Town of Cutler Bay

Transportation Master Plan

THE CORRADINO GROUP

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Cutler Bay

Introduction

This chapter provides an examination of multiple issues impacting the Town of Cutler Bay relative to transportation. It has been divided into four main sections which discuss **Policy**, **Projects**, transportation system **Performance,** and **Indicators** of mobility.

In Florida and South Dade, transportation is the byproduct of often long-standing policies that guide decision-making and infrastructure placement. Policy initiatives such as Florida's Growth Management Act, the policy of Concurrency, the Miami-Dade County Comprehensive Plan, Cutler Bay's Growth Management Plan, the Urban Development Boundary, the Old Cutler Road Historic Designation and the Busway have been examined and are all integral to the formation of our system.

Official transportation work programs like the Long Range Transportation Improvement Plan (LRTP), the Transportation Improvement Program, (TIP), and People's Transportation Plan, (PTP), have been examined because they are the necessary paths all projects must travel prior to planning, design and implementation.

The State Growth Management legislation sets overall guidance and structure for local planning. The Town's Growth Management Plan sets local policy as long as it is in accordance with county and state policy. A myriad of studies have been undertaken examining transportation in South Dade over the years. These have been briefly discussed.

The configuration of the physical roadways, their classification and function have been reviewed and explained. Transit has been examined, including its routes, headways and infrastructure locations. Bicycle and pedestrian corridors have been mapped and a discussion relative to the concept of Level of Service has been undertaken. Traffic conditions have been projected to 2015 and 2030; these have been displayed in a spread sheet and on maps.

Finally, less tangible indicators of mobility have been examined, including vehicle use, vehicles per household, vehicle miles traveled, the impact of high fuel prices, and travel time to work, all of which can be benchmarks to measure progress for becoming multimodal.

Summary

Cutler Bay geographically sits in the center of Miami-Dade County but is at the southern end of the bulk of development growing southward out from Miami. It is connected by US-1 and is growing together with the

Homestead urban area. However, the developable land in this end of the county is constrained, as the Urban Development Boundary tightly surrounds the US-1 Corridor.

Policy

Following long-standing state and county planning, the Town has embraced its Urban Center District and the Old Cutler Road Charrette areas, both centers of relative intensity in a mainly low density residential area. Cutler Bay's Growth Management Plan focuses on the provision of a safe, convenient, accessible and efficient transportation system, one that is financially feasible and meets the needs of the town's residents. This transportation master plan is an integral step in doing so. As development occurs in this narrow strip of developable land, the Town will have to make sure that proper infrastructure is in place to provide an adequate level of service, which is made more complex because of the inability to widen Old Cutler Road and the existence of the Busway.

Projects

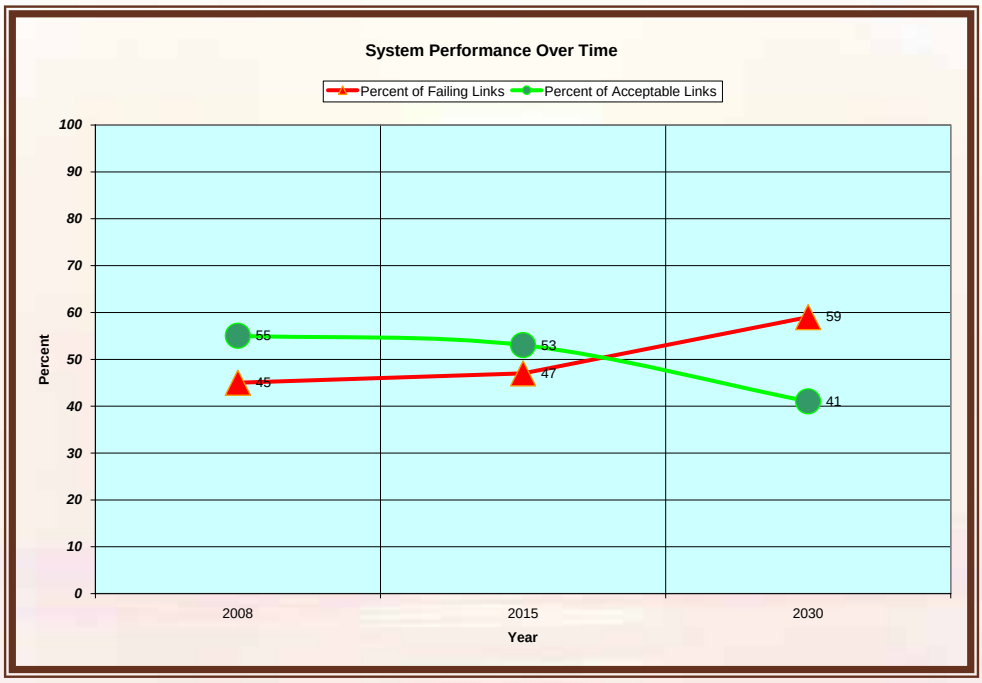
There are few planned projects in the area. Many of these are on the turnpike system. Very few are on the surface streets, leaving great opportunities in the areas of roadway capacity and transit. Many of these types of projects will come from local recommendations.

Performance

Today the local transportation network is functioning adequately. It will deteriorate over time because of the interrupted grid system throughout the county; traffic is forced on a few arterials as it moves primarily north and south. There are only three roads that are connected from Cutler Bay north past 88th Street. There are no major employment centers south of 88th Street. Tens of thousands of people commute from South Dade north of that location on a daily basis. The bulk of these trips are forced onto the Turnpike, US-1 or Old Cutler Road. Regardless of the local perception of Old Cutler Road in Cutler Bay, Palmetto Bay, Pinecrest and Coral Gables, it is an arterial that transports residents to their jobs. The issue is that it has been designated a historic district and hence cannot be widened.

Traffic counts were taken at 49 roadway links on 14 roads (links are segments of roadway between intersections). The level of service standard in Cutler Bay is LOS D, so anything at E or worse is failing. In 2008, 27 of 49 links or 55% operate at an acceptable level of service. 22 links or 45% are failing. By 2015, 26 links (53%) are acceptable, and 23 links (47%) are failing. By 2030, 20 links (41%) are acceptable, and 29 links (59%) are failing. Most traffic seems to be moving north and south through Cutler Bay. This follows the expected commuting pattern of trips moving north out of South Dade in the morning to work and back again in the evening. This is mainly because the employment centers are mostly all north of 88th Street.

US-1 carries the bulk of the volume through Cutler Bay, with daily volumes between 52,000 vehicles and 73,000 vehicles. The level of service on this road is at LOS E at its worse.



Marlin Road is LOS D between Old Cutler Road and Caribbean and LOS F between Caribbean and north of US-1. Only 8,400 daily trips are on Marlin Road between Old Cutler Road and Caribbean. The number jumps to 13,500 between Caribbean and US-1. It jumps to 37,000 north of US-1, as Northbound US-1 traffic joins it.
Franjo is LOS F as it approaches 184th, accounting for over 18,000 vehicles per day.

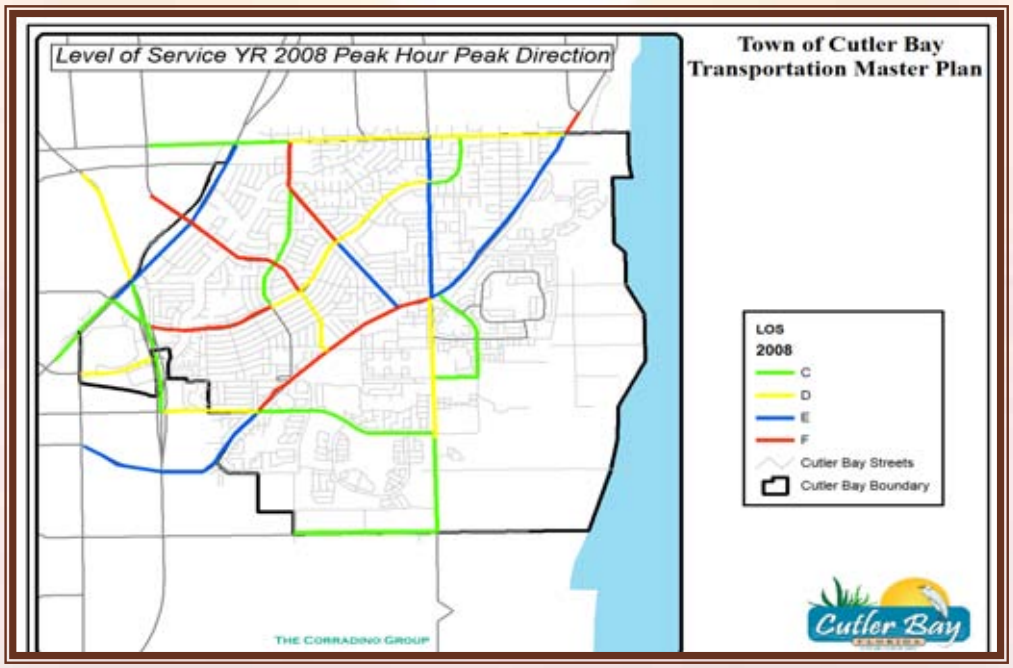
87th Avenue goes from LOS C south of 200th Street to LOS E north of Old Cuter Road, carrying a volume of between 2,800 vehicles per day on the southern most segment to over 13,000 vehicles per day just south of 184th Street.

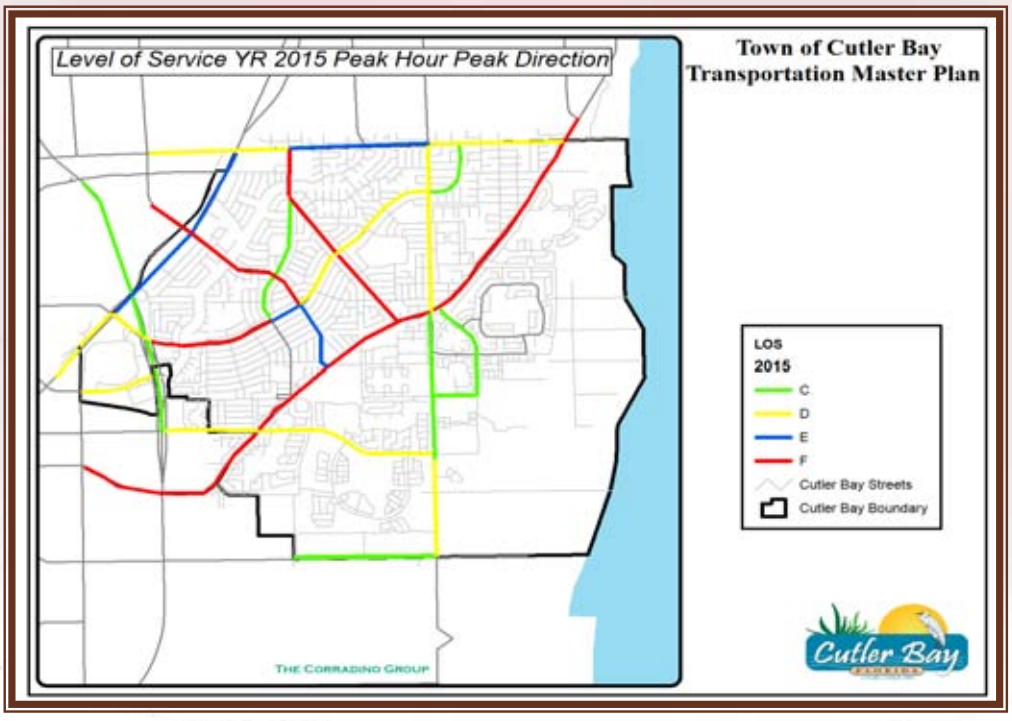
Two roads have a higher volume on their southern or central links than they do on their northern links. Old Cutler Road is one of these with its intensity between 216th Street and 87th Avenue. Many northbound trips exit on 87th Avenue to head north through Palmetto Bay instead of staying on Old Cutler Road. This road is a borderline LOS F. At its best it has only 17 trips of capacity left in it. Looked at another way, the allowable LOS on the road is actually LOS D, so the entire road is expected to breach the level of service threshold in the coming years.

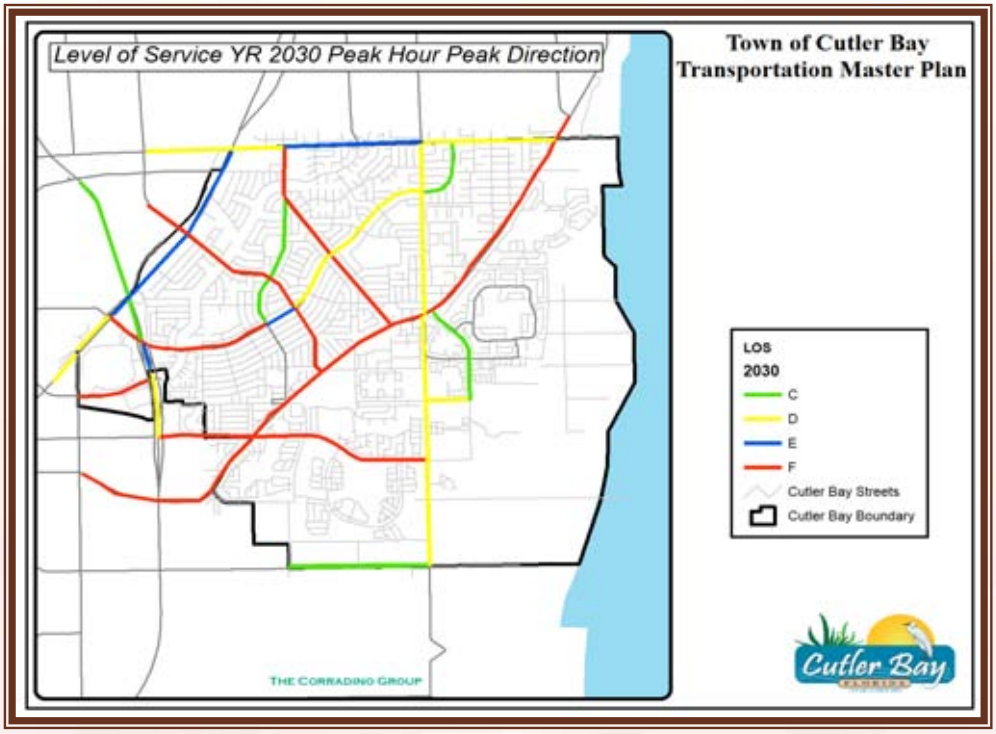
Caribbean Boulevard is a similar example. This is LOS F on its southern leg, between the Turnpike and 97th Avenue, LOS D between 97th Avenue and 87th Avenue, and LOS C between 87th Avenue and 184th Street. This road carries daily volumes of traffic between 6,000 and 31,000 per day.

What is seen here is the gravity of the Turnpike as people head to Western Dade locations such as Doral, the Southland Mall and the Old Cuter Road commercial center as generators. Carried forward, one can see the impact that the Urban Center District and the Old Cutler Road Charrette Area will have in the future as they develop as mix use with office and residential centers in the area. While an intensity of traffic may be seen at the point of

activity, this traffic will be classified as both origins and destinations, meaning that they will both have positive financial impacts on the community as opposed to being directional pass through traffic which will only leave congestion and pollution. Both have the potential to reverse traffic flow on each of the major roads carrying people through the community. It also shows that any additional development not only in Cutler Bay, but in the western part of the county, and areas south of the Town, will create a need for additional capacity, as many of these areas are not serviced by transit presently.







Nine bus routes operate in Cutler Bay. These buses pick up people between every 7 and 40 minutes. The area is well-covered by transit and nearly 20,000 people ride these routes every day. The main transit attractor is the Busway; it serves as a commuter line and helps relieve congestion on US-1. Recently there was a danger of loosing some routes due to MDT budget cuts, and the enforcement of performance standards. Fares were raised and the Cutler Bay routes that meet the performance standards have been saved. The Town is well-covered by bicycle facilities along Old Cuter Road, 87th Avenue and the Busway.

Indicators

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 being used as an Origin and a Destination. It may be a valuable experiment, and a very "green" initiative to benchmark Cutler Bay with these indicators and track their movement over time. This would indicate how well transportation and green policies are working. A snapshot of Cutler Bay, as compared with other communities across the nation, shows that the Town is both suburban and urban, unlike all but a few cities in Miami-Dade County and scores higher relative to a "mobility index." It is through this that the Town may want to measure its success in making the community multi-modal or in being "green." There are about 1.47 vehicles per household in Cutler Bay. This is below the national average of 1.9. Yet, closer to the UCD, this number drops to less than 1.4 while outside of this area the number is closer to 1.6 vehicles per household. This number generally means that there are more travel options where the number of vehicles is lower.

Vehicle-Miles Traveled (VMT) per household in Cutler Bay ranges from 13,500 along the regional centers to 16,800 in the Saga Bay and Lakes by the Bay neighborhoods. The Town of Cutler Bay's VMT's per household rank significantly higher than the national average of 10,500 miles per household. These numbers point to the fact that we are still very far from major employment centers. Yet those living closest to transit travel much less distance in a car each year. The average travel time to work in the Tow Generally in the Urban Center District, the community n of Cutler Bay is 33.35 minutes, higher than Florida's average of 25.9 minutes. On average, residents closer to US-1 and Florida's turnpike experience lower travel times than those located to the east. The disparity in travel time is attributed to the connectivity of the different neighborhood and the direct access to the principle arterial roadways. Travel time within the town typically ranges from 29.09 to 37.07 minutes. The MPO model shows that Cutler Bay is an origin but not a destination. Over 19,000 work trips leave the Town for areas outside of South Dade. Only 1,300 trips originate and are destined for locations within Cutler Bay. Conversely, only 8,600 trips are destined for Cutler Bay from areas outside of South Dade. All of this has a definite impact on personal finances because the 3,300 mile-per-year difference between the suburban areas and the urban areas of the town equates to a savings of about +- $700 each year. Whereas in 2000 all areas of the town paid less than $1,600 per year in gas, by 2008, those closest to the UCD paid between $2,400 and $3,000 per, while those further out- paid between $3,000 and $3,800 per year.

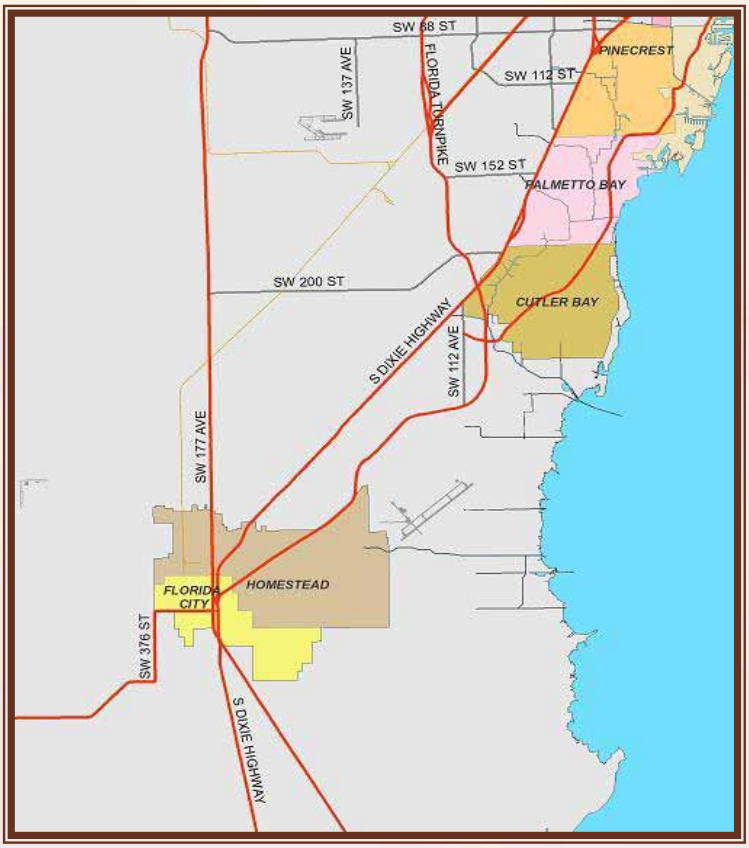
Discussion

Transportation and Land Use are inextricably linked. The Future Land Use map dictates the level of intensity of development, and transportation infrastructure needs to be adequately placed to encourage and service the planned development. The southern end of Miami-Dade County is geographically vast yet long and narrow from a development perspective. The Urban Development Boundary, which was placed in the 1970's, limits where development can be located. Anything denser than 1 unit per 5 acres is relegated to the barbell-shaped piece of land surrounding US-1. Generally this land is low-density residential, industrial and commercial. Over the past decade pockets of density have been planned. These are the "Charrette Areas" the community has been recently discussing. Major areas include Dadeland and Southland Mall. Others are smaller and well-spaced through the US-1 corridor. It is anticipated that the US-1 Corridor will be the major transportation corridor to service these pockets of intensity, connecting Homestead to Downtown Miami.

Miami-Dade County policy for this area has been historically progressive. A conscious decision was made to add capacity to the US-1 corridor from I-95 to Homestead by way of transit as opposed to physical roadway capacity. Conversely, a decision could have been made to extend I-95 from Miami to Homestead on the right of way that Metrorail and the Busway now occupy. Instead, Metrorail was implemented from Miami to Pinecrest in 1983 and future legs were to include the area from Pinecrest to Homestead.

In the early 1980's Federal policy changed and funding for such projects became infinitely harder to attain. In President Ronald Regan's speech at the opening of the Metrorail, he essentially said that it would have been "cheaper to purchase every rider a Cadillac" instead of constructing the Metrorail. Hence, fewer dollars were given toward 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 Busway. Using

the FEC right of way, Miami-Dade County, in partnership with the US Government, built the Busway in two legs, both now open. This is unusual because it is transit infrastructure in a newly developing community and not one that was more mature. Few other places in this county or state are the beneficiary of such a project. This long-standing policy decision to build capacity as transit, and not vehicular lanes, is nearly impossible to reverse, is extremely unique, and something that the community must deal with as it moves forward.



Progressive transportation policy may be best served by building transit systems incrementally, beginning with Bus Rapid Transit (BRT), and progressing to higher capacity forms of rail as the need warrants. Over time this makes transit attainable in the short term and ultimately less expensive. Without the interim step, nearly 20,000 more vehicles (+-30% more) would be on US-1 each morning and that, coupled with buses and emergency vehicles, would make worse an already deteriorating level of service.

Recent work analyzing the South Dade Corridor has 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 separated (bridging) intersections, until ridership warrants a rail system; therefore, when the area has significant density to warrant Metrorail it can more realistically be applied for.

Many in the community feel that Metrorail was promised and so should be implemented. Factually, an application would fail because ridership does not warrant it and the county can't afford to grow or maintain the existing or new system. At the same time many in the community oppose the necessary density required to have

Metrorail be successful. This is another issue that must be dealt with as a community. Additionally, from a land use perspective, most communities want to hold the line on development west of the Urban Development Boundary.

The Urban Center District puts Cutler Bay in a position of regional supremacy, and will ultimately be a major influence on the correction of South Dade's traffic problems. If a significant employment market can be developed it could remove the northbound morning trips and help reverse the flow southbound. This would use latent capacity on southbound Turnpike, US-1 and Old Cutler Road, and free up space on those facilities northbound. The result would be improved level of service and shorter commute times in both directions.

This area of the county is projected to be the fastest growing area of one of the fastest growing regions in one of the nation's fastest growing states. A transportation Master Plan that claims it can make traffic better is doomed to fail. The goal is to lessen the impacts of congestion over time. There are three types of traffic: traffic that originates in a community; traffic that is destined to a community; and traffic that passes through a community. A goal of a thriving city is to have more of the origins and destinations and less of the pass through traffic. Both origin and destination traffic generates revenue for a city, while the pass-through traffic only leaves congestion and pollution. Having the local center as a result of the Old Cutler Road Charrette and the regional center in the Urban Center District will generate destination traffic, and serve to improve overall quality of life in the Town and all of South Dade.

Task 2: Data and Analysis – Policy

Cutler Bay

Task 2: Data and Analysis – Policy

Significant Policy Documents and Policy

There are several policy documents that guide development, transportation and growth management locally, regionally and on a state-wide basis. Cutler Bay is in charge of setting its own goals, objectives and policies in its Growth Management Plan which must ultimately fit within the parameters of the both Miami-Dade County and the State of Florida policies which have been developed over time. This chapter is a discussion of the guiding policy documents and existing policies such as the Urban Development Boundary, Old Cutler Road, the US-1/Busway Corridor and Concurrency, which the Town needs to work within to achieves its goals.

Florida's Growth Management Act

Florida's Growth Management Act, enacted by the 1985 legislature, requires the state's 67 counties and 410 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 and concurrent with the impacts of development. The Growth Management Act authorizes the Department of Community Affairs, Division of Community Planning, to review comprehensive plans and plan amendments for compliance with the Act. Local governments may amend their comprehensive plans twice per year. This legislation guides Cutler Bay in its development of Growth Management Plan and implementation of its policies.

Miami-Dade County Comprehensive Development Master Plan (CDMP)

Miami-Dade County has adopted in the Transportation Element and the Capital Improvement Elements minimum acceptable peak-period LOS for all state and county roads within the Urban Infill Area as follows:

a) Where no public mass transit service exists, roadways shall operate at or above LOS E.
b) Where mass transit service, having headways of 20 minutes or less, is provided within ½ mile distance, roadways shall operate at no greater than 120 percent of their capacity at LOS E.
c) Where extraordinary transit service, such as commuter rail or express bus service exists parallel to a roadway within ½ mile, roadways shall operate at no greater than 150 percent of their capacity at LOS E.

Even though the CDMP has peak period provisions for facilities located within the Urban Infill Area, the CDMP does make provisions to comply with section 163.3180 F.S. which are the standards for SIS, FIHS and Trip-Funded facilities.

Additionally, the CDMP in its Capital Improvement Element has incorporated minimum peak-hour, mass transit level of service within the Urban Development Boundary of the Land Use Plan map. Provisions for mass transit service will be required where a combined resident and work force population reach 10,000 persons per square mile or more. This requires public transit service having 30-minute headway and an average route spacing of one mile provided that:

- The average combined population and employment density along the corridor between the existing transit network and area of expansion exceeds 4,000 per square mile. The corridor is 0.5 miles on either side of any necessary new routes or route-extensions to the area of expansion.
- It is estimated that there is sufficient demand to warrant service.
- The service is economically feasible.
- The expansion of transit service into new areas is not provided at a detriment to existing or planned services in higher density areas with greater need.

These caveats provide ample latitude in the actual implementation of suggested service.

Cutler Bay Growth Management Plan

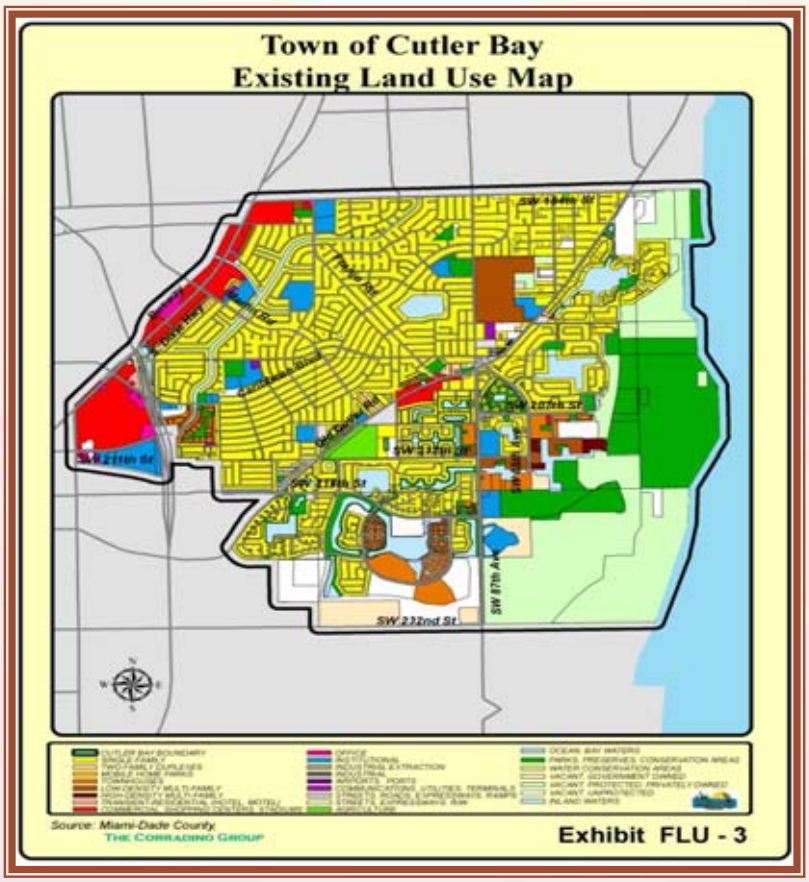
The Cutler Bay Growth Management Plan is an official long-range policy statement adopted on April 28, 2008 by a formal resolution in the Town Council. The growth management plan guides the long-range, comprehensive decision-making process generally concerning physical development. The plan also directs the Town's actions intended to influence development over the long-term and contains goals, objectives, policies, and guidelines for growth and redevelopment for the Town. 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. Primarily elements affecting transportation are the Land Use Element and the Transportation Element.

Cutler Bay Land Use Element

The Future Land Use Element represents the Town of Cutler Bay's vision for its development and redevelopment during the 5, 10, and 15 year planning periods. The element provides detailed analyses of the existing land use in Cutler Bay which was substantially built at the time of its incorporation in 2005. 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.

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 the establishment of the Cutler Ridge Urban Center. The Urban Center has been classified by the county as a Metropolitan Urban Center and is a critical aspect of Cutler Bay's future population growth and regional influence.

These Centers are typically high-density, mixed-use developments served by transit and are usually found at important transportation nodes. The high residential capacity in the 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 incentives for Transit Oriented Development, while providing the transportation infrastructure to serve it.

The Transportation Element is divided into eleven subcategories: Acceptable levels-of-service, alternative modes of transportation, pedestrian and bicycle networks, Transportation System Coordinated with Land Use, Transportation Plans Coordinated with other Jurisdictions, Transportation System to Enhance and Preserve Town Neighborhoods, Concurrency and Growth Management, Transportation that serves the Regional Needs as well as Local Interests, Hurricane Preparedness, Capital Improvement Program, and Financing.

Urban Development Boundary

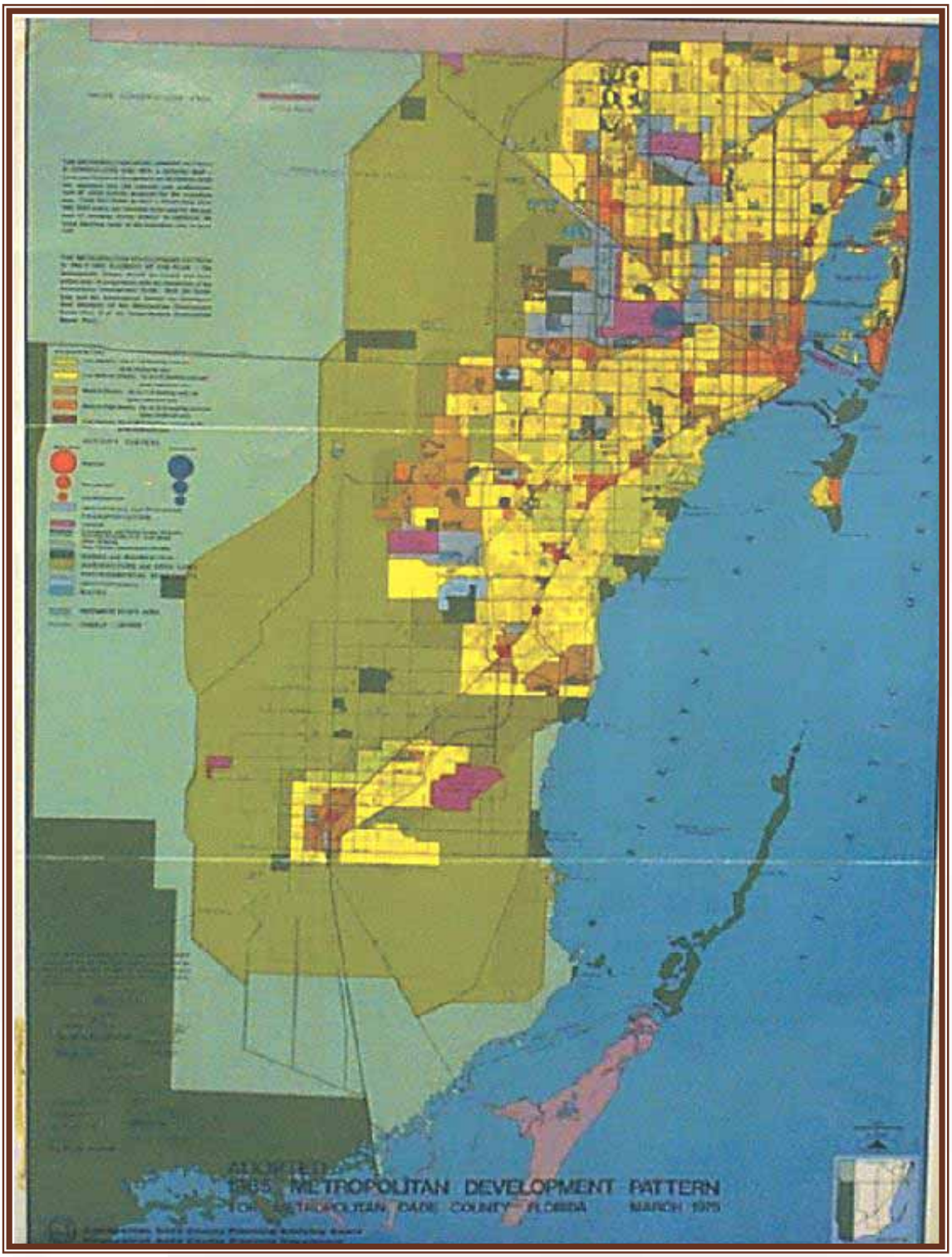
The Urban Development Boundary is included on the county's Future Land Use Map to distinguish the area where urban development may occur from areas where it should not occur. Development orders permitting urban development will generally be approved within the UDB provided that level-of-service standards for necessary public facilities will be met.

The Urban Expansion Area is that area located between the existing UDB and the 2015 Boundary. It is the area where current projections indicate that further urban development beyond the existing UDB is likely to be warranted some time between now and 2015.

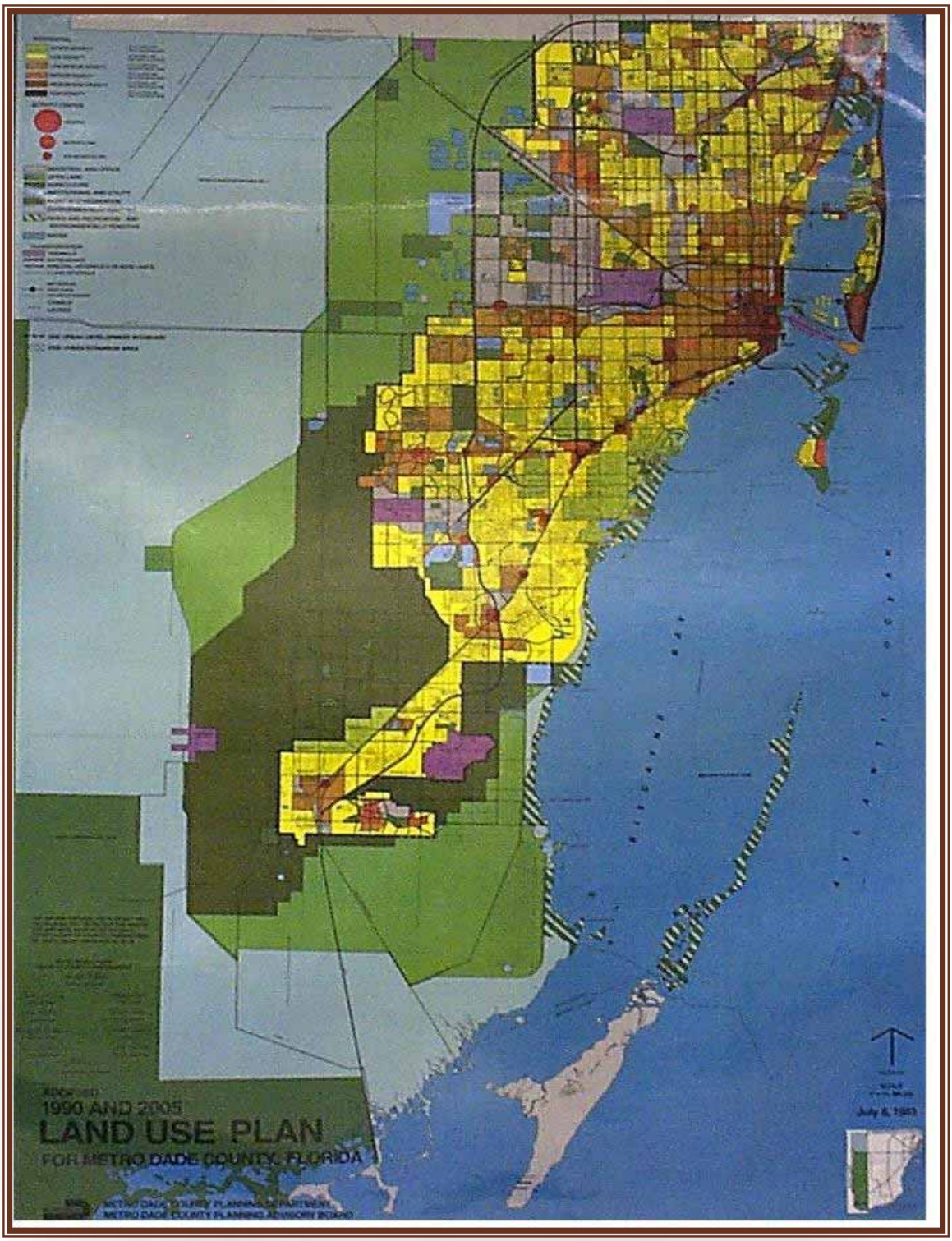
First implied through the Land Use Plan map and policies in 1975, the Urban Development Boundary was first denoted by an explicit line on the Land Use Map in 1983.

It has several key focuses:

- Urban land use and service policies referred to the delineated line;
- The best "Agriculture" land was distinguished from less suitable "Open Land" on the map; and
- Stronger agricultural land use preferences policies were added for the area delineated as "Agriculture."

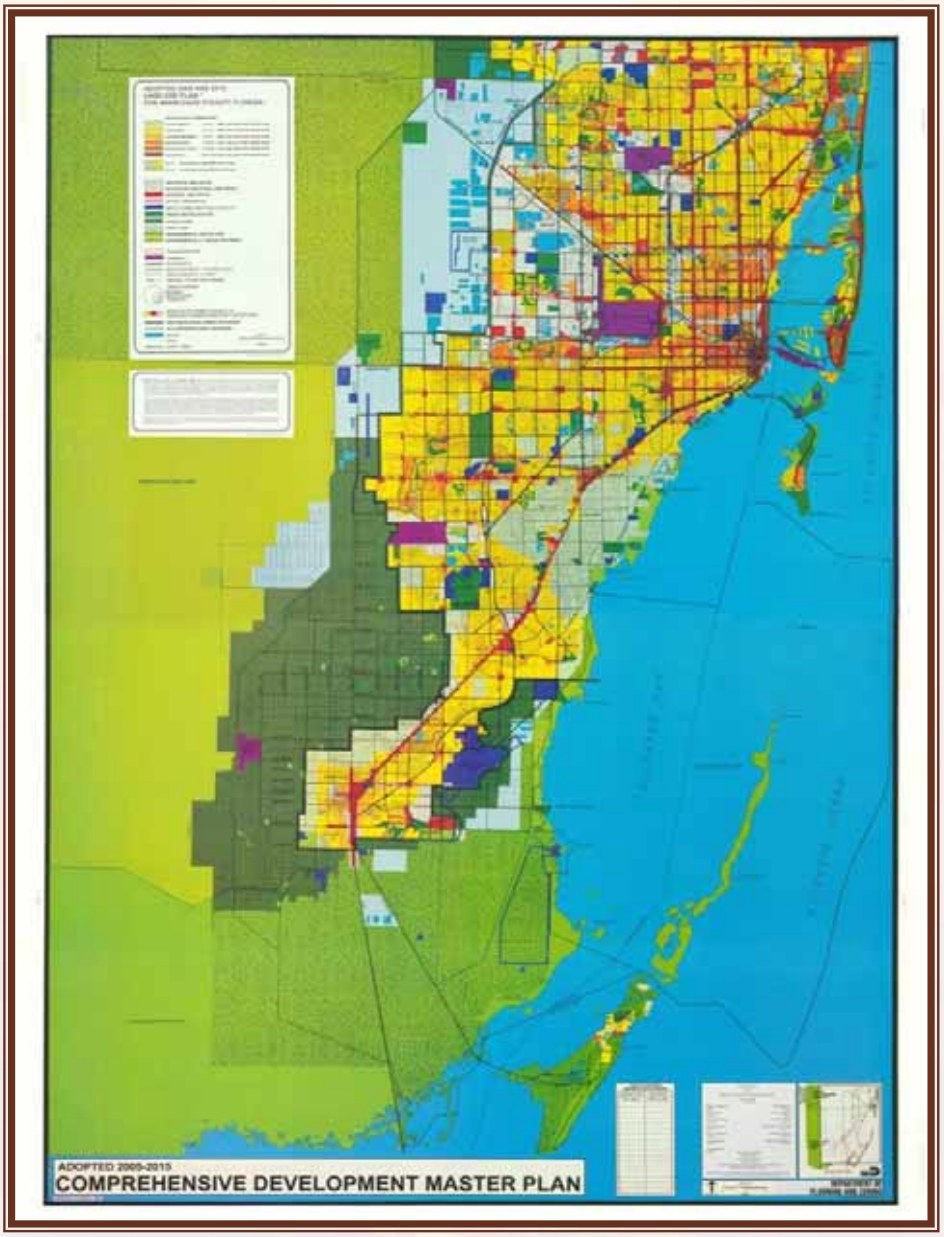


1975 Boundary



1983 Boundary

Many in the community feel that Metrorail was promised and it should be implemented. At the same time many in the community oppose the density that would be required to win funding for Metrorail to be constructed. Additionally, from a land use perspective, most communities want to believe in the Urban Development Boundary, and desire to hold the line on development west of it.



Current Boundary

Since 1975, the county has opted for contained, contiguous development rather than scattered, leap-frog development. It strives for efficient delivery of public services and infrastructure and doing so means that less land is needed for urban development, and the more environmentally sensitive land and agriculture will be protected from urban encroachment. This policy of containment promotes infill/redevelopment. Only 50 Square Miles have been added inside the UDB since 1975.

Initially, applications for amendment were allowed annually for free. Later they were allowed biennially and a fee requirement was established. A super majority, 9 of 13 commission votes, was required to amend UDB. Since 1991, UDB/UEA amendment applications are accepted once every 2 years (every odd year in the spring).

UDB Policies

The Residential Capacity Policy says that 15 years projected growth beyond EAR adoption should be maintained. The Expansion Location Policy says that the boundary should be moved only when additional supply is needed. The shortcoming of the policy is that it is reactive to what is coming and not proactive in determining the amount of housing desired.

The following areas shall **not be considered** for expansion:

a. The Northwest Wellfield Protection Area;
b. Water Conservation Areas, Biscayne Aquifer Recharge Areas; and Everglades Buffer Areas designated by the SFWMD;
c. The Redland area.

The following areas shall be **avoided:**

a. Delineated Future Wetlands;
b. Land designated Agriculture;
c. Category 1 Hurricane Evacuation Areas

The following areas shall be given **priority:**

a. Tiers having the earliest projected supply depletion year;
b. Land contiguous to the UDB;
c. Locations within one mile of a Planned Urban Center or Extraordinary Transit Service corridor.
d. Locations having projected surplus service capacity where necessary facilities and services can be readily extended.

Since the implementation of the UDB in 1975, the county feels that development has been more contained on a gross basis with little or no more scattershot/leapfrog development. The area-wide average Net Density is similar at ± 8 du/ac. Densities have increased in eastern areas and slightly decreased in western areas.

Old Cutler Road

In 1974 Old Cutler Road was designated as an 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 property along the road.

The road has a long history. It was initially constructed in 1883 by William Fuzzard, the founder of the Town of Cutler. 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 costal ridge and was less prone to flooding.

Notable sections of the legislation include:

Section 2, which 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) The physical dimensions or location of the road can not be altered except for the addition of primary or secondary roads intersecting with it.
3) Nothing could be built or demolished or significantly altered within 100' of the edge of pavement except for 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 statue prevents the ordinary maintenance of the road; however, the preservation of the road is to take priority over the considerations of traffic management and the public safety is not be construed to require alternation in the road when alternative means of promoting safety were available.

Section 3, which states that no signs were to be erected within 300 feet of either side of the edge of pavement except for roads 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.

US-1/Busway Corridor

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

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Using the FEC right of way, Miami-Dade County, in partnership with the US Government built the Busway in two legs, both now open. 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 vehicular lanes is nearly impossible to reverse, extremely unique and something that the community must deal with in South Dade as it moves forward.

Recent work analyzing the South Dade Corridor has 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 separated intersections, until ridership warrants a rail system. Therefore, when the area has significant density to warrant Metrorail it can more realistically be applied for.

Concurrency

Growth Management or Concurrency has been in place in the State of Florida since the 1980's. Concurrency basically states that infrastructure supporting development must be in place within 3 years from issuance of a building permit. Concurrency measures all categories specified in the Growth Management Plan, but most specifically to this report it measures transportation level of service. It does so by evaluating Level of Service, and determined how many trips remain on the transportation facility after a specific development is implemented. The developers are given the opportunity to mitigate impact by paying their proportionate fair share to do so.

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 Areawide basis, assuming that traffic uses a variety of paths to link common origins and destinations. In doing so it provides credits for the implementation of 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 of SR 826 and west of I-95, and the City of Islandia. Cutler Bay is outside of the Urban Infill Boundary and is subject to more restrictive concurrency requirements of LOS D.

To understand how concurrency operates requires the examination of three important jurisdictions. The state regulations, coordinated with the Miami-Dade County's Comprehensive Plan and the Town of Cutler Bay Growth Management Plan, make up these components.

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.

Home Rule Charter

Miami-Dade County is unique. Since its formation in 1957, the county has had a two-tier system of government. Under this system, Miami-Dade County comprises a large unincorporated area and 35 incorporated areas or municipalities. Each municipality has its own government and provides such city-type services as police, zoning protection and, in some cases, fire service.

State voters amended the State of Florida's Constitution in 1956 to allow for a Home Rule Charter. Dade County was granted the power to create commission districts, pass ordinances, create penalties, levy and collect taxes to support a centralized metropolitan form of government. The Board of County Commissioners (BCC) may create municipalities, special taxing districts and other boards or authorities as needed. The Home Rule Charter for Miami-Dade County was adopted at referendum on May 21, 1957. The charter's main provision relative to transportation is that the county maintains control of all engineering, construction and maintenance of its roads, bridges and canals, along with all traffic signals and signs supporting them regardless of municipal jurisdiction.

The Home Rule Charter is a two-tiered process of government. It was progressive in the 1950's when developed, but many feel that the system has failed over the past two decades, as evidenced by the recent round of incorporations leading to 35 cities in the geographic area of the county. Many of the incorporating cities have done so because of a poor level of service provided by the county. The manner in which it has been organized is that the cities are the "lower tier" of local government, often providing police and sometimes fire protection, and always zoning and code enforcement, and other typical city services within their jurisdiction. These services are paid for by city taxes. The county is the "upper tier", and it should provide services of a metropolitan nature, such as emergency management, airport and seaport operations, public housing and health care services, transportation, environmental services, solid waste disposal etc. These are funded by county taxes, which are assessed on all incorporated and unincorporated areas. Yet often these roles are confused and the county government partly because no elected official is elected "at large" spends much time acting like a city government, either, for the unincorporated areas or municipalities, distracted from the regional issues.

Of the county's 2.2 million total residents, the majority now live in incorporated areas. The remainder is part of the Unincorporated Municipal Services Area (UMSA). For these residents, the county fills the role of both lower- and upper-tier government, the County Commission acting as their lower-tier municipal representative body. Residents within UMSA pay an UMSA tax, equivalent to a city tax, which is used to provide County residents with equivalent city services (police, fire, zoning, water and sewer, etc.). Residents of incorporated areas do not pay UMSA tax. The fact still remains that, because of the charter, many services that should be local by nature are under the control of the county. Many in the community desire that all county land be incorporated either by the formation of new cities or the annexation by existing cities. Local zoning and code enforcement, police, and often fire services, can be given to the municipalities and regional responsibilities to the county. Some think this would promote a more efficient and effective form of government.

Task 2: Data and Analysis – Projects

Task 2: Data and Analysis – Projects

Official Transportation Implementation Documents

Generally, in order to implement major transportation projects a structured process is followed. This takes a project through the initial concept, planning, design, and construction phases. First, a project is started with an idea; this may come from a citizen, elected official or a member of one of the transportation agencies. It may be initially examined through the MPO's Unified Planning Work Program. If the idea has no fatal flaws and it is deemed to be worthwhile, it may move to the FDOT Planning work program, where it goes through a Project Development and Environmental Study, (PD&E). The process was developed to ensure that the design of transportation projects appropriately reflects and incorporates the unique engineering and community characteristics of the area. FDOT created the process to ensure that projects receiving Federal aid 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 MPO's Long Range Transportation Plan, where it is prioritized somewhere in a 25-year time horizon. As implementation gets closer it moves to the Transportation Improvement Program (TIP), which essentially acts as a 5-year transportation capital improvement program. Here, funds are allocated to the project, its design is completed and it is constructed. 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. This chapter explains what each plan does.

