SW 8th St & SW 152nd Ave	Signalized	F	F	D	D
SW 8th St & SW 147th Ave	Stop controlled on minor approach*	C	D	A	A
Shopping Plaza Driveway & SW 147th Ave	Stop controlled on minor approach*	A	A	A	A

*Level of Service reported is based on Synchro ICU.

Table 4: Tamiami Station Future 2036 Level of Service

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		No Build	Build	No Build	Build
SW 8th St & SW 152nd Ave	Signalized	F	F	D	D
SW 8th St & SW 147th Ave	Stop controlled on minor approach*	C	D	B	B
Shopping Plaza Driveway & SW 147th Ave	Stop controlled on minor approach*	A	A	A	A

*Level of Service reported is based on Synchro ICU.

Panther Station

FIU is constructing a parking garage (PG-6) along SW 8th Street and has reserved some ground floor space for the Panther Station. The location of PG-6 is midway between the intersections of SW 112th Avenue and SW 109th Avenue, which are both signalized. To facilitate site access, this project requires transit signal prioritization (TSP) for buses and auxiliary/bus only lanes to support efficient bus ingress and egress. Site access via internal campus roadway was considered, but eliminated due to a lack of a direct connection to the Panther Station and FIU's preference to keep larger vehicle out of the campus core. The Panther Station would replace the existing deficient bus terminal located near SR-985/SW 107th Avenue and SW 17th Street. The Panther Station would also be served by a future pedestrian bridge connecting to the planned high density development on the northern side of SW 8th Street and the Tamiami Canal at SW 109th Avenue. This pedestrian bridge is funded through a TIGER grant that was awarded to FIU related to the UniversityCity Prosperity project.

A traffic study was conducted in 2014 to determine the extent of traffic impacts resulting from buses accessing the proposed Panther Station. The traffic analysis focused on the segment of SW 8th Street between SW 107th Avenue and SW 112th Avenue. These two roadways will constitute the eastern and western limits, respectively. The proposed Panther Station will have a mid-block entrance along the south side of SW 8th Street between SW 112th Avenue and SW 109th Avenue. The Traffic Impact Relocation Technical Memorandum study is shown in **Appendix H**.

This segment of SW 8th Street is largely influenced by trips generated/attracted by FIU. Its land-use is primarily composed of educational, office buildings and parking garages on the main campus located on the south side of SW 8th Street. The preferred station access concept studied from a traffic perspective considered widening SW 8th Street in order to incorporate auxiliary/bus only lanes in the eastbound and westbound directions along SW 8th Street between SW 109th Avenue and SW 112th Avenue. Conveyance to and from the auxiliary/bus only lanes will be supported by an exclusive traffic signal phasing at both intersections to allow buses to enter and exit Panther Station. The westbound auxiliary/bus only lane will allow either station bound or westbound buses to bypass the automobile traffic queue. The eastbound auxiliary/bus only lane will allow easy access to the station for the buses coming from the west while allow exiting buses to freely enter SW 8th Street to either continue through along SW 8th Street or to make a U-turn (using the auxiliary/bus only lanes and exclusive signal phase) to continue westbound. Buses continuing eastbound along SW 8th Street would have to merge with regular traffic at SW 109th Avenue as this lane ends at this intersection. The traffic analysis detailed the impact of the additional exclusive bus signal timing phase at the intersections of SW 8th Street with SW 112th Avenue and SW 8th Street with SW 109th Avenue.

Data Collection

Data collection was completed including 72-hour bi-directional counts, 72-hour bi-directional classification counts, and six hour turning movement counts during the week of March 18, 2014. Locations for bi-directional counts were along SW 8th Street and SW 107th, 109th, and 112th Avenues. Seventy two hour bi-directional counts were taken at SW 8th Street and SW 109th Avenue. Six hour turning movement counts were taken at SW 8th Street and SW 107th, 109th and 112th Avenues. Existing signal timing and phasing information for the SW 8th Street and 107th, 109th and 112th Avenue intersections were downloaded from the Miami-Dade PWWM Traffic Signal & Signs Division web page for the Advanced Traffic Management System (ATMS). The downloaded information included the actuated traffic signal timing sheet for Time of Day (TOD) Schedule Report.

Existing Level of Service Analysis for Panther Station

Existing conditions traffic results are included in **Table 5** and indicate that two of the three intersections, SW 107th Avenue and SW 109th Avenue, are currently operating at deficient levels of service both in the AM and PM peak, although the PM peak is more severe.

Table 5: Panther Station AM Existing Level of Service (LOS) (HCM 2010 and Synchro)

Intersection	Approach	HCM 2010			Synchro		
		Existing Weekday AM Peak Hour			Existing Weekday PM Peak Hour		
		Volume (vph)	Delay (sec./veh.)	LOS	Volume (vph)	Delay (sec./veh.)	LOS
SW 8 th St & SW 107 th Ave	EB	2021	60.4	E	2021	61.5	E
	WB	1612	77.1	E	1612	72.5	E
	NB	1650	73.7	E	1650	67.7	E
	SB	1036	71.9	E	1036	70.3	E
	Overall	1580	70.8	E	1580	67.4	E
SW 8 th St & SW 109 th Ave	EB	2568	32.7	C	2568	36.6	D
	WB	1504	39.2	D	1504	43.2	D
	NB	109	84.5	F	109	59.3	E
	SB	544	103.4	F	544	46.1	D
	Overall	1181	44.0	D	1181	40.3	D
SW 8 th St & SW 112 th Ave	EB	3028	10.0	A	3028	12.6	B
	WB	1600	8.8	A	1600	9.3	A
	NB	124	89.9	F	124	52.1	D
	Overall	1483	10.5	B	1483	12.5	B

Future Level of Service Analysis for Panther Station

Two scenarios (No-Build and Build) for two different years were considered (2018 Opening Year and 2038 Design Year). The future conditions analysis focused on the analysis of the afternoon peak hour only. Two factors influenced this decision:

- Based on existing conditions analysis, the afternoon peak hour is the most critical period.
- Estimated trips for the new FIU PG- 6 (developed by others and not part of this study) were only developed for the afternoon peak hour, as this represents the worst-case scenario for access to/from the FIU campus.

