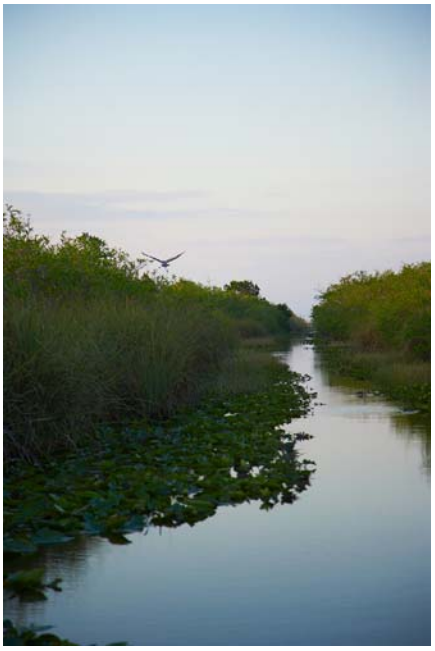
Chapter 6
CONTEXT



6. CONTEXT

The LRTP takes into consideration the context of environmental needs, transit dependent population, sustainable transportation, and additional funding to achieve identified needs that did not fit within the context of the Cost Feasible Plan. The Broward 2035 LRTP is also part of a Regional LRTP which encompasses the tri-county area of Miami-Dade, Palm Beach, and Broward counties.

6.1 Efficient Transportation Decision Making (ETDM)

The Efficient Transportation Decision Making (ETDM) process has been in operation in the State of Florida since 2003. The purpose of the ETDM is to improve the efficiency of making transportation decisions by integrating transportation, land use, social, economic and environmental considerations early in the project development process. This includes the active participation of FDOT and Broward MPO with the Environmental Technical Advisory Team (ETAT). The ETAT is made up of representatives from the various agencies involved in the ETDM process, such as the Florida Department of Environmental Protection, the Water Management District, the Army Corps of Engineers, the State Historical Preservation Authority, environmental groups, etc. The ETAT advises the MPO on potential project impacts to the natural and human environment and makes recommendations on how to avoid or mitigate these impacts.
Input on the impact of new projects is also solicited from the public through FDOT Environmental Management Office home page at http://etdmpub.fla-etat.org/est/.

ETDM benefits include:

- Early identification of avoidance/minimization of impact;
- Balances socio-economic effects with the natural environment;
- Addresses disputed projects before programming;
- Focuses attention on the key technical issues that apply to a specific project;
- Ready access to quality data for agencies and affected communities;
- Summary reports providing feedback; and
- Communities are given a voice early in the planning process to promote a partnership.

6.1.1 ETDM Process

MPOs, FDOT, and local governments are responsible for carrying out the long range transportation planning process in Florida. Major transportation improvement project needs are identified through travel demand modeling, public outreach and other planning evaluation tools. Project needs are then linked to foreseeable funding to develop

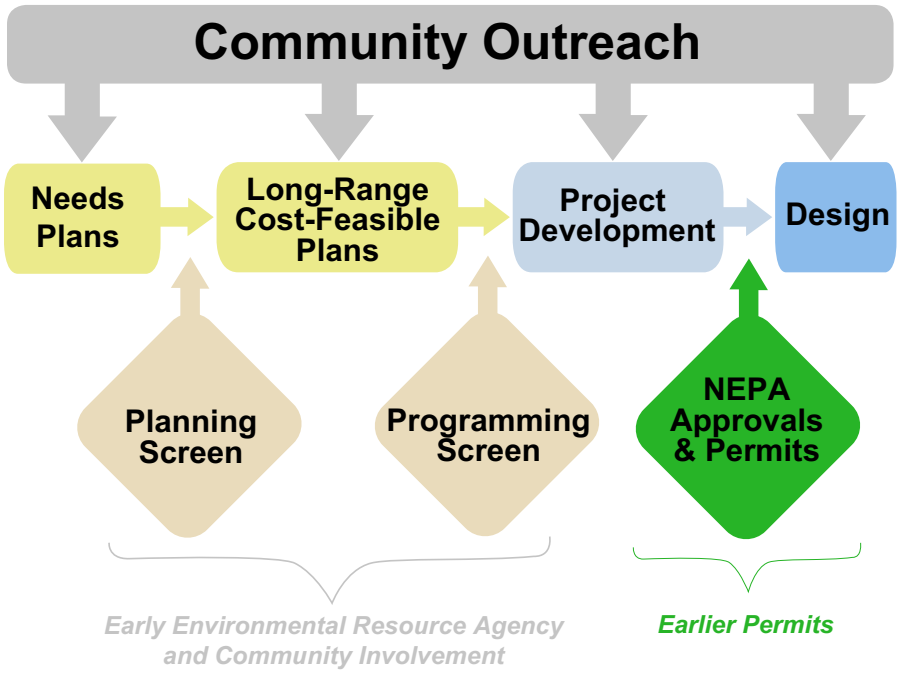
the LRTP, often called the Cost Feasible Plan. Project impact could be difficult to assess without detailed project design plans, which are often developed in a later phase of the planned project. The ETDM Process overcomes this problem by allowing earlier project review and input by the public and ETAT during the planning phase through the "Planning Screen." An outline of the ETDM process is shown in Exhibit 51.

6.1.2 Planning Screen

This initial screening of planned projects allows ETAT members to review project purpose and need statements and comment on the potential impact of projects to environmental and community resources very early in the planning process. Direct and indirect effects of proposed projects are evaluated and documented in the Environmental Screening Tool (EST). This opportunity enables planners to adjust project concepts to avoid or minimize adverse effects, consider mitigation alternatives, and improve project cost estimates. Cumulative effects to resources are evaluated on a systemwide basis in connection with the planning screen. The interrelationships between land use, ecosystem management, community values, and mobility plans are considered through integrated agency planning. Key recommendations and conclusions regarding potential project effects are provided in the Planning Summary Report. This report provides information that helps planners to stage transportation priorities in long-range transportation plans and is available electronically to resource agencies and the public.

The interrelationships between land use, ecosystem management, community values, and mobility plans are considered through integrated agency planning.

Exhibit 51-ETDM Process



NEPA: National Environmental Policy Act

A planning screen is conducted for all major added-capacity projects prior to their inclusion in the Cost Feasible Plan. A major project is defined as new roadway construction, the addition of lanes to an existing roadway, fixed rail transit construction, public transportation projects, new bridge construction, bridge widening, new interchanges or major interchange modifications, or major capital improvements such as intermodal and transit centers. Proposed capacity projects in a Metropolitan Planning Organization's adopted LRTP that did not have Project Development and Environment (PD&E) studies done are eligible for the ETDM screening process, as shown in Exhibit 51.

Exhibit 52 shows eligible capacity projects that have already been included in the ETDM planning screen during the last 2030 LRTP adopted by the MPO in December 2004. Exhibit 53 shows additional eligible capacity projects that will be entered into the planning screen through the 2035 LRTP adopted by the MPO in November 2009. Other projects listed in Exhibit 71 were not included in the ETDM planning screen because PD&E studies are already underway or the proposed improvements do not meet the definition of a major project.

Exhibit 52- Eligible Capacity Projects Already Included in the ETDM Planning Screen from 2030 LRTP

Project Name	From	To	Length (miles)	Project Description
Bass Creek Rd	SW 148 Ave	W. of Flamingo Rd	2.0	New 4 lanes
Miramar Pkwy	Palm Ave	SR 7/US 441	4.6	From 4 to 6 lanes (6 lanes divided LD)
Pembroke Rd	SW 200th Ave	US Hwy 27	1.5	New (4LD)
Pembroke Rd	SW 184th Ave	SW 200th Ave	1.0	New (4LD)
Pembroke Rd	SW 160th Ave	SW 184th Ave	1.9	New (4LD)
Rock Island Rd	McNab Rd	Royal Palm Blvd	3.1	From 4 to 6 lanes (6LD)
Rock Island Rd	Commercial Blvd	McNab Rd	1.0	From 4 to 6 lanes (6LD)
Sheridan St	SW 148th St	Douglas Road	5.0	From 4 to 6 lanes (6LD)
SW 184th Ave	4th Street	Sheridan St	1.5	From 2 to 4 lanes (4LD)
SW 184th Ave	Sheridan St	Griffin Rd	2.2	New (4LD)
SW 184th Ave	Pines Blvd	Bass Creek Rd	2.5	New 4 lanes
Atlantic Blvd	Sawgrass Exwy	Coral Springs Dr	1.9	From 4 to 6 lanes (6LD)
Nob Hill Rd	N. of Trails End	County Line Rd	1.6	New (4LD)

Exhibit 53-Additional Eligible Capacity Projects for Inclusion in the ETDM Planning Screen

Project Name	From	To	Length (miles)	Project Description
Oakland Park Blvd	I-95	Powerline Rd	0.5	Intersection Improvements
SR 7/US 441	At Hollywood Blvd		NA	Intersection Improvements
Pines Blvd	At University Dr		NA	Intersection Improvement
SR 7/US 441	At Oakland Park Blvd		NA	Intersection Improvements
Atlantic Blvd	Cypress Rd	US 1	1.1	Restripe for 6LD
Pines Blvd	At Flamingo Rd		NA	Intersection Improvements
SR 7/US 441	At Atlantic Blvd		NA	Intersection Improvements
Pembroke Rd	Douglas Rd	University Dr	1.0	From 4 to 6 lanes
Sample Rd	At Military Trail		0.2	Intersection Improvements
University Dr	NW 40 St (Cardinal)	Sawgrass Expressway	1.7	From 4 to 6 lanes (6LD)
Pembroke Rd	W of Florida's Turnpike	SR 7/US 441	1.4	Restripe for 6LD
Ravenswood Rd	Griffin Rd	SW 42 St	1.0	From 2 to 4 lanes (4LD)
County Line Rd	University Dr	Hillsboro Blvd Ext	2.8	New 4 lanes (4LD)
Oakes Rd	Davie Rd	SR 7	1.7	New 4 lanes (4LD) including FTPK overpass
SR 7	Sample Rd	Palm Beach County Line	4.0	From 6 to 8 lanes, additional 2 lanes are for transit

Roadway capacity projects were limited compared to previous LRTPs.