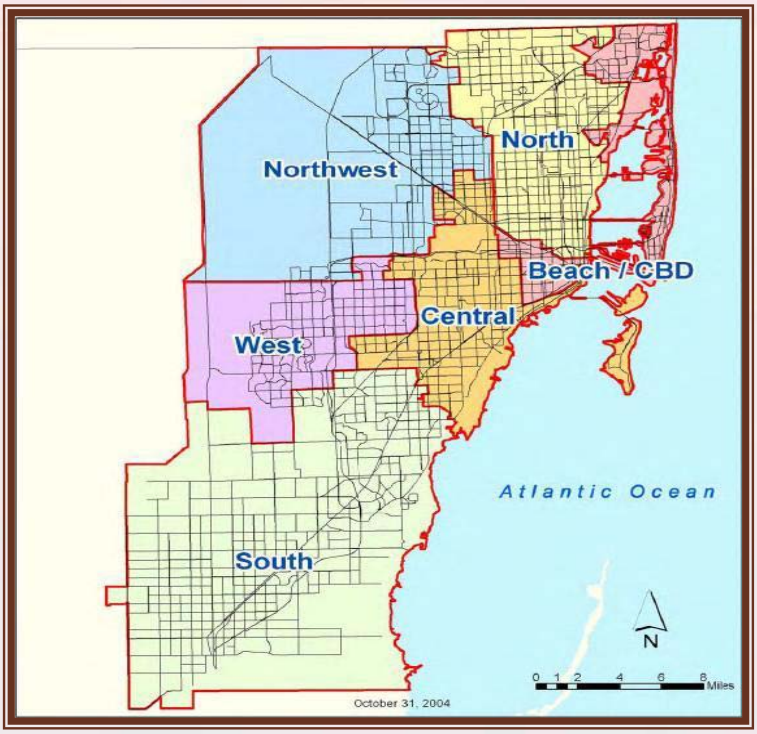
Unified Planning Work Program (UPWP)

The Unified Planning Work Program is an annual program of studies implemented by the Metropolitan Planning Organization, (MPO) mainly through their General Planning Consultant Contract. The Unified Planning Work Program (UPWP) defines transportation planning activities for Miami-Dade County that are 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. Projects in the UPWP total approximately $7 million yearly. The UPWP is guided by policies supported by the State of Florida and the MPO Governing Board. Development of the program requires the cooperation of regional agencies, the Florida Department of Transportation (FDOT), and guidance from Federal transportation agencies that support the program through grants. Formal technical guidance is provided. The selection process for new studies to be included in the UPWP consists of several steps. Each year, ideas are solicited from the general public and industry professionals through the MPO website and the distribution of a Call for Ideas Brochure. The UPWP Development Committee, appointed by the TPC, evaluates proposals and makes recommendations based on established criteria. These recommendations are then presented to the pertinent committees for endorsement and later to the MPO Governing Board for final approval.

Long-Range Transportation Plan (LRTP) 2030

The Long Range Transportation Plan (LRTP) was developed to guide transportation improvements in Miami-Dade County for the next 25 years. The 2030 Plan includes enhancements to roadways, transit, bicycle and 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 objectives and goals of the LRTP include improving countywide accessibility, reducing congestion, and enhancing the mobility of all county residents.

For the purposes of transportation and planning analysis, Miami-Dade County has been subdivided into six general regions in the LRTP: Beach/CBD, Central, North, Northwest, South, and West. The Town of Cutler Bay falls within the South division that also includes the City of Homestead, Florida City, Village of Palmetto Bay, and the Village of Pinecrest in addition to 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, and Krome Avenue.



Map of LRTP Study Regions

Federal law requires that the LRTP address minimum of a 20-year planning horizon from the date of the MPO adoption. The most recent LRTP update in Miami-Dade County was adopted in November of 2004. This report can act as the Town's public involvement for the 2030 LRTP. The Town has attended the local workshops and provided input based on the Transportation Element of the Growth Management Plan.

The following table displays all of the projects that will affect the Town of Cutler Bay.

Priority	Project	From	To	Description	Town Limits
II	Florida's Turnpike (HEFT)	N of Eureka Drive	N of SW 117 Avenue	This project will widen the HEFT to 12 lanes from Eureka Drive to SW 117th Avenue	N
II	SW 112 Avenue Corridor	HEFT	US-1	This ITS project for SW 112th Avenue is from HEFT to US-1. The level of congestion in this corridor indicated that capacity is insufficient to accommodate demand. Widening the roadways in the corridor is not a viable option; however, the deployment of ITS techniques will enable traffic to operate at a higher quality of service at a fraction of the cost that it would take to widen the roadway.	Y
III	Florida's Turnpike (HEFT)	SW 216 Street	SW 200 Street	This will widen the Homestead Extension of Florida's Turnpike to 6 lanes	Y
		SW 200 Street	US-1	This will widen the Homestead Extension of Florida's Turnpike to 8 lanes	Y
		US-1	N of Eureka Drive	This will widen the Homestead Extension of Florida's Turnpike to 10 lanes	Y
III	SW 200 Street	US-1	Quail Roost Drive	This project will widen SW 200th Street from 2 to 4 lanes from US-1 to Quail Roost Drive. This important project will improve mobility on SW 200th Street.	N
IV	Florida's Turnpike (HEFT)	US-1, southern terminus of HEFT	SW 216 Street	This will widen the Homestead Extension of Florida's Turnpike to 6 lanes	N
IV	South Miami-Dade Corridor	Dadeland	Florida City	Future plans calls for a 21-mile Metrorail extension from Dadeland South station to Florida City, The project runs along US-1 and consists of two segments: from Dadeland South to Cutler Bay, and from Cutler Bay to Florida City.	Y

LRTP 2030 projects around the Town of Cutler Bay
RTP 2030 Countrywide Improvement Projects

Miami-Dade County Transportation Improvement Program

The Transportation Improvement Program (TIP) serves as the five-year capital improvement program for transportation. It specifies proposed transportation improvements to be implemented in Miami-Dade County over the coming five years. The TIP is prepared every year to fulfill Federal statutory requirements, a condition to receive Federal funding for qualifying transportation projects. The TIP is a continuing planning process that results in plans and programs consistent with the comprehensive plan and development of the urbanized area. The priorities established by the TIP illustrate the policy decisions of the Metropolitan Planning Organization (MPO) as to the order in which transportation improvements will be advanced throughout the program period.

Projects featured in the Miami-Dade Transportation Improvement Program that are situated within, or in the vicinity of the Town of Cutler Bay, are detailed below.

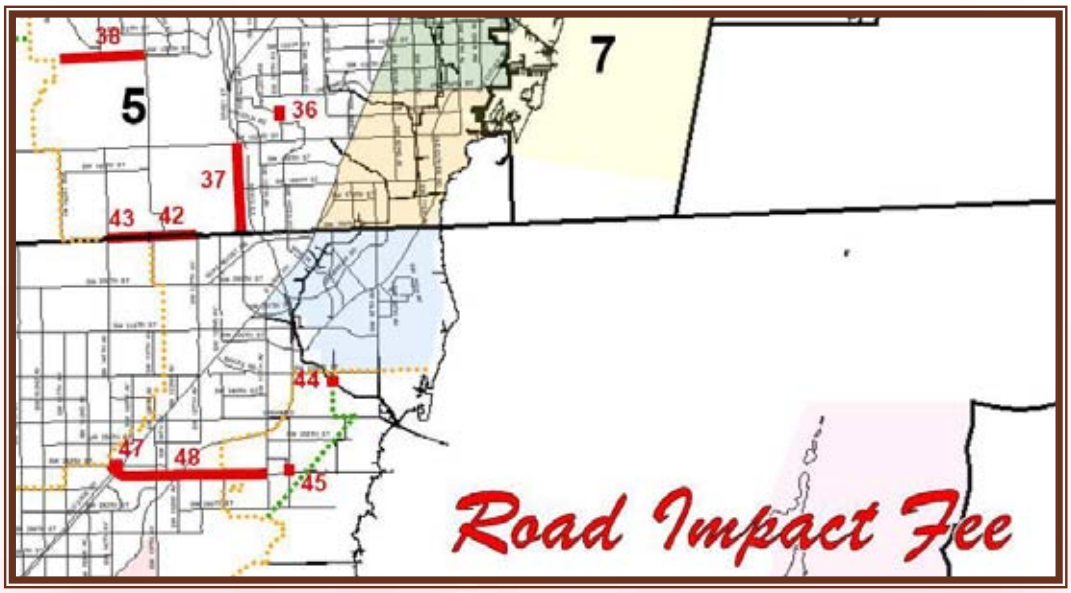
TURNPIKE ENTERPRISE

The TIP calls for the widening of the Homestead Extension of Florida's Turnpike (HEFT) from four lanes to eight lanes from SW 216th Street to a point just north of Eureka Drive. Further south in Homestead, the TIP calls for the reconstruction of the homestead toll plaza to implement Open Road Tolling. South of Cutler Bay, the program also covers the resurfacing of pavement from Milepost 0 to Milepost 9.2 and the construction of a guardrail from Milepost 0 to Milepost 12 in both northbound and southbound directions. Resurfacing of the pavement of the HEFT from Milepost 11.8 to Milepost 16.4 and from Milepost 20.0to Milepost 22 is also listed.

Turnpike Enterprise TIP Improvements (Source: 2009 Miami-Dade Transportation Improvement Program)

ROAD IMPACT FEE

Transportation Improvements Projects whose income derives from the Miami-Dade County Road Impact Fee are included in the Transportation Improvement Program. The projects near the Town of Cutler Bay are illustrated below. As shown in the figure, none of the proposed road impact fee projects fall within the Town's boundaries. Project number 44, a bridge along SW 97th Avenue over the Black Creek Canal, is listed as a completed project.



TIP Road Impact Fee Projects (Source: 2009 Miami-Dade Transportation Improvement Program)

LOCAL OPTION GAS TAX

A Florida Statute authorized the Capital Improvement Three Cent Local Option Gas Tax, in 1993 (reduced from 5 cents to 3 cents in 1996). In accordance with the 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 for FY 2008-09 is based on a weighted formula that accounts for percentage of population (from the "Florida Estimates of Population, April 1, 2007" - Bureau of Economic and Business Research, University of Florida) and the center line mileage of municipal roadway for each city (from the "2008 City/County Mileage Report" - Florida Department of Transportation).

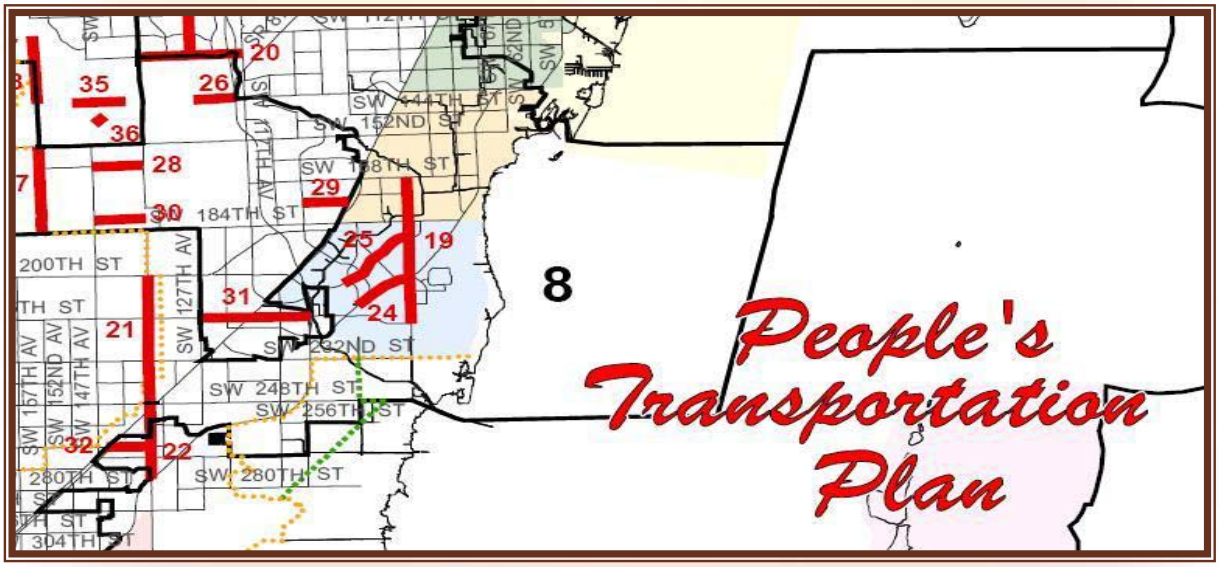
In FY 2008-09, the estimated net revenue for the local option gas tax, is projected as of March 12, 2008 at $28.378 million with $7.378 million to be distributed to the municipalities and $21 million to the County. The Town of Cutler Bay is expected to receive 0.75% of the total proceeds or $ 201,341.

PEOPLE'S TRANSPORTATION PLAN

On the November 5, 2002 ballot, voters approved the People's Transportation Plan (PTP), which provides for a half-percent sales surtax to fund major transportation improvements.

The Citizens' Independent Transportation Trust (CITT), a group of citizens who function as an independent decision-making body, was created to oversee the construction and management of the PTP's 25-year, $17 billion transportation plan. The Public Works Department (PWD) has worked closely with the CITT to provide a wide

range of roadway and neighborhood improvements. The PWD PTP Work Program for FY 2009 totals over $175 Million.



PTP Projects (Source: 2009 Miami-Dade Transportation Improvement Program)

19. SW 87th Avenue from SW 216th Street to SW 168th Street (removed)

24. Old Cutler Road from SW 97th Avenue to SW 87th Avenue

25. Caribbean Boulevard from Coral Sea Road to SW 87th Avenue

31. SW 216th Street from HEFT to SW 127th Avenue

MULTIMODAL IMPROVEMENTS

SW 200TH STREET

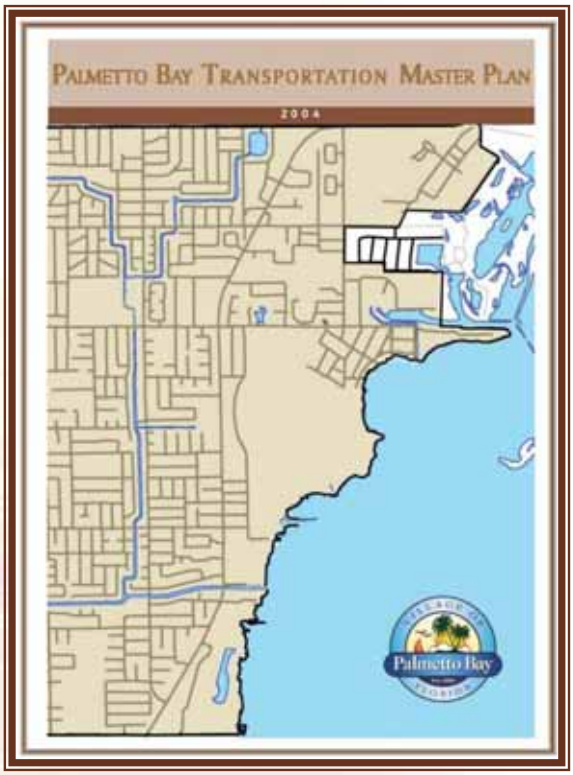
Temporary 362-space park and ride lot. MDT acquired 3.4-acre site at N.W. corner of SW 200th Street (Caribbean Boulevard) and the Busway to be used as a park and ride lot. Necessary public hearings were held and zoning issues resolved. Design and construction plans for a permanent facility are underway. The property has been transferred to OCED that has plans to build affordable housing. However, the park and ride lot will remain.

SW 186 ST. / BUSWAY - QUAIL ROOST TRANSIT VILLAGE PROJECT

MDT is negotiating to lease 500 parking spaces at a transit-oriented development adjacent to the Busway between SW 184 St and SW 186 Street.

OTHER PLANS AND STUDIES

PALMETTO BAY TRANSPORTATION MASTER PLAN



The Village of Palmetto Bay's Transportation Master Plan was completed in 2004 and aims to provide the Village with a blueprint for future transportation projects and investments. The Transportation Plan received the 2004 Outstanding Transportation Study Award from the American Planning Association's Gold Coast Section. The Palmetto Bay Transportation Master Plan has identified transportation and mobility issues through a series of stakeholder meetings and public workshops in addition to data collection and analysis. This interactive and analytical process led to the formulation of the Project Bank, which is the palate of projects of all sizes that have been prioritized to develop the implementation plan. Projects were developed in four categories: Corridor, Capacity, Alternative Mode, and Sustainable Community.

The Palmetto Bay Transportation Master Plan took a comprehensive look at the existing roadway structure within the Village, finding the 2004 LOS to be unacceptable on US-1 and Cutler Rd. Village growth through 2020 showed a considerable increase in traffic volume and decrease in LOS. Given the nearly built out condition of Palmetto Bay, it was concluded that this decline in LOS was mostly the result of additional through trips as commuters' access points north and south of the Village daily. The result is that the remaining capacity in the rest of the network is disappearing as drivers begin to utilize the neighborhood streets, trying to find a path that is not congested.

Palmetto Bay's Transportation Vision was formulated through intense public involvement, including conversations with community members, elected officials and village staff. The following are key points from which the plan has developed:

- **Serving the Needs of the Residents by Controlling Congestion**

Palmetto Bay is primarily a residential community with a number of schools, parks, and recreational amenities. It is bound on both the east and west by the major transportation corridors of US-1 and Old Cutler Road. A main concern is to maintain the Village character by not encouraging additional traffic through the Village.

- **Promoting a Safe but Efficient Traffic Flow by Controlling Intrusion**

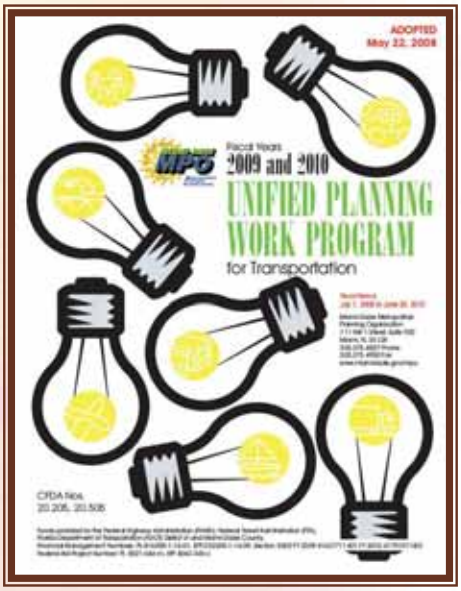
As development to the south becomes more intensive, it is realized that traffic will attempt to find alternative routes that will include streets writing the village. It is desired to keep this traffic on the State and County road system, and protect neighborhood streets from traffic intrusion.

- **Provide Alternatives by Supporting Multimodal and Transit Policy Initiatives**

Miami-Dade County is growing at a tremendous rate, which often out paces a government's ability to plan. Palmetto Bay realizes that transportation alternatives will need to be provided to effectively move people in the future. To this end the Village supports Miami-Dade County's efforts to develop transit. In addition a major focus will be to provide for alternatives and enhance the ability for transit to circulate within the Village boundaries.

- **Enhancing the Quality of Life by Protecting Village Amenities**

Through a multi-modal focus, using the funding available through the Peoples Transportation Plan, Palmetto Bay will be able to increase the quality of life for its citizens and become one of the more attractive places to live in our region.



MPO ARTERIAL GRID STUDY

The MPO Arterial Grid Study provides an in depth analysis of the effectiveness of the grid system in Miami-Dade County. The study contends that a grid system provides enhanced connectivity and accessibility and that travel is more direct reducing the number of vehicle miles traveled (VMT).

Based on the results of the project screening and input from the Study Advisory Committee (SAC), a list of recommendations for improving the efficiency of the arterial grid system was developed. The recommendations were broadly categorized into the following two groups:

- Project recommendations include capacity modifications to existing roadways and constructing "missing links" to enhance continuity.
- Policy recommendations include the development of policies related to the capacity needs along the arterial grid roadway network.

The study identified a list of potential capacity improvement projects that are not identified in the LRTP. The projects listed below fall within the boundaries of the Town of Cutler Bay or its immediate surroundings. The Village of Palmetto Bay would adamantly reject bridging canals within its boundaries. It is recommended that these options not be considered further.

Road	From	To	Potential	Project Type
SW 117 Avenue	Quail Roost Drive	US-1	4L	Type I
SW 87 Avenue	SW 163 Terrace	SW 164 Street	Bridge	Type II
SW 77 Avenue	SW 159 Terrace	SW 160 Terrace	Bridge	Type II
SW 77 Avenue	SW 173 Street	SW 174 Street	Bridge	Type II

Goals	Objectives
Goal 1 Improve corridor mobility	• Improve North/South mobility • Improve transportation options within project area
Goal 2 Improve citizen access to employment	• Improve economic opportunities • Provide transit connections to downtown employment • Improve access for transportation disadvantaged Use transit accessibility as a key marketing tool for promoting the economic development / redevelopment in the study area by attracting a broader range of employment categories.
Goal 3 a) Improve corridor safety b) Improve operating efficiencies	• Improve intersection safety • Provide safety and urban design amenities that make cycling and walking more appealing • Separate pedestrians, autos and transit • Provide efficient transit services • Minimize transit delays in corridor • Reduce transit/auto conflicts at intersections
Goal 4 Reduce auto dependency	• Increase transit usage • Provide environmental benefits through reduced mobile source emissions, greenhouse gas emissions and energy consumption
Goal 5 Accommodate future population growth in south Miami-Dade by providing the citizens of South Miami-Dade with high quality and cost-effective transit service	• Provide cost-effective solutions • Increase speed of transit service • Provide reliable service • Minimize transfers • Develop a staged program of transit improvements in the corridor • Match capacity of Dadeland South Terminal to busway • Improve frequency of transit service
Goal 6 Modify development patterns in the corridor to support transit	• Support transit supportive land use and future patterns Reorient corridor design to support pedestrianism • Encourage transit oriented development (TOD) around stations • Create opportunities and mechanisms for public/private development partnerships • Improve access to stations
Goal 7 Develop plan for incremental increase of transit infrastructure	• Foster the Greenway development and environment of the corridor • Promote sustainable development Preserve existing communities and neighborhoods

In 2006, the Miami-Dade MPO conducted a study of transit improvements in the US-1 corridor between the Dadeland South Metrorail station and Florida City. The purpose of the study was focused on improvements to transit operations and service in the corridor.

In order to develop alternatives that responded to the needs of the corridor, the following goals and objectives were developed.

Seven alternatives were analyzed during Tier I analysis. South Link Corridor transportation needs were analyzed using available secondary data on population and employment, land use, travel patterns and growth trends in the study area. On the basis of corridor transportation needs and goals and objectives, the alternatives were identified by the general public with the input from technical committee

Although there is support for a Metrorail extension, projected ridership was not enough to offset costs. The Locally Preferred Alternative (LPA) as approved by the MPO was:

- Modified Enhanced Bus Rapid Transit
  - BRT enhancements and features
  - Metrorail extension to SW 104th Street
  - Grade separation at several major intersections

BUSWAY MANAGED LANES STUDY

This study was initiated in 2008, and attempts to use the SAFTEA-LU concepts of tolling, like used on the I-95 Corridor as a method of attaining the improvements recommended in the South Dade Alternatives Analysis in the near term. The project, if clearly focused on providing a transit alternative, is a progressive project and well worth examine further. If it does not have the permanent goal of being a transit alternative, it will be a regression of long standing policy in South-Dade that will ultimately make traffic congestion worse and slow the implementation of meaningful transit. Several policy decisions will be important and critical to the success of the project. These include determining what percent of revenue is returned to transit, the system-wide HOV compatibility, the duration of bonding the availability of other MDX funds to support project, and the maintenance of envelope for Metrorail extension.

The purpose of the study was two fold:

- To determine if reasonable alternatives exist for developing managed lanes in the South Dade Busway right-of-way
- To evaluate the revenue generating potential for rapid transit improvements in the South Dade corridor

It examined 3 alternatives:

- Alternative One – 2-lane at-grade
  - Allowing private vehicles to utilize existing busway for a toll, plus TSP improvements
  - Zero elevated stations

- Alternative Two – 4-lane with grade separations at South Link locations
  - Approximately 6-8 elevated stations
- Alternative Three – 4-lane fully elevated facility
  - Approximately 22 elevated stations

It explored the existing traffic conditions and lane deficiencies on US-1. Almost each segment of the road is deficient between one and three lanes, particularly in the afternoon northbound and southbound.

Intersection	Direction	Existing Lanes	Laneage Deficiency	
			AM	PM
U.S. 1 at SW 312th Street	Northbound	2	0	1
	Southbound	2	0	1
U.S. 1 at SW 117th Avenue/ SW 211th Street	Northbound	2	1	1
	Southbound	2	0	2
U.S. 1 at SW 200th Street	Northbound	3	0	0
	Southbound	3	0	2
U.S. 1 at SW 184th Street	Northbound	3	1	1
	Southbound	3	0	2
U.S. 1 at SW 152nd Street	Northbound	3	2	1
	Southbound	3	0	2
U.S. 1 at SW 136th Street	Northbound	3	3	1
	Southbound	3	0	2
U.S. 1 at SW 112th Street	Northbound	3	3	2
	Southbound	3	0	3
U.S. 1 at SW 104th Street	Northbound	3	3	2
	Southbound	4	0	3

It explored the demand for the various alternatives and projected traffic conditions:

- Estimated 2030 Weekday Daily Volume
  - Alternative One – 2-lane at-grade
    - 3,400 – 5,900 vpd (LOS C)
  - Alternative Two – 4-lane with grade separations at South Link locations
    - 11,300 – 13,500 vpd (LOS B)
  - Alternative Three – 4-lane fully elevated facility
    - 21,000 – 26,200 vpd (LOS B)

It explored savings in bus travel time per alternative:

- Estimated 2030 Weekday Peak Hour
  - Alternative One – 2-lane at-grade
    - 0% - 10% increase
  - Alternative Two – 4-lane with grade separations at South Link locations
    - 10% - 15% reduction
  - Alternative Three – 4-lane fully elevated facility
    - 25% - 35% reduction

It projected toll revenues for each alternative:

- Revenues in 2030 Dollars
  - Alternative One – 2-lane at-grade
    - Annual revenue - $11 million

- Peak direction toll - $12.75
- Alternative Two – 4-lane with grade separations at South Link locations
  - Annual revenue - $22 million
  - Peak direction toll - $11.25
- Alternative Three – 4-lane fully elevated facility
  - Annual revenue - $37 million
  - Peak direction toll - $12.75
- It looked at project costs per alternative:

Alternative	Total Construction Cost	Construction Cost per Mile
Alternative 1: Two-Lane At-Grade	$22 million	$1.3 million
Alternative 2A: Three-Lane Partial Grade Separation	$471 million	$28.2 million
Alternative 2B: Four-Lane Partial Grade Separation	$505 million	$30.3 million
Alternative 2C: Two-Lane Partial Grade Separation	$228 million	$13.6 million
Alternative 3: Four-Lane Elevated	$1,830 million	$109.6 million

It summarized the alternatives:

	Alternative 1	Alternative 2A	Alternative 2B	Alternative 2C	Alternative 3
Average Daily Traffic	4,900	12,500	12,500	6,130	24,100
Peak hour, peak-direction capacity	900	1,800	1,800	900	2,940
Construction Cost (2008 $)	$22 million	$471 million	$505 million	$228 million	$1830 million
Annual Revenue (2030 $)	$11.2 million	$21.8 million	$21.8 million	$14.0 million	$37.2 million
Annualized Const Cost (assuming 30-year term)	$1.4 million	$30.3 million	$32.5 million	$14.7 million	$117.9 million
Peak direction toll per mile (2030 $)	$0.75	$0.60	$0.60	$0.75	$0.75
Estimated (2030) daily volume on US 1	143,000	137,200	137,200	141,800	133,000

Task 2: Data and Analysis – Performance

Cutler Bay

Task 2: Data and Analysis – Performance

This section of the report addresses a physical inventory of the transportation network, in terms of roadway function and classification. It discuses the Level of Service concept and evaluates the existing and future performance of the roadway. It also evaluates 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 asked for from the developer and reviewed by the town. There is an age old battle between developers and municipalities. Often developers try to shade the impacts of the development to favor their concerns.

Roadway Function and Classification

Limited and Controlled Access Facilities

Limited and controlled access facilities serve as the principle arterials linking regionally significant locations. The principle arterials serve the highest volume of traffic corridors, linking various urban centers within an urbanized area. Principle arterials move high volumes of vehicles while constituting only a small percentage of the local roadway network. On limited access facilities, access to adjacent properties is restricted, limiting the permitted number of driveways and access points.

Of the three regional principle arterial roads that traverse the Town of Cutler Bay, the Homestead Extension of Florida's Turnpike and US-1 are the only two limited or controlled 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 also traveling north/south bisects the western fringes of the town. US-1 provides regional access to most of the commercial properties in Cutler Bay.

Limited and Controlled Access Facilities

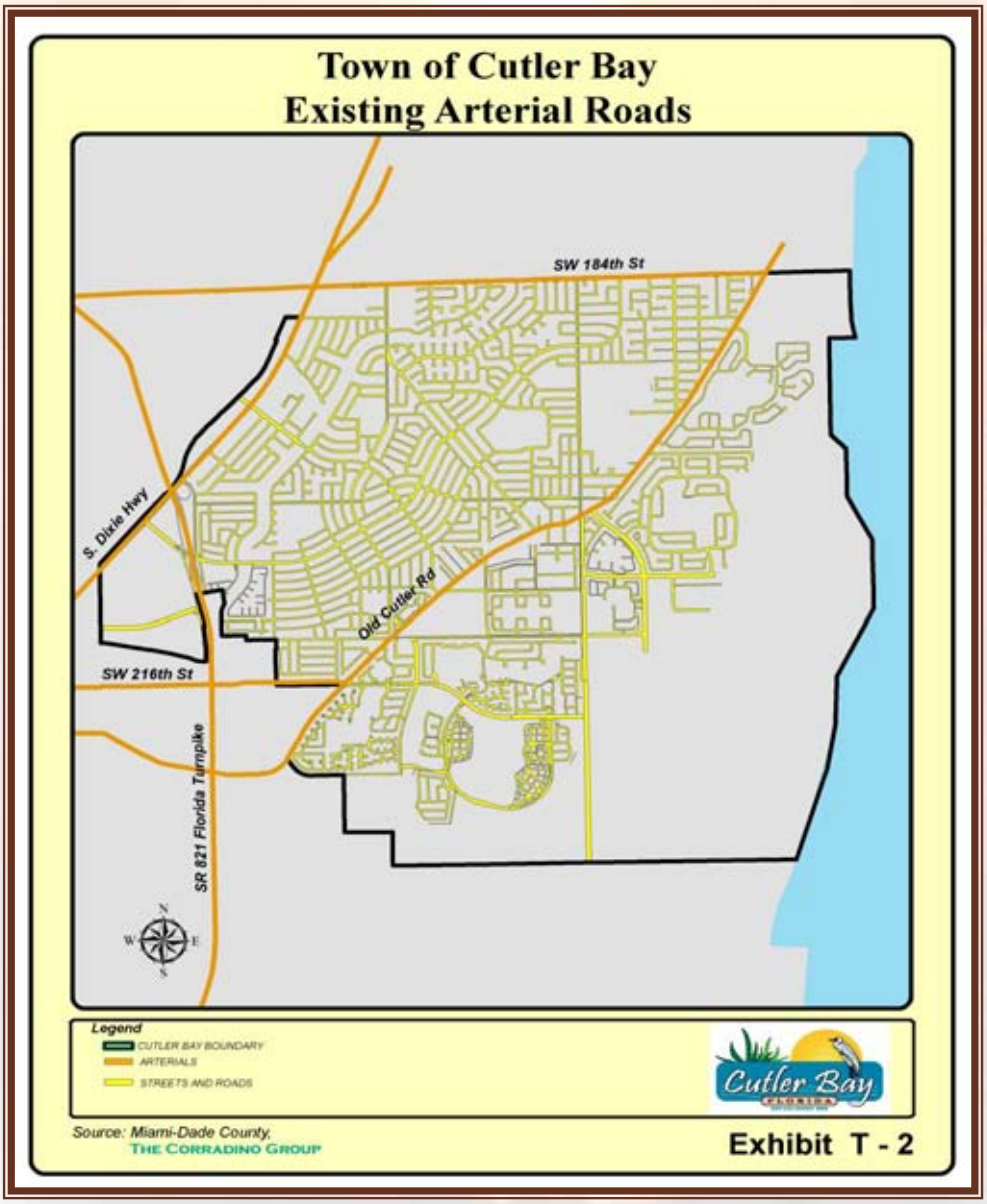
Arterial Roads

Minor arterial roadways support and link to the major arterials, carrying moderate amounts of traffic. Minor arterials typically carry regional trips of shorter distances than major arterials, at slower speeds. They provide continuity among communities, linking bus routes and commercial land uses. Access is not restricted along these arterials.

The five principle arterial roads that connect Cutler Bay with the surrounding communities are US-1, the Turnpike, Old Cutler Road, SW 216th Street and SW 184th Street/Eureka Drive. These roadways carry the bulk of Cutler Bay's traffic, providing access to other regional urban centers. The three minor arterials within Cutler Bay are Old Cutler Road, SW 184th Street, and SW 216th 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.



Existing Arterial Roads

Collector Roads

Collector roads are low/moderate capacity roadways that link traffic from smaller local roads to arterials or highways. Collector roads are four lanes in width 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, illustrated below include SW 87th Avenue, Franjo Road, SW 97th Avenue, Marlin Road, Caribbean Boulevard, SW 211th Street, and SW 216th Street east of Old Cutler Road.

- SW 87th Avenue is the easternmost, complete north/south roadway in Cutler Bay, yet it connects no further north that 168th Street in Palmetto Bay. The 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 collector links the 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, and Franjo Parks,

- 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.

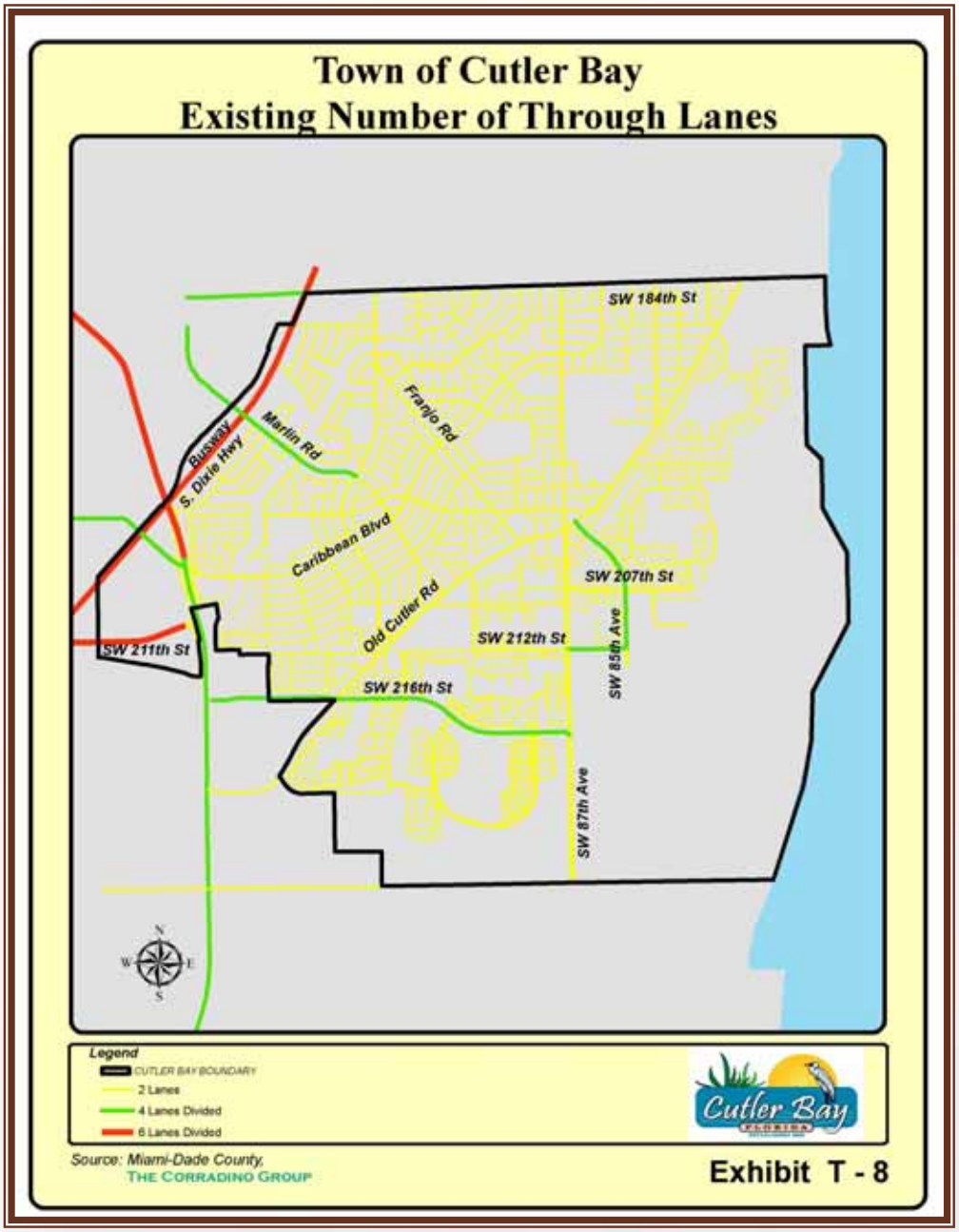
- Marlin Road diagonally bisects Cutler Bay from the US-1 Arterial to Old Cutler Road in the east/west direction. The two-lane road provides access to single-family residences, Methodist Kindergarten, and Bel-Aire Elementary School.

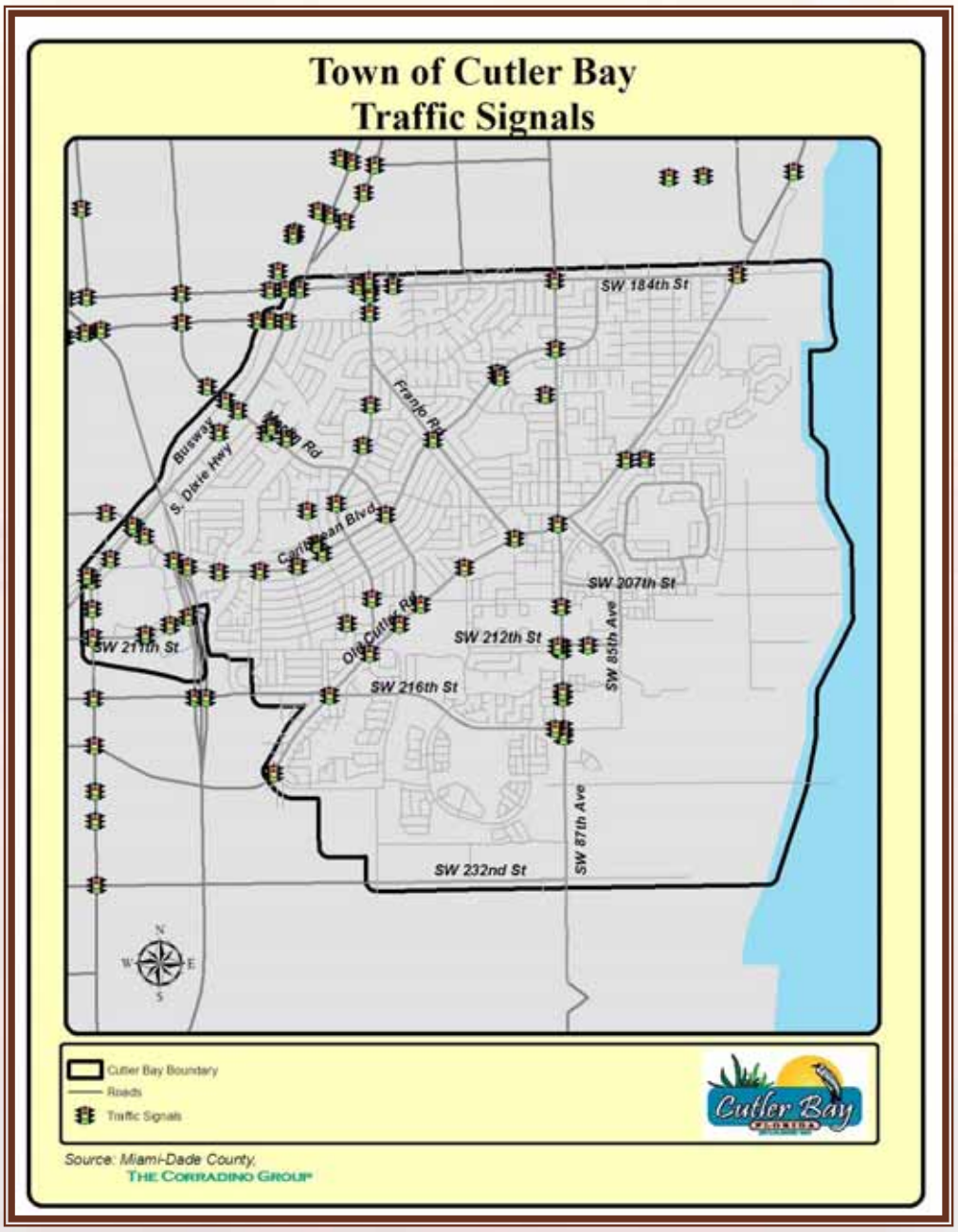
- Caribbean Boulevard is the most extensive and critical collector road in Cutler Bay. The road links two of the three primary arterials, US-1 and HEFT, with SW 97th Avenue, Marlin Road, Franjo Road, SW 87th Avenue, and SW 184th Street. Caribbean Boulevard travels along the route connecting Southland 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 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, 1,036 acres (16%) are comprised of streets, roads, and associated rights-of-way.


Town of Cutler Bay
Existing Number of Through Lanes
SW 184th St
Franjo Rd
Busway
S. Dixie Hwy
Marlin Rd
Caribbean Blvd
Old Cutler Rd
SW 207th St
SW 212th St
SW 85th Ave
SW 211th St
SW 216th St
SW 87th Ave
N
W
E
S
Legend
CUTLER BAY BOUNDARY
2 Lanes
4 Lanes Divided
6 Lanes Divided
Source: Miami-Dade County,
THE CORRADINO GROUP
Exhibit T - 8


Town of Cutler Bay
Traffic Signals
SW 184th St
Busway
S. Dixie Hwy
Franjo Rd
Caribbean Blvd
Old Cutler Rd
SW 207th St
SW 212th St
SW 211th St
SW 216th St
SW 85th Ave
SW 87th Ave
SW 232nd St
N
W
E
S
Cutler Bay Boundary
Roads
Traffic Signals
Source: Miami-Dade County,
THE CORRADINO GROUP

Level of Service (What is Level of Service-LOS?)

LOS is a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience.

The analysis of street systems is based upon the concept of level of service (LOS). 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 like Miami-Dade County during typical high volume peak hour traffic periods. LOS D through E is more typically found in large urbanized areas for these types of roadways, with many roadways operating at LOS F.

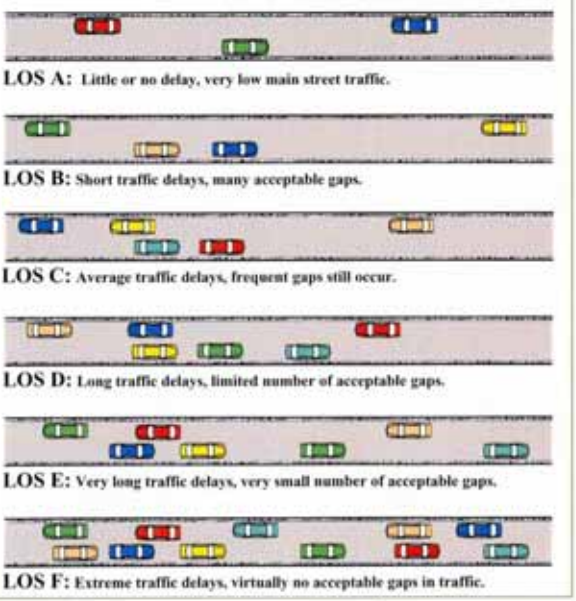
When the LOS is presented it generally represents the ratio of *volume* to *capacity* (V/C). Volume is the number of vehicles that actually pass a given point on the road in a given time. Capacity is the maximum number of vehicles that can pass a given point on the road in a given time.

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 roadway. This varies based on several factors, including 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.

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



LOS A: Little or no delay, very low main street traffic.

LOS B: Short traffic delays, many acceptable gaps.

LOS C: Average traffic delays, frequent gaps still occur.

LOS D: Long traffic delays, limited number of acceptable gaps.

LOS E: Very long traffic delays, very small number of acceptable gaps.

LOS F: Extreme traffic delays, virtually no acceptable gaps in traffic.

Essentially the capacity of a roadway is represented as 1.0. or 100%. The Level of Service of the roadway represents a percentage of that capacity. Level of Service A is between 0 and .6, or 60% of capacity. The generally acceptable LOS for roadways in Miami-Dade County is LOS D, which is between .81 and .9 (81% - 90%) of capacity. Level of Service F is anything over 1.0 or 100% of capacity. Table 1 shows the volume capacity ratio for each LOS category. Level of service is provided for "links" (segments) of roadway, and "nodes" (intersections). This analysis primarily examined roadway level of service.

Table 1

Level of Service

LOS	Volume/Capacity
A	<.60
B	.61 to 0.70
C	.71 to 0.80
D	.81 to 0.90
E	.91 to 1.00
F	>1.00

These LOS standards represent a range of operating conditions and the driver's perception of those conditions, as described below.

- 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 +- 30 car lengths. On most of Cutler Bay's roads (speed limit of 30 mph) this is represented by a speed 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 a speed of between 20mph and 25mph.

- 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 (speed limit of 30 mph) this is represented by a speed of between 13mph and 20mph.

- LOS D borders on a range in which small increases in flow may cause substantial increases in delay 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 (speed limit of 30 mph) this is represented by a speed of between 9mph and 13mph.

- 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 (speed limit of 30 mph) this is represented by a speed of between 7mph and 9mph.

- LOS F is characterized by urban street flow at extremely low speeds, typically 25% of the free flow speed. Intersection congestion exists at critical signalized intersections with high delay, high volumes and extensive queuing. There is generally less that one car length distance between vehicles. On most of Cutler Bay's roads (speed limit of 30 mph) this is represented by a speed of less than 7mph.

On urban streets with traffic signals, LOS is directly related to the free flow speed found on each type of street.

Table 2

Average Travel Speeds

Urban Street Class	I	II	III	IV
Range of free-flow spee (FFS)	55-45 MPH	45-35 MPH	35-30 MPH	35-25 MPH
Typical FFS	50 MPH	40 MPH	35 MPH	30 MPH
LOS	Average Travel Speed (MPH)			
A	>42	>35	>30	>25
B	>34-42	>28-35	>24-30	>19-25
C	>27-34	>22-28	>18-24	>13-19
D	>21-27	>17-22	>14-18	>9-13
E	>16-21	>13-17	>10-14	>7-9
F	<16	<13	<10	<7

LOS Analysis Types

There are several levels of Level of Service Determination, each becoming progressively more specific as needed. These can be generally classified in to three categories, i.e. regional, local and project specific. The 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 Metropolitan Planning Organizations (MPO) Long Range Transportation Plan model, (LRTP) to test the impact of transportation improvements for the future. This projects Level of Service 15 and 20 years into the future. It tests the general improvements to the overall system of certain transportation projects, and is used to for the long range "cost feasible plan" which guides the investment of federal dollars into the local transportation system. Using basic demographic data from the US-Census a regional transportation model is developed for Palm Beach County, Broward County and Miami-Dade County. For 2030 the LRTP model shows that much of Old Cutler Road will be operating at LOS E or F.

The MPO LRTP family of documents and products contain traffic volume data for the base year analysis (in the current plan is the year 2000) as well as future year analyses such as 2015 and 2030. Growth rate factors can be developed between the MPO's years 2000, 2015 and 2030 traffic volume data and use to project current vehicular traffic volumes.

Future vehicular traffic volumes from the MPO roadway networks are the result of a process that starts by developing future socio-economic and land use data based on the adopted comprehensive plan. The socio-economic and land use data is use 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 actual counts are examined and evaluated with specific 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 and performing the necessary field observations and technical analyses.

Roadway capacity and LOS for future year conditions are basically performed in the same manner as in 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 practice. Among the professionally accepted practice is the use of transportation related data from the Miami-Dade Metropolitan Planning Organization (MPO) adopted Long Range Transportation Plan (LRTP).

Other professionally accepted practice include using historic vehicular volume data to develop a growth rate and use it to project existing volumes into the future based on the historical data. This method has limitations and should be use with caution. Past growth trends in traffic volumes may not necessary 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 automatically calculate remaining roadway capacities and subsequent Level of Service. Cutler Bay uses its consultants and recover 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 mitigate level of service deficiencies, by paying their fair share to an upgrade of the transportation facility. A proposed development/redevelopment typical traffic impact study usually requires 3 types of analyses. One analysis to reflect existing roadway capacity and LOS, another analysis to reflect future conditions (opening year of the proposed project) without the proposed project and a final analysis to reflect future year conditions including the proposed project generated vehicular volumes. In order to perform the future year analyses, it is necessary to project existing vehicular volumes to the future year using growth rates developed from the MPO data or by other professionally accepted practices.