The Build scenario included the additional lanes on SW 8th Street and any future projects programmed for the area. Future volumes were developed for the afternoon peak hour only by using existing turning movement volumes projected into the future using a straight line growth rate factor and an estimate of trips due to the FIU PG-6 were added to the specific movements. The estimated trips were provided by a separate traffic study conducted by FIU for their garage development. Additional buses were added as specified by the SR 836 Express Bus Service plans. Results of the analysis are shown in **Table 6** and indicate that the intersection operations will continue to be deficient in the future years because of the additional phase needed for access by MDT buses.

Table 6: 2018 No-Build & Build Analysis Summary of Results

Intersection	Approach	2018 No-Build PM Peak Hour			2018 Build PM Peak Hour		
		Volume (vph)	Delay (sec./veh.)	LOS	Volume (vph)	Delay (sec./veh.)	LOS
SW 8 th St & SW 107 th Ave	EB	2161	89.9	F	2184	81.2	F
	WB	2279	86.3	F	2285	86.7	F
	NB	1942	70.1	E	1946	70.6	E
	SB	2009	77.5	E	2022	77.2	E
	Overall	2098	81.4	F	2109	79.3	F
SW 8 th St & SW 109 th Ave	EB	2153	109	F	2176	104.8	F
	WB	2202	66.8	E	2225	135.0	F
	NB	1180	353.1	F	1180	473.7	F
	SB	678	155	F	678	254.6	F
	Bus Only Lane	NA	NA	NA	9	89.7	F
	Overall	1553.25	145.4	F	1565	201	F
SW 8 th St & SW 112 th Ave	EB	2242	49.7	D	2251	54.8	D
	WB	2944	74	E	2953	53.1	D
	NB	991	72.8	E	991	105.4 LT 58.8RT	F (LT) E (RT)
	Bus Only Lane	NA	NA	NA	23	85	F
	Overall	1933	65	E	2065	59.4	E

Table 7: 2038 No-Build & Build Analysis Summary of Results

Intersection	Approach	2038 No-Build PM Peak Hour			2038 Build PM Peak Hour		
		Volume (vph)	Delay (sec./veh.)	LOS	Volume (vph)	Delay (sec./veh.)	LOS
SW 8 th St & SW 107 th Ave	EB	3180	240.1	F	3203	222.9	F
	WB	3354	273.1	F	3360	257.5	F
	NB	2857	153.3	F	2861	155.2	F
	SB	2955	198.6	F	3155	198	F
	Overall	3087	219.2	F	3145	210.7	F
SW 8 th St & SW 109 th Ave	EB	3168	169.8	F	3191	178.7	F
	WB	3231	215.6	F	3254	298.8	F
	NB	1735	612.6	F	1735	901.7	F
	SB	994	310.1	F	994	467.4	F
	Bus Only Lane	NA	NA	NA	9	79.7	E
	Overall	2282	285.5	F	2294	388.8	F
SW 8 th St & SW 112 th Ave	EB	3296	164.3	F	3305	158.9	F
	WB	4330	245.9	F	4339	246.6	F
	NB	1441	214	F	1441	320.4 LT 118.4 RT	F LT F RT
	Bus Only Lane	NA	NA	NA	23	87.6	F
	Overall	2837	211.2	F	3028	214	F

Although delay will be increased as a result of the additional phase for MDT buses in the future, the MDT planned operations is not the cause of the overall deficient Level of Service for these intersections, as indicated in the existing conditions analysis. MDT has already coordinated with FDOT and they are in concurrence with current MDT access and development plans. Coordination with the PWWM Traffic Signal & Signs Division of Miami-Dade County will result in implementation of MDT signal phase improvements in order to minimize additional overall negative impact at these intersections. Moreover, although there are deficiencies for vehicle operations at these intersections, the people throughput will be increased as a result of the planned bus service improvements, including the Express Bus Service and a future Enhanced Bus Service to the proposed Panther Station. Therefore, since these intersections are currently operating at deficient levels of service even without the necessary improvements for bus access into the proposed Panther Station, it is anticipated that the Level of Impact for access to the Panther Station is **Not Significant**.

F. CARBON MONOXIDE (CO) HOT SPOTS

Miami-Dade County is in attainment for all criteria pollutants and the project is not predicted to result in a project-specific air quality impact. The project is proposing to retain existing and attract new riders to transit services that use clean fuel buses. This project will not result in any CO hot spots and will not have a direct negative impact on air quality. Therefore, it is anticipated that the Level of Impact for Carbon Monoxide (CO) Hot Spots is **Not Significant**.

G. HISTORIC RESOURCES

A Cultural Resources Assessment Survey (CRAS) was conducted to identify any cultural resources within the proposed project's Area of Potential Effect (APE) and assess their significance in terms of eligibility for listing on the National Register of Historic Places (**Appendix I – Cultural Resources Assessment Survey**). The assessment was conducted in accordance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Public Law 89-665, as amended), as implemented by 36 CFR 800 (Protection of Historic Properties, effective January 2001). The survey also complied with Chapter 267, Florida Statutes (Florida Historical Resources Act) and the minimum field methods, data analysis, and reporting standards embodied in the Florida Division of Historical Resources' (FDHR) Cultural Resource Management Standards and Operational Manual (February 2003). All work conformed to the professional guidelines set forth in the Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 CFR 44716, as amended and annotated); and Chapter 1A-46 (Archaeological and Historical Report Standards and Guidelines), Florida Administrative Code.

