

Broward County Transit

Transit Systems Definition Report

Final

November 2022

Transit Systemwide Study, Planning, and Preliminary Design RFP# TRN2120307P1 Name: Broward County Transit Systemwide Study, Planning,

and Preliminary Design

RFP Contract Number: TRN2120307P1

Project Limits: Broward County (Entire County)

Proposed Activity: Provide a transit systemwide study including planning and

preliminary designs resulting in the Premium Mobility Plan

(PREMO)

Document Purpose: Description and documentation of BCT Premium Mobility

Plan's Existing Conditions and Needs.









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Acronyms and Abbreviations

ACS U.S. Census Bureau American Community Survey

BCT Broward County Transit

BRT Bus Rapid Transit

CIG Capital Investment Grant

FDOT Florida Department of Transportation

FLL Fort Lauderdale-Hollywood International Airport

FTA Federal Transit Administration

FY Fiscal Year

LRT Light Rail Transit

MAP Broward Mobility Advancement Program

MPO Metropolitan Planning Organization

MTP Metropolitan Transportation Plan

PAG Project Advisory Group

PREMO Broward County Transit Premium Mobility Plan

RTP Regional Transportation Plan

SERPM8 Southeast Florida Regional Planning Model Version 8

TDP Transit Development Plan

TOD Transit-Oriented Development





Introduction

PREMO incorporates the goals of the Penny for Transportation Surtax Program. This program, referred to as the Broward Mobility Advancement Program (MAP Broward), provides funding support for improving transit service, enhancing multimodal options, and ensuring economic development and benefits. The Transportation Surtax took effect on January 1, 2019.

1.1 PREMO Purpose

PREMO will define a vision for a world-class premium transit network in Broward County. To achieve this vision, PREMO strategically identifies a program of projects that sequences the implementation of premium transit services —connecting local BCT routes to regional services.

Premium transit is an expression that describes high-capacity transit projects that are modern, convenient, attractive, safe, and reliable. Premium transit can also include investments that give preferential treatment to transit in the form of exclusive or shared transit lanes and the use of technologies that give transit a priority at signalized intersections.

PREMO will closely follow Federal Transit Administration (FTA) Capital Investment Grant (CIG) guidelines, while coordinating closely with the Florida Department of Transportation (FDOT), the Broward County Public Works Department, municipal partners, and a variety of other stakeholders.

Figure 1: PREMO Purpose



PREMO Purpose

Invest in a network of countywide **premium transit** services that provides **modern mobility** that is **convenient**, **attractive**, **safe**, **reliable**, and **frequent**





1.2 About Broward County

Broward County is 1,203 square miles in land area and is part of the Miami urbanized area.¹ Broward County is located on the southeast coast of Florida, bounded by the Everglades to the west and the Atlantic Ocean to the east. The western portion of the county is comprised of preservation land for water conversation.² The portion of Broward County within the urbanized boundary is approximately 431 square miles. The County's population is expected to grow nearly 20 percent by 2045, with a projected total of 2.18 million people.³ This expected growth in population will challenge Broward County's future mobility needs, as the roadway network has limited expansion opportunities. Therefore, a premium transit network is needed to support increased economic activity by providing needed mobility for residents and visitors.

BCT is the public transportation provider in Broward County. As documented within BCT Fiscal Year (FY) 2022-31 TDP update, BCT operates fixed-route bus service, including 42 weekday routes, 33 Saturday routes, and 32 Sunday routes. In addition, BCT also operates Limited Stop (Breeze) and Express service, coordinates Community Shuttle service, and provides paratransit service. BCT continues to be the major coordinator and funding source for the Community Shuttle Program (CSP), which operates in 18 municipalities in Broward County with 65 vehicles. Regional transit service within Broward County includes 25 miles of commuter rail (Tri-Rail), 25 miles of intercity rail (Brightline), and a variety of other community mobility services. BCT also provides regional connections to major locations in Palm Beach and Miami-Dade Counties.

¹ United States Census, 2021

² BrowardNext: Broward County Land Use Plan of the Broward County Comprehensive Plan; Adopted 4/25/17, Amended 9/9/21, page 8.

³ Broward Metropolitan Planning Organization, 2045 Metropolitan Transportation Plan, pages 2-13; referencing Broward Planning and Development Management Division (PDMD), April 2018.

⁴ BCT Connected FY 2022-31 Annual TDP Update, page 3.

⁵ BCT Connected FY 2022-31 Annual TDP Update, page 3.

⁶ SFRTA Operations Reports for 2017 boardings at Broward stations, FDOT Urban Integrated Transit Database, Broward County Transit Development Plan Major Update 2019-2029, December 2018, and Broward County Transit Facts, December 2017.





2. Transit Definition of Future Needs

This document presents mobility, demographic, land use, and planning needs in Broward County (transit definition of future needs). Understanding mobility needs, mobility challenges, and community development patterns helps define where effective future premium transit investments should be made. These needs will guide PREMO's development, beginning with the PREMO Initial Network.

To define needs, PREMO evaluated the following categories:



Mobility Needs provide the framework for how the existing system is used and helps to gain an insight of future demand.



Demographic Needs provide an understanding of the community fabric, including population and employment density, household incomes, vehicle availability, and household age.



Land Use Needs define economic development needs and future development opportunities. PREMO focuses on future development opportunities like Transit-Oriented Development (TOD), which clusters residential, business, shopping, and recreational activities within walking distance of transit.



Planning Needs include needs and recommendations presented by current plans and previous studies completed by Broward County agencies and regional partners. These planning recommendations help identify viable strategies for transportation and land use activities in Broward County.





2.1 Mobility Needs

PREMO first evaluated existing countywide travel patterns, roadway congestion, and BCT transit customer activities to identify opportunities for future premium transit.

2.1.1 Mobility Data Collection

Countywide mobility data was collected from three data sources: Southeast Florida Regional Planning Model Version 8 (SERPM 8), Replica Places, and BCT ridership data.