There are exceptions to the requirement of performing a traffic impact in cases such as a single family home or any 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 is a project that promotes public transportation or is located within an area designated in the comp 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 instance where a traffic impact study may not be required is under the “de minimis” impact according to s. 163.3180 (6) where the actual traffic impact is very small and thus not needing an impact analysis.

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 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, etc.

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 the State these 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. They then could set the level of service. However, the new level of service would need to conform to state and county standards. There would be no real advantage to owning the road, in most cases. Nearly all minor arterials in our County have a LOS Standard of D or E, the exception being for facilities being within the Urban Infill Boundary, which is the area inside (south or east) of the Palmetto Expressway. The figure to the side shows the Urban Infill Boundary in red, Old Cutler Road in green and Cutler Bay in light blue.

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 was implemented to counteract the negative impacts of concurrency, which actually "incentivised" the opposite of the intention by causing development to occur outside of the urban core. No provisions were made for infill south of where 77th Ave intersects Biscayne Bay. Therefore Cutler Bay, although with 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 allowed to be 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 our county the coastal communities of the barrier islands have broad peak hours, which mean that the peak hour is less than 10% and multiple hours have between 5% and 7% of daily traffic. In these types of congested areas, traffic has learned that it must *travel* off peak to get places, so the peaks are extended.

Because these roads perform an important transportation function, and are costly to build and maintain, 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 in the county or state 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 3 years of the impacting-development being issued a building permit. This stems from Florida's growth management legislation referred to as concurrency.

Traffic Count Locations

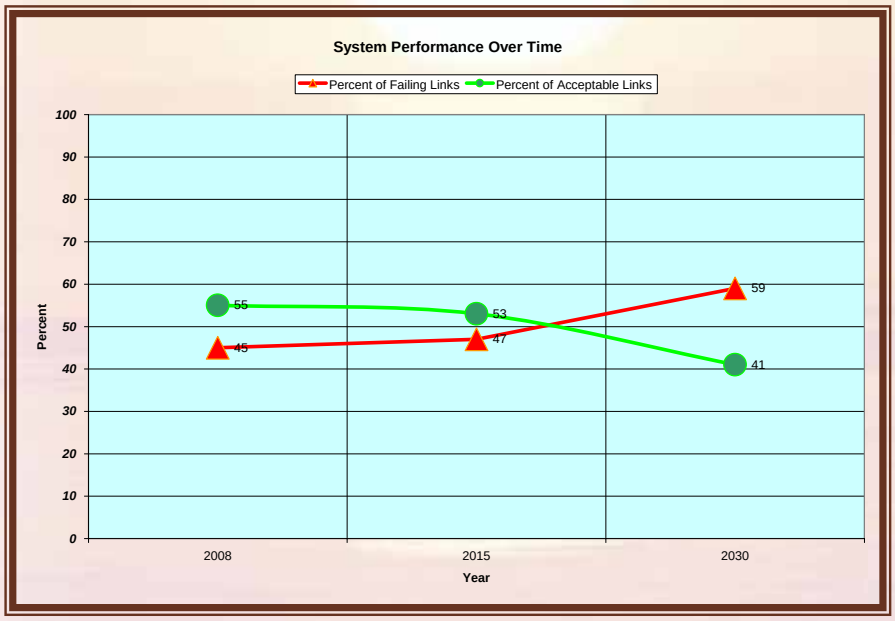
Traffic was counted at 49 locations in the Town. The following table lists these.

#	ROAD	FROM	TO	No. OF LANES	MEDIAN TYPE	ROAD	TYPE	No. of SIGNALS	LENGTH (MILE)	SIGNALS /MILE	SPEED LIMIT (MPH)
1	SW 184 ST	SW 107 AVE	US-1	4	TWLTL	COUNTY	URBAN MINOR ARTERIAL	7	3.0	2.0	35
2		US-1	Franjo Rd.	4	TWLTL						35
3		Franjo Rd	SW 92 Ave	2	UNDIVIDED						40
4		SW 92 Ave	SW 87 Ave	2	UNDIVIDED						40
5		SW 87 Ave	Old Cutler Rd	2	UNDIVIDED						40
6	Caribbean Blvd	SW 117 Ave	SW 110 Ave	2	UNDIVIDED	COUNTY	URBAN COLLECTOR	13	4.5	2.7	35
7		SW 110 Ave	US-1	4	RAISED						35
8		US-1	SR 821	4	RAISED						35
9		SR 821	SW 97 Ave	2	UNDIVIDED						35
10		SW 97 Ave	Marlin Rd.	2	UNDIVIDED						35
11		Marlin Rd.	Franjo Rd.	2	UNDIVIDED						35
12		Franjo Rd.	SW 87 Ave	2	UNDIVIDED						35
13		SW 87 Ave	SW 184 St	2	UNDIVIDED						35
14	SW 211 St	SW 114 Ave	US-1	4	RAISED	COUNTY	URBAN COLLECTOR	6	1.2	4.2	35
15		US-1	SW 112 Ave	6	RAISED						40
16		SW 112 Ave	SR 821	6	RAISED						40
17	SW 212 St	SW 87 Ave	SW 85 Ave	4	RAISED	LOCAL	URBAN LOCAL	1	0.3	0.0	35
18	SW 216 St	SR 821	Old Cutler Rd	4	RAISED	COUNTY	URBAN MINOR ARTERIAL	3	2.0	1.0	35
19		Old Cutler Rd	SW 87 Ave	4	RAISED						30
20	SW 232 St	SW 97 Ave	SW 87 Ave	2	UNDIVIDED	LOCAL	URBAN LOCAL	0	1.2	0.0	30
21	SW 85 Ave	Old Cutler Rd	SW 212 St	4	RAISED	LOCAL	URBAN LOCAL	0	0.8	0.0	35
22	Old Cutler Rd	SW 112 Ave	SW 224 St	2	UNDIVIDED	COUNTY	URBAN COLLECTOR	7	4.8	1.3	35
23		SW 224 St	SW 216 St	2	UNDIVIDED		URBAN COLLECTOR				35
24		SW 216 St	SW 97 Ave	2	UNDIVIDED		URBAN MINOR ARTERIAL				35
25		SW 97 Ave	Marlin Rd.	2	UNDIVIDED		URBAN MINOR ARTERIAL				35
26		Marlin Rd.	SW 87 Ave	2	UNDIVIDED		URBAN MINOR ARTERIAL				35
27		SW 87 Ave	SW 184 St	2	UNDIVIDED		URBAN MINOR ARTERIAL				35
28		SW 184 St	SW 77 Ave	2	UNDIVIDED		URBAN MINOR ARTERIAL				35
29	SR 821	SW 216 St	SW 211 St	4	DEPRESSED	STATE	LIMITED ACCESS FREEWAY	<2mile Interchanges			60
30		SW 211 St	Caribbean Blvd	4	DEPRESSED						60
31		Caribbean Blvd	US-1	6	DEPRESSED						60
32		US-1	Quail Roost Rd	6	DEPRESSED						60
33	fstream Rd/SW 97	Caribbean Blvd	Franjo Rd.	2	UNDIVIDED	COUNTY	URBAN COLLECTOR	2	1.1	0.9	30
34		Franjo Rd	SW184 St	2	UNDIVIDED						30
35		SW184 St	SW 174 St	2	UNDIVIDED						30
36	Marlin Rd	Old Cutler Rd	Caribbean Blvd	2	UNDIVIDED	COUNTY	URBAN COLLECTOR	5	2.0	2.0	30
37		Caribbean Blvd	SW 97 Ave	2	UNDIVIDED						30
38		SW 97 Ave	US-1	2	UNDIVIDED						30
39		US-1	SW 107 Ave	4	RAISED						35
40	Franjo Rd.	Old Cutler Rd	Caribbean Blvd	2	UNDIVIDED	COUNTY	URBAN COLLECTOR	2	1.2	0.8	30
41		Caribbean Blvd	SW 97 Ave	2	UNDIVIDED						30
42	SW 87 Ave	SW 232 St	SW 216 St	2	UNDIVIDED	COUNTY	URBAN COLLECTOR	5	3.3	1.2	40
43		SW 216 St	Old Cutler Rd	2	UNDIVIDED						40
44		Old Cutler Rd	Caribbean Blvd	2	UNDIVIDED						35
45		Caribbean Blvd	SW 184 St	2	UNDIVIDED						35
46		SW 184 St	SW 174 St	2	UNDIVIDED						35
47	US-1	SW 211 St	Caribbean Blvd	6	RAISED	STATE	RBAN PRINCIPAL ARTERIA	8	2.3	3.0	45
48		Caribbean Blvd	Marlin Rd.	6	RAISED						45
49		Marlin Rd.	SW 184 St	6	RAISED						45

Transportation System Performance

The science of transportation planning is in evaluating the transportation network from a technical perspective. This entails collecting necessary data on the system in the form of traffic counts, then analyzing these counts to determine the Level of Service on the network, today, in 2015 and in 2030. From here a variety of projects can be developed to address the needs.

Today the roadway system in Cutler Bay functions barely functions adequately, and will deteriorate more over time. Traffic counts were taken at 49 roadway links on 14 roads. (links are segments of roadway between intersections). The level of service standard in Cutler Bay is LOS D, so anything at E worse is unacceptable. In 2008, 27 of 49 links or 55 % operate at an acceptable level of service. 22 links or 45% are failing. By 2015, 26 links (53%) are acceptable, and 23 links (47%) are unacceptable. By 2030, 20 (41%) are acceptable, and 29 links (59%) are unacceptable. Additionally 25 intersections were identified with deficiencies.



Most traffic seems to be moving north and south through Cutler Bay. This follows the expected commuting pattern of trips moving north out of South Dade in the morning to work and back again in the evening. This is mainly because the employment centers are mostly all north of 88th Street. US-1 carries the bulk of the volume through Cutler Bay, with daily volumes between 52,000 vehicles and 73,000 vehicles. The level of service on this road is at LOS E at its worse. Oddly enough, the highest volume at 73,000 vehicles per day is on the segment between Caribbean and Marlin. The segment north of Marlin drops 6,000 trips. These trips use Marlin northbound as a way of getting out of the community.

Marlin is LOS D between Old Cutler Road and Caribbean and LOS F between Caribbean and north of US-1. Again on this road we can see flow build as it progresses north. Only 8,400 daily trips are on Marlin between Old Cutler Road and Caribbean. The number jumps to 13,500 between Caribbean and US-1. But it jumps to 37,000 north of US-1, as Northbound US-1 traffic joins it.

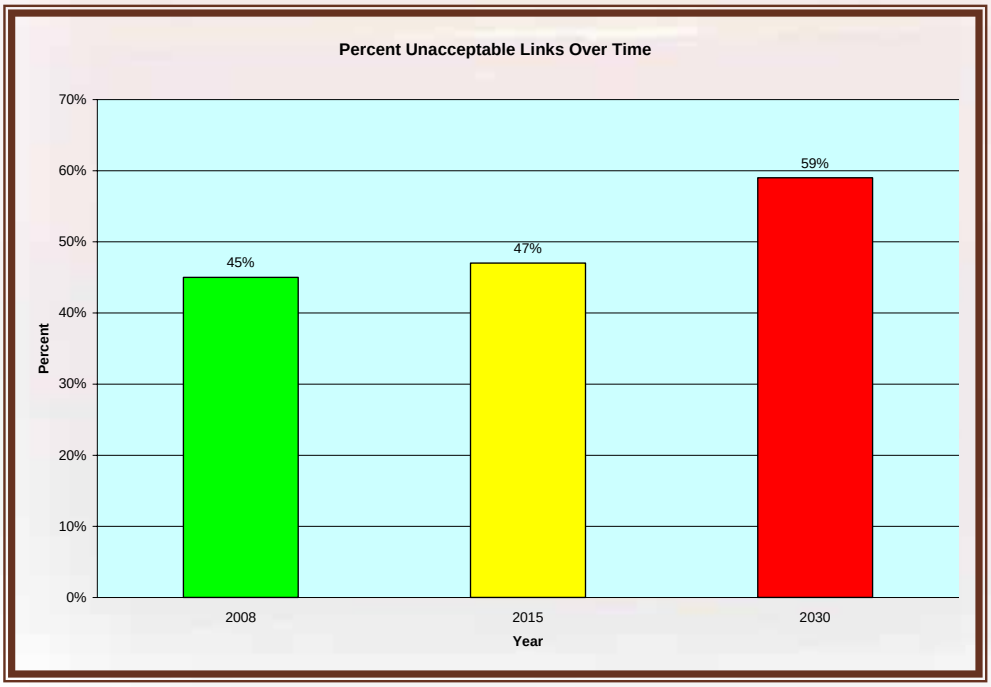
Franjo is LOS F as it approaches 184th, accounting for over 18,000 vehicles per day.

87th Avenue goes from LOS C south of 200th Street to LOS E north of Old Cuter Road, carrying a volume of between 2,800 vehicles per day on the southern most segment to over 13,000 vehicles per day just south of 184th Street.

Interestingly two roads perform backwards, meaning that they have a higher volume on theirs southern or central links than they do on their northern links. Old Cutler Road is one of these, but its intensity is between 216 Street and 87th Avenue. Many northbound trips exit on 87th Avenue to head north through Palmetto Bay instead of staying on Old Cutler Road. But this road is a borderline LOS F. At its best it has only 17 trips capacity left in it. This is a nominal amount. Looked at another way, the allowable LOS on the road is actually LOS D, so the entire road breaches the level of service threshold in 2008. Regardless, gravity of the commercial area is seen.

Caribbean is even a better case of functioning backwards. This is LOS F on its southern leg, between the Turnpike and 97th Avenue, LOS D between 97th Avenue and 87th Avenue, and LOS C between 87th Avenue and 184th Street. This road carries daily volumes of traffic between 6,000 and 31,000 per day.

What is seen here is the gravity of the Turnpike as people head to Western Dade locations such as Doral, the Southland Mall and the Old Cuter Road commercial center as generators. Carried forward, one can see the impact that the Urban Center District and the Old Cutler Road Charrette Area have in the future as they developed as mix use, Office and Residential centers in the area. While an intensity of traffic may be seen at the point of activity, this traffic will be classified as both origins, and destinations, meaning that they will both have positive financial impacts on the community as opposed to being directional pass through traffic which will only leave only congestion and pollution. Both have the potential to reverse traffic flow on each of the major roads carrying people through the community. It also shows that any additional development not only in the area, but in Doral, areas south of the Town and in the area will create a need for additional roadway capacity, as many of these areas are not serviced by transit presently.



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 maps and 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 right 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 standard, and anything that surpasses D would be said to be out of capacity.

Existing Year 2008 Roadway Level of Service (LOS) Measured as Peak-hour, Peak-direction

Today the roadway system in Cutler Bay barely functions adequately, 27 of 49 links or 55% operate at an acceptable level of service. 22 links or 45% are failing.

<u>The following major roadways are operating at LOS D</u>

- SW 184 St between Franjo Rd to Old Cutler Rd.
- Caribbean Blvd between SW 97 Ave to SW 87 Ave
- SW 211 St between SW 114 Ave to SR-821
- SW 216 St between SR-821 to Old Cutler Rd.
- SR-821 between US-1 to Quail Roost Rd
- Marlin Rd between Old Cutler Rd to Caribbean Blvd.

<u>The following major roadways are operating at LOS E</u>

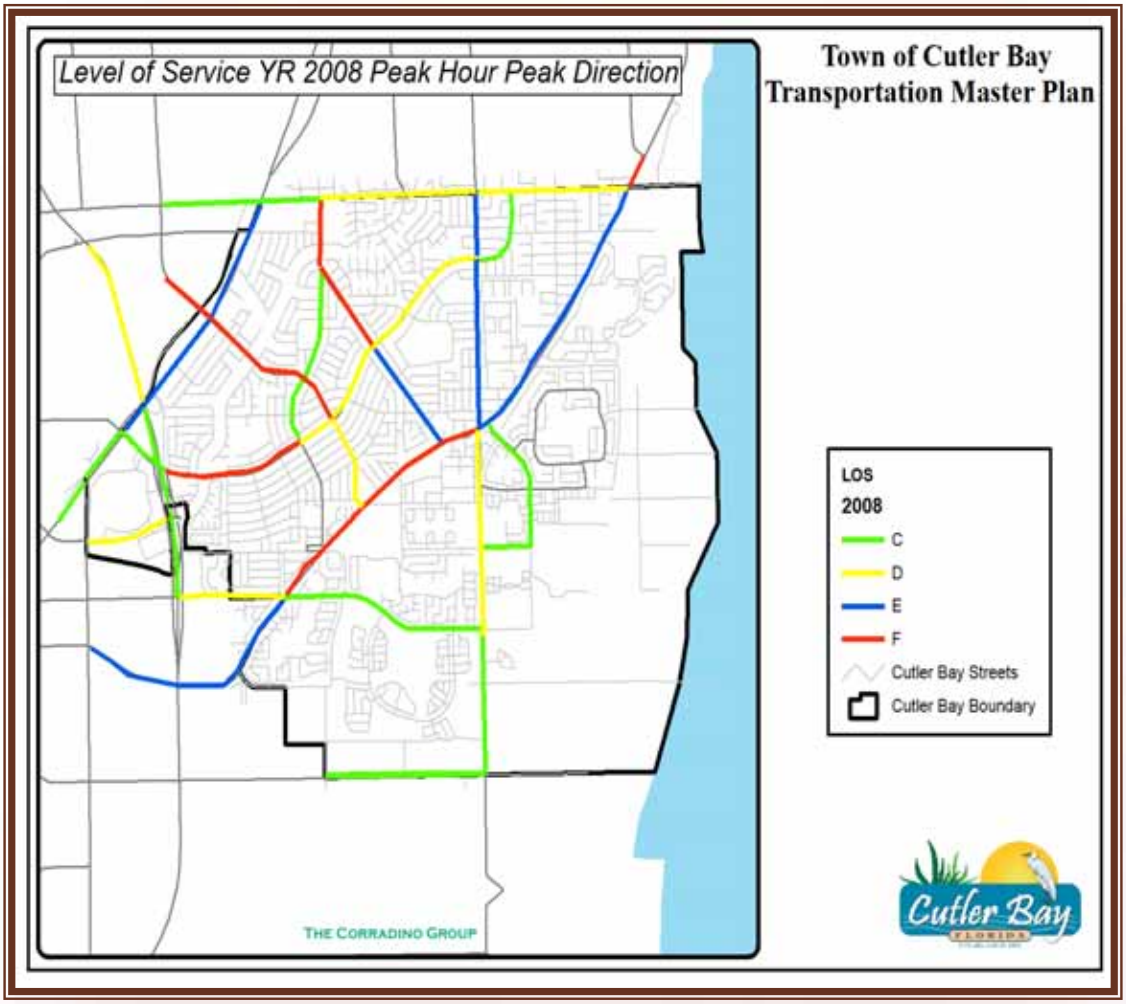
- Old Cutler Rd between SW 112 Ave to SW 216 St and from SW 87 Ave to SW 184 St
- Gulfstream Rd/SW 97 Ave between SW 184 St to SW 174 St
- Franjo Rd between Old Cutler Rd to Caribbean Blvd
- SW 87 Ave between Old Cutler Rd to SW 184 St
- US-1 between Caribbean Blvd to SW 184 St

<u>The following major roadways are operating at LOS F</u>

- Caribbean Blvd between SW 117 Ave to US-1 and from SR-821 to SW 97 Ave
- Old Cutler Rd between SW 216 St to SW 87 Ave and from SW 184 St to SW 77 Ave
- Gulfstream Rd/SW 97 Ave between Franjo Rd to SW 184 St
- Marlin Rd between Caribbean Blvd to SW 107 Ave
- Franjo Rd between Caribbean Blvd to SW 97 Ave
- SW 87 Ave between SW 184 St and SW 174 St

The map on the following page graphically depicts the existing Yr 2008 LOS.

Figure 1 - Existing Level of Service



Year 2015 Roadway Level of Service (LOS) Measured as Peak-hour, Peak-direction

By 2015 all of Old Cutler Road will be LOS F, as will Franjo and the northern part of 97th Ave. Marlin is at LOS F and E, which surpasses acceptable concurrency thresholds. By 2015, 26 links (53%) are acceptable, and 23 links (47%) are unacceptable. By 2030, 20 (41%) are acceptable, and 29 links (59%) are unacceptable.

The following major roadways are operating at LOS D

- SW 184 St between SW 107 Ave to Franjo Rd and from SW 87 Ave to Old Cutler Rd
- Caribbean Blvd between US-1 to SR-821 and from Marlin Rd to SW 87 Ave
- SW 211 St between SW 114 Ave to SR-821
- SW 216 St between SR-821 to SW 87 Ave
- SW 87 Ave between SW 232 St to SW 216 St and from Old Cutler Rd to SW 174 St
- US-1 between SW 211 St to Caribbean Blvd

The following major roadways are operating at LOS E

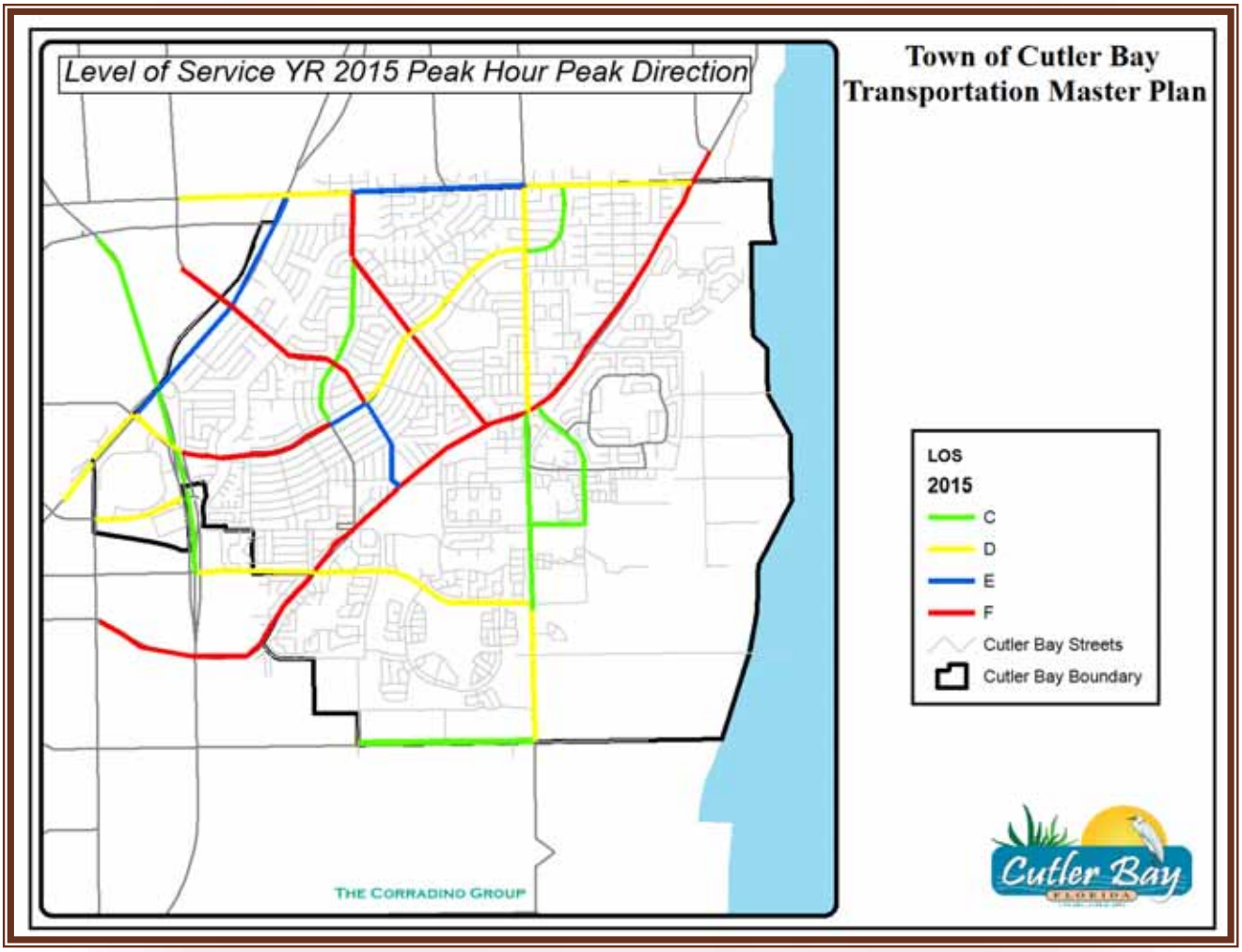
- SW 184 St between Franjo Rd to SW 87 Ave
- Caribbean Blvd between SW 97 Ave to Marlin Rd
- Marlin Rd between Old Cutler Rd to Caribbean Blvd
- US-1 between Caribbean Blvd to SW 184 St

The following major roadways are operating at LOS F

- Caribbean Blvd between SW 117 Ave to US-1 and from SR-821 to SW 97 Ave
- Old Cutler Rd between SW 112 Ave to SW 77 Ave
- Gulfstream/SW 97 Ave between Franjo Rd to SW 174 St
- Marlin Rd between Caribbean Blvd to SW 107 Ave
- Franjo Rd between Old Cutler Rd to SW 97 Ave

The map on the following page graphically depicts the Year 2015 LOS.

Figure 2 - Year 2015 Level of Service



Year 2030 Roadway Level of Service (LOS) Measured as Peak-hour, Peak-direction

The following major roadways are operating at LOS D

- SW 184 St between SW 107 Ave to Franjo Rd and from SW 87 Ave to Old Cutler Rd
- Caribbean Blvd between Marlin Rd to SW 87 Ave
- SW 211 St between SW 114 Ave to SW 112 Ave
- SW 212 St between SW 87 Ave to SW 85 Ave
- SR-821 between SW 216 St to SW 211 St
- SW 87 Ave between SW 232 St to SW 184 St
- US-1 between SW 211 St and Caribbean Blvd

The following major roadways are operating at LOS E

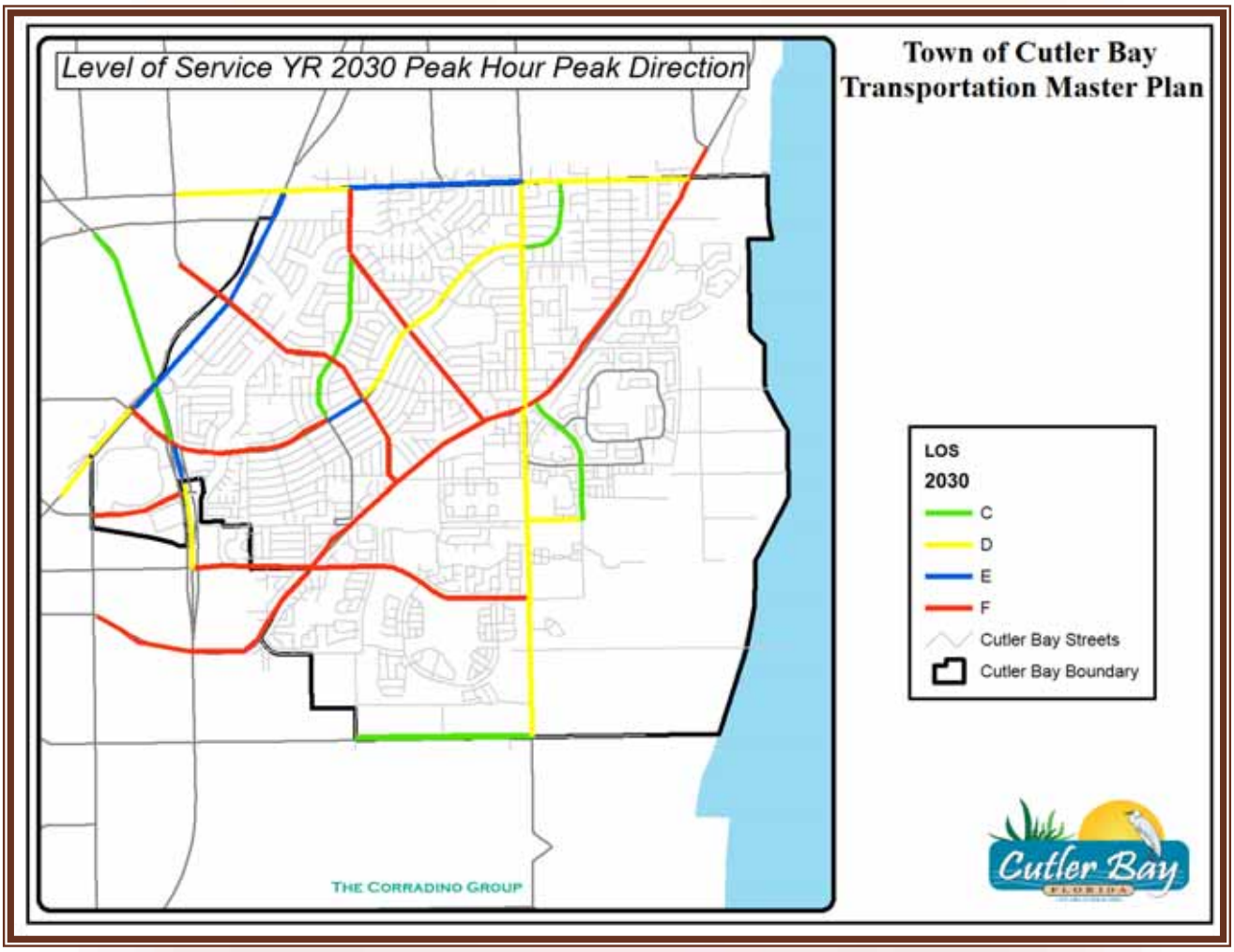
- SW 184 St between Franjo Rd to SW 87 Ave
- Caribbean Blvd between SW 97 Ave to Marlin Rd
- SR-821 between SW 211 St to Caribbean Blvd
- SW 87 Ave between SW 184 St to SW 174 St
- US-1 between Caribbean Blvd to SW 184 St

The following major roadways are operating at LOS F

- Caribbean Blvd between SW 117 Ave to SW 97 Ave
- SW 211 St between SW 112 Ave to SR-821
- SW 216 St between SR-821 to SW 87 Ave
- Old Cutler Rd between SW 112 Ave to SW 77 Ave
- Gulfstream Rd/SW 97 Ave between Franjo Rd to SW 174 St
- Marlin Rd between Old Cutler Rd to SW 107 Ave
- Franjo Rd between Old Cutler Rd to SW 97 Ave

The map on the following page graphically depicts the Year 2030 LOS.

Figure 3 - Year 2030 Level of Service



Summary of Roadway los Analyses

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

Comparison Between Year 2008 and 2015

Roadways with their LOS going from D To E:

SW 184 Street (97 Ave – 87 Ave)

Caribbean Blvd (SW 97 Ave – Marlin Rd)

Marlin Rd (Old Cutler Rd – Caribbean Blvd)

Roadways with their LOS going from E To F:

Franjo Rd (Old Cutler Rd – Caribbean Blvd)

Old Cutler Rd (SW 112 Ave – SW 216 St)

Old Cutler Rd (SW 87 Ave – SW 184 St)

The LOS on SW 87 Avenue will be significantly improved as the result of the programmed widening of this road from 2 to 4 lanes. The resulting LOS for the year 2015 will be C and D.

The LOS on the Extension of the Florida Turnpike (HEFT) will improve from D to C in the segment between US-1 and Quail Roost as the result of the programmed widening.

Comparison between Year 2015 and 2030

Roadways with their LOS going from D To E:

NONE

Roadways with their LOS going from E To F:

Marlin Rd (Old Cutler Rd – Caribbean Blvd)

The above suggests that in general there will be no significant growth in vehicular traffic within the Town of Cutler Bay.

As the result of the widening to 4 lanes, SW 87 Ave will operate at LOS D. The portion of the HEFT between US-1 and Quail Roost Dr will continue to operate at LOS C.

Roadway Intersections

In addition to the roadway segments, twenty-four intersections or specific locations were identified based on safety, capacity and operational deficiencies. These are:

1. Old Cutler Rd / SW 87 Ave intersection
2. Old Cutler Rd / Franjo Rd intersection
3. Old Cutler Rd / SW 97 Ave intersection
4. On Old Cutler Rd (SW 92 Ave to Franjo Rd)
5. Old Cutler Rd / SW 216 St
6. SW 97 Ave north of SW 232 St. and SW 224 St west of 97 Ave.

7. SW 216 St / 97 Ave intersection.
8. Old Cutler Rd between Marlin Rd and SW 208 St.
9. SW 216 St and 87 Ave.
10. Caribbean Blvd between the Turnpike and US-1
11. Caribbean Blvd at Coral Sea Rd
12. Caribbean Blvd at Gulfstream RD
13. Caribbean Blvd at Marlin Rd
14. Caribbean Blvd at Franjo Rd
15. Caribbean Blvd at SW 192 Dr
16. Caribbean Blvd at SW 87
17. Marlin Rd at US-1
18. Marlin Rd at Old Cutler Rd
19. Franjo Rd at SW 184 St
20. Franjo Rd at Cutler Ridge Dr
21. SW 211 St/Cutler Ridge Blvd at Turnpike interchange
22. Marlin Rd / Gulfstream Rd.
23. SW 87 Ave / 184 St.
24. Franjo Rd / SW 97 Ave.

The Project Bank section of this report provides details on the proposed improvements for these locations.

Town of Cutler Bay
Transportation Element

2008 Conditions

#	ROAD	FROM	TO	No. OF LANES	JURISDICTION	TYPE	AVERAGE DAILY VOLUME (vpd)	LOS STANDARD	PEAK HOUR / PEAK DIRECTION FDOT LOS MANUAL VOLUME THRESHOLDS (vph)			AVERAGE PEAK HR/ PEAK DIRECTION VOLUME (vph)	PEAK HOUR/PEAK DIRECTION	
									C VOLUME	D VOLUME	E VOLUME		LOS	AVAILABLE CAPACITY
1	SW 184 ST	SW 107 AVE	US-1	4	COUNTY	URBAN MINOR ARTERIAL	19542	E	1120	1620	1720	942	C	778
2		US-1	Franjo Rd.	4			20957	E	1120	1620	1720	1010	C	710
3		Franjo Rd	SW 92 Ave	2			14146	E	480	760	810	682	D	128
4		SW 92 Ave	SW 87 Ave	2			16459	E	480	760	810	704	D	106
5		SW 87 Ave	Old Cutler Rd	2			9199	E	480	760	810	493	D	317
6	Caribbean Blvd	SW 117 Ave	SW 110 Ave	2	COUNTY	URBAN COLLECTOR	19208	D	250	530	660	1012	F	-482
7		SW 110 Ave	US-1	4			31722	D	580	1140	1320	1672	F	-532
8		US-1	SR 821	4			10685	D	580	1140	1320	563	C	577
9		SR 821	SW 97 Ave	2			19553	D	250	530	660	1025	F	-495
10		SW 97 Ave	Marlin Rd.	2			9249	D	250	530	660	487	D	43
11		Marlin Rd.	Franjo Rd.	2			7322	D	250	530	660	340	D	190
12		Franjo Rd.	SW 87 Ave	2			6017	D	250	530	660	341	D	189
13		SW 87 Ave	SW 184 St	2			1338	D	250	530	660	89	C	441
14	SW 211 St	SW 114 Ave	US-1	4	COUNTY	URBAN COLLECTOR	13428	E	580	1140	1320	715	D	605
15		US-1	SW 112 Ave	6			16954	E	609	1197	1386	903	D	483
16		SW 112 Ave	SR 821	6			18720	E	609	1197	1386	997	D	389
17	SW 212 St	SW 87 Ave	SW 85 Ave	4	LOCAL	URBAN LOCAL	8361	D	580	1140	1320	445	C	695
18	SW 216 St	SR 821	Old Cutler Rd	4	COUNTY	URBAN MINOR ARTERIAL	24838	E	1120	1620	1720	1353	D	367
19		Old Cutler Rd	SW 87 Ave	4			14427	E	1120	1620	1720	890	C	830
20	SW 232 St	SW 97 Ave	SW 87 Ave	2	LOCAL	URBAN LOCAL	1749	D	250	530	660	93	C	437
21	SW 85 Ave	Old Cutler Rd	SW 212 St	4	LOCAL	URBAN LOCAL	3884	D	580	1140	1320	207	C	933
22	Old Cutler Rd	SW 112 Ave	SW 224 St	2	COUNTY	URBAN COLLECTOR	9796	D	250	530	660	591	E	-61
23		SW 224 St	SW 216 St	2		URBAN COLLECTOR	9638	D	250	530	660	597	E	-67
24		SW 216 St	SW 97 Ave	2		URBAN MINOR ARTERIAL	19935	E	480	760	810	869	F	-59
25		SW 97 Ave	Marlin Rd.	2		URBAN MINOR ARTERIAL	18847	E	480	760	810	986	F	-176
26		Marlin Rd.	SW 87 Ave	2		URBAN MINOR ARTERIAL	21351	E	480	760	810	962	F	-152
27		SW 87 Ave	SW 184 St	2		URBAN MINOR ARTERIAL	13346	E	480	760	810	793	E	17
28		SW 184 St	SW 77 Ave	2		URBAN MINOR ARTERIAL	27387	E	480	760	810	1341	F	-531
29	SR 821	SW 216 St	SW 211 St	4	STATE	LIMITED ACCESS FREEWAY	34156	D	2660	3440	3910	1819	C	1621
30		SW 211 St	Caribbean Blvd	4			44859	D	2660	3440	3910	2390	C	1050
31		Caribbean Blvd	US-1	6			77531	D	4180	5410	6150	4130	C	1280
32		US-1	Quail Roost Rd	6			97369	D	4180	5410	6150	5187	D	223
33	Gulfstream Rd/SW 97 Ave	Caribbean Blvd	Franjo Rd.	2	COUNTY	URBAN COLLECTOR	2166	D	250	530	660	163	C	367
34		Franjo Rd	SW184 St	2			14634	D	250	530	660	773	F	-243
35		SW184 St	SW 174 St	2			9307	D	250	530	660	579	E	-49
36	Marlin Rd	Old Cutler Rd	Caribbean Blvd	2	COUNTY	URBAN COLLECTOR	8476	D	250	530	660	439	D	91
37		Caribbean Blvd	SW 97 Ave	2			13515	D	250	530	660	696	F	-166
38		SW 97 Ave	US-1	2			13655	D	250	530	660	700	F	-170
39		US-1	SW 107 Ave	4			37616	D	580	1140	1320	1925	F	-785
40	Franjo Rd.	Old Cutler Rd	Caribbean Blvd	2	COUNTY	URBAN COLLECTOR	13805	D	250	530	660	653	E	-123
41		Caribbean Blvd	SW 97 Ave	2			18680	D	250	530	660	995	F	-465
42	SW 87 Ave	SW 232 St	SW 216 St	2	COUNTY	URBAN COLLECTOR	2834	D	250	530	660	185	C	345
43		SW 216 St	Old Cutler Rd	2			7208	D	250	530	660	425	D	105
44		Old Cutler Rd	Caribbean Blvd	2			7049	D	250	530	660	607	E	-77
45		Caribbean Blvd	SW 184 St	2			8576	D	250	530	660	633	E	-103
46		SW 184 St	SW 174 St	2			13079	D	250	530	660	854	F	-324
47	US-1	SW 211 St	Caribbean Blvd	6	STATE	URBAN PRINCIPAL ARTERIAL	52151	E(1.2)	2110	2570	3252	2028	C	1224
48		Caribbean Blvd	Marlin Rd.	6			73236	E(1.2)	2110	2570	3252	2844	E	408
49		Marlin Rd.	SW 184 St	6			67613	E(1.2)	2110	2570	3252	2623	E	629

Abbreviations:
TWLTL = Two Way Left Turn Lane
E(.2)=Extraordinary Transportation E(120%)

Town of Cutler Bay
Transportation Element

2015 Conditions

#	ROAD	FROM	TO	JURISDICTION	TYPE	LOS STANDARD	2008 EXISTING AADT (vpd)	2008 EXISTING PEAK HR PEAK DR VOLUME (vph)	No. OF LANES	Annual Growth Factor	AVERAGE DAILY VOLUME (vpd)	PEAK HOUR/PEAK DIRECTION FDOT LOS MANUAL VOLUME THRESHOLD (vph) C VOLUME	D VOLUME	E VOLUME	PEAK HOUR/ PEAK DIRECTION VOLUME (vph)	LOS	Available Capacity
1	SW 184 ST	SW 107 AVE	US-1	COUNTY	URBAN MINOR ARTERIAL	E	19542	942	4	1.025	23288	1120	1620	1720	1123	D	597
2		US-1	Franjo Rd.			E	20957	1010	4	1.026	25095	1120	1620	1720	1210	D	510
3		Franjo Rd	SW 92 Ave			E	14146	682	2	1.016	15794	480	760	810	761	E	49
4		SW 92 Ave	SW 87 Ave			E	16459	704	2	1.013	18034	480	760	810	772	E	38
5		SW 87 Ave	Old Cutler Rd			E	9199	403	2	1.013	10070	480	760	810	540	D	270
6	Caribbean Blvd	SW 117 Ave	SW 110 Ave	COUNTY	URBAN COLLECTOR	D	19208	1012	2	1.006	19961	250	530	660	1052	F	-522
7		SW 110 Ave	US-1			D	31722	1672	4	1.013	34724	580	1140	1320	1830	F	-690
8		US-1	SR 821			D	10685	563	4	1.026	12815	580	1140	1320	675	D	465
9		SR 821	SW 97 Ave			D	19553	1025	2	1.013	21441	250	530	660	1124	F	-594
10		SW 97 Ave	Marlin Rd.			D	9249	487	2	1.013	10125	250	530	660	534	E	-4
11		Marlin Rd.	Franjo Rd.			D	7322	340	2	1.018	8277	250	530	660	385	D	145
12		Franjo Rd.	SW 87 Ave			D	6017	341	2	1.024	7108	250	530	660	402	D	128
13		SW 87 Ave	SW 184 St			D	1338	89	2	1.016	1496	250	530	660	100	C	430
14	SW 211 St	SW 114 Ave	US-1	COUNTY	URBAN COLLECTOR	E	13428	715	4	1.037	17200	580	1140	1320	921	D	399
15		US-1	SW 112 Ave			E	16954	903	6	1.014	18746	609	1197	1386	999	D	387
16		SW 112 Ave	SR 821			E	18720	997	6	1.019	21311	609	1197	1386	1135	D	251
17	SW 212 St	SW 87 Ave	SW 85 Ave	LOCAL	URBAN LOCAL	D	8361	445	4	1.025	9937	580	1140	1320	529	C	611
18	SW 216 St	SR 821	Old Cutler Rd	COUNTY	URBAN MINOR ARTERIAL	E	24838	1353	4	1.020	28525	1120	1620	1720	1554	D	166
19		Old Cutler Rd	SW 87 Ave			E	14427	890	4	1.042	19263	1120	1620	1720	1188	D	532
20	SW 232 St	SW 97 Ave	SW 87 Ave	LOCAL	URBAN LOCAL	D	1749	93	2	1.121	3884	250	530	660	207	C	323
21	SW 85 Ave	Old Cutler Rd	SW 212 St	LOCAL	URBAN LOCAL	D	3884	207	4	1.004	3986	580	1140	1320	212	C	928
22	Old Cutler Rd	SW 112 Ave	SW 224 St	COUNTY	URBAN COLLECTOR	D	9796	591	2	1.017	11000	250	530	660	664	F	-134
23		SW 224 St	SW 216 St		URBAN COLLECTOR	D	9638	507	2	1.017	10823	250	530	660	670	F	-140
24		SW 216 St	SW 97 Ave		URBAN MINOR ARTERIAL	E	19935	869	2	1.023	23349	480	760	810	1018	F	-208
25		SW 97 Ave	Marlin Rd.		URBAN MINOR ARTERIAL	E	18847	986	2	1.017	21211	480	760	810	1109	F	-299
26		Marlin Rd.	SW 87 Ave		URBAN MINOR ARTERIAL	E	21351	902	2	1.010	22920	480	760	810	1033	F	-225
27		SW 87 Ave	SW 184 St		URBAN MINOR ARTERIAL	E	13346	793	2	1.022	15511	480	760	810	922	F	-112
28		SW 184 St	SW 77 Ave		URBAN MINOR ARTERIAL	E	27307	1341	2	1.012	29725	480	760	810	1456	F	-646
29	SR 821	SW 216 St	SW 211 St	STATE	LIMITED ACCESS FREEWAY	D	34156	1819	4	1.009	36315	2660	3440	3910	1934	C	1506
30		SW 211 St	Caribbean Blvd			D	44859	2390	4	1.004	46131	2660	3440	3910	2457	C	983
31		Caribbean Blvd	US-1			D	77531	4130	6	1.004	79728	4180	5410	6150	4247	D	1163
32		US-1	Quail Roost Rd			D	97369	5187	6	1.004	100018	4180	5410	6150	5328	D	82
33	Gulfstream Rd/ SW 97 Ave	Caribbean Blvd	Franjo Rd.	COUNTY	URBAN COLLECTOR	D	2166	163	2	1.027	2616	250	530	660	197	C	333
34		Franjo Rd	SW 184 St			D	14634	773	2	1.027	17671	250	530	660	933	F	-403
35		SW 184 St	SW 174 St			D	9307	579	2	1.027	11239	250	530	660	699	F	-169
36	Marlin Rd	Old Cutler Rd	Caribbean Blvd	COUNTY	URBAN COLLECTOR	D	8476	439	2	1.031	10465	250	530	660	542	E	-12
37		Caribbean Blvd	SW 97 Ave			D	13515	696	2	1.016	15103	250	530	660	778	F	-248
38		SW 97 Ave	US-1			D	13655	700	2	1.018	15471	250	530	660	793	F	-263
39		US-1	SW 107 Ave			D	37616	1925	4	1.016	42120	580	1140	1320	2155	F	-1015
40	Franjo Rd.	Old Cutler Rd	Caribbean Blvd	COUNTY	URBAN COLLECTOR	D	13805	653	2	1.036	17626	250	530	660	833	F	-303
41		Caribbean Blvd	SW 97 Ave			D	18680	995	2	1.038	24204	250	530	660	1289	F	-759
42	SW 87 Ave	SW 232 St	SW 216 St	COUNTY	URBAN COLLECTOR	D	2834	185	2	1.110	5884	250	530	660	384	D	146
43		SW 216 St	Old Cutler Rd			D	7208	405	4	1.042	9614	580	1140	1320	567	C	573
44		Old Cutler Rd	Caribbean Blvd			D	7049	607	4	1.042	9402	580	1140	1320	810	D	330
45		Caribbean Blvd	SW 184 St			D	8576	633	4	1.038	11134	580	1140	1320	822	D	318
46		SW 184 St	SW 174 St			D	13079	854	4	1.032	16269	580	1140	1320	1062	D	78
47	US-1	SW 211 St	Caribbean Blvd	STATE	URBAN PRINCIPAL ARTERIAL	E(L2)	52151	2028	6	1.008	55170	2110	2570	3252	2146	D	1106
48		Caribbean Blvd	Marlin Rd.			E(L2)	73256	2844	6	1.005	75914	2110	2570	3252	2948	E	304
49		Marlin Rd.	SW 184 St			E(L2)	67613	2623	6	1.005	69834	2110	2570	3252	2709	E	543

Abbreviations:
TWLTL = Two Way Left Turn Lane
EX(2)=Extraordinary Transportation EX(2050)

Town of Cutler Bay
Transportation Element

2030 Conditions

#	ROAD	FROM	TO	JURISDICTION	TYPE	LOS STANDARD	2015 FUTURE		No. OF LANES	Annual Growth Factor	AVERAGE DAILY VOLUME (vpd)	PEAK HOUR/PEAK DIRECTION FDOT LOS MANUAL VOLUME THRESHOLD (vph)			PEAK HOUR/PEAK DIRECTION		
							AADT (vpd)	PEAK HR PEAK DR VOLUME (vph)				C VOLUME	D VOLUME	E VOLUME	PEAK HR PEAK DR VOLUME (vph)	LOS	Available Capacity
1	SW 184 ST	SW 107 AVE	US-1	COUNTY	URBAN MINOR ARTERIAL	E	23288	1123	4	1.002	24045	1120	1620	1720	1159	D	561
2		US-1	Franjo Rd.			E	25095	1210	4	1.004	26599	1120	1620	1720	1282	D	438
3		Franjo Rd	SW 92 Ave			E	15794	761	2	1.002	16181	480	760	810	780	E	30
4		SW 92 Ave	SW 87 Ave			E	18034	772	2	1.003	18794	480	760	810	804	E	6
5		SW 87 Ave	Old Cutler Rd			E	10070	540	2	1.002	10314	480	760	810	553	D	257
6	Caribbean Blvd	SW 117 Ave	SW 110 Ave	COUNTY	URBAN COLLECTOR	D	19961	1052	2	1.033	32450	250	530	660	1710	F	-1180
7		SW 110 Ave	US-1			D	34724	1830	4	1.031	54743	580	1140	1320	2885	F	-1745
8		US-1	SR 821			D	12813	675	4	1.070	35572	580	1140	1320	1875	F	-735
9		SR 821	SW 97 Ave			D	21441	1124	2	1.010	24869	250	530	660	1304	F	-774
10		SW 97 Ave	Marlin Rd.			D	10125	534	2	1.011	11951	250	530	660	630	E	-100
11		Marlin Rd.	Franjo Rd.			D	8277	385	2	1.001	8408	250	530	660	391	D	139
12		Franjo Rd.	SW 87 Ave			D	7108	402	2	1.011	8388	250	530	660	475	D	55
13		SW 87 Ave	SW 184 St			D	1496	100	2	1.024	2133	250	530	660	142	C	388
14	SW 211 St	SW 114 Ave	US-1	COUNTY	URBAN COLLECTOR	E	17290	921	4	1.009	19836	580	1140	1320	1057	D	263
15		US-1	SW 112 Ave			E	18746	999	6	1.009	21505	609	1197	1386	1146	D	240
16		SW 112 Ave	SR 821			E	21311	1135	6	1.022	29496	609	1197	1386	1571	F	-185
17	SW 212 St	SW 87 Ave	SW 85 Ave	LOCAL	URBAN LOCAL	D	9937	529	4	1.012	11881	580	1140	1320	633	D	507
18	SW 216 St	SR 821	Old Cutler Rd	COUNTY	URBAN MINOR ARTERIAL	E	28525	1554	4	1.014	35022	1120	1620	1720	1908	F	-188
19		Old Cutler Rd	SW 87 Ave			E	19263	1188	4	1.028	29115	1120	1620	1720	1796	F	-76
20	SW 232 St	SW 97 Ave	SW 87 Ave	LOCAL	URBAN LOCAL	D	3884	207	2	1.010	4495	250	530	660	239	C	291
21	SW 85 Ave	Old Cutler Rd	SW 212 St	LOCAL	URBAN LOCAL	D	3986	212	4	1.017	5138	580	1140	1320	274	C	866
22	Old Cutler Rd	SW 112 Ave	SW 224 St	COUNTY	URBAN COLLECTOR	D	11000	664	2	1.006	12103	250	530	660	730	F	-200
23		SW 224 St	SW 216 St		URBAN COLLECTOR	D	10823	670	2	1.006	11908	250	530	660	738	F	-208
24		SW 216 St	SW 97 Ave		URBAN MINOR ARTERIAL	E	23349	1018	2	1.006	25502	480	760	810	1111	F	-301
25		SW 97 Ave	Marlin Rd.		URBAN MINOR ARTERIAL	E	21211	1109	2	1.006	23164	480	760	810	1211	F	-401
26		Marlin Rd.	SW 87 Ave		URBAN MINOR ARTERIAL	E	22920	1033	2	1.007	25443	480	760	810	1147	F	-337
27		SW 87 Ave	SW 184 St		URBAN MINOR ARTERIAL	E	15511	922	2	1.010	18137	480	760	810	1078	F	-268
28		SW 184 St	SW 77 Ave		URBAN MINOR ARTERIAL	E	29725	1456	2	1.003	30950	480	760	810	1516	F	-706
29	SR 821	SW 216 St	SW 211 St	STATE	LIMITED ACCESS FREEWAY	D	36315	1934	6	1.033	59445	4180	5410	6150	3166	D	2244
30		SW 211 St	Caribbean Blvd			D	46131	2457	6	1.030	71927	4180	5410	6150	3831	E	1579
31		Caribbean Blvd	US-1			D	79728	4247	8	1.020	107272	5700	7380	8380	5714	C	1666
32		US-1	Quail Roost Rd			D	100018	5328	10	1.013	120647	7220	9340	10620	6427	C	2913
33	Gulfstream Rd/SW 97 Ave	Caribbean Blvd	Franjo Rd.	COUNTY	URBAN COLLECTOR	D	2616	197	2	1.008	2946	250	530	660	222	C	308
34		Franjo Rd	SW184 St			D	17671	933	2	1.008	19906	250	530	660	1051	F	-521
35		SW184 St	SW 174 St			D	11239	699	2	1.008	12660	250	530	660	787	F	-257
36	Marlin Rd	Old Cutler Rd	Caribbean Blvd	COUNTY	URBAN COLLECTOR	D	10465	542	2	1.014	12798	250	530	660	662	F	-132
37		Caribbean Blvd	SW 97 Ave			D	15103	778	2	1.007	16663	250	530	660	858	F	-328
38		SW 97 Ave	US-1			D	15471	793	2	1.008	17403	250	530	660	892	F	-362
39		US-1	SW 107 Ave			D	42120	2155	4	1.005	45245	580	1140	1320	2315	F	-1175
40	Franjo Rd.	Old Cutler Rd	Caribbean Blvd	COUNTY	URBAN COLLECTOR	D	17626	833	2	1.010	20574	250	530	660	973	F	-443
41		Caribbean Blvd	SW 97 Ave			D	24204	1289	2	1.009	27767	250	530	660	1478	F	-948
42	SW 87 Ave	SW 232 St	SW 216 St	COUNTY	URBAN COLLECTOR	D	5884	384	2	1.007	6546	250	530	660	427	D	103
43		SW 216 St	Old Cutler Rd			D	9614	567	4	1.020	12922	580	1140	1320	762	D	378
44		Old Cutler Rd	Caribbean Blvd			D	9402	810	4	1.018	12339	580	1140	1320	1063	D	77
45		Caribbean Blvd	SW 184 St			D	11134	822	4	1.009	12673	580	1140	1320	935	D	205
46		SW 184 St	SW 174 St			D	16269	1062	4	1.007	18074	580	1140	1320	1180	E	-40
47	US-1	SW 211 St	Caribbean Blvd	STATE	URBAN PRINCIPAL ARTERIAL	E(1.2)	55170	2146	6	1.004	58541	2110	2570	3252	2277	D	975
48		Caribbean Blvd	Marlin Rd.			E(1.2)	75914	2948	6	1.003	79239	2110	2570	3252	3078	E	174
49		Marlin Rd.	SW 184 St			E(1.2)	69834	2709	6	1.001	71365	2110	2570	3252	2768	E	484

Abbreviations:
TWLTL = Two Way Left Turn Lane
E(.2)=Extraordinary Transportation E(120%)

Transit

Miami-Dade Transit

Miami-Dade Transit (MDT) is the agency responsible for providing the public transportation needs within Cutler Bay and the entire Miami-Dade County region. Currently, MDT is the 12th largest public transit system in the United States and the largest transit agency in the state of Florida. MDT operates Metrobus, Metrorail, Metromover, and STS Paratransit providing comprehensive coverage from Broward County south into Monroe County.

