

Oakland Park Boulevard Transit Demonstration Project

Initial Project Workshop

February 12, 2010

Transportation leadership you can trust.

Agenda

- **Welcome and Introductions**
- **Workshop Objectives**
- **Overview of Prior Studies**
- **Current Conditions; Opportunities and Constraints**
- **BREAK**
- **Making the Case – Project Purpose and Need**
- **Making the Case – Project Benefits**
- **Transit Alternatives to be Studied**
- **Next steps: Study Scope of Work and Lead Agency**

Welcome and Introductions

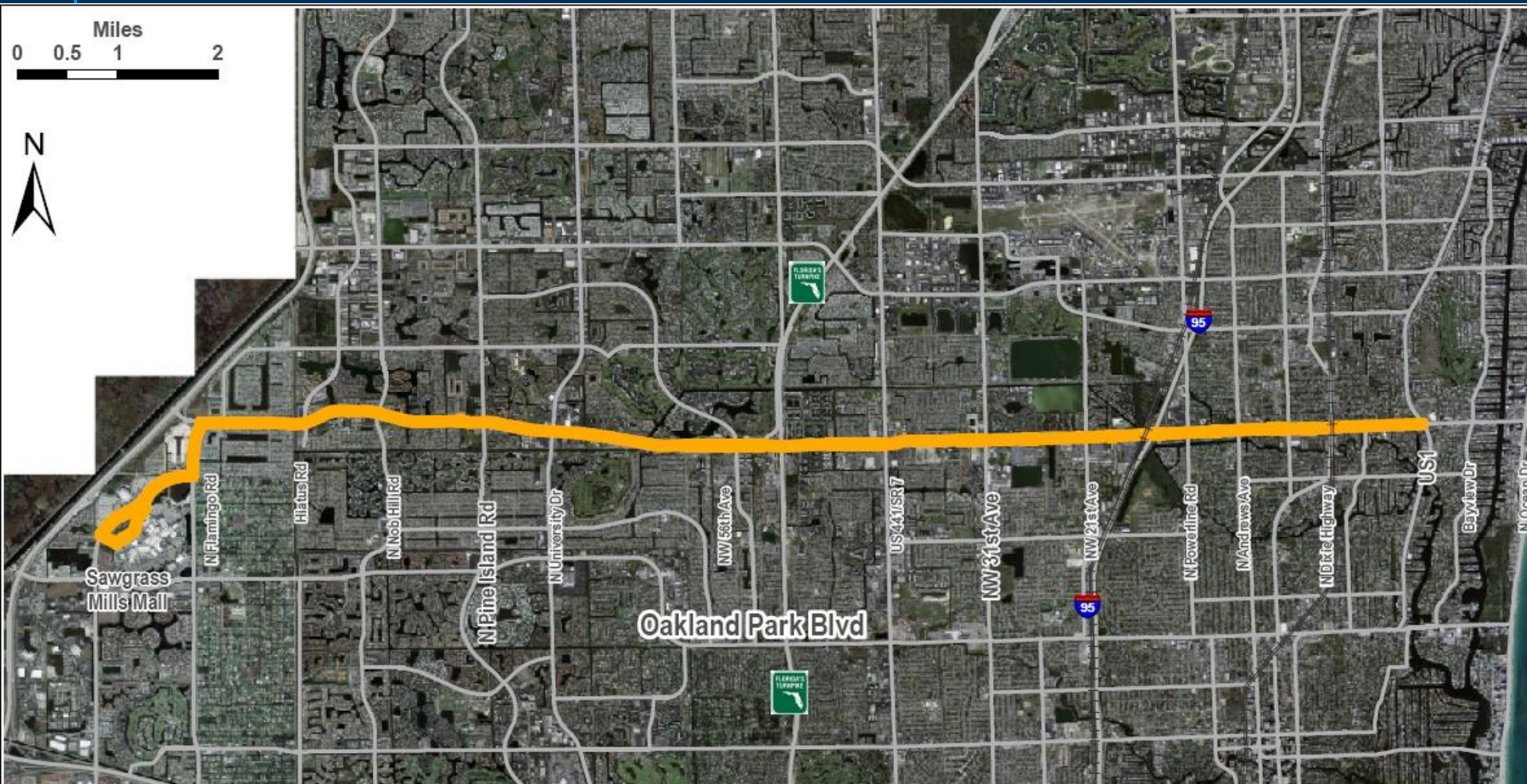
- Broward MPO
- Broward County Transit
- South Florida Regional Transportation Authority
- Florida Department of Transportation



Workshop Objectives

- **Define Scope of Corridor Study:**
 - Study Limits
 - Horizon Years
 - Partners and Stakeholders
 - Study Timeframe
- **National Transit Planning Process**
- **Review Corridor Opportunities**
 - Prior Studies
 - Current Conditions and Problems
 - Potential Strategies and Technologies

Oakland Park Boulevard Study Corridor



Workshop Objectives

- **Define Scope of Corridor Study:**

- **Study Limits** - Sawgrass Mills – US 1
- **Horizon Years** - 2015 and 2035
- **Partners and Stakeholders** - Additions?
- **Study Timeframe** - 2010-2012

- **Review Corridor Opportunities**

- **Potential Technologies** - TSM, Rapid Bus, BRT, LRT?

FTA Small Starts Process

- **Making the Case – Project Purpose and Need**
 - **Keys to Negotiating the FTA Process**
 - Shared vision by key agencies
 - Good data
 - Solutions
 - Simplified analysis approaches

FTA Small Starts Process

- **Shared Vision**
- **Consider MOA among FDOT, BCT, and MPO that**
 - **Identifies Oakland Park as regional priority**
 - **Establishes roles and responsibilities**

FTA Small Starts Process

- **Good Data**
 - Quantify problem to be addressed
 - Current onboard surveys
 - Define markets
 - Current ridership counts
- **Travel time data**
 - Establish baseline

FTA Small Starts Process

- **Solutions**
 - Alternatives that address corridor problems
 - Evaluation focused on quantitative measures

FTA Small Starts Process

- **Simplified Analysis Approach**
 - **Keep this a Small Start!**
 - **Use of Urban/Regional model not required**
 - **Potential approach based on “quality” data**

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Current / Prior Corridor Study Efforts

- **BCT Comprehensive Operations Analysis & TDP** **Jonathan Roberson, BCT**
- **BCT Shelter Program** **Arethia Douglas, BCT**
- **MPO's THOR Initiative** **Anthony Abbate, FAU**
- **Cities:**
 - **Sunrise** **Jo Sesodia**
 - **Lauderhill** **Earl Hahn**
 - **Lauderdale Lakes** **Dan Holmes**
 - **Oakland Park** **Rick Buckeye**
 - **Fort Lauderdale** **Renee Cross**

Lauderhill

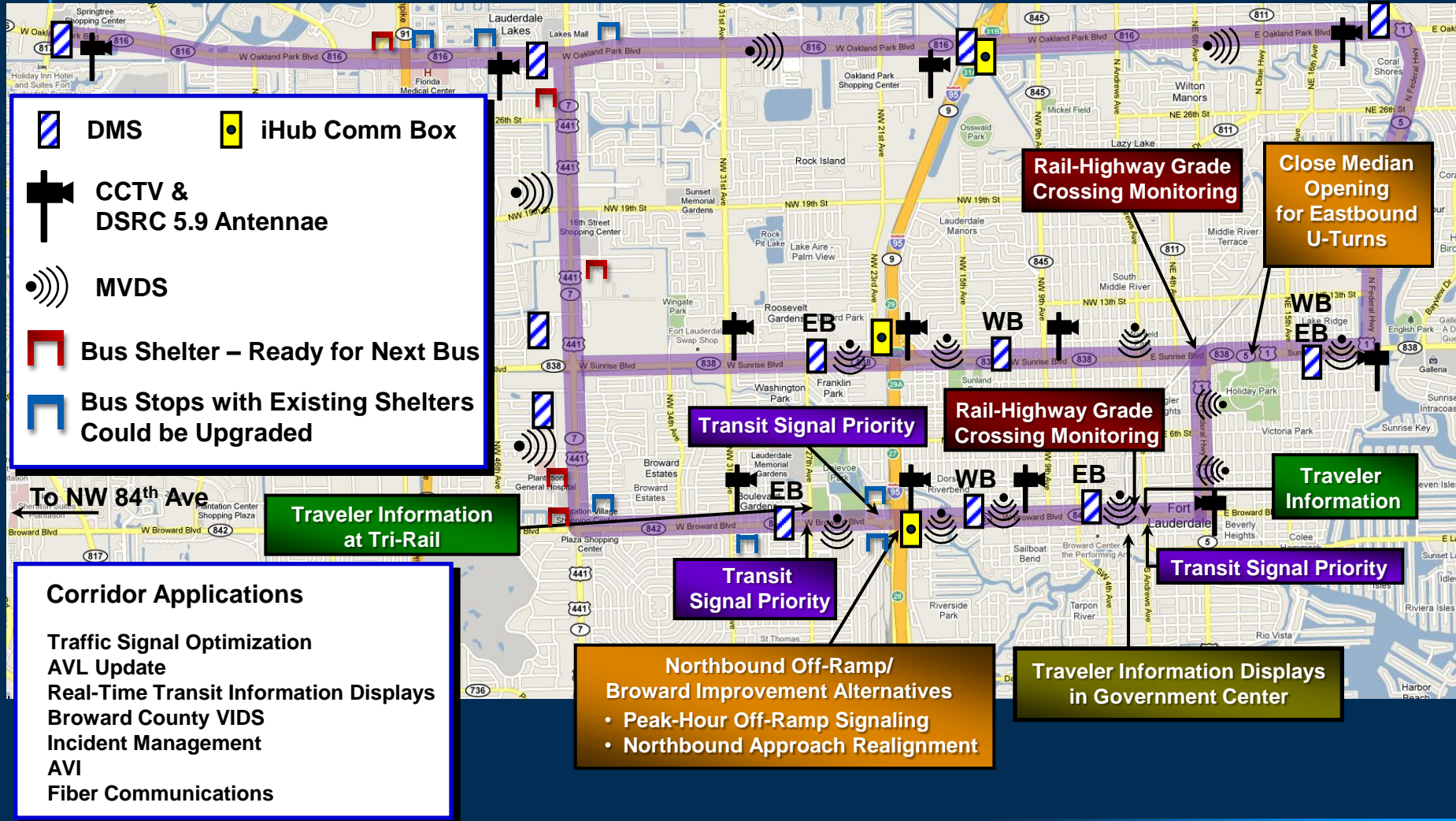


Lauderhill



Current / Prior Corridor Study Efforts

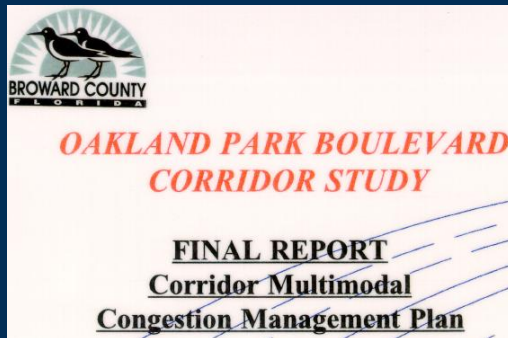
TSM&O Broward County Concept



Current / Prior Corridor Study Efforts

- **MPO Oakland Park Boulevard**

- **1995**



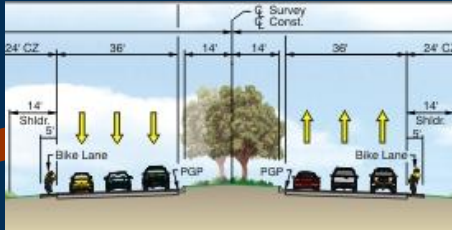
SHORT-TERM	LONG-TERM
Sidewalks, ADA Ramps	Sidewalks
Headways	Bike lanes
Signal cycle length	Express buses
Signal coordination	Add turn lanes
Turn prohibitions	Turn prohibitions
Add turn lanes	Community shuttles
Bus bays	Transfer facilities
Bus shelters	Park-n-ride

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Current Conditions

Lets take a trip...



Oakland Park Boulevard

Route 72 – Operations

- **Service Hours**

Weekdays	Saturdays	Sundays
5:00 AM – 12:35 AM	5:30 AM – 12:35 AM	8:10 AM – 9:55 PM