- SERPM 8: The mobility data from SERPM 8 includes years 2015 and 2045 and is part of the Broward Metropolitan Planning Organization (MPO) adopted long-range plan. SERPM 8 data was used to illustrate existing and future roadway congestion.
- Replica Places: A third-party private data vendor, Replica Places contain detailed travel models which provide an accurate snapshot of Broward County in 2019, including boarding activity by stop. The Replica Places data was evaluated for its reasonableness by comparing Replica Places data to SERPM 8 data and was found to be consistent and therefore a viable source.
- BCT Transit Ridership: The data used for this assessment include:
 - o BCT 2021-30 TDP Annual Update
 - o BCT monthly ridership reporting data from October 2017 to August 2022
 - o 2019 annual BCT ridership (boarding) activity from 2019 Replica Places
 - BCT July 2022 General Transit Feed Specification data to derive average travel speeds
 - Transit propensity data derived from Broward MPO adopted socioeconomic data and SERPM 8

2.1.2 Countywide Travel

Broward County is home to 31 municipalities, each with distinct characteristics and unique neighborhoods. This results in a mixture of local travel markets, as well as intercounty and regional travel markets. 2019 Replica Places data was chosen to evaluate these travel markets because the data represents travel trends that occurred prior to the impacts of the COVID-19 Pandemic (Pandemic). Additionally, Replica Places provides boarding activity for BCT stops. Key travel patterns are representative of future opportunities for premium transit investments that connect residents to jobs, recreation, and shopping. The following communities served as a travel destination for more than 20,000 trips daily in 2019 (listed alphabetically):

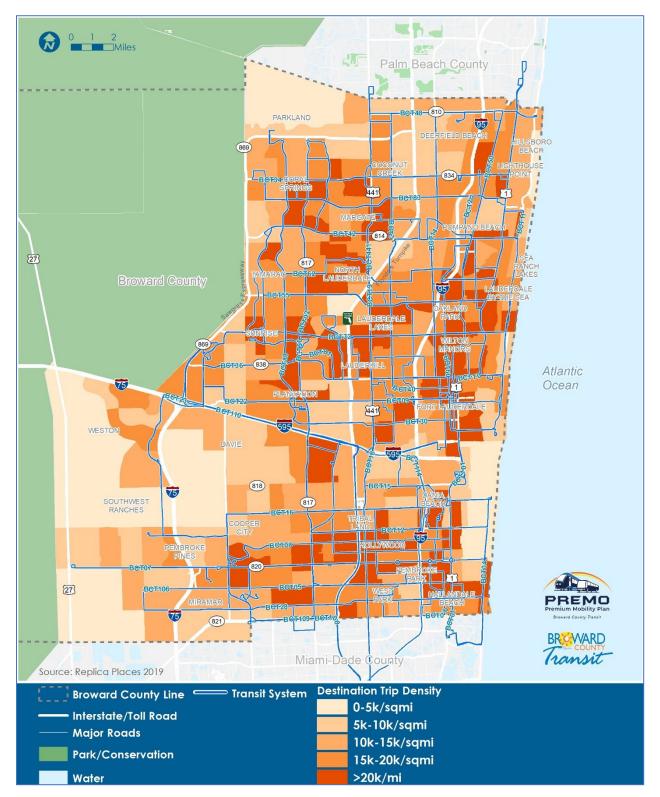
Coral Springs	Hallandale Beach	North Lauderdale	Pompano Beach
Dania Beach	Hollywood	Oakland Park	Sunrise
Deerfield Beach	Lauderdale Lakes	Pembroke Park	Tamarac
Fort Lauderdale	Margate	Plantation	Wilton Manors

Figure 2 illustrates 2019 Replica Places data, related to the distribution and density of destinations for trips taken by people traveling in Broward County.





Figure 2: 2019 Destination Trip Density







Travel patterns illustrated in **Figure 3** show 2019 trends related to the origin and destination of trips. As above, the year 2019 was chosen as the best representation of travel occurring within Broward County, before the impacts of the Pandemic. To evaluate these travel patterns, Broward County was divided into the following districts (listed north to south), consistent with the SERPM 8 planning districts:

- Deerfield Beach
- Coral Springs–Margate
- Pompano Beach
- Plantation
- Fort Lauderdale

- Davie
- Hollywood
- Miramar–Pembroke Pines
- Hallandale Beach

Figure 3 does not illustrate automobile trips, but instead shows individual person trips (2019 Replica Places). An individual's movement between districts is presented as an illustrative "desire line" between each district's geographic center. The objective is to show how much travel there is from one district to another. These desire lines are not representative of actual trip movements along the existing transportation network but represent relationships between districts only.

The 2019 Replica Places data shows a very strong east-west travel pattern between Plantation and Fort Lauderdale. Additionally, downtown Fort Lauderdale and the surrounding area is shown as an important travel hub for the region.

There are very strong north-south travel patterns in both the western and eastern areas of the county. The following was garnered from the 2019 Replica Places data:

- Trip patterns between the Plantation and Fort Lauderdale districts are the largest in the county at over 200,000 daily trips.
- The following trip patterns average between 150,000 to 200,000 trips daily:
 - Deerfield Beach and Coral Springs-Margate, Pompano Beach, and Fort Lauderdale
 - Coral Springs-Margate and Pompano Beach, Fort Lauderdale, and Plantation
 - o Pompano Beach and Deerfield Beach, Coral Springs, and Fort Lauderdale
 - o Fort Lauderdale and all other districts
 - Plantation and Coral Springs, Fort Lauderdale, Davie, Hollywood, Miramar-Pembroke Pines
 - Davie and Fort Lauderdale, Hollywood, and Miramar-Pembroke Pines
 - o Hollywood and Fort Lauderdale, Plantation, Davie, Miramar–Pembroke Pines, and Hallandale Beach
 - o Miramar-Pembroke Pines and Fort Lauderdale, Plantation, Davie, and Hollywood
 - Hallandale Beach and Hollywood





Figure 3: 2019 Broward County Trip Patterns







2.1.3 Roadway Congestion

Premium transit investments create mobility options and add capacity to the existing transportation network. When a congested corridor is physically constrained, the need for non-passenger vehicle capacity (such as sidewalks, bike lanes, and transit service) increases. This is especially true in the case of roads which can no longer be widened or are difficult to widen. The PREMO prioritization process will evaluate congested corridors. **Figures 4** and **5** illustrate forecasted congested corridors in 2045 using information collected from the SERPM 8 travel demand model. Congestion is typically highest during the evening rush hour along most major north-south roadways.