Metrobus

MDT directly operates over 770, 40-feet buses and 122 minibuses along more than 100 routes. MDT buses travel over 32.3 million scheduled miles throughout Miami-Dade each year. In 2007, Metrobus' total annual ridership was 83,458,376.

Metrorail

Metrorail is an electrically powered, elevated, heavy rail rapid transit system that extends from Kendall 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 22-mile system was first opened on May 20, 1983 and today experiences approximately 58,630 daily boardings.

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, 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 emerging condominium residences and entertainment districts in downtown Miami.

Special Transportation Service (STS)

STS is Miami-Dade Transit's complimentary 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.

Despite Miami-Dade Transit being one of the largest departments of Miami-Dade County government, it has been unable in recent times to secure enough financing to realize the optimal desired countywide operation and frequency. Perennially operating at a deficit, MDT receives funding from the People's Transportation Plan, a plan enacted in 2002 in the countywide election, has not achieved the promised results. MDT service is

being severely cut. While under performing route in Cutler Bay may be trimmed, the reorganization will result in more service in South Dade.

Miami-Dade Busway

The initial 8.2-mile phase of South Miami-Dade Busway, the first of its kind in Florida, began operation in 1997. The South Miami-Dade Busway runs from Florida City to the Dadeland South Metrorail station in downtown Kendall, adjacent to US-1. The busway was built by the Florida Department of Transportation (FDOT) and can solely be used by Miami-Dade buses and emergency vehicles.

The first segment of the extension to Florida City opened in 2005, and extended the Busway 5 miles from SW 112 Ave. to SW 264 St. in Naranja. The second and final segment of the extension, which opened in 2007, now extends the Busway another 6.5 miles south from SW 264 St. to SW 344 St. in Florida City, Miami-Dade County's southernmost municipality.

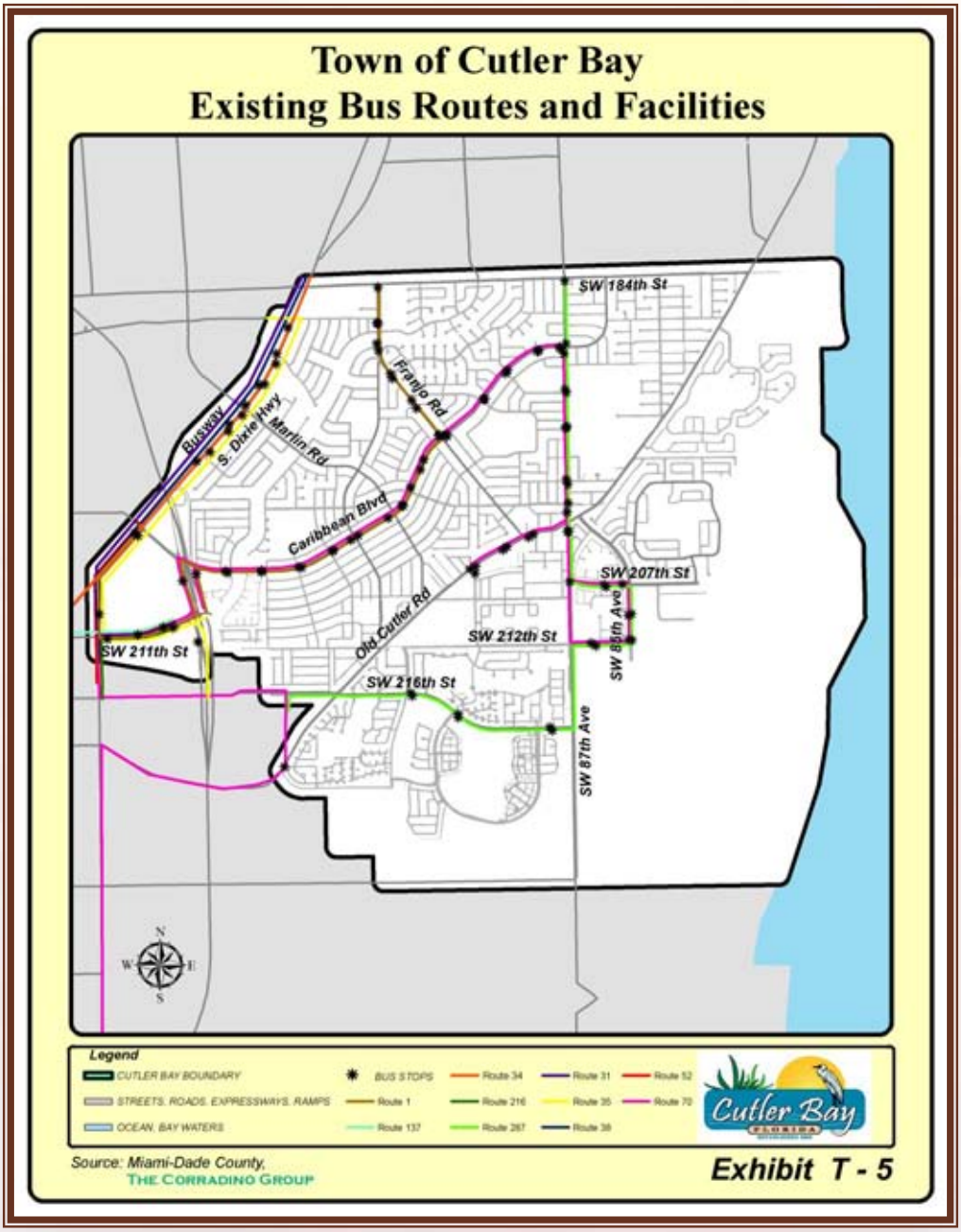
Today, the 20-mile busway links Kendall with the Pinecrest, Palmetto Bay, Cutler Bay, Goulds, Naranja, Homestead, and Florida City neighborhoods. Both local and express buses operate on the right-of-way, traversing the entire corridor from Kendall to SW 344th Street in an hour or less. Access to the adjacent neighborhoods from the busway for local bus routes is achieved at major intersections. Meanwhile, express buses offer a limited stop service from each of the 5 park & ride facilities along the path at SW 152, SW 168, SW 200, SW 244 and SW 296 streets. Plans are in the works for a future Park & Ride lot at SW 344 St. There are a total of 28 stops along the busway, all of which are covered and contain transfer and route information.

Daily, over 10 bus routes use the busway for all or part of their commutes, providing riders with a congestion-free connection through much of southern Miami-Dade County.

South Miami-Dade Busway and Routes (Source: Miami-Dade Transit)

Existing Public Transportation

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 in order to minimize regional traffic. The Town of Cutler Bay benefits greatly from these regional centers, bringing nine bus routes into the area.



Existing Cutler Bay Bus Routes (Source: The Corradino Group)

Regional buses link Cutler Bay with points north and south along the busway as well as with 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. An analysis and description of each bus route is provided in the table below as well as the sections below.

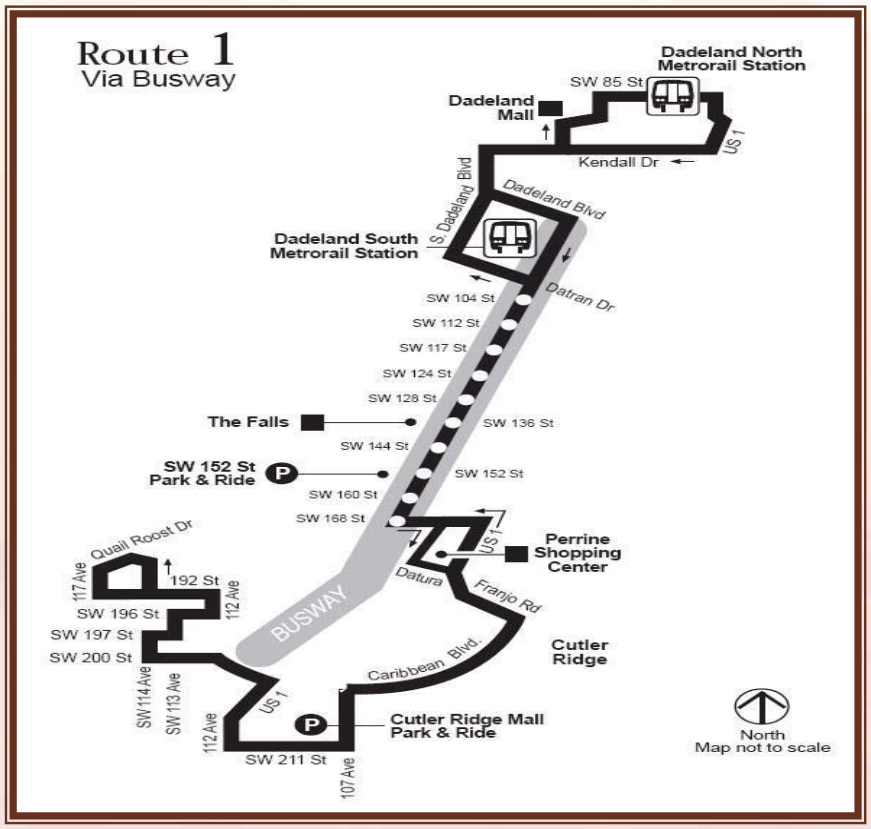
Route	Peak Headwa (Minutes)	Weekend Service	Hours of Operation		Average Weekda Ridership
			Begin	End	
1	30	Yes	5:00 AM	11:20 PM	1,784
31	20	Yes	5:00 AM	9:00 PM	2,013
34	7-10	No	4:50 - 9:00 A (Northbound)	3:45 - 7:40 P (Southbound)	2,351
35	30	Yes	5:05 AM	12:05 AM	3,047
38	10	Yes	24/7		6,767
52	30	Yes	4:45 AM	11:45 PM	2,230
70	30	Yes	5:40 AM	10:30 PM	2,012
137	40	Yes	5:30 AM	10:30 PM	2,121
287	30	No	5:30 AM	7:30 PM	490

Cutler Bay Bus Routes

Route 1 (via busway):

Bus route 1 services a 5.3-mile segment of the busway from the Dadeland North metrorail station to the Cutler Ridge Park & Ride. The route begins weekday service at 5:05 AM (northbound) and operates at a peak 30 minute headway (effective June 15, 2008.) Route 1 takes approximately 40 minutes to complete half of the full route length. Saturday and Sunday schedules are similar, with peak 40-minute headways and operation from approximately 5:40 AM to 8:30 PM. 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 segment of the busway from the Dadeland South metrorail station to SW 168th Street.

As of May 2008, the average weekday boarding on the route is 1,784 passengers, a decrease of 3.7% compared to 2007. Monthly, the route carries 45,086 passengers. The buses used to serve Bus Route 1 are equipped to handle handicap passengers and those commuting with bicycles.



Bus Route 1 (Source: Miami-Dade Transit)

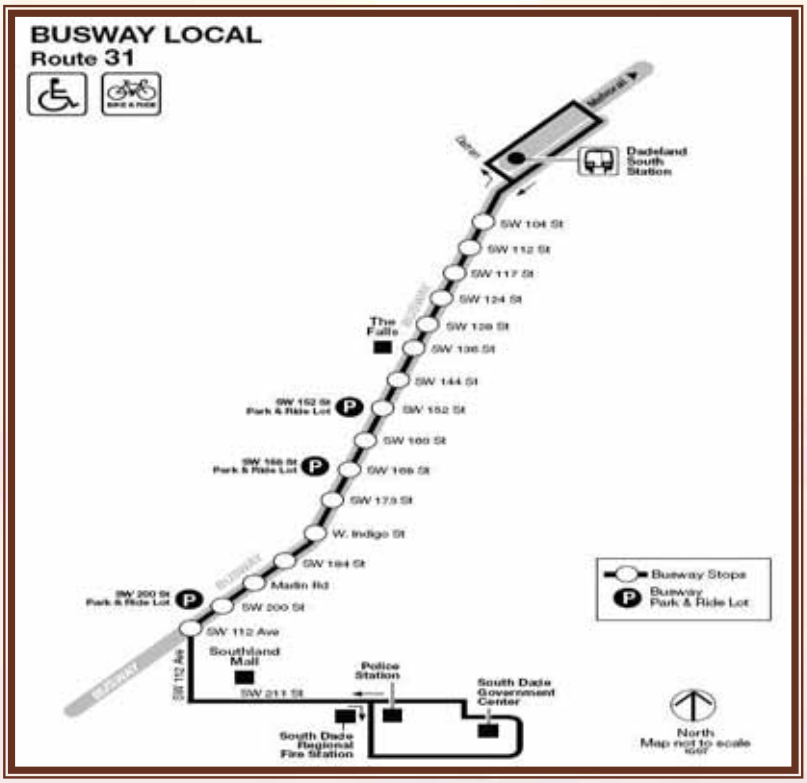
Bus Route 1 connects Cutler Bay with Metrorail at the Dadeland South and North Stations (approx travel time from the South Dade Government Center: 40 minutes.) The route enters Cutler Bay from the north along Franjo Road. At Caribbean Boulevard, the route heads west to 107th Avenue where it turns south to 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 Rd., Caribbean Blvd., and 211th Street.

Route 31 (busway local):

Bus route 31 services an 8.3-mile segment of the busway from the Dadeland North metrorail station to the 112th Avenue at Southland Mall. The route begins weekday service at 5:00 AM (northbound) and operates at a peak 20 minute headway until 9:00 PM. Route 31 takes approximately 33 minutes to complete half of the full route length.

Saturday and Sunday schedules are similar, with peak 30-minute headways and operation from approximately 5:00 AM to 8:30 PM. Route 31 services Dadeland South Metrorail station, The Falls, Southland Mall, South Dade Government Center and the 152nd and 168th Street park & ride lots. The route utilizes a continuous 8.3 segment of the busway from the Dadeland South metrorail station to SW 112th Avenue.

As of May 2008, the average weekday boarding on the route is 2,013 passengers, a decrease of 0.65% compared to 2007. Monthly, the route carries 42,273 passengers. The buses used to serve bus route 31 are equipped to handle handicap passengers and those commuting with bicycles.



Bus Route 31 (Source: Miami-Dade Transit)

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 runs a short loop around the South Dade Government Center complex along SW 211th Street before returning to the busway along SW 112th Avenue.

Route 34 (busway flyer):

Bus route 34 services the full 19.7-mile busway from the Dadeland South metrorail station to Florida City. The 34 Busway Flyer is a limited stop express bus, with fares of $1.85 for full fare passengers. The route begins weekday service at 4:55 AM (northbound only) and operates at a peak 7-10 minute headway until 9 AM. The route continues service southbound beginning at 3:45PM and operates until 7:40 PM. Route 34 takes approximately 63 minutes to complete the full route length (one-way.) 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 152nd, 168th, 200th, 244th, and 296th Street's park & ride lots. The route utilizes the full 19.7 mile busway from the Dadeland South metrorail station to Florida City.

As of May 2008, the average weekday boarding on the route is 2,351 passengers, an increase of 21.02% compared to 2007. Monthly, the route carries 49,370 passengers. The buses used to serve bus route 34 are equipped to handle handicap passengers and those commuting with bicycles.

Bus Route 34 (Source: Miami-Dade Transit)

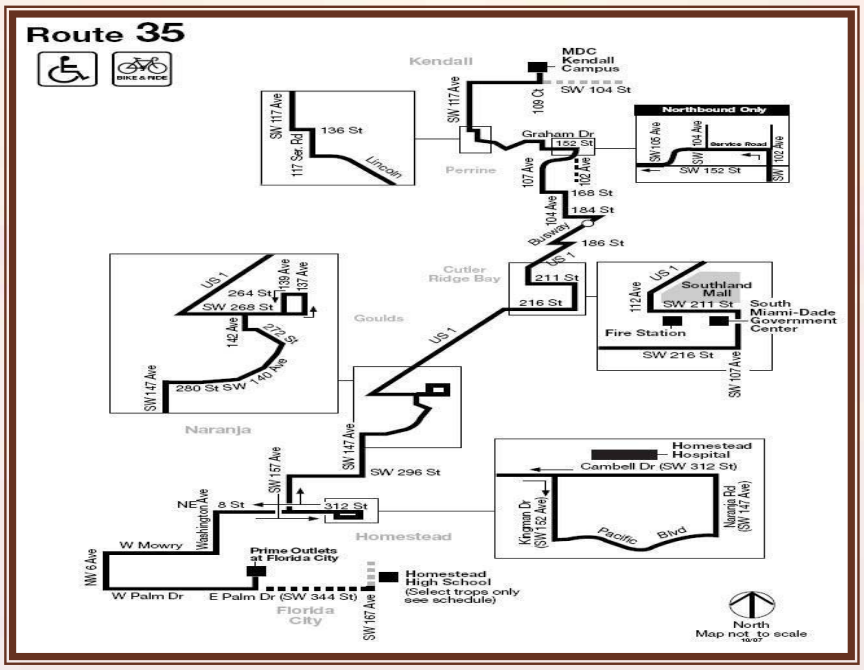
Bus Route 34 connects Cutler Bay with Metrorail at the Dadeland South Station to the north and Florida City to the south (approx travel time from the SW 200th Street Park & Ride: 26 minutes northbound, 28 minutes southbound.) This route has only two stops within the town limits, both of which are located along the busway: SW 112th Avenue and the SW 200th Street Park & Ride.

Route 35:

Bus route 35 operates parallel to the Miami-Dade Busway servicing mainly the neighborhoods located Southeast of US-1 (south of 186th street) and west of US-1 into the Kendall region. The route utilizes a .17 mile segment of the busway between SW 186th and SW 184th streets. The route begins weekday service at 5:20 AM (northbound) and operates at 30-minute headways until 10:00 PM. Route 31 takes approximately 100 minutes to complete half of the full route length. Saturday and Sunday schedules are similar, with 30-minute headways and operation

from approximately 6:40 AM to 10:00 PM. Route 35 services Miami-Dade College Kendall Campus Perrine, Southland Mall, South Miami-Dade Government Center, Homestead Hospital, Prime Outlets at Florida City, and Homestead High School (select trips only.)

As of May 2008, the average weekday boarding on the route is 3,047 passengers, a decrease of 27.84% compared to 2007. Monthly, the route carries 63,978 passengers. The buses used to serve bus route 31 are equipped to handle handicap passengers and those commuting with bicycles.



Bus Route 35 (Source: Miami-Dade Transit)

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 SW 186th Street and US-1. The route travels south along US-1 to SW 112th Avenue where it continues south to SW 211th Street. The route runs west along the South Dade Government Center before exiting the town limits at SW 107th Avenue and SW 216th Street.

Route 38 (busway max):

Bus route 38 services the full 19.7-mile busway from the Dadeland South metrorail station to Florida City. This route provides 24-hour service along the busway and operates at peak 10 minute headways. Route 38 takes approximately 80 minutes to complete half of the full route length. Friday, Saturday, and Sunday schedules are similar, with peak 13-minute headways and overnight operation. 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 busway from the Dadeland South metrorail station to SW 168th Street.

As of May 2008, the average weekday boarding on the route is 1,784 passengers, a decrease of 3.7% compared to 2007. Monthly, the route carries 45,086 passengers. The buses used to serve bus route 1 are equipped to handle handicap passengers and those commuting with bicycles.

Bus Route 38 (Source: Miami-Dade Transit)

Bus Route 38 connects Cutler Bay with Metrorail to the north at the Dadeland South Station and with 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 SW 112th Avenue and turns west, exiting the town at 216th Street. The route passes along the South Dade Performing Arts Center and Southland Mall before returning to the busway.

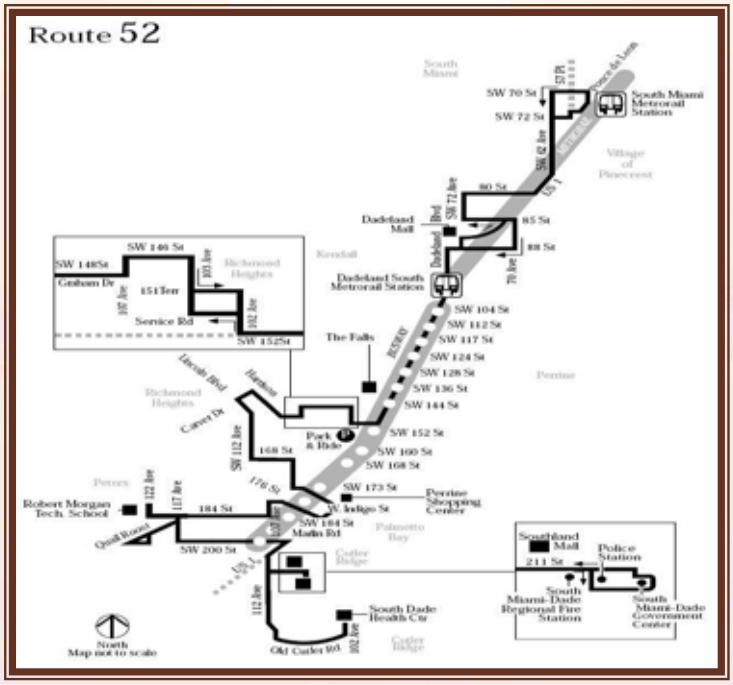
Route 52:

Bus route 52 services a 4.2-mile segment of the busway from the Dadeland South metrorail station to 152nd Street/Coral Reef Drive. The route begins weekday service at 4:45 AM (northbound) and operates at a peak 30 minute headway in the mornings until 10:00 PM (1-hour headway northbound in the afternoon/evening.) Route 52 takes approximately 110 minutes to complete half of the full route length. Saturday and Sunday schedules are similar, with 1-hour headways and operation from approximately 5:45 AM to 9:00 PM.

Route 52 services the South Miami and Dadeland South Metrorail stations, South Miami Hospital, Dadeland Mall, The Falls, The Perrine Shopping Center, Jackson South Hospital, Robert Morgan Educational Center, DCF, Southland Mall, South Dade Government Center and the Community Health Center of South Dade. The

route utilizes a continuous 4.2 segment of the busway from the Dadeland South metrorail station to SW 152nd Street.

As of May 2008, the average weekday boarding on the route is 2,230 passengers, an increase of 14.06% compared to 2007. Monthly, the route carries 57,669 passengers. The buses used to serve bus route 52 are equipped to handle handicap passengers and those commuting with bicycles.



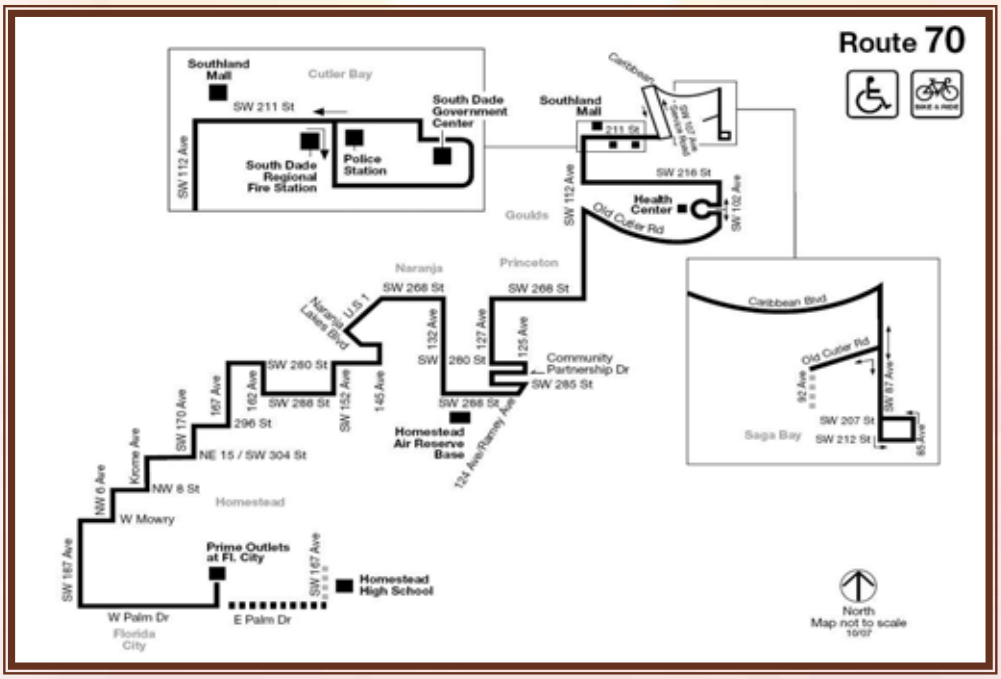
Bus Route 52 (Source: Miami-Dade Transit)

Bus Route 52 connects Cutler Bay with Metrorail at the Dadeland South Station to the north and with 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 SW 112th Avenue. At 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 exiting the town along SW 112th Street.

Route 70:

Route 70 services an area parallel to the Miami-Dade Busway, operating in the Cutler Bay, Saga Bay, Princeton, Naranja, Homestead, and Florida City neighborhoods. The route begins weekday service at approximately 5:50 AM and operates at a peak 30 minute headway until approximately 9:30 PM. Route 70 takes approximately 70 minutes to complete half of the full route length. Saturday and Sunday schedules are similar, with 1-hour headways and operation from approximately 5:45 AM to 9:20 PM. The route services the South Dade Government Center, Southland Mall, Homestead Air Reserve Base, Prime Outlets Mall, and Homestead High School.

As of May 2008, the average weekday boarding on the route is 2,012 passengers, an increase of 23.03%% compared to 2007. Monthly, the route carries 42,258 passengers. The buses used to serve bus route 70 are equipped to handle handicap passengers and those commuting with bicycles.



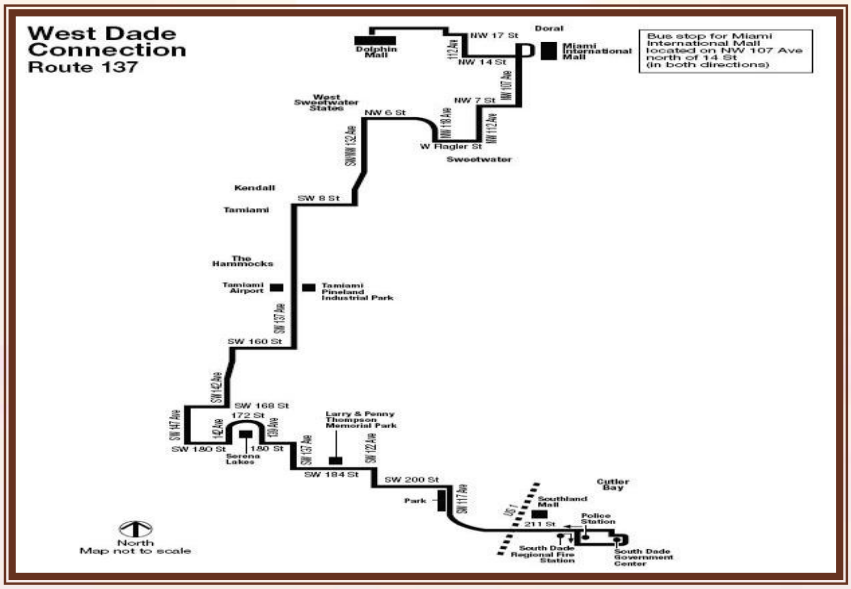
Bus Route 70 (Source: Miami-Dade Transit)

Route 70 connects the Town of Cutler Bay with the Homestead Air Reserve Base and Florida City to the South (approx travel time to Homestead Air Reserve base from South Dade Government Center: 25 minutes.) The route begins its service in the heart of the Town, providing service to Saga Bay, the neighborhoods adjacent to Caribbean Boulevard, and the Regional Center. Route 35 enters the town limits from the south along Old Cutler Rd. At SW 102 Ave, the route heads north circulating along the Health Center before turning west on 216th Street. At 112th Avenue, the route heads north again to 211th Street, passing by the Southland Mall, Performing Arts Center, and South Dade Government Center. The route follows SW 107th Avenue north to Caribbean Boulevard where it then turns east. The route heads south at 87th Avenue, looping around Centennial Middle School on 212th Street before returning.

Route 137 (west dade connection):

Bus route 137 connects the Town of Cutler Bay neighborhood with the communities in western Miami-Dade County. The route begins weekday southbound service at 5:30 AM and runs until 9:30 PM. Route 137 takes approximately 90 minutes to complete half of the full route length. Saturday and Sunday schedules are similar, with peak 40-minute headways and operating from 6:00 AM to 9:00 PM. Route 137 services the South Dade Regional Government Center, Southland Mall, Larry and Penny Thompson Memorial Park, Tamiami Airport,

Miami International Mall, and Dolphin Mall. The route intersects the Miami-Dade busway at 211th Street. As of May 2008, the average weekday boarding on the route is 2,121 passengers, an increase of 11.09% compared to 2007. Monthly, the route carries 44,541 passengers. The buses used to serve bus route 137 are equipped to handle handicap passengers and those commuting with bicycles.



Bus Route 137 (Source: Miami-Dade Transit)

Bus Route 137 connects Cutler Bay with Tamiami Airport and Dolphin Mall to the north (approx travel time from the South Dade Government Center to Tamiami Airport: 35 minutes) The route enters Cutler Bay from the west along SW 211th Street. After looping around the South Dade Government Center, the route returns north, providing regional bus service to and from Cutler Bay to West Miami-Dade County.

Route 287 (saga bay max):

Bus route 52 services a 5.3-mile segment of the busway from the Dadeland South Metrorail station to the 168th Street. The route begins weekday service at 5:30 AM (northbound) and operates at a peak 30 minute headway until 6:40 PM. Route 52 takes approximately 40 minutes to complete half of the full route length. Route 287 does not offer weekend service. Route 287 services the Dadeland South Metrorail station, The Falls, SW 152nd/168th Street park & ride lots, and South Dade Community Health.

As of May 2008, the average weekday boarding on the route is 490 passengers, an increase of 62.86% compared to 2007. Monthly, the route carries 10,286 passengers. The buses used to serve bus route 287 are equipped to handle handicap passengers and those commuting with bicycles.

Bus Route 287 (Source: Miami-Dade Transit)

Heading north, route 287 begins in Cutler Bay at the South Dade Community Health Center. The route travels east along SW 216th Street to SW 87th Avenue where it turns north. At 212th Street, the route heads east to SW 85th Avenue, where it turns north to SW 207th Street. At SW 87th Avenue, the route heads north out of the Town of Cutler Bay.

Park & Ride

Miami-Dade Transit operates five park & ride facilities along the South-Miami-Dade Busway. All of the facilities are provided to transit users free of charge. The SW 200th Street park & ride facility is located adjacent to the Town of Cutler Bay, west of the town's limits. The average weekday at this park & ride facility features 140 vehicles or 106% of the lot's capacity. All of the park & ride facilities and connecting routes are listed below.

- **Busway/SW 152 St.**
  - **Connecting bus routes:** 1, 31 (Busway Local), 34 (Busway Flyer), 38 (Busway MAX), 52, 57, 252 (Coral Reef MAX), and 287 (Saga Bay MAX)
- **Busway/SW 168 St.**
  - **Connecting bus routes:** 1, 31 (Busway Local), 34 (Busway Flyer), 38 (Busway MAX), 52, and 287 (Saga Bay MAX)
- **Busway/SW 200 St.**
  - **Connecting bus routes:** 1, 31 (Busway Local), 34 (Busway Flyer), 38 (Busway MAX), and 52
- **Busway/SW 244 St.**
  - **Connecting bus routes:** 34 (Busway Flyer) and 38 (Busway MAX)
- **Busway/SW 296 St.**
  - **Connecting bus routes:** 34 (Busway Flyer) and 38 (Busway MAX)

Task 2: Data and Analysis – Indicators

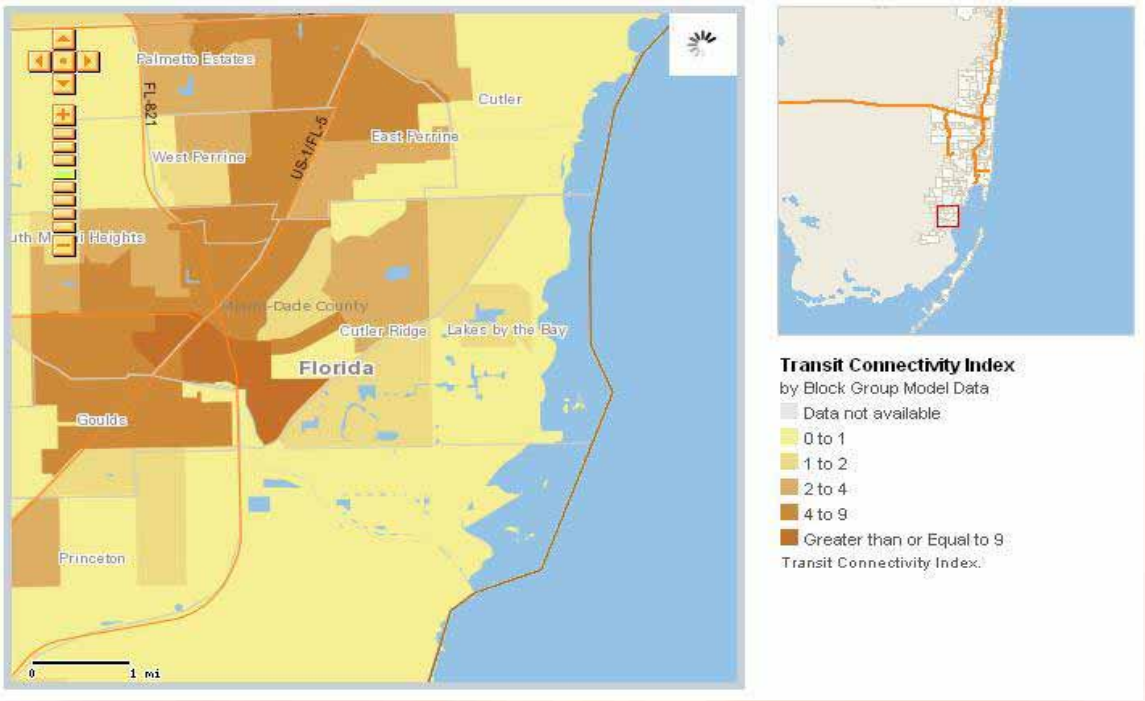
Cutler Bay

Task 2: Data and Analysis – Indicators

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 being used as an Origin and a Destination. It may be a valuable experiment and a very "green" initiative to benchmark Cutler Bay with these indicators and track the progression of the standing over time. This would indicate how well transportation and green policies are working. Data, however, is sporadic as it is tied to the US-Census. A snapshot of Cutler Bay, as compared with other communities across the nation shows that the Town is a bit of an anomaly. It is both suburban and urban, unlike all but a few cities in Miami-Dade County. In fact 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.

Transit Use

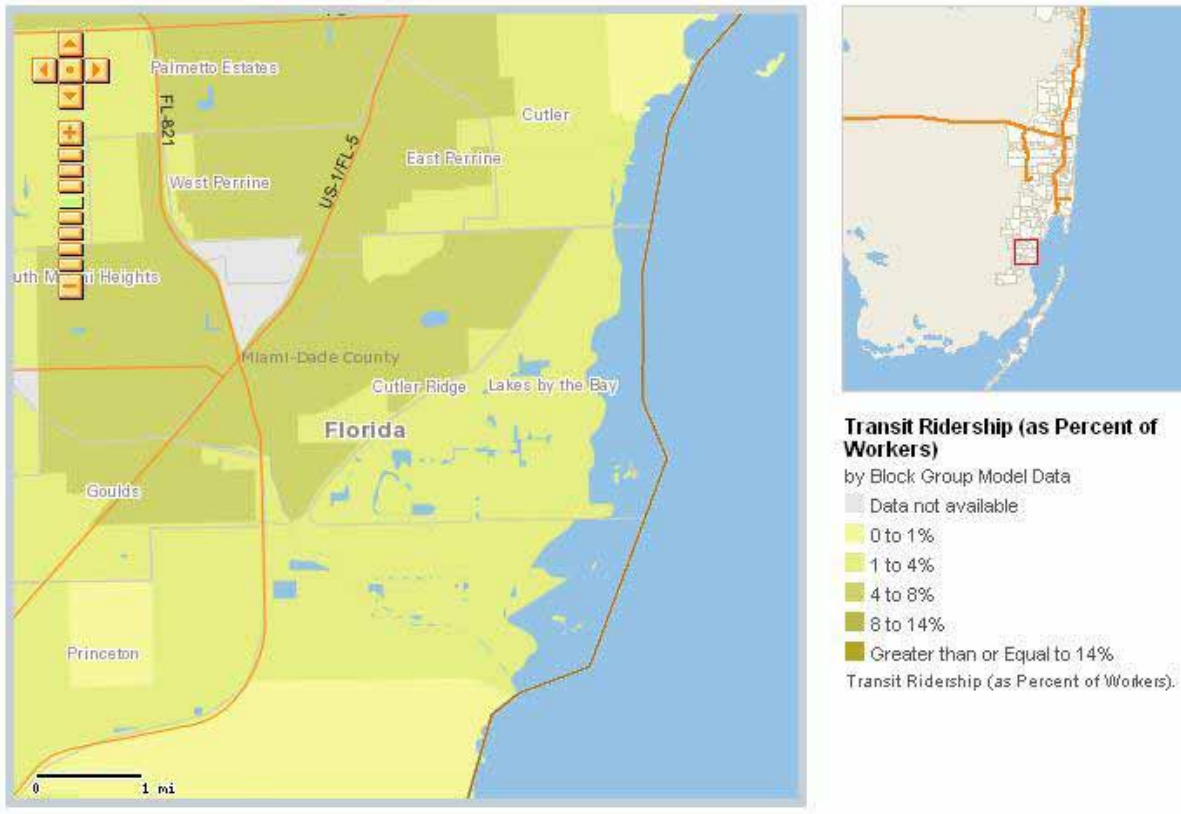
Within the Town of Cutler Bay, transit use is highest parallel to the Busway and around the Southland Mall/Government Center area. Transit use in these sections of the town is not an anomaly, but rather the result of effective land-use management and facility placement. These sections within the town are also the regions with the most intensive land uses and thus the lowest vehicle use per person.



Transit Connectivity Index (Source: Center for Neighborhood Technology

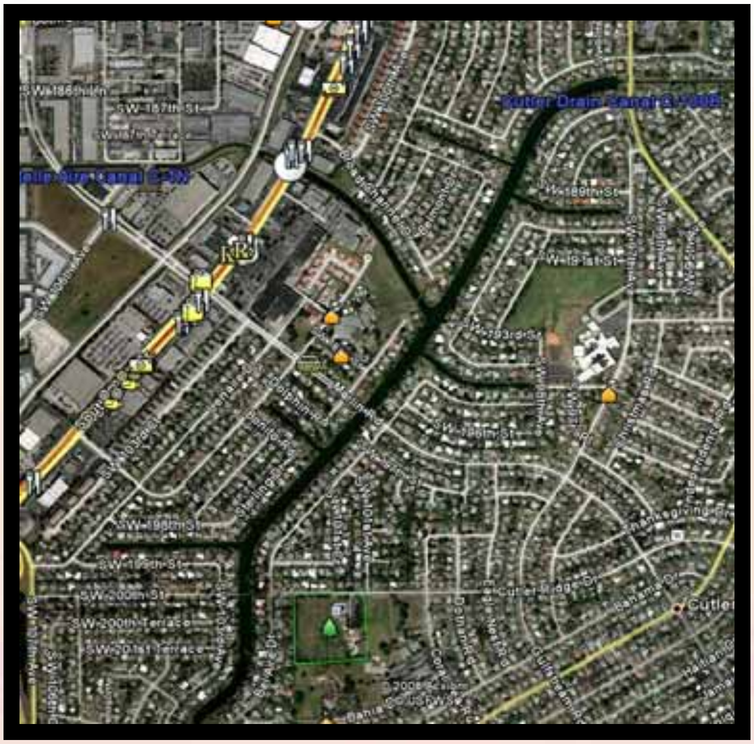
The transit connectivity index, illustrated above, depicts the availability of transit within the Cutler Bay and surrounding area. Computing a region's connectivity index is complex, taking transit's accessibility, connectivity, and usability factors all into account in order to determine a practical quantitative figure. Transit availability requires that transit be available spatially at the origin and at the destination. Accessibility is a measure of the distances passengers must walk to reach a transit stop (usually ¼ mile or 5 minutes) or drive to a park & ride facility. 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 how user-friendly the system is. Stops, stations, and transit must be easily identifiable for a system to be considered useable.

In Cutler Bay, the Miami-Dade Busway provides the strongest link in transit connectivity. The easily identifiable stations, routes, and park & ride facilities coupled with the high frequency of certain routes, makes the busway an accessibility asset for the local public transportation system.



Transit Ridership as Percent of Workers (Source: Center for Neighborhood Technology)

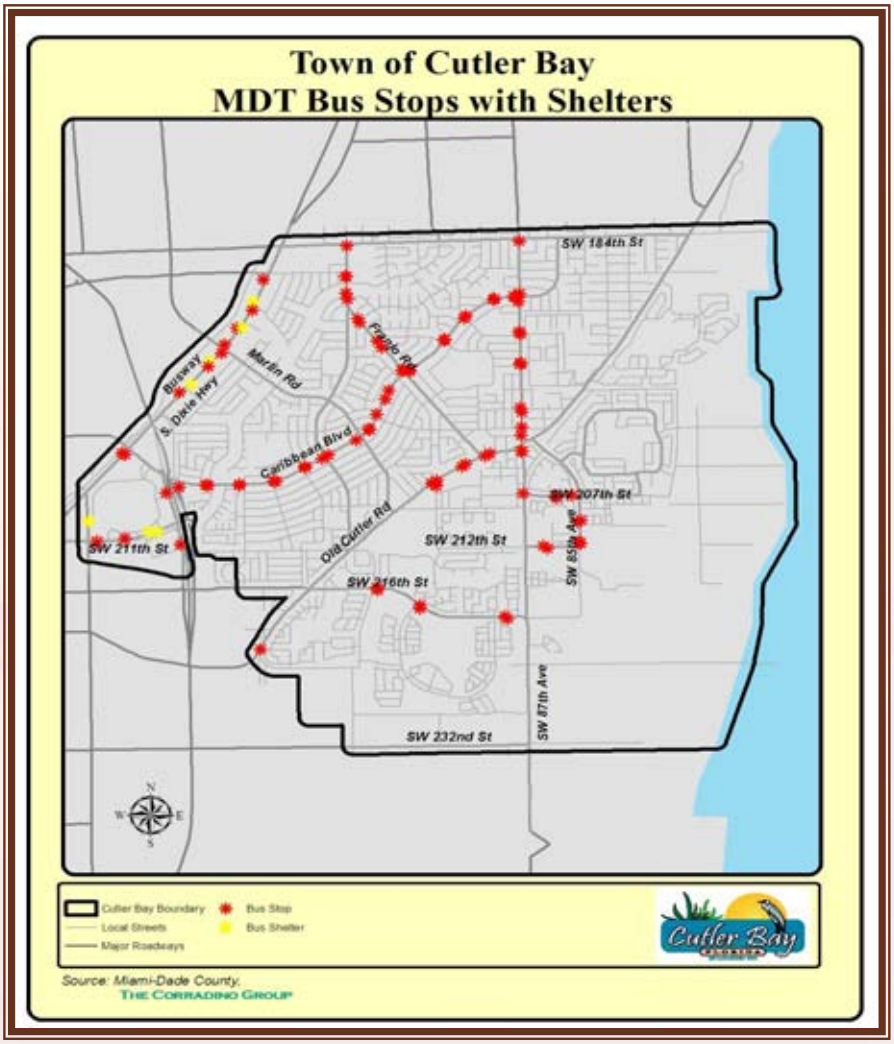
Despite the connectivity, transit use in Cutler Bay varies from a high of 7.09% of workers nearest the regional hub and busway to 1.4% of workers along the southern and eastern fringes of the town limits. On average, 4.67% of Cutler Bay residents use public transportation regularly to commute to work. Transit use is greatest along the Miami-Dade busway, west of the natural barrier formed by the Cutler Drain Canal C-100B as seen in the aerial below. The residential density of this neighborhood is 3.62 households per acre, the 3rd highest figure in Cutler Bay, while the employment density of 18,908 jobs per square mile, the 2nd highest figure in the Town. The area is horizontally mixed-use in nature and provides the nearest pedestrian link to the Miami-Dade Busway within the Town.