As part of the ETDM planning screen process, Broward MPO staff will evaluate and provide commentary about potential socio-cultural effects (SCE) of projects included in the LRTP based on available information. There are six issues that should be addressed in the SCE evaluation:

1. Social;
2. Economic;
3. Land Use;
4. Mobility;
5. Aesthetics; and
6. Relocation.

Detailed information about these six issues is provided in Exhibit 54.

Exhibit 54-Socio-cultural Effect (SCE) Issues

Social	Economic	Land Use
• Demographics • Community Cohesion • Safety/ Emergency Response • Community Goals • Quality of Life	• Business & Employment • Tax Base Pattern • Business Access • Special Needs Patrons	• Land Use-Urban Form • Local Plan Consistency • Open Space • Sprawl • Focal Points

Mobility	Aesthetics	Relocation

• Modal Choices
  ▪ Pedestrian
  ▪ Bicycle
  ▪ Transit
  ▪ Transportation Disadvantaged
• Connectivity
• Traffic Circulation
• Public Parking
	• Noise/ Vibration
	• Viewshed
	• Compatibility
		• Residential
		• Non- Residential
		• Public Facilities

MPO staff has primary responsibility for performing SCE evaluations for non-SIS (Strategic Intermodal System) projects in the MPO area. FDOT District staff has responsibility for SIS projects in all areas of the state, including the MPO areas. However, FDOT District and MPO staff should take a collaborative, team approach in conducting SCE evaluations for their areas of responsibility.

6.2 Natural Environment

A wide range of environmental benefits will accrue with an increased modal shift to transit as defined by the 2035 LRTP. These include:

- Reduced greenhouse gas and ground-level ozone emissions through reduced auto congestion;
- A slow-down in urban sprawl and consumption of agricultural land; and
- Energy conservation.

The magnitude of these affects are directly linked to the resulting modal shift achieved and should be measured as LRTP projects are implemented. Major capacity projects defined in the LRTP will be reviewed through Florida's ETDM process. The LRTP provides a general overview of proposed projects and their merits. Subsequent studies subject to National Environmental Policy Act requirements will be conducted to move relevant projects forward to design and implementation.

National statistics and trends provide an indication of what benefits can be achieved by Broward County. Almost 90% of oil imports into the United States are used for transportation. According to a report from the U.S. Environmental Protection Agency's (EPA) Office of Transportation and Air Quality (OTAQ), transportation accounted for 27% of U.S. greenhouse gas emissions in 2003. Oil consumption is linked to sprawled development patterns, like in many parts of Broward County which depend on highway infrastructure and personal vehicle use. Transportation strategies can be used to facilitate the implementation of more efficient land use settlement patterns–namely, developments that emphasize and prioritize transit, pedestrian, bicycling and travel share programs (car, bike, van). The Broward County 2035 LRTP does exactly that–it reduces the emphasis on automobile and supports development around Mobility Hubs.

If 10% of daily trips were made by transit in the U.S., we would reduce our dependence on imported oil by 40%, reduce carbon dioxide emissions by more than 25% of those directed under Kyoto Agreement, and save more energy every year than all the energy used by the U.S. petrochemical industry. (*Conserving Energy and Preserving the Environment: The Role of Public Transportation;* Shapiro, Hassett, and Arnold, July 2002.)

Although Broward County is in an attainment area, the 2035 LRTP seeks to reduce emissions.

6.2.1 Air Quality

The 2035 LRTP prioritizes transportation projects and measures that increase the use of public transportation, thereby reducing reliance on the single-occupant vehicle and resulting vehicle miles traveled and fuel consumption. Reduced traffic congestion through travel demand management further reduces greenhouse gas emissions and ozone precursor emissions. The status of national and state air quality regulations and initiatives is described in this section for National Ambient Air Quality Standards (NAAQS) and climate change and greenhouse gas.

National Ambient Air Quality Standards and Attainment Status for the Region

Broward County is within the Southeast Florida tri-county area with Palm Beach and Miami-Dade counties. The area is currently designated as attainment for the 1997 8-hour ozone standard and has an approved attainment and maintenance plan for the 1-hour ozone standard since April 25, 1995. On March 12, 2008, EPA strengthened its NAAQS for the 8-hour primary ground-level ozone standard from 0.08 to 0.075 ppm. Design values monitored for Broward County from 2005-2007 were 0.067 ppm, below the standard. Palm Beach and Miami-Dade counties were 0.066 and 0.074 ppm, respectively. EPA is currently reviewing the 2008 decision to strengthen the NAAQS for ozone and plans to propose any revisions by December 2009; final decision expected by August 2010.

South Florida has remained in attainment for particulate matter since the establishment of PM 2.5 standards on January 5, 2005 effective December 2006. The 2005-2007 design value for South Florida was 8.3 micrograms per cubic meter, well below the NAAQS standard of 15 micrograms. The entire State of Florida is a designated attainment area for both ozone and the particulate matter standards, effective December 2006.

Although Broward County is in a conforming area that remains in attainment of the NAAQS, transportation plans must not cause or contribute to new violations. The 2035 LRTP goals to reduce vehicle miles traveled and congestion are consistent with maintaining the current attainment status.

Climate Change and Greenhouse Gas

In 2006, transportation sources contributed 29% of the total U.S. greenhouse gas emissions. Transportation is also the largest source of CO_2 (carbon dioxide) the most prevalent greenhouse gas. In 2004, CO_2 represents over 90% of the greenhouse gas inventory in Florida (Florida Department of Environmental Protection, September 2007). Greenhouse gas resulting from transportation in Florida is higher than the national average owing to lower industrial and coal-generated emissions in the south. A recent inventory and projection to 2025 prepared for Florida by the Center for Climate Strategies indicates that as much as half of 2025 greenhouse gases will result from transportation uses, up from 36% in 2005. Further improvements

in transportation-related greenhouse gas emissions in Florida are desirable. The State of Florida has initiated climate change initiatives, including possible ratification of California Motor Vehicle Emission Standards in the 2010 legislative session.

New, more stringent emissions standards and fuel economy are proposed jointly by EPA and the Department of Transportation to address climate change and energy security. A Notice of Proposed Rulemaking was issued on September 15, 2009 that would reduce emissions and energy use for vehicles sold from 2012-2016. Under this program, a reduction is estimated in CO_2 emissions of 950 million metric tons and 1.8 billion barrels of oil over the life of vehicles sold during this period. Increased fuel economy would increase 5% every year and save the average car buyer more than $3,000 in fuel costs.

On December 7, 2009, EPA issued two distinct findings regarding greenhouse gases under the Clean Air Act - an Endangerment Finding and a Cause or Contribute Finding. These actions clear the path for the EPA's proposed greenhouse gas emission standards proposed on September 15, 2009.

Title VI and the Civil Rights Act of 1964 prohibit discrimination for federally funded projects.

6.3 Environmental Justice

The review of fair and equitable distribution of transportation programs and benefits, and meaningful participation in transportation decision-making is rooted in Title VI of the Civil Rights Act of 1964 which prohibits discrimination in any program receiving federal assistance. This regulatory framework was reinforced by Executive Order 12898 enacted in 1994 which requires Metropolitan Planning Organizations receiving federal funds to examine how well past and future transportation plans address environmental justice issues. Three fundamental principles guide this review.

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low-income populations.
- To ensure the full and fair participation of all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

The 2035 LRTP considered environmental justice issues in the selection of, placement of projects, and timing of implementation of projects in the Cost Feasible Plan. A goal established for the 2035 LRTP is to promote sustainable systems and programs. One of the plan objectives to meet this goal is to provide access and mobility to a greater number of people in transit dependent, minority, and low-income populations and households. In addition to consideration of minority and low-income persons required by environmental justice guidelines, elderly and transit dependent persons were also considered.

The LRTP outreach program was extensive and inclusive.

6.3.1 Engagement of Traditionally Underserved Populations

Early and ongoing outreach is an important component of a successful transportation planning process. Because many people find it hard to focus on a horizon far into the future, special efforts need to be the cornerstone of a successful public involvement plan to ensure participation. A Public Involvement Plan was prepared for the 2035 LRTP in September 2008 and efforts to solicit input on plan goals and transportation needs were made very early in the process. Meetings were held throughout Broward County and throughout the planning process to gain input and provide information on plan developments as the planning process progressed.

To ensure full and fair participation, public involvement for the 2035 LRTP process was *proactive* to heighten the public's awareness, *inclusive* by focusing on disenfranchised stakeholders who may be reliant on public transportation (including minority, low-income, disabled, elderly, and youth), and *interactive* by providing a website and a toll-free hotline. Outreach opportunities were broadened to reach underserved segments of the population. Press releases were distributed to foreign language newspapers, including Caribbean and Spanish. Multi-lingual versions of the website and widely distributed surveys were provided. Spanish-speaking representatives were available on the hotline established for the project. Multi-lingual flyers were distributed to business and neighborhood organizations and churches in minority neighborhoods. Community-based meetings targeted minority neighborhoods and networking with community and church leadership was an important means of actively engaging these groups. Meetings were held at locations throughout the county at public facilities and places with high potential for drop-in attendance (libraries, malls, and community centers) to engage people who may not have seen the publications, notices, or website information announcing these public meetings.