- **Service Frequency**

Weekdays	Weekends
15 – 45 minutes	30 – 60 minutes

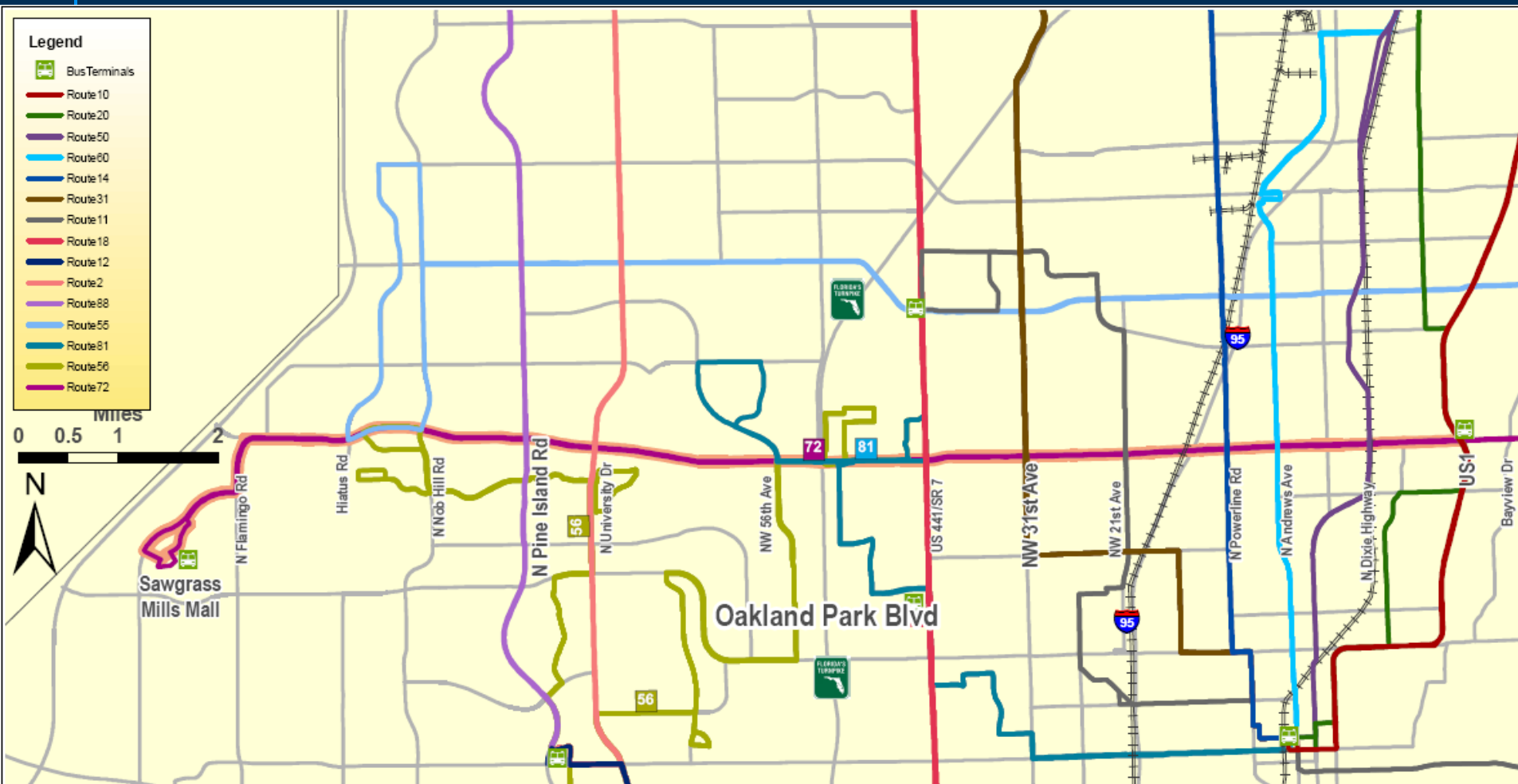
- **Weekday Running Time**

	Scheduled	Actual
East	66.9 min	68.5 min
West	67.2 min	69.1 min



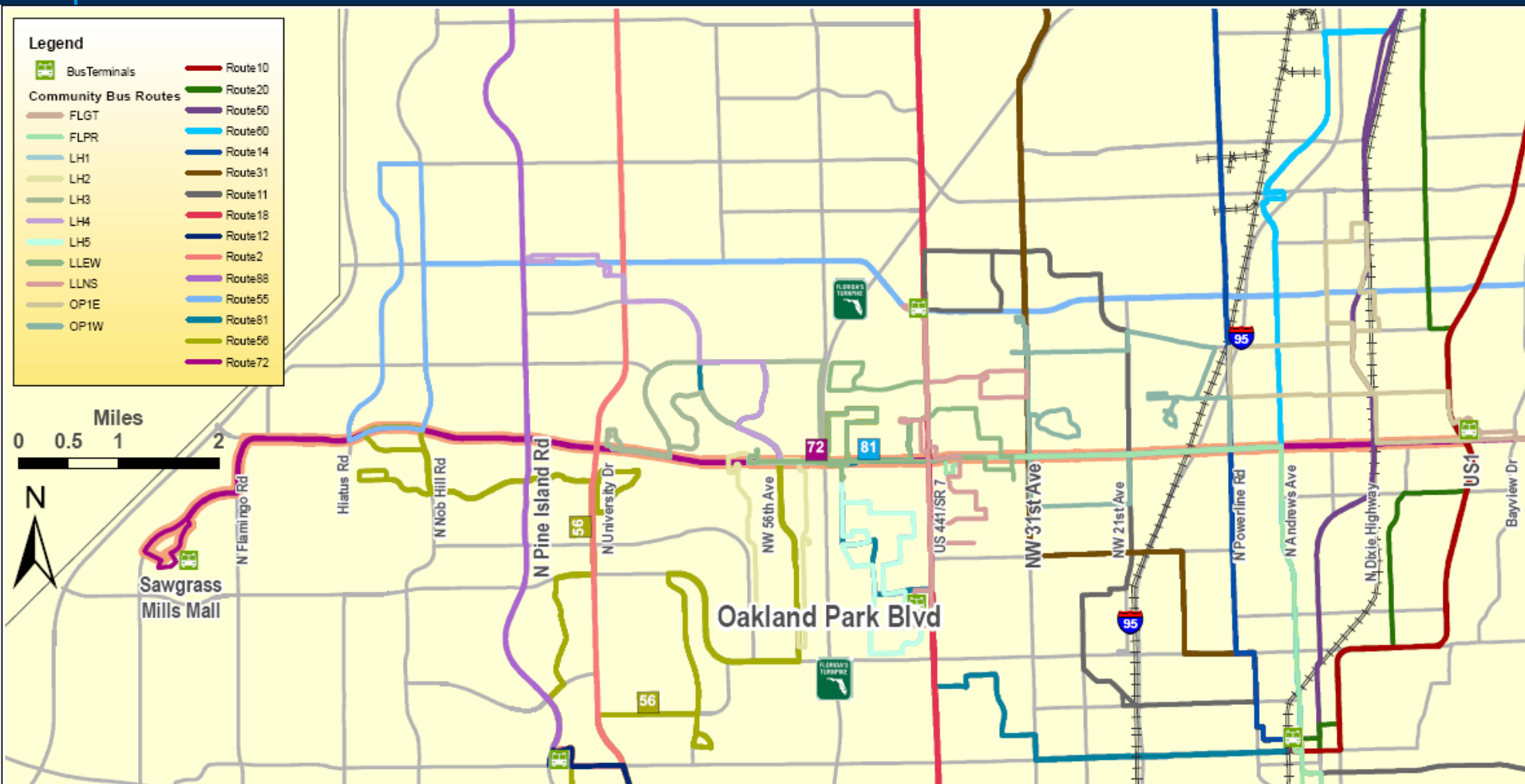
Oakland Park Boulevard

Existing BCT Fixed Route Services



Oakland Park Boulevard

Existing BCT Fixed Route and Community Bus Services



Oakland Park Boulevard

Route 72

- **What's great?**

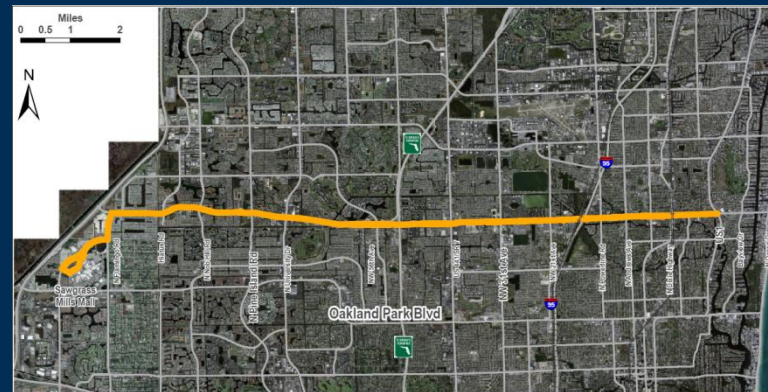
- **Vehicles**
- **Productive**
- **Intersecting Routes**
- **Community Buses**

- **Not so great...**

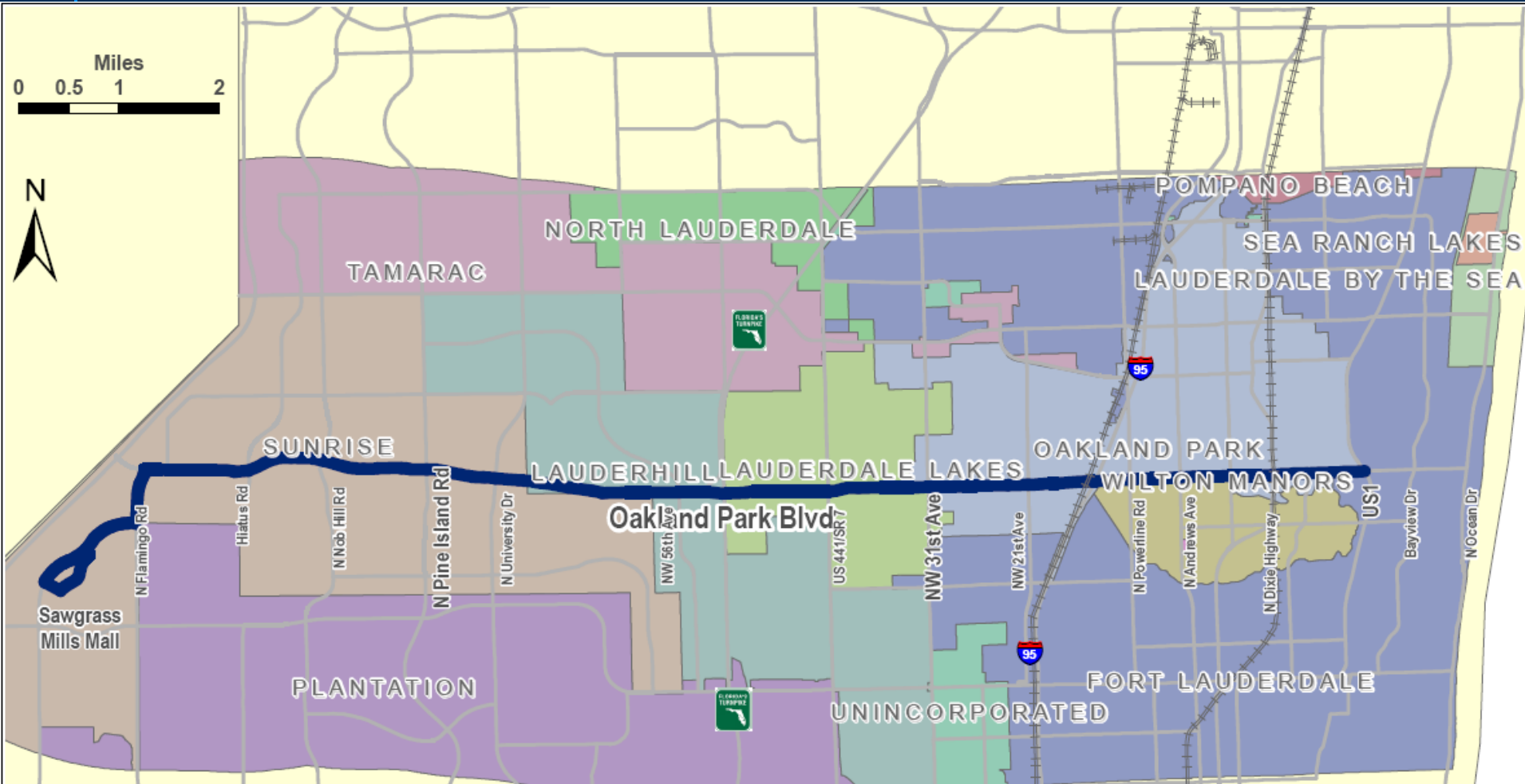
- **Over Capacity buses**
- **Stops**
- **On-time Performance**
- **Information**

Existing Conditions Snapshot

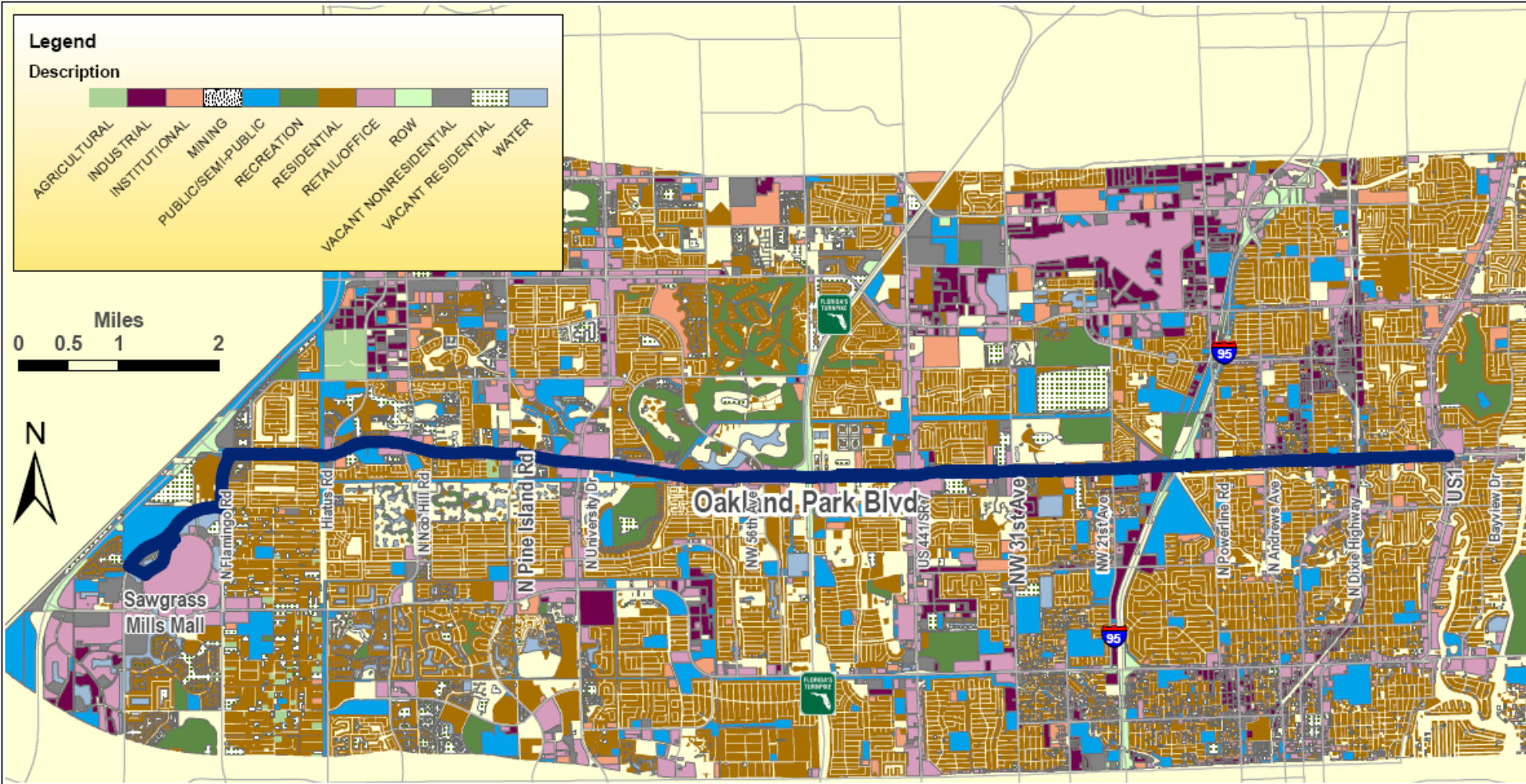
- **Study Corridor**
 - Demographic Data
- **Land Uses and Activity Centers**
- **Transportation Facilities**
 - Roadway (ROW)
 - Transit
- **Transportation Conditions**
 - Congestion
 - Ridership
 - Safety



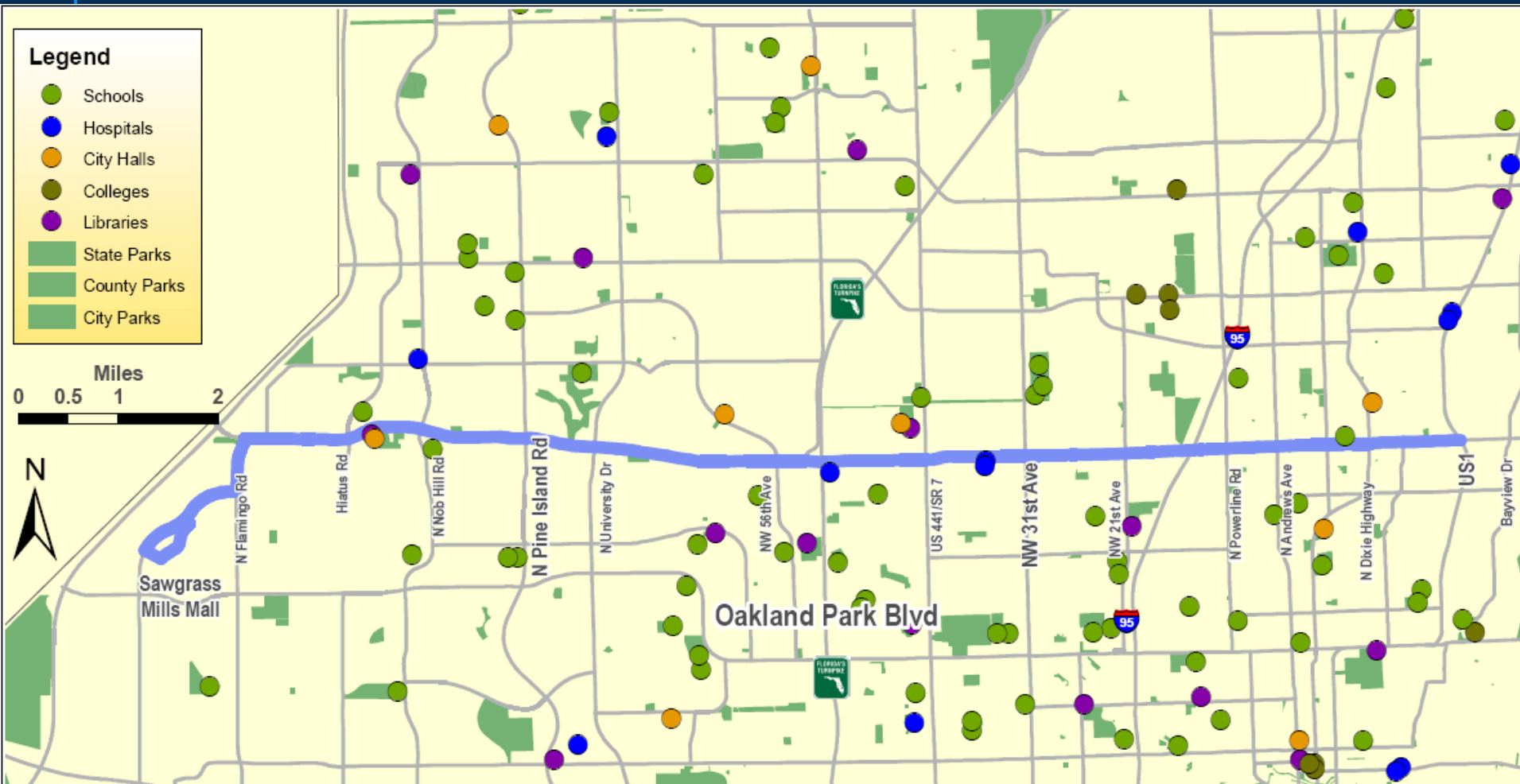
Oakland Park Boulevard Cities



Oakland Park Boulevard Existing Land Use (2007)