Within Cutler Bay, the neighborhoods bordering the busway to the west and routes 1 and 70 along Caribbean Boulevard, experience generally transit use by at least 5% of workers in the region. Incidentally, the homes in this region of the city were constructed in the 1950s along a modified grid-like pattern that enhanced the connectivity among the streets. This interconnected street system, though not dense or mixed use in nature, 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.

Bus Stops

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 figure below depicts the most recent data available from Miami-Dade Transit regarding bus stop location and shelter placement. MDT is working to provide an updated map illustrating some of the additional shelters that have been installed recently along Franjo Road and Caribbean Boulevard.

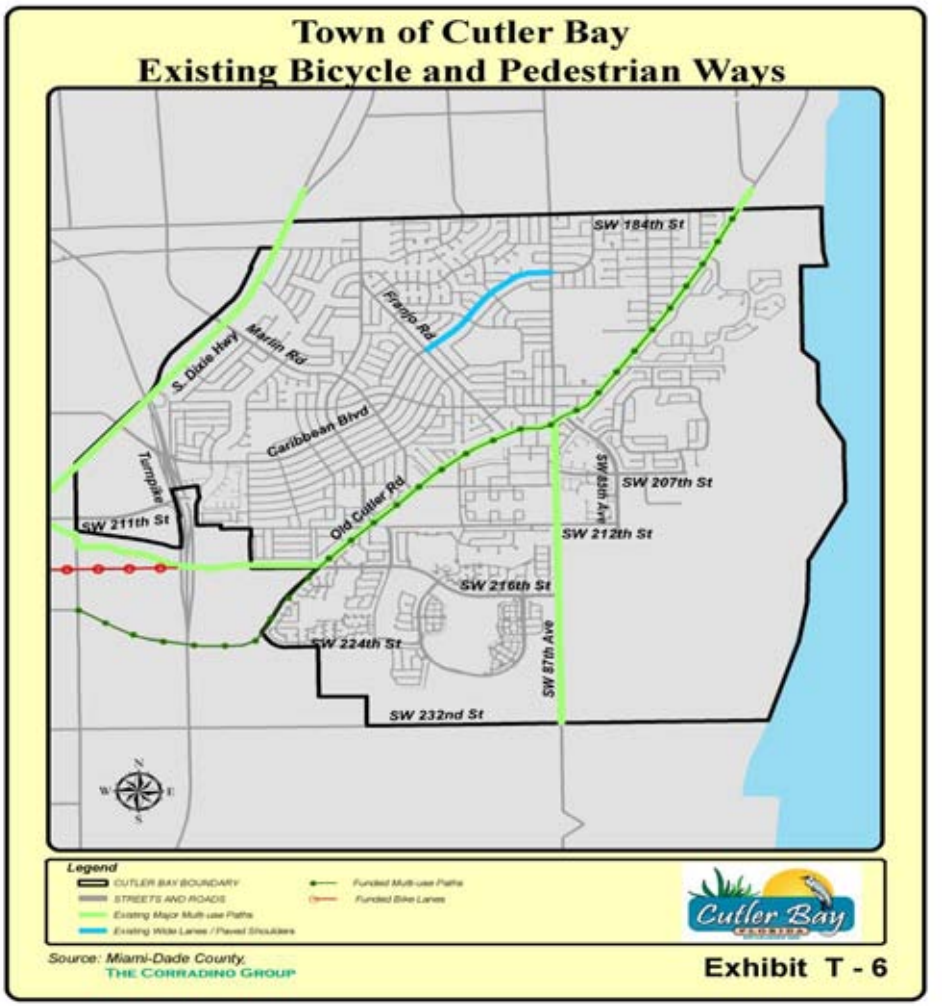


MDT Bus Stops and Shelters

Bicycle and Pedestrian Corridors

Given the limitations of the park & ride facilities along the busway 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 leads to healthier lifestyles for residents, reduced local congestion and pollution, and an increase in public transportation use.

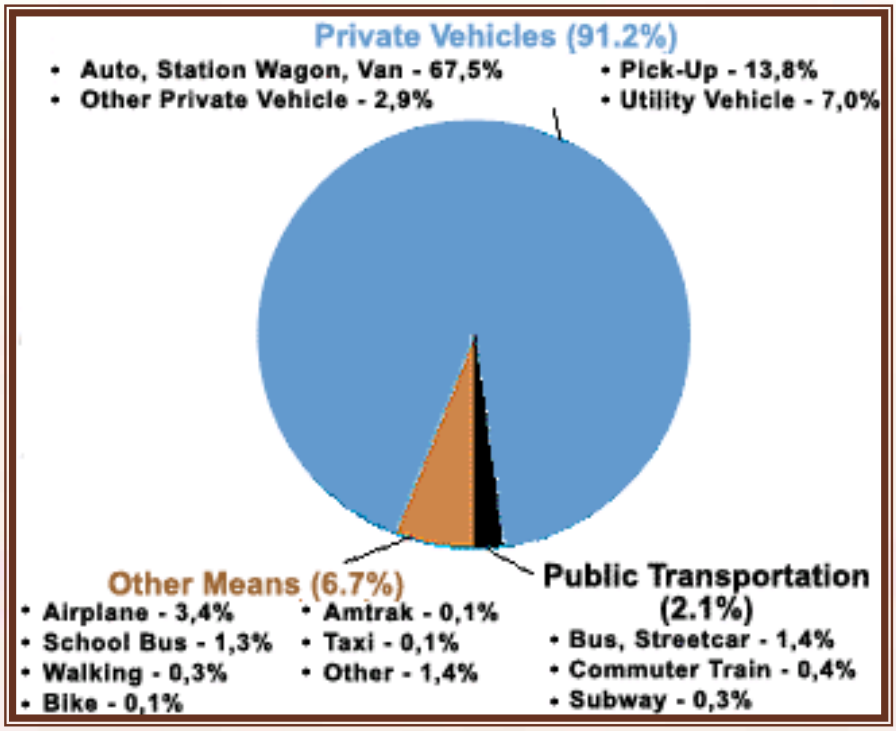
Cutler Bay's existing greenways are limited to the US-1/Busway, Old Cutler Road, and SW 87th Avenue corridors. Comparatively speaking, Cutler Bay's existing facilities are well connected and provide access to various local and regional activity centers.



Existing Greenways/Trails (Source: The Corradino Group)

Vehicle Use

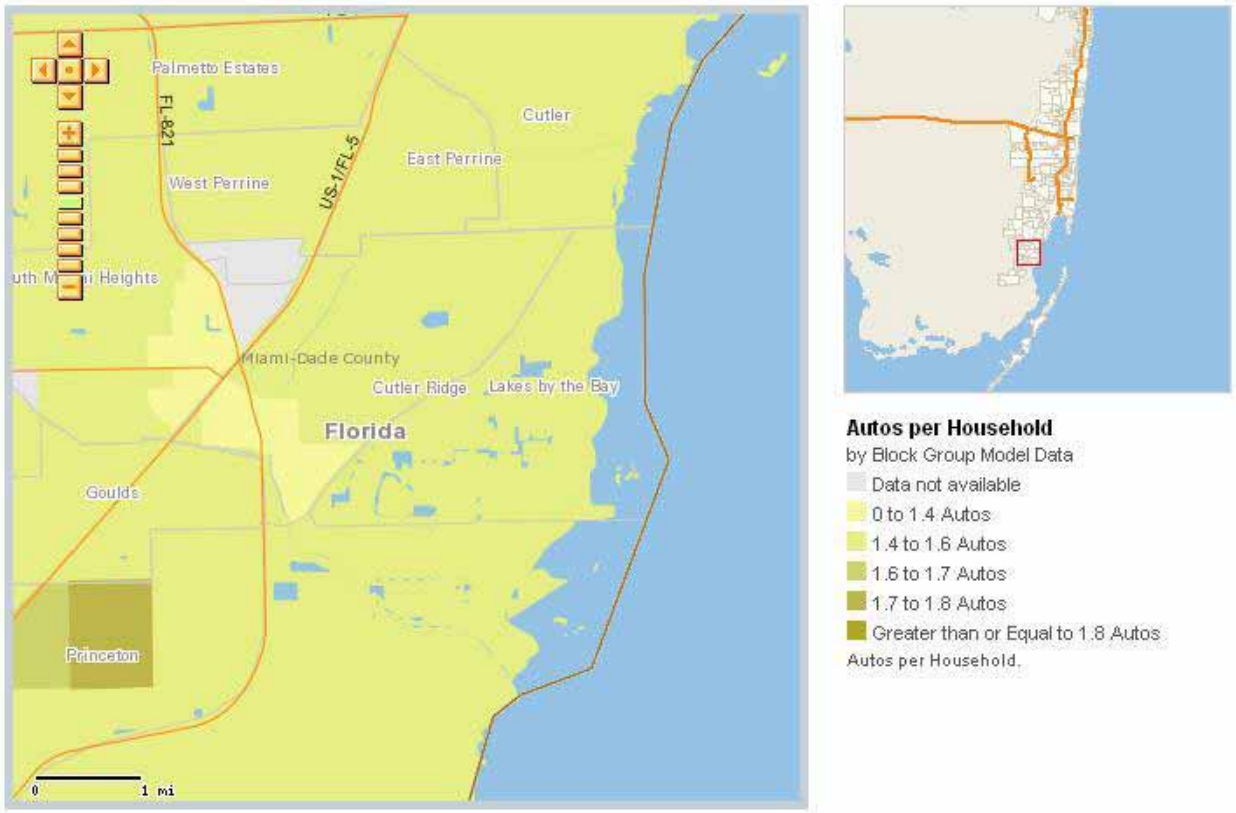
Nationally, the personal vehicle serves as the predominant form of transportation, accounting for 91.2% of all personal travel. Including school bus (1.3%), bus/streetcar (1.4%), and taxi (0.1%), 94% of personal transportation needs are satisfied along our roadways. The figure below provided by the Federal Highway Administration, provides a detailed breakdown of all the different forms of transportation utilized daily.



U.S. Transportation Means (Source: Federal Highway Administration)

Vehicles per Household

Determining the number of vehicles available per household is one of the most significant methods used to estimate actual vehicle use. A variety of social and personal factors contribute to vehicle per household statistics including more affordable models, increasing vehicle lives, population growth, employment per household, income, and numbers of licensed drivers per household. Nationally, statistics indicate that there are more vehicles per licensed driver and more vehicles per employed person. The Town of Cutler Bay averages 1.47 vehicles per household, below the 1.9 national figure established in 2001 by the US Department of Transportation. While the mean number of vehicles in households nationwide is 1.9 personal vehicles, households in the United States on average have 1.8 drivers who are 15 years or older.



Vehicles per Household (Source: Center for Neighborhood Technology)

Vehicle ownership is lowest near the regional south Dade Government center and Commercial hub. The neighborhood with the lowest vehicle ownership, depicted in the census tract 106.07 the figure below, also features the lowest median household income of $27,647 (block group 4), lowest travel time to work, and highest residential density. The income level of this neighborhood is nearly 50% lower than Cutler Bay's mean income of $50,051, likely the result of the area's 0.95 workers per household value. Nationally, households with an annual income of less than $25,000 are almost nine times more likely to be a zero-vehicle household than households with incomes greater than $25,000.

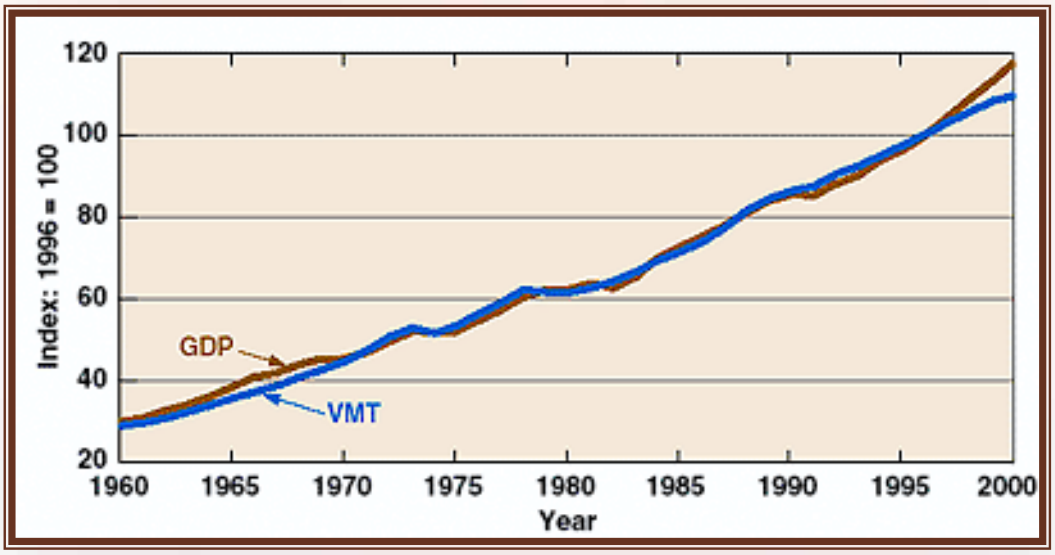
Vehicle-Miles Traveled

Vehicle-Miles Traveled (VMT) is the total number of miles driven by all residential vehicles within a given period and geographic area. It is influenced by factors such as population, the number of vehicles per household, the number of car trips per day, and distance traveled. VMT is a critical factor for highway planning and management. When combined with other data, VMT are often used to estimate congestion, air quality, and potential gas tax revenues.

Until recently, the average annual national growth in the number of miles traveled was 2.9 percent, almost 3 times the rate of growth in the number of residential vehicles during that period. VMT provide a comprehensive look at several different factors within a given area. Generally, lower VMT is an indication of an area with more intensive land-use. Sprawl-laden cities or places with low-density construction are most likely to experience high VMT because of the absence of reasonable mobility alternatives. High VMT is therefore generally correlated to regions that are predominantly autocentric. Network composition and connectivity is also a major contributor to VMT. Cities with defined, interconnected through-streets are more likely to feature lower VMT than areas with broken or disconnected roadway networks because of the direct link and various access points created.

VMT responds greatly to the conditions of the market. As evidenced by the recent rise in gasoline prices, VMT has decreased by 3.7% nationwide, as people work to curtail their driving habits according to the US Department of Transportation. A decrease in VMT can be associated with similar decreases in congestion, pollution, and increases in alternative modes of mobility such as walking, bicycling, or public transportation.

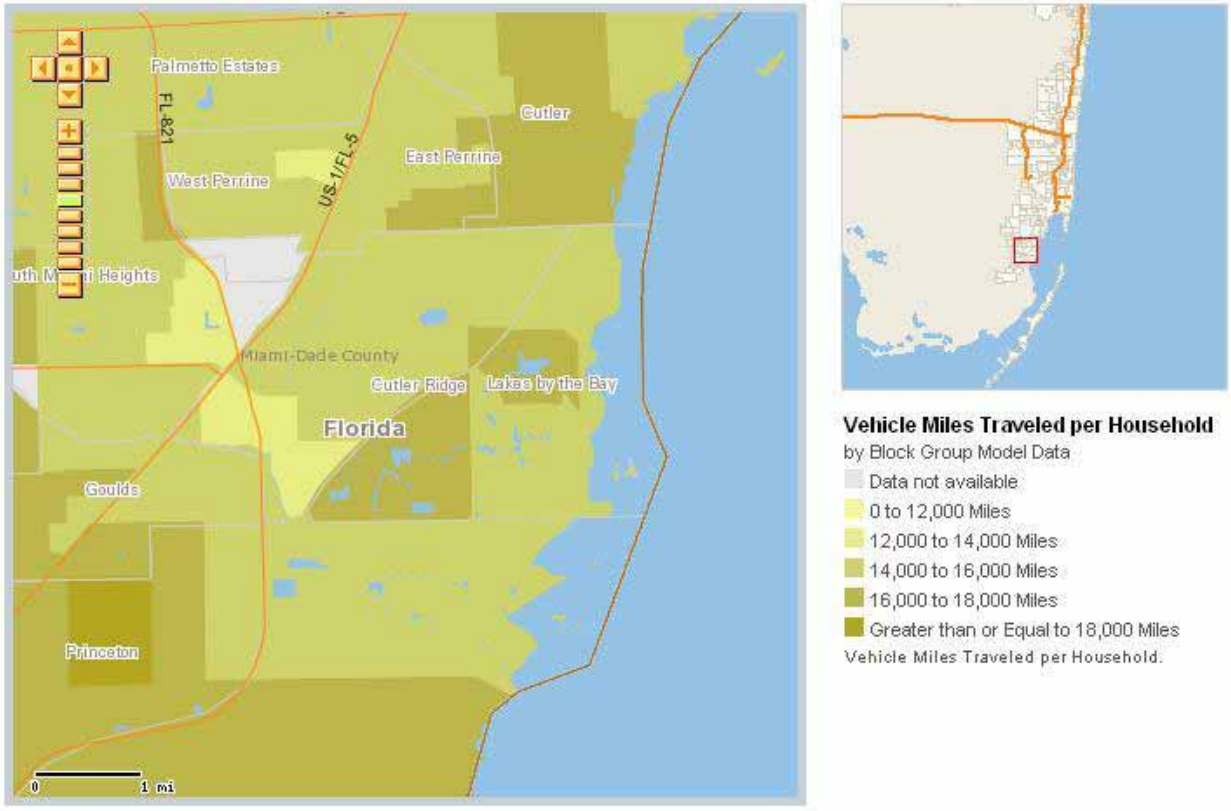
As seen in the figure below there is also a strong relationship between the Nation's economy and VMT. Since the 1930's, growth in the Gross Domestic Product (GDP) and vehicle-miles of travel (VMT) reflect strikingly similar patterns, including the period of energy disruptions during the 1970's (Source: US Department of Transportation).



GDP and VMT (Source: U.S. Department of Transportation)

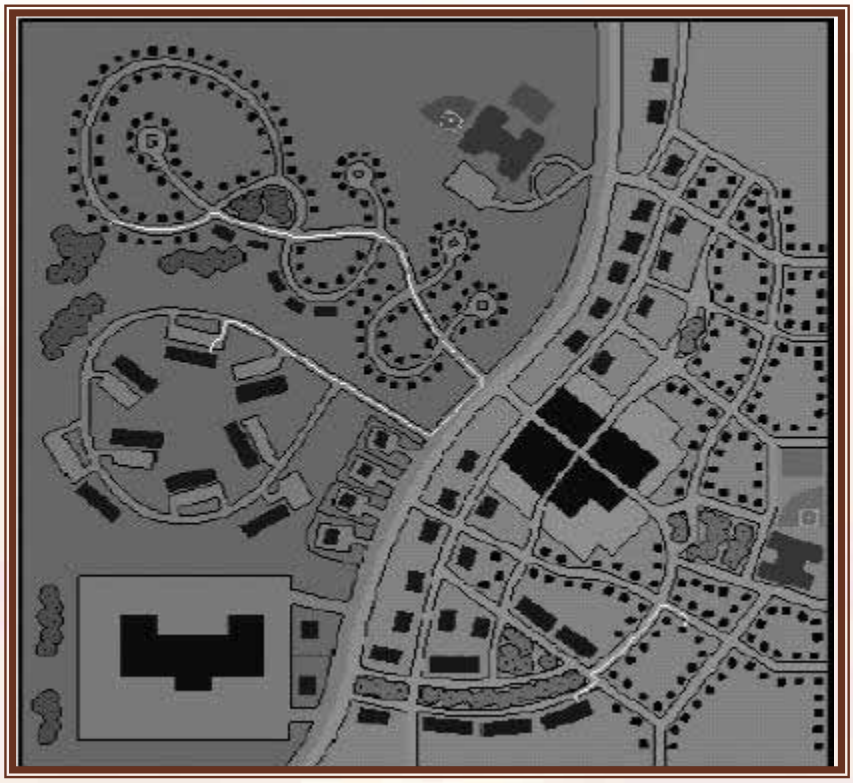
The Town of Cutler Bay experiences an average of 15,366 vehicle-miles traveled. A direct correlation can be made between the regions with the highest public transportation use and VMT, equating to lower VMT than most other sections in the Town.

The Vehicle-Miles Traveled per household in Cutler Bay ranges from 13,495 along the regional centers to 16,803 in the Saga Bay and Lakes by the Bay neighborhoods. The Town of Cutler Bay's VMT's per household ranks significantly higher than the national average of 10,500 miles per household.



Cutler Bay Vehicle-Miles Traveled per Household (Source: Center for Neighborhood Technology)

The higher VMT along the eastern edge of Cutler Bay is the result of sprawl-like development that has removed the local grid street system, placing further stress on the local arterial and collector roadways. The figure below illustrates the connectivity differences between grid networks and sprawl. The arterial in the center of the images connects two sides of a fictional city with very different land uses and planning. The right side illustrates the grid network while the left depicts today's sprawl. The two sides show identical land uses and units. Note: the single access points and segregated land uses depicted by the sprawl side of the image lead to an increase in VMT, congestion, pollution, and isolation. The connected network allows for smaller neighborhood streets with various forms of transit. The direct paths and routes to the various mixed-use facilities encourage walking, and cycling, and thus placing less stress on the local roadways.

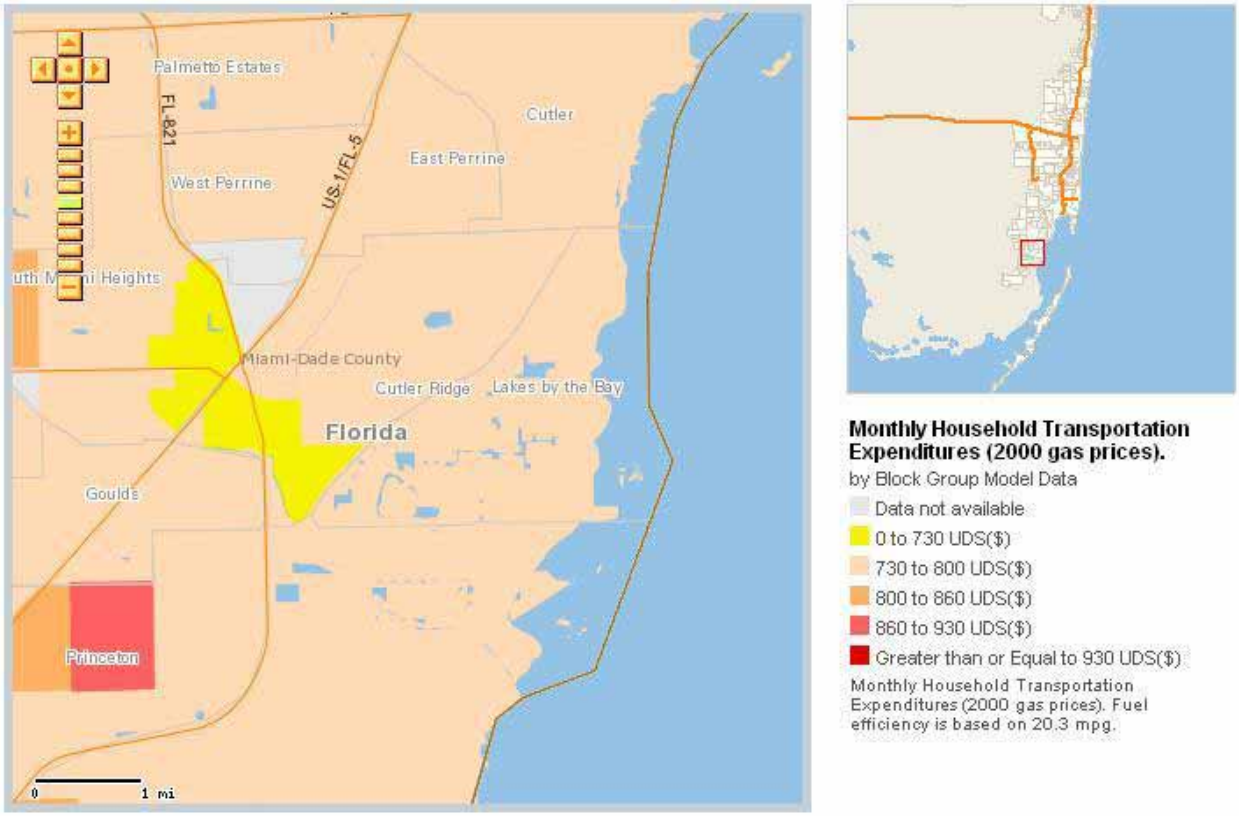


Sprawl vs. Grid Network (Source: Suburban Nation)

Fuel Costs

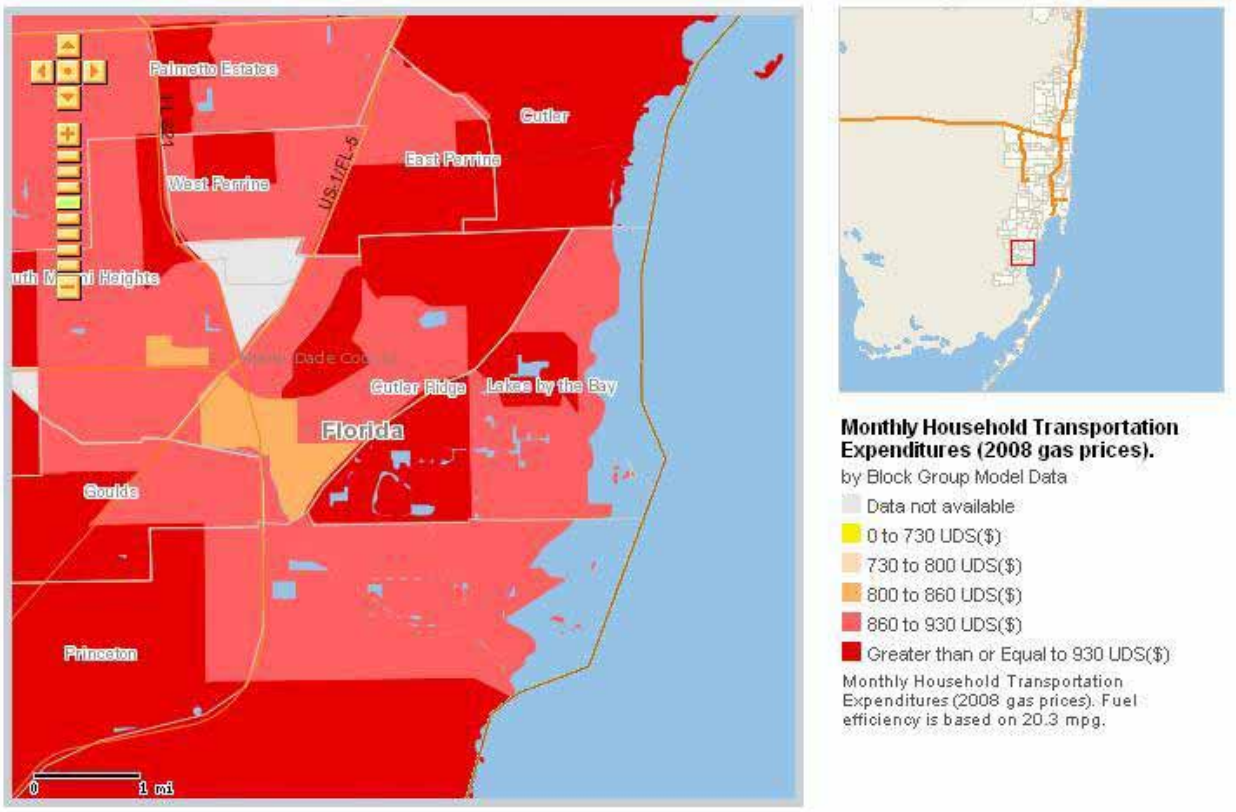
The sudden rise in gas prices has affected the transportation costs, needs, and habits of drivers all across the country. Because of the increased household costs, use of alternative modes of transportation including walking, bicycling, and public transit has surged nationwide. Nationally, vehicle-miles traveled have decreased as drivers work to curb the rising expenses associated with automobile use.

The figure below illustrates the monthly transportation costs endured by households in the Town of Cutler Bay in the year 2000, when the average tank of gasoline cost $1.51. The town average in 2000 for monthly transportation costs was $757. In 2008, with the median gas prices reaching $4.21, it is estimated by the Center for Neighborhood Technology that the monthly transportation costs for the Town of Cutler Bay have increased 18.44% to $928.



Monthly Household Transportation Expenditures, 2000 (Source: Center for Neighborhood Technology

A critical distinction can be made when comparing the effects of rising transportation expenditures from 2000 to 2008. It is not a coincidence that the neighborhoods of Cutler Bay that have experienced the most drastic increases in transportation costs are also the least dense, most isolated, contain the highest numbers of vehicles per household, and have the highest vehicle-miles traveled.



Monthly Household Transportation Expenditures, 2008 (Source: Center for Neighborhood Technology)

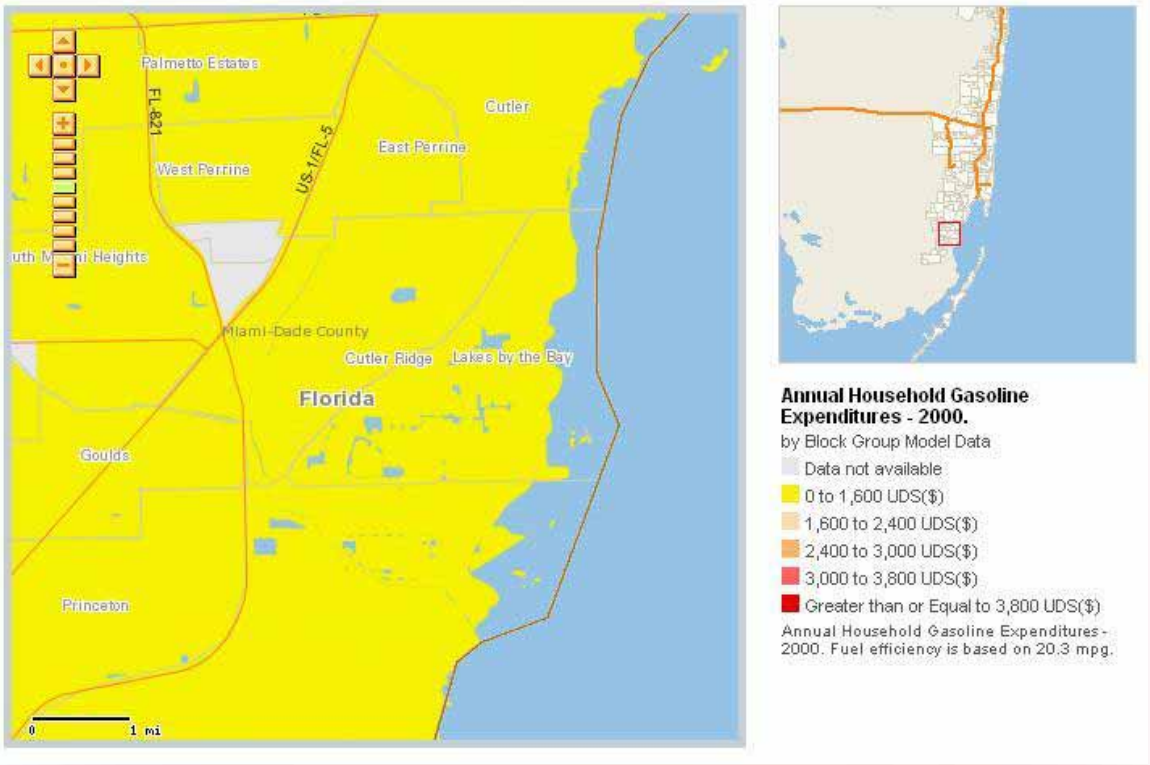
The neighborhoods impacted the worst by the increases in transportation expenditures witnessed a 20.5% jump from 2000 to 2008. The neighborhoods affected by the largest increases in transportation costs are also the regions with the highest median incomes in the Town. The neighborhoods without direct access to premium transit or the limited access arterials witnessed the most significant increases.

Gasoline is generally viewed as an elastic commodity - that is, when prices change, there is a change in the quantity demanded. As such, the rising cost of fuel has had an impact on resident's commuting habits. Various studies have indicated that if the price of fuel goes, and stays, up by 10%, the result is a process of adjustment such that:

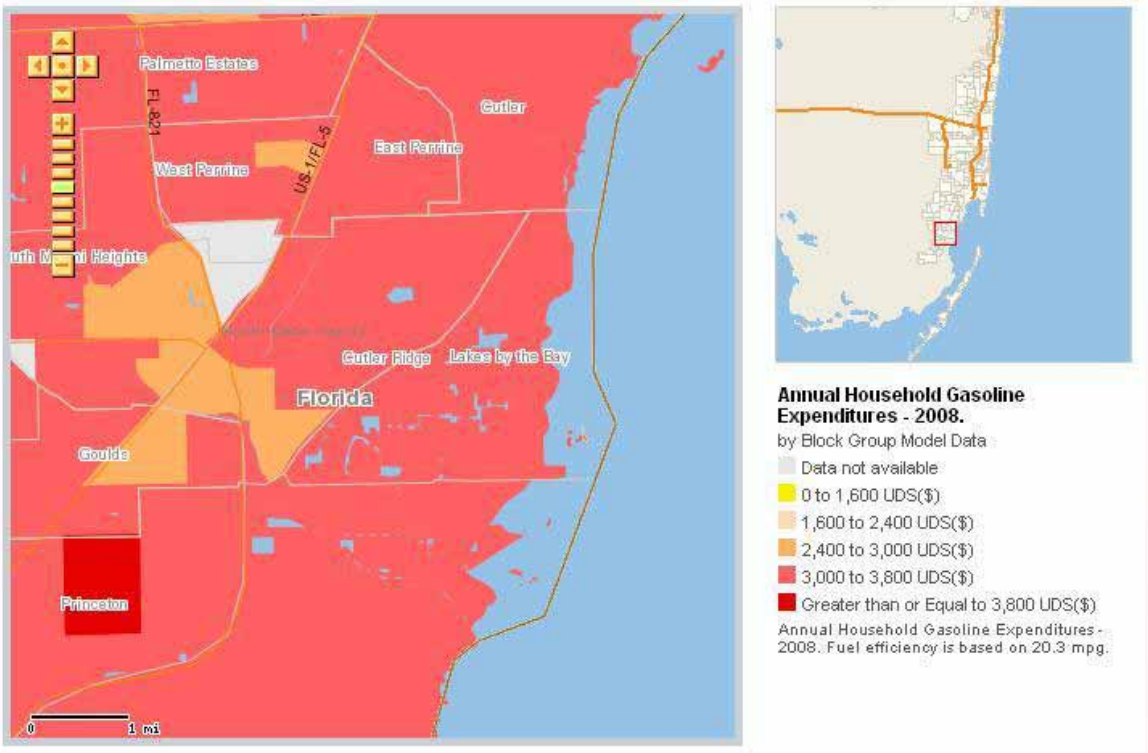
a) The volume of traffic will go down by approximately 1% within a year, increasing up to a reduction of about 3% in the longer term (about five years).

b) The volume of fuel consumed will go down by about 2.5% within a year, building up to a reduction of over 6% in the longer term.

It is widely believed that the reason why fuel consumption decreases by a value greater than the volume of traffic is that the price increases trigger more efficient uses of fuel.

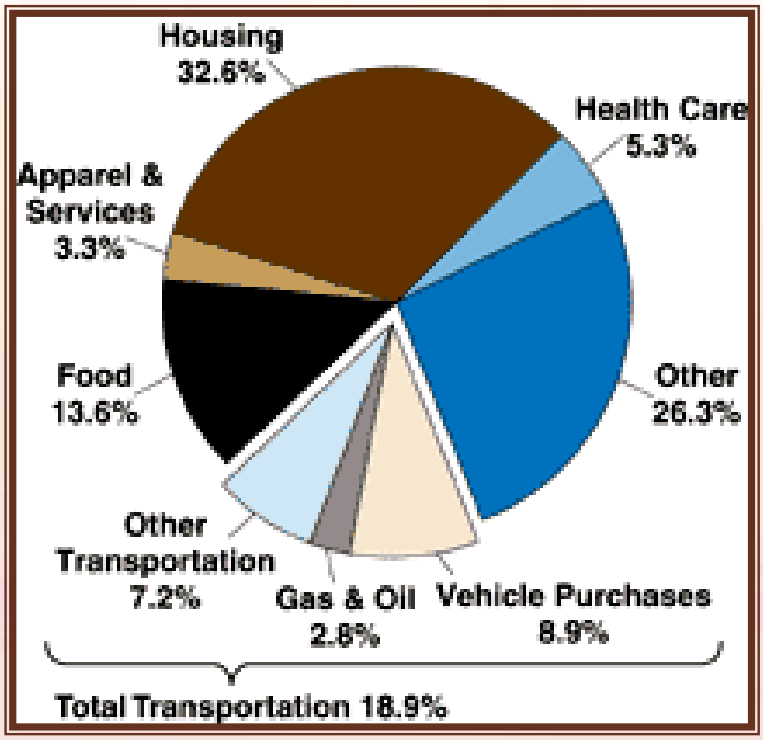


Annual Household Gasoline Expenditures, 2000 (Source: Center for Neighborhood Technology)



Annual Household Gasoline Expenditures, 2008 (Source: Center for Neighborhood Technology)

Nationally, after housing (32.6%), transportation (18.9%) accounts for the largest single household expenditure. Of the 18.9% transportation expenditures, the largest expenditures is vehicle purchases (47.1%). Other transportation expenditures that includes maintenance and insurance, is the second largest transportation expenditure (38%), followed by the purchase of gasoline and oil (Source: U.S. Department of Transportation).

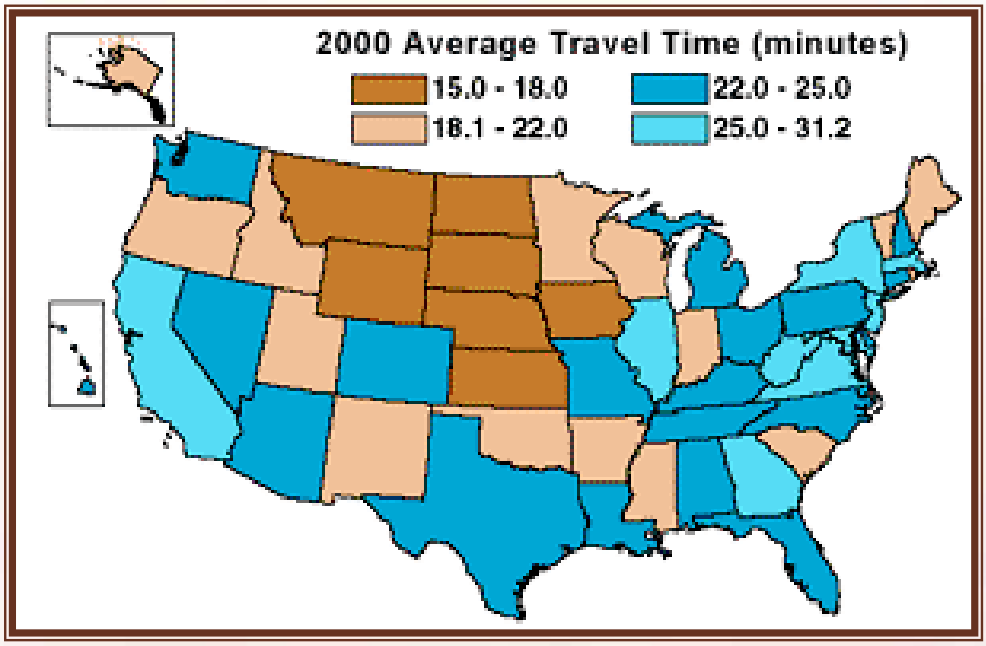


Annual U.S. Household Expenditures (Source: U.S. Department of Transportation)

Travel Time to Work

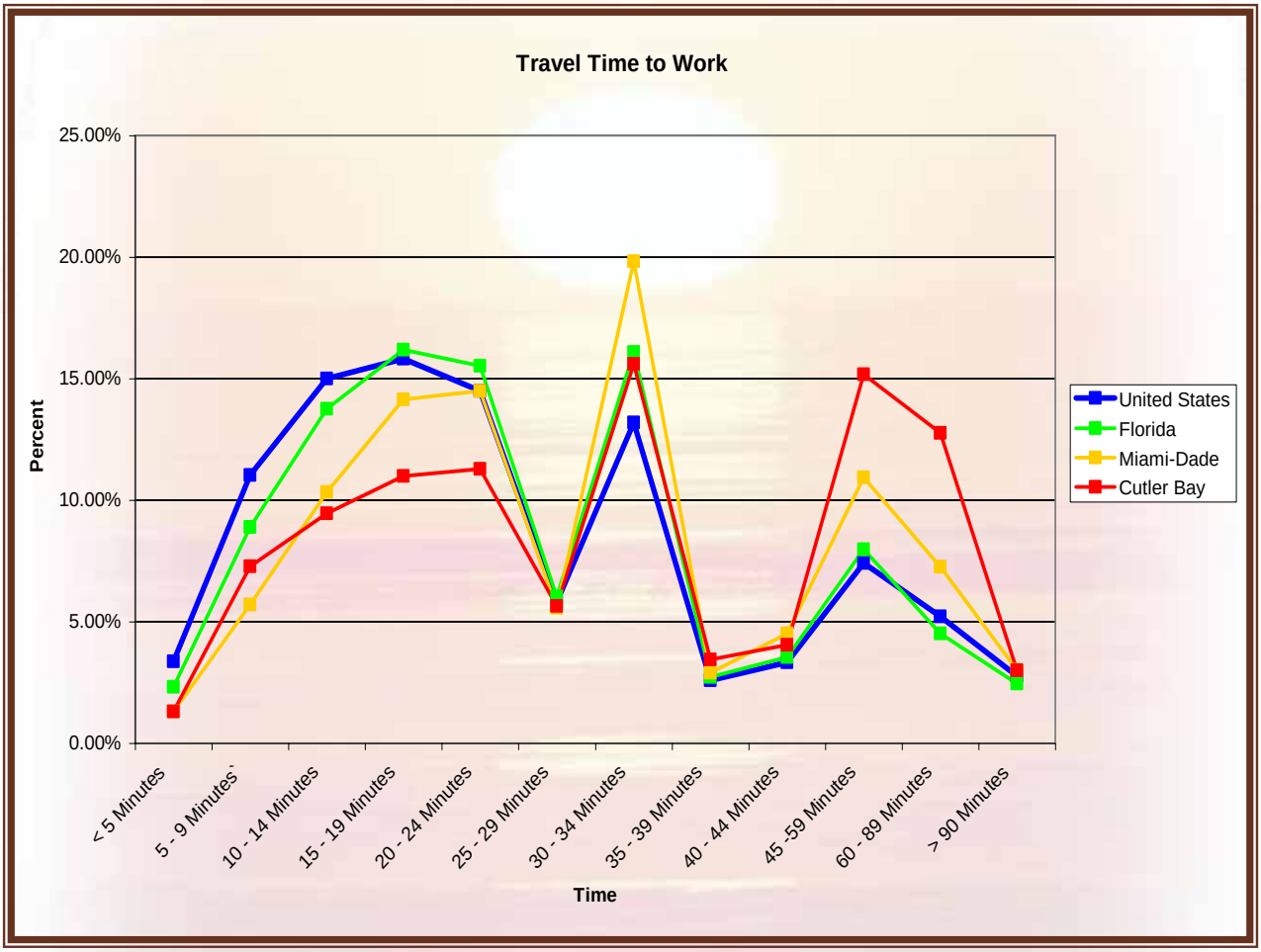
Travel time to work refers to the total number of minutes that it usually takes a person to get from home to work each day during a specific period. The elapsed time includes time spent waiting for public transportation, picking up passengers in carpools, and spent in other activities related to getting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

The average travel time to work in the Town of Cutler Bay is 33.35 minutes, higher than Florida's average of 25.9 minutes. On average, residents closer to US-1 and Florida's turnpike experience lower travel times than those located to the east. The disparity is travel time is attributed to the connectivity of the different neighborhood and the direct access to the principle arterial roadways. Travel time within the town ranges typically ranges from 29.09 to 37.07 minutes. Florida's Travel time, in the figure on the following page, illustrates the average travel time for Floridians compared to the rest of the United States.

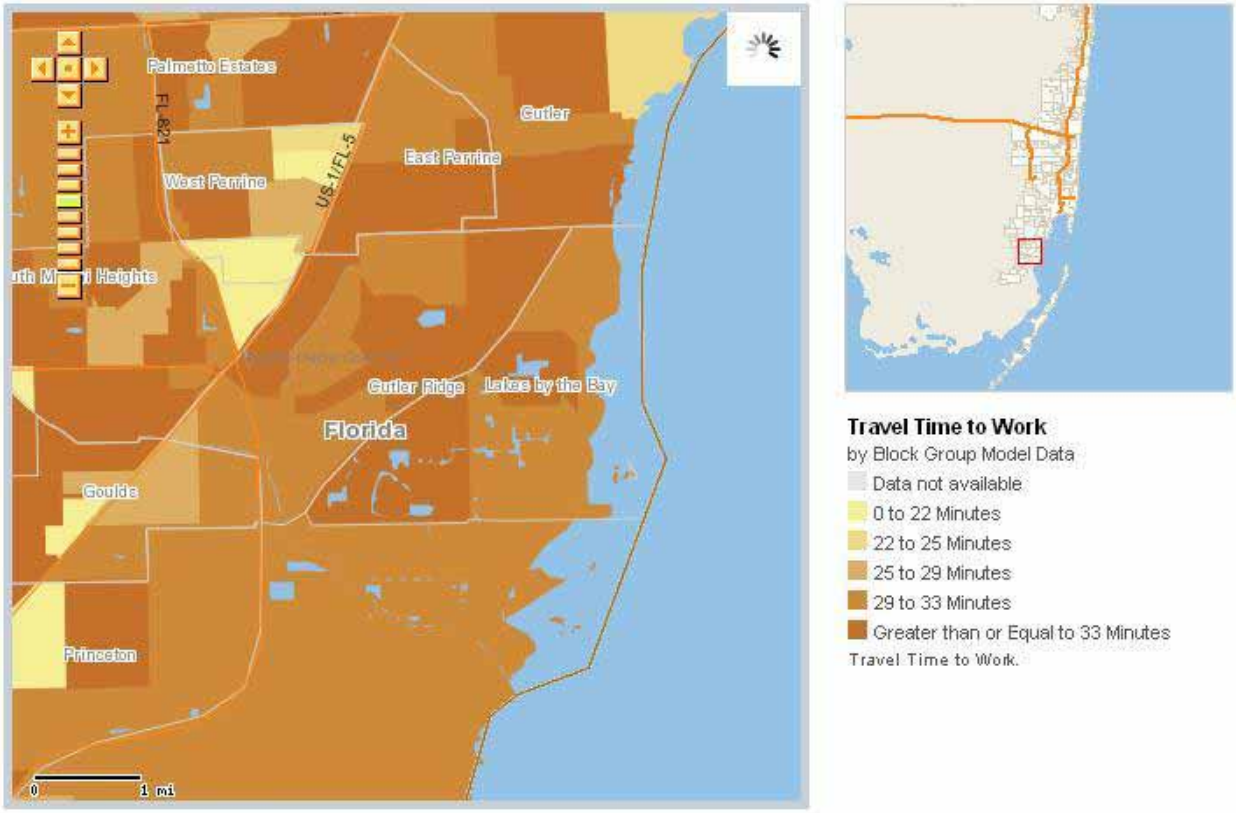


Average State Travel Time (Source: U.S. Department of Transportation)

The figure on the following page depicts Cutler Bay's travel times when compared to the United States, Florida, and the rest of Miami-Dade County. The average travel time in the United States and Miami-Dade County, also rank far below Cutler Bay at 25.5 and 28.9 minutes respectively. As a general trend, a smaller percentage of Cutler Bay residents have commutes shorter than 29 minutes (46%) when compared to the other regions (60%) while a greater percentage (35%) experience commutes longer than 44 minutes. 15.17% of Cutler Bay residents experience commutes lasting between 45 – 59 minutes.



The figure above shows the travel times experienced by the various census tract block groups in the Cutler Bay region.



Travel Time to Work (Source: Center for Neighborhood Technology)

Table 1 on the following page illustrates the number of trips made daily in Miami-Dade County that originate in Cutler Bay. Of the 19,627 trips within the Miami-Dade County geographic regions 35.2% remain within the southern region. The next largest destination for trips that originate in Cutler Bay is the Central Planning area, with 30% of the trips. The northwest, Beach/CBD, west, and north planning regions garner significantly less and nearly equal amounts of trips at 14.4%, 8.8%, 6.3%, and 5.5%, respectively.

Table 2 also on the following page illustrates the number of trips made daily in Miami-Dade County that terminate in Cutler Bay. Of the 8,906 trips, the vast majority or 79.88% of the trips originate within the southern MPO planning area. The west region, the next largest producer, accounts for 12.2% while the central, northwest, north, and Beach/CBD account for only 4.7%, 1.8%, 0.75%, and 0.67% of trips, respectively.