The historic resources survey resulted in the identification and evaluation of five historic resources. Of these, four were previously recorded in the Florida Master Site File (FMSF). These four resources are identified as the Snapper Creek Canal (8DA10754), the Tamiami Trail Bridge (8DA05892), the Tamiami Trail (8DA05610) and the Tamiami Canal (8DA06453); a fifth resource, the City of Sweetwater (8DA12346) was a newly identified resource. Of the five resources evaluated, two were considered to not be potentially eligible for listing on the National Register of Historic places due to their lack of sufficient historic significance and/or architectural integrity. One resource, the Tamiami Trail Bridge no longer exists. Two resources, the Tamiami Trail and the Tamiami Canal are considered eligible for listing on the National Register of Historic Places for their historic significance and integrity by the State Historic Preservation Office (SHPO).

Although previous research indicated that portions of an archaeological site 8DA00033 may be located within the area at the Tamiami Station site, the current survey conducted identified no archaeological material within the archaeological APE for the proposed project. Therefore, the proposed project should have no impact on archeological site 8DA00033 or any other archaeological site. The most recent historic resource databases (2013) confirmed that no new historic resources have been identified within the project APE since the completion of the CRAS.

Due to the nature of the express service proposed, there are no additional stops proposed and therefore no potential for right-of-way acquisition or impacts to historic/cultural resources. The CRAS confirms that the proposed Tamiami Station and Panther Station are not adjacent to a historic building or structure, and therefore, the project is determined to have no adverse effects on the two eligible properties found within the project area. No further archeological evaluation is necessary. It is anticipated that the Level of Impact for Historic Resources is **None**.

Unanticipated Finds

Should construction activities uncover any archaeological remains, it is recommended that activity in the immediate area of the remains be stopped while a professional archaeologist evaluates the remains. In the event that human remains are found during construction or maintenance activities, the provisions of Chapter 872.05, *F.S.* will apply. Chapter 872.05, *F.S.* states that, when human remains are encountered, all activity that might disturb the remains shall cease and may not resume until authorized by the District Medical Examiner (if the remains are less than 75 years old) or the State Archaeologist (if the remains are more than 75 years old). If human remains that are less than 75 years old are encountered, or if they are involved in a criminal investigation,

the District Medical Examiner has jurisdiction. If the remains are determined to be more than 75 years in age, then the State Archaeologist overtakes jurisdiction in determining appropriate treatment and options for the remains.

H. VISUAL QUALITY

The area around the Tamiami Station I is built up and surrounded by residences to the south and west. The residences are separated by distance, over 70 feet, and by physical barriers such as landscaping and walls. To the east of the site is commercial. The construction phase may be visually displeasing during construction. However, this would be a temporary condition and, when completed, the Tamiami Station would have a landscaped edge to minimize long term visual impacts. The proposed widening of SW 8th Street at the Panther Station is in an area visually dominated by the existing roadway and parking garages. The proposed widening of SW 8th Street would not change the visual environment of the area.

I. NOISE

The FTA *Transit Noise and Vibration Impact Assessment* document (May 2006) also referred to as the *Guidance Manual* presents three levels of analysis to assess the potential noise and vibration impacts of a proposed project; a screening procedure, a general assessment and a detailed analysis. If a proposed project passes the screening procedure, no further noise or vibration analysis is required. The screening procedure compares the proposed project to screening distances for various projects based upon high capacity operating assumptions. The screening distance for a park-and-ride lot with buses (e.g., Tamiami Station) is 225 feet from the center of the operation. However, if the facility is spread over a large area, as is the 7.8 acre Tamiami Station, the distance is measured from the outer boundary of the proposed project site. There are residences, FTA Land Use Category 2, within 41' of the southern boundary of the site. At the closest point between the existing residences and the Tamiami Station, the southern boundary is separated from the interior entrance/exit roadway by a 25-foot wide landscape buffer and a privacy wall along the property line. Since the operations of the proposed project do not match the operating assumptions of the screening procedure, the screening distance was measured from the outer boundary of the proposed project site to the residential noise receiver based on the FTA *Guidance Manual* and the *Noise Impact Assessment Spreadsheet*. The screening distance is the distance where the project noise level is 50 dBA for the Land Use Category 2 descriptor, Ldn.

The *Guidance Manual's* operating assumptions for a park-and-ride lot with buses are 1000 automobiles and 12 buses per hour entering/leaving the station. The proposed Tamiami Station would serve six (6) bus routes and 238 buses from 5:00 a.m. through 1:00 a.m. the following day with an estimated 2,137 passenger vehicles using the facility. Average daytime operations (7 a.m. to 10 p.m.) would be 14 buses per hour and 123 automobiles per hour while average nighttime operations (10 p.m. to 7 a.m.) would be five (5) buses per hour and 34 automobiles per hour. The nearest residences are approximately 66 feet south of the SW 147th Avenue entrance/exit to the station. The project Ldn noise levels for the proposed project would be nearly 46 dBA at the residential development. Since this noise level is less than the 50 dBA Ldn noise level for the adjusted screening distance, no further noise analysis is needed. Therefore, it is anticipated that the Level of Impact for Noise at Tamiami Station is **Not Significant**. The results of the screening procedure for Tamiami Station are included in **Appendix J – Noise Analysis**.

A noise analysis was not conducted for the Panther Station since the station is located on the FIU campus property between PG-6 and SW 8th Street.