2.1.4 Broward Transit Services

As Broward County's public transportation provider, BCT provides transit services countywide, as well as to downtown Miami, Brickell, and Palm Beach County. As previously mentioned, BCT fixed-route bus service includes 43 weekday routes, 33 Saturday routes, and 32 Sunday routes. BCT also operates 5 express bus services and the Breeze (Limited Stop) bus services. There are also four transfer terminals: Broward Central Terminal (downtown Fort Lauderdale), West Regional Terminal (Plantation), Lauderhill Transit Center (Lauderhill), and Northeast Transit Center (Pompano Beach). Major transfer locations can also be found at Westfield Mall, Golden Glades, Aventura Mall, Young Circle, Fort Lauderdale–Hollywood International Airport, seven Tri-Rail stations, Sawgrass Mills Mall, Galt Ocean Mile, and Pompano Citi Centre (see Figure 6).

In addition to regular fixed-route bus services, BCT also operates Breeze (limited stop) and express services, coordinates Community Shuttle service (see **Figure 7**), and provides paratransit service. Eight free commuter park-and-ride locations are available for express bus customers.⁷

⁷ Broward County Transit; Transit Development Plan, Annual Update 2021 – 2030, page 3





Figure 4: 2045 Forecasted Congested Corridors (Average AM Peak)

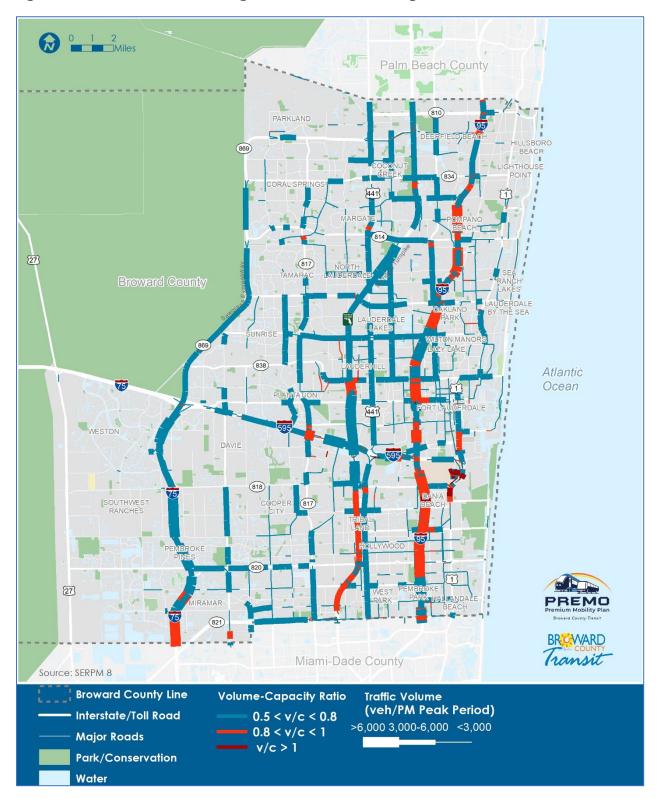






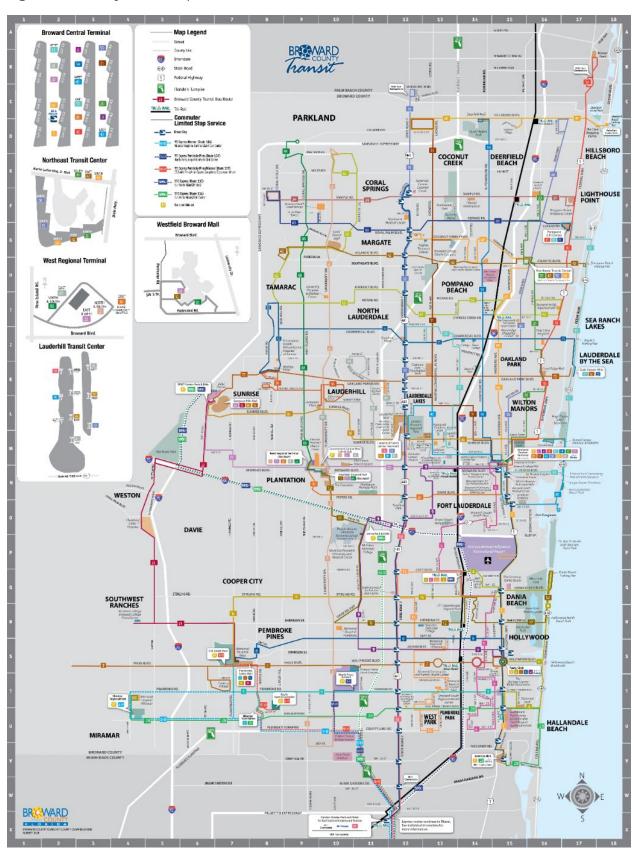
Figure 5: 2045 Forecasted Congested Corridors (Average PM Peak)







Figure 6: BCT System Map

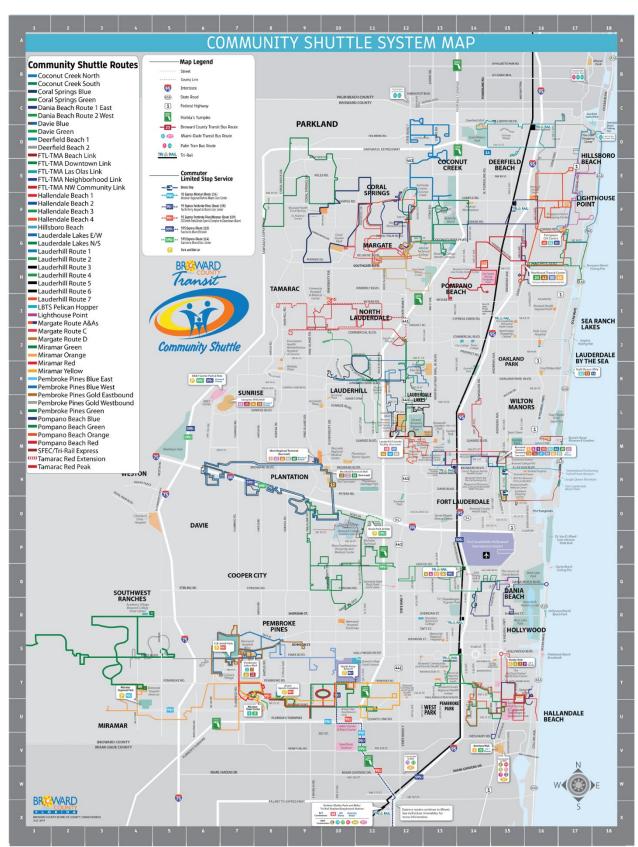


Source: BCT, August 2021





Figure 7: BCT Commuter Shuttle Map



Source: BCT, August 2021





2.2 Recent and Planned Transit Investments

Although several planned service improvements were placed on hold due to the Pandemic, the following improvements are in progress during the 2021-2030 TDP timeframe⁸:

- Bus Fleet Upgrades/Replacements: In 2019, BCT ordered 147 new 40-foot diesel buses and 12 electric buses. The purchase of 146 new propane-fueled paratransit vehicles was initiated in 2019, and the vehicles were received in 2020. The purchase of an additional 60 new propane-fueled paratransit vehicles was initiated in 2020. State funded vehicles included an order of 5 vehicles to support the express service and 4 articulated buses for use on some of BCT's heaviest routes.
- Mobile Ticketing/Regional Interoperable Fare: In 2019, BCT launched its new Mobile
 Ticketing App, which allows customers to pay BCT fares via their personal electronic
 devices. BCT is working with other major public transportation providers in the
 region (Miami-Dade Transit, Palm Tran, and South Florida Regional Transit
 Authority) to sell each agency's fare products on the App.
- Lauderhill Transit Center: Construction on this facility started in March 2020. The facility serves five fixed routes and three community shuttle routes and features 10 bus bays.
- Bus Shelter/Bus Stop Upgrades: In 2020, BCT installed 118 new bus shelters throughout the BCT system. With these additions, there are now 1,219 bus shelters throughout Broward County.
- Broward B-Cycle Program: BCT's Broward B-Cycle bike sharing program saw its largest increase in ridership in its history during 2020, with 53 percent more annual trips in 2020 (57,625 trips) as compared to 2019 (37,670 trips).
- BCT also plans to invest in the following improvements within the current TDP timeframe:
 - o BCT Fixed Route Bus Service Expansion
 - Community Shuttle Service Full Funding of Existing Program and Service Expansion
 - o New Fixed Route Buses and Paratransit Vehicles
 - New LRT Infrastructure and Service
 - o New Rapid Bus/Bus Rapid Transit (BRT) Infrastructure and Service
 - New Planning Studies
 - New Transit Infrastructure

Of the TDP's recommendations, the desire to invest in premium BRT and rail services are most pertinent to PREMO. The TDP defines BRT investments as having a higher level of service (e.g., 10 or 15-minute frequencies), fewer bus stops, real-time information, Transit Signal Priority (TSP), branding, upgraded stations, and additional customer amenities. At a minimum, these BRT investments should meet the FTA definition of Corridor-Based

⁸ Broward County Transit; Transit Development Plan, Annual Update 2021 – 2030, Pg 19





BRT. Meeting FTA guidelines for a Corridor-Based BRT project allows BCT to apply and compete for federal funding in the form of an FTA CIG program transit grant. The TDP also identifies the Rail Network Corridor Study of 2019. These are driving factors for developing PREMO.⁹

2.3 Rider Activity and Trends

The BCT TDP reports that prior to the Pandemic, between 92 and 93 percent of all BCT average weekly customers use the local fixed-route bus services (October 2017 to February 2020). The Community Shuttle programs served between seven and eight percent of BCT customers during the same period¹⁰.

According to the American Public Transit Association, transit agencies across the nation have experienced a decline in ridership due to service restrictions (e.g., social distancing), shift to working from home, and other variables associated with the onset of the Pandemic. BCT also experienced this trend highlighted by the decline in customers in March 2020. Since the onset of the Pandemic, BCT ridership continues to recover in FY 2021-22. **Table 1** illustrates this trend by comparing annual BCT ridership activity in FY 2018-19 to FY 2019–20, FY 2020–21, and FY 2021-22.

Table 1: BCT Ridership by Year

Fiscal Year (October to September)	Total Ridership Activity (Fixed Route and Express)	Percent Change (Compared to FY 2018 - 2019)
2018 - 2019	26,371,330	N/A
2019 - 2020	17,861,881	-32.3%
2020 - 2021	16,425,484	-43.2%
2021 – 2022*	20,068,270	-23.9%

Source: BCT

*Note: September 2022 data was extrapolated using a three-month average (FY 2021-22)

As BCT patronage continues to return after the impacts of the Pandemic, PREMO will take into consideration how customer needs have changed when developing future premium transit recommendations.

Figure 8 depicts BCT local fixed route ridership activity. This is expressed as monthly ridership between FYs 2017–18 to 2021-22¹¹. Similarly, Figure 9 depicts BCT express route ridership activity during the same period.

⁹ Broward County Transit; Transit Development Plan, Annual Update 2021 – 2030, page 36

¹⁰ BCT TDP 2021-2031 Update, pages 3-4

¹¹ Broward County Transit





Figure 8: BCT Local Fixed-Route Ridership - Fiscal Years 2017-18 to 2021-22

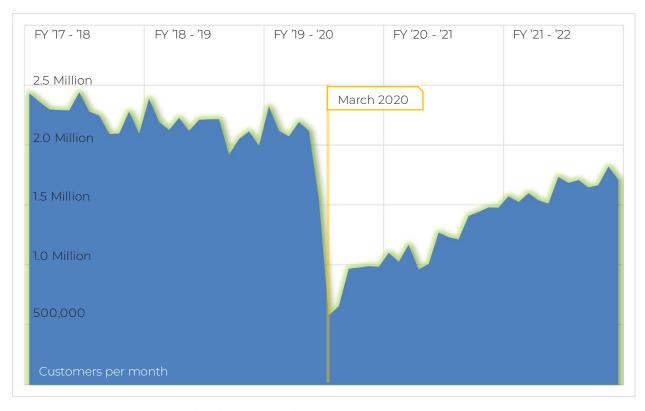


Figure 9: BCT Express Ridership - Fiscal Years 2017-18 to 2021-22



*Note: September 2022 data was extrapolated using a three-month average (FY21-22) Serving Customer Demand





When planning for investments in premium transit, national industry best practices recommend first investing in existing high-ridership routes. These existing high-ridership routes demonstrate the location of customer demand and an opportunity to invest in services that better serve this demand. **Figure 10** illustrates the BCT ridership activity on each route (by route number) in FY 2021-22. **Table 2** illustrates the top 10 ridership routes during the same period.