Cutler Bay Project - Year 2000 Model Results

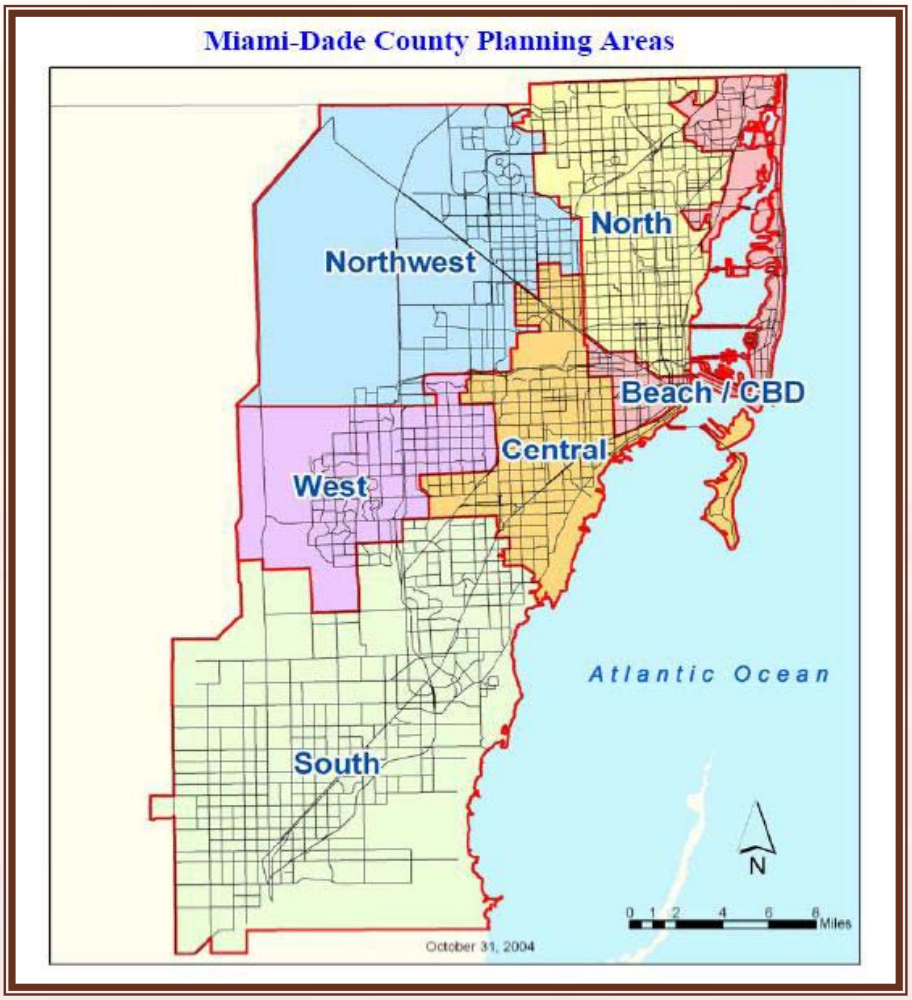
Total vehicular trips with origin and destination within Cutler Bay Study Area = 1,367

Table 1 Work Trips from Study Area to the rest of the County

From	To (Miami Dade County Planning Areas*)	Number of Trips
Cutler Bay Study Area	Northwest	2,824
	North	1,107
	Beach CBD	1,730
	Central	5,827
	West	1,229
	South	6,910
Total Trips from Cutler Bay Study Area to rest of County		**19,627**

Table 2 Work Trips from rest of the County to the Study Area

From (Miami Dade County Planning Areas*)	To	Number of Trips
Northwest	Cutler Bay Study Area	155
North		65
Beach CBD		58
Central		407
West		1,054
South		6,906
Total Trips from rest of County to Cutler Bay Study Area		**8,645**



Miami-Dade County Planning Areas (Source: Miami-Dade Transportation Plan (to the Year 2030 dated December 200)

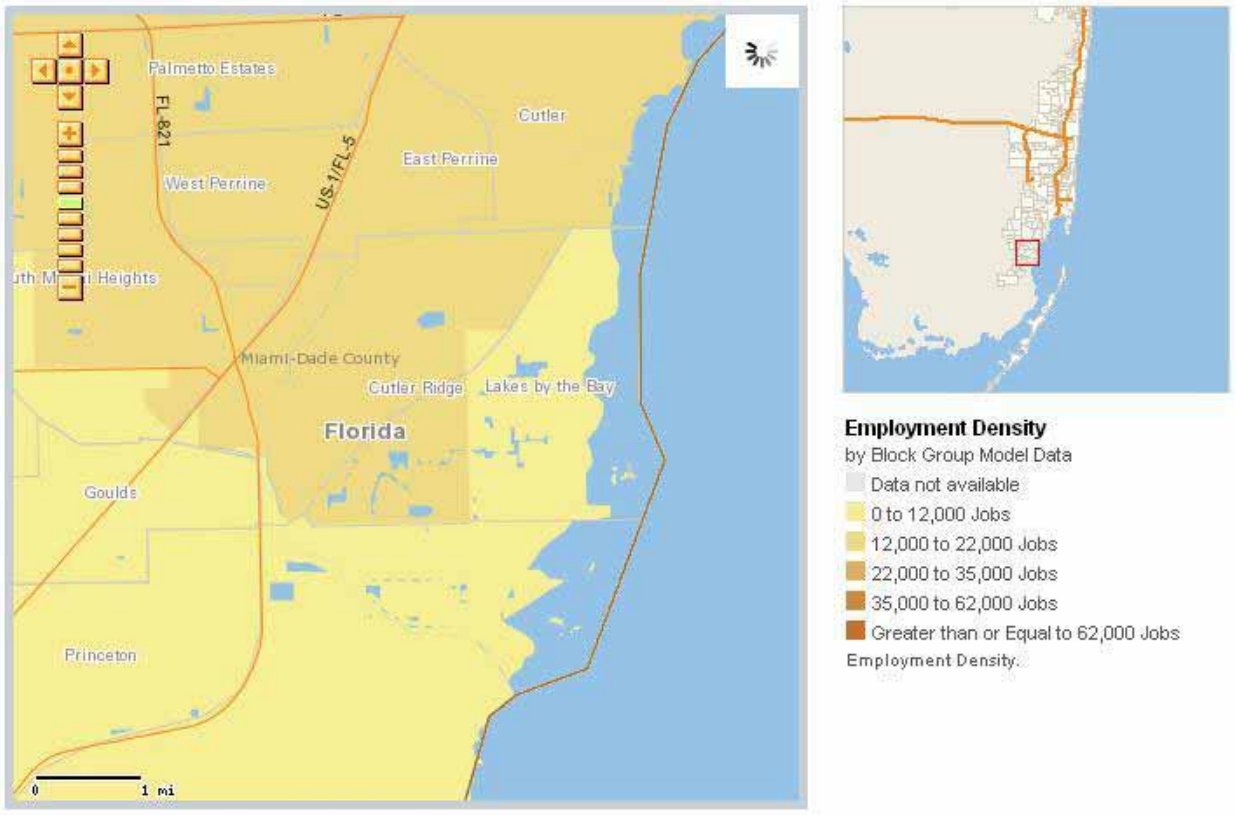
Employment

Cutler Bay's commercial and judicial centers make the town a regional employment hub for southern Miami-Dade County. The nearly one million square foot Southland Mall is the largest mall in South Miami-Dade County and serves a regional area that extends down into the Florida Keys. The South Miami-Dade Justice Center handles civil, family, and small claims cases in addition to passport, code, and traffic citation services.

The largest employment concentration in Cutler Bay is located along the US-1 commercial corridor. Of the 249.6 acres (4%) of the Town's land area that is zoned for commercial uses, the vast majority is lined along US-1, from SW 211th Street to SW 184th Street. There is also another small cluster of commercial property located along the intersection of Old Cutler Road and Franjo Road.

The Southland Mall, formerly the Cutler Ridge Mall, was built in 1959, and is the cornerstone of an approximately 220-acre metropolitan urban center that includes office, institutional, and retail uses. This established but underutilized urban center will be redeveloped as a true mixed-use downtown for Cutler Bay during the planning period, in accordance with the charrette and community-visioning efforts detailed in the growth management plan.

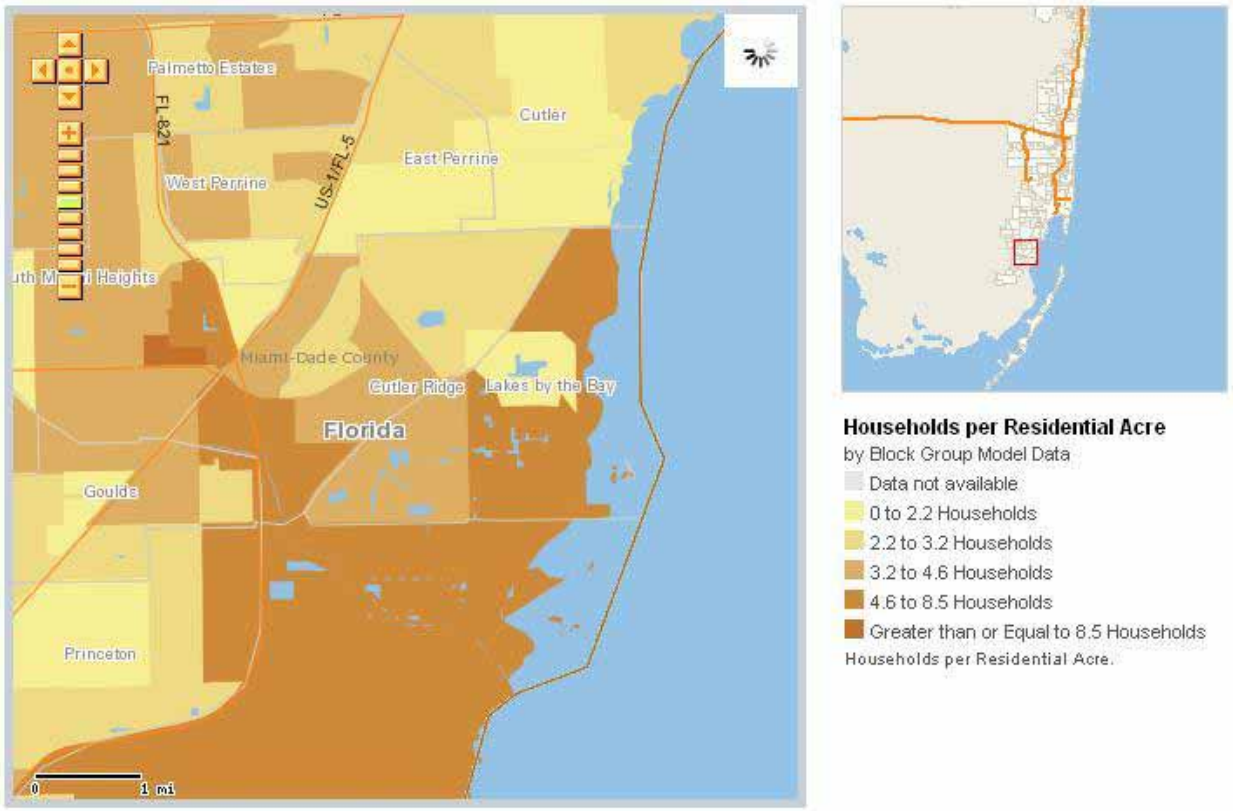
The job density in Cutler Bay ranges from 9,218 to 19,019 jobs per square mile.



Travel Time to Work (Source: Center for Neighborhood Technology)

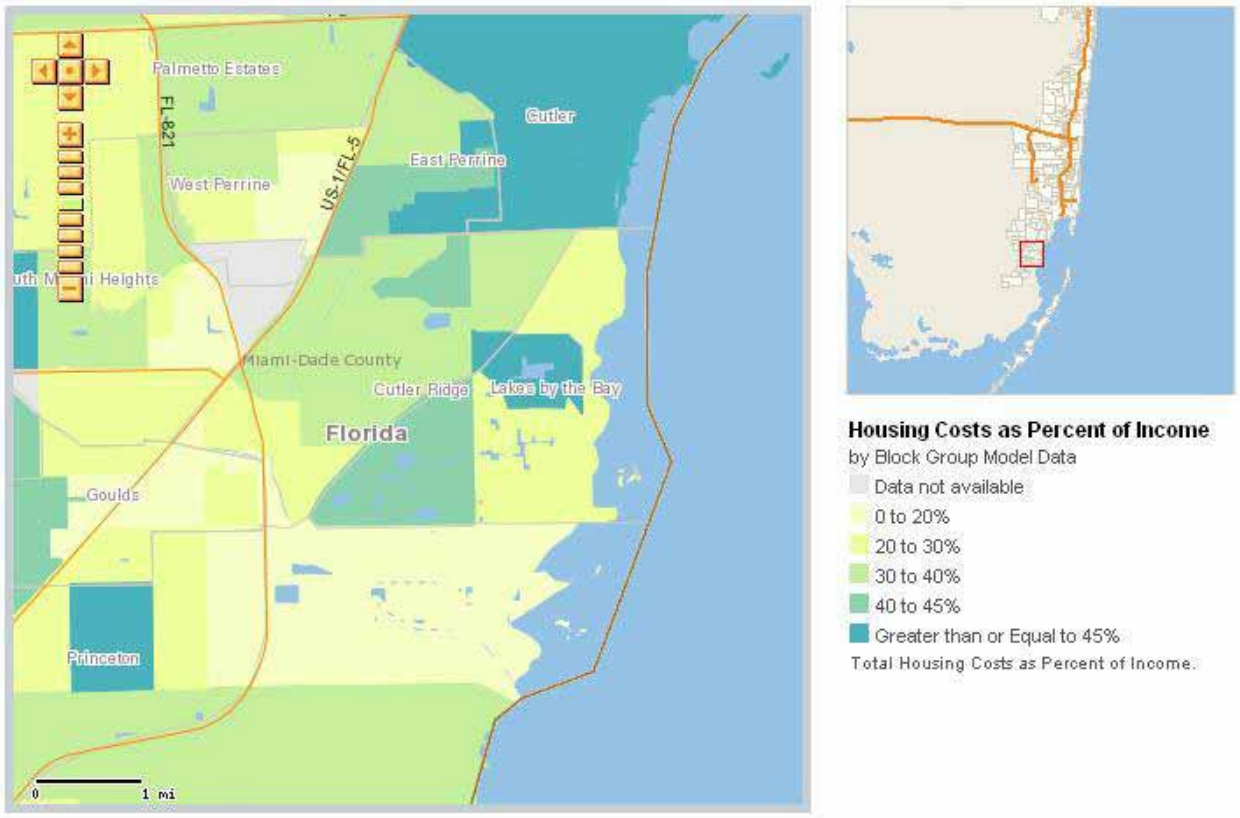
Household Characteristics

Aside from serving as a regional commercial and institutional hub, the Town of Cutler Bay is also home to over 39,000 residents. The approximately 10 square mile community has an average population density around 3,900 people/mi² (6.09 people/acre) and an average of 3.59 households per acre.

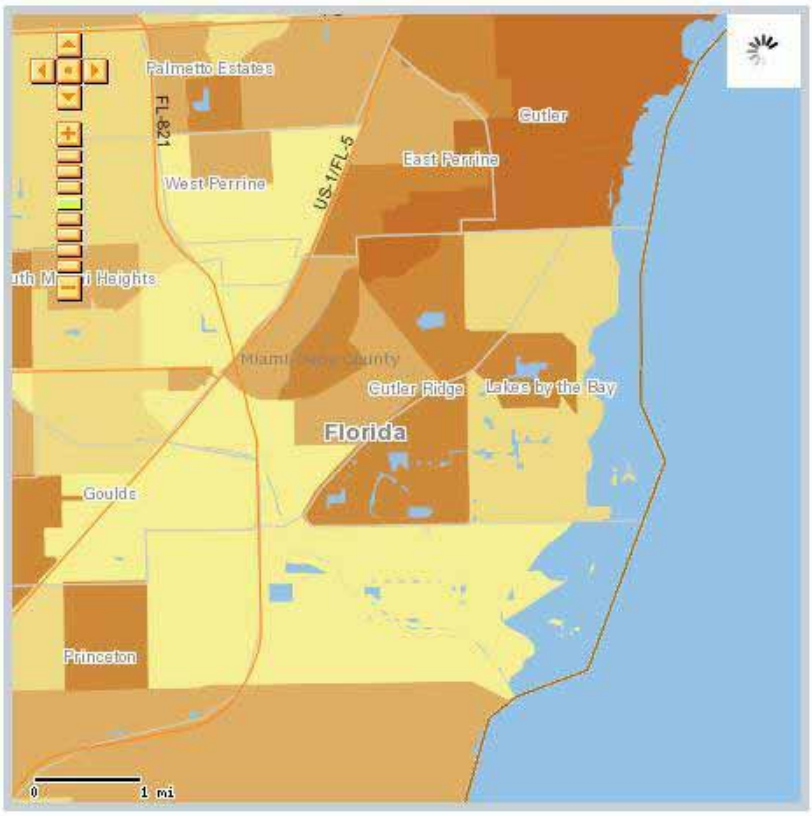


Households per Residential Acre (Source: Center for Neighborhood Technology)

On average, housing accounts for 35% of household income in the Town of Cutler Bay. The most common notion of affordable housing implies that households that spend more than 30 percent of their income on housing have an affordability problem (Source: MIT Center for Real Estate.) It is important to note that the price of a house is not only affected by its structural composition but also by amenities such as adequate access to jobs, school quality, and environmental amenities associated with a house's location. The figures on the following pages illustrates housing costs as percent of household income which in Cutler Bay ranges from 23% to over 50%.



Housing Costs as a Percent of Income (Source: Center for Neighborhood Technology)



Median Household Income
by Block Group Model Data
Data not available
0 to 32,000 USD
32,000 to 42,000 USD
42,000 to 53,000 USD
53,000 to 69,000 USD
Greater than or Equal to 69,000 USD
Median Household Income.

Task 3: Needs Assessment

Task 3: Needs Assessment

Introduction

Quality transportation planning can be characterized as a combination of art and science. In performing a needs assessment this chapter attempts to accommodate both. The art is in deciphering the aspirations of a community through intensive public involvement. The science determines what is required through detailed analysis of data. The intermingling of these important components results in the list of projects developed to address the most significant and impactful issues and concerns in the study area.

The stakeholders meetings and public workshops, combined with the analyses provided above, will point to various levels of need for various modes of transportation. From this assessment a list of potential projects will be developed. The four project categories will include:

Capacity

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

Alternative Mode

This will focus on areas of transit, pedestrian and bicycle and their levels of service, particularly as they interface with major intersections, trip generators and transit stations.

Corridor

This work will take into consideration projects that preferably impact transportation primarily along transportation corridors within the town. These may include projects at the edge of the right-of-way off of the travel surface.

Policy

This will focus on policy initiatives which may help mitigate lack of mobility. These may include concurrency, TDM, and TSM measures.

Summary

The art of planning is determining what people feel the weaknesses and strengths of the transportation system are. These can be real or perceived but provide insight as to the priorities of the community. To understand the wants of the community a series of meetings were held with individuals or small groups. These stakeholders meetings were an opportunity for the community to take as much time as they needed to discuss issues in detail. Once an understanding of these issues was reached, larger community workshops were held to provide more people the opportunity to discuss the issues as they saw them.

This examination was coupled with the level of service analysis derived from the traffic counts collected in the previous chapter of the report. It points to specific areas of weakness in the transportation system. These areas will be addressed with corrective action. Where the wants and needs overlap is the essence of an implementable transportation master plan which will have the consensus of the community. Cutler Bay is an extremely interesting city with at least three distinct personalities. Often it is difficult to build consensus on issues. Through interacting with the community it was found that many of the differences are stylistic. The community is unified around protecting the quality of life that they currently enjoy and promoting quality projects that provide the residents with a sense of place.

It is true that the provision of alternatives in the land use and transportation system is integral to efficient and effective mobility. Not enough capacity will exist in any one mode of transportation to satisfy the all needs alone, yet if a variety of modes were effectively utilized, providing alternatives, the system would function in an improved manner. Unlike most communities in Miami-Dade County, Cutler Bay is in a multi-modal corridor where transit opportunities already exist. Through an examination of the streets and rights of way it was concluded that the ability to implement greater physical capacity is limited. There are unique opportunities to make major gains in the area of transit concurrent with coming development. In fact a pilot circulator program run in late 2008 was enormously successful.

The development of projects stemmed from the analysis of major roadways and intersections as they wind through the town. The study looked at the roadway issues, and attempted to maximize the potential that exists within the existing rights of way. It explored where less efficient areas could be improved. Poorly performing intersections were addressed either by operational or signal improvements.

From a mass transit perspective project development should begin with the examination of the existing bus transit system. A core philosophy of The Corradino Group, particularly relative to Miami Dade County, is to build the transit system incrementally. The existence of the most difficult aspect of rail system has been completed. This is the Right-of-Way. The Busway holds the right of way, and many higher level systems, (real BRT, Magnetic Levitation, Light Rail or Heavy Rail) can be built upon this. Relative to traditional bus transit routes, it is important to encourage Miami Dade Transit to provide service where it is needed. This

will include an examination of all the transit routes to evaluate their performance. Perhaps realignment of certain routes, to more

effectively utilize the Busway, would be appropriate. This plan encourages governments to be open to reevaluating and potentially reprioritizing mass transit needs to more accurately service the need, and to manage growth by actively measuring the impact of various types of development and coordinating land use policies with neighboring jurisdictions.

Policy initiatives focused on encouraging an incremental approach to transit development. Also by shifting impact fees to transit projects. Transportation Demand Management techniques, such as ride sharing, car sharing, flexible work hours, intelligent transportation systems, and other methods by which to more flexibly use the mobility system and incentive the use of alternative modes should be put in place. It is incumbent on each community to focus on measurable goals, such as modal split. These should be evaluated in their current state, and periodically measured to track performance. The ultimate goal of a more balanced mode split can be achieved by lessening the dependence on the automobile, through the provision of viable alternatives.

The transportation system, if left untreated, will create economic consequences, symptoms of which are already being experienced. Transportation is but one aspect, yet cumulatively, the lack of mobility, lack of affordable housing, deteriorating water quality and quantity, as well as skyrocketing property taxes and insurance rates, and a decimated economy, are fast draining the viability from our communities. Cutler Bay is fortunate to be in one of the most accessible locations in the county by car and transit. With the advent of the economic stimulus package proposed by the Federal Government, this master plan has the ability to serve as a significant method by which to impact the quality of life for the Towns citizens, in a manner which is greater than pure transportation.

Wants

Multiple meetings with individuals or small groups were held followed by a workshop to go over the transportation systems performance. The community is clearly focused on improving the transportation system.
A key reason why is to protect the character and ambiance that the town has. The charrettes in both the Urban Center District and Old Cutler Road embody the desire of the communities. A major emphasis is to keep traffic flowing on its appropriate streets. This was specifically referenced by many through the hopeful implementation of traffic circles or roundabouts on Old Cutler Road, to enhance flow. Important to the community was that these circles be of sufficient diameter to allow the significant boating community to trailer boats from their homes to Black Point Marina. The community desires to have better access to the Turnpike, perhaps with entrances at 224th St or 212th St. To keep appropriate facilities flowing, the community is desirous of improving other key intersections with traffic flow modifications if they are not performing. This can be done in the way of traffic circles or left turn lanes. A byproduct of enhancing flow on the appropriate streets is that traffic will be less likely to use residential streets as cut-through streets. In the cases where this is a problem many of the neighbors would desire traffic calming to reduce either the

vehicular speed or volume, where it is not appropriate. Appropriate to enhancing flow is to minimize the number of curb cuts on US-1 and Old Cutler Road. Perhaps cross access easements would be initiated to minimize unnecessary entries and exits to these facilities that create congestion and safety problems.

Transit is recognized as a necessity. People desire to have access to the dollars provided to other communities by the Peoples Transportation Plan. Because of the number of assisted living facilities, they would like to implement a transit circulator to run between where people live and key destinations like Publix, the Southland Mall and the US-1 Corridor. A significant number, but not a majority feel the Busway is a negative influence on the community. They feel it causes more traffic and has deteriorated the quality of life. Metrorail is desired. They feel that it was promised and that they have been lied to. This is a subject of intense debate, and an issue that must be addressed in order for a realistic alternative to be developed. The community has rejected the implementation of more bus rapid transit as opposed to immediate implementation of Metrorail, but the county is supporting the development of transit alternative that will accommodate Metrorail, and the development of Metrorail as ridership warrants. Currently there are no funds for such a project.

An interesting project to remedy this situation would be to utilize the Busway as a high occupancy tolled managed lane, and using the proceeds to finance the implementation of the infrastructure which would eventually accommodate Metrorail. This would greatly speed the development of the project. The community is split on the issue with many claiming such a project is an elitist notion that would not help the people of Cutler Bay. Many others see it as an excellent and appropriate use of federal legislation to gain meaningful transportation improvement. An extensive dialogue on the topic is recommended.

The desire for park and ride locations at the Busway was stated frequently, as was the need for better pedestrian access across US-1 to the Busway. This can be accomplished by pedestrian intersection improvements or overpasses. Buses that linked with the neighborhoods and the Busway quickly were requested.

A major desire of the committee was to have the enhanced ability to move around the community on foot or by bicycle. This would be a key component in attracting children to walk or bike to school. The idea of creating safe routes to school was attractive. As was the provision of bicycle racks at key generators like malls, banks and schools. Separate loading zones for each school was consistently mentioned as a way to maintain traffic flow by removing vehicle dropping off or picking up students from the roadway. There was the desire to connect parks, schools and commercial areas with bicycle routes, either with separated bicycle facilities or in road bike lanes, which could be cordoned off from the main travel lanes for safety. The concept of bicycle boulevards, (roads which gave mobility priority to bicycles) was popular. The desire for better pedestrian quality of service at major intersections was desired. This could be done with painted, textured or lighted crosswalks, and pedestrian count down signals.

The aesthetic of the transportation system was extremely important. The largest complaint about transit shelters was the unregulated advertising. The Old Cutler Road bike path needs to be maintained. It is considered unusable by many because it has been neglected for so long. Additionally street trees are very important as a way to beautify the neighborhoods, from the roadways and provide shade to pedestrians. In addition swale areas that have been severely damaged by vehicles, particularly along Caribbean Boulevard,

are desire to be fixed. They can be protected by the installation of left turn lanes, or bus bays, while curbing the intersection to assure vehicles stay in the travel lanes. Old Cutler Road, rightfully so, is a tremendous sense of pride for the community. It is a unifying and defining feature. Keeping with the intent of the historic designation of Old Cutler Road was desired by nearly all people. What that entails specifically to the visual definition of an "old country road" as referenced in the legislation is yet to be determined, but all can agree on additional landscaping and maintenance of the right of way.

A method to accomplish these wants was to develop an impact fee for developers who come into the community to assure that the projects can be funded.

From the individual conversations and public workshops a number of recommendations were made. These were listed below roughly under the general category they represent. It will be the job of the project team to decipher these and organized them into projects. Many of the recommendations point to similar issues.

Citizen Recommendations

- New entrances to the Turnpike at 224th Street and 212th Street (enhanced entrance)
- Maintain thoroughfares
- Traffic Calming
- Fix traffic congestion on Old Cutler Road in front of Publix
- Eliminate curb cuts on Old Cutler Road
- Implement School loading zones
- Repave all roads
- Cutler Ridge Drive / Franjo – Dangerous intersection
- Caribbean / 192 St - Dangerous intersection – Place traffic circle here
- Widen 184 St
- Build traffic circles and make sure boats can get around them and that they are well landscaped
- Repave the road in front of East Ridge
- New lighting on Old Cutler Road
- Put a traffic circle at 97Ave/Franjo
- Connect 97 Ave across Old Cutler Road
- 216th Street
  - Slow Traffic
  - Stop light at 97ave/216
  - Street Lights
- Turnpike entrance at 211 St is dangerous Look at 4 way stop or signal
- 87th Ave and Old Cutler Road, prior to Circle install Left Turn Lane and Signal
- Keep 97 Ave closed at 224
- Turnpike Access at 232 St
- Keep trucks out of residential areas
- Do not widen 184 St
- Analyze the pavement conditions
- Traffic calming on Sterling.
- Traffic light at Sterling/Franjo
- Church at Franjo/184the Street, parking is on swale. Remove that parking or reinforce swale with paver blocks

- 87 Ave/ 184 St. The Town has received several calls during the AM peak rush hours, for the installation of an "eastbound" dedicated turning arrow. Residents who need to get to US # 1 and the Florida Turnpike using SW 184 Street are experiencing delays at this intersection.
- Schools – do a traffic study around schools to see if stacking lanes are needed
- Franjo/Quail Roost – improve traffic around the park
- Center turn lanes on Franjo
- Traffic circles need to accommodate large boats.
- Pedestrian Overpasses over US-1 to Busway
- Maintain Old Cutler Road bike path.
- Need cross walks, and pedestrian count down signals
- Connect parks and schools via sidewalks and bike paths
- Designate some streets as walkable streets
- Connect schools, churches, parks with pedestrian and bike improvements
- Ask developers to install bike and pedestrian facilities
- Do a bicycle and pedestrian master plan
- Do a Safe Routes to School project
- Maintain Old Cutler Road Bike Path
- Need cross walks, and pedestrian count down signals
- School loading zones
- Bike racks and bike trails are good
- "Adopt a Hwy" program for roadway maintenance funding
- Bike lanes on Caribbean and Marlin
- Do a Bike Pedestrian Master Plan connecting Schools/parks/shopping areas
- Examine curb separating the new bike lanes
- Implement a local circulator
- Circle at Marlin/Old Cutler Road in front of Potato Field
- Busway
  - Waste of real estate
  - Show how successful the ridership is
  - Allow cars on it
- 216th Street
  - More crosswalks
  - Pedestrian Count Down Signals
- Make buses come more frequently
- Bike lanes with signage
- Create bicycle network
- Adopt county bike network and connect this with town parks through pedestrian and bike paths
- Develop a signage schedule
- Add bike lanes at specific appropriate locations Curbs to separate bike lanes
  - Marlin, Coral Sea, 87, Franjo – Connect schools and parks
  - Can Golf Carts use bike lanes?
- Transit – do an elderly services route. Use Hybrid Vehicles
- Performing arts center – Needs parking. If parking is to be across the street then needs pedestrian access across 211th St either in form of a crosswalk or a pedestrian bridge
- Old Cutler Road
  - Roundabouts on Old Cutler Road
  - Create a "small town downtown" feel similar to South Miami or Coconut Grove in the Old Cutler Road Charrette Area.

- Maintain the Historic Ambiance of Old Cutler Road
- Add Trees and Landscaping to Old Cutler Road
- Slow traffic
- Add lush landscaping around, like the banyans in Coral Gables
- Make Old Cutler Road look like South Miami near the outback steakhouse
- Maintain side of Old Cutler Road as a country road
- Left turn signal at 87 Ave/Old Cutler Road
- Left Turn signal at Franjo/ Old Cutler Road
- Not traffic circles on 87ave that will interfere with boat trailers

- Marlin
  - Traffic circle at marlin and Caribbean
  - Circle at Marlin and Old Cutler Road
  - Traffic Counts at Marlin/Gulf Stream
- Caribbean
  - Intersections on Caribbean are at bad angles and difficult to access.
  - Evaluate Caribbean ROW to see where more trees can go
  - Need traffic calming on Caribbean
  - Need Shade Trees on Caribbean
  - Add bike path on Caribbean
  - Add turn lanes at intersections south of Franjo
  - Add curbing at these intersections to protect pedestrians and protect area from being beat up
  - The area looks bad because people cut the corners when waiting for a vehicle to make a left turn, beating up the landscaping
  - Circles on Caribbean
  - Three lanes on Caribbean
  - Prevent swales from being beat up by drivers going out of travel lanes, particularly at corners
  - Caribbean No center turn lane on Caribbean project. Add a landscaped median instead with intersection turn lane
  - Caribbean, start this project at turnpike and go to 87th Ave. Not coral sea to 87th. It is needed further west
  - Add bus pull out bays on Caribbean – reduce the number of shelters
  - Curbing at intersections along Caribbean
  - Caribbean, reconfirm all the turn lanes are needed at the intersections
- Allow cross access easements
- People like narrow streets, two lanes with plenty of green space and canopy trees
- Explore long term creative technologies like Magnetic Levitation. Search for federal partnerships on pilot programs. Examine what projects are out there and what funding options exist
- Promote mixed use in Eastridge (grocery store)

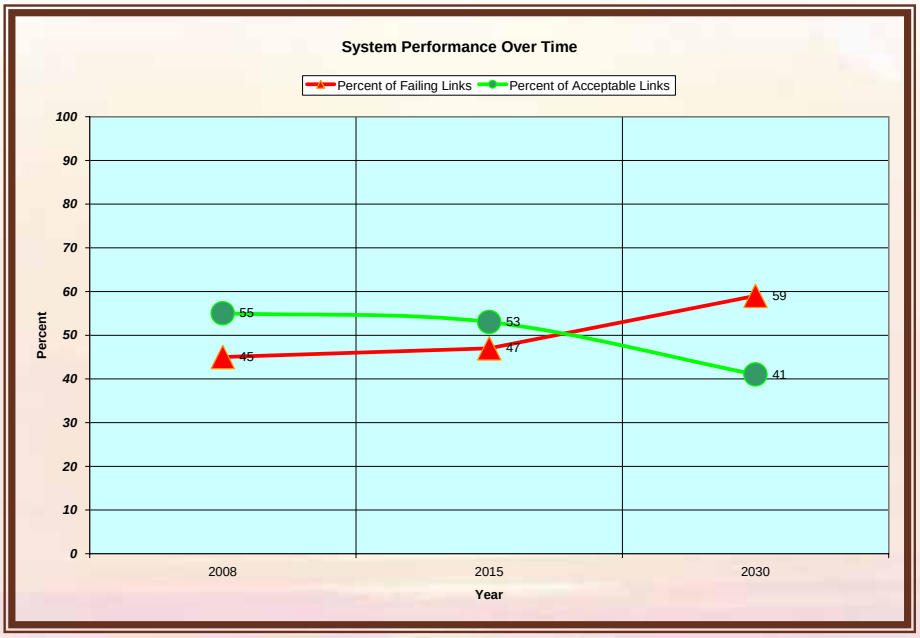
Needs

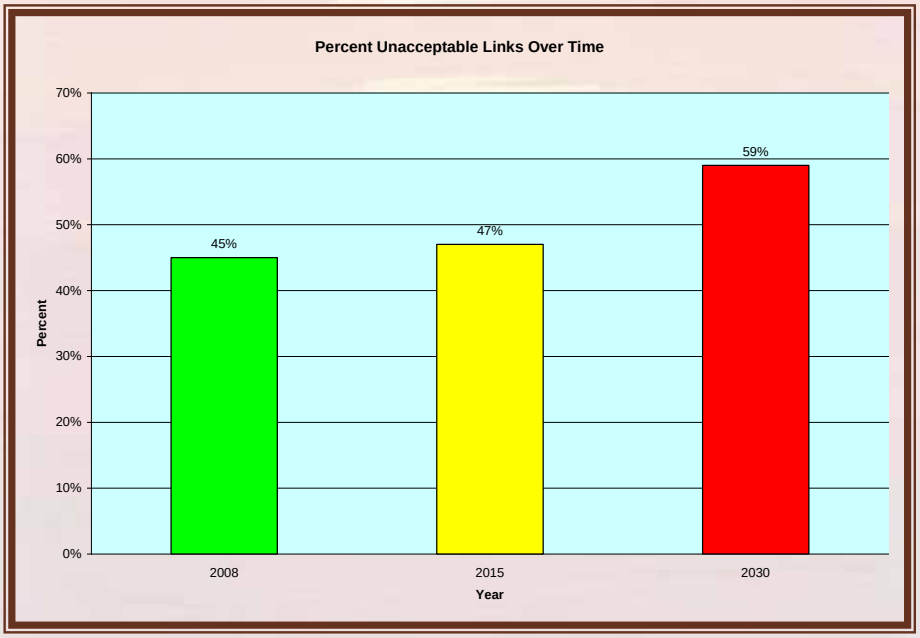
To understand the needs of the community, a technical analysis of the transportation system was performed in the analysis section of this study. It primary findings were primarily detailed in the *Performance* chapter of the report. This analysis was based on the 49 traffic counts taken along the links and intersections throughout the community. The following table lists these.

#	ROAD	FROM	TO	No. OF LANES	MEDIAN TYPE	ROAD	TYPE	No. of SIGNALS	LENGTH (MILE)	SIGNALS /MILE	SPEED LIMIT (MPH)
1	SW 184 ST	SW 107 AVE	US-1	4	TWLTL	COUNTY	URBAN MINOR ARTERIAL	7	3.0	2.0	35
2		US-1	Franjo Rd.	4	TWLTL						35
3		Franjo Rd	SW 92 Ave	2	UNDIVIDED						40
4		SW 92 Ave	SW 87 Ave	2	UNDIVIDED						40
5		SW 87 Ave	Old Cutler Rd	2	UNDIVIDED						40
6	Caribbean Blvd	SW 117 Ave	SW 110 Ave	2	UNDIVIDED	COUNTY	URBAN COLLECTOR	13	4.5	2.7	35
7		SW 110 Ave	US-1	4	RAISED						35
8		US-1	SR 821	4	RAISED						35
9		SR 821	SW 97 Ave	2	UNDIVIDED						35
10		SW 97 Ave	Marlin Rd.	2	UNDIVIDED						35
11		Marlin Rd.	Franjo Rd.	2	UNDIVIDED						35
12		Franjo Rd.	SW 87 Ave	2	UNDIVIDED						35
13		SW 87 Ave	SW 184 St	2	UNDIVIDED						35
14	SW 211 St	SW 114 Ave	US-1	4	RAISED	COUNTY	URBAN COLLECTOR	6	1.2	4.2	35
15		US-1	SW 112 Ave	6	RAISED						40
16		SW 112 Ave	SR 821	6	RAISED						40
17	SW 212 St	SW 87 Ave	SW 85 Ave	4	RAISED	LOCAL	URBAN LOCAL	1	0.3	0.0	35
18	SW 216 St	SR 821	Old Cutler Rd	4	RAISED	COUNTY	URBAN MINOR ARTERIAL	3	2.0	1.0	35
19		Old Cutler Rd	SW 87 Ave	4	RAISED						30
20	SW 232 St	SW 97 Ave	SW 87 Ave	2	UNDIVIDED	LOCAL	URBAN LOCAL	0	1.2	0.0	30
21	SW 85 Ave	Old Cutler Rd	SW 212 St	4	RAISED	LOCAL	URBAN LOCAL	0	0.8	0.0	35
22	Old Cutler Rd	SW 112 Ave	SW 224 St	2	UNDIVIDED	COUNTY	URBAN COLLECTOR	7	4.8	1.3	35
23		SW 224 St	SW 216 St	2	UNDIVIDED		URBAN COLLECTOR				35
24		SW 216 St	SW 97 Ave	2	UNDIVIDED		URBAN MINOR ARTERIAL				35
25		SW 97 Ave	Marlin Rd.	2	UNDIVIDED		URBAN MINOR ARTERIAL				35
26		Marlin Rd.	SW 87 Ave	2	UNDIVIDED		URBAN MINOR ARTERIAL				35
27		SW 87 Ave	SW 184 St	2	UNDIVIDED		URBAN MINOR ARTERIAL				35
28		SW 184 St	SW 77 Ave	2	UNDIVIDED		URBAN MINOR ARTERIAL				35
29	SR 821	SW 216 St	SW 211 St	4	DEPRESSED	STATE	LIMITED ACCESS FREEWAY	<2mile Interchanges			60
30		SW 211 St	Caribbean Blvd	4	DEPRESSED						60
31		Caribbean Blvd	US-1	6	DEPRESSED						60
32		US-1	Quail Roost Rd	6	DEPRESSED						60
33	fstream Rd/SW 97	Caribbean Blvd	Franjo Rd.	2	UNDIVIDED	COUNTY	URBAN COLLECTOR	2	1.1	0.9	30
34		Franjo Rd	SW184 St	2	UNDIVIDED						30
35		SW184 St	SW 174 St	2	UNDIVIDED						30
36	Marlin Rd	Old Cutler Rd	Caribbean Blvd	2	UNDIVIDED	COUNTY	URBAN COLLECTOR	5	2.0	2.0	30
37		Caribbean Blvd	SW 97 Ave	2	UNDIVIDED						30
38		SW 97 Ave	US-1	2	UNDIVIDED						30
39		US-1	SW 107 Ave	4	RAISED						35
40	Franjo Rd.	Old Cutler Rd	Caribbean Blvd	2	UNDIVIDED	COUNTY	URBAN COLLECTOR	2	1.2	0.8	30
41		Caribbean Blvd	SW 97 Ave	2	UNDIVIDED						30
42	SW 87 Ave	SW 232 St	SW 216 St	2	UNDIVIDED	COUNTY	URBAN COLLECTOR	5	3.3	1.2	40
43		SW 216 St	Old Cutler Rd	2	UNDIVIDED						40
44		Old Cutler Rd	Caribbean Blvd	2	UNDIVIDED						35
45		Caribbean Blvd	SW 184 St	2	UNDIVIDED						35
46		SW 184 St	SW 174 St	2	UNDIVIDED						35
47	US-1	SW 211 St	Caribbean Blvd	6	RAISED	STATE	RBAN PRINCIPAL ARTERIA	8	2.3	3.0	45
48		Caribbean Blvd	Marlin Rd.	6	RAISED						45
49		Marlin Rd.	SW 184 St	6	RAISED						45

The roadway network was detailed in terms on number of lanes, type of median, owner of the road, classification of the road, number of signals and speed limit. The roadway performance was then measured. The average daily volumes and average peak hour volumes were calculated. Using the state assigned Level of Service standard, peak hour level of service bench marks were calculated for LOS C, LOS D, and LOS E. The actual peak hour volume was compared with the assigned level of service standard and an actual Level of Service was determined. The available capacity (or negative capacity) in vehicular trips was listed. This was projected to 2015 and 2030.

Today the roadway system in Cutler Bay functions barely functions adequately, and will deteriorate more over time. The level of service standard in Cutler Bay is LOS D, so anything at E worse is unacceptable. In 2008, 27 of 49 links or 55 % operate at an acceptable level of service. 22 links or 45% are failing. By 2015, 26 links (53%) are acceptable, and 23 links (47%) are unacceptable. By 2030, 20 (41%) are acceptable, and 29 links (59%) are unacceptable. Additionally 25 intersections were identified with deficiencies.





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 maps and 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 right 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 standard, and anything that surpasses D would be said to be out of capacity.

Existing Year 2008 Roadway level of service (LOS) Measured as Peak-hour, Peak-direction

Today the roadway system in Cutler Bay barely functions adequately, 27 of 49 links or 55% operate at an acceptable level of service. 22 links or 45% are failing.

The following major roadways are operating at LOS E

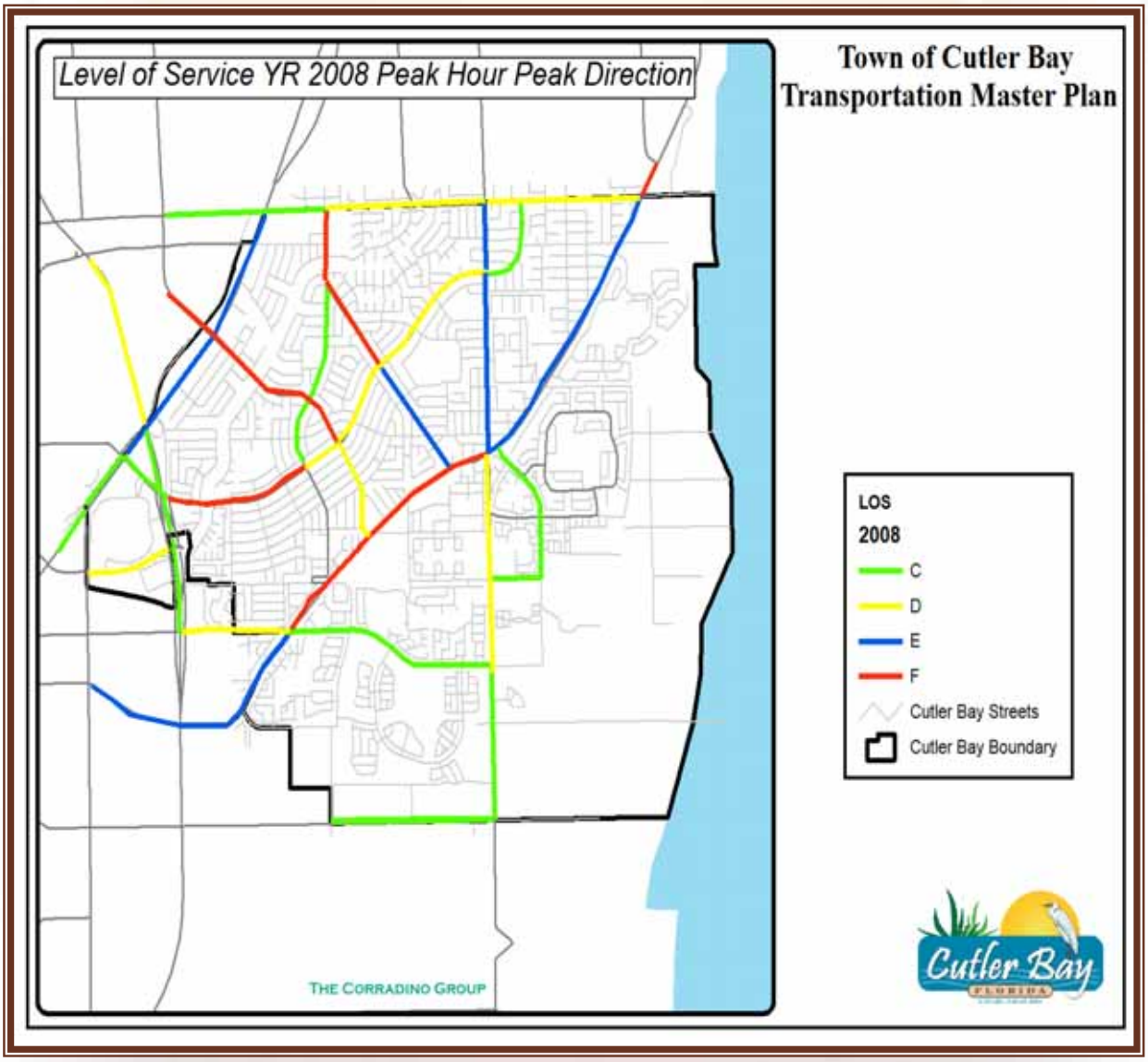
- Old Cutler Rd between SW 112 Ave to SW 216 St and from SW 87 Ave to SW 184 St
- Gulfstream Rd/SW 97 Ave between SW 184 St to SW 174 St
- Franjo Rd between Old Cutler Rd to Caribbean Blvd
- SW 87 Ave between Old Cutler Rd to SW 184 St
- US-1 between Caribbean Blvd to SW 184 St

The following major roadways are operating at LOS F

- Caribbean Blvd between SW 117 Ave to US-1 and from SR-821 to SW 97 Ave
- Old Cutler Rd between SW 216 St to SW 87 Ave and from SW 184 St to SW 77 Ave
- Gulfstream Rd/SW 97 Ave between Franjo Rd to SW 184 St
- Marlin Rd between Caribbean Blvd to SW 107 Ave
- Franjo Rd between Caribbean Blvd to SW 97 Ave
- SW 87 Ave between SW 184 St and SW 174 St

The following map graphically depicts the existing Yr 2008 LOS.

Figure 1 - Existing Level of Service



Year 2015 Roadway level of service (LOS) Measured as Peak-hour, Peak-direction

By 2015 all of Old Cutler Road will be LOS F, as will Franjo and the northern part of 97th Ave. Marlin is at LOS F and E, which surpasses acceptable concurrency thresholds. By 2015, 26 links (53%) are acceptable, and 23 links (47%) are unacceptable. By 2030, 20 (41%) are acceptable, and 29 links (59%) are unacceptable.