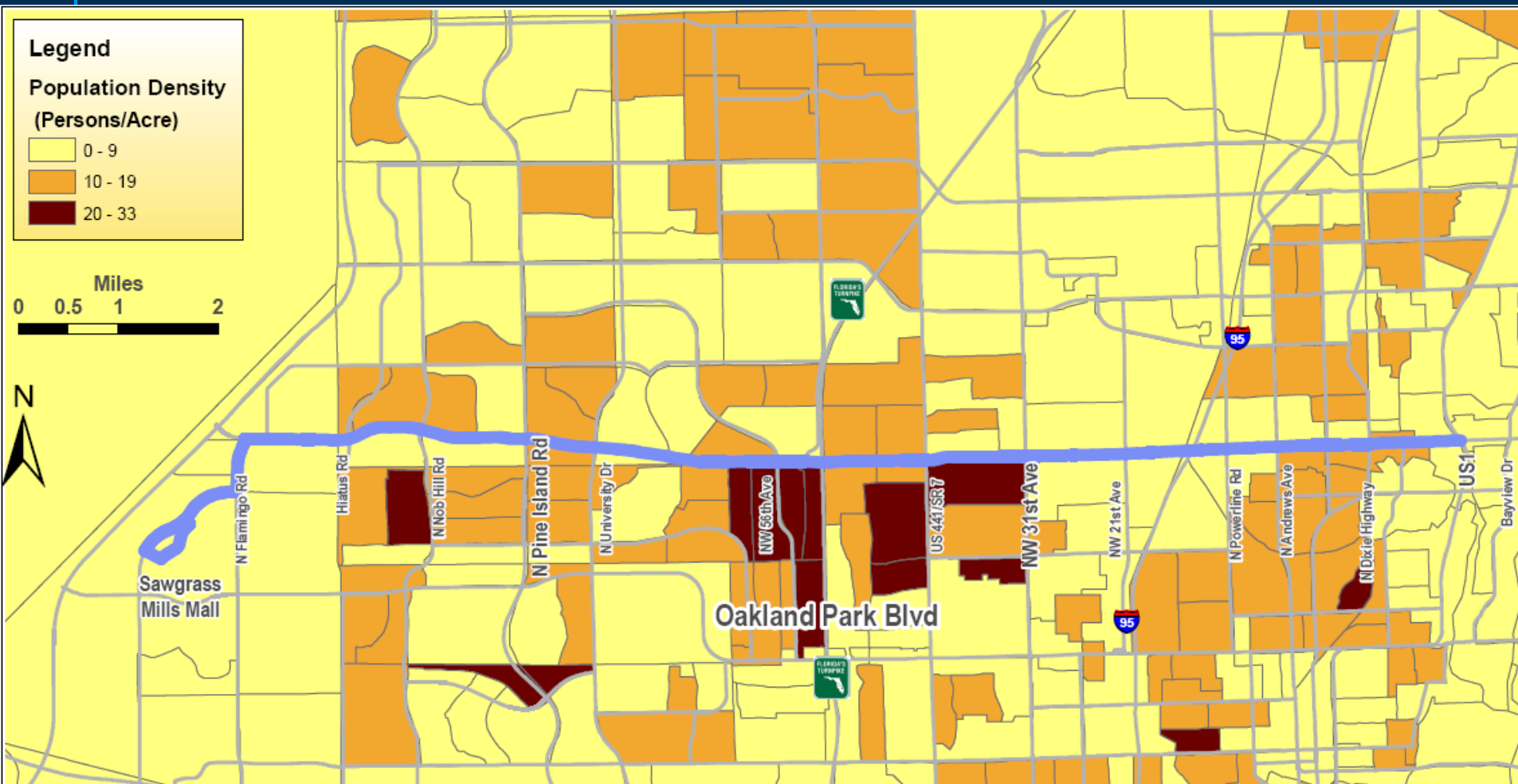


Oakland Park Boulevard Activity Centers



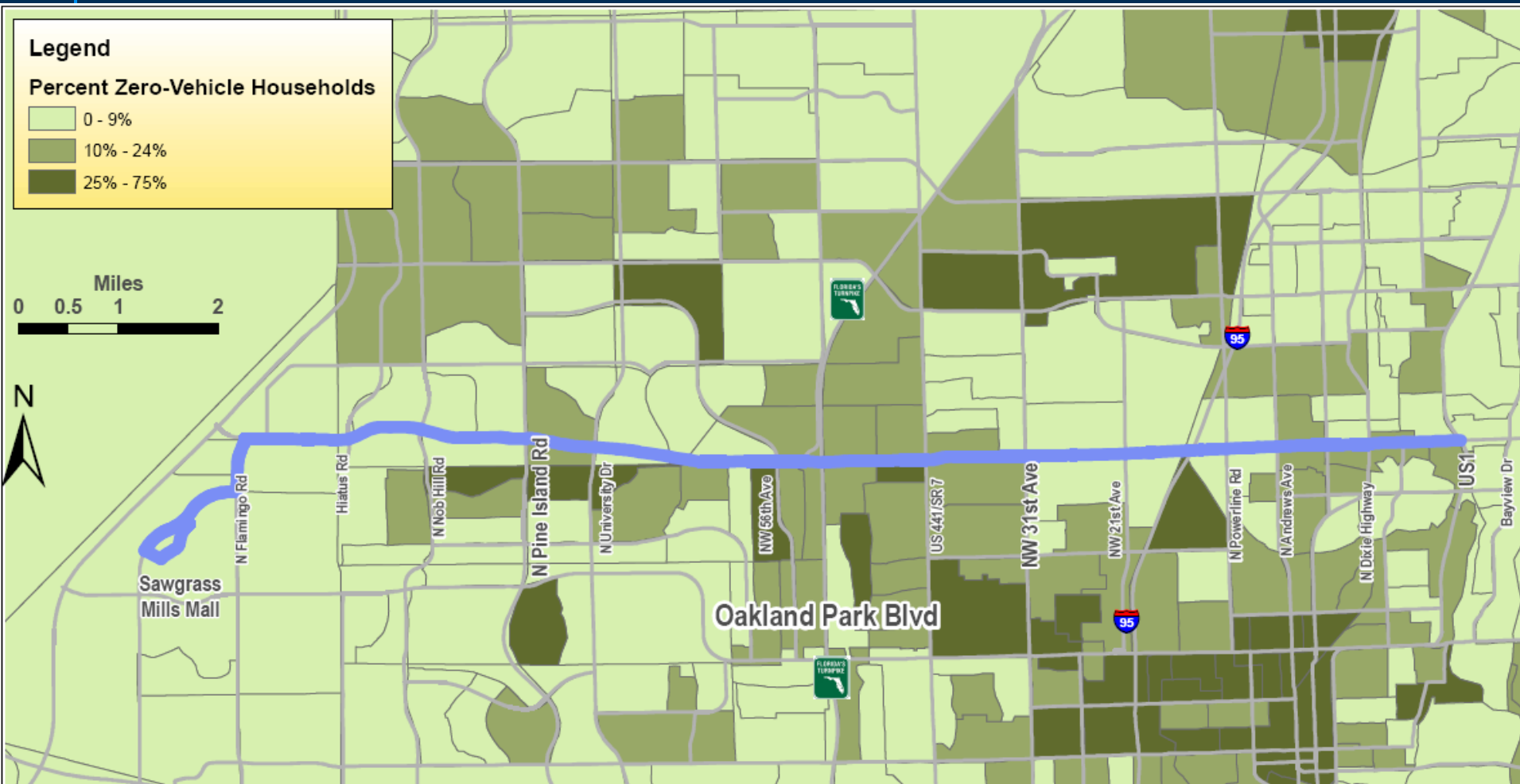
Oakland Park Boulevard

Demographic Data – *Population Density*

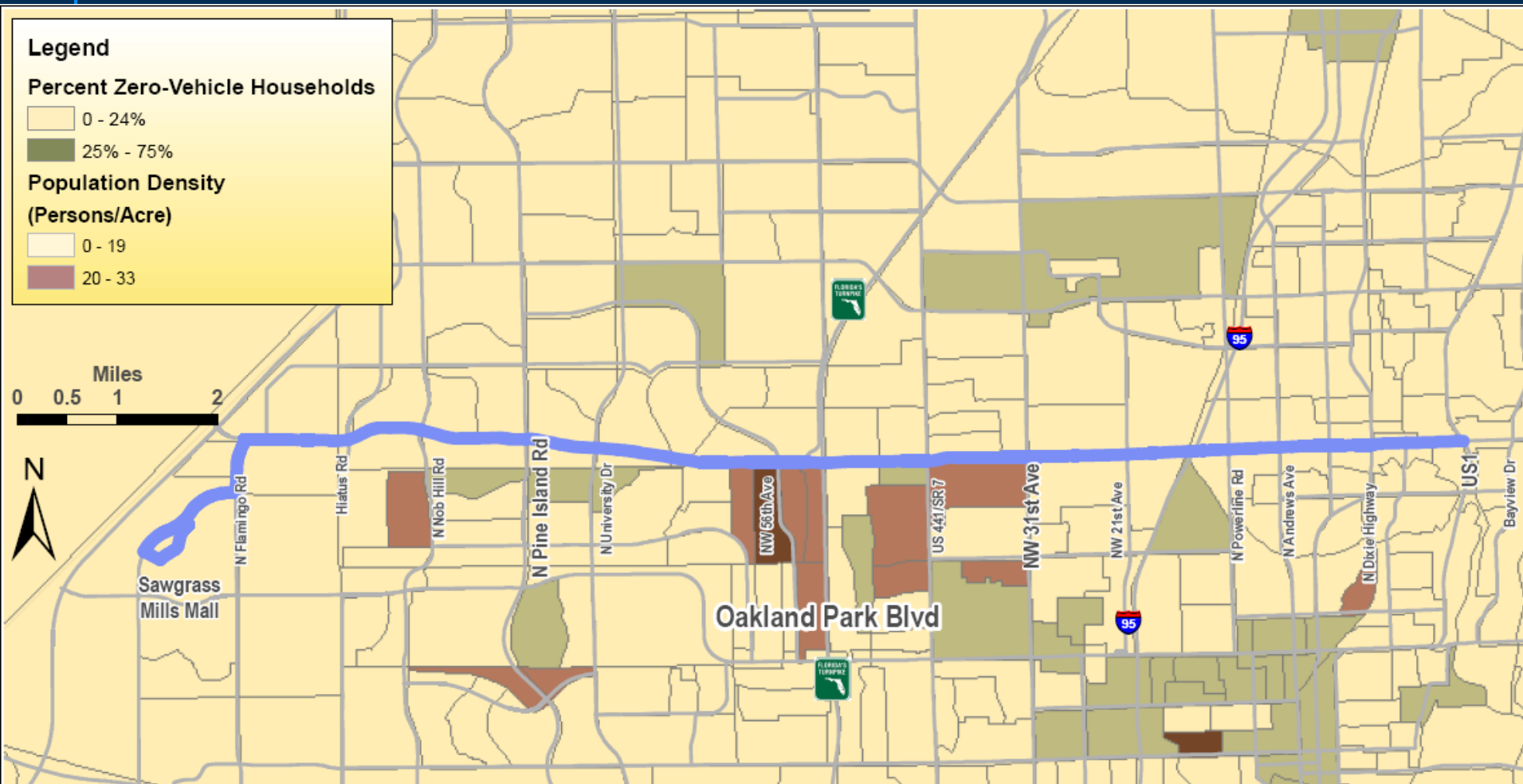


Oakland Park Boulevard

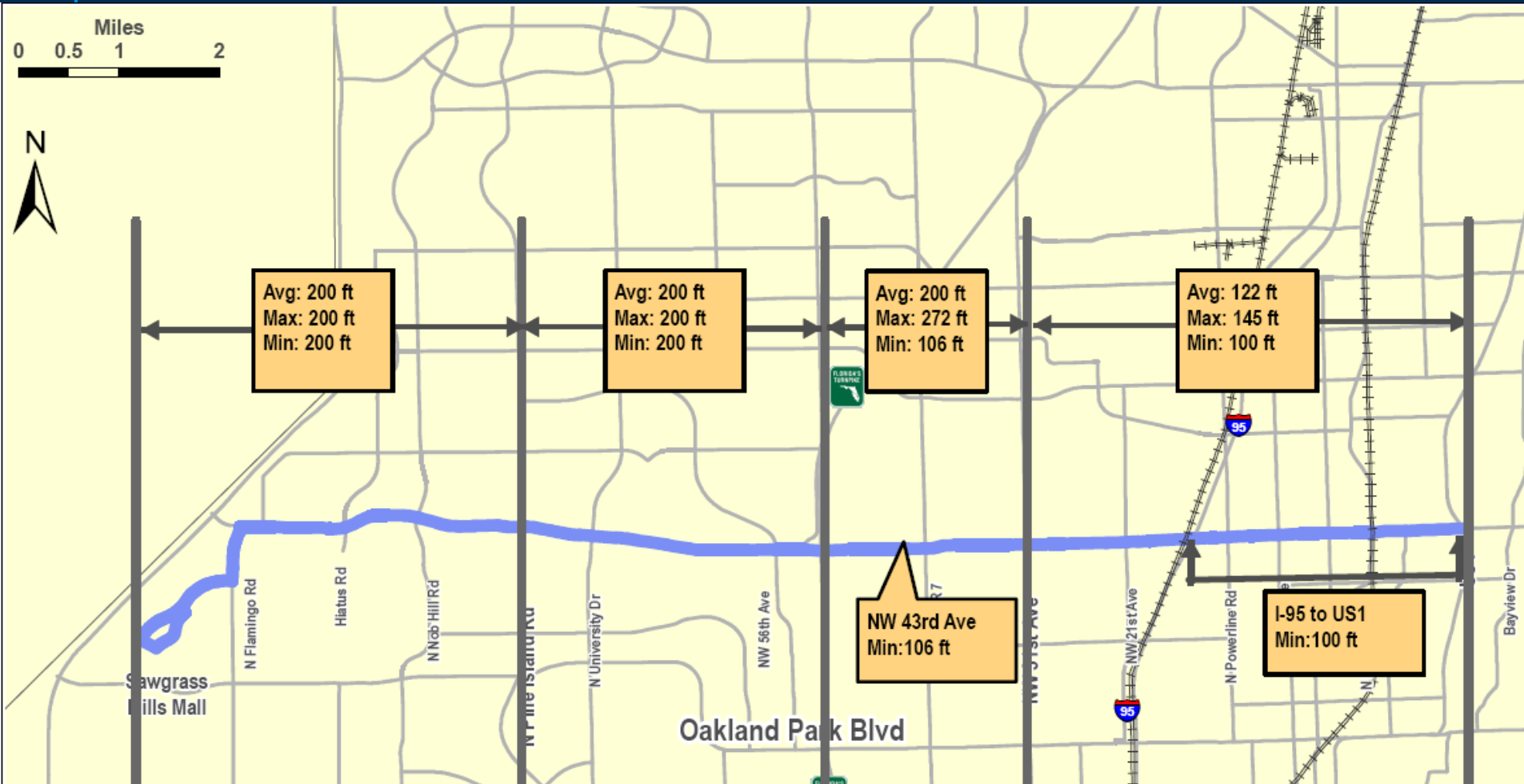
Demographic Data – *Percent Zero-Vehicle Households*