J. VIBRATION

Buses with their rubber tires and suspension systems provide a significant amount of vibration isolation and seldom cause ground-borne noise or vibration problems. The vibration screening distance for buses adjacent to residential land-uses is 50 feet. Since the multifamily development is 69 feet south of the SW 147th Avenue entrance/exit to the Tamiami Station, the development is outside the screening distance, therefore, it is anticipated that the Level of Impact for Noise is **Not Significant**. A vibration analysis was not conducted for the Panther Station since it is located on FIU campus property and located between PG-6 and SW 8th Street.

K. ACQUISITION AND RELOCATION REQUIRED

The Tamiami Station would require the acquisition of a 7.8-acre parcel located at the southwest corner of SW 8th Street and SW 147th Avenue. The undeveloped property is owned by FDOT and will be dedicated to MDT at no cost. The auxiliary/bus only lane widening of westbound SW 8th Street between SW 112th Avenue and SW 109th Avenue to access the Panther Station will occur entirely within FDOT right-of-way. The auxiliary/bus only lane widening of eastbound SW 8th Street between SW 112th Avenue and SW 109th Avenue to access the Panther Station will occur entirely on FIU campus property. FIU will dedicate the right-of-way to FDOT for construction of the auxiliary/bus only lanes. There are no other right-of-way impacts proposed as part of this project. Due to the express nature of the service, there are no additional stops beyond the terminal points of the service, therefore, there are no additional right-of-way impacts related to stops.

It is anticipated that the level of impact for Acquisition and Relocation is **No Involvement**. The proposed project would not displace any residences or businesses. Should this change over the course of the project, MDT would carry out a right-of-way and relocation program in accordance with Florida Statute 339.09 and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646 as amended by Public Law 100-17).

L. HAZARDOUS MATERIALS

A preliminary contamination screening evaluation was performed in 2011 for the project area (which included the Tamiami Station and an FIU Panther Station/Stop) to identify and evaluate known or potential contamination problems. The methodology used and details of the analysis are included in **Appendix K – Contamination Methodology and Results**. Overall, there were 8 potentially contaminated sites identified within the vicinity of the proposed Tamiami and Panther Stations. Three sites were determined to be No Risk for contamination, four sites were determined to be Low Risk for contamination, and one site was determined to be a High Risk for contamination. The High Risk site was located at 10552 SW 8th Street approximately 900 feet southeast of the Panther Station. The most recent 2014 contamination databases were reviewed and a determination was made that no new potentially contaminated sites have been identified within the project area.

Potential Impacts from Contamination

Contamination potential is generally limited to small groundwater plumes of petroleum and the possibility of a solvent release from a drycleaner or a petroleum release from an underground storage tank. There is no evidence of major widespread contamination that would prevent construction of any parts of the proposed project. No further assessment is recommended at this phase. It is

anticipated that the Level of Impact for Hazardous Material is **Not Significant**. The project area contains no known significant contamination. During project design, a Level 2 Contamination Assessment should be conducted. The Level 2 assessment should include a re-assessment of the project area to identify any new contamination sites, and to update information on existing known cleanup sites. The Level 2 assessment should also include a review of any proposed stormwater pond sites. The Level 2 assessment should include lead-based paint and asbestos surveys as applicable.