6.3.2 Socio-economic Characteristics

A review of the 2000 U.S. Census data for Broward County was conducted to evaluate representation of minority populations, low-income households, as well as transit dependent households and the elderly. The representation for each of these groups as a percent of the total population was used to compare with the extent of benefits received from improvements prioritized in the plan. Minority populations and low-income households represent 29.4% and 10.8% of Broward County, respectively. Approximately 9.4% of the households in Broward County have no car and 16% of our residents are 65 or older.

Minority populations include Hispanics or persons of Latino descent, African-American, American Indian, Asian, and Pacific Islanders. The 2000 Census identifies the poverty threshold for a household as $17,463 per year. A recent update of the poverty threshold by the U.S. Census Bureau indicates a higher $21,834 threshold. With high unemployment in Broward County today and out-migration as job seekers are forced to look elsewhere for work, the trend for low-income populations will not be known until the 2010 census

LRTP projects will greatly improve mobility and access for transit dependent households.

is conducted. Transit dependent households were identified as households with no car. Elderly are persons age 65 or older. The source of all data for this evaluation is the 2000 U.S. Census.

Exhibit 55-2000 U.S. Census Data for Broward County

Socio-economic Group	2000 Census Broward County	Percent of Total
Total Population	1,623,018	100%
Total Households	654,445	100%
Minority Population	477,731	29.4%
Low-Income Households	70,684	10.8%
Transit Dependent Households	61,191	9.4%
Elderly Population	260,409	16.0%

Exhibits 56 through 59 show graphic representations of these populations and households and maps the Premium Transit projects and Mobility Hubs in relation to their distribution. For purposes of distinguishing the distribution of the data, the populations are normalized to five equally distributed groups.

Some neighborhoods that are characterized by high populations of low-income households include the urban core of Fort Lauderdale and Pompano Beach located generally west of US 1 and east of the Florida's Turnpike. Dania Beach near Port Everglades and Hallandale Beach Boulevard also show higher concentrations of low-income residents. Minority populations occur in some of these same low-income areas, but are more widespread extending much further south and west. While the highest concentrations of both minority and low-income populations occur in the older urbanized areas of Broward County, distribution occurs throughout Broward County attesting to the diverse nature of our population.

A high concentration for elderly population exists along the coastal areas owing to the attractiveness of ocean views for retired residents in dense areas that offer urban lifestyles in walkable communities; however, a number of senior communities and populations exist through Broward County as shown on Exhibit 59.

Transit dependent households (determined as those with no car) were also considered an important factor in planning for transportation improvements, particularly the addition or expansion of transit. Some correlation appears to occur between low-income and transit dependent households. It should be noted that few carless households exist in the more auto-centric suburbs in southwestern and northwestern Broward County.

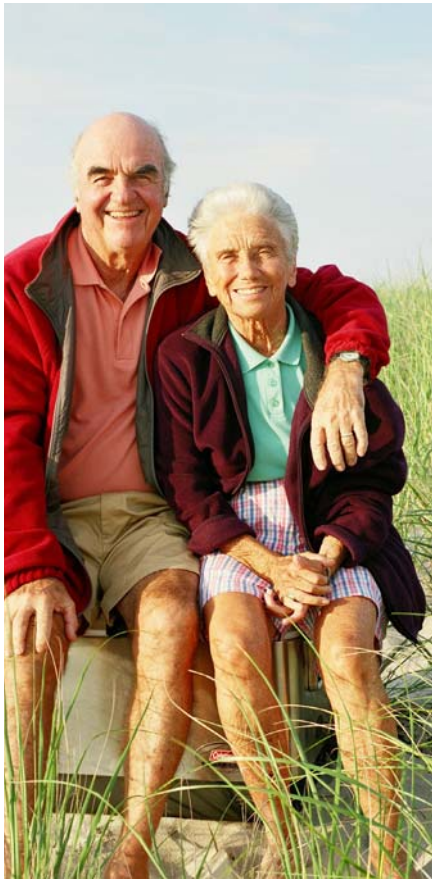


Exhibit 56-Minority Population in Broward County

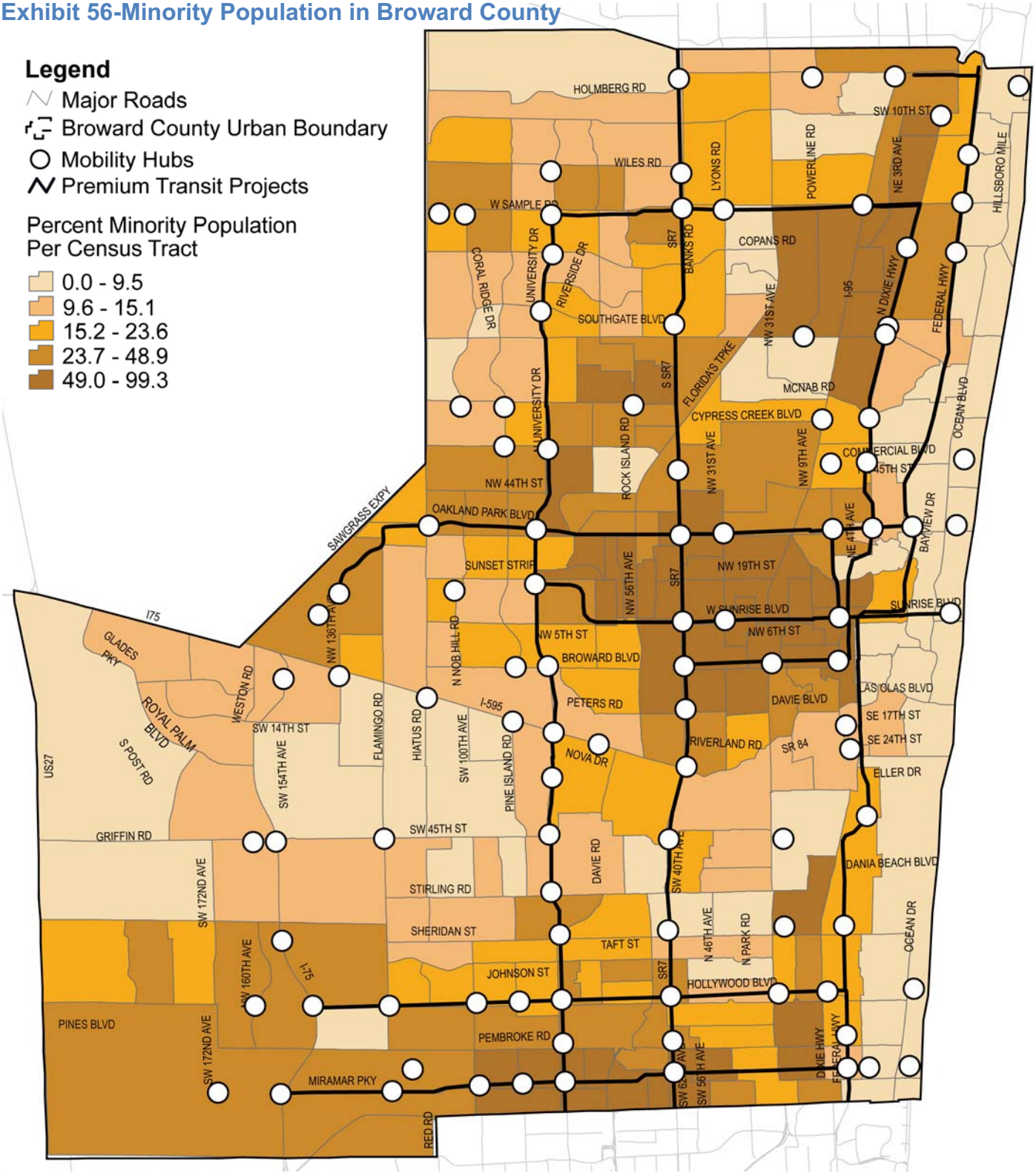


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Exhibit 57-Households Below Poverty Line in Broward County

