TOWN OF CUTLER BAY MASTER PLAN UPDATE

CUTLER BAY
MOVING FORWARD

AUGUST 17, 2021

Prepared by

THE CORRADINO GROUP


Cutler Bay
FLORIDA
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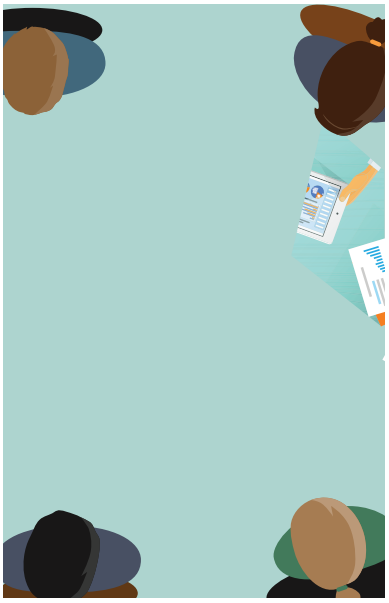

INTRODUCTION

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Since 2014, when the Town of Cutler Bay Transportation Master Plan was last updated, the region has rebounded from the prior recession. As a key community in South Dade, Cutler Bay continues planning to ensure the community's high quality of life. As the future unfolds, updating the plan will ensure that needs are met as growth continues.

Cutler Bay has implemented transportation masterplans over the years, all funded in part by the Miami Dade Transportation Planning Organization (TPO), with significant local matching funds. The benchmark plan came just after the Town's incorporation, and each subsequent effort measured the effectiveness of the previous plan against the benchmark. This current plan represents an evolution tailored to the specific intricacies of the current conditions and trends in South Dade and the innovative use of planning techniques. With this update, Cutler Bay will continue to lead with a model plan to address multimodal transportation.

Cutler Bay: Moving Forward is to build on and complement the Town's past successful intermodal projects tailored to the intricacies of South Dade's current trends and conditions. This plan advances the Town's mobility goals using strategies to maintain the transportation system into the future. Through stakeholder involvement, public engagement, and steering committee meetings, the Town has identified its mobility goals.

GOALS/VISION

- Provide Equitable/Inclusive services
- Be Safe/Comfortable (Comfortability-Levels of Stress when biking, walking, etc.)
- Support Sustainability/Resiliency
- Support Regional Connectivity
- Provide Options/Choices

South Dade is the fastest-growing part of the County, but with few jobs, a disconnected roadway system, and a dysfunctional transit system, a crisis looms. Highly directional traffic flow volumes exceed the primary transportation corridors' capacities prompting spillover to the neighborhood roadway network, creating extraordinary delays and deterioration of the quality of life. Tensions have risen, with local municipalities considering multiple development moratoria in the area.

Cutler Bay recognizes that traffic congestion is negatively impacting the character of the Town and the quality of life for its citizens. To mitigate the impacts, the Town initiated a moratorium on development while creating a stricter traffic methodology to address congestion. The Town has implemented mobility projects associated with its previous planning efforts. Nonetheless, as time moves forward, the existing system's capacity will be overwhelmed.

This study will provide a clear understanding of the traffic, its origins and destinations, and its impact on roads, the transit system, and bicycle and pedestrian networks. Additionally, in this iteration of the plan, the system's ability to be resilient today and in the future will be evaluated. This will provide a common set of facts about the system, including how and why it is being impacted.

To address these issues, a bank of potential multimodal transportation projects, formed in coordination with land use, transportation, and economic development policies, will be designed to address both the symptoms and causes of traffic congestion. Each proposal will be evaluated using state-of-the-art modeling techniques to define impacts, costs, and benefits. This will allow informed choices on what to do, when to do it, and the cost.

Cutler Bay: Moving Forward lays out exactly what the Town wants its transportation system to achieve and how it intends to achieve it. This document serves as an update to previous transportation plans. It provides opportunities to allocate resources to benefit all with detailed strategies and actions over the coming years to address mobility challenges in a systematic, sustainable way.

INTRODUCTION

The 2014 Transportation Master Plan acts as a guideline for projects over the past five years. It is now time to update it to develop an additional list of multimodal transportation projects and policy initiatives that can be undertaken in the upcoming years. As the youngest and fastest-growing municipality in the region, the Town of Cutler Bay Transportation Master Plan Update, must be forward-looking, progressive, and more technologically advanced than earlier versions of the plan. With the South Dade Corridor analysis and technological advancements in transportation since 2014, municipalities need to have capital projects in the pipeline that are ready to build when funding is available. It is essential to engage the citizens in the process.

With the Transportation Master Plan update, the Town is taking a more regional approach. Currently, Cutler Bay, which is geographically located in the center of Southeastern Dade County, is subject to the ebbs and flows of local traffic movement, the volumes of which are growing each year. Frustration has led the Town to implement a moratorium on development with the hopes of further developing new and more comprehensive traffic solutions within the Town Land Development Regulations. These address traffic problems generated from outside of Town boundaries that have major impacts on the Town itself. With a high volume of development occurring to the south and west of the Town and a significant lack of capacity and options to the north and east of the Town, it is apparent that the current mechanism for approving development needs reconsideration.

Cutler Bay proposes a Transportation Master Plan update that is forward-looking, progressive, modern, and strives to review the existing plan and incorporate citizen concerns. Technological advancements, such as an autonomous shuttle pilot program, and electric vehicle use will be evaluated. The Town recently completed the Mobility Hubs Study, an important component of the Transportation Master Plan Update. Of importance here will be developing projects which will serve first-last mile needs to support regional and subregional transit mobility. This updated Transportation Master Plan will critically evaluate the entire transportation system, projecting deficiencies, scheduling multimodal projects, developing transportation, land use, and economic development policies. It will recommend substantive improvements and coordinate with those scheduled by the County and State. From a technical perspective, the Transportation Master Plan attempts to look at the Town in a holistic manner.

Cutler Bay is expected to have a population exceeding 60,000 in the next decade. Additionally, it has a significant transit-dependent population along with two mixed-use areas of high density. The Town Center District, which includes the Southland Mall area, is a major traffic generator as a large-scale regional center. The opportunity exists to utilize the results of the Town Mobility Hubs analysis as a connector to the South Dade SMART Corridor, and proposed Routes B and E1 of the regional SMART Plan, with the implementation of significant park-and-ride facilities to improve commute times.

The study will employ sophisticated traffic analysis techniques to determine the best way to improve mobility, safety, and accessibility for Town residents. This plan will examine the root causes of congestion including inadequate roadway capacity, lack of modal options, existing and future travel patterns, emerging development and growth patterns, and a lack of diverse land uses. Other issues will be thoroughly explored, as will be the ability of the system to rebound from major disaster events and withstand rising seas. This will be done in two planning horizons, 2030 and 2045. It will engage the public in a meaningful way in the generation of transportation solutions. To accomplish these outcomes, the planning will involve seven tasks, as follows:

Task 1: Public involvement
Task 2: Data Collection and Analysis
Task 3: Needs Assessment
Task 4: Development of Potential Projects
Task 5: Analysis
Task 6: Implementation Plan
Task 7: Final Report

Each will be elaborated on in the following sections.

TASK 1 | Public Involvement

TASK 1 | PUBLIC INVOLVEMENT

There is an art and a science to transportation planning. To gain consensus and implement projects, the community must agree on and want what is being planned. This project places great effort into both the art (finding out what is wanted) and the science (finding out what is needed). What is wanted stems from a significant engagement of the public to build consensus. This is done the old-fashioned way, by earning it. Public involvement in this study occurred throughout the project.

The public involvement process begins with forming a steering committee of members integrally knowledgeable and involved in the planning process. Next, stakeholders representing a diversity of interests are identified and consulted individually. Concurrent with the technical work of data collection and analysis, community workshops are held to offer all community members an opportunity to be involved in an informal setting. As the Plan approaches completion, public hearings are held to give public officials and the public the opportunity to hear, comment, and act on the Plan.

Multiple efforts were undertaken to engage the public, explain the project's scope, existing conditions, data collection, and transportation system utilization to determine the desires of the community. A steering committeewas formed to assure the project was progressing as intended. Stakeholders were met with to gain their insights. Community organizations were met with, and overall public workshops and hearings were conducted to gain consensus for the study's results and recommendations.

STEERING COMMITTEE

The public involvement task aims to discuss and receive public input on key local planning issues related to the Transportation Master Plan. The process began with coordination in a kickoff meeting with the project management team, after which a steering committee was created. Those involved included leaders from political and civic organizations, and representatives of special interest groups such as local business associations, environmental groups, and assisted-living facilities. All were consulted to provide insight and advice regarding the issues, needs, and solutions to be addressed in the Plan. The committee also reviewed the various draft sections of the report prior to presentation in a public hearing. Finally, the committee reviewed recommendations prior to the final report being released. The steering committee met three times during the effort, and members also attended the three public involvement workshops.

PUBLIC INVOLVEMENT WORKSHOPS

Multiple workshops were held during which information was presented on background findings and analyses to date, with a discussion and solicitation of feedback from the public on areas of concern for further investigation as well as potential projects.

Concerns regarding mass transit, golf cart safety, and traffic congestion were raised. Suggestions were organized into the logical categories of corridor and capacity projects, transit, bicycle and pedestrian projects, and policy initiatives.

The overriding concern throughout the community was how to maintain the Town's character while accommodating or preparing for the growth it will experience from within the Town and in surrounding areas. Traffic on major roads, and preservation of the character of neighborhoods along them, were presented as major concerns. The perception of safety and viability of alternative modes of transportation were also key concerns.

The community realizes that its quality-of-life, character, and future are related to transportation are linked to the growth and development of South Dade. It realizes that there needs to be a more expeditious shift to transit, as well as a focus on economic development.

It is anticipated that this Plan will be used to populate the Town's Capital Improvement Element with projects for roadway capacity and corridor enhancement, alternative modes (transit, pedestrian, bicycling), and policy projects.

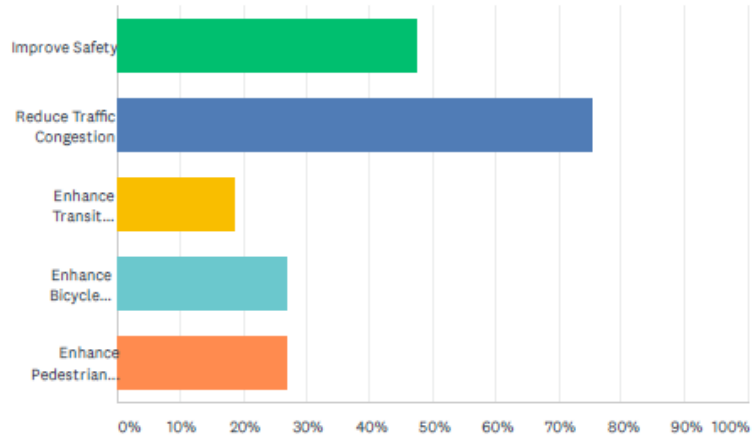
To support community involvement, a Transportation Habits Survey was conducted by Cutler Bay to gain a general understanding of the transportation habits of the community. It was available in electronic format via SurveyMonkey while the Town used a variety of forums to disseminate the information to the public, as noted below:

- Town website, Facebook (People Reached 1,558), Twitter (Impressions 221), Nextdoor (Impressions 874), Instagram (People Reached 3,503), and sent to 2,035 email addresses.
- Steering Committee Meeting- 2/23/2021
- Public Workshop 1- 3/23/2021
- Stakeholder Meeting- 4/8/2021

Ninety respondents completed the survey. Over 92% live in the Town of Cutler Bay. Only 10% work in the Town, over 56% of those who responded work outside of the Town, while 34% worked from home or were unemployed. Over 80% travel-to-work by vehicle while only 2% use transit.

Q8 What are your main concerns regarding travel within the Town?

Answered: 97 Skipped: 0



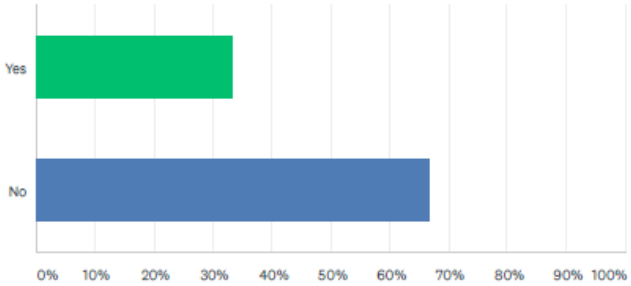
ANSWER CHOICES	RESPONSES	
Improve Safety	47.42%	46
Reduce Traffic Congestion	75.26%	73
Enhance Transit Services	18.56%	18
Enhance Bicycle Facilities	26.80%	26
Enhance Pedestrian Facilities	26.80%	26
Total Respondents: 97		

The overwhelming concern of 75% of survey respondents was traffic congestion followed by safety within the Town. Over 95% of the respondents indicated traffic congestion was the main concern when traveling outside of the Town.

Over 64% of respondents stated they would not use the new Bus Rapid Transit System.

Q10 Will you use the new Rapid Transit System proposed by Miami Dade County?

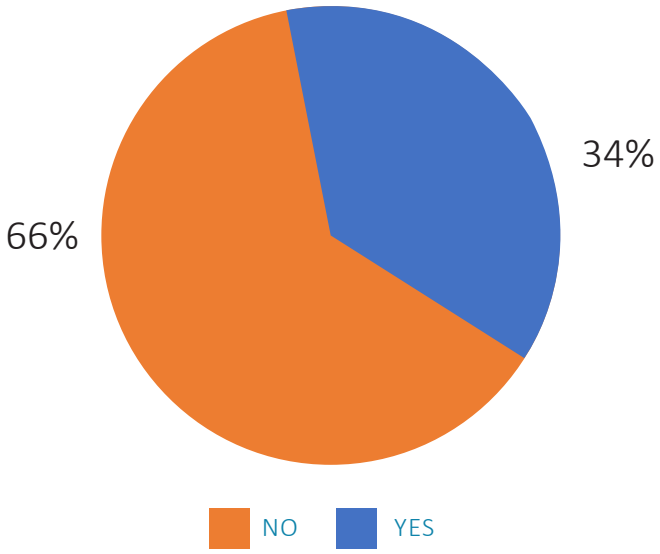
Answered: 96 Skipped: 1

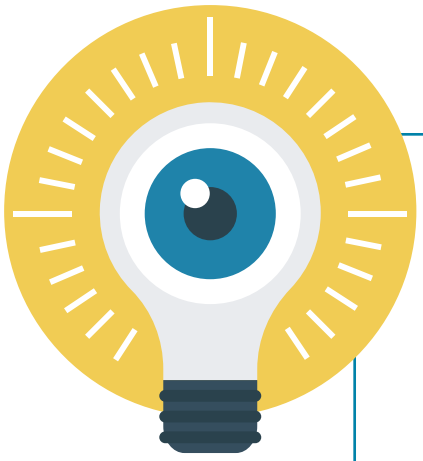


ANSWER CHOICES	RESPONSES	
Yes	33.33%	32
No	66.67%	64
TOTAL		96

A Seniors Transportation Needs Assessment Survey was disseminated to Senior Assisted Living Facilities throughout the Town. A total of 56 survey responses were received. Nearly 59% of the respondents were unable to drive to get to their destinations. Approximately 32% of the senior respondents use public transportation. Over 60% of the respondents do not use the Town shuttle service. The majority of those who do use the shuttle do so to shop for groceries or go to the bank. Additionally, 30% of senior respondents claimed not to have enough information about routes and schedules for public transportation.

HAVE YOU EVER USED THE TOWN OF CUTLER BAY SHUTTLE?





> VISION

The intent of this planning effort is to reassess and build on the Town's previous planning efforts, including its previous Transportation Master Plan, to define the Town's Vision so that individual project areas can be developed and implemented. Simply stated, ***"The Vision of Cutler Bay is to lead with transportation concepts that involve technologically innovative, inclusive, and safe services that support regional connectivity while increasing sustainability and resiliency through abundant mobility options."*** The following principles support this vision.

- Provide **Equitable/Inclusive** services
  - The Town of Cutler Bay provides equal access to live, work, and play for people of all abilities, ages, incomes, races, cultures, and ethnicities.
- Be **Safe/Vision Zero/Comfortable** (Comfortability-Levels of Stress when biking, walking, etc.)
  - In Cutler Bay, we work to create an environment where everyone feels comfortable traveling.
- Support **Sustainability/Resiliency**
  - Cutler Bay's transportation system supports a sustainable environment through efforts to create a carbon-neutral network.
- Support **Regional Connectivity**
  - The Town will work with other agencies to continue the expansion of travel options throughout the region.
- Provide **Options/Choices**
  - All modes of transportation are considered when prioritizing the efficient movement of people.

Other documents were also considered in the development of the Cutler Bay Moving Forward Goals and Vision. For example:

Strategic Plan

Goal 2.1 focuses on being a financially responsible community. The development of this Plan will allow a set of projects to be objectively evaluated and prioritized in a transparent manner so that the most necessary projects can move to implementation.

- Goal 3.1 focuses on the provision of the needed infrastructure to the current and emerging needs of the community. This is to be implemented through an inventory of all community assets, and the annual production of the Capital Improvement Plan. This master plan addresses an often-forgotten aspect of transportation infrastructure, yet one that is critically important in the development of well-rounded, diverse communities. The projects stemming from this bicycle and pedestrian plan will be incorporated into the annual Capital Improvement Element.

- Goal 3.2 focuses on assuring that growth and development be managed consistent with the needs and desires of the community. The citizens will have input in the development and prioritization of the projects in this plan, to assure that this infrastructure is necessary and mitigative of the growth that has occurred inside and around the Town.

- Goal 5.1 focuses on assuring the Town will be recognized as a place where people prefer to live and the residents feel a strong sense of identity and pride. This was to specifically be done through implementing a pedestrian-friendly program.

- Goal 6.3 focuses on the optimization of a smooth traffic flow through the Town, by minimizing congestion and maximizing capacity. This was to be done, in part, by enhancing pedestrian-friendliness.

- Goal 9.1 focuses on developing the Town into a modal community for the condition of its roads, lights, drainage and sidewalks.

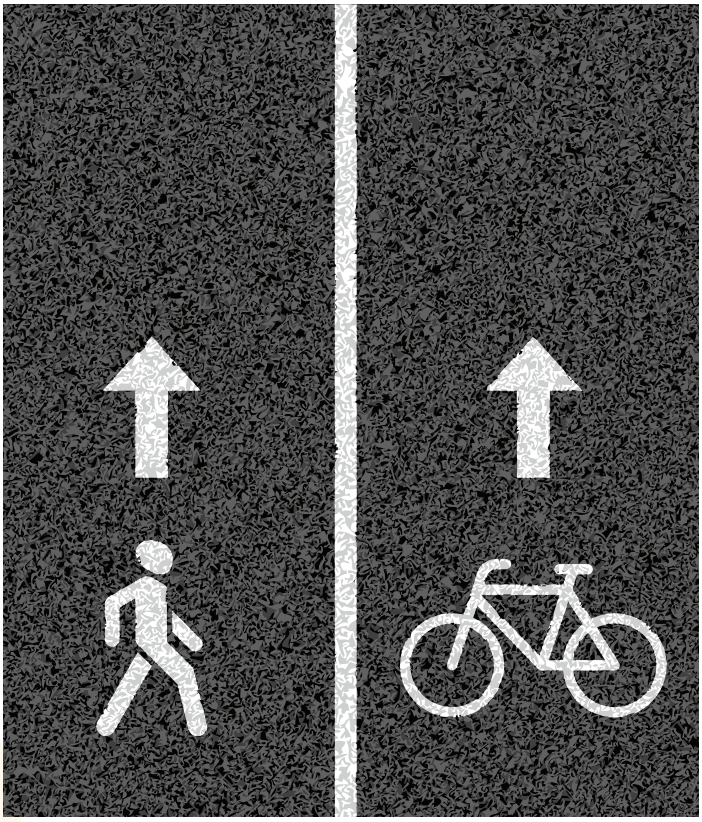
- Other goals included beautification, enhancing educational facilities, promoting safety and security, and further developing recreational facilities, and programs, all of which are partially fulfilled by this plan.

Growth Management Plan

Subsequent to the Strategic Plan, the Growth Management Plan became the official policy document for the Town. This has a primary goal and was to be implemented by sets of objectives and policies in numerous elements, most important for this report being Transportation as well as Parks and Recreation and Open Space Elements. This plan had much to do with implementing the Transportation Master Plan and the Parks Master Plan

2011 Bicycle And Pedestrian Master Plan

To effectively implement the intent of this plan, goals, objectives and policies will be developed to ensure that cost-effective recommendations are adopted to address the bicycle and pedestrian infrastructure needs of the Town. This effort will be coordinated with the analysis and previous planning initiatives to implement cost-effective projects for each specified project category.



GOAL

The goal of this master plan is to provide for a safe, convenient, and connected multi-modal transportation system, focused on encouraging bicycle and pedestrian mobility for the various users within the Town of Cutler Bay.

Objectives

To provide transportation alternatives to ensure that all level of users have a choice when deciding how to get to and from a variety of places in the Town and regional facilities, such as to:

- Encourage parents to allow their children to walk or bike to school and recreation areas.
- Provide for safe, unobstructed use of rights-of-way for non-motorized alternative modes of transportation.
- Provide a bicycle and pedestrian system as an incentive to provide mobility, conserve energy, be environmentally friendly and become healthier.
- Provide more experienced cyclists with paths for longer trips through the community, connecting with regional facilities, eventually encouraging cycling commuters.
- Provide less-experienced cyclists with appropriately located safe paths that connect desirable local origins and destinations, eventually encouraging short trips on the system for shopping, entertainment, and recreational uses.

Policies

In meeting these objectives, specific areas of focus could be implemented, such as to:

- Provide connections between parks and schools, and residential neighborhoods.
- Assure facilities are free of obstructions, such as broken, uneven or worn paths, invasive vegetation, or misplaced essential infrastructure, such as fire hydrants, power poles and guy wires, etc.
- Provide access within the primary commercial areas along US-1, in the Urban Center District, and the Old Cuter Road District.
- Provide access to the Busway across US-1.
- Connect the municipal bicycle and pedestrian network with the County network and potential networks in other cities.

CUTLER BAY AGE-FRIENDLY ACTION PLAN

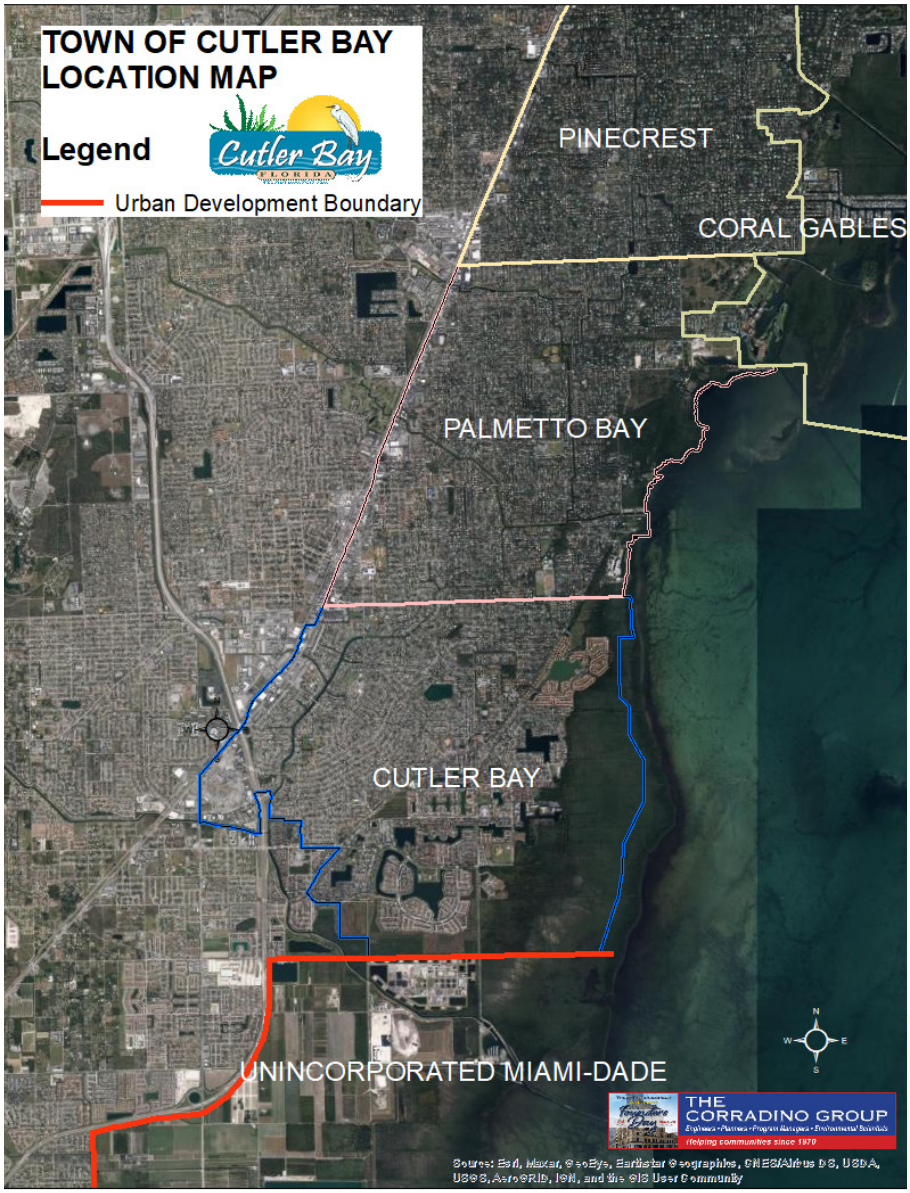
Domain of Livability 2. Transportation

- Increase Town Circulator route to include more stops and add an “inner loop”
- Provide educational programs such as CarFit and Golf Cart Safety demonstrations
- Provide safe and pleasant roads, streets, sidewalks, and trails

The Cutler Bay Transportation Master Plan Update recommends a full array of projects to maximize safe mobility options for people of all ages, incomes, and abilities. To provide access to jobs, recreation, healthcare, and other activities, while enhancing and protecting the quality of life now and in the future for all. Overall, the Plan is informed by the community. Public input was integrated into the Plan to develop action items and investment programs that foster Cutler Bay's transportation network.


Old Cutler Rd
SHARE
THE
ROAD

TASK 2 | Data Collection and Analysis



This chapter of the current plan examines existing policies and previous or ongoing studies/work programs that have slated projects for the area. Data were collected and analyzed in the areas of traffic, transit, bicycle, and pedestrian activities. The level-of-service for these modes of travel was quantified and projected into the future. It is from this information that potential projects were developed.

Cutler Bay's transportation system is vital to the Town's functionality. The system connects residents and visitors to services, opportunities, and each other. Mobility is an essential element to the long-term success of the Town. Mobility keeps the economy moving, impacts one's health and the environment and quality of life for all. For the transportation system to be effective and efficient, a long-term plan is necessary.

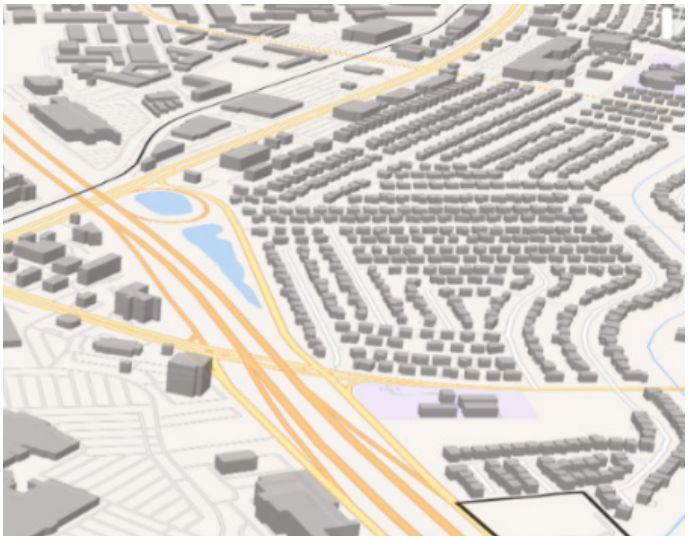
2.1 | CUTLER BAY: TODAY

Incorporated in 2005, Cutler Bay currently has a population of just over 45,000 in an area of about 10 square miles farthest south before Homestead and Florida City. The median age of its population is 37 years. Development is, generally, low-density residential or commercial, with no major employment centers.

Cutler Bay's first transportation master plan, completed in 2008, was funded by the Transportation Planning Organization's (TPO) Municipal Grant Program. The original Transportation Master Plan's primary recommendations were a Bicycle and Pedestrian Plan and providing a Transit Circulator. At the same time, the Town developed its Growth Management Plan and Land Development Regulations to assure that sustainable land use policies and ordinances are in place to support transportation decisions, locally and regionally.

In 2014 Cutler Bay was allocated another $35,000 from the TPO to update the Transportation Master Plan. With the involvement of citizens, staff, elected officials, and outside agencies, a consensus vision was developed to guide transportation projects and policy. Over 62 projects were identified, many of which the Town has already implemented.

With expected growth, the challenges are great. Currently, there are only three connected ways serving South Dade: Krome Avenue, US-1, and Florida's Turnpike. Old Cutler Road only connects as far south as Cutler Bay. Each day, hundreds of thousands of people move in and out of the community, generally in the peak hours, creating a highly directional flow on the roads resulting in significant congestion.



The community understands that the common thread between Homestead and Pinecrest is US-1. In an effort to work with the Urban Development Boundary and focus development on the eastern half of the county, strides have been made towards intensifying the US-1 corridor. The Miami Dade TPO is examining transit-supportive land uses throughout the corridor to complement the SMART Plan. The South corridor includes the area from Dadeland South Station to Florida City, which includes Cutler Bay. The Town's Transit Corridor and Town Center Zoning Districts are areas that include updated land development regulations. The Town Center District is a Dadeland-sized regional activity center. It provides Cutler Bay with the potential to be a major economic factor in South Dade. Surrounding the area now are the South Dade Government Center, the South Dade Performing Arts Center, and Cutler Bay's Town Hall. The District sits at the confluence of the Busway, Turnpike, and US-1.

The Old Cutler Road area has been given a recent retrofit relative to the roadway. This beautification project worked within the parameters of the 1974 historic designation to provide multimodal supporting infrastructure for potential land development in the area. Today, the road accommodates cars, bicycles, pedestrians, and transit.

Since 2010, Cutler Bay's population increased from 40,286 to 45,480 and is projected to increase to 59,819 by 2040.

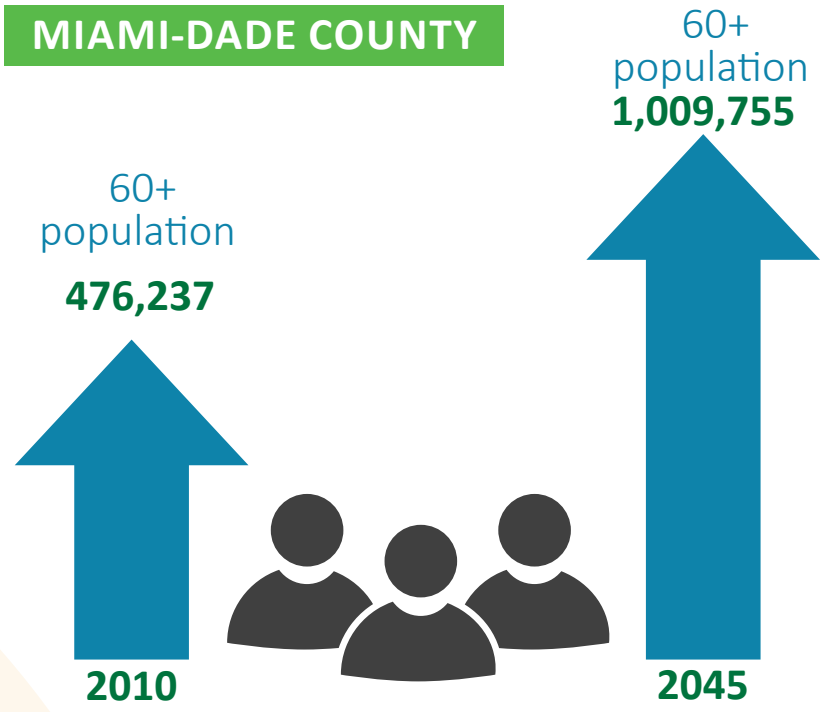
Population Projections, Permanent Residents, 2010-2040

Geography	2010	2019	2020	2025	2030	2035	2040
Cutler Bay	40,286	45,412	46,316	50,542	54,290	57,303	59,819

Notes: *Counts refer to estimated or projected number of persons.*
Sources: *Estimates and projections by Shimberg Center for Housing Studies, based on 2000 and 2010 U.S. Census data and population projections by the Bureau of Economic and Business Research, University of Florida.*

According to the Miami Dade County Transportation Planning Organization (TPO) *Long Range Transportation Plan 2045*, the South Dade area's population is expected to increase by 46.5% by 2045, and employment is expected to increase by 39.7% over the same period. By including investments in infrastructure to expand mobility options to meet growing demand, the Town understands equitable transportation is a Countywide issue and will work with the TPO on strategies to align programmatic initiatives with goals that address equity regionally.

The University of Florida Bureau of Economic Resources (BEBR) estimates that by 2045 Miami Dade County residents 60+ will more than double.



2.1 | CUTLER BAY: TODAY

Nearly 30% of the Miami Dade County population will be over the age of 60 by 2045. A total of 20% of the Cutler Bay population will be over the age of 60 by 2040.

Cutler Bay Population Projections

Age	2010	2019	2020	2025	2030	2035	2040
60-64	1,738	2,255	2,328	2,736	2,559	2,710	2,667
65-69	1,318	1,874	1,955	2,265	2,737	2,544	2,495
70-74	1,073	1,448	1,515	1,833	2,135	2,507	2,334
75+	1,882	2,175	2,215	2,673	3,232	3,837	4,607
Total	40,286	45,412	46,316	50,542	54,290	57,303	59,819

***Notes**: Counts refer to estimated or projected number of persons.*
***Sources**: Estimates and projections by Shimberg Center for Housing Studies, based on 2000 and 2010 U.S. Census data and population projections by the Bureau of Economic and Business Research, University of Florida.*

EQUITY/INCLUSIVITY/AFFORDABILITY

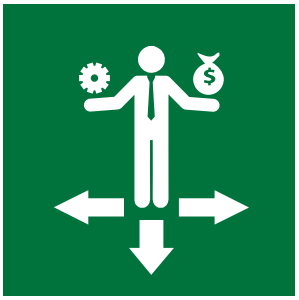
There are several indicators of a well-rounded mobility system and a healthy community. These include Mode Split, Vehicles Per Household, Vehicle Miles Traveled, Travel Time to Work, and a balance of sites used as an Origin and a Destination. This is the economic aspect of transportation, pointing to the true nexus of transportation and land use and how many transportation and land use problems can be solved through the implementation of economic policy. Creating a safe and accessible transportation system for all includes offering affordable options for mobility. Strategies must address people with different needs and abilities who rely on various modes of transportation. This includes the elderly, disabled, and also those from lower-income levels.

Cutler Bay is both suburban and urban, unlike all but a few cities in Miami-Dade County. It is more of a microcosm of a major city because it encompasses a wide variety of intensities, transportation options, and reactions to those options. The burden on the citizens of Cutler Bay to get to work is growing significantly. High gas prices, combined with periodic spikes, have impacted the community. Many municipalities have reported the need to increase public transit. Due to the increased household costs, combined with generally poor economic conditions resulting from the Pandemic, the use of lower-cost alternative modes of transportation, including walking, bicycling, and public transit, has surged nationwide. That is why it is imperative to build a viable and connected multimodal system beginning with places to bike and walk. People need options.

Accessibility to employment is a critical ingredient for the success of the local economy. Like the rest of Miami Dade County, Cutler Bay is an automobile-dominated area, with a Housing and Transportation **Affordability Index (H+T) of 67%. Residents spend approximately 40% of their income on housing and 27% on transportation costs.** There are 1.82 automobiles per household. Research shows that nearly 89% of Cutler Bay workers commute by car, with the preponderance of these commuters in single-occupancy vehicles. Twelve percent utilize carpools. Cutler bay drivers travel over 21,000 vehicle miles per year, lower than the national average but higher than the county average of about 17,000 vehicle miles per household. The average commute time is 40 minutes, higher than the national average of 25 minutes, and 7% of the workforce have commute times in excess of 90 minutes. This results from a large increase in population and no corresponding increase in local jobs.

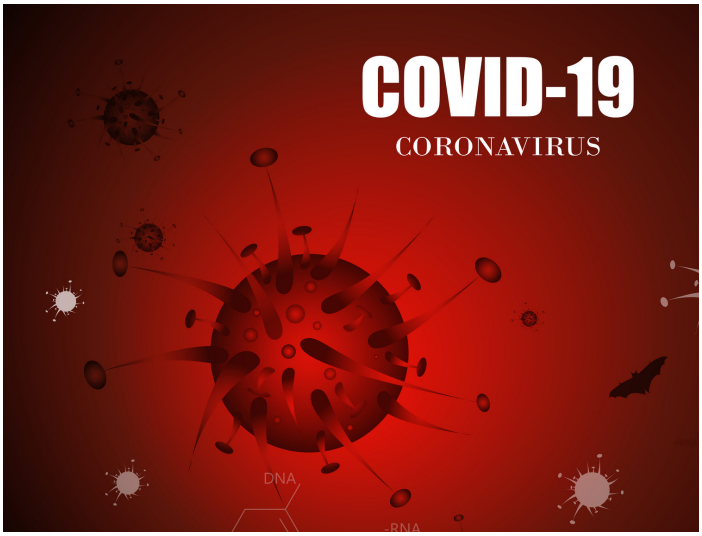
Evaluation of the housing-to-jobs ratio within the Town, will be integral to understanding future traffic patterns and mitigation techniques and opens the possibility of solutions related less to physical infrastructure and more towards less-expensive options, such as local and regional economic development policies and initiatives designed to attract jobs to the areas within Cutler Bay and South Dade would positively impact traffic, with lower investment in physical transportation infrastructure.

Cost-burdened Households 2018	Total Owner-occupied Housing Units	Total Owner-cost Burdened Households	%	Total Renter-occupied Housing Units	Total Renter-cost Burdened Households	%
Cutler Bay	8,588	2,829	32.9%	4,029	2,042	50.7%



AFFORDABILITY

At 67.9%, the Town of Cutler Bay has one of the higher percentages of labor participation rates in the South Dade region. But, housing affordability has not improved. Housing costs have increased faster than wages throughout Miami-Dade County. The 2018 median household income for Cutler Bay was $72,226, and the unemployment rate was 3%. In South Miami-Dade, Cutler Bay had the largest increase in housing inventory between 2014 and 2019, with 9,688 units (Source: U.S. Census, 2014 & 2018 ACS)



CUTLER BAY: MOVING FORWARD POST PANDEMIC

The COVID-19 Pandemic has created a crisis unlike any other for Cutler Bay and globally. People's lives and daily routines have been drastically altered, specifically in how people travel. Traffic volumes have declined as businesses close and workers telecommute. Transit ridership has been reduced along with many other forms of shared mobility services. Miami-Dade Transit and the Town of Cutler Bay have taken precautions to help the community travel safely through public transit. Due to the needs of customers, fares have been reduced or made free during statewide lockdowns. The reconfiguration of parking areas to provide appropriate social distancing space was implemented. Strategies set forth in this plan will consider the long-term impacts of the Pandemic. As a result of COVID-19, travel patterns have been forever altered due to a greater number of employers, employees, and students telecommuting.

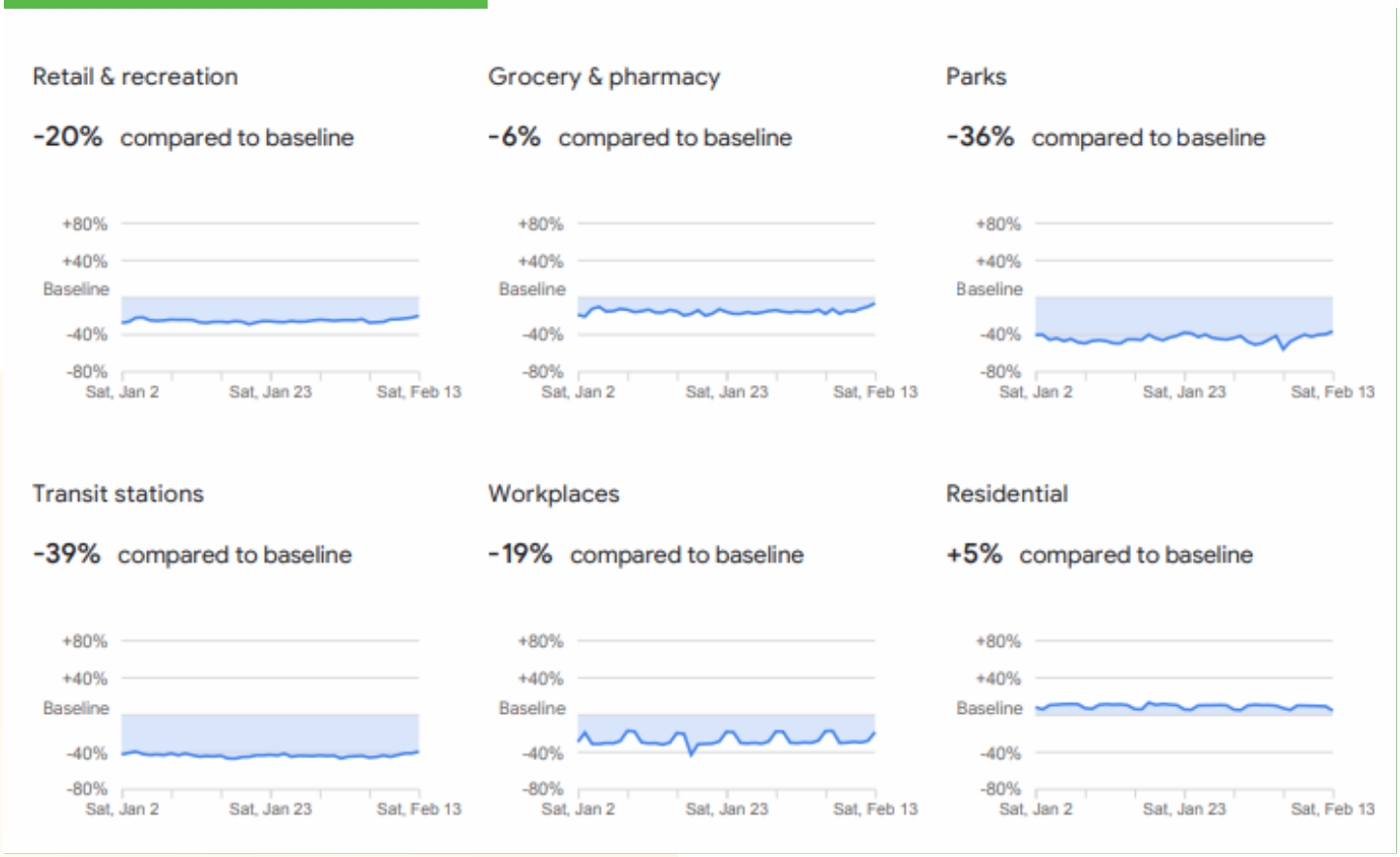
> *COVID-19 Mobility Shifts*

According to the February 2021 Google COVID-19 Community Mobility Report, mobility trends for all location types in Miami Dade County have been reduced except for residential. The categories include:

- Retail & Recreation
- Grocery & Pharmacy
- Parks
- Transit Stations
- Workplaces
- Residential

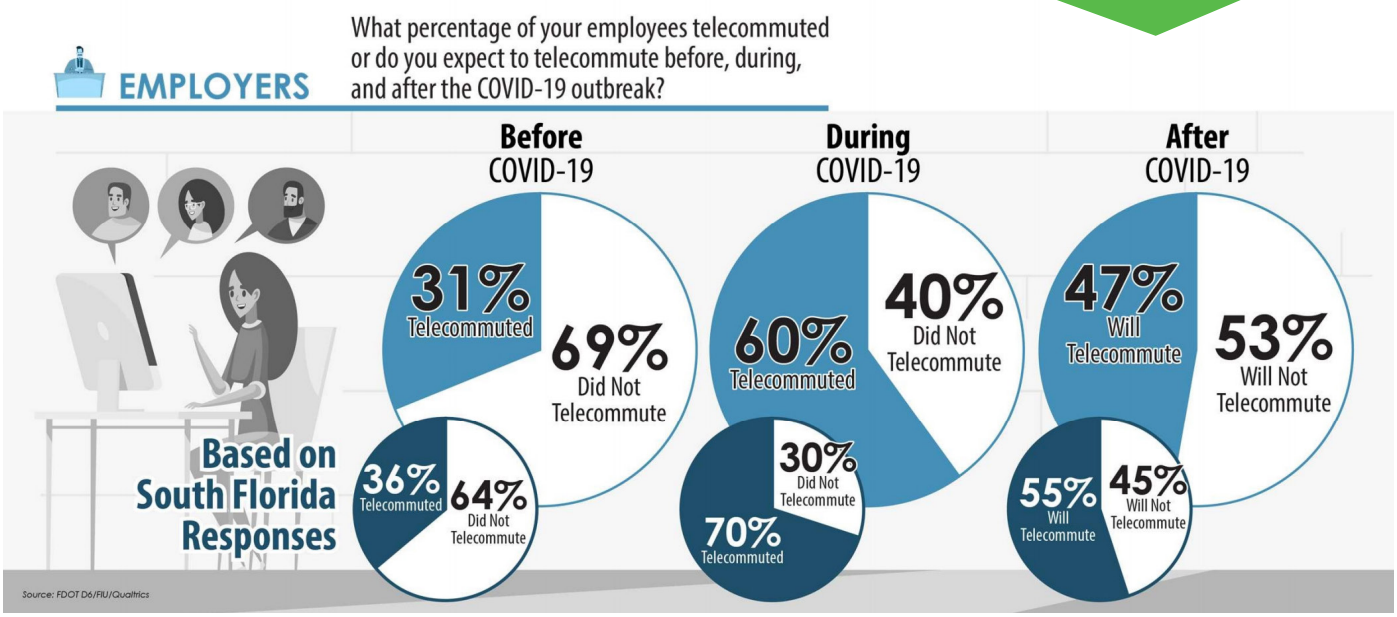
In Miami-Dade County, Retail and Recreation visits declined by 20%, Grocery and Pharmacy trips were down 6%, Parks were down by 36%, Transit Station trips declined by 39%, and workplace trips were down by 19%.

MIAMI-DADE COUNTY



Source: Google COVID-19 Community Mobility Reports

WORKFORCE TELECOMMUTING TRENDS



Source: FDOT D6/FIU/Qualitrics

> *COVID-19 Miami Dade TPO Telecommuting Survey*

In August of 2020, in partnership with FDOT and Florida International University, the Miami Dade TPO conducted a telecommuting survey to determine how people are commuting now versus before the COVID-19 Pandemic. The survey received 1,364 State and National responses and 944 South Florida responses equally divided between men and women from ages 18 to 79. 37% of respondents were employees, 32% students, and 31% employers from the following job sectors:

- Construction, Manufacturing, & Trade
- Professional Services
- Education, Healthcare & Public Administration
- Entertainment, Food, & Hospitality
- Other

When determining the workforce telecommuting trends, respondents were asked whether they would continue to telecommute in the future. Based on South Florida responses, only 36% of employees telecommuted pre-Covid-19, 70% currently telecommute, and 55% are expected to telecommute once the Pandemic is over.

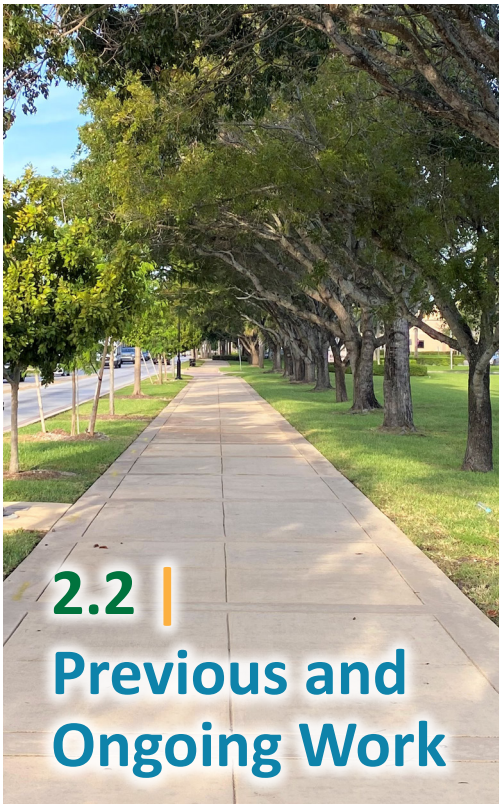
Eighty-two percent of South Florida employees expressed their preference to increase telecommuting based on current work schedule arrangements. Benefits to telecommuting for employees included no commute, better work/life balance, and comfort, whereas employer benefits included better work/life balance, cost savings, and higher work productivity. One of the survey result's top recommendations is to now designate telecommuters as a recognized commuter group in TPO and Miami-Dade County Transportation and Land Use Plans.

Town of Cutler Bay Accomplishments

Since the first Transportation Master Plan, the Town has built a solid foundation for its multimodal transportation system. Investments in the transportation system by constructing new sidewalks and crossings for pedestrians, and expanding transit services over the last decade have resulted in the following accomplishments:

ROADWAY IMPROVEMENT AWARDS

- SW 211 Protected Bike Lane Safe Streets Summit People's Choice Award
- Old Cutler Roadway Improvements Project: A Joint Participation Agreement with Miami-Dade County (Completed 2014)
- Caribbean Boulevard Roadway Improvements Project: A Joint Participation Agreement with Miami-Dade County (Completed 2017)
- Florida Chapter APWA "2015 Contractor of the Year"- Acosta Tractors Inc.
- Florida Chapter APWA "2015 Consultant of the Year"- Stantec Consulting Services Inc.
- Florida Chapter APWA "2017 Stormwater Contractor of the Year" for Gap 1 (from Canal C-100 Bridge to Coral Sea Road)- Acosta Tractors Inc.
- Florida Chapter APWA "2017 Stormwater Consultant of the Year" for Gap 1 (from Canal C-100 Bridge to Coral Sea Road) - Stantec Consulting Services Inc.
- Florida Chapter APWA "2016 Consultant of the Year" for Gap 1 (from Canal C-100 Bridge to Coral Sea Road)- Stantec Consulting Services Inc.
- Florida Chapter APWA "2016 Stormwater Contractor of the Year" for Gap 1 (from Canal C-100 Bridge to Coral Sea Road) - Acosta Tractors Inc.
- Florida Chapter APWA "2017 Contractor of the Year"- Acosta Tractors Inc.
- Complete Streets Community Award for Old Cutler Road and Caribbean Boulevard (from Canal C-100 Bridge to Coral Sea Road) Roadway Improvements Projects (2017)
- SW 212 Street Drainage and Roadway Improvements Project - Completed 2016
- Manta Drive Improvement Project
- 2019 APWA Florida Chapter Awards Program Professional Manager of the Year (Stormwater): Stacey Sookdew-Sing
- 2019 APWA Florida Chapter Awards Program Consultant of the Year: Stantec Consulting Services
- 2019 APWA Florida Chapter Awards Program Contractor of the Year: Metro Express
- SW 100 Avenue Stormwater Retrofit project
- 2020 APWA Florida Chapter Awards Program Consultant of the Year: MARLIN Engineering
- 2020 APWA Florida Chapter Awards Program Contractor of the Year: Acosta Tractors



2.2 | PREVIOUS AND ONGOING WORK

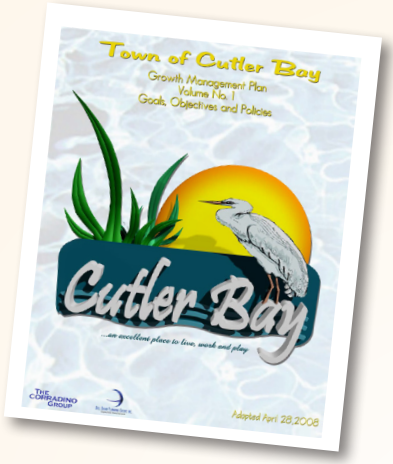
Since the Plan was last updated in 2014, a lot has changed. New transportation and demographic changes and projections for 2045 will be used to inform this update. The Town of Cutler Bay has made significant investments in its transportation system by constructing new sidewalks, building bike lanes, expanding and increasing transit service, performing additional studies to improve the system, and creating new ways of getting around, such as Go Connect.

What is new since the last Transportation Master Plan Update in 2014?

- Complete Streets Study
- Traffic Calming Study
- Mobility Hubs Plan

Cutler Bay has taken a systematic approach to planning since its incorporation. Each plan builds upon its predecessor. Upon incorporation, the Town undertook a *Strategic Plan* that laid out the basic policy direction to be taken. Soon after, the Growth Management Plan was developed as the Town's official policy document. Then came the Town's Parks Master Plan and its first Transportation Master Plan, which suggested several projects and policies. Like the Transportation Master Plan before it, this *2021 Plan* will define a list of projects that will eventually be included in the Town's Capital Improvement Element.

Town of Cutler Bay Growth Management Plan Core Values



Florida's Growth Management Act, enacted by the 1985 legislature, requires 67 counties and approximately 400 municipalities to adopt Local Government Comprehensive Plans that guide future growth and development. A critical aspect of the Act is its concurrency provision requiring facilities and services to be available concurrent with development impacts. This legislation guided Cutler Bay in developing its Growth Management Plan and implementation of its policies.

The Cutler Bay Growth Management Plan is an official long-range policy statement adopted on April 28, 2008. It guides the long-range, comprehensive decision-making process generally concerning physical development. The Plan also directs the Town's actions intended to influence development

over the long term and contains goals, objectives, policies, and guidelines for growth and redevelopment. Cutler Bay's Growth Management Plan contains 10 "elements" that address future land use, housing, infrastructure, coastal management, conservation, intergovernmental coordination, capital improvements, transportation, recreation and open space, and educational facilities.

In the Growth Management Plan, the Town has the goal of being Safe, Efficient, Multimodal, and Environmentally Friendly in regard to transportation. Elements primarily affecting transportation are the Land Use Element, Transportation Element, and the Capital Improvements Element.

• Land Use Element

Transportation and Land Use are inextricably linked. The Future Land Use Element represents the Town of Cutler Bay's vision for its development and redevelopment, with a 5-year span for short-term planning and 2020 for long-term planning purposes. The element provides detailed analyses of the existing land uses in Cutler Bay, which was substantially built at the time of its incorporation in 2005. The Future Land Use Map dictates the intensity of development, and transportation infrastructure must be in place to serve those uses.

The element concludes that single-family residential development is the predominant land use within the Town. Commercial development is concentrated along US-1 and Old Cutler Road. Based on the Comprehensive Plan, the Future Land Use of the Town was planned to accommodate a population of 60,000 residents by the year 2020.

Given the near "built-out" nature of Cutler Bay, the philosophy of the Future Land Use Element and the Town's planning program are preservation and enhancement of existing residential neighborhoods, resource protection and enhancement, and redevelopment of commercial areas as mixed-use activity centers in accordance with adopted charrettes and special area plans. In order to accommodate future growth, the Land Use Element places emphasis on establishing the Cutler Ridge "Town Center" and other mixed-use districts located along the existing arterials of Old Cutler Road and US-1 South Dixie Highway. This urban center is to be design-unified and mixed-use in nature and has been classified by the county as a Metropolitan Urban Center; it is a critical aspect of Cutler Bay's future population growth and regional influence. Urban centers are typically high-density, mixed-use developments served by transit and are usually found at important transportation nodes. The high residential capacity in an Urban Center influences the population projection for the Town.

• Transportation Element

Cutler Bay wishes to provide development that is supportive of high-occupancy transit, as is warranted by its location along the transit corridor while maintaining the character and function of its single-family residential areas. The Town seeks to provide Transit Oriented Development incentives while providing the transportation infrastructure to serve it. The Transportation Element maintains two overarching goals: to provide for the Citizens of Cutler Bay a Safe, Convenient, Accessible, and Efficient Transportation System; and to develop this system in a financially feasible manner.

These goals are then divided into twelve objective areas with accompanying specific policies:

- Level of Service Standards
- Alternative Modes of Transportation
- Safe and Convenient Pedestrian and Bicycle Networks
- A Transportation System Coordinated with Land Use
- Transportation Plans Coordinated with Other Jurisdictions
- A Transportation System to Enhance and Preserve Neighborhoods
- Concurrency and Growth Management
- Transportation that Serves the Regional Needs as well as Local Interests
- Hurricane & Disaster Preparedness
- Elderly and Transit Dependent Transportation Services
- Capital Improvement Program
- Financing

The last two objectives serve as the financial policies and courses of action that mandate prioritizing projects and allow for fair-share payments, such as impact fees and donations of Rights-of-Way by new developments and redevelopments.

• Capital Improvements Element

The Cutler Bay Comprehensive Plan's Capital Improvement Element provides for the policies regarding the development of facilities necessary to achieve a good Level-of-Service and fiscal and project prioritization guidelines to ensure the development and/or rehabilitation of infrastructure necessary for concurrency management as Cutler Bay grows. It also directs Cutler Bay to coordinate its capital improvements with Miami-Dade County and the Town of Palmetto Bay. Large-scale projects, totaling $10,000 or more, will be included in the Town's Schedule of Capital Improvements, which, per Florida State Law, will be updated annually as Appendix B of the Town of Cutler Bay's Growth Management Plan.

Florida Statutes s. 163.3177(2) requires the Town to demonstrate that projects listed during the first three years of the 5-Year Schedule of Capital Improvements (SCI) have committed funding sources, while the remaining two years may include both committed and planned funding sources. The Schedule of Capital Improvements defines how Cutler Bay can implement projects based on timing, location, cost projections, and associated revenue sources.

Town of Cutler Bay 5-Year Capital Improvements Schedule- Capital Improvements Element (CIE)

The Capital Improvements Element of the Town's Growth Management Plan provides for the establishment and annual update of the 5-Year Capital Improvements Schedule. This schedule notes all capital improvements projects in Cutler Bay, including transportation and their financial sources and outlay for the next five years. The latest version of the CIE 5-year Schedule was adopted in January 2019. The prior sections on the UPWP, the LRTP, and the Miami Dade County TIP all contribute to the applicable projects listed below. Also, funding on the local level may come from development impact fees specific to local communities and are not necessarily reflected on the County's TIP. The most recent update to the Town's CIE lists improvement budgets totaling approximately $24 million for ten Public Works transportation projects and drainage improvements, which affects pedestrian and vehicular traffic, from committed and planned sources for FY2020-2021 through FY2024-2025.

Caribbean Boulevard

A Joint Planning Agreement with Miami-Dade County for roadway and drainage improvements along Caribbean Boulevard for $10.2 Million commenced in 2013. The first segment (Gap 1 – from Coral Sea Road to the C-100 Canal Bridge) was completed in 2016. The second segment (Gap 2 – from the Homestead Extension of Florida's Turnpike to the C100 Canal Bridge) was completed in June 2017. The final segment consists of the canal bridge improvements, which are now proposed to be completed in Fall 2022. The Caribbean Boulevard bridge improvements consist of expanding the existing bridge crossing the C-100 Canal with a longer and wider bridge to improve traffic safety (separate pedestrian and vehicle traffic) and enhance the canal's conveyance capacity. The latter will serve two very important environmental and water quality functions for the community:

(1) improve the canal's overall functions and benefits to the surrounding sub-basin drainage areas in terms of increasing conveyance capacity; and,

(2) better the level of service protection for the residential area stormwater discharge into the canal during major storm events.

Town Circulator

The Town Circulator operates seven days/week with approximately 4,500 passengers per month. Funding for this program was obtained from the American Recovery & Reinvestment Act (ARRA) transit grant to purchase the circulator. The daily operation of the circulator is funded through the Town's portion of the People's Transportation Plan (PTP) monies. The Town has entered an interlocal agreement with Miami-Dade County Transit to operate the circulator.

Town Bus Shelter Program

The Town has been actively replacing bus shelters as part of the Town's Complete Streets Plan. Phase 1 included ten (10) bus shelters, completed in early 2019. The Town most recently replaced shelters on Old Cutler Road and Caribbean Boulevard. The Town will be replacing older bus shelters in phases and prioritizing the addition of shelters and benches at high-ridership stops.

Regional Projects

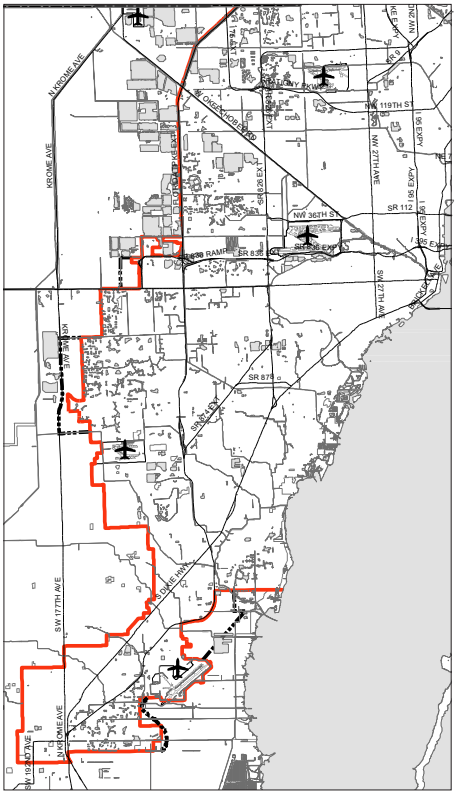
There is also funding programmed for regional projects such as several new park-and-ride facilities along the busway (at SW 112 Avenue, at SW 200 Street, and Quail Roost/SW 186 Street), the South Dade Greenway bike path, pedestrian underpasses, additional lanes to the Homestead Extension of the Florida Turnpike and improvements (paving) of the SR 5/US 1/South Dixie Highway corridor for the entire length of the Town. Additional Projects include the following:

- ***Old Ingraham Ave. Road***
  Complete Streets
- ***Gulfstream Rd. from Caribbean Blvd. to SW 210 St. - Completed***
  Safe Routes to School
- ***Town-wide Sidewalk Improvements - Completed***
  SW 184 St. from Franjo Rd. to Old Cutler Rd.
- ***Whispering Pines Park***
  Swale Improvement
- ***Cutler Bay Middle School***
  Sidewalk Improvements- Completed
- ***US-1 at SW 200 St. - Completed***
  Pedestrian Safety Improvement

2.2 | PREVIOUS AND ONGOING WORK

Concurrency

Growth Management or Concurrency has been in place in the State of Florida since the 1980s. Concurrency means that infrastructure that supports development must be in place within three years from a building permit's issuance. Concurrency measures all categories specified in the Growth Management Plan, but most specifically to this report, measures transportation Level-of-Service (LOS). It does so by evaluating LOS and how many trips remain on the transportation facility after a specific development is implemented. The developers are allowed to mitigate the impact by paying their proportionate fair share. State law enables concurrency to be measured in three ways. Basic concurrency measures individual roadways or segments of them. This is usually done in newer communities. As communities age, the Transportation Concurrency Management Area concept is used. This enables measurement of concurrency on an area-wide basis, assuming that traffic uses various paths to link common origins and destinations. In doing so, it provides credits for implementing transit. Finally, there is the Transportation Concurrency Exception Area concept. This is for more mature communities who have built nearly all the alternative mode capacities that they can. Here concurrency is simply tracked. In Miami-Dade County, an Urban Infill Area has been initiated to focus redevelopment on an urban core to combat the continuing sprawl of low-density, single-family development far from existing utilities. The Urban Infill Area in Miami-Dade County is defined as that part of the county located east of and including SR 826 (Palmetto Expressway) and NW/SW 77th Avenue, excluding the area north SR 826 and west of I-95. Cutler Bay is outside of the Urban Infill Boundary and is subject to more restrictive concurrency requirements of LOS D.



Understanding how concurrency operates requires the examination of state regulations, coordinated with the Miami-Dade County's Comprehensive Plan and the Town of Cutler Bay Growth Management Plan. Miami-Dade County has 128,000 square miles designated as a Transportation Concurrency Exception Area (TCEA) for urban infill development, urban redevelopment, and public transit. This area was designated in 1994 pursuant to Amendment 94-2 of the Miami-Dade County Comprehensive Development Master Plan (CDMP). Other local governments may grant exceptions from concurrency requirements for transportation facilities but only if specifically applied for. The local government shall adopt strategies into the plan implementation that support and fund mobility within the designated exception area, including alternative modes of transportation.

2016 Cutler Bay Traffic Study Methodology

- ***US-1 at SW 112 Ave.***
  Intersection Improvements

For a development or redevelopment project in Miami-Dade County, a traffic study methodology meeting is set up among the applicant and/or their traffic consultant and the local municipality and Miami Dade County to review the project's proposed methodology. There are different methodologies related to a development order, land use or zoning change, and/or an amendment of the Comprehensive Plan. The traffic study methodology is developed to incorporate an evaluation of the traffic impacts to the surrounding road network, and intersections within the traffic shed/radius of influence for that particular development or redevelopment project.

TOWN OF CUTLER BAY
TRAFFIC IMPACT ANALYSIS METHODOLOGY

The trips generated for the proposed development or redevelopment project is calculated to determine the net increase in new site development trips per the current ITE Trip Generation Handbook. Based on the level of development or redevelopment project, the traffic shed/radius of influence is established, which defines

the intersections to analyze and the road segments on which to perform link analysis. The method for traffic data collection is established to evaluate the intersection analysis; usually, manual turning movement counts are taken during the morning and evening peak hours. The method for traffic data collection is established to evaluate the road segment analysis, usually Level of Service Analysis based on the FDOT 2013 Quality LOS Handbook. New ADT traffic tube count data are utilized, or recent ADT traffic counts from permanent count stations on the road segment are utilized.

The LOS thresholds for each road segment facility are established based on the local transportation element and/or Miami Dade County, depending on which government agency has jurisdiction over the transportation facility right-of-way. Certain adjustments are agreed upon, including FDOT peak season correction factors. Annual growth rates are requested as part of the methodology and are calculated based on the historical traffic count data from the permanent count station(s), published by FDOT, adjacent to the development/redevelopment project. Committed trips are discussed for approved but unbuilt development projects nearby the development or redevelopment project site to include in the traffic analysis.

The method of trip distribution and assignment of the site-generated trips is established, usually using the directional cardinal distribution percentages taken from the relevant traffic analysis zones (TAZ's) of the Miami Dade County Long-range Transportation Plan. Once the method of intersection analysis is agreed upon, usually Highway Capacity Software like Synchro or HCS for the existing and future build-out scenarios. Existing Miami Dade County current signal timing sheets and phases are retrieved for use in the intersection traffic analysis. The method of road segment link analysis is agreed upon and is performed per the FDOT's Quality LOS Handbook (FDOT LOSPLAN software like ARTPLAN can be used).

Other items, as relevant, can include access management (ingress-egress driveway analysis), on-site traffic circulation, off-site turn lane analysis (left and/or right turn lane warrant analysis), multimodal site plan elements including complete streets (i.e., review of the pedestrian, bicycle, and transit amenities) and/or other relevant items based on the proposed use (i.e., school walk routes, arrival and dismissal peak periods, etc. if schools are nearby, etc.). The methodology is summarized in memorandum form by the applicant to the local municipality and Miami-Dade County for review and approval. A Traffic Impact Statement (TIS) is then performed per the TIS methodology and sent to the local municipality and Miami Dade County for review and approval.

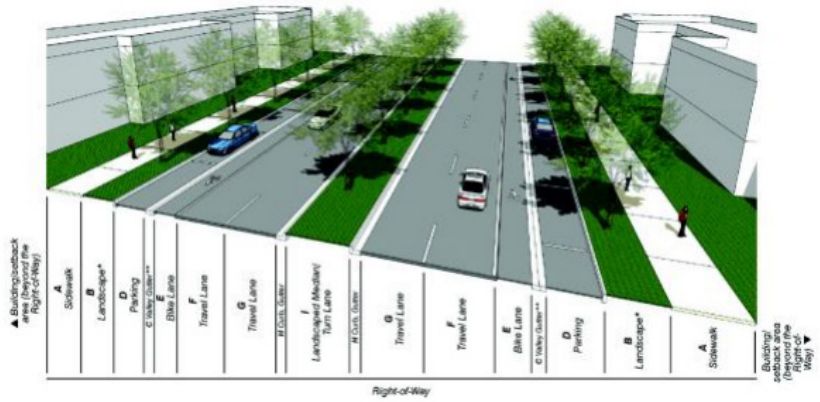
In 2016, the Town of Cutler Bay opted to perform these traffic reviews on behalf of the development rather than receiving the developer's traffic review. This provides a generally uniform methodology for identifying potential traffic impacts. The intent is to identify the effect on road and intersection levels-of-service due solely to the project's impact, distinct from the level-of-service issues that may currently exist or develop over time without the project. The Traffic Impact Statement is to be signed and sealed by a registered professional engineer licensed to practice in Florida. It must be reviewed by a registered professional engineer licensed to practice in Florida.

These guidelines apply whether the analysis is performed by a Town representative or a representative of the applicant seeking development approval. In the latter case, a formal methodology agreement must be prepared by the applicant and agreed to by a Town representative before the study is conducted. Preparing a TIS involves many choices by the preparer. For any choice in methodology not described explicitly here, these choices should be made in favor of the safety and welfare of the citizens of the Town of Cutler Bay. Studies of traffic affecting State and County facilities will be reviewed by their representatives in addition to the Town. The applicant's responsibility is to ensure that the TIS is not prepared or submitted without an approved Methodology Statement signed by a representative of the Town.

2.2 | PREVIOUS AND ONGOING WORK

2020 Town Adopted Roadway Standards for Town Center (TC) District.

c. *Typical Four-Lane Boulevard Street Illustration.*



In 2020, the Town of Cutler Bay amended Chapter 3 Land Development Regulations Section 3-60 TC, Town Center District, to implement streetscape design standards for development and redevelopment for properties in that Zoning District. General roadway standards and street types are outlined in the amendment. The street types subsection aims to balance the level-of-service standards in the Growth Management Plan while creating a safe and convenient bicycle and pedestrian network.

Old Cutler Road

In 1974, Old Cutler Road was designated a historic road by Senate Bill No. 340. This bill prohibited the use of state funds for certain physical changes on or near the road. Required was the review of the division of archives, history, and records management for the approval of other specific changes. It limited the erection of signs and planned on the erection of markers and to obtain historic easements in the property along the road.

The road has a long history. It was constructed in 1883 by William Fuzzard, the founder of the Town of Cutler Bay. Fuzzard cut a path from his home through the wilderness four and one-half miles northeast along Biscayne Bay to Coconut Grove. This was the first overland route between the two cities. Cutler was located south of 88th Street in present-day Coral Gables. The road was generally built on the coastal ridge and was less prone to flooding.

Notable sections of the legislation include:

Section 2 states that no state funds shall be expended by any public body or agency to:

1. Cut or remove any tree with a diameter of 6" within 35' of the edge of pavement.
2. Alter the physical dimensions or location of the road, except for the addition of primary or secondary roads intersecting with it.
3. Build, demolish or significantly alter within 100' of the edge of pavement except when adding bike paths and recreational facilities or facilities that further preserve or enhance the historic or scenic value of the road.

Nothing in the statute prevents the ordinary maintenance of the road; however, the preservation of the road is to take priority over considerations of traffic management, and public safety is to not be construed as to require alternation in the road when alternative means of promoting safety are available.

Section 3, states that no signs were to be erected within 300 feet of either side of the edge of pavement except for road signs, signs not visible from the road, historic markers, signs that do not exceed six square feet, and signs advertising business selling products adjacent to the road.

Mobility Hubs Plan

The Transit Mobility Hubs Plan was funded through the Miami-Dade TPO SMART Moves Program, which awarded the Town with a $50,000 grant, and the Town of Cutler Bay contributing $19,327. The SMART Moves Program supports the Strategic Miami Area Rapid Transit (SMART) Plan with ideas that enhance transit improvements, bicycle, pedestrian, on-demand connectivity, self-driving vehicles, and/or other projects which improve safety, mobility, and access within the community.

The 2014 Plan provides a comprehensive system of Transit Mobility Hubs connecting to the South Dade Transitway and Town of Cutler Bay by improving connectivity, mobility, and safety for pedestrians, bicyclists, and transit users through the identification of Neighborhood, Community, and Regional Mobility Hubs throughout the Town. Twelve Mobility Hubs were identified throughout the Town: Six Neighborhood Hubs, Five Community Hubs, and One Regional Hub.

NAME	HUB TYPE	LOCATION	ROUTES	EXISTING STOP
Lakes by the Bay	Neighborhood	SW 85 Ave & SW 212 St	200, 287	Yes
Pine Wood	Neighborhood	SW 87 Ave & SW 190 St	200, 287	Yes
Whispering Pines	Neighborhood	Caribbean Blvd & Franjo Rd	1, 200	Yes
Eureka Drive East	Neighborhood	Old Cutler Rd & 184 St	None	No
The Isles of Bayshore	Neighborhood	SW 216 St & SW 89 Pl	200, 287	Yes
Community Health	Neighborhood	SW 216 St & SW 102 Ave	52, 287	Yes
Old Town Center	Community	Old Cutler Rd & S of Franjo Rd	200	Yes
Eureka Drive West	Community	SW 184 St & East of US 1	200	Yes
Marlin Road	Community	Marlin Rd & US 1	31, 35, 38, 200	Yes
Caribbean Boulevard	Community	SW 200 St & US 1	1, 31, 35, 38, 39, 52, 200	Yes
South Dade Government Center	Community	SW 211 St	1, 31, 35, 39, 52, 137, 200	Yes
Cutler Bay	Regional	US 1/SW 112 Ave	1, 31, 34, 35, 38, 39, 52, 200	Yes

Source: Mobility Hubs Plan

Complete Streets Corridor Analysis

Cutler Bay commissioned this study to advance its already well-planned vision to provide a balanced multimodal transportation network within the Town; to further implement the vision through the consolidation of existing project policies on specific corridors; and, to develop conceptual designs that will be used as a precursor to attaining funding and near-future construction. The corridors addressed in the study include SW 87th Ave, Franjo Road, Marlin Road, and Gulfstream Road. Recommendations included:

- Revisions to the Cutler Bay Growth Management Plan and Land Development Regulations
- Smart or Adaptive Traffic Signals
- Midblock Crossings and Pedestrian Refuges/Medians
- Traffic Circles at Intersections
- Bikeway and Canal Bridge on Marlin Road
- Greenway/Boulevard on Gulfstream Road
- Improvements along Franjo Road
- Improvements along SW 87th Avenue

2.2 | PREVIOUS AND ONGOING WORK

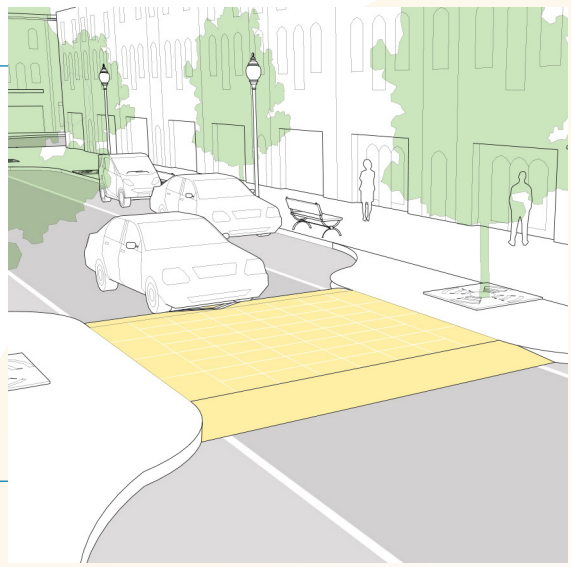
The Town's transportation system will be based on complete streets, including completed networks for each mode, making safe and convenient connections between the Town and the County systems and promoting access and placemaking for adjacent land uses. The projects listed in the Complete Streets Plan were completed with two LAP Grants for Safe Routes to School and Complete Streets. The Franjo Road project has been funded by a Joint Participation Agreement with Miami Dade County TPO.

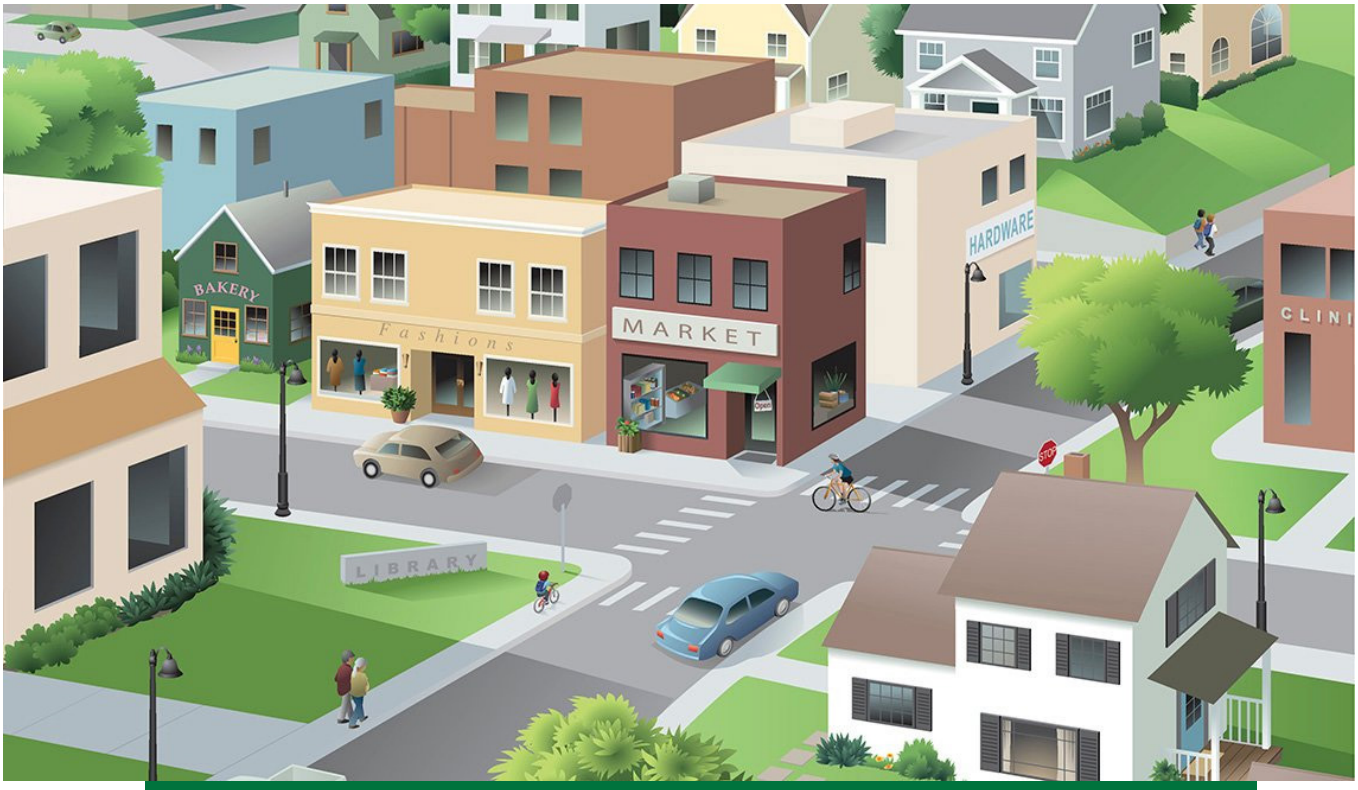
Bicycle and Pedestrian Master Plan

The 2011 Town of Cutler Bay Bicycle & Pedestrian Master Plan aims to provide a safe, convenient, and connected multimodal transportation system focused on encouraging bicycle and pedestrian mobility. It includes nearly seventy projects to address local connectivity issues in the pedestrian network. The Master Plan has been instrumental in Cutler Bay's steps towards achieving safe, non-motorized trips within the community. Recommended projects providing regional access focused on connecting to the existing system of trails and greenways that converge in and around Cutler Bay. These mainly consist of on-road bicycle facilities on major corridors, as well as connections, like wider sidewalks or a pedestrian bridge, to major generators, including the Performing Arts Center, South Dade Government Center, and the Busway. Cutler Bay has worked to connect to these facilities to provide an incentive for recreational movement and bicycle commuting on a sub-regional or regional basis. The potential cost to implement this program was estimated to be over $20 Million, resulting in a need to implement the most effective projects and seek grant opportunities partnerships for less financially feasible efforts.

Traffic Calming Study

A Traffic Calming Study was prepared in 2018 to determine and evaluate locations within the Town where traffic calming measures should be implemented. This analysis indicated many locations throughout the Town where threshold values were met. Recommendations for traffic calming improvements were developed through an area-wide systematic approach. Traffic calming recommendations included speed tables, raised crosswalks, and roundabouts.





Age Friendly Action Plan

In March 2016, the Town proudly became the first municipality in South Florida to join the AARP® Network of Age-Friendly Communities. The AARP® Network of Age-Friendly Communities is an affiliate of the World Health Organization's Age-Friendly Cities and Communities Program, an international effort launched in 2006 to help cities prepare for rapid population aging and the parallel trend of urbanization. The program has participating communities in more than 20 nations, as well as 10 affiliates representing more than 1,000 communities (www.aarp.org). This designation reaffirms the Town's commitment to actively work toward making Cutler Bay a livable community for people of all ages. Once a community joins the Network, the next step is to develop an Action Plan consistent with Age-Friendly guidelines. The Town's staff, Communities For A Lifetime (CFAL) Committee, and volunteers analyzed the feedback received from residents and key stakeholders, and laid out a plan of action to address the community's concerns and suggestions. The Age-Friendly Action Plan was approved by the AARP and World Health Organization in September 2018, and formally adopted by the Town Council in January 2019.

The Plan provides 8 Domains of Livability. One of which includes Transportation. The goals of which are to:

- Increase Town Circulator route to include more stops and add an "inner loop"
- Provide educational programs such as CarFit and Golf Cart Safety demonstrations
- Provide safe and pleasant roads, streets, sidewalks, and trails

2.2 | PREVIOUS AND ONGOING WORK

Official Transportation Implementation Documents

Implementing major transportation projects follows a structured process to advance a project through the initial concept, planning, design, and construction phases. First, a project is initially examined through the TPO Unified Planning Work Program. If it has no fatal flaws, and is deemed worthwhile, it may move to the FDOT Planning Work Program, where it goes through a Project Development and Environmental Study (PD&E). The process ensures that the design of transportation projects appropriately reflects and incorporates the area's unique engineering and community characteristics. FDOT created the process to ensure that projects receiving federal funding follow the policies and procedures outlined in the National Environmental Policy Act. If a locally preferred alternative can be selected, the project can move to the TPO's Long Range Transportation Plan, where it is prioritized somewhere in a 25-year time horizon. As implementation gets closer, the project moves to the Transportation Improvement Program (TIP). Here, funds are allocated. This process is for projects that use federal dollars in their implementation. Purely local improvements can come from the County Capital Improvement Program or a Municipalities Capital Improvement Program stemming from the Peoples Transportation Plan.

Unified Planning Work Program (UPWP)

The Unified Planning Work Program (UPWP) defines transportation planning activities for Miami-Dade County to be completed during the year. The projects in the UPWP stem from the policies found in the Miami-Dade Long Range Transportation Plan (LRTP) and the Miami-Dade Comprehensive Development Master Plan. It is also consistent with local plans adopted by all municipalities. Each year, proposals are solicited from the general public and industry professionals through the TPO website and a Call for Ideas Brochure distribution. The UPWP Development Committee, appointed by the TPO, evaluates proposals and makes recommendations based on established criteria. These recommendations are then presented to the appropriate committees for endorsement and later to the TPO Governing Board for final approval.

Long-Range Transportation Plan (LRTP) 2045

The Long Range Transportation Plan (LRTP) was developed to guide Miami-Dade County's transportation improvements for the next 25 years. The 2045 Plan includes enhancements to roadways, transit, bicycle, pedestrian facilities, and greenways/trails. The LRTP intends to improve transportation systems and travel, promote economic vitality, enhance social benefits, encompass environmental affairs, integrate land use, transportation, growth, and development while optimizing sound investment strategies. Some of the goals and objectives of the LRTP include improving countywide accessibility, reducing congestion, and enhancing the mobility of all county residents. For analysis purposes, Miami-Dade County has been subdivided into seven general regions in the LRTP (Beach, CBD, Central, North, Northwest, South, and West). The Town of Cutler Bay falls within the South division, which also includes the City of Homestead, Florida City, Village of Palmetto Bay, Zoo Miami, Kendall, and neighborhoods such as Perrine, Goulds, and Naranja. The major transportation corridors outlined in the South are SR-821/Homestead Extension of Florida's Turnpike, South Dixie Highway (US-1), Killian Parkway, Old Cutler Road Krome Avenue. Federal law requires that the LRTP address minimum of a 20-year planning horizon from the TPO adoption date. The most recent LRTP update in Miami-Dade County was adopted in September 2019.

2045 LRTP Projects Affecting Town of Cutler Bay

Project Type	Description	From	To
Bicycle/Pedestrian Improvement	Dedicated On-Road Bicycle Facility Improvement SW 184th Street	US1	Old Cutler Road
Bicycle/Pedestrian Improvement	Off-Road Bicycle and Pedestrian Facility Improvement Marlin Road	US1	Old Cutler Road
Transit	Drop-off/Pick-up at South Dade Transitway Stations	SW 344 St	Dadeland South Metrorail Station
Transit	Implement Bus Express Rapid Transit Service	SW 344 St	Dolphin Station
Turnpike	Widen from 4 to 6 lanes	US1	SW 312 St/ Campbell Dr

The TPO has approved the South Corridor Locally Preferred Alternative (LPA) of Bus Rapid Transit (BRT). On May 29, 2020, the United States Department of Transportation announced that the South Corridor Bus Rapid Transit (BRT) "Small Starts" project was selected to receive a construction grant with the Federal Transit Administration (FTA). $100 million in State Funds has been committed to the project in the FDOT 5 Year Work Program, and $100 million of local funds is committed to the project. Operating and maintenance are expected to be funded from local resources.

The 2019 Cutler Bay Express is a new on-demand demonstration project for the first-mile/last-mile feeder route connecting to the South Dade Transitway and Dadeland South Metrorail Station. Through a funding partnership with the TPO, this project will have a 3-year pilot period.

2.2 | PREVIOUS AND ONGOING WORK

Miami-Dade County Transportation Improvement Program

The Transportation Improvement Program (TIP) serves as the five-year capital improvement program for transportation specifies proposed transportation improvements to be implemented in Miami-Dade County over the coming five years. Every year, the TIP is prepared to fulfill Federal statutory requirements, a condition to receive Federal funding. The priorities established by the TIP illustrate the policy decisions of the Transportation Planning Organization (TPO) as to the order in which transportation improvements will be advanced throughout the program period. Projects featured in the Miami-Dade Transportation Improvement Program situated within or in the vicinity of the Town of Cutler Bay are detailed below.

TYPE	DESCRIPTION	FROM	TO
Resurfacing	SW 184 St	HEFT	US1
Resurfacing	SW 211 ST	HEFT	US1
Transit Cutler Bay Express	Transit Service Demonstration		
Intersection Improvement	Old Cutler Road & SW 184 St		
Intersection Improvement	US1 & SW 112 Ave		
Widening	Widen Franjo Road from 2 to 3 lanes	Old Cutler Road	SW 184 St
Ped/Bike	Bicycle Path/Trail SW 87 Ave	Black Point	SW 137 Ave
Ped/Bike	Bicycle Path/Trail	Black Point	Mary/Penny Thompson Park
Turnpike	Managed Lane Implementation		

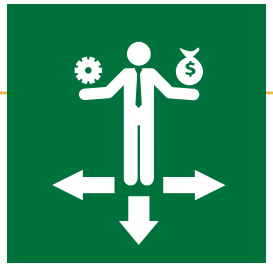
The Miami-Dade Expressway Authority (MDX)

MDX is an agency of the state of Florida, created in 1994 to establish and maintain an expressway system located in Miami-Dade County. The MDX Five-Year (Fiscal Year 2020-2024) Work Program, approved on June 25, 2019. The current plan includes 48 projects totaling over $2 billion. The primary funding source is toll revenue. MDX borrows money to fund projects by selling bonds and uses toll revenues as collateral. MDX receives no other source of revenue, such as gas tax or sales tax.

Transportation Improvement Projects that may alleviate traffic for Cutler Bay residents include the following:

- Project 83618-SR 836 Southwest Extension/Kendall Parkway – Extension of SR 836 from NW 137th Avenue to SW 136th Street to assist residents on the west side of the County (Tamiami Airport)
- Project 87410-SR 874 Ramp Connector to SW 128th Street- Construction underway for the ramp to SW 128th Street to allow residents easier access to the west side of the County (Tamiami Airport)

Although north of the Town of Cutler Bay, these improvements will reduce congestion southbound along SR 874 and HEFT, allowing for better commute times for South Dade residents.



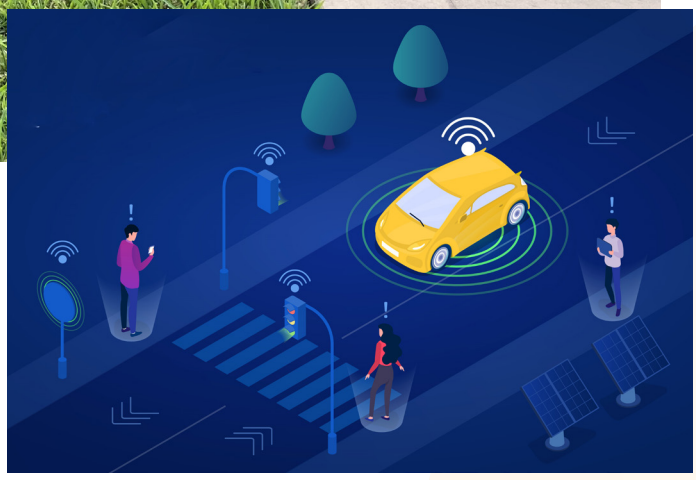
Road Impact Fee

Transportation improvement Projects whose income derives from the Miami-Dade County Road Impact Fee are included in the Transportation Improvement Program. The Franjo Road Complete Streets and Capacity Improvement Project is funded through the Road Impact Fee.

Local Gas Option Tax

A Florida Statute authorized the Local Option Gas Tax in 1993 (reduced from 5 cents to 3 cents in 1996). In accordance with state statute, proceeds of this tax have been programmed for transportation expenditures needed to meet the requirements of the Capital Improvement Element of the adopted Comprehensive Plan. The distribution to the municipalities is based on a weighted formula that accounts for a percentage of the population and the centerline mileage of municipal roadway for each city (from the "2012 City/County Mileage Report" – Florida Department of Transportation). The September 2020, estimate is for Cutler Bay to receive $660,000.

2.3 | Technologies



2.3 | TECHNOLOGIES

Since the 2014 Transportation Master Plan was prepared, there has been rapid adoption of new technologies and services such as Uber/Lyft, bike share programs, e-scooters, and more. There will be more technological advancements in the future. The Town encourages innovation and believes in ensuring that any new technology deployed on Town streets align with the Town values of safety and resiliency. Traffic technologies have been reviewed and evaluated, such as adaptive signal technologies, "pulse" routing for first-mile/last-mile service, electric vehicle parking, curb management SMART technologies, and autonomous vehicle pilot programs.

Traffic congestion results in excessive delays for road users. It can also make for unsafe walking and biking conditions, as automobile priority is often assumed, especially at intersections. The perception of a lack of safety can act as a barrier for movement throughout areas with high traffic volume discouraging shared road use for pedestrians, bicyclists, and scooters. Technology can improve mobility and safety as well as the perception of safety on sidewalks and streets, improving the efficiency and safety of transportation networks for all users. The following review includes technologies that will support autonomous transportation; traffic control and management; adaptive signalization; collection and use of traveler data; improved pedestrian and bicycle safety; smart parking, energy-efficient transportation, and possible funding mechanisms to sustain the future transportation network.

5G Network

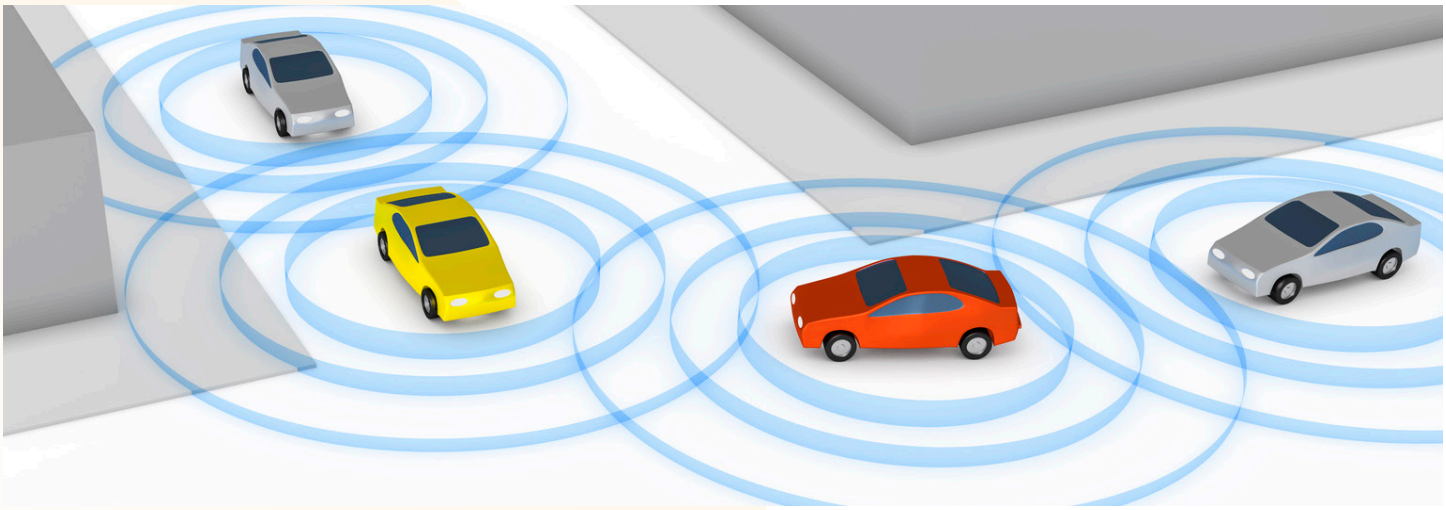
Compared to its predecessor, 5G wireless networks offer fast connections, more reliability, and greater capacity at lower costs to better connect infrastructure, devices, and people. Cutler Bay can partner with wireless carriers to expand the 5G network throughout the Town to offer free WIFI in public spaces. Implementing a 5G Wireless Network is a pre-requisite to becoming a Smart City. All advanced data analysis, IoT communication, and autonomous vehicles need fast communication networks. A 5G network is required to integrate roadways with CAV technology.

Connected and Automated Vehicle (CAV) Technology

Florida is at the forefront of vehicle automation. Cutler Bay should be prepared for autonomous vehicles (AVs) to provide safe transportation service while reducing congestion. AVs and other innovations that utilize this technology, like delivery robots, are now being tested in cities across the U.S. These innovations have the potential to provide significant benefits Cutler Bay's transportation system by reducing crashes, improving transit service, and decreasing the amount of space needed for parking. The introduction of AVs could also have negative impacts by encouraging more people to drive longer distances by themselves, increasing congestion, and leading to a deterioration in transit service that burdens low-income residents with long waits and inconvenient routes.

If AVs are to help the Town achieve its climate goals and create safer streets for everyone, their future operations must be guided by policies that are rooted in the community's values: safety, mobility, accessibility for all, and regional connectivity. It is critical that the Town begin today to establish smart, equitable guiding policies. Cutler Bay and other Miami Dade County cities must work with the state to ensure local control over aspects of AV operations that impact the well-being of residents. To prepare for this technology, Cutler Bay should establish a working group with Miami Dade County, FDOT, and other stakeholder agencies to monitor technology developments, identify opportunities for piloting, and proactively create a smart policy framework.

A connected vehicle (CV) environment enables wireless communications among vehicles (vehicle-to-vehicle, or V2V), infrastructure (vehicle-to-infrastructure, or V2I), and mobile devices. Pedestrians, bicyclists, and motorcyclists can carry mobile devices, to allow vehicles and infrastructure to communicate with other CV participants (vehicle-to-anything, or V2X). The information shared may include speed, location, travel direction, road and traffic conditions. The full benefit of vehicle automation can be achieved only through connectivity. Connected vehicle technology will help I\improve traffic flow, safety, and mobility and be a precursor for fully autonomous vehicles.



On-Demand Service

On-Demand vehicles for hire provide travelers with additional transportation options. Ride companies collect and share data to identify unmet service needs and cultivate public/private partnerships with a municipality. Cutler Bay provides GO Connect rides throughout the Town, which serves first mile/last mile connections. It can be reserved through a mobile app and is free. This service is available Monday through Friday from 5:30 a.m. to 8 p.m.

GO Connect is made possible through a partnership with the Miami-Dade County Department of Transportation and Public Works (DTPW) and Via, the leader in TransitTech solutions. It is funded through a $577,500 Florida Department of Transportation and Miami-Dade Transportation Planning Organization grant designated by the Citizens' Independent Transportation Trust (CITT), matched by the Town.

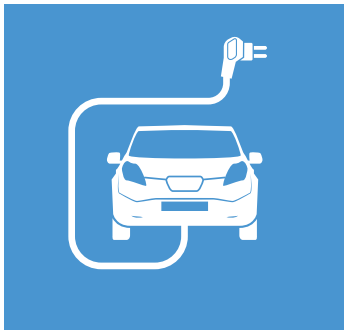
Micro Transit is another option the Town could implement to optimize shared mobility. Micro Transit is a shared, on-demand, app-based mobility service that groups travelers with similar trip pickup and drop-off locations. Researchers at the University of Texas found that one shared vehicle could replace ten single-occupant vehicles. Micro transit fills gaps in public transportation service and offers first mile/last mile solutions for passengers to complete a trip. Also, micro-transit can be a clean alternative to buses or cars as this service is often operated by electric vehicles with no fuel emissions.

Electric Vehicle Charging Stations

Charging stations deliver the energy needed to operate electric vehicles. This infrastructure is a service required for electric cars and is a convenience to those without a place to charge at home or work. The installation of charging stations encourages more electric car use and ownership and promotes cleaner air. Cutler Bay does not yet have the necessary public infrastructure to support the use of these vehicles. Installing charging stations will prepare the Town for an inevitable increase in electric vehicle ownership and use. According to IHS Markit by 2025, it is estimated that electric vehicles will be a 7% share of all vehicles on the road. Public charging locations can be installed in transportation hubs, public-owned parking areas such as parks, and retail and commercial locations. Public-Private Partnerships will assist in selecting and implementing sites. There is minimal risk for a municipality to own and install the infrastructure and give companies a license to operate it.

Electric Vehicle

The Town should transition its fleet to electric and other zero-emission vehicles and incentivize ride-hailing and ridesharing providers to use electric vehicles, including the Town's Go Connect. The Town can slowly phase out the current petroleum-based vehicles in its fleet with electric vehicles to support the Town's environmental sustainability goal.



Street Light Sensor

Sensors connected to streetlights can monitor lighting conditions and automatically adjust public lighting. Cutler Bay can convert all Town-owned lights and FPL owned lights to LED fixtures. The Town can install smart sensors and controls that allow technicians to remotely adjust light levels and track usage and outages to further energy efficiency. Also, photocells on light poles can sense ambient light to automatically illuminate and switch them off after dawn. This has been shown to save a significant amount of energy.

2.3 | TECHNOLOGIES

PEDESTRIAN AND CYCLIST TECHNOLOGIES

Applied technologies for pedestrians and cyclists can detect various transportation modes on roads, optimizing and harmonizing efficiency in walking, cycling, and even driving. The following technologies can be incorporated into the Town's existing streetscapes to improve the functionality of streets and sidewalks for residents. Improved streets and sidewalks can improve the quality of life by allowing for safer mobility choices, shifting more people out of cars, especially for short trips.

In-Road Warning Lights (IRWL)

In Road Warning Lights are a series of lights fixed in the roadway that face oncoming traffic. The pedestrian activates the system, and the in-ground lights begin to flash in unison, warning the motorist that a pedestrian is in the area of the crosswalk ahead. IRWLs enhance the safety of marked crosswalks. Locations with low pedestrian visibility are the best candidates for IRWL.

Pedestrian Hybrid Beacons (PHB)

PHBs are frequently considered for installation at sites where pedestrians must cross, and vehicle speeds or volumes are high yet do not warrant a traffic signal. These devices are successfully used at school crossings, parks, senior centers, and other pedestrian crossings on multilane streets. PHBs are normally installed at the side of the road or on mast arms over midblock pedestrian crossings. The Town can enhance pedestrian and cyclist mobility, comfort, and safety by installing Rectangular Rapid Flashing Beacons. Rectangular Rapid Flashing Beacons (RRFBs) are user-activated LEDs that accompany warning signs at unsignalized intersections and mid-block crosswalks. They can be triggered by pedestrians manually by a push button or passively by a pedestrian detection system. RRFBs can be solar-powered and use an irregular flash pattern similar to emergency flashers on police vehicles. Increasing driver awareness of potential pedestrian conflicts increases driver yielding behavior significantly. RRFBs increase pedestrian visibility and stop road traffic only as needed and eliminate the need for a signalized crosswalk. RRFB signals are best suited in areas where pedestrians have limited opportunities to cross roadways.

Source: CommuteOrlando

Extended Time (Tap Cards)

Extended timecards are beneficial for Using Radio Frequency Identification (RFID) technology. A reader detects designated RFIC cards issued to elderly and disabled pedestrians, which triggers the crossing light to extend.

Automated Pedestrian Detection

Automated pedestrian detection devices can sense when a pedestrian is waiting at a crosswalk and automatically transmit a signal to shift to a pedestrian WALK phase. This detection is best suited for intersections near schools or in areas with tourists who may not be familiar with push signals. These sensors can reduce the percentage of pedestrians who cross roadways at inappropriate times. Several automated pedestrian detection devices are also able to establish when a pedestrian needs more time to cross and will lengthen the crossing interval to accommodate the slower pedestrian. There are two types of pedestrian detection technologies: microwave and infrared. A delay can be built into either of the devices so that the WALK signal is called only if the pedestrian stays within the detection zone for a certain amount of time. The delay helps to prevent pedestrians who walk by the detection zone from accidentally activating the WALK signal. Automatic pedestrian detection gives an advantage to pedestrians to change traffic lights. Some pedestrians may not push a button to receive a WALK signal or ignore signals if the change takes too long. Therefore, automated pedestrian detection technology is safer than traditional push signals and ensures pedestrians have enough time to cross the roadway safely.