Figure 10: BCT Ridership Activity by Route – Fiscal Year 2021-22

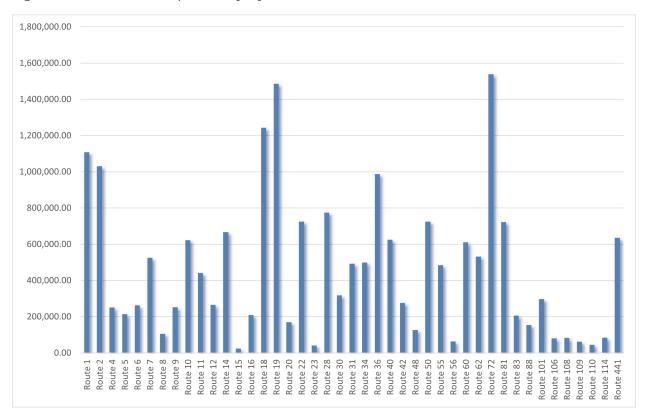


Table 2: BCT Top 10 Ridership Routes — Fiscal Year 2021-22

Rank	Route No.	Ridership	Rank	Route No.	Ridership
1	72	1,538,415	6	36	987,188
2	19	1,486,100	7	28	774,995
3	18	1,243,574	8	50	725,219
4	1	1,108,357	9	22	724,781
5	2	1,030,934	10	81	722,168

Source: BCT

*Note: September 2022 data was extrapolated using a three-month average (FY21-22)





The top 10 ridership routes in FY 2021-22 are listed below with their respective route names:

- Route 72: Oakland Park Boulevard
- Route 19: State Road 7 North of Lauderhill Mall
- Route 18: State Road 7 South of Lauderhill Mall
- Route 1: US1 South of Broward Terminal
- Route 2: University Drive
- Route 36: Sunrise Boulevard
- Route 28: Miramar Parkway and Hallandale Beach Boulevard
- Route 50: Dixie Highway
- Route 22: Broward Boulevard
- Route 81: Broward Boulevard

2.3.1 Opportunities to Improve Service

Many of the high ridership routes listed above operate on congested roads resulting in slower average BCT travel speeds which impacts on-time performance reliability and ability to attract new riders. As described, premium transit can include investments that give preferential treatment to transit in the form of exclusive or shared transit lanes and the use of technologies that give transit a priority at signalized intersections. These investments will assist in improving BCT travel speeds. **Table 3** lists the average travel speeds for the top 10 ridership routes in FY 2021-22.

Table 3: Average Travel Speeds of Top-10 Ridership Routes (2022)

Route	Corridor	Avg. Speed (mph)
1	US1 - South of Broward Terminal	9.7
2	University Drive	13.8
18	State Road 7 - South of LHM	15.4
19	State Road 7 - North of LHM	13.3
22	Broward Boulevard	12.2
28	Miramar Parkway	12.2
36	Sunrise Boulevard	11.1
50	Dixie Highway	13.5
72	Oakland Park Boulevard	13.2
81	Lauderhill	13.2

Source: BCT

*Note: September 2022 data was extrapolated using a three-month average (FY21-22)





2.4 Demographic Needs

PREMO, referencing federal guidelines, defines transit dependent populations as "those who might require transit services to travel." The four population groups described below are nationally recognized as communities that may have a higher reliance on public transit services:

- Households with no vehicles households with no vehicles tend to rely on public transit as their primary means of mobility.
- Low-income households (income under \$25,000) transportation costs can be burdensome for low-income households, as transportation-related expenses take up a greater proportion of income.
- Households with individuals over the age of 65 individuals older than 65 tend to have an increased need for public transit as they age and are less likely to operate an automobile.
- Households with individuals under the age of 16 individuals younger than the legal driving age tend to rely on public transit for travel to and from school, employment, and extracurricular activities.

PREMO seeks to serve transit dependent communities with an investment in premium transit by providing increased BCT service levels that may result in increased economic and mobility benefits. Using 2019 data (pre-Pandemic conditions), **Figures 11** through **13** graphically illustrate the concentrations of the demographic characteristics described above.

2.4.1 Propensity to Serve Transit Dependent Populations

PREMO's propensity to serve a higher number of customers, is in part, based on identifying concentrations of transit dependent populations (areas with multiple transit dependent populations). These concentrations are highlighted in **Figure 14** and are expressed as households per square mile. Note, due to the large Hispanic population, the area that includes Southwest Ranches and Weston in western Broward County is highlighted as more likely to use public transportation. However, due to the higher income demographics of the area, this community has a lower propensity to use public transportation.