Oakland Park Boulevard Demographic Data Overlay



Oakland Park Boulevard Average Right-of-Way by Segment



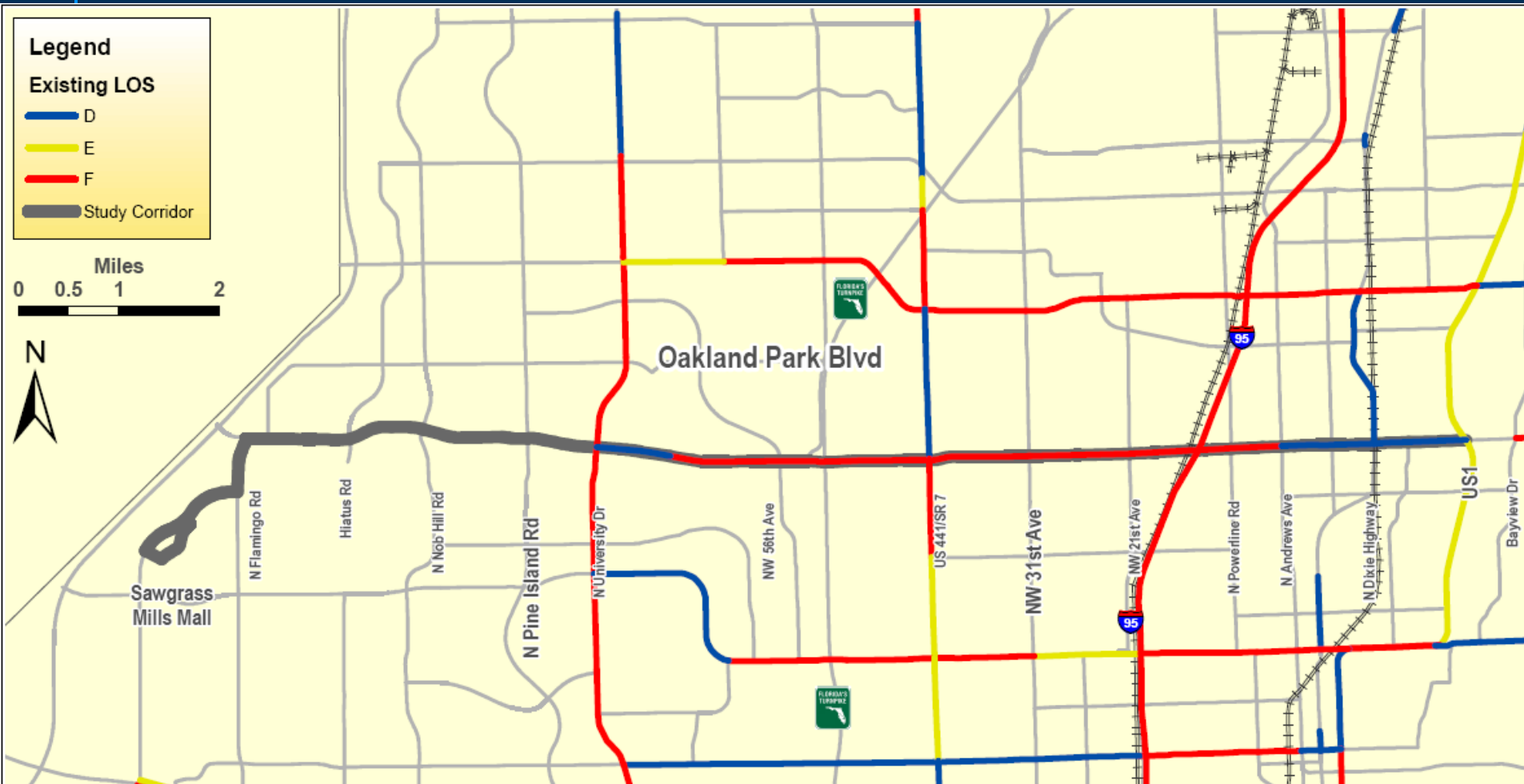
Oakland Park Boulevard ADT and Peak Volume



Oakland Park Boulevard Traffic Signals

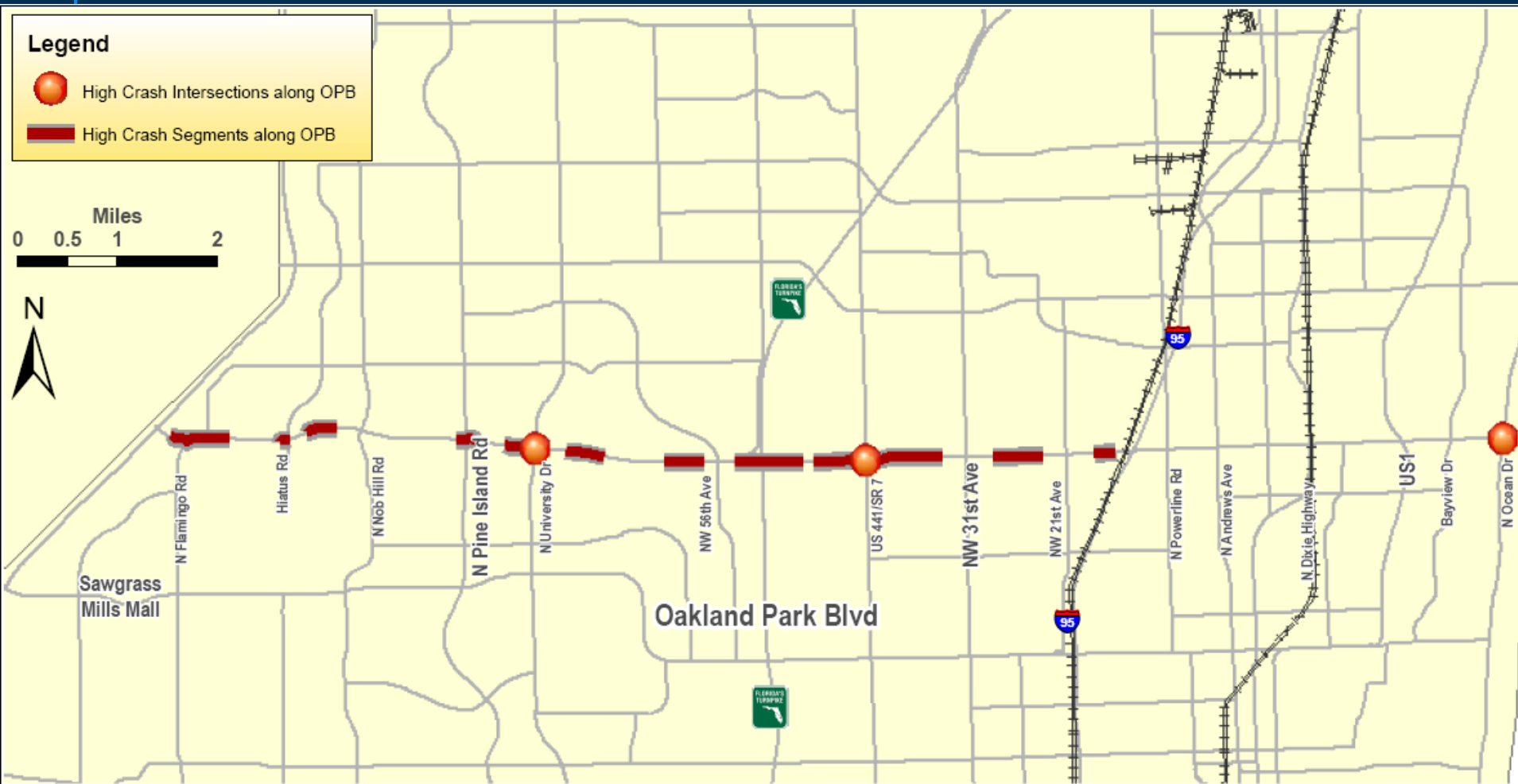


Oakland Park Boulevard Existing Level of Service



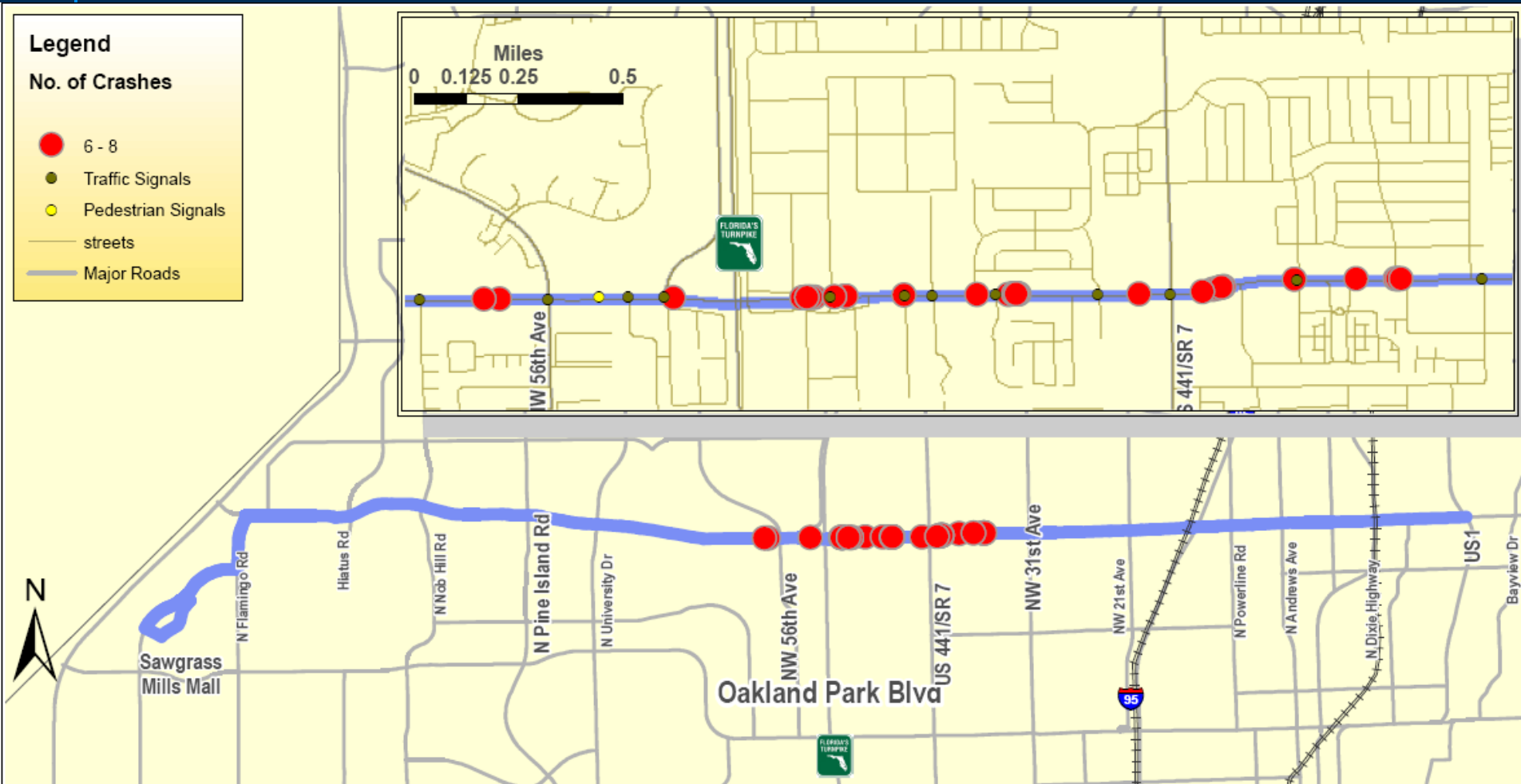
Oakland Park Boulevard High Crash Location – *All Crash Types*

- High crash locations are west of I-95



Oakland Park Boulevard Crash Data 2006-2009 w/Traffic Signals

- Pedestrian, Bicycle and Bus Crashes Only



Oakland Park Boulevard

Route 72 – Ridership

- **Passenger Boardings**

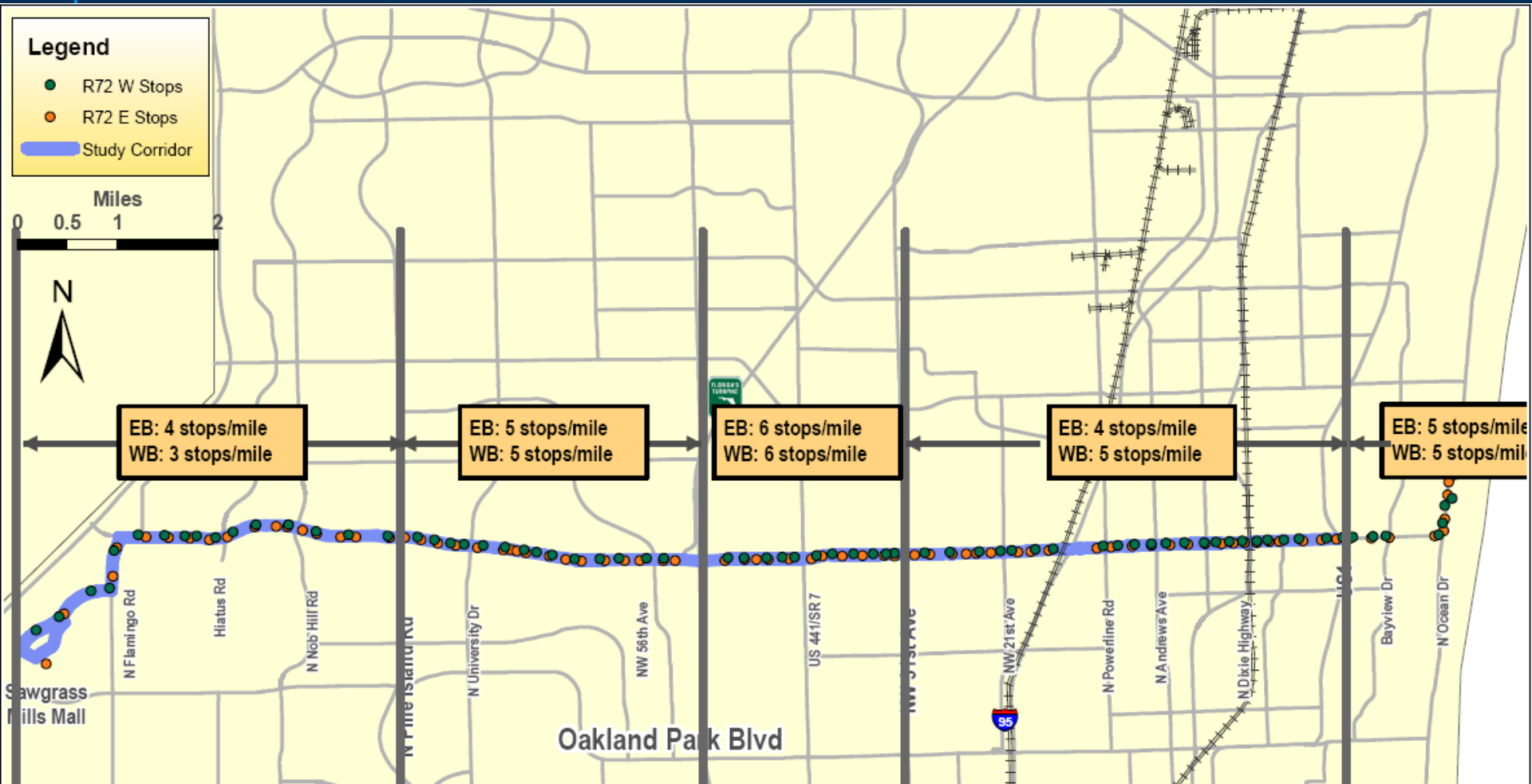
Weekdays	Saturdays	Sundays
8,060	4,245	2,155

- **Transfers**

- **17 BCT Route Connections**
 - 2, 10, 11, 14, 18, 20, 22, 23, 31, 36, 50, 55, 56, 60, 81, and 88.
- **Major Transfers (per COA On-Board Survey)**
 - Route 2 University Dr.
 - Route 18 SR 7/441
 - Route 14 Powerline Rd.
 - Route 60 Andrews
 - Route 10 US 1