Embedded LEDs in Signs

Embedded LEDs are lights that illuminate roadway signage. Typically, these are seen on signs to signal caution to yield and stop. Embedded LEDs are utilized in areas where signage may have low visibility. This measure can be more cost-effective than striping and replacing existing signage. Embedded LEDs can be retrofitted to existing signs, which makes this option a financially feasible countermeasure. The retrofit is significantly less expensive than other pedestrian technologies, enhancing driver awareness of traffic control signs and pedestrian crosswalks. LEDs may be illuminated 24 hours a day or be activated by vehicles or pedestrians. Embedded LEDs increase the visibility of crosswalks and other regulatory signs, enhance visibility and recognition of regulatory and warning signs to drivers, especially under low-light or low-visibility conditions, improve roadway behaviors, and enhance pedestrian visibility. This technology is best suited for areas where sightlines are restricted, particularly in locations with documented problems of drivers failing to recognize an intersection and at STOP signs.

2.3 | TECHNOLOGIES

Lamppost Camera Sensors

Camera vision technology sensors can capture items on the roadway and process types and patterns of movements into numerical data. These sensors record pedestrian movement, vehicle movement, parking activity, and more. Ultimately, the data can be used to evaluate traffic patterns, determine where bicycle lanes are needed, and give accurate real-time information to help with future planning. In addition, data can also be used by law enforcement in the case of solving crimes.

Accessible Pedestrian Signals

Accessible Pedestrian Signals (APS) provide auditory and tactile guidance to aid pedestrians with visual impairments in crossing roadways. New or modernized signals should incorporate APS technology. An accessible pedestrian signal and pedestrian pushbutton is an integrated device that communicates information about the WALK and DON'T WALK intervals at a signalized intersection in non-visual formats, including sound accommodating all pedestrians' needs, including those with visual and mobility impairments. This signal allows communicating to the visually and mobility impaired when it is time to cross, increasing safe crossings. These signals allow for increased mobility for all.

Leading Pedestrian Intervals

Leading Pedestrian Intervals (LPI) are signals that permit pedestrians to begin crossing the roadway prior to vehicular traffic. The walk signal is lit before the vehicle signal, giving pedestrians a head-start on crossing the street. This improves visibility and reinforces the need for drivers to yield. LPIs should be considered at all locations where signals are being transitioned from protected left turns (where drivers can turn only on a left-turn arrow) to a permissive-protected left turn (where drivers may turn on a green signal or flashing yellow arrow.

Smart Bicycle Parking

Smart Bicycle Parking is an app-based parking system for bicycles. Parking activity is launched through a mobile app that identifies free spaces, keeps track of the time parked, and collects payment. Bike lockers provide long-term parking solutions for bicycles at an affordable price and offer the most protection for bicycles. They are often placed at bus or train stations to help with first-mile/last-mile connections. A service provider must be selected, and locations must be determined based on the location of most trafficked bicycle areas. These could be located at proposed Mobility Hubs.

Dockless Bicycles and Scooters

Dockless options for bicycle and scooter rentals expand transportation access, as users are not limited to picking up or dropping off in any designated area. These rely on GPS and sensor technologies to track the availability and distance of units for pick up. General locations for the concentration of bikes and scooters are determined by examining where transportation connections are made to address first-mile/last-mile needs and where transportation connections may be lacking. Dockless bikes can be located and unlocked using a smartphone app and can be rented by the day, or unlimited use can be prepaid through monthly or annual memberships. Dockless options for bicycle and scooter rentals help improve mobility and expand access to public transportation. Dockless bicycles help people move around more efficiently without an automobile.

Dockless scooters are battery-powered and rented for the short-term. Dockless means the scooters are "parked" in various locations to be picked up as needed and used as a first mile/last mile solution. Dockless electric scooters rely on GPS and sensor technologies to track the availability and locations of the unit. Dockless scooters can be located and unlocked using a smartphone app and can be rented by the minute. A fully charged scooter can travel 15 to over 35 miles, and its electric power allows for a faster travel alternative to walking or cycling.

Adaptive Signal Control Technology

Adaptive Signal Control Technology (ACST) supports efficient travel by utilizing sensors to adjust the timing of traffic lights to accommodate shifting traffic patterns, managing traffic congestion in real-time. Adaptive signal controls can reduce average travel time. The adaptive technology receives traffic information regarding the number of cars traveling in each direction. It uses the data in real-time to control traffic lights in the most efficient way. This has helped improve traffic flow with up to a 23% reduction in travel time for ACST intersections.

Smart Parking

Cutler Bay can test Smart Parking at Park & Ride centers along the transitway adjacent to the Town or at its community Mobility Hubs. Smart Parking relies on technology to increase parking efficiencies by offering parking transparency from cameras that "count" open spaces and advertise parking availability outside the parking facility entrance. Ensuring availability reduces congestion and pollution, shortens travel times, and encourages the use of alternative forms of transportation.

CCTV Camera Technology

Closed Circuit TV (CCTV) is used to promote public safety. The cameras can knit together police and emergency services by offering surveillance in many places simultaneously. CCTV provides a sense of security, help fight crime and make cities safer. Cameras promote public safety and allow for remote monitoring.

Smart Kiosks & Smart Benches

Smart kiosks include software and hardware that can host many applications, including communication and real-time data. Common features of Smart Kiosks range from practical and informative to fun and entertaining as they can offer the capability to post news and alerts, interactive maps for wayfinding and scheduled events, as well as dining, shopping, and hotel information. Kiosks can include real-time information on weather conditions, bus arrivals and offer the option to request a GO Connect ride or book an Uber or Lyft without cellphone service. There is also the capability to include interactive games and a camera for "selfies". Kiosks can collect data on foot traffic and other activities; they can also charge electronic devices and offer WIFI hotspots. Kiosks offer advertising revenue opportunities.

Source: CIVIQ

Cutler Bay currently lacks any technology to guide, engage and assist pedestrians in public spaces and sidewalks, including digital signage, maps, event and programming information, and other alerts. Smart kiosks are an interactive wayfinding instrument for pedestrians that can offer many capabilities which can be customized based on a communities' needs. Smart kiosks serve as modern-day triangulation in public space or a certain characteristic of a public space that brings people together. Smart kiosks are best suited for walkable areas with concentrated activity. Future mobility hubs are locations suitable for kiosk deployment.

2.4 | Traffic Data

2.4 | TRAFFIC DATA

This section of the report addresses a physical inventory of the transportation network, in terms of roadway function and classification. It discusses the Level of Service concept and evaluates the existing and future performance of the roadway, including evaluation of the transit system. To do so, the most recent TPO Long Range Transportation Plan travel demand model will be examined to collect existing traffic count data along section line roads, as well as Old Cutler Road and US-1. These data will be the basis for determining needs and future projects designed to mitigate issues uncovered. The chapter also evaluates various traffic impact analysis types. As development occurs, traffic impact analyses will be prepared by the developer and reviewed by the Town.

Traffic volumes have been evaluated to develop a picture of existing conditions. This provides the basis for the analysis and development of needs. To do this the most recent TPO Long Range Transportation Model has been examined for roads on the network where counts exist, which is along section line roads, as well as Old Cutler Road and US-1. Existing count data has been collected. This section of the report also addresses a physical inventory of the transportation network, in terms of roadway function and classification. It discusses the Level of Service concept and evaluates the existing and future performance of the roadway, including evaluation of the transit system. This data will be heavily relied upon as the basis for the development of future projects, which will be designed to mitigate issues discovered here. The chapter also evaluates various traffic impact analysis types. As development occurs in the Town, traffic impact analyses will be prompted by the developer and reviewed by the Town. Through this process, the roadway functional classification was examined by looking at the arterials, collectors, and the number of lanes and signals. The concept of Level of Service is explained in how it is calculated and what the various thresholds are per each grade. The system's entire performance was evaluated in the existing condition and in the future years. This is critical in developing projects for the project bank. Finally, roadway usage indicators were researched to frame the discussion. Issues included vehicle usage, vehicle miles traveled and vehicles per household.

Roadway Function and Classification- Limited and Controlled Access Facilities

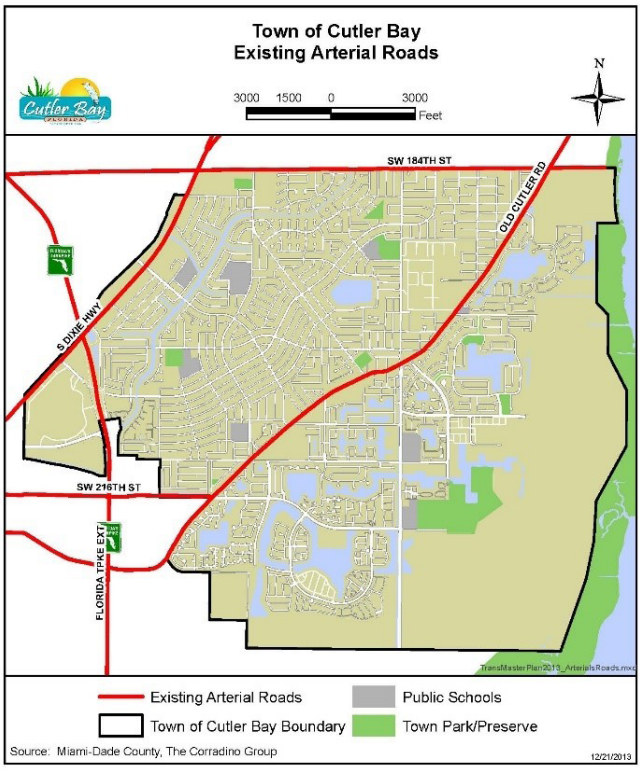
Limited and controlled access facilities serve as the principal arterials linking regionally significant locations. The principal arterials serve the highest volume of traffic corridors, linking various urban centers within an urbanized area. Principal arterials constitute only a small percentage of the local roadway network miles. On limited access facilities, access to adjacent properties is restricted, restricting the permitted number of driveways and access points. Three regional principal arterial roads traverse Cutler Bay, Old Cutler Road, US-1 (South Dixie Highway), and the Homestead Extension of the Florida Turnpike. Of these, the Homestead Extension of Florida's Turnpike and US-1 (South Dixie Highway) are the only limited access facilities. Traveling north/south, the Turnpike passes through the western section of Cutler Bay, dividing the institutional and commercial regional hub from the single-family residences of the Town. The two primary access points to the Turnpike for the Town of Cutler Bay are exits 12 and 11, located at the intersections of Caribbean Boulevard and US-1 and SW 216th Street and SW 107th Avenue, respectively. US-1, which also travels north/south bisects the western fringes of the town and provides regional access to most of the commercial properties in Cutler Bay.

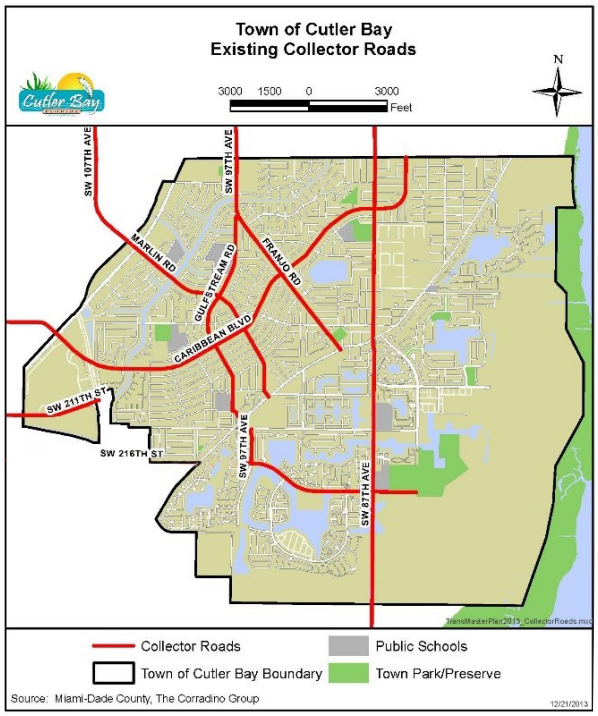
2.4 | TRAFFIC DATA

Arterial Roads

Minor arterial roadways support and link to the major arterials, carrying moderate amounts of traffic. Minor arterials typically carry regional trips of shorter and at slower speeds than major arterials. They provide continuity among communities, linking bus routes and commercial land uses. Access is not restricted along minor arterials. The three minor arterials within Cutler Bay are Old Cutler Road, SW 184 Street, and SW 216 Street.

Old Cutler Road, a historically designated 2- lane highway, bisects Cutler Bay traveling through the residential areas and secondary central commercial district. On the northern limit of the town, SW 184th Street divides the Town of Cutler Bay from the Village of Palmetto Bay. SW 184th Street provides east/west access to US-1, HEFT (exit 13), and Larry & Penny Thompson Park. SW 216th Street, another east/west arterial, also connects to US-1 and HEFT along the southern boundary of the Town.



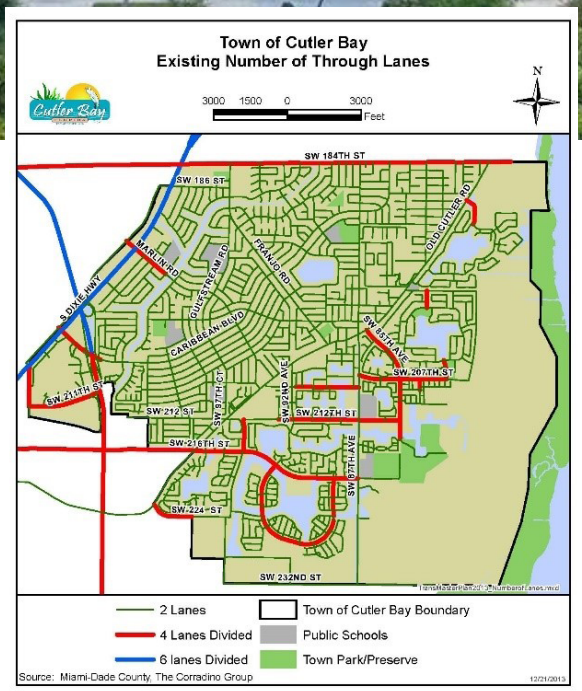


Collector Roads

Collectors are low/moderate capacity roadways that link traffic from smaller local roads to arterials. Collector roads are four lanes wide, or less and usually feature relatively non-intensive land uses along them. Aside from some small-scale commercial developments, key local community centers such as schools, churches, and parks are found along collector roads. The collector roads of Cutler Bay are:

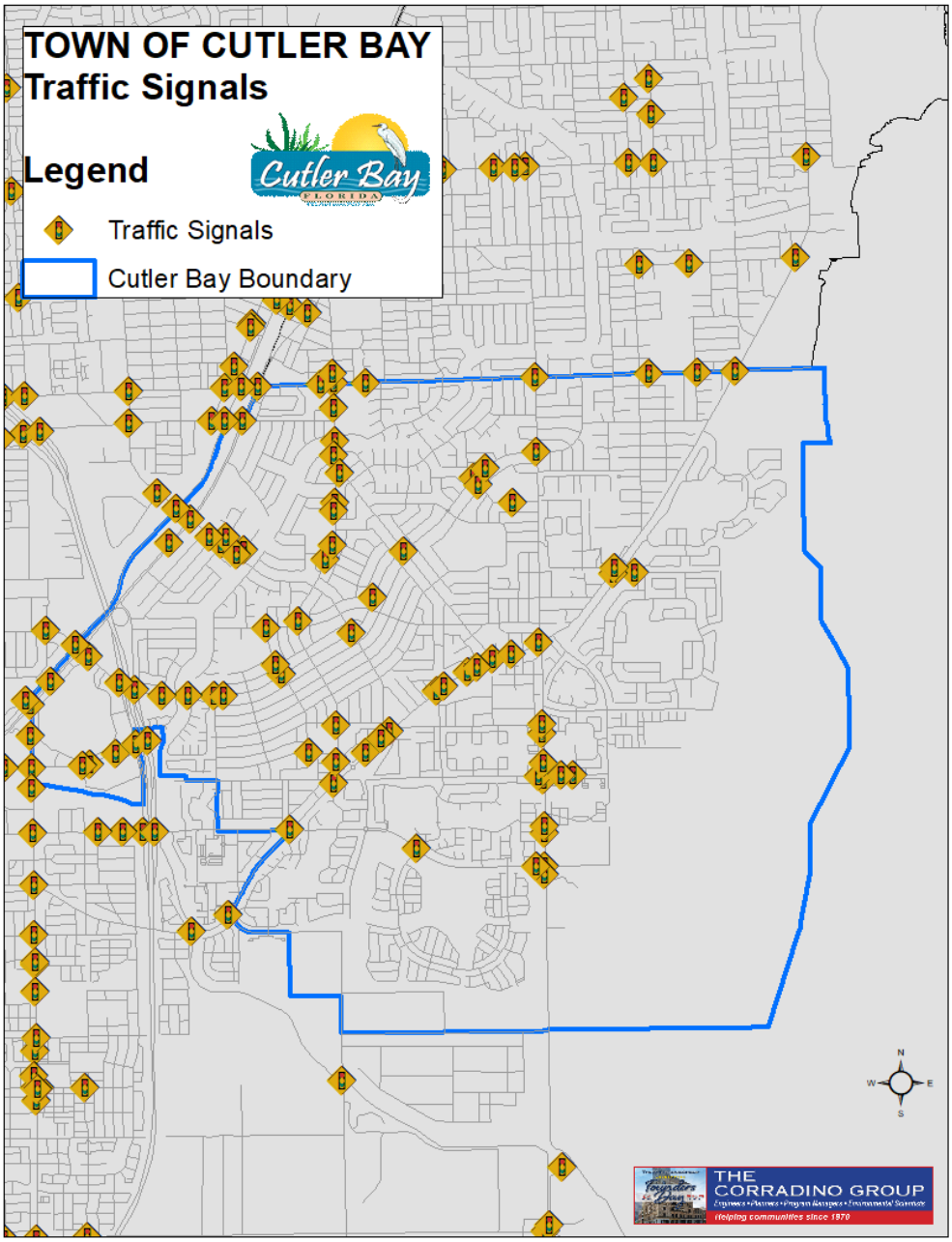
- SW 87th Avenue the easternmost, complete north/south roadway in Cutler Bay, yet it connects farther north than SW 168th Street. This two-lane road connects Cutler Bay with Palmetto Bay to the north and the Blackpoint Marina Regional Park to the south. Located along SW 87th Avenue is Centennial Middle School and E.L. Whigham Elementary School.
- The Franjo Road links the SW 97th Avenue collector and Caribbean Boulevard collector with the Old Cutler Road arterial. Franjo Road is bordered mainly by single family homes with light commercial development at the intersection with Old Cutler Road, as well as Tiffany Drive, Bel Aire Drive, and Franjo Park.

- SW 97th Avenue travels north/south through the geographic center of Cutler Bay. The two-lane road provides local access to Cutler Ridge Middle School, Gulfstream Elementary School, and Holy Rosary Catholic School.
- Marlin Road diagonally bisects Cutler Bay from US-1 to Old Cutler Road in the east/west direction. The two-lane road provides access to single-family residences, Methodist Kindergarten, and Bel-Aire Elementary School.
- Caribbean Boulevard is the most extensive and critical collector road in Cutler Bay as it links two of the three primary arterials, US-1 and HEFT, with SW 97th Avenue, Marlin Road, Franjo Road, SW 87th Avenue, and SW 184th Street. Caribbean Boulevard connects Southland Mall, Cutler Bay Town Hall, Balere Language Academy, Cutler Ridge Christian Academy, Pinelands Presbyterian Church, Cutler Ridge Elementary, and Whispering Pines Elementary School.
- SW 216th Street becomes a collector road east of Old Cutler Road. It provides local access to E.L. Elementary School, La Petite Academy, and Lincoln City Park number one.



Through Lanes

It is evident that the area of the town between Caribbean Boulevard and Old Cutler Road follows a relatively cohesive modified grid network. The neighborhoods of Lakes by the Bay and Saga Bay follow a more modern, suburban plan, where homes were built in cul-de-sacs or along a poorly connected road network. The canal running north/south from SW 184th Street to SW 211th Street forms a natural barrier, obstructing the normal connectivity of many of the local streets and requiring limited access points to US-1. Presently, 1,052 acres (16% of Cutler Bay) are comprised of streets, roads, and associated rights-of-way.



Level of Service

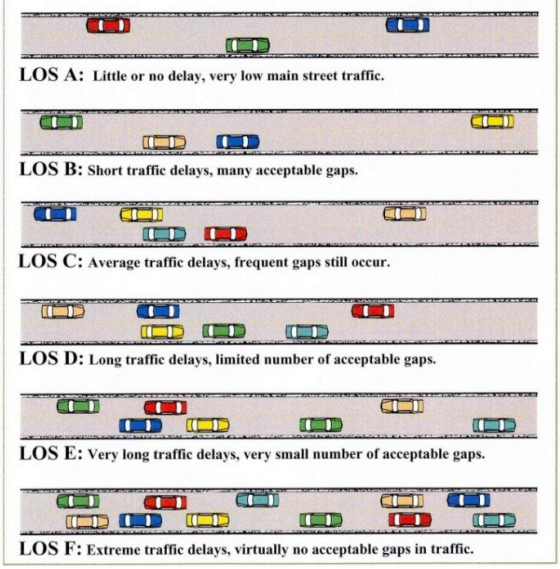
The analysis of roadway systems is based upon the concept of Level-of-Service (LOS). LOS is a quality measure describing operational conditions within a traffic stream, in terms of speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. The presentation of LOS is indicated by the letters "A" through "F" with LOS A representing the best operating conditions and LOS F the worst. Level-of Service A and B are usually not easy to achieve on arterial and main collectors roadways in large urbanized areas during typical high volume peak hour traffic periods. LOS D through LOS E is more typically found in large urbanized areas with many roadways operating at LOS F. While LOS A and B are considered "best," as mentioned, the level of investment and conditioning required to achieve these standards in transportation may not necessarily be the best approach for a community, which must balance limited resources across different services. Therefore, realistic LOS standards may range from C to E, depending on the location and the roads.

LOS generally represents the ratio of volume to capacity (V/C). Volume is the number of vehicles that actually pass a given point on the road in a given time. Capacity is the maximum number of vehicles that can pass a given point on the road in a given time. From an engineering standpoint, every roadway has a design capacity that is a maximum number of cars per lane that can cross through a segment of the road. This varies based on lane width, number of lanes, number and location of intersections, number and location of signals, etc. Each roadway segment is given a "functional classification" based on these factors. Essentially the capacity of a roadway is represented as 1.0. or 100%. Its Level of Service represents a percentage of that capacity. Level of Service A is between 0 and 0.6, or 60% of capacity. The generally acceptable LOS for roadways in Miami-Dade County is LOS D, which is between 0.81 and 0.9 (81% - 90%) of capacity. Level of Service F is anything over 1.0 or 100% of capacity. The following chart shows the volume capacity ratio for each LOS category. Level of service is provided for "links" (segments) of roadway, and "nodes" (intersections).

INTERSECTION LEVEL OF SERVICE

Level of Service	Seconds Delay/Vehicle	Description
LOS A	≤ 10	Most vehicles do not stop at all
LOS B	> 10 and ≤ 20	More vehicles stop than for LOS A
LOS C	> 20 and ≤ 35	The number of vehicles stopping is significant, although many pass through without stopping
LOS D	> 35 and ≤ 55	Many vehicles stop
LOS E	> 55 and ≤ 80	Considered being the limit of acceptable delay
LOS F	> 80	Unacceptable delay

ROADWAY LEVEL OF SERVICE



The information that follows describes the thresholds for each Level of Service when calculating Volume/Capacity for Cutler Bay as defined consistent with the Cutler Bay Growth Management Plan. These LOS standards represent a range of operating conditions and the driver's perception of those conditions.

- LOS A describes free-flow operations at average travel speeds, usually at about 90% of the free flow speed. Vehicles are unimpeded in their ability to maneuver within the traffic stream. Distance between vehicles is about 30 car lengths. On most of Cutler Bay's roads (speed limit of 30 mph) this is represented by speeds of 25 mph or greater.
- LOS B describes reasonably unimpeded operation at an average travel speed, usually about 70% of the free flow speed. The ability to maneuver is only slightly restricted. Distance between vehicles is about 20 car lengths. On most of Cutler Bay's roads (speed limit of 30 mph) this is represented by speeds of between 20 mph and 25 mph.
- LOS C describes stable operating conditions with some restrictions of driver ability to maneuver and change lanes in mid-block locations. Longer queues and signal coordination will contribute to a lower average speed of about 50% of free flow speed. The distance between vehicles is about 15 car lengths. On most of Cutler Bay's roads this is represented by speeds between 13mph and 20mph.
- LOS D borders on a range in which small increases in flow may cause substantial increases in delay and decreases in travel speed. LOS D may be caused by poor signal progression, inappropriate signal timing or high volumes. Average travel speed is about 40% of the free flow speed. The distance between vehicles is about 10 car lengths. On most of Cutler Bay's roads this is represented by a speed of between 9 mph and 13 mph.
- LOS E is characterized by significant delays and average travel speed of 33% or less of the free flow speed. LOS E is caused by a combination of high traffic volumes, high signal density, adverse signal progression, and inappropriate signal timing, all of which result in extensive delays at critical intersections. The distance between vehicles is minimal. On most of Cutler Bay's roads this is represented by a speed of between 7 mph and 9 mph.
- LOS F is characterized by urban street flow at extremely low speeds, typically 25% of the free flow speed. Congestion exists at critical signalized intersections with high delay, high volumes and extensive queuing. There is generally less than one car length distance between vehicles. On most of Cutler Bay's roads this is represented by a speed of less than 7 mph.

2.4 | TRAFFIC DATA

On urban streets with traffic signals, LOS is directly related to the free flow speed found on each type of street. The chart below determines LOS by comparing urban street class and average speed of traffic.

Arterial Level of Service Thresholds

	Average Travel Speed	
Urban Street Class	I	II
B	>31 mph	>22 mph
C	>23 mph	>17 mph
D	>18 mph	>13 mph
E	>15 mph	> 10 mph

Sources: FDOT Quality/Level of Service Handbook 2013

LOS ANALYSIS TYPES

There are several types of Level of Service determination, each becoming progressively more specific. These can be generally classified into three categories, i.e. regional, local and project specific. The level of detail goes up with specificity.

Regional – Long Range Transportation Plan

The most basic level of LOS is examined at the regional or county planning level by the Miami-Dade Transportation Planning Organizations (TPO) Long Range Transportation Plan model, (LRTP) to test the impact of transportation improvements for the future. This forecasts Level of Service 15 and 20 years into the future. It tests the general improvements to the overall system and is used for the long range "cost feasible plan" which guides the investment of federal dollars into the local transportation system.

The TPO LRTP family of products contain traffic volume data for the base year analysis as well as future year analyses, such as 2035 and 2045. Growth factors are developed between the TPO's years 2010, and 2040 traffic volume data and, cross referenced with other verified and existing traffic count data, then used to predict current and future vehicular traffic volumes.Predicting future volumes starts by developing future socio-economic and land use data based on the adopted Comprehensive Plan. These data are used to generate vehicular trips which in turn are distributed among all the traffic analysis zones (small areas about the size of a census block), which contains all model data including origin and destination, trip direction and trip numbers and then assigned to the roadway network.

Local – Highway Capacity Analysis

A second, more detailed level of analysis is generally done through local transportation master plans, where traffic counts are evaluated with approved methodologies. As indicated above, evaluating roadway capacity and LOS under existing conditions is based on collecting traffic volume as well as signal and roadway related data plus performing field observations and technical analyses. Roadway capacity and LOS for future year conditions are basically performed in the same manner as with the existing conditions, with the exception of field observations and the fact that current year vehicular volumes are projected to a future year using professionally accepted practices. Among these practices are a use of transportation related data from the adopted Long Range Transportation Plan (LRTP). Another accepted practice is using historic vehicular volume data to develop growth rates to project existing volumes to the future. This method has limitations and should be used with caution, due to the need to account for future land use and demographic changes. Past growth trends in traffic volumes may not necessarily project into the future at the same rate as in the past.

Project Specific – Traffic Impact Analysis

The most detailed level of analysis would be used as part of a concurrency determination for a specific proposed development. Some communities have Automated Concurrency Management Systems which calculate roadway capacities and Level of Service. Cutler Bay uses its consultants and recovers the cost via the ordinance for Full Cost Recovery. The developer at his option may review and comment on the Towns study but the decision as to any modification due to those comments is with the Town and its consultants, based on their professional judgment. The developer is typically given the opportunity to mitigate level of service deficiencies, by paying their fair share to upgrade the transportation facility(ies) affected. A proposed development/ redevelopment typical traffic impact study usually requires three steps:

a. Analysis to reflect existing roadway capacity and LOS
b. Analysis to reflect future conditions (opening year of the proposed project) without the proposed project
c. A final analysis to reflect future year conditions including the proposed project generated vehicular volumes. To perform the future year analyses, it is necessary to project existing vehicular volumes to the future year using growth rates developed with the TPO data or by other professionally accepted practices.

There are exceptions to the requirement of performing a traffic impact study in cases such as a single-family home or other specific exception as dictated by State or locally enacted law or policies. According to State Law (s. 163.3180), a local government may grant an exception from the concurrency requirement for transportation facilities if the proposed development/redevelopment is otherwise consistent with the adopted local government Comprehensive Plan and promotes public transportation or is located within an area designated in the Comprehensive Plan for urban infill development, urban redevelopment, downtown revitalization and infill and redevelopment under s.163.2517, or for a transportation concurrency exception area. Another case in which a traffic impact study may not be required is under the "de minimis" impact (s. 163.3180 (6)), where the actual traffic impact is very small.

A traffic impact analysis is necessary and required by local governments, not only to meet state concurrency requirements, but also to ensure that a proposed development project will not create adverse impacts to the roadway network in terms of operations and safety. For example, the local government needs to ensure that the proposed site's driveways will operate adequately and not cause problems such as vehicle queues extending onto the adjacent roadway and blocking its vehicular traffic causing both operational and safety concerns. The local government may also need to be assured that vehicular traffic destined to and from the proposed project site will not cause operational and safety issues at the nearby intersections.

Minimum acceptable arterial (roadway) Level of Service standards are normally established by the entity responsible for maintaining the facility. In Miami-Dade County this is FDOT and the County. Across Florida these standards typically vary between D, E, and variations of E (like E+20%, E+50%, etc.). Theoretically, nothing would prevent a local government from assuming maintenance responsibility for a facility. It could then set the Level-of-Service. However, the new Level of Service would need to conform to State and County standards. In most cases, there would be no real advantage to owning the road. Nearly all minor arterials in Miami-Dade County have a LOS Standard of D or E, the exception being facilities within the Urban Infill Boundary, which is the area inside (south or east) of the Palmetto Expressway.

These facilities are allowed to be LOS E + (20% of E) within ½ mile of transit, or E+ (50% of E) within ½ mile of Metrorail or Busway. This provision was implemented to counter negative impacts of concurrency, which cause development to occur outside of the urban core. No provisions were made for infill development south of where SW 77th Ave. intersects Biscayne Bay. Cutler Bay, though it has many areas within ½ mile of the Busway, is not to use these more lenient standards.

There is no threshold for Off Peak Level of Service. Generally, the peak hour traffic represents about 10% of daily volumes. If the peak hour traffic is LOS E, then off-peak hour traffic will generally be LOS B or C around the peaks, and LOS A at certain periods of the day. In Miami-Dade County the coastal communities of the barrier islands have broad peak hours, which means that the peak hour is less than 10% of daily volumes and multiple hours have between 5% and 7% of daily traffic. In areas, drivers have learned to travel in peak so the peak periods become extended.

Roads are costly to build and maintain, so adequate usage is required to achieve a substantial cost/benefit. For example, a facility functioning at LOS B or C in the peak hour would be considered underutilized, with more than adequate capacity. When financial resources are relatively scarce, the funds used to construct those extra lanes could have been used elsewhere on facilities that exceeded the proposed level of service. Conversely, when actual Level of Service exceeds the standard, either development is to stop, or the facility is to be brought into compliance within three years of the development being issued a building permit. This stems from Florida's growth management legislation, referred to as "concurrency."

Transportation System Performance

Transportation Planning involves collecting traffic counts and analyzing them to determine the Level of Service on the existing and future networks. A variety of projects can then be developed to address the community's roadway, transit, bicycle and pedestrian systems.

Traffic Data Collection

Traffic data along the Town's road segments were researched from prior traffic studies and currently published information from the Florida Department of Transportation (FDOT) and Miami-Dade County. It includes Average Annual Daily Traffic (AADT) and peak hour period, two-way traffic along the Cutler Bay road segments. The following is the information used to determine the existing operational conditions on the Town's roadway network. The traffic data used were derived from three sources of information, the FDOT Florida Traffic Online permanent count stations, the Miami Dade County Traffic Concurrency Charts and the traffic data collected as part of the Town of Cutler Bay Traffic Calming Master Plan. The traffic data used were all collected prior to the significant impact to the traffic patterns caused by the COVID-19 pandemic.

1. FDOT Florida Traffic Online Permanent Count Stations

- State Road 5/US-1- 100 feet north of Allapattah Road/SW 112th Avenue - Count Station 870346 (06/11/2019)
- Eureka Drive/SW 184th Street - 0.25 miles west of Old Cutler Road - Count Station 877006 (04/02/2019)
- Caribbean Boulevard- 0.20 miles east of Franjo Road - Count Station 877007 (04/02/2019)
- SW 184th Street- 0.30 Miles west of SW 117th Avenue- Count Station 877009 (04/02/2019)
- SW 117th Avenue- 200 feet south of Caribbean Boulevard/200th Street- Count Station 877063 (2019)
- SW 216th Street- 200 feet west of SW 98th Avenue- Count Station 878123 (08/07/2019)
- SW 200th Street- 200 feet west of US-1- Count Station 878157 (2019)
- Old Cutler Road- 200 feet south of SW 184th Street- Count Station 878205 (2019)
- Old Cutler Road- 200 feet south of SW 168th Street- Count Station 878206 (2019)
- SW 184th Street- 200 feet west of US-1- Count Station 878276 (01/23/2019)
- Old Cutler Road- 200 feet south of Franjo Road - Count Station 878310 (2019)
- Franjo Road- 200 feet south of SW 184th Street - Count Station 878333 (2019)
- Caribbean Boulevard- 200 feet east of the Turnpike - Count Station 878344 (2019)
- Marlin Road- 200 feet north of Christmas Road- Count Station 878373 (2019)
- SW 87th Avenue- 500 feet north of SW 216th Street, Cutler Ridge- Count Station 878374 (2019)
- SW 211th Street- 200 feet north of Southland Mall - Count Station 878635 (2019)
- HEFT/State Road 821 Main Line- south of Quail Roost Drive, MM 13.234- Count Station 970501 (2019)

2. Miami-Dade County Traffic Concurrency Tables (Peak Hour Period Two-Way)

- Caribbean Boulevard- east of HEFT to Franjo Road- Count Station 9114 (March 2020 report)
- SW 211 Street- east of SW 112 Avenue from US-1 to HEFT- Count Station 9894 (March 2020 report)
- SW 216 Street/Hainlin Mill Drive- east of HEFT between SW 112 Avenue and Old Cutler Road- Count Station 9896 (March 2020 report)

- Old Cutler Road- southwest of Franjo Road to SW 216th Street- Count Station 9594 (March 2020 report)
- Old Cutler Road- southwest of SW 184th Street to Franjo Road- Count Station 9592 (March 2020 report)
- Old Cutler Road- south of SW 168 Street to SW 184 Street- Count Station 9590 (March 2020 report)
- HEFT/State Road 821, Florida's Turnpike- south of SW 186 Street between SW 216 Street to Quail Roost Drive- Count Station 2256 (March 2020 report)

3. Town of Cutler Bay Traffic Calming Study
- SW 212 Street- SW 87 Avenue to SW 85 Avenue (04/25/2017)
- SW 85 Avenue- Old Cutler Road to SW 207 Street (04/04/2017)
- Gulfstream Road- Caribbean Boulevard to Martinique Drive (11/17/2016)
- Gulfstream Road- Marlin Road to SW 200 Street (11/10/2016)
- Gulfstream Road- Holiday Road to Marlin Road (06/02/2016)

An average annual growth rate of 1.0% was applied to this traffic data to bring the volumes to 2020 conditions. Because these traffic data were collected on the road network prior to March of 2020, a COVID-19 adjustment factor was not applied to them.

ROADWAY LEVEL OF SERVICE- EXISTING CONDITIONS (2020)

A road link analysis was conducted to determine if there is enough capacity along the key road segments in the Town of Cutler Bay. The peak hour two-way volumes were compared against the generalized service volume tables of the FDOT Level of Service (LOS) Handbook (2020 edition). A reduction factor of 10% was applied to the peak hour two-way FDOT LOS Handbook volume thresholds.

The existing 2020 conditions are based on the peak hour two-way volumes from the previously referenced traffic data source (Tables 1 and 2). They depict the LOS for each roadway segment.

Tables 1 and 2 depict the LOS for each roadway segment. There are four colors depicted in these tables (green, yellow, blue, and red). Green indicates that the roadway link is operating at or better than LOS C, meaning that in general, there is no significant congestion and the roadway segment can absorb additional traffic volumes. Yellow indicates LOS D, meaning that there is additional room for more vehicles, although limited. Blue indicates LOS E or that the roadway segment is operating at capacity and may be able to absorb only minor amount of additional traffic volumes depending on the specific case at hand. Finally, the red is indicative of LOS F, meaning that capacity has have been exceeded and that the standards have been exceeded; in others words, the roadway segment is experiencing higher traffic congestion with associated longer delays and should not absorb additional traffic volumes. However, when measuring concurrency, LOS D is the general standard, with differences resulting from transit routes with express buses or with at least 20 minutes of peak headway times, which can operate at LOS E. The LOS standard and the current available excess capacity is depicted in the Tables 1 and 2 for each roadway segment.

TABLE 1 Roadway Level of Service - Existing Conditions (2020

ROADWAY	LIMITS	POSTED SPEED LIMIT	FACILITY TYPE	FUNCTIONAL CLASSIFICATION JURISDICTION	AVERAGE ANNUAL DAILY TRAFFIC	PEAK HOUR TWO-WAY TRAFFIC	LOS STANDARD	RESULTING LOS PEAK HOUR TWO-WAY TRAFFIC	AVAILABLE CAPACITY	PEAK HOUR TWO-WAY FDOT LOS MANUAL VOLUME THRESHOLDS (VPH)		
										LOS C	LOS D	LOS E
SW 184 St	Turnpike to SW 137 Ave	40	4LD	Minor Arterial	30,584	2193	E	< C	1029	3078	3222	**
	US-1 to Turnpike	40	4LD		21,690	1621	D	< C	1601	3078	3222	**
	SW 97 Ave to US-1	40	4LD		6,164	610	D	< C	2612	3078	3222	**
	SW 97 Ave to Old Cutler	40	2L		6,164	610	D	< C	830	1359	1440	**
Caribbean Blvd (SW 200th Street)	SW 117 Ave to SW 110 Ave	30	2L	Collector	9,898	990	E	D	189	594	1179	1269
	SW 110 Ave to US-1	30	4LD		9,898	990	E	< C	1638	1179	2628	2736
	US-1 to Fla TKP	30	4LD		9,898	990	E	< C	1638	1179	2628	2736
	Fla TKP to Marlin Rd	30 30	2L		13,635	2735	D	F	-1556	594	1179	1269
	Marlin Rd to Franjo Rd	30	2L		13,635	2735	D	F	-1556	594	1179	1269
	Franjo Rd to SW 87 Ave	30	2L		4,843	492	D	< C	687	594	1179	1269
	SW 87 Ave to SW 184th St	30	2L		1,295	202	D	< C	977	594	1179	1269
SW 211 St	SW 117 Ave to US-1	35	4LD	Collector	13,736	1374	E	D	1254	1179	2628	2736
	US-1 to SW 112 Ave	35	4LD		16,665	1679	E	D	949	1179	2628	2736
	SW 112 Ave to SR 821	35	4LD		16,665	1679	E	D	949	1179	2628	2736
SW 212 St	SW 87 Ave to SW 85 Ave	30	4LD	Local	3,358	483	D	< C	2145	1179	2628	2736
SW 216 St	SR 821 to Old Cutler Rd	35	4LD	Minor Arterial	17,056	2628	E	E	0	1179	2628	2736
	Old Cutler Rd to SW 87 Ave	35	4LD	Collector	16,887	2628	D	E	0	1179	2628	2736
SW 85 Ave	Old Cutler Rd to SW 211 St	35	4LD	Local	3,915	391	D	< C	2237	1179	2628	2736
Old Cutler Rd	SR 821 to SW 216 St	35	2L	Minor Arterial	15,857	1586	E	F	-389	594	1197	1269
	SW 216th Street to Marlin Rd	30	2L		15,857	2081	E	F	-884	594	1197	1269
	Marlin Rd to 87 Ave	40	2L		15,857	1438	E	D	2	1359	1440	**
	SW 87 Ave to SW 184 St	40	2L		17,170	1438	E	D	2	1359	1440	**
	SW 184 St to SW 168th Avenue	40	2L		23,735	781	E	< C	659	1359	1440	**

TABLE 2 Roadway Level of Service - Existing Conditions (2020)

ROADWAY	LIMITS	POSTED SPEED LIMIT	FACILITY TYPE	FUNCTIONAL CLASSIFICATION JURISDICTION	AVERAGE ANNUAL DAILY TRAFFIC	PEAK HOUR TWO-WAY TRAFFIC	LOS STANDARD	RESULTING LOS PEAK HOUR TWO-WAY TRAFFIC	AVAILABLE CAPACITY	PEAK HOUR TWO-WAY FDOT LOS MANUAL VOLUME THRESHOLDS (VPH)		
										LOS C	LOS D	LOS E
SR 821	SW 216 St to SW 211 St	60	4LD	Limited Access Freeway/State	98,879	3779	D	< C	3021	5640	6800	7420
	SW 211 St to Caribbean Blvd	60	4LD		98,879	3779	D	< C	3021	5640	6800	7420
	Caribbean Blvd to US-1	60	6LD		146,450	3779	D	< C	6341	8310	10120	11150
	US-1 to Quail Roost Rd.	60	6LD		146,450	3779	D	< C	6341	8310	10120	11150
Gulfstream Road	Old Cutler Rd. to Caribbean Blvd	30	2L	Local	1,982	202	D	< C	995	594	1197	1269
	Caribbean Blvd to Marlin Rd.	30	2L		3,419	342	D	< C	855	594	1197	1269
	Marlin Rd to Franjo Rd	30	2L		4,154	446	D	< C	751	594	1197	1269
Marlin Rd	Old Cutler Rd. to Caribbean Blvd	30	2L	Collector	7,878	788	D	D	409	594	1197	1269
	Caribbean Blvd to SW 97 Ave	30	2L		7,878	788	D	D	409	594	1197	1269
	SW 97 Ave to US-1	30	4LD		7,878	788	E	D	409	594	1197	1269
	US-1 to SW 184th Street	30	4LD		24,163	1941	E	F	-744	594	1197	1269
Franjo Rd.	Old Cutler Rd. to Caribbean Blvd	30	2L	Collector	11,817	1182	D	D	15	594	1197	1269
	Caribbean Blvd to SW 184th Street	30	2L		11,817	1182	D	D	15	594	1197	1269
SW 87 Ave	SW 248 St to SW 232 St	35	2L	Collector	2,180	203	D	< C	994	594	1197	1269
	SW 232 St to SW 216 St	35	2L		8,787	957	D	D	240	594	1197	1269
	SW 216 St to Old Cutler Rd.	35	2L		8,787	957	D	D	240	594	1197	1269
	Old Cutler Rd to Caribbean Blvd	35	2L		9,999	1000	D	D	197	594	1197	1269
	Caribbean Blvd to SW 184 St	35	2L		9,999	1000	D	D	197	594	1197	1269
	SW 184 St to SW 174 St	35	2L		9,999	1000	D	D	197	594	1197	1269
US-1	SW 211 St to Caribbean Blvd	45	6LD	Principal Arterial/State	56,738	3565	1.2(E)	D	15	3420	3580	**
	Caribbean Blvd to Marlin Rd.	45	6LD		56,738	3565	1.2(E)	D	15	3420	3580	**
	Marlin Rd to SW 184 St	45	6LD		56,738	3565	1.2(E)	D	15	3420	3580	**

The following key Town of Cutler Bay roadway segment is operating at a LOS D in the existing 2020 traffic conditions:

- Caribbean Blvd (SW 200th Street)- SW 117 Ave to SW 110 Ave
- SW 211 St- SW 117 Ave to US-1
- SW 211 St- US-1 to SW 112 Ave
- SW 211 St- SW 112 Ave to SR 821
- Old Cutler Rd- Marlin Rd to 87 Ave
- Old Cutler Rd- SW 87 Ave to SW 184 St
- Marlin Rd- Old Cutler Rd. to Caribbean Blvd
- Marlin Rd- Caribbean Blvd to SW 97 Ave
- Marlin Rd- SW 97 Ave to US-1
- Marlin Rd- US-1 to SW 184th Street
- Franjo Rd.- Old Cutler Rd. to Caribbean Blvd
- Franjo Rd.- Caribbean Blvd to SW 184th Street
- SW 87 Ave- SW 232 St to SW 216 St
- SW 87 Ave- SW 216 St to Old Cutler Rd.
- SW 87 Ave- Old Cutler Rd to Caribbean Blvd
- SW 87 Ave- Caribbean Blvd to SW 184 St
- SW 87 Ave- SW 184 St to SW 174 St
- US-1- SW 211 St to Caribbean Blvd
- US-1- Caribbean Blvd to Marlin Rd.
- US-1- Marlin Rd to SW 184 St

The following key Town of Cutler Bay roadway segment is operating at a LOS E in existing 2020 traffic conditions:

- SW 216 Street- SR 821 to Old Cutler Rd
- SW 216 Street- Old Cutler Rd to SW 87 Ave

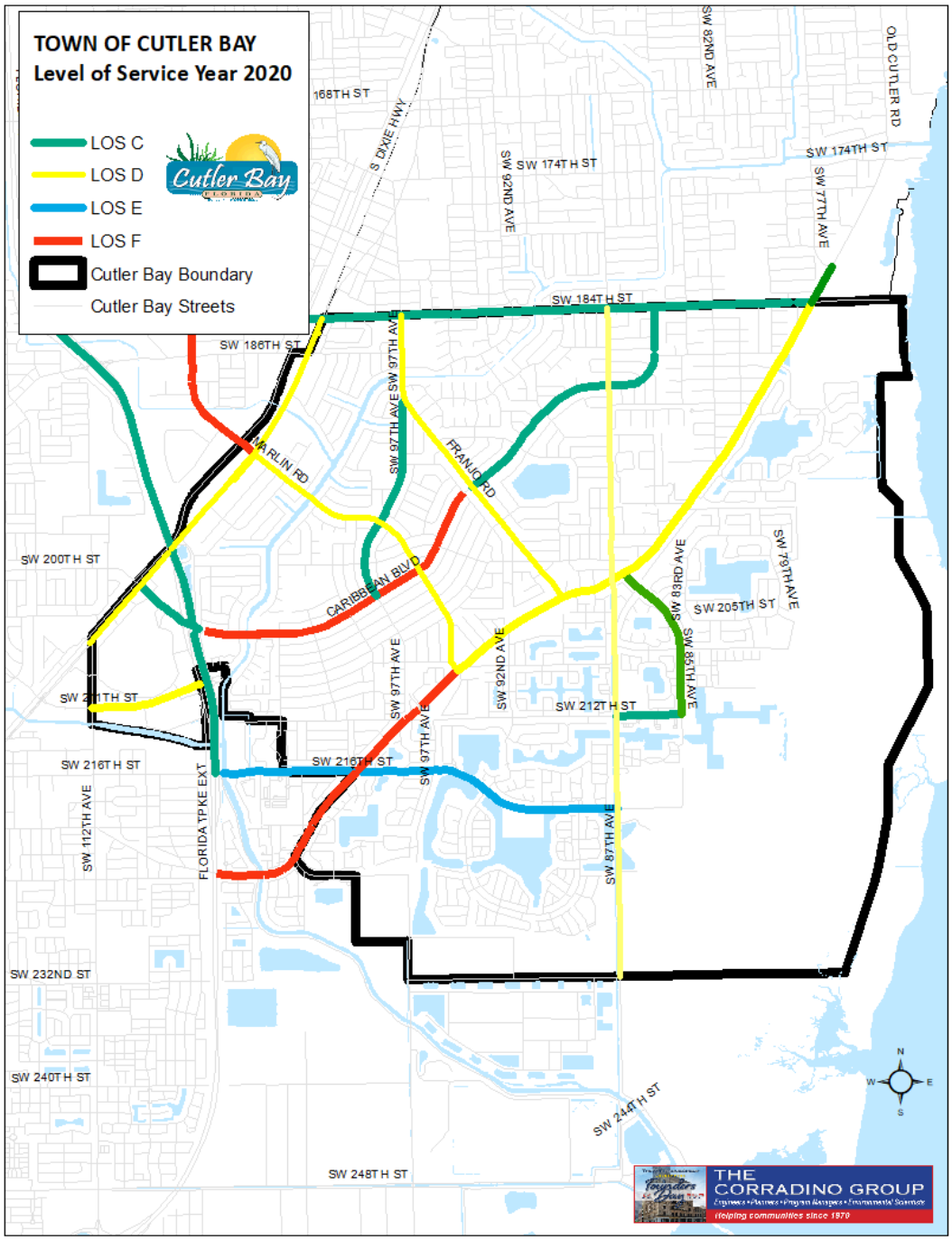
The following key Town of Cutler Bay roadway segment is operating at a LOS F in existing 2020 traffic conditions:

- Caribbean Blvd (SW 200th Street)- Fla TKP to Marlin Rd
- Caribbean Blvd (SW 200th Street)- Marlin Rd to Franjo Rd
- Old Cutler Road- SR 821 to SW 216 St
- Old Cutler Road- SW 216th Street to Marlin Rd.
- Marlin Road- US-1 to SW 184th Street

2.4 | TRAFFIC DATA

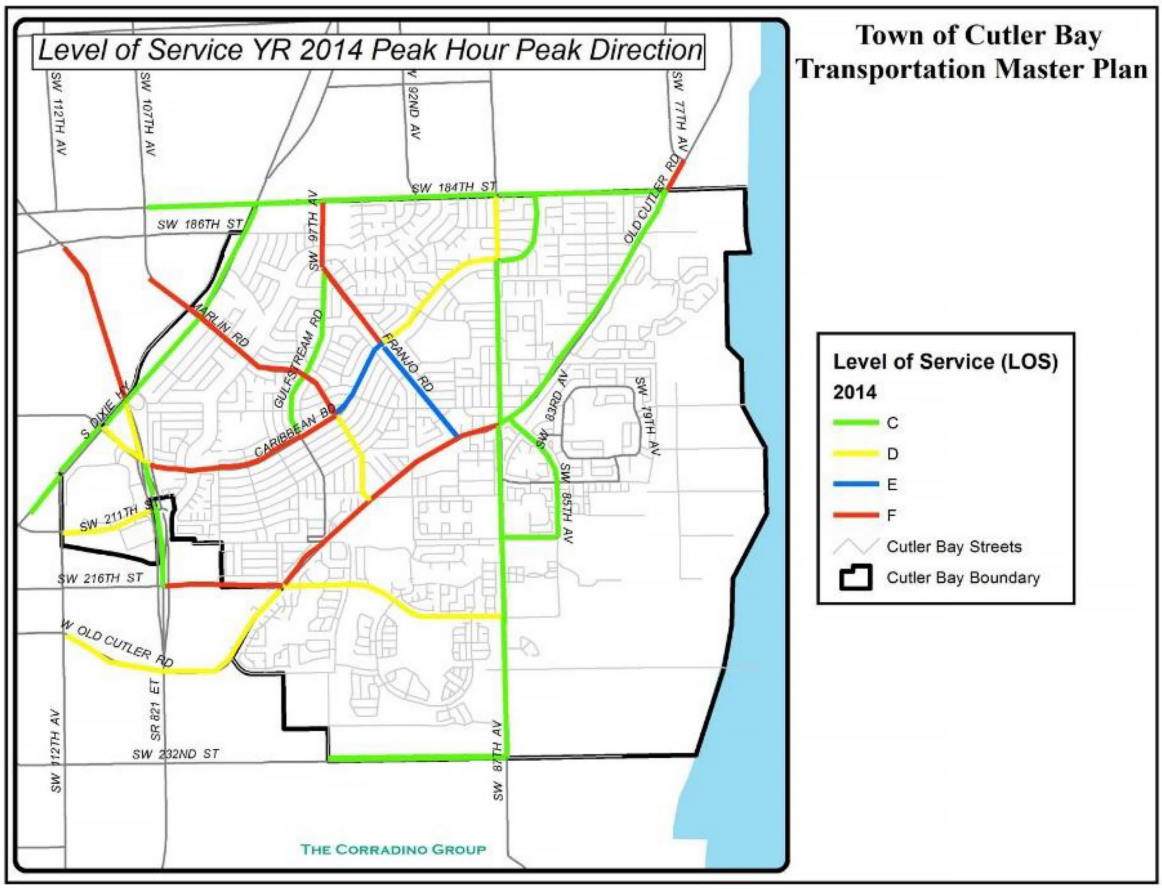
EXISTING AND PROJECTED ROADWAY LEVELS-OF-SERVICE (LOS) FOR THE TOWN OF CUTLER BAY

For the Town of Cutler Bay's Transportation Master Plan, four colors are shown in the following graphics and tables Green/ LOS C, Yellow/LOS D, Blue/LOS E, and Red/LOS F).



LOS C LOS D LOS E LOS F

In 2014, 31 of 49 links or 63.3% operate at an acceptable Level of Service. 18 links or 37.7%% are failing to meet the adopted LOS. Under the same standards, in 2008, 36 links, or 73.5 %, were acceptable, with 13 links, or 26.5% failing.



FUTURE 2030 CONDITIONS

The future 2030 conditions are based on the growth adjusted peak hour two-way volumes from the previously referenced traffic data source. The new 2030 traffic volumes were forecast based on an average annual growth rate applied per each road segment. The Southeast Florida Regional Planning Model (SERPM) version 8 was applied to produce data for the future traffic projections. There were two road segments that exhibited a negative growth rate. An annual growth rate of 0.5% was applied for those two road segments to be conservative. Tables 3 and 4 depict the road segment LOS based on the peak hour two-way traffic volumes for the key Town roadway segments. A copy of the most current FDOT LOS Handbook Tables have been provided in the Appendix.

Once again there are four colors depicted in these tables (green, yellow, blue, and red). associated with LOS C, D, E, and F, respectively.

The LOS standard and the current available excess capacity is depicted in the Tables 3 and 4 for each roadway segment.

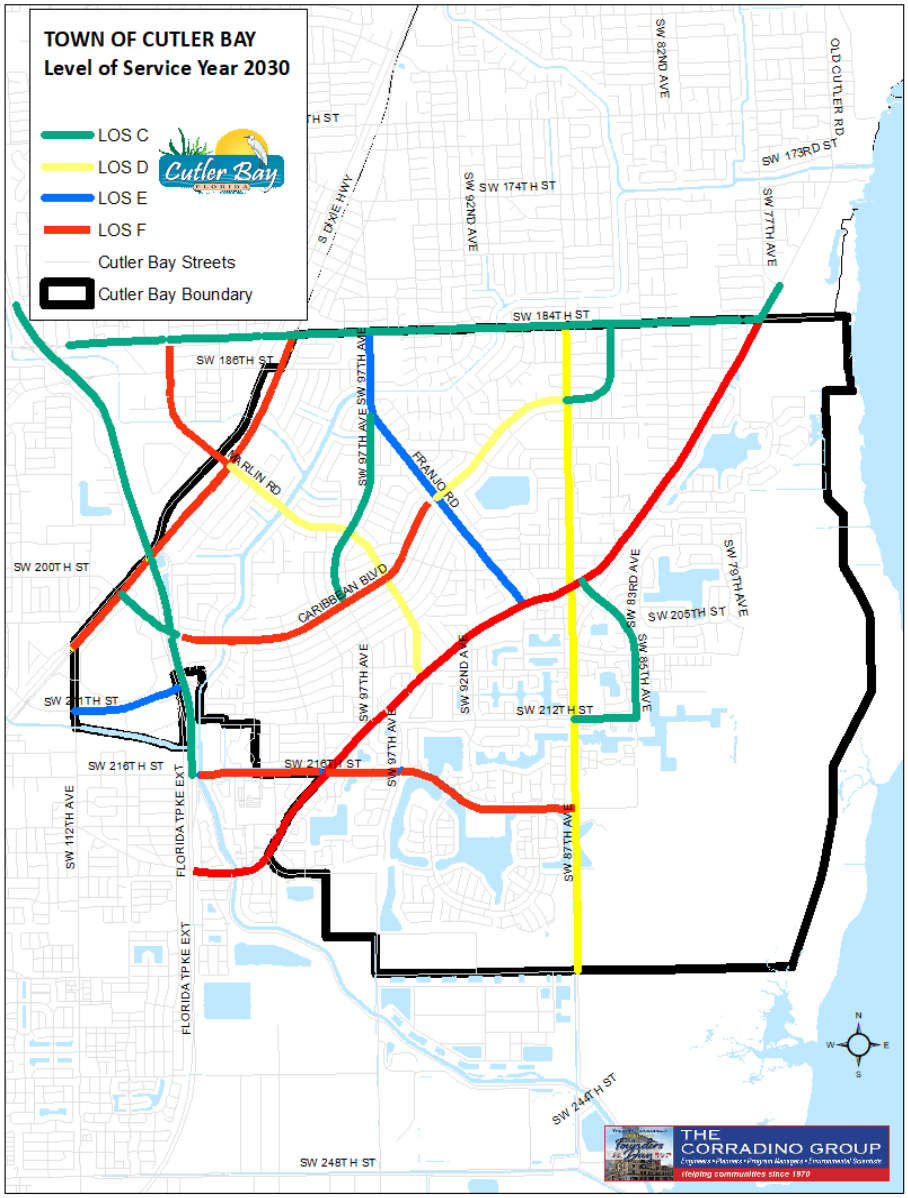


TABLE 3 Roadway Level of Service - Future Conditions (2030)

ROADWAY	LIMITS	POSTED SPEED LIMIT	FACILITY TYPE	FUNCTIONAL CLASSIFICATION JURISDICTION	AVERAGE ANNUAL GROWTH RATE	AVERAGE ANNUAL DAILY TRAFFIC	PEAK HOUR TWO-WAY TRAFFIC	LOS STANDARD	RESULTING LOS PEAK HOUR TWO-WAY TRAFFIC	AVAILABLE CAPACITY	PEAK HOUR TWO-WAY FDOT LOS MANUAL VOLUME THRESHOLDS (VPH)		
											LOS C	LOS D	LOS E
SW 184 St	Turnpike to SW 137 Ave	40	4LD	Minor Arterial	0.39%	31,798	2280	E	< C	942	3078	3222	**
	US-1 to Turnpike	40	4LD		0.76%	23,396	1748	D	< C	1474	3078	3222	**
	SW 97 Ave to US-1	40	4LD		1.35%	7,049	698	D	< C	2524	3078	3222	**
	SW 97 Ave to Old Cutler	40	2L		1.17%	6,924	685	D	< C	755	1359	1440	**
Caribbean Blvd (SW 200th Street)	SW 117 Ave to SW 110 Ave	30	2L	Collector	1.15%	11,097	1110	E	D	69	594	1179	1269
	SW 110 Ave to US-1	30	4LD		0.61%	10,519	1052	E	< C	1576	1179	2628	2736
	US-1 to Fla TKP	30	4LD		0.32%	10,219	1022	E	< C	1606	1179	2628	2736
	Fla TKP to Marlin Rd	30 30	2L		1.28% 0.39%	15,484	3106	D	F	-1927	594	1179	1269
	Marlin Rd to Franjo Rd	30	2L		0.39%	14,176	2735	D	F	-1556	594	1179	1269
	Franjo Rd to SW 87 Ave	30	2L		2.78%	6,371	647	D	D	532	594	1179	1269
	SW 87 Ave to SW 184th St	30	2L		1.32%	1,476	230	D	< C	949	594	1179	1269
SW 211 St	SW 117 Ave to US-1	35	4LD	Collector	0.25%	14,083	1409	E	D	1219	1179	2628	2736
	US-1 to SW 112 Ave	35	4LD		2.71%	21,774	2194	E	D	434	1179	2628	2736
	SW 112 Ave to SR 821	35	4LD		4.94%	26,991	2719	E	E	-91	1179	2628	2736
SW 212 St	SW 87 Ave to SW 85 Ave	30	4LD	Local	2.63%	4,353	626	D	< C	2002	1179	2628	2736
SW 216 St	SR 821 to Old Cutler Rd	35	4LD	Minor Arterial	1.32%	19,446	2996	E	F	-368	1179	2628	2736
	Old Cutler Rd to SW 87 Ave	35	4LD	Collector	1.67%	19,929	3101	D	F	-473	1179	2628	2736
SW 85 Ave	Old Cutler Rd to SW 211 St	35	4LD	Local	0.40%	4,074	407	D	< C	2221	1179	2628	2736
Old Cutler Rd	SR 821 to SW 216 St	35	2L	Minor Arterial	1.07%	17,638	1764	E	F	-567	594	1197	1269
	SW 216th St. to Marlin Rd.	30	2L		1.75%	18,861	2475	E	F	-1278	594	1197	1269
	Marlin Rd to 87 Ave	40	2L		1.28%	18,008	1633	E	F	-193	1359	1440	**
	SW 87 Ave to SW 184 St	40	2L		0.77%	18,539	1553	E	F	-113	1359	1440	**
	SW 184 St to SW 168th Ave	40	2L		1.19%	26,716	879	E	< C	561	1359	1440	**

TABLE 4 Roadway Level of Service - Future Conditions (2030)

ROADWAY	LIMITS	POSTED SPEED LIMIT	FACILITY TYPE	FUNCTIONAL CLASSIFICATION JURISDICTION	AVERAGE ANNUAL GROWTH RATE	AVERAGE ANNUAL DAILY TRAFFIC	PEAK HOUR TWO-WAY TRAFFIC	LOS STANDARD	RESULTING LOS PEAK HOUR TWO-WAY TRAFFIC	AVAILABLE CAPACITY	PEAK HOUR TWO-WAY FDOT LOS MANUAL VOLUME THRESHOLDS (VPH)		
											LOS C	LOS D	LOS E
SR 821	SW 216 St to SW 211 St	60	4LD	Limited Access Freeway/State	2.08%	121,482	4643	D	< C	2157	5640	6800	7420
	SW 211 St to Caribbean Blvd	60	4LD		1.94%	119,826	4580	D	< C	2220	5640	6800	7420
	Caribbean Blvd to US-1	60	6LD		1.79%	174,880	4513	D	< C	5607	8310	10120	11150
	US-1 to Quail Roost Rd.	60	6LD		1.79%	174,880	4513	D	< C	5607	8310	10120	11150
Gulfstream Road	Old Cutler Rd. to Caribbean Blvd	30	2L	Local	0.92%	2,172	221	D	< C	976	594	1197	1269
	Caribbean Blvd to Marlin Rd.	30	2L		0.50%	3,594	359	D	< C	838	594	1197	1269
	Marlin Rd to Franjo Rd	30	2L		0.10%	4,196	450	D	< C	747	594	1197	1269
Marlin Rd	Old Cutler Rd. to Caribbean Blvd	30	2L	Collector	1.60%	9,233	924	D	D	273	594	1197	1269
	Caribbean Blvd to SW 97 Ave	30	2L		1.35%	9,009	901	D	D	296	594	1197	1269
	SW 97 Ave to US-1	30	4LD		1.07%	8,763	876	E	D	321	594	1197	1269
	US-1 to SW 184th Street	30	4LD		1.62%	28,375	2279	E	F	-1082	594	1197	1269
Franjo Rd.	Old Cutler Rd. to Caribbean Blvd	30	2L	Collector	0.20%	12,055	1206	D	E	-9	594	1197	1269
	Caribbean Blvd to SW 184th Street	30	2L		0.50%	12,421	1242	D	E	-45	594	1197	1269
SW 87 Ave	SW 248 St to SW 232 St	35	2L	Collector	0.50%	2,291	213	D	< C	984	594	1197	1269
	SW 232 St to SW 216 St	35	2L		0.79%	9,506	1035	D	D	162	594	1197	1269
	SW 216 St to Old Cutler Rd.	35	2L		1.17%	9,871	1075	D	D	122	594	1197	1269
	Old Cutler Rd to Caribbean Blvd	35	2L		1.13%	11,188	1119	D	D	78	594	1197	1269
	Caribbean Blvd to SW 184 St	35	2L		1.18%	11,244	1124	D	D	73	594	1197	1269
	SW 184 St to SW 174 St	35	2L		1.08%	11,133	1113	D	D	84	594	1197	1269
US-1	SW 211 St to Caribbean Blvd	45	6LD	Principal Arterial/State	0.37%	58,873	3699	1.2(E)	F	-119	3420	3580	**
	Caribbean Blvd to Marlin Rd.	45	6LD		0.32%	58,580	3681	1.2(E)	F	-101	3420	3580	**
	Marlin Rd to SW 184 St	45	6LD		0.09%	57,251	3597	1.2(E)	F	-17	3420	3580	**

The following key Town of Cutler Bay roadway segment is operating at a LOS D in the existing 2030 traffic conditions:

- Caribbean Blvd (SW 200th Street)- SW 117 Ave to SW 110 Ave
- Caribbean Blvd (SW 200th Street)- Franjo Rd to SW 87 Ave
- SW 211 St- SW 117 Ave to US-1
- SW 211 St- US-1 to SW 112 Ave
- Marlin Rd- Old Cutler Rd. to Caribbean Blvd
- Marlin Rd- Caribbean Blvd to SW 97 Ave
- Marlin Rd- SW 97 Ave to US-1
- SW 87 Ave- SW 232 St to SW 216 St
- SW 87 Ave- SW 216 St to Old Cutler Rd.
- SW 87 Ave- Old Cutler Rd to Caribbean Blvd
- SW 87 Ave- Caribbean Blvd to SW 184 St
- SW 87 Ave- SW 184 St to SW 174 St

The following key Town of Cutler Bay roadway segment is operating at a LOS E in the existing 2030 traffic conditions:

- SW 211 St- SW 112 Ave to SR 821
- Franjo Rd.- Old Cutler Rd. to Caribbean Blvd
- Franjo Rd.- Caribbean Blvd to SW 184th Street

The following key Town of Cutler Bay roadway segment is operating at a LOS F in the existing 2030 traffic conditions:

- Caribbean Blvd (SW 200th Street)- Fla TKP to Marlin Rd
- Caribbean Blvd (SW 200th Street)- Marlin Rd to Franjo Rd
- SW 216 St- SR 821 to Old Cutler Rd
- SW 216 St- Old Cutler Rd to SW 87 Ave
- Old Cutler Road- SR 821 to SW 216 St
- Old Cutler Road- SW 216th Street to Marlin Rd.
- Old Cutler Rd- Marlin Rd to 87 Ave
- Old Cutler Rd- SW 87 Ave to SW 184 St
- Marlin Road- US-1 to SW 184th Street
- US-1- SW 211 St to Caribbean Blvd
- US-1- Caribbean Blvd to Marlin Rd.
- US-1- Marlin Rd to SW 184 St

FUTURE 2045 CONDITIONS

The future 2045 conditions are based on the growth adjusted peak hour two-way volumes from the previously referenced traffic data source. The new 2045 traffic volumes were forecasted based on an average annual growth rate applied per each road segment link. The Southeast Florida Regional Planning Model (SERPM) version 8 was run to gather data for the future traffic projections for the project study area for the Town of Cutler Bay. There were two road segments that exhibited a negative growth rate. An annual growth rate of 0.5% was applied for those two road segments to be conservative. Tables 5 and 6 depict the road segment LOS based on the peak hour two-way traffic volumes for the key Town roadway segments. A copy of the most current FDOT LOS Handbook Tables have been provided in the Appendix.

The LOS standard and the current available excess capacity is depicted in Tables 5 and 6 for each roadway segment.

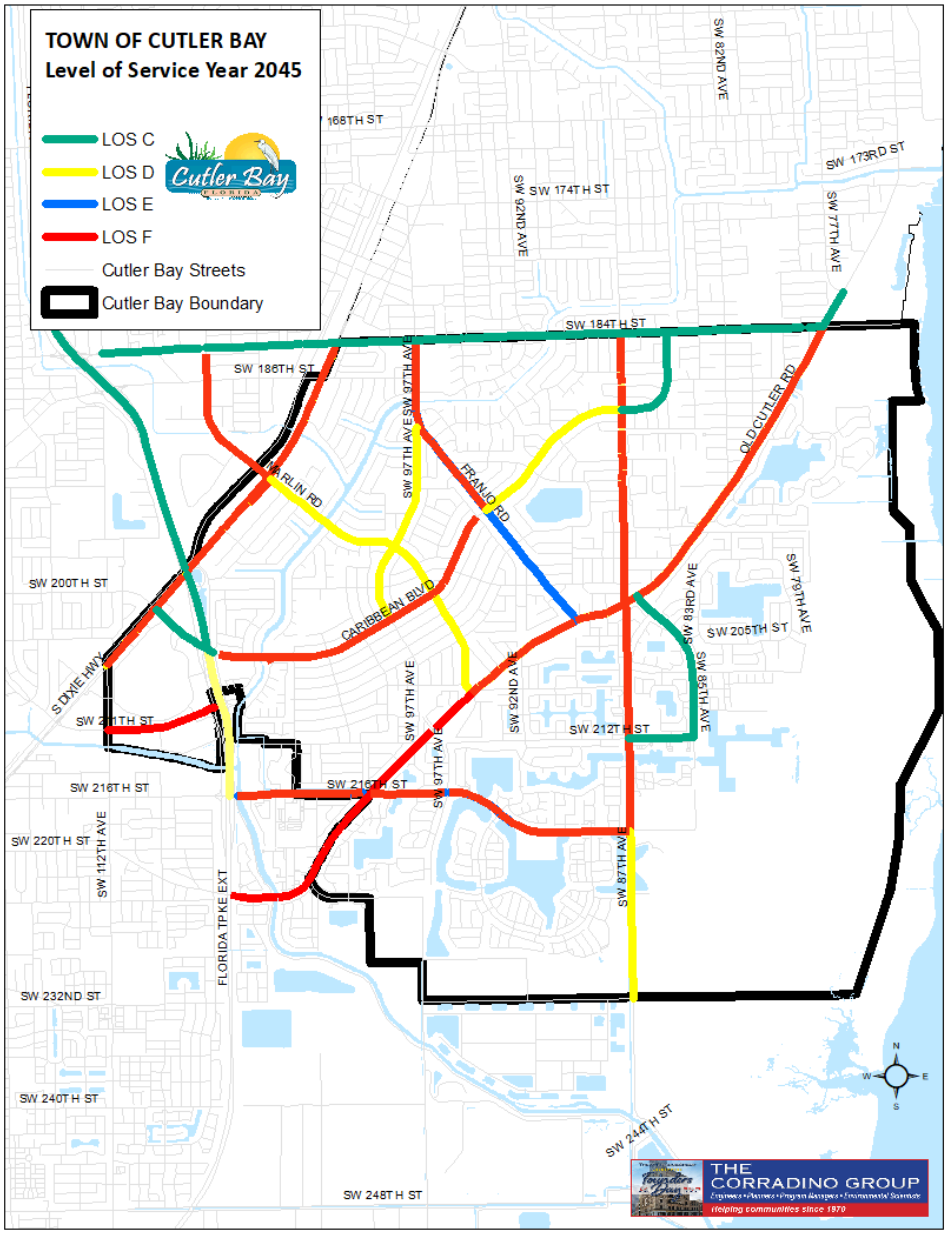


TABLE 5 Roadway Level of Service - Future Conditions (2045)

ROADWAY	LIMITS	POSTED SPEED LIMIT	FACILITY TYPE	FUNCTIONAL CLASSIFICATION JURISDICTION	AVERAGE ANNUAL GROWTH RATE	AVERAGE ANNUAL DAILY TRAFFIC	PEAK HOUR TWO-WAY TRAFFIC	LOS STANDARD	RESULTING LOS PEAK HOUR TWO-WAY TRAFFIC	AVAILABLE CAPACITY	PEAK HOUR TWO-WAY FDOT LOS MANUAL VOLUME THRESHOLDS (VPH)		
											LOS C	LOS D	LOS E
SW 184 St	Turnpike to SW 137 Ave	40	4LD	Minor Arterial	0.39%	33,710	2417	E	< C	805	3078	3222	**
	US-1 to Turnpike	40	4LD		0.76%	26,210	1959	D	< C	1263	3078	3222	**
	SW 97 Ave to US-1	40	4LD		1.35%	8,619	853	D	< C	2369	3078	3222	**
	SW 97 Ave to Old Cutler	40	2L		1.17%	8,244	816	D	< C	624	1359	1440	**
Caribbean Blvd (SW 200th Street)	SW 117 Ave to SW 110 Ave	30	2L	Collector	1.15%	13,173	1318	E	F	-139	594	1179	1269
	SW 110 Ave to US-1	30	4LD		0.61%	11,523	1153	E	< C	1475	1179	2628	2736
	US-1 to Fla TKP	30	4LD		0.32%	10,721	1072	E	< C	1556	1179	2628	2736
	Fla TKP to Marlin Rd	30 30	2L		1.28% 0.39%	18,739	3759	D	F	-2580	594	1179	1269
	Marlin Rd to Franjo Rd	30	2L		0.39%	15,029	2735	D	F	-1556	594	1179	1269
	Franjo Rd to SW 87 Ave	30	2L		2.78%	9,612	977	D	D	202	594	1179	1269
	SW 87 Ave to SW 184th St	30	2L		1.32%	1,797	280	D	< C	899	594	1179	1269
SW 211 St	SW 117 Ave to US-1	35	4LD	Collector	0.25%	14,621	1463	E	D	1165	1179	2628	2736
	US-1 to SW 112 Ave	35	4LD		2.71%	32,518	3276	E	F	-648	1179	2628	2736
	SW 112 Ave to SR 821	35	4LD		4.94%	55,633	5605	E	F	-2977	1179	2628	2736
SW 212 St	SW 87 Ave to SW 85 Ave	30	4LD	Local	2.63%	6,426	924	D	< C	1704	1179	2628	2736
SW 216 St	SR 821 to Old Cutler Rd	35	4LD	Minor Arterial	1.32%	23,673	3648	E	F	-1020	1179	2628	2736
	Old Cutler Rd to SW 87 Ave	35	4LD	Collector	1.67%	25,549	3976	D	F	-1348	1179	2628	2736
SW 85 Ave	Old Cutler Rd to SW 211 St	35	4LD	Local	0.40%	4,326	432	D	< C	2196	1179	2628	2736
Old Cutler Rd	SR 821 to SW 216 St	35	2L	Minor Arterial	1.07%	20,691	2069	E	F	-872	594	1197	1269
	SW 216th St. to Marlin Rd.	30	2L		1.75%	24,467	3211	E	F	-2014	594	1197	1269
	Marlin Rd to 87 Ave	40	2L		1.28%	21,793	1976	E	F	-536	1359	1440	**
	SW 87 Ave to SW 184 St	40	2L		0.77%	20,799	1742	E	F	-302	1359	1440	**
	SW 184 St to SW 168th Avenue	40	2L		1.19%	31,903	1050	E	< C	390	1359	1440	**

TABLE 6 Roadway Level of Service - Future Conditions (2045)

ROADWAY	LIMITS	POSTED SPEED LIMIT	FACILITY TYPE	FUNCTIONAL CLASSIFICATION JURISDICTION	AVERAGE ANNUAL GROWTH RATE	AVERAGE ANNUAL DAILY TRAFFIC	PEAK HOUR TWO-WAY TRAFFIC	LOS STANDARD	RESULTING LOS PEAK HOUR TWO-WAY TRAFFIC	AVAILABLE CAPACITY	PEAK HOUR TWO-WAY FDOT LOS MANUAL VOLUME THRESHOLDS (VPH)		
											LOS C	LOS D	LOS E
SR 821	SW 216 St to SW 211 St	60	4LD	Limited Access Freeway/State	2.08%	165,432	6323	D	D	477	5640	6800	7420
	SW 211 St to Caribbean Blvd	60	4LD		1.94%	159,853	6109	D	D	691	5640	6800	7420
	Caribbean Blvd to US-1	60	6LD		1.79%	228,201	5889	D	< C	4231	8310	10120	11150
	US-1 to Quail Roost Rd.	60	6LD		1.79%	228,201	5889	D	< C	4231	8310	10120	11150
Gulfstream Road	Old Cutler Rd. to Caribbean Blvd	30	2L	Local	0.92%	2,492	254	D	< C	943	594	1197	1269
	Caribbean Blvd to Marlin Rd.	30	2L		0.50%	3,873	387	D	< C	810	594	1197	1269
	Marlin Rd to Franjo Rd	30	2L		0.10%	4,259	457	D	< C	740	594	1197	1269
Marlin Rd	Old Cutler Rd. to Caribbean Blvd	30	2L	Collector	1.60%	11,715	1172	D	D	25	594	1197	1269
	Caribbean Blvd to SW 97 Ave	30	2L		1.35%	11,016	1102	D	D	95	594	1197	1269
	SW 97 Ave to US-1	30	4LD		1.07%	10,280	1028	E	D	169	594	1197	1269
	US-1 to SW 184th Street	30	4LD		1.62%	36,110	2901	E	F	-1704	594	1197	1269
Franjo Rd.	Old Cutler Rd. to Caribbean Blvd	30	2L	Collector	0.20%	12,422	1243	D	E	-46	594	1197	1269
	Caribbean Blvd to SW 184th Street	30	2L		0.50%	13,386	1339	D	F	-142	594	1197	1269
SW 87 Ave	SW 248 St to SW 232 St	35	2L	Collector	0.50%	2,469	230	D	< C	967	594	1197	1269
	SW 232 St to SW 216 St	35	2L		0.79%	10,697	1165	D	D	32	594	1197	1269
	SW 216 St to Old Cutler Rd.	35	2L		1.17%	11,753	1280	D	F	-83	594	1197	1269
	Old Cutler Rd to Caribbean Blvd	35	2L		1.13%	13,242	1324	D	F	-127	594	1197	1269
	Caribbean Blvd to SW 184 St	35	2L		1.18%	13,407	1341	D	F	-144	594	1197	1269
	SW 184 St to SW 174 St	35	2L		1.08%	13,079	1308	D	F	-111	594	1197	1269
US-1	SW 211 St to Caribbean Blvd	45	6LD	Principal Arterial /State	0.37%	62,226	3910	1.2(E)	F	-330	3420	3580	**
	Caribbean Blvd to Marlin Rd.	45	6LD		0.32%	61,456	3861	1.2(E)	F	-281	3420	3580	**
	Marlin Rd to SW 184 St	45	6LD		0.09%	58,028	3646	1.2(E)	F	-66	3420	3580	**

The following key Town of Cutler Bay roadway segment is operating at a LOS D in the existing 2045 traffic conditions:

- Caribbean Blvd (SW 200th Street)- Franjo Rd to SW 87 Ave
- SW 211 St- SW 117 Ave to US-1
- SR 821- SW 216 St to SW 211 St
- SR 821- SW 211 St to Caribbean Blvd
- Marlin Rd- Old Cutler Rd. to Caribbean Blvd
- Marlin Rd- Caribbean Blvd to SW 97 Ave
- Marlin Rd- SW 97 Ave to US-1
- SW 87 Ave- SW 232 St to SW 216 St

The following key Town of Cutler Bay roadway segment is operating at a LOS E in the existing 2045 traffic conditions:

- Franjo Rd.- Old Cutler Rd. to Caribbean Blvd

The following key Town of Cutler Bay roadway segment is operating at a LOS F in the existing 2045 traffic conditions:

- Caribbean Blvd (SW 200th Street)- SW 117 Ave to SW 110 Ave
- Caribbean Blvd (SW 200th Street)- Fla TKP to Marlin Rd
- Caribbean Blvd (SW 200th Street)- Marlin Rd to Franjo Rd
- SW 211 St- US-1 to SW 112 Ave
- SW 211 St- SW 112 Ave to SR 821
- SW 216 St- SR 821 to Old Cutler Rd
- SW 216 St- Old Cutler Rd to SW 87 Ave
- Old Cutler Road- SR 821 to SW 216 St
- Old Cutler Road- SW 216th Street to Marlin Rd.
- Old Cutler Rd- Marlin Rd to 87 Ave
- Old Cutler Rd- SW 87 Ave to SW 184 St
- Marlin Road- US-1 to SW 184th Street
- Franjo Rd.- Caribbean Blvd to SW 184th Street
- SW 87 Ave- SW 216 St to Old Cutler Rd.
- SW 87 Ave- Old Cutler Rd to Caribbean Blvd
- SW 87 Ave- Caribbean Blvd to SW 184 St
- SW 87 Ave- SW 184 St to SW 174 St
- US-1- SW 211 St to Caribbean Blvd
- US-1- Caribbean Blvd to Marlin Rd.
- US-1- Marlin Rd to SW 184 St

SUMMARY OF ROADWAY LOS ANALYSES

From the above roadway segment analyses, the following observations are made:

Comparison between 2020 and 2030 LOS conditions:

- Caribbean Boulevard from Franjo Road to SW 87th Avenue from C to D
- SW 211 Street from SW 112 Avenue to SR 821 D to E
- SW 216 Street from SR 821 to SW 87th Avenue E to F
- Old Cutler Road from Marlin Road to SW 87th Avenue D to F
- Franjo Road from Old Cutler Road to SW 184th Street D to E
- US 1 from D to F

Comparison Between 2020 and 2030 roadway segments falling below the acceptable LOS Standard:

- SW 211 Street from SW 112 Avenue to SR 821 D to E
- Old Cutler Road from Marlin Road to SW 87th Avenue D to F
- Franjo Road from Old Cutler Road to SW 184th Street D to E
- US 1 from D to F

Comparison Between Year 2020 and 2030 roadways falling from E to F:

- SW 216 Street from SR 821 to SW 87th Avenue E to F

Comparison Between 2030 and 2045:

- SW 211 Street from US-1 to SW 112 Ave D to F
- SW 211 Street from SW 112 Avenue to SR 821 E to F
- SR 821 from SW 216 Street to Caribbean Boulevard C to D
- Franjo Road from Caribbean Boulevard to SW 184 Street E to F
- SW 87 Avenue from SW 216 Street to SW 185 Street D to F

2030 and 2045 Roadways falling from above to below the acceptable LOS Standard:

- SW 211 Street from US-1 to SW 112 Ave D to F
- SW 87 Avenue from SW 216 Street to SW 185 Street D to F

2030 and 2045 Roadways with LOS going from E To F (Failing Roadways with continuing decline):

- SW 211 Street from SW 112 Avenue to SR 821 E to F
- Franjo Road from Caribbean Boulevard to SW 184 Street E to F

2014 and 2020 the following roadways improved:

- Caribbean Boulevard between Franjo Road and SW 87th Avenue from D to C
- SW 216 Street from SR 821 to Old Cutler Road F to E
- SR 821 Caribbean Boulevard to US 1 D to C
- SR 821 US 1 to Quail Roost Drive F to C
- Marlin Road from Caribbean Boulevard to US 1 F to D
- Franjo Road from Old Cutler Road to Caribbean Boulevard E to D
- Franjo Road from Caribbean Boulevard to SW 184 Street F to D

2.5 | Transit Data

MIAMI-DADE COUNTY TRANSIT

2.5 | TRANSIT DATA

This section reviews Miami-Dade Transit routes to determine their alignment, headways, and ridership. Implementation of the circulator bus, the Mobility Hub Analysis results, and the SMART Plan South Corridor study, with other bus routes and Park-and-Ride locations, capacities, will be examined.

Miami-Dade Transit (MDT) is the agency responsible for serving public transportation needs within Cutler Bay and the entire Miami-Dade County region. Currently, MDT is the 15th largest public transit system in the United States and the largest transit agency in Florida. MDT operates Metrobus, Metrorail, Metromover, and STS Paratransit, providing comprehensive coverage from Broward County south into Monroe County.

Metrorail

Metrorail is an electrically powered, elevated, heavy rail rapid transit system that extends from Pinecrest to Medley. Metrorail links Downtown Miami's Central Business District with Tri-Rail, the Civic Center, and Hialeah to the north and Kendall, the University of Miami, and South Miami to the south. The 25-mile system was opened on May 20, 1983. Metrorail operates from 5 a.m. to midnight, seven days a week, including holidays. On weekdays, trains arrive every 7-8 minutes during morning and afternoon peak hours, every 15 minutes during weekday midday hours, and every 30 minutes from 7:30 p.m. until closing. Weekend service runs every 30 minutes.

Metromover

Metromover is a free, automated, and elevated people-mover system that serves downtown Miami from the Omni district to Brickell. The Metromover connects with Metrorail at the Government Center and Brickell stations. Metromover links the offices, judicial courts, and retail of the central business district with the condominium residences and entertainment districts in downtown Miami.

Special Transportation Service (STS)

STS is Miami-Dade Transit's complementary Paratransit service, based on the Metrobus, Metrorail, and Metromover services. It was established in 1976 to meet the special transportation needs of disabled Miami-Dade County citizens and is available to anyone a physician certifies as unable to use regular public transit. Privately contracted sedans, vans, and vans equipped with lifts provide door-to-door service for eligible customers, and service is offered with no restrictions on trip purpose. Fare is $3.50 for a one-way trip.

Miami-Dade Transitway

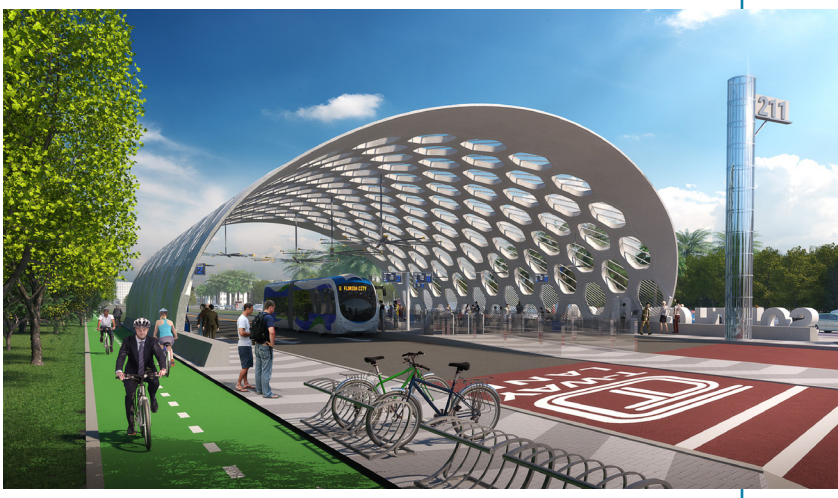
The US-1 Corridor contains the transitway. Within Cutler Bay transit use is highest in the corridor parallel to the transitway and around Southland Mall. Miami Dade County's treatment of US-1 between Miami, Dadeland, and Florida City has historically been progressive.

This was one of the first Bus Rapid Transit Systems in the nation. South Dade and Cutler Bay are fortunate to have this infrastructure in place nearly three decades before other areas of the County.

Creating A Transit Culture

Miami Dade County's car culture is strong. As a car-dominated society, the answer to creating a transit culture in South Florida is to have leadership that understands and supports transit. The need for transit in South Dade is one of necessity. The cost of housing and transportation in the Town of Cutler Bay and South Dade is unaffordable for most. With an H+T Index of 67%, Cutler Bay has created a transit culture for the community. Funding is a common factor of great transit. A well-funded system is more useful, ridership increases, and transit culture is supported. In some cities, transit authorities have partnered with local businesses to offer "perks" to pass holders, to local restaurants and shops.

On May 29, 2020, the United States Department of Transportation announced that the South Corridor Bus Rapid Transit (BRT) Small Starts project was selected to receive a construction grant from the Federal Transit Administration (FTA). On February 2, 2021, the County issued Notice to Proceed to the contractor to begin the Design-Build Services for the South Dade TransitWay Rapid Transit Project. Bus Rapid Transit (BRT) service is expected to begin



along the South Corridor in January of 2023. The BRT service along the 20-mile-long South Corridor will run parallel to U.S. 1 from the Dadeland Station to S.W. 344th Street. There are approximately 46 signalized intersections along this route which will be upgraded with transit signal preemption and gated arms. The BRT will be expandable and flexible to meet the needs of potential future transportation systems. Fourteen BRT Terminal stations with center platforms will be built. The existing shared-use path will be rehabilitated along the corridor.

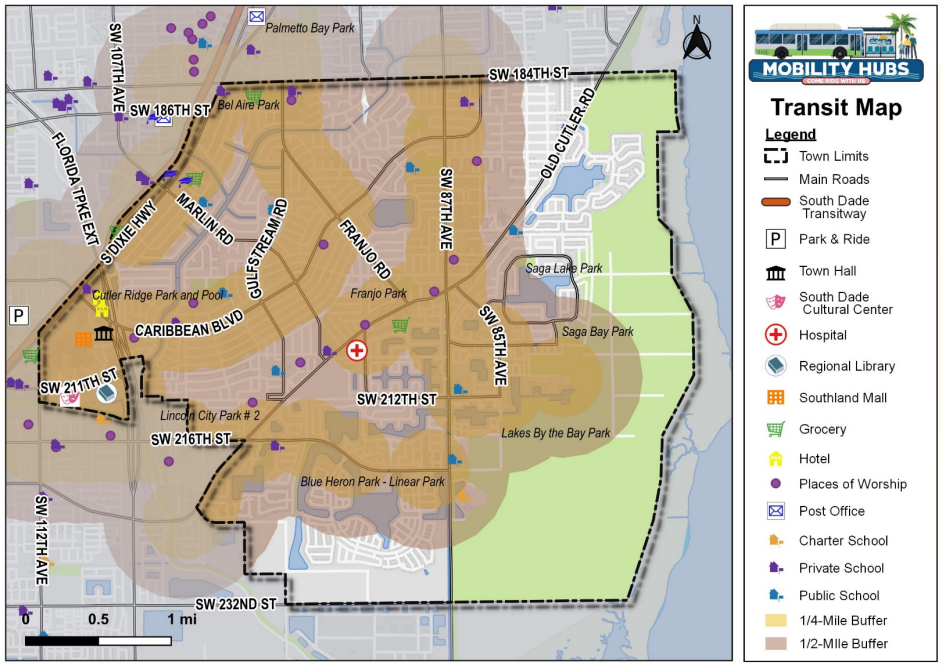
2.5 | TRANSIT DATA

Source: Miamidade.gov

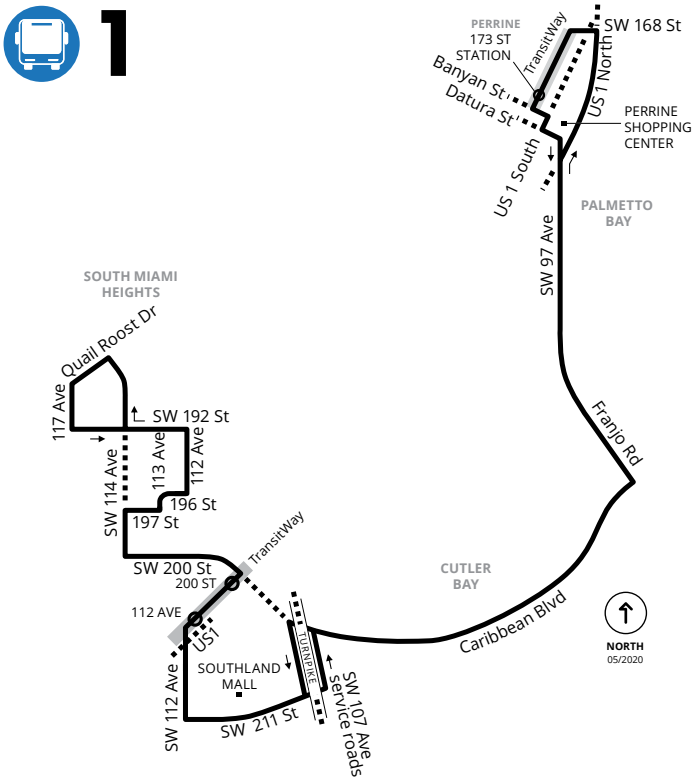
Uniquely situated within the Town of Cutler Bay are three regionally significant private and public structures, all of which serve as a catalyst for regional development and vital transportation links. The Southland Mall, South-Dade Government Center, and South-Dade Performing Arts complex comprise the dense nucleus or regional activity that requires adequate public transportation connectivity to accommodate regional traffic. The Town of Cutler Bay benefits greatly from these regional centers, bringing ten bus routes into the area.

Cutler Bay Bus Routes

Eleven regional bus routes link Cutler Bay with points north and south along the transitway and west Kendall and Doral. Transit is not solely restricted to the commercial/ institutional hubs; three separate bus routes bisect much of the Town, providing extensive coverage and continuity throughout the residential areas. The Town also operates its circulator through the community. Currently, about 3% of the Town's population travel to work via transit, with more women than men utilizing transit (source: Mobility Hubs Plan). Most communities within the Town are within ½ mile radius of a transit stop, with the exception of a few areas.



Source: Mobility Hubs Plan

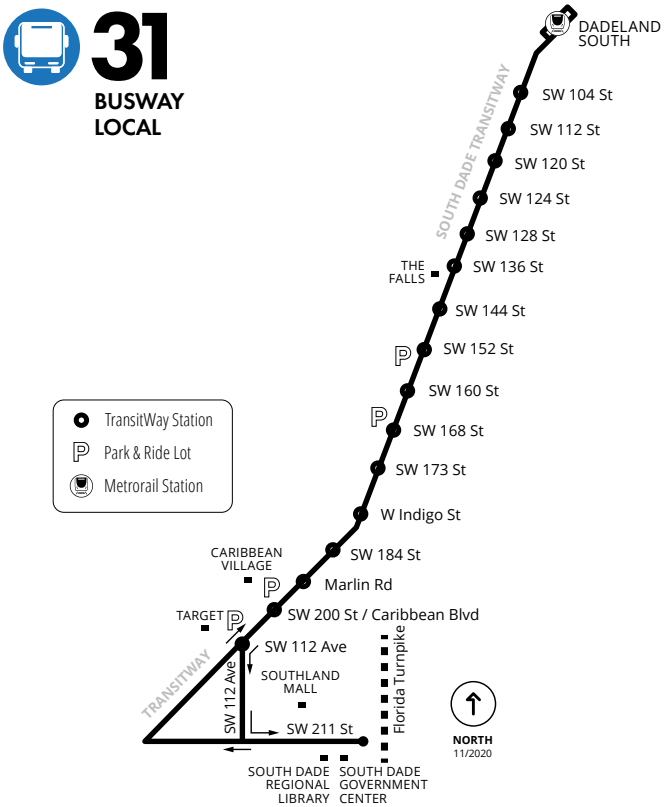


Route 1

Bus Route 1 services a 5.3-mile segment of the transitway from the Dadeland North Metrorail station to the Cutler Ridge Park & Ride. The route begins weekday service at 6:35 a.m. (northbound) and operates at a peak 40-minute headway until 7:43 p.m. Saturday and Sunday schedules are similar, with peak 30-minute headways and operation from approximately 7:00 a.m. to 9:00 p.m. Route 1 services both Dadeland North and South Metrorail stations, Cutler Ridge Mall, The Falls Mall, the 152nd Street Park & Ride lot, the 168th Street Park & Ride Lot, the Perrine Shopping Center, and the Southland Mall. The route utilizes a continuous 5.3-mile segment of the transitway from the Dadeland South Metrorail Station to S.W. 168th Street. The buses used to serve Route 1 are equipped to handle disabled passengers and those commuting with bicycles. Bus Route 1 connects Cutler Bay with Metrorail at the Dadeland South and North Stations (approx. travel time from the South Dade Government Center: 40 minutes.) The route enters Cutler Bay from the north along Franjo Road. At Caribbean Boulevard, the route heads west to 107th Avenue, where it turns south to S.W. 211th Street. The route passes along the South Dade Government Center Complex, South Dade Performing Arts Center, and Southland Mall, before exiting the Town along US-1. Route 1 makes use of the covered bus shelters along Franjo Road, Caribbean Boulevard, and S.W. 211th Street.

Route 31 Transitway Local

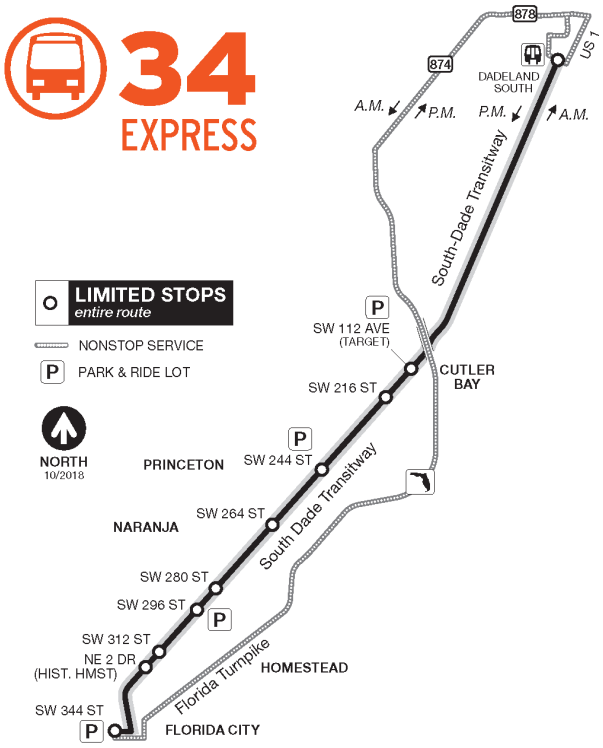
Bus Route 31 services an 8.3-mile segment of the transitway from the Dadeland North Metrorail Station to S.W. 112th Avenue at Southland Mall. The route begins weekday service at 5:00 a.m. (northbound) and operates at a peak 20-minute headway until 8:24 p.m. Saturday and Sunday schedules are similar, with peak 30-minute headways and operation from approximately 4:59 a.m. to 8:43 p.m. (Northbound). Route 31 services Dadeland South Metrorail Station, The Falls, Southland Mall, South Dade Government Center, and the S.W. 152nd and S.W. 168th Street park & ride lots. The route utilizes a continuous 8.3 segment of the transitway from the Dadeland South Metrorail station to S.W. 112th Avenue. The buses used to serve Bus Route 31 are equipped to handle disabled passengers and those commuting with bicycles. Bus Route 31 connects Cutler Bay with Metrorail at the Dadeland South Station (approx travel time from the South Dade Government Center: 30 minutes.) The route heads south to the Southland Mall via S.W. 112th Avenue and turns onto S.W. 211th Street. It then heads east and runs a short loop after passing the South Dade Government Center complex along S.W. 211th Street before returning to the Transitway along S.W. 211th Street.

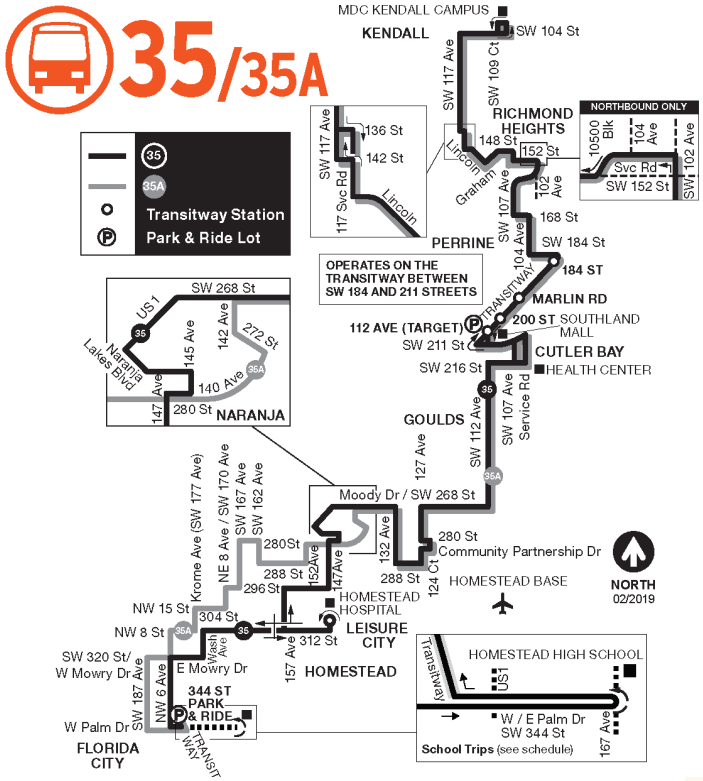


2.5 | TRANSIT DATA

Route 34 Express

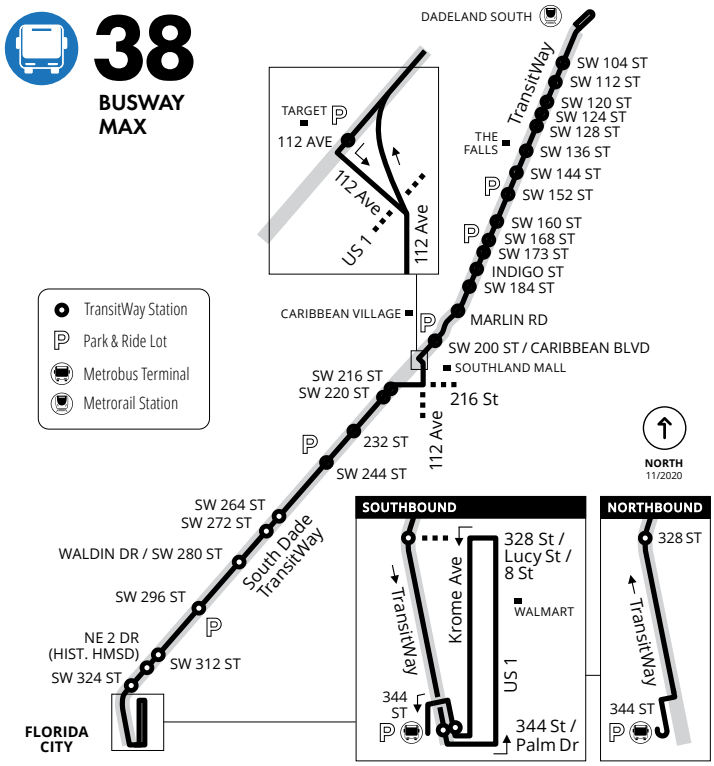
Bus Route 34 services the full 19.7-mile transitway from the Dadeland South Metrorail Station to Florida City. The 34 Transitway Flyer is a limited-stop express bus. The route begins weekday service at 4:55 a.m. (northbound only) and operates at a peak 7–10-minute headway until 9 a.m. The route continues service southbound at 4:40 p.m. and operates until 6:10 p.m. Route 34 does not operate on Saturday or Sunday. Route 34 services the Dadeland South Metrorail Station, The Falls Mall, Southland Mall, Florida City, and the S.W. 152nd, S.W. 168th, S.W. 200th, S.W. 244th, and S.W. 296th Streets' park & ride lots. The route utilizes the full 19.7-mile transitway from the Dadeland South Metrorail Station to Florida City. The buses used to serve Bus Route 34 are equipped to handle disabled passengers and those commuting with bicycles. Bus Route 34 connects Cutler Bay with Metrorail at the Dadeland South Station to the north and Florida City to the south (approx. travel time from the S.W. 200th Street Transitway Station: 40-45 minutes northbound, 37 minutes southbound.) This route has only two stops within the Town limits, both of which are located along the transitway: the S.W. 112th Avenue Park & Ride lot and S.W. 200th Street.