M. SOCIAL IMPACTS AND COMMUNITY DISRUPTION

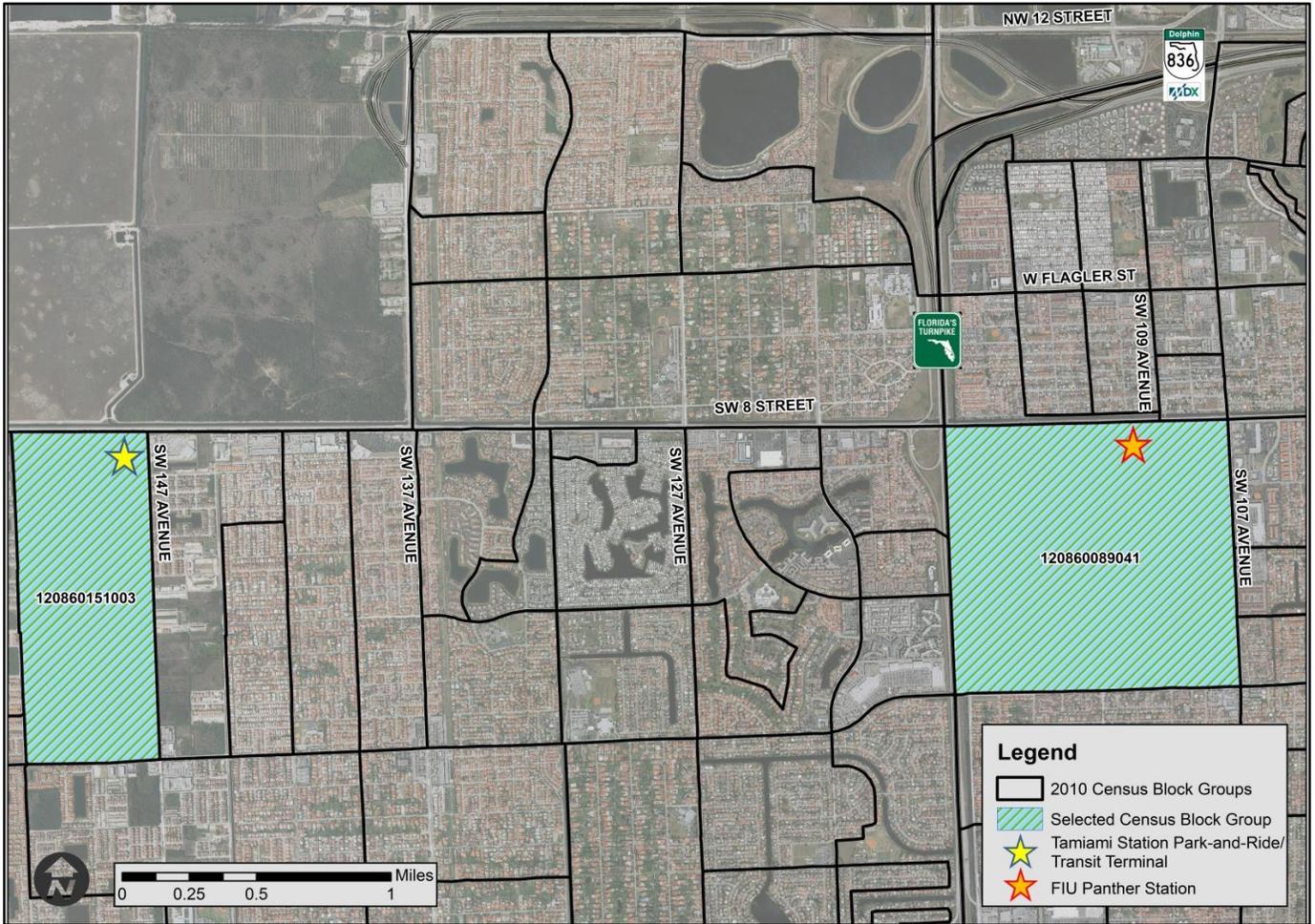
In accordance with Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low Income Populations, and consistent with FTA C 4702.1B (Chap. I-2), 2010 U.S. Census tract and block group data for the immediate project area were evaluated to identify any areas containing high concentrations of low-income and/or minority populations (See **Figure 5**). **Table 8** provides information on minority and low income populations within the applicable census tracts. Miami-Dade County information is provided as the Region of Comparison (ROC). As depicted in **Table 8**, the County is composed of close to 65% Hispanic population, so while by definition Hispanics are a minority, they are not a minority in the ROC. Hispanics constitute a majority in the ROC and in the Tamiami Station census tract. In the case of low income populations, the median household income for the Tamiami Station census tract is higher than the ROC. In the case of the FIU Panther Station related information, the census tract encompasses the FIU campus area so the numbers are not representative of a typical census tract.

Table 8: 2010 Census Tract Demographic Data

	Miami-Dade County	Census Tract 151 (Tamiami PNR)	Census Tract 89.04 (FIU PNR)
Median HH Income	\$43,100	\$66,406	***
Population Breakdown	2,549,075	12,211	1,759
White	15.20%	9.07%	34.20%
Hispanic	64.90%	77.60%	24.30%
Black	17.40%	8.48%	33.48%
Other	2.50%	4.86%	8.02%

A public information meeting was held at the Florida International University on November 21, 2014 and details of the meetings are included in **Appendix L – Public Meeting Notes**. The meeting was advertised through popular local newspapers, including the “Miami Herald” and the “El Nuevo Herald” with a notice in Spanish targeting the large Hispanic population in the area. In Addition, Meeting notices were also posted in the miamidade.gov website, MDT also notified nearby residential condominiums such as Emerald Lakes Townhomes and the Kendall Federation of Homeowner Associations. The meeting was well attended, and it presented the environmental findings and preliminary concepts for the proposed SR 836 Express Bus Service to the surrounding communities. Questions by the public were answered during the meeting, and Comment Forms were made available at the meeting and at the miamidade.gov website. Within a two week comment period, MDT received and answered 12 comment forms and several other email communications. Additional public information meetings will be held during the final design phase to ensure continued community awareness, input and support.

Figure 5: 2010 Census Block Groups



N. ENVIRONMENTAL JUSTICE

Potential Impacts to Environmental Justice Communities

The proposed project, to build the Tamiami Station on an FDOT-owned vacant undeveloped property encompassing approximately 7.8 acres and to construct auxiliary/bus only lanes within existing road right-of-way for access to the FIU Terminal, was developed in accordance with the Civil Rights Act of 1964, as amended by the Civil Rights Act of 1968. A public information meeting was held on November 11, 2014 at FIU which presented the environmental findings and preliminary concepts for the proposed SR 836 Express Bus Service. Consistent with the make-up of the community, as indicated in **Table 8**, all public meeting information and advertisements were provided in both English and Spanish. The public meeting summary, notices, and public comments are included in **Appendix L**.

The proposed projects will not displace any residences in the project area, nor any commercial/industrial development in the area. Therefore, the project improvements will not result in the loss of jobs for the surrounding community. The overall project will not affect, separate, or isolate any neighborhoods, ethnic groups, or minority and/or low-income populations. Hispanics, while defined as a minority population, are a majority within the ROC and within the Tamiami Station census tract. Incomes within the impacted

census tracts are higher than the ROC. This project seeks to improve access and connectivity to existing MDT transit services while providing more comfort. The project improvements will not result in any disparate impacts to any distinct minority, ethnic, elderly or disabled groups and/or low-income households. Disparate Impact refers to a facially neutral policy or practice that disproportionately affects members of a group identified by race, color, or national origin, where the recipient's policy or practice lacks a substantial legitimate justification and where there exists one or more alternatives that would serve the same legitimate objectives but with less disproportionate effect on the basis of race, color, or national origin. The anticipated Level of Impact in terms of Community Disruption and Environmental Justice is **None**.