Figure 11: Demographic Characteristics - Households with No Vehicles

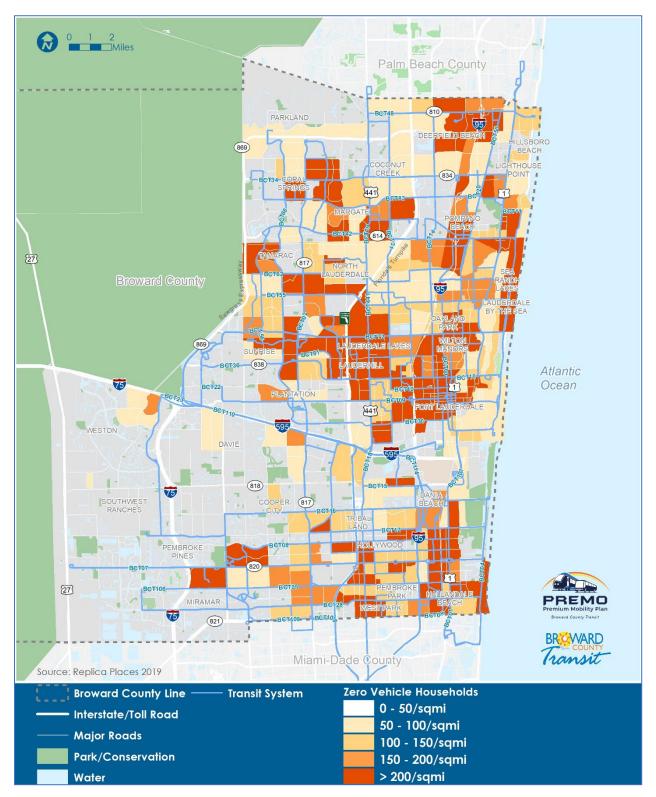






Figure 12: Demographic Characteristics - Low Income Households

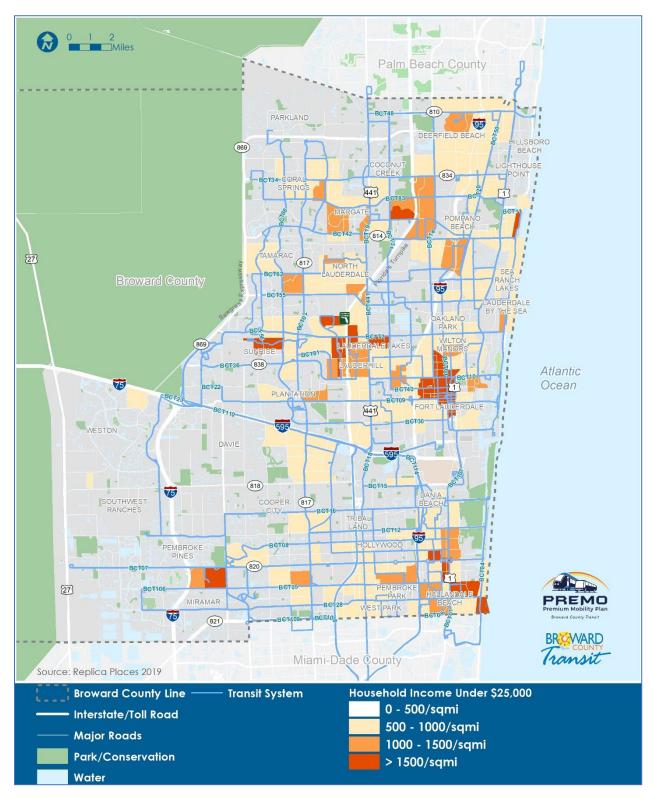






Figure 13: Demographic Characteristics - Household Age

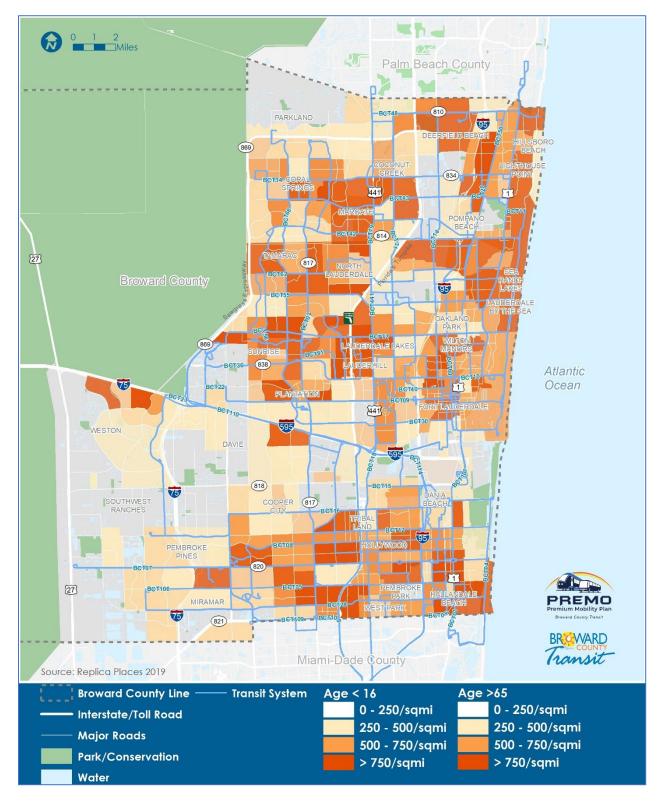
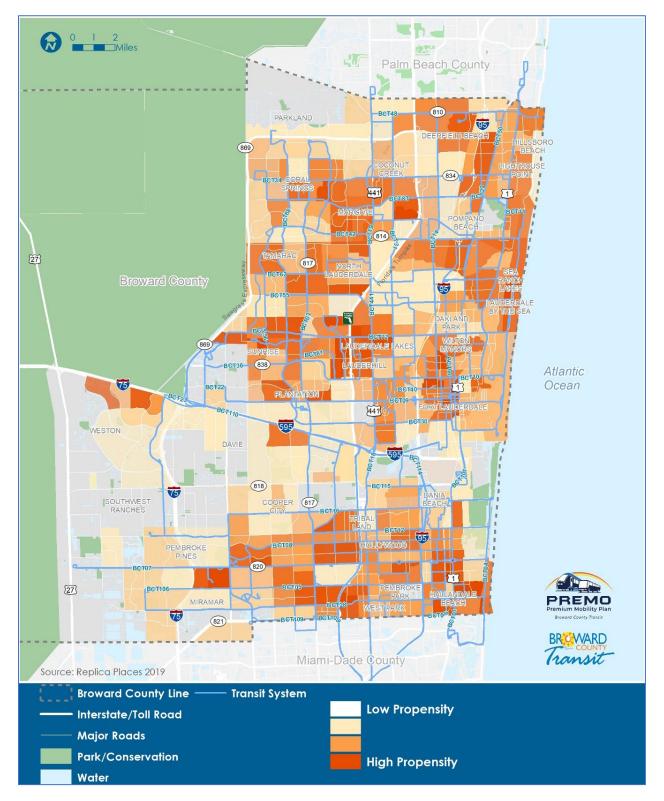






Figure 14: Propensity to Serve Transit Dependent Populations







2.5 Transit-Oriented Development (TOD)

Seamless connections to surrounding land uses are vital to the success of a future premium transit network. Premium transit services are most successful at moving people when supported by land uses that are oriented to transit. TOD is defined as urban development patterns that maximize the amount of residential, business, shopping, and recreational activities within walking distance of transit.

2.5.1 Transit-Oriented Development Opportunities

To identify TOD opportunities, land use data and patterns were compared to the guidelines described in the Florida Department of Community Affairs "A Framework for Transit-Oriented Development in Florida." The sources of land use data for this report include:

- U.S. Census Bureau American Community Survey (ACS)
- Longitudinal Employer-Household Dynamics Origin-Destination Employment Statistics
- Florida Department of Revenue dwelling unit records (used to disaggregate housing data from ACS)

Florida Department of Community Affairs guidelines assign the amount of land use intensities that encourage transit use and represent a TOD opportunity. These TOD opportunities are defined as TOD placetypes. TOD placetypes are organized into Rail TOD and BRT TOD placetypes. Of the two, the Rail TOD placetypes represent the highest land use and development densities. Within each placetype category there is also a range of land use and development densities. The most intense Rail TOD placetype is an Urban Neighborhood. The most intense BRT TOD placetype is the Regional Placetype. These placetypes are described below in **Table 4**.