The following major roadways are operating at LOS E

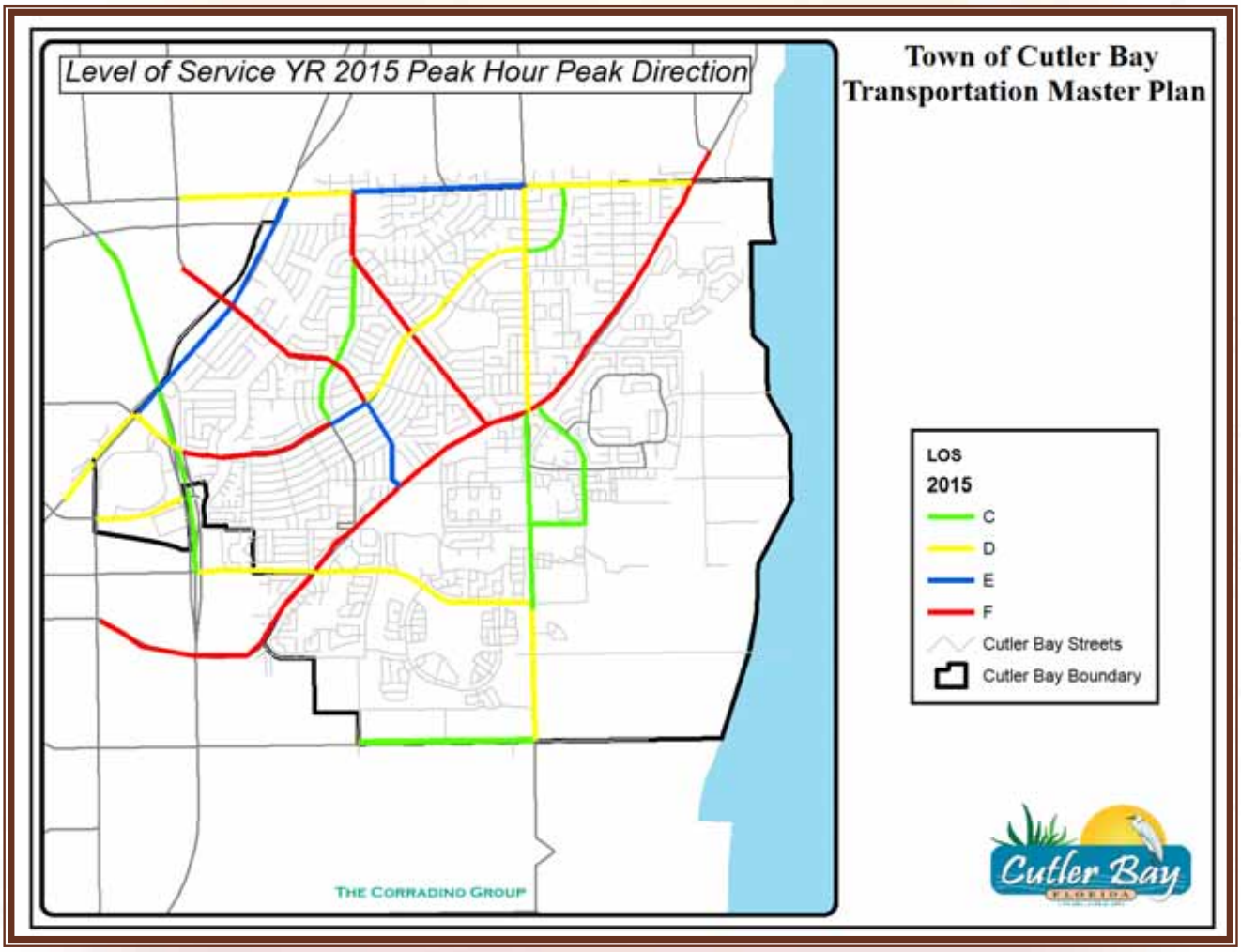
- SW 184 St between Franjo Rd to SW 87 Ave
- Caribbean Blvd between SW 97 Ave to Marlin Rd
- Marlin Rd between Old Cutler Rd to Caribbean Blvd
- US-1 between Caribbean Blvd to SW 184 St

The following major roadways are operating at LOS F

- Caribbean Blvd between SW 117 Ave to US-1 and from SR-821 to SW 97 Ave
- Old Cutler Rd between SW 112 Ave to SW 77 Ave
- Gulfstream/SW 97 Ave between Franjo Rd to SW 174 St
- Marlin Rd between Caribbean Blvd to SW 107 Ave
- Franjo Rd between Old Cutler Rd to SW 97 Ave

The map on the following page graphically depicts the Year 2015 LOS.

Figure 2 - Year 2015 Level of Service



Year 2030 Roadway level of service (LOS) Measured as Peak-hour, Peak-direction

The following major roadways are operating at LOS E

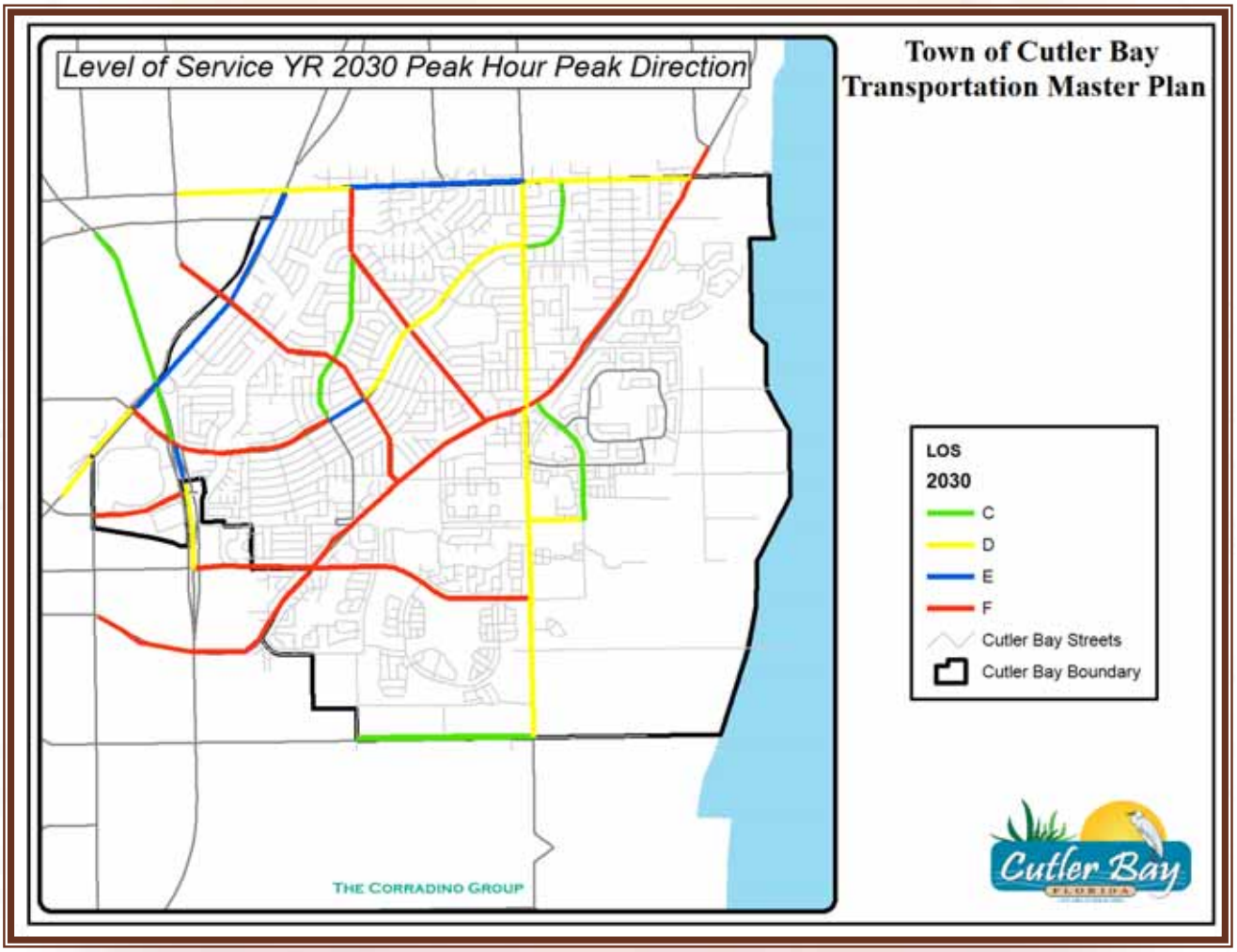
- SW 184 St between Franjo Rd to SW 87 Ave
- Caribbean Blvd between SW 97 Ave to Marlin Rd
- SR-821 between SW 211 St to Caribbean Blvd
- SW 87 Ave between SW 184 St to SW 174 St
- US-1 between Caribbean Blvd to SW 184 St

The following major roadways are operating at LOS F

- Caribbean Blvd between SW 117 Ave to SW 97 Ave
- SW 211 St between SW 112 Ave to SR-821
- SW 216 St between SR-821 to SW 87 Ave
- Old Cutler Rd between SW 112 Ave to SW 77 Ave
- Gulfstream Rd/SW 97 Ave between Franjo Rd to SW 174 St
- Marlin Rd between Old Cutler Rd to SW 107 Ave
- Franjo Rd between Old Cutler Rd to SW 97 Ave

The map on the following page graphically depicts the Year 2030 LOS.

Figure 3 - Year 2030 Level of Service



The recommendations of need made from this analysis focus mainly on physical capacity projects, such as the addition of a turning lane at an intersection, the undertaking of a specific study to analyze signal timing or operations, or the addition of a specific number of lanes on a roadway. When a recommendation is made for an addition to the network the resulting level of service improvement is provided.

List Potential Projects

The analyses coupled with the public involvement provided in tasks one and two point to various levels of need, for various modes. From this assessment a list of potential projects has been developed. The four project categories will include:

Capacity

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

- Study Turnpike Access In Cutler Bay
- Turnpike Access at 224th St and 212st, 232st, 216 St
- Turnpike / 211st
- Marlin / Caribbean Traffic Circle
- 216th St / 87 Ave, Turn Lane
- Signal Warrant Analysis 97 Ave / 216th St
- Signal Warrant Analysis Sterling / Franjo
- 216 St / 97 Ave Turn Lane
- Cutler Ridge Drive / Franjo Intersection Operation Analysis
- Do not widen 184 St
- Marlin / Gulfstream Intersection Analysis
- Marlin between US-1 and 107 Ave; LOS improvements
- Marlin / US-1, Signal Analysis
- Marlin / OCR Lane Addition
- Marlin Operational Analysis Between Old Cutler Road and 107th Avenue
- Connect 97 Ave across OCR
- Paving in front of Eastridge
- Circle 97th Ave / Franjo
- Keep 97 Ave closed at 224
- 87 Ave @ Old Cutler Road. Add Left Turn Lane (prior to circle implementation)
- Marlin/OCR Traffic Circle in front of Potato Field
- 87 Ave/ 184 St, Eastbound Right Turn Lane
- 87 Ave/ Old Cutler Road; Left Turn Signal
- Franjo / 184 St, Signal Analysis
- Franjo / Cutler Ridge Dr. Signal Analysis
- Franjo Between Old Cutler and 97th Avenue, Lane Addition Center Turn Lanes on Franjo
- Roundabouts on Old Cutler Road
- Caribbean Capacity Improvements, Between 117 Ave and 97th Avenue
- 211 Street Operational Analysis at intersections between 112 Ave and SR 821
- 216th Street Operational Analysis, between SR 821 and 97th Ave
- Gulfstream Intersections Analysis Between Franjo and 184th Street
- Signal Progression Analysis
- Close 97 Ave North of 232 St and SW 224st West of 97 Ave
- Fix traffic congestion on OCR in front of Publix

- Intersections on Caribbean are at bad angles and difficult to access.
- Add turn lanes at intersections south of Franjo
- Caribbean, build third lane at intersections, then use a grassed and landscaped center median
- Caribbean / Coral Sea Lane Addition
- Caribbean / Gulf Stream, Lane Addition
- Caribbean / Franjo, Signal Study
- Caribbean / 87 Ave, Signal Analysis
- Caribbean / 192 St, Operation Analysis
- Operations analysis at all Caribbean intersections

Alternative Mode

This will focus on areas of transit, pedestrian, and bicycle and their levels of service, particularly as they interface with major intersections, trip generators and transit stations. These projects include:

- Maintain OCR Bike path.
- Cross walks and pedestrian count down signals at major intersections
- Safe Routes to School Program
- Bicycle and Pedestrian Master Plan
- School loading zones
- Bicycle Racks at Schools
- Bike lanes on:
  - Caribbean
  - Marlin
  - Coral Sea Rd
  - 87 Ave
- Transit Circulator (Green)
- Lower headways of buses
- Adopt county bike network
- Develop a Recreational Trail signage schedule
- Bus Pull Out Bays on Caribbean
- Pedestrian Crossings at US-1
- Park and Ride Lots along the Busway
- Liaison with South Florida Commuter Services
- Bus Shelters
- ADA Compliant sidewalks
- Evaluate Parking Sufficiency Performing Arts Center

Corridor

This work will take into consideration arterial roads that function as major conduits of traffic through the Town. These projects include:

- Eliminate curb cuts on OCR
- Townwide streetscape program Livable communities program)
- Lighting on OCR
- Street Repaving Program

- Evaluate Caribbean ROW to see where more trees can go
- Curbing at all Caribbean intersections. Increase turning Radii to make it easy for turns and to *protect yards from getting beat up*

Policy

- This will focus on policy initiatives which may help mitigate lack of mobility. These may include concurrency, TDM, and TSM measures.
- Complete Streets
- Traffic Calming Program in Residential Area
  - Sterling
  - Caribbean
- Allow cross access easements
- "Adopt a Hwy" for roadway maintenance funding
- Bicycle Boulevards (Designate some streets as walkable streets)
- Impact Fees from Developers For Infrastructure
- Support Projects that Speed Implementation of Metrorail
- Support Managed Lanes Study
- Keep trucks out of residential areas
- Explore long term creative technologies like Magnetic Levitation
- Search for federal partnerships on pilot programs
- Church at Franjo/184 Fix Parking
- Concurrency Management System
- Consider Transportation Concurrency Management Area (TCMA) as capacity deteriorates, and to foster development at the Mall
- FDOT LAP Certification
- Actively coordinate with other governments and agencies
- Work to attain Peoples Transportation Plan funding
- Prepare For Stimulus Package

Task 4: Project Bank

Introduction

This chapter introduces the actual projects. The Cutler Bay Transportation Master Plan has identified multimodal transportation and mobility issues across the community by talking with the citizens and analyzing transportation data.

A set of multimodal projects were developed based on both of these levels of analysis, focused on identifying the major facility and service needs in the main areas of transportation that make up "mobility" or the movement of people.

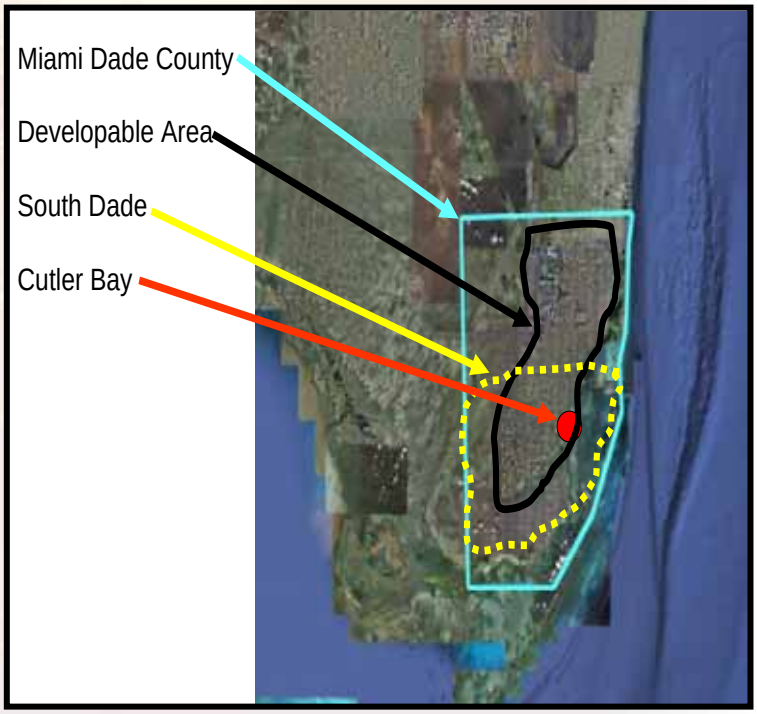
Projects were listed in the following categories:

- Capacity
- Alternative Mode
- Corridor
- Policy

As part of this process the issues that were initially discussed and presented in the previous chapter were organized, streamlined and defined as projects. All were developed in light of the Town's initial Strategic Plan and it's more recent and official policy document the Growth Management Plan. Ultimately the Town's Goal is to provide for a safe, convenient, accessible and efficient transportation system. From the outset Cutler Bay has focused on developing and sustaining a unified, positive identity with an overall sense of community pride. They have the desire to be recognized as a Town where people prefer to live. In doing so they have planned to undertake a number of multimodal efforts to enhance the transportation system's form and function. This included the development of pedestrian friendly streets, with adequate signage, striping and signalization. They have also focused on creating a smooth flow of traffic through the town, by minimizing traffic congestion while maximizing capacity of the roadway network. By working in a cooperative intergovernmental spirit with its transportation partners at the local, state and federal levels to enhance the existing roadway network as well as expand transportation facilities in the Town and all of South Dade, this goal can be accomplished.

To be successful in defining impactful solutions, an understanding of the Town is required. From a county-wide perspective all of South Dade may seem homogenous. Essentially an area made up of nearly 250 square miles which is physically half of the geographic area of the county, South Dade consists of 5 cities, three major transportation corridors a multitude of varying land uses, an urban development boundary, and the highest projected growth rate in the county. Yet it is assigned only two representatives on the County Commission.

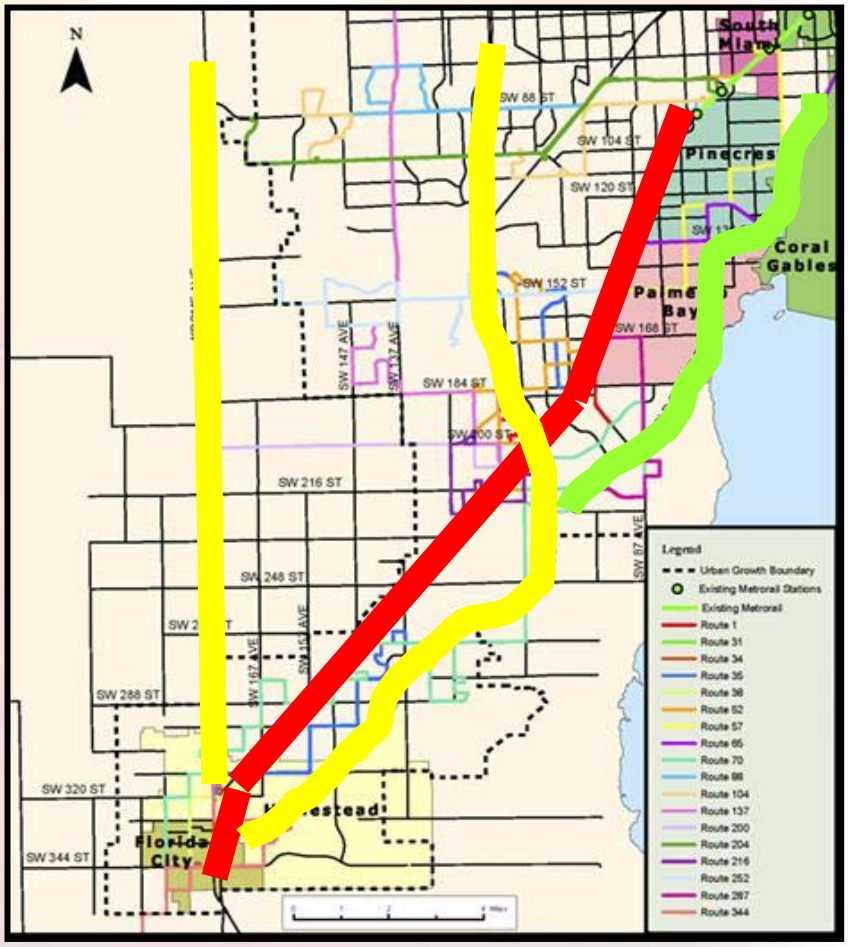
South Dade is actually a collection of a vast array of demographics, each relatively unique yet bound by the common issues faced by the sub-region including transportation. This area is the front line of the battle for quality of life. The remainder of the county, north of SW 88th Street is essentially built out; therefore if the county is going to grow or attract new businesses, South Dade is very likely the location for this growth, in both jobs and residences. The epicenter for this growth is in all likelihood going to be Cutler Bay, more specifically the area surrounding the Southland Mall. For decades this area has been designated a regional urban center. The Town has codified this description subsequent to its incorporation. Therefore transportation, as a way of handling this potential growth is going to play a major role in shaping the quality of life for the community. This is not a solitary issue. Its treatment is complex, and has much to do with social, economic and land use policy.



South Dade has an urban development boundary. It has been in place since the 1970's not to slow growth, but to position growth it so that its implementation is efficient and promotes the conservation of resources and services. In a highly desirable community that is historically prone to huge cycles of development resulting in large boom and bust periods, and which is large part developed by speculative interests, many of whom are not stakeholders in the community, this is practical. Yet ultimately when the public is asked to "hold the line" on development outside the boundary, it is really being asked to accept the pending development, (estimated at nearly 30,000 people per year) within the existing development area which is centered around US-1, and often less than a mile from its actual right of way. The reconciliation of the two choices is not clear in the minds of many. The resulting form of the urban environment would be vastly different from what exists at this time. Not only is the change hard to conceptualize, but it creates uncertainty within the community, relative to how to deal with the impacts of the coming traffic. From a planning perspective, a new urban form which is more compact and adequately supplied with the appropriate transportation infrastructure, would have less a impact relative on traffic and mobility on the South Dade as a whole than if development were to proceed unchecked. Yet this belief does

not have the consensus of the community, and the perception of the changes is that the community will be subject to sever congestion as a result. It is anticipated that the projects stemming from this master plan will ameliorate the concern by efficiently and affectively addressing transportation as it attempts to service the land use, well into the future.

Until recently the Cutler Ridge area was located in between the two growing urban centers of Miami and Homestead. In the past 20 years these two centers have nearly grown into one another, and Cutler Bay is now essentially the geographic center of the County. Yet since the early part of the 20th Century it has maintained a distinct area with a history and personality of its own, that incorporation should not change but become a part of. Citizens and community leaders strive to maintain that character as time goes on. A primary opportunity to do so is Old Cutler Road. Designated as an historic road in the 1970's it has limitations on what can be done on and around it.



The primary residential area of Cutler Bay is built out. Perhaps new development will be seen in the Town Center area. South Dade however, mainly south and west of the town, is under the continuous pressure. What ever stagnation is currently being seen in the residential and commercial real estate sectors is surely temporary, and from a planning standpoint welcome, so the community has time to catch up with a well thought out strategy. As communities to the north like Palmetto Bay and Pinecrest have experienced, major impacts to the roadway network will come from development outside of the town as the traffic flows north in the morning and south in the afternoon. Until a more balanced jobs/housing split can be accomplished the traffic will continue to be highly directional. The Town understands this and is focused on moving traffic efficiently at the appropriate level of service. Bottlenecks and congestion will ultimately result in traffic diversions as drivers seek alternative routes through the residential neighborhoods, creating a negative situation. If devices like traffic circles, and signal flow modifications can be implemented at constrained intersections, the latent capacity of the roadway network can be realized, ultimately promoting a causal flow of traffic. At the same time the community is relatively compact and all most all parts of it can

be reached by biking or walking. Yet a sufficient network of these facilities does not presently connect residential, recreational and commercial centers.

The Busway is a remarkable piece of transit infrastructure that handles over 20,000 riders each day. It works appropriately for the existing population base, but the Town is concerned that it be further developed in anticipation of the pending growth. The continued development of park-and-ride facilities, as well as necessary infrastructure which would more easily allow it to accommodate other higher capacity forms of transit should be planned and built with an eye toward the future. No matter what the project, the Town is focused on it being implemented in an environmental friendly manner. This places an emphasis on efforts that consume less fuel, a shift to alternative transportation, and provide incentive for compact development.

From the above analyses, it can generally be seen that most of the major roadways will see their level of service worsen between the year 2008 and the year 2030. As mentioned in the previous chapter, not only were there 23 roadway segments found with deficiencies over time, but twenty four intersections were identified with safety, capacity and operational deficiencies.

Overall Cutler Bay is highly accessible by automobile or transit. Most of the Town is served by sidewalks. These should be enhanced when possible. Additionally, pedestrian and bicycle facilities should be implemented and coordinated with county plans. Bicycle lanes should be implemented on roadways as appropriate. As future Metrorail transit stations are developed appropriate bicycle and pedestrian facilities should connect them.

In addition to reviewing existing transportation facilities and services within the existing land use environment, growth and its potential local future effects were also reviewed by obtaining the projected land use type and the growth forecast for those land uses, and what transportation facilities in Cutler Bay would likely be affected by such growth. Particular attention was paid to areas surrounding the Town's major existing and planned travel corridors.

From the public involvement portion of this project, Cutler Bay's citizens, professional staff, and elected leaders suggested several areas, or specific facilities, which could benefit from improvement. The suggestions covered a wide range, such as specific transportation efforts like adding sidewalks, turn lanes, or median treatments to improve traffic and pedestrian flows. Additionally ideas like access to the turnpike, recommendations to review intersection signal spacing and timing to improve traffic flows, implementation of traffic circles and traffic calming, and changes in transit

services to provide better coverage or more frequent service, were suggested. From a policy perspective, non-specific but beneficial actions such as becoming more involved in the county and regional planning processes, and becoming more involved in concurrency management and improving the integration of land use and transportation planning were enumerated.

Cutler Bay's role through this report is to present multimodal strategies (with the consensus of the community) that can be implemented through the appropriate means at the local, county and state levels. These may be related to physical capacity, transit or transportation management strategies. As time progresses, land use changes, as well as normal anticipated growth within the Town and region, will continue to place increased demands on the transportation system.

The following tables consist of the projects by category, each described briefly with a purpose and a need. Costs to plan, design and construct each project, if applicable, are listed and totaled. A project map is provided for each category. These projects will be prioritized in the next chapter titled "Prioritization."

Capacity Projects

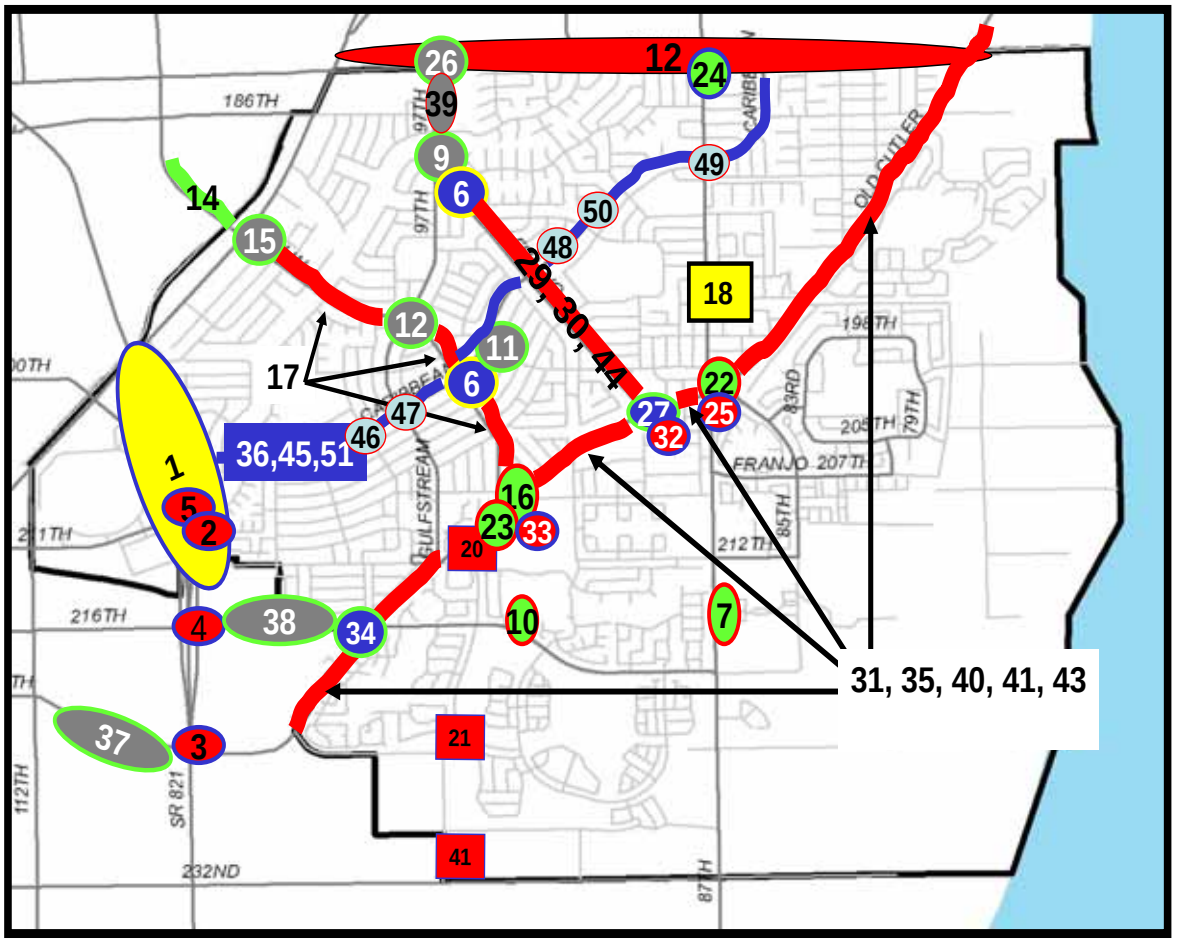
#	Project Name	Purpose and Need	Cost			
			Planning	Design	Construction	Total
1	**Study Turnpike Access In Cutler Bay**	Relieve Congestion on other Corridors, Must coordinate with FDOT and Turnpike to initiate study. Have Planning Level Analysis placed on next round of LRTP	$ 50,000	NA	NA	**$ 50,000**
2	**Turnpike Access at 224th St and 212st, 232st, 216 St**	Congestion relief	$ 600,000	$ 1,000,000	$ 8,400,000	**$ 10,000,000**
3	**Turnpike / 211st**	Operational analysis. Said to be a dangerous intersection. MDCPW can initiate study quickly. LOS improvement from D to C in AM and from F to C in PM	$ 10,000	NA	NA	**$ 10,000**
4	**Marlin / Caribbean Traffic Circle**	Level of service issues exist on both roads in all time horizons. Must prove boat and large vehicle access. If no circle provide signal operations analysis to improve signal timing and phasing	$ 15,000	$ 25,000	$ 210,000	**$ 250,000**
5	**216th St / 87 Ave, Turn Lane**	Provide Striping, an exclusive SB right turn lane on 87 ave. Will improve PM LOS from D to C	$ 15,000	$ 25,000	$ 210,000	**$ 250,000**
6	**Signal Warrant Analysis 97 Ave / 216th St**	Level of service problems exist in all time horizons, north of area	$ 8,500	NA	NA	**$ 8,500**
7	**Signal Warrant Analysis Sterling / Franjo**	Level of service problems exist in all time horizons	$ 8,500	NA	NA	**$ 8,500**
8	**216 St / 97 Ave Turn Lane**	Add exclusive Left Turn Lane before removing striping. This may improve LOS from E to D in the morning	$ 15,000	$ 25,000	$ 210,000	**$ 250,000**
9	**Cutler Ridge Drive / Franjo Intersection Operation Analysis**	Said to be a dangerous intersection, a study can be done in the near term inexpensively. Should request it of MDCPW	$ 8,500	NA	NA	**$ 8,500**
10	**Do not widen 184 St**	Conflicting opinion between stakeholders	$ -	$ -	$ -	**NA**
11	**Marlin / Gulfstream Intersection Analysis**	Operational Analysis Said to be a dangerous intersection, a study can be done in the near term inexpensively. Should request it of MDCPW Only slight LOS improvement results	$ 8,500	NA	NA	**$ 8,500**
12	**Marlin between US-1 and 107 Ave; LOS improvements**	Deficient 1 lane in 2008, -1.3lanes 2015, - 1.7 lanes 2030	$ 15,000	$ 25,000	$ 210,000	**$ 250,000**
13	**Marlin / US-1, Signal Analysis**	Signal operations analysis. Will improve flow, but no LOS problems currently exist. Study is simple and easy to perform	$ 8,500	NA	NA	**$ 8,500**
14	**Marlin / OCR Lane Addition**	Change South bound approach on old cuter road from 1 lane to a 2 lane approach. This would improved LOS from E to B	$ 15,000	$ 25,000	$ 210,000	**$ 250,000**
15	**Marlin Operational Analysis Between Old Cutler Road and 107th Avenue**	Deficient 0.25 of a lane in 2008, (- 0.3 lane in 2015), (-.03 lane and -1.7 lane in 2030). Would lead to design and Construction if warranted	$ 12,000	$ 20,000	$ 168,000	**$ 200,000**
16	**Paving in front of Eastridge**	Easily Implemented with no coordination needed	$ 600	$ 1,000	$ 8,400	**$ 10,000**
17	**Circle 97th Ave / Franjo**	Both roads have level of service problems in all horizons. This proposes to undertake a study of the situation.	$ 15,000	$ 25,000	$ 210,000	**$ 250,000**

Capacity Projects

#	Project Name	Purpose and Need	Cost			
			Planning	Design	Construction	Total
18	**Connect 97 Ave across OCR**	Provides greater access and promotes traffic dispersion. Requires coordination with MDCPW	$ 126,000	$ 210,000	$ 1,764,000	**$ 2,100,000**
19	**Keep 97 Ave closed at 224**	Protects residential neighborhood from traffic intrusion. Requires no action	$ -	$ -	$ -	**NA**
20	**87 Ave @ Old Cutler Road. Add Left Turn Lane (prior to circle implementation)**	OCR has sever LOS problems. Capacity can only be gained at intersections	$ 15,000	$ 25,000	$ 210,000	**$ 250,000**
21	**Marlin/OCR Traffic Circle in front of Potato Field**	Both roads have level of service problems in all horizons. This proposes to undertake a study of the situation.	$ 21,000	$ 35,000	$ 294,000	**$ 350,000**
22	**87 Ave/ 184 St, Eastbound Right Turn Lane**	Neither road has LOS problems. Intersection may. The Town has received several calls during the AM peak rush hours, for the installation of an "eastbound" dedicated turning arrow. Residents who need to get to US- 1 and the Florida Turnpike using SW 184 Street are experiencing delays at this intersection. Study is easily implemented.	$ 15,000	$ 25,000	$ 210,000	**$ 250,000**
23	**87 Ave/ Old Cutler Road; Left Turn Signal**	No level of service problems exist on roadway now or in future. Warrant Analysis can be done inexpensively and quickly to determine actual need. Implementation can be done in near term if warranted	$ 7,000	NA	NA	**$ 7,000**
24	**Franjo / 184 St, Signal Analysis**	Signal operations analysis. Will improve flow, but no LOS problems currently exist. Study is simple and easy to perform	$ 8,500	NA	NA	**$ 8,500**
25	**Franjo / Cutler Ridge Dr. Signal Analysis**	Provide chanalizaton and exclusive left turn lanes on Franjo. No sig improvement in LOS . This proposes to undertake an operational study of the situation.	$ 8,500	NA	NA	**$ 8,500**
26	**Franjo Between Old Cutler and 97th Avenue, Lane Addition**	Deficient 0.3 and 0.7 lanes in 2008, -1 lane in 2015, - more than 1 lane in 2030	$ 15,060	$ 25,100	$ 210,840	**$ 251,000**
27	**Center Turn Lanes on Franjo**	Level of service problems exist in all time horizons.	$ 66,000	$ 110,000	$ 924,000	**$ 1,100,000**
28	**Old Cutler Road Operational Analysis between 112th St and 77th Ave**	Deficient between less that 1 lane in 2008, (- 0.2 and 1.2 lanes in 2015) , (-0.3 and 1 lane 2030)	$ 1,500	$ 2,500	$ 21,000	**$ 25,000**
29	**Old Cutler Road / Franjo, Lane Extension**	Extend Exclusive Left Turn lane on the east bound approach. Add left turn signal Level of service problems exist in all time horizons. This will improve safety and operations	$ 19,200	$ 32,000	$ 268,800	**$ 320,000**
30	**Marlin and 208 St, Lane Subtraction**	Remove eastbound Excusive Left Turn Lane. Will improve intersection operations	$ 1,800	$ 3,000	$ 25,200	**$ 30,000**
31	**Old Cutler Road / 216th St, Turn Lane Addition**	Provide EB to NB left turns only. Will improve safety	$ 24,000	$ 40,000	$ 336,000	**$ 400,000**

Capacity Projects

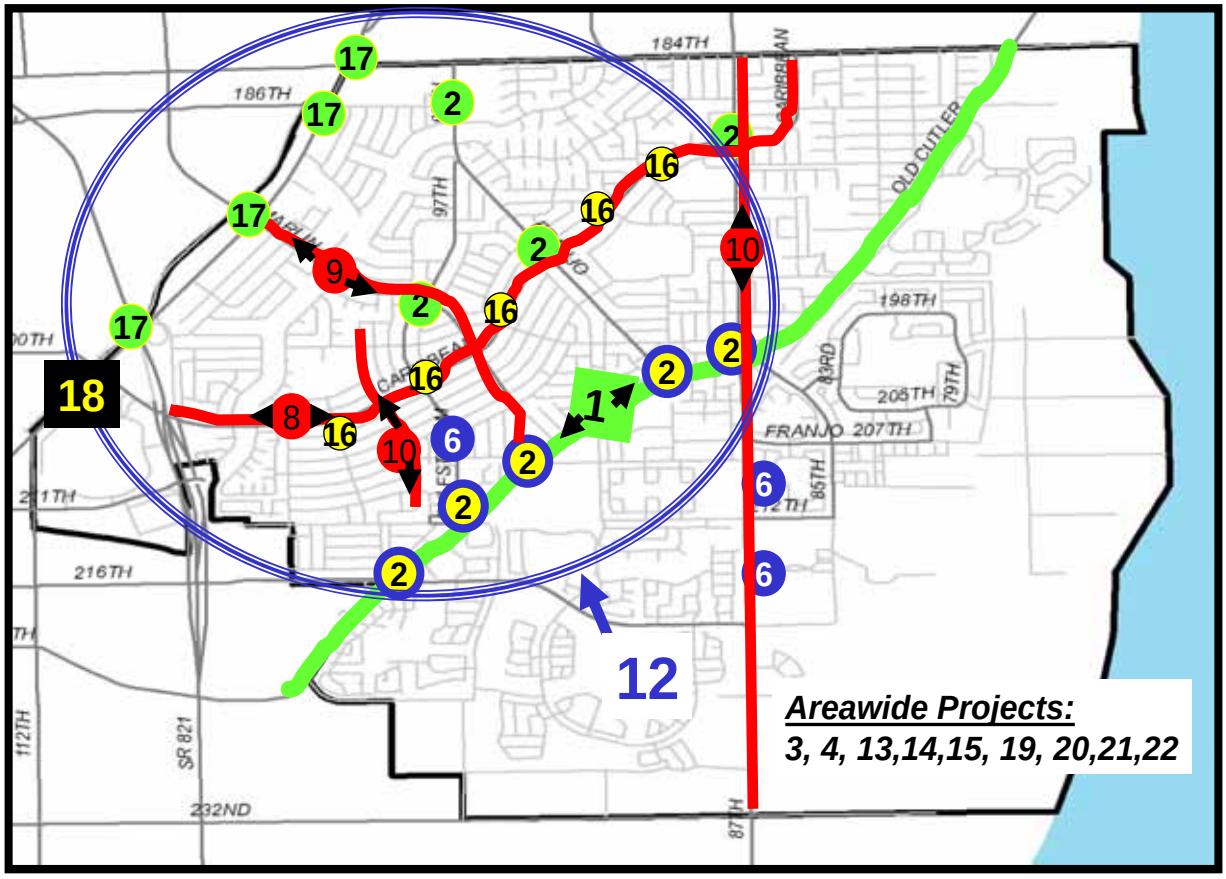
#	Project Name	Purpose and Need	Cost			
			Planning	Design	Construction	Total
32	Roundabouts on Old Cutler Road	Several Level of service problems will exist. No ability to widen, so capacity can only be gained at intersections.	$ 15,000	$ 25,000	$ 210,000	$ 250,000
33	Caribbean Capacity Improvements, Between 117 Ave and 97th Avenue	Deficient 0.8 lanes in 2008, (- 0.8 lanes in 2015) (-1 and -2 lanes in 2030)	$ 15,000	$ 25,000	$ 210,000	$ 250,000
34	211 Street Operational Analysis at intersections between 112 Ave and SR 821	Surplus capacity until 2030 (- 0.2 lanes by 2030)	$ 20,000	NA	NA	$ 20,000
35	216th Street Operational Analysis, between SR 821 and 97th Ave	Surplus Capacity until 2030 (- 0.2 lane by 2030)	$ 20,000	NA	NA	$ 20,000
36	Gulfstream Intersections Analysis Between Franjo and 184th Street	Deficient 0.3 of a lane in 2008, (- 0.6 lane by 2015), (-0.8 lane by 2030)	$ 20,000	NA	NA	$ 20,000
37	Signal Progression Analysis	Examine all main corridors and evaluate the 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	$ 130,000	NA	NA	$ 130,000
38	Close 97 Ave North of 232 St and SW 224st West of 97 Ave	Will improve safety	NA	$ 500	$ 4,500	$ 5,000
39	Fix traffic congestion on OCR in front of Publix	This project will relieve traffic congestion along OCR, and will speed access to and from the center	$ 13,800	$ 23,000	$ 193,200	$ 230,000
40	Intersections on Caribbean are at bad angles and difficult to access. Examine these	90 degree intersections are more safe that intersections at angles. An operational study would determine the feasibility of this	$ 15,000	NA	NA	$ 15,000
41	Add turn lanes at intersections south of Franjo	Operational analysis should determine if ROW exists to insert turn lanes. These lanes would aid traffic flow and improve level of service	$ 30,000	$ 50,000	$ 420,000	$ 500,000
42	Caribbean, build third lane at intersections, then use a grassed and landscaped center median	The third lane would be used at intersections as a turn lane, the space for this lane between intersections could be a landscaped median adding character to the street. Study this and determine if ROW exists and if lack of a third lane between intersections would have a beneficial impact on traffic	$30,000/int	$50,000/int	$420,000/int	$500,000 / Intersection
43	Caribbean / Coral Sea Lane Addition	Potentially part of the County Funded Project. Provide exclusive Eastbound Left Turn Lane. Will improve intersection LOS from D and C to B	$ 15,000	$ 25,000	$ 210,000	$ 250,000
44	Caribbean / Gulf Stream, Lane Addition	Potentially part of the County Funded Project. Provide exclusive Eastbound Left turn land on Caribbean. Will improve safety but not LOS as it is LOS A now	$ 15,000	$ 25,000	$ 210,000	$ 250,000
45	Caribbean / Franjo, Signal Study	Potentially part of the County Funded Project. Signal operation analysis to improve phasing and timing . Request from County	$ 8,500	NA	NA	$ 8,500
46	Caribbean / 87 Ave, Signal Analysis	Potentially part of the County Funded Project. Signal operations analysis. Will improve flow, but no LOS problems currently exist. Study is simple and easy to perform	$ 8,500	NA	NA	$ 8,500
47	Caribbean / 192 St, Operation Analysis	Potentially part of the County Funded Project. Said to be a dangerous intersection. Potential for a traffic circle. Have MDCPW investigate Currently meets need for traffic calming	$ 15,000	$ 25,000	$ 210,000	$ 250,000
48	Operations analysis at all Caribbean intersections	Examine all intersections to determine what types of improvements could be implemented to mitigate level of service issue. This may include signalization, circles, turning lanes etc.	$ 50,000	NA	NA	$ 50,000



Capacity Projects

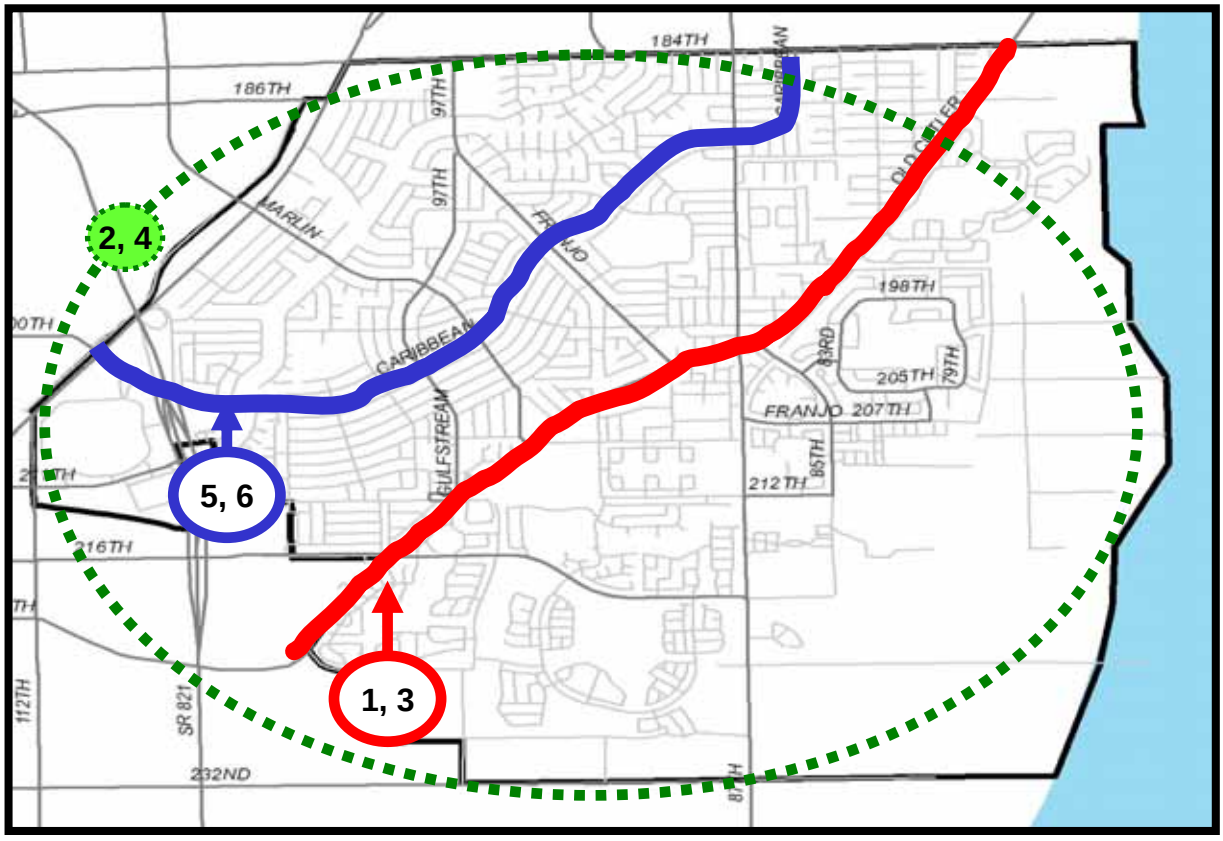
Alternative Mode Projects

#	Project Name	Purpose and Need	Cost			
			Planning	Design	Construction	Total
1	Maintain OCR Bike path.	The Old Cutler Road bicycle path is in disrepair. This project would try to get the County to undertake regular maintenance to remove stumps, low hanging branches and provide smooth pavement	$ 30,000	$ 50,000	$ 420,000	$ 500,000
2	Cross walks and pedestrian count down signals at major intersections	To aid in pedestrian safety these items should be evaluated and installed at major intersections, such as the crossing of all section line and half section line roads or where there are noted safety problems 20 intersections budgeted. (5k/intersection)	$ 6,000	$ 10,000	$ 84,000	$ 100,000
3	Safe Routes to School Program	Safe routes to school is a federally incentivized program to encourage children to walk and bike to school (10k Per School)	$ 33,000	$ 55,000	$ 462,000	$ 550,000
4	Bicycle and Pedestrian Master Plan	This project would provide specific details in the Bicycle and Pedestrian network, locating bike routes, lanes, sidewalks, crossing aids and signage. It would focus on connecting parks and schools with a safe network	$ 63,000	$ 105,000	$ 882,000	$ 1,050,000
5	School loading zones	Each schools loading zone should be examined to assure that the loading and unloading vehicles are able to clear the travel lanes and children are able to access vehicles safely	$ 720	$ 1,200	$ 10,080	$ 12,000
6	Bicycle Racks at Schools	These amenities would encourage children to bike to school	NA	NA	$ 10,000	$ 10,000
7	Bike lanes on:	Study these amenities to determine if ample right of way exists to implement these facilities and gauge public and county opinion. Determine if lanes can be separated by curbing, (21,000 / Mile)				
	Caribbean		$ 3,600	$ 6,000	$ 50,400	$ 60,000
	Marlin		$ 1,920	$ 3,200	$ 26,880	$ 32,000
	Coral Sea Rd		$ 1,380	$ 2,300	$ 19,320	$ 23,000
	87 Ave		$ 4,200	$ 7,000	$ 58,800	$ 70,000
8	Transit Circulator (Green)	Test and implement a transit circulator on a route that fulfills a need, such as designed by the initial elderly transportation committee.	$ 5,000	NA	$ 85,000	$ 90,000
9	Lower headways of buses	Request that Miami Dade Transit Buses maintain the lowest time between buses arriving at a stop possible, noting budget constraints. 15 to 30 minutes is desirable	$ -	$ -	$ -	TBD
10	Adopt county bike network	Miami Dade County has a new recreational trails network. This should be adopted by the Town and enhanced with local projects	$ -	$ -	$ -	NA
11	Develop a Recreational Trail signage schedule	Directional signage should be designed and implemented to direct people to the recreational trail network	$ 1,440	$ 2,400	$ 20,160	$ 24,000
12	Bus Pull Out bay on Caribbean.	Bus pull out bays would enable buses that are loading and unloading to do so out of travel lanes, which would aid in the movement of traffic on the local streets. ($6,000 /Bay)	$ 2,400	$ 4,000	$ 33,600	$ 40,000
13	Pedestrian Crossings at US-1	Determine the appropriate locations to provide safe and effective pedestrian crossings from major generators to Busway stops. Consider pedestrian bridges coupled with closed medians which will prevent "j"walking ($16,000 / Xwalk)	$ 4,800	$ 8,000	$ 67,200	$ 80,000
14	Park and Ride Lots along the Busway	Work to implement park and ride facilities along the Busway to entice greater ridership	$ -	$ -	$ -	TBD
15	Liaison with South Florida Commuter Services	South Florida Commuter Services is a Transporation Management Organization which organizes Transportation Demand Management initiaves like carpools for our region	$ -	$ -	$ -	TBD
16	Bus Shelters	Bus shelter can increase transit ridership and make the riding experience more comfortable ($10,000 / Shelter)	$ 17,880	$ 29,800	$ 250,320	$ 298,000
17	ADA Compliant sidewalks	The American Disabilities Act requires that sidewalks have certain amenities such as ramps and clear paths to allow those that are handicapped the same mobility as those who are not.	$ -	$ -	$ -	TBD
18	Evaluate Parking Sufficiency Performing Arts Center	Study the sufficiency of the planned parking at the performing arts center by assessing the need by examining parking generation rates from the Institute of Transporation Engineers. Determine if addition parking is needed and work with the County to develop parking	$ 25,000	NA	NA	$ 25,000