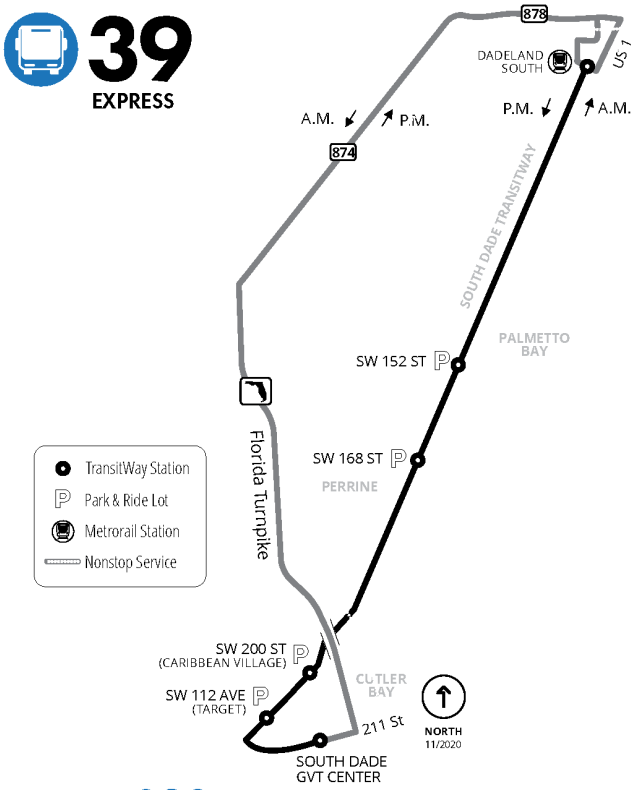
Route 35 35/A

Bus Route 35 operates parallel to the Miami-Dade Transitway, servicing mainly the neighborhoods located Southeast of US-1 and west of US-1 into the Kendall region. The route utilizes a 0.17-mile segment of the transitway between S.W. 186th and S.W. 184th Streets. The route begins weekday service at 5:00 a.m. and operates at 20-minute headways between 5:00 a.m. and 11:57 p.m., after which the headway increases 40 minutes until 12:33 a.m. Saturday and Sunday schedules are different, with headways in the range of 30 minutes and operations from approximately 6:25 a.m. to 11:03 p.m. on Saturdays (Northbound) and 6:32 a.m. to 11:10 p.m. on Sundays. Route 35 services Miami-Dade College Kendall Campus Perrine, Southland Mall, South Miami-Dade Government Center, and Homestead Hospital. The buses used to serve Bus Route 35 are equipped to handle disabled passengers and those commuting with bicycles. Route 35 connects the Town of Cutler Bay with the Miami-Dade College Kendall Campus to the north and Homestead and Florida City to the south. Route 35 enters the Town limits from the north at S.W. 184th Street along the transitway. The route travels south, where it continues to S.W. 211th Street. The route runs east along the South Dade Government Center before exiting the Town limits at S.W. 216th Street.



Route 38 Transitway Max

Bus Route 38 services the full 19.7-mile transitway from the Dadeland South Metrorail Station to Florida City. This route provides service from 4:26 a.m. to 11:59 p.m. along the transitway and operates at peak 10–12- minute headways. Saturday and Sunday schedules are similar, with peak 13-minute headways. Route 38 services the Dadeland South Metrorail Station, Cutler Ridge Mall, the Falls Mall, the 152nd Street Park & Ride lot, the 168th Street Park & Ride lot, the Perrine Shopping Center, and the Southland Mall. The route utilizes a continuous 5.3 segment of the transitway from the Dadeland South Metrorail Station to S.W. 168th Street. The buses used to serve route 38 are equipped to handle disabled passengers and those commuting with bicycles. Bus Route 38 connects Cutler Bay with Metrorail to the north at the Dadeland South Station and Florida City to the south (approx. travel time from the South Dade Government Center: 30 minutes north, 35 minutes south). The route enters Cutler Bay from the north at S.W. 112th Avenue and exits the Town en route to S.W. 216th Street, where it turns west. The route passes along the South Dade Performing Arts Center and Southland Mall before returning to the transitway.

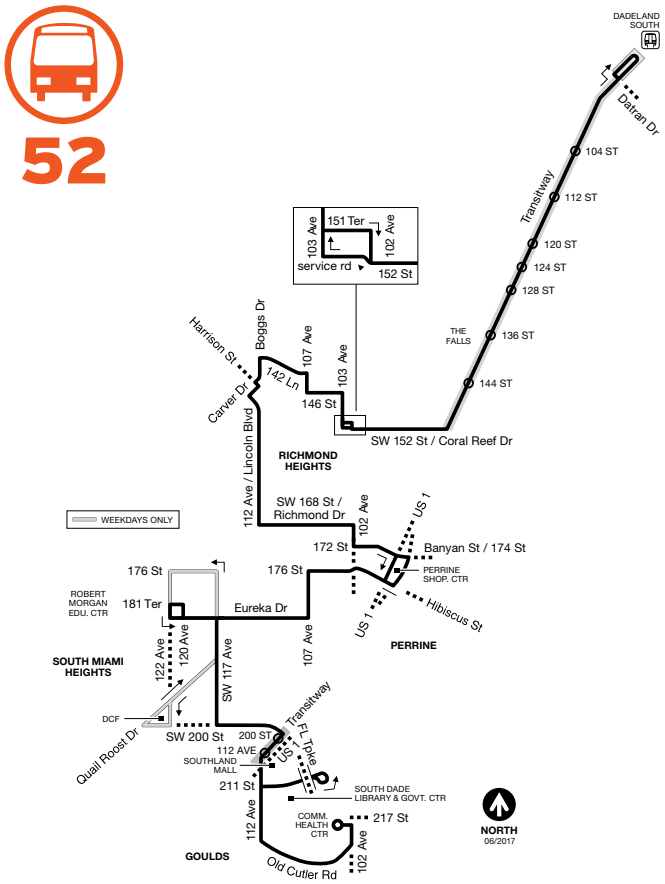


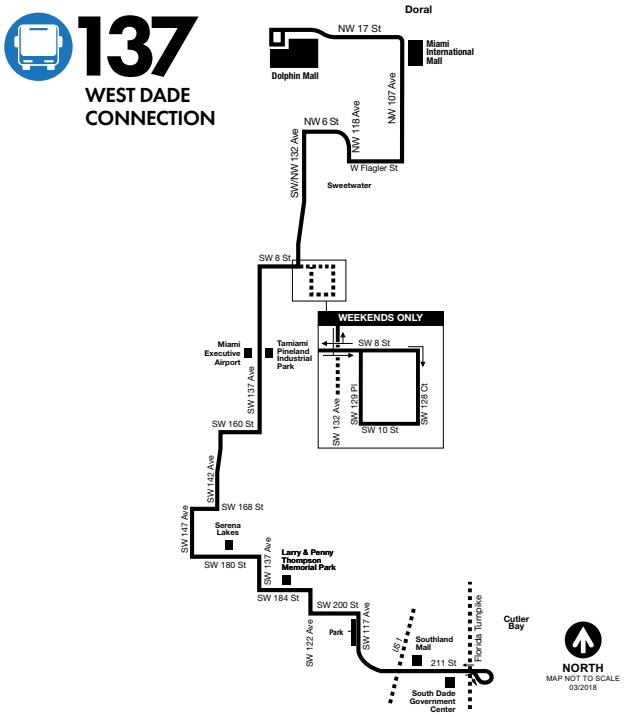
Route 39 Express

Bus Route 39 services the South Dade Transitway. This route provides service from 5:30 a.m. to 8:15 p.m. northbound along the transitway and from 5:59 a.m. to 7:44 a.m. southbound. The route offers to express routes, one via the transitway and the other via the Turnpike. The bus travels via transitway northbound weekdays in the mornings and nonstop via Turnpike northbound from 4:30 p.m. to 6:15 p.m. The bus also travels southbound via the Turnpike from 5:59 a.m. to 7:44 a.m. and southbound express on the transitway from 4:00 p.m. to 6:45 p.m.

Route 52

Bus Route 52 services a 4.2-mile segment of the transitway from the Dadeland North Metrorail Station to S.W. 152nd Street/ Coral Reef Drive. The route begins weekday service at 4:28 a.m. (northbound) and operates at peak 10-minute headway in the mornings until 10:13 p.m. (1-hour headway northbound in the afternoon/evening). Saturday and Sunday schedules are similar, with 1- hour headways and operation from approximately 5:47 a.m. to 9:20 p.m. Route 52 services the Dadeland North and Dadeland South Metrorail Stations, Dadeland Mall, the Falls, the Perrine Shopping Center, Jackson South Hospital, Robert Morgan Educational Center, DCF (weekday trips only), Southland Mall, South Miami-Dade Government Center, and the Community Health Center of South Dade. The route utilizes a continuous 4.2 segment of the transitway from the Dadeland South Metrorail Station to S.W. 152nd Street. The buses used to serve Bus Route 52 are equipped to handle disabled passengers and those commuting with bicycles. Bus Route 52 connects Cutler Bay with Metrorail at the Dadeland North and Dadeland South Stations to the north and with the Community Health of South Dade to the south (approx. travel time from the South Dade Government Center: 84 minutes northbound, 9 minutes southbound.) The route enters Cutler Bay from the north along S.W. 112th Avenue. At S.W. 211th Street, the route turns east, taking passengers to the doorstep of the South Dade Government Center Complex, South Dade Performing Arts Center, and Southland Mall, before turning around to head west and then south to exit the Town along S.W. 112th Street.

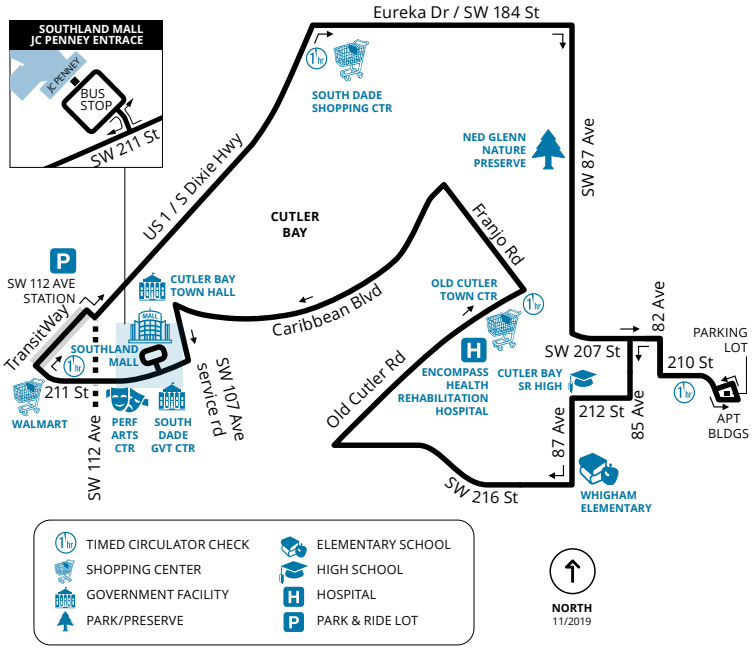




Route 137

The West Dade Connection travels around the Southland Mall and South Dade Government Center to connect with Dolphin Mall, Kendall-Tamiami Executive Airport, Sweetwater, and Kendall Lakes.

Cutler Bay LOCAL
200 ON GPS APPS



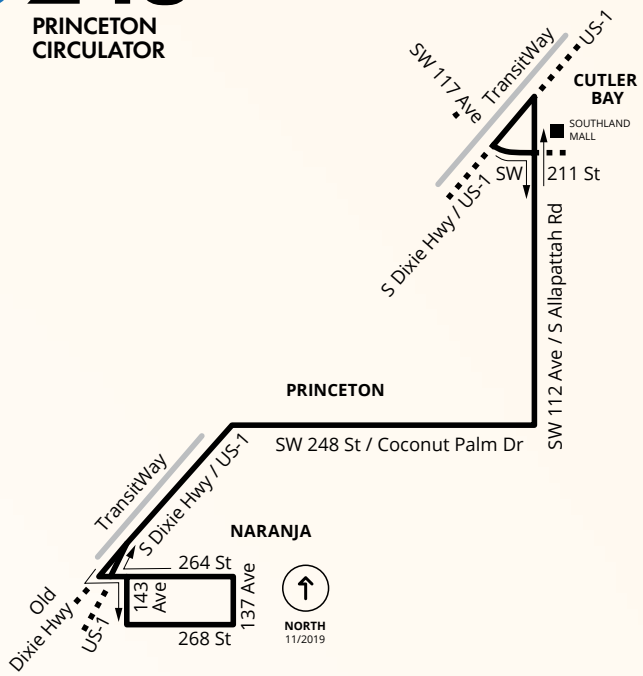
Route 200

The Cutler Bay Local 13.7 mile route travels throughout the Town in a clockwise rotation from the Publix on Old Cutler Road to the S.W. 112th Avenue Transitway Station. The annual operating costs for the Town Circulator are $324,620. With headways of 51 minutes, the Cutler Bay Local carries 17 passengers per hour on average connecting Town residents to MDT Routes 1,31,34,35,38,39,52,137, and 287.

Route 248

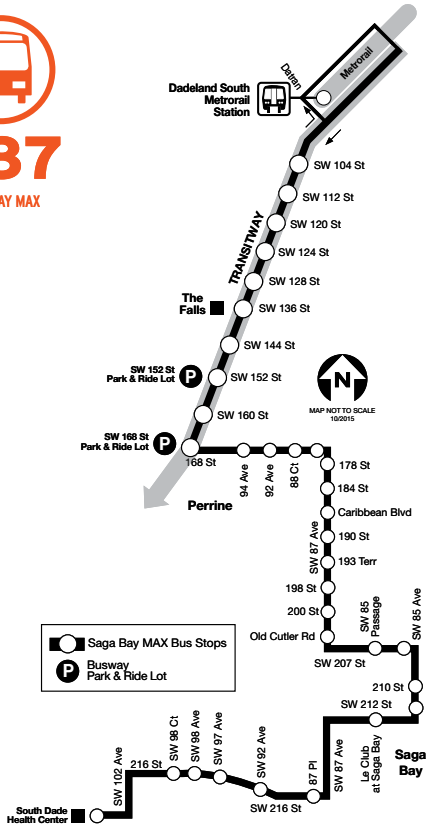
The Princeton Circulator travels primarily north and south along SW 112 Avenue and around Southland Mall. Local weekday circulator service travels from Southland Mall in Cutler Bay to South Dixie Highway and SW 264 Street in Naranja along SW 112 Avenue, SW 248 Street and South Dixie Highway. Connecting Bus Routes include 1, 31, 35/35A, 38, 52, 137, and 200. Service hours are from 6:25 a.m. to 7:25 p.m.

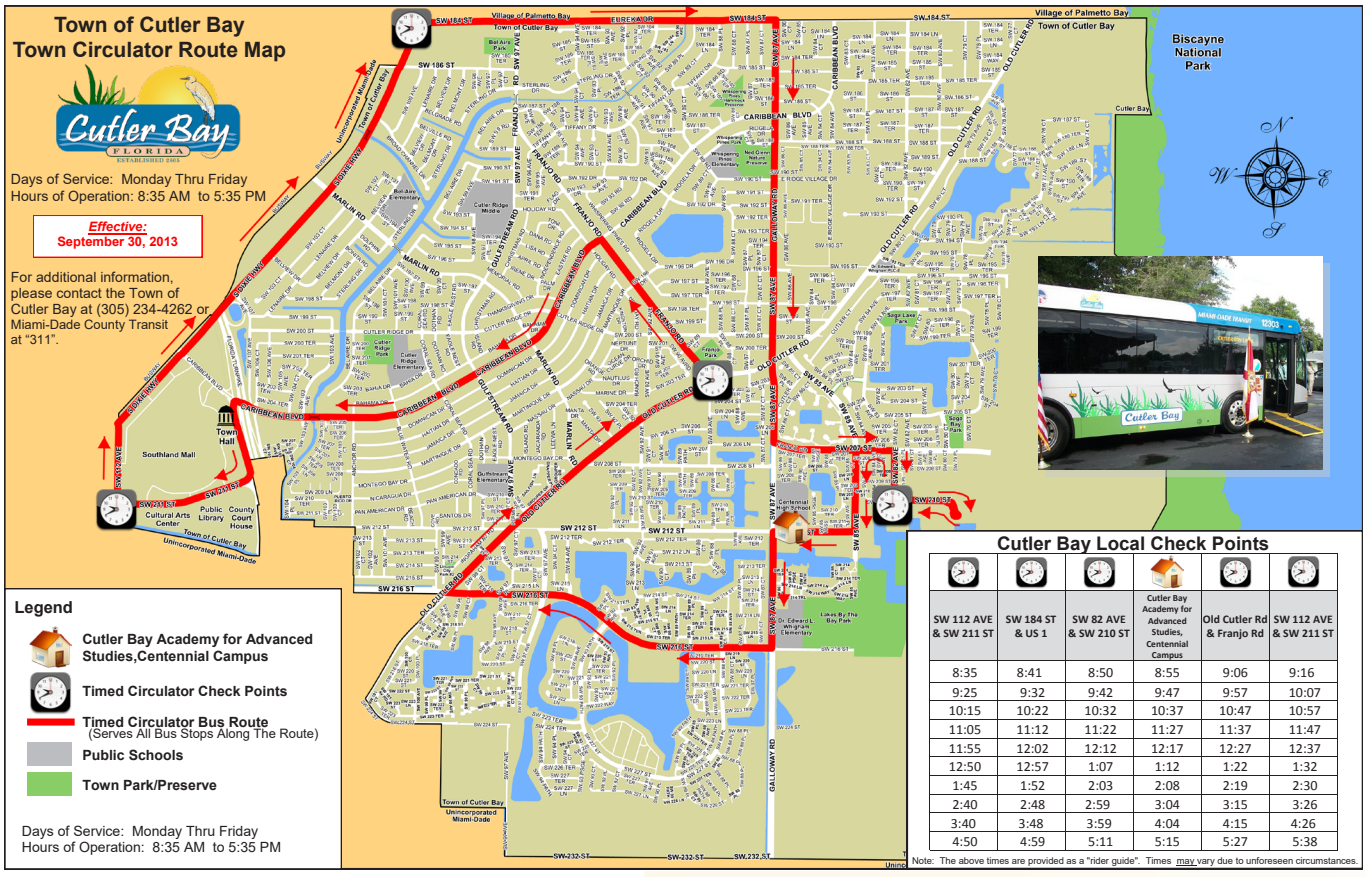
248
PRINCETON CIRCULATOR



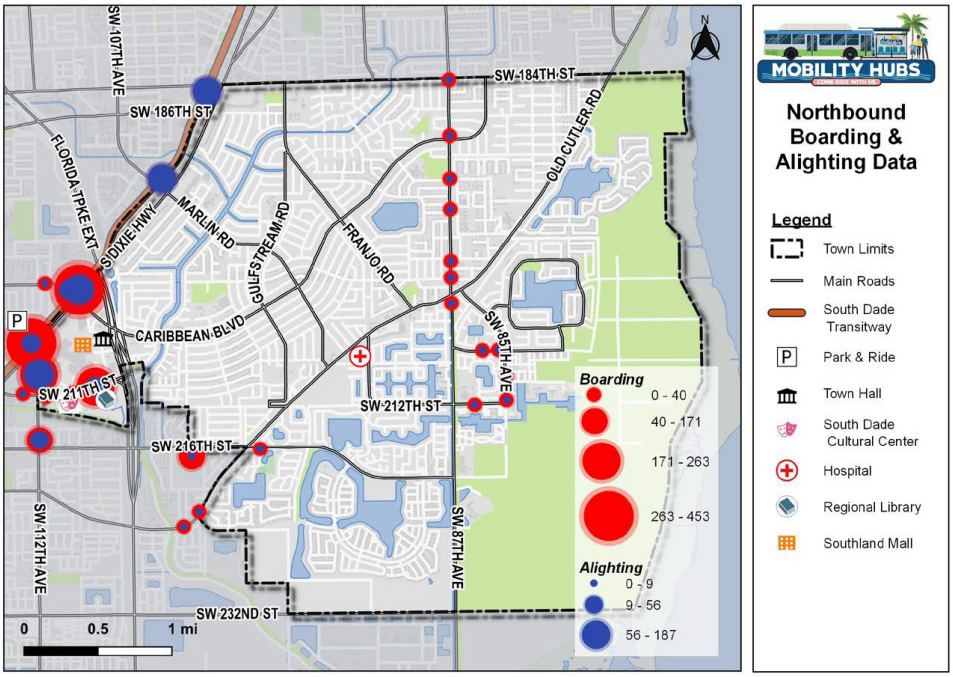
Route 287 Saga Bay Max

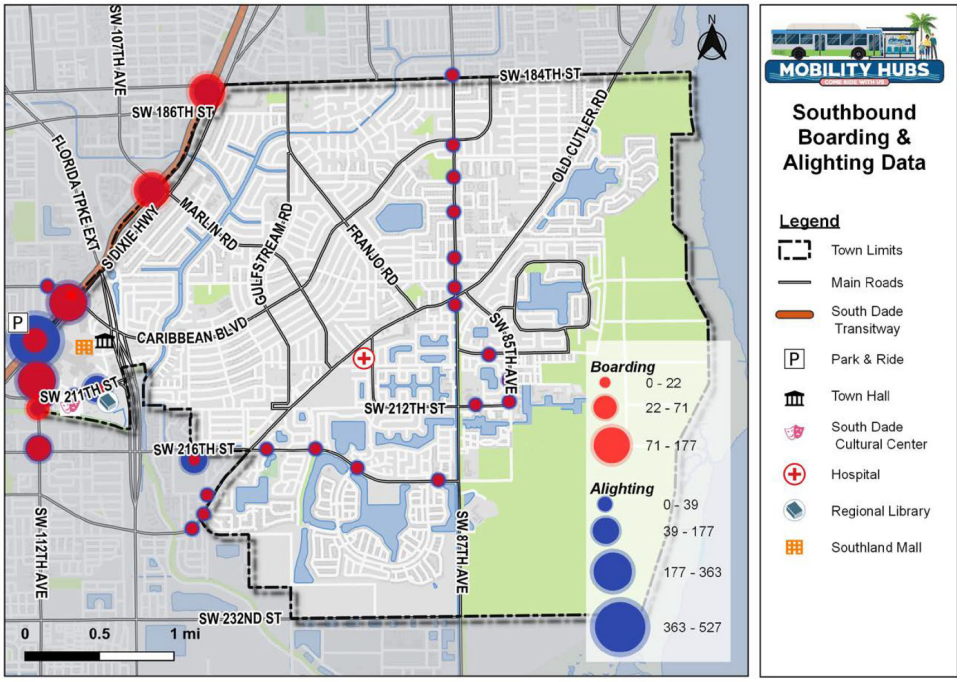
The Sage Bay Max only operates on Weekdays and travels from the Community Health of South Florida to Dadeland South Metrorail station. Service hours are from 5:46 a.m. to 6:16 p.m. The route travels along the transitway to S.W. 168th Street and enters Cutler Bay on S.W. 87th Avenue to Old Cutler Road and heads east into the Saga Bay area along S.W. 207th Street, then exits the Town along S.W. 216th Street.





Source: Town of Cutler Bay





Cutler Bay is well covered, with about half of the areas meeting this standard. Areas of most adequate coverage are within ¼ mile of the Transitway, Caribbean Boulevard, 87th Avenue, parts of Old Cutler Road, and the Urban Center District.

Boarding and alighting data were collected from Miami-Dade County's Department of Transportation and Public Works for Routes 31, 34, 38, 39, 52, and 287. Ridership is highest along the transitway, with 100 to over 400 boarding's and alighting's per day at the Transitway Stations along the Town's borders. The available ridership data show the Transitway Station at SW 112 Ave. was identified as having the highest numbers of boardings, and alightings in the area. This is most likely a result of the Park&Ride facility located at this station. Ridership was also high at the transit stop located near the Southland Mall / South-Dade Government Center along S.W. 211th Street (see Figures 34 and 35).

A decision was made to add capacity to the US-1 Corridor from I-95 to Homestead by way of modes instead of physical roadway capacity. Traditional policy on capacity would have been to purchase the railroad right-of-way and add travel lanes, ultimately extending I -95 from Miami to Homestead on the right-of-way that Metrorail and the transitway now occupy. Instead, Metrorail was implemented from Miami to Dadeland at about S.W. 98th Street near Pinecrest in 1983. Future legs were to include the area from Pinecrest to Homestead.

In the early 1980s, Federal policy changed, and funding for such projects became infinitely harder to attain. In President Ronald Regan's speech at the Metrorail opening, he essentially said that it would have been "cheaper to purchase every rider a Cadillac" instead of constructing the Metrorail. So, fewer dollars were provided to such projects, and more stringent requirements for attaining those dollars have been put in place. Under the new rules, it became impractical to construct Metrorail on the Corridor. The alternative became the Transitway.

2.5 | TRANSIT DATA

Using the FEC right-of-way, Miami-Dade County, in partnership with the U.S. Government, built the Transitway in two legs, which opened in 1997 and 2007. Few places in post-WWII America are the beneficiary of such a project. This long-standing policy decision to build capacity as transit and not roadway lanes is unique.

Recent work analyzing the South Dade Corridor has suggested that not enough density exists to make a cost-effective Metrorail system investment. The County has approved the plan to enhance the Bus Rapid Transit capacity of the Corridor, with park-and-ride lots, and bus priority, either by signaling or grade-separated intersections, until ridership warrants a rail system. Any future conversion of the Corridor may involve policy decisions based on density, available funds, and alternative development options, such as light-rail transit.

SMART Plan

The SMART Plan was developed to promote economic vitality through transportation infrastructure investment throughout Miami Dade County. The Strategic Miami Area Rapid Transit (SMART) plan was adopted in 2016 by the Miami Dade Transportation Planning Organization (TPO) to develop premium transit services throughout the County. The SMART Plan was responsible for selecting the Locally Preferred Alternative (LPA) for the South Corridor by the TPO. The South Corridor extends from the Dadeland South Metrorail Station to S.W. 344th Street. It was recommended, based on numerous technical studies, that Bus Rapid Transit (BRT) be the LPA for the South Corridor, which includes Cutler Bay. BRT provides an upgraded experience that moves people quickly, comfortably, and efficiently. It is modern and utilizes energy-efficient technologies with dedicated lanes and signal priority.

Park & Ride

Miami-Dade Transit operates five park-and-ride facilities along the South-Miami-Dade Transitway. All of the facilities are provided to transit users free of charge. The S.W. 112th Avenue facility is located west of the Town of Cutler Bay. The average weekday usage at this facility 140 vehicles -- the lot's capacity. All of the Park & Ride facilities and connecting routes are: Transitway/SW 152 Street • Connecting bus routes: 31 (Transit Local), 34 (Transitway Flyer), 38 (Transitway MAX), 52, 57, 252 (Coral Reef MAX), and 287 (Saga Bay MAX) Transitway/SW 168 Street • Connecting bus routes: 1, 31 (Transitway Local), 34 (Transitway Flyer), 38 (Transitway MAX), 52, and 287 (Saga Bay MAX) Transitway/S.W. 112th Avenue (Target) • Connecting bus routes: 31 (Transitway Local), 34 (Transitway Flyer) Transitway/SW 244 Street • Connecting bus routes: 34 (Transitway Flyer) and 38 (Transitway MAX) Transitway/SW 296 Street • Connecting bus routes: 34 (Transitway Flyer) and 38 (Transitway MAX)

Mobility Hubs

The Town of Cutler Bay has a comprehensive system of proposed Transit Mobility Hubs connecting to the South Dade Transitway.

No.	Mobility Hub	Type
1	Cutler Bay Regional	Regional
2	Caribbean Boulevard	Community
3	Eureka Drive West	Community
4	Marlin	Community
5	South Dade Government Center	Community
6	Community Health	Neighborhood
7	Whispering Pines	Neighborhood
8	Old Cutler Town Center	Community
9	Pine Wood	Neighborhood
10	The Isles of Bayshore	Neighborhood
11	Lakes by the Bay	Neighborhood
12	Cutler Ridge	Neighborhood
13	Eureka Drive East	Neighborhood

Source: Town of Cutler Bay Mobility Hubs Plan

A Regional Hub is proposed for the Miami Dade County Park&Ride Facility at S.W. 112th Avenue and the Transitway. It is proposed that this hub provide amenities such as:

- Carshare
- E.V. Charge Station
- Bikeshare Station
- Bicycle Repair Station
- Bicycle Storage Locker
- Waiting Area for Ride-Hailing Transportation Network Companies (TNCs)
- Transit Use
- Real-Time Information
- WIFI
- Lending Library
- Monument Sign
- USB Charge Port
- Security Camera
- Pedestrian Lighting
- Pedestrian Promenade on the east side of U.S. 1 & S.W. 112th Avenue

Mobility Hub Types & Locations - Regional Hub

Within the Town of Cutler Bay, transit use is highest in the corridor parallel to the Transitway and around the Southland Mall/ Government Center area. The level of transit use in these sections of the Town is the result of effective land-use management and facility placement. These are also the areas with the most intensive land uses and the lowest vehicle use per person.

Source: Town of Cutler Bay Mobility Hubs Plan

Community Hubs were recommended for the following locations:

1. Old Cutler Town Center: Old Cutler Road at Publix Shopping Plaza
   - Existing Routes: 200 (Town Circulator)
   - Existing Amenities: Shelter, Seating, Signage, Trash Receptacle, Bicycle Rack, and Lighting.
   - Existing Nearby Facilities: Old Cutler Trail, Retail/Restaurant, Residential, Hospital, Places of Worship.

2. Marlin: Marlin Road & U.S.1 / S. Dixie Hwy
   - Existing Routes: 31, 35, 38, 200 (Town Circulator)
   - Existing Amenities: Seating, Trash Receptacle, and Signage.
   - Existing Transitway Amenities: Seating, Shade, Trash Receptacle, Lighting, and Signage.
   - Existing Nearby Facilities: Retail / Restaurants, Bank, Residential, Industrial, Schools, Career Center, Grocery, and Place of Worship.

3. Eureka Drive West: SW 184 St (Eureka Dr), East of U.S. 1 / S. Dixie Hwy.
   - Existing Routes: 1, 31, 35, 38, 52, 200 (Town Circulator)
   - Existing Amenities: Seating, Signage, and Trash Receptacle.
   - Existing Transitway Amenities: Shelter, Seating, Trash Receptacle, Signage, and Lighting.
   - Existing Nearby Facilities: South Dade Trail, Retail/Restaurants, Bank, Fitness Center, Residential, Industrial, Park, Grocery, Places of Worship, Schools.

4. Caribbean Boulevard: Caribbean Blvd. (SW 200 Ave) & U.S. 1 (S. Dixie Hwy)
   - Existing Routes: 1, 31, 35, 38, 39, 52, 200 (Town Circulator).
   - Existing Amenities: Seating, Trash Receptacle, and Signage.
   - Existing Transitway Amenities: Seating, Shade, Trash Receptacle, Lighting, and Signage.
   - Existing Nearby Facilities: South Dade Trail, Retail / Restaurant, Town Hall, Southland Mall, Residential, Hotel, and Office Park.

5. South Dade Government Center: SW 211 St. at Southland Mall / South Dade Government Center
   - Existing Routes: 1, 31, 35, 39, 52, 137, 200 (Town Circulator), and 248.
   - Existing Amenities: Seating, Shelter, Signage, Trash Receptacle, Bus Bay, Newspaper Rack, Lighting, and System Map.
   - Existing Nearby Facilities: Southland Mall, South Dade Government Center, Library, Retail / Restaurants, Residential, South Dade Cultural Center, Police, Fire, Town Hall, Movie Theater, Humane Society, Hotel, Offices, and Bank.

Source: Town of Cutler Bay Mobility Hubs Plan

Neighborhood Hubs were recommended for the following locations:

1. Lakes by the Bay: S.W. 85 Ave. & SW 212 St.
   - Existing Routes: 200 (Town Circulator) and 287
   - Existing Amenities: Shelter, Seating, Trash Receptacle, Lighting, Bike Rack, and Signage.
   - Existing Nearby Facilities: Residential, Schools, and Park.

2. Pine Wood: S.W. 87 Ave. & SW 190 St.
   - Existing Routes: 200 (Town Circulator) and 287
   - Existing Amenities: Shelter, Seating, Trash Receptacle, Lighting, Signage & System Map.
   - Existing Facilities Nearby: Residential, Schools, Place of Worship, and Park.

3. Whispering Pines: Caribbean Blvd. & Franjo Rd.
   - Existing Routes: 1 and 200 (Town Circulator)
   - Existing Amenities: Seating, Bicycle Rack, Bus Bay, and Signage.
   - Existing Nearby Facilities: Residential and Schools.

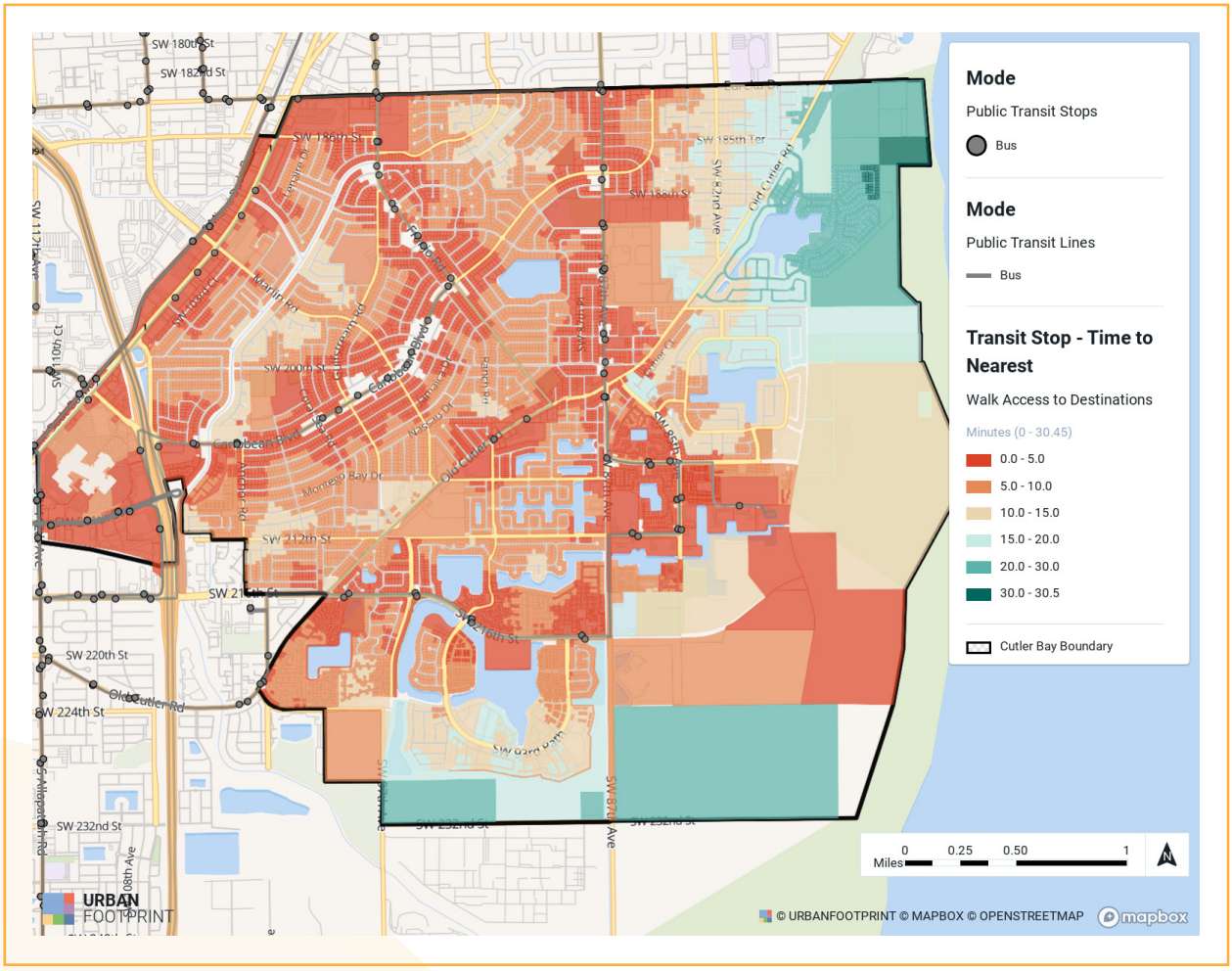
4. Cutler Ridge: Caribbean Blvd. & Anchor Rd.
   - Existing Routes: 1 and 200 (Town Circulator)
   - Existing Amenities: Seating, Shelter, Bicycle Rack, Trash Receptacle, Lighting, and Signage.
   - Existing Nearby Facilities: Places of Worship, Schools, Residential and Park.

5. The Isles of Bayshore: SW 216 St. & S.W. 89 Pl
   - Existing Routes: 200 (Town Circulator) & 287
   - Existing Amenities: None
   - Existing Nearby Facilities: Biscayne Trail, Park, and Residential.

6. Eureka Drive East: Old Cutler Rd. & SW 184 St.
   - Existing Routes: None
   - Existing Amenities: None
   - Existing Nearby Facilities: Old Cutler Trail, Residential, Places of Worship, Palmetto Bay Village Center, and Schools.

Source: Town of Cutler Bay Mobility Hubs Plan

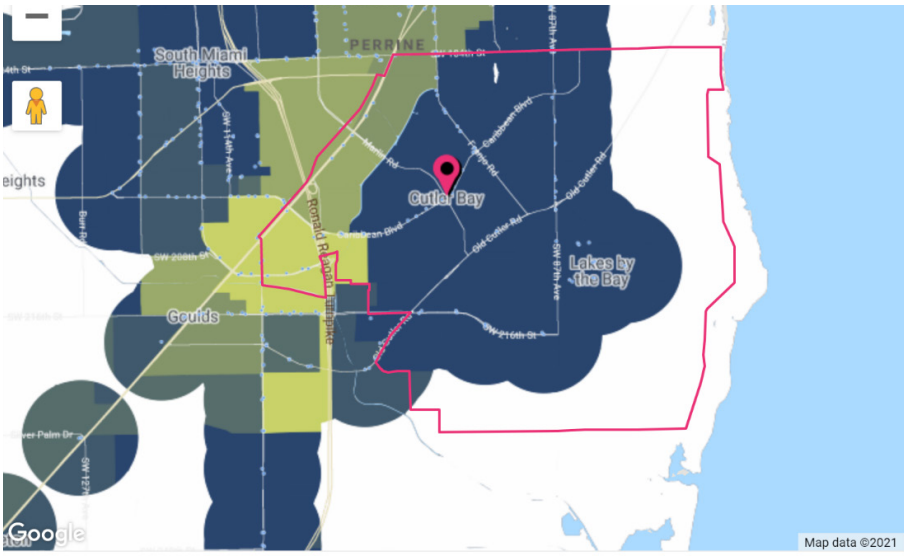
The *transit connectivity index* depicts the availability of transit within Cutler Bay and the surroundings. Computing a region's connectivity index is complex, taking transit's accessibility, connectivity, and usability factors into account to determine a practical quantitative measure. Transit availability requires that transit be available spatially at the origin and the destination. Accessibility is a measure of the distance passengers must walk to reach a transit stop (usually ¼ mile or 5 minutes) or drive to a park & ride facility. The Miami-Dade Transitway provides the strongest link in transit connectivity. The average walk time to the nearest transit stop for Cutler Bay residents is 7.54 minutes. Usability, perhaps the hardest to quantify, relates to the user-friendliness of the system.



TRANSIT QUALITY

- HOUSEHOLDS NEAR TRANSIT
  10,433 of 12,599 (82.8%) total households in Cutler Bay, FL, are within ½ mile of transit.
- HOUSEHOLDS NEAR HIGH-FREQUENCY TRANSIT
  Average headways of 15 minutes or less for households in Cutler Bay, FL
- RUSH HOUR
  7am- 9am and 4pm- 6pm
  1309 (10%) households
- FULL DAY
  7 a.m. to 10 p.m.
  0 households
- AROUND THE CLOCK
  24 hours
  0%

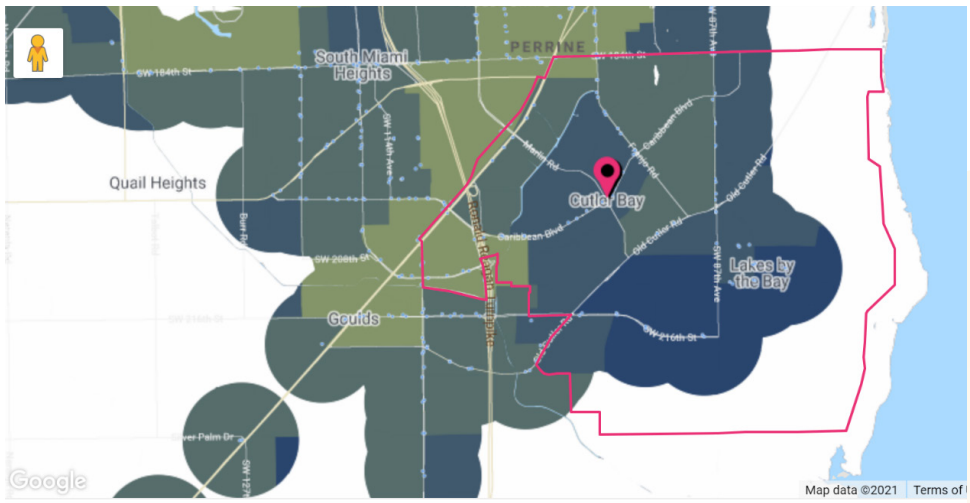
2.5 | TRANSIT DATA



Number of transit trips available per week on average for households on average for households.

< 625 Trips | 625-1,250 Trips | 1,250-1,875 Trips | 1,875-2,500 Trips | 2,500-3,000 Trips | 3,000-4,500 Trips | 4,500-7,500 Trips | 7,500 Trips+

Source: Center for Neighborhood Technology



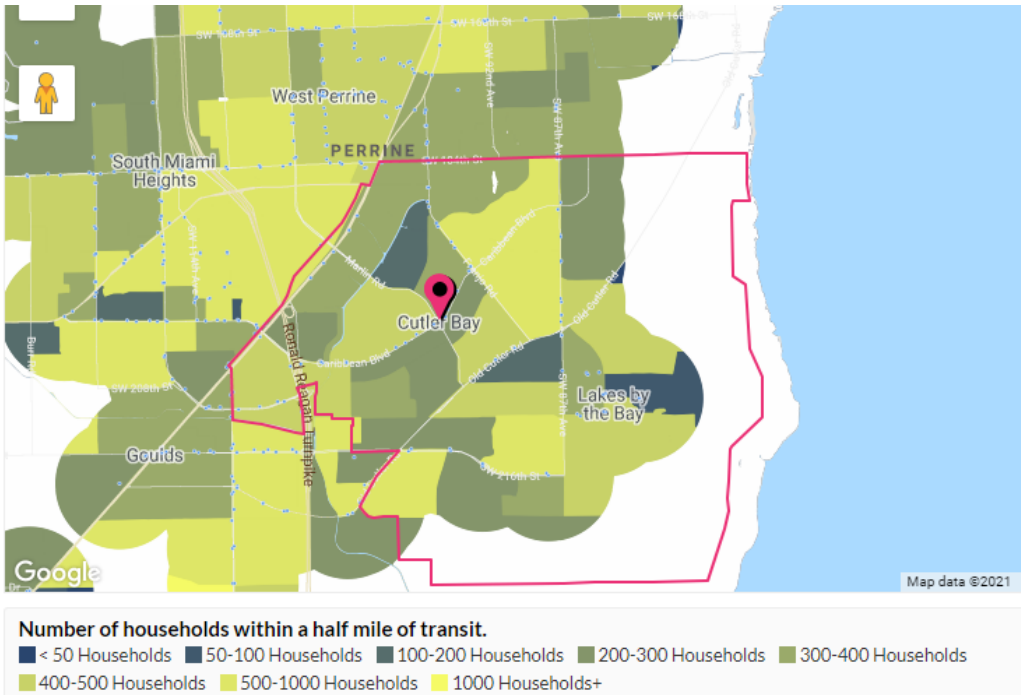
The Transit Access Shed is defined as the optimal accessible area from any block group within a 30 minutes transit trip.

< 10 mi² | 10-20 mi² | 20-30 mi² | 30-50 mi² | 50-75 mi² | 75-100 mi² | 100-150 mi² | 150 mi²+

Source: Center for Neighborhood Technology

All households in the Town of Cutler Bay are met with standard or minimal transit service.

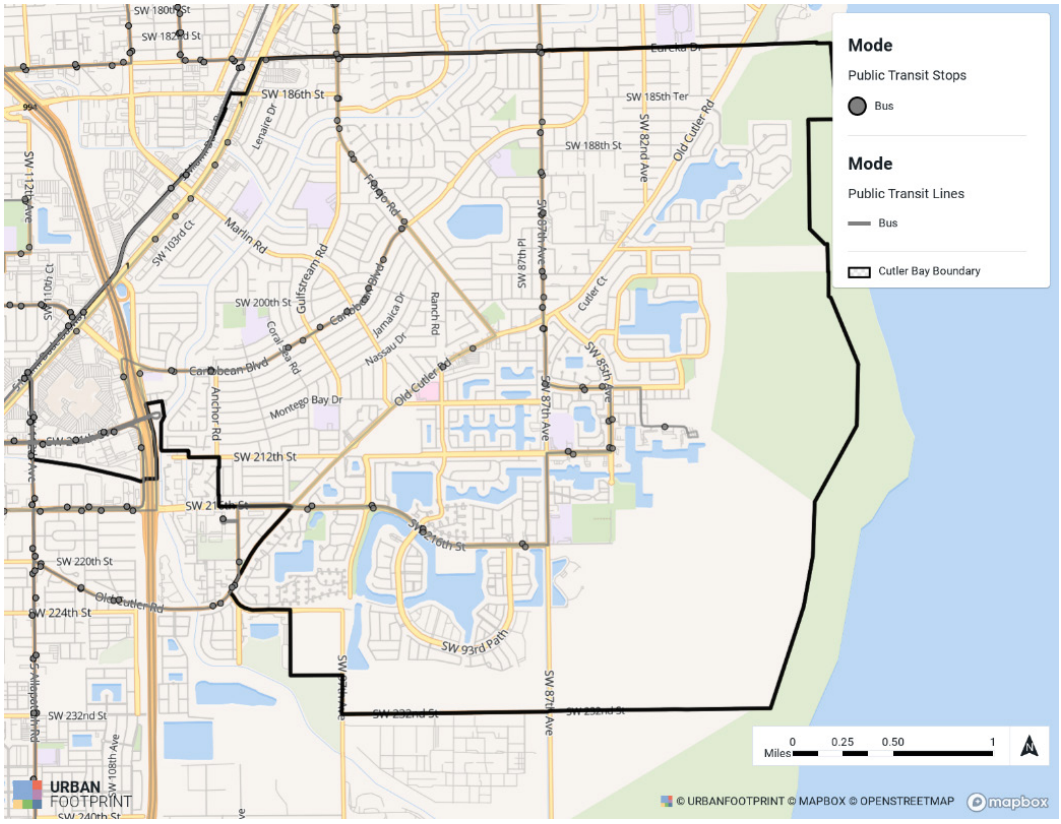
Transit use in Cutler Bay varies from a high of 4.54% of households nearest to the regional hub and Transitway to 0.43% of households along the southern and eastern fringes of the Town where land-use patterns trend towards traditional sprawl development. On average, 4% of Cutler Bay households use public transportation regularly to commute to work (Center for Neighborhood Technology). Transit use is greatest along the Miami-Dade Transitway, west of the natural barrier formed by the Cutler Drain Canal C-100B. This neighborhood's residential density is 2.85 households per acre, the 2nd highest figure in Cutler Bay. The area is horizontally mixed-use in nature and provides the nearest pedestrian link to the Miami-Dade Transitway within the Town. Within Cutler Bay, the neighborhoods bordering the Transitway to the west and Routes 1 and 70, along Caribbean Boulevard, generally experience transit use by at least 3% of the region's workers. Incidentally, the homes in this region of the Town were constructed in the 1950s along a modified grid-like pattern that enhanced the connectivity among the streets. Though not dense or mixed-use in nature, this interconnected street system contributes greatly to the walkability and transit use in the Town. This grid-like pattern also enables children to access the neighborhood schools easily while avoiding larger arterial or collector roadways. Internally, Cutler Bay has instituted a Town Circulator. This circulator provides increased access for the various neighborhoods to the Southland Mall area, the employment center, and the Transitway along US-1.



Source: Town of Cutler Bay

2.5 | TRANSIT DATA

Bus stops, shelters, and benches are essential for maintaining an adequate rider base. These features improve the usability and accessibility of the public transportation system. Easily identifiable bus stops, and routes are critical in creating a user-friendly system. Benches and shelters provide shade and comfort for passengers, facilitating the use of the system while improving the quality of life for all. The Town is currently replacing all of its bus shelters. It is responsible for installing and maintaining shelters and benches, as well as complying with ADA regulations, such as accessibility to and from bus passenger-stops and shelters.



The Town has been actively replacing bus shelters as part of the Town's Complete Streets Plan. Phase 1 included ten (10) bus shelters, completed in early 2019. The Town most recently replaced shelters on Old Cutler Road and Caribbean Boulevard. The Town will be replacing older bus shelters in phases and prioritizing the addition of shelters and benches at high-ridership stops. The average cost of a shelter is $43,330 and includes the installation of concrete, shelter, benches, bicycle rack, and trash receptacle at each bus stop.

Source: Town of Cutler Bay

First & Last Mile Transit Connections

The focus of First and Last Mile (FLM) transit connections in the Town of Cutler Bay integrates pedestrian facilities, bicycle facilities and other active mobility modes with transit routes, stations, and stops to increase transit use for longer trips. This reinforces a culture of walking and biking for neighborhood trips and improving the viability of shared non-motorized modes. In doing so, the FLM connection increases the market capture area and potential ridership for high-capacity transit investments. Many residential neighborhoods, workplaces, and other major destinations will be beyond an easy walk to a station. FLM mobility options include a wide range of modal groups and delivery models (public and private). As much as FLM innovations leverage innovative vehicles, mobile communication technologies and sharing business models, the basics are important as first efforts: sidewalks with safe crossings; a safe, convenient bicycle infrastructure; and, comfortable, safe and convenient transit stops that are located with greater attention to land use context.

The connections to and from transit encourage or discourage a person to ride transit. A transit traveler evaluates the desirability of a transit trip based on multiple criteria for the entirety of the door-to-door journey. The satisfaction of each part of the journey is not evenly weighted based on actual distance or time, but perceptually weighted based on a person's own needs and comfort levels for each part of the trip. In this way, the 5-minute walk in undesirable conditions can discourage a 15-minute transit journey, even if the person will use more total time and cost to make the journey by a personal automobile. The resulting dilemma is ubiquitous in urban areas with nearly empty transit lines and half-empty bus-rapid transit and rail lines. FLM is a critical first step to develop greater transit utilization.

Not only are the first and last legs of the trip disproportionate in their effect on transit demand, but their impact on transit providers is also disproportionate. For mass transit providers and especially for major fixed right-of-way investments like rail, productivity and efficiency depend on large numbers of people moving along linear transit sheds of a walkable distance to transit stops. The more complete the network, the higher the utilization that can be expected. Increased route coverage with fixed-route deviations or fixed-route feeder services are often not cost-effective for increasing ridership, and as a result, other FLM strategies must be used.

From a transit perspective, the goal of FLM strategies is two-fold:

1. **Increase the size of the transit shed and the total number of people from which transit can draw.**
   Increase the transit share within a given transit shed, further improving the viability of planned transit. By policy, the transit shed is ¼-mile on each side of a fixed route bus line. It is possible that in many areas, the actual transit shed is smaller because of environmental conditions. FLM strategies can expand the transit shed beyond the ¼-mile.

The base level analysis incorporates the approach to analyze FLM as a way for Cutler Bay to improve transit access and utilization by adjusting priorities for improving pedestrian and bicycle facilities.

2.6 | Bicycle and Pedestrian Data

2.6 | BICYCLE AND PEDESTRIAN DATA

As Cutler Bay rises to regional prominence, it is expected that the number of short trips will continue to increase, as destinations like work, restaurants, shopping, and schools all come closer to people's homes. Short trips are defined as being less than a half-mile. Today, we live in an automobile-dominated society; one of the main reasons for this trend, which holds more true in Cutler Bay than in the rest of Miami-Dade County, is the options and conditions necessary to reduce private vehicular usage. In the future, it is anticipated that a large portion of these short trips will often be made by walking or bicycling rather than by driving if the conditions are planned for now. As traffic congestion increases, the construction of bicycle and pedestrian facilities as an alternative to automobile travel becomes more important and will help maintain mobility within the community. Florida is one of the two most dangerous states in which to walk or bike. This fact strikes fear in parents as they consider allowing their children to play or ride in the community and has led to Cutler Bay commissioning a Safe Routes to School audit. As a remedy, it is an intention of federal transportation policy to increase nonmotorized trips to at least 15 percent of all trips and reduce the number of nonmotorized users killed in traffic crashes by at least 10 percent. Today walking and biking account for less than 1% of all trips. Transit trips equate to less than 4% of all trips. This is largely because adequate facilities do not exist. In Florida, concurrency requirements were revised in 1999 to encourage a more comprehensive multimodal evaluation of transportation facilities. Local governments are directed to use professionally accepted techniques for measuring level of service for all modes: automobile, bicycle, pedestrian, transit, and trucks. Creating a Bicycle and Pedestrian Plan in Cutler Bay was a positive step towards achieving a very safe community where a higher percentage of nonmotorized trips are taken.

We invest in walking and bicycling assets for the Town because walking, bicycling, and active transportation deliver four important benefits to the community.

The Benefits

The importance of growth in pedestrian and bicycle travel is to foster economically, ecologically, and socially sustainable urban mobility to:

Access for All

Provide a network of mobility alternatives that democratize urban mobility by providing facilities for the most basic transportation that provides equitable access to opportunity.

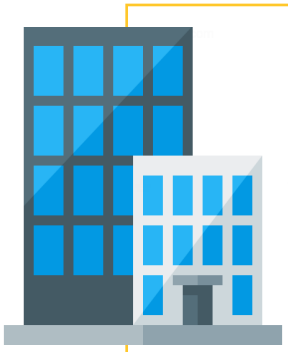
Walking and bicycling are affordable transportation options available to everyone.

Emphasize facilities that can be used by all Town residents, not just those who are fit and fast walkers.

Sustainability

Increase the proportion of regional travel trip mileage that is made without reliance on fossil-fueled vehicles to improve the region's personal and environmental health, reduce greenhouse gases, and provide a positive impact to reduce global warming.

Replacing driving trips with walking trips can play an important part in a comprehensive strategy to improve air quality, reduce atmospheric heat, retain ozone and do our part to reduce imminent sea-level rise that is critical to the sustainability of all of South Florida.



Economic Health

Business and employee relocation decisions are increasingly being made based on quality-of-life considerations that include the walkability of neighborhoods and employment centers.

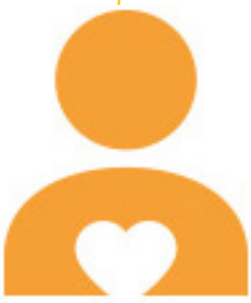
Active transportation infrastructure also generates tourism revenue, supports local businesses, and creates jobs.

Quality of Life and Safety

Improve the quality of life for Town residents by decreasing roadway congestion.

Multi-use paths, street redesign, and pedestrian-oriented traffic operational improvements can also result in safer driving and fewer user conflicts through consistency and predictability by working toward a network of improvements more than stand-alone improvements.

A network of market-responsive, flexible mobility alternatives for unchained trips decreases Single Occupancy Vehicle (SOV) mileage.



Personal Health

Active transportation is any self-propelled, human-powered mode of transportation such as walking.

Walking helps people meet recommended physical activity levels, thereby reducing chronic disease and associated health care costs.

Improved walking infrastructure for recreation and daily or purposed trips such as travel to work, walking to school, and errands create a sustained increase in physical activity and a healthier community.

Transit and First & Last Mile Modes

First-last mile modes increase the transit shed, market capture, and potential ridership for existing and future high-capacity transit investments.

The goal is to make walking and bicycling in Cutler Bay safe, convenient, comfortable, and to be realized as a key part of viable transportation options to connect people to places for short distances and connect people to transit while improving personal health the environment.

Environmental Factors – Complete Streets

Streets are an integral part of public space and everyday life. The term "Complete Streets" refers to designing streets for people of all ages and abilities who walk, bicycle, use other personal modes, ride transit, use personal or shared vehicles, and drive their vehicles. The Complete Streets approach balances the competing needs of different transportation modes within each roadway's unique contexts. The walking recommendations that this plan will develop will support Complete Street principles.

The complete streets principles encompass a range of possible improvements, and for each, the starting point is to include the possible factors in the base-level environmental analysis. The following is excerpted from the Miami Dade County Complete Streets Design Guidelines.

PRINCIPLES

These guidelines build off the increasing array of national guidelines for Complete Streets design. Lessons and applications from Chicago, Boston, New York, and Los Angeles mix with local priorities and opportunities to place Miami-Dade County's Complete Streets Guidelines at the forefront of guidelines across the nation. Best practices in design guidelines are incorporated throughout this guide; the principles below were established through research of comparable guidelines and a focus on how to best achieve the vision and goals of the Miami-Dade County Commission Complete Streets policy and the Local Action Plan for Safer People, Safer Streets.

SAFETY

Prioritize safety over traffic flow
Use design to enforce safe use

HEALTH

Increase walking and biking, particularly for shorter trips
Support the Age Friendly Initiative

MODAL EQUALITY

Provide facilities for every mode on every street
Establish a connected network for all users

CONTEXT SENSITIVE

Align speeds and features with neighborhood character
Use opportunities to placemake with street design

SUSTAINABILITY

Use streets as the first line of stormwater capture and filtration
Increase tree canopy and landscaping to support comforatble sidewalks and increased biodiversity

2.6 | BICYCLE AND PEDESTRIAN DATA

The Town goal is to encourage intra-town trips by bicycling and walking. A pedestrian network typically consists of the basic elements of sidewalks, crosswalks, building connections, and adjacent conditions and amenities, defined as:

- Sidewalks: Hardscape paths of sufficient width, unobstructed by obstacles, and well maintained to be free of cracks and weeds for use only by pedestrians.
- Intersection Crosswalks: Properly marked, signalized, safe pedestrian crossings of roadways.
- Building Connections: Designated, safe, marked pedestrian paths connecting sidewalks at the street edge through parking lots or landscaped areas to building entrances.
- Adjacent Conditions and Amenities: Setbacks of sidewalks from roadways (4 to 6 feet on high-speed roads, up to curb on lower-speed urban roads) shade trees, active building edges, miscellaneous sidewalk amenities like signage, trash cans, plazas, and public art.

For walking to be a viable alternative to driving, the experience must go beyond being possible to appealing, requiring wider, unobstructed shaded sidewalks set back from streets and lined with active building edges rather than parking lots. Plazas, pocket parks, public art, and similar elements can also encourage walking when it might not otherwise take place.

As would be expected in a historically car-oriented community, Cutler Bay's pedestrian network is somewhat limited, although major improvements have been made in recent years. Pedestrian traffic within Cutler Bay varies widely by area and is related to residential, commercial, and recreational land uses.

Overall, Cutler Bay has made significant strides to correct areas where the pedestrian network exhibits the following issues and deficiencies:

- Sidewalks: Missing segments; cracked and in need of maintenance in some locations; not ADA-compliant; too narrow and obstructed in many locations.
- Intersection Crosswalks: Not properly marked, lacking signalization, and inadequately spaced.
- Building Connections: Lacking in most locations or only partially complete.
- Adjacent Conditions and Amenities: Sidewalks are not set back from the curb; there are few areas where trees provide shade. There are almost no areas where buildings are built to a build-to line to create an inviting edge for pedestrians, and amenities are very lacking.

Pedestrian Infrastructure

Base Infrastructure Conditions

The Miami Dade Transportation Planning Organization (TPO) has taken the lead on pedestrian planning for the County and its municipalities. The TPO's Complete Streets Policy recognizes that every trip begins and ends as a pedestrian. Providing safe and connected transportation facilities for users of all ages and abilities is essential for enabling everyone in a community, regardless of financial means and or physical ability, to have access to healthy foods, healthcare, jobs, education, etc. This also promotes an improved quality of life, including encouraging physical activity, social interaction, mental health, and safety.

The TPO's Complete Streets Design Guidelines and FDOT's minimum standard for sidewalks are 6' wide; however, some existing sidewalks may be narrower.

The Cutler Bay Bicycle and Pedestrian Master Plan was initiated in 2011. It studied the entirety of the bicycle and pedestrian network and projected a level of service. The determination of the pedestrian level of service for each segment of the Miami-Dade Network is based on the operational level of service methodology adopted by the Florida Department of Transportation (FDOT). The Pedestrian Level of Service (PLOS) Model identifies the pedestrian level of service for a segment of the Pedestrian Network on a scale of A to F based on a numerical model evaluating a facility's given conditions. A PLOS of "A" indicates good pedestrian conditions, and "F" indicates the least favorable conditions. PLOS is a measure of the quality of the pedestrian environment based on measured physical attributes.

A cohesive network of facilities currently connects the origins and destinations. Minimal sidewalk facilities are missing on the section line and half-section line roads, but the network is already in place for the most part. Multi-use paths exist on Old Cutler Road and the Transitway. The Old Cutler Road path was in moderate disrepair and needed resurfacing as of the 2011 Bike/Ped Master Plan, with necessary landscape maintenance and other general safety improvements. However, the Town has since made strides in actively applying remedial action to these needs since adopting that Master Plan.

The Town of Cutler Bay has very few areas of concern. Even though sidewalks exist, they have several places throughout the Town with obstructions within the sidewalk, generally rendering them useless at that point. The obstructions are typically utility poles and fire hydrants. The Town has sidewalks that end abruptly with access. Another area of concern is where sidewalks are present or are in the area, but pedestrians choose alternate paths. Possible realignments of the sidewalk infrastructure at these locations are in order.

2.6 | BICYCLE AND PEDESTRIAN DATA

The Town also consists of canals throughout. Also, there is significant Florida Power and Light right of way dedication. These natural barriers and easements tend to block the transportation grid, thereby inhibiting vehicular flow. Furthermore, in places where the grid is curvilinear, considerations of line of sight and associated speeds have varying levels of positive and negative effects on bicyclists sharing the road, depending on drivers' and bicyclists' reactions to these existing conditions.

There are very few areas in the Town where sidewalks are incomplete. The Town has recently made efforts to improve on this situation through the addition of sidewalk improvements.

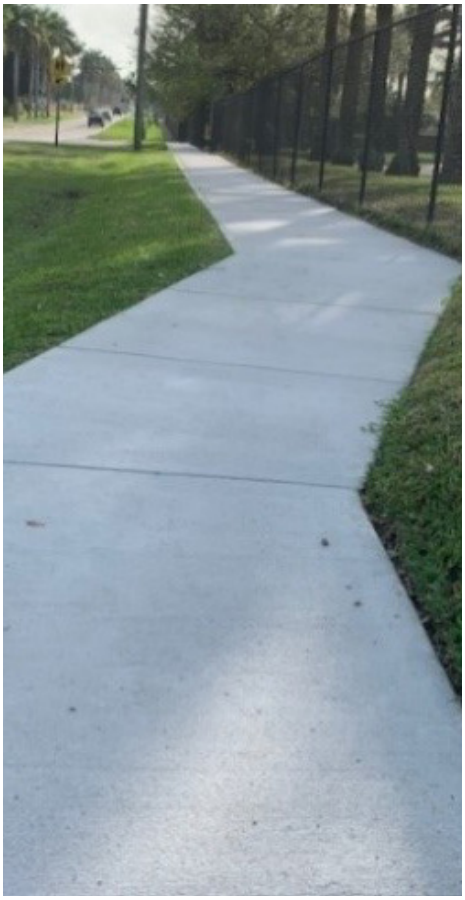
Often utilities such as power poles and fire hydrants are co-located in the sidewalk, creating another hazardous condition. Edges of travel lanes in the transportation network are, at times, not well defined. In areas where no sidewalks exist, pedestrians must walk adjacent to travel lanes, creating safety hazards.

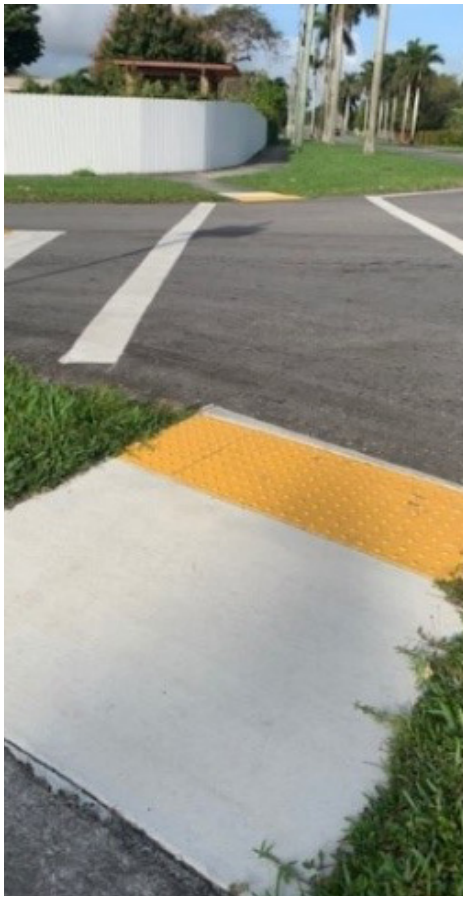
An extensive field survey to various sites around Cutler Bay indicated very little need for sidewalk development in some areas or a need to enhance the pedestrian realm in others. Long segments without crosswalks or missing crosswalks at specific intersections are problematic issues that negatively affect the pedestrian environment.

The pedestrian environment requires a utilitarian view and a design conducive to positive perceptions of safety and comfort. This is generally not the case in Cutler Bay. However, newer developments or streetscape redesign projects, such as those in the Old Cutler Road commercial area, have greatly improved walkability in specific areas. However, specific areas have specific functional deficiencies which prevent access.

Northeast Cutler Bay Single-family Area between SW 87th Avenue and Old Cutler Road

SW 87th Avenue bounds this area of individual single-family homes on medium-sized lots on the west, SW 184th Street on the north, SW 188 Street on the south, and Old Cutler Road on the east. The pedestrian network in the area is generally limited. The boundary arterial roads have sidewalks on one side of the street at a minimum. Old Cutler Road has a wide multi-use pathway on the east side. SW 184th Street previously had sidewalks on at least one side, alternating on the north and south side of the street; the north side of the street is not part of Cutler Bay. However, recently sidewalk improvements have been made along SW 184th Street.





Almost all of the internal streets in the area (SW 188th,187th, 186th, 185th, and 184th Streets, Terraces, and Lanes; SW 86th, 85th, 84th, 83rd, 80th, 79th, 78th Avenues, Courts, and Places) generally have no sidewalk at all. The ROW area where a sidewalk would go is heavily obstructed by trees, plantings, landscape elements, and other items placed by homeowners. In some areas, it appears that trees planted by the Town are in the path of a future sidewalk. Caribbean Blvd south of SW 185th Terrace has some sidewalk segments, as does SW 82nd Avenue, but these are sporadic and, in some cases, lead to a crosswalk with no sidewalk on the opposite side. Another issue observed is that sidewalks are often not continuous through driveways, creating safety issues for pedestrians traversing driveways. Existing sidewalks also routinely dead-end into the grass, utility poles, fire hydrants, planters, and other obstructions where they curve onto the streets with no sidewalks.

Sidewalk shading with shade trees is an important consideration in providing a comfortable pedestrian network. Shading of the minimal sidewalks in this area is limited, with no general pattern discernible. Crosswalks generally consist of two minimal white stripes. Crosswalks that lead to no sidewalk on the opposite side are particularly problematic. There are no signalized intersections in the area. A number of new county bus shelters have been installed in several locations. In two observed locations on SW 87th Avenue, a sidewalk connection exists from the shelter to the street but leads to a mid-block crossing of a traffic lane with no marked crosswalk.

Lakes By the Bay Area

This area is roughly bounded by SW 97th Avenue on the west, SW 216th Street on the south, SW 87th Avenue on the east, and SW 212th Street on the north. The area consists of various stages of Planned Unit Development (PUD) development with a mix of multi-family and small-lot single-family homes. The older sections, such as Windy Pointe on the east and portions of Monterrey Lakes, have no sidewalks. The newer sections of Manatee Cove and Bay Estates have a generally continuous sidewalk but typically lack crosswalks.

2.6 | BICYCLE AND PEDESTRIAN DATA

Old Cutler Road Commercial Area

The Old Cutler Road commercial area is a low-density commercial area expected to transition to higher density with new development built to the street edge. A comprehensive streetscape project was recently completed from SW 87th to SW 97th Avenues. The project features a high-quality pedestrian network with wide sidewalks set back from the street lined with shade trees and numerous signalized paved crosswalks. Bus shelters feature a unique design and provide large shaded waiting areas. There are marked pedestrian connections across small parking lots from the wide sidewalks to the entrance to commercial buildings in several locations. This project provides exemplary pedestrian connectivity and intersection design.

South Dixie Highway Commercial Area

Stretching along South Dixie Highway from Eureka Drive to the Turnpike, this is a medium-density typical older suburban commercial area along US-1 with retail centers set back from the street by large surface parking lots. There are three traffic lanes and various turn lanes in each direction, and there is a high volume of traffic. Sidewalks are very narrow and essentially the same width as those in a single-family neighborhood. In some places, they are from the street by approximately 1ft. wide grass strip serves no purpose, as it is not wide enough to provide separation from the street or a planting area for shade trees. Shade tree canopy along the sidewalk is very limited. Generally, sidewalks from along a busy wide highway like this should be set back from the street by five or six feet with shade trees planted in the setback area.

Intersections typically have an east-west crosswalk on only one side, either the north or south, which significantly limits pedestrian access. Crosswalks consist of only the basic two stripes. There are no crossbar-striped crosswalks. This does not provide a feeling of safety for pedestrians crossing six to eight lanes of traffic. The distance between the east-west crosswalks is far too long for minimal pedestrian access. From the crosswalk at Marlin Road, the next crosswalk south is 0.9 miles away at Caribbean Blvd. The next crosswalk north from Marlin Road is 0.6 miles away at SW 186th St. These distances are far beyond the generally accepted crosswalk spacing of at least every two blocks, if not every block. Standards for promoting walkability typically call for block lengths of 300 to 600 feet which is the length a pedestrian will comfortably walk before needing to cross the street. By contrast, the Marlin Road to Caribbean Boulevard distance is 4,752 feet. Mid-block on-demand crosswalks should be considered in these areas.

Regarding the development pattern, all the structures in the area are set back from the street by wide surface parking lots. For pedestrians to feel a sense of protection and comfort, the new building needs to be built out to an appropriate setback from the street edge that would provide for 5-to-6-foot sidewalks set back from the curb by 5 or 6 feet and planted with shade trees. The newly installed sidewalks on Old Cutler Road, which serves a far lower density area, are an ideal example of this sidewalk cross-section.

Previously buildings were permitted to be constructed with back walls with no windows facing South Dixie Highway. The lack of an active storefront edge along the street creates a negative experience for pedestrians. Backs of buildings should never face a primary street. This was resolved in the Land Development Regulations Design Standards Section. New developments such as El Dorado offer more suitable pedestrian infrastructure.

Sidewalks across driveways are generally adequate. Previously, pedestrian connections from the sidewalk to the setback buildings were generally very limited. A pedestrian had to walk through a busy parking lot with no clear, safe route to a business. A new policy of providing a street-to-building pedestrian pathway was implemented.

At the renovated South Dade Shopping Center, a trellis was required to provide connectivity through the parking area. At the Boston Market at South Dixie Highway (US-1) and SW 186th Street and other plazas, there is a striped pedestrian route connecting the store entrance with the street sidewalk that includes tactile surfaces where the sidewalk portion meets the striped walk across the parking lot. This is an important component of a responsive pedestrian system.

There are two South Dade Busway stations in this area, one at SW 184th Street and the other at Marlin Road. The sidewalk connections to these potentially important transit connections are minimal, and no signage or other indications are provided to emphasize this linkage. An enhanced, wider, more direct sidewalk connection with signage would improve linkage to the stations and encourage their use. Bus shelters include some new full shelters but many unprotected old slat benches as well.

Source: Town of Cutler Bay

2.6 | BICYCLE AND PEDESTRIAN DATA

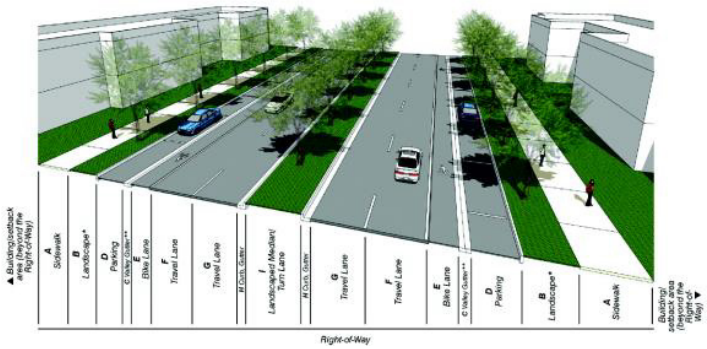
Town Center Area

This area features the largest scale commercial development in Cutler Bay and includes a hotel, Southland Mall, Cutler Bay Town Center, and the South Dade Cultural Arts Center. The area is bounded by the Turnpike on the east, South Dixie Highway on the north, SW 112th Avenue on the west, and Black Creek on the south. Pedestrian connectivity in this area is extremely limited.

There is virtually no pedestrian route linking the minimal peripheral sidewalk to the Cutler Bay Town Hall or the Southland Mall. Pedestrians must walk across a massive hot parking lot with no marked pedestrian route. The connections to the South Dade Busway are also very limited. To get from the northern Busway station to the Mall, pedestrians must backtrack along the transitway to the intersection at Caribbean Boulevard. Dozens of pedestrians were observed crossing the transitway at the station and then walking on a worn rocky path diagonally to the street edge and then rushing diagonally across the street, which is a very dangerous situation.

Miami Dade County recently installed barriers to prevent midblock crossing along US1 and force pedestrians to the intersection of Caribbean Boulevard and US1, where intersection improvements were recently made.

Consideration should be given to a mid-block crossing of both the Busway and South Dixie Highway. The pedestrian and local destinations connection between the southern busway Station in this area is also very problematic. Bus riders wishing to go to the Southland Mall must cross the transitway to the east, then cross SW 112th Avenue to the south, walk an uninviting stretch of sidewalk east to South Dixie Highway, then cross South Dixie Highway to the east, then finally cross SW 112th Avenue to the north. At this point, the pedestrian can access only the sidewalk which follows the streets around the Mall. The pedestrian must walk across the huge hot shade-less parking lot with no pedestrian route marked to get to the Mall. There is a multiple route bus stop on the south side of the Mall on SW 211th Street. It can be assumed that this is a major access point by bus for the Mall, but again there is no marked pedestrian connection from the stop to the Mall. The TPO has a planned intersection improvement at US 1 and SW 211 Street.



A direct marked safe, shaded pedestrian connection should be made from the bus stop to the Mall. The Town recently adopted the previous Urban Center District Street Standards, which provide street design and sidewalk infrastructure details. With the Southland Mall's redevelopment, the Town hopes these improvements will be made to better support pedestrian activity within the Town Center District.

There are two major hotels on Caribbean Boulevard on the north side of the Mall, and it could be assumed that some lodgers would want to walk to the Mall. There is a crosswalk at the Mall service road, a block east of South Dixie Highway. However, again there is no pedestrian connection from the sidewalk on the south side of Caribbean Boulevard to the Mall.

The car dealership on the southeast corner of the Mall area has a sidewalk that extends a short way into the Mall interior lot and dead-ends at the car storage area. It does not connect with the entrance to the building. The street edge of this facility includes extensive landscaping and shade trees, which serve little purpose as they are substantially inset from the sidewalk. Ideally, the sidewalk would have been inset in this area to separate it from the busy adjacent street and allow the trees to be planted between the sidewalk and the street.

The South Dade Cultural Center is a tremendous community anchor, but it is not integrated into the local transportation network. Ideally, there would be a strong pedestrian connection with wayfinding signage from the nearest South Dade Busway stations. Recently, there has been an on-demand signalized crosswalk across SW 211th Street with a cross parking lot connection directly to the Mall entrance, so that evening Arts Center patrons can easily visit the Mall without having to drive their cars.

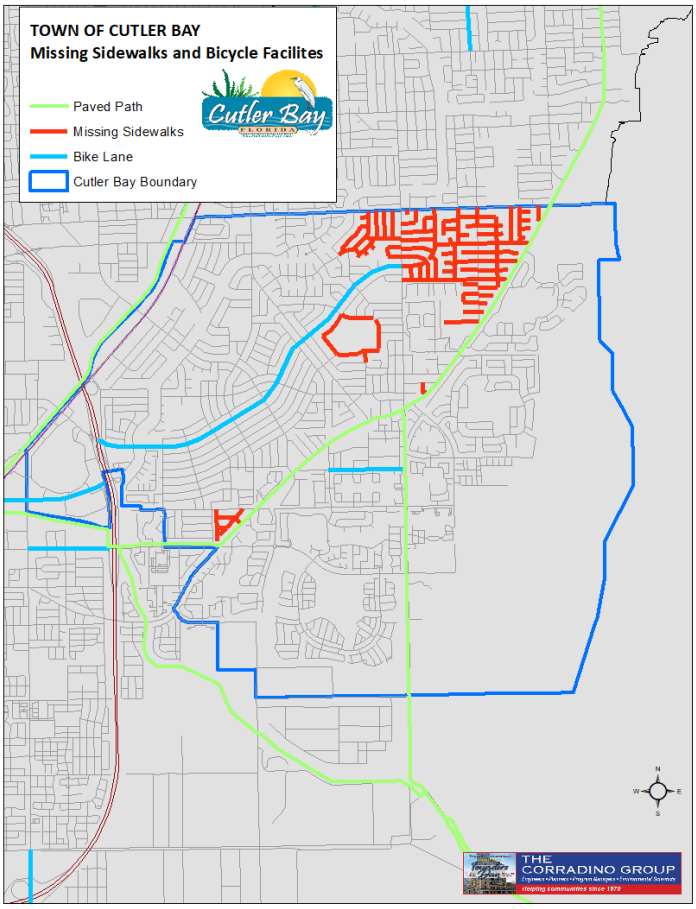
Bicycle and Pedestrian Level of Service

The Town of Cutler Bay developed and executed a data collection plan that included reviewing the current information and collecting new data in calculating the bicycle and pedestrian levels of service. This included the size of the existing right of way, the size of the pavement, the swale, and sidewalk width. Major and minor corridors were inventoried, and any other roadway that is present in any of the proposed networks in this study. They were then evaluated for their quality and level of service in terms of bicycle and pedestrian Levels of Service.

The bicycle Level of Service's determination for each segment of the Bicycle and Pedestrian Network was based on the operational Level of Service methodology adopted by the Florida Department of Transportation (FDOT). The Bicycle and Pedestrian Level of Service (BLOS, PLOS) Models identify the level of service for a segment of the network on a scale of A to F based on a numerical model score. A LOS of "A" indicates good cycling or walking conditions, and "F" indicates the least favorable conditions and are a measure of the quality of the environment based on measured physical attributes, including the vehicle volume and speed on the adjacent roadway, the presence or absence of striped bike lanes, sidewalks, and the presence or absence of occupied on-street parking. For each segment, a LOS score was assigned for both pedestrian and Bicycle LOS. The segments were broken up at logical points; usually section or half section line roads, if applicable. The smaller, more residential streets were generally taken as a single segment.

This is not a Level of Service evaluation as is done for a road, which rates the road on how much volume it can handle. This measures the quality of service of a particular street. Many trends were easy to notice within the Town, such as the standard sidewalk being 5 feet wide. This is a favorable standard size for many places in South Florida, and most communities would be happy with this size. Exceptions apply when the road is meant to be a walkable commercial corridor where the municipality wishes to encourage more pedestrianism and foot traffic in a pedestrian-friendly design. In these areas, people will wish to walk side by side as they converse, and the pedestrian realm will also include outdoor seating; sidewalk rights of way standards for these areas would require a much larger dedication than 5 feet.

The Town is in the process of a number of Town-wide bicycle and pedestrian improvements. There have been ADA improvements Town-wide to all pedestrian facilities. In addition, there have been school perimeter sidewalk improvements. New sidewalks were installed along SW 87th



Avenue near Eastridge. The Town installed new sidewalks for the Caribbean Boulevard JPA on the north side of the road from SW 186th Terrace to SW 87th Avenue and the south side of the road from SW 107th Avenue to SW 103rd Avenue.

Surrounding Cutler Bay Middle School (19400 Gulfstream Road). Sidewalks were constructed on the following local streets: SW 191st Street (westside), SW 99th Avenue (south side), SW 193rd Street (east side), and SW 98th Avenue (southside), and a portion of SW 194th Terrace adjacent to Cutler Ridge Middle School. Funding for the project was provided by the Town's Roadway Impact Fees in the amount of $262,875. The project consisted of:

- Installation of sidewalks and fitness path
- Installation of Americans with Disabilities Act (ADA) ramps with detectable warnings (truncated domes) at all intersections along sidewalk paths
- Minor drainage improvements
- Installation rest areas with benches and trash receptacles

- Installation of future locations of fitness areas with workout equipment (fitness equipment to be installed on a future date)
- Signing and pavement markings
- Tree relocations and planting as per Project plans

The purpose of these improvements was to enhance the neighborhood, increase pedestrian capacity, and improve pedestrian safety.

In September of 2020, the Town completed the following bicycle and pedestrian improvements to improve the accessibility to the Town's current network, the addition of sidewalks, crosswalks, and striping is needed. There are currently pockets within the Town where the sidewalks offer no connectivity to ADA-accessible crosswalks. This project's overall goal is to ensure that the most highly used roadways have sidewalks connecting residents to parks, schools, and other generators of potential pedestrian and bicycle traffic. The project strives to improve public safety, enhance pedestrian mobility, and provide a healthier community.

- Project limits:
  - Southside of SW 184 Street from Franjo Road to Old Cutler Road
  - Eastside of SW 97 Avenue from 184 Street to Sterling Drive
  - Northside of SW 185 Terrace from SW 97 Place to SW 97 Avenue
  - Northside of Sterling Drive from SW 97 Avenue to SW 95 Avenue
  - Westside of 87th Avenue from Caribbean Boulevard to SW 185 Terrace
- Upgrading of pedestrian facilities (crosswalks, bus stops, sidewalks)
- Removing obstacles in the Right-of-Way
- Ensuring Americans with Disabilities Act (ADA) compliance
- Filling in incomplete sidewalk sections
- Installing High Visibility Crosswalks

APPROXIMATE COST: $ 440,000 ($360,640 via a Local Agency Program (LAP) Grant)
FUNDING SOURCE: LAP Grant & Town of Cutler Bay

Bicycle Facilities

There are instances where cyclists prefer not to ride on sidewalks but ride instead in the travel lanes. As South Dade is an attractive place for these cyclists to ride, there is a need for on-road bicycle facilities. The addition of such facilities can incentivize commuter trips by bicycle in the future.

From a bicycle and pedestrian standpoint, each street has been evaluated. There is a high presence of sidewalks and areas for bike facilities. Generally, pavement conditions are adequate, but obstructions and incomplete paths do exist in some cases. Of the +- 50 links measured on the Cutler Bay system, about 90% have a level of service above D, with only about 10% having a level of service of E or F. Because bicycle and pedestrian level of service is based on the quality of service not the quantity of service, communities should strive for LOS A.

Shared off-road bicycle paths in the Town are typically 10-feet wide and bi-directional. On-road bike lanes in the Town vary from sharing the road's whole width to a designated 4 to 6 feet at the same grade as the roadway. Bicycle lanes on the roadway are grade-separated from the sidewalk next to it. Bicyclists utilize sidewalks at times which is not acceptable; sidewalks should be for pedestrians only. When bicyclists use sidewalks because the street is unsafe, this only perpetuates unsafe conditions and reliance on vehicular transportation.

General conditions of existing bicycle paths indicate a system with regular maintenance. Paths are generally free of cracks and have clear striping. Shade for bicycle paths is provided by foliage and tree cover in some places, but this must be tempered by recognizing that clearance height for persons on bicycles is generally higher than pedestrians.

For a bicycle network to be effective, there needs to be numerous safe, accessible places to lock bikes. Bicycles around the Town were chained to permanent features like fences due to the scarcity of bike racks that were generally found at the parks. Other bicycle racks were found at most commercial developments, but not all. The Town's Land Development Regulations require bicycle parking for commercial development.

A maintenance program for the trimming of trees is needed to avoid collisions with branches. There were no rest areas or water fountains along the current bicycle trails. People who wish to stop at certain points could stand to the side but more often would end up blocking the path. No cleaning or showering facilities exist along the route. Lighting of bicycle and shared off-road paths is generally inadequate; bicycle lanes on streets are generally better lit. Lighting is required for bicycle networks used for transportation purposes.

Currently, bicyclists can either ride through an intersection in the same manner as vehicles or stop and walk with pedestrians. Many bicyclists were observed doing the latter, indicating a potentially negative perception of safety. However, bicyclists using crosswalks would encounter the same issues as pedestrians; crosswalks are often missing either signalization or striping.

Midblock crossings are difficult for bicyclists. Where a bicyclist needs to cross a road to reach their destination, the preferred pathway is a direct route; however, this may run across traffic. Thus, many cyclists will generally dismount and walk their bicycles to their destination. Others may wait at a crosswalk signal and ride across when the opportunity presents itself.

Intermodal connectivity for bicycling is limited by the lack of bicycle routes to intermodal centers and the lack of on-site bicycle parking. The Mobility Hubs Plan outlines recommendations for multimodal connectivity.

2.6 | BICYCLE AND PEDESTRIAN DATA

The existing bicycle network is more oriented to recreation than transportation. Recreational bicycling is particularly prevalent in the residential areas of Cutler Bay on streets with no marked bike paths. While a good recreational biking network is desirable for a town, it does not significantly advance multimodal transportation goals, which require a bike network in the central high traffic areas of the Town.

Bicycle LOS was evaluated for specific road segments within Cutler Bay. This rating considered the location and type of bicycle path and vehicular traffic in cases of bicycle lanes. Sidewalks were not evaluated as appropriate for bicycling under this study due to the potential for injury from conflicts with pedestrians and low height signs installed on the sidewalk. Bicycling LOS is inherently more qualitative than quantitative because of the disproportionate effect of perceptions of safety. Bicycle LOS evaluation involves determining if there is a separation of traffic, the level of traffic, the width of a bike lane or path, gaps in the system, and how well a bicyclist can manage these gaps as intersection issues.

Bicycle Commute Distance: Mode Characteristics

	Average Speed	Maximum Speed	Distance in 10 Minutes (avg speed)	Quarter Mile Time (avg speed)
Human Power Bicycle	15 mph	20 mph	2.5 miles	1 minute
E-Bicycle	20 mph	20 mph	3.3 miles	45 seconds
Skateboard	10 mph	15 mph	1.67 miles	1 min, 30 sec.
Electric Skateboard	22 mph	22 mph	3.67 miles	41 seconds
Roller Blade	8 mph	10 mph	1.33 miles	1 min, 53 sec.

Level of Service

The following standards—based on sidewalk conditions, supporting amenities, and the overall pedestrian environment quality were developed:

- LOS A: Highly pedestrian-oriented and attractive for pedestrian trips, with sidewalks, pedestrian-friendly intersection design, low-vehicular traffic volume, and ample pedestrian amenities.
- LOS B: Similar to A, but with fewer amenities and low-to-moderate levels of interaction with motor vehicles.
- LOS C: Adequate for pedestrians, some deficiencies in intersection design, moderate interactions with motor vehicles.
- LOS D: Adequate for pedestrians but with deficiencies in intersection design and pedestrian safety and comfort features, maybe some gaps in the sidewalk system, moderate to high interactions with motor vehicles.
- LOS E: Deficient pedestrian facilities, high interactions with motor vehicles.
- LOS F: No pedestrian facilities, high interactions with motor vehicles.

The following chart provides a ranking of all Pedestrian Network segments for the Town of Cutler Bay.

2011 Bicycle/Pedestrian Level of Service

ROAD	FROM	TO	ROWWIDTH	PAVEMENT WIDTH	TOTAL SWALE	PAVEMENT CONDITION	LEVEL-OF-SERVICE	
							PEDESTRIAN	BIKE
184 St	US 1	97th Ae	75'	55'	6	Fair	C	D
184 St	97th Ave	87th Ave	75'	24'	44	Fair	C	D
184 St	87th Ave	Old Cutler	75'	24'	44	Fair	E	E
186 St	US 1	97th Ae	65'	24'	28	Good	C	D
Marlin	US 1	Gulfstream	90'	55'	34	Good	C	D
Marlin	Gulfstream	Caribbean	72'	24'	40	Good	C	D
Marlin	Caribbean	Old Cutler	60'	24'	30	Good	C	D
Caribbean	US 1	Turnpike	102'	68'	12	Poor	C	D
Caribbean	Turnpike	Gulfstream	80'	24'	44	Poor	D	D
Caribbean	Gulfstream	Marlin	80'	24'	44	Poor	C	D
Caribbean	Marlin	Franjo	80'	24'	44	Poor	C	D
Caribbean	Franjo	87th Ave	70'	24'	34	Poor	D	D
Caribbean	87th Ave	184 St	45'	24'	14'	Good	E	E
Old Cutler	224 St	216 St	80'	24'	43	Good	C	C
Old Cutler	216 St	Gulfstream	54'	24'	28	Good	D	C
Old Cutler	Gulfstream	Marlin	54'	24'	28	Poor	D	C
Old Cutler	Marlin	Franjo	75'	24'	40	Poor	D	C
Old Cutler	Franjo	87th Ave	54'	24'	18	Poor	D	C
Old Cutler	87th Ave	184 St	80'	24'	42	Good	D	C
216 St	103 Pl	Old Cutler	160'	52'	86	Fair	C	C
216 St	Old Cutler	87th Ave	112'	52'	45	Fair	C	D
216 St	87th Ave	85th Ave	75'	24'	38	Poor	D	E
212 St	87th Ave	85th Ave	90'	48'	NA	Fair	C	D
207 St	87th Ave	85th Ave	107'	24'	70	Fair	C	D
US 1	184 St	186 St	120'	74'	NA	Fair	C	C
US 1	186 St	Marlin	120'	74	NA	Fair	C	C
US 1	Marlin	Caribbean	120'	74	NA	Fair	C	C
US 1	Caribbean	112th Ave	120'	74	NA	Fair	C	C
97th Ave	184 St	186 St	72'	24'	40'	Good	D	D
97th Ave	186 St	Franjo	72'	24'	40'	Good	C	D
Gulfstream	Franjo	Marlin	72'	24'	40'	Poor	C	D
Gulfstream	Marlin	Caribbean	72'	24'	40'	Poor	C	D
Gulfstream	Caribbean	Old Cutler	72'	24'	40'	Poor	C	D
Franjo	Gulfstream	Caribbean	72'	24'	40'	Good	C	D
Franjo	Caribbean	Old Cutler	72'	24'	40'	Good	C	D
87th Ave	184 St	Caribbean	75'	24'	43'	Poor	C	D
87th Ave	Caribbean	Old Cutler	60'	24'	32	Good	C	D
87th Ave	Old Cutler	207 St	86'	34'	36	Fair	C	C
87th Ave	207 St	212 St	102'	47'	40	Fair	C	C
87th Ave	212 St	216 St	102'	24'	62	Fair	C	C
87th Ave	216 St	232 St	70'	24'	36	Poor	D	C
85th Ave	Old Cutler	207 St	147'	50'	30'	Fair	C	D
85th Ave	207 St	212 St	105'	48'	32'	Fair	C	D
85th Ave	212 St	216 St	110'	50'	31	Fair	C	D
185 Ter	Caribbean	Old Cutler	46'	20'	20	Fair	F	F
82nd Ave	184 St	185 Ter	70'	24'	36	Fair	C	D
82nd Ave	185 Ter	Old Cutler	75'	24'	39	Fair	C	D
188 St	87th Ave	82nd Ave	52'	24'	28	Fair	F	F
188 St	82nd Ave	Old Cutler	40'	20'	20'	Fair	F	F

Some of these level of service numbers from 2011 have changed as pavement, sidewalk, and bicycle facility improvements have occurred since.

2.6 | BICYCLE AND PEDESTRIAN DATA

2020 Bicycle/Pedestrian Level of Service

ROAD	FROM	TO	ROW WIDTH	PAVEMENT WIDTH	TOTAL SWALE	PAVEMENT CONDITION	LEVEL-OF-SERVICE	
							PEDESTRIAN	BIKE
184 St	US 1	97th Ave	75'	55'	6	Good	C	D
184 St	97th Ave	87th Ave	75'	24'	44	Good	C	D
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Marlin	Gulfstream	Caribbean	72'	24'	40	Good	C	D
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Caribbean	87th Ave	184 St	45'	24'	14'	Good	E	E
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188 St	87th Ave	82nd Ave	52'	24'	28	Fair	F	F
188 St	82nd Ave	Old Cutler	40'	20'	20'	Fair	F	F

A Bicycle and Pedestrian Master Plan is intermingled with the more traditional Transportation Master Plan far more than the layperson would realize, and perception, both rational and irrational, is an integral aspect of the pedestrian environment. The level of vehicular traffic has a very large impact on the quality and the usage of the pedestrian facilities in the same area.

Based on the bicycle LOS and the map of the existing network, it is evident that the adequacy of Cutler Bay's bicycle network is limited. A short segment on SW 208th Street requires further development to become part of a larger system as it provides little use in its current state. Bicycling connectivity is generally good in a north-south direction on Caribbean and Old Cutler Road, but east-west connectivity is almost non-existent. East-west connections, as envisioned in the Town's development plans, are proposed for Franjo Road. This would result in bicyclists traveling with high vehicular activity, with future bicycle connections to and from Downtown Palmetto Bay. Some paths through the neighborhood would help the relatively underdeveloped bicycle network.

The Town of Cutler Bay has relatively large right-of-way widths on all roadways. The pavement footprint is usually less than half of the size of the actual right of way. This allows for very large swale areas throughout the Town. These swale areas could provide ample room for bicycle and pedestrian infrastructure and or improvements to existing infrastructure. The new infrastructure could include on-street bicycle lanes and wider sidewalks that can be used as multi-use paths or both. Some areas within the Town have no sidewalks and would require them to complete the recommended networks.

Given the park & ride facilities' limitations along the transitway and the financial constraints of vehicle ownership, bicycle and pedestrian paths provide the best link to public transit. An adequate pedestrian and bicycle network helps reduce local traffic as residents opt to walk or bike to close destinations. Increased cycling and pedestrian alternatives lead to healthier lifestyles for residents, reduced local congestion and pollution, and increased public transportation use.

Cutler Bay's existing greenways are limited to the US-1/ Busway, Old Cutler Road, and SW 87th Avenue corridors. Comparatively speaking, Cutler Bay's existing facilities are well connected and provide access to various local and regional activity centers.

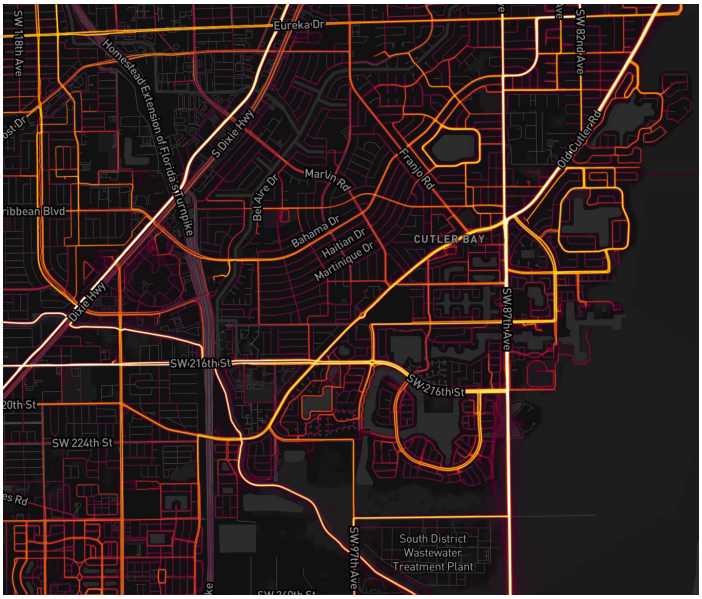


Figure X Strava Cycling Heatmap for Cutler Bay Source: Strava.com

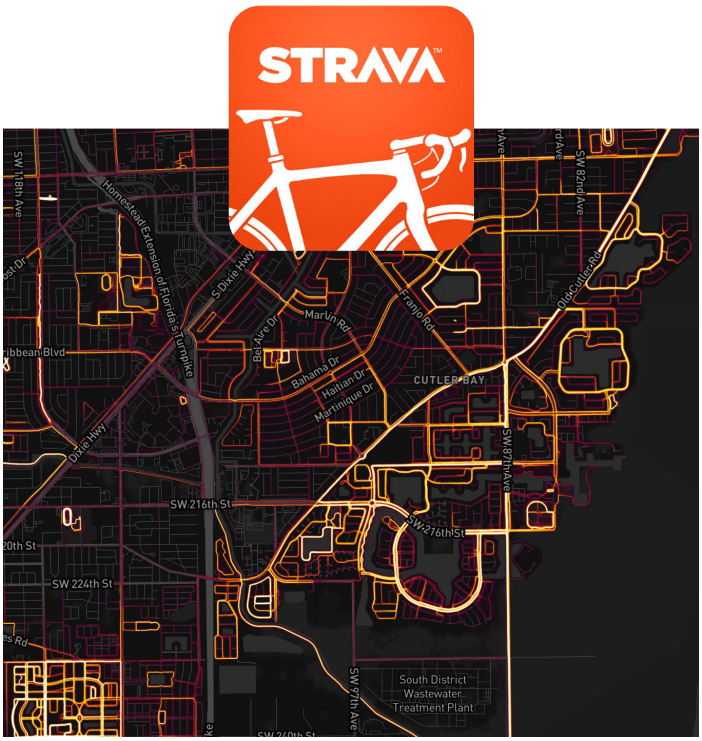


Figure X Strava Walking/Running Heatmap for Cutler Bay Source: Strava.com

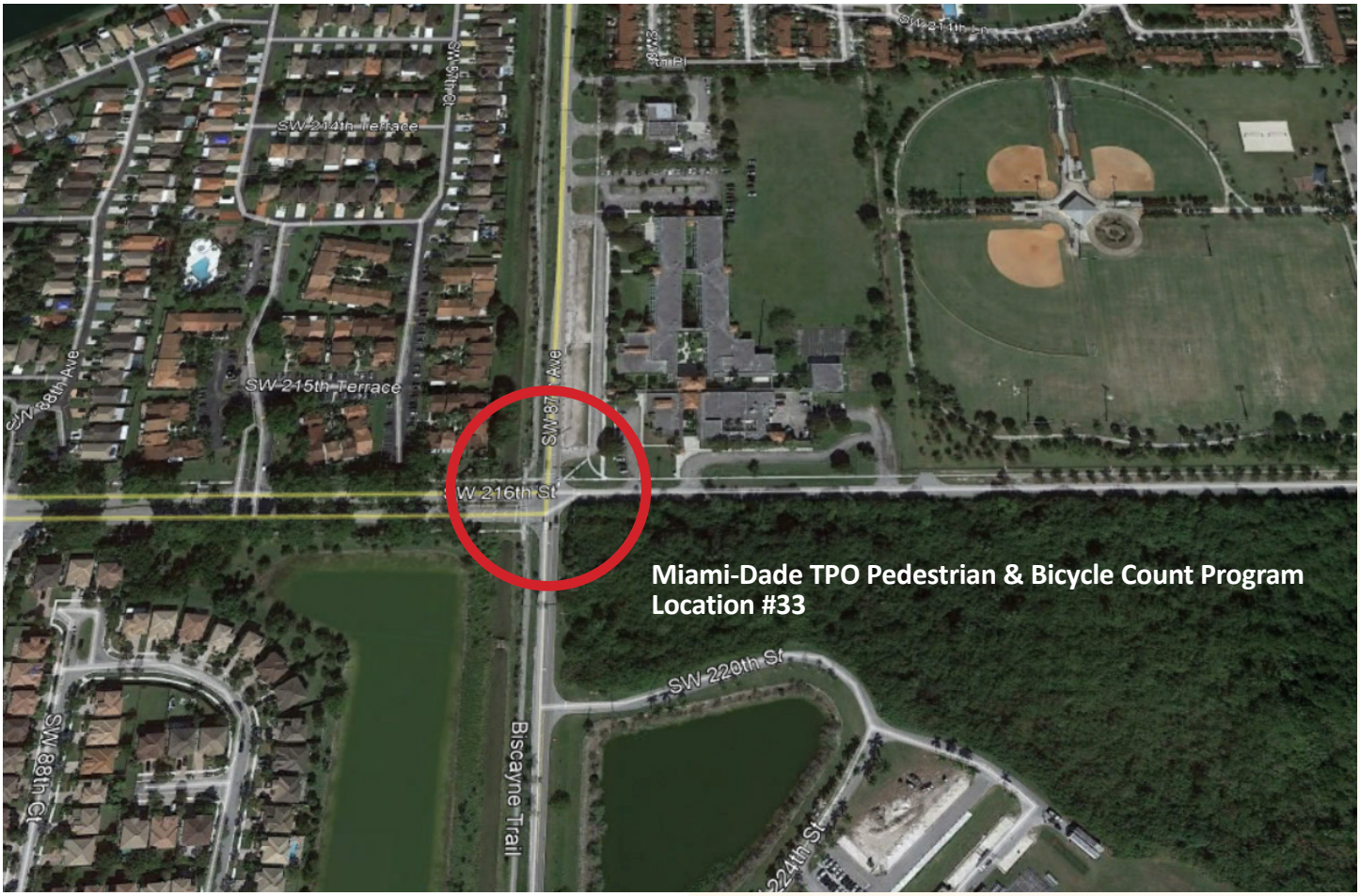
Strava collects human exercise data through GPS access via cellular phones. Strava's global heatmaps, provide recorded activity overlaid on a map, with brightness as a factor of density. The heatmap helps us to understand which parts of the network are being used most often.