Oakland Park Boulevard

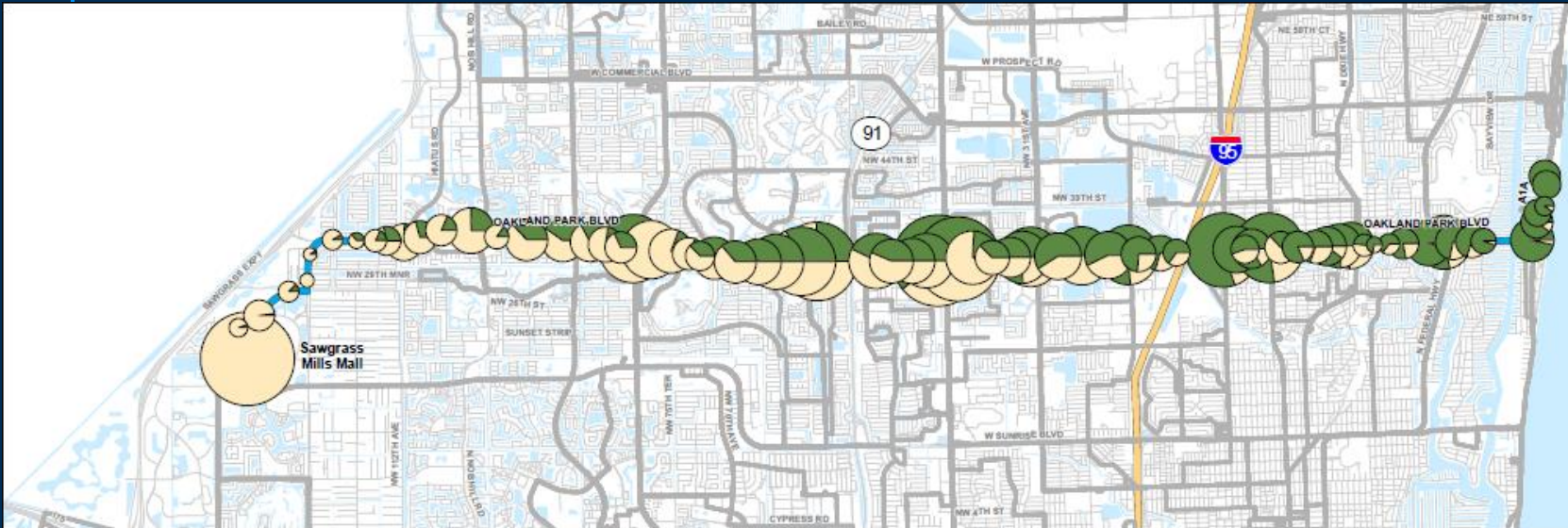
Route 72 – Bus Stop Density by Segment



Oakland Park Boulevard

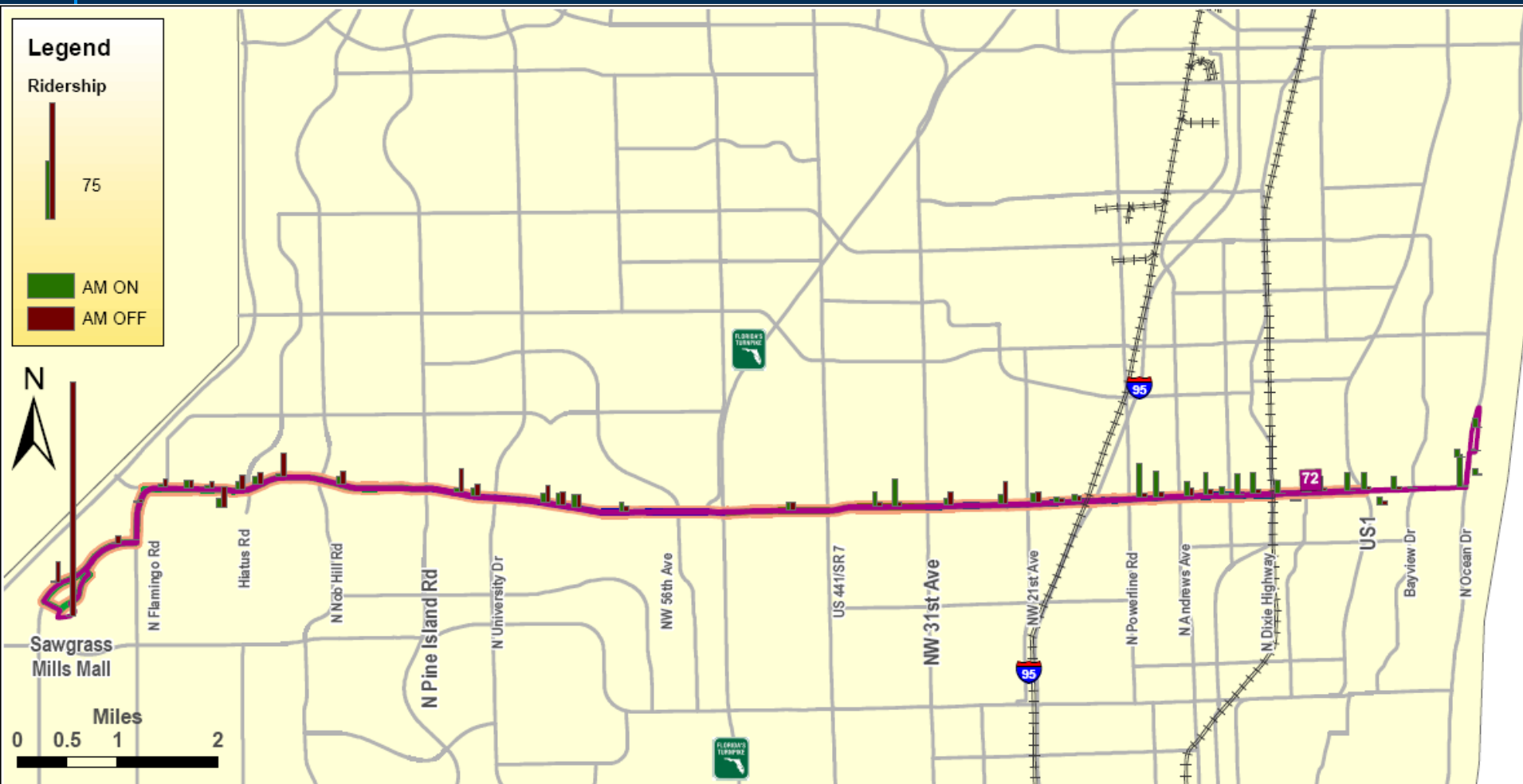
Route 72 – Weekday Ridership

Westbound



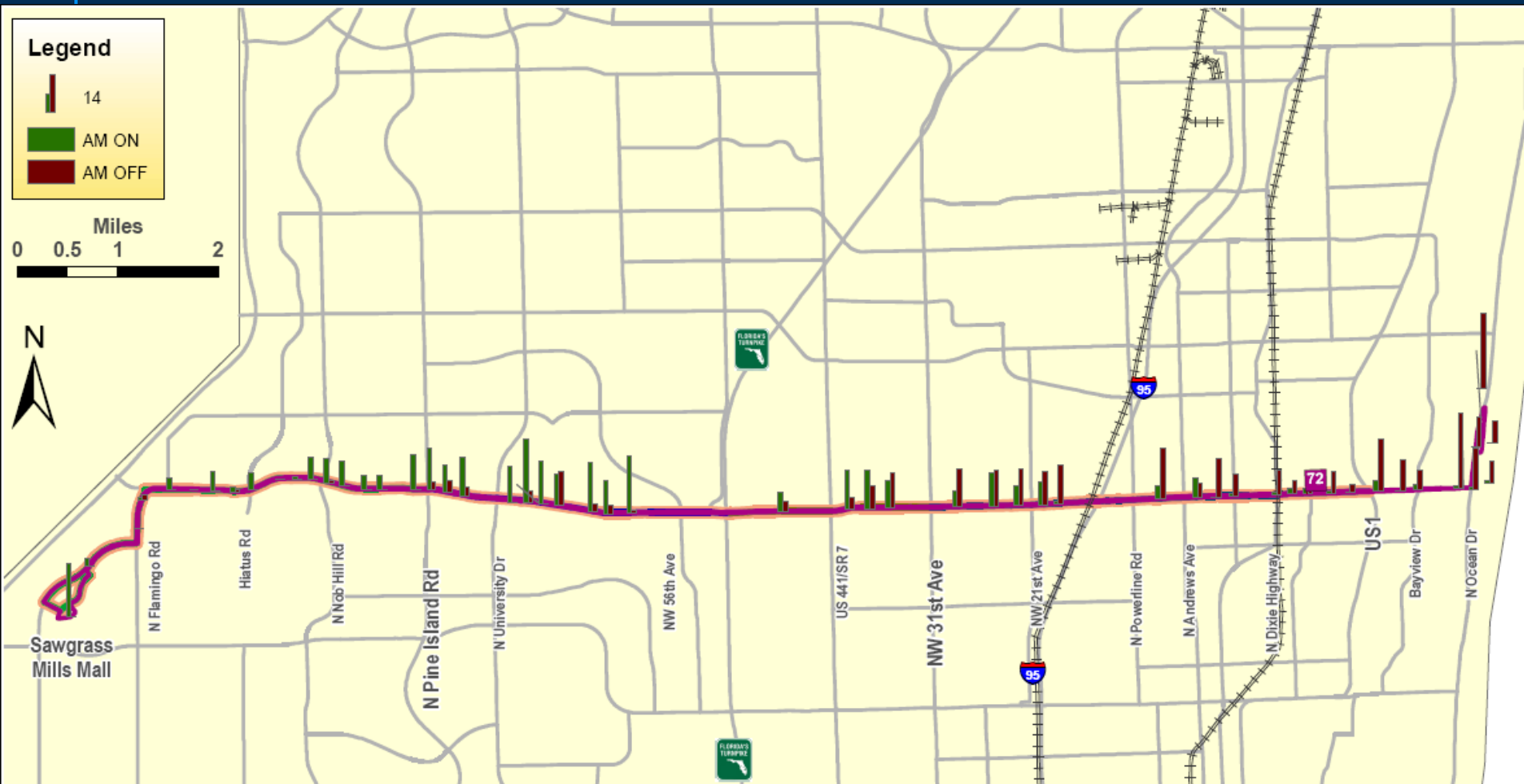
Oakland Park Boulevard

Route 72 – Westbound AM Ridership



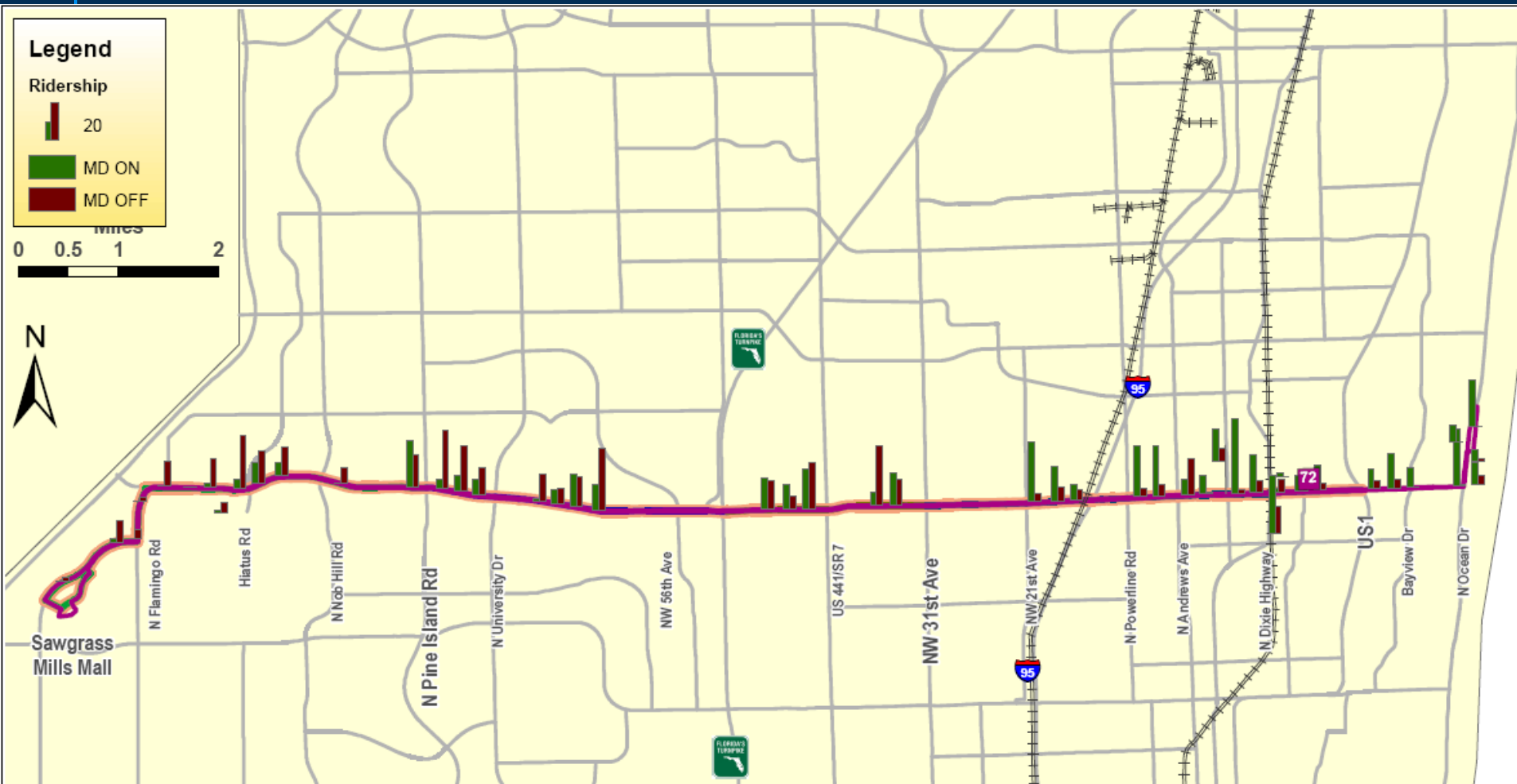
Oakland Park Boulevard

Route 72 – Eastbound AM Ridership



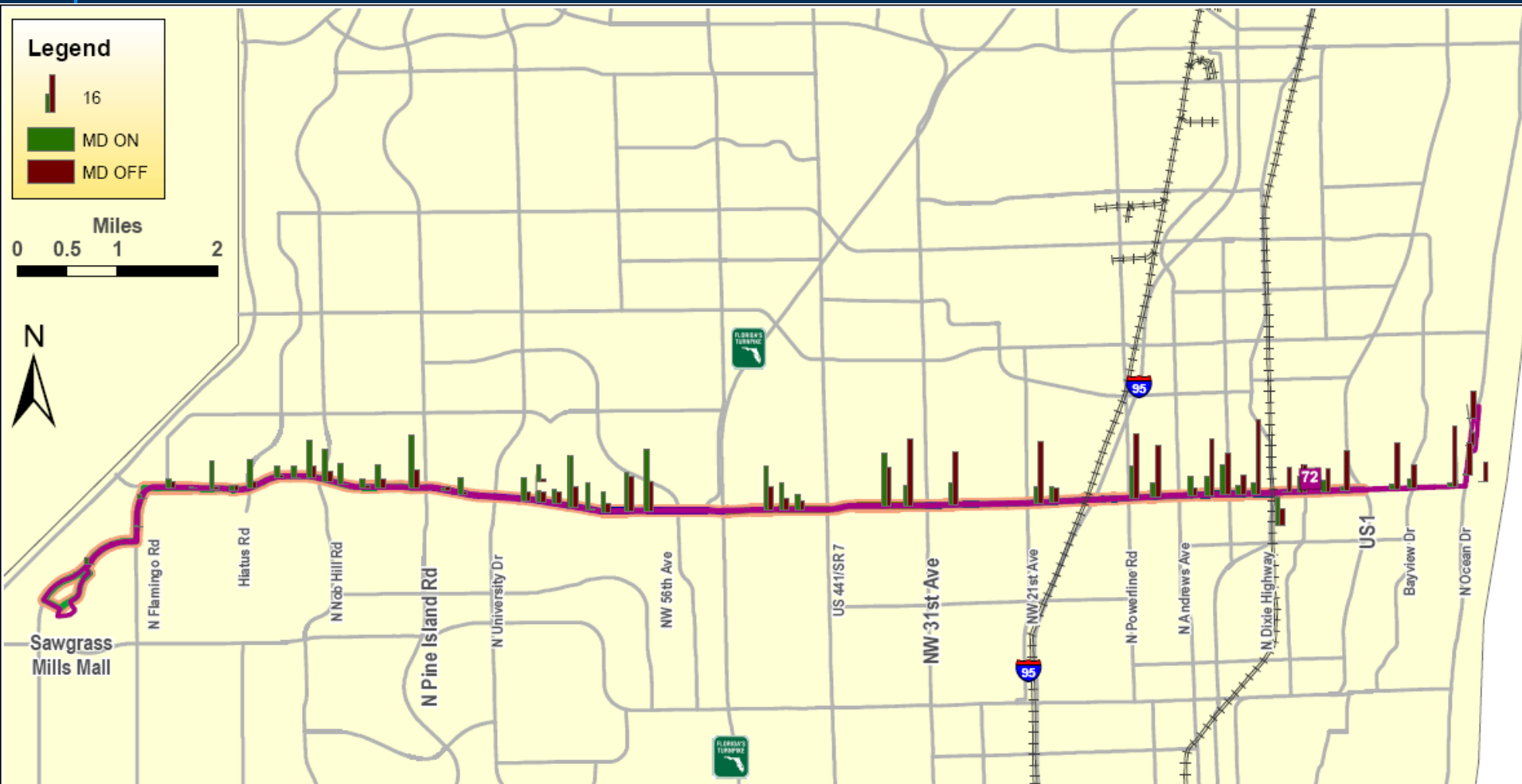
Oakland Park Boulevard

Route 72 – Westbound MD Ridership



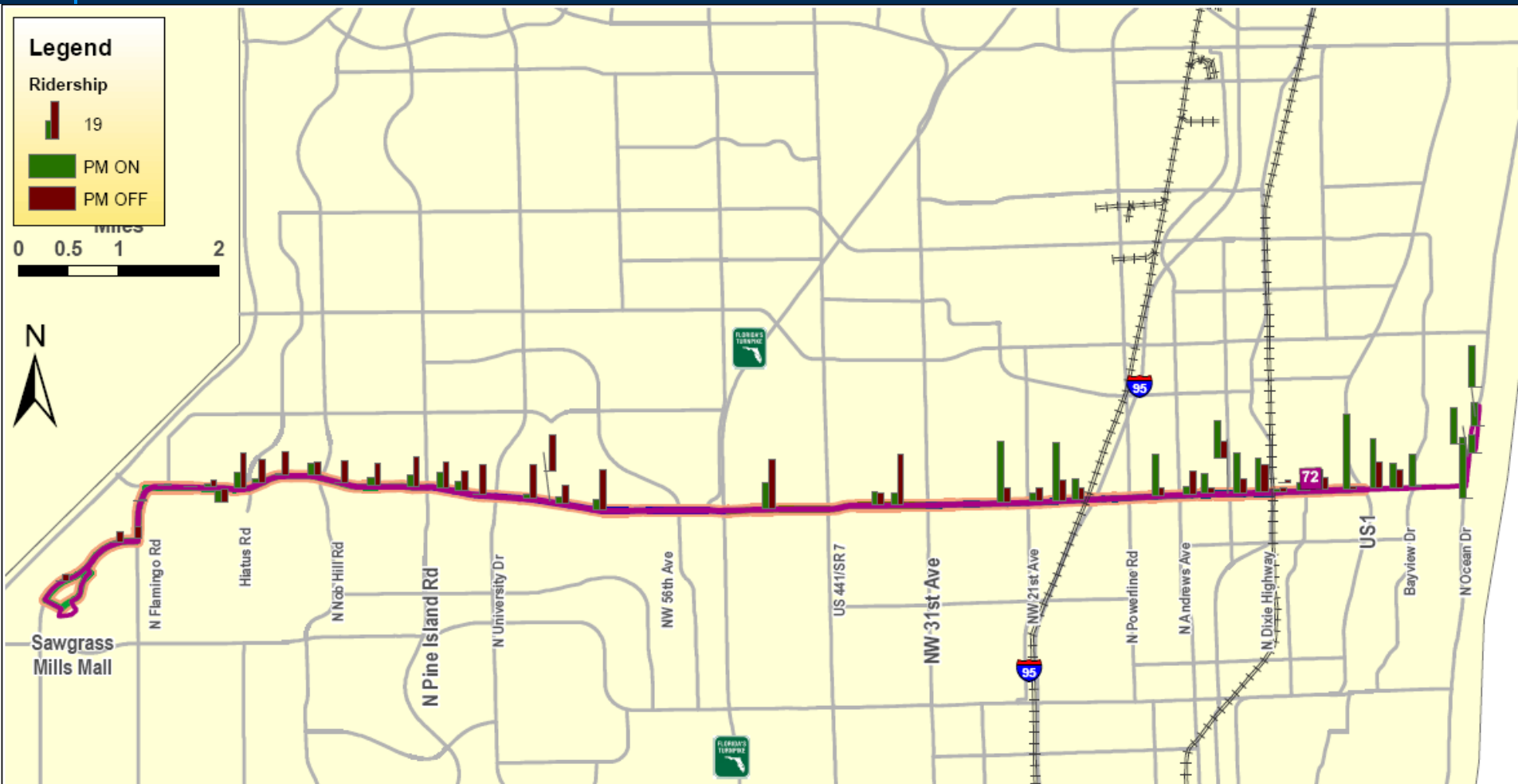
Oakland Park Boulevard

Route 72 – Eastbound MD Ridership



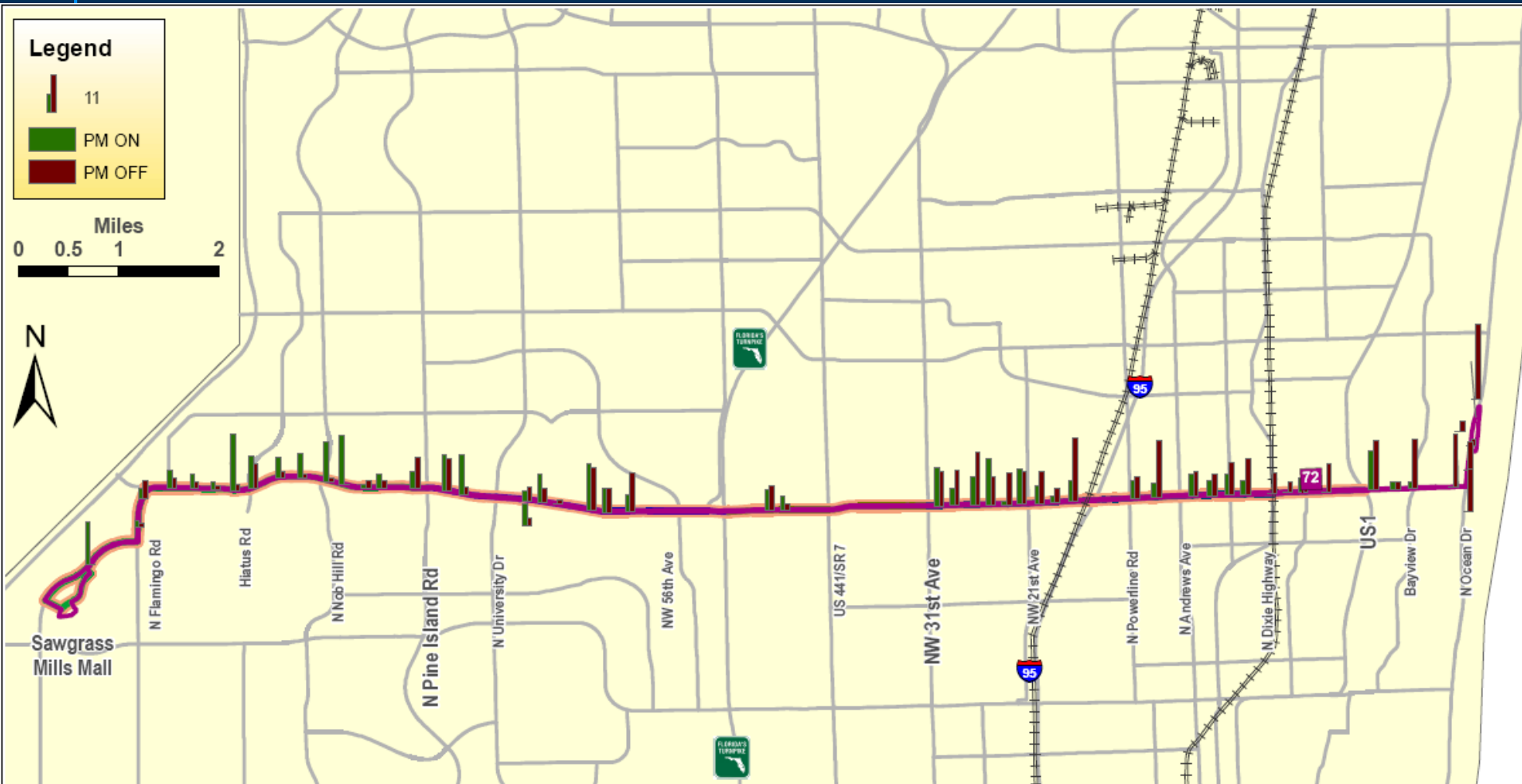
Oakland Park Boulevard

Route 72 – Westbound PM Ridership



Oakland Park Boulevard