Table 4: TOD Placetypes and Intensities



Broward County was divided into a grid composed of 500 feet by 500 feet cells. Each cell within Broward County was assigned a TOD placetype if it met the recommended thresholds from the Department of Community Affairs Framework guidelines.

Figure 15 illustrates existing Broward County TOD opportunities, expressed as TOD placetypes. A wide variety of existing communities within Broward County have land uses that are supportive of TOD, with the most intensive TOD opportunities located in Oakland Park, Sunrise, Plantation, Fort Lauderdale, Dania Beach, and Hollywood.





Figure 15: Broward County TOD Opportunities and TOD Placetypes







2.6 Planning Needs and Consistency

Several existing plans in Broward County establish community priorities and guide implementation of transit projects. Development of PREMO projects will be consistent with the BCT TDP, MAP Broward, and the Broward MPO Metropolitan Transportation Plan (MTP). **Table 5** summarizes other pertinent Broward County plans that are vital to ensuring planning consistency and guide premium transit investment recommendations for PREMO. Additional plan information is provided within the appendix.

Table 5: Pertinent Plans and Studies

Name	Description
Broward MPO "Commitment 2045" MTP	Transportation investments set forth in Commitment 2045 to emphasize the need for reliable transit, bicycle, pedestrian, freight, roadway, and other transportation projects supporting economic vitality, contributing to environmental conservation, and enhancing the quality of life in our communities
SFRTC Regional Transportation Plan	Adopted on August 7, 2020, this document builds on the 2045 Long-Range Transportation Plans of Miami-Dade TPO, Broward MPO, and Palm Beach TPA to create one unified voice
BCT 2021-2030 TDP	The TDP outlines existing transit service and plans for additional service, changes to existing service, or removal of service over the 10-year timeframe
Broward County Comprehensive Plan Transportation Element	The Transportation Element is fundamentally tied to land use, housing, recreation, and other elements of the Comprehensive Plan and integrates these components while setting a core transportation vision for access and mobility in Broward County and clearly defining the path for implementation
Fort Lauderdale- Hollywood International Airport Development Master Plan Update	The master plan outlines the development plan for the airport; as part of the master plan, a Seaport-Airport integration plan was considered. In evaluating development options in the Master Plan Update, it was assumed that a corridor will be preserved for potential construction of a people mover linking Port Everglades with the Airport
Port Everglades 20-Year Master/Vision Plan	This plan aims to increase capacity, enhance efficiency, ensure flexibility, facilitate integration, all while preserving the environment of Port Everglades
2020 Broward Climate Change Action Plan	Adopted in 2021, the Broward County Climate Change Action Plan consists of over 100 strategic actions for addressing the economic, environmental, and social impacts of climate change





Name	Description
SFRTA TDP 2018 Major Update	The SFRTA TDP is a comprehensive strategic planning, development, and operational guidance document utilized as the basis for defining public transit needs and opportunities
Oakland Park Boulevard Transit Alternative Analysis	Recommendations includes short-term improvements (corridor improvements, transit service improvements, and bicycle & pedestrian improvements) and long-term improvements (Business Access and Transit [BAT] lane with bus alternative)
Hollywood/Pine s Boulevard Multimodal Corridor Study	Recommendations included 10–15-minute limited stop bus service, mixed traffic or BAT lanes, level boarding stations, TSP, Queue Jumps, mobile ticketing
University Drive Rapid Bus	Recommendations included 10–15-minute limited stop bus service, mixed traffic or BAT lanes, level boarding stations, TSP, Queue Jumps, mobile ticketing
Broward Boulevard Corridor Transit Study	Recommendations included Enhanced Local Service + Limited Stop/ Rapid Service: alters frequency of local service from 15-minute to 20-minute intervals and adds limited stop service from West Regional Terminal to Downtown Fort Lauderdale at a 20-minute frequency
Central Broward East-West Transit Study	The Locally Preferred Alternative for this study provides premium transit service from the Sawgrass Mills Mall in Sunrise to Downtown Fort Lauderdale and the Fort Lauderdale-Hollywood International Airport
South Florida East Coast Corridor Alternative Analysis	Four alternatives were refined and include a low-cost Transportation System Management (TSM) Alternative, Bus Rapid Transit, Integrated Rail Diesel Multiple Unit, and Integrated Rail Push-Pull
SR 7 Multimodal Improvement Corridor Study	Recommendations were made for short-term improvements (develop push-button task work orders for implementation of countdown signal, sign, and pavement marking improvements), mid-term improvements (connectivity projects), and long-term improvements (hot spot intersection improvements)
SR 7/US-441, Sample Road to Glades Road Project Development & Environmental Study	Recommendation was made to select the TSM Alternative based on the evaluation of meeting the purpose and need of the project, key project issues, public involvement, and interagency coordination





Name	Description
SR 9/ I-95 at SR 842/ Broward Boulevard Interchange	Recommendations included improvements for the I-95 at Broward Boulevard interchange and the I-95 at Sunrise Boulevard east ramp terminal intersection in addition to the ongoing I-95 Phase 3 improvements along the I-95 mainline
SR 9/I-95 at SR 842/Broward Boulevard Interchange	Recommendation is to build a modified displaced left turn, which includes new flyover ramps, bridge replacement, reconstruction of lanes, improved park-and-ride lot, and access management changes
SR 9 (I-95) at SR 816 (Oakland Park Blvd) Interchange Concept Development Report	Recommendation is to modify the interchange ramps to combine the two northbound exit ramps into a single exit ramp, physically separated from the I-95 general purpose lanes
Andrews Ave & 3rd Ave Mobility Improvements	One-way conversion, shared use path, transit only lane, lighting, stormwater, transit, and crosswalks
Sample Road	Recommendations include TSP (including queue jump lane detectors), electronic signs and other devices, and lighting improvements at 19 intersections
Dixie Highway	Study will look at improvements to the corridor that support greater mobility including transit, cycling, and walking
Broward MPO "Commitment 2045" MTP	Transportation investments set forth in Commitment 2045 to emphasize the need for reliable transit, bicycle, pedestrian, freight, roadway, and other transportation projects supporting economic vitality, contributing to environmental conservation, and enhancing the quality of life in our communities
SFRTC Regional Transportation Plan	Adopted on August 7, 2020, this document builds on the 2045 Long-Range Transportation Plans of Miami-Dade TPO, Broward MPO, and Palm Beach TPA to create one unified voice
BCT 2019-2028 TDP	The TDP outlines existing transit service and plans for additional service, changes to existing service, or removal of service over the 10-year timeframe
Broward County Comprehensive Plan Transportation Element	The Transportation Element is fundamentally tied to land use, housing, recreation, and other elements of the Comprehensive Plan and integrates these components while setting a core transportation vision for access and mobility in Broward County and clearly defining the path for implementation