2.6 | BICYCLE AND PEDESTRIAN DATA

MIAMI-DADE BICYCLE & PEDESTRIAN COUNT PROGRAM: 2001 TO NOW

In 2001, the Miami Dade MPO created a 2025 Bicycle Master Plan as a first step towards enhancing the County's bicycle facilities and achieving a higher percentage of non-motorized trips by identifying areas of greatest need for bicycle improvements and prioritizing efforts. In 2007, the count program was updated with additional data collection points to study pedestrian and bicycle activities throughout Miami-Dade County as part of the National Bicycle and Pedestrian Documentation Project (NBPDP). The objectives of the NBPDP are to establish a consistent national approach to counting and surveying bicycle and pedestrian traffic, establish a national database of bicycle and pedestrian count information, and use count and survey information to begin analysis on the correlations between various factors and bicycle and pedestrian activity. In 2014 and 2018, the count program was again updated.

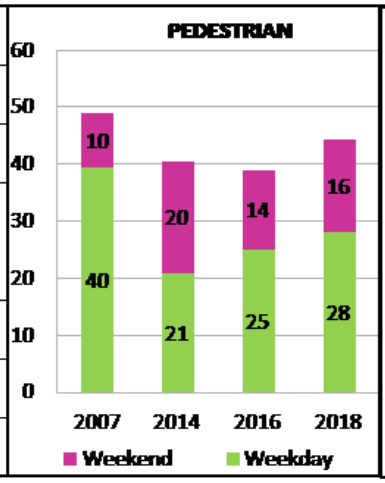
Among the 78 locations that were surveyed, Location #33 is within the Town of Cutler Bay, located at the intersection of SW 87th Avenue and SW 212th Street. The location is important to the Miami-Dade TPO because it is the south termination of the multipurpose trail along SW 87th Avenue and the point where bicyclists transfer to the travel lanes of the roadway network. Across the trail to the east, is the Dr. Edward Whigham Elementary School and Lakes by the Bay Park. The data collection summary and trends from the TPO pedestrian and bicycle count program for this location are provided below.

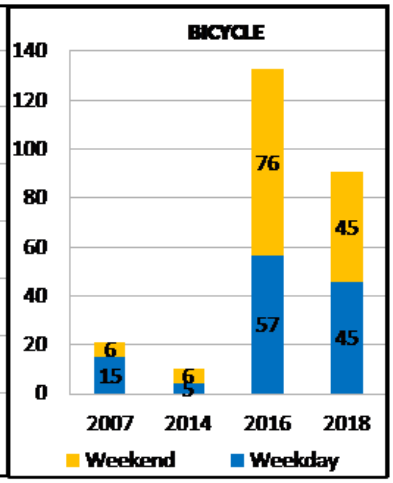


Miami-Dade TPO Pedestrian & Bicycle Count Program Location #33, SW 87th Avenue and SW 212th Street

SW 87th Avenue at SW 212th Street

Site number	33
Primary Street	SW 87th Avenue
Cross Street	SW 212th Street
Count Purpose	Trend analysis (recent fatal crash in March 2018)
Type of Count	Intersection
Jurisdiction	FDOT
Count Group	South





EXISTING FACILITIES & ENVIRONMENT

Pedestrian Facilities	sidewalks both sides, with ped actuated signal
Bicycle Facilities	multiuser trail on west side
Land Development	residential

2018 COUNTS

2018 COUNT RESULT:	April / May Weekday Counts	April / May Weekend Counts	February Weekday Counts	February Weekend Counts
Pedestrian:				
AM *(7-9am)*	**28**	**16**	-	-
Midday *(12-2pm)*	-	-	-	-
PM *(4-6pm)*	-	-	-	-
Bicycle:				
AM *(7-9am)*	**45**	**45**	-	-
Midday *(12-2pm)*	-	-	-	-
PM *(4-6pm)*	-	-	-	-
Date	Tuesday, June 5, 2018	Saturday, June 2, 2018	-	-
Weather	93/79 partly cloudy	89/74 sunny	-	-
Location	signposts on SW side of intersection			

HISTORIC TREND ANALYSIS: WEEKDAY AM PERIOD (7-9am) & WEEKEND MIDDAY PERIOD (12-2pm)

Year	Pedestrian Weekday	Pedestrian Weekend	Bicycle Weekday	Bicycle Weekend
2018 Average	**28**	**16**	**45**	**45**
2016/17 Average	**25**	**14**	**57**	**76**
2014 Average	**21**	**20**	**5**	**6**
2007 Average	**40**	**10**	**15**	**6**

2.6 | BICYCLE AND PEDESTRIAN DATA

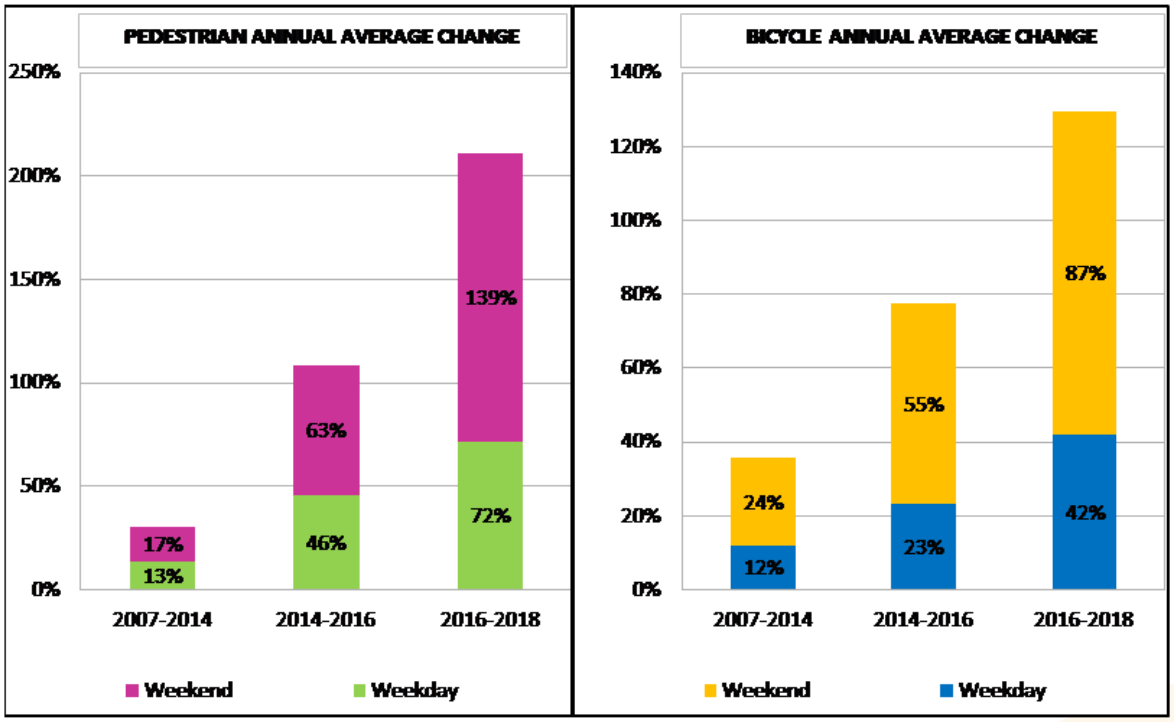
While the trends from this single data point should not be interpreted as representative of usage trends throughout the Town, the 2018 TPO Bike and Pedestrian Counts Program also aggregated count station data by sub-region. The South Dade data, including 8 locations south of Kendall Drive, is also provided and shows a trend on increasing volumes of bicyclists and pedestrians in South Dade.

South Dade County

Average Pedestrian and Bicycle Volume Change

Weekday AM Peak (7am - 9am) and Weekend Midday Period (12pm - 2pm)

Historical Comparative of All Locations In Sub-Area



HISTORICAL AVERAGE VOLUMES FOR THE AREA				
Year	Pedestrian Weekday	Pedestrian Weekend	Bicycle Weekday	Bicycle Weekend
2018 Average	35	41	19	54
2016/17 Average	24	15	23	31
2014 Average	27	12	50	28
2007 Average	28	10	60	17

AVERAGE VOLUMES AMONG ALL LOCATIONS IN COUNTY				
Year	Pedestrian Weekday	Pedestrian Weekend	Bicycle Weekday	Bicycle Weekend
2018 Average	130	284	38	58
2016/17 Average	158	324	31	53
2014 Average	90	119	27	28
2007 Average	79	107	20	29

Bicycle and Pedestrian Level of Traffic Stress

Pedestrian Level of Stress

The Town's pedestrian network is defined by its inventory of pedestrian facilities, specifically the network of sidewalks, paths, shared streets where appropriate, and crossing facilities or as the links that cyclists are permitted to use. In some instances, the pedestrian infrastructure is underutilized because of the lack of safe, comfortable, and convenient continuous paths. Past research has demonstrated that Americans have varying levels of tolerance for traffic stress, which is a combination of perceived danger and other stressors (e.g., noise, exhaust fumes) associated with walking close to and crossing automobile traffic.

While a small fraction of the population will tolerate walking along an unbuffered sidewalk with heavy or fast traffic, a large majority is "traffic-intolerant," willing to tolerate only a small degree of traffic stress. There are a few schemes to classify streets according to the stress they impose on pedestrians. The methodology accepted by the Miami Dade County TPO classifies road segments by one of four Levels of Traffic Stress (LTS):

- LTS 1, Suitable for children. Strong separation from all except low speed, low volume traffic. Simple crossings.
- LTS 2, The level that the mainstream adult population will tolerate. Physical separation from higher speed and multilane traffic.
- LTS 3, the level tolerated by those who can be characterized as confident but still prefer better facilities, Involves interaction with moderate speed (30-35 mph) multilane traffic.;
- LTS 4, Involves interaction with high speed (40 mph+) Uncomfortable for most non-disabled adults.

Classifying road segments by level of traffic stress depends on traffic characteristics (e.g., road width, traffic speed, the presence of a parking lane) and the presence and quality of sidewalks on both sides of the road.

The table below represents the Pedestrian LTS scoring for roadways based on the inputs in the Pedestrian LTS Analysis. Roadways with less separation from vehicles, higher traffic volumes, more lanes, and higher posted speeds generally score higher than roadways with the opposite conditions. The Pedestrian LTS rating is shown in the last column, and Pedestrian Level-of-Service is shown in the column just to the left of LTS for comparison. The differences in evaluation are the influence of operational factors: speed and traffic volume influence LTS in addition to physical infrastructure and dimensions. Neither evaluation method should be ignored. LOS provides a fair evaluation of infrastructure and responses to poor LOS performance are addressed with infrastructure changes, while LTS can refine infrastructure programming relative to present and forecast traffic conditions and also provides potential operational solutions. For the purposes of developing a range of recommendations to enhance pedestrian and bicycle facilities with finer granularity, we understand that there are other factors that affect bicycle LTS on roadway links.

2.6 | BICYCLE AND PEDESTRIAN DATA

The table below represents the LTS scoring for roadways based on the inputs in the Bicycle LTS Analysis. Roadways with less separation from vehicles, higher traffic volumes, more lanes, and higher posted speeds generally score higher than roadways with the opposite conditions. The same characteristics and underlying concepts are used to evaluate Pedestrian LTS.

The Miami Dade TPO defines LTS as provided below:

LEVEL OF TRAFFIC STRESS (LTS) RANK DEFINITIONS

LTS 1	Strong separation from all except low speed, low volume traffic. Simple crossing. Suitable for children.
LTS 2	With the exception of low speed, low volume of traffic situations, cyclists have a place to ride that keeps them from having to interact with traffic aside from formal crossing. Physical separation from higher speed and multilane traffic. Crossings that are easy for an adult to negotiate. Corresponds to design criteria for Dutch bicycle route facilities. A level of traffic stress that most adults can tolerate, particularly those sometimes classified as "Interested but Concerned."
LTS 3	Involve interaction with moderate speed (30-35 mph), multilane traffic, or close proximity to higher speed traffic. A level of traffic stress acceptable to those classified as "Enthused and Confident."
LTS 4	Involves interaction with high speed (40 mph and up) traffic or close proximity to high speed traffic. A level of stress acceptable only to those classified as "Strong and Fearless."

Level of Traffic Stress Criteria for Road Segments, version 2.0, June, 2017

Mixed traffic criteria

Number of lanes	Effective ADT*	Prevailing Speed ≤ 20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50+mph
Unlaned 2-way street (no centerline)	0-750	LTS 1	LTS 1	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	751-1500	LTS 1	LTS 1	LTS 2	LTS 3	LTS 3	LTS 3	LTS 4
	1501-3000	LTS 2	LTS 2	LTS 2	LTS 3	LTS 4	LTS 4	LTS 4
	3000+	LTS 2	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
1 thru lane per direction (1-way, 1-lane street or 2-way street with centerline)	0-750	LTS 1	LTS 1	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	751-1500	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3	LTS 4
	1501-3000	LTS 2	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
	3000+	LTS 3	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
2 thru lanes per direction	0-8000	LTS 3	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
	8001+	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4
3+ thru lanes per direction	any ADT	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4

* Effective ADT = ADT for two-way roads; Effective ADT = 1.5*ADT for one-way roads

Bike lanes and shoulders not adjacent to a parking lane

Number of lanes	Bike lane width	Prevailing Speed ≤ 25 mph	30 mph	35 mph	40 mph	45 mph	50+ mph
1 thru lane per direction, or unlaned	6+ ft	LTS 1	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	4 or 5 ft	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 4
2 thru lanes per direction	6+ ft	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	4 or 5 ft	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 4
3+ lanes per direction	any width	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4

Notes 1. If bike lane / shoulder is frequently blocked, use mixed traffic criteria.
2. Qualifying bike lane / shoulder should extend at least 4 ft from a curb and at least 3.5 ft from a pavement edge or discontinuous gutter pan seam
3.Bike lane width includes any marked buffer next to the bike lane.

Source: Level of Traffic Stress – Peter G Furth (northeastern.edu)

Pedestrian Network Evaluation Summary
Pedestrian Level-of-Service (LOS) and Pedestrian Level-of-Transportation Stress (LTS)

ROAD	FROM	TO	PEDESTRIAN LEVEL OF SERVICE (LOS)	LEVEL OF TRANSPORTATION STRESS (LTS)
184 St	US 1	97th Ave	C	4
184 St	97th Ave	87th Ave	C	3
184 St	87th Ave	Old Cutler	C	3
186 St	US 1	97th Ave	C	AADT not available
Marlin	US 1	Gulfstream	C	2
Marlin	Gulfstream	Caribbean	C	2
Marlin	Caribbean	Old Cutler	C	2
Caribbean	US 1	Turnpike	C	3
Caribbean	Turnpike	Gulfstream	D	2
Caribbean	Gulfstream	Marlin	C	2
Caribbean	Marlin	Franjo	C	2
Caribbean	Franjo	87th Ave	C	2
Caribbean	87th Ave	184 St	E	4
Old Cutler	224 St	216 St	B	
Old Cutler	216 St	Gulfstream	B	2.5
Old Cutler	Gulfstream	Marlin	B	2.5
Old Cutler	Marlin	Franjo	B	2
Old Cutler	Franjo	87th Ave	B	2
Old Cutler	87th Ave	184 St	B	2.5
216 St	103 Pl	Old Cutler	C	4
216 St	Old Cutler	87th Ave	C	3
216 St	87th Ave	85th Ave	D	AADT not available
212 St	87th Ave	85th Ave	C	3
207 St	87th Ave	85th Ave	C	AADT not available
208 St	Old Cutler	87th Ave	C	AADT not available
US 1	184 St	186 St	C	4
US 1	186 St	Marlin	C	4
US 1	Marlin	Caribbean	C	4
US 1	Caribbean	112th Ave	C	4
97th Ave	184 St	186 St	D	3
97th Ave	186 St	Franjo	C	2
Gulfstream	Franjo	Marlin	C	2
Gulfstream	Marlin	Caribbean	C	2
Gulfstream	Caribbean	Old Cutler	C	AADT not available
Franjo	Gulfstream	Caribbean	C	2
Franjo	Caribbean	Old Cutler	C	2
87th Ave	184 St	Caribbean	C	2.5
87th Ave	Caribbean	Old Cutler	C	2.5
87th Ave	Old Cutler	207 St	C	2.5
87th Ave	207 St	212 St	C	2.5
87th Ave	212 St	216 St	C	2.5
87th Ave	216 St	232 St	D	2.5
85th Ave	Old Cutler	207 St	C	2
85th Ave	207 St	212 St	C	2
85th Ave	212 St	216 St	C	AADT not available
185 Ter	Caribbean	Old Cutler	F	AADT not available
82nd Ave	184 St	185 Ter	C	AADT not available
82nd Ave	185 Ter	Old Cutler	C	AADT not available
188 St	87th Ave	82nd Ave	F	AADT not available
188 St	82nd Ave	Old Cutler	F	AADT not available

2.6 | BICYCLE AND PEDESTRIAN DATA

The complete set of factors that will be analyzed include:

Roadway Link-Related Factors:

- Type of Bicycle facility
- Posted vehicular speeds
- Number of adjacent vehicular lanes
- Vehicle volumes (Annual Average Daily Traffic)

The table on the next page summarizes the Bicycle LTS scoring for roadways based on the inputs in the Bicycle LTS Analysis. Bike facilities with less separation from vehicles, higher traffic volumes, more lanes, and higher posted speeds generally score higher than roadways with the opposite conditions. The Bicycle LTS rating is shown in the last column, and Bicycle Level-of-Service is shown in the column just to the left of LTS for comparison. The differences in evaluation are the influence of operational factors: speed and traffic volume influence LTS in addition to physical infrastructure and dimensions. Neither evaluation method should be ignored. LOS provides a fair evaluation of infrastructure and responses to poor LOS performance are addressed with infrastructure changes, while LTS can refine infrastructure programming relative to present and forecast traffic conditions and also provides potential operational solutions.

For the purposes of developing a range of recommendations to enhance pedestrian and bicycle facilities with finer granularity, we understand that there are other factors that affect bicycle LTS on roadway links.

The table below represents the LTS scoring for roadways based on the inputs in the Bicycle LTS Analysis. Roadways with less separation from vehicles, higher traffic volumes, more lanes, and higher posted speeds generally score higher than roadways with the opposite conditions.

Pedestrian Network Evaluation Summary
Bicycle Level-of-Service (LOS) and Bicycle Level-of-Traffic Stress (LTS)

ROAD	FROM	TO	BICYCLE LEVEL-OF-SERVICE (LOS)	LEVEL-OF-TRAFFIC STRESS (LTS)
184 St	US 1	97th Ave	D	4
184 St	97th Ave	87th Ave	D	3
184 St	87th Ave	Old Cutler	D	3
186 St	US 1	97th Ave	D	AADT not available
Marlin	US 1	Gulfstream	D	2.5
Marlin	Gulfstream	Caribbean	D	2.5
Marlin	Caribbean	Old Cutler	D	2.5
Caribbean	US 1	Turnpike	D	4
Caribbean	Turnpike	Gulfstream	D	1.5
Caribbean	Gulfstream	Marlin	C	1.5
Caribbean	Marlin	Franjo	C	1.5
Caribbean	Franjo	87th Ave	C	1.5
Caribbean	87th Ave	184 St	E	2.5
Old Cutler	224 St	216 St	C	1.5
Old Cutler	216 St	Gulfstream	C	1.5
Old Cutler	Gulfstream	Marlin	C	1.5
Old Cutler	Marlin	Franjo	C	1.5
Old Cutler	Franjo	87th Ave	C	1.5
Old Cutler	87th Ave	184 St	C	2
216 St	103 Pl	Old Cutler	C	2
216 St	Old Cutler	87th Ave	D	4
216 St	87th Ave	85th Ave	E	4
212 St	87th Ave	85th Ave	D	4
207 St	87th Ave	85th Ave	D	AADT not available
208 St	Old Cutler	87th Ave	C	AADT not available
US 1	184 St	186 St	C	2
US 1	186 St	Marlin	C	2
US 1	Marlin	Caribbean	C	2
US 1	Caribbean	112th Ave	C	2
97th Ave	184 St	186 St	D	4
97th Ave	186 St	Franjo	D	4
Gulfstream	Franjo	Marlin	D	2.5
Gulfstream	Marlin	Caribbean	D	2.5
Gulfstream	Caribbean	Old Cutler	D	AADT not available
Franjo	Gulfstream	Caribbean	D	2
Franjo	Caribbean	Old Cutler	D	2
87th Ave	184 St	Caribbean	D	2
87th Ave	Caribbean	Old Cutler	D	2
87th Ave	Old Cutler	207 St	C	2
87th Ave	207 St	212 St	C	2
87th Ave	212 St	216 St	C	2
87th Ave	216 St	232 St	C	2
85th Ave	Old Cutler	207 St	D	2
85th Ave	207 St	212 St	D	2
85th Ave	212 St	216 St	D	AADT not available
185 Ter	Caribbean	Old Cutler	F	AADT not available
82nd Ave	184 St	185 Ter	D	AADT not available
82nd Ave	185 Ter	Old Cutler	D	AADT not available
188 St	87th Ave	82nd Ave	F	AADT not available
188 St	82nd Ave	Old Cutler	F	AADT not available

2.6 | BICYCLE AND PEDESTRIAN DATA

Safety

Senior Living Facilities Road Safety Audit

The purpose of a roadway safety audit is to evaluate traffic safety conditions and make recommendations near living facilities specific to senior residents of Cutler Bay. **The November 2017 Aging Road Users Strategic Safety Plan, completed by The Corradino Group for the Miami-Dade County Transportation Planning Organization (TPO), stated that between 2008 and 2014, within Miami-Dade County, 11% of all crashes occurred within ¼ mile of senior living facilities.** With the fact that driving becomes more difficult (especially at night) as we age, and the older adult population in the State of Florida is steadily increasing, the Town of Cutler Bay recognizes that further investigation of road conditions at senior living facilities is needed.

This study analyzed the crash data in the vicinity of the existing senior living facilities and one facility that has received site plan approval but has not yet been constructed. Roadways near the following facilities were examined in this analysis:

1. Eastridge at Cutler Bay, SW 87th Avenue
2. Calusa Cove, 7900 SW 210th Street
3. Coral Bay Terrace, SW 210th Street
4. Cutler Bay Centre Apartments 11150 SW 211th Street
5. Lakeshore Apartments, 21269 SW 85th Avenue
6. Saga Bay Apartments, 21215 SW 85th Avenue
7. Future facility at the Busway and Quail Roost Drive

In several cases where facilities were located next to each other, only one safety audit was needed for the area surrounding the adjacent facilities. The goal of a Road Safety Audit (RSA) is to identify and report potential road safety issues and opportunities for safety improvement for all road users. A RSA is defined as a formal qualitative safety performance examination of a road or intersection. RSA's can be conducted by transportation planners or engineers with the right educational background and skilled in the terminology and characteristics of a roadway system and user behaviors.

The following summarizes the tasks that were performed to complete this analysis:

Background Research:

Study area defined – the locations of each of the existing and future senior living facilities were identified (see the above list of the seven facilities in the Town of Cutler Bay)

Documents Reviewed – 2017 Miami-Dade Aging Road Users Strategic Safety Plan; 2019 TPO Senior Living Facilities Road Safety Audit

Crash data

A review of the most recent 5-year crash data of specific corridors near existing schools and Assisted Living Facilities (ALF) was completed within the Town of Cutler Bay for the Transportation Master Plan. Each location looked at several relevant road segments and/or intersections that serve the pertinent school or ALF. The specific locations for the crash audits are provided in the below list:

1. Edward L. Whigham Elementary School- 21545 SW 87th Ave, Cutler Bay, FL 33189
2. Cutler Bay Senior High School- 8601 SW 212th St, Cutler Bay, FL 33189
3. Whispering Pines Elementary School- 18929 SW 89th Rd, Cutler Bay, FL 33157
4. Cutler Bay Middle School- 19400 Gulfstream Rd, Cutler Bay, FL 33157
5. Bel-Aire Elementary School- 10205 SW 194th St, Cutler Bay, FL 33157
6. Cutler Ridge Elementary School- 20210 Coral Sea Rd, Cutler Bay, FL 33189
7. Gulfstream Elementary School- 20900 Gulfstream Rd, Cutler Bay, FL 33189
8. East Ridge at Cutler Bay ALF- 19301 SW 87th Ave, Cutler Bay, FL 33157
9. Calusa Cove ALF- 8000 SW 210th St, Cutler Bay, FL 33189
10. ABC Adult Day Care ALF- 11150 SW 211 St, Cutler Bay, FL 33189
11. Quail Roost Drive Future ALF- Quail Roost Drive between US-1 and the Busway

These crash audit locations are shown in Figure 1.

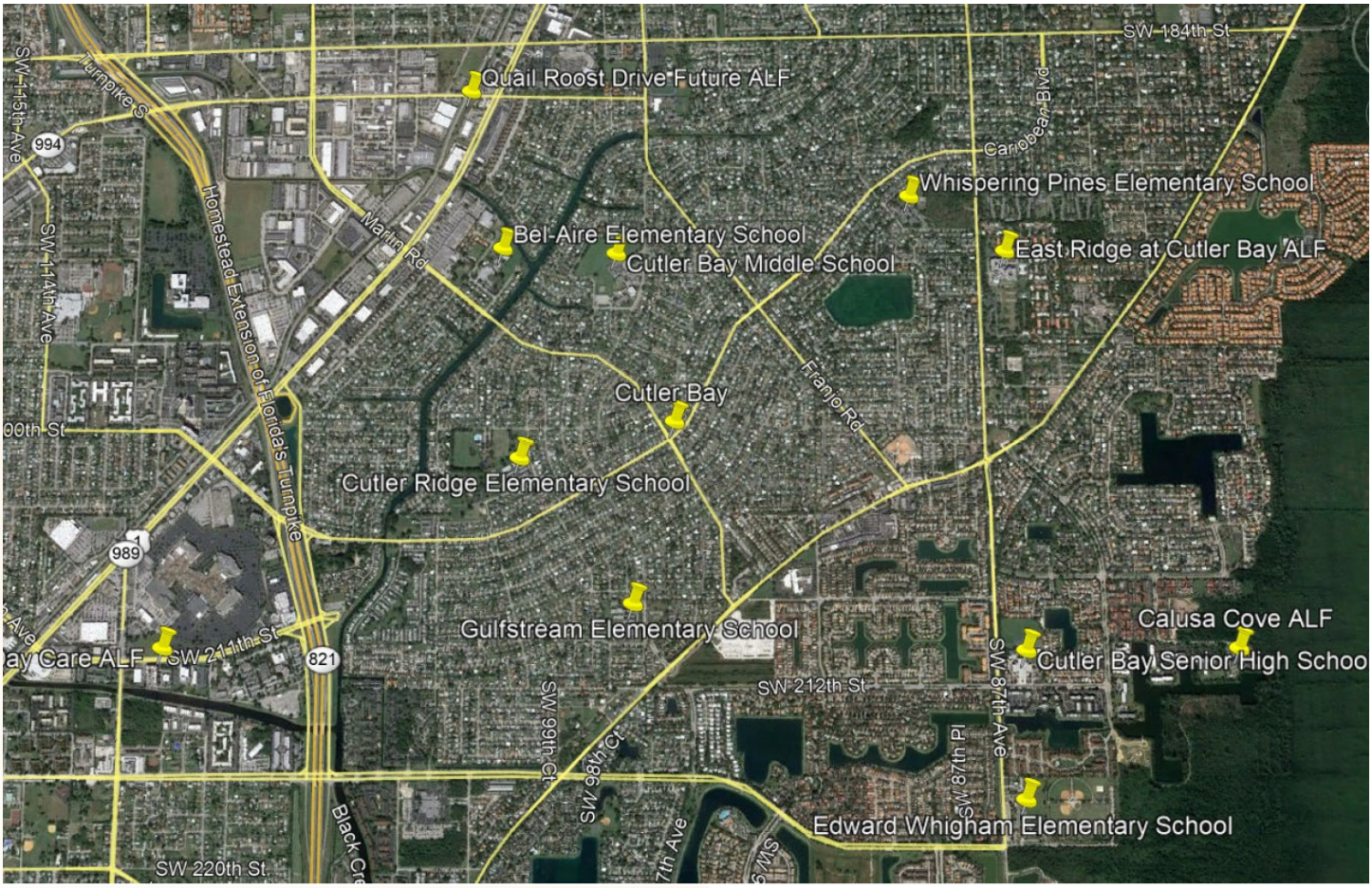


Figure 1 Town of Cutler Bay Transportation Master Plan Crash Audit Locations

2.6 | BICYCLE AND PEDESTRIAN DATA

Edward L. Whigham Elementary School

The crash data was obtained using Signal Four Analytics for the period between December 31, 2015 through December 31, 2020. A network screening for all vehicular crashes was first completed for each corridor. In addition, pedestrian and bicycle crashes were screened for each corridor. A summary of the documented crash data for the 5-year review period along the road segments and intersections for each crash audit location is summarized in the following figures.

Figure 2 depicts the corridor segment limits and the location of the overall crashes. Figure 3 depicts the pedestrian and bicycle crash locations. Figure 4 provides an overall summary of the crash type and severity. The crash network screening identified 44 crashes over the 5-year period. The predominant pattern observed was rear end crashes followed by sideswipe and left turn crashes. There were 9 injury crashes and 0 fatalities observed within the 5-year period. There were 0 documented crashes that involved pedestrians and 2 documented crashes that involved bicyclists in the 5-year crash network screening.

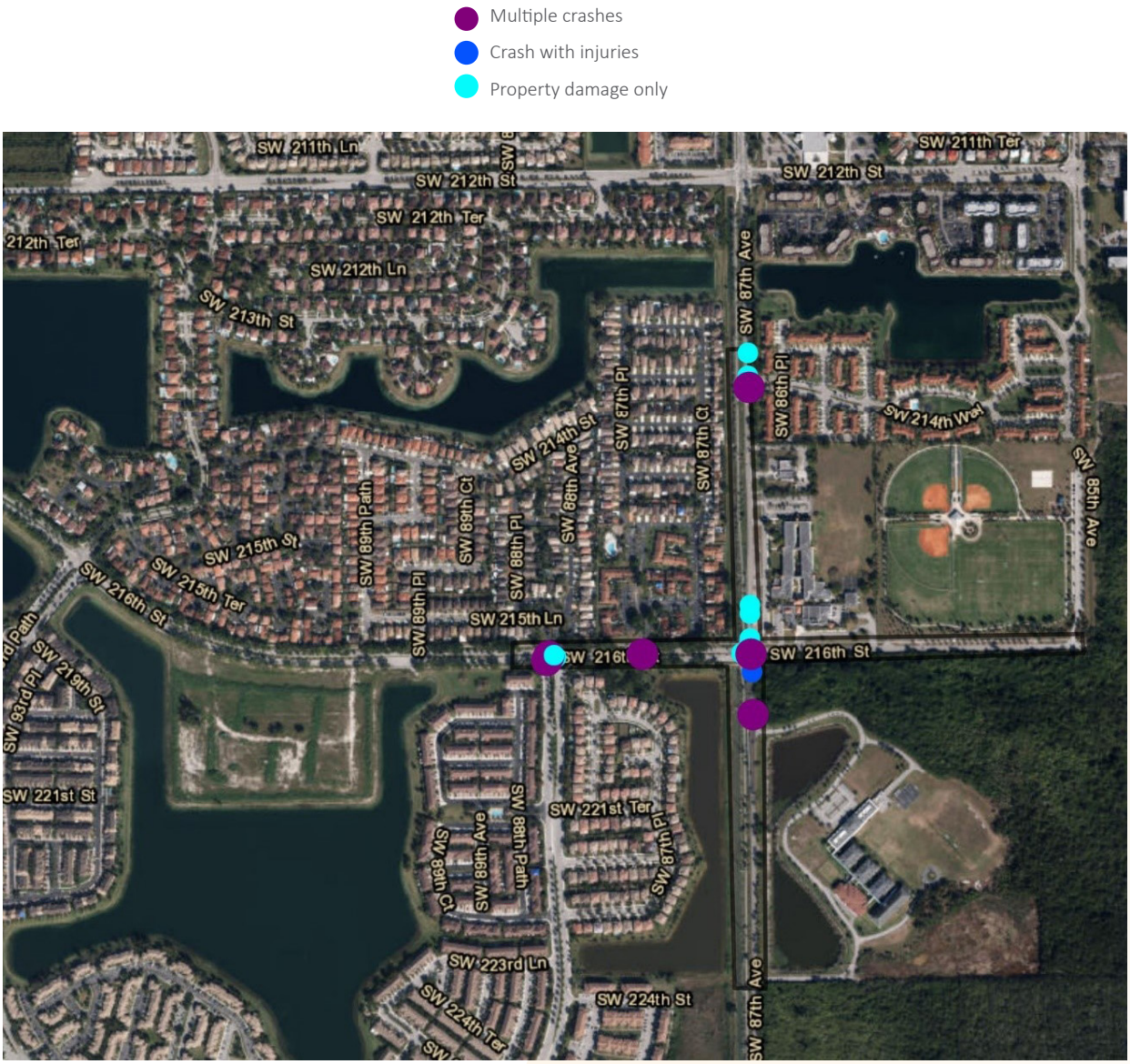


Figure 2 Edward L. Whigham Elementary School Five Year Overall Network Screening

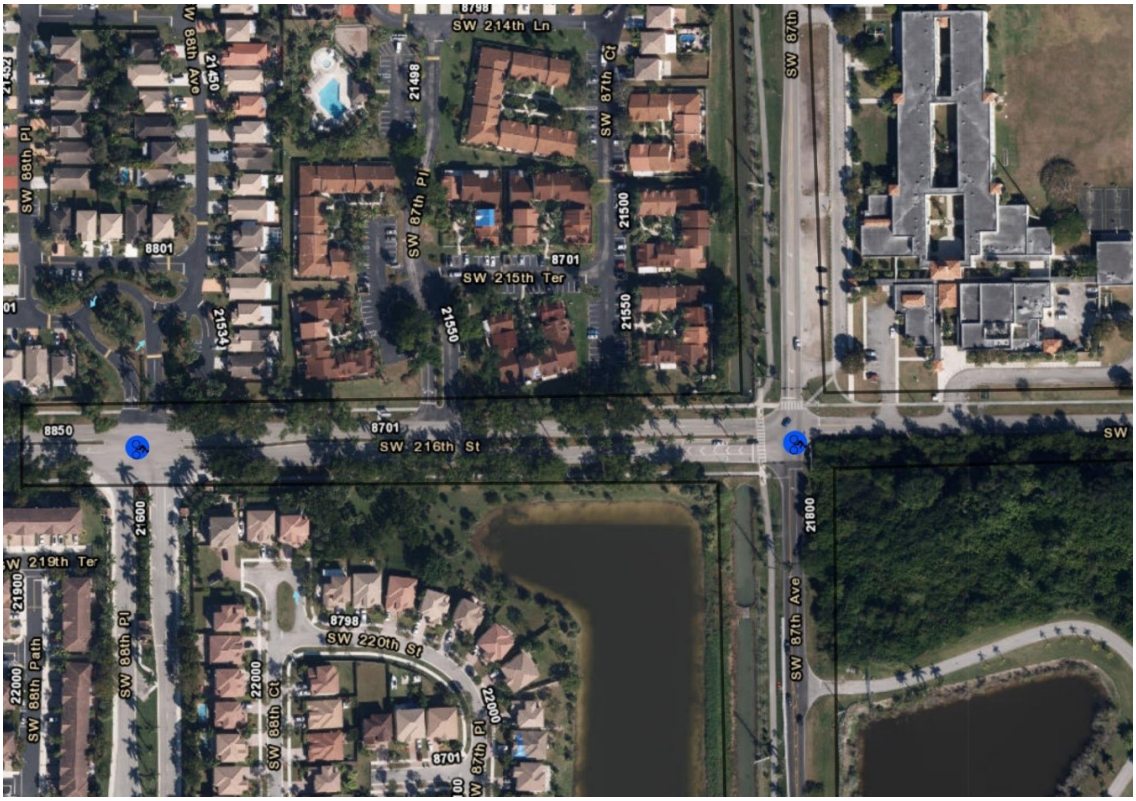


Figure 3 Edward L. Whigham Elementary School Five Year Pedestrian and Bicycle Network Screening

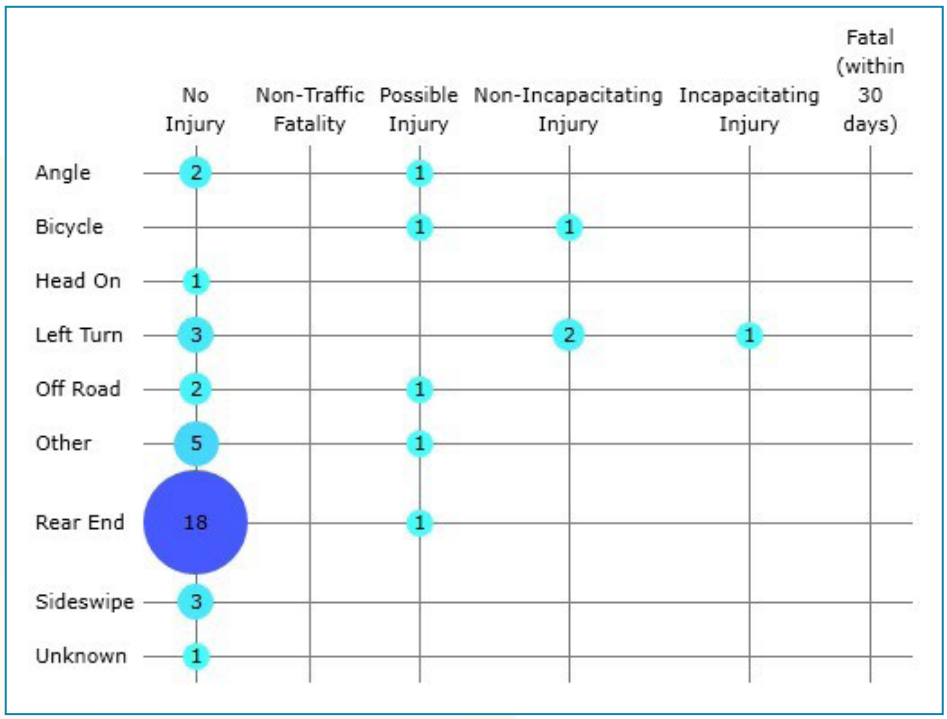


Figure 4 Edward L. Whigham Elementary School Crash Type and Crash Severity Summary

2.6 | BICYCLE AND PEDESTRIAN DATA

Cutler Bay Senior High School

Figure 5 depicts the corridor segment limits and the location of the overall crashes. Figure 6 depicts the pedestrian and bicycle crash locations. Figure 7 provides an overall summary of the crash type and severity. The crash network screening identified 30 crashes over the 5-year period. The predominant pattern observed was rear end crashes followed by sideswipe crashes. There were 9 injury crashes and 0 fatalities observed within the 5-year period. There were 3 documented crashes that involved pedestrians and 1 documented crash that involved bicyclists in the 5-year crash network screening.

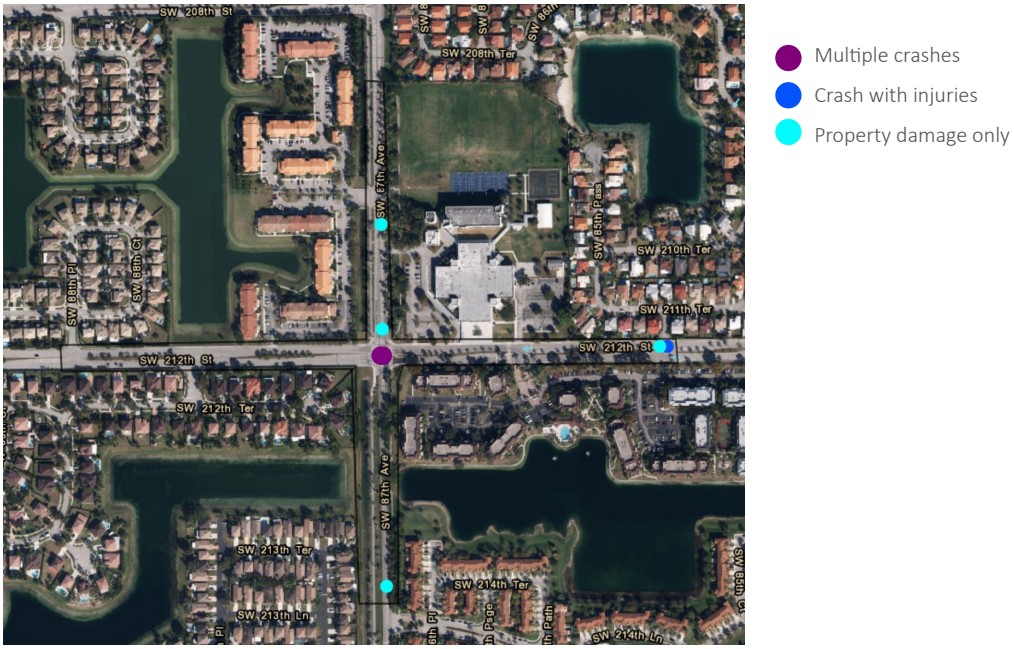


Figure 5 Cutler Bay Senior High School Five Year Overall Network Screening

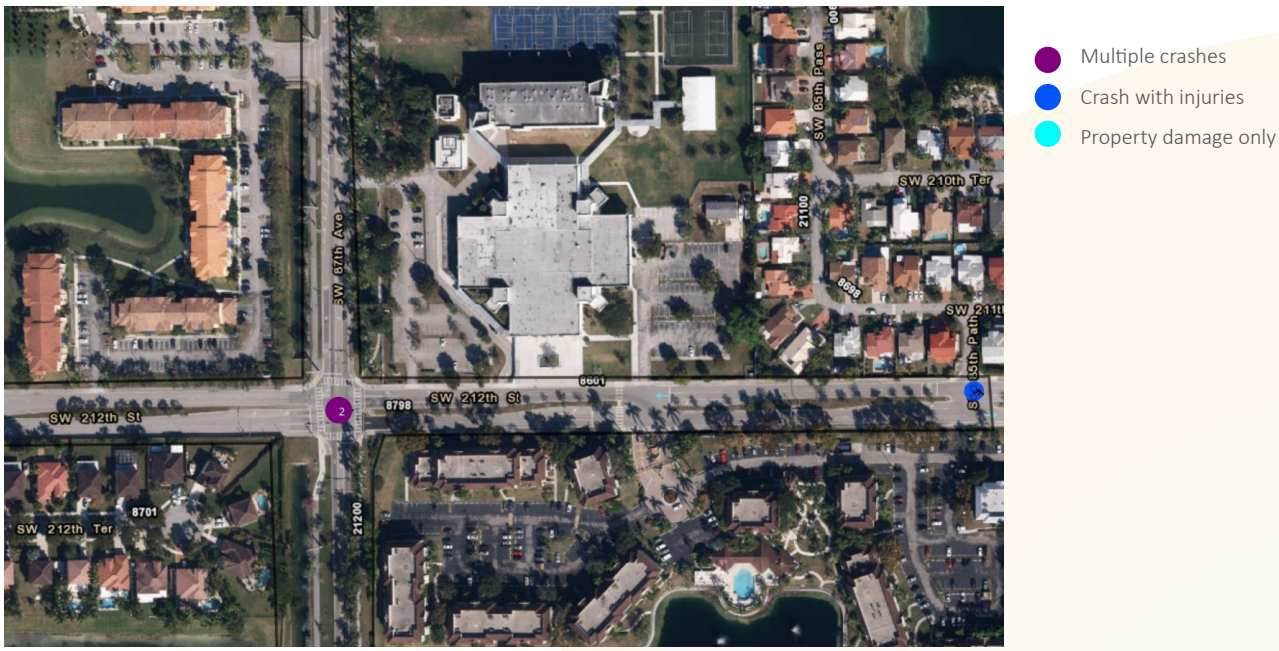


Figure 6 Cutler Bay Senior High School Five Year Pedestrian and Bicycle Network Screening

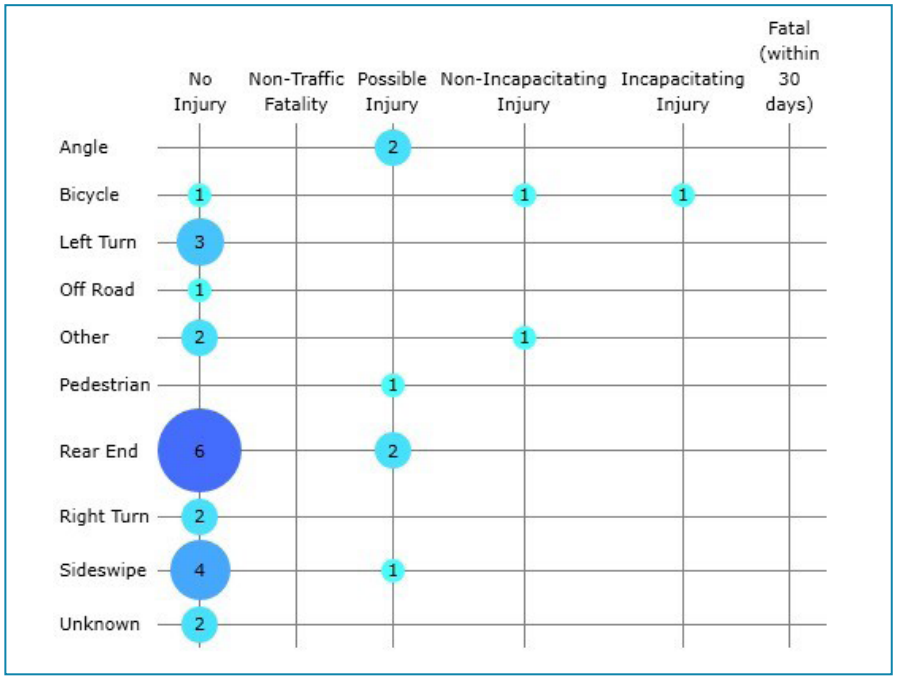


Figure 7 Cutler Bay Senior High School Crash Type and Crash Severity Summary

Whispering Pines Elementary School

Figure 8 depicts the corridor segment limits and the location of the overall crashes. Figure 9 depicts the pedestrian and bicycle crash locations. Figure 10 provides an overall summary of the crash type and severity. The crash network screening identified 29 crashes over the 5-year period. The predominant pattern observed was rear end crashes followed by sideswipe crashes. There were 9 injury crashes and 0 fatalities observed within the 5-year period. There were 1 documented crash that involved pedestrians and 2 documented crashes that involved bicyclists in the 5-year crash network screening.

Figure 8 Whispering Pines Elementary School Five Year Overall Network Screening

2.6 | BICYCLE AND PEDESTRIAN DATA

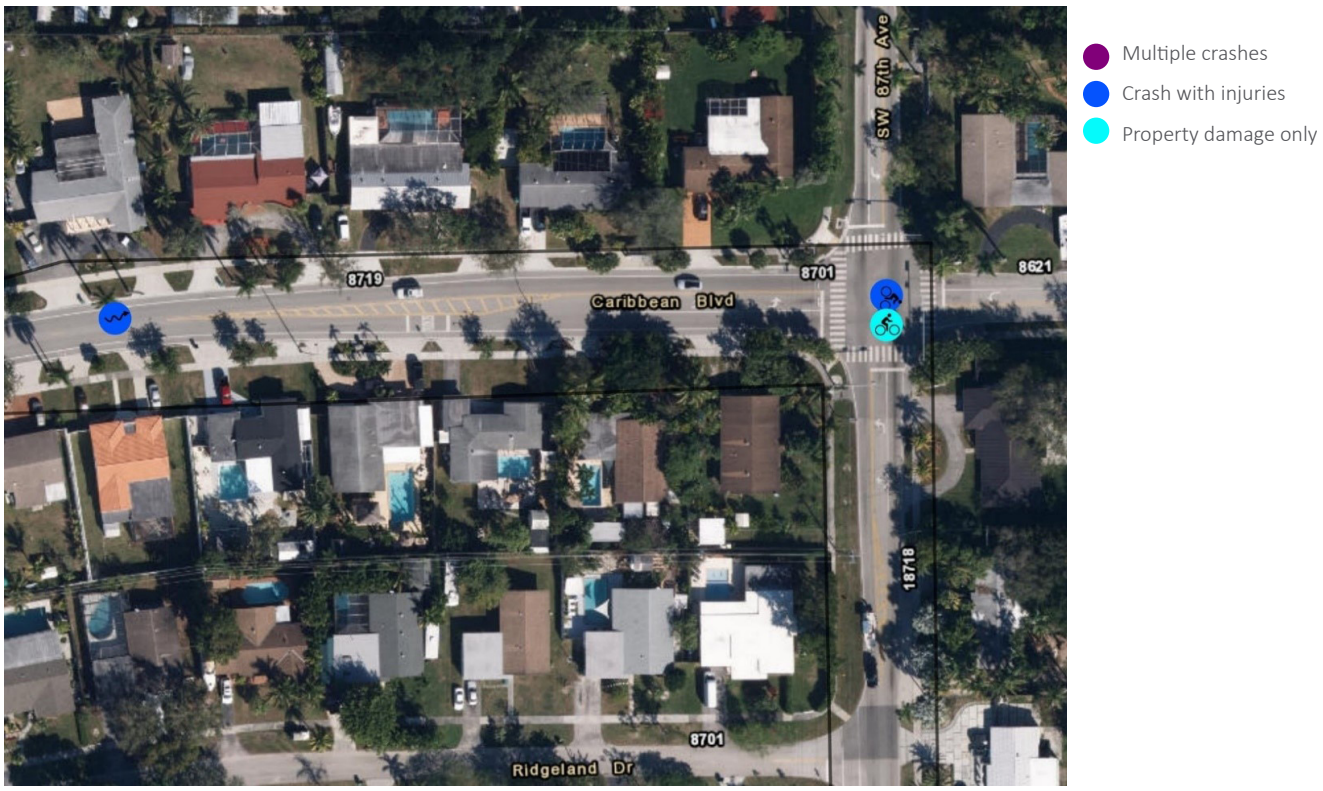


Figure 9 Whispering Pines Elementary School Five Year Pedestrian and Bicycle Network Screening

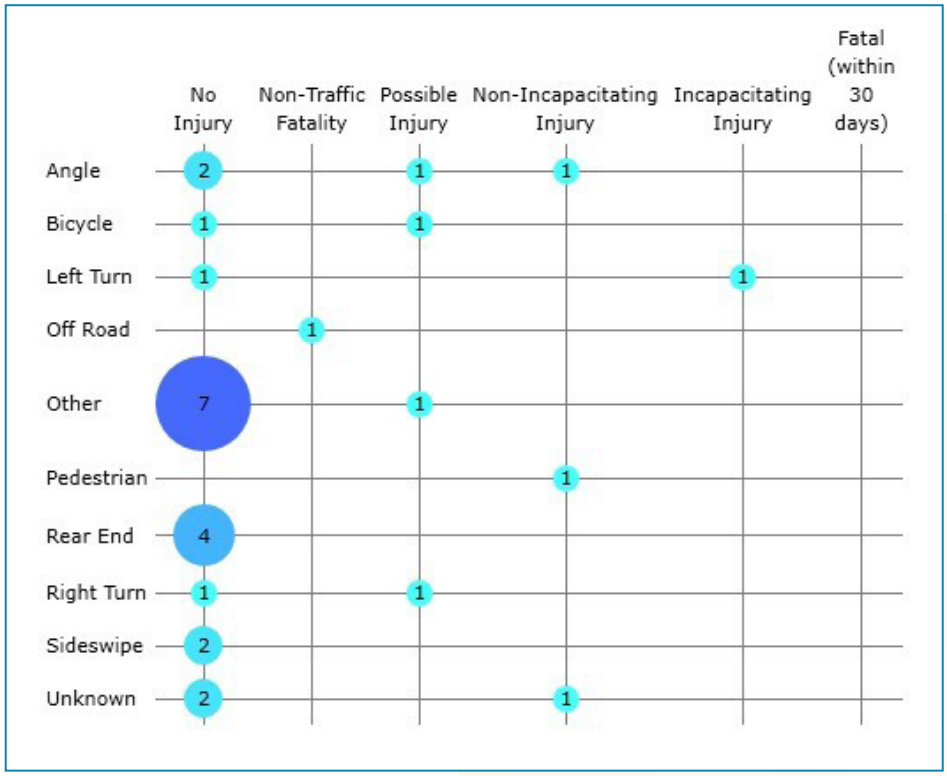


Figure 10 Whispering Pines Elementary School Crash Type and Crash Severity Summary Screening

Cutler Bay Middle School

Figure 11 depicts the corridor segment limits and the location of the overall crashes. Figure 12 provides an overall summary of the crash type and severity. The crash network screening identified 30 crashes over the 5-year period. The predominant pattern observed was angle crashes followed by rear end crashes. There were 4 injury crashes and 0 fatalities observed within the 5-year period. There were no documented pedestrian and bicycle crashes in the 5-year crash network screening

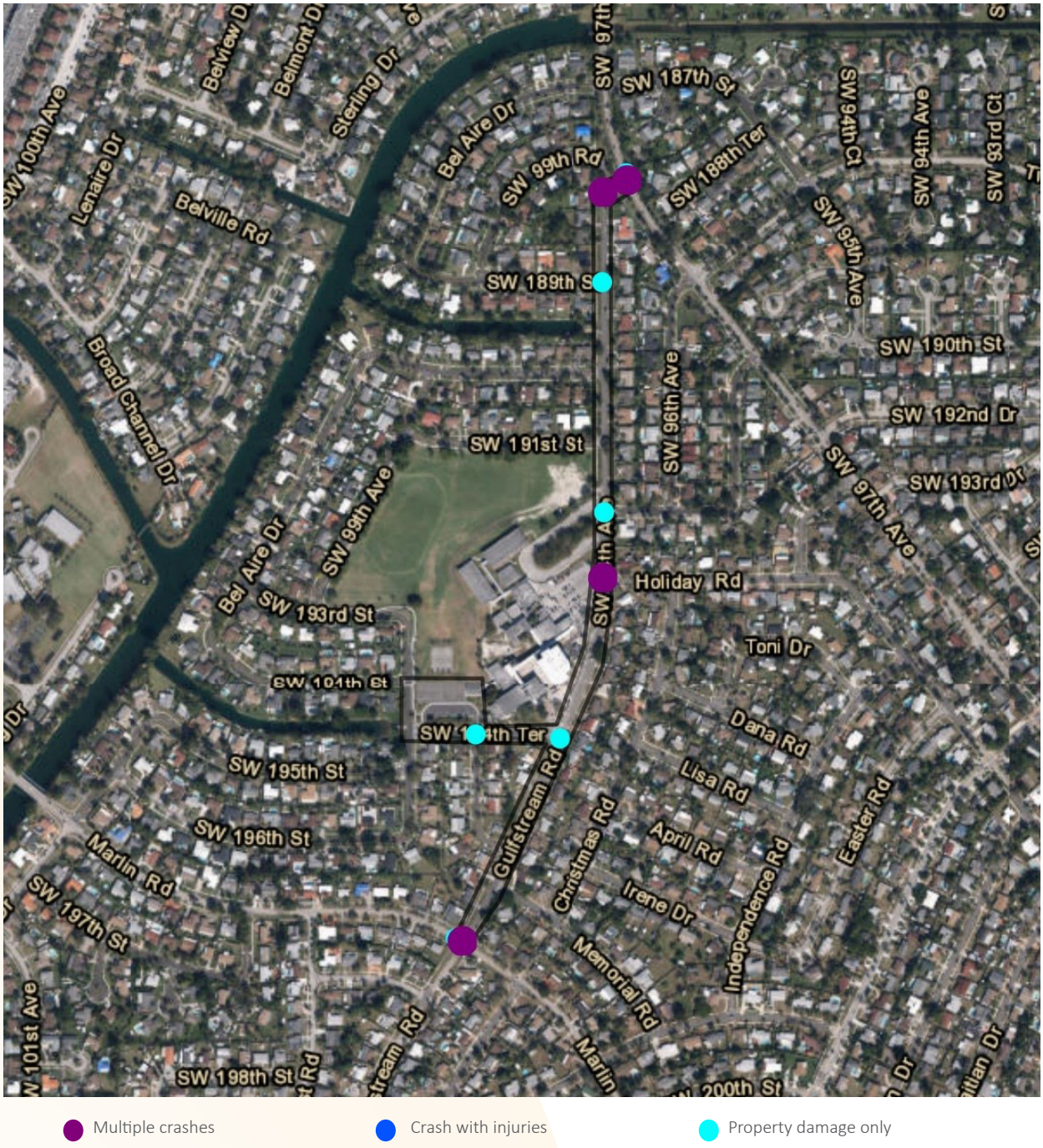


Figure 11 Cutler Bay Middle School Five Year Overall Network Screening

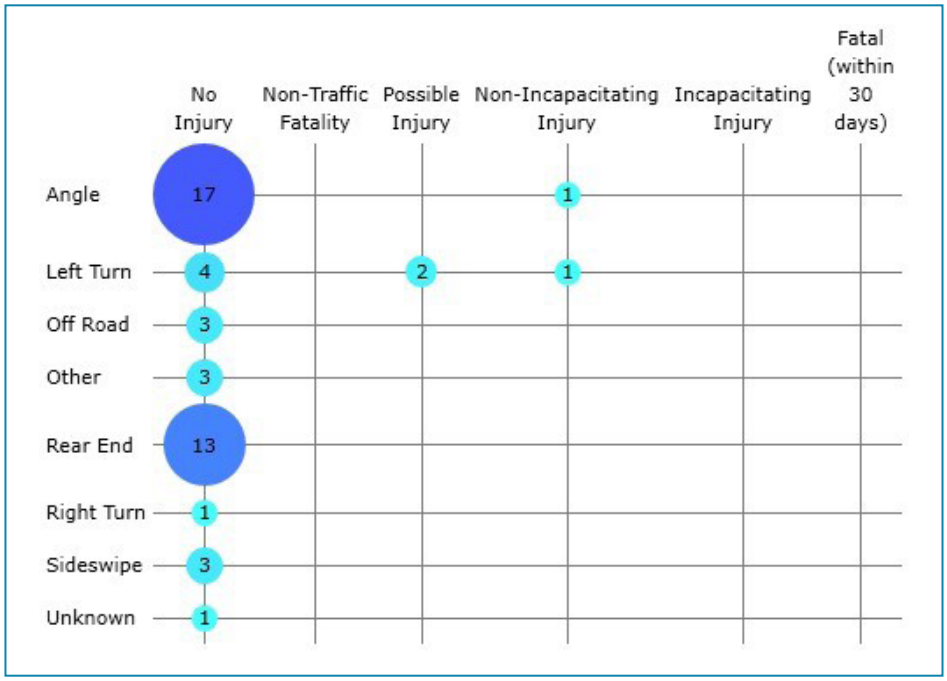


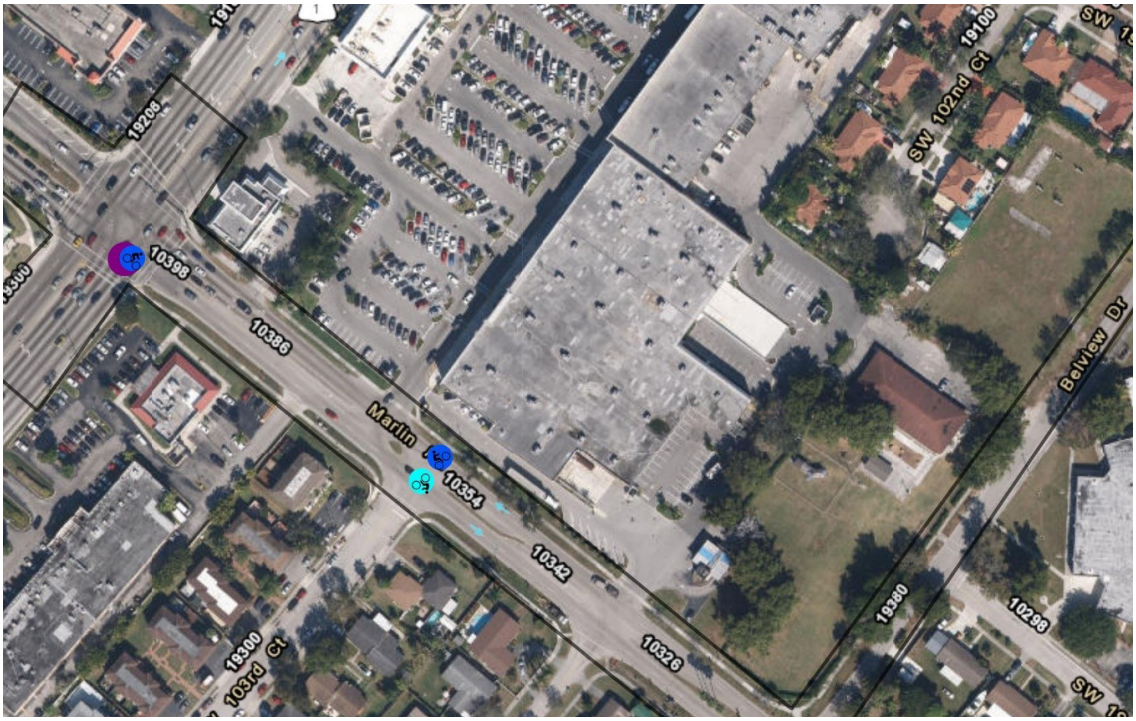
Figure 12 Cutler Bay Middle School Crash Type and Crash Severity Summary Screening

Bel-Aire Elementary School

Figure 13 depicts the corridor segment limits and the location of the overall crashes. Figure 14 depicts the pedestrian and bicycle crash locations. Figure 15 provides an overall summary of the crash type and severity. The crash network screening identified 380 crashes over the 5-year period. The predominant pattern observed was rear end crashes followed by sideswipe and left turn crashes. There were 63 injury crashes and 0 fatalities observed within the 5-year period. There were 1 documented crash that involved pedestrians and 4 documented crashes that involved bicyclists in the 5-year crash network screening.

Figure 13 Bel-Aire Elementary School Five Year Overall Network Screening

Figure 14 Bel-Aire Elementary School Five Year Pedestrian and Bicycle Network Screening



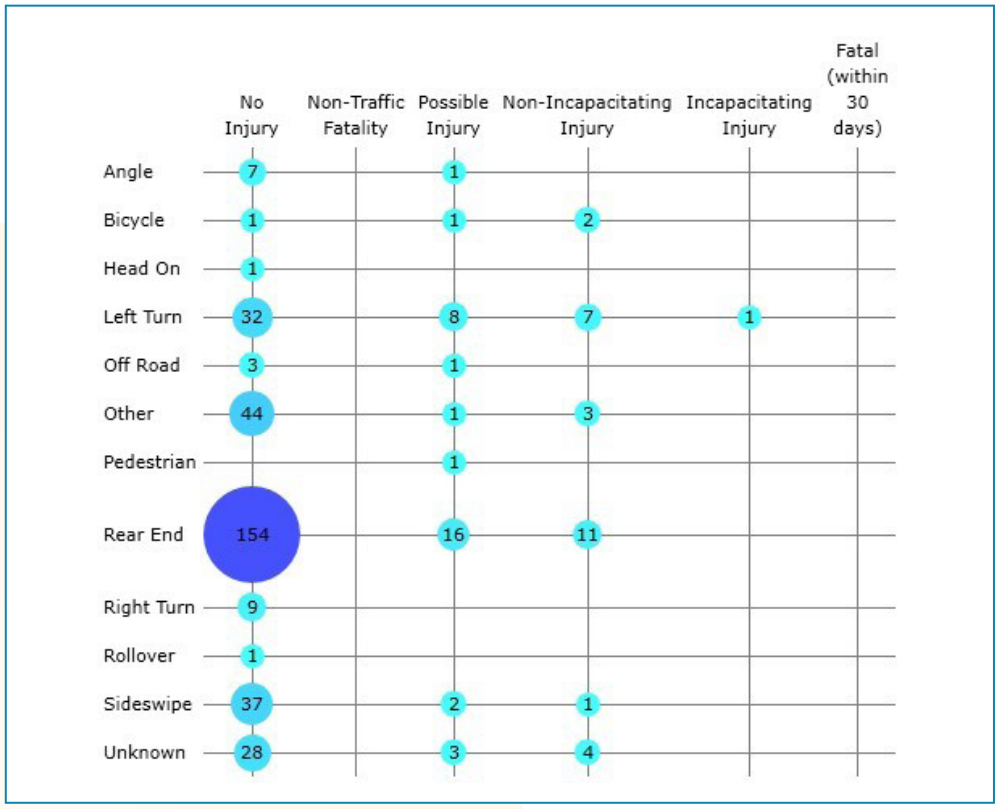


Figure 15 Bel-Aire Elementary School Crash Type and Crash Severity Summary Screening

Cutler Ridge Elementary School

Figure 16 depicts the corridor segment limits and the location of the overall crashes. Figure 17 provides an overall summary of the crash type and severity. The crash network screening identified 11 crashes over the 5-year period. The predominant pattern observed was rear end crashes followed by angle and left turn crashes. There were 2 injury crashes and 0 fatalities observed within the 5-year period. There were no documented pedestrian and bicycle crashes in the 5-year crash network screening

Figure 16 Cutler Ridge Elementary School Five Year Overall Network Screenin

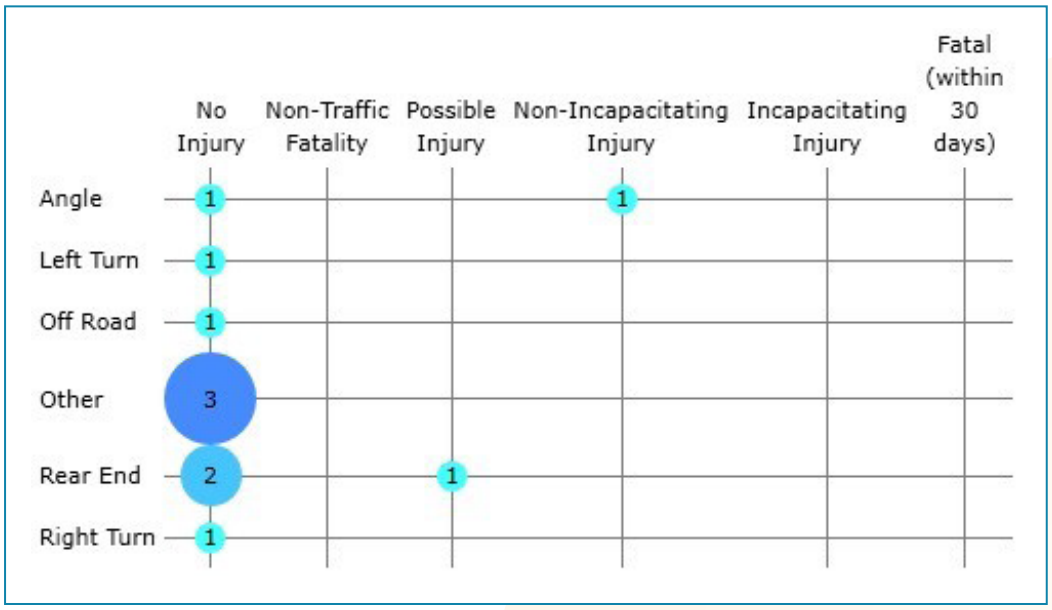


Figure 17 Cutler Ridge Elementary School Crash Type and Crash Severity Summary

Gulfstream Elementary School

Figure 18 depicts the corridor segment limits and the location of the overall crashes. Figure 19 provides an overall summary of the crash type and severity. The crash network screening identified 3 crashes over the 5-year period. The predominant pattern observed was angle, left turn, and right turn crashes. There were 0 injury crashes and 0 fatalities observed within the 5-year period. There were no documented pedestrian and bicycle crashes in the 5-year crash network screening

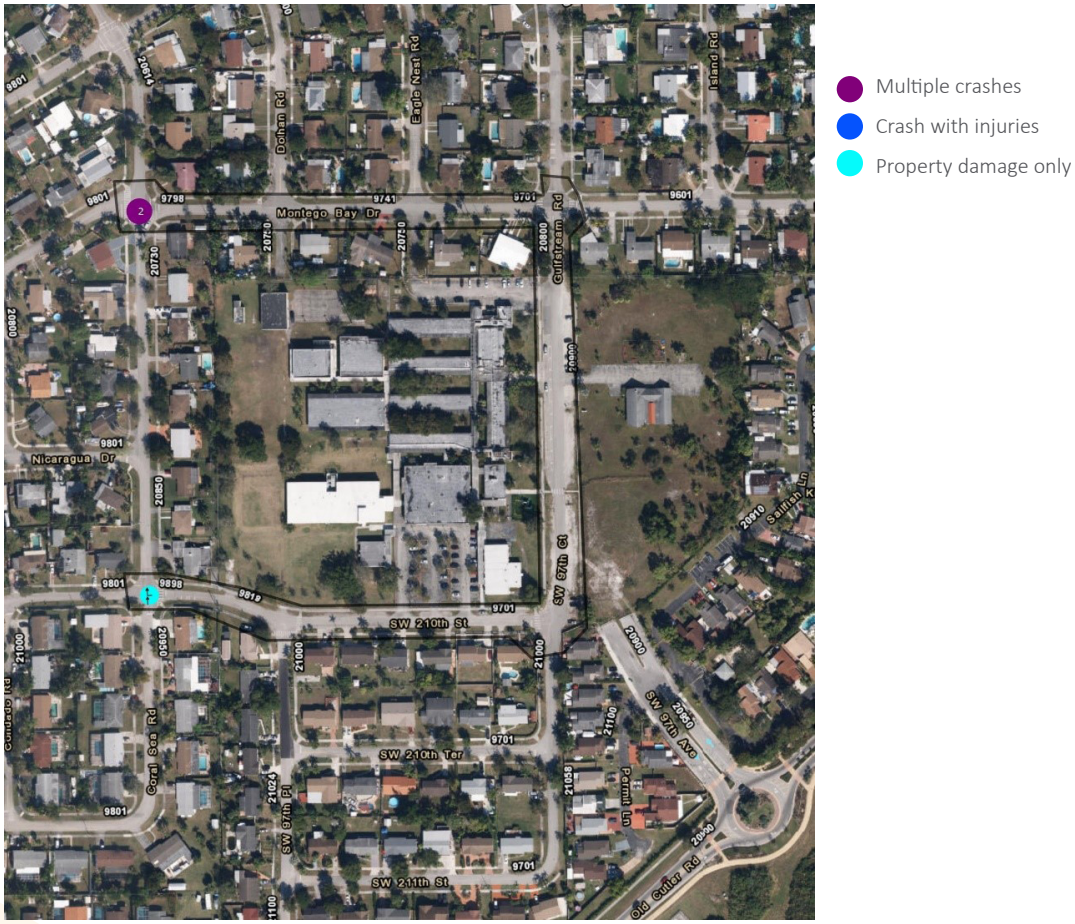


Figure 18 Gulfstream Elementary School Five Year Overall Network

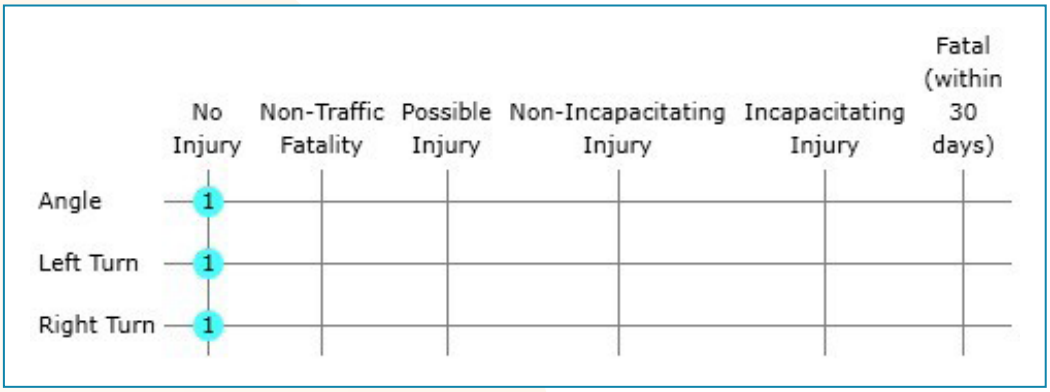


Figure 19 Gulfstream Ele mentary Sc hool Crash Type and Crash

East Ridge at Cutler Bay ALF

Figure 20 depicts the corridor segment limits and the location of the overall crashes. Figure 21 depicts the pedestrian and bicycle crash locations. Figure 22 provides an overall summary of the crash type and severity. The crash network screening identified 56 crashes over the 5-year period. The predominant pattern observed was rear end crashes followed by off road crashes. There were 11 injury crashes and 0 fatalities observed within the 5-year period. There was 1 documented crash that involved a pedestrian and 3 documented crashes that involved bicyclists in the 5-year crash network screening.

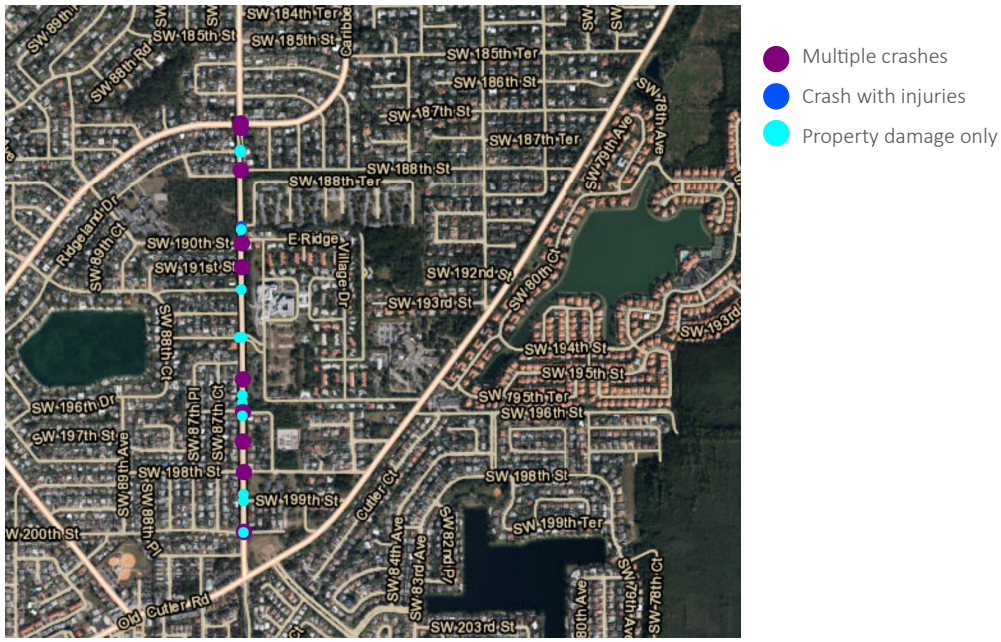


Figure 20 East Ridge at Cutler Bay ALF Five Year Overall Network Screening

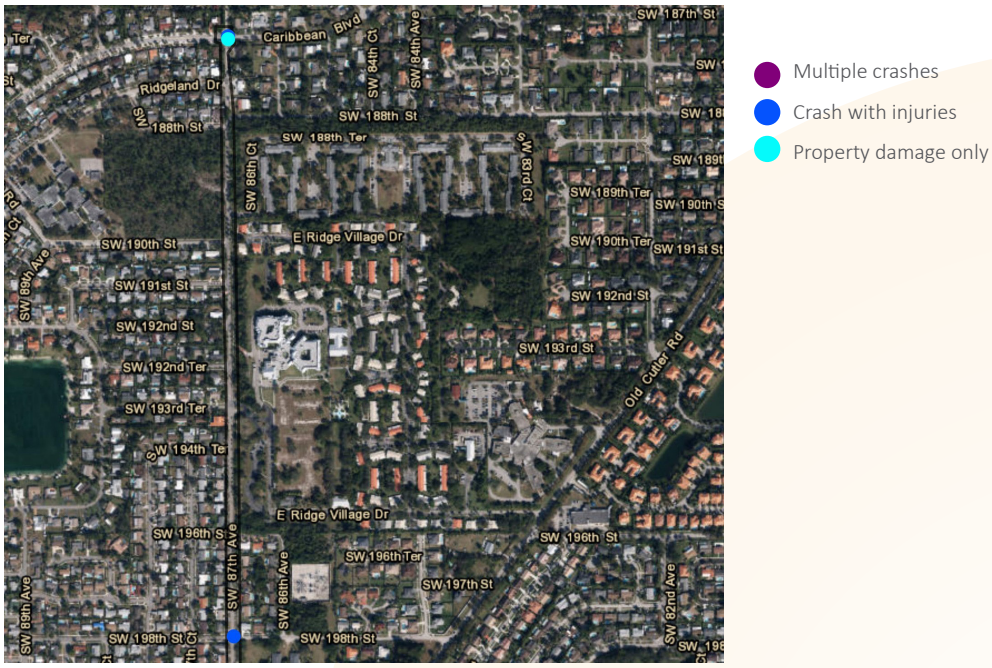


Figure 21 East Ridge at Cutler Bay ALF Five Year Pedestrian and Bicycle Network Screening

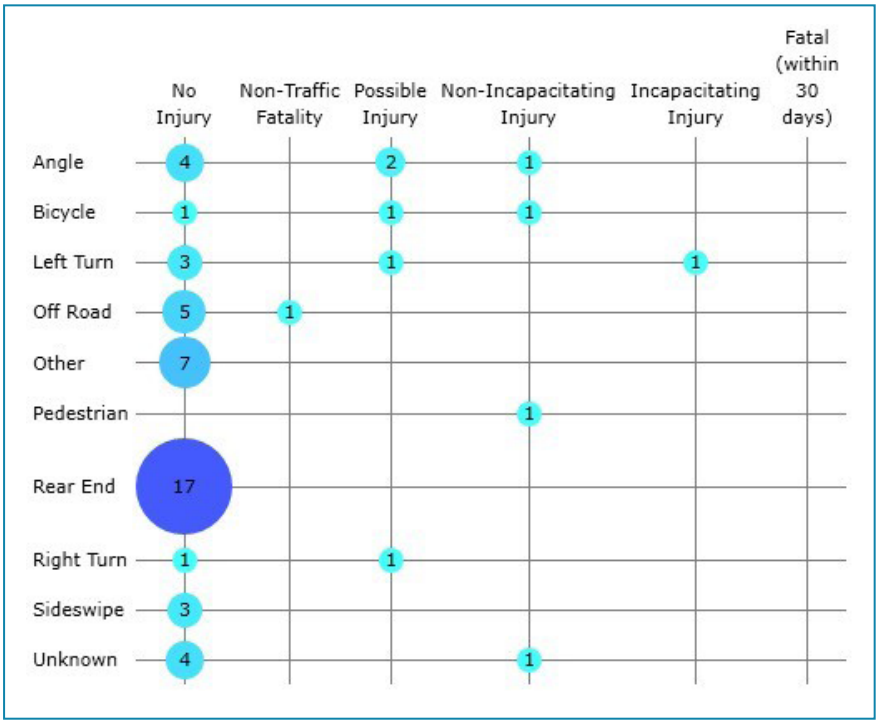


Figure 22 East Ridge at Cutler Bay ALF Crash Type and Crash Severity Summary Screening

Calusa Cove ALF

Figure 23 depicts the corridor segment limits and the location of the overall crashes. Figure 24 provides an overall summary of the crash type and severity. The crash network screening identified 15 crashes over the 5-year period. The predominant pattern observed was off road crashes followed by left turn crashes. There were 3 injury crashes and 0 fatalities observed within the 5-year period. There were no documented pedestrian and bicycle crashes in the 5-year crash network screening

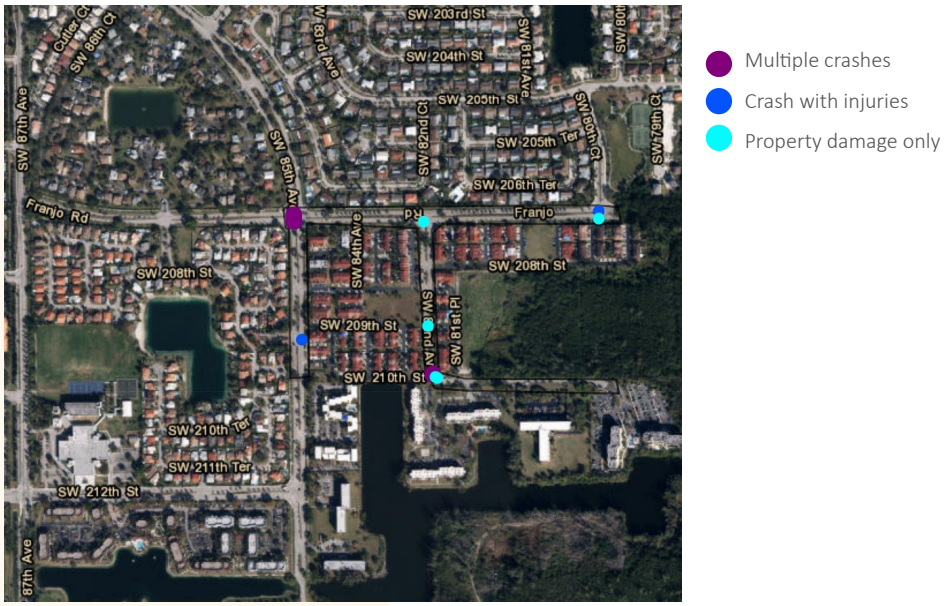


Figure 23 Calusa Cove ALF Five Year Overall Network Screening

Figure 24 Calusa Cove ALF Crash Type and Crash Severity Summary Screening

ABC Adult Day Care ALF

Figure 25 depicts the corridor segment limits and the location of the overall crashes. Figure 26 depicts the pedestrian and bicycle crash locations. Figure 27 provides an overall summary of the crash type and severity. The crash network screening identified 267 crashes over the 5-year period. The predominant pattern observed was rear end crashes followed by sideswipe crashes. There were 54 injury crashes and 0 fatalities observed within the 5-year period. There were 4 documented crashes that involved pedestrians and 2 documented crashes that involved bicyclists in the 5-year crash network screening.

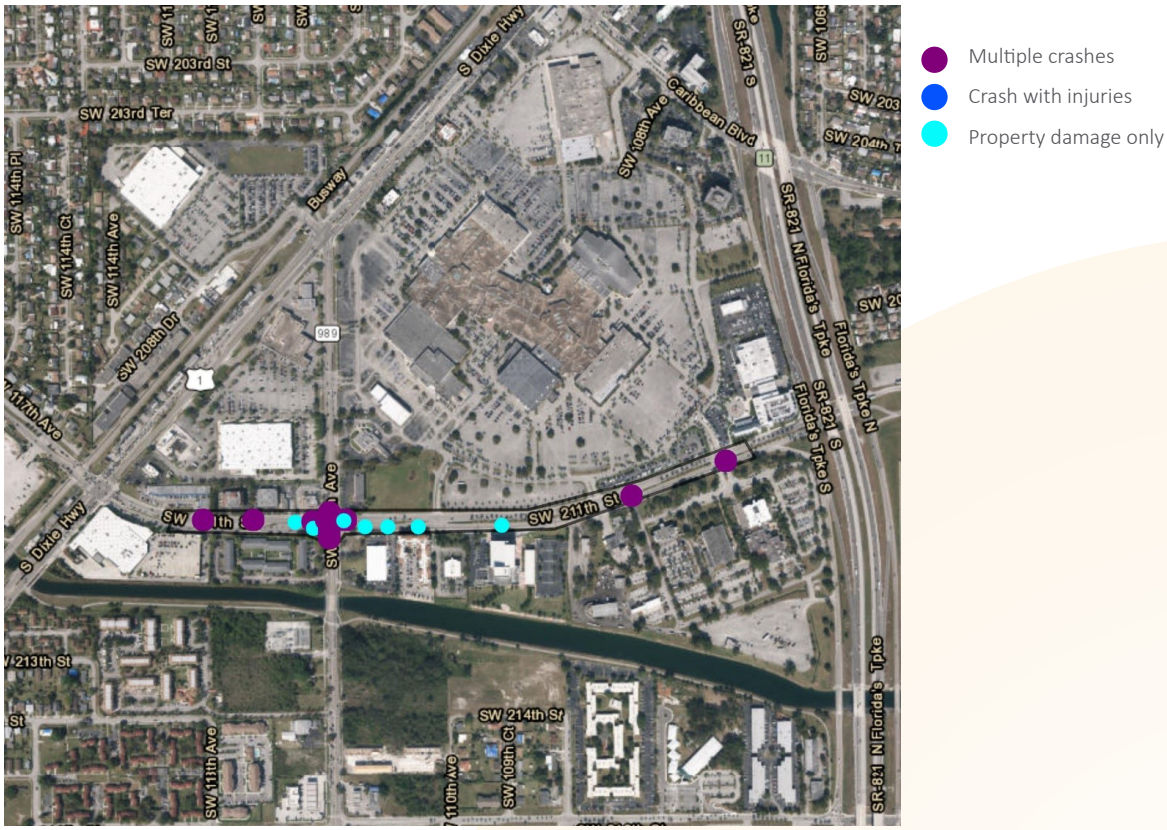


Figure 25 ABC Adult Day Care ALF Five Year Overall Network Screening

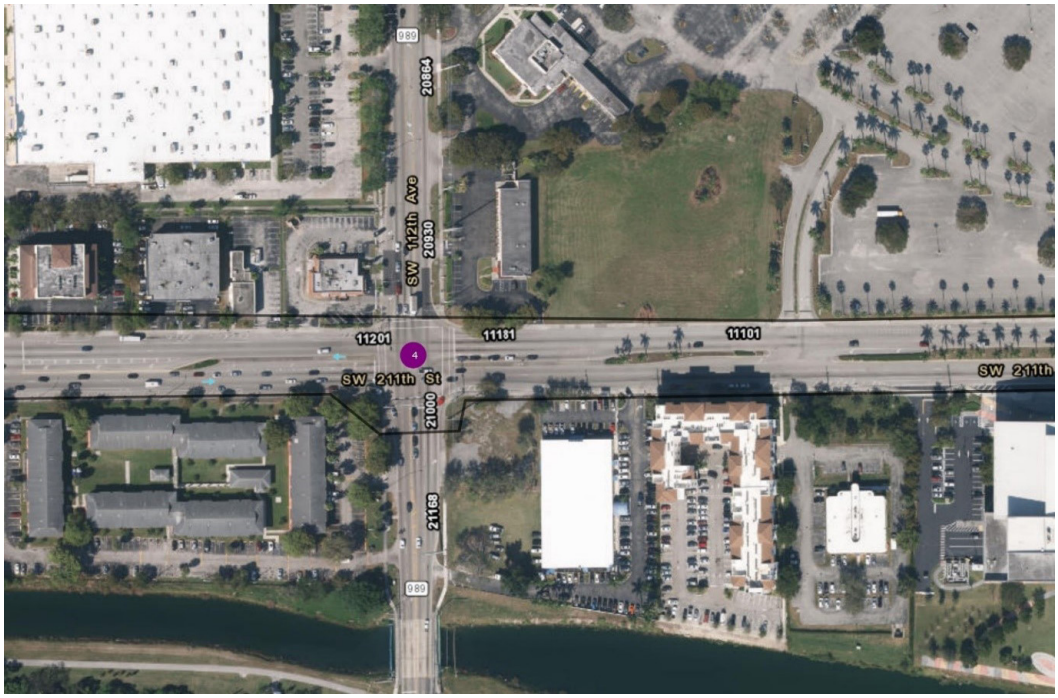


Figure 26 ABC Adult Day Care ALF Five Year Pedestrian and Bicycle Network Screening

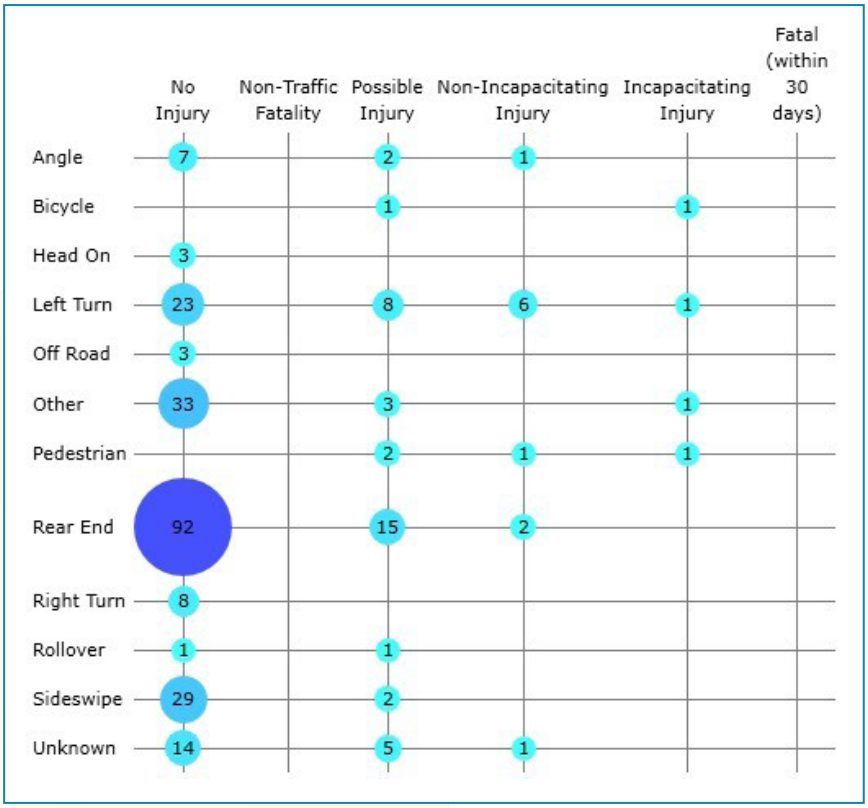


Figure 27 ABC Adult Day Care ALF Crash Type and Crash Severity Summary Screening

Quail Roost Drive Future ALF

Figure 28 depicts the corridor segment limits and the location of the overall crashes. Figure 29 depicts the pedestrian and bicycle crash locations. Figure 30 provides an overall summary of the crash type and severity. The crash network screening identified 268 crashes over the 5-year period. The predominant pattern observed was rear end crashes followed by sideswipe crashes. There were 47 injury crashes and 0 fatalities observed within the 5-year period. There was 1 documented crash that involved pedestrians and 3 documented crashes that involved bicyclists in the 5-year crash network screening.

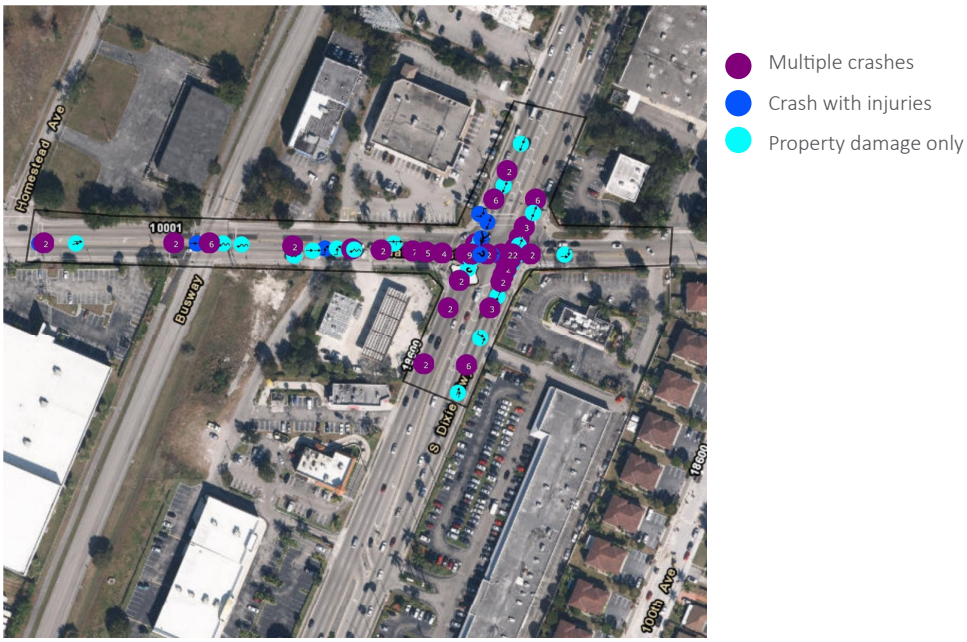


Figure 28 Quail Roost Drive Future ALF Five Year Overall Network Screening

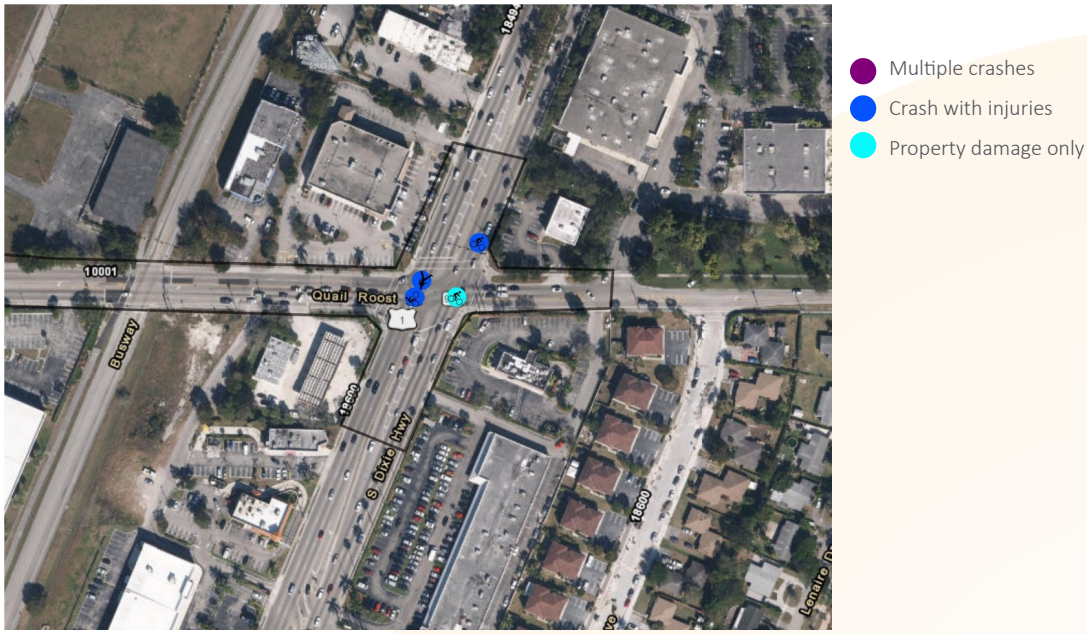


Figure 29 Quail Roost Drive Future ALF Five Year Pedestrian and Bicycle Network Screening

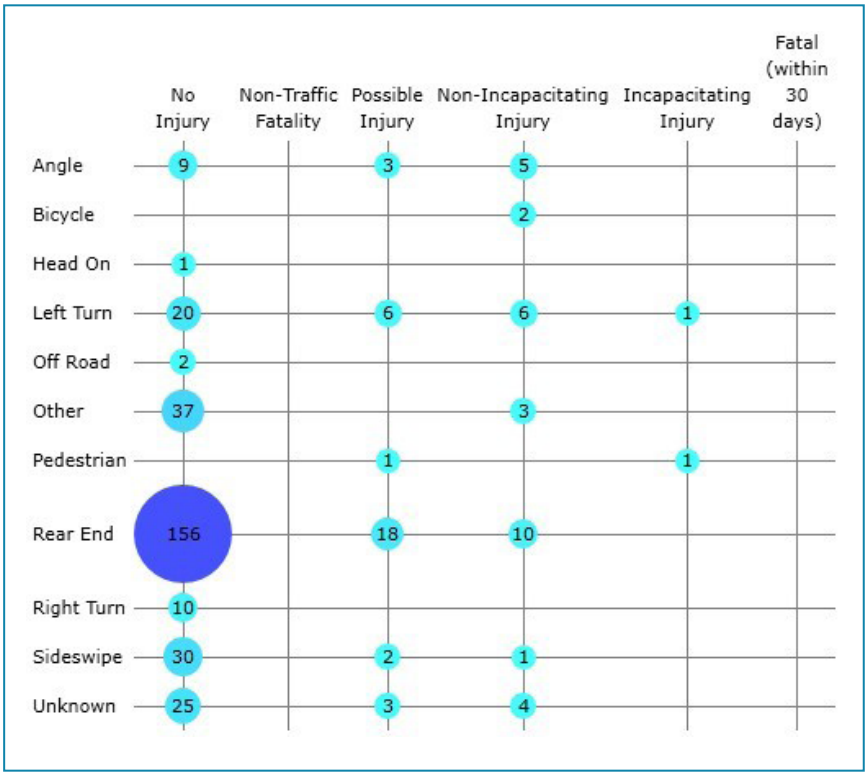


Figure 30 31 Quail Roost Drive Future ALF Crash Type and Crash Severity Summary

Data Collection:

The following table summarizes the roadway characteristics near each of the seven sites. The following existing data is noted: sidewalks, transit facilities near the sites, speed limit, intersection control, crosswalks, lighting, and other safety features

SITE	SIDEWALKS	TRANSIT	SPEED LIMIT	STOP/SIGNAL	CROSSWALK	LIGHTING	OTHER
#1	Improvements needed	1 Shelter; 1 bench	35 MPH	Stop	None	Poor	Speeding
#2 & #3	Improvements needed	Shelter ½ block away	25 MPH	Stop	More needed	Poor	Speeding
#4	Good condition	Shelter ½ block away	40 MPH	Signals both sides ½ block away	None	Good Coverage	Speeding
#5 & #6	Gaps Identified	Shelter ½ block away	25 MPH	None	Needed	Poor	N/A
#7	Improvements needed	Busway	40 MPH	Signaled	Needed	Good Coverage	Busy Intersection

2.6 | BICYCLE AND PEDESTRIAN DATA

Field Review:
A walking field review of each site was conducted, including documenting existing conditions with field notes and with photos. The following is a summary of field notes describing safety issues identified per site location and corresponding photos.

Site #1- Eastridge at Cutler Bay. This field review's study area was primarily near the main entrance to the community, at the intersection of SW 87 Avenue and SW 193rd Terrace. The study area was limited due to few major destinations in the close vicinity. It was found that improvements are needed to the sidewalks, including repairing a large/deep hole in the asphalt at SW 193rd Terrace (NW Corner); and adding ADA detectable warning strips at the curb ramp near the bus stop bench located on the west side of SW 87th Ave. There is also a lack of safety infrastructure to cross SW 87th Avenue. At least two highly visible crosswalks should be installed on the north and south side of the community entrance. This is compounded by the frequent speeding vehicles, high truck volume, and the lack of street lighting. Lighting would be very beneficial to ensure safety if there is a need to use the bus facilities after dark. In addition, there were two locations where safety guard railing should be installed to protect pedestrians where sunken drainage inlets are located right next to the sidewalk. This could be a safety issue, especially for pedestrians using canes, walkers, or otherwise unsteady on their feet.

Sites #2 and #3 – Calusa Cove and Coral Bay Terrace. Again, similar to Eastridge, these two sites are not located near any major destinations, and the audit area consisted mostly near the entrances of the communities. Additionally, the safety improvements for these sites were on the Calusa Cove property (except street lighting). They are worth noting. Therefore, they are included in this report for the property to consider. It was noted that there is a lack of crosswalks to safely get from sidewalks on either side of the entrance driveway. Additionally, other areas have crosswalks that are significantly faded and hard to see. The sidewalk leading out of the property on the east side of the entrance is incomplete and does not connect to the perimeter of the property. Nor is there a crosswalk to connect to cross the driveway at the street safely. Another safety consideration for both of these properties is the lack of street lighting, which could be a safety issue for night-time public transit users or visiting a neighbor (i.e., walking or rolling between the two properties). It was also noted the entrance sign lacked directed lighting, making it very difficult to identify the property in the dark, which becomes increasingly difficult for aging drivers at night.

Site #4 – 11150 SW 211 Street. This facility is located near a number of major destinations within the Town boundaries. The senior living facility is relatively new and has benefited from a new protected bike lane on the south side of SW 211 Street directly in front of this property. The most significant safety issue at this location is the lack of a safe way to cross SW 211 Street to go to Southland Mall. Due to the distance to cross this six-lane roadway and the number of observed speeding vehicles, a flashing beacon and crosswalk should be considered at this location. Other points of destination from these residences are to the east, consisting of the South Dade Government Center and the Performing Arts Center. Both are within easy walking distance with a wide, ADA-compliant sidewalk. One safety consideration includes an observed exposed wire sticking out of an electric pole. The electric utility should be notified of this issue.

Sites #5 and #6 – Lakeshore Apartments and Saga Bay Apartment. These two facilities are located next door to each other and were surveyed together. The majority of the safety audit consisted of the area fronting these sites at SW 85 Avenue near SW 212 Street. Several safety considerations were observed, from the significant deteriorating sidewalk, the lack of guardrails where sunken drainage inlets are very close to the sidewalk, and the general lack of street lighting of the roadway. Also, although this is a suburban area, vehicles moving at dangerous speeds were observed. There are bus shelters near the entrance of each of the properties and are easily and safely accessible by foot and wheelchair. However, the intersection is so wide, consisting of two four-lane roads with median strips, it is a much longer trip to use the crosswalks. It was observed during the field review that both pedestrians and bicyclists take a short-cut, walking/riding right through the middle of the intersection.

Site #7 - Future facility at the Busway and Marlin Road.
This facility has not been constructed.

A list of recommendations for the roadways surrounding each of the sites was developed. The table describing recommended improvements to address the safety concerns are located in the Projects List.

	WALKING SPEED	DISTANCE IN 3 MINUTES	MINUTES FOR 1,000 FEET
Able-bodied Adult	2.7 mph low	1,188 ft.	4 min, 13 sec.
	3.1 mph avg.	1,364 ft.	3 min, 40 sec.
	4.0 mph high	1,760 ft.	2 min, 50 sec.
Senior Person	2.0 mph low	880 ft.	5 min, 41 sec.
	3.1 mph high	1,364 ft.	3 min, 40 sec.
Wheelchair	2.5 mph low	1,100 ft	4 min, 33 sec.
	5 mph high	2,200 ft.	2 min, 16 sec.

Walk Distance: Personal Characteristics, Age and Disability

If environmental considerations are set aside, the answer to how far people walk to their destinations or transit has great variability by age, gender, ambulatory status, and possibly even cultural biases. The variance from person to person can be significant. The consensus in the field of urban planning on a walking distance is that the range of ¼ mile to ½ mile are maximums for the general population; however, even this can vary based on terrain, weather, time-of-day, built environments, adjacent land use, level of built environment maintenance, and the subtleties of perceptions of safety and security. On flat terrain without obstruction, people walk at 3.16 mph (national average, National Personal Transportation Survey (NPTS)). (The MUTCD, for purposes of intersection crossings, uses 4.0 ft. / second, about 2.7 mph) On average, the consensus range of ¼ to ½ mile represents a 5 to 10-minute walk on flat terrain with sidewalks in good maintenance and not including wait time at intersections and curb cuts.