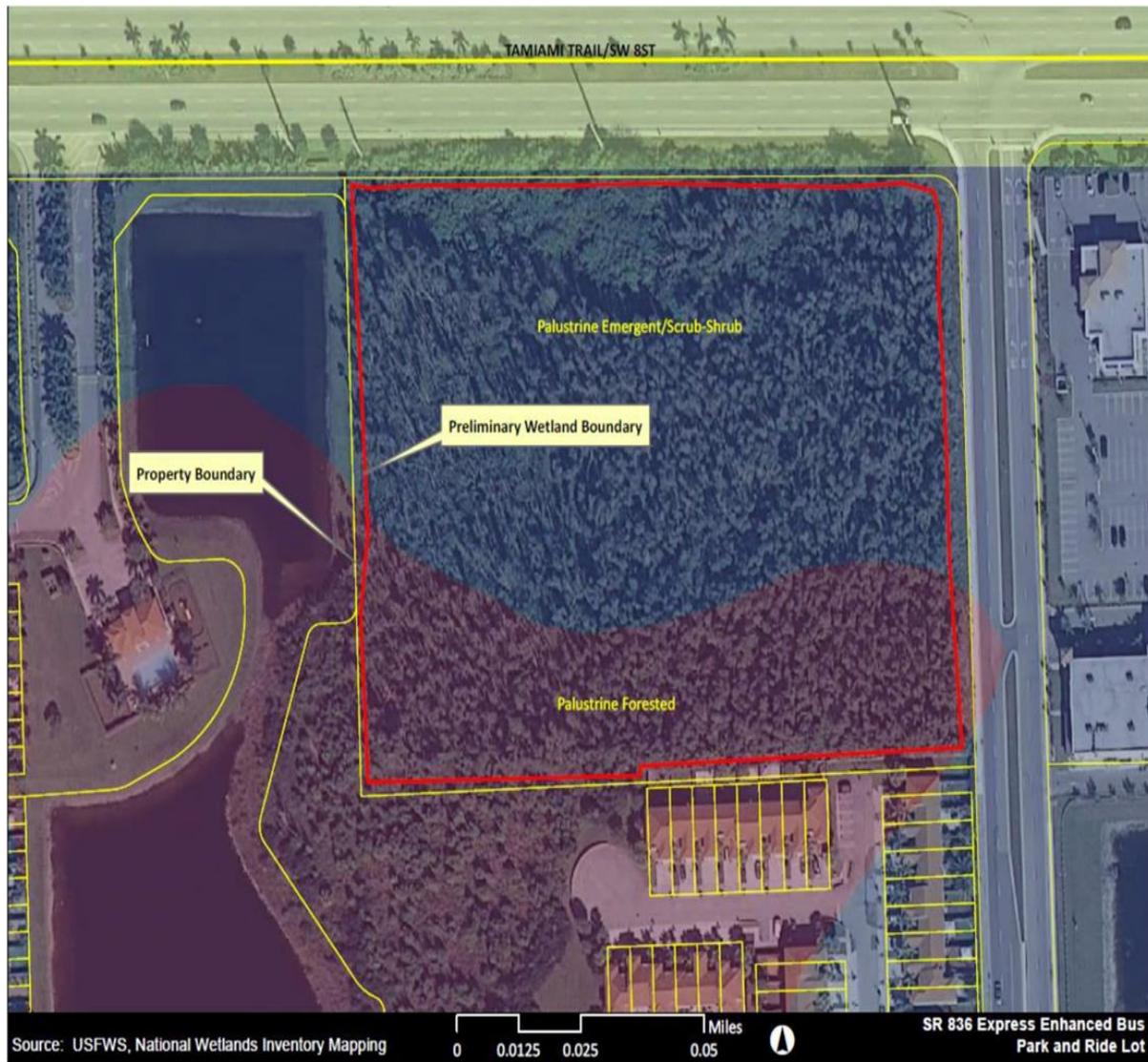
O. USE OF PUBLIC PARKLAND AND RECREATION AREAS

No public parkland or recreation areas are located within the right-of-way or adjacent to any part of the project area. Several large parcels owned by the State of Florida or the South Florida Water Management District are located north of SW 8th Street. An 80-acre parcel, owned by Miami-Dade County Parks and Recreation (Tree Island Park and Preserve), is located approximately 700 feet south of the proposed Tamiami Station. A residential subdivision and SW 10th Street are located between the park and the proposed Tamiami Station. The park has no structures or recreational features. It is anticipated that the proposed project would have no direct or indirect effects on any of these publicly-owned properties. It is anticipated that the Level of Impact for Public Parkland and Recreation Areas and for Section 4(f), per 23 CFR Part 774, is **No Involvement**.

P. IMPACTS ON WETLANDS

The areas surrounding the Tamiami Station were examined on recent aerial photographs, the National Wetland Inventory (NWI) Geographic Information System (GIS) database, the National Resource Conservation Service (NRCS) GIS database, and by performing a field investigation (See **Appendix M – Wetlands Technical Memorandum**). See below **Figure 6** aerial of proposed site and natural features.

Figure 6: Existing Wetlands Inventory



The NRCS database identifies the entire site as Lauderhill Muck, depressional, which is classified as a hydric soil in the State of Florida. The NWI database identifies the northern part of the site as Palustrine Emergent Persistent/Palustrine Scrub-shrub Broad-leaved Evergreen. The southern part of the site is mapped as Palustrine Forested Broad-leaved Evergreen. Both of these vegetation types are considered wetland habitats. It should be noted that most NWI maps were completed using aerial photograph interpretation in the 1970s and reflect conditions at the time of mapping. Site specific surveys are required to confirm NWI mapping.