Route 72 – Eastbound PM Ridership



Oakland Park Boulevard Crash Data 2006-2009 – w/Transit Stops

- ## ● Pedestrian, Bicycle and Bus Crashes Only



Oakland Park Boulevard Future Land Use

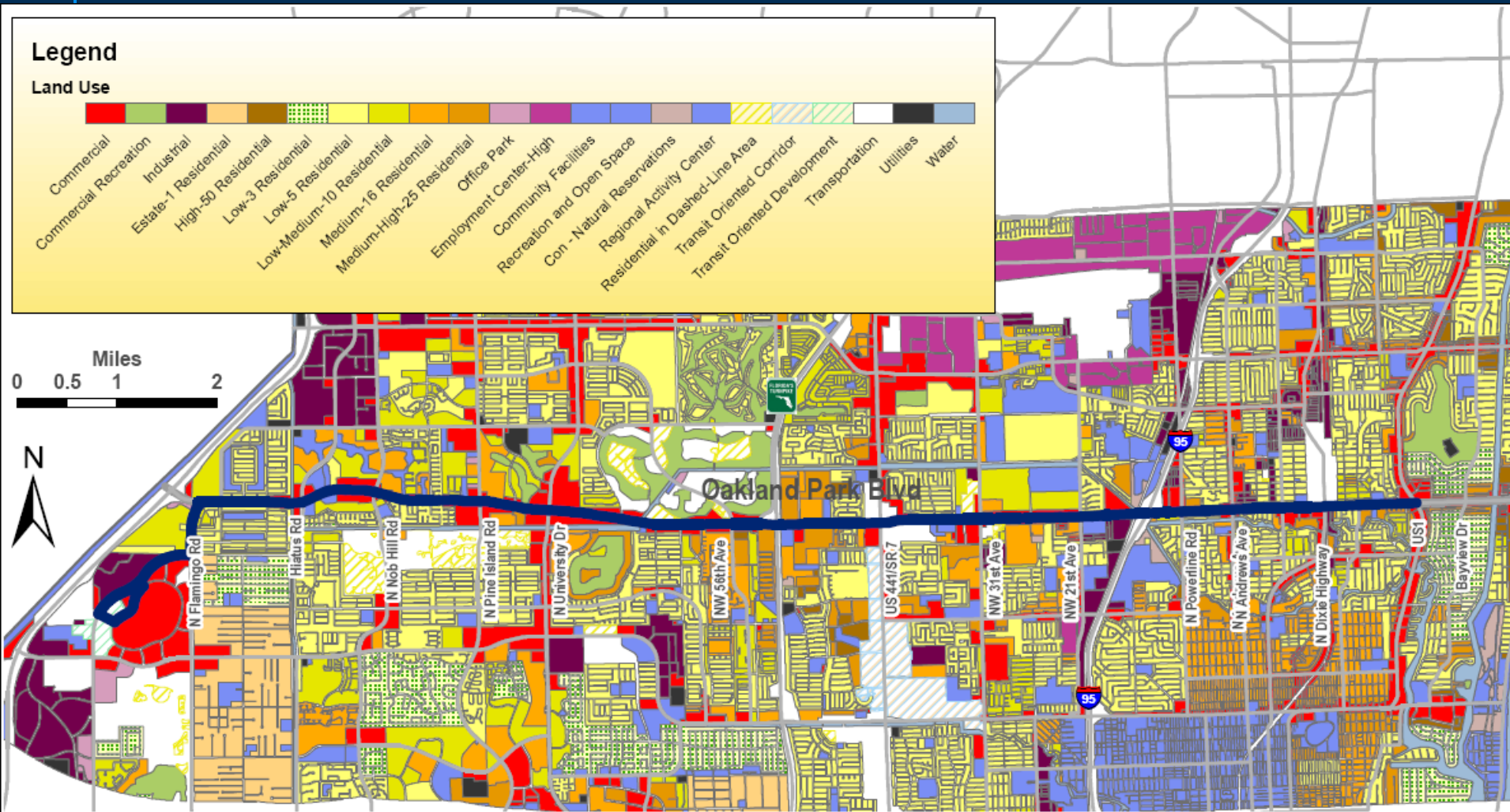
Legend

Land Use

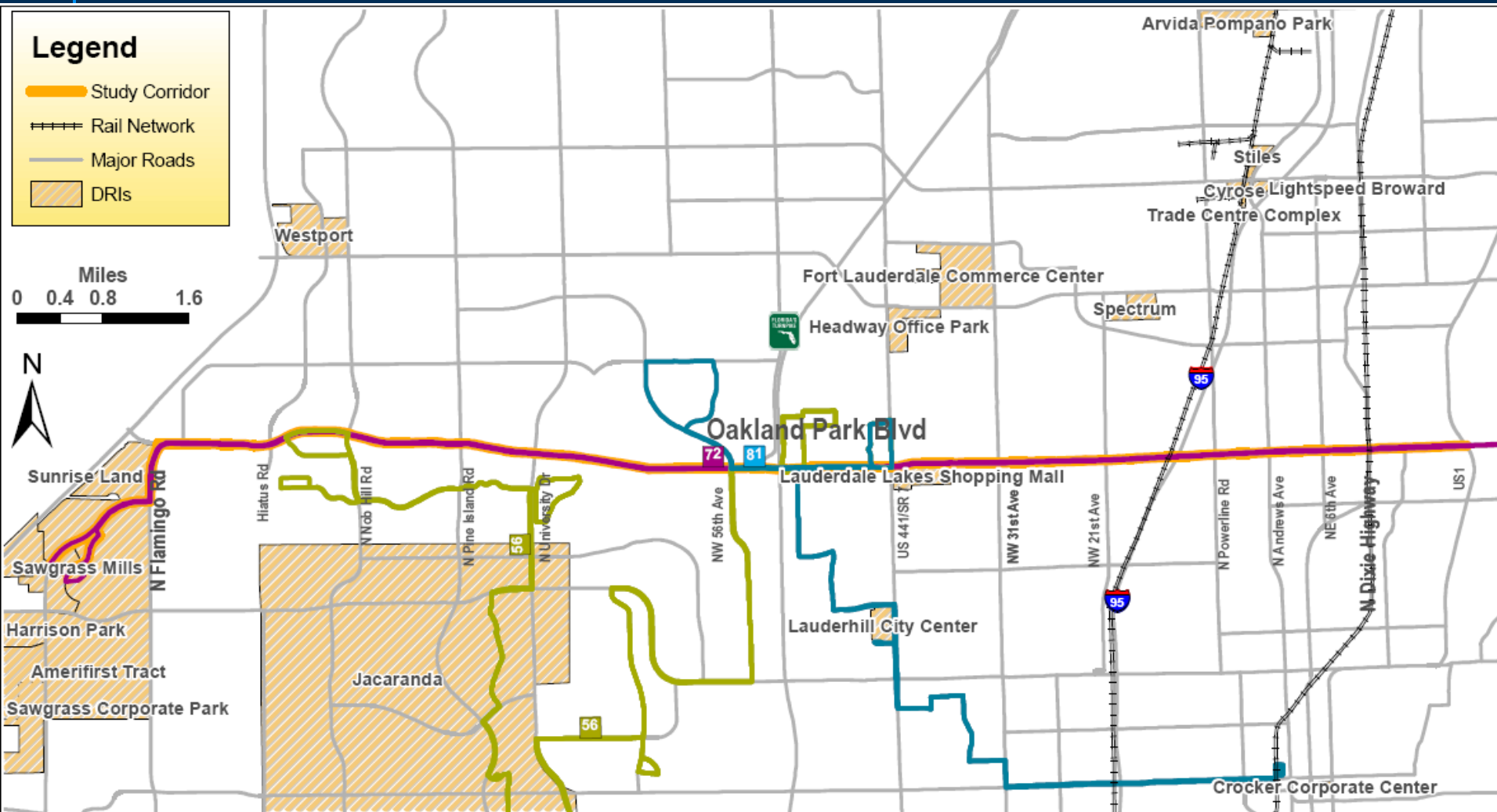


Miles

0 0.5 1 2



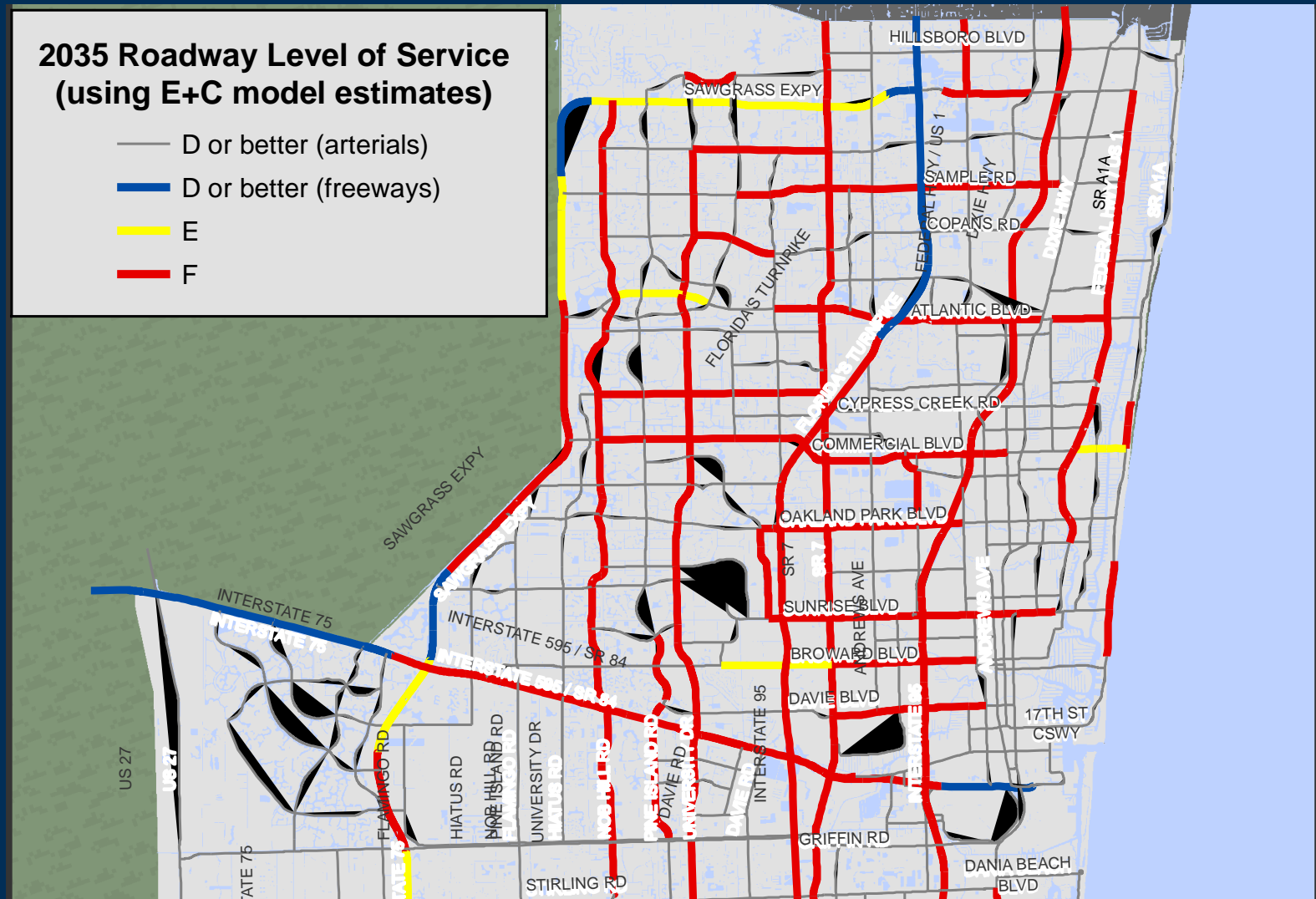
Oakland Park Boulevard DRIs



Oakland Park Boulevard Vacant Land and DRIs

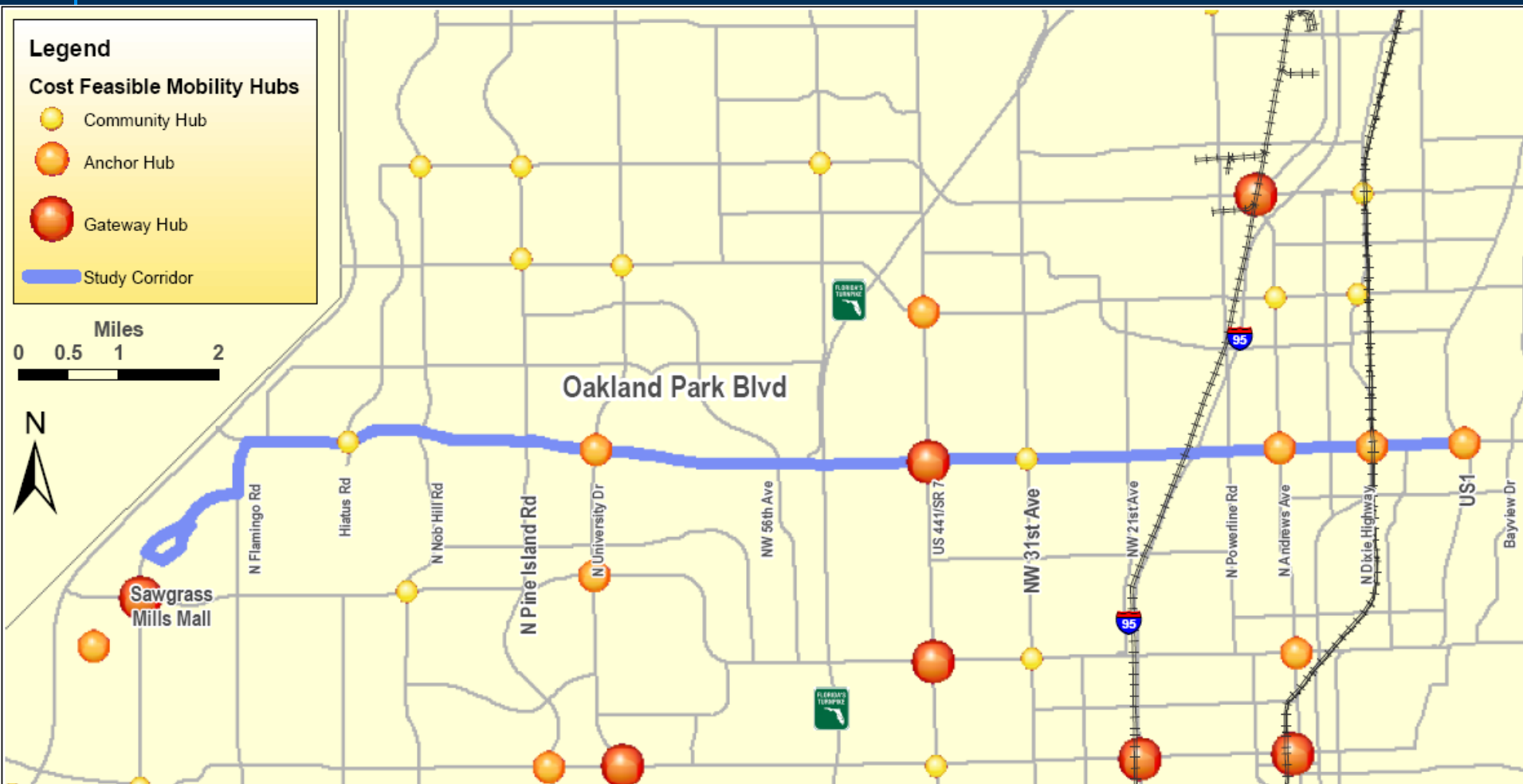


Oakland Park Boulevard Future Level of Service



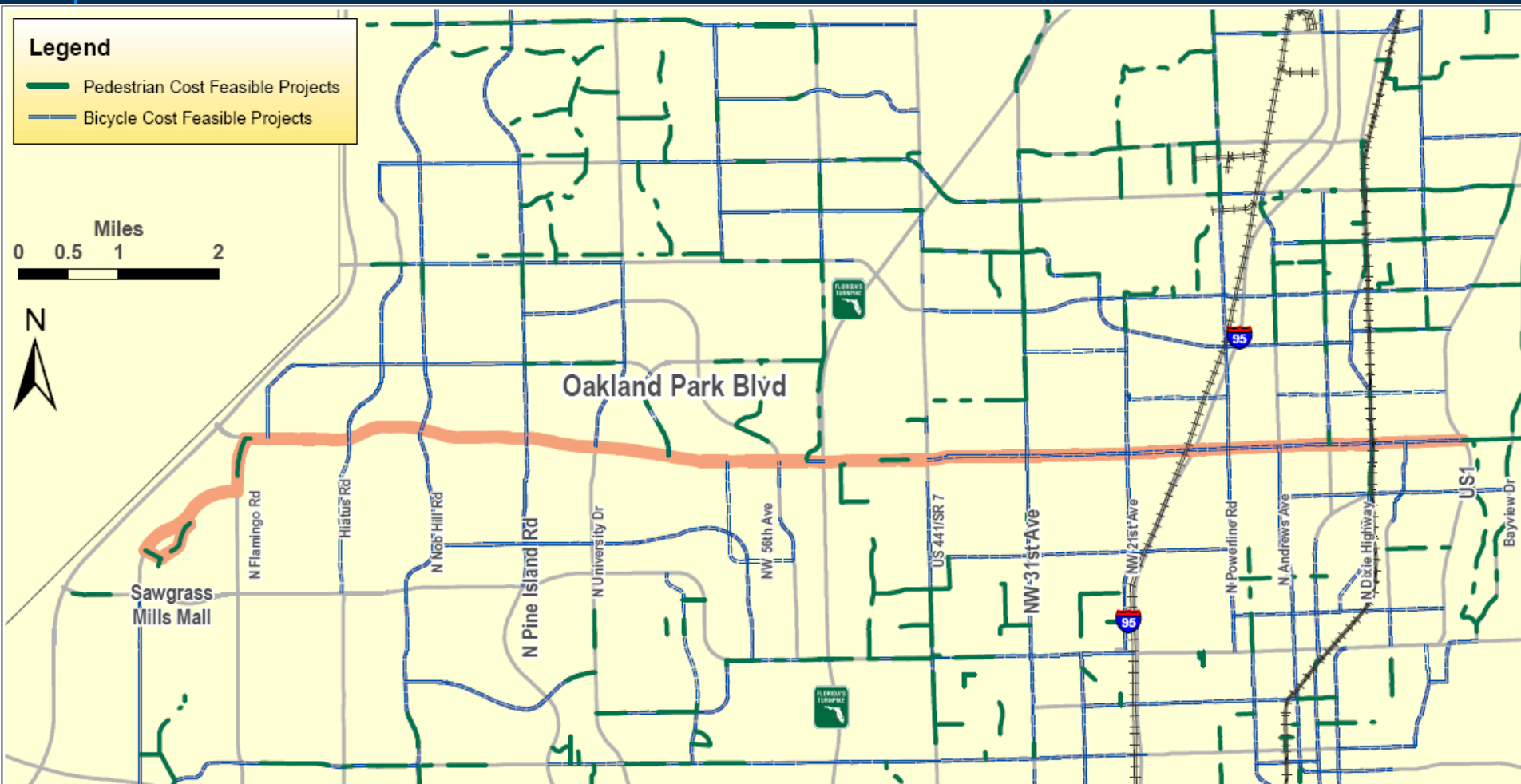
Oakland Park Boulevard

2035 LRTP Mobility Hubs



Oakland Park Boulevard

2035 Pedestrian and Bicycle Projects



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Oakland Park Boulevard