2.6 | BICYCLE AND PEDESTRIAN DATA

Based on literature review, where 1,000 ft. walking distance is recommended in general, a 25% shorter distance is recommended for seniors. Average walking speed for seniors ranges widely from a low of 2.5 mph to 3.1 mph. The 25% shorter range corresponds with the low range of senior walking speeds, again underscoring that the key determinant from the pedestrian's perspective for walking is time more than it is distance. The planning profession uses the proxy of distance because evaluations and improvements are based on distance measurements.

For people using wheelchairs, research indicates single non-stop trip distances for people in self-propelled wheelchairs at about 600 ft. and about 1,130 ft. for powered wheelchairs. At walking speeds for average self-propelled wheelchairs and 3 to 5 mph for most powered wheelchairs (some travel up to speeds of 10 mph), this corresponds to approximately 3-minute trip times for each.

The Town of Cutler Bay has evaluated its sidewalk facilities to determine whether existing sidewalks are in compliance with the Americans with Disabilities Act Standards. Some of the streets within the Town are operated by Miami Dade County. The Town is in the process of transitioning and has identified and is in the process of installing and replacing new sidewalks and ADA-compliant crossings. The Town has evaluated curb ramps where they do not exist, rendering the sidewalk inaccessible, design features such as proper detectable surface and allowable cross slopes.

The Town is committed to accessibility in the sidewalk system. All new sidewalk construction will be completed in accordance with current accessibility standards. All non-compliant curb ramps will be corrected at the time of road resurfacing or reconstruction unless existing conditions do not permit. In cases where existing conditions prohibit modifications, available measures to improve compliance will be completed. Curb ramps will be upgraded until such time as the Town's sidewalks are fully ADA compliant. Other agencies have also committed to improving accessibility of sidewalks and public transit stops within the City limits. These agencies include FDOT and Miami Dade County.

Additionally, a complete photometric study should be performed in order to ensure that all Rights-of-Way are properly lit and determine the required light pole spacing. Utility poles exist at various locations throughout the Town and are generally located inside the Right-of-Way. The Americans with Disabilities Act (ADA) requires a minimum of three-foot-wide clearance along any accessible route. Therefore, relocation of these poles may be necessary to allow for the minimum required clearance along the sidewalk. However, if the relocation of the utility pole is not an option, the sidewalk can be rerouted to circumvent the pole and allow proper accessibility.

2.7 | Travel Patterns

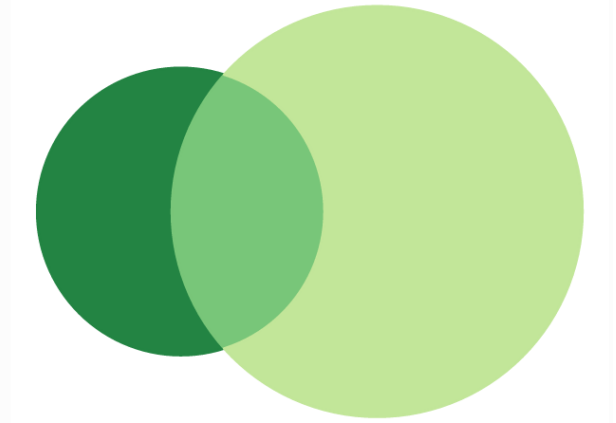
2.7 | TRAVEL PATTERNS

This chapter examines the population and employment of the Town to understand several key factors that contribute to transportation, mobility, affordability, and ultimately the quality of life. These can be evaluated with land use and zoning to develop policies that reduce traffic congestion. Using the TPO LRTP Model, population and employment at various locations in South Dade will be examined. Daily origins and destinations from these areas will be examined to show the travel patterns as people move about the region impacting Cutler Bay on a daily basis.

2.7 | TRAVEL PATTERNS

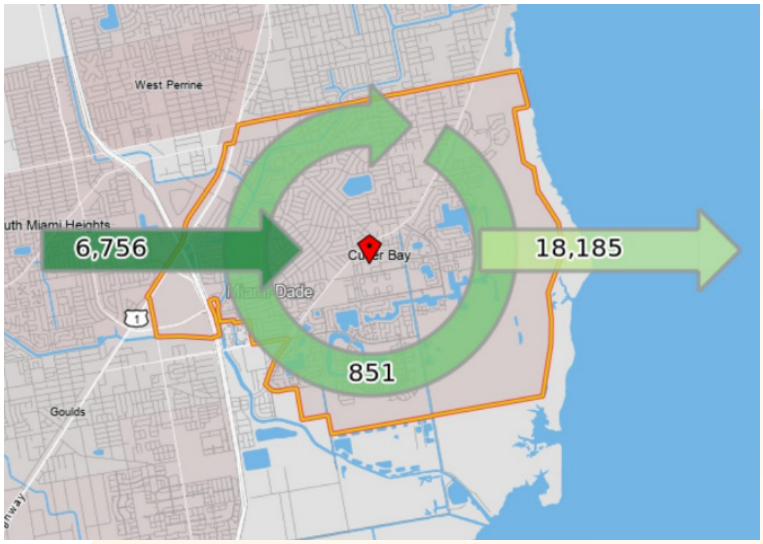
Inflow/Outflow Analysis

South Miami-Dade County



Data Source: LEHD Data (U.S. Census OntheMap)

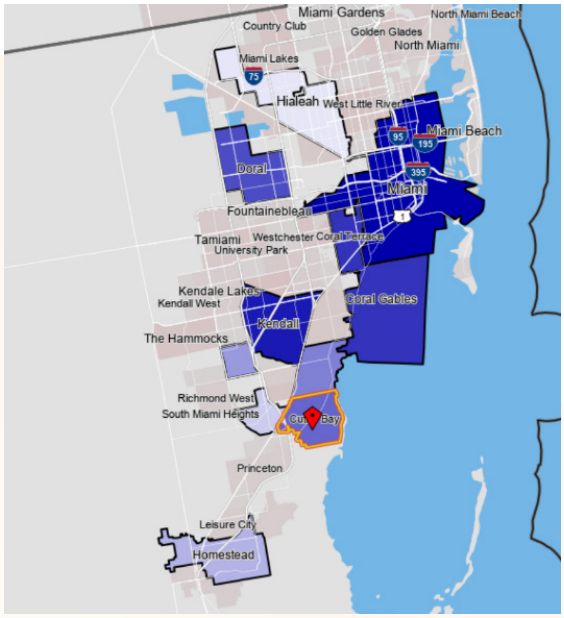
Population and employment are two of the basic factors contributing to the function of any city. Cutler Bay, with 45,000 people, is becoming one of the largest cities in Miami Dade County. With about 7,600 jobs within its boundaries, it is not one of the largest employment centers.



Examining the number of jobs a city has compared to the number of households, can indicate whether trips can be local. Ratios of less than one job for every one household generally indicate the need to travel outside of the area for work. A very high Job/Household ratio indicates travel into the area for work. Well-planned cities seek a balance by using the land use and zoning regulations in their Comprehensive Plans as incentives or disincentives for types of and intensities of development in specific locations. Florida Transit-Oriented Development (TOD) guidelines for Job/Household ratios supportive of rapid transit have targets of a minimum of one job for every one household in suburban areas, five jobs for every one household in moderately intensive urban areas, and ten jobs for every one household in highly intensive urban areas. **In Cutler Bay, there are about 0.59 jobs for every one household. This is the lowest of any city in South Dade.**

Inflow/Outflow Job Counts (All Jobs)

	2018	
	Count	**Share**
Employed in the Selection Area	7,607	100.0%
Employed in the Selection Area but Living Outside	6,756	88.8%
Employed and Living in the Selection Area	851	11.2%
Living in the Selection Area	19,036	100.0%
Living in the Selection Area but Employed Outside	18,185	95.5%
Living and Employed in the Selection Area	851	4.5%



Largely because of this lack of jobs, 96% of total workers who live in the Town work elsewhere in the County. Mainly in South Miami, Coral Gables, Miami, and Doral, only 4% of total workers, filling 11% of total jobs, both live and work in the Town. Cutler Bay exports the highest percentage of its workers in South Dade. Similarly, it has the lowest percentage of people who live and work in its boundaries than any South Dade municipality.

This need to drive comes with a substantial cost. A measure of affordability is if a household's housing and transportation costs are under 45% of household income. On average, in Cutler Bay, that combined cost is 66%. Driving costs per household are considered affordable if they are 15% or less of household income. On average, in Cutler Bay, driving costs are around $13,000 per year, about 179% above affordable.

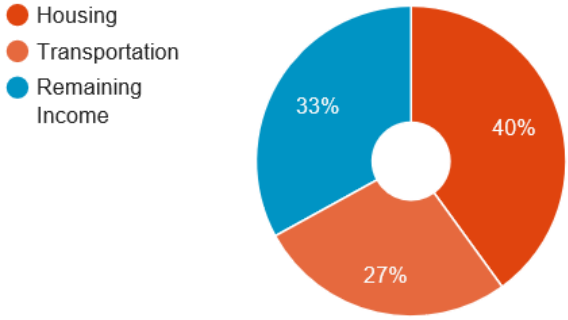
2.7 | TRAVEL PATTERNS

A relatively high population, combined with a lack of local jobs and a lack of viable competitive rapid transit, places a burden on the typical Cutler Bay household by leaving workers no alternative but to drive long distances on a congested network, raising costs and deteriorating quality of life.

The Town Center District and the funded and soon-to-be under construction rapid transit system present Cutler Bay with opportunities other cities do not have. The transit-oriented land use and zoning regulations already in place, coupled with a solid economic development plan, would attract jobs to the area, potentially shortening trips. The rapid transit system will provide an alternative for drivers to use transit to get to work and minimize costs.

Average Housing + Transportation Costs % Income

Factoring in both housing *and* transportation costs provides a more comprehensive way of thinking about the cost of housing and true affordability.



Population and Employment

According to the United States Census Bureau, Cutler Bay has about 45,000 people and 7,607 jobs within its boundaries. It has a population density of about 4,480 people per square mile. It has a residential density of 3.97 households per acre. Average housing costs are about $1,617 per month. Owner-occupied housing accounts for 71% of households. Renter-occupied housing accounts for 29% of households. The average monthly rent is about $968.

Job/Household Ratios

As noted above, Job-to-Households ratios (Job/Household) provide one metric of evaluating whether trips can be local. Low Job/Household ratios (<1) generally indicate the need to travel outside of the area for work. A very high Job/Household ratio indicates travel into the area for work and may indicate a lack of residential development in the area. Florida Transit-Oriented Development (TOD) guidelines for Job/Household ratios supportive of rapid transit have targets of a minimum of 1 job:1 household in suburban areas, five jobs:1 household in T4 Urban 10 jobs:1 household in T5/T6 urban areas.

With a population of about 45,000 people, Cutler Bay has about 12,798 households and 7,607 jobs. The jobs-to-household ratio is 0.59. Similarly, according to the Housing and Transportation Index, about 6.8% of its households have a high compact neighborhood score. This is below a suburban area and presents a tremendous opportunity to impact mobility, travel time, miles traveled, affordable housing, and income if addressed through economic development.

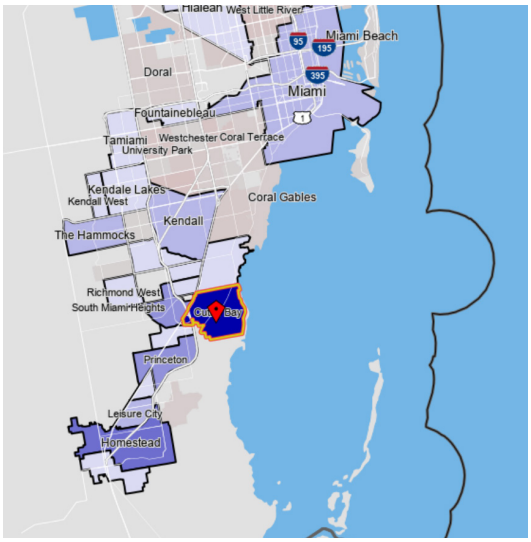
In comparison, the Village of Pinecrest, which is adjacent to the only fully developed regional transit center in South Dade (Dadeland), has 1.02 jobs per household, despite being significantly less dense, generally having one dwelling unit, and about 15% of its households with a high compact neighborhood score of 8 or above.

T4, T5, and T6 areas approximate the general urban zone (T4), urban center zone (T5), and urban core zone (T6) typical of major metropolitan areas, such as Miami-Dade County. Successively higher zones have greater density. Each T4 urban zone allows for transition between single-family development, typically found in less dense, suburban developments (T3) and multi-family housing, as well as small neighborhood businesses. With the Urban Center District and the pending Rapid Transit System, Cutler Bay has a significant opportunity to evolve into a regional urban center.

2.7 | TRAVEL PATTERNS

Origin/Destination

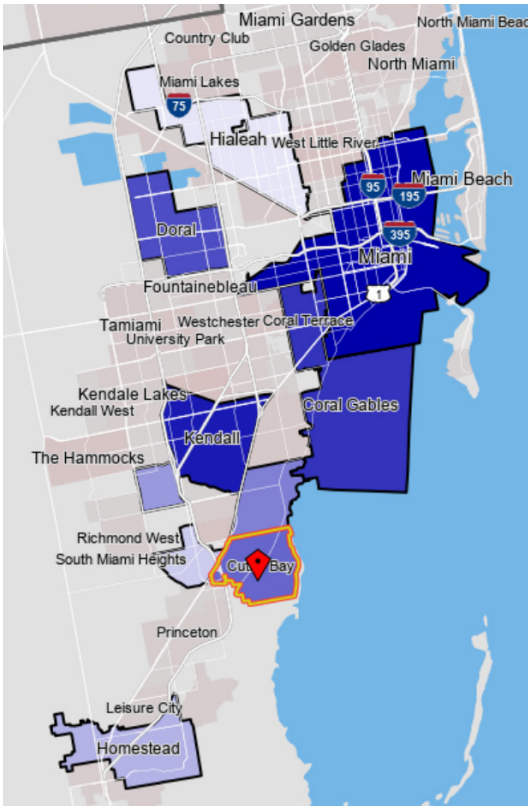
Cutler Bay has 19,036 workers who live within its boundaries. Of this total, 851 workers, or 4% of total workers, filling 11% of total jobs live and work in the Town. Workers who live outside of the Town and work inside it account for 6,765 or 89% of the Town's total jobs. Of these workers, 6.5% live-in Homestead, 5.2% live in South Miami Heights, 4.3% live in Princeton, 3.6% live in Miami, 2.7% live in Leisure City, 2.6% live in Kendall. See the figure and table below for a geographic spread of where people who work in Cutler Bay Live.



Job Counts by Places (Cities, CDPs, etc.) Where Workers Live - All Jobs

	2018	
	Count	Share
Cutler Bay town, FL	851	11.2%
Homestead city, FL	491	6.5%
South Miami Heights CDP, FL	396	5.2%
Princeton CDP, FL	325	4.3%
Miami city,FL	272	3.6%
Leisure City CDP, FL	207	2.7%
Kendall CDP, FL	199	2.6%
The Hammocks CDP,FL	186	2.4%
Richmond West CDP, FL	165	2.2%
Palmetto Bay village,FL	151	2.0%
Goulds CDP, FL	146	1.9%
Hialeah city, FL	141	1.9%
Palmetto Estates CDP, FL	134	1.8%
West Perrine CDP, FL	133	1.7%
Kendale Lakes CDP,FL	132	1.7%
Naranja CDP, FL	114	1.5%
Kendall West CDP, FL	100	1.3%
Fountainebleau CDP, FL	87	1.1%
Pembroke Pines city, FL	85	1.1%
Tamiami CDP, FL	82	1.1%
Florida City city,FL	78	1.0%
Miramar city,FL	73	1.0%
Miai Gardens city,FL	68	0.9%
Richmond Heights CDP, FL	67	0.9%
Three Lakes CDP, FL	65	0.9%
All Other Locations	2,859	37.6%

The other 18,185 workers (96% of total workers) who live in the Town work elsewhere in the County. 21% work in Miami, 6.7% work in Kendall, 5.7% work in Coral Gables, 4.8% work in Doral. See the figure and table below for a geographic spread of where people who live in Cutler Bay work.



Job Counts by Places (Cities, CDPs, etc.) Where Workers Live - All Jobs

	2018	
	Count	Share
Miami city, FL	4,026	21.1%
Kendall CDP, FL	1,271	6.7%
Coral Gables city, FL	1,096	5.7%
Doral city, FL	910	4.8%
Cutler Bay town,FL	851	4.5%
Palmetto Bay village, FL	542	2.8%
Three Lakes CDP, FL	366	1.9%
Homestead city, FL	339	1.8%
South Miami Heights CDP, FL	302	1.6%
Hialeah city, FL	299	1.6%
All Other Locations	9,044	47.5%

Nearly 54% (4,095) of the people who live in Cutler Bay and work elsewhere work within 10 miles of the Town. About 25% (1,828) of them work 10 to 24 miles from Town. An additional 11.3% (857) work between 24 and 50 miles from Town. About 10.9% or 827 people work more than 50 miles from Town. These workers go predominantly north of the area. Almost all areas, except for Doral, are accessible by the rapid transit system.

All of the local governments in South Dade, including the unincorporated Miami Dade County area, export workers to other places, primarily outside of South Dade north of S.W. 88th Street. Cutler Bay exports the highest percentage at 96%. Similarly, Cutler Bay has the fewest percentage of people who live and work in the Town at 4%. This shows that creating jobs inside Cutler Bay would give a very high percentage of the Town's workers the opportunity to work closer to home.

Outside Workers Coming In			Workers that Live Here and Stay Here			Workers that Live in Town and Work Out of the Area			Jobs in City	Workers Living in City
#	% Total Workers	% Total Jobs	#	% Total Workers	% Total Jobs	#	% Total Workers	% Total Jobs		
6756	35%	89%	851	4%	11%	1815	96%	239%	7607	19036
5523	74%	93%	394	5%	7%	7062	95%	119%	5917	7456
7377	68%	92%	602	6%	8%	10273	94%	129%	7979	10875
3912	80%	92%	326	7%	8%	4576	93%	108%	4238	4902
9698	35%	79%	2645	9%	21%	25279	91%	205%	12343	27924
17607	13%	29%	44087	33%	71%	89484	67%	145%	61694	133571
50873	25%	51%	48905	24%	49%	154859	76%	155%	99778	203764

Housing and Transportation Index

Cutler Bay was evaluated using the Center for Neighborhood Technology's Housing and Transportation (H+T) Affordability Index. This Index provides a more comprehensive way of thinking about the affordability of a place. The Index shows that transportation costs vary between and within regions depending on neighborhood characteristics:

- People who live in location-efficient neighborhoods—compact, mixed-use, and convenient access to jobs, services, transit, and amenities—tend to have lower transportation costs.
- People who live in location-inefficient places—less dense areas that require automobiles for most trips—are more likely to have higher transportation costs.

The traditional measure of affordability recommends that housing cost no more than 30% of household income. Under this view, a little over half (55%) of U.S. neighborhoods are considered "affordable" for the typical household. However, that benchmark fails to consider transportation costs, which are typically a household's second-largest expenditure. The H+T Index offers an expanded view of affordability, one that combines housing and transportation costs and sets the benchmark at no more than 45% of household income.

The traditional measure of housing affordability ignores transportation costs. Typically, a household's second-largest expenditure, transportation costs, is largely a function of the neighborhood's characteristics in which a household chooses to live. Places that are compact, close to jobs and services, with various transportation choices allow people to spend less time, energy, and money on transportation. Cutler Bay has 0% location-efficient neighborhoods.

The Town has moderate access to jobs and is moderately dense and walkable. On a scale of 1-10, with ten being the best, Cutler Bay ranks 4.6 in Job Access, 4.2 in Access to Public Transit, and 5.4 in having Compact Neighborhoods.

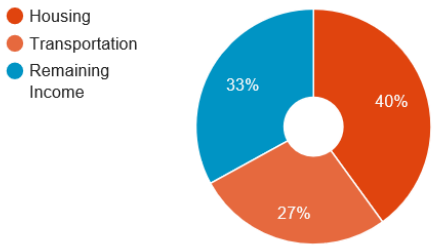
Transportation Costs

In dispersed areas, people need to own more vehicles and rely upon driving them farther, which increases the cost of living. On average, annual transportation costs in Cutler Bay are about $12,999. The average household has about 1.82 automobiles and travels 21,615 vehicle miles each year. Transportation costs are considered affordable if they are 15% or less of household income, or about $7,312 per year for the typical household. The total driving cost is about 179% above affordable.

The annual cost of auto ownership is $9,878. Four percent of all workers currently ride transit, at an annual transit cost of $97. There are 27,405 jobs accessible within a 30-minute transit ride.

Average Housing + Transportation Costs % Income

Factoring in both housing *and* transportation costs provides a more comprehensive way of thinking about the cost of housing and true affordability.



Transportation Costs

In dispersed areas, people need to own more vehicles and rely upon driving them farther distances which also drives up the cost of living.

$12,999
Annual Transportation Costs

1.82
Autos Per Household

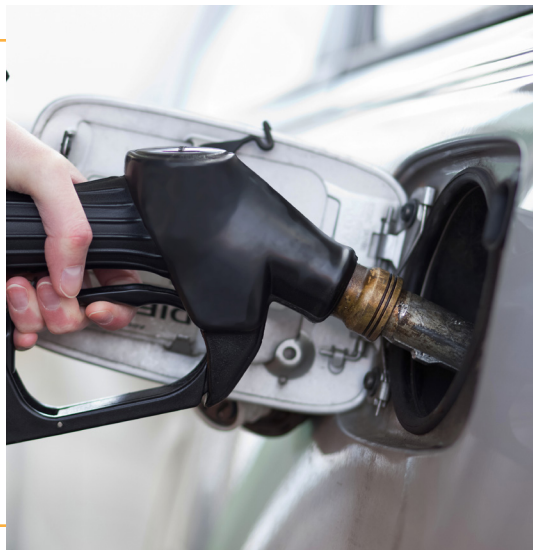
21,615
Average Household VMT

Average Housing + Transportation Costs

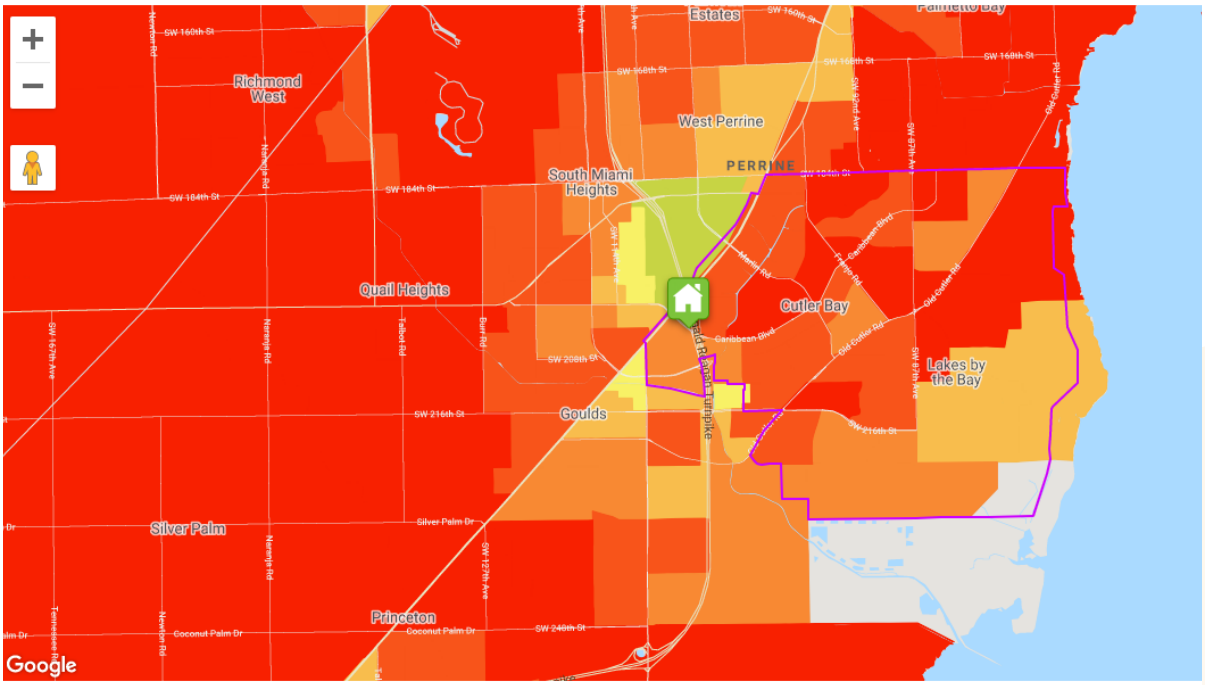
Examining the combination of housing and transportation costs provides another measure of housing affordability. In Cutler Bay, housing typically costs 40% of household income, while transportation costs 27% of income. The index is 66 (27/40). Affordability comes with a combined housing and transportation score of no more than 45.

Fuel Costs

Over the decades, the rise in gas prices, from $1.29 in January 2000 to $2.69 in 2021, combined with periodic spikes, has altered travel across the country. Many municipalities reported an increase in public transit use, with some studies indicating increased ridership will continue past the spikes in gasoline prices. Due to the increased household costs of gasoline, combined with generally poor economic conditions resulting from the Pandemic, the use of lower-cost alternative modes of transportation, including walking, bicycling, and public transit, has surged nationwide. Nationally, vehicle-miles traveled have decreased as drivers work to curb the rising expenses associated with automobile use.



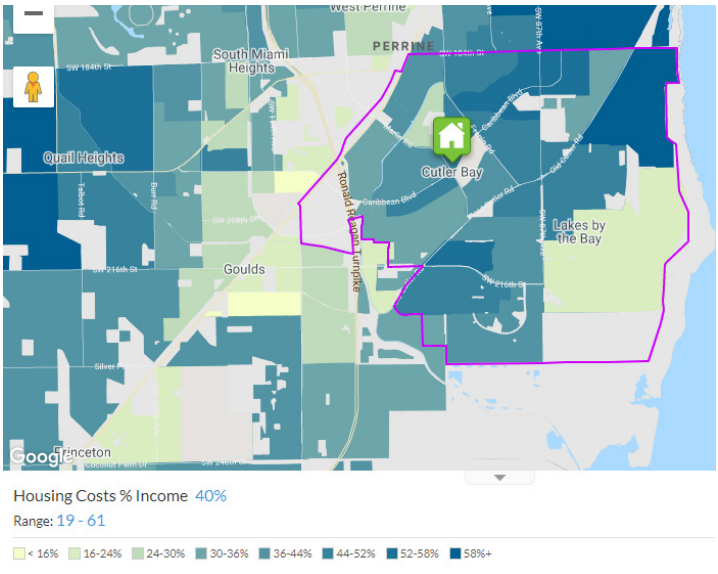
Total Monthly Driving Costs



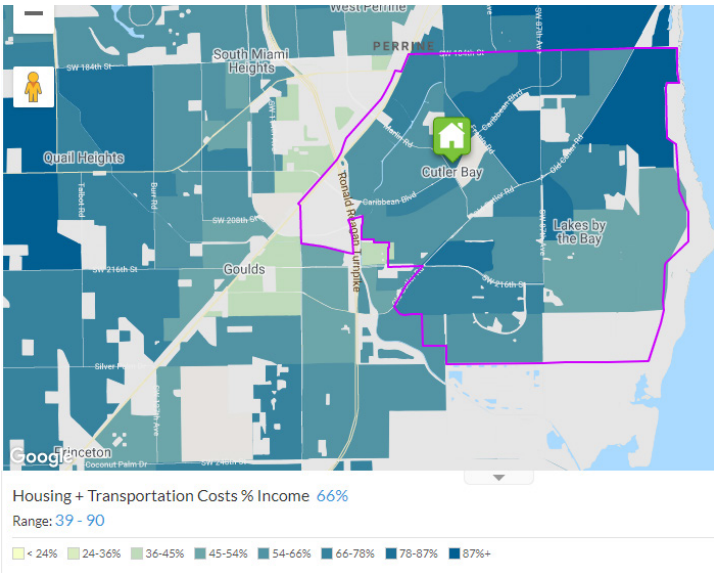
Source: Center for Neighborhood Technology

The total average annual driving costs in Cutler Bay are $14,076 ($11,428, auto ownership, and $2,648 for operating costs). The average total monthly cost is $1,091 when the average gas price is $2.50 per gallon. At the time of the last Transportation Master Plan Update in 2014, the median gas price was close to $3.00 per gallon. Since the last update, the transportation costs have been steady at around $1,100 per month. This is a 24% increase from the 2008 Transportation Master Plan. With a high number of vehicles per household and a high level of vehicle-miles traveled per year, transportation costs will remain high in Cutler Bay.

Housing Costs % of Income



Housing + Transportation Costs % of Income

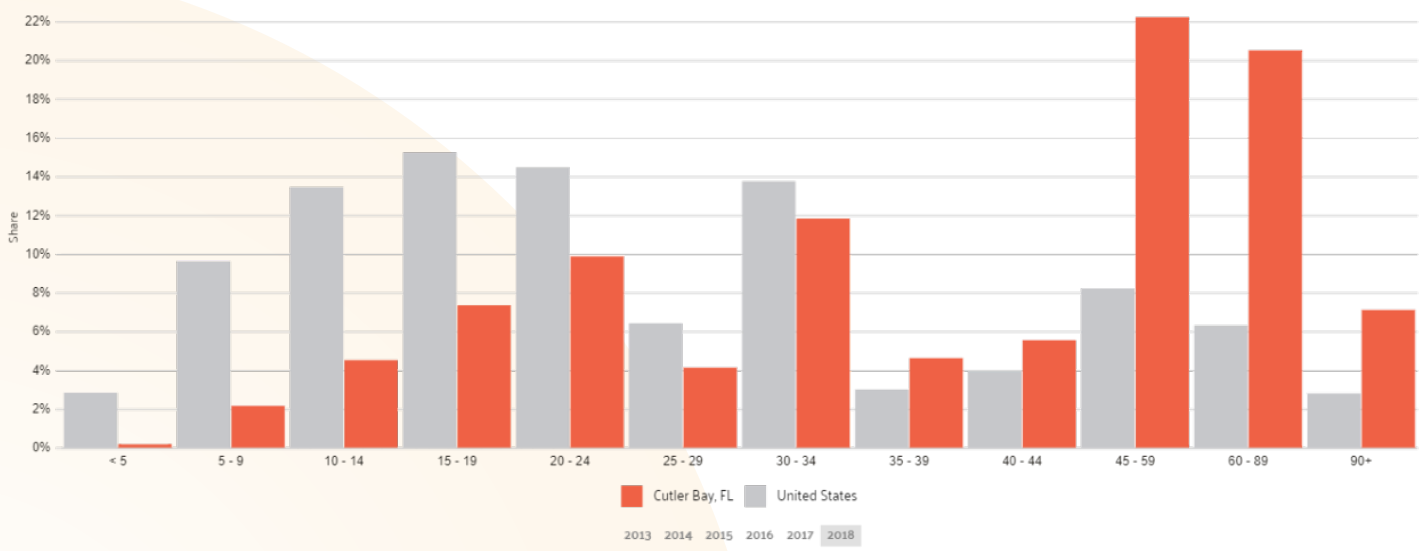


Source: Center for Neighborhood Technology

Travel Time to Work

Travel time to work refers to the total number of minutes that it usually takes a person to go from home to work during a specific period each day. This measure includes time spent driving or waiting for public transportation, picking up passengers in carpools, and time spent in other activities related to traveling to work (Source: U.S. Department of Transportation).

Travel Time to Work

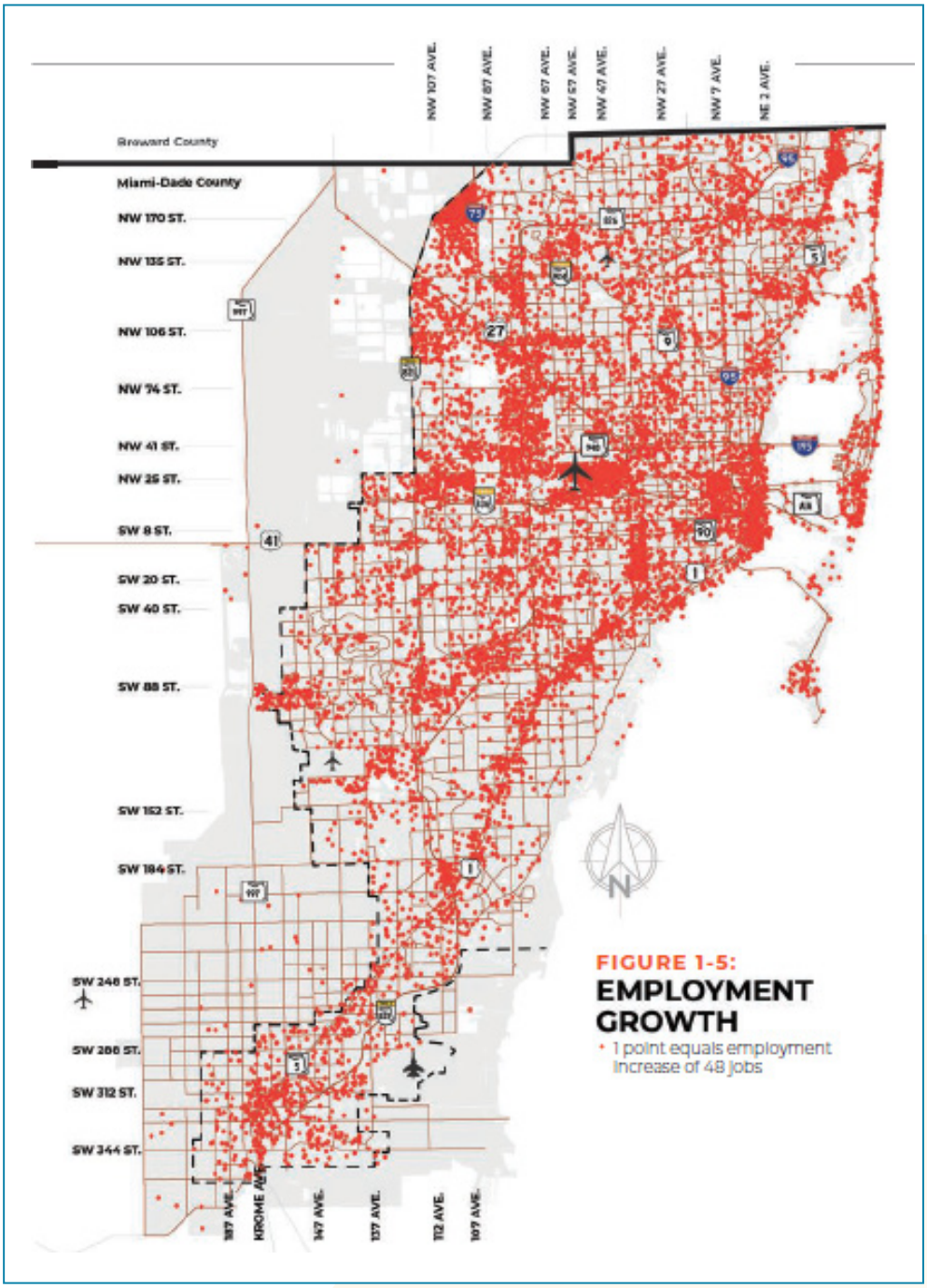


Source: datausa.io (Census Bureau ACS 5 Year Estimate)

2.7 | TRAVEL PATTERNS

The average travel time to work in the Town of Cutler Bay is 40.3 minutes as of 2018, which has increased from the last Transportation Master Plan adopted by the Town when the average travel time to work was 35.3 minutes. The U.S. Average commute time is 25.3 minutes. Additionally, 7.11% of the Cutler Bay workforce have "super commutes" in excess of 90 minutes (datausa.io).

A smaller percentage of Cutler Bay residents have commutes of less than 30 minutes compared to national data. The percentage of Cutler Bay residents who have commutes of less than 30 minutes had decreased from the last Transportation Master Plan, when it was 29.9%, to its current 28%. 22.2% of Cutler Bay residents are estimated to have commutes of 45 to 59 minutes, and 21% of residents are estimated to have commutes of 60 to 89 minutes. These data are significantly higher than national trends. Of particular concern is the proportion of Cutler Bay residents who travel between 60 to 89 minutes. This group's growth has moved it from the third-largest to the second largest category of travel time since the 2008 Master Plan. With employment growth primarily trending towards centers of north Miami-Dade, as demonstrated by the following figure, this trend may continue.



Source: Miami Dade TPO LRTP 2045

Job access improves when there is a regional land-use balance for both transit and auto commutes. Also, moving trip destinations closer yields reductions in vehicle operating costs and more opportunities for low-cost bicycle and pedestrian mobility options. Balancing land use focuses on policies and potential incentives to encourage more development in optimal locations. Increasing development around underdeveloped station areas, such as surrounding Southland Mall, will have a positive effect.

2.8 | Resiliency/ Sustainability

2.8 | RESILIENCY/SUSTAINABILITY

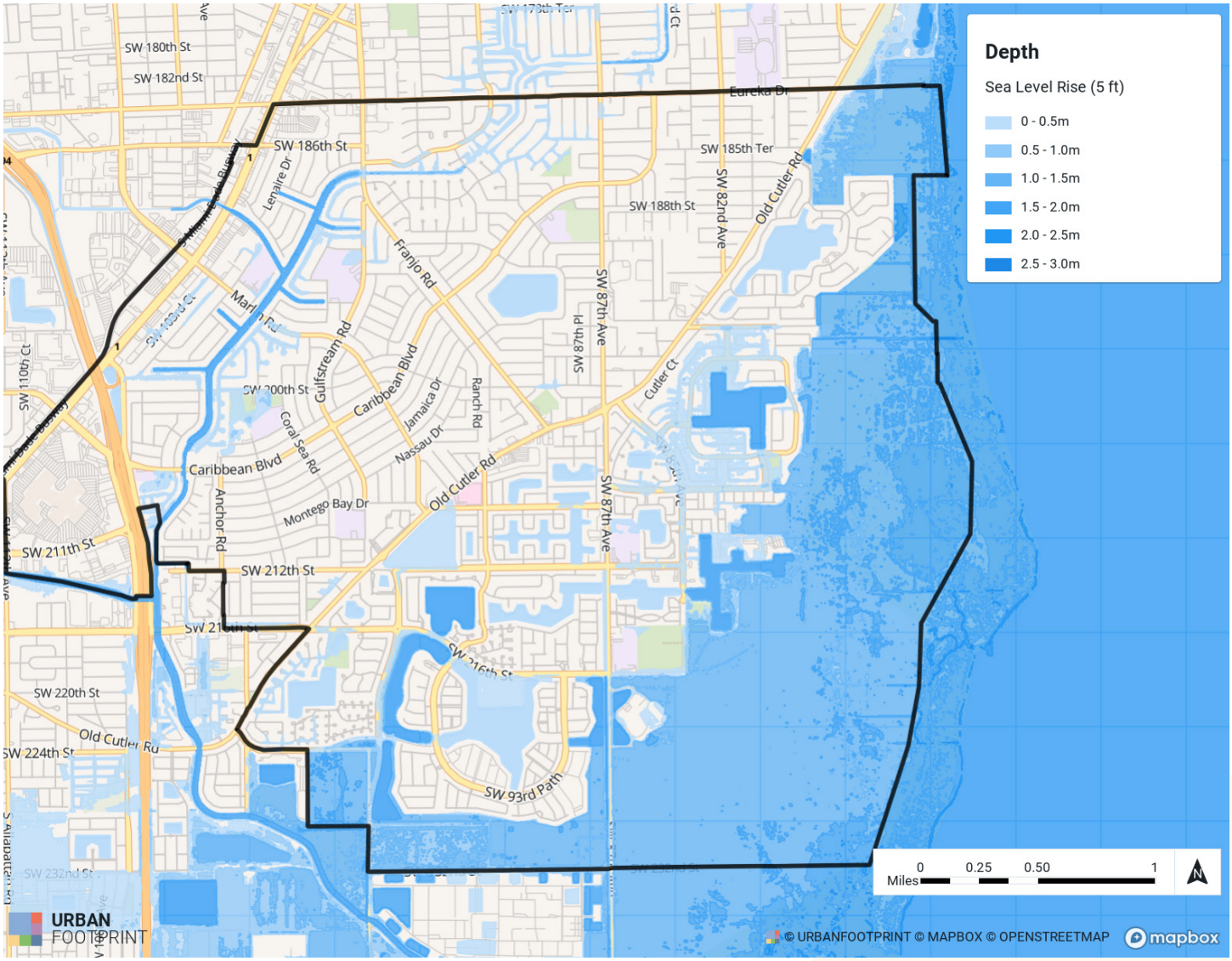
As far as transportation is concerned, the Federal Highway Administration defines resiliency as "The ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions." In this light, the transportation network will be evaluated, utilizing the tool known as Urban Footprint, as to its elevation and vulnerability to its greatest threat, flooding, either via periodic disaster events, like storm surge from hurricanes or the long-term impacts of sea-level rise.

The Town seeks to transition to a carbon-neutral transportation system and is in support of Miami-Dade County's resiliency planning efforts, which were incorporated into the adopted 2045 Long Range Transportation Plan. By incorporating resilience planning, the Town can strengthen its transportation network by creating a more reliable system during and after extreme weather events. Addressing vulnerabilities of the Town's transportation assets, through engineering and new technology, can reduce recovery time after a major event and enhance resilience.

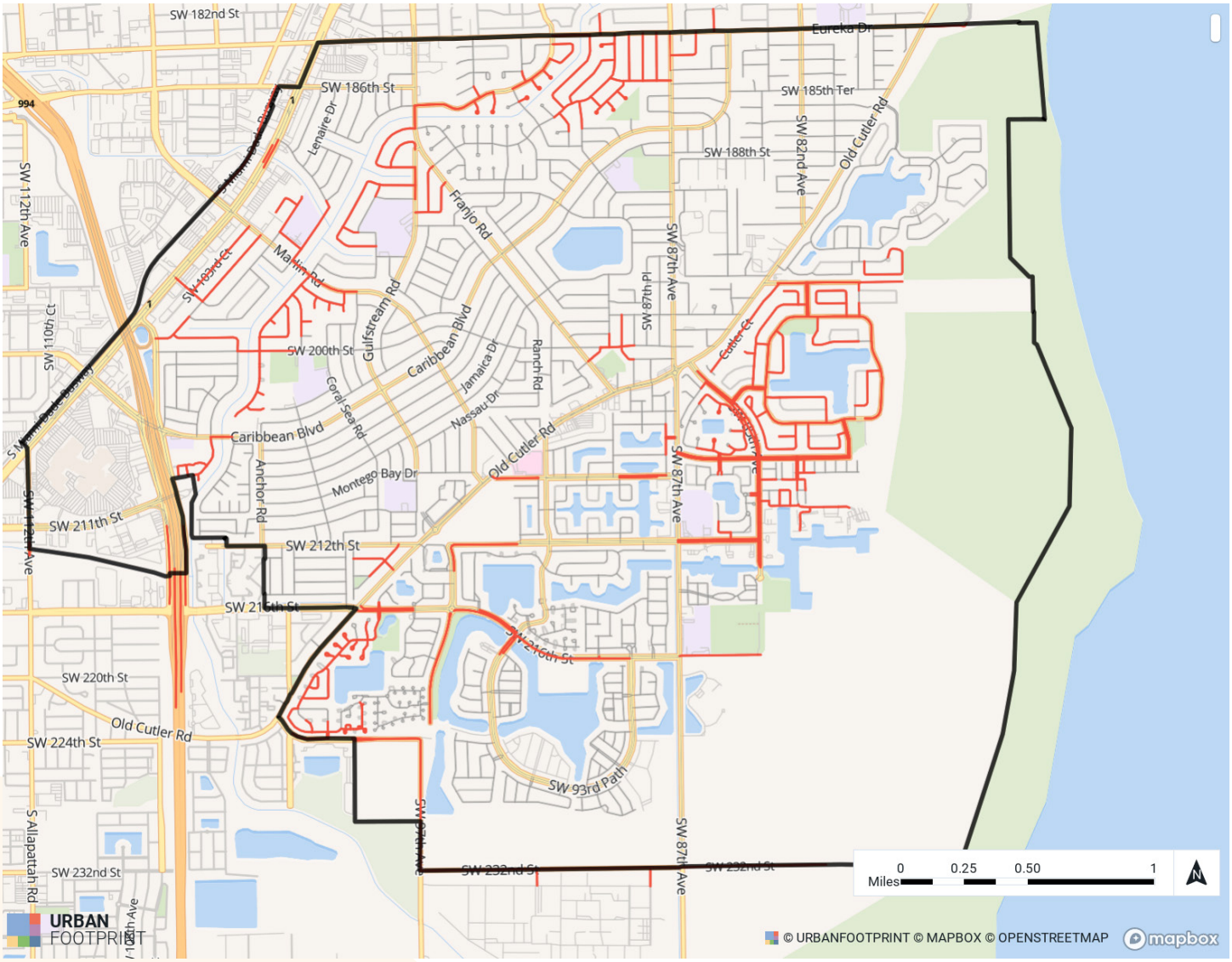
Hurricanes and sea-level rise will have greater impacts on households in working-class neighborhoods within flood zones as population and infrastructure continue to grow.

The map below depicts the potential inundation of coastal areas resulting from a projected 5 feet rise in sea level above current Mean Higher High Water (MHHW) conditions. This illustrates the scale of potential flooding and does not account for erosion, subsidence, or future construction. Inundation is shown as it would appear during the highest high tides (excludes wind-driven tides) with the sea level rise amount.

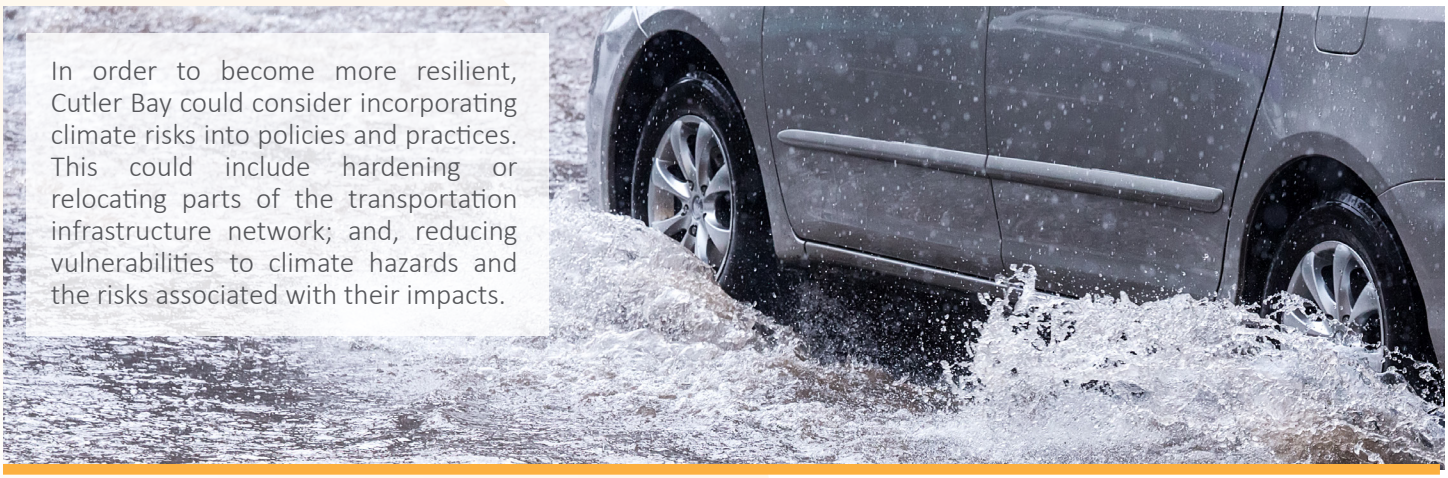
Depth of inundation in meters resulting from a projected 5 feet rise in sea level above current Mean Higher High Water (MHHW) conditions



Roadways affected resulting from a projected 5 feet rise in sea level above current Mean Higher High Water (MHHW) conditions



In order to become more resilient, Cutler Bay could consider incorporating climate risks into policies and practices. This could include hardening or relocating parts of the transportation infrastructure network; and, reducing vulnerabilities to climate hazards and the risks associated with their impacts.



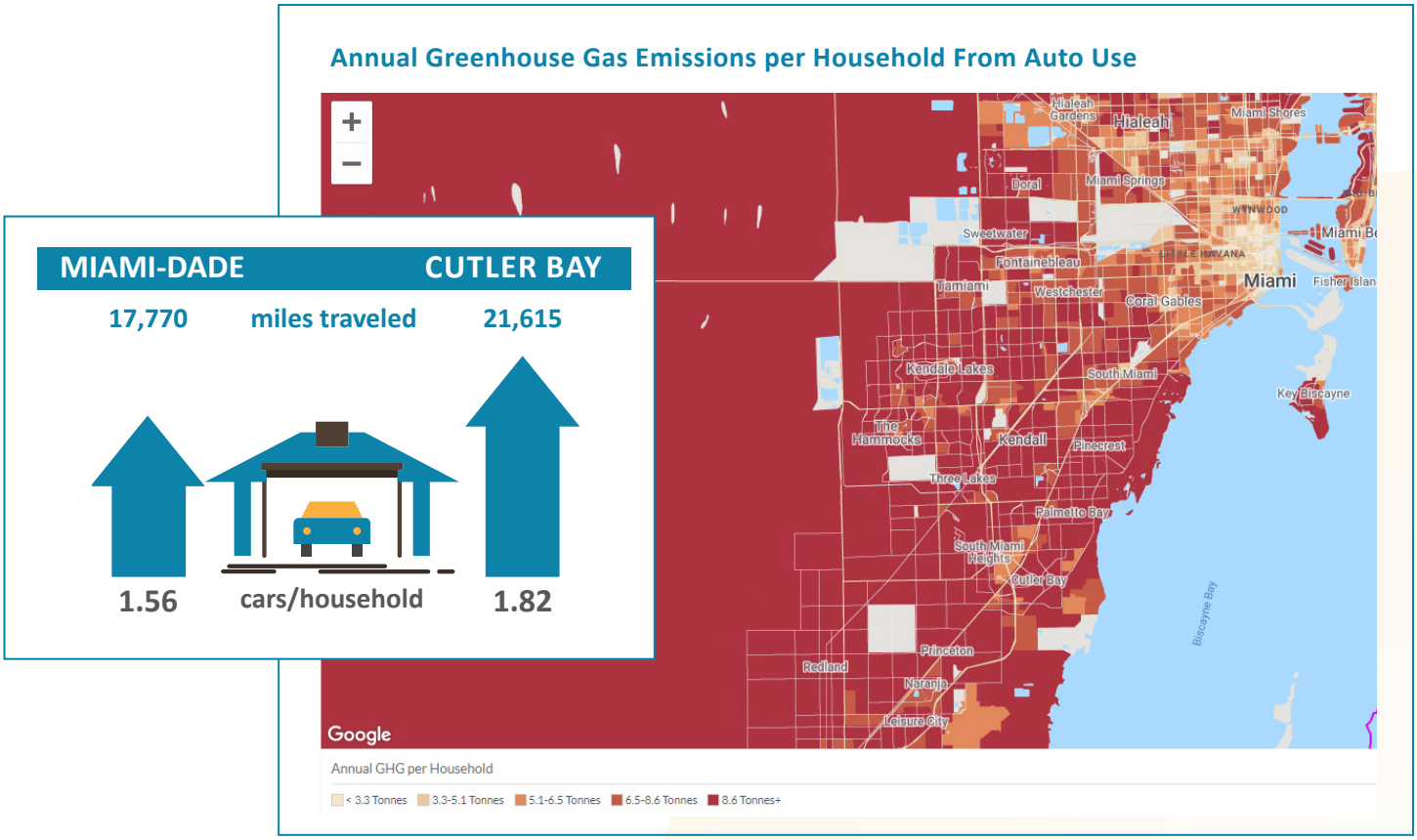
2.8 | RESILIENCY/SUSTAINABILITY

The Cutler Bay *Floodplain Mitigation Plan* identifies activities that can be undertaken to reduce flood damage to public infrastructure. These activities include stormwater improvements. The Town's goal is to protect critical facilities from flood damage. Several Mitigation Actions in this Plan related to property protection, preventative mitigations, natural resource protection, and structural projects include:

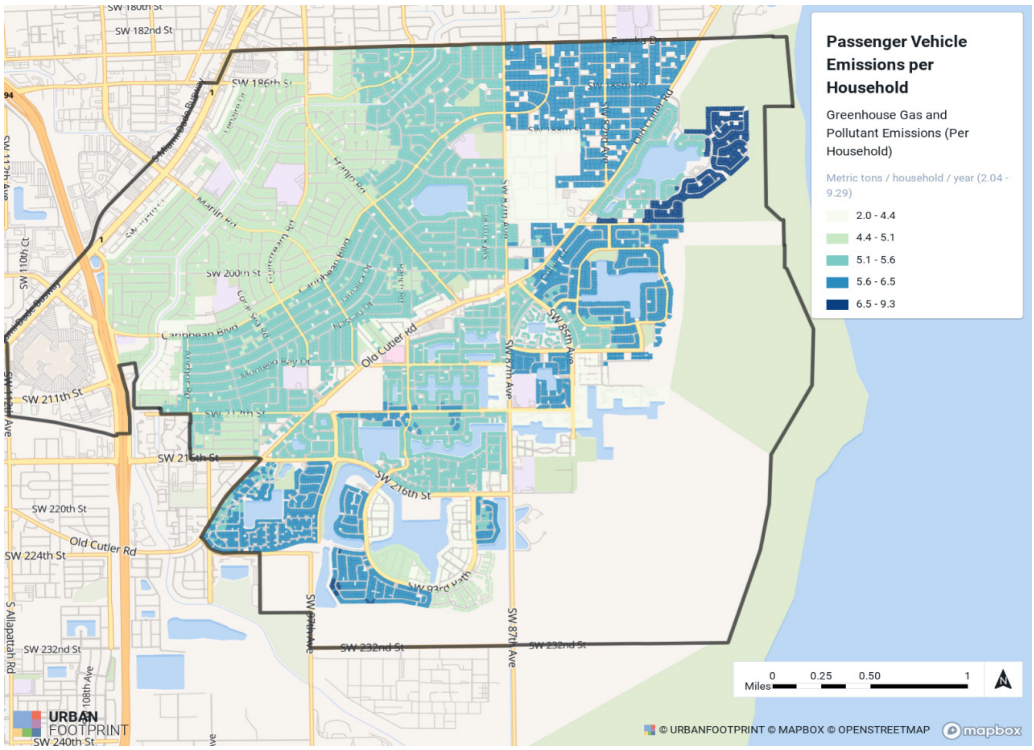
- Identify segments of canals where erosion is causing banks to collapse and prepare a prioritized list for improvements
- Cleanout all storm drains on a bienniall basis
- Improve drainage along the C-100 canal through a dredging-project
- Improve drainage in the Saga Bay sub-basin through upgraded stormwater piping
- Implement program to identify all catch basins located on private streets in gated communities
- Continue implementation of drainage system maintenance on all surface water channels, canals, and ditches
- Improve drainage along flood-prone neighborhoods
- Work with local, state, and federal partners to target repetitive loss properties for acquisition or elevation
- Promote retrofitting techniques for floodproofing of residential structures
- Protect the natural floodplain functions within the Town, including the Cutler Wetlands
- Work with Miami-Dade County Emergency Management on identifying vulnerable populations for evacuations
- Work with Miami-Dade County Emergency Management, state and federal governments to protect vulnerable critical facilities

With an average of 1.82 vehicles per household and 21,615 annual vehicle miles traveled per household, Cutler Bay numbers are higher than Miami Dade County of 1.56 automobiles per householdn and 17,770 annual vehicle miles traveled per household.

As can be seen on the map below, the further one commutes by vehicle to and from downtown Miami, the higher the greenhouse gas emissions (GHG) produced.



Passenger Vehicle Emissions per Household



The Town of Cutler Bay's development of the Resiliency Plan is fundamental in the implementation of resiliency policies. Increasing connectivity and alternative modes of transportation are key to reducing emissions; by shifting and reducing trips, the vehicle miles traveled can be lowered. Interconnected streets with pedestrian-friendly design are already in place in the Town. With the adoption of the Complete Streets Plan, the Town has already made a major step towards prioritizing alternative sustainable modes of transportation in order to reduce vehicle miles. The Town of Cutler Bay Resiliency Plan provides the following:

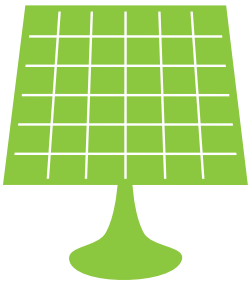
Action A: Prioritize Green Building Funds

Prioritize Town improvements allowed for the Green Building Fund for the area east of Old Cutler Road. Expand the Clean Energy Green Corridor District to include the area immediately adjacent to Old Cutler Road. (This District currently exists along US-1.)

Action B: Establish a Homeowner Grant Program

Create a new grant program for eligible homeowners that have experienced repeat flooding to assist in expenses of raising HVAC systems, plumbing and electrical meters. Homeowners experiencing repeated flooding can raise HVAC systems, plumbing, and electric meters currently on ground level to above flood levels. This can prevent future damage to expensive systems and could reduce flood insurance premiums as well. The average cost to raise equipment is estimated to be $6,000.

Action C: Solar Building Height Bonuses



The Town could consider additional building height bonuses for buildings installing roof-mounted solar panels and to account for freeboarding.

Action D: Create Goals to Green the Fleet

A new comprehensive plan policy could be adopted to set a goal to electrify the Town-owned vehicle fleet to 50% of all vehicles by 2025 using the annual vehicle replacement budget in the Capital Budget. In support of the green fleet goal, the Town could set a goal of at least 10 vehicle charging stations within the Town (public and or private) by 2025 and revise the LDRs to include regulations that all new parking areas in the Town include EV charging stations.

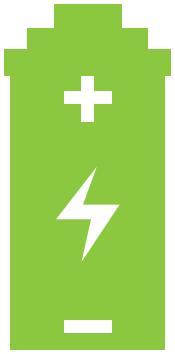
Action E: Foster Intergovernmental Relationships

As a stakeholder with an interest in enhancing the natural systems, the Town could send a representative to participate in the County-initiated Biscayne Bay restoration peer-to-peer network of natural resource managers. The purpose of the network is to strengthen relationships and improve communication among natural resource practitioners, build capacity across the region, and coordinate efforts related to Biscayne Bay management that accelerate actions and maximize impact. The network will share best practices and align multi-jurisdictional projects related to Biscayne Bay restoration at quarterly round table meetings. Additionally, the network will create a database that includes governmental natural resource managers from the area.

As a coastal Town, with an interest in the quality of the Great Florida coral reef, the Town will collaborate with and support the enhancement efforts of Miami Dade County; South Florida Water Management District; other local coastal government agencies; the U.S. Army Corps of Engineers; NOAA; Florida Department of Environmental Protection; Florida Fish and Wildlife Conservation Commission. Through the Artificial Reef Program, the County and agencies will seek to further enhance nearshore recreational benefits, provide additional habitat structure, and look for opportunities to further reduce storm-related coastal impacts.

The Town can support and participate in recent planning efforts of Miami-Dade County which will catalyze the resilience work across Miami-Dade County by providing

peer exchange and connecting local government practitioners through the planned Resilience 305 Network. The Network will facilitate intergovernmental collaborative work among practitioners by enhancing and supporting the sharing of communication and resources among cities in Miami-Dade County to advance resilience work. The 305 Network will support its member cities in their resilience work, develop multi-city collaboration projects, influence the development of policies at the local and regional levels, and build a network of trusting relationships among peers. To participate in the 305 Network, cities commit to creating a Community Resource Officer (CRO) position or identifying a person responsible for CRO duties. 305 Network members will be able to transfer knowledge learned from their peers to their own work and thereby synergistically advance resilience within their municipality. Through the 305 Network, municipalities will be able to leverage resources to become better prepared to overcome the shocks and stressors the region faces.



Action F: Create Pilot Projects

The Town could create at least two pilot projects utilizing parks/open spaces as living classrooms. The pilot projects could be examples of how resilient design provides a dynamic educational opportunity. Innovative resilient design offers students the chance to participate in living classrooms to learn about water resources, green infrastructure, and living shorelines, among other concepts. The parks can also serve as living laboratories for innovative resilience design and measures that lead the way for best practices such as Leadership in Energy & Environmental Design (LEED) site planning guidelines.

The Town could work with developers and seek opportunities to enter into agreements to fund new park projects which would incorporate resiliency and sustainable practices in the design.

Action G: Create a Sea-Level Rise Checklist

The Town could work with the County, which is in the process of creating a template, for a "sea-level rise checklist" for capital projects. The checklist will help ensure that new infrastructure is built to withstand future floods and storms and that there is a consistent approach across departments to integrate climate change considerations into project designs. A checklist and a clear process will help various departments adopt consistent standards, information, and the best practices for capital projects. The Town can also work with the County which is currently creating an easy-to-use online tool that provides the data necessary to complete the checklist, such as parcel-level information about elevations and flood risk.

Action H: Create a Process for Development to Address Adaptation

The Town could adopt review criteria for new development east of Old Cutler Rd. that will ensure all new buildings address climate adaptation and mitigation during the review process. The applicant will address the criteria in the letter of intent. This will result in buildings that are more resilient to extreme weather, more energy efficient and increasingly adaptable to rising seas.

Action I: Create Growing Green Bus Stops

The Town could initiate a Growing Green Bus Stop pilot program, beginning along the bus routes east of Old Cutler Rd. The program is designed to raise awareness of the importance of trees by planting them where they will provide the most benefit to people standing in the heat. The project consists of planting two canopy trees, consistent with the Town's approved landscape guidelines, at un-shaded bus stops. The benefits include an enhanced transit experience, beautification of the roadways and increasing the overall tree canopy of the Town.

Action J: Become a SolSmart Community

The Town could set a goal to achieve at least bronze SolSmart status by 2025. SolSmart is a national technical assistance and designation program that guides communities in lowering the costs and barriers for community members to go solar and encourages solar energy development. The South Florida Regional Planning Council (SFRPC) recently received a technical assistance grant that provides for a SolSmart Advisor to work full time. The SolSmart Advisor provides expertise and dedicated support to communities within and outside of the greater Miami region to encourage local solar energy growth with the goal of achieving the SolSmart designation.

Action K: Create a Demonstration Project of a Living Shoreline

The Town could create at least one pilot project to assist residents on ways to build living shorelines and alternative shoreline stabilization projects.

Living shorelines generally refer to the use of native plants or other alternative means to shoreline stabilization, such as oyster reef restoration. Where water conditions are appropriate, living shorelines provide a resilient alternative to hard structures, such as bulkheads. Cutler Bay could create policies in the LDR's to make living shorelines the preferred alternative. Living shorelines are erosion management techniques, such as the strategic placement of plants, stone, sand, and other structural and organic materials, that are used primarily in areas with low to moderate wave energy, and are designed to mimic natural coastal processes.

Action L: Implement the Building Efficiency 305 Program

In cooperation with and support of Miami-Dade County, the Town could implement the Building Efficiency 305 (BE 305) program. The BE 305 program will promote more efficient buildings through initiatives that improve energy and water use in large, existing buildings, both private and public. The BE 305 program includes a variety of strategies including:

- Local governments leading by example through benchmarking and improving municipal building performance;
- Promoting financing mechanisms to assist building owners and managers make efficiency improvements;
- Enhancing building performance through code compliance education and assessments;
- Establishing building performance policies to include annual benchmarking requirements for residential and non-residential buildings;
- Facilitating community training and other educational opportunities focused on improving building performance.

The BE 305 program is an innovative approach that uses the deployment of building performance data to drive decision making. It aligns with Miami-Dade County's vision to create jobs, enhance economic productivity, improve grid resilience, reduce the residential utility burden on low-income residents, bolster healthy and resilient communities, and initiate progress toward its resilience goals.

Action M: Partner with Nonprofit Organizations

There are several nonprofit organizations in the region dedicated to building literacy and grassroots engagement on climate change, water impacts, and resilience. The Town could create a goal to engage with at least one nonprofit organization to work with residents and schools in the area. A more informed and civically engaged public will help advocate for and generate policies that strengthen communities and support residents. A few examples are:

Active in South Florida for over a decade, **Dream in Green (DIG)** educates individuals about environmental challenges and eco-friendly behaviors. The DIG Academy focuses on building environmental literacy and stewardship in K-12 schools through STEM curriculum alignment, developing classroom activities for teachers, and funding student-led sustainability initiatives.

Since 2010, **The CLEO Institute** has been working to educate and empower all sectors of society on climate change basics. Its signature "Climate 101" trainings have been offered in the community since 2012. Past offerings have included training tailored for municipal staff members, elected officials, and homeowners associations.

Catalyst Miami, Inc. launched its CLEAR (Community Leadership on the Environment, Advocacy, and Resilience) Miami program in the fall of 2016. CLEAR Miami increases participants' understanding of climate resilience, ways to get involved in their communities, and the intersection of climate, environmental, and social issues.

Action N: Improve Disaster Recovery

The Town could adopt the Resilient Land Use Essentials Guide which was recently prepared during the Resilient305 Strategy development phase. It is a guide for governments and other urban stakeholders that contains recommendations for land use actions that local governments can implement before a disaster to facilitate post-disaster recovery and potentially minimize negative impacts, particularly in the face of climate-induced flooding and sea-level rise. In this context, land use planning refers to rules and guidelines governing the disposal of public and private land to promote the physical security of urban communities. The guide is intended for every city planner.

2.8 | RESILIENCY/SUSTAINABILITY

The Town's transportation system should support a healthy population and sustainable environment while enhancing the quality of life for all. The following is an excerpt from the Miami Dade County Climate Change Action Plan:

The Role of Responsible Land Use and Smart Transportation

Each strategy and initiative in the Responsible Land Use and Smart Transportation area contributes to the goals of the Climate Change Action Plan. These are a collection of existing and new strategies that address land use patterns, community and transit design, services provided on the system, as well as strategies to improve system efficiencies associated with growth and mobility. The actions in this goal area are expected to achieve cross-cutting benefits from reducing emissions by facilitating a shift in trips made in the personal automobile to walking, biking and public transportation, to facilitating healthier communities through actions targeting street design, parks, and bicycle and walking facilities. It recognizes the need to prioritize sustainable modes of transportation in the long term while continuing to provide increased connectivity and improved traffic flow on the existing transportation network.

Responsible Land Use and Smart Transportation Strategies Contributing to Climate Action Plan Mitigation Efforts

- **Better integrate planning and prioritize investments**
- **Support existing communities and value neighborhoods**
- **Increase bicycling & walking**
- **Increase transit ridership**
- **Improve connectivity and mobility on the existing system**

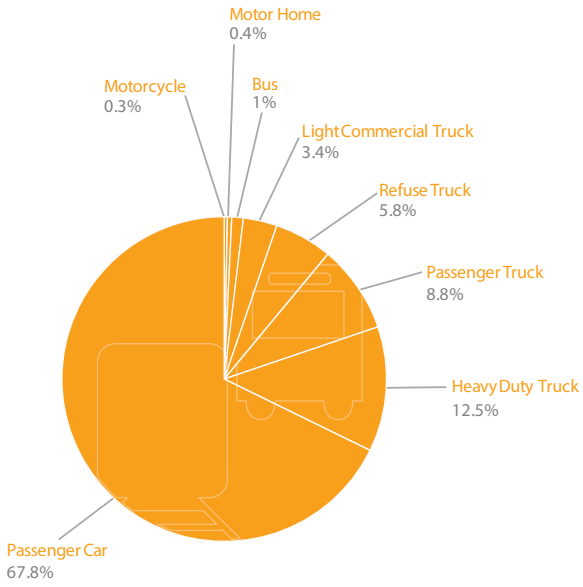
Source: Miami Dade County Climate Action Plan

The initiatives in the Responsible Land Use and Smart Transportation Goal Area reduce emissions by 532,000 million tons of CO2 e and avoid 608,000 mt CO2e.

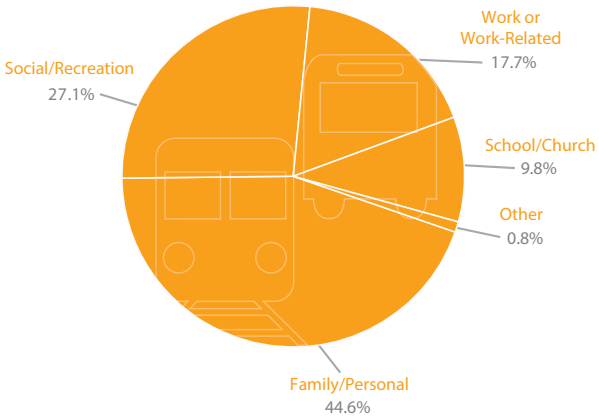
Decreasing the distances between where people live, work, play, and shop will reduce driving distances and perhaps avoid some automobile trips altogether. The figure below illustrates that the personal automobile will continue to be the greatest contributor to CO2e emissions (10 metric tons/year), following the completion of transportation projects planned and funded through 2015 (MPO, "Emissions Scenarios"). The breakdown of trips by purpose from the U.S. Department of Transportation estimates that most trips are not work-related, but are trips that are shorter and personal, such as errands and shopping. Therefore, achieving more compact development in urban and suburban settings would make a great impact on reducing vehicle miles traveled (VMT) on the system (Urban Land Institute 5).

2015 Estimated Daily Greenhouse Gas Emissions by Vehicle Type

The personal automobile is expected to continue to be the largest source of GHG emissions within the transportation sector in 2015, contributing 68 percent of the GHG emissions . This estimate is based on transportation modeling, which includes transportation projects planned through 2015. (MPO, "Emissions Scenarios Figure 12)



Breakdown of Trips by Purpose



Most trips are not work-related. Compact development can help people reduce car use for errands, shopping , and other personal trips. (Urban Land Institute 5)

Source: Miami Dade County Climate Action Plan

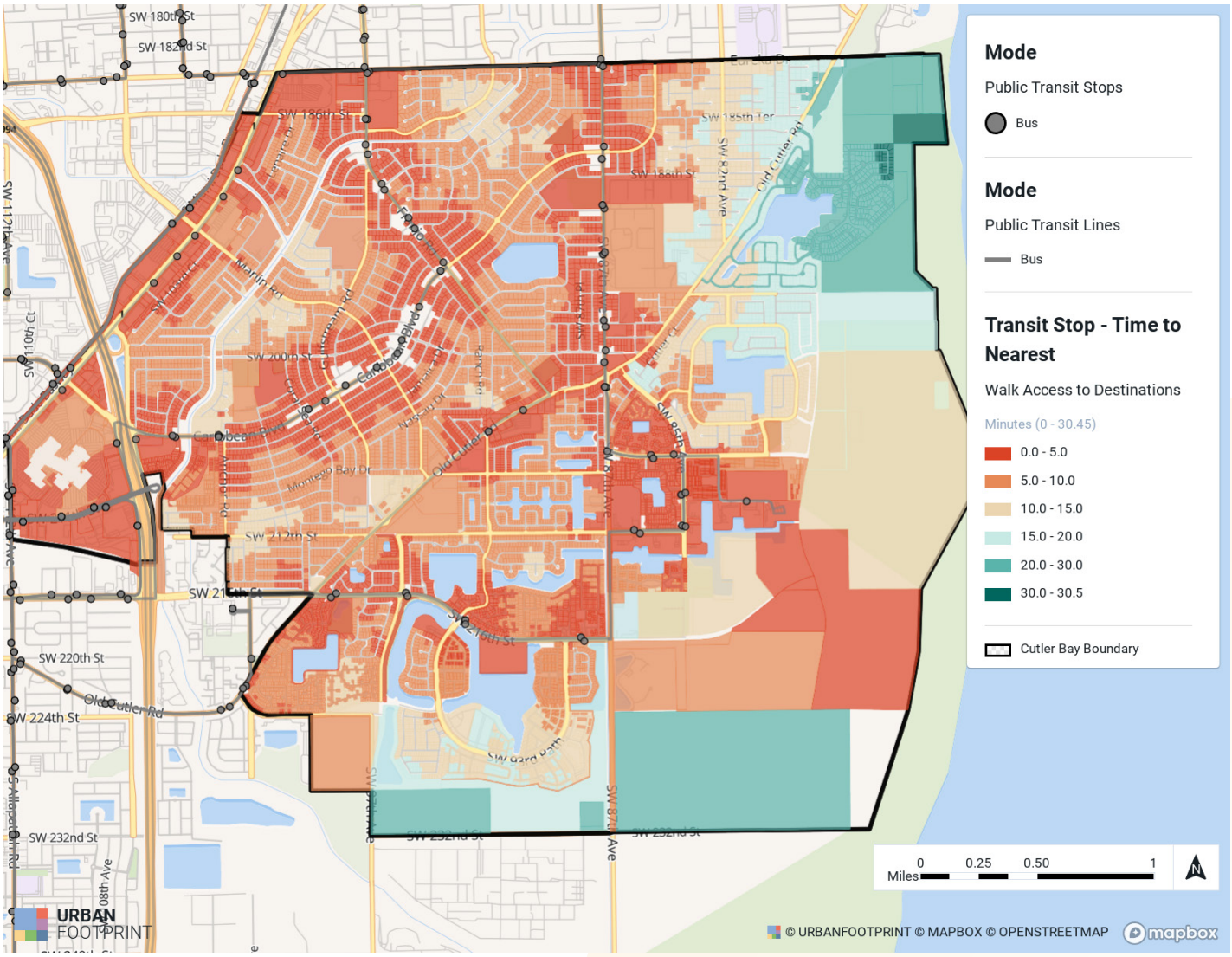
2.8 | RESILIENCY/SUSTAINABILITY

Miami Dade County is making significant strides towards the Cool Counties (GHG) goal of 80% reduction by 2050. By promoting compact development in the Urban Center District, creating mobility hubs, increasing transit ridership, replacing gasoline-powered vehicles with more energy-efficient models, and, continuing with the creation of complete streets, the Town can build upon the Miami Dade County goal and help it become more attainable.

Active Transportation

The Town of Cutler Bay's transportation network supports not only a sustainable environment but also a healthy population. The Town provides a variety of mobility options, giving residents the ability to choose the best mode of transportation for their environment, cost, and health. With alternative mode options, such as providing a bicycle-share program, the Town will provide a popular way to getting around, while promoting active transportation.

Active transportation, such as walking and biking, creates opportunities for people to exercise, resulting in the reduction of obesity and other chronic conditions. Although public transportation is not classified as active transportation, public transit riders are classified as having higher activity levels, as it usually is a multimodal trip; one normally including biking or walking to the transit station or stop. Supporting mixed-use neighborhoods with walking destinations fosters physical activity and supports active transportation.

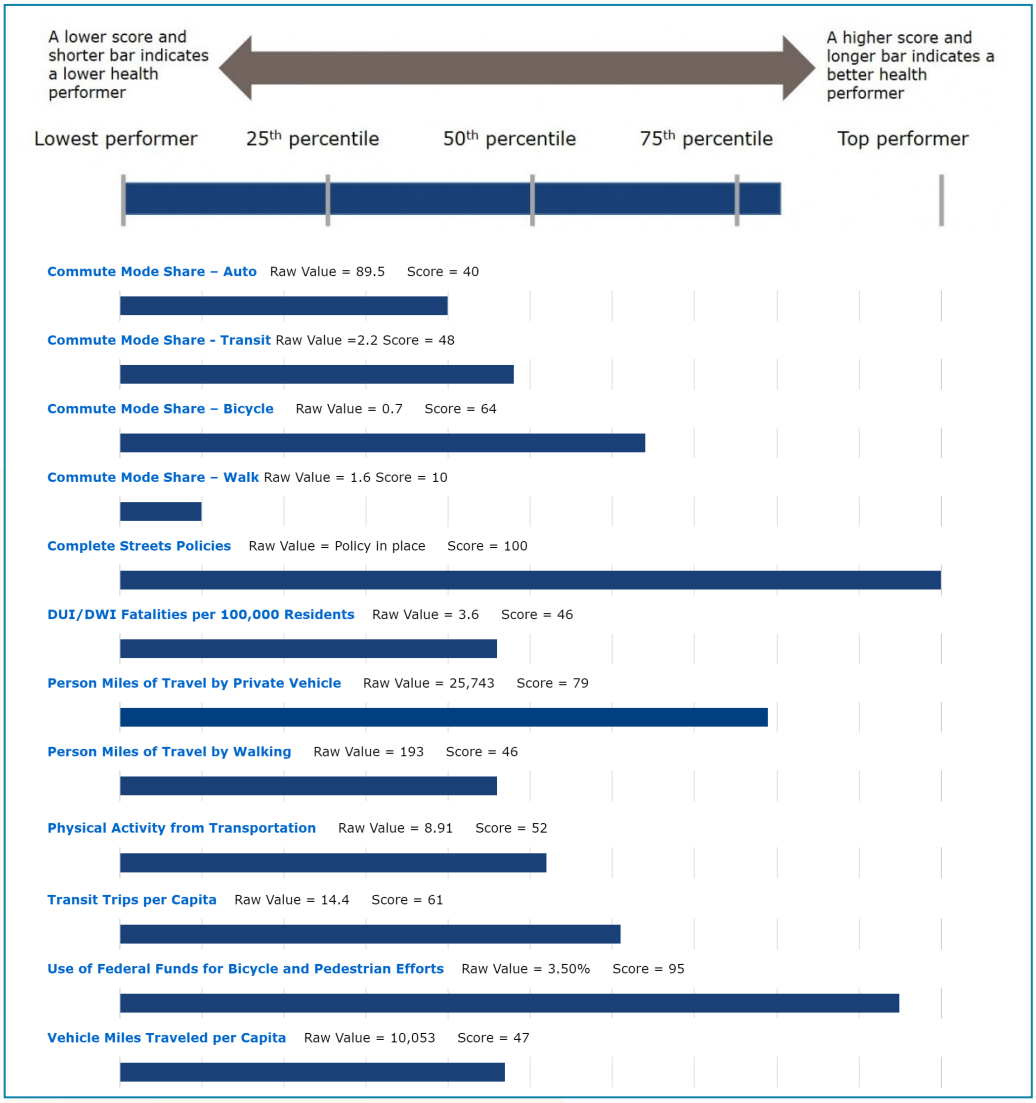


Transit connectivity is a measure of the public transportation readily available in a given area and takes factors such as bus routes and schedules into account. Usability, perhaps the hardest to quantify, relates to the user-friendliness of the system. Stops, stations, and transit must be easily identifiable for a system to be considered useable In Cutler Bay. The Miami-Dade Transitway provides the strongest link in transit connectivity. The average walk time to the nearest transit stop for Cutler Bay residents is 7.54 minutes.

The focus of First and Last Mile (FLM) transit connections in the Town of Cutler Bay integrate pedestrian facilities, bicycle facilities, and other active mobility modes with transit routes, stations, and stops. The objective is to increase transit use for longer trips while reinforcing a culture of walking and biking for neighborhood trips and improving the viability of shared, non-motorized modes. In doing so, the FLM connection increases the market capture area and potential ridership for high-capacity transit investments. Many residential neighborhoods, workplaces, and other major destinations, will be beyond an easy walk to a station.

FLM mobility options include a wide range of modal groups and delivery models (public and private). As much as FLM innovations leverage innovative vehicles, mobile communication technologies, and sharing business models, the basics are important as first efforts: sidewalks with safe crossings; a safe, convenient bicycle infrastructure; and, comfortable, safe, and convenient transit stops that are located with great attention to land use context.

According to the U.S. Department of Transportation *Health Tool*, Florida scored low in the commute mode of walking. However, Florida scored high for Complete Streets Policies.



2.8 | RESILIENCY/SUSTAINABILITY

Complete Streets address sidewalks, bicycle lanes, public transportation, crossings, streetscape, and landscape principles. Complete Streets also enhance safety while promoting active transportation, such as walking and biking. One study found that 43% of people reporting having a place to walk were significantly more likely to meet current recommendations for regular physical activity than were those reporting no place to walk (Powell, Martin, Chowdhury, 2003).

By adopting Complete Streets policies, the Town of Cutler Bay has supported active transportation by providing safe and convenient access to sidewalks and bike lanes, reducing auto dependency, and promoting alternative modes of transportation.

Most communities within the Town are within ½ mile radius of a transit stop, with the exception of a few areas. In Cutler Bay only 0.62% of workers who live within ½ mile of transit commute by walking while 0.41% of workers who live within ½ mile of transit commute by bicycle. Intermodal connectivity for bicycling is limited by the lack of bicycle routes to intermodal centers and the lack of on-site bicycle parking. The Mobility Hubs Plan outlines recommendations for multimodal connectivity, which will also help to enhance active transportation in the Town.

The existing bicycle network is more oriented to recreation than transportation. Recreational bicycling is particularly prevalent in the residential areas of Cutler Bay on streets with no marked bike paths. While a good recreational biking network is desirable, it does not significantly advance multimodal transportation goals.

The Town has created workshops and materials that educate residents regarding the bicycle and pedestrian safety and encourage people to bicycle and walk. Infrastructure improvements along Franjo Road, Old Cutler Road, and Caribbean Boulevard help increase walking and bicycling activity. The Town supports programs such as Safe Routes to School and Complete Streets, which support active transportation.

TASK 3 | Needs Assessment

Task 2: Data Collection and Analysis points to various levels-of-need for various modes. In this analysis, it is important to understand the number of people moving through the Town now and those who will be in the future, then understand the relative capacity of each component of the transportation system. It is known that the roadway network is at, or near, saturation in certain areas. So, the main topic of conversation and decision-making here is about which part of the system to add capacity and by how much.

The roadway network in this area of the County is an irregularly shaped, interrupted grid system. The optimum *connected grid* distributes traffic efficiently and effectively, providing multiple areawide routes for travelers. As part of this assessment, the Complete Streets Corridor Analysis is reviewed, and options for increasing alternative mode capacity evaluated to determine how to provide for a *Complete Network*. A decision needs to be made on how much additional capacity is needed, whether that should go on the roadway network or the transit network, and the impacts, costs, and benefits of each option from technical and social perspectives. To do so, the level-of-service of each mode is evaluated to develop a list of potential projects. Roadways that meet or exceed the existing level-of-service standard will need improvements to ensure that they meet the Town's adopted standards. The transit, pedestrian and bicycle networks are also examined to determine their adequacy. Public perception of need is also a consideration. Three project categories will be developed, including:

ROADWAY CAPACITY & CORRIDOR ENHANCEMENTS

Projects have been developed to address streets that have roadway capacity issues. These, generally, focus on improving intersections and links that are at LOS D or worse, in the existing or future year.

This analysis also takes into consideration arterial roads that function as major conduits of traffic through the Town. An in-flow/out-flow analysis is conducted to assess the effect of development outside of the Town.

ALTERNATIVE MODES

The focus here is on transit, pedestrian, and bicycle facilities and their levels-of-service, particularly as they interface with major intersections, trip generators and transit stations. This needs assessment includes the SMART Plan and leveraging connectivity to the Transit Corridor and Regional Trails.

POLICY

Rethinking is needed of Transportation, Land Use, Housing and Economic Development policies.

- **Transportation:** The initial focus is on policy initiatives, like travel demand management and transportation systems management, which address a lack of mobility. There are standards for roadway level-of-service, but they often become impossible to achieve, without significant and disruptive interventions. In these cases, capacity additions should consider transit to provide enough capacity to absorb the overflow of users, pushed off the roadway system due to the prohibitive financial, social, and political costs of its expansion. The implementation of any transportation capacity in any mode including roadway, transit, bicycle, and pedestrian, involves the utilization of more space to move more people. The cost of that space and its disruption to people/neighborhoods should be compared to the overall benefit.

- **Land Use:** Development moratoria have costs. That cost should be compared with the financial and social costs of reorganizing the land use system to be more efficient and less disruptive. All development does not create the same impacts to the transportation network. It is widely known that more single-occupant vehicle traffic is created by low-density, single-family home development. Less roadway traffic is created

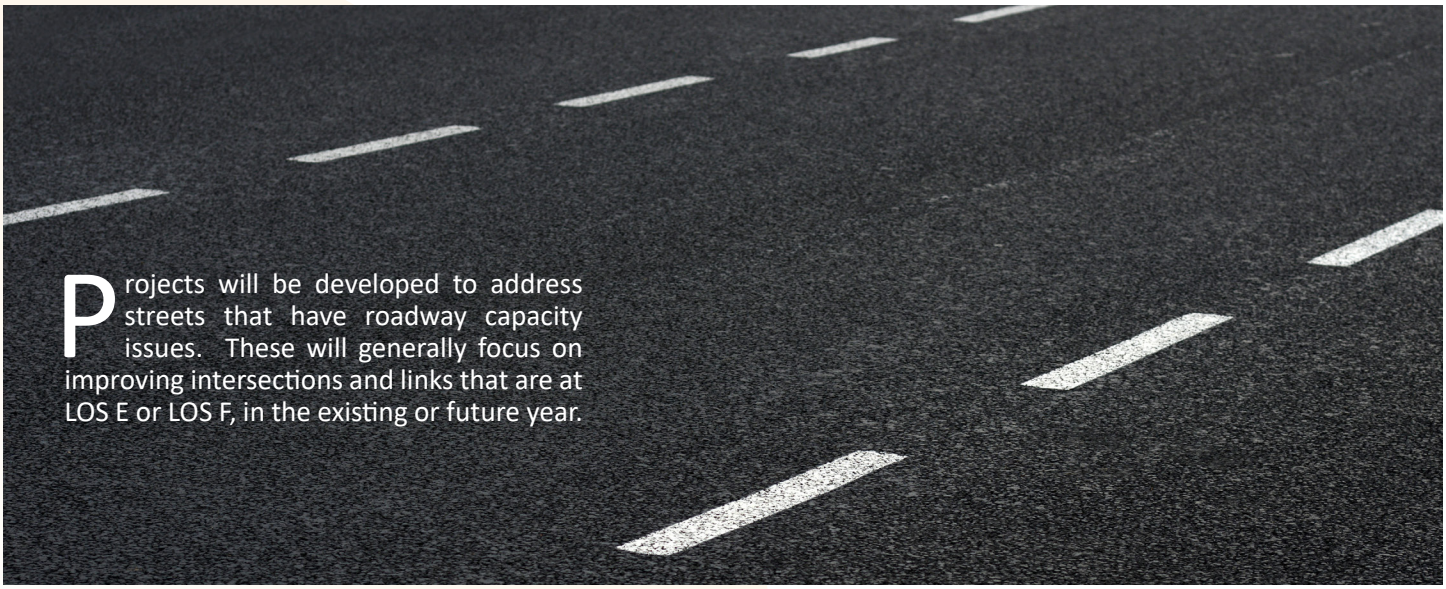
through higher-density, multifamily development in transportation corridors. To that end, existing development patterns that encourage various types of vehicular and transit movement must be evaluated. This can then be matched with the type of transportation capacity the Town wants.

- **Housing:** South Dade has an *affordable-housing crisis*. Working families are making very difficult choices about where to live. The housing they can afford is often far from employment centers. Traveling on the out-of-capacity roadway network is creating congestion that is the subject of this analysis. A discussion of the need for, and how to locate this housing in more sustainable methods is explored.

- **Economic Development.** When housing is far from jobs, and South Dade has few major employment centers, the policy to attract jobs, and the impacts, is evaluated in this chapter. This will tie into the Transportation and Land Use policies.

Refocused policy initiatives may help mitigate lack of mobility. They generally involve working across political boundaries on common problems. These projects are detailed in the next task, Task 4: Development of Potential Projects.

3.1 | ROADWAY CAPACITY & CORRIDOR ENHANCEMENTS



Projects will be developed to address streets that have roadway capacity issues. These will generally focus on improving intersections and links that are at LOS E or LOS F, in the existing or future year.

3.1 | ROADWAY CAPACITY & CORRIDOR ENHANCEMENTS

KEY CAPACITY & CORRIDOR ENHANCEMENT INITIATIVES

Based on the traffic projections and resulting LOS changes, the following 15 road linkages within the limits of Town of Cutler Bay will be **below** the adopted LOS standards of E and F by 2030.

- SW 211 St- SW 112 Ave to SR 821
- Franjo Rd.- Old Cutler Rd. to Caribbean Blvd
- Franjo Rd.- Caribbean Blvd to SW 184th Street
- Caribbean Blvd (SW 200th Street)- SR 821 to Marlin Rd
- Caribbean Blvd (SW 200th Street)- Marlin Rd to Franjo Rd
- SW 216 St- SR 821 to Old Cutler Rd
- SW 216 St- Old Cutler Rd to SW 87 Ave
- Old Cutler Road- SR 821 to SW 216 St
- Old Cutler Road- SW 216th Street to Marlin Rd.
- Old Cutler Rd- Marlin Rd to SW 87 Ave
- Old Cutler Rd- SW 87 Ave to SW 184 St
- Marlin Road- US-1 to SW 184th Street
- US-1- SW 211 St to Caribbean Blvd
- US-1- Caribbean Blvd to Marlin Rd.
- US-1- Marlin Rd to SW 184 St

Due to the historical nature of Old Cutler Road, with its limitations on roadway expansion, as well as the fact that roadway expansion would negate improvements to the pedestrian environment, Old Cutler Road does not receive a recommendation for lane additions

This analysis indicates that where existing roadway capacity is inadequate, two lanes need to be added. But, where the ability to expand roadways is constrained, and/or where the policy is to limit roadway width, new roads might be considered. However, in Cutler Bay, creating new roads is not feasible. Therefore, a multimodal approach is to be encouraged. By ensuring walking, bicycling, and transit are safe and viable modes of transportation, fewer cars will be on the roads, thereby reducing congestion on failing roadways.

No right-of-way acquisition is called for on all of the above-listed roads, based on the minimum requirements for Complete Streets. However, while some of these roadways can be expanded to accommodate the higher levels of vehicular traffic, in cases such as Franjo Road and Marlin Road, expansion will create four- or six-lane roads next to low-density neighborhoods. These neighborhoods currently consist of single- story, bungalow-style housing, and road expansions in these developed areas may be counter to the character of current development, especially in relation to the zoning and future land use designations of the area. Thus, only the following are recommended for lane expansions at this time:

- SW 216th from SR – 821 to Old Cutler Road– 4 lanes to 6 lanes
- SW 216th from Old Cutler Road to SW 87th Ave – 4 lanes to 6 lanes
- SW 211 from SW 112 Ave to SR 821 4 lanes to 6 lanes

Franjo Road and Marlin Road provide connections of US-1, Caribbean Boulevard, and Old Cutler Road, which run virtually parallel to each other within Cutler Bay. While the posted speeds are consistent with a collector road, these speeds are higher than what one would expect in a low-density residential area. In addition, there seems to be a disconnect between the perceived function of these two roads as collectors and their actual function, which is closer to an arterial roadway. While expanding Franjo Road and Marlin Road are potential improvement projects, instead of roadway expansion, given its effect on the nature and character of the area, alternative modes of transportation should be encouraged to reduce the reliance on the private automobile.

Evaluation of lane expansions involved a look at the necessary right-of-way, based on the concept of Complete Streets, which focuses on all modes to provide capacity. For the purposes of this analysis, the necessary right-of-way was judged to include roadways, bike lanes, and sidewalks for bi-directional pedestrian, bicycling, and vehicular traffic, as well as any necessary buffer zones.

Complete Streets

The Complete Streets Initiative is a transportation planning policy that was first instituted in the U.S. in 1971 in Oregon. Complete Streets focuses on the design of roadways to incorporate all users. Many streets do not incorporate bicyclists, pedestrians, and handicapped individuals, as we live in a society dominated by the automobile. In an urban area, a Complete Street plan might consist of a lane dedicated solely to buses, proper bus stops, a bicycle lane or wide paved shoulder, sidewalks, traditional or raised crosswalks, a median island, and all crosswalks and sidewalks American Disabilities Act (ADA) compliant.

Incomplete Streets create unsafe situations for all. Complete Streets create opportunities for more than just the automobile. They make public transportation more attractive, as a bus will be able to move faster through a bus lane, or simply have proper stops. Pedestrians will be safer and more likely to use the crosswalks and sidewalks if they are in good condition as well as in necessary places. These factors add up to a safer community.

Based on the 2017 Complete Streets Corridor Analysis, the following recommendations were identified for further review:

As of 2021 the Complete Streets project for Gulfstream Road is complete.

Prioritization Summary Table

No.	Project Prioritization	From	To	Description
1	SW 87th Avenue	Old Cutler Road	SW 184th Street	SW 87th Avenue is the primary transit corridor with an improved bike lane on the roadway.
2	Marlin Road	US-1	Sterling Drive	Since there are no buses on this roadway, more space is dedicated to green plantings and shade trees. Both sidewalks and bike lanes are shaded with trees for comfort and protection from the elements and each are wide. A wide expanse of pavement is interrupted with a six foot wide planted median.
3	Marlin Road	Sterling Drive	Old Cutler Road	From Sterling Drive to Old Cutler Road, Marlin Road narrows to sixty and seventy feet and is a two-lane road.
4	Franjo Road	Old Cutler Road	SW 184th Street	Franjo Road is a secondary transit corridor with bike lanes on each side of the roadway.
5	Gulfstream Road	Franjo Road	N. of Old Cutler Road	Between Franjo Road and SW 210th Street, Gulfstream Road is a two-lane boulevard with bike paths and walking paths. An enhanced sidewalk is lined with shade trees, making Gulfstream the preferred corridor for walking. The walking path includes benches,street lamps and bike racks between the landscaped planting strip.

Intersection Analysis

The Town's 2017 Complete Streets Corridor Analysis recommends proceeding with future improvements at intersections along the Complete Streets corridors. Traffic circles were recommended at the following intersections to not only provide aesthetic improvements but also calm traffic:

- SW 216 Street and SW 87 Avenue
- Franjo Road and Cutler Ridge Drive
- Franjo Road and Sterling Drive
- Gulfstream Road and Marlin Road
- Marlin Road and Bel Aire Drive

A technology for smart traffic signals has been developed in an effort to reduce vehicle emissions and improve commute times. Unlike other dynamic-control signals that adjust the timing and phasing of lights according to limits that are set in controller programming, this system combines existing technology with artificial intelligence. Traffic signals communicate with each other and adapt to changing traffic conditions to reduce the amount of time that cars spend idling. Using fiber optic video receivers, similar to those already employed in dynamic control systems, this technology monitors vehicle numbers and makes changes in real-time to avoid congestion wherever possible.

The use of ***smart*** traffic signals should be incorporated in future complete street projects. Preliminary locations could include the main intersections along Franjo Road and SW 87th Avenue. The exact intersection locations should be defined through traffic warrant studies.

These Cutler Bay intersections were identified from the roadway level-of-service analysis on failing roadway segments.

3.1 | ROADWAY CAPACITY & CORRIDOR ENHANCEMENTS

SEGMENT	INTERSECTIONS
SW 211 St- SW 112 Ave. to SR 821 (Florida Turnpike)	SW 211 St. & SW 112 Ave.
	SW 211 St. & SR 821
Franjo Rd.- Old Cutler Rd. to Caribbean Blvd.	Franjo Rd. & Old Cutler Rd.
	Franjo Rd. & Caribbean Blvd.
Franjo Rd.- Caribbean Blvd. to SW 184 St.	Franjo Rd. & SW 184 St.
Caribbean Blvd. (SW 200 St.)- SR 821 to Marlin Rd.	Caribbean Blvd. & SR 821
	Caribbean Blvd. & Marlin Rd.
Caribbean Blvd. (SW 200 St.)- Marlin Rd. to Franjo Rd.	Listed above
SW 216 St- SR 821 to Old Cutler Rd.	SW 216 St. & SR 821
	SW 216 St. & Old Cutler Rd.
SW 216 St- Old Cutler Rd. to SW 87 Ave.	SW 216 St. & SW 87 Ave.
Old Cutler Rd.- SR 821 to SW 216 St.	Listed above
Old Cutler Rd.- SW 216 St. to Marlin Rd.	Old Cutler Rd. & Marlin Rd.
Old Cutler Rd.- Marlin Rd. to SW 87 Ave.	Old Cutler Rd. & SW 87 Ave.
Old Cutler Rd.- SW 87 Ave. to SW 184 St.	Old Cutler Rd. & SW 184 St.
Marlin Rd.- US-1 to SW 184th St.	Marlin Rd. & US-1
	Marlin Rd. & SW 184 St.
US-1- SW 211 St. to Caribbean Blvd.	US-1 & SW 211 St.
	US-1 & Caribbean Blvd.
US-1- Caribbean Blvd. to Marlin Rd.	Listed above
US-1- Marlin Rd. to SW 184 St.	US-1 & SW 184 St.

An intersection capacity/level-of-service analysis should be conducted for the above intersections to determine whether they are performing adequately during AM and PM peak hours.

Connecting the Grid

Due to the lack of a complete grid, advanced planning is needed to ensure adequate right-of-way is available to expand roads to accommodate future traffic. Arterial roadways currently only need 2 lanes, but, with the exception of the noted constrained roadways, will generally require expansion with two or four additional lanes to accommodate future traffic. These roadways include SW 87th Avenue, Gulfstream Road, and possible new extensions or exits/entrances on the Florida Turnpike. The TPO envisions this completed grid network of arterial and collector roadways and has recently approved funding for design and construction in the Long-Range Transportation Plan for the SW 87 Ave bridge.

The TPO's 2045 Long Range Transportation Plan also envisions planned premium transit corridors within the Town. Coordination with transit, which shares the roadways with the private automobile, is an important consideration in determining distance between parallel arterial and collector streets. Generally, with the exception of local circulators, transit services tend to stay on arterials and collector roadways. In addition, people generally do not like to walk more than 15 minutes to reach a bus stop – and prefer less time if possible. A 15-minute walk, for a large majority of the population, tends to be a quarter-mile distance, resulting in a grid that should have corridors with a maximum spacing of 0.5 mile. Cost and maintenance are considerations with a denser grid; however, a more navigable system will allow for better management of roadway capacity improvements over time.

THE CORRADINO GROUP

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Corradino reviewed the following studies conducted over the last few years to highlight corridor improvement projects:

- PUBLIX ON OLD CUTLER ROAD

Recommended Projects

- Southwest-bound left-turn storage lane at Marlin Road
- Southwest-bound left-turn storage lane at Snapper Place
- An additional approach lane to the westbound approach of SW 208 Street and Old Cutler Road

Traffic Calming in Miami-Dade County

Traffic calming in Miami-Dade County follows procedures outlined in the Miami-Dade County Traffic Flow Modification(s)/Street Closure(s) Procedure Manual. For each location being evaluated for traffic calming, traffic is counted, and speeds are measured. An analysis would typically show whether the thresholds for traffic calming have been surpassed. To appropriately justify traffic calming, a traffic volume threshold and one of five other criteria must be met. These criteria include evaluations of whether speeds at which 85% of motorists travel are more than 10 MPH above the speed limit.

Traffic calming includes changes to the roadway system to effect narrowing or to shift the lanes horizontally. Applied techniques range from actual physical roadway constraints, such as traffic circles, chicanes, lateral shifts, neckdowns, and chokers, to visual changes, such as adding trees along the right-of-way to create an optical illusion of a more narrowly defined space.

Traffic calming also may include full- or half-closures of roads, diverters, and forced-turn islands. However, closures do not reduce the overall amount of traffic in the system, but, rather, force the traffic towards the corridors, with the additional effect of adding vehicle miles on some networks, making congestion worse.

Traffic calming on residential local streets and residential collector streets, as related directly to pedestrian crossing volumes, can be affected if the minimum traffic volume exists and if pedestrian crossings, during a.m. or p.m. hours, are greater than 25 for local streets or

greater than 50 for collector streets. Traffic calming techniques utilized at pedestrian crossings include textured crosswalks, which may be paved with bricks to create the visual and physical cues signaling a need to slow down. However, in areas like South Florida, where rain can be common, refractive striping is important to improving visibility. It is noted that bricks may contribute to uneven surfaces as they settle, leading to potential trip hazards as well as uncomfortable vibrations for those in wheelchairs. Lastly, bricks may cost more than colored striping, which can be created to mimic the same visual effect as brick. Reflective, thermodynamic striping, such as that used in some parts of Coral Gables, can achieve

the same visual effect, if properly applied to existing pavement, and may be a suitable alternative to bricks. Application of this traffic calming technique is also less intrusive than having to rip out currently existing street pavement to use alternative paving materials.

Alternatively, a combination of different techniques can be applied to produce traffic calming results. Bulb outs and marked/painted crosswalks can be used in combination to create a narrowing constraint on the road and to visually call out the crossing point, while, at the same time, providing pedestrians with a shorter crossing distance. In some areas, raised crosswalk tables have been used in conjunction with patterning.