The field investigation indicated that the Tamiami Station has flat topography and is surrounded by areas of fill that have been placed for roads and the surrounding residential developments. The site is isolated and its hydrology appears to coincide with local groundwater elevations; no observed inflows or outflows were observed during the field investigation. The site appears to have been a sawgrass (*Cladium jamaicense*)-dominated community that has been invaded by invasive exotic vegetation. It is now dominated by a dense stand of melaleuca (*Melaleuca quinquenervia*) intermixed with Brazilian pepper (*Schinus*

terebinthefolia). Brazilian pepper, with an understory of Burma reed (*Neyraudia reynaudiana*), is present as dense stands along northern and eastern edges of the property. The understory of the site's interior has remnants of the former sawgrass prairie with species such as royal fern (*Osmunda regalis*), leather fern (*Acrostichum danaeifolium*), sawgrass, saltbush (*Baccharis halimifolia*), and wax myrtle (*Myrica cerifera*). With the exception of the berms/fill surrounding the site, it is anticipated that the entire Tamiami Station area would be considered jurisdictional wetlands. Therefore, a Wetlands Technical Memorandum was prepared and is included as **Appendix M – Wetlands Technical Memorandum**. The memorandum details the wetland functions which will be used to estimate the mitigation requirements for impacts due to the project during the design phase. Wetland impacts that would result from the construction of this project would be mitigated pursuant to S. 373.4137 Florida Statutes to satisfy all mitigation requirements of Part IV Chapter 373, F.F. and 33 United States Code, subsection 1344. It is anticipated that the Level of Impact for Wetlands is **Not Significant**.

The area surrounding the proposed Panther Station site is part of the FIU PG-6 project. The area is now mostly paved as construction of PG-6 is now complete. Prior to the construction of PG-6, this area was used by FIU as a paved surface parking lot. It is anticipated that the Level of Impact for Wetlands is **Not Significant**.

Q. FLOODPLAIN IMPACTS

According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM), the entire Tamiami Station is located in a Special Flood Hazard Area (SFHA). The SFHA is an area subject to inundation by the 1% annual chance flood (**Appendix N – Floodplain Zone Maps**). The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The SFHA is delineated on the Community's Flood Insurance Rate Map (FIRM) in Panel 12086C0268L, effective September 11, 2009. The Tamiami Station is located in an area mapped as Zone AH. This zone is defined as an area for flood depths of 1-3 feet (usually areas of ponding). Base flood elevations have been determined for Zone AH.

The Tamiami Station would increase the amount of impervious surface area, which could impact floodplains and flood prone areas by increasing storm water run-off. To minimize these potential effects, the stormwater facility design for the proposed project will conform to the requirements of Chapter 24, Section 24-58 of the Miami-Dade County Code and/or the SFWMD rules [Chapters 40E-4, 40E-40, and 40E-400 Florida Administrative Code (FAC)].

The widening of SW 8th Street between SW 112th Avenue and SW 109th Avenue for auxiliary/bus only lanes to and from the Panther Station would be designed with adherence to State and County regulatory criteria to avoid impacts to local drainage systems especially those that discharge to the C-4 Canal. The stormwater design would include, at a minimum, the water quality requirements as stated in the SFWMD rules [Chapters 40E-4, 40E-40, and 40E-400 Florida Administrative Code (FAC)] and/or Chapter 24, Section 24-58 of the Miami-Dade County Code. Project implementation would include a drainage and stormwater management system that would be retained entirely within the existing roadway drainage system and no runoff would be discharged into the canal. As a result of project design, it is anticipated that the Level of Impact for Floodplains is **None**.

R. IMPACTS ON WATER QUALITY, NAVIGABLE WATERWAYS, AND COASTAL ZONES

Water Quality

The Tamiami Station and the widening of SW 8th Street between SW 112th Avenue and SW 109th Avenue to access Panther Station would both be designed with adherence to State and County regulatory criteria to avoid impacts to local drainage systems especially those that discharge to the C-4 Canal. The stormwater design would include, at a minimum, the water quality requirements as stated in the SFWMD rules [Chapters 40E-4, 40E-40, and 40E-400 Florida Administrative Code (FAC)] and/or Chapter 24, Section 24-58 of the Miami-Dade County Code. Project implementation would include a drainage and stormwater management system that would provide for pretreatment of stormwater runoff prior to discharge. A Water Quality Impact Evaluation (WQIE) has been developed documenting water quality measures (**Appendix O – Water Quality Impact Evaluation**).

Stormwater runoff from construction sites can have short-term impacts on water quality by discharging sediment-laden water and other pollutants generated by construction equipment, material storage, and debris into surface waters. To control and minimize potential water quality impacts generated by construction operations, a Stormwater Pollution Prevention Plan (SWPPP) in compliance with Chapter 62-621 FAC, would be incorporated into the project as required by Florida Department of Environmental Protection. The SWPPP would include structural and nonstructural pollution prevention measures to minimize erosion and sedimentation. Both project design and construction measures could have short term or long term impacts to water quality. However, as a result of project design and the implementation of erosion control measures during construction, it is anticipated that the Level of Impact for water quality is **None**.

Navigable Waterways

Navigable waters of the United States are defined in 33 CFR Part 2 and falls under the jurisdiction of the United States Coast Guard (USCG) to provide for the reasonable needs of navigation. Navigable waterways as defined by the USCG and United States Army Corps of Engineers in 33 CFR Part 329, are those waters that are subject to the ebb and flow of the tide shoreward to the mean high water line and/or are presently used, or have been used in the past or may be susceptible to transport of interstate or foreign commerce. The project area along SW 8th Street is located parallel to the C-4 Canal (Tamiami Canal). The proposed widening of SW 8th Street between SW 112th Street and SW 109th Street would occur entirely on FDOT owned right-of-way and would not impact the Tamiami Canal. Therefore, it is anticipated that the Level of Impact for navigable waterways is **No Involvement**.