What Are The Corridor Problems?

- **Travel Time**

- Traffic Congestion/ Delays
- Number of Stops
- Dwell Time

- **Reliability**

- On-time Performance

- **Capacity**

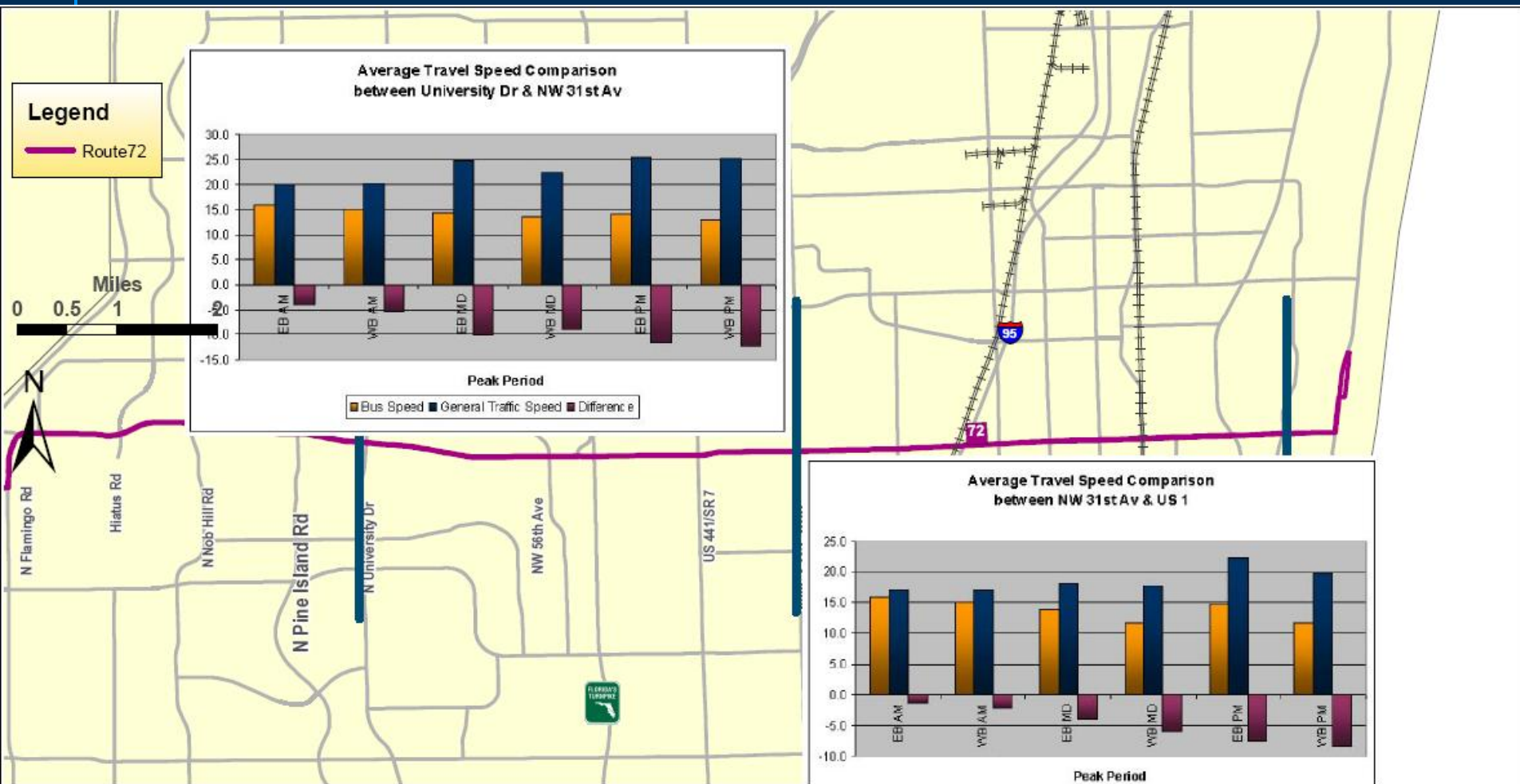
- Passenger Crowding

- **Passenger Experience**

- Stop Location and Shelter Design
- Pedestrian Access
- Walk Distance for Transfers
- Travel Information
- Safety & Security

Oakland Park Boulevard

Travel Speed Comparison - Bus vs. General Traffic



Passenger Safety

Corner Conflicts



**Set-back Stops Can Encourage
Mid-Block Crossing**

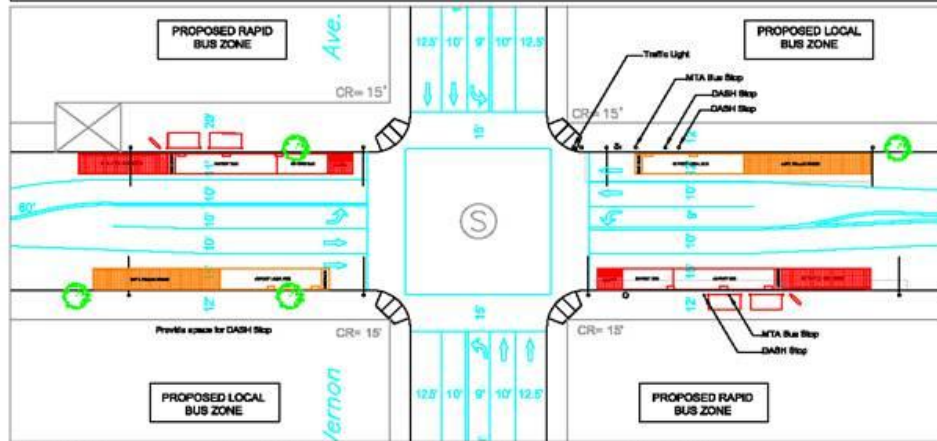
Corner Treatments



Corner Treatments

Vernon Ave.

NORTH



SB Rapid Bus

SB Local Bus

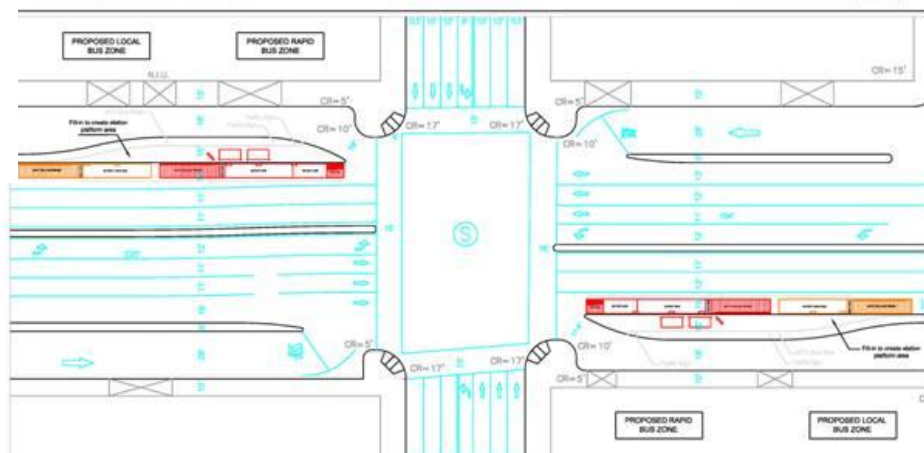
NB Rapid Bus

NB Local Bus



Florence Blvd.