Name	Description
Fort Lauderdale- Hollywood International Airport Development Master Plan Update	The master plan outlines the development plan for the airport; as part of the master plan, a Seaport-Airport integration plan was considered. In evaluating development options in the Master Plan Update, it was assumed that a corridor will be preserved for potential construction of a people mover linking Port Everglades with the Airport
Port Everglades 20-Year Master/Vision Plan	This plan aims to increase capacity, enhance efficiency, ensure flexibility, facilitate integration, all while preserving the environment of Port Everglades
2020 Broward Climate Change Action Plan	Adopted in 2021, the Broward County Climate Change Action Plan consists of over 100 strategic actions for addressing the economic, environmental, and social impacts of climate change
SFRTA TDP 2018 Major Update	The SFRTA TDP is a comprehensive strategic planning, development, and operational guidance document utilized as the basis for defining public transit needs and opportunities
Oakland Park Boulevard Transit Alternative Analysis	Recommendations includes short-term improvements (corridor improvements, transit service improvements, and bicycle & pedestrian improvements) and long-term improvements (Business Access and Transit [BAT] lane with bus alternative)
Hollywood/Pine s Boulevard Multimodal Corridor Study	Recommendations included 10–15-minute limited stop bus service, mixed traffic or BAT lanes, level boarding stations, TSP, Queue Jumps, mobile ticketing
University Drive Rapid Bus	Recommendations included 10–15-minute limited stop bus service, mixed traffic or BAT lanes, level boarding stations, TSP, Queue Jumps, mobile ticketing
SR 7 Multimodal Improvement Corridor Study	Recommendations were made for short-term improvements (develop push-button task work orders for implementation of countdown signal, sign, and pavement marking improvements), mid-term improvements (connectivity projects), and long-term improvements (hot spot intersection improvements)
SR 7/US-441, Sample Road to Glades Road Project Development & Environmental Study	Recommendation was made to select the TSM Alternative based on the evaluation of meeting the purpose and need of the project, key project issues, public involvement, and interagency coordination





Name	Description
SR 9/ I-95 at SR 842/ Broward Boulevard Interchange	Recommendations included improvements for the I-95 at Broward Boulevard interchange and the I-95 at Sunrise Boulevard east ramp terminal intersection in addition to the ongoing I-95 Phase 3 improvements along the I-95 mainline
SR 9/I-95 at SR 842/Broward Boulevard Interchange	Recommendation is to build a modified displaced left turn, which includes new flyover ramps, bridge replacement, reconstruction of lanes, improved park-and-ride lot, and access management changes
SR 9 (I-95) at SR 816 (Oakland Park Blvd) Interchange Concept Development Report	Recommendation is to modify the interchange ramps to combine the two northbound exit ramps into a single exit ramp, physically separated from the I-95 general purpose lanes
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Sample Road	Recommendations include TSP (including queue jump lane detectors), electronic signs and other devices, and lighting improvements at 19 intersections
Dixie Highway	Study will look at improvements to the corridor that support greater mobility including transit, cycling, and walking

2.6.1 Metropolitan Transportation Plan

Planning consistency with the Broward MPO MTP ensures that Broward County mobility needs are addressed and can leverage federal transit grant dollars. PREMO looks to include current MTP premium transit investment recommendations, as shown in **Figure 16**. PREMO will further define these needs and coordinate closely with Broward MPO as it prepares for the next MTP update.





Figure 16: Broward MPO 2045 Cost Feasible Transit Plan



Note:

 Local bus not shown; assumed to operate in all major roads.

This map is for informational purposes only. For complaints, questions, or concerns about civil rights or nondiscrimination; or for special requests under the Americans with Disabilities Act, please contact Erica Lychak, Communications Manager/Title VI Coordinator, at (954) 876-0057 or Lychake@browardmpo.org



Source: Broward MPO





2.7 Consistency with Multimodal Investments

A strong correlation exists between multimodal investments and transit service success. Multimodal investments include improvements in bicycle facilities, sidewalks, and other pedestrian facilities. These multimodal investments provide better connections to a station or stop, facilitating the customer's access to a BCT service. **Table 6** summarizes existing and planned Broward County multimodal projects. Additional plan information is provided in the appendix.

Table 6: Multimodal Plans and Studies

Project Name/Limits	Description
Complete Streets Localized Initiatives	Funds small local transportation projects that improve safety and mobility as directed by each municipality
Complete Streets Master Plan Program	Regional bicycle and pedestrian projects identified in Broward MPO's Complete Streets Master Plan
Broward County Greenways System	Greenways will connect local neighborhoods to the existing transportation system, providing safe and pleasant routes for people to access BCT services and Community Shuttles
Transportation Systems Management & Operations/Safety	Safety studies and projects will be programmed annually based on a priority list ranked by crash severity





3. PREMO Initial Network

Given the defined needs, an initial network of the major roadways within Broward County were identified as candidate corridors for premium transit. These corridors were presented to the Project Advisory Group (PAG) in January 2022 for discussion and input. These candidate corridors are defined as the PREMO Initial Network and are illustrated in Figure 17.

The PREMO Initial Network provides a starting point for technical analyses to determine how to best address the needs described in Section 2.0:

- Mobility Needs: The existing county-wide roadway network of arterials and highways serves the greatest number transportation trips within Broward County. Many of these corridors experience congestion but are constrained with limited ability to add more roadway capacity. BCT services are affected by this congestion, which affects BCT's ability to efficiently move customers to their destinations.
- **Demographic Needs**: Several Broward communities require equitable means of mobility, including lower income households, households who do not own an automobile, and households with young or older residents.
- Land Use Needs: There are several communities in Broward County with development concentrations that can support TOD. Today they are primarily served by local transit services. To fully realize the potential of these TOD opportunities, investments in premium transit is needed.
- Planning Needs: There have been several prior planning efforts completed in Broward County, each with a documented recommendation for improving the county's transit and/or transportation network. All are considered a PREMO planning need.





Figure 17: PREMO Initial Network