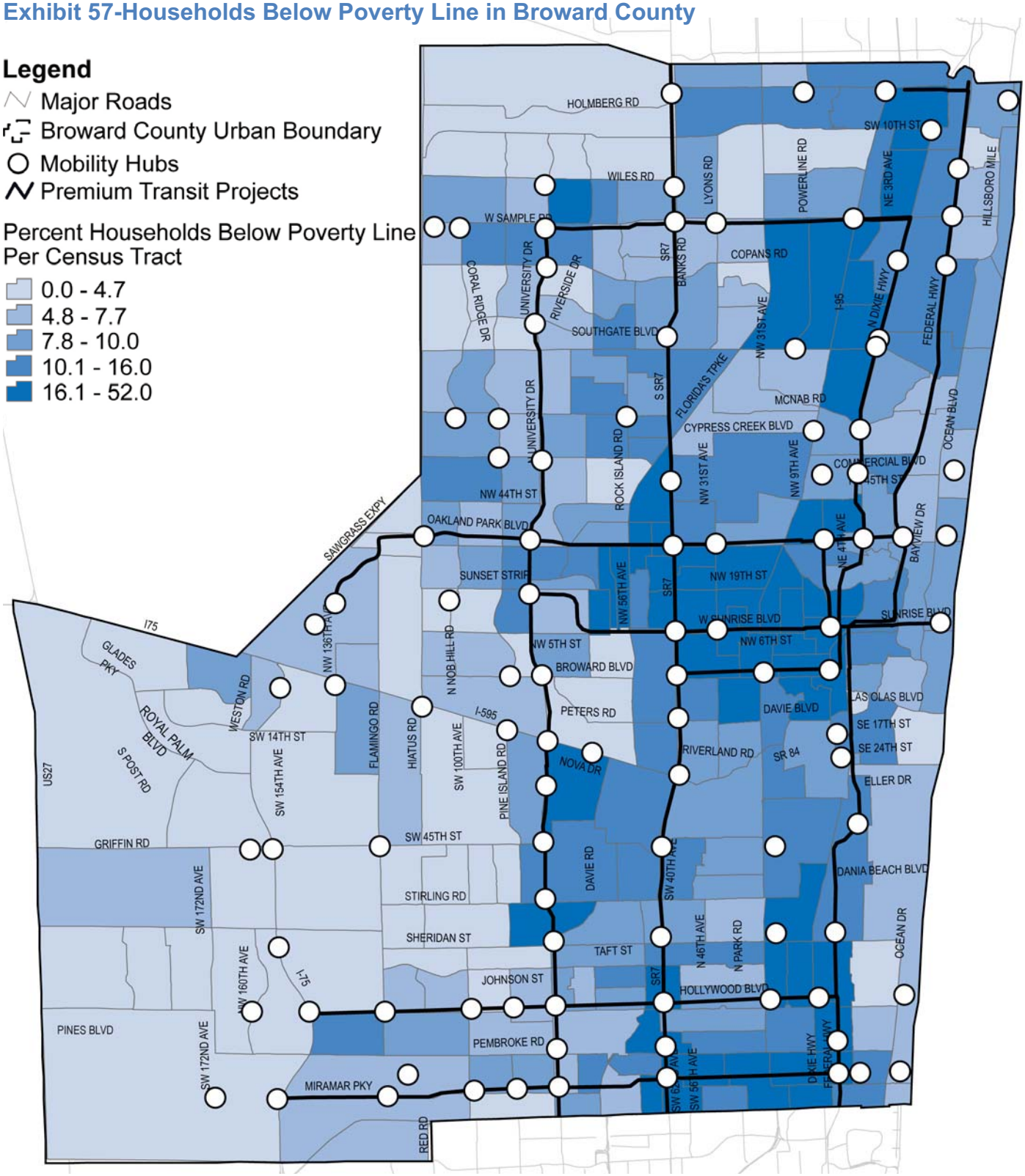

Exhibit 58-Transit Dependency in Broward County

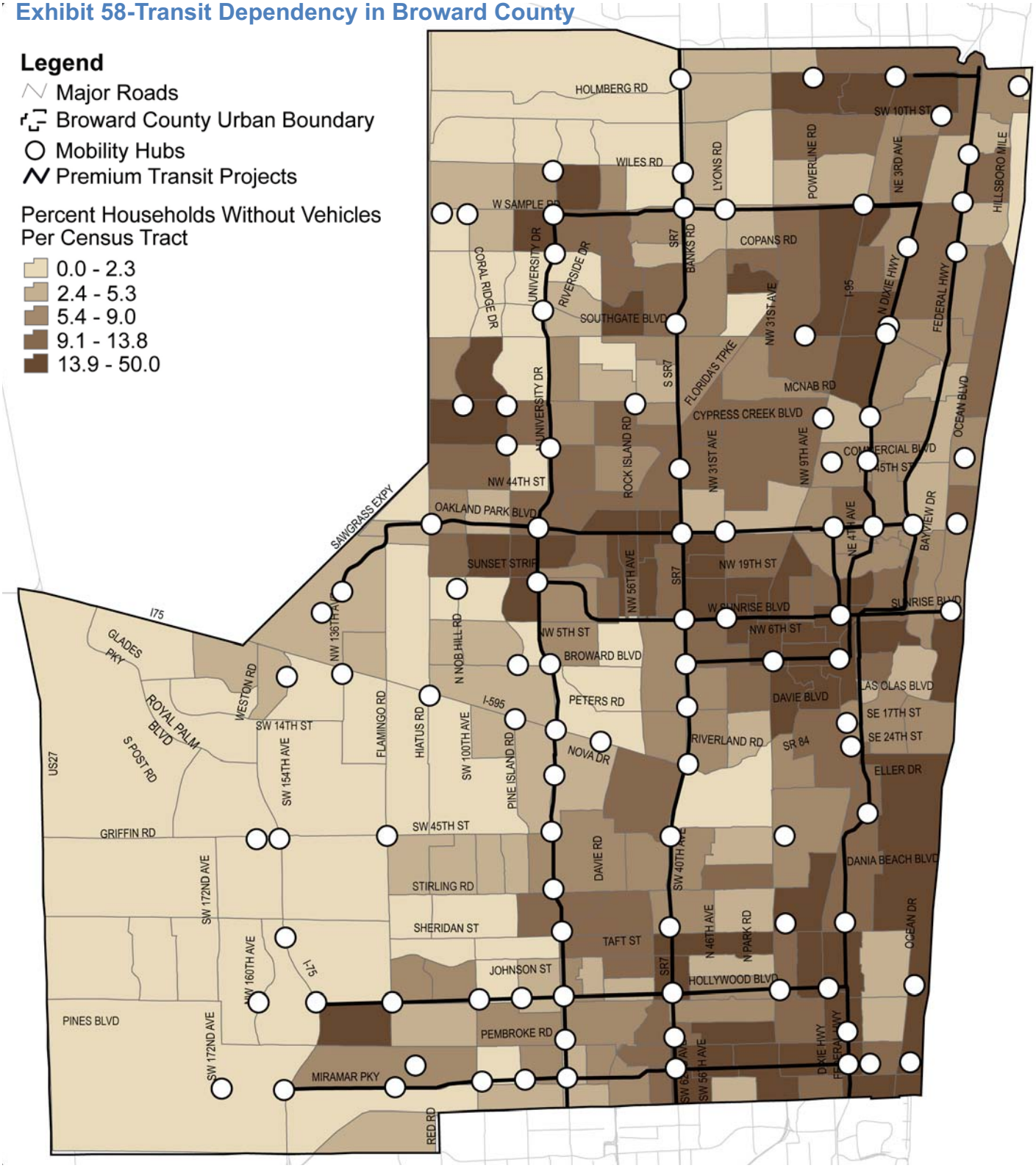

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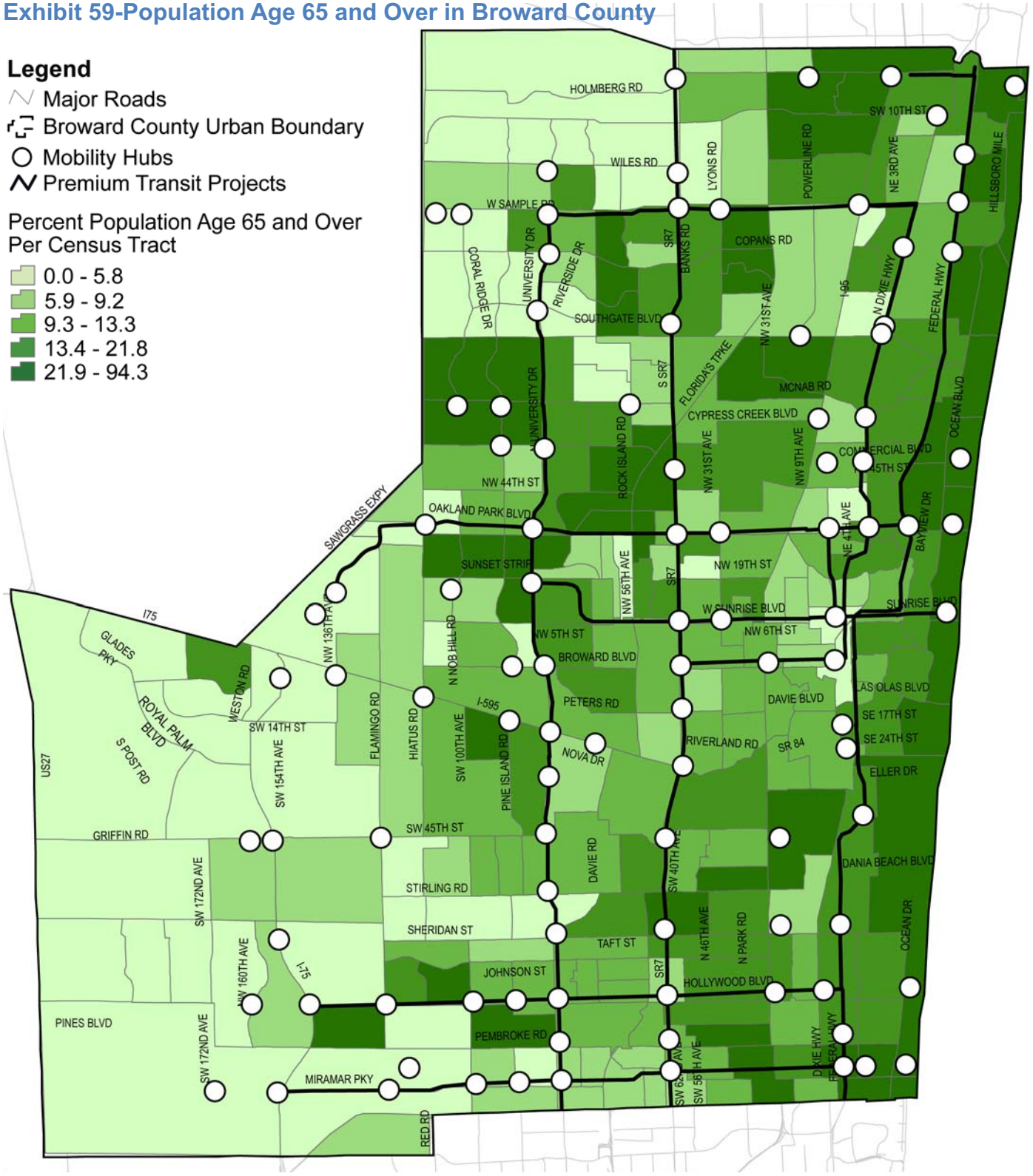
Exhibit 59-Population Age 65 and Over in Broward County



Premium Transit corridors will be placed within a half-mile of 42% of Broward's population.