Coastal Zones

The Coastal Zone Management Act (CZMA) was enacted in 1972 to encourage coastal states to develop comprehensive programs to manage and balance competing uses of and impacts to coastal resources. The proposed project is not in a designated coastal zone management area. It is anticipated that the Level of Impact for coastal zone management areas is **No Involvement**.

S. IMPACTS ON ECOLOGICALLY-SENSITIVE AREAS AND ENDANGERED SPECIES

The most recent databases during the initial analysis for the Florida Fish and Wildlife Conservation Commission (FFWCC; October 2011), the Florida Natural Areas Inventory (FNAI), and the U.S. Fish and Wildlife Service (USFWS) were consulted to determine a list of state and federally listed threatened and endangered species that could potentially occur in the project area. USFWS reports 52 federally listed plant and animal species have been recorded in Miami-Dade County; FNAI reports 122 state and federal species within Miami-Dade County. A field investigation of the Tamiami Station was conducted to determine the presence or the likelihood of occurrence of any of these species within or near the project area. The proposed Tamiami Station is isolated from other habitats and it is vegetated by dense stands of invasive exotic species [see Section N (Wetlands)]. It would not be considered an ecologically-sensitive area. It is highly unlikely that any state or federally listed species inhabits the Tamiami Station or the surrounding areas. No bald eagle nests have been recorded within one mile of the site.⁵ Raccoon signs were observed during the field investigation and it is likely that that other wildlife adapted to an urbanized setting may be found in the Tamiami Station (opossum and other small mammals, small reptiles, and occasional migratory birds). No critical habitat has been identified in or near the project area. The project area is located within the Core Foraging Area (within 18 miles) of an active nesting colony of the wood stork (*Mycteria americana*). However, the Tamiami Station contains a dense canopy of invasive exotics and no open water foraging areas. 2014 database listings for threatened and endangered species were reviewed and there were no new plant and animal species identified for the project area.

The specialized habitats required for state and federal listed species are not present within the proposed Tamiami Station. The proposed access improvements along SW 8th Street to the Panther Station are located in a highly developed urbanized setting, adjacent to heavily trafficked roads. Therefore, it is anticipated that the Level of Impact for threatened and endangered species is **No Involvement** and the preparation of an Endangered Species Biological Assessment is **not required**.

T. IMPACTS CAUSED BY CONSTRUCTION

It is anticipated that all construction would take place entirely within the Tamiami Station and within the existing right-of-way for the Panther Station access improvements along SW 8th Street. Construction activities could have some impacts for air quality, noise, vibration, water quality, and traffic flow for those residents and travelers within the immediate vicinity of the project. The construction phase of the project would last for several months.

Air Quality

The air quality impact would be temporary and would primarily be in the form of emissions from diesel-powered construction equipment and from fugitive dust. Air pollution associated with the creation of airborne particles would be controlled in accordance with FDOT's *Standard Specifications for Road and Bridge Construction*, as directed by the Project Engineer.

⁵ <https://public.myfwc.com/FWRI/EagleNests/nestlocator.aspx#search>, Accessed 8/28/2012.

Noise and Vibration

During the construction phase of the proposed project, short-term noise and vibration may be generated by stationary and mobile construction equipment, such as during clearing operations and vibratory compaction of soils. The FDOT guidelines contain construction noise limits that have been established to protect sensitive receptors from excessive construction noise levels. The construction noise would be temporary at any location and would be controlled by adherence to the most recent edition of the FDOT *Standard Specifications for Road and Bridge Construction*. Adherence to local construction noise and/or construction vibration ordinances would also be required where applicable. Each internal combustion engine used for any purpose on work related to the project shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without such a muffler. Construction activities can create some ground vibrations, depending on the equipment on site and the type of construction. Based on the projected construction activities for the proposed project, the equipment with the greatest potential to create noticeable ground vibration would be the roller used during asphalt paving operations. The residential properties immediately abutting the Tamiami Station, and areas to the north of the Tamiami Canal in proximity to the widening of SW 8th Street for access to the Panther station, may notice some ground vibrations during the paving operations of the access road. Paving operations at greater distances most likely will not be noticeable.

Water Quality

As discussed in Section R (Impacts on Water Quality, Navigable Waterways, and Coastal Zones), the implementation of the SWPPP measures would minimize erosion and sedimentation. In addition, water quality impacts resulting from erosion and sedimentation would be controlled in accordance with FDOT's *Standard Specifications for Road and Bridge Construction* and through the use of Best Management Practices. The controls placed in each work area prior to sediment-generating operations would be maintained until final stabilization has been implemented in each contributing area.

Maintenance of Traffic

SW 8th Street (SR-90) is a state-owned facility. Maintenance of traffic and the sequence of construction would be planned and scheduled to minimize traffic delays throughout the project. Signs would be used as appropriate to provide notice to the traveling public, as required. Access to all business and residences would be maintained to a practical extent and to comply with the Best Management Practices of FDOT.

Pollutants

Demucking is anticipated within the Tamiami Station and potential impacts would be controlled by Section 120 of the FDOT's *Standard Specifications for Road and Bridge Construction*. The contractor would be responsible for their methods of controlling pollution on haul roads and within the site.

All construction activities at the Tamiami Station, Panther Station and along SW 8th Street would take place in accordance with local regulations and permit requirements. Based on the mitigation measures stated in this section and by using the methods contained in the FDOT's *Standard Specifications for Road and Bridge Construction* and through the use of Best Management Practices, it is anticipated that the Level of Impact for impacts caused by construction is **Not Significant**.



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