Based on the 2018 Traffic Calming Master Plan, the following recommendations were identified for further review for traffic calming:

Location	Master Plan Recommendations				
	Traffi Calming	Transportation	Bicycle and Pedestrian	Strategy	Complete Streets
SW 99 Ct. between SW 212 St. and SW 216 St.	Speed Tables	-	Install 10' wide HV*** Crosswalk	-	-
SW 208 St. between SW 87 Ave. and SW 92 Ave.	Chicanes	-	Install 10' wide HV*** Crosswalk	-	-
SW 97 Ave. between SW 216 St. and SW 219 St.	Raised Crosswalk	-	Install 10' wide HV*** Crosswalk & Bike Lanes	-	-
SW 85 Ave. and SW 207 St.	Roundabout	Traffic Study	-	-	-
Gulfstream and Holiday Road	Roundabout	Install Bicycle Racks & Bicycle Projects	Bike Lane	-	Roundabout
SW 97 Ave. and SW 212 St.	Roundabout	Extend SW 97 Ave. to Gulfstream & SW 212 St.	Install 10' wide HV*** Crosswalk & Bike Lanes Corridor Enhancement	-	-
Gulfstream Rd. and Marlin Rd.	Roundabout	Roundabout, Install Bicycle Racks & Bicycle Projects	-	-	Midblock Crossing & Pedestrian Refugees
SW 200 St. and SW 88 Place	Roundabout	-	-	-	-

*** *High Visibility*

The Town is currently preparing construction documents for the following:

- Construction of a new traffic circle at SW 188th Street and SW 82nd Avenue
- Roadway improvements along SW 82nd Avenue

Lighting

Various major roadways within the Town lack lighting or existing lighting is insufficient, which should be considered for safety, given levels of traffic and the roadway's design speed. These roadways include:

- SW 87 Avenue
- SW 184 Street
- Franjo Road

CAPACITY & CORRIDOR ENHANCEMENT PROJECTS			
#	Project	Purpose	Need
1	Traffic Circle Franjo Rd. & Cutler Ridge Dr.	Traffic Calming/Operational Analysis	Identified Project in the 2017 Complete Streets Corridor Analysis/Visual obstruction at intersection
2	Traffic Circle Franjo Rd. & Gulfstream Rd.	Traffic Calming	Identified Project in the 2017 Complete Streets Corridor Analysis
3	Traffic Circle Gulfstream Rd. & Marlin Rd.	Traffic Calming	Identified Project in the 2017 Complete Streets Corridor Analysis
4	Traffic Circle Marlin Rd. & Bel Aire Dr.	Traffic Calming	Identified Project in the 2017 Complete Streets Corridor Analysis, Calm speeding and enhance pedestrian safety near Bel Aire Elementary.
5	SW 87 Ave. from Old Cutler Rd. to SW 184 St.	Complete Streets/Traffic Calming	Identified Project in the 2017 Complete Streets Corridor Analysis, Citizen complaint.
6	Marlin Rd. from US 1 to Old Cutler Rd.	Complete Streets	Identified Project in the 2017 Complete Streets Corridor Analysis
7	Franjo Rd. from Old Cutler Rd. to SW 184 St.	Complete Streets	Identified Project in the 2017 Complete Streets Corridor Analysis
8	Gulfstream Rd. to Old Cutler Rd.	Connectivity	Create connection from Gulfstream Rd. to Old Cutler Rd.
9	Intersection Analysis Franjo Rd. & Old Cutler Rd.	Intersection and operations analyses on Franjo Rd. from Old Cutler Rd. to Caribbean Blvd.	Noted as LOS deficiencies for current analysis and horizon 2030.
10	Intersection Analysis Franjo Rd. & Caribbean Blvd.	Intersection and operations analyses on Franjo Rd from Old Cutler Rd. to Caribbean Blvd.	Noted as LOS deficiencies for current analysis and horizon 2030.
11	Intersection Analysis Franjo Rd. & SW 184 St.	Intersection and operations analyses on Franjo Rd. from Caribbean Blvd. to SW 184 St.	Noted as LOS deficiencies for current analysis and horizon 2030.
12	Intersection Analysis Caribbean Blvd. & Marlin Rd.	Intersection and operations analyses on Caribbean Blvd. from 821 to Marlin Rd.	Noted as LOS deficiencies for current analysis and horizon 2030.

3.1 | ROADWAY CAPACITY & CORRIDOR ENHANCEMENTS

CAPACITY & CORRIDOR ENHANCEMENT PROJECTS			
#	Project	Purpose	Need
13	Intersection Analysis SW 216 St. & Old Cutler Rd.	Intersection and operations analyses on SW 216 St. from SR 821 to Old Cutler Rd.	Noted as LOS deficiencies for current analysis and horizon 2030.
14	Intersection Analysis SW 216 St. & SW 87 Ave.	Intersection and operations analyses on SW 216 St. from Old Cutler Rd. to SW 87 Ave.	Noted as LOS deficiencies for current analysis and horizon 2030.
15	Intersection Analysis Old Cutler Rd. & Marlin Rd.	Intersection and operations analyses on Old Cutler Rd. from SW 216 St. to Marlin Rd.	Noted as LOS deficiencies for current analysis and horizon 2030.
16	Intersection Analysis Marlin Rd. & US 1	Intersection operations analyses on Marlin Rd. from US 1 to SW 184 St.	Noted as LOS deficiencies for current analysis and horizon 2030.
17	Intersection Analysis US 1 & SW 184 St.	Intersection operations analyses on US 1 from Marlin Rd. to SW 184 St.	Noted as LOS deficiencies for current analysis and horizon 2030.
18	Intersection Safety Analysis	Analyze and address most dangerous intersections	Safety is a critical priority. Yearly, the Town should review accident data and located the most dangerous 10% to undergo operational safety analysis.
19	Signal Warrant Analysis SW 186 St. & Franjo Rd.	Conduct signal warrant analysis and implement results as necessary	Noted as LOS deficiencies for current analysis and horizon 2030.
20	School Loading Zones	Analysis and implementation of loading zone (drop off and pick up points) at schools.	Peak hours at schools may cause localized congestion due to dropping off/pick up children without space to prevent impediment of other flow through traffic.
21	Connect SW 97 Ave. to Gulfstream Rd. and SW 212 St.	Extend 97 Ave. to Gulfstream Rd. to SW 212 St. (approx. 500 ft.)	Allows more direct route to Old Cutler Rd. and SW 212 St.
22	Turnpike Interchange @ OCR, NB Entrance, SB Exit	Work with FDOT to have them undertake an Interchange Justification Study to locate and eventually implement ingress/egress from the Turnpike in relation to Old Cutler Rd.	Coordinate with FDOT and Turnpike to authorize initiate studies for additional planning level analysis placed on next LRTP.
23	Left turn lane- Franjo Rd./SW 186 Intersection	Determine if a left turn lane at Franjo Rd./SW 186 intersection is necessary to address traffic back-up.	Noted as LOS deficiencies for current analysis and horizon 2030.
24	Left turn lane- Old Cutler Rd. southwest bound left turn storage lane at Marlin Rd.	Old Cutler Rd.southwest bound left turn storage lane at Marlin Rd.	As required by Traffic Study for Publix on OCR

CAPACITY & CORRIDOR ENHANCEMENT PROJECTS			
#	Project	Purpose	Need
25	Left turn lane- Old Cutler Rd. southwest bound left turn storage lane at Snapper Place	Old Cutler Rd. southwest bound left turn storage lane at Snapper Place.	As required by Traffic Study for Publix on OCR
26	Add Lane- Additional approach lane to the westbound approach of SW 208 St. and Old Cutler Rd.	Additional approach lane to the westbound approach of SW 208 St and Old Cutler Rd.	As required by Traffic Study for Publix on OCR
27	Signal Progression Analysis- for US 1, Marlin Rd., Old Cutler Rd., Franjo Rd.	Evaluate the main corridors signal progression	Adequate signal progression can improve a safe, casual flow of vehicles, moving more traffic while maintaining moderate speeds and a safe pedestrian environment.
28	Truck Routing Study Throughout Major Corridors	Evaluate appropriate truck routes. To assure trucks are provided a clear path through the community.	Truck traffic management will help the Town within increasing mobility.
29	Street Lights- SW 82 Ave, SW 87 Ave, SW 184 St., SW 210 St., Franjo Rd.	Install streetlights on SW 82 Ave, SW 87 Ave, SW 184 St., SW 210 St., Franjo Rd.	Current lighting levels are inadequate.
30	Road Connection- Cutler Ridge Dr./ SW 200 St.- connect to OCR	Connect Cutler Ridge Dr./SW 200 St. to Old Cutler Rd. approx. 200 ft.	Address gap in the roadway network. Provides mobility and capacity.
31	Road Closure- on SW 97 Ave. between SW 232 St. and SW 224 St. and SW 234 St. between SW 97 Ave. and theoretical SW 98 Ave.	Continue to process road closure at SW 97 Ave. north of 232 St. and SW 224 St. West of SW 97 Ave.	Protects residential neighborhood from traffic intrusion
32	Street Repaving Program	Continue to maintain and repave roadways as necessary	Provides greater access and promotes traffic dispersion.
33	Speed Tables- SW 99 Ct between SW 212 St. & SW 216 St.	Speed Tables	Identified project in Traffic Calming Master Plan
34	Chicane- SW 210 St. between SW 87 Ave. & SW 92 Ave.	Chicane SW 210 St between SW 87 Ave and SW 92 Ave.	Identified project in Traffic Calming Master Plan
35	Raised Crosswalk- SW 97 Ave. between SW 216 St. & SW 219 St.	Raised Crosswalk	Identified project in Traffic Calming Master Plan
36	Roundabout- SW 85 Ave & SW 207 St.	Roundabout	Identified project in Traffic Calming Master Plan
37	Roundabout- Gulfstream & Holiday Rd.	Roundabout	Identified project in Traffic Calming Master Plan
38	Roundabout- SW 97 Ave & SW 212 St.	Roundabout	Identified project in Traffic Calming Master Plan
39	Roundabout- Gulfstream & Marlin Rd.	Roundabout	Identified project in Traffic Calming Master Plan
40	Roundabout- SW 200 St. & SW 88 Pl.	Roundabout	Identified project in Traffic Calming Master Plan
41	Traffic Calming Devices	Explore Feasibility of installing Traffic Calming devices along Tiffany Dr.	Citizen complaint

3.2 | ALTERNATIVE MODES PROJECTS

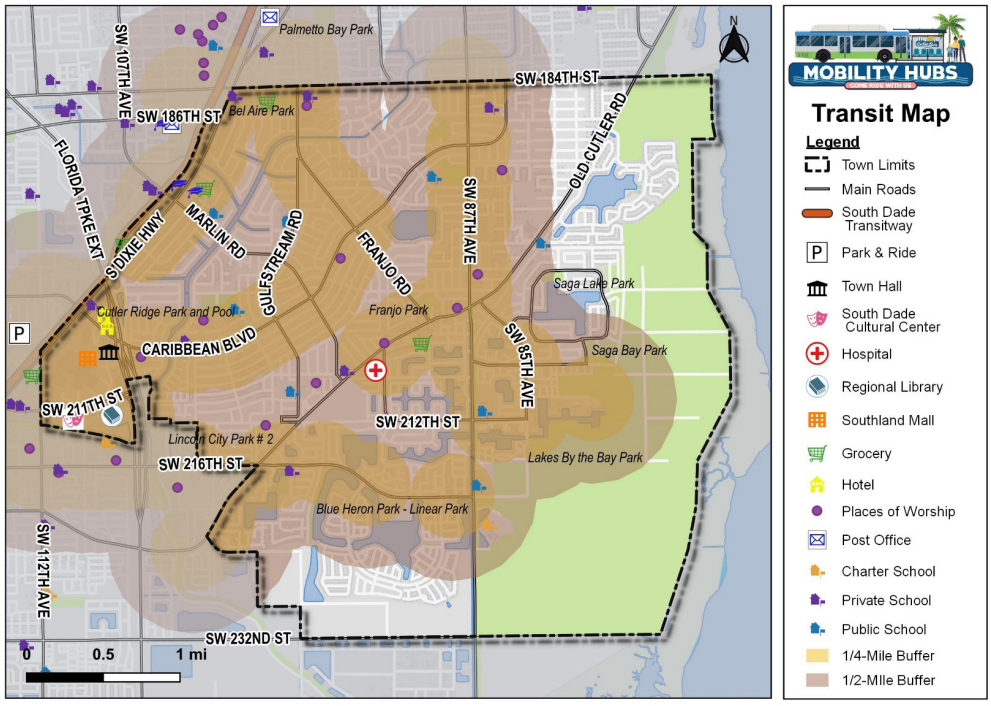
This section of the report focuses on areas of transit, pedestrian, and bicycle use and their levels-of-service, particularly as they interface with major intersections, trip generators and transit stations.

KEY TRANSIT INITIATIVES

Transit level-of-service (LOS) is a qualitative measure of transit system performance and accessibility. Frequencies of service, available amenities at bus stop locations, as well as the accessibility of the route and bus stops all contribute to level-of-service. The Miami Dade County Transit level-of-service applies to only areas within the Urban Development Boundary, with a combined resident and workforce population of more than 10,000 persons per square mile. The minimum is 30-minute headways and an average route spacing of one mile. According to the Miami Dade Transit 2021-2030 Transit Development Plan, the Cutler Bay Local Route 200, operates at 60-minute headways (December 2019).

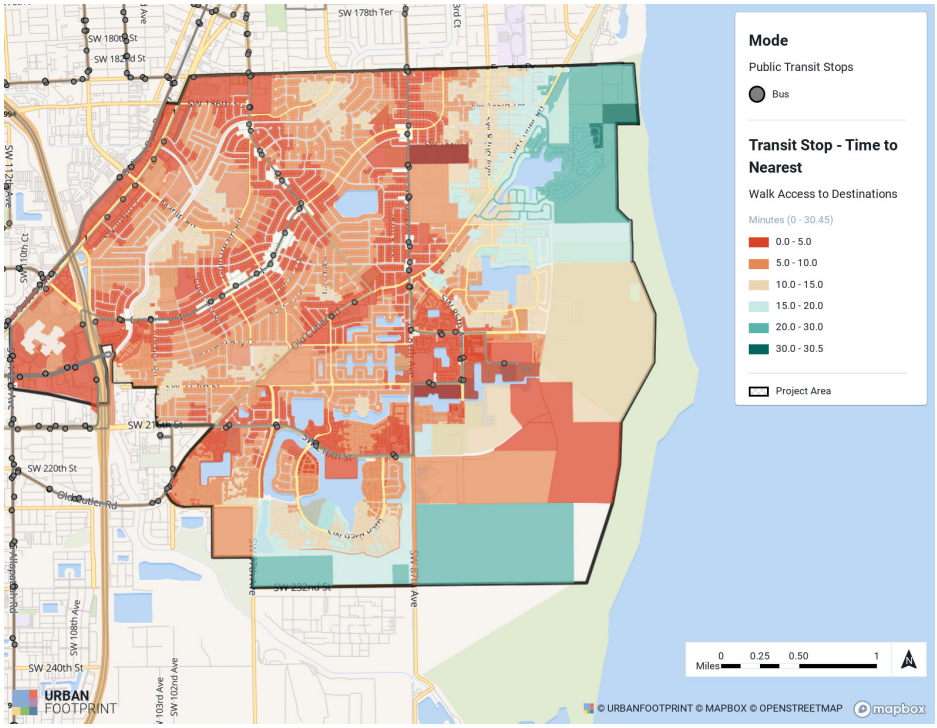
Within Cutler Bay, the bus routes run along Caribbean Boulevard, Franjo Road, SW 97th Avenue, SW 184th Street, US-1/Busway, SW 211th Street, Old Cutler Road, SW 85th Avenue, SW 87th Avenue, SW 112th Street, SW 216 Street, and SW 112th Avenue.

Currently, Route 287 (Saga Bay MAX), serving Cutler Bay via the Busway and SW 87th Avenue, from Dadeland South Metrorail Station, is a peak-only route. The Miami-Dade Better Bus Network Resilience Plan expands access to opportunity and measures how many useful destinations someone can reach in a fixed amount of time. The Cutler Bay Trolley Service is identified in this Plan as an essential service today and is expected to be provided in the future. The Plan proposes 15-minute headways on the transitway connecting residents to more opportunities, including jobs and services.



Source: Mobility Hubs Plan

At the most basic level, the ability to access transit that runs frequently is the most important factor in attracting riders, and far outweighs items such as bus-stop amenities and in-transit items, such as on-board wi-fi or comfort of seating. While these latter factors are undoubtedly important in assessing the desirability of transit, they become moot if the traveler is unable to or must make extraordinary efforts to reach an area serviced by transit with appropriate headways for their traveling plans. When thresholds for frequency and accessibility are met, additional measures, such as comfort and amenities play a greater role in evaluating transit service.



Cutler Bay has areas with good transit access, notably along US-1. The Town has made strides in planning for transit, with efforts to increase the connectivity of the pedestrian environment, ADA compliance, and placing/replacing bus shelters.

In some cases, the ability to access transit is hindered by the Town's cul-de-sac pattern of local roads; in these cases, service access may be improved by, either, improving sidewalk access or opening a road connection. The Town can address this by considering increasing the size of the transit shed with First-and-Last Mile solutions and studying new routes which traverse the entire Town. Revisions to the Town's circulator may address some of the areas where it may take longer to access transit, though the circulator service should be increased to run with peak headways of 30 minutes or less. Ideally, this service should be extended to seven days a week.

The southern portion of Isles of Bayshore is out of the transit service area, as is the area located in the northeastern part of the Town, along Old Cutler Road. To resolve this, the Town could include counter-clockwise service to shorten wait times and increase ridership; extending the hours of operation to include morning and evening peak periods (6-8 a.m. and 6-8 p.m.); or, dividing the circulator into two routes and extending it to other areas where there is no transit; or using a commercial circulator that would transport residents along US1 and the Town Center. The latter is now being applied using the Town's Go Connect service.

Cutler Bay provides GO Connect service throughout the Town, which serves as first mile/last mile connectors. It can be booked through a mobile app and is free. Service is available Monday through Friday from 5:30 a.m. to 8 p.m. The Town should consider increasing Go Connect hours to include weekends.

GO Connect is made possible through a partnership with the Miami-Dade County Department of Transportation and Public Works (DTPW) and Via, the leader in TransitTech solutions. It is funded through a $577,500 Florida Department of Transportation and Miami-Dade Transportation Planning Organization grant designated by the Citizens' Independent Transportation Trust (CITT), matched by the Town.

In addition, the Town should amend the Transportation Element in its Growth Management Plan to incorporate a Transit LOS standard by which it can measure performance. This standard should be based on whether all sectors of the Town are serviced and at what frequency.

The US-1 Transitway vs. Light Rail

In the debate between utilizing Bus Rapid Transit versus developing Light Rail transit, their capital and operating costs, as well as the financing of such projects, present constraining restrictions in short- and long-term transportation planning. While a bus rapid system is less expensive to implement, it technically has more staffing expenses over time due to the need for additional operators. However, Light Rail transit is exponentially more expensive to implement, though operational costs may not be as high given the need to hire fewer staff. Comparing the two systems will eventually focus on cost-effectiveness, based on the amount of ridership, service frequency, and the fixed-variable costs mix.

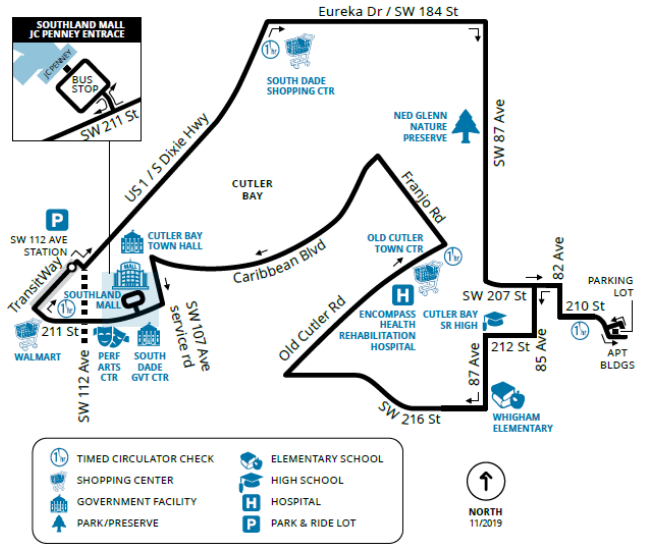
Recent analyses of the South Dade Corridor have suggested that not enough density exists to make a Metrorail system competitive or cost-effective. The County has approved the plan to enhance the Bus Rapid Transit capacities of the Corridor, with park-and-ride lots, and bus priority, either by signaling or grade-separating intersections, until ridership warrants a rail system.

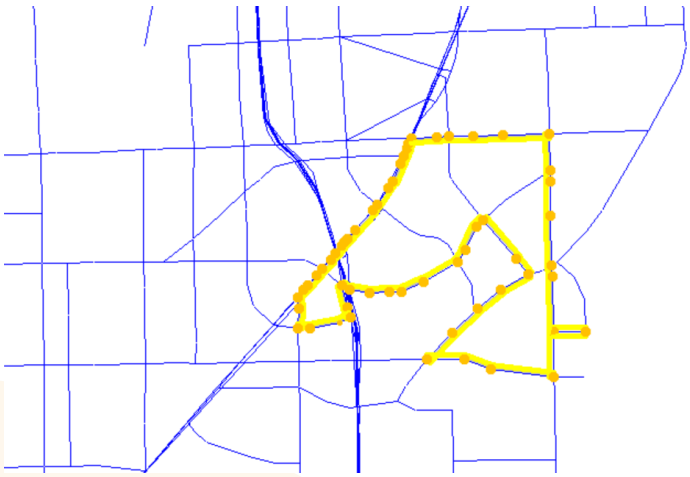
FUTURE YEAR TRAVEL DEMAND ANALYSIS

As part of the Cutler Bay Transportation Master Plan, the future conditions analysis was performed by comparing the no-build and build travel demand outputs. Since the Town of Cutler Bay's roadways have no additional room for widening, mainly transit improvements were considered in this analysis. The following build transit alternatives were modeled:

1. Transit Build Alternative 1: Adding a new route 200 in the counterclockwise direction and improving the headways.

In this alternative, the Route 200 was enhanced by adding a counterclockwise loop with modified 30-minute peak and 30-minute off peak headways. The current route runs in the clockwise direction as shown in the following route alignment. The following figure depicts the current route 200 and its coding in the model (yellow transit alignment on blue roadway network, with stops shown as yellow dots).





Transit Build Alternative 2: Proposed Enhancements on south Corridor BRT System, targeting improved transit ridership for Cutler Bay.

Four Different routes are in the proposed operating plan of the South Corridor BRT System. Three of the four routes pass through Cutler Bay. The BRT system routes are:

1. South Corridor BRT (stops at Caribbean Blvd, Marlin road and Southland Mall) (10 min peak, 15 min off peak headways)

2. South Express (No stop at Cutler Bay, in the original operating plan) (10 min peal, 20 min off peak headways)

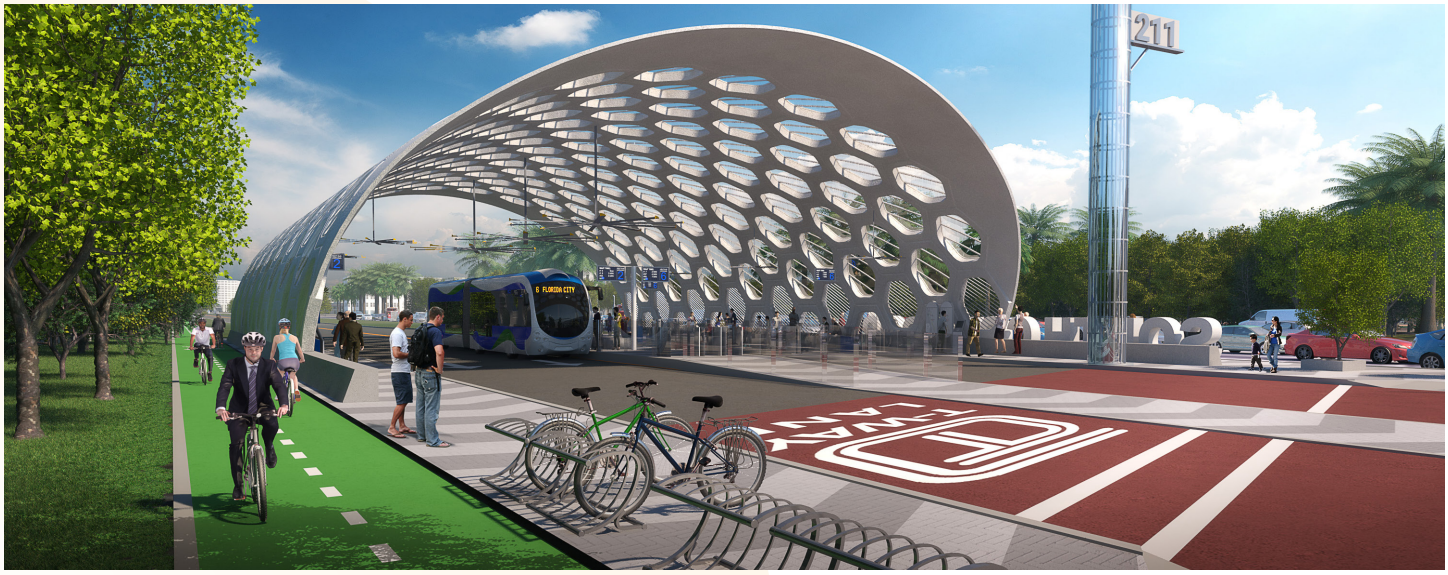
3. Mid Express (stops at Caribbean Blvd, Marlin road and Southland Mall) (15 min peak, 20 min off peak headways)

4. North Express (ends at SW 164th Street in Palmetto Park) (15 min peak, 20 min off peak headways)

As part of the transit build alternative2, in addition to the improvements in build alternative1, the following additional modifications were made:

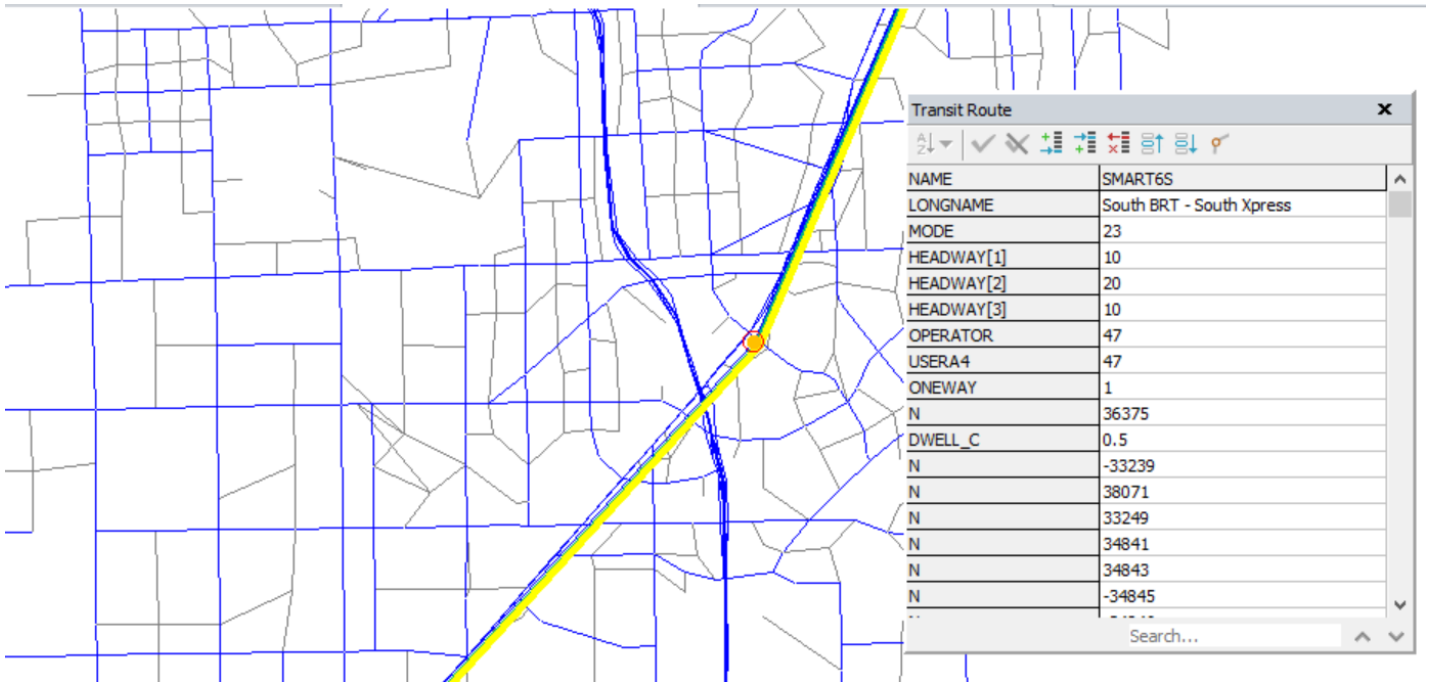
1. Add an additional stop to the South Express of the South Corridor BRT system at Marlin road.

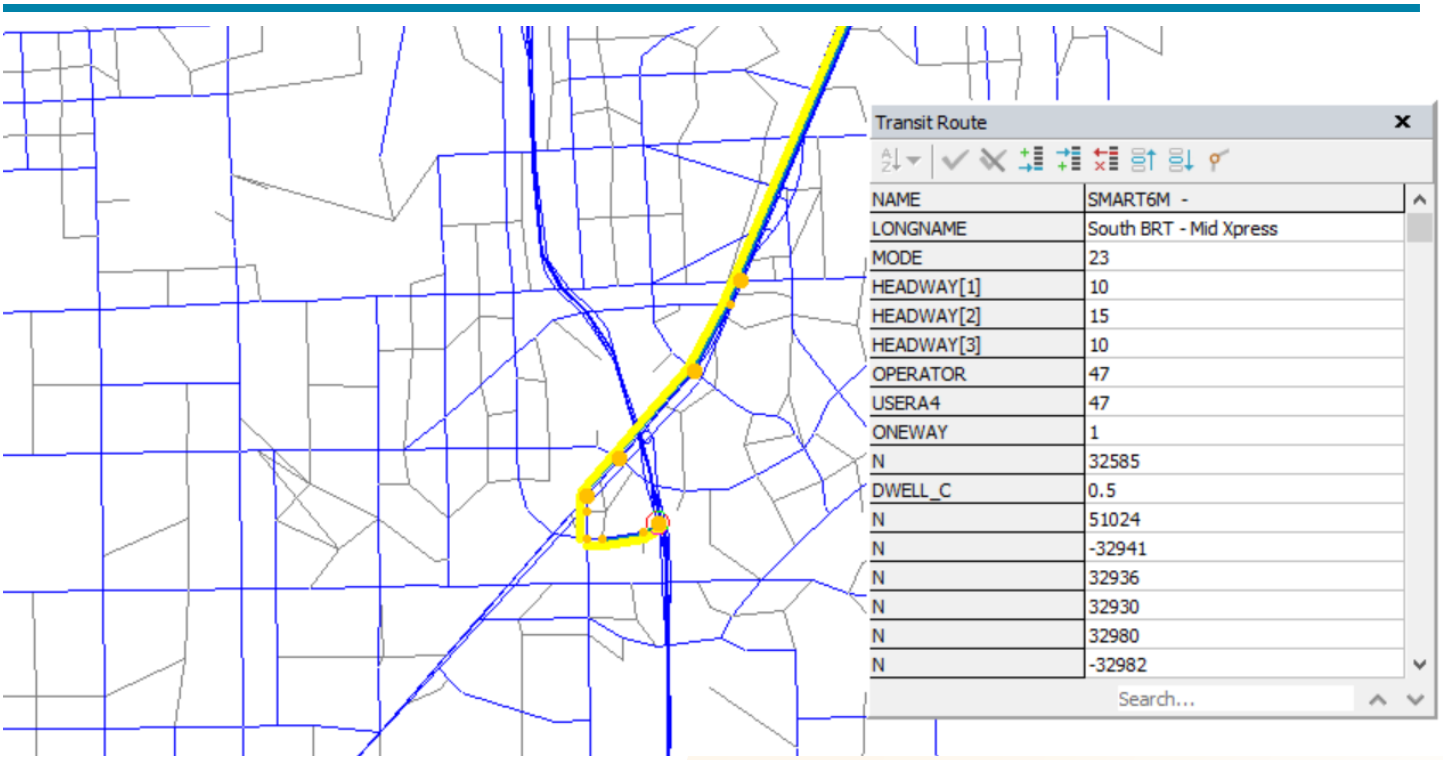
2. Improve Mid Express to 10-minute peak, 15-minute off peak headways.



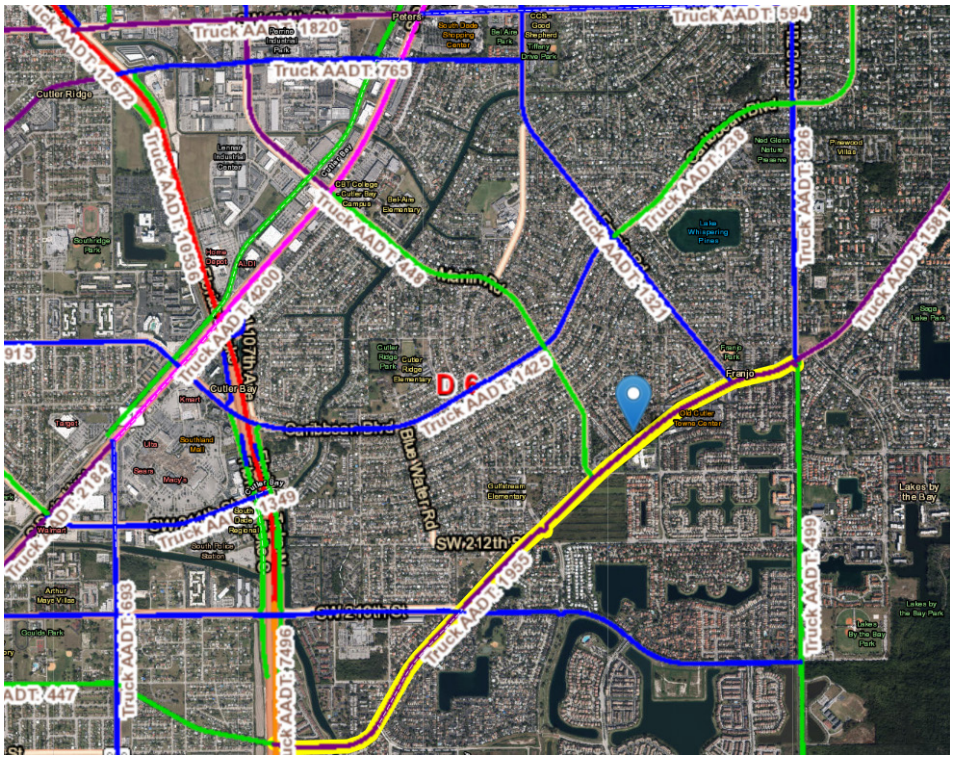
3.2 | ALTERNATIVE MODES PROJECTS

The following figure show the new stop and headway improvements.





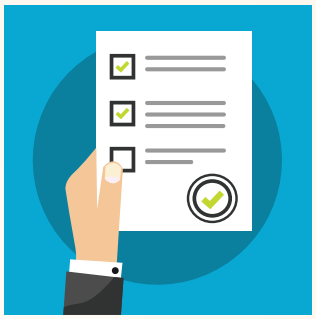
3. Cut-through traffic analysis: As part of this effort, mitigation measures to discourage any potential cut-through traffic through the Town of Cutler Bay are evaluated. This included consideration of potential bypasses/ north-south connections. The majority of the cut-through traffic includes the traffic destined to northern Miami-Dade or Downtown. Currently, US1 and Florida Turnpike Extension are the major roadways that act like the bypass roads for the Town of Cutler Bay. While no additional widening is possible on US1, the enhanced BRT transit system should provide an overall benefit to Southern Miami-Dade and the Town of Cutler Bay. Turnpike's managed lanes widening is a major project that will divert any cut-through traffic through Cutler Bay. While this also has potential to provide additional access to the Town's roadways and attract more visitors/trips, it helps alleviate the cut-through traffic. In addition, SW 137 Avenue southern extension is also in the Miami-Dade LRTP Cost Feasible plan. Both SW 137 Avenue extension and Turnpike managed lanes are modeled as part of the No-Build Alternative. Any benefits of these widening projects are already captured in the No-Build Alternative.



The Town can also consider discouraging the cut-through truck traffic. Currently, both Caribbean Boulevard, and Old Cutler Road have relatively high truck volumes for an average local/collector road. These range from 10-12% truck traffic, according to the latest Florida Traffic Information Online tool, as shown in the following figure. This adds up to a substantial percentage of the overall AADT. Mitigation measures such as prohibiting through trucks, while permitting essential and delivery trucks is a good congestion mitigation strategy that the Town can consider.

RESULTS OF TRAVEL DEMAND MODELING ANALYSIS

The following table summarizes the transit ridership comparison between the no-build and the final build conditions. The final transit build model run included all the proposed transit improvements. The table shows a good improvement in the ridership numbers, especially on the Route 200, Mid Express and the South Express routes, where the improvements were made. The overall improvement in transit ridership is approximately 8%.



ROUTE NAME	NO-BUILD	TRANSIT BUILD
Route 200	305	971
South Corridor BRT	24,015	24,214
Mid Express	4,734	6,328
North Express	2,261	2,296
South Express	9,771	10,449
Total	41,086	44,258

3.2 | ALTERNATIVE MODES PROJECTS

The impact of transit improvements on the highway system is also measured. This analysis was conducted by summarizing the model volumes into segments and conducting weighted average segment volumes. The following table summarizes the segment level travel demand volumes for the entire travel demand analysis- for years 2015, 2045 No-build and 2045 Build conditions. The 2045 build conditions included all the improvements from both the transit alternatives. The growth rates from this travel demand analysis were used in the Master Plan operations analysis to determine the level of service.

Roadway	Limits	Posted Speed Limit	Facility Type	Functional Classifi ation Juristictio	AADT		
					2015	2045 No-Build	2045 Build
SW 184 St.	Turnpike to SW 137 Ave.	40	4LD	Minor Arterial	31,300	35,000	34,800
	US-1 to Turnpike	40	4LD		24,300	29,800	29,800
	SW 97 Ave. to US-1	40	4LD		12,900	18,200	18,200
	SW 97 Ave. to Old Cutler Rd.	40	2LD		7,200	9,700	9,600
Caribbean Blvd. (SW 200 St.)	SW117 Ave toSW110 Ave	30	2L	Collector	6,300	8,500	8,100
	SW 110 Ave. to US-1	30	4LD		13,300	15,800	15,600
	US-1 to Fla TKP	30	4LD		13,900	15,300	15,300
	Fla TKP to Marlin Rd.	30	2L		6,600	9,100	8,900
	Marlin Rd. to Franjo Rd.	30	2L		5,800	6,500	6,500
	Franjo Rd. to SW 87 Ave.	30	2L		1,600	2,900	2,800
	SW 87 Ave. to SW.184 St.	30	2L		5,100	7,100	7,100
SW 211 St	SW 117 Ave. to US-1	35	4LD	Collector	14,500	15,600	14,300
	US-1 to SW 112 Ave.	35	4LD		10,000	18,100	17,300
	SW 112 Ave. to SR 821	35	4LD		13,700	25,500	25,100
SW 212 St.	SW 87 Ave. to SW 85 Ave.	30	4LD	Local	1,500	2,700	2,100
SW 216 St.	SR 821 to Old Cutler Rd.	35	4LD	Minor Arterial	21,400	29,900	29,300
	Old Cutler Rd. to SW 87 Ave.	35	4LD	Collector	7,200	10,800	10,000
SW 85 Ave.	Old Cutler Rd. to SW 214 St.	35	4LD	Local	5,100	5,700	5,700
Old Cutler Rd.	SR 821 to SW 216 St.	35	2L	Minor Arterial	3,900	5,200	5,200
	SW216 St. to Marlin Rd.	30	2L		10,100	15,400	14,800
	Marlin Rd. to 87 Ave.	40	2L		10,800	14,900	14,800
	SW 87 Ave. to SW 184 St.	40	2L		11,100	13,700	13,700
	SW 184 St. to SW 168 Ave.	40	2L		14,000	19,000	18,600
SR 821	SW 216 St. to SW 211 St.	60	4LD	Limited Access Freeway/ State	97,100	78,900	79,400
	SW 211 St. to Caribbean Blvd.	60	4LD		111,600	88,300	88,100
	Caribbean Blvd. to US-1	60	6LD		134,500	206,800	207,000
	US-1 to Quail Roost Rd.	60	6LD		134,500	206,800	207,000
Gulfstream Rd.	Old Cutler Rd. to Caribbean Blvd.	30	2L	Local	6,300	8,000	7,900
	Caribbean Blvd. to Marlin Rd.	30	2L		3,800	4,300	4,300
	Marlin Rd. to Franjo Rd.	30	2L		4,600	4,700	4,700
Marlin Rd.	Old Cutler Rd. to Caribbean Blvd.	30	2L	Collector	6,000	8,800	8,800
	Caribbean Blvd. to Gulfstream Rd.	30	2L		5,400	7,500	7,500
	Gulfstream Rd. to US-1	30	4LD		9,700	12,900	12,900
	US-1 to SW 184 St.	30	4LD		20,300	30,200	30,200
Franjo Rd.	Old Cutler Rd. to Caribbean Blvd.	30	2L	Collector	8,900	9,400	9,300
	Caribbean Blvd. to SW 184 St.	30	2L		13,900	13,300	13,300
SW 87 Ave.	SW 248 St. to SW 232 St.	35	2L	Collector	500	400	400
	SW 232 St. to SW 216 St.	35	2L		5,000	6,100	6,100
	SW 216 St. to Old Cutler Rd.	35	2L		7,600	10,300	10,000
	Old Cutler Rd. to Caribbean Blvd.	35	2L		9,400	12,600	12,000
	Caribbean Blvd. to SW 184 St.	35	2L		11,300	15,300	14,500
	SW 184 St. to SW 174 St.	35	2L		11,100	14,600	14,100
US-1	SW 211 St. to Caribbean Blvd.	45	6LD	Principal Arterial / State	50,700	56,200	55,400
	Caribbean Blvd. to Marlin Rd.	45	6LD		61,800	67,700	67,000
	Marlin Rd. to SW 184 St.	45	6LD		59,400	61,000	60,700

Support Miami-Dade County Transit

Transit Mobility (Transportation Disadvantaged) Program

Section 427, Florida Statues and Rule 41-2 FAC, establishes the Commission for the Transportation Disadvantaged. A Community Transportation Coordinator (CTC) in each county is appointed by the Commission and is responsible for the coordination and provision of cost-efficient transportation services and the elimination of duplication through a coordinated system. In Miami-Dade County, the County government is the local coordinator. DTPW is charged with the responsibility of creating programs, applying for grants, and coordinating transportation services for the disadvantaged. Programs such as the Section 5310Golden Passport, Patriot Passport, and Lifeline Services are also included in the Coordinated Transportation System. The Transportation Disadvantaged (TD) Program, through a state funded grant, provides EASY Tickets and EASY Cards to transportation disadvantaged (homeless, children and families at risk, vocational training, and rehabilitation) Miami-Dade County residents. The EASY Ticket program provides tickets to qualifying social service agencies to distribute to their clients for use on the Miami-Dade County transit system. Currently, there are 65 agencies enrolled in the program. The Transit Mobility EASY Card Program provides annual EASY Cards to individuals who are TD eligible. Currently, there are 5,891 TD Mobility EASY Card Customers.

Section 5310 Program

DTPW actively participates in the Federal Transit Administration (FTA) Section 5310 program in its grant review, evaluation, and award process. DTPW, in its role as the CTC, is responsible for the program coordination with local non-profit agencies serving elderly and disabled residents in Miami-Dade County.

MIAMI-DADE TRANSIT
Corporate
DISCOUNT PROGRAM

Corporate Discount Program

DTPW's Corporate Discount Program (CDP) allows participants to save on commuting costs through group discounts and pre-tax savings by purchasing public transportation through a tax deduction through their employer under Internal Revenue Service (IRS) Code 132(f). It allows employees to pay for their public transit rides using pre-tax dollars, up to $270/month ($3,240/year in 2019). The CDP provides monthly transit passes on Corporate EASY Cards, good for a month of unlimited rides on Metrobus and Metrorail, at a 10 percent (10%) discount for groups of 4-99 participants, and a 15 percent (15%) discount for groups of 100+ participants. Participants who ride Metrorail can save even more by purchasing their $11.25 monthly Metrorail parking permit with pre-tax dollars. In 2019, the CDP generated approximately $8.7 million in revenue. Currently the number of companies enrolled is 211.

College / Vocation School Discount Program

College, university, vocational/technical, and adult-education school students can purchase a one-month pass on an Orange EASY Ticket for $56.25, half the cost of a full-price monthly pass. This program is offered to full-time students using DTPW's public transportation system to get to school. As of December 2019, over 216 schools participated in the program generating approximately $8.75 million in annual sales.

K-12 Discount Program

Miami-Dade County students in grades K-12 can ride Metrobus and Metrorail at 50 percent (50%) off the regular fare. Pre-schoolers ride free. First-time eligible students may obtain a specially-encoded EASY Card at no cost by applying online at *www.miamidade.gov/transit/fare-k12* for public school students or at *https://k12.miamidade.gov/K12EasyCardRegistration/private* for private school students. Discounted cards can also be obtained by visiting the Transit Service Center Kiosk located on the second floor of the Stephen P. Clark Center, at 111 NW 1st Street, or Pass Sales Office located at Overtown Transit Village, 701 NW 1 Court, Suite 121. This program is open to any student attending public or private school in Miami-Dade County. In 2019, there were 3,945 newly registered K-12 customer accounts.

Golden Passport Office

The Golden Passport EASY Card provides free transportation to senior citizens 65 years and over or Social Security beneficiaries who are permanent Miami-Dade County residents. A Patriot Passport provides free transportation to disabled veterans who are permanent Miami-Dade County residents. Currently, there are 214,045 certified Golden Passport/Patriot Passport customer accounts; this includes 192,906 Golden Passport customers over 65 years of age, 19,171 Golden Passport customers under 65 years of age, and 1,968 Patriot Passport customers.

GO Miami-Dade Transit App (iPhone and Android)

DTPW has deployed real-time iPhone and Android applications for Metrorail/Metrobus/Metromover arrival/departure, route, and schedule information. These mobile applications provide DTPW passengers with everything that is currently present on the DTPW mobile web site as well as additional smartphone-specific features in the form of an app to include:

- Rider alerts
- Vehicle Trackers
- Service updates
- Metrobus schedules, routes, and stop look-up
- Metrorail and Metromover Station information
- Fare information
- Contact numbers
- Feedback zone
- Where Am I?
- Live Mapping
- STS (with access to the STS Connect online service for its clients)
- Nearby (which shows all stops/stations and real-time vehicles around you with the ability to scroll around the County)
- Integration with other apps such as EASY Pay, Pay by Phone, and MDT Transit Watch mobile application for submitting safety concerns in real time.

Using the all-new GO Miami-Dade Transit smartphone application, riders can plan a trip, track a ride, purchase mobile passes, report an incident, and earn points to redeem for rewards with the GO Rewards loyalty program. The app provides users with detailed route information, like schedules and system maps. Also available is a Tri-Rail one-way pass for riders traveling across the County.

Transit Oriented Development (TOD)

In an effort to increase transit ridership, generate revenue, and create attractive and dynamic station areas, the Department of Transportation and Public Works has partnered with the private sector to implement the following transit -oriented developments at the following locations:

- Dadeland South Metrorail Station Projects: Datran Center I & II (Phases 1 & 3)
  - 2 Class A office buildings, 476,412 rentable sq. ft.
  - 35,000 sq. ft. retail space
  - 3,500 parking spaces, 1,100 = dedicated transit patron usage
- Miami Marriott Dadeland Hotel and Conference Center (Phase 2)
  - 302 luxury hotel rooms Dadeland Centre I (Phase 4A)
  - 18 story Class A office building (8 floors offices, 9 floors parking)
  - 152,014 sq. ft. Dadeland Centre II (Phase 4B)
  - 15 story Class A office building (8 floors office, 6 floors parking)
  - 119,516 sq. ft.; ground floor retail

3.2 | ALTERNATIVE MODES PROJECTS

- Martin Luther King Jr. Plaza Metrorail Station: Project: Dr. Martin Luther King, Jr. Plaza Office Building
  - 5-story, 172,000 sq. ft. office building including 13,500 sq. ft. of ground floor retail
  - Demolition of portion of parking structure and renovation of 631-space entire garage
  - Covered walkway linking building with station

- Allapattah Metrorail Station: Project: Allapattah Garden Apartments
  - Affordable rental housing complex with surface parking
  - 8 garden-style, 3-story buildings totaling 135,100 sq. ft.
  - 128 two- and three-bedroom units
  - Clubhouse, tenant amenities, resident programs and services, day care center

- Santa Clara Metrorail Station: Project:
  - Santa Clara Apartments Phase I: 9-story, 208-unit affordable rental apartment building, 157 surface parking and 51 Phase II garage parking spaces
  - Phase II: 17-story, 204-unit affordable rental apartment building; 319 parking spaces on 5 levels with 207 spaces for Phase II tenants, 51 spaces for Phase I tenants and 61 ground floor spaces dedicated for Metrorail patrons

- Wilkie D. Ferguson Metromover Station; Projects: Overtown Transit Village (OTV) North (Phase 1)
  - 17-story, 309,900 sq. ft. office building
  - Separate 9-story, 590-space parking garage
  - 4,000 sq. ft. ground floor retail Overtown Transit Village South (Phase II)
  - 21-story, 300,000 sq. ft. office building including garage
  - 7,152 sq. ft. ground floor lobby • Integrated 6-story, 334-space parking garage
  - Brownsville Metrorail Station; Project: Brownsville Transit Village
  - Mixed-income, five phase TOD with mid- to high-rise affordable dwelling units
  - Phase I, II, III, and IV consist of 401 housing units (96 family, 305 elderly). Each phase of the development has achieved basic Leadership in Energy & Environmental Design (LEED) certification, focusing on reducing energy and resource consumption through high-efficiency plumbing fixtures, high-efficiency lighting, solar power, etc.
  - Phase V will be a 65-unit affordable rental community

- Eighth Street Metromover Station: Project: Brickell City Center
  - Mixed-use project to span up to five blocks when completed
  - The project has achieved Leadership in Energy & Environmental Design Gold certification
  - The hotel and residential towers, and some office space opened in 2016

- Northside Metrorail Station; Project: Northside Transit Village
  - Four phase TOD with 438 affordable housing units (219 elderly, 219 family)
  - 20,000 sq. ft. ground floor retail
  - Multi-level parking garage with 250 dedicated Metrorail parking spaces Location: Southeast corner of NW 32nd Avenue and NW 79th Street

- NW 7th Avenue Transit Village
  - Mixed-use, two phase TOD including a multi-level parking garage and transit hub
  - Phase I consists of 76 affordable housing units
  - Phase II will consist of 100 affordable housing units, a community theater space, and a metro transit hub

- Metrorail Stations between Brickell and Dadeland South; Project: The Underline
  - Once completed, The Underline will serve 107,000 residents within a 10-minute walk, will provide access to public transportation to one University and 24 schools, two hospitals, three urgent care facilities, four major malls and over 10,000 businesses.
  - A nine-phase effort to transform the underutilized land below the Metrorail into a 10-mile linear park, urban trail, and living art destination.
  - Separated pedestrian and bicycle paths.
  - Improvements to over 30 intersections.
  - Recreational features will include butterfly gardens, playgrounds, exercise equipment, basketball and volleyball courts, soccer fields, picnic areas, dog parks and more.

- Dadeland North Metrorail Station; Project: Motion at Dadeland
  - 25 story residential tower
  - 294 market-rate apartments
  - 411 space parking garage
  - 7,500 sq. ft. of ground floor retail

- Bird Road: Project: Senator Villas
  - 23 affordable housing units for the elderly
  - Improvements to the sidewalks, bus shelters, and art features in public spaces along Bird Road

3.2 | ALTERNATIVE MODES PROJECTS

- Douglas Road Metrorail Station: Project: Link at Douglas
  - Five-tower mixed-use development
  - 1,421 apartments (12.5% workforce housing)
  - 251,873 sq. ft. of office space
  - 25,000 sq. ft. of retail
  - 750 parking spaces

- Coconut Grove Metrorail Station: Project: Grove Central
  - 250 apartments
  - 180 key hotel
  - 190,000 sq. ft. of combined office and retail space
  - Large Parking Garage
  - $5 million for station upgrades and improvements
  - First Urban Microgrid in Florida
  - Geothermal AC system

- Adrienne Arsht Center Metromover Station: Project: Omni Bus Terminal
  - Hotel To be built around and above existing Omni Bus Terminal and Metromover Station. • $22 million in upgrades to existing transit infrastructure, including new state of the art bus terminal
  - 300 room hotel
  - Residential service apartments
  - 5,000 sq. ft. of retail space

- Freedom Tower Metromover Station: Project: Luma at Miami Worldcenter
  - 44 stories
  - 434-unit apartment tower
  - As a part of the development, the developer will reconstruct the Metromover station for integration with the rest of the development
  - Station improvements will include a new elevator, renovated stairs, new turnstiles, lighting, and landscaping.

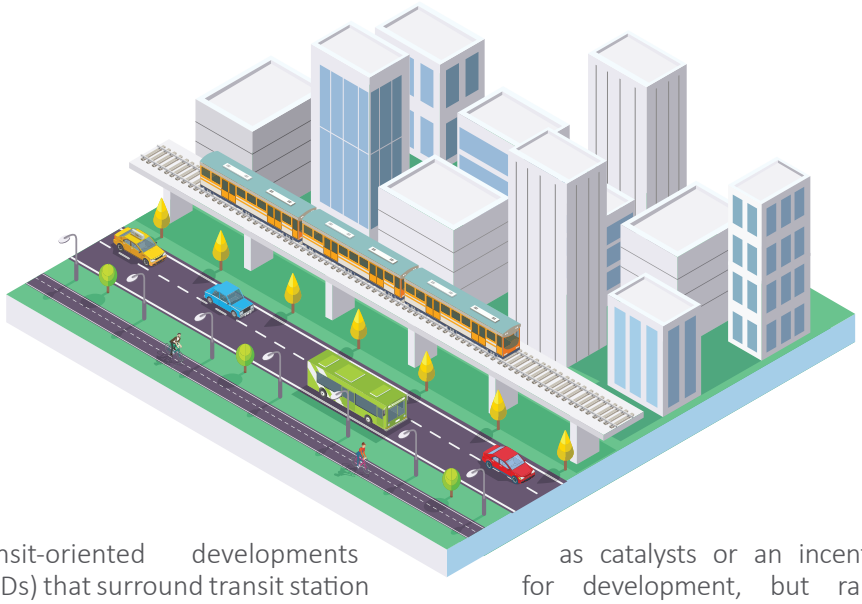
- South Miami-Dade Transitway: Project: Caribbean Village
  - Mixed use TOD with a minimum 170 affordable housing units for seniors
  - 12,500 sq. ft. of retail/commercial space
  - 150 space surface parking for transit riders

- Tenth Street Promenade Metromover Station Project: 1010 Brickell
  - The Tenth Street/Promenade Metromover station will be integrated into the project via new walkways and ramps, improved lighting, installation of new hardscaping, signage, handrails, and bicycle racks.
  - Other improvements include reconfiguration of the north station entry, relocation of automatic passenger counters, painting of ground floor and concrete structures, restoration of elevator cab and door, and installation of new light emitting diode (LED) lighting and fan inside the station's elevator.

Over the past four decades, South Dade has had a community debate about rapid transit. Many in the community feel that the implementation of high-quality rapid transit has not happened or has happened too slowly. Many factors go into winning a rapid transit system. We say "winning" because the process is highly competitive. Transit-oriented development is critical to the process. It is also critical as a component to solving a multitude of issues that impact transportation and mobility in Cutler Bay and South Dade, like affordable housing and the jobs/workforce imbalance.

The development potential around transit stations is realized only after a concerted effort to achieve it. Not only does the development area need to have the appropriate mix of uses in its density and intensity, but it must be accessible, proximate to a transit station, and marketable through a targeted economic development strategy.

Development opportunities must be scaled to the local market and transit capacity. The primary rule is that the local real estate market determines what kind of development would be appropriate near the transit station. That is why it is critical to build a partnership with the development community to determine what they are comfortable seeing in TOD areas. Another rule is that the type of transit mode generally responds to development density. This is exactly what has occurred along the South Corridor. The existing density and mix of uses are generally lacking throughout the corridor, making rail alternatives impractical and infeasible in the near term. If the community desires to transition to rail, implementing functional and properly scaled transit-oriented developments is the beginning of making that possible.



Transit-oriented developments (TODs) that surround transit station areas have higher density, affordable housing, a mix of residential, commercial, and retail land uses. They are compact, have multiple paths of access and mobility, ample capacity for pedestrians and cyclists, and parking, but the automobile is deprioritized. These have the goals of reducing sprawl, lowering the reliance on car usage in favor of mass transit, and revitalizing local communities.

Along the South Corridor, transit-supportive land uses do not necessarily exist. The typical land use pattern is low-density residential housing, which is automobile-dependent as a means of mobility. The South Corridor is surrounded by commercial strip centers that service the surrounding residential communities and the automobile user who travels the corridor each day. Employment centers exist at very distant locations. Encouraging transit-supportive land uses involves creating a vision, then changing the land uses surrounding a transit station area in the Comprehensive Plan by rewriting an existing zoning district's regulations. This ultimately increases the land development capacity of the station area and the expected or acceptable levels of growth. Strategic land use and zoning changes can act as catalysts or an incentive for development, but rarely alone. They must be coupled with an economic development strategy created to achieve an area's potential, and out-compete rival areas.

Cutler Bay has taken the first and most critical steps to developing its TOD in the Town Center District and has positioned itself as the primary beneficiary of the Bus Rapid Transit System being implemented now. This, coupled with an economic development strategy, can place the Town in a position rivaling the most economically diverse cities in the County. It is time to develop an economic development strategy to assist in achieving the Town's full potential.

Evaluating density and employment is important in TOD development. However, differences in land use density allowances (floor-area ratios, height limitations), local land values, as well as programs for affordable housing and adaptive reuse, also affect development potential. Affordability by the market population, and potential development cost versus revenue, also affect development potential. The market shed for the corridor, as affected by travel time, also affects market potential of development in the TOD area.

3.2 | ALTERNATIVE MODES PROJECTS

The Florida Department of Transportation has developed a TOD guide to address how such developments can be a part of transforming Florida's existing auto-oriented, largely suburban patterns of development into more compact, livable patterns that support walking, biking, transit, and shorter-length auto trips. The Guide clarifies the community benefits of implementing such development.

To strengthen the attractiveness of the economic development strategy of the Town Center District, further definition is needed of the potential number of housing units, jobs, commercial square footage, floor-area ratio, mixed-use ratio, and parking. Transit accommodations, accessibility, connectivity, and physical design are also key factors. An economic development strategy will reinforce the chances of success by affirming an overall vision supported by stakeholders and multiple partners planning the development.

What is a Transit-Oriented Development?

Transit-oriented developments (TODs) have higher density, affordable housing, and a mix of land uses. They are compact, have multiple paths of access and mobility, ample capacity for pedestrians, and cyclists, adequate parking, but the accommodating the automobile is not dominant. TOD goals include reducing sprawl, lowering the reliance on car usage in favor of mass transit, and revitalizing local communities. A review of examples, such as the Reston-Ballston transit line in Alexandria, Va., along with other Federal Transit Administration funded systems, indicates developing TODs requires balancing development in three areas: 1) within each station area; 2) within the corridor (its primary market) in which the station is located; and 3) within the region, which acts as both a secondary market and, at the same time, is the TOD area's competition. Cutler Bay has taken the first step in developing of its Town Center District TOD, i.e., formation of transit-sufficient land use intensities/mix and zoning regulations. Outside of Dadeland, it is the only area to have seriously gone through this exercise. This has positioned the Cutler Bay Town Center District as the Downtown of South Dade. Significant in geographic size and capacity, centrally located and at a nexus of rapid transit, expressways, and local corridors, employment centers and residential areas in the county are directly accessible from this location. The potential tax revenue generated by the number of residents and businesses that can locate in this area can make Cutler Bay one of the most economically significant communities in Miami-Dade County, rivaling Miami, Miami Beach, Coral Gables and Doral. Few if any, communities in the corridor have begun planning for such an eventuality.

Corridor vs. Station Area

VS

Practical application of land use changes to encourage station-area development generally involves: 1) rewriting an existing zoning district regulations; 2) rezoning of specific parcels; and/or, 3) enacting an overlay or new district. Zoning must be tied to the future land use designation, which, in turn, is tied to expected growth. In corridors, evaluations of market potential involve a qualitative discussion of economic incentives tied to zoning, with growth being transferred to the corridor from other areas of the region, not necessarily "created." The literature review of these three approaches indicates the majority of examples involve some form of mixed-use development occurring horizontally and vertically. In addressing district design, it is important to note consideration must be given to walkability and general station area mobility, the roadway grid/connections to the parcels in the area, as well as the size of the parcels.

Assignment of station typology allows for a more cohesive corridor, which, based on travel time, creates a market shed for each station. This can be seen in Denver, Los Angeles, and Reston-Ballston. Within corridors, the most effective development occurs when the stations complement each other based on market factors. The more successful TOD examples generally are based on public/transparent visioning exercises, as is the case with the Reston-Ballston line.

Within the same market, however, these station areas support each other. A balance can be created among transit station locations by first assessing the overall buildout for the corridor and then distributing against this "cap", as needed, through "control policies" for the stations.

Market Factors and Development Potential

Evaluating density and employment is important in TOD development. However, differences in land use density allowances (floor-area ratios, height limitations), local land values, as well as programs for affordable housing and adaptive reuse, affect development potential. Affordability by the market population, and potential development costs versus revenue, also affect development potential. The market shed for the corridor, as affected by travel time, also affects market potential of the TOD area.

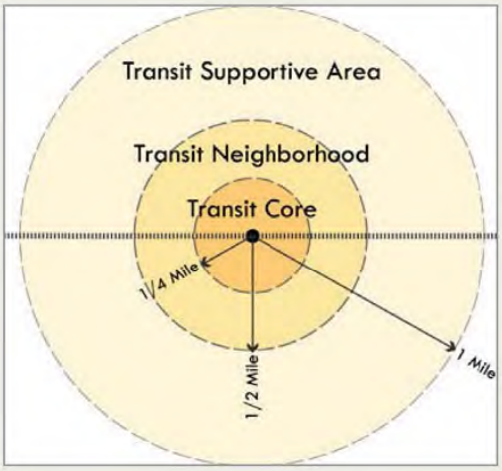
Planning for TOD involves creating a transit-supportive environment, but TOD generally proceeds with economic development, affordable housing, and land use being key inputs, more so than rezoning and waiting for development to occur. Strategies utilized include financial tools such as Priority Funding Areas (Maryland), Smart Growth Revolving Fund and Transit Investment Gap Financing Program (Charlotte, NC), Tax Increment Financing (various); public-private partnerships (Minneapolis), development bonuses to FARs and height limits (various), among others.

The South Corridor faces challenges because it traverses multiple jurisdictions with varying land use, zoning, and economic development policies.

How Can TOD's Change Our Mobility Systems and Enhance Our Quality of Life?

The Florida Department of Transportation (FDOT), in conjunction with the former Florida Department of Community Affairs and a state-wide TOD committee, developed "A Framework for Transit Oriented Development in Florida" in 2011. Its purpose is to address how TOD can be a part of transforming Florida's existing auto-oriented, largely suburban patterns of development into more compact, livable patterns that support walking, biking, transit, and shorter auto trips. Other goals of the TOD Framework are to support significant investments in multimodal systems and to help local governments/agencies respond to increasing interest in TOD from elected officials, developers/investors, and the public.

FIGURE A1: PLANNING TERMS ASSOCIATED WITH A TRANSIT STATION



Source: A Framework for TOD in Florida.

Premium Transit Station: means a transit station serving a premium type or types of transit (e.g., commuter rail, light rail, or bus rapid transit) or a station that functions as a local bus hub serving a minimum of three fixed local bus routes operating with headways of 21-30 minutes or less.

TOD Station Area: the area within one-half mile (approximately 500 acres) around a Premium Transit Station, comprised of the Transit Core and Transit Neighborhood. *NOTE: The model regulations presented in this Guidebook focus on this 500-acre area.*

Transit Core: the area within the first quarter-mile (approximately 125 acres) around a Premium Transit Station.

Transit Neighborhood: the area within the second quarter-mile (approximately 375 acres) surrounding a Transit Core

Transit Supportive Area: area within a one-mile radius surrounding a Transit Neighborhood and Transit Core.

Transit Oriented Development:

- Encourages a more sustainable transportation system over the long-term by creating viable options for people to get to destinations other than automobile.
- Reduces reliance on the traditional strategy of building new roadways or widening existing roadways to meet transportation needs.
- Provides a design-and-development strategy that will help convert suburban, auto-dominated patterns into more urban, compact, walkable patterns.
- Reduces the costs of delivering public services by encouraging infill and redevelopment in existing urban areas with existing infrastructure.
- Creates incentives, such as reduced parking requirements and increased intensities/densities, to promote private sector investment and economic development in existing urban areas
- Creates opportunities for diverse housing options with a range of prices located within walking distance, an easy transit ride, or a shorter-length auto trip to a variety of destinations.
- Reduces combined housing and transportation costs for households by providing options to auto travel.
- Provides new locations for housing options that reflect Florida-specific demographic trends.
- Encourages more healthy lifestyles by creating a pattern of development in which walking, and biking are a part of everyday travel behaviors.
- Reduces vehicles miles traveled (VMT), dependence on fossil fuels, and associated greenhouse gas emissions through increases in walking and biking, transit trips, and shorter auto trips.
- Provides a more compact development pattern overall that preserves open space and natural resources and protects Florida's critical groundwater recharge areas and wildlife habitats.
- Provides a positive impact on property values—both residential and commercial property values rise with proximity to transit stations (source: Sustainable Cities Institute).

TOD Place Types: The Florida Typology

Typology means classifying things according to specific types. TOD is not a "one-size-fits-all" development pattern, but, rather, TOD exists in varying types, forms, and compositions relative to the setting in which it is located. Accordingly, to enable TOD to be implemented in Florida's diverse conditions, the TOD Framework sets forth three TOD Place Types – Regional Centers, Community Centers, and Neighborhood Centers. For each TOD Place Type, targets to be achieved at build-out have been established for levels of density and intensity, mix of use, urban form, street networks, and parking. Each Place Type is further differentiated according to different types of transit to help illustrate the relationships among cost, ridership, and development. The higher the cost of the transit investment (typically increasing from rubber-tire technologies to BRT to fixed-rail systems), the higher the desired ridership. Consequently, the more intense and denser the level of development.

Metrorail Station, Downtown Miami, Florida

Source: A Framework for Transit Oriented Development in Florida

The TOD Place Types consider three major areas of influence: Activity and Accessibility, Transit Type, and Community Context, as discussed below.

- *Activity and Accessibility:* Access to a transit station and the desired level of activity within a Station Area helps determine the appropriate scale for a TOD along with its position within a larger network. A Regional Center tends to have a high concentration and mix of uses, thereby requiring more transit modes and regional accessibility. On the other hand, a Neighborhood Center tends to have a lesser concentration of uses, often tending towards residential versus workplace, which reduces the scale of accessibility.

- *Transit Type:* Transit mode and service characteristics also influence ridership potential and station area design. For purposes of the Framework, the focus is on "premium transit" modes, which include premium Bus Rapid Transit.

- *Community Context:* The location of Station Areas within urban, suburban, or transitional settings (mix of urban and suburban characteristics) is a third general influence on design and development/redevelopment of TOD. Given the extensive review of Place Types, Florida's development patterns can be grouped into three broad "context categories": Urban Infill, Suburban Retrofit, and Greenfield/Rural. Each of these contexts can influence urban form, interconnectivity, and the ability to accommodate density, intensity, and a mix of uses within station areas. Further, the existing context of station areas can influence the degree of challenge for developing station area concept plans and gaining consensus among property owners, agencies, and other stakeholders.

REGIONAL CENTER – has a concentration of economic and cultural significance, including downtowns and central business districts, which serve a regional travel market and are served by a rich mix of transit types ranging from high-speed, heavy, or commuter rail to BRT to local bus service. Usually emphasizing employment uses, Regional Centers are increasingly sought for residential uses in response to changing demographics and housing preferences. Regional Centers are larger than Community Centers and Neighborhood Centers and tend to contain more than one transit station and multiple bus stops. Small block sizes, more lot coverage, higher intensities and densities of development, civic open spaces, and minimal surface parking result in a highly urban development pattern in Regional Centers (FIGURE A2).

FIGURE A2: TOD PLACE TYPE TARGETS - REGIONAL CENTERS

		1	2	3
		Regional Center		
		Heavy Rail	Commuter/Light Rail	Bus Rapid Transit/Bus
STATION AREA MEASURES	**Gross Intensity/Density**			
	Station Area Employment and Residential Units	70,000 - 95,000	45,000 - 70,000	23,000 - 45,000
	Station Area Total Residential Units	10,000 - 15,000	5,000 - 10,000	3,000 - 5,000
	Gross Residential Density (Dus/Acre)	55 - 75	35 - 55	20 - 35
	Station Area Total Employment	60,000 - 80,000	40,000 - 60,000	20,000 - 40,000
	Gross Employment Density (Jobs/Acre)	200 - 250	100 - 200	50 - 125
	Jobs/Housing Ratio (Jobs:Residential Units)	6 : 1		
	Mix of Uses			
	Mix of Uses - % Residential / % Non-Residential	35% / 65%		
SITE LEVEL MEASURES	**Net Intensity/Density**			
	Net Commercial Floor Area Ratio (FAR)	4.0 - 6.0	2.0 - 4.0	1.5 - 3.0
	Net Residential Density (Dwelling Units per Acre)	85 - 115	55 - 85	30 - 55
	Street Network and Building Design			
	Grid Density - Blocks per Square Mile for Vehicular, Bicycle, and Pedestrian Street Network	> 350	> 350	>230
	Building Height (in Floors)	> 4	> 3	> 2
	Maximum Lot Coverage	80% - 90%	80% - 90%	60% - 70%
	Minimum Street Frontage	80% - 90%	80% - 90%	70% - 80%
	Parking			
	Maximum Residential Parking - Spaces per Residential Unit	1	1	1.5
	Maximum Non-Residential Parking - Spaces per 1,000 square feet	1	1	2
	Park & Ride	No	No	No

Source: A Framework for Transit Oriented Development in Florida

Cutler Bays Town Center District would be classified as a Regional Center. The development standards found in Chapter 3, Section 3-60. of the Town of Cutler Bay Land Development Regulations – Town Center District (4) Table of Standards, are summarized below.

(4) TABLE OF STANDARDS

STANDARD	TC SUBDISTRICS		
	EDGE	CENTER	CORE
Minimum lot area (square feet)	NA	NA	NA
Maximum floor area ratio	0.5	2.0	3.0
Maximum floor area ratio with green bonus	1.0	2.5	3.8
Maximum density (units per acre)	50	150	250

EDGE – 10.68 ACRES (GROSS AREA TOTAL)
Maximum Floor Area Ratio – 0.5 yields 232,610 sq. ft. allowable Non-residential FAR
Maximum Floor Area Ratio with Green Bonus – 1.0 yields 465,220 sq. ft. allowable Non-residential FAR Maximum Density (units per acre)- 50 Dwelling Units per acre yields 534 units

CENTER – 30.96 ACRES (GROSS AREA TOTAL)
Maximum Floor Area Ratio – 2.0 yields 2,725,140 sq. ft. allowable Non-residential FAR
Maximum Floor Area Ratio with Green Bonus – 2.5 yields 3,406,425 sq. ft. allowable Non-residential FAR Maximum Density (units per acre) –150 Dwelling Units per acre yields 4,692 units

CORE – 31.28 ACRES (GROSS AREA TOTAL)
Maximum Floor Area Ratio – 3.0 yields 4,046,382 sq. ft. allowable Non-residential FAR
Maximum Floor Area Ratio with Green Bonus – 3.8 yields 5,125,417 sq. ft. allowable Non-residential FAR Maximum Density (units per acre) – 250 Dwelling Units per acre yields 7,731 units

COMMUNITY CENTER – functions as sub-regional or local node of economic and community activity and includes urban and town centers served by one or more transit types. Residential densities in Community Centers are typically lower than residential densities in Regional Centers, but the mix of uses is more balanced between residential and employment uses. More intense and dense development in Community Centers tends to be concentrated within walking distance of the transit station. The pattern of development in Community Centers ranges from urban to suburban. Block sizes, lot coverage, and development densities in Community Centers ranges from urban to suburban all tend to be moderate (FIGURE A3). Parking is typically structured and located close to the transit stations.

FIGURE A4: TOD PLACE TYPE TARGETS - NEIGHBORHOOD CENTERS

		4	5	6
		Community Center		
		Heavy Rail	Commuter/Light Rail	Bus Rapid Transit/Bus
STATION AREA MEASURES	**Gross Intensity/Density**			
	Station Area Employment and Residential Units	23,000 - 30,000	15,000 - 23,000	7,000 - 15,000
	Station Area Total Residential Units	5,000 - 6,000	3,000 - 5,000	1,000 - 3,000
	Gross Residential Density (Dus/Acre)	35 - 65	25 - 35	10 - 20
	Station Area Total Employment	18,000 - 24,000	12,000 - 18,000	6,000 - 12,000
	Gross Employment Density (Jobs/Acre)	65 - 90	45 - 65	20 - 45
	Jobs/Housing Ratio (Jobs:Residential Units)	3 : 1		
	Mix of Uses			
	Mix of Uses - % Residential / % Non-Residential	45% / 55%		
SITE LEVEL MEASURES	**Net Intensity/Density**			
	Net Commercial Floor Area Ratio (FAR)	4.0 - 6.0	2.0 - 4.0	1.0 - 2.0
	Net Residential Density (Dwelling Units per Acre)	60 - 80	40 - 60	20 - 40
	Street Network and Building Design			
	Grid Density - Blocks per Square Mile for Vehicular, Bicycle, and Pedestrian Street Network	> 350	>230	>150
	Building Height (in Floors)	> 3	> 2	> 2
	Maximum Lot Coverage	80% - 90%	60% - 70%	40% - 50%
	Minimum Street Frontage	80% - 90%	70% - 80%	60% - 70%
	Parking			
	Maximum Residential Parking - Spaces per Residential Unit	1	1.5	2
	Maximum Non-Residential Parking - Spaces per 1,000 square feet	1	2	3
	Park & Ride	No	No	No

Source: A Framework for Transit Oriented Development in Florida

NEIGHBORHOOD CENTER – is dominated by residential uses and served by some type of premium transit. Non-residential uses in them are limited to local-serving retail and services. Residential densities in Neighborhood Centers tend to be lower than in Community Centers and are at their highest within walking distance of the transit station (FIGURE A4). Neighborhood Centers are found in older urban areas and newer suburban developments. Open space is usually abundant, and parking is mostly in surface lots.

FIGURE A3: TOD PLACE TYOPE TARGETS - COMMUNITY CENTERS

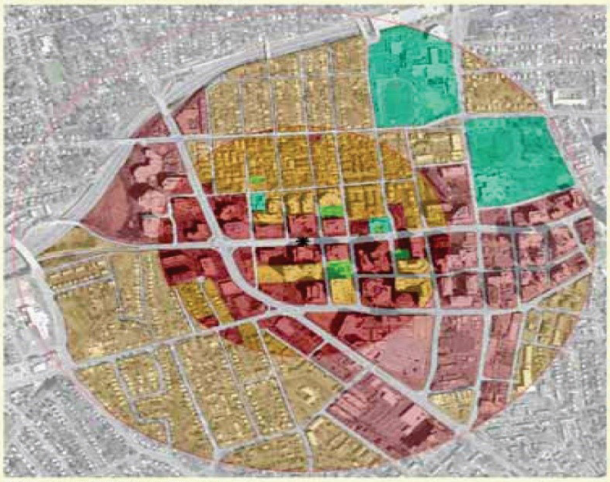
		7	8	9
		Neighborhood Center		
		Heavy Rail	Commuter/Light Rail	Bus Rapid Transit/Bus
STATION AREA MEASURES	**Gross Intensity/Density**			
	Station Area Employment and Residential Units	5,000 - 8,000	4,000 - 6,000	2,000 - 4,000
	Station Area Total Residential Units	3,000 - 4,500	2,000 - 3,000	1,000 - 2,000
	Gross Residential Density (Dus/Acre)	12 - 15	9 - 12	7 - 9
	Station Area Total Employment	2,000 - 3,500	2,000 - 3,000	1,000 - 2,000
	Gross Employment Density (Jobs/Acre)	20 - 30	15 - 20	10 - 15
	Jobs/Housing Ratio (Jobs:Residential Units)	1 : 1		
	Mix of Uses			
	Mix of Uses - % Residential / % Non-Residential	75% / 25%		
SITE LEVEL MEASURES	**Net Intensity/Density**			
	Net Commercial Floor Area Ratio (FAR)	1.5 - 2.0	1.0 - 1.5	0.5 - 1.0
	Net Residential Density (Dwelling Units per Acre)	15 - 20	12 - 15	10 - 12
	Street Network and Building Design			
	Grid Density - Blocks per Square Mile for Vehicular, Bicycle, and Pedestrian Street Network	> 230	> 150	> 150
	Building Height (in Floors)	> 2	> 2	> 1
	Maximum Lot Coverage	60% - 70%	40% - 50%	40% - 50%
	Minimum Street Frontage	70% - 80%	60% - 70%	60% - 70%
	Parking			
	Maximum Residential Parking - Spaces per Residential Unit	1.5	2	2
	Maximum Non-Residential Parking - Spaces per 1,000 square feet	2	3	3
	Park & Ride	Yes	Yes	Yes

Source: A Framework for Transit Oriented Development in Florida

STATION AREA PLANNING – Land use, transit accommodations, accessibility and connectivity, and physical design are key factors in station area planning, in determining land use, questions of economic activity, connections among the land uses within the station area, development and redevelopment potential, and other key issues for successful station area planning can then be addressed. The area noted should be one-half mile in distance from the station. FIGURE A5, an example of Ballston Metro Station in Arlington, Virginia, illustrates the components of a station area land use analysis. These include categories of Civic, Parks, Streets, Residential, and Non-Residential uses.

FIGURE A5: LAND USE ANALYSIS EXAMPLE

TRANSIT ORIENTED DEVELOPMENT (TOD)
LAND USE ANALYSIS



Use	Acres	Land Cover
First 1/4 Mile		
Streets	26	21%
Civic	1	1%
Parks	2	2%
Residential	46	37%
Non-Residential	50	40%
Total	***126***	***100%***
Second 1/4 Mile		
Streets	49	16%
Civic	36	12%
Parks	0	0%
Residential	136	44%
Non-Residential	89	29%
Total	***310***	***100%***
Total Area		
Streets	75	17%
Civic	37	9%
Parks	2.4	1%
Residential	182	42%
Non-Residential	139	32%
	436	***100%***

Source: A Framework for Transit Oriented Development in Florida

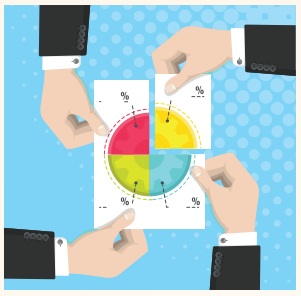
The Urban Land Institute has authored a guide to TOD entitled the *"Ten Principles for Successful Development Around Transit"*[1]. This guide, discusses how to improve the chances of development and functional success with an overall vision supported by stakeholders and multiple partners, planning the development specifically around transit, parking, placemaking, mixed uses, diversity in housing, and a market driven strategy.

Principle 1. Make It Better with a Vision

To succeed, a vision should be:

- Oriented toward the future but based in reality;
- Stakeholder centered;
- Collaborative and educational;
- Focused on implementation; and,
- Flexible.

Principle 2. Apply the Power of Partnerships



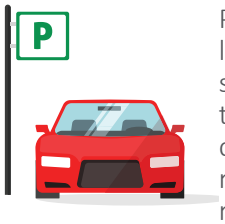
A successful partnership relies on the strengths of each partner. The public sector has the power to resolve land-assembly problems, ensure that a site is development-ready, ease the entitlement process, and contribute land or infrastructure costs, or both. Private developers bring the real estate savvy, contacts with end users, and the understanding of financial resources. Smoothing the entitlement process keeps the developer confident, on track, and on schedule—and helps make it possible for the private sector to assume the risks and to produce an outcome that reflects both the community vision and the market reality.

[1] *Robert Dunphy, Deborah Myerson, and Michael Pawlukiewicz, 2003 (http://www.fltod.com/research/general_tod/ten_principles_for_successful_development_around_transit.pdf)*

Principle 3. Think Development When Thinking about Transit

Most new development near transit will be built on private property by private developers. To help these projects succeed, the public must be attuned to the needs of the private sector—which may be a difficult adjustment in communities that have historically had adversarial relations with developers. Being sensitive to the needs of the private sector does not mean compromising public goals; it simply means recognizing that those goals need to work for the developer as well.

Principle 4. Get the Parking Right



Parking is a big factor in determining the layout of a station area. How a transit station is connected to, or separated from, the surrounding community will largely determine the station's footprint and parking requirements. For example, to extend transit's reach into a wider, more auto-dependent travel region, terminal stations often serve as the primary location for parking lots. At closer-in stations, a greater share of transit riders frequently arrive on foot, or by bus or bicycle. On newer transit systems, stations adjacent to major roads often include extensive parking. The transit agency must find the balance between providing parking and allocating sufficient land for the types of adjacent development that will generate walk-on users.

Principle 5. Build a Place, Not a Project

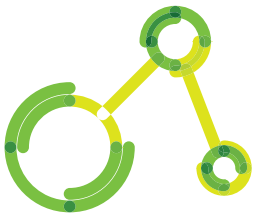
Use design principles that support the creation of a genuine sense-of-place. Among these principles are the following:

- Locate the transit stop at the center of the neighborhood rather than on its periphery. The new station will connect an entire regional transit system to the surrounding community, and its location should reflect the centrality of its role.
- Design and position the station to foster the creation of an activity center that surrounds the station on all sides.
- Ensure that the design of the station is of high quality and reflects the character of the surrounding community.
- Include engaging public spaces, attractive street furniture, and public art. Public space is important in the creation of place; among other things, it allows for events such as concerts, markets, exhibits, and celebrations—events that bring people and vitality to the area and stimulate economic activity.
- Promote pedestrian connections by creating compact blocks, pleasant walkways, and comfortable, well-marked, and continuous street-front experiences. The appeal of the pedestrian environment strengthens the sense of place and supports retail spending.
- Create attractive landmarks and gateways to the development.
- Incorporate a variety of residential uses to ensure round-the-clock activity.

Principle 6. Make Retail Development Market Driven, Not Transit Driven

Although retail is a desirable element in a community and a valuable generator of tax revenues, it may not be supported by market demand, and public agencies must resist the temptation to require retail as part of a project. If businesses fail and stores remain dark, the whole transit village will suffer the stigma of failure. It's far better to have a few busy, successful stores than dark and empty ones. With that in mind, development plans for the area surrounding the station should reflect the volume that retail developers need; the rules specifying the distance that people will travel to any particular store are immutable. High-density office or residential developments may be ideal sources of transit riders, but they cannot be counted upon to support retail. If there is an existing market for retail, then developing retail first and subsequently adding residential or office space can help reinforce the retail demand.

Principle 7. Mix Uses, but Not Necessarily in the Same Place



A good mix of uses generates a vibrant assortment of people going about their business at many hours of the day. But the creation of an attractive community does not require that uses be mixed on the same site, or at each station. Integrated mixed-use projects are difficult to finance and complex to build. A transit corridor that offers an advantageous mix of uses, however, can be used to integrate separate activity nodes, particularly when the various uses are close together, easily accessible, and support each other. It is possible, for example, to live at one station area, work at another, and shop at a third, with transit making possible the connections among all three. The accessibility of the uses along the corridor will render it attractive, and the diverse kinds of trips generated by the activity nodes may help prevent the typical peak-demand patterns that are common to transit.

Principle 8. Make Buses a Great Idea

Rail is often associated with white-collar commuters; buses, in contrast, are viewed as the mode of travel for the poor, for students, and for others with few transportation choices. If buses are to generate development in transit corridors, they need to serve a strong cross-section of the community—including middle-class riders. Successfully attracting middle-class riders will improve service for all and will also provide a diverse market to encourage developers to build around bus stops.

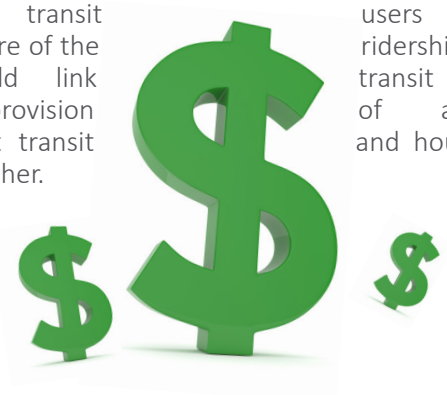
Principle 9. Encourage Every Price Point to Live Around Transit

It is important for developers to know the demographic profiles of those who are seeking to live close to transit; these groups include:

- People who are tired of fighting traffic and are willing to give up their second car;
- People from a variety of age groups who are looking for opportunities to move up or down in housing size, depending on where they are in their lives; and,
- Seniors who want an independent lifestyle and to reduce their dependence on the automobile.

Residential development around transit, especially when it is part of a mixed-use strategy, can be so successful that it attracts wealthier households, resulting in escalating real estate values, numerous upscale conversions, and rising rents.

Preserving and expanding affordable housing is important as well and is a special concern for development around transit because lower-income transit users often represent the core of the ridership. Local agencies should link transit funding with the provision of affordable housing so that transit and housing can reinforce each other.



Principle 10. Engage Corporate Attention

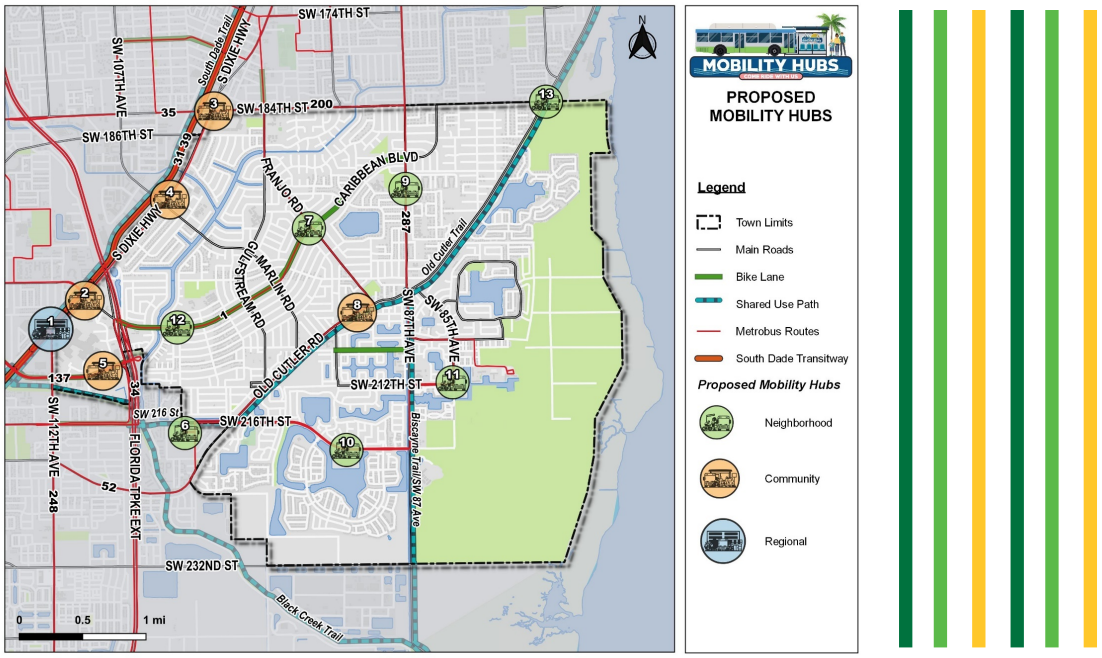
Corporations can play an influential role in stimulating development around transit. If corporations see transit as a slow and unreliable means of getting to work, executives in charge of location decisions will pay less attention to transit access. If transit is viewed, however, as a valuable tool for recruiting scarce talent, companies will include "good transit access" on their checklist of considerations for site selection. More companies are focusing on transit access for workers, even if management does not plan to use it. Some companies that have moved to remote sites, accessible only by car, have found it so difficult to recruit workers that they moved back to closer-in sites. In Atlanta, when corporations were asked to name the most serious impediment to business in the metropolitan area, the overwhelming answer was "traffic congestion." In response to the Atlanta area's growing traffic problems, BellSouth Corporation is consolidating all its suburban offices into three central locations accessible from MARTA (Metropolitan Atlanta Rapid Transit Authority), the city's rail system.

Mobility Hubs

Based on the Town of Cutler Bay Mobility Hubs Plan, a comprehensive system of proposed Transit Mobility Hubs was developed to connect the South Dade Transitway and the Town.

No.	Mobility Hub	Type
1	Cutler Bay Regional	Regional
2	Caribbean Boulevard	Community
3	Eureka Drive West	Community
4	Marlin	Community
5	South Dade Government Center	Community
6	Community Health	Neighborhood
7	Whispering Pines	Neighborhood
8	Old Cutler Town Center	Community
9	Pine Wood	Neighborhood
10	The Isles of Bayshore	Neighborhood
11	Lakes by the Bay	Neighborhood
12	Cutler Ridge	Neighborhood
13	Eureka Drive East	Neighborhood

Source: Mobiliity Hubs Plan



Source: Mobiliity Hubs Plan

NAME	HUB TYPE	LOCATION	ROUTES	EXISTING STOP
Lakes by the Bay	Neighborhood	SW 85 Ave & SW 212 St	200, 287	Yes
Pine Wood	Neighborhood	SW 87 Ave & SW 190 St	200, 287	Yes
Whispering Pines	Neighborhood	Caribbean Blvd & Franjo Rd	1, 200	Yes
Eureka Drive East	Neighborhood	Old Cutler Rd & 184 St	None	No
The Isles of Bayshore	Neighborhood	SW 216 St & SW 89 Pl	200, 287	Yes
Community Health	Neighborhood	SW 216 St & SW 102 Ave	52, 287	Yes
Old Town Center	Community	Old Cutler Rd & S of Franjo Rd	200	Yes
Eureka Drive West	Community	SW 184 St & East of US 1	200	Yes
Marlin Road	Community	Marlin Rd & US 1	31, 35, 38, 200	Yes
Caribbean Boulevard	Community	SW 200 St & US 1	1, 31, 35, 38, 39, 52, 200	Yes
South Dade Government Center	Community	SW 211 St	1, 31, 35, 39, 52, 137, 200	Yes
Cutler Bay	Regional	US 1 / SW 112 Ave	1, 31, 34, 35, 38, 39, 52, 200	Yes

Source: Mobiliity Hubs Plan

3.2 | ALTERNATIVE MODES PROJECTS

Regional Hubs include the following amenities:

- Carshare
- E.V. Charge Station
- Bikeshare Station
- Bicycle Repair Station
- Bicycle Storage Locker
- Waiting Area for Ride-Hailing Transportation Network Companies (TNCs)
- Transit Use
- Real-Time Information
- Wi-Fi
- Lending Library
- Monument Sign
- USB Charge Port
- Security Camera
- Emergency Callbox
- Public Art
- Information Kiosk
- Package Pickup Kiosk
- Retail
- Pedestrian Lighting
- Pedestrian Promenade on the east side of U.S. 1 & S.W. 112th Avenue

Infrastructure requirements for Regional Hubs include the following:

- Fill Sidewalk Gaps within ¼ mile
- Linear Park along Transitway Island
- Pedestrian Lighting
- Pedestrian Promenades on the east side of US1 and SW 112 Avenue
- Landscape Enhancements
- Parking Structure with Real-time Parking Information

Community Hub

Source: Mobiliity Hubs Plan

Community Hubs include the following amenities:

- Shelter
- Lighting
- Bikeshare Station
- USB Charging Station
- EV Charge Station
- Carshare
- Security Camera
- Emergency Callbox
- Lending Library
- Public Art
- Public Space
- Real-time Signage

Optional amenities include:

- Kiss & Ride
- Package Pickup Kiosk
- Information Kiosk
- Air Misting System
- WIFI
- Park & Ride
- Waiting Area for TNCs
- Bicycle Repair Station
- Bicycle Storage Locker

Infrastructure requirements for Community Hubs include the following:

- Fill Sidewalk Gaps within ¼ mile
- Pedestrian Lighting
- Landscape Enhancements
- ADA Improvements
- Midblock Crossing with Flashing Beacon & Signage
- High Emphasis Crosswalks
- Bicycle Lanes/Shared Use Path
- Pedestrian Crossing Signs
- Sidewalks widened to 8'-10'
- Street Furniture
- Bicycle Signals
- Bike Box

Neighborhood Hub amenities include the following:

- Shelter
- Seating
- Real-time Signage
- Bikeshare
- Public Art
- Pedestrian Plaza/Pocket Park
- Lending Library
- USB Charge Station
- Trash/Recycle Receptacle
- Bicycle Rack
- Emergency Callbox

Optional amenities for Neighborhood Hubs include the following:

- Package Pickup Kiosk
- Carshare
- Pop-up Retail
- Park & Ride
- Security Camera
- Motion Sensing Lighting

Infrastructure Improvements for Neighborhood Hubs include:

- 4'-5' Bicycle Lanes
- 10' Shared Use Path
- Landscape Enhancements
- Enhanced Pedestrian Crossings
- Midblock Crossings with In-ground Flashing Beacon
- Lighting & Signage
- Curb extensions
- Travel Lane Reductions
- Pedestrian Lighting
- Bike Box
- Bicycle Signal
- Pedestrian Signage at Crossings

3.2 | ALTERNATIVE MODES PROJECTS

ALTERNATIVE MODE (TRANSIT) PROJECTS LISTING

- Additional bus stop along SW 184 Street between Franjo Road and SW 87 Avenue
- Policies within the Transportation Element of the Comprehensive Plan to promote disadvantaged populations access to transit
- Promotional and educational programs regarding Miami-Dade Transit EASY Card for discounted fares, discounted fares for Medicare recipients, people with disabilities, and students in grades K-12. Preschool children ride Metrobus and Metrorail free at all times. Golden Passport Program.
- Improved headways, from 60 minutes to 30 minutes, for the Cutler Bay Local Route.
- ADA Bus Stop Improvements
  - Along west side of SW 87 Avenue at SW 200 Terrace
  - Along 184 Street west of 87 Avenue
  - Along 87 Avenue just east of 184 Street
  - Along 87 Avenue at 190 Street
  - Along 87 Avenue and 193 Terrace
  - Along 87 Avenue near 199 Street
  - Old Cutler Road and SW 200 Terrace
  - Franjo Road near Caribbean Boulevard

- The following are additional project recommendations from previous studies:
  - Support of Transit Corridor & Town Center Zoning Districts & Increased Density along U.S. 1 / S. Dixie Hwy.
  - Incorporate Mobility Hub elements and amenities in future development projects.
  - Allocate space for shared services such as on demand shuttles and rideshare companies and consider the flexible use of that space where necessary.
  - Partner with shared mobility service providers to integrate shared mobility services into a platform for trip planning and payment.
  - Amend the development review process to encourage developers to incorporate Mobility Hub features into their projects.
  - Adopt off-street parking requirements to better align with Mobility Hub investments.
  - Implement flexible curb space to meet the needs of shared mobility services and the changing demands of users.
  - Encourage businesses and/or developers to partner with government agencies to test technologies and service concepts in real world environments.
  - Adopt a Branding & Marketing Plan and include a Wayfinding Signage Program.
  - Explore the use of Shared Mobility Options.
  - Explore the adoption of a Public Art Program to fund and implement Public Art throughout the Town.
  - Create Transit Partnerships with neighboring communities.
  - Implement Green Infrastructure Techniques for landscape enhancements.
  - Create a Pedestrian Promenade along the east side of U.S. 1 / S. Dixie Hwy.
  - Adopt of Curbside Management Plan.
  - Adopt Transportation Demand Management policies.

ALTERNATIVE MODES PROJECTS (TRANSIT)			
#	Project	Purpose	Need
1	Town Circulator Operational Analysis	Conduct Study/Operational Analysis of the Town Circulator with consideration of headway times and expansion of days of service, improvements to the bus stop facilities for ADA compliance and general services. Improve access to transit by decreasing headways from 60 minutes to 30 minutes	Addresses citizens requests, ADA gaps, gaps in service. Improve access to transit, provide greater connectivity and reduce travel time.
2	Additional Bus Stop	Add bus stop along 184 St. between Franjo Rd. and SW 87 Ave.	Improve access to transit
3	Policy Adoption	Adopt Policy within Transportation Element of the Comprehensive Plan	Promote disadvantaged populations and access to Transit
4	Mobility Hub Caribbean Blvd.	Community Hub	Improve access to transit
5	Mobility Hub Eureka Dr. West	Community Hub	Improve access to transit
6	Mobility Hub Marlin Dr.	Community Hub	Improve access to transit
7	Mobility Hub South Dade Government Center	Community Hub	Improve access to transit
8	Mobility Hub Community Health	Neighborhood Hub	Improve access to transit
9	Mobility Hub Whispering Pines	Neighborhood Hub	Improve access to transit
10	Mobility Hub Old Cutler Town Center	Community Hub	Improve access to transit
11	Mobility Hub Pine Wood	Neighborhood Hub	Improve access to transit
12	Mobility Hub The Isles of Bayshore	Neighborhood Hub	Improve access to transit
13	Mobility Hub Lakes by the Bay	Neighborhood Hub	Improve access to transit
14	Mobility Hub Cutler Ridge	Neighborhood Hub	Improve access to transit
15	Mobility Hub Eureka Dr. East	Neighborhood Hub	Improve access to transit
16	Increase Go Connect Service	Increase Go Connect hours to include weekends	Improve access to transit
17	Support promotional and educational program	Increase support & promotion of Easy Card, Discounted Fares, Golden Passport	Improve access to transit
18	ADA Bus Stop Improvements	Along west side of SW 87 Ave. at SW 200 Ter.	Improve access to transit
	ADA Bus Stop Improvements	Along 184 St. west of 87 Ave.	Improve access to transit
	ADA Bus Stop Improvements	Along 87 Ave. just east of 184 St.	Improve access to transit
	ADA Bus Stop Improvements	Along 87 Ave. at 190 St.	Improve access to transit
	ADA Bus Stop Improvements	Along 87 Ave. and 193 Ter.	Improve access to transit
	ADA Bus Stop Improvements	Along 87 Ave. near 199 St.	Improve access to transit
	ADA Bus Stop Improvements	Old Cutler Rd. and SW 200 Ter.	Improve access to transit
	ADA Bus Stop Improvements	Franjo Rd. near Caribbean Blvd.	Improve access to transit

3.2 | ALTERNATIVE MODES PROJECTS

ALTERNATIVE MODES PROJECTS (TRANSIT)			
#	Project	Purpose	Need
19	Incorporate Mobility Hub elements & amenities	Incorporate Mobility Hub elements and amenities in future development projects	Improve access to transit
20	Shared mobility	Allocate space for shared services such as on demand shuttles and rideshare companies and consider the flexible use of that space where necessary	Improve access to transit
21	Policy	Amend the development review process to encourage developers to incorporate Mobility Hub features into their projects	Improve access to transit
22	Policy	Adopt off-street parking requirements to better align with Mobility Hub investments	Improve access to transit
23		Explore Branding & Marketing Plan and include a Wayfinding Signage Program	Improve access to transit
24		Explore the use of Shared Mobility Options	Improve access to transit
25		Create Transit Partnerships with neighboring communities.	Improve access to transit
26	Mobility fee	Adopt mobility fee, an impact fee imposed on new development or redevelopment to fund improvements related to all types of mobility, such as bicycle, pedestrian, and transit	

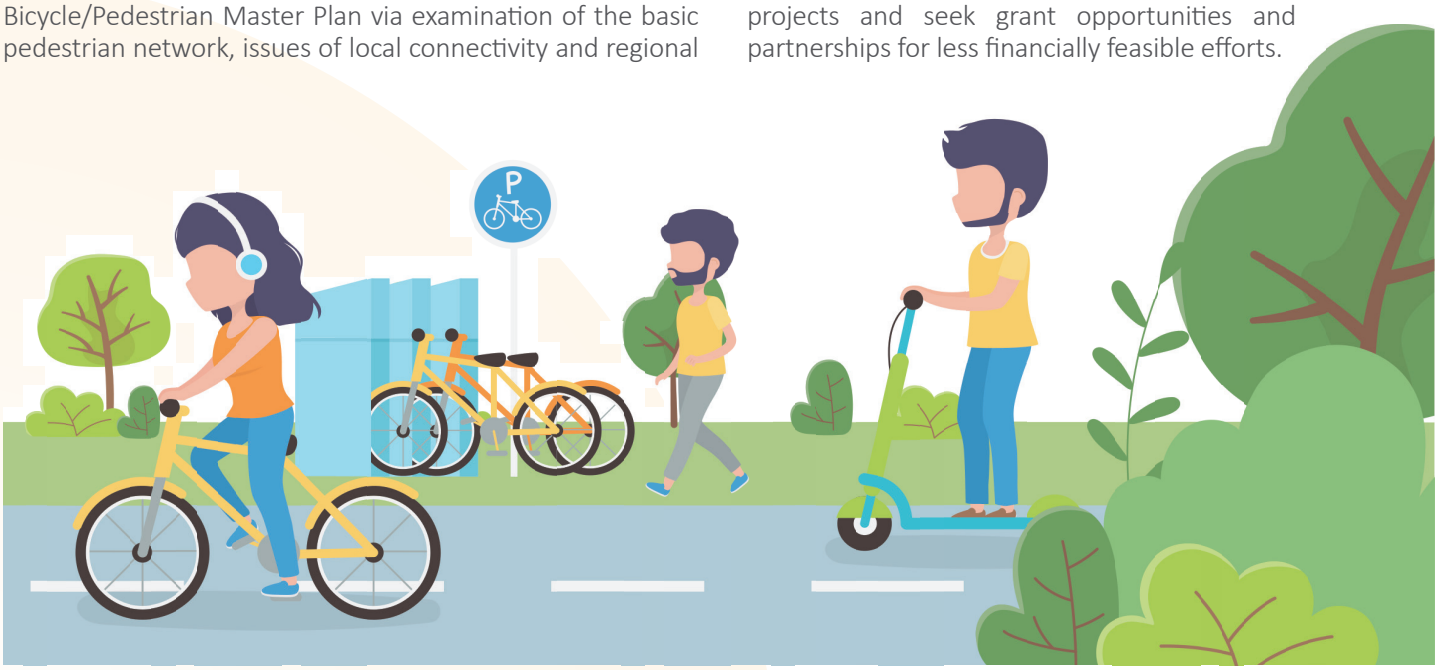
KEY BICYCLE & PEDESTRIAN INITIATIVES

Pedestrian activity is the root of transportation. Whether it is walking from business to business, a house to a car, or from a bus stop to their destination, people generally have a need to walk. Sidewalks should be continuous between transit, major destinations, schools, parks, and civic entities.

As the Cutler Bay population grows, it is expected that the number of short trips will continue to increase, as destinations, like work, restaurants, shopping, and schools, all come closer to people's homes. Short trips are defined as being less than a half-mile. In the future, it is anticipated that a large portion of these short trips will often be made by walking or bicycling rather than by driving, if conditions are planned for now. As traffic congestion increases, the construction of bicycle and pedestrian facilities as an alternative to automobile travel becomes more important and will help maintain mobility within the community.

Florida is one of the two most dangerous states in which to walk or bike, according to the non-profit organization Florida Walks and Bikes. This fact strikes fear in parents as they consider allowing their children to play or bike in the community and has led to Cutler Bay commissioning a Safe Routes to School audit. As a remedy, it is an intention of federal transportation policy to increase non-motorized trips to at least 15 percent of all trips and to reduce the number of non-motorized users killed in traffic crashes by at least 10 percent.

Nearly seventy projects were developed in the Town's 2011 Bicycle/Pedestrian Master Plan via examination of the basic pedestrian network, issues of local connectivity and regional connections. The projects needed out-paced the resources to implement them; the potential cost to implement this program in its entirety was estimated to be over $20 Million, resulting in a need to first implement the most-effective projects and seek grant opportunities and partnerships for less financially feasible efforts.