6.3.3 Distribution of Transportation Benefits

The degree to which a segment of the population benefits from each 2035 LRTP project type is measured and compared to total population benefited by that project type. To make this comparison, an analysis using Geographic Information System (GIS) was made to determine the inclusion of minority, low-income, transit dependent and elderly residents within a half-mile perimeter of the project type included in the Cost Feasible Plan. A second tally of the total population within that same half-mile perimeter was made. The number of persons or households in a socio-economic group was then compared to the total persons benefited by those projects. Project types for which this comparison was made include Premium Transit, roadways, greenways, pedestrian sidewalks and bicycle improvements.

90% of minority populations will be within a half-mile of bicycle improvements.

The comparative distribution of benefits is shown in Exhibit 60. The types of projects included in the 2035 LRTP benefit a large portion of the population. Connectivity projects (greenways, pedestrian sidewalks and bicycle improvements) in particular benefit a broad base of our population.

The locations of Premium Transit projects included in the Cost Feasible Plan would be located within a half-mile of 42% of total population of Broward County. Over half of the minority and low-income populations will benefit. Minority and low-income populations would benefit in a comparable or greater proportion than their representation in Broward County of 29.4% and 10.8%, respectively. The percent of minorities located within a half-mile of all project types is also greater than or comparable to the percent of all those benefited countywide. The same proportional distribution is evident for transit dependent households and elderly residents.

The proportionality of benefits is largely due to the nature and extent of the transit and related connectivity improvements including greenways prioritized in the 2035 Cost Feasible Plan. All projects identified for the connectivity projects are funded based on need and will benefit traditionally underserved populations, as well as elderly and transit dependent. Seventy five percent of the total minority populations and low-income households are within a half-mile from projects included in the Cost Feasible Plan for pedestrian improvements; 90% are within a half mile from planned bicycle improvements; 60% are within greenways. Premium transit projects and connectivity to the Mobility Hubs may also help spur economic development adjacent to these hubs or station locations.

In addition to distribution of benefits, another major concern in typical LRTPs is blocking access of low-income and minority areas to the transportation system with the implementation of roadway projects such as limited access roadways and interchanges. The 2035 LRTP has very minimal provisions for additional roadway capacity and seeks to minimize these types of effects.

Exhibit 60-Transportation Benefits/Impacts by Socio-economic Group Relative to Total Population

Distribution of Benefited Population/ Households (within ½ Mile of Project)	Premium Transit	Roadways	Greenways	Pedestrian	Bicycle
Total Population	678,000	549,570	966,673	1,152,718	1,357,456
% of Broward County	41.8%	33.9%	59.6%	71.0%	83.6%
Total Households	274,464	210,562	390,850	466,727	542,737
% of Broward County	41.9%	32.2%	59.7%	71.3%	82.9%
Minority Population	254,844	192,273	276,329	360,761	430,352
Minority % of Total Population	29.4% of Broward County Population				
% of Total Benefits	37.6%	35.0%	28.6%	31.3%	31.7%
% of Minority Population Benefited	53.3%	40.2%	57.8%	75.5%	90.1%
Low-Income Households	36,543	26,127	41,483	53,729	62,067
Low-Income % of Total Households	10.8% of Broward County Households				
% of Total Benefits	13.3%	12.4%	10.6%	11.5%	11.4%
% of Low-Income Benefitted	51.7%	37.0%	58.7%	76.0%	87.8%
Transit Dependent Households	30,310	19,980	35,511	45,231	51,787
Transit Dependent % of Total Households	9.4% of Broward County Households				
% of Total Benefits	11.0%	9.5%	9.1%	9.7%	9.5%
% Transit Dependent Benefited	49.5%	32.7%	58.0%	73.9%	84.6%
Elderly Population	101,013	79,154	155,259	182,933	207,180
Elderly % of Total Population	16% of Broward County Population				
% of Total Benefits	14.9%	14.4%	16.1%	15.9%	15.3%
% of Elderly Benefited	38.8%	30.4%	59.6%	70.2%	79.6%

The LRTP includes options to improve health through human powered transportation.

With regard to human health, alternative modes proposed not only lessen localized air pollution, but also provide indirect health benefits. Implementing transportation strategies and policies that reduce reliance on private motor vehicles will result in reduced air pollution leading to reductions in the incidence of asthma and other respiratory disease. It has been proven that lower income and minority areas in the United States suffer from more severe health afflictions. An increase in the use of human-powered transportation, such as walking and bicycling, through the provision of improved facilities and the design of walkable neighborhoods around Mobility Hubs, helps combat a range of modern health problems such as obesity, adult-onset diabetes, heart disease, osteoporosis, cancer, and stroke. Having access to safe pedestrian and bicycle routes means people are more likely to choose walking or biking as modes of transportation, thus increasing their physical activity. People are also better able to interact with their community and engage in outdoor activities with their families, building valuable social capital.

6.4 Safety and Security

Safety and security comprise two of the planning factors that should be considered as part of a long range transportation plan according to SAFETEA-LU legislation. Safety for transportation is defined as the condition of being safe; freedom from danger, risk, or injury. The United States Departments of Transportation and Homeland Securities program goal is to promote public health and safety by working toward the elimination of transit-related deaths, injuries, property damage and the improvement of personal security and property protection.

For transportation, safety generally applies to the reduction in the occurrence of accidents or crashes, and also applies to the reality and perception of users of the system being safe. Typical issues include:

- Are the vehicles safe modes to ride on?
- Are the facilities associated with it, such as station areas, safe?

Security as a state or condition is resistance to harm. From an objective perspective, it is a structure's actual degree of resistance to harm. That condition derives from the structure's relationship (vulnerability, distance, insulation, protection) to threats in its environment. Security for transportation systems includes measures to protect from terrorism and deliberate threats to the systems and users of transportation facilities.

Safety and security programs for transportation facilities are relatively new, but evolving at a rapid pace. The 2035 LRTP, with its focus on transit, will develop projects which are closely related to the efforts of the Federal Transit Administration (FTA). FTA continues to test and evaluate advanced technologies (including chemical and biological detection systems) to reduce transit crime and counter terrorism

targeted at transit patrons, employees, and facilities. The main focus areas of FTA's Safety and Security Program are Railroad Safety, Information Systems Security, Crime Prevention and Anti-Terrorism and Intelligent Vehicle Initiative. The Department of Homeland Security is expected to issue a set of guidelines and procedures for additional transit related security in 2010. Details have not been published as of the publication of this LRTP. However, the Homeland Security – Comprehensive Assessment Model (endorsed by the Florida Department of Law Enforcement) provides community leaders with a method of assessing threats to the community and identifying the critical facilities, critical infrastructure and events within the community.

According to *Safety in Numbers: More Walkers and Bicyclists, Safer Walking and Bicycling* by P. L. Jacobsen, the likelihood that a given person walking or bicycling will be struck by a motorist varies inversely with the amount of walking or bicycling. This pattern is consistent across communities of varying size, from specific intersections to cities and countries, and across time periods.

6.4.1 Safety

In dealing with crashes and accidents, the 2035 LRTP seeks to provide mitigation in several ways. Firstly, historical crash and accident data were used in the evaluation of project needs, particularly for roadways, pedestrian, and bike facilities and resulted in improvements to reduce incidents. For roadways, geometric and capacity improvements were programmed in select locations.

For pedestrians and bicyclists, additional facilities with adequate buffers from other types of transportation have been programmed. Miami-Fort Lauderdale metropolitan area ranked third worst in the nation for pedestrian safety according to a pedestrian danger index devised by the *Surface Transportation Policy Partnership*. The shift to alternative modes through this LRTP will not only improve facilities for pedestrians and bicycles, but also create a culture of walking and biking. With mode shifts to alternative modes, including transit, more non-auto travelers will create an awareness of safety for others and hopefully set greater priorities for non-auto travel. Of the top four cities that were worst ranked in the nation for pedestrian safety, all of them were in the State of Florida. This is indicative of urban sprawl and the emphasis on higher speed auto travel in the planning and design of transportation facilities in the state. Multimodal planning and design, with great consideration of pedestrian and bicycle, and in some cases priority over other modes should evolve based on the emphasis of this LRTP.

Concentrating activities at Mobility Hubs provides opportunities for safety. The Mobility Hub areas will be well lighted, patrolled by cameras and personnel, and most importantly serve as centers of the community, with lots of activities which will generate "eyes on the street" in well-lit areas. Mobility Hubs with personnel will contain emergency alarms in employee areas. In addition, courtesy telephones will be located at all Mobility Hubs to report safety incidents. At selected Mobility Hubs, fixed cameras will remain focused on the telephones and elevator waiting areas at all times. Outside the Mobility Hubs, cameras and infrared spotlights placed in parking lots ensure continuous surveillance of these areas for any type of criminal activity.

Although the Cost Feasible Plan does not include funding for additional rail services, light rail transit may be a component of the region's transportation solution with the successful achievement of innovative funding in the future. Trains typically contain an emergency door release for quick exit in the event of illegal or suspicious activity. Should passengers need to communicate with the train operator, they could use intercoms located in every car.

Along Premium Transit lines traveling at higher speeds, fences and/or curb separations will be built in addition to safe pedestrian crossing areas, at-grade and grade separated, as appropriate. Shrubbery and landscaping will also be kept to a minimum at all points along the system, thereby minimizing the likelihood of hidden or concealed illegal activity and maintain visibility for all travelers in the corridor.

An additional aspect of safety that has been taken into account for South Florida is hurricane preparedness and response. This aspect is discussed in 5.1.6 Hurricane Evacuation section of this document.