NORTH



SB Rapid Bus

SB Local Bus

NB Rapid Bus

NB Local Bus



Stop Design

Bus Stop at Median



Stop Amenities

Good Progress...



Stop Amenities

Room for Improvement...



Stop Amenities Coming Soon...

Oakland Park



Lauderhill

Who Are Our Customers?

- Existing Transit Riders

- 4 / 10 Zero Auto Owners
- Transferring Riders
- High Off-Peak Demand
 - School and Shopping Trips

- Potential New Customers

- Attract Auto Users
 - Speed, Reliability, and Convenience
 - Highly Sensitive to Travel Experience



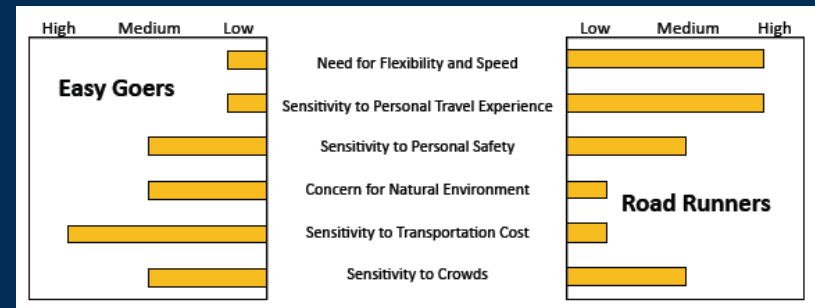
“Easy Goers”: Transit-Centric

- Will walk to transit and use transit for more than just commute travel



“Road Runners”: Auto-Centric

- Want transit to behave like their car – they will drive to higher performance transit service



*Success means
attracting both groups*

Keys To Attracting New Transit Users

- **Service Identity**
 - **Vehicles and Station Branding**
- **Comfort and Convenience**
 - **Stop Amenities**
- **Travel Time Savings**
- **High Frequency**
- **Service Reliability**
- **Safety and Security**

Service Identity



Rapid Bus Stop Branding



Stop Amenities



Stop Design

Next Bus Info



What Rapid Transit Investments Are Key?

GOALS	SHORT TERM INVESTMENTS	LONG TERM INVESTMENTS
Travel Time Speed and Reliability	Rapid Service with: <ul style="list-style-type: none"> • Fewer Stops • Queue Jumpers • Transit Signal Priority • Peak Hour Transit Lanes 	<ul style="list-style-type: none"> • Separate Guideway / Lanes
Safety and Security	<ul style="list-style-type: none"> • Stop/Station Lighting, CCTV & CPTED 	
Service Identity	<ul style="list-style-type: none"> • Rapid Bus Service • Branded Vehicles/Stations • Real Time Information 	<ul style="list-style-type: none"> • BRT or LRT Service
Comfort and Convenience	<ul style="list-style-type: none"> • Hybrid Buses • Text Message Alerts • Real Time Information 	<ul style="list-style-type: none"> • BRT or LRT Concepts

Opportunities and Constraints

Right-of-Way (ROW)

OPPORTUNITIES

- Busbays and Ample Sidewalk and Landscaping Area (West Section)



CONSTRAINTS

- Power Poles (South Side of East Section)
- Limited Sidewalk Width, Shelters (East Section)



- I-95 Underpass, Tri-Rail/CSX Crossing and FEC Crossing



Opportunities and Constraints Capacity

OPPORTUNITIES	CONSTRAINTS
<ul style="list-style-type: none">• Short Runs / Higher Frequency• Articulated Buses	<ul style="list-style-type: none">• Operational Costs• Short Distance Trips



Opportunities and Constraints

Travel Time

OPPORTUNITIES	CONSTRAINTS
<ul style="list-style-type: none">● Rapid Service with Fewer Stops● Traffic Signal Priority● Queue Jumpers	<ul style="list-style-type: none">● Customer Opposition● Complexity for New Riders● Traffic Signal Spacing● Number of Right-Turn Lanes



Case Study

LAMTA Wilshire Boulevard Rapid Bus

- LA Metro Rapid Bus 720
- Stop Spacing: 3/4 mile
- Headways: 3-10 min
 - EB: West end: 4 - 13 min; East end: 10 - 14 min; Middle section: 4 – 7 min
 - WB: East end: 6 – 14 min; West end: 3 - 13 min; Middle section: 3 - 7 min
- Service Coverage: 4 AM – 2 AM
- Travel Time ↓ 30%
- Ridership ↑ 40%; 1/3 new riders



Opportunities and Constraints

On-Time Reliability

OPPORTUNITIES	CONSTRAINTS
<ul style="list-style-type: none">• Additional Scheduled Running Time• Pre-Boarding Ticketing• Station Upgrades	<ul style="list-style-type: none">• Traffic Delays<ul style="list-style-type: none">• I-95 Ramps• CSX/Tri-Rail Crossing• FEC Crossing• Intracoastal Waterway• Unexpected Events• Power supply• Right of Way

Opportunities and Constraints

Land Use

OPPORTUNITIES

- Supportive TOD (Mix of Residential and Commercial)
- Undeveloped Land



CONSTRAINTS

- Development Restrictions



Opportunities and Constraints

Pedestrian Safety/Security

OPPORTUNITIES

- Bus Stop Relocation Close to Crosswalks
- Landscape around Bus Stops
- Bus Stop Lighting




CONSTRAINTS

- Limited ROW – i.e. Gas Stations at Corners
- Mid-block Bus Stops



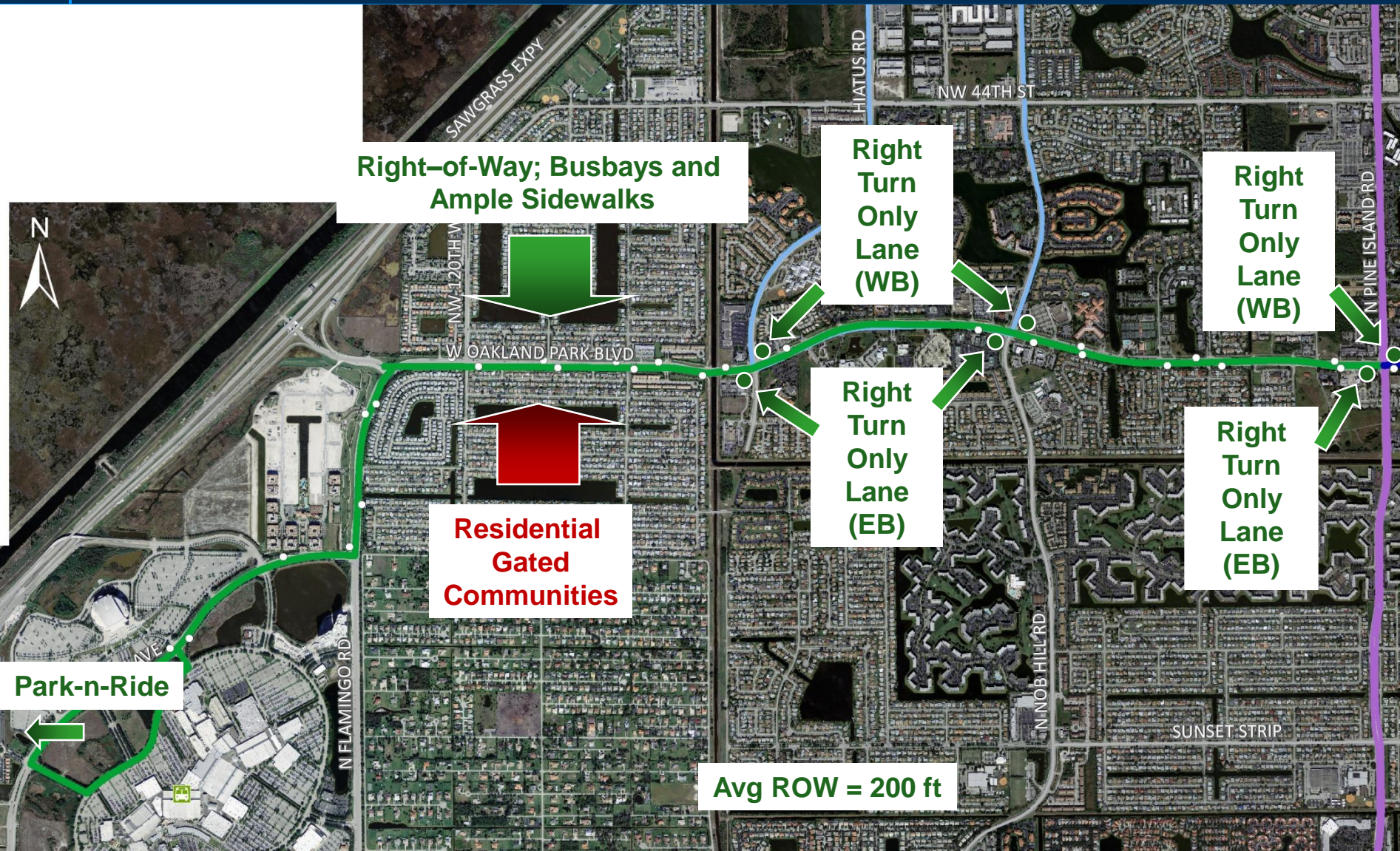
Opportunities and Constraints

Passenger Experience

OPPORTUNITIES	CONSTRAINTS
<ul style="list-style-type: none">● Shelters● Real-Time Information● Park-n-Ride Lots 	<ul style="list-style-type: none">● Right of Way● Installation Costs● Introduction of New Service

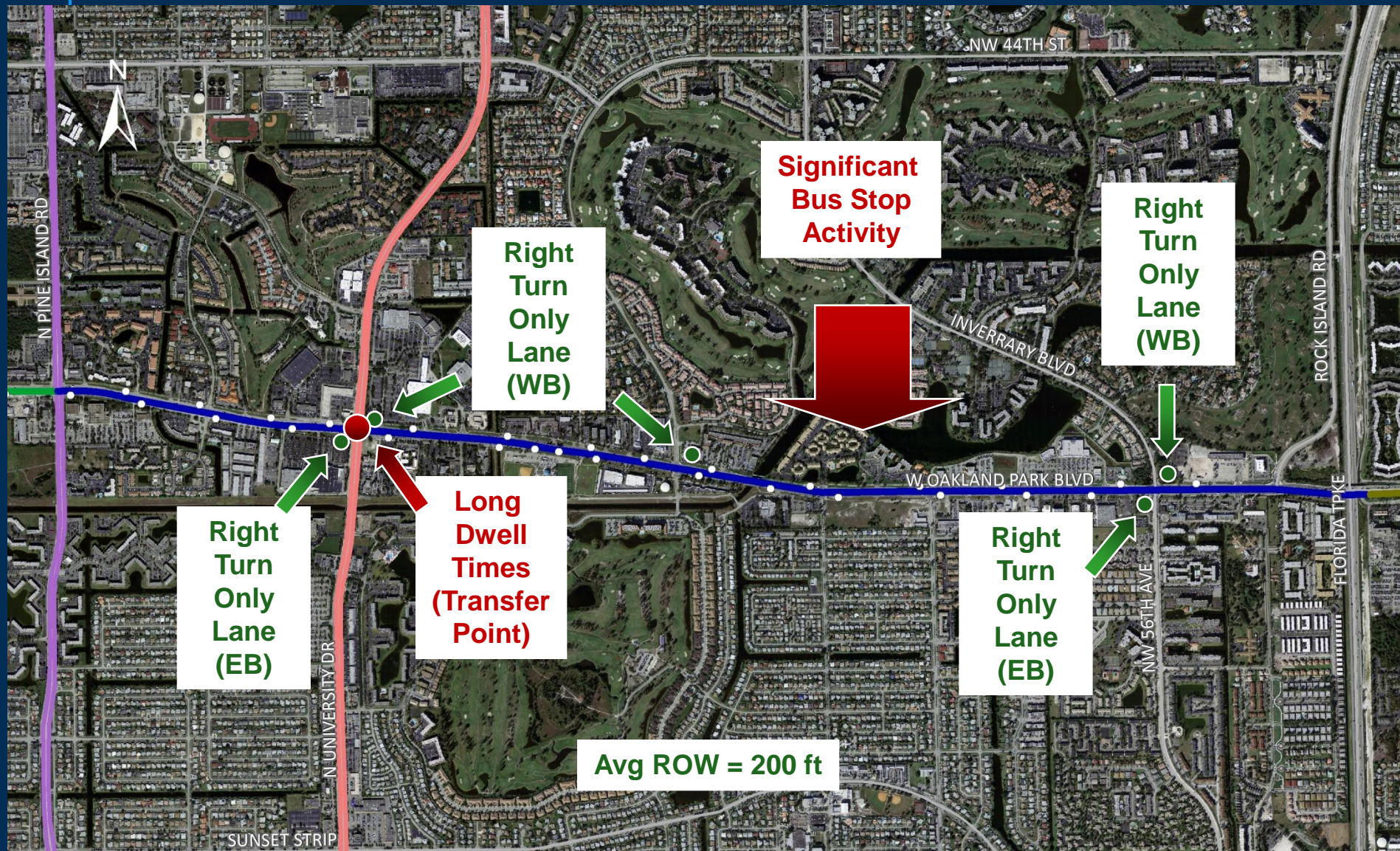
Opportunities and Constraints

Sawgrass Mills Mall to Pine Island Rd



Opportunities and Constraints

Pine Island Rd to FL Turnpike



Opportunities and Constraints

FL Turnpike to 31st Ave



Opportunities and Constraints

31st Ave to US 1 Hwy



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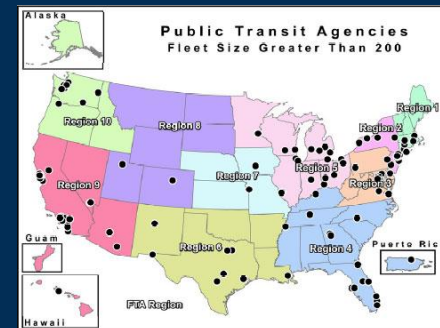
Transit Investment Benefits

- **Regional and Local Access and Mobility**
 - Access to employment and affordable housing
 - Maintain future corridor mobility
 - Decreased transit travel times
 - Improved schedule reliability
 - Increased connectivity to BCT routes
- **Effective Alternative Mode of Travel**
 - Increased transit competitiveness
 - Attract new transit riders



Transit Investment Benefits

- **Community and Economic Development**
 - Community context and identity respected
 - Community development initiatives supported
 - Opportunity for transit-supportive development
 - Supportive efficient land use patterns
- **Quality of Life**
 - Reduced reliance on automobile travel
 - Environmental benefits
 - Limited impacts



Agenda

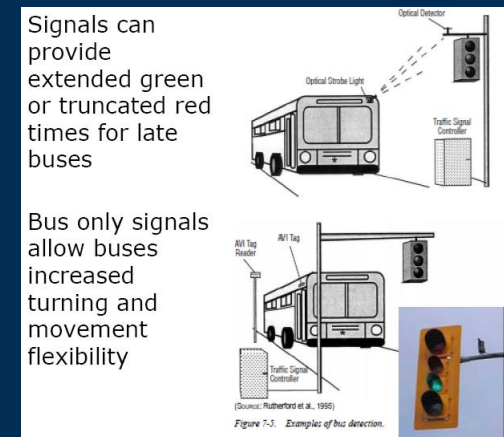
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So What Should We Be Focusing On?

(Phase II Scope of Work)

● Short-Term

- **Improve Travel Time/Speed**
 - Traffic Signal Priority (TSP)
 - Rapid Bus/BRT Type Service
- **Improve Reliability**
 - Adjust Running Time
 - Real-Time Schedule Information
 - AVL and Real-Time Route Management
- **Meet Capacity Needs**
 - Articulated Vehicles
 - Increase Frequency
- **Improve Passenger Experience**
 - Bus Stop Shelters & Amenities
 - Safe Pedestrian Access to Transit



So What Should We Be Focusing On?

(Phase II Scope of Work)

● Long-Term

- **Improve Travel Time/Speed**
 - Bus Rapid Transit (BRT)
 - Dedicated Bus Lane
 - Minimum Stop Spacing (½ mile apart)
- **Meet Capacity Needs**
 - High-Frequency Service
- **Improve Passenger Experience**
 - Bus Stop Amenities

Characteristics of BRT

- ▶ Exclusive Right-of-Way
- ▶ High Performance
- ▶ Flexible
- ▶ Permanent
- ▶ Branded



Travel Time Savings Over Previous Service

System	Before (min)	After (min)	% Reduction
Cleveland, OH	41	33	20
Eugene, OR	27	15	44
Hartford, CT	35	20	43
Honolulu, HI	35	20	43
Houston, TX	45	24	47
Los Angeles, CA	48	17	65
Pittsburgh, PA	52	30	42

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