Considerations of Planning Objectives in Bicycle/Pedestrian Planning

Objectives in planning for the pedestrian and transportation environment of Cutler Bay include providing transportation alternatives to ensure that all levels of users have a choice when deciding how to get to and from a variety of places in the Town and regional facilities. This involves:

- Providing for safe, unobstructed use of rights-of-way for non-motorized alternative modes of transportation.
- Providing a bicycle and pedestrian system as an incentive for providing mobility, conserving energy, being environmentally friendly, and becoming healthier.
- Providing more experienced cyclists with paths for longer trips through the community, connecting with regional facilities, eventually encouraging cycling commuters.
- Providing less experienced cyclists with appropriately located safe paths that connect desirable local origins and destinations, eventually encouraging short trips on the system for shopping, entertainment, and recreational uses.

In meeting these objectives, specific areas of focus could be implemented, such as:

- Providing connections between parks and schools, and residential neighborhoods.
- Assuring facilities are free of obstructions such as broken, uneven, or worn paths, intrusive vegetation, or misplaced essential infrastructure, such as fire hydrants, power poles and guy wires, etc.
- Providing access within the primary commercial areas along US-1, in the Urban Center District, and the Old Cuter Road District.
- Providing access to the Busway across US-1.
- Connecting the municipal bicycle and pedestrian networks with the County network and potential networks in other cities.

Facilities Needed

Bicycle facilities range from wide curb lanes, with no striping, to marked bike lanes, to off-road bicycle paths. The unique circumstances of a particular roadway must be examined to determine the bicycle facility that is most appropriate.

Traffic volume, prevailing travel speed, and roadway geometric characteristics are common factors examined in bicycle mobility analyses. For example, on roadways with low automobile volumes and slow travel speeds, bicyclists often feel comfortable riding in mixed-flow traffic with no specific bicycle facilities provided. Marked bicycle facilities or adjacent bike paths are desirable on higher volume roadways with higher travel speeds. Considerable planning and engineering are often required to ensure the appropriate bicycle facility can be designed around constraints such as right-of-way availability, existing utility infrastructure, and intersection geometry.

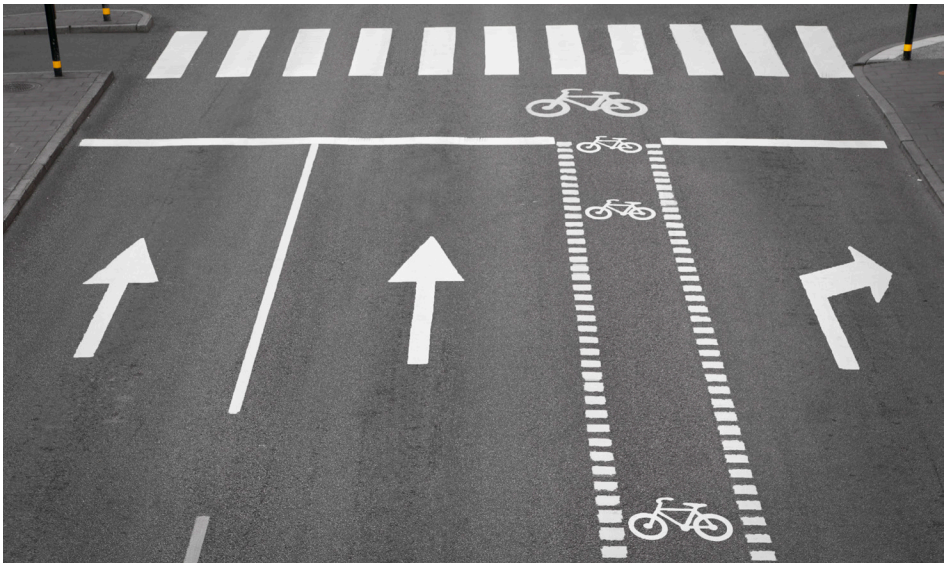
Secure bicycle parking is often identified as critical to increasing the number of people who bicycle to work or school. Transit ridership can be increased at a low cost by eliminating barriers and providing bike parking at rail stations, park-and-ride lots, and other transit hubs. Miami-Dade Transit (MDT) has recognized for many years the connection between bicycle parking and transit service. Bicycle parking facilities (bike racks and bike lockers) have been provided at Metrorail stations since the system was opened in 1983. New racks have been added, as needed, and new lockers installed at the Dadeland South and University stations when station modifications required relocation of old equipment. Lockers are now provided at many of the Metrorail stations. Bike lockers are available for rent for periods of three months, six months and one year at the TPO office at the Stephen P. Clark Center. Renewals for these rentals are processed by mail.

In addition, "last mile" ridership requires a closer look at not simply bicycle parking, but whether alternative methods can be used to reduce localized traffic congestion by providing vehicular parking facilities. Perhaps a driver is willing to drive to the edge of the city, park, and then bike the last mile into the city. "First Mile" alternative transit development applies in the same manner, where, perhaps, a traveler is willing to drive, walk, or bicycle to a hub or transfer facility. Development of facilities to encourage first-and-last mile transit options may require investments in such items as showers, lockers, and bicycle racks.

Future Project Planning

Bicycle and pedestrian connections can be made at multiple levels within a community. From an examination of the existing conditions, and an understanding of this study's vision, an analysis of the system was undertaken. It resulted in creating general categories of need, where future projects could be located. Future project planning can be placed in three main areas:

- The Basic Network
- Local Connectivity
- Regional Access



At the most basic level, it is important to provide sidewalks on streets that have higher traffic volumes and higher concentrations of pedestrians. These frame the residential neighborhoods which will be the origin of each bicycle and pedestrian trip. These are typically the section-line and half-section-line roads, which are set up on a half-mile grid. Roads interior to that grid are generally for local traffic, and the need to provide separate facilities is lower, because traffic volumes are low, and speeds are slow. Connecting major generators of existing and potential pedestrian and bicycle activity with these residential areas is extremely important for mobility. These destinations, or generators, are parks, schools, government facilities and commercial centers. While these would connect to one another as destinations, they need to connect with the origins of the pedestrian and bicycle trips, which are the neighborhoods themselves at the section-line and half-section-line road level. In addition to connecting to the neighborhoods, an adequate system would connect to existing county facilities on the regional network.

The basic network for bicycle and pedestrian planning begins with the section-line and half-section-line grid, on which most thru transportation moves. These rights-of-way are, generally, at least 50-feet wide, and tasked with accommodating all public infrastructure, including roads, sidewalks, bike facilities, water lines, sewer lines, etc.

The basic network in most of the county is on a strict grid. In Cutler Bay, the grid still exists but it becomes curvilinear. This network connects the low-density residential neighborhoods, which do not have sidewalks, to destinations that are the primary aspect of this study to ensure the basic network system is in place.

While it is true that not every street needs a sidewalk, many streets, particularly those that frame the core residential neighborhoods (the origins for bicycle and pedestrian trips) do need and should have sidewalks because of the automobile volumes and speeds that they accommodate. There should be a separation of the pedestrian and bicyclist from the motor vehicle. These roads are more heavily traveled than local streets, are mainly categorized as collectors and arterials, and are primarily defined as thru streets that are section-line or half-section-line roads.

Bicycle and pedestrian facilities located on this basic network would consist of pathways of between 4 feet and 6 feet, on both sides of the right-of-way. They would facilitate short walking and biking trips between origins and destinations in a safe manner.

This basic network brings pedestrian access to the periphery of every neighborhood, and in close proximity to all of the destinations, or generators of bicycle and pedestrian activity. By utilizing these major roadways, many of the important locations throughout the Town, including many schools and parks, would have good coverage to allow safe access to them. By connecting these sites, a user could get to nearly anywhere within the Town on a pedestrian or bicycle facility.

While much of South Dade is thought of as, and is, suburban, the development pattern of Cutler Bay's evidence that the Town has always been slated as a center-of-gravity, in and of itself, and not a suburb of a more urban area. The presence of the Town Center District shows that it is thought of as the Downtown of South Dade. The presence of the Government Center and Performing Arts Center also demonstrates this. The resulting

sidewalk network was also in place prior to Cutler Bay's incorporation. So, the challenge of system enhancement places less emphasis on building new sidewalk, which, in some cases, involves the acquisition of new rights-of-way or the reallocation of existing rights-of-way.

The primary need of sidewalks is in the neighborhood areas just south of SW 184th Street, and between Old Cutler Road and SW 87th Avenue. Otherwise, there are only random areas around the Town that are missing sidewalks. On this network, sidewalk obstructions do exist. Items such as power poles, fire hydrants, guywires, uneven or missing pavement, and intrusive landscaping all create potential hazards which make the use of the system either less comfortable or hazardous. Additionally, there are numerous places that need ADA access ramps where the sidewalks approach an intersection.

There are three primary commercial areas that would benefit from sidewalk connections: 1) the Town Center District; 2) the Old Cutler Road District; and 3) various commercial centers along US-1. Connecting these would often focus on facilitating direct portals from the commercial corridors to the communities behind them. Often, the commercial areas, while immediately adjacent to the residential communities, do not have efficient, and safe connections between these origin and destination points. As such, people are not presented with the ability to walk/bicycle but are forced to take automobile trips which often add to the traffic congestion on the already-congested roadway network. Advanced planning with land use considerations will also provide a better gauge for the level of intervention necessary in improving the overall design of the pedestrian/bicycle network. This could consist of safe and secure pathways from residential neighborhoods to commercial centers. Primary use would come from residents within ¼ mile who choose to walk or bike for short shopping trips rather than drive.

The Regional Access Level would provide connectivity to other sub-regional or inter-city routes. It would be categorized by 4 feet to 6 feet on-road bike lanes on each side of the through roads, or 8 feet to 12 feet-wide bicycle paths. This level would be planned for more experienced cyclists seeking longer trips. This access can be provided by connecting on-road and off-road bicycle facilities through the Town to other communities on all sides. There are many regional facilities that are located in the area. There are about 6 different planned or opened bicycle trails surrounding Cutler Bay. Access can be made through the South Dade Greenway, including the Black Creek Trail, the South Dade Trail, the Old Cutler Road Bike Path, the Princeton Trail, and the Everglades Trail. Other network roadways such as SW 87th Avenue, SW 97th Ave, SW 216th Street and Caribbean Blvd, should be considered. These connections would allow for multi-directional connectivity through the Town as well as east-west connectivity that would link the Old Cutler Road trail with the Busway on US 1.

Completed improvements:

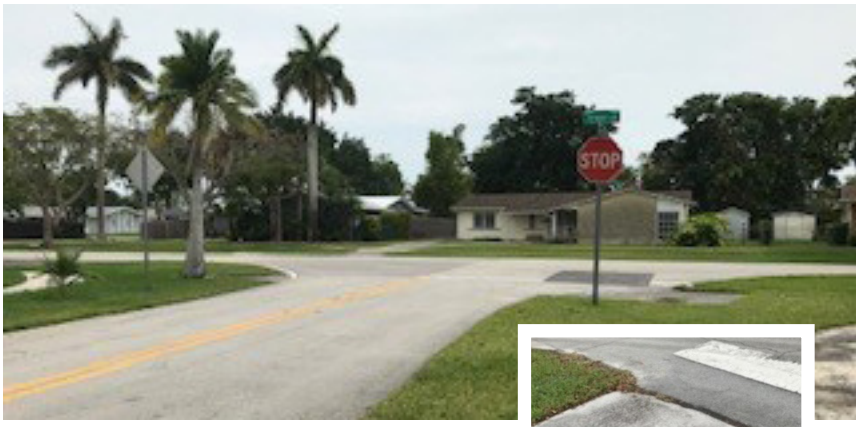
Safe Routes to School completed project Cutler Bay Middle School August 2015

- 21 operational and physical improvements
- Continuation of Town bicycle safety program
- Gulfstream Elementary completed
- Complete Streets Project

Recommended improvements:

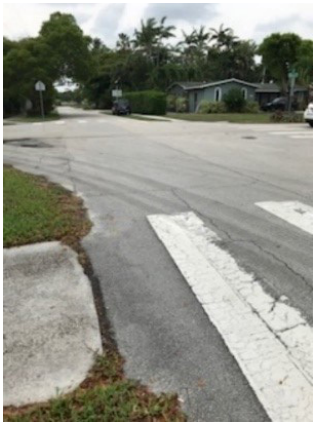
Sidewalk Improvements

- Connect sidewalk on 199 Street from 87 Avenue to Old Cutler Road
- Connect sidewalk along Caribbean Boulevard from SW 87 Avenue to SW 184 Street
- ADA Crosswalks
    - Tiffany Drive and SW 90 Court
    - SW 87 Avenue and SW 184 Terrace
    - SW 192 Drive and 93 Avenue
    - SW 192 Drive and SW 93 Road
    - SW 192 Drive and SW 92 Road
    - SW 93 Avenue and SW 190 Street
    - SW 190 Street and SW 93 Court
    - SW 190 Street and SW 94 Avenue
    - SW 190 Street and SW 95 Avenue
    - SW 189 Terrace and SW 95 Avenue



Recommend Safe Routes to School Project for Whispering Pines Elementary

- Intersection improvements need at:
    - SW 190 Street/SW 89 Road and SW 89 Avenue
    - SW 89 Road and SW 89 Court
    - Ridgeland Drive and SW 89 Road
    - Ridgeland Drive and SW 192 Drive
    - SW 89 Road and SW 187 Terrace
    - SW 89 Court and SW 187 Street
- Midblock crossings and pedestrian refuges/medians
    - SW 87 Avenue
    - Between SW 196 Street and SW 198 Street
    - Between SW 194 Terrace and SW 196 Street
    - At SW 192 Street
    - At SW 189 Street
    - At SW 184 Terrace



Whispering Pines Elementary

- Franjo Road
  - Between SW 193 Drive and Caribbean Boulevard
  - Between Caribbean Boulevard and SW 196 Drive
  - Between SW 89 Street and Old Cutler Road
- Marlin Road
  - Two locations between S. Dixie Highway and Belview Drive
  - Between Nassau Drive and Montego Bay Drive
  - Between Bel Aire Drive and SW 99 Court

The Town is currently preparing construction documents for the following:

- Replace damaged sidewalks
- Construct new concrete sidewalk along SW 82 Avenue on west side from SW 184th Street to SW 184th Terrace
- Inspect and replace any existing ADA ramps that do not meet code; construct new ADA ramps; provide new pavement markings and signage; and include new bicycle share lanes; and permitting with government agencies (DTPW and Town of Cutler Bay) (SW 82 Avenue).

The Town of Cutler Bay has made improvements on Gulfstream Road from Caribbean Boulevard to SW 211th Street. The scope of improvements included milling and resurfacing existing asphalt, sidewalk repair (up to two adjacent houses on the cross street), ADA ramp repairs/replacement with detectable warnings surfaces as needed, installation of curb and gutters at select intersections to control rutting, pavement marking and signage with high-emphasis crosswalks at all intersection, bicycle sharrows, and the installation of two solar, speed check signs. The Town secured funding through the Transportation Alternative Program (TAP) which is administered through Florida Department of Transportation (FDOT) District 6.

Vulnerable Population Road Safety Audits and Recommendations

A Safety Audit was performed for areas surrounding 11 schools and seven assisted-living facilities (ALFs). They resulted in recommendations that a Corridor Safety Study be performed around the sites listed below to mitigate conditions at high crash locations. Three locations-- Bel-Aire Elementary School, ABC Adult Daycare, and Quail Roost Drive Future ALF are particularly concerning having between 267 and 300 crashes over the past 5 years. The following recommendations are based on the audits:

SAFETY IMPROVEMENTS - HIGH CRASH LOCATIONS

Number	Location	Year	Scope of Safety Improvements
1	Bel-Aire Elementary School	2021	Perform Corridor Safety Study to mitigate for high crash location
2	ABC Adult Day Care ALF	2021	Perform Corridor Safety Study to mitigate for high crash location
3	Quail Roost Drive Future ALF	2021	Perform Corridor Safety Study to mitigate for high crash location

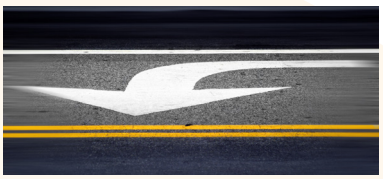
3.2 | ALTERNATIVE MODES PROJECTS

In addition to researching crash data surrounding schools and ALFs in Cutler Bay, existing roadway and pedestrian infrastructure was reviewed in the field. A Road Safety Audit is a systematic process for checking the safety implications of roadways and intersections. The objective is to minimize future crash occurrence and severity by recommending improvements to correct unsafe conditions. Observations were made regarding needed improvements at these locations.

From 2008 through 2014, between 10% and 11% of all crashes involving pedestrians 65 or older in Miami-Dade County occurred within one-quarter mile of assisted living locations. It is recommended that the following improvements be prioritized by the Town due to the vulnerable users near ALFs.

SIGNS: Larger, simpler, and better-placed guide signs and street signs—larger lettering (one inch/33 feet); retroreflective materials; placed well in advance of the "event" (such as an intersection or exit ramp). Confusing and multiple signs need to be eliminated. Signs should be placed higher, overhead, and in advance of upcoming streets to announce these.

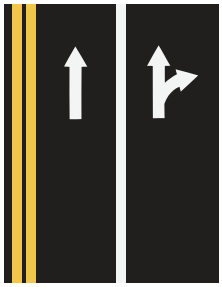
CROSSWALKS: Crosswalks and pedestrian areas, in general, can be made safer by using retroreflective pavement markings to increase visibility; countdown signals so pedestrians know the amount of time needed to safely cross; longer walk times for slower-paced pedestrians (three feet/second); easier-to-reach, and larger buttons with pedestrian signal plaques to help pedestrians properly understand signals. Pedestrian refuge islands at large streets also help.



LEFT-TURN LANES: Having a signalized intersection with an arrow and a left-turn lane (rather than leaving it to the judgment of the driver to determine when there is a sufficient break in traffic) will reduce the number of dangerous "right angle" collisions. "Offset" left turn lanes also improve visibility because the vehicle going in the opposite direction doesn't block the path.

STOP SIGNS: The minimum size of stop signs, regardless of approaching vehicle speed, should be 30 inches to deal with reduced visual acuity in the older population. The retro-reflectivity of stop signs must be maintained, not only so they can be read, but so they will be noticed. "STOP AHEAD" signs are useful in situations where drivers appear not to notice stop signs. In special cases, lines, or rumble strips across the roadway before a stop sign can help alert drivers.

LIGHTING: With age, the lens of the eye becomes less clear, and the pupil shrinks so less light enters the eye. Eyesight begins to worsen at age 40, and by 60, a driver needs three times more light to see as at 16 years of age. Because more light is required to see the same objects with age, better lighting for both highways and city streets is needed.



PAVEMENT MARKINGS: Brighter road markings—edge markings and other pavement markings should be retroreflective so drivers can see curbs, lanes, and intersections/crosswalks more easily (to avoid hitting curbs or pedestrians and to stay within lanes). "Run off the road" crashes would be reduced.

TRAFFIC SIGNALS: Larger traffic signal heads—the diameter should be at least eight inches, but larger signal heads (12 inches) may be needed in some locations. Back plates for traffic signals (to provide more contrast) also improve visibility because "contrast sensitivity" decreases with age. "All red" periods for traffic signals allow for a margin of error. "No right turn on red (RTOR)" at an intersection(s) can also improve safety if vehicles turning right at an intersection have to encounter heavy volume along the roadway in which they intend to turn right onto. However, no RTOR may also negatively impact capacity, creating longer queues and longer delays. Utilizing electronic messaging RTOR signs that operate during off-peak hours only could be a solution.

3.2 | ALTERNATIVE MODES PROJECTS

SLOW DOWN: Reduce vehicle travel speeds in areas where vehicles and pedestrians interact and where older drivers and pedestrians need more time to make decisions and execute changes. Speed matters! This is especially true at intersections where vehicles and pedestrians interact and where older drivers need more time to react to traffic and execute turns. Half of all older driver deaths occur at intersections. Roads can be engineered for slower speeds through changes to curb radii, lane widths, or replacement of typical intersections with roundabouts.

ALTERNATIVE MODES PROJECTS (Bicycle and Pedestrian) and Vulnerable Population Projects Listing

#	Project	Purpose	Need
1	Pedestrian Promenade US 1	Create a Pedestrian Promenade along the east side of U.S. 1 / S. Dixie Hwy	Improve access to transit and provides for better pedestrian safety, especially for the disabled and elderly near the ALFs
2	Educational Promotional Bike & Pedestrian Safety	Encouraging parents to allow their children to walk or bike to school and/or recreation areas.	Provides for better pedestrian and bicyclist safety
3	Bike Lane	SW 87 Avenue, SW 184 Street, Franjo Road, Marlin Road, Gulfstream Road, SW 216 Street, SW 97th Ave. between SW 216th Street and SW 212th Street, from Performing Arts Center to Black Creek Trail, shared use paths.	• Providing more experienced cyclists with paths for longer trips through the community, connecting with regional facilities, eventually encouraging cycling commuters. • Providing less experienced cyclists with appropriately located safe paths that connect desirable local origins and destinations, eventually encouraging short trips on the system for shopping, entertainment, and recreational uses. • Providing connections between parks and schools, and residential neighborhoods.
4	Sidewalk infill/removal of obstructions Town-wide	Town wide: Sidewalk obstruction removal	• Where feasible assure facilities are free of obstructions such as broken, uneven, or worn paths, intrusive vegetation, or misplaced essential infrastructure, such as fire hydrants, power poles and guy wires, etc. • Connecting the municipal bicycle and pedestrian network with the County network and potential networks in other cities.
5	Sidewalk Infill	Explore feasibility of extending sidewalk connectivity on the west side of Old Cutler Road between SW 184th Street and SW 87th Ave.	

ALTERNATIVE MODES PROJECTS (Bicycle and Pedestrian) and Vulnerable Population Projects Listing			
#	**Project**	**Purpose**	**Need**
6	Bike Share/E-Scooter	Explore implementation of bike share/ e scooter program	Multi-mobility
7	Sidewalk Improvements	Connect sidewalk on 199 Street from 87 Avenue to Old Cutler Road	Provide for better pedestrian connectivity.
8	Sidewalk Improvements	Connect sidewalk along Caribbean Boulevard from SW 87 Avenue to SW 184 Street	Provide for better pedestrian connectivity.
9	ADA Crosswalk	Tiffany Drive and SW 90 Court	Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs
		SW 87 Avenue and SW 184 Terrace	
		SW 192 Drive and 93 Avenue	
		SW 192 Drive and SW 93 Road	
		SW 192 Drive and SW 92 Road	
		SW 93 Avenue and SW 190 Street	
		SW 190 Street and SW 93 Court	
		SW 190 Street and SW 94 Avenue	
		SW 190 Street and SW 95 Avenue	
		SW 189 Terrace and SW 95 Avenue	
10	Safe Routes to School- Whispering Pines Elem	Intersection improvement need at:	Provides for better pedestrian and bike safety
		SW 190 St/SW 89 Rd & SW 89 Av	
		SW 89 Road and SW 89 Court	
		Ridgeland Drive and SW 89 Road	
		Ridgeland Drive and SW 192 Drive	
		SW 89 Road and SW 187 Terrace	
		SW 89 Court and SW 187 Street	
11	Midblock crossings and pedestrian refuges/medians	SW 87 Avenue	Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs
		• between SW 196 St & SW 198 St	
		• between SW 194 Terr & SW 196 St	
		• at SW 192 Street	
		• at SW 189 Street	
		• at SW 184 Terrace	
		Marlin Road	

ALTERNATIVE MODES PROJECTS (Bicycle and Pedestrian) and Vulnerable Population Projects Listing			
#	Project	Purpose	Need
12	Lighting Town- Wide	Conduct town-wide lighting study	Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs
13	Update Bike Ped Master Plan	Conduct town-wide master plan	Provides for better pedestrian and bike safety, especially for the disabled and elderly near the ALFs
14	Intersection Improvements	Install pedestrian signals where necessary in the Town.	Pedestrian signals enhance the safety of the pedestrian environment at crosswalks, especially proximate to the ALFs and schools.
15	Golf Cart Safety Program	Implement Golf Cart Safety Program	Citizen Request
16	In Road Warning Lights/ Pedestrian Hybrid Beacons	Explore feasibility of installation of IRWL/PHB at midblock crossings	Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs
17	Install Guardrails Where Drainage Inlets are Near Sidewalks where maximum drop-off height is exceeded	Drainage inlets next to sidewalks are a safety hazard, especially combined with low lighting and where disabled and elderly regularly walk	Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs
18	Increase Visibility of Curbs, Lanes and Crosswalks Near ALFs	Brighter road markings—edge markings and other pavement markings should be retroreflective so drivers can see curbs, lanes, and intersections/crosswalks more easily	Provides for increased safety for drivers that are experiencing some sight loss due to age
19	Enhance Stop Signs	Enhance private stop sign inside ALF communities.	Provides for increased safety for drivers that are experiencing some sight loss due to age

3.3 | POLICY, TECHNOLOGY, & RESILIENCY INITIATIVES

This section of the report focuses on policy initiatives to help mitigate a lack of mobility. They generally involve working across political boundaries on common problems and initiatives with regional impacts. Options for a wide range of policies are provided in the areas of Transportation, Land Use, Housing, and Economic Development.

Land Use

The Town should partner with State, local, and private partners to support Transit Oriented Development (TOD) in the Town Center (TC) and Transit Oriented Corridor (TOC) Zoning Districts. Promoting TOD supports not only transit ridership but also economic development, maximizing the efficient use of transportation infrastructure. Land use policies can help direct potential growth to very specific sectors of the Town. All development does not create the same impacts to the transportation network. It is widely known that more single-occupancy vehicle traffic is created by low-density, single-family home development. Less roadway traffic is created through higher-density, multifamily development in transportation corridors.

Preserving and expanding affordable housing is important, and a special concern for development around transit because lower-income transit users often represent the ridership base. Local agencies should link transit funding with the provision of affordable housing so that they reinforce each other.

Housing

South Dade has an affordable housing crisis. This housing is often far from employment centers, so working families have very difficult choices about where to live, forcing them to move to places with fewer transportation options. The Town should continue to adopt policies that provide incentives for affordable housing development in areas with good access to jobs, educational facilities, and everyday amenities, particularly to reduce the housing-cost burden of those who are less affluent. Policies should also provide for improved pedestrian movement, streetscape improvements and installation of bike infrastructure.

Economic Development

The Town should also create policies to help improve access to jobs with increased transit, rideshare, employer shuttles, and more. In addition to benefiting low-income workers, expanding transit access benefits employers by expanding the pool of workers. Channeling future job growth in the TC and TOC zoning districts, specifically growth in well-paid, entry-level jobs, will allow those jobs to be more accessible to people in need. Creating an Economic Development Plan will help identify sectors in which jobs are needed in the area, thereby reducing the number of work trips outside of the Town.

Covid-19 has affected travel patterns everywhere. With an increased shift in telecommuting, peak-period traffic and congestion have been reduced. According to the Miami-Dade TPO Telecommute Study Final Report, there is a possibility that 16% of workers will telecommute indefinitely. With this in mind, LOS may actually improve within certain corridors.

TABLE 3
ROADWAY LEVEL OF SERVICE- FUTURE CONDITIONS (2030) WITH 16% TELECOMMUTE REDUCTION

ROADWAY	LIMITS	POSTED SPEED LIMIT	FACILITY TYPE	FUNCTIONAL CLASSIFICATION JURISDICTION	2020 AVERAGE ANNUAL DAILY TRAFFIC	2020 PEAK HOUR T WO-WAY TRAFFIC	COVID-19 TELE- COMMUTE FACTOR	MODIFIED 2020 AVERAGE ANNUAL DAILY TRAFFIC	MODIFIED 2020 PEAK HOUR TWO WAY TRAFFIC	AVERAGE ANNUAL GROWTH RATE	2030 AVERAGE ANNUAL DAILY TRAFFIC	2030 PEAK HOUR TWO-WAY TRAFFIC	LOS STANDARD	RESULTING LOS PEAK HOUR TWO-WAY TRAFFIC	AVAILABLE CAPACITY	PEAK HOUR TWO-WAY FDOT LOS MANUAL VOLUME THRESHOLDS (VPH)		
																LOS C	LOS D	LOS E
SW 184 St	Turnpike to SW 137 Ave.	40	4LD	Minor Arterial	30,584	2,193	16%	25,690	1,842	0.39%	26,710	1915	E	< C	1307	3078	3222	**
	US-1 to Turnpike	40	4LD		21,690	1,621	16%	18,219	1,362	0.76%	19,652	1469	D	< C	1753	3078	3222	**
	SW 97 Ave. to US-1	40	4LD		6,164	610	16%	5,178	512	1.35%	5,921	586	D	< C	2636	3078	3222	**
	SW 97 Ave. to Old Cutler	40	2L		6,164	610	16%	5,178	512	1.17%	5,816	576	D	< C	864	1359	1440	**
Caribbean Blvd (SW 200th Street)	SW 117 Ave. to SW 110 Ave.	30	2L	Collector	9,898	990	16%	8,314	831	1.15%	9,321	932	E	D	247	594	1179	1269
	SW 110 Ave. to US-1	30	4LD		9,898	990	16%	8,314	831	0.61%	8,836	884	E	< C	1744	1179	2628	2736
	US-1 to Fla TKP	30	4LD		9,898	990	16%	8,314	831	0.32%	8,584	858	E	< C	1770	1179	2628	2736
	Fla TKP to Marlin Rd.	30	2L		13,635	2,735	16%	11,453	2,297	1.28%	13,007	2609	D	F	-1430	594	1179	1269
	Marlin Rd. to Franjo Rd.	30	2L		13,635	2,735	16%	11,453	2,297	0.39%	11,908	2389	D	F	-1210	594	1179	1269
	Franjo Rd. to SW 87 Ave.	30	2L		4,843	492	16%	4,068	413	2.78%	5,351	544	D	< C	635	594	1179	1269
	SW 87 Ave. to SW 184 St.	30	2L		1,295	202	16%	1,088	170	1.32%	1,240	193	D	< C	986	594	1179	1269
SW 211 St	SW 117 Ave. to US-1	35	4LD	Collector	13,736	1,374	16%	11,538	1,154	0.25%	11,830	1183	E	D	1445	1179	2628	2736
	US-1 to SW 112 Ave.	35	4LD		16,665	1,679	16%	13,999	1,410	2.71%	18,290	1843	E	D	785	1179	2628	2736
	SW 112 Ave. to SR 821	35	4LD		16,665	1,679	16%	13,999	1,410	4.94%	22,672	2284	E	D	344	1179	2628	2736
SW 212 St	SW 87 Ave. to SW 85 Ave.	30	4LD	Local	3,358	483	16%	2,821	406	2.63%	3,657	526	D	< C	2102	1179	2628	2736
SW 216 St	SR 821 to Old Cutler Rd.	35	4LD	Minor Arterial	17,056	2,628	16%	14,327	2,208	1.32%	16,334	2517	E	D	111	1179	2628	2736
	Old Cutler Rd. to SW 87 Ave.	35	4LD	Collector	16,887	2,628	16%	14,185	2,208	1.67%	16,740	2605	D	D	23	1179	2628	2736
SW 85 Ave	Old Cutler Rd. to SW 211 St.	35	4LD	Local	3,915	391	16%	3,289	328	0.40%	3,423	342	D	< C	2286	1179	2628	2736
Old Cutler Rd	SR 821 to SW 216 St.	35	2L	Minor Arterial	15,857	1,586	16%	13,320	1,332	1.07%	14,816	1482	E	F	-285	594	1197	1269
	SW 216 St. to Marlin Rd.	30	2L		15,857	2,081	16%	13,320	1,748	1.75%	15,843	2079	E	F	-882	594	1197	1269
	Marlin Rd. to 87 Ave.	40	2L		15,857	1,438	16%	13,320	1,208	1.28%	15,126	1372	E	D	68	1359	1440	**
	SW 87 Ave. to SW 184 St.	40	2L		17,170	1,438	16%	14,423	1,208	0.77%	15,573	1304	E	D	136	1359	1440	**
	SW 184 St. to SW 168 Ave.	40	2L		23,735	781	16%	19,937	656	1.19%	22,441	738	E	< C	702	1359	1440	**

TABLE 3 CONTINUE NEXT PAGE

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ROADWAY	LIMITS	POSTED SPEED LIMIT	FACILITY TYPE	FUNCTIONAL CLASSIFICATION JURISDICTION	2020 AVERAGE ANNUAL DAILY TRAFFIC	2020 PEAK HOUR T WO-WAY TRAFFIC	COVID-19 TELE- COMMUTE FACTOR	MODIFIED 2020 AVERAGE ANNUAL DAILY TRAFFIC	MODIFIED 2020 PEAK HOUR TWO-WAY TRAFFIC	AVERAGE ANNUAL GROWTH RATE	2030 AVERAGE ANNUAL DAILY TRAFFIC	2030 PEAK HOUR TWO-WAY TRAFFIC	LOS STANDARD	RESULTING LOS PEAK HOUR TWO-WAY TRAFFIC	AVAILABLE CAPACITY	PEAK HOUR TWO-WAY FDOT LOS MANUAL VOLUME THRESHOLDS (VPH)		
																LOS C	LOS D	LOS E
SR 821	SW 216 St. to SW 211 St.	60	4LD	Limited Access Freeway / State	98,879	3,779	16%	83,058	3,174	2.08%	102,045	3900	D	< C	2900	5640	6800	7420
	SW 211 St. to Caribbean Blvd	60	4LD		98,879	3,779	16%	83,058	3,174	1.94%	100,654	3847	D	< C	2953	5640	6800	7420
	Caribbean Blvd to US-1	60	6LD		146,450	3,779	16%	123,018	3,174	1.79%	146,899	3791	D	< C	6329	8310	10120	11150
	US-1 to Quail Roost Rd.	60	6LD		146,450	3,779	16%	123,018	3,174	1.79%	146,899	3791	D	< C	6329	8310	10120	11150
Gulfstream Road	Old Cutler Rd. to Caribbean Blvd.	30	2L	Local	1,982	202	16%	1,665	170	0.92%	1,825	186	D	< C	1011	594	1197	1269
	Caribbean Blvd to Marlin Rd.	30	2L		3,419	342	16%	2,872	288	0.50%	3,019	302	D	< C	895	594	1197	1269
	Marlin Rd. to Franjo Rd.	30	2L		4,154	446	16%	3,489	375	0.10%	3,524	379	D	< C	818	594	1197	1269

TABLE 4
ROADWAY LEVEL OF SERVICE- FUTURE CONDITIONS (2030) WITH 16% TELECOMMUTE REDUCTION

ROADWAY	LIMITS	POSTED SPEED LIMIT	FACILITY TYPE	FUNCTIONAL CLASSIFICATION JURISDICTION	2020 AVERAGE ANNUAL DAILY TRAFFIC	2020 PEAK HOUR T WO-WAY TRAFFIC	COVID-19 TELE- COMMUTE FACTOR	MODIFIED 2020 AVERAGE ANNUAL DAILY TRAFFIC	MODIFIED 2020 PEAK HOUR TWO-WAY TRAFFIC	AVERAGE ANNUAL GROWTH RATE	2030 AVERAGE ANNUAL DAILY TRAFFIC	2030 PEAK HOUR TWO-WAY TRAFFIC	LOS STANDARD	RESULTING LOS PEAK HOUR TWO-WAY TRAFFIC	AVAILABLE CAPACITY	PEAK HOUR TWO-WAY FDOT LOS MANUAL VOLUME THRESHOLDS (VPH)		
																LOS C	LOS D	LOS E
Marlin Rd	Old Cutler Rd. to Caribbean Blvd.	30	2L	Collector	7,878	788	16%	6,618	662	1.60%	7,756	776	D	D	421	594	1197	1269
	Caribbean Blvd to SW 97 Ave.	30	2L		7,878	788	16%	6,618	662	1.35%	7,567	757	D	D	440	594	1197	1269
	SW 97 Ave. to US-1	30	4LD		7,878	788	16%	6,618	662	1.07%	7,361	736	E	D	461	594	1197	1269
	US-1 to SW 184 St.	30	4LD		24,163	1,941	16%	20,297	1,630	1.62%	23,836	1915	E	F	-718	594	1197	1269
Franjo Rd.	Old Cutler Rd. to Caribbean Blvd.	30	2L	Collector	11,817	1,182	16%	9,926	993	0.20%	10,127	1013	D	D	184	594	1197	1269
	Caribbean Blvd to SW 184 St.	30	2L		11,817	1,182	16%	9,926	993	0.50%	10,434	1043	D	D	154	594	1197	1269

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ROADWAY	LIMITS	POSTED SPEED LIMIT	FACILITY TYPE	FUNCTIONAL CLASSIFICATION JURISDICTION	2020 AVERAGE ANNUAL DAILY TRAFFIC	2020 PEAK HOUR T WO-WAY TRAFFIC	COVID-19 TELE- COMMUTE FACTOR	MODIFIED 2020 AVERAGE ANNUAL DAILY TRAFFIC	MODIFIED 2020 PEAK HOUR TWO-WAY TRAFFIC	AVERAGE ANNUAL GROWTH RATE	2030 AVERAGE ANNUAL DAILY TRAFFIC	2030 PEAK HOUR TWO-WAY TRAFFIC	LOS STANDARD	RESULTING LOS PEAK HOUR TWO-WAY TRAFFIC	AVAILABLE CAPACITY	PEAK HOUR TWO-WAY FDOT LOS MANUAL VOLUME THRESHOLDS (VPH)		
																LOS C	LOS D	LOS E
SW 87 Ave	SW 248 St. to SW 232 St.	35	2L	Collector	2,180	203	16%	1,831	171	0.50%	1,924	179	D	< C	1018	594	1197	1269
	SW 232 St. to SW 216 St.	35	2L		8,787	957	16%	7,381	804	0.79%	7,985	870	D	D	327	594	1197	1269
	SW 216 St. to Old Cutler Rd.	35	2L		8,787	957	16%	7,381	804	1.17%	8,292	903	D	D	294	594	1197	1269
	Old Cutler Rd. to Caribbean Blvd.	35	2L		9,999	1,000	16%	8,399	840	1.13%	9,398	940	D	D	257	594	1197	1269
	Caribbean Blvd to SW 184 St.	35	2L		9,999	1,000	16%	8,399	840	1.18%	9,445	944	D	D	253	594	1197	1269
	SW 184 St. to SW 174 St.	35	2L		9,999	1,000	16%	8,399	840	1.08%	9,352	935	D	D	262	594	1197	1269
US-1	SW 211 St. to Caribbean Blvd	45	6LD	Principal Arterial / State	56,738	3,565	16%	47,660	2,995	0.37%	49,453	3108	1.2(E)	< C	472	3420	3580	**
	Caribbean Blvd to Marlin Rd.	45	6LD		56,738	3,565	16%	47,660	2,995	0.32%	49,207	3092	1.2(E)	< C	488	3420	3580	**
	Marlin Rd. to SW 184 St.	45	6LD		56,738	3,565	16%	47,660	2,995	0.09%	48,090	3022	1.2(E)	< C	558	3420	3580	**

TABLE 5

ROADWAY LEVEL OF SERVICE- FUTURE CONDITIONS (2045) WITH 16% TELECOMMUTE REDUCTION

ROADWAY	LIMITS	POSTED SPEED LIMIT	FACILITY TYPE	FUNCTIONAL CLASSIFICATION JURISDICTION	AVERAGE ANNUAL GROWTH RATE	AVERAGE ANNUAL DAILY TRAFFIC	PEAK HOUR TWO-WAY TRAFFIC	LOS STANDARD	RESULTING LOS PEAK HOUR TWO-WAY TRAFFIC	AVAILABLE CAPACITY	PEAK HOUR TWO-WAY FDOT LOS MANUAL VOLUME THRESHOLDS (VPH)		
											LOS C	LOS D	LOS E
SW 184 St.	Turnpike to SW 137 Ave.	40	4LD	Minor Arterial	0.39%	28,316	2030	E	< C	1192	3078	3222	**
	US-1 to Turnpike	40	4LD		0.76%	22,016	1645	D	< C	1577	3078	3222	**
	SW 97 Ave. to US-1	40	4LD		1.35%	7,240	717	D	< C	2505	3078	3222	**
	SW 97 Ave. to Old Cutler	40	2L		1.17%	6,925	685	D	< C	755	1359	1440	**
Caribbean Blvd (SW 200 St.)	SW 117 Ave. to SW 110 Ave.	30	2L	Collector	1.15%	11,066	1107	E	D	72	594	1179	1269
	SW 110 Ave. to US-1	30	4LD		0.61%	9,680	968	E	< C	1660	1179	2628	2736
	US-1 to Fla TKP	30	4LD		0.32%	9,006	901	E	< C	1727	1179	2628	2736
	Fla TKP to Marlin Rd.	30	2L		1.28%	15,741	3157	D	F	-1978	594	1179	1269

TABLE 5 CONTINUE NEXT PAGE

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ROADWAY	LIMITS	POSTED SPEED LIMIT	FACILITY TYPE	FUNCTIONAL CLASSIFICATION JURISDICTION	AVERAGE ANNUAL GROWTH RATE	AVERAGE ANNUAL DAILY TRAFFIC	PEAK HOUR TWO-WAY TRAFFIC	LOS STANDARD	RESULTING LOS PEAK HOUR TWO-WAY TRAFFIC	AVAILABLE CAPACITY	PEAK HOUR TWO-WAY FDOT LOS MANUAL VOLUME THRESHOLDS (VPH)		
											LOS C	LOS D	LOS E
Caribbean Blvd (SW 200 St.)	Marlin Rd. to Franjo Rd.	30	2L		0.39%	12,624	2532	D	F	-1353	594	1179	1269
	Franjo Rd. to SW 87 Ave.	30	2L		2.78%	8,074	820	D	D	359	594	1179	1269
	SW 87 Ave. to SW 184 St.	30	2L		1.32%	1,510	236	D	< C	943	594	1179	1269
SW 211 St.	SW 117 Ave. to US-1	35	4LD	Collector	0.25%	12,281	1228	E	D	1400	1179	2628	2736
	US-1 to SW 112 Ave.	35	4LD		2.71%	27,315	2752	E	F	-124	1179	2628	2736
	SW 112 Ave. to SR 821	35	4LD		4.94%	46,732	4708	E	F	-2080	1179	2628	2736
SW 212 St.	SW 87 Ave. to SW 85 Ave.	30	4LD	Local	2.63%	5,398	776	D	< C	1852	1179	2628	2736
SW 216 St.	SR 821 to Old Cutler Rd.	35	4LD	Minor Arterial	1.32%	19,885	3064	E	F	-436	1179	2628	2736
	Old Cutler Rd. to SW 87 Ave.	35	4LD	Collector	1.67%	21,461	3340	D	F	-712	1179	2628	2736
SW 85 Ave.	Old Cutler Rd. to SW 211 St.	35	4LD	Local	0.40%	3,634	363	D	< C	2265	1179	2628	2736
Old Cutler Rd.	SR 821 to SW 216 St.	35	2L	Minor Arterial	1.07%	17,380	1738	E	F	-541	594	1197	1269
	SW 216 St. to Marlin Rd.	30	2L		1.75%	20,552	2697	E	F	-1500	594	1197	1269
	Marlin Rd. to 87 Ave.	40	2L		1.28%	18,306	1660	E	F	-220	1359	1440	**
	SW 87 Ave. to SW 184 St.	40	2L		0.77%	17,472	1463	E	F	-23	1359	1440	**
	SW 184 St. to SW 168 Ave.	40	2L		1.19%	26,798	882	E	< C	558	1359	1440	**
SR 821	SW 216 St. to SW 211 St.	60	4LD	Limited Access Freeway / State	2.08%	138,963	5311	D	< C	1489	5640	6800	7420
	SW 211 St. to Caribbean Blvd	60	4LD		1.94%	134,276	5132	D	< C	1668	5640	6800	7420
	Caribbean Blvd. to US-1	60	6LD		1.79%	191,689	4946	D	< C	5174	8310	10120	11150
	US-1 to Quail Roost Rd.	60	6LD		1.79%	191,689	4946	D	< C	5174	8310	10120	11150
Gulfstream Road	Old Cutler Rd. to Caribbean Blvd.	30	2L	Local	0.92%	2,094	213	D	< C	984	594	1197	1269
	Caribbean Blvd. to Marlin Rd.	30	2L		0.50%	3,254	326	D	< C	871	594	1197	1269
	Marlin Rd. to Franjo Rd.	30	2L		0.10%	3,578	384	D	< C	813	594	1197	1269

TABLE 6
ROADWAY LEVEL OF SERVICE- FUTURE CONDITIONS (2045) WITH 16% TELECOMMUTE REDUCTION

ROADWAY	LIMITS	POSTED SPEED LIMIT	FACILITY TYPE	FUNCTIONAL CLASSIFICATION JURISDICTION	AVERAGE ANNUAL GROWTH RATE	AVERAGE ANNUAL DAILY TRAFFIC	PEAK HOUR TWO-WAY TRAFFIC	LOS STANDARD	RESULTING LOS PEAK HOUR TWO-WAY TRAFFIC	AVAILABLE CAPACITY	PEAK HOUR TWO-WAY FDOT LOS MANUAL VOLUME THRESHOLDS (VPH)		
											LOS C	LOS D	LOS E
Marlin Rd	Old Cutler Rd. to Caribbean Blvd.	30	2L	Collector	1.60%	9,841	984	D	D	213	594	1197	1269
	Caribbean Blvd. to SW 97 Ave.	30	2L		1.35%	9,253	925	D	D	272	594	1197	1269
	SW 97 Ave. to US-1	30	4LD		1.07%	8,635	863	E	D	334	594	1197	1269
	US-1 to SW 184 St.	30	4LD		1.62%	30,333	2437	E	F	-1240	594	1197	1269
Franjo Rd.	Old Cutler Rd. to Caribbean Blvd.	30	2L	Collector	0.20%	10,435	1043	D	D	154	594	1197	1269
	Caribbean Blvd. to SW 184 St.	30	2L		0.50%	11,244	1124	D	D	73	594	1197	1269
SW 87 Ave.	SW 248 St. to SW 232 St.	35	2L	Collector	0.50%	2,074	193	D	< C	1004	594	1197	1269
	SW 232 St. to SW 216 St.	35	2L		0.79%	8,986	979	D	D	218	594	1197	1269
	SW 216 St. to Old Cutler Rd.	35	2L		1.17%	9,872	1075	D	D	122	594	1197	1269
	Old Cutler Rd. to Caribbean Blvd.	35	2L		1.13%	11,123	1112	D	D	85	594	1197	1269
	Caribbean Blvd. to SW 184 St.	35	2L		1.18%	11,262	1126	D	D	71	594	1197	1269
	SW 184 St. to SW 174 St.	35	2L		1.08%	10,987	1099	D	D	98	594	1197	1269
US-1	SW 211 St. to Caribbean Blvd.	45	6LD	Principal Arterial / State	0.37%	52,270	3285	1.2(E)	< C	295	3420	3580	**
	Caribbean Blvd. to Marlin Rd.	45	6LD		0.32%	51,623	3244	1.2(E)	< C	336	3420	3580	**
	Marlin Rd. to SW 184 St.	45	6LD		0.09%	48,744	3063	1.2(E)	< C	517	3420	3580	**

Accessible Transportation Technology:

Transportation is the key to access to employment, education, healthcare, and the overall quality of life. Access to public transportation gives people, especially those with disabilities, greater independence. However, people with disabilities can face additional hurdles: physical barriers such as crossing streets and inaccessible sidewalks, as well as difficulties planning accessible routes.

The USDOT is funding six technology innovations in three technology areas under its Accessible Transportation Technology Research Initiative (ATTRI) to make the transportation system easier to use for people with disabilities.

- Wayfinding and Navigation applications guide wheelchair users and people with visual impairments along routes using smart phone applications and other assistive technologies.
- A Pre-trip and Concierge application suite supports pre-trip planning for individuals with cognitive disabilities.
- The Safe Intersection Crossing application uses vehicle technology to connect pedestrians with the traffic signal system to improve the safety of intersection crossings and increase independent mobility.

In addition, applications in a fourth technology area, Robotic and Automation, are being funded in partnership with The National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR). Together, these innovations will increase independent mobility for people with disabilities and ultimately benefit all travelers.

With the implementation of these adaptations, those with disabilities can plan and book trips across town using the pre-trip concierge system, funded by ATTRI. In the future scenario (shown below), a shuttle will take them to the transit station and an assistive robot will help them board the vehicle. Through the wayfinding application, people will receive direction on when to press the stop button on the vehicle and receive turn-by-turn walking directions to the destination. They can use a "Smart Cane" tool to navigate through the route, avoiding a closed sidewalk and locating the best entry to a building. As they approach an intersection, a safe intersection crossing application will communicate with the traffic signal to allow sufficient time to cross the street and notify them when it is safe to begin crossing. When they are ready to make the return trip, the pre-trip concierge application will help plan the trip home. This technology is good for those with disabilities and anyone who may need assistance finding their way around. This is particularly attractive in tourist-oriented communities.

THE COMPLETE TRIP

After his doctor's appointment, Andy decides to take a spontaneous trip to meet a friend at a coffee shop in an unfamiliar part of town. Using ATTRI's **pre-trip concierge**, **wayfinding and navigation**, **robotics and automation**, and **safe intersection crossing** applications, Andy can travel with confidence throughout his trip.

1. Plan and Book a Trip

Andy uses a **pre-trip concierge application** to plan and book his trip from the doctor's office to the coffee shop.

2. Travel to Transit Station

An **automated shuttle** (rideshare service) is dispatched to take Andy to the transit station based on his booked trip. Once there, an **assistive robot** helps Andy to his bus platform.

3. Ride the Bus

While on the bus, Andy receives direction on when to pull the Stop Request cord from his **wayfinding and navigation application**. After he departs the bus, the application provides Andy with turn-by-turn walking directions to the coffee shop.

4. Cross the Street

As Andy approaches an intersection, his **safe intersection crossing application** communicates with the traffic signal to ensure sufficient time for him to safely cross the street, and notifies him when it is safe to begin crossing. The application also communicates with nearby cars to notify them of Andy's presence in the intersection.

5. Arrival at Destination

Andy safely arrives at his destination, while the **pre-trip concierge application** plans his return trip home.

3.3 | POLICY, TECHNOLOGY, & RESILIENCY INITIATIVES

INDIVIDUAL PROJECTS ARE DETAILED IN THE NEXT TASK, TASK 4: DEVELOPMENT OF POTENTIAL PROJECTS

POLICY, TECHNOLOGY & RESILIENCY PROJECTS			
#	Project	Purpose	Need
1	Golf Cart Safety Program	Re-examination of Town Ordinance	Citizen Request
2	Mobility Fee	Explore mobility fee	Fund transportation improvements related to all types of mobility.
3	Promote Local Economic Development	Explore Economic Development Study for the Town and adoption of policies and goals to increase local jobs and service sector opportunities.	Providing more needed services locally and local jobs will help address trends of high flow through traffic and increasing travel times to work found in analysis
4	Traffic Enforcement	Provide a higher level of traffic enforcement at certain locations	
5	Continue Town-wide Streetscape Program	Continue to evaluate main corridor rights of way and implement street scape programs, including street trees, benches, trash cans, recycle, lighting, and other street furniture	Aesthetics are important to enhance the character of the Town and are vital for the development of the pedestrian and bicycling modes of travel.
6	Actively coordinate with other governments and agencies	Coordinate with other regional governments to help plan the regional network	Many issues impacting Cutler Bay also impact all of South Dade and the US-1 Corridor. Coordination and communication with neighboring communities will help arrive at common solutions for common problems.
7	Support connecting all County Greenways	Support connecting all County greenways	Provides for a connected system which enhances bicycling/pedestrian mobility regionally.
8	Adopt and encourage further development of the County Bicycle Network	Support Miami-Dade County in development of additional bicycling infrastructure in the South Dade Area.	Additional linkages connected to the Town's bicycling infrastructure will increase bicycling mobility and provides for increased regional access.
9	Liaison with South Florida Commuter Services	Liaise with the South Florida Commuter Services regarding programs usable or needed by Town residents.	Promote ride-sharing options for commuters.
10	Bicycle/Pedestrian Committee	Implement a Bicycle/Pedestrian Committee, to meet on a quarterly basis.	Allows Citizens to provide regular feedback for consideration by the Town on pedestrian/ bicycling projects, facility maintenance, and plan implementation. From 2008 Master Plan.
11	Coordinate with Miami Dade County and Palmetto Bay in regard to the future development of SW 184th St.	Coordinate with County and Palmetto Bay in regard to the future development of SW 184th St.	SW 184th St. is on the border with Palmetto Bay; as an arterial, considerations of flow-through traffic from the rest of the County is important for the road's future development.
12	Maintain Local Agency Program Certification	Maintain FDOT Local Agency certification to assist in funding processes for transportation projects.	LAP certification is necessary for many funding grants from FDOT, and must be renewed every 3 years (2015, 2018). Continuation from 2008 Master Plan.
13	Search for Federal Partnerships on pilot transit/ transportation programs	Research and apply for federal monies to enact local transportation/transit programs.	Grant monies will assist the Town in completing necessary improvements in a timely manner.
14	Technology	Explore 5G networks/Broadband Infrastructure/Optimize access for teleworkers	Partner with wireless carriers to expand 5G network throughout the Town and offer free WiFi in public spaces. Reduce traffic congestion.

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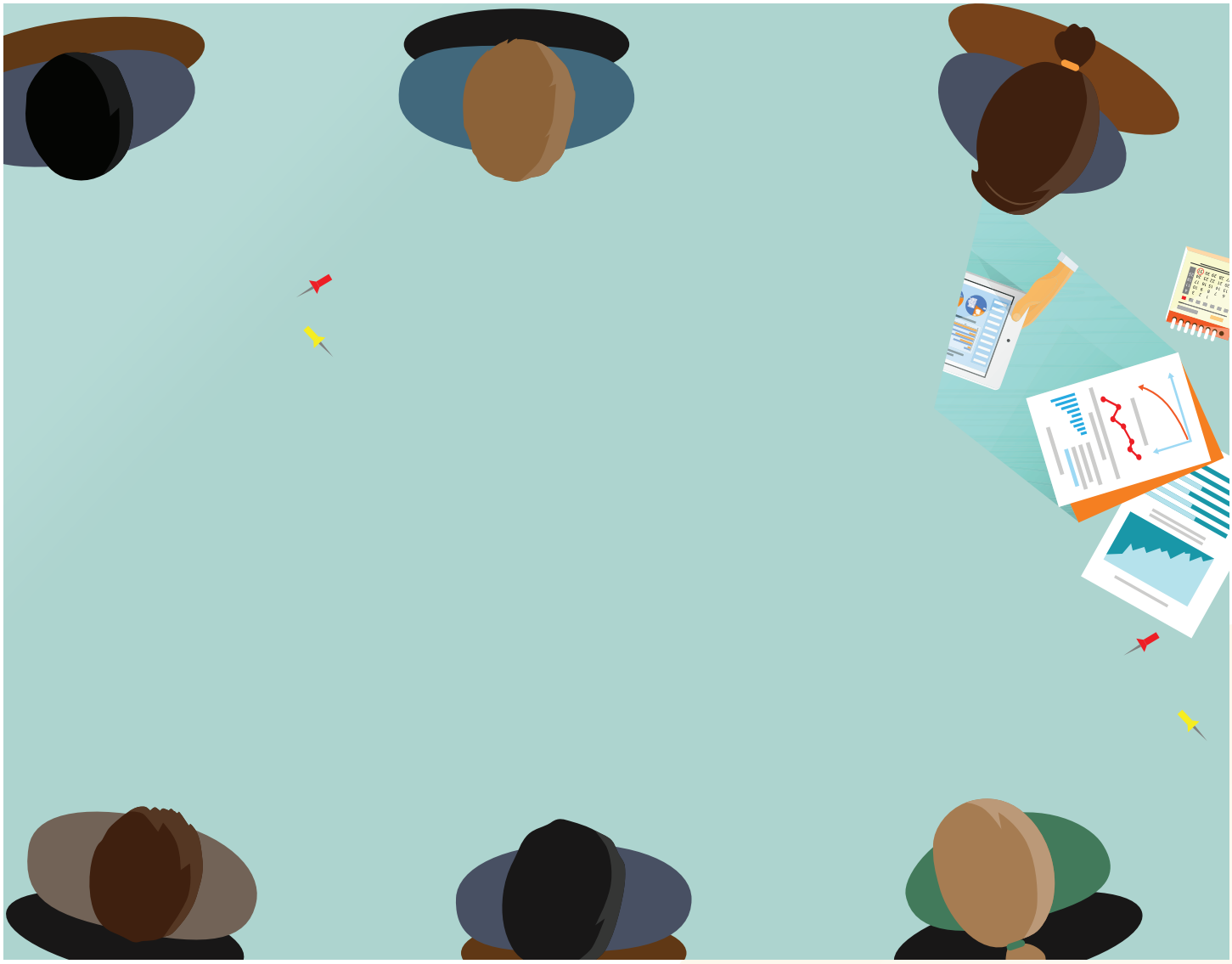
POLICY, TECHNOLOGY & RESILIENCY PROJECTS			
#	Project	Purpose	Need
15	Vision Zero	Conduct Vision Zero Study	
16	Technology	Prepare for CAV Technology (Connected and Automated Vehicle)	Establish working group with Miami Dade County, FDOT, and others to monitor technology development, identify opportunities for piloting.
17	Technology	Electric Vehicle Charging Stations	Explore installation of additional electric vehicle charging stations at town wide.
18	Technology	Transition to electric vehicle Town fleet	Slowly phase out current petroleum-based fleet vehicles to support Town's environmental sustainability goal.
19	Branding/Wayfinding	Adopt a Branding & Marketing Plan for Wayfinding Signage Program	Improve multimodal access
20	Transit Oriented Development	Continue to adopt policies that support TODs along the TC and TOD zoning Districts.	
21	Transit Oriented Development	Partner with State, local, and private partners to support TOD.	
22	Transit Oriented Development	Create policies that Incentivize affordable housing within TC and TOC zoning.	
23	Technology	Revise LDRs to require installation of technologies (electric car charging station) for developments of certain sizes	
24	Resiliency	Adopt Resiliency Plan	
25	Resiliency	Prioritize Town improvements allowed for the Green Building Fund for the area east of Old Cutler Road. Expand the Clean Energy Green Corridor District to include the area immediately adjacent to Old Cutler Road. (This District currently exists along US-1.)	
26	Resiliency	Create Goals to Green the Fleet	A new comprehensive plan policy could be adopted to set a goal to electrify the Town-owned vehicle fleet to 50% of all vehicles by 2025 using the annual vehicle replacement budget in the Capital Budget. In support of the green fleet goal, the Town could set a goal of at least 10 vehicle charging stations within the Town (public and or private) by 2025 and revise the LDRs to include regulations that all new parking areas in the Town include EV charging stations.
27	Resiliency	Support TPO Telecommuting Policies/Adopt Telecommuting Policy	Adopt telecommuting as a long-term policy to “flatten the congestion curve”
28	Policy	Explore the adoption of a Public Art Program to fund and implement Public Art throughout the Town.	
29	Resiliency	Implement Green Infrastructure Techniques for landscape enhancements near transit stops	Support Town efforts for resiliency.

TASK 4 | Development of Potential Projects



This chapter introduces the actual projects, each of which are listed in the accompanying Project Bank with a stated purpose, need, description of the project, and an estimated cost. The Transportation Master Plan has identified multimodal transportation and mobility issues across the community by talking with the citizens and analyzing transit, roadway and intersection data and existing pedestrian and bicycling facilities. A set of multimodal and roadway projects were developed based on these analyses, focused on identifying the major facilities or the movement of people.

Projects were listed in the following categories:

- Roadway Capacity & Corridor Enhancements
- Alternative Mode
- Transit
- Bicycle and Pedestrian and Vulnerable Population
- Policy, Technology, and Resiliency Initiatives

As part of this process the issues that were initially discussed and presented in the previous chapter were organized, streamlined and defined as projects.

Potential projects that arise from the needs assessment resulting from the analysis have been placed in a "Project Bank", which will essentially be the Town's Transportation Master Plan Capital Improvements schedule. Projects suggested in previous plans will be incorporated into the master plan.

Each project will be conceptually developed. This will entail the development of a project sheet.

All projects will be cataloged by type in the project bank report.

ROADWAY CAPACITY & CORRIDOR ENHANCEMENTS

Projects have been developed to address streets that have roadway capacity issues. These, generally, focus on improving intersections and links that are at LOS D or worse, in the existing or future year.

This analysis also takes into consideration arterial roads that function as major conduits of traffic through the Town. Roadway Capacity and Corridor Enhancement Projects typically involve projects which provide for necessary roadway improvements that have roadway capacity issues. These projects generally will focus on improving intersections and links that are at or projected to be at LOS D or worse as noted in the traffic analysis. Other projects which affect roadway capacity are derived from operational functions, such as signal timing and roadway design.

Roadway Capacity and Corridor Enhancement Projects concern the connectivity of the roadway system, as well as the level of congestion. Roadway systems should be complete and provide for the most direct route between origin and destination. These projects also take into consideration arterial roads that function as major conduits of traffic through the Town. These type of projects have a variety of focuses, ranging from traffic calming to lighting.

ROADWAY CAPACITY & CORRIDOR ENHANCEMENT PROJECTS TABLE			
#	Project	Purpose	Need
1	Traffic Circle Franjo Rd & Cutler Ridge Dr	Traffic Calming/Operational Analysis	Identified Project in the 2017 Complete Streets Corridor Analysis/Visual obstruction at intersection
2	Traffic Circle Franjo Rd & Gulfstream Rd	Traffic Calming	Identified Project in the 2017 Complete Streets Corridor Analysis
3	Traffic Circle Gulfstream Rd & Marlin Rd	Traffic Calming	Identified Project in the 2017 Complete Streets Corridor Analysis
4	Traffic Circle Marlin Rd & Bel Aire Dr	Traffic Calming	Identified Project in the 2017 Complete Streets Corridor Analysis, Calm speeding and enhance pedestrian safety near Bel Aire Elementary.
5	SW 87 Ave from Old Cutler Rd to SW 184 St	Complete Streets/Traffic Calming	Identified Project in the 2017 Complete Streets Corridor Analysis, Citizen complaint.
6	Marlin Rd from US 1 to Old Cutler Rd	Complete Streets	Identified Project in the 2017 Complete Streets Corridor Analysis
7	Franjo Rd from Old Cutler Road to SW 184 St	Complete Streets	Identified Project in the 2017 Complete Streets Corridor Analysis
8	Gulfstream Rd to Old Cutler Road	Connectivity	Create connection from Gulfstream Rd to Old Cutler Rd
9	Intersection Analysis Franjo Rd & Old Cutler Rd	Intersection and operations analyses on Franjo Rd from Old Cutler Rd to Caribbean Blvd	Noted as LOS deficiencies for current analysis and horizon 2030.
10	Intersection Analysis Franjo Rd & Caribbean Blvd	Intersection and operations analyses on Franjo Rd from Old Cutler Rd to Caribbean Blvd	Noted as LOS deficiencies for current analysis and horizon 2030.
11	Intersection Analysis Franjo Rd & SW 184 St	Intersection and operations analyses on Franjo Rd from Caribbean Blvd to SW 184 St	Noted as LOS deficiencies for current analysis and horizon 2030.
12	Intersection Analysis Caribbean Blvd & Marlin Rd	Intersection and operations analyses on Caribbean Blvd from 821 to Marlin Rd	Noted as LOS deficiencies for current analysis and horizon 2030.
13	Intersection Analysis SW 216 St & Old Cutler Rd	Intersection and operations analyses on SW 216 St from SR 821 to Old Cutler Rd	Noted as LOS deficiencies for current analysis and horizon 2030.
14	Intersection Analysis SW 216 St & SW 87 Ave	Intersection and operations analyses on SW 216 St from Old Cutler Rd to SW 87 Ave	Noted as LOS deficiencies for current analysis and horizon 2030.
15	Intersection Analysis Old Cutler Rd & Marlin Rd	Intersection and operations analyses on Old Cutler Rd from SW 216 St to Marlin Rd	Noted as LOS deficiencies for current analysis and horizon 2030.
16	Intersection Analysis Marlin Rd & US 1	Intersection operations analyses on Marlin Rd from US 1 to SW 184 St	Noted as LOS deficiencies for current analysis and horizon 2030.

ROADWAY CAPACITY & CORRIDOR ENHANCEMENT PROJECTS TABLE			
#	Project	Purpose	Need
17	Intersection Analysis US 1 & SW 184 St	Intersection operations analyses on US 1 from Marlin Rd to SW 184 St	Noted as LOS deficiencies for current analysis and horizon 2030.
18	Intersection Safety Analysis	Analyze and address most dangerous intersections	Safety is a critical priority. Yearly, the Town should review accident data and located the most dangerous 10% to undergo operational safety analysis.
19	Signal Warrant Analysis SW 186 St. & Franjo Rd	Conduct signal warrant analysis and implement results as necessary	Noted as LOS deficiencies for current analysis and horizon 2030.
20	School Loading Zones	Analysis and implementation of loading zone (drop off and pick up points) at schools.	Peak hours at schools may cause localized congestion due to dropping off/pick up children without space to prevent impediment of other flow through traffic.
21	Connect SW 97 Ave to Gulfstream Rd and SW 212 St	Extend 97 Ave to Gulfstream Rd to SW 212 St (approx. 500 ft.)	Allows more direct route to Old Cutler Rd and SW 212 St
22	Turnpike Interchange @ OCR, NB Entrance, SB Exit	Work with FDOT to have them undertake an Interchange Justification Study to locate and eventually implement ingress/egress from the Turnpike in relation to Old Cutler Rd	Coordinate with FDOT and Turnpike to authorize initiate studies for additional planning level analysis placed on next LRTP.
23	Left turn lane- Franjo Rd/SW 186 Intersection	Determine if a left turn lane at Franjo/ SW 186 intersection is necessary to address traffic back-up.	Noted as LOS deficiencies for current analysis and horizon 2030.
24	Left turn lane	Old Cutler Rd. southwest bound left turn storage lane at Marlin Rd	As required by Traffic Study for Publix on OCR
25	Left turn lane	Old Cutler Rd. southwest bound left turn storage lane at Snapper Place	As required by Traffic Study for Publix on OCR
26	Add Lane	Additional approach lane to the westbound approach of SW 208 St and Old Cutler Rd	As required by Traffic Study for Publix on OCR
27	Signal Progression Analysis- for US 1, Marlin Rd, Old Cutler Rd, Franjo Rd	Evaluate the main corridors signal progression	Adequate signal progression can improve a safe, casual flow of vehicles, moving more traffic while maintaining moderate speeds and a safe pedestrian environment.
28	Truck Routing Study Throughout Major Corridors	Evaluate appropriate truck routes. To assure trucks are provided a clear path through the community.	Truck traffic management will help the Town within increasing mobility.
29	Street Lights- SW 82 Ave, SW 87 Ave, SW 184 Street, SW 210 St, Franjo Road	Install streetlights on SW, 82 Avem SW 87 Ave, SW 184 St, SW 210 St, Franjo Rd	Citizen complaints. Current lighting levels are inadequate.

Roadway Capacity & Corridor Enhancement Projects Table			
#	Project	Purpose	Need
30	Road Connection- Cutler Ridge Dr/ SW 200 St- connect to OCR	Connect Cutler Ridge Dr/SW 200 St to Old Cutler Rd approx. 200 ft.	Address gap in the roadway network. Provides mobility and capacity.
31	Road Closure- on SW 97 Ave. between SW 232 St. and SW 224 St. and SW 234 St. between SW 97 Ave. and theoretical SW 98 Ave.	Continue to process road closure on SW 97 Ave. between SW 232 St. and SW 224 St. and SW 234 St. between SW 97 Ave. and theoretical SW 98 Ave.	Protects residential neighborhood from traffic intrusion
32	Street Repaving Program	Continue to maintain and repave roadways as necessary	Provides greater access and promotes traffic dispersion.
33	Speed Tables- SW 99 Ct between SW 212 Street & SW 216 St	Speed Tables	Identified project in Traffic Calming Master Plan
34	Chicane- SW 210 Street	SW 210 St between SW 87 Ave & SW 92 Ave	Identified project in Traffic Calming Master Plan
35	Raised Crosswalk- SW 97 Ave between SW 216 St & SW 219 St	Raised Crosswalk	Identified project in Traffic Calming Master Plan
36	Roundabout- SW 85 Ave & SW 207 St	Roundabout	Identified project in Traffic Calming Master Plan
37	Roundabout- Gulfstream Rd. & Holiday Rd.	Roundabout	Identified project in Traffic Calming Master Plan
38	Roundabout- SW 97 Ave & SW 212 St	Roundabout	Identified project in Traffic Calming Master Plan
39	Roundabout- Gulfstream Rd. & Marlin Rd.	Roundabout	Identified project in Traffic Calming Master Plan
40	Roundabout- SW 200 St & SW 88 Pl	Roundabout	Identified project in Traffic Calming Master Plan
41	Traffic Calming Devices	Explore Feasibility of installing Traffic Calming devices along Tiffany Drive	Citizen complaint

ROADWAY CAPACITY AND CORRIDOR ENHANCEMENT PROJECT DETAILS

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 1

Project Name: Traffic Calming – Traffic Circle Franjo Road and Cutler Ridge Drive

Need: Identified Project in the 2017 Complete Streets Corridor Analysis as well as Traffic Calming Project Number 4 in the 2014 Transportation Master Plan.

Purpose: Determine exact problem and most efficient way to mitigate traffic issues in the vicinity of Franjo road and Cutler Ridge Drive.

Project Description: Traffic Circle/Operational Analysis. Study and implement traffic calming along Franjo Road. Traffic calming in Miami-Dade County follows procedures as outlined in the Miami-Dade County Traffic Flow Modification(s)/Street. Closure(s) Procedure Manual. For each location being evaluated for traffic calming, traffic counts and speeds are taken. An analysis would typically show whether the thresholds for traffic calming have been surpassed. To appropriately justify traffic calming, a traffic volume threshold and one of five other criterions must be met. These criteria include evaluations on whether the speeds at which 85% of motorist travel are more than 10 MPH above the speed limit, or concurrence from affected residents/property owners, which are determined on a case-by-case basis.

Traffic calming includes changes to the roadway system to effect narrowing or to shift the lanes horizontally. Applied techniques range from actual physical roadway constraints, such as traffic circles, chicanes, lateral shifts, neckdowns, and chokers, to visual changes, such as adding trees along the right of way to create an optical illusion of a more narrowly defined space.

An operational analysis will review existing conditions at the intersection and identify specific traffic issues and potential treatments to be applied, which can then be bid out by the Town.

Cost $400,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 2

Project Name: Traffic Calming –Traffic Circle Franjo Road and Gulfstream Road

Need: Identified Project in the 2017 Complete Streets Corridor Analysis

Purpose: Determine exact problem and most efficient way to mitigate traffic issues in the vicinity of Franjo road and Sterling Drive.

Project Description: Traffic Circle/Operational Analysis. Study and implement traffic calming along Franjo Road. Traffic calming in Miami-Dade County follows procedures as outlined in the Miami-Dade County Traffic Flow Modification(s)/Street. Closure(s) Procedure Manual. For each location being evaluated for traffic calming, traffic counts and speeds are taken. An analysis would typically show whether the thresholds for traffic calming have been surpassed. To appropriately justify traffic calming, a traffic volume threshold and one of five other criterions must be met. These criteria include evaluations on whether the speeds at which 85% of motorist travel are more than 10 MPH above the speed limit, or concurrence from affected residents/property owners, which are determined on a case-by-case basis.

Traffic calming includes changes to the roadway system to effect narrowing or to shift the lanes horizontally. Applied techniques range from actual physical roadway constraints, such as traffic circles, chicanes, lateral shifts, neckdowns, and chokers, to visual changes, such as adding trees along the right of way to create an optical illusion of a more narrowly defined space.

An operational analysis will review existing conditions at the intersection and identify specific traffic issues and potential treatments to be applied, which can then be bid out by the Town.

Cost $400,000

Project Category: Roadway Capacity & Corridor Enhancements

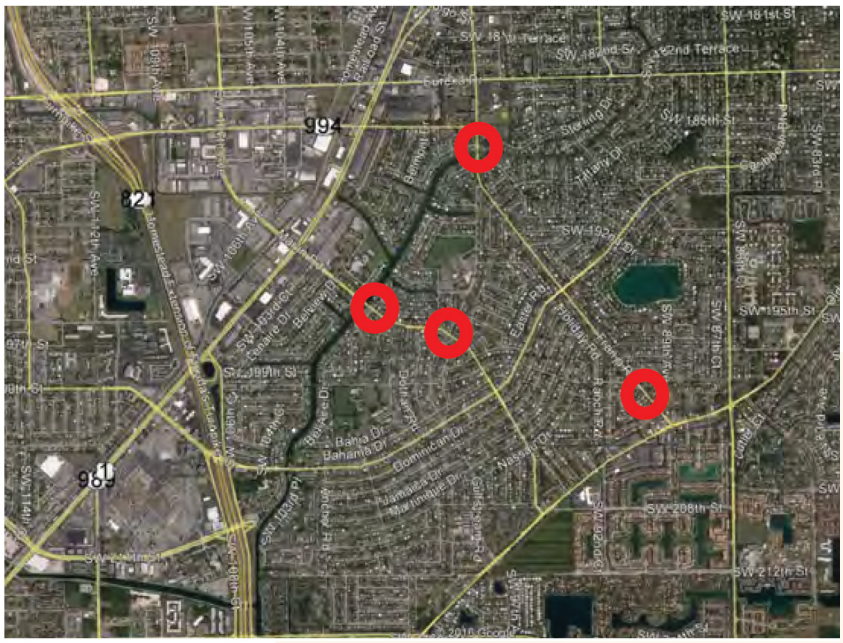
Project Number: 3

Project Name: Traffic Calming – Traffic Circle Gulfstream Rd and Marlin Road

Need: Identified Project in the 2017 Complete Streets Corridor Analysis

Purpose: Determine exact problem and most efficient way to mitigate traffic issues in the vicinity of Gulfstream Road and Marlin Road.

Project Description: Traffic Circle/Operational Analysis. Study and implement traffic calming along Gulfstream and Marlin Road. Traffic calming in Miami-Dade County follows procedures as outlined in the Miami-Dade County Traffic Flow Modification(s)/Street. Closure(s) Procedure Manual. For each location being evaluated for traffic calming, traffic counts and speeds are taken. An analysis would typically show whether the thresholds for traffic calming have been surpassed. To appropriately justify traffic calming, a traffic volume threshold and one of five other criterions must be met. These criteria include evaluations on whether the speeds at which 85% of motorist travel are more than 10 MPH above the speed limit, or concurrence from affected residents/property owners, which are determined on a case-by-case basis.



Source: 2017 Complete Streets Corridor Analysis

Traffic calming includes changes to the roadway system to effect narrowing or to shift the lanes horizontally. Applied techniques range from actual physical roadway constraints, such as traffic circles, chicanes, lateral shifts, neckdowns, and chokers, to visual changes, such as adding trees along the right of way to create an optical illusion of a more narrowly defined space.

An operational analysis will review existing conditions at the intersection and identify specific traffic issues and potential treatments to be applied, which can then be bid out by the Town.

Cost $400,000

Project Category: Roadway Capacity & Corridor Enhancements

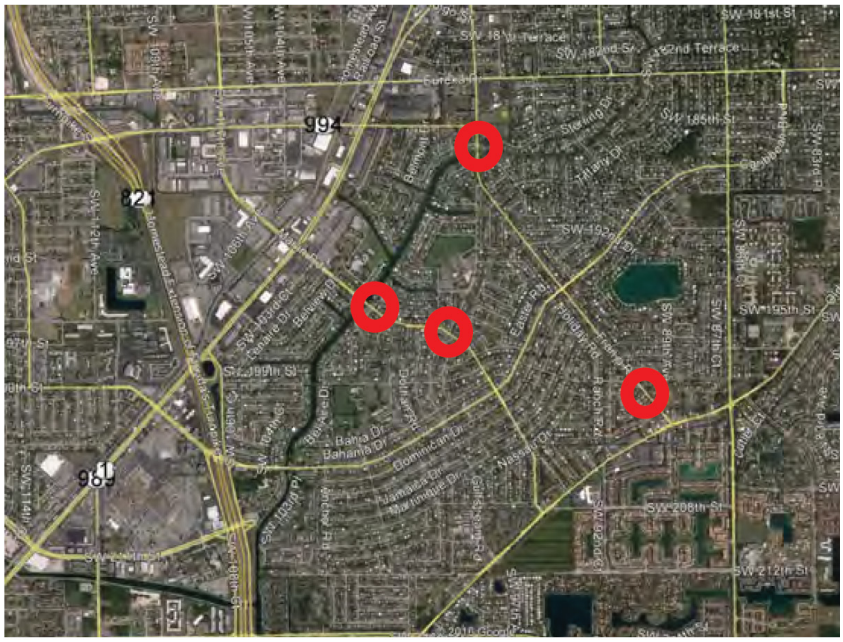
Project Number: 4

Project Name: Traffic Calming– Traffic Circle Marlin Road and Bel Aire Drive

Need: Identified Project in the 2017 Complete Streets Corridor Analysis

Purpose: Determine exact problem and most efficient way to calm speeding and enhance pedestrian safety near Bel Aire Elementary.

Project Description: Traffic Circle/Operational Analysis. Study and implement traffic calming along Marlin Road. Traffic calming in Miami-Dade County follows procedures as outlined in the Miami-Dade County Traffic Flow Modification(s)/ Street. Closure(s) Procedure Manual. For each location being evaluated for traffic calming, traffic counts and speeds are taken. An analysis would typically show whether the thresholds for traffic calming have been surpassed. To appropriately justify traffic calming, a traffic volume threshold and one of five other criterions must be met. These criteria include evaluations on whether the speeds at which 85% of motorist travel are more than 10 MPH above the speed limit, or concurrence from affected residents/property owners, which are determined on a case-by-case basis.



Source: 2017 Complete Streets Corridor Analysis

Traffic calming includes changes to the roadway system to effect narrowing or to shift the lanes horizontally. Applied techniques range from actual physical roadway constraints, such as traffic circles, chicanes, lateral shifts, neckdowns, and chokers, to visual changes, such as adding trees along the right of way to create an optical illusion of a more narrowly defined space.

An operational analysis will review existing conditions at the intersection and identify specific traffic issues and potential treatments to be applied, which can then be bid out by the Town.

Cost $400,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 5

Project Name: Traffic Calming/Complete Streets – SW 87th Avenue from Old Cutler Road to SW 184th Street

Need: Identified Project in the 2017 Complete Streets Corridor Analysis, Citizen complaint.

Purpose: Determine exact problem and most efficient way to calm speeding and mitigate traffic issues along SW 87th Avenue.

Project Description: Traffic Calming/Complete Streets. Study and implement traffic calming along SW 87th Avenue. Traffic calming in Miami-Dade County follows procedures as outlined in the Miami-Dade County Traffic Flow Modification(s)/Street. Closure(s) Procedure Manual. For each location being evaluated for traffic calming, traffic counts and speeds are taken. An analysis would typically show whether the thresholds for traffic calming have been surpassed. To appropriately justify traffic calming, a traffic volume threshold and one of five other criterions must be met. These criteria include evaluations on whether the speeds at which 85% of motorist travel are more than 10 MPH above the speed limit, or concurrence from affected residents/property owners, which are determined on a case-by-case basis.

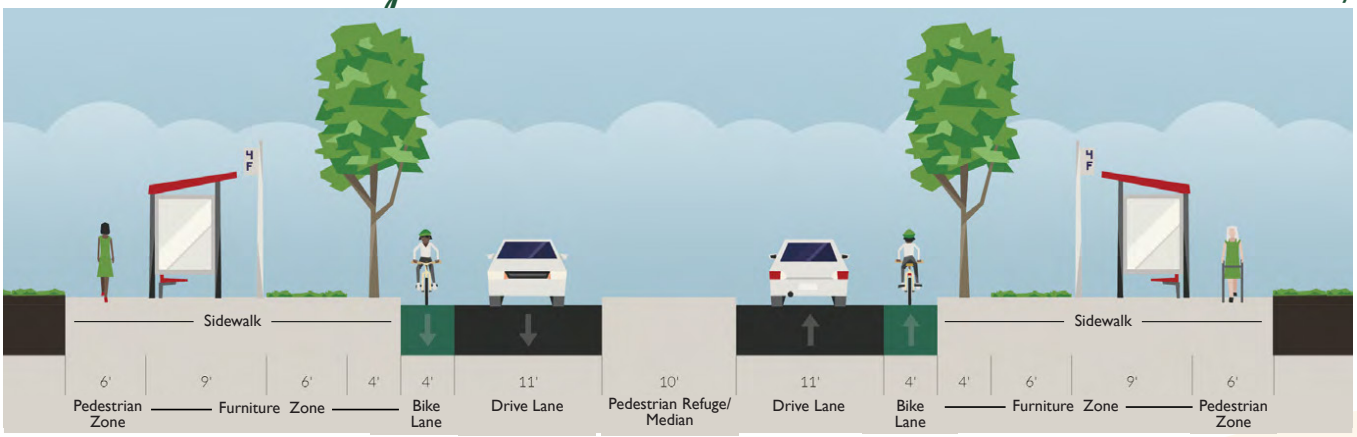
Traffic calming includes changes to the roadway system to effect narrowing or to shift the lanes horizontally. Applied techniques range from actual physical roadway constraints, such as traffic circles, chicanes, lateral shifts, neckdowns, and chokers, to visual changes, such as adding trees along the right of way to create an optical illusion of a more narrowly defined space.

An operational analysis will review existing conditions at the intersection and identify specific traffic issues and potential treatments to be applied, which can then be bid out by the Town.

Cost $25,000

SW 87th AVENUE *Midblock Crossing with No Turn Lane*

Transit Corridor and Greenway



Source: 2017 Complete Streets Corridor Analysis

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 6,7

Project Name: Complete Streets –
- Marlin Rd from US 1 to Old Cutler Road
- Franjo Rd from Old Cutler Road to SW 184 St

Need: Identified Project in the 2017 Complete Streets Corridor Analysis

Purpose: Determine exact needs and most efficient way to create complete streets.
Project Description: Complete Streets. Implement enhancements throughout corridors as recommended by the 2017 Complete Streets Corridor Analysis.

Cost: $300,000- $850,000

No.	Project Prioritization	From	To	Description
1	SW 87th Avenue	Old Cutler Road	SW 184th Street	SW 87th Avenue is the primary transit corridor with an improved bike lane on the roadway.
2	Marlin Road	US-1	Sterling Drive	Since there are no buses on this roadway, more space is dedicated to green plantings and shade trees. Both sidewalks and bike lanes are shaded with trees for comfort and protection from the elements and each are wide. A wide expanse of pavement is interrupted with a six foot wide planted median.
3	Marlin Road	Sterling Drive	Old Cutler Road	From Sterling Drive to Old Cutler Road, Marlin Road narrows to sixty and seventy feet and is a two-lane road.
4	Franjo Road	Old Cutler Road	SW 184th Street	Franjo Road is a secondary transit corridor with bike lanes on each side of the roadway.
5	Gulfstream Road	Franjo Road	N. of Old Cutler Road	Between Franjo Road and SW 210th Street, Gulfstream Road is a two-lane boulevard with bike paths and walking paths. An enhanced sidewalk is lined with shade trees, making Gulfstream the preferred corridor for walking. The walking path includes benches,street lamps and bike racks between the landscaped planting strip.

Conceptual Cost Estimates

Project Cost Estimates - Quantities

No.	Project	From	To	Bus Shelters	Cost (MDT)	Multi-use Path (Miles)	Cost (Sq. Yards)	Bike Lane (Miles)	Cost	Shared Bike Lane (Miles)	Cost	Street Trees	Cost
1	SW 87th Avenue	Old Cutler Road	SW 184th Street	10	$250,000	1.35	$380,000	0	0	1.35	$10,000	1,400	$700,000
2	Marlin Road	US-1	Sterling Road	0	0	0	0	0.65	$89,000	0	0	400	$200,000
3	Marlin Road	Sterling Drive	Old Cutler Road	0	0	0	0	2.4	$367,000	0	0	1,500	$750,000
4	Franjo Road	Old Cutler Road	SW 184th Street	12	$300,000	0	0	1.65	$168,000	1.65	$12,000	550	$275,000
5	Gulfstream Road	Franjo Road	N. of Old Cutler Road	0	0	0	0	3	$408,320	0	0	1,700	$850,000

Project Cost Estimates - Quantities (CONTINUED)

No.	Project	From	To	Crosswalks	Cost	Midblock Crossing	Cost	Pedestrian refuge/Median	Cost	Traffic Circle	Cost	Parklet	Cost	Bridge	Cost
1	SW 87th Avenue	Old Cutler Road	SW 184th Street	50	$10,000	5	$2,500	5	$32,000	0	0	0	0	0	0
2	Marlin Road	US-1	Sterling Road	12	$2,400	2	$1,000	2	$13,000	0	0	0	0	1	$720,000
3	Marlin Road	Sterling Drive	Old Cutler Road	50	$10,000	2	$1,000	2	$13,000	2	TBD	4	$20, 000	0	0
4	Franjo Road	Old Cutler Road	SW 184th Street	40	$8,000	3	$1,500	3	$19,500	2	TBD	4	$20, 000	0	0
5	Gulfstream Road	Franjo Road	N. of Old Cutler Road	40	$8,000	3	$1,500	3	$19,500	0	0	6	$30, 000	0	0

Source: 2017 Complete Streets Corridor Analysis

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 8

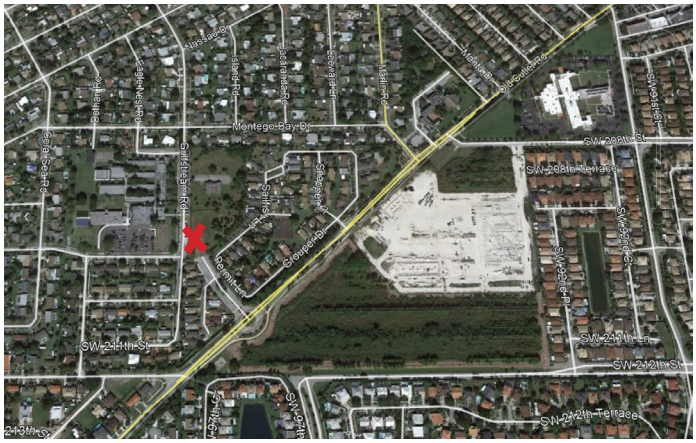
Project Name: Capacity: Gulfstream Road to Old Cutler Road

Need: Create connection from Gulfstream Road to Old Cutler Road.

Purpose: Corridor Enhancement.

Project Description: Allows for more direct route to Old Cutler Road. Project will involve bidding the design of the construction of the roadway.

Cost: $105,000



Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 9

Project Name: Capacity: Intersection Analysis Franjo Rd & Old Cutler Rd

Need: Noted as LOS deficiencies for current analysis and horizon 2030.

Purpose: Intersection and operations analyses on Franjo Rd from Old Cutler Rd to Caribbean Blvd

Project Description: Conduct an intersection operational analysis. Determine if any changes are necessary based on the current conditions of the intersection. Bid and construct any necessary treatments.

Cost: $20,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 10

Project Name: Capacity: Intersection Analysis Franjo Rd & Caribbean Blvd

Need: Noted as LOS deficiencies for current analysis and horizon 2030.

Purpose: Intersection and operations analyses on Franjo Rd from Old Cutler Rd to Caribbean Blvd

Project Description: Conduct an intersection operational analysis. Determine if any changes are necessary based on the current conditions of the intersection. Bid and construct any necessary treatments.

Cost: $20,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 11

Project Name: Capacity: Intersection Analysis Franjo Rd & SW 184 St

Need: Noted as LOS deficiencies for current analysis and horizon 2030.

Purpose: Intersection and operations analyses on Franjo Rd from Caribbean Blvd to SW 184 St

Project Description: Conduct an intersection operational analysis. Determine if any changes are necessary based on the current conditions of the intersection. Bid and construct any necessary treatments.

Cost: $20,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 12

Project Name: Capacity: Intersection Analysis Caribbean Blvd & Marlin Rd

Need: Noted as LOS deficiencies for current analysis and horizon 2030.

Purpose: Intersection and operations analyses on Caribbean Blvd from 821 to Marlin Rd

Project Description: Conduct an intersection operational analysis. Determine if any changes are necessary based on the current conditions of the intersection. Bid and construct any necessary treatments.

Cost: $20,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 13

Project Name: Capacity: Intersection Analysis SW 216 St & Old Cutler Road

Need: Noted as LOS deficiencies for current analysis and horizon 2030.

Purpose: Intersection and operations analyses on SW 216 St from SR 821 to Old Cutler Rd

Project Description: Conduct an intersection operational analysis. Determine if any changes are necessary based on the current conditions of the intersection. Bid and construct any necessary treatments.

Cost: $20,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 14

Project Name: Capacity: Intersection Analysis SW 216 St & SW 87 Ave

Need: Noted as LOS deficiencies for current analysis and horizon 2030.

Purpose: Intersection and operations analyses on SW 216 St from Old Cutler Rd to SW 87 Ave

Project Description: Conduct an intersection operational analysis. Determine if any changes are necessary based on the current conditions of the intersection. Bid and construct any necessary treatments.

Cost: $20,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 15

Project Name: Capacity: Intersection Analysis Old Cutler Rd & Marlin Rd

Need: Noted as LOS deficiencies for current analysis and horizon 2030.

Purpose: Intersection and operations analyses on Old Cutler Rd from SW 216 St to Marlin Rd

Project Description: Conduct an intersection operational analysis. Determine if any changes are necessary based on the current conditions of the intersection. Bid and construct any necessary treatments.

Cost: $20,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 16

Project Name: Capacity: Intersection Analysis Marlin Rd & US 1

Need: Noted as LOS deficiencies for current analysis and horizon 2030.

Purpose: Intersection operations analyses on Marlin Rd from US 1 to SW 184 St

Project Description: Conduct an intersection operational analysis. Determine if any changes are necessary based on the current conditions of the intersection. Bid and construct any necessary treatments.

Cost: $20,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 17

Project Name: Capacity: Intersection Analysis US 1 & SW 184 St

Need: Noted as LOS deficiencies for current analysis and horizon 2030.

Purpose: Intersection operations analyses on US 1 from Marlin Rd to SW 184 St

Project Description: Conduct an intersection operational analysis. Determine if any changes are necessary based on the current conditions of the intersection. Bid and construct any necessary treatments.

Cost: $20,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 18

Project Name: Town wide Intersection Safety Analysis

Need: Safety is a critical priority. Yearly, the Town should review accident data and located the most dangerous 10% to undergo operational safety analysis.

Purpose: Analyze and address most dangerous intersections

Project Description: Town wide. Conduct an annual review of accident data and locate the most dangerous 10% to undergo operational safety analysis.

Cost: $105,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 19

Project Name: **Signal Warrant Analysis SW 186 Street & Franjo Rd**

Need: Noted as LOS deficiencies for current analysis and horizon 2030.

Purpose: Conduct signal warrant analysis and implement results as necessary

Project Description: Conduct signal warrant analysis and implement results as necessary

Cost: $10,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 20

Project Name: School Loading Zones

Need: Peak hours at schools may cause localized congestion due to dropping off/pick up children without space to prevent impediment of other flow through traffic.

Purpose: Analysis and implementation of loading zone (drop off and pick up points) at schools.

Project Description: Analysis and implementation of loading zone (drop off and pick up points) at schools.

Cost: $15,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 21

Project Name: Connect SW 97 Ave to Gulfstream Rd and SW 212 St

Need: Connectivity

Purpose: Allows more direct route to Old Cutler Rd and SW 212 St

Project Description: Extend 97 Ave to Gulfstream Rd to SW 212 St (approx. 500 ft.)

Cost: $125,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 22

Project Name: Turnpike Interchange @ OCR, NB Entrance, SB Exit

Need: Connectivity

Purpose: Coordinate with FDOT and Turnpike to authorize initiate studies for additional planning level analysis placed on next LRTP.

Project Description: Work with FDOT to have them undertake an Interchange Justification Study to locate and eventually implement ingress/egress from the Turnpike in relation to Old Cutler Road

Cost: $50,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 23

Project Name: Left turn lane- Franjo Rd/SW 186 Intersection

Need: Noted as LOS deficiencies for current analysis and horizon 2030.

Purpose: Determine if a left turn lane at Franjo/SW 186 intersection is necessary to address traffic back-up.

Project Description: Determine if a left turn lane at Franjo/SW 186 intersection is necessary to address traffic back-up.

Cost: $350,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 24

Project Name: Left turn lane- Old Cutler Road southwest bound left turn storage lane at Marlin Rd

Need: As required by Traffic Study for Publix on OCR

Purpose: Determine if a left turn lane is necessary to address traffic back-up.

Project Description: Determine if a left turn lane at Marlin Road and Old Cutler Road intersection is necessary to address traffic back-up.

Cost: approximately $34,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 25

Project Name: Left turn lane- Old Cutler Road southwest bound left turn storage lane at Snapper Place

Need: As required by Traffic Study for Publix on OCR

Purpose: Determine if a left turn lane is necessary to address traffic back-up.

Project Description: Determine if a left turn lane at Snapper Place and Old Cutler Road intersection is necessary to address traffic back-up.

Cost: approximately $80,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 26

Project Name: Add Lane- Additional approach lane to the westbound approach of SW 208 St and Old Cutler Rd

Need: As required by Traffic Study for Publix on OCR

Purpose: Determine if additional lane is necessary to address traffic back-up.

Project Description: Determine if additional approach lane to the westbound approach of SW 208 St and Old Cutler Rd intersection is necessary to address traffic back-up.

Cost: approximately $80,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 27

Project Name: Signal Progression Analysis- for US 1, Marlin Rd, Old Cutler Rd, Franjo Rd

Need: Adequate signal progression can improve a safe, casual flow of vehicles, moving more traffic while maintaining moderate speeds and a safe pedestrian environment.

Purpose: Evaluate the main corridors signal progression

Project Description: Evaluate the main corridors signal progression to address traffic back-up.

Cost: $120,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 28

Project Name: Truck Routing Study Throughout Major Corridors

Need: Identified in 2021 Transportation Master Plan Update as potential cut through traffic issue.

Purpose: Evaluate appropriate truck routes. To assure trucks are provided a clear path through the community.

Project Description: Truck traffic management will help the Town within increasing mobility.

Cost: $25,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 29

Project Name: Street Lights- SW 82 Ave, SW 87 Ave, SW 184 Street, SW 210 Street, Franjo Road

Need: Current lighting levels are inadequate.

Purpose: In order to ensure safe travel, the Town should review adequacy of current lighting levels.

Project Description: Install streetlights on SW 82 Ave, SW 87 Ave, SW 184 St, SW 210 St, Franjo Rd

Cost: $300,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 30

Project Name: Road Connection- Cutler Ridge Dr/SW 200 St- connect to Old Cutler Road

Need: Connectivity

Purpose: Connect Cutler Ridge Dr/SW 200 St to Old Cutler Rd approximately 200 ft.

Project Description: Address gap in the roadway network. Provides mobility and capacity. Connect Cutler Ridge Dr/SW 200 St to Old Cutler Rd approx. 200 ft.

Cost: $190,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 31

Project Name: Road Closure- on SW 97 Ave. between SW 232 St. and SW 224 St. and SW 234 St. between SW 97 Ave. and theoretical SW 98 Ave.

Need: Cut through traffic

Purpose: Protects residential neighborhood from traffic intrusion

Project Description: Continue to process road closure on SW 97 Ave. between SW 232 St. and SW 224 St. and SW 234 St. between SW 97 Ave. and theoretical SW 98 Ave.

Cost: $25,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 32

Project Name: Street Repaving Program

Need: Corridor Enhancement

Purpose: Provides greater access and promotes traffic dispersion.

Project Description: Continue to maintain and repave roadways as necessary

Cost: $2,000,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 33

Project Name: Speed Tables- SW 99 Ct between SW 212 Street & SW 216 St

Need: Identified project in Traffic Calming Master Plan

Purpose: Traffic Calming.

Project Description: Traffic Calming

Cost: $25,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: **34**

Project Name: Chicane- SW 210 St between SW 87 Ave and SW 92 Ave

Need: Identified project in Traffic Calming Master Plan

Purpose: Traffic Calming.

Project Description: Install Roundabout/Traffic Circle

Cost: $10,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 35

Project Name: Raised Crosswalk- SW 97 Ave between SW 216 St & SW 219 St

Need: Identified project in Traffic Calming Master Plan

Purpose: Traffic Calming.

Project Description: Install Raised Crosswalk

Cost: $32,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 36

Project Name: Roundabout- SW 85 Ave & SW 207 St

Need: Identified project in Traffic Calming Master Plan

Purpose: Traffic Calming.

Project Description: Install Roundabout/Traffic Circle

Cost: $125,000-$400,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 37

Project Name: Roundabout- Gulfstream Road and Holiday Road

Need: Identified project in Traffic Calming Master Plan

Purpose: Traffic Calming.

Project Description: Install Roundabout/Traffic Circle

Cost: $125,000-$400,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 38

Project Name: Roundabout- SW 97 Ave & SW 212 St

Need: Identified project in Traffic Calming Master Plan

Purpose: Traffic Calming.

Project Description: Install Roundabout/Traffic Circle

Cost: $125,000-$400,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 39

Project Name: Roundabout- Gulfstream Road & Marlin Road

Need: Identified project in Traffic Calming Master Plan

Purpose: Traffic Calming.

Project Description: Install Roundabout/Traffic Circle

Cost: $125,000-$400,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 40

Project Name: Roundabout- SW 200 St & SW 88 Place

Need: Identified project in Traffic Calming Master Plan

Purpose: Traffic Calming.

Project Description: Install Roundabout/Traffic Circle

Cost: $125,000-$400,000

Project Category: Roadway Capacity & Corridor Enhancements

Project Number: 41

Project Name: Traffic Calming Devices

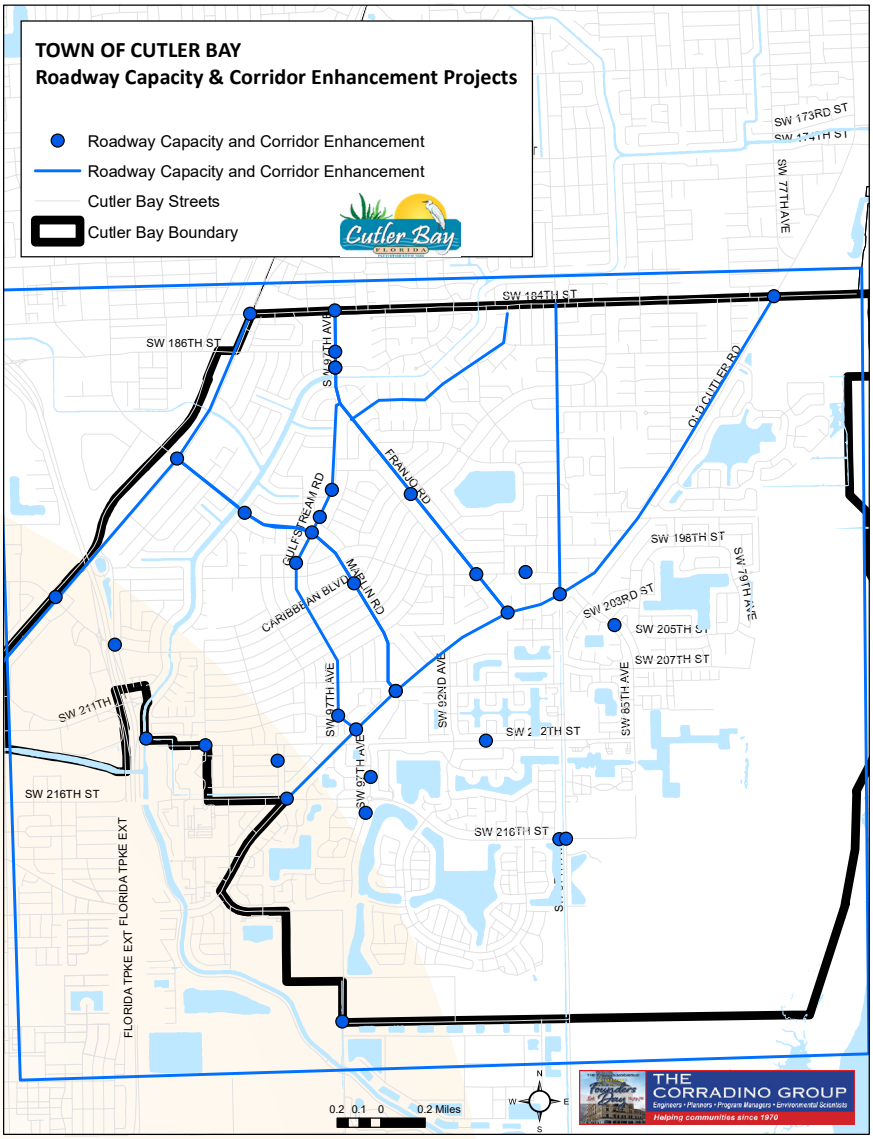
Need: Citizen Complaint

Purpose: Traffic Calming.

Project Description: Explore Feasibility of installing Traffic Calming devices along Tiffany Drive

Cost: $25,000

ROADWAY CAPACITY AND CORRIDOR ENHANCEMENT PROJECTS MAP



ALTERNATIVE MODE PROJECTS

Alternative Transit projects focus on improvements that affect pedestrian and bicycling environment and public transit services. For all three modes, accessibility to origins and destinations, as well as amenities, such as signage, guide maps, and shaded rest areas, among other factors, provide the basis for evaluation and opportunities for improvements.

Transit projects focus primarily on mass transit and how to improve an individual's access to different areas through the usage of buses, trolleys, or the MetroRail.

Pedestrian projects involve an individual's person to walk to their destination. Critical aspects affecting the quality of the pedestrian realm include the connectivity and quality of the system, including perceptions of safety and comfort. Bicycling projects provide dual purposes: they create connections from where one is coming from to where they wish to go, and they may serve as a form of outdoors recreation.

This will focus on transit, pedestrian, and bicycle facilities and their levels of service, particularly as they interface with major intersections, trip generators and transit stations.