6.4.2 Security

Most transit agencies have never experienced an incident of terrorism on surface transportation. However, crisis management protocol for responding to questionable activities is standard for transportation agencies.

Locally, a regional security strategy has been developed and implemented by the SFRTA and Miami-Dade Transit Safety and Security staff. The regional security strategy identifies specific security goals and objectives for the South Florida transit region. The strategy identifies regional training, security hardware and technology that will allow for regional inter-operability. Some of the efforts already underway include:

- ***Transit Watch***-A Transit Watch Program for passenger and public awareness of suspicious activity. The program urges passengers to report suspicious activity to on board and security personnel.
- ***Employee Awareness***-Employees have received training in system security awareness from the National Transit Institute training course developed at Rutgers University. This training includes employee actions for identifying and reporting suspicious activities encountered on the rail system.
- ***Employee Training***-Training has been provided to employees through the Terrorist Activity Recognition and Reaction, another course developed by the National Transit Institute at Rutgers University.

- ***Advanced Training***-Advanced training has been provided for some staff and contract security employees. This training includes:
  - Improvised Explosive Device recognition course (Explosives Detection Group, Broward County);
  - Land-based transportation anti-terrorism course (Federal Law Enforcement Training Center and Chicago Police Department); and
  - Behavior Assessment Screening System.
- ***First Responder Training -***Training with local, first-responder agencies has increased, with focus on specialized units, such as Special Weapons and Tactics, K-9 units, as well as investigative and forensic teams.
- ***Exercises and Drills***-Local transit agencies have participated and sponsored a number of security-incident-based scenario drills related to Hostage and Explosive Devices, Suspicious Substances, Communications Checklists and Security Incidents.

A major element of keeping a transportation system secure is related to personnel. Several aspects of personnel are screening and monitoring of personnel including psychological reviews, as well as training personnel to appropriately respond to emergency situations. Specifically, drivers of transit services are the "first line of defense" in detecting and responding to suspicious circumstances. Thus, their job goes well beyond the roles of strictly transportation providers.

As the transit system evolves as a result of this LRTP, additional strategies should be developed for all transit operators at a regional and local level for radiological, chemical, and biological incidents that could take place along the transit system's train and bus lines and in stations. Each plan should carry detailed instructions and procedures pertaining to a particular type of incident and place including:

- Isolating the incident area to contain the effects of the material in the smallest space possible;
- An evacuation process that works to move people away from the source of the attack in an orderly, yet quick, fashion;
- Cessation of train, streetcar or bus service to prevent material from spreading into previously uninfected areas;
- Turning off the ventilation system to the extent that it helps to contain materials that would otherwise travel by air;
- Dealing with the media to keep people apprised of events;
- Coordination with other governments and agency involved in a response.

As the transit system evolves as a result of this LRTP, additional strategies should be developed for all transit operators at a regional and local level for radiological, chemical, and biological incidents that could take place along the transit system's train and bus lines and in stations.

The installation of ATMS systems throughout the County is included in the Cost Feasible Plan element of the LRTP. Real-time passenger information will be used to disseminate information to passengers in an emergency situation. ATMS systems can help facilitate communications and new technologies as they come on board. As gathering places for the community, Mobility Hubs can provide locations both to disseminate warnings and information as well as provide shelter and locations from which to organize response and distribute assistance.

Security Funding Opportunities

The allocation of federal and state transportation funding is subject to planning and action by agencies composed of elected city and county officials. The safety of Broward County's transportation and related facilities will only become more important as larger numbers of Broward County residents come to rely upon the transit system. Many financial resources are available through the seven preparedness programs within the Homeland Security Grant Program (HSGP), namely:

- Homeland Security Grant Program (HSGP)
- State Homeland Security Program (SHSP)
- Urban Areas Security Initiative (UASI)
- Metropolitan Medical Response System (MMRS)
- Citizen Corps Program (CCP)
- State Homeland Security Program Tribal (SHSP Tribal)
- Nonprofit Security Grant Program (NSGP)
- Operation Stonegarden Grant Program (OPSG)

Together, these grants may fund a wide range of preparedness activities, to include planning, organization, equipment purchase, training, exercises, and management and administration costs. These programs support objectives outlined in the National Preparedness Guidelines and related national preparedness doctrine, such as the National Incident Management System, National Response Framework and the National Infrastructure Protection Plan.

Exhibit 61-LRTP-Related Infrastructure Security Programs

Program	FY 2008	FY 2009
Transit Security Grant Program	$348,600,000	$348,600,000
Freight Rail Security Grant Program	$15,000,000	$15,000,000
Intercity Passenger Rail (Amtrak)	$25,000,000	$25,000,000
Port Security Grant Program	$388,600,000	$388,600,000
Intercity Bus Security Grant Program	$11,172,250	$11,658,000
Trucking Security Program	$15,544,000	$7,772,000
Buffer Zone Protection Program	$48,575,000	$48,575,000
TOTAL	$852,491,250	$845,205,000

Source: U.S. Department of Homeland Security

For transit, the focus of the 2035 LRTP, the FY 2009 Transit Security Grant Program (TSGP) provides grant funding of $348 million to the nation's key high-threat urban areas to enhance security measures for their critical transit infrastructure including bus, streetcar, and rail systems. Transit agencies eligible for FY 2009 TSGP funding were identified using a risk analysis model. This risk methodology is consistent across modes and is linked to the risk methodology used to determine eligibility for the core Department of Homeland Security, State, and local grant programs.

Given the tremendous emphasis on transit as preferential mode of travel in the 2035 LRTP, it is anticipated that additional resources will be allocated to transit security, through the pursuit of federal funds and local funding. Freight, port, and intercity transit which reach beyond the Broward County area also warrant additional security.

6.5 Innovative Funding Options

As part of the 2035 LRTP planning process, a range of potential revenue sources for Broward County were reviewed. The potential public sector funding sources (that is, government-imposed taxes or fees) can be usefully divided into existing sources and new sources. The existing sources can generally be increased either by Board action or by countywide referendum, with no approval or new legislation required from the Florida State legislature. The new funding sources, by contrast, would generally require that the legislature grant significant new authority to the county and in some cases a state constitutional amendment might be required. Changes to some of the "smaller" existing fees could also require state legislative approval.

Specific examples of TSGP projects include website enhancements to better market transit programs, provision of route information, and replacement of closed circuit television monitoring systems on buses.

Of sources evaluated, many are not recommended for further consideration, for the following reasons.

- Increases in smaller fees (such as hotel, or mortgage transfer) do not provide enough "bang for the buck" given their already high rates of taxation and relatively small revenue bases. Furthermore, the potential political difficulty involved in raising these taxation rates is high, given the desire to encourage tourist and business travel in the current economy.
- Major increases in general fund-related support for transit are unlikely given the county's current budget position and competing needs.
- Additional gas taxes beyond the levels currently authorized would require a constitutional amendment.
- Strategies should be applicable across the county; for example, parking fees are focused on downtown areas only.
- Income and employer taxes are highly controversial and not likely to be pursued at a county level.

Private sector funding and financing options also exist for the county, but they are much more difficult to project with any confidence, particularly given the current economic situation. Possible private sector involvement can also be broken down into two main types.

Concessions: Although the Public-Private Partnership (PPP) market is currently in turmoil due to the credit market crisis, some projects are still proceeding successfully. On the highway side, there appears to be a shift developing towards "availability" payments (such as with the managed lane project on I-595) and away from private sector firms taking on revenue risk in the form of actual or shadow tolls. On the transit side, there continues to be interest in design-build and DBOM (design-build-operate-maintain) partnerships for delivering new transit projects.

Joint Development: The potential for joint development efforts around fixed guideway transit stations continues to hold promise. These joint development efforts could include air rights development, parking structures, donation of right-of-way, stations integrated into existing buildings, and other in-kind donations. A large number of empirical studies have confirmed the positive impact of transit station improvements on nearby property values.

Concessions and Joint Development linked to Mobility Hubs should be considered as supplemental funding sources, but not as the major component of innovative financing at this time.

Innovative Funding Options:

More funding is needed to fulfill the 2035 LRTP Goals. The Cost Feasible Plan assumes we will only build BRT as LRT would require more funding. Also, operating funds required for Broward County Transit is not fully funded in this plan. Possible funding options:

- *Sales Tax*
- *Vehicle Miles Traveled (VMT) Tax*
- *Tax Increment Financing Districts (TIFD)*

Of the public options studied, the following three were recommended for consideration based on the desire to generate enough revenue to achieve the goals of the 2035 Cost Feasible Plan. These potential new revenue sources are referred to as the innovative funding options.

- Sales Tax
- Vehicle Miles Traveled (VMT) Tax
- Tax Incremental Financing District (TIFD) (also a form of Benefit Assessment District)

Recent State of Florida legislation provides direction to the Department of Community Affairs (DCA) and FDOT to establish a methodology for implementing a mobility fee to replace transportation concurrency. The"Joint Report on the Mobility Fee Methodology Study" was released December 1, 2009.

Exhibit 62 shows the potential additional new annual revenue for Broward County. The revenue estimation processes for the sales or surtax and the VMT tax was straightforward. Sales tax estimates were taken from the *Local Government Financial Information Handbook* for Broward County and estimated VMT in 2035 was taken from the regional travel demand model. A 2-cent per mile VMT charge in 2035 was assumed, which is roughly equivalent to a 1-cent per mile charge today. The recent Oregon Department of Transportation pilot program for VMT taxing used a standard charge of 1.2 cents per mile, so the hypothetical 1-cent charge in this analysis appears reasonable.

Recent State of Florida legislation provides direction to the Department of Community Affairs (DCA) and FDOT to establish a methodology for implementing a mobility fee to replace transportation concurrency (also known as SB 360). The agencies must file a report to the legislature by December 1, 2009, including recommended legislation and a plan to implement the mobility fee as a replacement for transportation concurrency.