Alternative Mode Projects

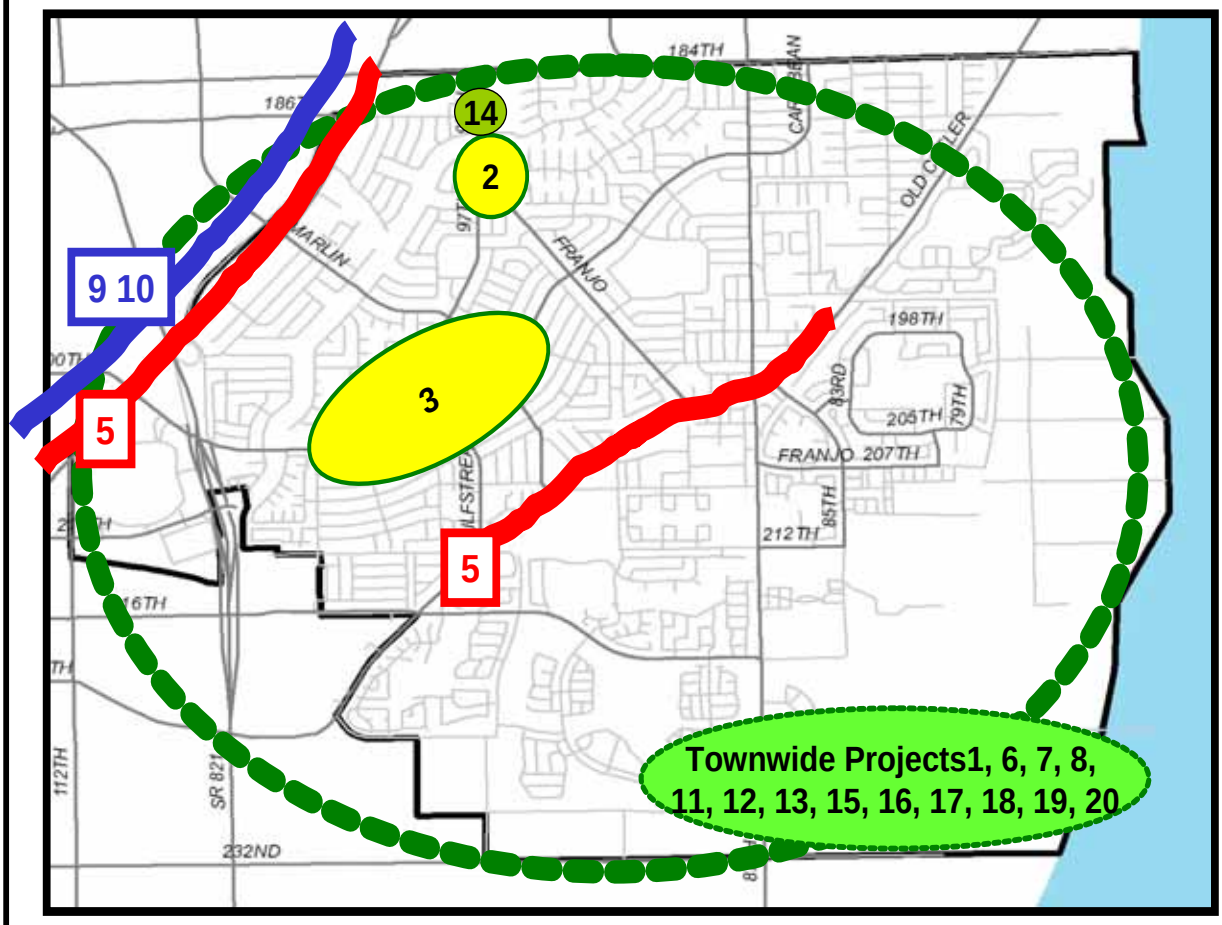
Corridor Projects			Cost			
#	Project Name	Purpose and Need	Planning	Design	Construction	Total
1	Eliminate curb cuts on OCR	Study fewer curb cuts would reduce traffic friction and provide enhanced traffic flow	$ 18,000	$ 30,000	$ 252,000	$ 300,000
2	Townwide streetscape program Livable communities program)	Aesthetics of the roadways are integral to enhancing the character of the community. Main corridor rights of way should be evaluated and streetscape programs including street trees, benches, trash cans , lighting and other street furniture be implemented as appropriate	$ 30,000	NA	NA	$ 30,000
3	Lighting on OCR	Pedestrian lighting would provide a safer environment in which to walk. Provide analysis and Study	$ 13,800	$ 23,000	$ 193,200	$ 230,000
4	Street Repaving Program	Evaluate paving conditions on all streets and develop a 5yr program to repave	$ 606,000	$ 1,010,000	$ 8,484,000	$ 10,100,000
5	Evaluate Caribbean ROW to see where more trees can go	Tree plantings would add character to the street	$ 10,000	NA	NA	$ 15,000
6	Curbing at all Caribbean intersections. Increase turning Radii to make it easy for turns and to protect yards from getting beat up	Curbing at intersections would protect landscaping from being destroyed by cars and trucks rolling over it. Increased turning radii would allow vehicles to more easily make the turns with out running over curbs. ($10,000 / Intersection)	$ 7,800	$ 13,000	$ 109,200	$ 130,000



Corridor Projects

Policy Projects

#	Project Name	Purpose and Need	Cost			
			Planning	Design	Construction	Total
1	Complete Streets	This is a program which provides incentive to have streets that accommodate all vehicle types. It should be evaluated and a potential policy considered to implement some of its concepts	$ 50,000	NA	NA	$ 50,000
2	Traffic Calming Program in Residential Area	Traffic intrusion is said to be an issue in several neighborhoods. Where it is most sever, the areas should be evaluated using accepted county procedures so that proper traffic calming tools can be selected	$ 15,000	TBD	TBD	
3	Sterling		$ 15,000	TBD	TBD	
4	Caribbean					$ 30,000
5	Allow cross access easements	Cross access easements would allow vehicles and pedestrians to cross between properties along transportation corridors like US-1 with out having to re-enter the roadway facility. This would improves traffic flow and safety. Study feasibility and impacts	$ 15,000	TBD	TBD	$ 15,000
6	"Adopt a Hwy" for roadway maintenance funding	This is a funding program that may add funding capability for projects.	NA	NA	NA	NA
7	Bicycle Boulevards (Designate some streets as walkable streets)	Conflicts between modes kills more people in Florida than any other state. Separating facilities would be helpful. Study appropriate locations as part of Bicycle Pedestrian Master Plan	NA	NA	NA	NA
8	Impact Fees from Developers For Infrastructure	As development continues, impacts need to be mitigated. This can be done by having the developer pay their fair share of the cost of the improvement.	$ 50,000	NA	NA	$ 50,000
9	Support Projects that Speed Implementation of Metrorail	The community has expressed its desire to have Metrorail. To attain it the Town can support the projects that would contribute to the issue that would create the need for it.	NA	NA	NA	NA
10	Support Managed Lanes Study	The next level of the managed lanes study would determine if there are any fatal flaws to the concept. It would tell if the idea should be carried forward or stopped.	NA	NA	NA	NA
11	Keep trucks out of residential areas	Evaluate appropriate truck routes. Develop a program and have it approved	$ 20,000	NA	NA	$ 20,000
12	Explore long term creative technologies like Magnetic Levitation.	Support the exploration of future technologies. Seek study and grant opportunities and partner with FDOT to develop. Opportunities exist.	$ 5,000	NA	NA	$ 5,000
13	Search for federal partnerships on pilot programs.	SAFTEA-LU and the next federal transportation authorization will have pilot programs. Determine what these are and if they would be desirable. Work with FDOT to develop	$ 5,000	NA	NA	$ 5,000
14	Church at Franjo/184 Fix Parking	Parking is on swale. Remove that parking or reinforce swale with pavers blocks. Parking in this area destroys landscaping and sod. Study a solution and implement	$ 7,000	NA	NA	$ 7,000
15	Concurrency Management System	It is the law that concurrency be managed to determine if development should progress. Implement a system that is capable of measuring and tracking remaining capacities in all categories.	$ 50,000	NA	NA	$ 50,000
16	Consider Transportation Concurrency Management Area (TCMA) as capacity deteriorates, and to foster development at the Mall	As capacities deteriorate, the next level of concurrency measurement, that will allow development to continue is the TCMA concept which measures capacity on an Areawide basis. It provides incentive for redevelopment and infill development. Produce as an amendment to Transporation Element	$ 40,000	NA	NA	$ 40,000
17	FDOT LAP Certification	LAP certification will enable the Town to build a funding and project relationship with FDOT which can expedite project development	$ 5,000	NA	NA	$ 5,000
18	Actively coordinate with other governments and agencies	To fully understand the transportation system in our region it will be important to coordinate with other governments and agencies.	NA	NA	NA	NA
19	Work to attain Peoples Transportation Plan funding	Few cities in the county do not have funding through the 2002 Peoples Transporation Plan. This money would help the Town address specific transportation and transit issues	NA	NA	NA	NA
20	Prepare For Stimulus Package	The new stimulus package could funnel nearly $300 Billion into infrastructure projects over the next four years. In the short term a list of ready to construct projects should be developed and submitted to local and state agencies. Other longer term projects should be put into the design phase.	NA	NA	NA	NA



POLICY PROJECTS

Task 5: Prioritization

Prioritization of Cutler Bay Projects

This chapter prioritizes the projects listed in the previous chapter. The prioritization aspect of the task reviewed the projects nominated and selected for the Project Bank. 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, and quality of life issues is important in evaluating the projects. A simplified scoring system was developed measuring how well the projects met the criteria. A plus sign (+) was given if the project matched the criteria in a positive manner. A (+/-) sign was given if the projects were neutral to the criteria. A minus sign (-) was given if the projects matched up negatively wit the criteria. Colors of green were given for positive ratings; yellow given for neutral ratings; and red for negative ratings. Those with the most positive ratings (green colors) were ranked highest.

Sample Prioritization Table

Project	Purpose and Need	Criteria 1	Criteria 2	Criteria 3
Project Number 1	Explanation	+	+/-	-
Project Number 2	Explanation	-	+	+
Project Number 3	Explanation	-	-	+/-

The prioritization criteria include:

- Providing transit to the transportation disadvantaged and elderly
- Maintaining the character of the community
- Implementing environmental friendly improvements
- Reducing traffic intrusion in the residential neighborhoods
- Assuring that traffic flows at a reasonable pace
- Promoting pedestrian and bicycle safety
- Effectively using the Busway
- Connecting traffic generators
- Assure that proper infrastructure is in place at the time of development

The goal in prioritization was to rank projects and assign a time horizon in which they could be implemented. It was the approach to initially undertake projects where mitigated problems were most easily implemented and then move to projects that could solve level of service deficiencies in an inexpensive manner. As always the Town is most concerned with projects that, while effective and efficient, also make the community safer and can be done with green principals in mind. While movement of cars in the peak hours through maintaining adequate levels of service are important, the community prefers to balance vehicular level of service with transit and pedestrian level of service. In that sense flow is important, but high speeds are discouraged. Many of the solutions can maintain the Towns character, but the selection of remedies that simply move the problems to other areas would be a negative. Projects are evaluated in the following tables and are displayed in order of the most favorable evaluation. For continuity each has retained its initial project number.

Capacity Projects

#	Project Name	Purpose and Need	Prioritization Criteria								Time Frame
			Ease of Implementation	Efficient	Effective	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains Town Character	Reduces Traffic Intrusion	
20	87 Ave @ Old Cutler Road. Add Left Turn Lane (prior to circle implementation)	OCR has sever LOS problems. Capacity can only be gained at intersections	+	+	+	+	+	+	+	+	Near Term
21	Marlin/OCR Traffic Circle in front of Potato Field	Both roads have level of service problems in all horizons. This proposes to undertake a study of the situation.	+	+	+	+	+	+	+	+	Near Term
32	Roundabouts on Old Cutler Road	Several Level of service problems will exist. No ability to widen, so capacity can only be gained at intersections.	+	+	+	+	+	+	+	+	Near Term
33	Caribbean Capacity Improvements, Between 117 Ave and 97th Avenue	Deficient 0.8 lanes in 2008, (- 0.8 lanes in 2015) (-1 and -2 lanes in 2030)	+	+	+	+	+	+	+	+	Near Term
42	Caribbean, build third lane at intersections, then use a grassed and landscaped center median	The third lane would be used at intersections as a turn lane, the space for this lane between intersections could be a landscaped median adding character to the street. Study this and determine if ROW exists and if lack of a third lane between intersections would have a beneficial impact on traffic	+	+	+	+	+	+	+	+	Near Term
47	Caribbean / 192 St, Operation Analysis	Potentially part of the County Funded Project. Said to be a dangerous intersection. Potential for a traffic circle. Have MDCPW investigate Currently meets need for traffic calming	+	+	+	+	+	+	+	+	Near Term
48	Operations analysis at all Caribbean intersections	Examine all intersections to determine what types of improvements could be implemented to mitigate level of service issue. This may include signalization, circles, turning lanes etc.	+	+	+	+	+	+	+	+	Near Term
16	Paving in front of Eastridge	Easily Implemented with no coordination needed	+	+	+	+	+	+	+	+	Long Term
39	Fix traffic congestion on OCR in front of Publix	This project will relieve traffic congestion along OCR, and will speed access to and from the center	+	+	+	+	+	+	+	+	Near Term
17	Circle 97th Ave / Franjo	Both roads have level of service problems in all horizons. This proposes to undertake a study of the situation.	+	+	+	+	+	+	+	+	Long Term
28	Old Cutler Road Operational Analysis between 112th St and 77th Ave	Deficient between less that 1 lane in 2008, (- 0.2 and 1.2 lanes in 2015) , (-0.3 and 1 lane 2030)	+/-	+	+	+	+	+	+	+	Near Term
14	Marlin / OCR Lane Addition	Change South bound approach on old cuter road from 1 lane to a 2 lane approach. This would improved LOS from E to B	+	+	+	+	+	+	+/-	+	Near Term
15	Marlin Operational Analysis Between Old Cutler Road and 107th Avenue	Deficient 0.25 of a lane in 2008, (- 0.3 lane in 2015), (-.03 lane and -1.7 lane in 2030). Would lead to design and Construction if warranted	+	+	+	+	+	+	+/-	+	Long Term
19	Keep 97 Ave closed at 224	Protects residential neighborhood from traffic intrusion. Requires no action	+	+	+	+	+/-	+/-	+	+	Near Term
27	Center Turn Lanes on Franjo	Level of service problems exist in all time horizons.	+/-	+	+	+	+	+	+/-	+	Near Term
37	Signal Progression Analysis	Examine all main corridors and evaluate the 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	+/-	+	+	+/-	+/-	+	+	+	Near Term
4	Marlin / Caribbean Traffic Circle	Level of service issues exist on both roads in all time horizons. Must prove boat and large vehicle access. If no circle provide signal operations analysis to improve signal timing and phasing	+/-	+	+	+/-	+	+	+/-	+	Near Term

Capacity Projects

#	Project Name	Purpose and Need	Prioritization Criteria								
			Ease of Implementation	Efficient	Effective	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains Town Character	Reduces Traffic Intrusion	Time Frame
6	Signal Warrant Analysis 97 Ave / 216th St	Level of service problems exist in all time horizons, north of area	+	+	+	+/-	+/-	+/-	+/-	+	Near Term
7	Signal Warrant Analysis Sterling / Franjo	Level of service problems exist in all time horizons	+	+	+	+/-	+/-	+/-	+/-	+	Near Term
3	Turnpike / 211st	Operational analysis. Said to be a dangerous intersection. MDCPW can initiate study quickly. LOS improvement from D to C in AM and from F to C in PM	+/-	+/-	+/-	+/-	+	+	+	+	Near Term
12	Marlin between US-1 and 107 Ave; LOS improvements	Deficient 1 lane in 2008, -1.3lanes 2015, - 1.7 lanes 2030	+/-	+/-	+	+	+	+	+/-	+	Near Term
26	Franjo Between Old Cutler and 97th Avenue, Lane Addition	Deficient 0.3 and 0.7 lanes in 2008, -1 lane in 2015, - more than 1 lane in 2030	+/-	+/-	+	+	+/-	+	+/-	+/-	Long Term
43	Caribbean / Coral Sea Lane Addition	Potentially part of the County Funded Project. Provide exclusive Eastbound Left Turn Lane. Will improve intersection LOS from D and C to B	+/-	+	+	+/-	+/-	+/-	+/-	+	Near Term
44	Caribbean / Gulf Stream, Lane Addition	Potentially part of the County Funded Project. Provide exclusive Eastbound Left turn land on Caribbean. Will improve safety but not LOS as it is LOS A now	+/-	+	+	+/-	+/-	+/-	+/-	+	Near Term
45	Caribbean / Franjo, Signal Study	Potentially part of the County Funded Project. Signal operation analysis to improve phasing and timing . Request from County	+/-	+	+	+/-	+/-	+/-	+/-	+	Near Term
46	Caribbean / 87 Ave, Signal Analysis	Potentially part of the County Funded Project. Signal operations analysis. Will improve flow, but no LOS problems currently exist. Study is simple and easy to perform	+/-	+	+	+/-	+/-	+/-	+/-	+	Near Term
30	Marlin and 208 St, Lane Subtraction	Remove eastbound Excusive Left Turn Lane. Will improve intersection operations	+/-	+/-	+	+	+/-	+	+/-	+/-	Mid Term
9	Cutler Ridge Drive / Franjo Intersection Operation Analysis	Said to be a dangerous intersection, a study can be done in the near term inexpensively. Should request it of MDCPW	+	+/-	+/-	+	+/-	+/-	+/-	+/-	Mid Term
40	Intersections on Caribbean are at bad angles and difficult to access. Examine these	90 degree intersections are more safe that intersections at angles. An operational study would determine the feasibility of this	+/-	+/-	+/-	+	+/-	+	+/-	+/-	Mid Term
29	Old Cutler Road / Franjo, Lane Extension	Extend Exclusive Left Turn lane on the east bound approach. Add left turn signal Level of service problems exist in all time horizons. This will improve safety and operations	+/-	+/-	+	+	+/-	+/-	+/-	+/-	Near Term
31	Old Cutler Road / 216th St, Turn Lane Addition	Provide EB to NB left turns only. Will improve safety	+/-	+/-	+/-	+	+/-	+/-	+/-	+/-	Mid Term
5	216th St / 87 Ave, Turn Lane	Provide Striping, an exclusive SB right turn lane on 87 ave. Will improve PM LOS from D to C	+/-	+	+	+/-	+/-	+/-	+/-	+	Near Term
10	Do not widen 184 St	Conflicting opinion between stakeholders	+	+	+	+/-	+/-	+	+	-	Long Term

Capacity Projects

#	Project Name	Purpose and Need	Prioritization Criteria								Time Frame
			Ease of Implementation	Efficient	Effective	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains Town Character	Reduces Traffic Intrusion	
36	Gulfstream Intersections Analysis Between Franjo and 184th Street	Deficient 0.3 of a lane in 2008, (- 0.6 lane by 2015), (-0.8 lane by 2030)	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	Long Term
23	87 Ave/ Old Cutler Road; Left Turn Signal	No level of service problems exist on roadway now or in future. Warrant Analysis can be done inexpensively and quickly to determine actual need. Implementation can be done in near term if warranted	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	Mid Term
24	Franjo / 184 St, Signal Analysis	Signal operations analysis. Will improve flow, but no LOS problems currently exist. Study is simple and easy to perform	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	Mid Term
25	Franjo / Cutler Ridge Dr. Signal Analysis	Provide chanalizaton and exclusive left turn lanes on Franjo. No sig improvement in LOS . This proposes to undertake an operational study of the situation.	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	Mid Term
41	Add turn lanes at intersections south of Franjo	Operational analysis should determine if ROW exists to insert turn lanes. These lanes would aid traffic flow and improve level of service	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	Mid Term
1	Study Turnpike Access In Cutler Bay	Relieve Congestion on other Corridors, Must coordinate with FDOT and Turnpike to initiate study. Have Planning Level Analysis placed on next round of LRTP	-	+/-	+/-	+/-	+	+	+	+	Mid Term
2	Turnpike Access at 224th St and 212st, 232st, 216 St	Congestion relief	-	+/-	+/-	+/-	+	+	+	+	Mid Term
18	Connect 97 Ave across OCR	Provides greater access and promotes traffic dispersion. Requires coordination with MDCPW	-	+/-	+/-	+/-	+/-	+	+/-	+	Long Term
38	Close 97 Ave North of 232 St and SW 224st West of 97 Ave	Will improve safety	-	+/-	+	+	+/-	+/-	+	-	Mid Term
13	Marlin / US-1, Signal Analysis	Signal operations analysis. Will improve flow, but no LOS problems currently exist. Study is simple and easy to perform	+	-	-	-	-	-	+	-	Long Term
8	216 St / 97 Ave Turn Lane	Add exclusive Left Turn Lane before removing striping. This may improve LOS from E to D in the morning	+/-	-	-	+/-	+/-	+/-	+/-	+/-	Near Term
11	Marlin / Gulfstream Intersection Analysis	Operational Analysis Said to be a dangerous intersection, a study can be done in the near term inexpensively. Should request it of MDCPW Only slight LOS improvement results	-	-	-	+/-	+/-	+/-	+/-	+/-	Near Term
22	87 Ave/ 184 St, Eastbound Right Turn Lane	Neither road has LOS problems. Intersection may. The Town has received several calls during the AM peak rush hours, for the installation of an "eastbound" dedicated turning arrow. Residents who need to get to US- 1 and the Florida Turnpike using SW 184 Street are experiencing delays at this intersection. Study is easily implemented.	+/-	-	-	-	-	-	+/-	-	Long Term
34	211 Street Operational Analysis at intersections between 112 Ave and SR 821	Surplus capacity until 2030 (- 0.2 lanes by 2030)	-	-	-	-	-	-	-	-	Long Term
35	216th Street Operational Analysis, between SR 821 and 97th Ave	Surplus Capacity until 2030 (- 0.2 lane by 2030)	-	-	-	-	-	-	-	-	Long Term

Alternative Mode Projects

#	Project Name	Purpose and Need	Prioritization Criteria								Time Frame
			Ease of Implementation	Efficient	Effective	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains Town Character	Reduces Traffic Intrusion	
17	ADA Compliant sidewalks	The American Disabilities Act requires that sidewalks have certain amenities such as ramps and clear paths to allow those that are handicapped the same mobility as those who are not.	+	+	+	+	+	+	+	+	Long Term
1	Maintain OCR Bike path.	The Old Cutler Road bicycle path is in disrepair. This project would try to get the County to undertake regular maintenance to remove stumps, low hanging branches and provide smooth pavement	+	+	+	+	+	+/-	+	+	Near Term
4	Bicycle and Pedestrian Master Plan	This project would provide specific details in the Bicycle and Pedestrian network, locating bike routes, lanes, sidewalks, crossing aids and signage. It would focus on connecting parks and schools with a safe network	+	+	+	+	+	+	+	+/-	Mid Term
6	Bicycle Racks at Schools	These amenities would encourage children to bike to school	+	+	+	+	+	+	+	+/-	Near Term
2	Cross walks and pedestrian count down signals at major intersections	To aid in pedestrian safety these items should be evaluated and installed at major intersections, such as the crossing of all section line and half section line roads or where there are noted safety problems 20 intersections budgeted. (5k/intersection)	+	+	+	+	+/-	+	+/-	+/-	Long Term
3	Safe Routes to School Program	Safe routes to school is a federally incentivized program to encourage children to walk and bike to school (10k Per School)	+/-	+	+/-	+	+	+	+	+/-	Long Term
8	Transit Circulator (Green)	Test and implement a transit circulator on a route that fulfills a need, such as designed by the initial elderly transportation committee.	+/-	+/-	+	+/-	+	+	+	+	Mid Term
15	Liaison with South Florida Commuter Services	South Florida Commuter Services is a Transporation Management Organization which organizes Transportation Demand Management initiaves like carpools for our region	+	+	+	+/-	+	+/-	+/-	+	Long Term
11	Develop a Recreational Trail signage schedule	Directional signage should be designed and implemented to direct people to the recreational trail network	+	+	+	+	+/-	+/-	+/-	+/-	Mid Term
13	Pedestrian Crossings at US-1	Determine the appropriate locations to provide safe and effective pedestrian crossings from major generators to Busway stops. Consider pedestrian bridges coupled with closed medians which will prevent "j"walking ($16,000 / Xwalk)	-	+	+	+	+	+	+	+/-	Long Term
14	Park and Ride Lots along the Busway	Work to implement park and ride facilities along the Busway to entice greater ridership	-	+	+	+	+	+	+/-	+	Long Term
12	Bus Pull Out bay on Caribbean.	Bus pull out bays would enable buses that are loading and unloading to do so out of travel lanes, which would aid in the movement of traffic on the local streets. ($6,000 /Bay)	-	+	+	+	+	+/-	+/-	+	Mid Term
7	Bike lanes on: Caribbean Marlin Coral Sea Rd 87 Ave	Study these amenities to determine if ample right of way exists to implement these facilities and gauge public and county opinion. Determine if lanes can be separated by curbing. (21,000 / Mile)	-	+	+	+	+	+	+/-	+/-	Mid Term
10	Adopt county bike network	Miami Dade County has a new recreational trails network. This should be adopted by the Town and enhanced with local projects	+	+	-	+	+	+/-	+/-	+/-	Near Term
5	School loading zones	Each schools loading zone should be examined to assure that the loading and unloading vehicles are able to clear the travel lanes and children are able to access vehicles safely	+/-	+/-	+	+	+/-	+/-	+/-	+/-	Mid Term
16	Bus Shelters	Bus shelter can increase transit ridership and make the riding experience more comfortable ($10,000 / Shelter)	+/-	+	+/-	+	+/-	+/-	+/-	+/-	Long Term
9	Lower headways of buses	Request that Miami Dade Transit Buses maintain the lowest time between buses arriving at a stop possible, noting budget constraints. 15 to 30 minutes is desirable	-	-	+	+/-	+/-	+/-	+/-	+/-	Mid Term
18	Evaluate Parking Sufficiency Performing Arts Center	Study the sufficiency of the planned parking at the performing arts center by assessing the need by examining parking generation rates from the Institute of Transporation Engineers. Determine if addition parking is needed and work with the County to develop parking	-	+/-	+/-	+/-	+/-	-	+/-	-	Time Frame

Corridor Projects

#	Project Name	Purpose and Need	Prioritization Criteria								Time Frame
			Ease of Implementation	Efficient	Effective	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains Town Character	Reduces Traffic Intrusion	
4	Street Repaving Program	Evaluate paving conditions on all streets and develop a 5yr program to repave	+	+	+	+	+	+	+	+	Near Term
3	Lighting on OCR	Pedestrian lighting would provide a safer environment in which to walk. Provide analysis and Study	+/-	+/-	+	+	+	+/-	+	+/-	Near Term
6	Curbing at all Caribbean intersections. Increase turning Radii to make it easy for turns and to protect yards from getting beat up	Curbing at intersections would protect landscaping from being destroyed by cars and trucks rolling over it. Increased turning radii would allow vehicles to more easily make the turns with out running over curbs. ($10,000 / Intersection)	+	+	+	+	+/-	+/-	+	+/-	Near Term
5	Evaluate Caribbean ROW to see where more trees can go	Tree plantings would add character to the street	+	+/-	+	+/-	+	+/-	+	+/-	Mid Term
1	Eliminate curb cuts on OCR	Study fewer curb cuts would reduce traffic friction and provide enhanced traffic flow	-	+/-	+	+	+/-	+	+/-	+	Near Term
2	Townwide streetscape program Livable communities program)	Aesthetics of the roadways are integral to enhancing the character of the community. Main corridor rights of way should be evaluated and streetscape programs including street trees, benches, trash cans , lighting and other street furniture be implemented as appropriate	+	+/-	+	-	+	-	+	-	Near Term

Policy Projects

#	Project Name	Purpose and Need	Prioritization Criteria								Time Frame
			Ease of Implementation	Efficient	Effective	Promotes Safety	Environmentally Friendly	Promotes Casual Flow	Maintains Town Character	Reduces Traffic Intrusion	
20	Prepare For Stimulus Package	The new stimulus package could funnel nearly $300 Billion into infrastructure projects over the next four years. In the short term a list of ready to construct projects should be developed and submitted to local and state agencies. Other longer term projects should be put into the design phase.	+	+	+	+	+	+	+	+	Near Term
8	Impact Fees from Developers For Infrastructure	As development continues, impacts need to be mitigated. This can be done by having the developer pay their fair share of the cost of the improvement.	+	+	+	+	+	+	+	+	Long Term
19	Work to attain Peoples Transportation Plan funding	Few cities in the county do not have funding through the 2002 Peoples Transporation Plan. This money would help the Town address specific transportation and transit issues	-	+	+	+	+	+	+	+	Long Term
2	Traffic Calming Program in Residential Area	Traffic intrusion is said to be an issue in several neighborhoods. Where it is most sever, the areas should be evaluated using accepted county procedures so that proper traffic calming tools can be selected	+	+ / -	+	+	+ / -	+	+ / -	+	Long Term
3	Sterling										
4	Caribbean										
10	Support Managed Lanes Study	The next level of the managed lanes study would determine if there are any fatal flaws to the concept. It would tell if the idea should be carried forward or stopped.	+	+	+	+ /-	+ /-	+/-	+/-	+	Long Term
11	Keep trucks out of residential areas	Evaluate appropriate truck routes. Develop a program and have it approved	+ / -	+ / -	+ / -	+	+/ -	+ / -	+	+	Long Term
18	Actively coordinate with other governments and agencies	To fully understand the transportation system in our region it will be important to coordinate with other governments and agencies.	+	+	+	+ / -	+ / -	+ / -	+ / -	+ / -	Long Term
15	Concurrency Management System	It is the law that concurrency be managed to determine if development should progress. Implement a system that is capable of measuring and tracking remaining capacities in all categories.	+	+	+	+ / -	+ / -	+ / -	+ / -	+ / -	Long Term
1	Complete Streets	This is a program which provides incentive to have streets that accommodate all vehicle types. It should be evaluated and a potential policy considered to implement some of its concepts	+ / -	+ / -	+ / -	+	+ / -	+ /-	+ /-	+	Long Term
12	Explore long term creative technologies like Magnetic Levitation.	Support the exploration of future technologies. Seek study and grant opportunities and partner with FDOT to develop. Opportunities exist.	+/ -	+ / -	+ / -	+ / -	+ / -	+ / -	+ / -	+ / -	Long Term
13	Search for federal partnerships on pilot programs.	SAFTEA-LU and the next federal transportation authorization will have pilot programs. Determine what these are and if they would be desirable. Work with FDOT to develop	+/ -	+ / -	+ / -	+ / -	+ / -	+ / -	+ / -	+ / -	Long Term
16	Consider Transportation Concurrency Management Area (TCMA) as capacity deteriorates, and to foster development at the Mall	As capacities deteriorate, the next level of concurrency measurement, that will allow development to continue is the TCMA concept which measures capacity on an Areawide basis. It provides incentive for redevelopment and infill development. Produce as an amendment to Transporation Element	+	+	+	+ / -	+ / -	+ / -	+	-	Long Term
17	FDOT LAP Certification	LAP certification will enable the Town to build a funding and project relationship with FDOT which can expedite project development	+	+	+	+ / -	+ / -	+ / -	+	-	Long Term
14	Church at Franjo/184 Fix Parking	Parking is on swale. Remove that parking or reinforce swale with pavers blocks. Parking in this area destroys landscaping and sod. Study a solution and implement	+	+ / -	+	+	+ / -	-	+ / -	+ / -	Long Term
9	Support Projects that Speed Implementation of Metrorail	The community has expressed its desire to have Metrorail. To attain it the Town can support the projects that would contribute to the issue that would create the need for it.	-	+ / -	+ / -	+ / -	+	+ /-	+	+	Long Term
5	Allow cross access easements	Cross access easements would allow vehicles and pedestrians to cross between properties along transportation corridors like US-1 with out having to re-enter the roadway facility. This would improves traffic flow and safety. Study feasibility and impacts	-	+	+	+	+ / -	-	+ /-	+	Long Term
7	Bicycle Boulevards (Designate some streets as walkable streets)	Conflicts between modes kills more people in Florida than any other state. Separating facilities would be helpful. Study appropriate locations as part of Bicycle Pedestrian Master Plan	-	-	+	+	+ / -	-	+/ -	+	Long Term
6	"Adopt a Hwy" for roadway maintenance funding	This is a funding program that may add funding capability for projects.	-	+ / -	+/-	+ /-	+ / -	-	-	-	Long Term

Task 6: Implementation

Task 6: Implementation

Introduction

This chapter presents priority lists of projects. After detailed consideration of the costs, benefits and community desire, ideas from the initial lists have been utilized, consolidated, or dropped based. In creating the formal priority, projects from the initial lists that had no significant impact because they were not addressing a formal need were generally dropped from consideration. Projects dealing with corridor improvements on Old Cutler Road or Caribbean Boulevard were consolidated into the existing concepts for those roads. Redundant projects or ideas that approached a similar problem or area were also consolidated.

The remaining 62 projects have been placed in one of several lists including:

1. Immediate Implementation,
2. Year 1 – Capital Improvement Program (CIP)
3. Year 2 – CIP
4. Year 3 – CIP
5. Year 4 – CIP
6. Year 5 – CIP

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, particularly in a time of dramatic budget reductions and potential growth management reform. The document should be updated every several years to evaluate changes in traffic volumes, development patterns, funding streams as well as shifts in policy.

Immediate Projects

#	Project Name	Purpose and Need	Cost			
			Planning	Design	Construction	Total
1	**Caribbean / 192 St, Operation Analysis**	Potentially part of the County Funded Project. Said to be a dangerous intersection. Potential for a traffic circle. Have MDCPW investigate Currently meets need for traffic calming. Completed. Circle Recommended	$ 15,000	$ 25,000	$ 210,000	**$ 250,000**
2	**Adopt county bike network**	Miami Dade County has a new recreational trails network. This should be presented to the town by MDCP&R then adopted by the Town and enhanced with local projects	$ -	$ -	$ -	**NA**
3	**Prepare For Stimulus Package**	The new stimulus package could funnel nearly $300 Billion into infrastructure projects over the next four years. In the short term a list of ready to construct projects should be developed and submitted to local and state agencies. Other longer term projects should be put into the design phase.	NA	NA	NA	**NA**
4	**Work to attain Peoples Transportation Plan funding**	Few cities in the county do not have funding through the 2002 Peoples Transporation Plan. This money would help the Town address specific transportation and transit issues	NA	NA	NA	**NA**
5	**Support Managed Lanes Study**	The next level of the managed lanes study would determine if there are any fatal flaws to the concept. It would tell if the idea should be carried forward or stopped.	NA	NA	NA	**NA**
6	**FDOT LAP Certification**	LAP certification will enable the Town to build a funding and project relationship with FDOT which can expedite project development	$ 5,000	NA	NA	**$ 5,000**
7	**Actively coordinate with other governments and agencies**	To fully understand the transportation system in our region it will be important to coordinate with other governments and agencies.	NA	NA	NA	**NA**
8	**Support Projects that Speed Implementation of Metrorail**	The community has expressed its desire to have Metrorail. To attain it the Town can support the projects that would contribute to the issue that would create the need for it.	NA	NA	NA	**NA**
9	**Coordinate with South Dade Governments**	Open a dialogue between cities along US-1 Corridor in South Dade to gain an understanding of regional issues that may impact the Town.	NA	NA	NA	**NA**

Year - 1

#	Project Name	Purpose and Need	Cost			
			Planning	Design	Construction	Total
1	Caribbean Capacity Improvements	Deficient 0.8 lanes in 2008, (- 0.8 lanes in 2015) (-1 and -2 lanes in 2030). As part of project, determine if a third lane could be used at intersections as a turn lane, the space for this lane between intersections could be a landscaped median adding character to the street. Study this and determine if ROW exists and if lack of a third lane between intersections would have a beneficial impact on traffic. This will also include drainage, curb and gutter, sidewalks, crosswalks, signalization, and landscaping.	$ 780,000	$ 1,300,000	$ 10,920,000	$ 13,000,000
2	Old Cutler Road Improvements	This will include Roundabouts at 87th and 97th Avenue, curb and gutter, bus bays, drainage, landscaping, cross walks, signalization and lighting.	$ 510,000	$ 850,000	$ 7,140,000	$ 8,500,000
3	87 Ave @ Old Cutler Road. Add Left Turn Lane (prior to circle implementation)	OCR has sever LOS problems. Capacity can only be gained at intersections. This project would only be practical if a delay were to occur with the Old Cutler Road improvements detailed above.	$ 15,000	$ 25,000	$ 210,000	$ 250,000
4	Marlin/OCR Traffic Circle in front of Potato Field	Both roads have level of service problems in all horizons. This proposes to undertake a study of the situation.	$ 21,000	$ 35,000	$ 294,000	$ 350,000
5	Transit Circulator (Green)	Test and implement a transit circulator on a route that fulfills a need, such as designed by the initial elderly transportation committee.	$ 5,000	NA	$ 85,000	$ 90,000
6	Connect 97 Ave across OCR	Provides greater access and promotes traffic dispersion. Requires coordination with MDCPW	$ 126,000	$ 210,000	$ 1,764,000	$ 2,100,000
7	Fix traffic congestion at main entrance to Publix on Old Cutler Road	This project will relieve traffic congestion along OCR, and will speed access to and from the center. Perform Operational Analysis to determine appropriate measure	$ 13,800	$ 23,000	$ 193,200	$ 230,000
8	Circle 97th Ave / Franjo	Both roads have level of service problems in all horizons. This proposes to undertake an operational analysis of the situation. It is anticipate only the planning portion of this effort would be done in this year. Once a solution is determined, the funds can be allocated by the Manager as budget permits.	$ 15,000	$ 25,000	$ 210,000	$ 250,000
9	ADA Compliant sidewalks	The American Disabilities Act requires that sidewalks have certain amenities such as ramps and clear paths to allow those that are handicapped the same mobility as those who are not. Areas that do not meet ADA standards need to be identified, and a plan for how to improve needs to be set out.	$ 10,000	TBD	TBD	TBD
10	Maintain OCR Bike path.	The Old Cutler Road bicycle path is in disrepair. This project would try to get the County to undertake regular maintenance to remove stumps, low hanging branches and provide smooth pavement	$ 30,000	$ 50,000	$ 420,000	$ 500,000
11	Bicycle and Pedestrian Master Plan	This project would provide specific details in the Bicycle and Pedestrian network, locating bike routes, lanes, sidewalks, crossing aids and signage. It would focus on connecting parks and schools with a safe network. The results of the plan would be designed and constructed. These projects would be added to the CIP at the discretion of the Manager as budget allows.	$ 63,000	$ 105,000	$ 882,000	$ 1,050,000
12	Bicycle Racks at Schools	These amenities would encourage children to bike to school	NA	NA	$ 10,000	$ 10,000
13	Street Repaving Program	Evaluate paving conditions on all streets and develop a 5yr program to repave, based on budget constraints. The Evaluation and plan would be done in year one. The design and implementation would be added to the CIP at the discretion of the Manager as budget allows.	$ 10,000	$ 1,010,000	$ 9,080,000	$ 10,100,000
14	Impact Fees from Developers For Infrastructure	When development continues, impacts need to be mitigated. This can be done by having the developer pay their fair share of the cost of the improvement.	$ 50,000	NA	NA	$ 50,000
15	Traffic Calming Program in Residential Area	Traffic intrusion is said to be an issue in several neighborhoods. Where it is most sever, the areas should be evaluated using accepted county procedures so that proper traffic calming tools can be selected. These projects would be added to the CIP at the discretion of the Manager as budget allows.				
	Sterling		$ 15,000	TBD	TBD	
	Caribbean		$ 15,000	TBD	TBD	$ 30,000
16	Keep trucks out of residential areas	Evaluate appropriate truck routes. Develop a program and have it approved	$ 20,000	NA	NA	$ 20,000

Year - 2

#	Project Name	Purpose and Need	Cost			
			Planning	Design	Construction	Total
1	Marlin / OCR Lane Addition	Change South bound approach on Old Cutler Road from a 1 lane to a 2 lane approach. This would improved LOS from E to B	$ 15,000	$ 25,000	$ 210,000	$ 250,000
2	Close 97 Ave Between 232 St and 224 St	Protects residential neighborhood from traffic intrusion. Requires approval from MDCPW.	$ -	$ -	$ -	NA
3	Center Turn Lanes on Franjo	Level of service problems exist in all time horizons. Operational analysis will detail appropriateness of remedy. It is anticipated that the planning will be done in this year, while the design and construction will be added to the CIP by the manager as budget and other needs warrant.	$ 66,000	$ 110,000	$ 924,000	$ 1,100,000
4	Signal Progression Analysis	Examine all main corridors and evaluate the 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. US-1, Marlin, Carribbean, Old Cutler, 184 St, Franjo/97Ave	$ 130,000	NA	NA	$ 130,000
5	Marlin / Caribbean Traffic Circle	Level of service issues exist on both roads in all time horizons. Must prove boat and large vehicle access. If no circle provide signal operations analysis to improve signal timing and phasing	$ 15,000	$ 25,000	$ 210,000	$ 250,000
6	Signal Warrant Analysis 97 Ave / 216th St	Level of service problems exist in all time horizons, north of area	$ 8,500	NA	NA	$ 8,500
7	Signal Warrant Analysis Sterling / Franjo	Level of service problems exist in all time horizons	$ 8,500	NA	NA	$ 8,500
8	Turnpike / 211th	Operational analysis. Said to be a dangerous intersection. MDCPW can initiate study quickly. LOS improvement from D to C in AM and from F to C in PM	$ 10,000	NA	NA	$ 10,000
9	Marlin between US-1 and 107 Ave; LOS improvements	Deficient 1 lane in 2008, -1.3lanes 2015, - 1.7 lanes 2030	$ 15,000	$ 25,000	$ 210,000	$ 250,000
10	Cross walks and pedestrian count-down signals at major intersections	To aid in pedestrian safety these items should be evaluated and installed at major intersections, such as the crossing of all section line and half section line roads or where there are noted safety problems 20 intersections budgeted. (5k/intersection)	$ 6,000	$ 10,000	$ 84,000	$ 100,000
11	Safe Routes to School Program	Safe routes to school is a federally incentivized program to encourage children to walk and bike to school (10k Per School for Study) Engineering and Design costs would be for actual improvements to be either implemented as part of SRTS grant program or by the Town as budget permits.	$ 33,000	$ 55,000	$ 462,000	$ 550,000
12	Liaison with South Florida Commuter Services	South Florida Commuter Services is a Transporation Management Organization which organizes Transportation Demand Management initiatives like carpools for our region	$ -	$ -	$ -	TBD
13	Develop a Recreational Trail signage schedule	Directional signage should be designed and implemented to direct people to the recreational trail network	$ 1,440	$ 2,400	$ 20,160	$ 24,000
14	Town wide streetscape program Livable communities program)	Aesthetics of the roadways are integral to enhancing the character of the community. Main corridor rights of way should be evaluated and streetscape programs including street trees, benches, trash cans , lighting and other street furniture be implemented as appropriate	$ 30,000	NA	TBD	$ 30,000
15	Concurrency Management System	It is the law that concurrency be managed to determine if development should progress. The Town should implement a system that is capable of measuring and tracking remaining capacities in all categories.	$ 50,000	NA	NA	$ 50,000
16	Complete Streets	This is a program which provides incentive to have streets that accommodate all vehicle types. It should be evaluated and a potential policy considered to implement some of its concepts	$ 50,000	NA	NA	$ 50,000

Year - 3

#	Project Name	Purpose and Need	Cost			
			Planning	Design	Construction	Total
1	**Franjo Between Old Cutler and 97th Avenue, Lane Addition**	Deficient 0.3 and 0.7 lanes in 2008, -1 lane in 2015, - more than 1 lane in 2030. ROW is generally 70'. Existing travel lanes are about 24'. Ample space exist for such a project.	$ 360,000	$ 600,000	$ 5,040,000	**$ 6,000,000**
2	**Pedestrian Crossings at US-1**	Determine the appropriate locations to provide safe and effective pedestrian crossings from major generators to Busway stops. Consider pedestrian bridges coupled with closed medians which will prevent "j"walking ($16,000 / Xwalk)	$ 4,800	$ 8,000	$ 67,200	**$ 80,000**
3	**Park and Ride Lots along the Busway**	Work to implement park and ride facilities along the Busway to entice greater ridership. Perform feasibility study within Town limits.	$ 25,000	TBD	TBD	**TBD**
4	**Bike lanes on:**	Study these amenities to determine if ample right of way exists to implement these facilities and gauge public and county opinion. Determine if lanes can be separated by curbing, ($21,000 / Mile)				
	Caribbean		$ 3,600	$ 6,000	$ 50,400	**$ 60,000**
	Marlin		$ 1,920	$ 3,200	$ 26,880	**$ 32,000**
	Coral Sea Rd		$ 1,380	$ 2,300	$ 19,320	**$ 23,000**
	87 Ave		$ 4,200	$ 7,000	$ 58,800	**$ 70,000**
5	**Search for federal partnerships on pilot programs.**	SAFTEA-LU and the next federal transportation authorization will have pilot programs. Determine what these are and if they would be desirable. Work with FDOT to develop	$ 5,000	NA	NA	**$ 5,000**

Year - 4

#	Project Name	Purpose and Need	Cost			
			Planning	Design	Construction	Total
1	**Transportation Concurrency Management Area (TCMA)**	As capacities deteriorate, the next level of concurrency measurement, that will allow development to continue is the TCMA concept which measures capacity on an Areawide basis. It provides incentive for redevelopment and infill development. Produce as an amendment to Transporation Element	$ 40,000	NA	NA	**$ 40,000**
2	**Parking in 184 St / Franjo area**	Parking in this area is on swale. Remove that parking or reinforce swale with pavers blocks. Parking in this area destroys landscaping and sod. Study a solution and implement	$ 7,000	NA	NA	**$ 7,000**
3	**Allow cross access easements**	Cross access easements would allow vehicles and pedestrians to cross between properties along transportation corridors like US-1 with out having to re-enter the roadway facility. This would improves traffic flow and safety. Study feasibility and impacts	$ 15,000	TBD	TBD	**$ 15,000**
4	**Cutler Ridge Drive / Franjo Intersection Operation Analysis**	Said to be a dangerous intersection, a study can be done in the near term inexpensively. Should request it of MDCPW	$ 8,500	NA	NA	**$ 8,500**
5	**Old Cutler Road / Franjo, Lane Extension**	Extend Exclusive Left Turn lane on the east bound approach. Add left turn signal Level of service problems exist in all time horizons. This will improve safety and operations	$ 19,200	$ 32,000	$ 268,800	**$ 320,000**
6	**216th St / 87 Ave, Turn Lane**	Provide Striping, an exclusive SB right turn lane on 87 ave. Will improve PM LOS from D to C	$ 15,000	$ 25,000	$ 210,000	**$ 250,000**
7	**School Loading Zones**	Each schools loading zone should be examined to assure that the loading and unloading vehicles are able to clear the travel lanes and children are able to access vehicles safely	$ 720	$ 1,200	$ 10,080	**$ 12,000**
8	**Bus Shelters**	Bus shelter can increase transit ridership and make the riding experience more comfortable ($10,000 / Shelter)	$ 17,880	$ 29,800	$ 250,320	**$ 298,000**

Year - 5

#	Project Name	Purpose and Need	Cost			
			Planning	Design	Construction	Total
1	**Explore Long Term Creative Technologies**	Support the exploration of future technologies. Seek study and grant opportunities and partner with FDOT to develop. Federal opportunities may exist.	$ 5,000	NA	NA	**$ 5,000**
2	**Evaluate Parking Sufficiency Performing Arts Center**	Study the sufficiency of the planned parking at the Performing Arts Center by assessing the need by examining parking generation rates from the Institute of Transporation Engineers. Determine if addition parking is needed and work with the County to develop parking.	$ 25,000	NA	NA	**$ 25,000**
3	**Gulfstream Intersections Analysis Between Franjo and 184th Street**	Deficient 0.3 of a lane in 2008, (- 0.6 lane by 2015), (- 0.8 lane by 2030)	$ 20,000	NA	NA	**$ 20,000**
4	**Study Turnpike Access In Cutler Bay**	Relieve Congestion on other Corridors, Must coordinate with FDOT and Turnpike to initiate study. Have Planning Level Analysis placed on next round of LRTP	$ 50,000	NA	NA	**$ 50,000**
5	**Marlin / US-1, Signal Analysis**	Signal operations analysis. Will improve flow, but no LOS problems currently exist. Study is simple and easy to perform	$ 8,500	NA	NA	**$ 8,500**
6	**216 St / 97 Ave Turn Lane**	Add exclusive Left Turn Lane before removing striping. This may improve LOS from E to D in the morning	$ 15,000	$ 25,000	$ 210,000	**$ 250,000**
7	**Marlin Operational Analysis Between Old Cutler Road and 107th Avenue**	Deficient 0.25 of a lane in 2008, (- 0.3 lane in 2015), (-.03 lane and -1.7 lane in 2030). Would lead to design and Construction if warranted	$ 12,000	$ 20,000	$ 168,000	**$ 200,000**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