ALTERNATIVE MODE PROJECTS TABLE - TRANSIT

#	Project	Purpose	Need
1	Town Circulator Operational Analysis	Conduct Study/Operational Analysis of the Town Circulator with consideration of headway times and expansion of days of service, improvements to the bus stop facilities for ADA compliance and general services. Improve access to transit by decreasing headways from 60 minutes to 30 minutes	Addresses citizens requests, ADA gaps, gaps in service. Improve access to transit, provide greater connectivity and reduce travel time.
2	Additional Bus Stop	Add bus stop along 184 street between Franjo Road and SW 87 Avenue	Improve access to transit
3	Policy Adoption	Adopt Policy within Transportation Element of the Comprehensive Plan	Promote disadvantaged populations and access to Transit
4	Mobility Hub Caribbean Blvd	Community Hub	Improve access to transit
5	Mobility Hub Eureka Drive West	Community Hub	Improve access to transit
6	Mobility Hub Marlin Drive	Community Hub	Improve access to transit
7	Mobility Hub South Dade Government Center	Community Hub	Improve access to transit
8	Mobility Hub Community Health	Neighborhood Hub	Improve access to transit
9	Mobility Hub Whispering Pines	Neighborhood Hub	Improve access to transit
10	Mobility Hub Old Cutler Town Center	Community Hub	Improve access to transit
11	Mobility Hub Pine Wood	Neighborhood Hub	Improve access to transit
12	Mobility Hub The Isles of Bayshore	Neighborhood Hub	Improve access to transit
13	Mobility Hub Lakes by the Bay	Neighborhood Hub	Improve access to transit
14	Mobility Hub Cutler Ridge	Neighborhood Hub	Improve access to transit
15	Mobility Hub Eureka Drive East	Neighborhood Hub	Improve access to transit
16	Increase Go Connect Service	Increase Go Connect hours to include weekends	Improve access to transit

ALTERNATIVE MODE PROJECTS TABLE - TRANSIT			
#	Project	Purpose	Need
17	Support promotional and educational program	Increase support & promotion of Easy Card, Discounted Fares, Golden Passport	Improve access to transit
18	ADA Bus Stop Improvements	• Along west side of SW 87 Avenue at SW 200 Terrace • Along 184 Street west of 87 Avenue • Along 87 Avenue just east of 184 Street • Along 87 Avenue at 190 Street • Along 87 Avenue and 193 Terrace • Along 87 Avenue near 199 Street • Old Cutler Road and SW 200 Terrace • Franjo Road near Caribbean Boulevard	Improve access to transit
19	Incorporate Mobility Hub elements & amenities	Incorporate Mobility Hub elements and amenities in future development projects	Improve access to transit
20	Shared mobility	Allocate space for shared services such as on demand shuttles and rideshare companies and consider the flexible use of that space where necessary.	Improve access to transit
21	Policy	Amend the development review process to encourage developers to incorporate Mobility Hub features into their projects.	Improve access to transit
22	Policy	Adopt off-street parking requirements to better align with Mobility Hub investments	Improve access to transit
23	Policy	Explore a Branding & Marketing Plan and include a Wayfinding Signage Program	Improve access to transit
24	Policy	Explore the use of Shared Mobility Options.	Improve access to transit
25	Policy	Create Transit Partnerships with neighboring communities.	Improve access to transit
26	Mobility fee	Adopt mobility fee, an impact fee imposed on new development or redevelopment to fund improvements related to all types of mobility, such as bicycle, pedestrian, and transit.	

ALTERNATIVE MODE – TRANSIT PROJECT DETAILS

Project Category: Alternative Mode – Transit

Project Number: 1

Project Name: Town Circulator Operational Analysis

Purpose: Conduct Study/Operational Analysis of the Town Circulator with consideration of headway times and expansion of days of service, improvement to the bus stop facilities for ADA compliance and general services, and route adjustments to connect to Southland Mall, high schools, and Circulators in adjacent communities.

Need: Addresses citizen requests, American Disabilities Act, and gaps in transit service within Cutler Bay. Allows for greater mobility and potential for regional auto usage reduction. Recommendation per 2021 Transportation Master Plan Update.

TASK 4 | DEVELOPMENT OF POTENTIAL PROJECTS

Description: Using the data available and possibly collecting new data on headways, ridership, boarding's and alighting's by route and stop, as well as public involvement though ridership surveys or workshops, evaluate the performance of the current routes and stops. Devise plan for changing the routes or the service times to include weekend service and increased headways and range of access. In addition, evaluate bidirectional routing for the circulator. Recommendations can then be made for changes, with provided costs for the needed capital, operations and maintenance of the changes.

Cost: $ 75,000

Project Category: Alternative Mode – Transit

Project Number: 2

Project Name: Additional Bus Stop

Purpose: Add bus stop along SW 184 street between Franjo Road and SW 87 Avenue

Need: Addresses citizen requests, American Disabilities Act, and gaps in transit service within Cutler Bay. Allows for greater mobility and potential for regional auto usage reduction.

Description: Improve access to transit

Cost: $46,000

Project Category: Alternative Mode – Transit

Project Number: 3

Project Name: Policy Adoption

Purpose: Adopt Policy within Transportation Element of the Comprehensive Plan

Need: Promote disadvantaged populations and access to Transit

Description: Improve access to transit for all.

Cost: $-

Project Category: Alternative Mode – Transit

Project Number: 4

Project Name: Mobility Hub Caribbean Blvd

Purpose: Improve access to transit

Need: Community Hub

Description: Improve access to transit for all.

Cost: $ 234,000

Table 46: Caribbean Boulevard Community Hub Amenities Cost Estimate

CARIBBEAN BOULEVARD COMMUNITY MOBILITY HUB					
Recommended Amenities	**Unit**	**Measurement**	**Price**	**Quantity**	**Cost**
Standard Town Shelter	EA	Shelter, Seating, Garbage, Bike Rack, Lighting, Concrete	$ 43,330.00	2	$ 86,660.00
Real Time Information Signage	EA	Equipment & Installation	$ 400.00	5	$ 2,000.00
EV Charging Stations	EA	Equipment & Installation	$ 8,000.00	4	$ 32,000.00
Bikeshare Station	EA	10 Bikes	$ 54,000.00	1	$ 54,000.00
Bicycle Storage Locker	EA	Equipment & Installation	$ 2,140.00	3	$ 6,420.00
Carshare		Public Private Partnership	$ 00.0	Varies	$ 00.0
USB Charging Station	EA	Free Standing Station for 10 phones	$ 1,500.00	1	$ 1,500.00
Package Kiosk	EA	Public Private Partnership	$ 00.0	1	$ 0.00
Security Camera	EA	Equipment & Installation	$ 600.00	5	$ 3,000.00
Emergency Callbox	EA	Unit & Construction	$ 5,500.00	5	$ 27,500.00
Library Share	EA	Equipment, Install & Registration	$ 200.00	1	$ 200.00
Mechanical Box Wraps	EA	$15/SF - Avg. Cost of Installation & Material	$ 1,000.00	1	$ 1,000.00
OPTIONAL:					
Bicycle Signal	EA	Equipment	$ 1,000.00	2	$ 2,000.00
Bicycle Repair Station	EA	Equipment & Installation	$ 1,500.00	1	$ 1,500.00
Info Kiosk	EA	75" Digital Display Board	$ 6,000.00	1	$ 6,000.00
WIFI	EA	Equipment & Installation	$ 400.00	1	$ 400.00
Air Misting System	EA	Equipment & Installation	$ 5,000.00	2	$ 10,000.00
TOTAL ESTIMATED INVESTMENT					**$ 234,180.00**
MINIMUM ESTIMATED INVESTMENT					**$ 214,280.00**

Source: Mobility Hubs Plan

Project Category: Alternative Mode – Transit

Project Number: 5

Project Name: Mobility Hub Eureka Drive West

Purpose: Improve access to transit

Need: Community Hub

Description: Improve access to transit for all.

Cost: $ 160,000

Table 47: Eureka Drive West Community Hub Amenities Cost Estimate

EUREKA DRIVE WEST COMMUNITY MOBILITY HUB					
Recommended Amenities	**Unit**	**Measurement**	**Price**	**Quantity**	**Cost**
Standard Town Bus Shelter	EA	Shelter, Seating, Garbage, Bike Rack, Lighting, Concrete	$ 43,330.00	1	$ 43,330.00
Library Share	EA	Equipment, Install & Registration	$ 200.00	1	$ 200.00
Bikeshare Station	EA	10 Bikes	$ 54,000.00	1	$ 54,000.00
Mechanical Box Wraps	EA	$15/SF / Approx. Cost Material & Install	$ 1,000.00	1	$ 1,000.00
Emergency Callbox	EA	Unit & Construction	$ 5,500.00	1	$ 5,500.00
USB Charging Station	EA	Free Standing Station for 10 phones	$ 1,500.00	1	$ 1,500.00
Bicycle Storage Locker	EA	Equipment & Installation	$ 2,140.00	4	$ 8,560.00
EV Charging Stations	EA	Equipment & Installation	$ 8,000.00	4	$ 32,000.00
Security Camera	EA	Equipment & Installation	$ 600.00	1	$ 600.00
Real Time Information Signage	EA	Unit	$ 400.00	1	$ 400.00
OPTIONAL:					
Carshare		Public Private Partnership	$ 00.0	Varies	$0.00
Package Kiosk	EA	Public Private Partnership	$ 00.0	1	$0.00
Bicycle Repair Station	EA	Equipment & Installation	$ 1,500.00	1	$ 1,500.00
Bicycle Signal	EA	Equipment	$ 1,000.00	4	$ 4,000.00
Info Kiosk	EA	75" Digital Display Board	$ 6,000.00	1	$ 6,000.00
Air Misting System	EA	Equipment & Installation	$5,000.00	1	$ 5,000.00
TOTAL ESTIMATED INVESTMENT					**$ 163,590.00**
MINIMUM ESTIMATED INVESTMENT					**$ 147,090.00**

Source: Mobility Hubs Plan

Project Category: Alternative Mode – Transit

Project Number: 6

Project Name: Mobility Hub Marlin Road

Purpose: Improve access to transit

Need: Community Hub

Description: Improve access to transit for all.

Cost: $ 204,540

Table 53: Marlin Road Community Hub Amentias Cost Estimate

MARLIN ROAD COMMUNITY MOBILITY HUB					
Recommended Amenities	**Unit**	**Measurement**	**Price**	**Quantity**	**Cost**
Standard Town Shelter	EA	Shelter, Seating, Garbage, Bike Rack, Lighting, Concrete	$ 43,330.00	2	$ 86,660.00
Real Time Information Signage	EA	Equipment & Installation	$ 400.00	2	$ 800.00
Bike Share	EA	Station (10 Bikes)	$ 54,000.00	1	$ 54,000.00
Emergency Callbox	EA	Equipment & Installation	$ 5,500.00	2	$ 11,000.00
Mechanical Box Wrap	EA	$15/SF (Avg. Cost for Installation & Material)	$ 1,000.00	1	$ 1,000.00
Library Share	EA	Equipment, Install & Registration	$ 200.00	1	$ 200.00
USB Charging Station	EA	Free Standing Station (10 phones)	$ 1,500.00	1	$ 1,500.00
Security Camera	EA	Equipment & Installation	$ 600.00	2	$ 1,200.00
EV Charging	EA	Equipment & Installation	$ 8,000.00	3	$ 24,000.00
Carshare		Public Private Partnership	$ 0.00	Varies	$ 0.00
Bicycle Storage Locker	EA	Equipment & Installation	$ 2,140.00	2	$ 4,280.00
OPTIONAL:					
WIFI	EA	Equipment & Installation	$ 400.00	1	$ 400.00
Package Kiosk	EA	Public Private Partnership	$ 0.00	1	$ 0.00
Bicycle Repair Station	EA	Equipment & Installation	$ 1,500.00	1	$ 1,500.00
Bicycle Signal	EA	Equipment	$ 1,000.00	2	$ 2,000.00
Info Kiosk	EA	75" Digital Display Board	$ 6,000.00	1	$ 6,000.00
Air Misting System	EA	Equipment & Installation	$ 5,000.00	2	$ 10,000.00
TOTAL INVESTMENT					**$ 204,540.00**
MINIMUM INVESTMENT					**$ 104,430.00**

Source: Mobility Hubs Plan

Project Category: Alternative Mode – Transit

Project Number: 7

Project Name: Mobility Hub South Dade Government Center

Purpose: Improve access to transit

Need: Community Hub

Description: Improve access to transit for all.

Cost: $ 200,000

Table 54: South Dade Government Center Community Hub Amenities Cost Estimate

SOUTH DADE GOVERNMENT CENTER COMMUNITY MOBILITY HUB					
Recommended Amenities	**Unit**	**Measurement**	**Price**	**Quantity**	**Cost**
Standard Town Shelter	EA	Shelter, Seating, Garbage, Bike Rack, Lighting, Concrete	$43,330.00	2	$ 86,660.00
Real Time Information Signage	EA	Equipment & Installation	$ 400.00	2	$ 800.00
USB Charging Station	EA	Free Standing Station (10 phones)	$ 1,500.00	1	$ 1,500.00
Bike Share	EA	Station (10 Bikes)	$54,000.00	1	$ 54,000.00
Bicycle Storage Locker	EA	Equipment & Installation	$ 2,140.00	4	$ 8,560.00
Emergency Callbox	EA	Unit & Construction	$ 5,500.00	2	$ 11,000.00
Mechanical Box Wrap	EA	$15/SF (Avg. Cost for installation & material)	$ 1,000.00	7	$ 7,000.00
Package Kiosk	EA	Public Private Partnership	$ 0.00	1	$ 0.00
Carshare		Public Private Partnership	$ 0.00		$ 0.00
EV Charging	EA	Equipment & Installation	$ 8,000.00	2	$16,000.00
Security Camera	EA	Equipment & Installation	$ 600.00	2	$ 1,200.00
Library Share	EA	Equipment, Install & Registration	$ 200.00	1	$ 200.00
OPTIONAL:					
WIFI	EA	Equipment & Installation	$ 400.00	1	$ 400.00
Bicycle Repair Station	EA	Equipment & Installation	$1,500.00	1	$ 1,500.00
Bicycle Signal	EA	Equipment	$1,000.00	8	$ 8,000.00
Air Misting System	EA	Equipment & Installation	$5,000.00	2	$10,000.00
Info Kiosk	EA	75" Digital Display Board	$6,000.00	1	$ 6,000.00
TOTAL INVESTMENT					**$212,820.00**
MINIMUM INVESTMENT					**$186,920.00**

Source: Mobility Hubs Plan

Project Category: Alternative Mode – Transit

Project Number: 8

Project Name: Mobility Hub Community Health

Purpose: Improve access to transit

Need: Neighborhood Hub

Description: Improve access to transit for all.

Cost: $ 160,000

Table 49: Community Health Neighborhood Hub Amenities Cost Estimate

COMMUNITY HEALTH NEIGHBORHOOD HUB					
Recommended Amenities	**Unit**	**Measurement**	**Price**	**Quantity**	**Cost**
Shelter	EA	Standard Shelter	$ 29,894.23	2	$59,788.46
Bench	EA	Aluminum	$ 730.70	2	$ 1,461.40
Bike Rack	EA	2-6 Bikes	$ 660.89	2	$ 1,321.78
Bike Rental Station	EA	Station (10 Bikes)	$ 54,000.00	1	$54,000.00
Bicycle Storage Locker	EA	Equipment & Installation	$ 2,140.00	2	$ 4,280.00
USB Charging Station	EA	Free Standing Station (10 phones)	$ 1,500.00	1	$ 1,500.00
Security Camera	EA	Equipment & Installation	$ 600.00	2	$ 1,200.00
Trash/Recycle Receptacle	EA	Equipment & Installation	$ 500.00	2	$ 1,000.00
Real Time Information Signage	EA	Equipment & Installation	$ 400.00	2	$ 800.00
Library Share	EA	Equipment, Install & Registration	$ 200.00	1	$ 200.00
Emergency Call Box	EA	Unit & Construction	$ 5,500.00	1	$ 5,500.00
OPTIONAL:					
EV Charging Stations	EA	Equipment & Installation	$ 8,000.00	2	$ 16,000.00
Package Kiosk	EA	Public Private Partnership	$ 0.00	1	$ 0.00
Info Kiosk	EA	75" Digital Display Board	$ 6,000.00	1	$ 6,000.00
Air Misting System	EA	Equipment & Installation	$ 5,000.00	2	$ 10,000.00
Carshare		Public Private Partnership	$ 0.00	Varies	$ 0.00
WIFI	EA	Equipment & Installation	$ 400.00	1	$ 400.00
TOTAL INVESTMENT					**$163,451.64**
MINIMUM INVESTMENT					**$131,051.64**

Source: Mobility Hubs Plan

Project Category: Alternative Mode – Transit

Project Number: 9

Project Name: Mobility Hub Whispering Pines

Purpose: Improve access to transit

Need: Neighborhood Hub

Description: Improve access to transit for all.

Cost: $ 160,000

Table 50: Whispering Pine Neighborhood Hub Amenities Cost Estimate

WHISPERING PINE ROAD NEIGHBORHOOD HUB					
Recommended Amenities	**Unit**	**Measurement**	**Price**	**Quantity**	**Cost**
Standard Town Shelter	EA	Shelter, Seating, Garbage, Bike Rack, Lighting, Concrete	$43,330.00	2	$ 86,660.00
Real Time Information Signage	EA	Equipment & Installation	$ 400.00	2	$ 800.00
Library Share	EA	Equipment, Install & Registration	$ 200.00	1	$ 200.00
Bike Share	EA	Station (10 Bikes)	$54,000.00	1	$ 54,000.00
USB Charging Station	EA	Free Standing Station (10 phones)	$ 1,500.00	1	$ 1,500.00
Emergency Callbox	EA	Equipment & Installation	$ 5,500.00	2	$ 11,000.00
OPTIONAL:					
Bicycle Signal	EA	Equipment	$ 1,000.00	4	$ 4,000.00
Air Misting System	EA	Equipment & Installation	$ 5,000.00	2	$ 10,000.00
Security Camera	EA	Equipment & Installation	$ 600.00	2	$ 1,200.00
TOTAL INVESTMENT					**$ 169,360.00**
MINIMUM INVESTMENT					**$ 154,160.00**

Source: Mobility Hubs Plan

Project Category: Alternative Mode – Transit

Project Number: 10

Project Name: Mobility Hub Old Cutler Town Center

Purpose: Improve access to transit

Need: Community Hub

Description: Improve access to transit for all.

Cost: $ 100,000

Table 48: Old Town Center Community Hub Amenities Cost Estimate

OLD TOWN CENTER COMMUNITY MOBILITY HUB					
Recommended Amenities	**Unit**	**Measurement**	**Price**	**Quantity**	**Cost**
Mechanical Box Wraps	EA	$15/SF - Avg Cost Material & Install	$ 1,000.00	3	$ 3,000.00
Bike Rental Station	EA	10 Bikes	$54,000.00	1	$ 54,000.00
Recycle Receptacle	EA	Equipment & Installation	$ 500.00	2	$ 1,000.00
Real Time Information Signage	EA	Equipment & Installation	$ 400.00	2	$ 800.00
Library Share	EA	Equipment, Install & Registration	$ 200.00	1	$ 200.00
Info Kiosk	EA	75" Digital Display Board	$ 6,000.00	1	$ 6,000.00
USB Charging Station	EA	Free Standing Station for 10 phones	$ 1,500.00	1	$ 1,500.00
EV Charging Stations	EA	Equipment & Installation	$ 8,000.00	2	$ 16,000.00
Security Camera	EA	Equipment & Installation	$ 600.00	2	$ 1,200.00
Emergency Call Box	EA	Unit & Construction	$5,500.00	2	$ 11,000.00
OPTIONAL:					
Bicycle Storage Locker	EA	Equipment & Installation	$2,140.00	2	$ 4,280.00
Carshare		Public Private Partnership	$ 0.00	Varies	$ 00.0
Package Kiosk	EA	Public Private Partnership	$ 0.00	1	$ 0.00
Bicycle Repair Station	EA	Equipment & Installation	$1,500.00	1	$ 1,500.00
Air Misting System	EA	Equipment & Installation	$5,000.00	2	$ 10,000.00
WIFI	EA	Equipment & Installation	$ 400.00	1	$ 400.00
TOTAL INVESTMENT					**$ 110,880.00**
MINIMUM INVESTMENT					**$ 94,700.00**

Source: Mobility Hubs Plan

Project Category: Alternative Mode – Transit

Project Number: 11

Project Name: Mobility Hub Pine Wood

Purpose: Improve access to transit

Need: Neighborhood Hub

Description: Improve access to transit for all.

Cost: $ 160,000

Table 51: Pine Wood Neighborhood Hub Amenities Cost Estimate

PINE WOOD NEIGHBORHOOD MOBILITY HUB					
Recommended Amenities	**Unit**	**Measurement**	**Price**	**Quantity**	**Cost**
Standard Town Shelter	EA	Shelter, Seating, Garbage, Bike Rack, Lighting, Concrete	$ 43,330.00	2	$ 86,660.00
Real Time Information Signage	EA	Equipment & Installation	$ 400.00	2	$ 800.00
Bike Share	EA	Station (10 Bikes)	$ 54,000.00	1	$ 54,000.00
Emergency Callbox	EA	Equipment & Installation	$ 5,500.00	2	$ 11,000.00
Mechanical Box Wrap	EA	$15/SF (Avg. Cost of Material & Install)	$ 1,000.00	5	$ 5,000.00
Library Share	EA	Equipment, Install & Registration	$ 200.00	1	$ 200.00
USB Charging Station	EA	Free Standing Station (10 phones)	$ 1,500.00	1	$ 1,500.00
OPTIONAL:					
WIFI	EA	Equipment & Installation	$ 400.00	1	$ 400.00
Security Camera	EA	Equipment & Installation	$ 600.00	2	$ 1,200.00
Air Misting System	EA	Equipment & Installation	$ 5,000.00	2	$ 10,000.00
Package Kiosk	EA	Public Private Partnership	$ 0.00	1	$ 0.00
TOTAL INVESTMENT					**$ 170,760.00**
MINIMUM INVESTMENT					**$ 157,660.00**

Source: Mobility Hubs Plan

Project Category: Alternative Mode – Transit

Project Number: 12

Project Name: Mobility Hub The Isles of Bayshore

Purpose: Improve access to transit

Need: Neighborhood Hub

Description: Improve access to transit for all.

Cost: $ 120,000

Table 52: Isles of Bayshore Neighborhood Hub Amenities Cost Estimate

THE ISLES OF BAYSHORE NEIGHBORHOOD MOBILITY HUB					
Recommended Amenities	**Unit**	**Measurement**	**Price**	**Quantity**	**Cost**
Standard Town Shelter	EA	Shelter, Seating, Garbage, Bike Rack, Lighting, Concrete	$43,330.00	1	$ 43,330.00
Real Time Information Signage	EA	Equipment & Installation	$ 400.00	1	$ 400.00
USB Charging Station	EA	Free Standing Station for 10 phones	$ 1,500.00	1	$ 1,500.00
Bike Share	EA	Station - 10 Bikes	$54,000.00	1	$ 54,000.00
Emergency Callbox	EA	Equipment & Installation	$ 5,500.00	1	$ 5,500.00
Library Share	EA	Equipment, Install & Registration	$ 200.00	1	$ 200.00
OPTIONAL:					
WIFI	EA	Equipment & Installation	$ 400.00	1	$ 400.00
Package Kiosk	EA	Public Private Partnership	$ 0.00	1	$ 0.00
Security Camera	EA	Equipment & Installation	$ 600.00	1	$ 600.00
Carshare		Public Private Partnership	$ 0.00	Varies	$ 0.00
EV Charging	EA	Equipment & Installation	$ 8,000.00	2	$ 16,000.00
Air Misting System	EA	Equipment & Installation	$ 5,000.00	1	$ 5,000.00
Bicycle Repair Station	EA	Equipment & Installation	$ 1,500.00	1	$ 1,500.00
TOTAL INVESTMENT					**$ 128,430.00**
MINIMUM INVESTMENT					**$ 104,930.00**

Source: Mobility Hubs Plan

Project Category: Alternative Mode – Transit

Project Number: 13

Project Name: Mobility Hub Lakes by the Bay

Purpose: Improve access to transit

Need: Neighborhood Hub

Description: Improve access to transit for all.

Cost: $ 80,000

Table 55: Lakes by the Bay Neighborhood Hub Amenities Cost Estimate

LAKES BY THE BAY NEIGHBORHOOD MOBILITY HUB					
Recommended Amenities	**Unit**	**Measurement**	**Price**	**Quantity**	**Cost**
Recycle Receptacle	EA	Equipment & Installation	$ 500.00	2	$ 1,000.00
Real Time Information Signage	EA	Equipment & Installation	$ 400.00	2	$ 800.00
Bike Share	EA	Station (10 Bikes)	$54,000.00	1	$54,000.00
Emergency Callbox	EA	Equipment & Installation	$ 5,500.00	2	$11,000.00
Mechanical Box Wrap	EA	$15/SF (Avg. Cost for installation & material)	$ 1,000.00	2	$ 2,000.00
Library Share	EA	Equipment, Install & Registration	$ 200.00	1	$ 200.00
OPTIONAL:					
WIFI	EA	Equipment & Installation	$ 400.00	1	$ 400.00
Security Camera	EA	Equipment & Installation	$ 600.00	2	$ 1,200.00
USB Charging Station	EA	Free Standing Station (10 phones)	$ 1,500.00	1	$ 1,500.00
Bicycle Repair Station	EA	Equipment & Installation	$ 1,500.00	1	$ 1,500.00
Air Misting System	EA	Equipment & Installation	$ 5,000.00	2	$10,000.00
Bicycle Storage Locker	EA	Equipment & Installation	$ 2,140.00	2	$ 4,280.00
TOTAL INVESTMENT					**$87,880.00**
MINIMUM INVESTMENT					**$61,600.00**

Source: Mobility Hubs Plan

Project Category: Alternative Mode – Transit

Project Number: 14

Project Name: Mobility Hub Cutler Ridge

Purpose: Improve access to transit

Need: Neighborhood Hub

Description: Improve access to transit for all.

Cost: $ 90,000

Table 57: Cutler Ride Neighborhood Hub Amenities Cost Estimate

CUTLER RIDGE NEIGHBORHOOD MOBILITY HUB					
Recommended Amenities	**Unit**	**Measurement**	**Price**	**Quantity**	**Cost**
Recycle Receptacle	EA	Equipment & Installation	$ 500.00	2	$ 1,000.00
Real Time Information Signage	EA	Equipment	$ 400.00	2	$ 800.00
Bike Share	EA	Station (10 Bikes)	$ 54,000.00	1	$54,000.00
Emergency Callbox	EA	Unit & Construction	$ 5,500.00	2	$11,000.00
Mechanical Box Wrap	EA	$15/SF (Avg. Cost for installation & material)	$ 1,000.00	3	$ 3,000.00
USB Charging Station	EA	Free Standing Station (10 phones)	$ 1,500.00	1	$ 1,500.00
Library Share	EA	Equipment, Install & Registration	$ 200.00	1	$ 200.00
OPTIONAL:					
Security Camera	EA	Equipment & Installation	$ 600.00	2	$ 1,200.00
WIFI	EA	Equipment & Installation	$ 400.00	1	$ 400.00
Bicycle Repair Station	EA	Equipment & Installation	$ 1,500.00	1	$ 1,500.00
Bicycle Storage Locker	EA	Equipment & Installation	$ 2,140.00	2	$ 4,280.00
EV Charging	EA	Equipment & Installation	$ 0.00	2	$ 0.00
Carshare		Public Private Partnership	$ 0.00	Varies	$ 0.00
Bicycle Repair Station	EA	Equipment & Installation	$ 1,500.00	1	$ 1,500.00
Air Misting System	EA	Equipment & Installation	$ 5,000.00	2	$ 10,000.00
Bicycle Signal	EA	Equipment	$ 1,000.00	2	$2,000.00
TOTAL INVESTMENT					**$92,380.00**
MINIMUM INVESTMENT					**$71,500.00**

Source: Mobility Hubs Plan

Project Category: Alternative Mode – Transit

Project Number: 15

Project Name: Mobility Hub Eureka Drive East

Purpose: Improve access to transit

Need: Neighborhood Hub

Description: Improve access to transit for all.

Cost: $ 115,000

Table 56: Eureka Drive East Neighborhood Hub Amenities Cost Estimate

EUREKA DRIVE EAST NEIGHBORHOOD HUB					
Recommended Amenities	**Unit**	**Measurement**	**Price**	**Quantity**	**Cost**
Standard Town Shelter	EA	Shelter, Seating, Garbage, Bike Rack, Lighting, Concrete	$ 43,330.00	1	$ 43,330.00
Real Time Information Signage	EA	Equipment & Installation	$ 400.00	1	$ 400.00
Bike Share	EA	Station (10 Bikes)	$ 54,000.00	1	$ 54,000.00
Emergency Callbox	EA	Equipment & Installation	$ 5,500.00	1	$ 5,500.00
USB Charging Station	EA	Free Standing Station (10 phones)	$ 1,500.00	1	$ 1,500.00
Library Share	EA	Equipment, Install & Registration	$ 200.00	1	$ 200.00
OPTIONAL:					
Security Camera	EA	Equipment & Installation	$ 600.00	1	$ 600.00
WIFI	EA	Equipment & Installation	$ 400.00	1	$ 400.00
Package Kiosk	EA	Public Private Partnership	$ 0.00	1	$ 0.00
Bicycle Repair Station	EA	Equipment & Installation	$ 1,500.00	1	$ 1,500.00
Bicycle Signal	EA	Equipment	$ 1,000.00	2	$ 2,000.00
Air Misting System	EA	Equipment & Installation	$ 5,000.00	1	$ 5,000.00
Bicycle Storage Locker	EA	Equipment & Installation	$ 2,140.00	2	$ 4,280.00
TOTAL INVESTMENT					**$118,710.00**
MINIMUM INVESTMENT					**$104,930.00**

Source: Mobility Hubs Plan

Project Category: Alternative Mode – Transit

Project Number: 16

Project Name: Increase Go Connect Service

Purpose: Improve access to transit

Need: Improve first-last mile connectivity

Description: Increase Go Connect hours to include weekends

Cost: approximately $78,000 annually
$1,500 per weekend
Cost per revenue hour of $49.50, 5:30 am to 8:00 pm Saturday and Sunday

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Project Category: Alternative Mode – Transit

Project Number: 17

Project Name: Support promotional and educational program

Purpose: Improve access to transit

Need: Improve access to transit for all.

Description: Increase support & promotion of Easy Card, Discounted Fares, Golden Passport

Cost: $ 15,000

Project Category: Alternative Mode – Transit

Project Number: 18

Project Name: ADA Bus Stop Improvements

Purpose: Improve access to transit

Need: Improve access to transit for all.

Description:

- Along west side of SW 87 Avenue at SW 200 Terrace
- Along 87 Avenue just east of 184 Street
- Along 87 Avenue at 190 Street
- Along 87 Avenue and 193 Terrace
- Along 87 Avenue near 199 Street
- Old Cutler Road and SW 200 Terrace
- Franjo Road near Caribbean Boulevard

Cost: $ 14,000

Project Category: Alternative Mode – Transit

Project Number: 19

Project Name: Incorporate Mobility Hub elements & amenities

Purpose: Improve access to transit

Need: Recommended per Mobility Hubs Plan.

Description: Incorporate Mobility Hub elements and amenities in future development projects

Cost: $ TBD

Project Category: Alternative Mode – Transit

Project Number: 20

Project Name: Shared mobility

Purpose: Improve access to transit

Need: Recommended per Mobility Hubs Plan.

Description: Allocate space for shared services such as on demand shuttles and rideshare companies and consider the flexible use of that space where necessary.

Cost: $ Varies

Project Category: Alternative Mode – Transit

Project Number: 21

Project Name: Policy

Purpose: Improve access to transit

Need: Recommended per Mobility Hubs Plan.

Description: Amend the development review process to encourage developers to incorporate Mobility Hub features into their projects.

Cost: $-

Project Category: Alternative Mode – Transit

Project Number: 22

Project Name: Policy

Purpose: Improve access to transit

Need: Recommended per Mobility Hubs Plan.

Description: Adopt off-street parking requirements to better align with Mobility Hub investments

Cost: $-

Project Category: Alternative Mode – Transit

Project Number: 23

Project Name: Policy

Purpose: Improve access to transit

Need: Recommended per Mobility Hubs Plan.

Description:

- Explore a Branding & Marketing Plan and include a Wayfinding Signage Program

Cost: $ TBD

Project Category: Alternative Mode – Transit

Project Number: 24

Project Name: Policy

Purpose: Improve access to transit

Need: Recommended per Mobility Hubs Plan.

Description:
- Explore the use of Shared Mobility Options.

Cost: $ TBD

Project Category: Alternative Mode – Transit

Project Number: 25

Project Name: Policy

Purpose: Improve access to transit

Need: Recommended per Mobility Hubs Plan.

Description:
- Create Transit Partnerships with neighboring communities.

Cost: $-

Project Category: Alternative Mode – Transit

Project Number: 26

Project Name: Policy

Purpose: Mobility Fee

Need: Improve impact fee

Description: Adopt mobility fee, an impact fee imposed on new development or redevelopment to fund improvements related to all types of mobility, such as bicycle, pedestrian, and transit.

Cost: $ 65,000

ALTERNATIVE MODE PROJECTS TABLE - BICYCLE & PEDESTRIAN AND VULNERABLE POPULATION			
#	Project	Purpose	Need
1	Pedestrian Promenade US 1	Create a Pedestrian Promenade along the east side of U.S. 1 / S. Dixie Hwy	Improve access to transit and provides for better pedestrian safety, especially for the disabled and elderly near the ALFs
2	Educational Promotional Bike & Pedestrian Safety	Encouraging parents to allow their children to walk or bike to school and/or recreation areas.	Provides for better pedestrian and bicyclist safety
3	Bike Lane	SW 87 Avenue, SW 184 Street, Franjo Road, Marlin Road, Gulfstream Road, SW 216 Street, SW 97th Ave. between SW 216th Street and SW 212th Street, from Performing Arts Center to Black Creek Trail, shared use paths.	Providing more experienced cyclists with paths for longer trips through the community, connecting with regional facilities, eventually encouraging cycling commuters. • Providing less experienced cyclists with appropriately located safe paths that connect desirable local origins and destinations, eventually encouraging short trips on the system for shopping, entertainment, and recreational uses. • Providing connections between parks and schools, and residential neighborhoods.
4	Sidewalk infill/removal of obstructions Town-wide	Town wide: Sidewalk obstruction removal	Where feasible assure facilities are free of obstructions such as broken, uneven, or worn paths, intrusive vegetation, or misplaced essential infrastructure, such as fire hydrants, power poles and guy wires, etc.
5	Sidewalk Infill	Explore feasibility of extending sidewalk connectivity on the west side of Old Cutler Road between SW 184 Street and SW 87th Ave	Connecting the municipal bicycle and pedestrian network with the County network and potential networks in other cities.
6	Bike Share/E-Scooter	Explore implementation of bike share/ E-scooter program	Multi-mobility
7	Sidewalk Improvements	Connect sidewalk on 199 Street from 87 Avenue to Old Cutler Road	Provide for better pedestrian connectivity.
8	Sidewalk Improvements	Connect sidewalk along Caribbean Boulevard from SW 87 Avenue to SW 184 Street	Provide for better pedestrian connectivity.
9	ADA Crosswalk	• Tiffany Drive and SW 90 Court • SW 87 Avenue and SW 184 Terrace • SW 192 Drive and 93 Avenue • SW 192 Drive and SW 93 Road • SW 192 Drive and SW 92 Road • SW 93 Avenue and SW 190 Street • SW 190 Street and SW 93 Court • SW 190 Street and SW 94 Avenue • SW 190 Street and SW 95 Avenue • SW 189 Terrace and SW 95 Avenue	Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs

ALTERNATIVE MODE PROJECTS TABLE - BICYCLE & PEDESTRIAN AND VULNERABLE POPULATION			
#	Project	Purpose	Need
10	Safe Routes to School- Whispering Pines Elem	Intersection improvements need at: • SW 190 St/SW 89 Rd & SW 89 Av • SW 89 Road and SW 89 Court • Ridgeland Drive and SW 89 Road • Ridgeland Drive and SW 192 Drive • SW 89 Road and SW 187 Terrace • SW 89 Court and SW 187 Street	Provides for better pedestrian and bike safety
11	Midblock crossings and pedestrian refuges/medians	SW 87 Avenue • between SW 196 St & SW 198 St • between SW 194 Terr & SW 196 St • at SW 192 Street • at SW 189 Street • at SW 184 Terrace	Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs
12	Lighting Town- Wide	Conduct town-wide lighting study	Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs
13	Update Bike Ped Master Plan	Conduct town-wide master plan	Provides for better pedestrian and bike safety, especially for the disabled and elderly near the ALFs
14	Intersection Improvements	Install pedestrian signals where necessary in the Town.	Pedestrian signals enhance the safety of the pedestrian environment at crosswalks, especially proximate to the ALFs and schools.
15	Golf Cart Safety Program	Implement Golf Cart Safety Program	Citizen Request
16	In Road Warning Lights/ Pedestrian Hybrid Beacons	Explore feasibility of installation of IRWL/ PHB at midblock crossings	Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs
	Install Guardrails Where Drainage Inlets are Near Sidewalks where maximum drop-off height is exceeded.	Drainage inlets next to sidewalks are a safety hazard, especially combined with low lighting and where disabled and elderly regularly walk	Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs
18	Increase Visibility of Curbs, Lanes and Crosswalks Near ALFs	Brighter road markings—edge markings and other pavement markings should be retroreflective so drivers can see curbs, lanes, and intersections/crosswalks more easily	Provides for increased safety for drivers that are experiencing some sight loss due to age
19	Enhance Stop Signs	The minimum size of stop signs, near ALFs should be 30 inches to deal with reduced visual acuity in the older population. Enhance private stop signs inside ALF communities.	Provides for increased safety for drivers that are experiencing some sight loss due to age

ALTERNATIVE MODE PROJECTS DETAILS– BICYCLE & PEDESTRIAN AND VULNERABLE POPULATION

Project Category: Alternative Mode – Bicycle & Pedestrian and Vulnerable Population

Project Number: 1

Project Name: Pedestrian Promenade US 1

Purpose: Improve access to transit and provides for better pedestrian safety, especially for the disabled and elderly near the ALFs

Need: Improve access to transit and provides for better pedestrian safety, especially for the disabled and elderly near the ALFs.

Description: Create a Pedestrian Promenade along the east side of U.S. 1 / S. Dixie Hwy

Cost: $100,000- $150,000

Project Category: Alternative Mode – Bicycle & Pedestrian and Vulnerable Population

Project Number: 2

Project Name: Educational Promotional Bike & Pedestrian Safety

Purpose: Encouraging parents to allow their children to walk or bike to school and/or recreation areas.

Need: Provides for better pedestrian and bicyclist safety

Description: The Town of Cutler Bay should provide additional marketing effort to promote Bicycle and Pedestrian Safety throughout the Town.

Cost: $ 10,000

Project Category: Alternative Mode – Bicycle & Pedestrian and Vulnerable Population

Project Number: 3

Project Name: Bike Lane

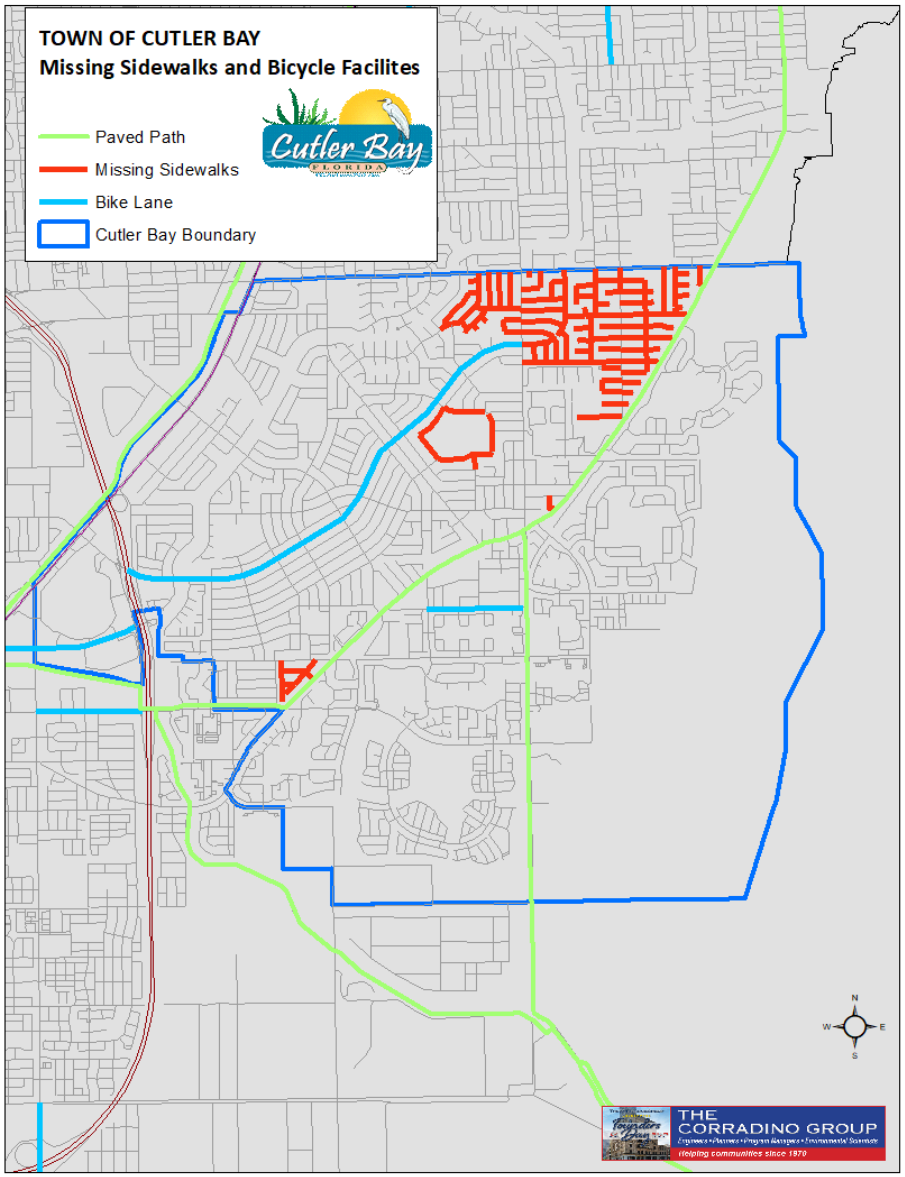
Purpose: SW 87 Avenue, SW 184 Street, Franjo Road, Marlin Road, Gulfstream Road, SW 216 Street, SW 97th Ave. between SW 216th Street and SW 212th Street, from Performing Arts Center to Black Creek Trail, shared use paths.

Need: Provides for better pedestrian and bicyclist safety

Description:

- Providing more experienced cyclists with paths for longer trips through the community, connecting with regional facilities, eventually encouraging cycling commuters.
- Providing less experienced cyclists with appropriately located safe paths that connect desirable local origins and destinations, eventually encouraging short trips on the system for shopping, entertainment, and recreational uses.
- Providing connections between parks and schools, and residential neighborhoods.

Cost: $ 1,500,000



Project Category: Alternative Mode – Bicycle & Pedestrian and Vulnerable Population

Project Number: 4

Project Name: Sidewalk infill/removal of obstructions Town-wide

Purpose: Where feasible, assure facilities are free of obstructions such as broken, uneven, or worn paths, intrusive vegetation, or misplaced essential infrastructure, such as fire hydrants, power poles and guy wires, etc.

Need: Provides for better pedestrian and bicyclist safety

Description: Connecting the municipal bicycle and pedestrian network with the County network and potential networks in other cities.

Cost: $ 300,000

Project Category: Alternative Mode – Bicycle & Pedestrian and Vulnerable Population

Project Number: 5

Project Name: Sidewalk Infill

Purpose: Where feasible, assure facilities are free of obstructions such as broken, uneven, or worn paths, intrusive vegetation, or misplaced essential infrastructure, such as fire hydrants, power poles and guy wires, etc.

Need: Provides for better pedestrian and bicyclist safety

Description: Connecting the municipal bicycle and pedestrian network with the County network and potential networks in other cities. Explore feasibility of extending sidewalk connectivity on the west side of Old Cutler Road between SW 184 Street and SW 87th Ave.

Cost: $ 100,000

Project Category: Alternative Mode – Bicycle & Pedestrian and Vulnerable Population

Project Number: 6

Project Name: Bike Share/E-scooter

Purpose: First-Last Mile Connectivity

Need: Provides for better pedestrian and bicyclist accessibility

Description: Explore implementation of bike share/ e scooter program

Cost: $ 150,000

Project Category: Alternative Mode – Bicycle & Pedestrian and Vulnerable Population

Project Number: 7

Project Name: Sidewalk Improvement SW 199 Street and Caribbean Blvd

Purpose: First-Last Mile Connectivity

Need: Provides for better pedestrian accessibility

Description:
- Connect sidewalk on 199 Street from 87 Avenue to Old Cutler Road

Cost: $30,000

Project Category: Alternative Mode – Bicycle & Pedestrian and Vulnerable Population

Project Number: 8

Project Name: Sidewalk Improvement Caribbean Blvd

Purpose: First-Last Mile Connectivity

Need: Provides for better pedestrian accessibility

Description:
- Connect sidewalk along Caribbean Boulevard from SW 87 Avenue to SW 184 Street

Cost: $ 82,000

Project Category: Alternative Mode – Bicycle & Pedestrian and Vulnerable Population

Project Number: 9

Project Name: ADA Crosswalk

Purpose: First-Last Mile Connectivity

Need: Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs

Description: Provide ADA Crosswalk at the following locations:
- Tiffany Drive and SW 90 Court
- SW 87 Avenue and SW 184 Terrace
- SW 192 Drive and 93 Avenue
- SW 192 Drive and SW 93 Road
- SW 192 Drive and SW 92 Road
- SW 93 Avenue and SW 190 Street
- SW 190 Street and SW 93 Court
- SW 190 Street and SW 94 Avenue
- SW 190 Street and SW 95 Avenue
- SW 189 Terrace and SW 95 Avenue

Cost: $ 100,000

Project Category: Alternative Mode – Bicycle & Pedestrian and Vulnerable Population

Project Number: 10

Project Name: Safe Routes to School: Whispering Pines Elementary

Purpose: Safety

Need: Provides for better pedestrian and bicycle safety

Description: Intersection improvements needed at

- Tiffany Drive and SW 90 Court
- SW 190 St/SW 89 Rd & SW 89 Av
- SW 89 Road and SW 89 Court
- Ridgeland Drive and SW 89 Road
- Ridgeland Drive and SW 192 Drive
- SW 89 Road and SW 187 Terrace
- SW 89 Court and SW 187 Street

Cost: $ 70,000

Project Category: Alternative Mode – Bicycle & Pedestrian and Vulnerable Population

Project Number: 11

Project Name: Midblock crossings and pedestrian refuges/medians

Purpose: Safety

Need: Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs

Description: SW 87 Avenue

- between SW 196 St & SW 198 St
- between SW 194 Terr & SW 196 St
- at SW 192 Street
- at SW 189 Street
- at SW 184 Terrace

Cost: $ 45,000

Project Category: Alternative Mode – Bicycle & Pedestrian and Vulnerable Population

Project Number: 12

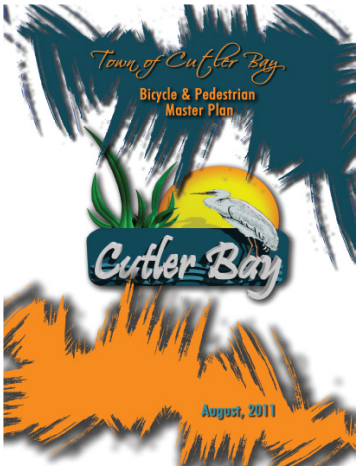
Project Name: Lighting Town- Wide

Purpose: Safety

Need: Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs

Description: Conduct town-wide lighting study

Cost: $ 100,000



Project Category: Alternative Mode – Bicycle & Pedestrian and Vulnerable Population

Project Number: 13

Project Name: Update Bike Ped Master Plan

Purpose: Safety

Need: Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs

Description: Conduct town-wide master plan

Cost: $ 120,000

Project Category: Alternative Mode – Bicycle & Pedestrian and Vulnerable Population

Project Number: 14

Project Name: Intersection Improvements

Purpose: Safety

Need: Pedestrian signals enhance the safety of the pedestrian environment at crosswalks, especially proximate to the ALFs and schools.

Description: Install pedestrian signals where necessary in the Town.

Cost: $ TBD

Project Category: Alternative Mode – Bicycle & Pedestrian and Vulnerable Population

Project Number: 15

Project Name: Golf Cart Safety Program

Purpose: Safety

Need: Citizen Request

Description: Implement Golf Cart Safety Program

Cost: $ 15,000

Project Category: Alternative Mode – Bicycle & Pedestrian and Vulnerable Population

Project Number: 16

Project Name: In Road Warning Lights/Pedestrian Hybrid Beacons

Purpose: Safety

Need: Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs

Description: Explore feasibility of installation of IRWL/PHB at midblock crossings

Cost: $ TBD

Project Category: Alternative Mode – Bicycle & Pedestrian and Vulnerable Population

Project Number: 17

Project Name: Install Guardrails Where Drainage Inlets are Near Sidewalks where maximum drop-off height is exceeded.

Purpose: Safety

Need: Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs

Description: Drainage inlets next to sidewalks are a safety hazard, especially combined with low lighting and where disabled and elderly regularly walk

Cost: $ TBD

Project Category: Alternative Mode – Bicycle & Pedestrian and Vulnerable Population

Project Number: 18

Project Name: Increase Visibility of Curbs, Lanes and Crosswalks Near ALFs

Purpose: Safety

Need: Provides for increased safety for drivers that are experiencing some sight loss due to age

Description: Brighter road markings—edge markings and other pavement markings should be retroreflective so drivers can see curbs, lanes, and intersections/crosswalks more easily

Cost: $ TBD

Project Category: Alternative Mode – Bicycle & Pedestrian and Vulnerable Population

Project Number: 19

Project Name: Enhance Stop Signs

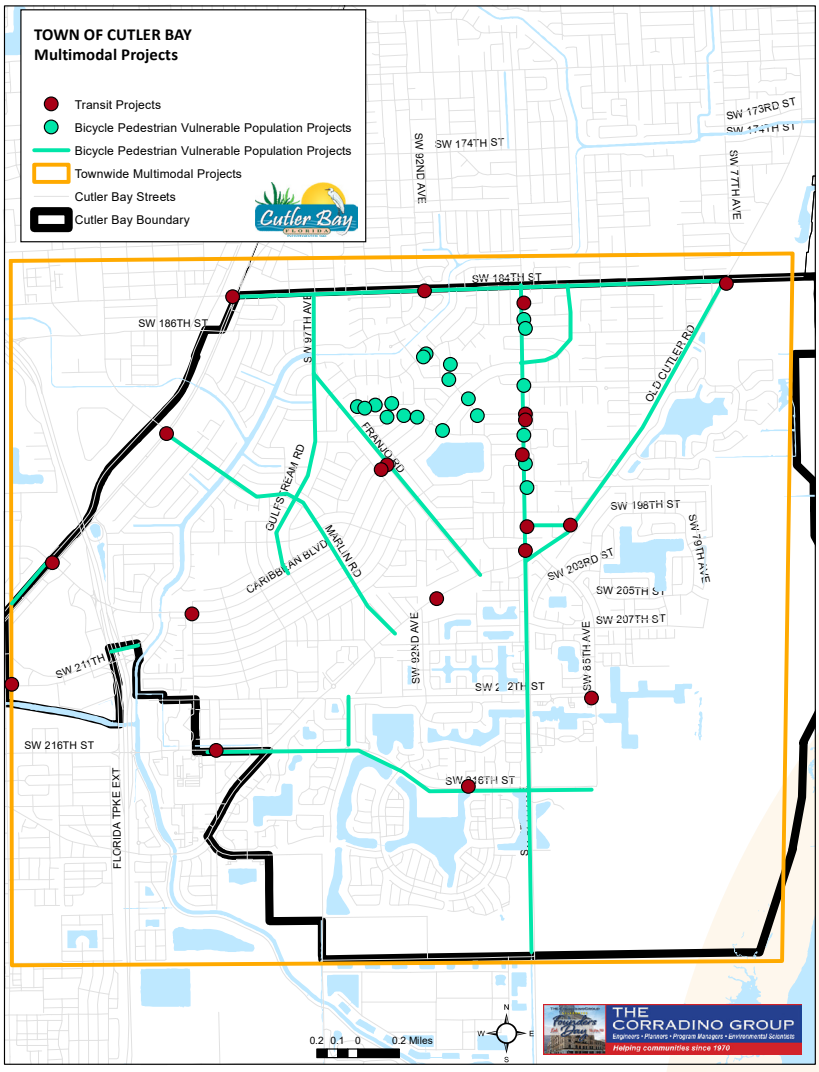
Purpose: Safety

Need: Provides for increased safety for drivers that are experiencing some sight loss due to age

Description: Enhance private stop signs inside ALF communities.
The minimum size of stop signs, near ALFs should be 30 inches to deal with reduced visual acuity in the older population.

Cost: $ -

MULTIMODAL PROJECTS MAP



POLICY, TECHNOLOGY & RESILIENCY PROJECTS

The development of priorities and standards are essential in planning for improvements in the future. Policy projects involve transportation and land use planning decisions on direction of growth and the standards to be applied to that growth, which when implemented, affect an individual person's environment and available options for transit choices. Policy decisions generally involve funding dedication and the scope of focus on future development. These decisions are also sometimes codified in a City's Comprehensive Plan and its ordinances and land development regulations. Often these issues are regional and involve consideration of issues outside of the Town boundaries.

POLICY, TECHNOLOGY & RESILIENCY PROJECTS TABLE

#	Project	Purpose	Need
1	Golf Cart Safety Program	Re-examination of Town Ordinance	Citizen Request
2	Mobility Fee	Explore mobility fee	Fund transportation improvements related to all types of mobility
3	Promote Local Economic Development	Explore Economic Development Study for the Town and adoption of policies and goals to increase local jobs and service sector opportunities.	Providing more needed services locally and local jobs will help address trends of high flow through traffic and increasing travel times to work found in analysis
4	Traffic Enforcement	Provide a higher level of traffic enforcement at certain locations	
5	Continue Town-wide Streetscape Program	Continue to evaluate main corridor rights of way and implement street scape programs, including street trees, benches, trash cans, recycle, lighting, and other street furniture	Aesthetics are important to enhance the character of the Town and are vital for the development of the pedestrian and bicycling modes of travel.
6	Actively coordinate with other governments and agencies	Coordinate with other regional governments to help plan the regional network	Many issues impacting Cutler Bay also impact all of South Dade and the US-1 Corridor. Coordination and communication with neighboring communities will help arrive at common solutions for common problems.
7	Support connecting all County Greenways	Support connecting all County greenways	Provides for a connected system which enhances bicycling/pedestrian mobility regionally.
8	Adopt and encourage further development of the County Bicycle Network	Support Miami-Dade County in development of additional bicycling infrastructure in the South Dade Area.	Additional linkages connected to the Town's bicycling infrastructure will increase bicycling mobility and provides for increased regional access.
9	Liaison with South Florida Commuter Services	Liaise with the South Florida Commuter Services regarding programs usable or needed by Town residents.	Promote ride-sharing options for commuters.
10	Bicycle/Pedestrian Committee	Implement a Bicycle/Pedestrian Committee, to meet on a quarterly basis.	Allows Citizens to provide regular feedback for consideration by the Town on pedestrian/ bicycling projects, facility maintenance, and plan implementation. From 2008 Master Plan.
	Coordinate with Miami		SW 184th St. is on the border with Palmetto

POLICY, TECHNOLOGY & RESILIENCY PROJECTS TABLE			
#	Project	Purpose	Need
10	Bicycle/Pedestrian Committee	Implement a Bicycle/Pedestrian Committee, to meet on a quarterly basis.	Allows Citizens to provide regular feedback for consideration by the Town on pedestrian/ bicycling projects, facility maintenance, and plan implementation. From 2008 Master Plan.
11	Coordinate with Miami Dade County and Palmetto Bay in regard to the future development of SW 184th St.	Coordinate with County and Palmetto Bay in regard to the future development of SW 184th St.	SW 184th St. is on the border with Palmetto Bay; as an arterial, considerations of flow-through traffic from the rest of the County is important for the road's future development.
12	Maintain Local Agency Program Certification	Maintain FDOT Local Agency certification to assist in funding processes for transportation projects.	LAP certification is necessary for many funding grants from FDOT, and must be renewed every 3 years (2015, 2018). Continuation from 2008 Master Plan.
13	Search for Federal Partnerships on pilot transit/ transportation programs	Research and apply for federal monies to enact local transportation/transit programs.	Grant monies will assist the Town in completing necessary improvements in a timely manner.
14	Technology	Explore 5 G networks/Broadband Infrastructure/Optimize access for teleworkers	Partner with wireless carriers to expand 5G network throughout the Town and offer free WiFi in public spaces. Reduce traffic congestion.
15	Vision Zero	Conduct Vision Zero Study	
16	Technology	Prepare for CAV Technology (Connected and Automated Vehicle)	Establish working group with Miami Dade County, FDOT, and others to monitor technology development, identify opportunities for piloting.
17	Technology	Electric Vehicle Charging Stations	Explore installation of additional electric vehicle charging stations at town wide.
18	Technology	Transition to electric vehicle Town fleet	Slowly phase out current petroleum-based fleet vehicles to support Town's environmental sustainability goal.
19	Branding/Way finding	Explore a Branding & Marketing Plan for Wayfinding Signage Program	Improve multimodal access
20	Transit Oriented Development	Continue to adopt policies that support TODs along the TC and TOD zoning Districts.	
21	Transit Oriented Development	Partner with State, local, and private partners to support TOD.	

Policy, Technology & Resiliency Projects Table			
#	Project	Purpose	Need
22	Transit Oriented Development	Create policies that Incentivize affordable housing within TC and TOC zoning.	
23	Technology	Revise LDRs to require installation of technologies (electric car charging station) for developments of certain sizes	
24	Resiliency	Adopt Resiliency Plan	
25	Resiliency	Prioritize Town improvements allowed for the Green Building Fund for the area east of Old Cutler Road. Expand the Clean Energy Green Corridor District to include the area immediately adjacent to Old Cutler Road. (This District currently exists along US-1.)	
26	Resiliency	Create Goals to Green the Fleet	A new comprehensive plan policy could be adopted to set a goal to electrify the Town-owned vehicle fleet to 50% of all vehicles by 2025 using the annual vehicle replacement budget in the Capital Budget. In support of the green fleet goal, the Town could set a goal of at least 10 vehicle charging stations within the Town (public and or private) by 2025 and revise the LDRs to include regulations that all new parking areas in the Town include EV charging stations.
27	Resiliency	Support TPO Telecommuting Policies/ Adopt Telecommuting Policy	Adopt telecommuting as a long-term policy to "flatten the congestion curve"
28	Policy	Explore the adoption of a Public Art Program to fund and implement Public Art throughout the Town.	
29	Resiliency	Implement Green Infrastructure Techniques for landscape enhancements near transit stops	Improve access to transit facilities

POLICY, TECHNOLOGY, & RESILIENCY PROJECT DETAILS

Project Category: Policy, Technology & Resiliency Projects

Project Number: 1

Project Name: Golf Cart Safety Program

Purpose: Revise land development regulations to ensure safety among golf cart users.

Need: Citizen Request

Description: Re-examine Town Golf Cart Ordinance to incorporate additional safety measures.

Cost: $ 5,000

Project Category: Policy, Technology & Resiliency Projects

Project Number: 2

Project Name: Mobility Fee

Purpose: Explore feasibility in creating mobility fee.

Need: Enhance funding for all forms of mobility. Fund transportation improvements related to all types of mobility.

Description: Explore feasibility in creating mobility fee.

Cost: $ 45,000

Project Category: Policy, Technology & Resiliency Projects

Project Number: 3

Project Name: Promote Local Economic Development

Purpose: Providing more needed services locally and local jobs will help address trends of high flow through traffic and increasing travel times to work found in analysis.

Need: Economic Development

Description: Explore Economic Development Study for the Town and adoption of policies and goals to increase local jobs and service sector opportunities.

Cost: $ 75,000

Project Category: Policy, Technology & Resiliency Projects

Project Number: 4

Project Name: Traffic Enforcement

Purpose: Providing a higher level of traffic enforcement at certain locations.

Need: Safety

Description: Explore implementing policies regarding traffic enforcement town wide.

Cost: $ 15,000

Project Category: Policy, Technology & Resiliency Projects

Project Number: 5

Project Name: Continue Town-wide Streetscape Program

Purpose: Aesthetics are important to enhance the character of the Town and are vital for the development of the pedestrian and bicycling modes of travel.

Need: Aesthetics

Description: Continue to evaluate main corridor rights of way and implement street scape programs, including street trees, benches, trash cans, recycle, lighting, and other street furniture.

Cost: $ 150,000

Project Category: Policy, Technology & Resiliency Projects

Project Number: 6

Project Name: Intergovernmental Coordination

Purpose: Actively coordinate with other governments and agencies

Need: Connectivity

Description: Coordinate with other regional governments to help plan the regional network. Many issues impacting Cutler Bay also impact all of South Dade and the US-1 Corridor. Coordination and communication with neighboring communities will help arrive at common solutions for common problems.

Cost: $-

TASK 4 | DEVELOPMENT OF POTENTIAL PROJECTS

Project Category: Policy, Technology & Resiliency Projects

Project Number: 7

Project Name: Intergovernmental Coordination

Purpose: Support connecting all County Greenways

Need: Connectivity

Description: Support connecting all County greenways. Provides for a connected system which enhances bicycling/ pedestrian mobility regionally.

Cost: $-

Project Category: Policy, Technology & Resiliency Projects

Project Number: 8

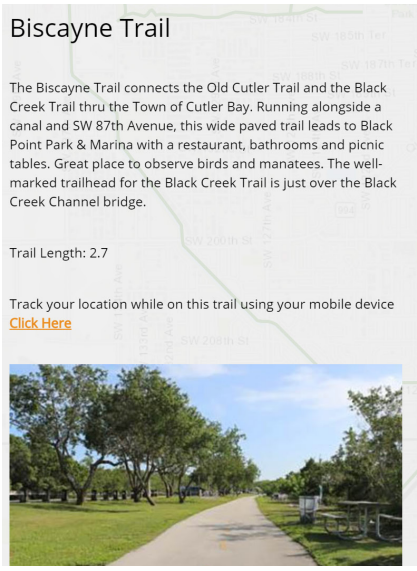
Project Name: Intergovernmental Coordination

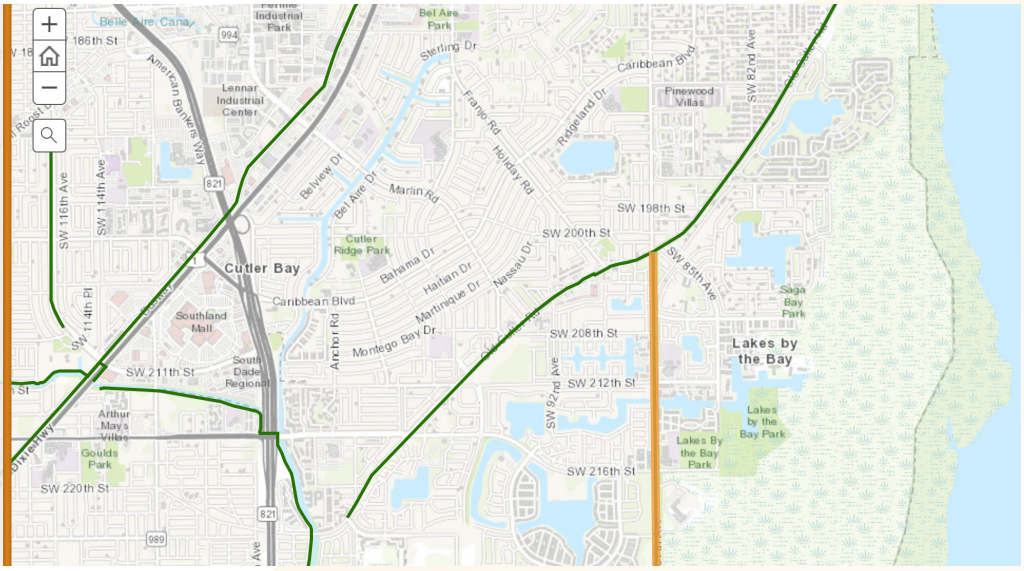
Purpose: Adopt and encourage further development of the County Bicycle Network

Need: Citizens Request. Connectivity. Additional linkages connected to the Town's bicycling infrastructure will increase bicycling mobility and provides for increased regional access.

Description: Support Miami-Dade County in development of additional bicycling infrastructure in the South Dade Area.

Cost: $-





Project Category: Policy, Technology & Resiliency Projects

Project Number: 9

Project Name: Intergovernmental Coordination

Purpose: Liaison with South Florida Commuter Services. Promote ride-sharing options for commuters.

Need: Connectivity

Description: Liaise with the South Florida Commuter Services regarding programs usable or needed by Town residents.

Cost: $-

Project Category: Policy, Technology & Resiliency Projects

Project Number: 10

Project Name: Bicycle/Pedestrian Committee

Purpose: Allows Citizens to provide regular feedback for consideration by the Town on pedestrian/bicycling projects, facility maintenance, and plan implementation. From 2008 Master Plan.

Need: Connectivity

Description: Implement a Bicycle/Pedestrian Committee, to meet on a quarterly basis.

Cost: $-

Project Category: Policy, Technology & Resiliency Projects

Project Number: 11

Project Name: Intergovernmental Coordination

Purpose: Coordinate with Miami Dade County and Palmetto Bay in regard to the future development of SW 184th St.

Need: SW 184th St. is on the border with Palmetto Bay; as an arterial, considerations of flow-through traffic from the rest of the County is important for the road's future development.

Description: Coordinate with County and Palmetto Bay in regard to the future development of SW 184th St.

Cost: $-

Project Category: Policy, Technology & Resiliency Projects

Project Number: 12

Project Name: Maintain Local Agency Program Certification

Purpose: Maintain FDOT Local Agency certification to assist in funding processes for transportation projects.

Need: LAP certification is necessary for many funding grants from FDOT, and must be renewed every 3 years (2015, 2018). Continuation from 2008 Master Plan.

Description: Maintain FDOT Local Agency certification to assist in funding processes for transportation projects.

Cost: $-

Project Category: Policy, Technology & Resiliency Projects

Project Number: 13

Project Name: Grant Research

Purpose: Search for Federal Partnerships on pilot transit/transportation programs

Need: Research and apply for federal monies to enact local transportation/transit programs. Grant monies will assist the Town in completing necessary improvements in a timely manner.

Description: Search for Federal Partnerships on pilot transit/transportation programs

Cost: $-

Project Category: Policy, Technology & Resiliency Projects

Project Number: 14

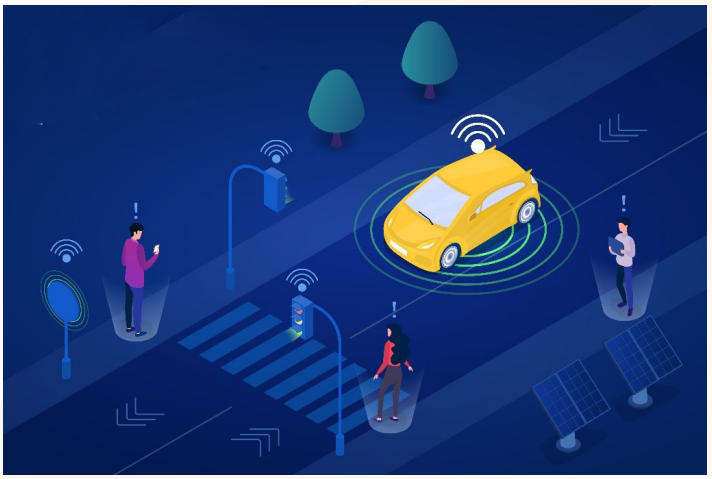
Project Name: Technology

Purpose: Explore 5G networks/Broadband Infrastructure/ Optimize access for teleworkers

Need: Optimize access for teleworkers

Description: Partner with wireless carriers to expand 5G network throughout the Town and offer free WiFi in public spaces. Reduce traffic congestion.

Cost: $ TBD



Project Category: Policy, Technology & Resiliency Projects

Project Number: 15

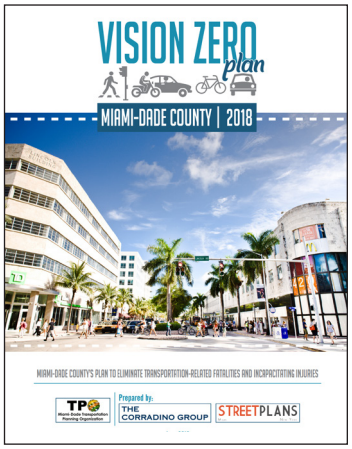
Project Name: Vision Zero/Safety

Purpose: Improve safety

Need: Improve safety throughout Town for all.

Description: Conduct Vision Zero Study

Cost: $ 100,000



Project Category: Policy, Technology & Resiliency Projects

Project Number: 16

Project Name: Intergovernmental Coordination/Technology

Purpose: Prepare for CAV technology

Need: Prepare for CAV Technology (Connected and Automated Vehicle)

Description: Establish working group with Miami Dade County, FDOT, and others to monitor technology development, identify opportunities for piloting.

Cost: $-

Project Category: Policy, Technology & Resiliency Projects

Project Number: 17

Project Name: Electric Vehicle Charging Stations

Purpose: Resiliency

Need: Support Town's environmental sustainability goal.
Description: Explore installation of additional electric vehicle charging stations at town wide.

Cost: $ TBD

TASK 4 | DEVELOPMENT OF POTENTIAL PROJECTS

Project Category: Policy, Technology & Resiliency Projects

Project Number: 18

Project Name: Electric Vehicle Fleet

Purpose: Resiliency

Need: Support Town's environmental sustainability goal.

Description: Slowly phase out current petroleum-based fleet vehicles to support Town's environmental sustainability goal.

Cost: $ TBD

Project Category: Policy, Technology & Resiliency Projects

Project Number: 19

Project Name: Branding/Wayfinding

Purpose: Improve multimodal access

Need: Economic Development/Enhancements

Description: Explore a Branding & Marketing Plan for Wayfinding Signage Program

Cost: $ TBD

Project Category: Policy, Technology & Resiliency Projects

Project Number: 20

Project Name: Transit Oriented Development (TOD)

Purpose: Accessibility

Need: Multimodal access.

Description: Continue to adopt policies that support TODs along the TC and TOD zoning Districts.

Cost: $-

Project Category: Policy, Technology & Resiliency Projects

Project Number: 21

Project Name: Intergovernmental Coordination/Transit Oriented Development (TOD)

Purpose: Accessibility

Need: Multimodal access.

Description: Partner with State, local, and private partners to support TOD.

Cost: $-

Project Category: Policy, Technology & Resiliency Projects

Project Number: 22

Project Name: Policy/Transit Oriented Development (TOD)

Purpose: Accessibility

Need: Multimodal access.

Description: Create policies that Incentivize affordable housing within TC and TOC zoning.

Cost: $-

Project Category: Policy, Technology & Resiliency Projects

Project Number: 23

Project Name: Policy/Revision of Land Development Regulations

Purpose: Support Town efforts for resiliency

Need: Support Town efforts for resiliency

Description: Revise LDRs to require installation of technologies (electric car charging station) for developments of certain sizes.

Cost: $-

TASK 4 | DEVELOPMENT OF POTENTIAL PROJECTS

Project Category: Policy, Technology & Resiliency Projects

Project Number: 24

Project Name: Resiliency Plan

Purpose: Support Town efforts for resiliency

Need: Support Town efforts for resiliency

Description: Adopt Resiliency Plan

Cost: $-

Project Category: Policy, Technology & Resiliency Projects

Project Number: 25

Project Name: Green Building Fund

Purpose: Support Town efforts for resiliency

Need: Support Town efforts for resiliency

Description: Prioritize Town improvements allowed for the Green Building Fund for the area east of Old Cutler Road. Expand the Clean Energy Green Corridor District to include the area immediately adjacent to Old Cutler Road. (This District currently exists along US-1.)

Cost: $-

Project Category: Policy, Technology & Resiliency Projects

Project Number: 26

Project Name: Green Fleet/Comprehensive Plan

Purpose: Support Town efforts for resiliency

Need: Support Town efforts for resiliency

Description: A new comprehensive plan policy could be adopted to set a goal to electrify the Town-owned vehicle fleet to 50% of all vehicles by 2025 using the annual vehicle replacement budget in the Capital Budget. In support of the green fleet goal, the Town could set a goal of at least 10 vehicle charging stations within the Town (public and or private) by 2025 and revise the LDRs to include regulations that all new parking areas in the Town include EV charging stations.

Cost: $-

Project Category: Policy, Technology & Resiliency Projects

Project Number: 27

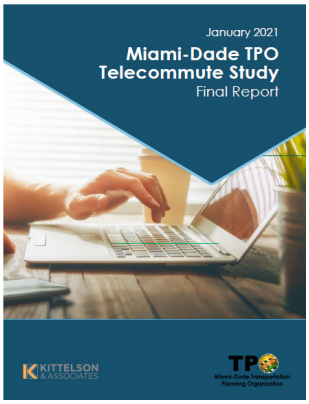
Project Name: Support TPO Telecommuting Policies/Adopt Telecommuting Policy

Purpose: Support Town efforts for resiliency

Need: Support Town efforts for resiliency

Description: Support TPO Telecommuting Policies/Adopt Telecommuting Policy. Adopt telecommuting as a long-term policy to "flatten the congestion curve"

Cost: $-



Source: Miami Dade TPO

Project Category: Policy, Technology & Resiliency Projects

Project Number: 28

Project Name: Policy-Public Art

Description: Explore the adoption of a Public Art Program to fund and implement Public Art throughout the Town.

Cost: $TBD

Project Category: Policy, Technology & Resiliency Projects

Project Number: 29

Project Name: Resiliency

Description: Implement Green Infrastructure Techniques for landscape enhancements near transit stops

Need: Support Town efforts for resiliency

Cost: $TBD

TASK 5 | Implementation Strategy

This chapter presents a priority listing of projects. After detailed consideration of the costs, benefits and community desire, ideas from the initial lists have been utilized, consolidated, or dropped. In creating a formal prioritized listing, projects from the initial lists that had no significant impact because they were not addressing a formal need were generally dropped from consideration. Some projects were consolidated in order to create a more easily read report, but have individual components which may be implemented separately, such filling in specific gaps in the sidewalk system or addressing crosswalk issues at intersections. Redundant projects or ideas that approached a similar problem or area were also consolidated.

Each project was evaluated on how well they would address a series of criteria developed from concepts taken from the initial Strategic Plan, the Cutler Bay Growth Management Plan, as well as the ideas stemming from the public involvement portion of this study.

Addressing transportation, land use, effect on intermodal transit, and quality of life issues are important in evaluating the projects. A simplified system was developed measuring how well the projects met the criteria. Eight criteria were utilized in the scoring system:

- Ease of Implementation
- Efficiency
- Effectiveness
- Promotes Safety
- Environmentally Friendly
- Promotes Casual Flow
- Maintains/Enhances Town Character
- Reduces Traffic Intrusion

In the project charts, a **green box** was colored if the project matched the criteria in a positive manner. A **yellow box** was colored if the projects were neutral to the criteria. A **red box** was colored if the projects matched up negatively with the criteria.

The goal in was also to assign a time horizon in which they could be implemented. A list of projects with time horizons was developed. The following Table presents the projects and categorizes each project into two Tiers. The purpose of ranking by Tiers is to establish a schedule, Tier I projects are phased in the short-term (1 to 5 years); Tier II projects are further out, but still in the near future (5 to 10 years). The project priorities are subject to change if additional funding come available. This could be in the form of grants, private funding or impact fees. If additional funds are to become available, the Town should consider re-prioritizing projects.

These lists and this Master Plan should act as a guideline for project efforts. It is anticipated that the staff would consider these lists as a component of all the issues that go into the annual budgeting and project prioritization process. They should be revisited each year in an effort to match projects with changing needs of the community and particularly in light of outside funding resources which may be available for these projects. The document should be updated every several years to evaluate changes in traffic volumes, development patterns, funding streams as well as shifts in policy.

ROADWAY CAPACITY & CORRIDOR ENHANCEMENT PROJECTS

The original fifty-four (54) Roadway Capacity and Corridor Enhancement Projects were reviewed, with forty-one (41) projects selected through the prioritization process.

CC#	Project	Cost	Purpose	Need	Ease of Implementation	Efficiency	Effectiveness	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains/Enhances Town Character	Reduces Traffic intrusion	Overall Priority	Tier
CC1	Traffic Circle Franjo Rd & Cutler Ridge Dr	$400,000	Traffic Calming/ Operational Analysis	Identified Project in the 2017 Complete Streets Corridor Analysis/ Visual obstruction at intersection										1
CC2	Traffic Circle Franjo Rd & Gulfstream Rd	$400,000	Traffic Calming	Identified Project in the 2017 Complete Streets Corridor Analysis										1
CC3	Traffic Circle Gulfstream Rd & Marlin Rd	$400,000	Traffic Calming	Identified Project in the 2017 Complete Streets Corridor Analysis										1
CC4	Traffic Circle Marlin Rd & Bel Aire Dr	$400,000	Traffic Calming	Identified Project in the 2017 Complete Streets Corridor Analysis, Calm speeding and enhance pedestrian safety near Bel Aire Elementary.										1
CC5	SW 87 Ave from Old Cutler Rd to SW 184 St	$25,000	Complete Streets/Traffic Calming	Identified Project in the 2017 Complete Streets Corridor Analysis, Citizen complaint.										2
CC6	Marlin Rd from US 1 to Old Cutler Rd	$300,000-$850,000	Complete Streets	Identified Project in the 2017 Complete Streets Corridor Analysis										2
CC7	Franjo Rd from Old Cutler Road to SW 184 St	$300,000-$850,000	Complete Streets	Identified Project in the 2017 Complete Streets Corridor Analysis										2
CC8	Gulfstream Rd to Old Cutler Road	$105,000	Connectivity	Create connection from Gulfstream Rd to Old Cutler Rd										2

CC#	Project	Cost	Purpose	Need	Ease of Implementation	Efficiency	Effectiveness	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains/Enhances Town Character	Reduces Traffic intrusion	Overall Priority	Tier
CC9	Intersection Analysis Franjo Rd & Old Cutler Rd	$20,000	Intersection and operations analysis on Franjo Rd from Old Cutler Rd to Caribbean Blvd	Noted as LOS deficiencies for current analysis and horizon 2030.										1
CC10	Intersection Analysis Franjo Rd & Caribbean Blvd	$20,000	Intersection and operations analysis on Franjo Rd from Old Cutler Rd to Caribbean Blvd	Noted as LOS deficiencies for current analysis and horizon 2030.										2
CC11	Intersection Analysis Franjo Rd & SW 184 St	$20,000	Intersection and operations analyses on Franjo Rd from Caribbean Blvd to SW 184 St	Noted as LOS deficiencies for current analysis and horizon 2030.										2
CC12	Intersection Analysis Caribbean Blvd & Marlin Rd	$20,000	Intersection and operations analyses on Caribbean Blvd from 821 to Marlin Rd	Noted as LOS deficiencies for current analysis and horizon 2030.										2
CC13	Intersection Analysis SW 216 St & Old Cutler Rd	$20,000	Intersection and operations analyses on SW 216 St from SR 821 to Old Cutler Rd	Noted as LOS deficiencies for current analysis and horizon 2030.										2
CC14	Intersection Analysis SW 216 St & SW 87 Ave	$20,000	Intersection and operations analyses on SW 216 St from Old Cutler Rd to SW 87 Ave	Noted as LOS deficiencies for current analysis and horizon 2030.										2
CC15	Intersection Analysis Old Cutler Rd & Marlin Rd	$20,000	Intersection and operations analyses on Old Cutler Rd from SW 216 St to Marlin Rd	Noted as LOS deficiencies for current analysis and horizon 2030.										2
CC16	Intersection Analysis Marlin Rd & US 1	$20,000	Intersection operations analyses on Marlin Rd from US 1 to SW 184 St	Noted as LOS deficiencies for current analysis and horizon 2030.										2
CC17	Intersection Analysis US 1 & SW 184 St	$20,000	Intersection operations analyses on US 1 from Marlin Rd to SW 184 St	Noted as LOS deficiencies for current analysis and horizon 2030.										2

CC#	Project	Cost	Purpose	Need	Ease of Implementation	Efficiency	Effectiveness	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains/Enhances Town Character	Reduces Traffic intrusion	Overall Priority	Tier
CC18	Intersection Safety Analysis	$105,000	Analyze and address most dangerous intersections	Safety is a critical priority. Yearly, the Town should review accident data and located the most dangerous 10% to undergo operational safety analysis.										1
CC19	Signal Warrant Analysis SW 186 St & Franjo Rd	$10,000	Conduct signal warrant analysis and implement results as necessary	Noted as LOS deficiencies for current analysis and horizon 2030.										2
CC20	School Loading Zones	$15,000	Analysis and implementation of loading zone (drop off and pick up points) at schools.	Peak hours at schools may cause localized congestion due to dropping off/pick up children without space to prevent impediment of other flow through traffic.										2
CC21	Connect SW 97 Ave to Gulfstream Rd and SW 212 St	$125,000	Extend 97 Ave to Gulfstream Rd to SW 212 St (approx. 500 ft.)	Allows more direct route to Old Cutler Rd and SW 212 St										1
CC22	Turnpike Interchange @ OCR, NB Entrance, SB Exit	$50,000	Work with FDOT to have them undertake an Interchange Justification Study to locate and eventually implement ingress/egress from the Turnpike in relation to Old Cutler Rd	Coordinate with FDOT and Turnpike to authorize initiate studies for additional planning level analysis placed on next LRTP.										2
CC23	Left turn lane- Franjo Rd/SW 186 Intersection	$350,000	left turn lane at Franjo/ SW 186 intersection	Noted as LOS deficiencies for current analysis and horizon 2030.										1
CC24	Left turn lane- OCR southwest bound left turn storage lane at Marlin Rd	$34,000	Old Cutler Rd. southwest bound left turn storage lane at Marlin Rd	As required by Traffic Study for Publix on OCR										1

CC#	Project	Cost	Purpose	Need	Ease of Implementation	Efficiency	Effectiveness	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains/Enhances Town Character	Reduces Traffic intrusion	Overall Priority	Tier
CC25	Left turn lane- OCR southwest bound left turn storage lane at Snapper Place	$80,000	Old Cutler Rd. southwest bound left turn storage lane at Snapper Place	As required by Traffic Study for Publix on OCR										1
CC26	Add Lane- Additional approach lane to the westbound approach of SW 208 St and Old Cutler Rd	$80,000	Additional approach lane to the westbound approach of SW 208 St and Old Cutler Rd	As required by Traffic Study for Publix on OCR										1
CC27	Signal Progression Analysis- for US 1, Marlin Rd, Old Cutler Rd, Franjo Rd	$120,000	Evaluate the main corridors signal progression	Adequate signal progression can improve a safe, casual flow of vehicles, moving more traffic while maintaining moderate speeds and a safe pedestrian environment.										2
CC28	Truck Routing Study Throughout Major Corridors	$25,000	Evaluate appropriate truck routes. To assure trucks are provided a clear path through the community.	Truck traffic management will help the Town within increasing mobility.										1
CC29	Street Lights- SW 82 Ave, SW 87 Ave, SW 184 Street, SW 210 St, Franjo Road	$300,000	Install streetlights on SW, 82 Ave, SW 87 Ave, SW 184 St, SW 210 St, Franjo Rd	Current lighting levels are inadequate.										2
CC30	Road Connection- Connect Cutler Ridge Dr to OCR	$190,000	Connect Cutler Ridge Dr/ SW 200 St to Old Cutler Rd approx. 200 ft.	Address gap in the roadway network. Provides mobility and capacity.										1
CC31	Road Closure- on SW 97 Ave. between SW 232 St. and SW 224 St. and SW 234 St. between SW 97 Ave. and theoretical SW 98 Ave.	$25,000	Continue to process road closure on SW 97 Ave. between SW 232 St. and SW 224 St. and SW 234 St. between SW 97 Ave. and theoretical SW 98 Ave.	Protects residential neighborhood from traffic intrusion										2

CC#	Project	Cost	Purpose	Need	Ease of Implementation	Efficiency	Effectiveness	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains/Enhances Town Character	Reduces Traffic intrusion	Overall Priority	Tier
CC32	Street Repaving Program	$2,000,000	Continue to maintain and repave roadways as necessary	Provides greater access and promotes traffic dispersion.										1-2
CC33	Speed Tables- SW 99 Ct between SW 212 Street & SW 216 St	$25,000	Speed Tables	Identified project in Traffic Calming Master Plan										1
CC34	Chicane- SW 210 Street	$10,000	SW 210 St between SW 87 Ave & SW 92 Ave	Identified project in Traffic Calming Master Plan										2
CC35	Raised Crosswalk- SW 97 Ave between SW 216 St & SW 219 St	$32,000	Raised Crosswalk	Identified project in Traffic Calming Master Plan										2
CC36	Roundabout- SW 85 Ave & SW 207 St	$125,000-$400,000	Roundabout	Identified project in Traffic Calming Master Plan										2
CC37	Roundabout- Gulfstream Rd. & Holiday Rd.	$125,000-$400,000	Roundabout	Identified project in Traffic Calming Master Plan										2
CC38	Roundabout- SW 97 Ave & SW 212 St	$125,000-$400,000	Roundabout	Identified project in Traffic Calming Master Plan										2
CC39	Roundabout- Gulfstream Rd. & Marlin Rd.	$125,000-$400,000	Roundabout	Identified project in Traffic Calming Master Plan										2
CC40	Roundabout- SW 200 St & SW 88 Pl	$125,000-$400,000	Roundabout	Identified project in Traffic Calming Master Plan										2
CC41	Traffic Calming Devices	$25,000	Explore Feasibility of installing Traffic Calming devices along Tiffany Drive	Citizen complaint										1

ALTERNATIVE MODE - TRANSIT PROJECTS

The Alternative Mode projects were condensed into forty-five (45) projects from the original forty-six (46).

AMT#	Project	Cost	Purpose	Need	Ease of Implementation	Efficiency	Effectiveness	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains/Enhances Town Character	Reduces Traffic intrusion	Overall Priority	Tier
AMT1	Town Circulator Operational Analysis	$75,000	Conduct Study/ Operational Analysis of the Town Circulator with consideration of headway times and expansion of days of service, improvements to the bus stop facilities for ADA compliance and general services. Improve access to transit by decreasing headways from 60 minutes to 30 minutes	Addresses citizens requests, ADA gaps, gaps in service. Improve access to transit, provide greater connectivity and reduce travel time.										1
AMT2	Additional Bus Stop	$46,000	Add bus stop along 184 street between Franjo Road and SW 87 Avenue	Improve access to transit										2
AMT3	Policy Adoption	$-	Adopt Policy within Transportation Element of the Comprehensive Plan	Promote disadvantaged populations and access to Transit										1
AMT4	Mobility Hub Caribbean Blvd	$234,000	Community Hub	Improve access to transit										2
AMT5	Mobility Hub Eureka Drive West	$160,000	Community Hub	Improve access to transit										2
AMT6	Mobility Hub Marlin Drive	$204,540	Community Hub	Improve access to transit										2
AMT7	Mobility Hub South Dade Government Center	$200,000	Community Hub	Improve access to transit										2
AMT8	Mobility Hub Community Health	$160,000	Neighborhood Hub	Improve access to transit										2
AMT9	Mobility Hub Whispering Pines	$160,000	Neighborhood Hub	Improve access to transit										2

AMT#	Project	Cost	Purpose	Need	Ease of Implementation	Efficiency	Effectiveness	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains/Enhances Town Character	Reduces Traffic intrusion	Overall Priority	Tier
AMT10	Mobility Hub Old Cutler Town Center	$100,000	Community Hub	Improve access to transit										2
AMT11	Mobility Hub Pine Wood	$160,000	Neighborhood Hub	Improve access to transit										2
AMT12	Mobility Hub The Isles of Bayshore	$120,000	Neighborhood Hub	Improve access to transit										2
AMT13	Mobility Hub Lakes by the Bay	$80,000	Neighborhood Hub	Improve access to transit										2
AMT14	Mobility Hub Cutler Ridge	$90,000	Neighborhood Hub	Improve access to transit										2
AMT15	Mobility Hub Eureka Drive East	$115,000	Neighborhood Hub	Improve access to transit										2
AMT16	Increase Go Connect Service	$78,000	Increase Go Connect hours to include weekends	Improve access to transit										1
AMT17	Support promotional and educational program	$15,000	Increase support & promotion of Easy Card, Discounted Fares, Golden Passport	Improve access to transit										1
AMT18	ADA Bus Stop Improvements	$14,000	• Along west side of SW 87 Avenue at SW 200 Terrace • Along 184 Street west of 87 Avenue • Along 87 Avenue just east of 184 Street • Along 87 Avenue at 190 Street • Along 87 Avenue and 193 Terrace • Along 87 Avenue near 199 Street • Old Cutler Road and SW 200 Terrace • Franjo Road near Caribbean Boulevard	Improve access to transit										1

AMT#	Project	Cost	Purpose	Need	Ease of Implementation	Efficiency	Effectiveness	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains/Enhances Town Character	Reduces Traffic intrusion	Overall Priority	Tier
AMT19	Incorporate Mobility Hub elements & amenities	$TBD	Incorporate Mobility Hub elements and amenities in future development projects	Improve access to transit										2
AMT20	Shared mobility	$TBD	Allocate space for shared services such as on demand shuttles and rideshare companies and consider the flexible use of that space where necessary.	Improve access to transit										2
AMT21	Policy	$-	Amend the development review process to encourage developers to incorporate Mobility Hub features into their projects.	Improve access to transit										1
AMT22	Policy	$-	Adopt off-street parking requirements to better align with Mobility Hub investments	Improve access to transit										1
AMT23	Policy	$TBD	Explore a Branding & Marketing Plan and include a Wayfinding Signage Program	Improve access to transit										2
AMT24	Policy	$TBD	Explore the use of Shared Mobility Options.	Improve access to transit										1
AMT25	Policy	$-	Create Transit Partnerships with neighboring communities.	Improve access to transit										1
AMT26	Policy-Explore mobility fee	$65,000	Adopt mobility fee, an impact fee imposed on new development or redevelopment to fund improvements related to all types of mobility, such as bicycle, pedestrian, and transit.	Improve access to transit										1

ALTERNATIVE MODE - BICYCLE & PEDESTRIAN AND VULNERABLE POPULATION PROJECTS

AM BPV#	Project	Cost	Purpose	Need	Ease of Implementation	Efficiency	Effectiveness	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains/Enhances Town Character	Reduces Traffic intrusion	Overall Priority	Tier
AM BPV1	Pedestrian Promenade US 1	$100,000-$150,000	Create a Pedestrian Promenade along the east side of U.S. 1 / S. Dixie Hwy	Improve access to transit and provides for better pedestrian safety, especially for the disabled and elderly near the ALFs										1
AM BPV2	Educational Promotional Bike & Pedestrian Safety	$10,000	Encouraging parents to allow their children to walk or bike to school and/or recreation areas.	Provides for better pedestrian and bicyclist safety										2
AM BPV3	Bike Lane	$1,500,000	SW 87 Avenue, SW 184 Street, Franjo Road, Marlin Road, Gulfstream Road, SW 216 Street, SW 97th Ave. between SW 216th Street and SW 212th Street, from Performing Arts Center to Black Creek Trail, shared use paths.	• Providing more experienced cyclists with paths for longer trips through the community, connecting with regional facilities, eventually encouraging cycling commuters. • Providing less experienced cyclists with appropriately located safe paths that connect desirable local origins and destinations, eventually encouraging short trips on the system for shopping, entertainment, and recreational uses. • Providing connections between parks and schools, and residential neighborhoods.										2

AM BPV#	Project	Cost	Purpose	Need	Ease of Implementation	Efficiency	Effectiveness	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains/Enhances Town Character	Reduces Traffic intrusion	Overall Priority	Tier
AM BPV4	Sidewalk infill/ removal of obstructions Town-wide	$300,000	Town wide: Sidewalk obstruction removal	Where feasible assure facilities are free of obstructions such as broken, uneven, or worn paths, intrusive vegetation, or misplaced essential infrastructure, such as fire hydrants, power poles and guy wires, etc.										2
AM BPV5	Sidewalk Infill	$100,000	Explore feasibility of extending sidewalk connectivity on the west side of OCR between SW 184 St and SW 87 Ave.	Connecting the municipal bicycle and pedestrian network with the County network and potential networks in other cities.										
AM BPV6	Bike Share/E-Scooter	$150,000	Explore implementation of bike share/ e scooter program	Support multimodal and 1st/last mile connectivity										2
AM BPV7	Sidewalk Improvements	$30,000	Connect sidewalk on 199 Street from 87 Avenue to Old Cutler Road	Provides for better pedestrian accessibility										1
AM BPV8	Sidewalk Improvements	$82,000	Connect sidewalk along Caribbean Boulevard from SW 87 Avenue to SW 184 Street	Provides for better pedestrian accessibility										

AM BPV#	Project	Cost	Purpose	Need	Ease of Implementation	Efficiency	Effectiveness	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains/Enhances Town Character	Reduces Traffic intrusion	Overall Priority	Tier
AM BPV9	ADA Crosswalk	$100,000	• Tiffany Drive and SW 90 Court, • SW 87 Avenue and SW 184 Terrace • SW 192 Drive and 93 Avenue, • SW 192 Drive and SW 93 Road, • SW 192 Drive and SW 92 Road, • SW 93 Avenue and SW 190 Street, • SW 190 Street and SW 93 Court, • SW 190 Street and SW 94 Avenue, • SW 190 Street and SW 95 Avenue, • SW 189 Terrace and SW 95 Avenue	Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs										1
AM BPV10	Safe Routes to School-Whispering Pines Elem	$70,000	Intersection improvements need at: • Tiffany Dr & SW 90 Ct, • SW 190 St/SW 89 Rd & SW 89 Av, • SW 89 Road and SW 89 Court, • Ridgeland Drive and SW 89 Road, • Ridgeland Drive and SW 192 Drive, • SW 89 Road and SW 187 Terrace, • SW 89 Court and SW 187 Street	Provides for better pedestrian and bike safety										1

AM BPV#	Project	Cost	Purpose	Need	Ease of Implementation	Efficiency	Effectiveness	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains/Enhances Town Character	Reduces Traffic intrusion	Overall Priority	Tier
AM BPV11	Midblock crossings and pedestrian refuges/medians	$45,000	SW 87 Avenue Between: • SW 196 St & SW 198 St, • SW 194 Terr & SW 196 St, • at SW 192 Street, • at SW 189 Street, • at SW 184 Terrace,	Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs										2
AM BPV12	Lighting Town- Wide	$100,000	Conduct town-wide lighting study	Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs										1
AM BPV13	Update Bike Ped Master Plan	$120,000	Conduct town-wide master plan	Provides for better pedestrian and bike safety, especially for the disabled and elderly near the ALFs										1
AM BPV14	Intersection Improvements	$TBD	Install pedestrian signals where necessary in the Town.	Pedestrian signals enhance the safety of the pedestrian environment at crosswalks, especially proximate to the ALFs and schools.										2
AM BPV15	Golf Cart Safety Program	$15,000	Implement Golf Cart Safety Program	Citizen Request										1
AM BPV16	In Road Warning Lights/Pedestrian Hybrid Beacons	$TBD	Explore feasibility of installation of IRWL/ PHB at midblock crossings	Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs										2
AM BPV17	Install Guardrails Where Drainage Inlets are Near Sidewalks where maximum drop-off height is exceeded.	$TBD	Drainage inlets next to sidewalks are a safety hazard, especially combined with low lighting and where disabled and elderly regularly walk	Provides for better pedestrian safety, especially for the disabled and elderly near the ALFs										1

AM BPV#	Project	Cost	Purpose	Need	Ease of Implementation	Efficiency	Effectiveness	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains/Enhances Town Character	Reduces Traffic Intrusion	Overall Priority	Tier
AM BPV18	Increase Visibility of Curbs, Lanes and Crosswalks Near ALFs	$TBD	Brighter road markings—edge markings and other pavement markings should be retroreflective so drivers can see curbs, lanes, and intersections/ crosswalks more easily	Provides for increased safety for drivers that are experiencing some sight loss due to age										2
AM BPV19	Enhance Stop Signs	$-	The minimum size of stop signs, near ALFs should be 30 inches to deal with reduced visual acuity in the older population. Enhance private stop signs inside ALF communities.	Provides for increased safety for drivers that are experiencing some sight loss due to age										1

POLICY, TECHNOLOGY, AND RESILIENCY PROJECTS

The Policy, Technology, and Resiliency Projects were reviewed and re-organized, with some projects from other sections added, being classified as more policy-oriented projects for the Town.

PTR#	Project	Cost	Purpose	Need	Ease of Implementation	Efficiency	Effectiveness	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains/Enhances Town Character	Reduces Traffic Intrusion	Overall Priority	Tier
PTR1	Golf Cart Safety Program	$5,000	Re-examination of Town Ordinance	Citizen Request										1
PTR2	Mobility Fee	$45,000	Explore mobility fee											1
PTR3	Promote Local Economic Development	$75,000	Explore Economic Development Study for the Town and adoption of policies and goals to increase local jobs and service sector opportunities.	Providing more needed services locally and local jobs will help address trends of high flow through traffic and increasing travel times to work found in analysis										1
PTR4	Traffic Enforcement	$15,000	Provide a higher level of traffic enforcement at certain locations											2
PTR5	Continue Town-wide Streetscape Program	$150,000	Continue to evaluate main corridor rights of way and implement street scape programs, including street trees, benches, trash cans, recycle, lighting, and other street furniture	Aesthetics are important to enhance the character of the Town and are vital for the development of the pedestrian and bicycling modes of travel.										1
PTR6	Actively coordinate with other governments and agencies	$-	Coordinate with other regional governments to help plan the regional network	Many issues impacting Cutler Bay also impact all of South Dade and the US-1 Corridor. Coordination and communication with neighboring communities will help arrive at common solutions for common problems.										1

PTR#	Project	Cost	Purpose	Need	Ease of Implementation	Efficiency	Effectiveness	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains/Enhances Town Character	Reduces Traffic Intrusion	Overall Priority	Tier
PTR7	Support connecting all County Greenways	$-	Support connecting all County greenways	• Provides for a connected system which enhances bicycling/ pedestrian mobility regionally.										1
PTR8	Adopt and encourage further development of the County Bicycle Network	$-	Support Miami-Dade County in development of additional bicycling infrastructure in the South Dade Area.	Additional linkages connected to the Town's bicycling infrastructure will increase bicycling mobility and provides for increased regional access.										1
PTR9	Liaison with South Florida Commuter Services	$-	Liaise with the South Florida Commuter Services regarding programs usable or needed by Town residents.	Promote ride-sharing options for commuters.										1
PTR10	Bicycle/Pedestrian Committee	$-	Implement a Bicycle/Pedestrian Committee, to meet on a quarterly basis.	Allows Citizens to provide regular feedback for consideration by the Town on pedestrian/ bicycling projects, facility maintenance, and plan implementation. From 2008 Master Plan.										1
PTR11	Coordinate with Miami Dade County and Palmetto Bay in regard to the future development of SW 184th St.	$-	Coordinate with County and Palmetto Bay in regard to the future development of SW 184th St.	SW 184th St. is on the border with Palmetto Bay; as an arterial, considerations of flow-through traffic from the rest of the County is important for the road's future development.										1

PTR#	Project	Cost	Purpose	Need	Ease of Implementation	Efficiency	Effectiveness	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains/Enhances Town Character	Reduces Traffic Intrusion	Overall Priority	Tier
PTR12	Maintain Local Agency Program Certification	$-	Maintain FDOT Local Agency certification to assist in funding processes for transportation projects.	• LAP certification is necessary for many funding grants from FDOT, and must be renewed every 3 years (2015, 2018). Continuation from 2008 Master Plan.										1-2
PTR13	Search for Federal Partnerships on pilot transit/ transportation programs	$-	Research and apply for federal monies to enact local transportation/ transit programs.	Grant monies will assist the Town in completing necessary improvements in a timely manner.										1
PTR14	Technology	$TBD	Explore 5 G networks/Broadband Infrastructure/ Optimize access for teleworkers	Partner with wireless carriers to expand 5G network throughout the Town and offer free WiFi in public spaces. Reduce traffic congestion.										1
PTR15	Vision Zero	$100,000	Conduct Vision Zero Study											1
PTR16	Technology	$-	Prepare for CAV Technology (Connected and Automated Vehicle)	Establish working group with Miami Dade County, FDOT, and others to monitor technology development, identify opportunities for piloting.										2
PTR17	Technology	$TBD	Electric Vehicle Charging Stations	Explore installation of additional electric vehicle charging stations at town wide.										2
PTR18	Technology	$TBD	Transition to electric vehicle Town fleet	Slowly phase out current petroleum-based fleet vehicles to support Town's environmental sustainability goal.										1

PTR#	Project	Cost	Purpose	Need	Ease of Implementation	Efficiency	Effectiveness	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains/Enhances Town Character	Reduces Traffic intrusion	Overall Priority	Tier
PTR19	Branding/ Wayfinding	$TBD	Explore a Branding & Marketing Plan for Wayfinding Signage Program	Improve multimodal access										2
PTR20	Transit Oriented Development		Continue to adopt policies that support TODs along the TC and TOD zoning Districts.											1
PTR21	Transit Oriented Development	$-	Partner with State, local, and private partners to support TOD.											1
PTR22	Transit Oriented Development	$-	Create policies that Incentivize affordable housing within TC and TOC zoning.											1
PTR23	Technology	$-	Revise LDRs to require installation of technologies (electric car charging station) for developments of certain sizes											1
PTR24	Resiliency	$-	Adopt Resiliency Plan											1
PTR25	Resiliency	$-	Prwexists along US-1.)											1

PTR#	Project	Cost	Purpose	Need	Ease of Implementation	Efficiency	Effectiveness	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains/Enhances Town Character	Reduces Traffic Intrusion	Overall Priority	Tier
PTR26	Resiliency	$-	Create Goals to Green the Fleet	A new comprehensive plan policy could be adopted to set a goal to electrify the Town-owned vehicle fleet to 50% of all vehicles by 2025 using the annual vehicle replacement budget in the Capital Budget. In support of the green fleet goal, the Town could set a goal of at least 10 vehicle charging stations within the Town (public and or private) by 2025 and revise the LDRs to include regulations that all new parking areas in the Town include EV charging stations.										1
PTR27	Resiliency	$-	Support TPO Telecommuting Policies/Adopt Telecommuting Policy	Adopt telecommuting as a long-term policy to “flatten the congestion curve”										1
PTR28	Policy	$TBD	Explore the adoption of a Public Art Program to fund and implement Public Art throughout the Town.											2
PTR29	Resiliency	$TBD	Implement green infrastructure techniques for landscape enhancements near transit stops	Improve access to transit facilities										1

TOWN OF CUTLER BAY MASTER PLAN UPDATE

CUTLER BAY
MOVING FORWARD

Prepared by
THE CORRADINO GROUP