Urban transit could significantly raise property values in station areas, especially if the regional economy is growing, and complementary regulatory and joint development programs are in place. Joint development programs supportive of TIFD include permissive zoning, street improvements, and design features such as pedestrian plazas. Most of the land use and value impacts occur within a quarter to a half mile of stations, where office rents tend to increase and housing prices are higher. To place this in its widest perspective, the presence of transit generally enhances urban real estate values. For example, it is estimated that the 300 full-service rail transit stations operated by Chicago's CTA and Metro currently generate land value increments of $1.6 billion annually. Mobility Hubs in addition to Transit Oriented Corridors proposed as part of 2035 LRTP for Broward County can capitalize on increased values and more productive uses of land. The calculation of the possible revenues from TIFD areas around the proposed "hubs" in the county was more complex.

Urban transit could significantly raise property values in station areas.

Exhibit 62–Potential New Public Sector Funding Sources

Rate	Annual Revenue Potential	Positive Factors	Negative Factors
Sales Tax (Charter county transit surtax)			
1% (1 cent)	$287 million	Financial: Generates significant funding off of broad base.	Financial: Evidence suggests future growth rates will not match historical experience.
		Legal: Authority already in place, though referendum would be required.	Political: Surtax has failed previously with a less detailed plan.
		Administrative: Collection structure is in place.	
Vehicle Miles Traveled (VMT) Tax			
2¢ per mile	$136 million	Financial: Could generate major new funding at a low rate on a very broad base.	Legal: No current authority in Florida uses such a tax. This is also true for the U.S., with the exception of pilot programs.
		Political: Could be used for congestion management, as well as raising revenue.	Political: Major opposition may be likely and would have to address privacy concerns.
			Administrative: An entirely new collection structure would be required.
Tax Increment Financing District (TIFD)			
N/A	$187-$496 million (Potential depends on land use and increment captured)	Political: Does not require an explicit increase in taxes.	Political or Financial: May be viewed by some as a shifting of tax revenues rather than creating a completely new funding source.
		Legal: Authority for TIFD does exist in Florida.	
		Administrative: Utilizes existing property tax collection mechanism.	

Estimates are for revenue available in 2035, but are expressed in current year (2009) dollars. Future inflation of 3% assumed. VMT calculation assumes base of 49 million daily VMT in 2035 (from travel model) with annualization factor of 330 days and 10% reduction in travel due to change.

Three scenarios were developed for the TIFD analysis in addition to a Baseline Scenario to separate the affect of different background growth mechanisms and the impact of transit oriented development in Broward County. The Baseline Scenario assumes that there is no growth in assessed property values. Assumed current property values were held constant throughout the analysis period.

Scenario 1 considers only background growth in the assessed property values. This scenario assumes that the number of parcels remain constant. Population and employment can reach 2035

projections; however, it will mean that there is a significant increase in density within existing parcels (units per parcel).

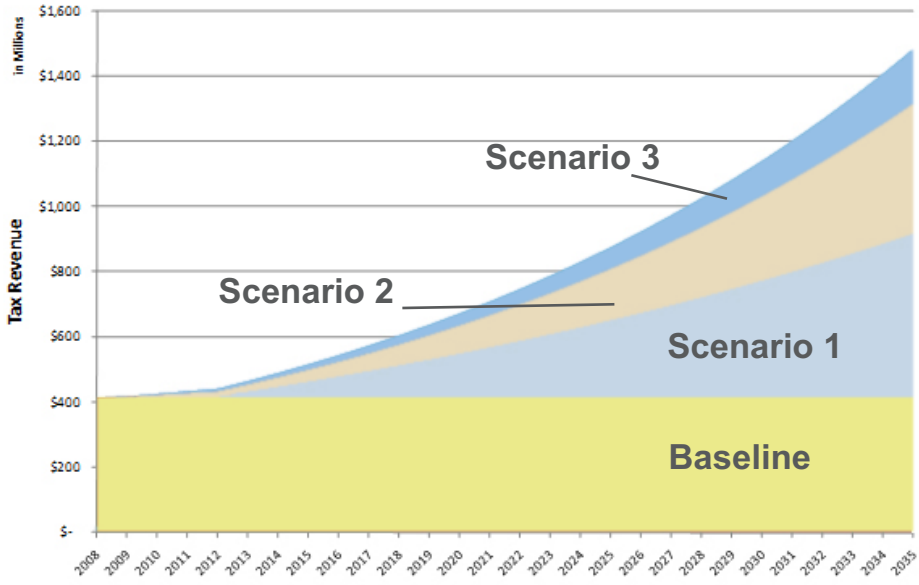
Scenario 2 considers growth in assessed property values and the expansion of parcels due to population and employment growth. It is assumed that increases in population and employment are proportional to increases in the number of parcels and that there is a maximum density allowed per parcel before a new parcel needs to be created to accommodate the increases.

Scenario 3 incorporates additional growth due to transit investments in the Gateway Hubs and the resulting transit oriented development it may spur. Expected tax increment revenues are contingent upon the construction of the Gateway Hub projects and associated development. Scenario 3 assumes expeditious start-up of this new program.

Assuming the current millage rate of $20.27 per $1,000 assessed value, the tax revenue in 2008 is $415 million. In Scenario 1, using a conservative growth of zero percent from 2009-2012, and 3.5 percent per annum thereafter, the tax revenue grows to $915 million in 2035, an increase of $500 million. If population and employment grow according to current trends, Scenario 2 forecasts tax revenue to be $1,319 million, an increment of $404 million over the background growth in assessed property values. If transit investments in the Gateway Hubs spur transit oriented development, Scenario 3 forecasts tax revenues to be $1,485 million, or an additional $166 million above expected growth in assessed values based on trending population and employment.

For each scenario, the assessed taxable property values were calculated by property class, and then multiplied by the millage rate to determine the tax revenue. Exhibit 63 shows a graphical representation of the incremental revenue brought on by each scenario. Exhibit 64 displays the 2035 tax revenues in tabular format.

Exhibit 63-Incremental Tax Revenue by Scenario, 2008-2035



A sales tax initiative will require a well-defined and balanced improvements plan to gain voter support. A flexible, multi-level strategy may be necessary.

Exhibit 64-Tax Revenue Results by Scenario

Revenue Results	2008	2035	Added Revenue
Baseline	$414,995,139	$414,995,139	
Scenario 1		$915,526,785	$500,531,646
Scenario 2		$1,319,418,545	$403,891,760
Scenario 3		$1,485,244,279	$165,825,734

Revenues shown in 2009 Dollars

Broward County faces difficult decisions in the coming years about the funding of its transportation needs. A number of potential funding options exist that could supplement existing transportation revenues and prevent the deferral of important investments, but each of these options presents political challenges for the county, and individually some of the options also face legal, administrative, and even financial drawbacks.

In light of its revenue potential and the existing regulatory and administrative structure surrounding it, the Charter County Transit Surtax may be the most feasible new funding source for the county in the near-term. This type of sales tax initiative will require a thoroughly defined and defensible improvement plan as well as extensive public information campaign to highlight the merits of any proposed taxes.

In the long-term, the VMT tax and TIFD hold the greatest promise as robust, stable funding. The VMT tax is a new concept and would likely include implementation support from federal entities. TIFD holds promise as way to generate revenue tied to land use improvements, but depends on market factors and is typically realized over a long period of time.

A single strategy or a combination of these three solutions discussed–Sales Tax, VMT Tax, and TIFD will be instrumental in the implementation of needs beyond available resources in the Cost Feasible Plan.

SEFTC serves as the region's planning entity.

6.6 Regional Planning

MPOs in the tri-county area formed the Southeast Florida Transportation Council (SEFTC) on January 9, 2006. SEFTC was formed to serve as a forum for coordination and communication among the Palm Beach, Broward, and Miami-Dade MPOs; FDOT Districts Four and Six; Florida's Turnpike Enterprise; SFRTA; and the Treasure Coast and South Florida Regional Planning Councils. Membership in SEFTC includes the chairs of the three MPO Boards. Monroe County, the Martin and St. Lucie MPOs, and other agencies and organizations are involved in transportation planning and programs in cooperation with SEFTC in Southeast Florida. SEFTC duties are tied to the post-census commitments made by the three MPOs that are being implemented with assistance from

the Regional LRTP Committee. The duties of the SEFTC include the development of:

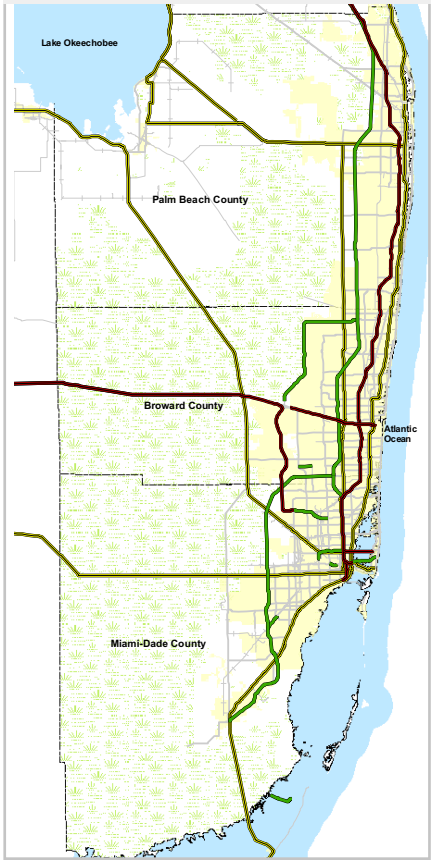
- A regional long range transportation plan,
- A process for prioritization of regional projects,
- A regional public involvement process,
- Performance measures to assess the effectiveness of enhanced regional planning, and
- Coordination efforts in delivering improvements to the regional transportation system.

A common regional element is under development for the three MPOs. The Regional LRTP will accommodate the work that was documented in the three individual 2035 LRTPs including the Broward 2035 LRTP.

The Broward MPO has been closely coordinating the 2035 LRTP transportation planning process with its neighboring counties of Palm Beach and Miami-Dade from the development of goals to the preparation of the Cost Feasible Plan.

As a result of these coordination efforts, southeast Florida will have produced in the year 2010, the first Southeast Florida Regional Long Range Transportation Plan (RLRTP). As implied, the 2035 RLRTP is the tool linking Palm Beach, Broward and Miami-Dade MPOs long range plans together into one vision. This document will provide a prioritized set of highway and transit improvements for the region in recognition of the regional characteristics of many travel needs. With the continuous interaction throughout the three southern counties, the intent is that this plan will provide additional opportunities for funding and transportation projects that would otherwise not be available.

South Florida Tri-county Area



The regional LRTP is an important step towards tri-county planning.

The main components of the regional plan include:

Exhibit 65-2035 Regional LRTP Components

Overview of Regional/Statewide Studies and Plans
Thirty documents that pertain to the regional transportation system and existing and forecast travel activities in the tri-county area were reviewed. For each document reviewed, the relevancies and inconsistencies to the 2035 RLRTP were summarized and documented into one technical memorandum.

Regional Goals, Objectives, and Measures of Effectiveness
Regional goals, objectives, and measures of effectiveness were developed to ensure the plan is in line with the federal guidelines, state guidelines, and local MPO 2035 LRTPs.

Regional Public Involvement
Regional public involvement activities were coordinated through the public involvement activities of the three MPO LRTP updates. Regional information and materials were included during local activities and were designed to solicit input on regional transportation concerns and proposals.

Regional Transportation Network
The Corridors of Regional Significance were revised and updated based on a revised set of criteria. The updated network is titled the Regional Transportation Network.

Regional Modeling
Through the Regional LRTP efforts, the modeling activities for each MPO plan were coordinated to ensure a consistent methodology was applied across the region. The end product was one coded network in the regional model (SERPM). The regional-level modeling reviews generally focused on regional corridors, external travel, and travel between the three counties.

Regional Needs Plan
All local MPO Needs Plans were collected, reviewed and compiled to prepare the Regional Needs Plan. Only projects affiliated with the Regional Transportation Network will be in the Regional Needs Plan.

Regional Finance Plan
Regional revenue projections for transportation funding that will be available over the next 25 years to support the region's cost-feasible plan were developed for the counties of Palm Beach, Broward and Miami-Dade. Essentially, the three local MPO revenue forecasts were reviewed and compiled to obtain a regional revenue forecast along with regional funding sources.

Regional Cost Feasible Plan
All local MPO Cost Feasible Plans were collected, reviewed and compiled to prepare the Regional Cost Feasible Plan. Only projects affiliated with the Regional Transportation Network will be in the Regional Cost Feasible Plan.

Regional Interim Year Plans
Interim year plans were reviewed for consistency across the three local MPO plans for projects identified on the Regional Transportation Network.

Regional Transit Quality of Service Assessment
A Regional Transit Quality of Service Assessment was conducted for the three county area. Twenty origin-destination pairs were selected within the region for measuring the existing quality of transit service. The three measures quantified included: service frequency, hours of service, and transit-auto travel time. Level of service ratings were reported for these three measures for each of the twenty origin-destination pairs.

For additional information on the 2035 RLRTP and details on the components listed above, please visit the Southeast Florida Transportation Council's (SEFTC) website at www.seftc.org.

Amendments allow changes in transportation programming in response to changing conditions related to funding and project definitions. A risk however, is pursuing modifications that are inconsistent with the overall mission and vision of an adopted LRTP. The 2035 LRTP signals a paradigm shift. The overall objective to shift facilities, services and travel behavior to alternative modes is critical.

6.7 Living the LRTP

Long range transportation plans are unique in their ability to evolve. The amendment process for the 2035 LRTP occurs at regular intervals throughout the year. Amendments allow changes in transportation programming in response to changing conditions related to funding and project definitions. A risk however, is pursuing modifications that are inconsistent with the overall vision and mission of an adopted LRTP. The 2035 LRTP signals a paradigm shift. The overall objective to shift facilities, services and travel behavior to alternative modes is critical. In order to preserve this until the 2040 LRTP update which will likely be initiated four years from now, it is recommended that any plan amendment be measured and documented as to how well they meet the performance measures defined in this LRTP for each, in addition to the vision and mission. If these base parameters are met, flexibility in programming can be accommodated for the following reasons:

- The Cost Feasible Plan **does not include innovative financing**. Based on innovative financing mechanisms currently under consideration, it is anticipated that a dedicated local funding structure may generate an additional $4-10 billion in cash revenues through 2035, resulting in additional projects, or upgrades to projects, including the addition of light rail transit.
- The Cost Feasible Plan maximizes the use of revenues for alternative modes; however, many of the **uses of funds were limited based on established rules**. Changes in the types of improvements that are allowable, specifically for roadway funding in many cases will require state legislative action. If changes are made, amendments to the plan may be warranted.
- **Projects evolve over time**. Many of the Premium Transit corridors and all of the Mobility Hubs documented in this plan have not undergone any detailed study outside of this plan. Based on additional planning, environmental study, design, and community input, project definitions and funding allocations may require modification.

To serve as a living document, special emphasis should be placed on the following approaches and policies defined in the 2035 LRTP within the near term.

- Continue public outreach efforts for elements of the 2035 LRTP.
- Establish "Livability Planning Initiatives" to promote and implement 2035 LRTP recommendations and policies.

- Initiate a transit system plan that can build on the priorities and analyses for Premium Transit Corridors and related facilities. Alternative analyses and/or environmental studies for the priority corridors should be initiated.
- Create a Mobility Hubs pilot program to build prototypes of Gateway, Anchor, and Community hubs.
- Define potential sites for Mobility Hubs based on generalized locations in the 2035 LRTP and amend the Broward County Comprehensive Plan and/or Land Use Plan to reflect these locations and investments.
- Focus Broward County's Livability Planning Initiatives to build on the Mobility Hubs concept.
- Develop alternative approach for the design of bicycle, pedestrian, and Greenway facilities beyond those traditionally used. Identify impediments and establish a process to accelerate the funding and implementation of these transit-supportive facilities.
- Create a pilot program for the creation of bikeshare and carshare programs at future Mobility Hub locations.
- Establish working groups with the business community to initiate public-private partnerships in the development of Mobility Hubs.
- Develop more detailed plans and specific milestones for the innovative financing options defined in the 2035 LRTP.
- Enhance the region's travel demand forecast model to truly reflect emerging markets for alternative modes.
- Test land use scenario planning based on the Mobility Hubs concept and measure demand potential.
- Identify implementing and operating authorities for new services, facilities and programs proposed.
- Refocus the Broward MPO's Congestion Management Process to complement the Livability Planning Initiatives.
- Monitor implementation of ATMS systems which are critical to the successful implementation of many elements of this the 2035 LRTP.
- Incorporate TRIP funding allocations and assign projects (TRIP allocations were not determined at the time of publication).
- Leverage federal funding, especially related to New Starts, Homeland Security, Climate Change (legislation pending at plan completion), new transportation authorization (CLEAN-TEA or Green-TEA legislation pending a plan completion), and Livable Communities.

6.8 Livability Planning Initiatives

Recognizing that the 2035 LRTP provides the basic framework for a system of sustainable transportation and community, MPO staff will take an active approach to promote and implement 2035 LRTP recommendations. Through the Livability Planning Initiative efforts, MPO staff, with local governments, will develop the detailed elements of Mobility Hubs, including the location of facilities, needed bicycle and pedestrian infrastructure, designation of appropriate land uses, and guidelines for appropriate redevelopment and retrofitting. These efforts will explore community support, and ultimately guide the final design of Gateway, Anchor, and Community hubs and assist the MPO in determining funding options including public and private sources.

The planning efforts will take the form of areawide Livability Studies distributed among the five MPO Districts. The MPO will prioritize the study areas using criteria such as the 2035 LRTP Cost Feasible Plan rankings and location of Mobility Hubs, transit routes and ridership, development patterns, redevelopment opportunities, and municipal plans for the Mobility Hub areas. Collaboration and timing of planning efforts will coincide with and support ongoing studies where possible.

The approach to the Livability Studies contains five phases:

1. Coordinate the Scope of Work with the local governments;
2. Conduct data gathering and analysis;
3. Implement a Public Involvement Plan with community visioning meetings;
4. Create recommendations and identify funding sources; and
5. Implement the Planning Strategy recommendations.

The recommendations of the Livability Studies will address five major areas:

- Transportation Improvements: Transit-supportive infrastructure (shelters, sidewalks, streetscaping, etc.) to facilitate multimodal access to transit;
- Land Use Amendments: Designation of mixed-use Transit Oriented Corridors (TOCs) and Transit Oriented Development (TOD);
- Rezoning and Design Guidelines: Land development regulations for transit-supportive, pedestrian-friendly design;
- Business Retention, Expansion, and Attraction: Economic development strategies for private investment; and
- Affordable and Attainable Housing: Greater variety of housing options.

Implementation

The Livability Planning process is a forum for refinement and adjustment of the projects in the 2035 LRTP Cost Feasible Plan, possibly resulting in formal amendments to the LRTP. Implementation will depend on the proper assignment of responsibility for actions at several levels.

Studies will identify specific projects for transportation fund allocation and provide justification for the municipalities to pursue additional funding sources, including grants and public-private partnerships.