



CSX East-West Rail Feasibility Study

SAC Meeting # 3

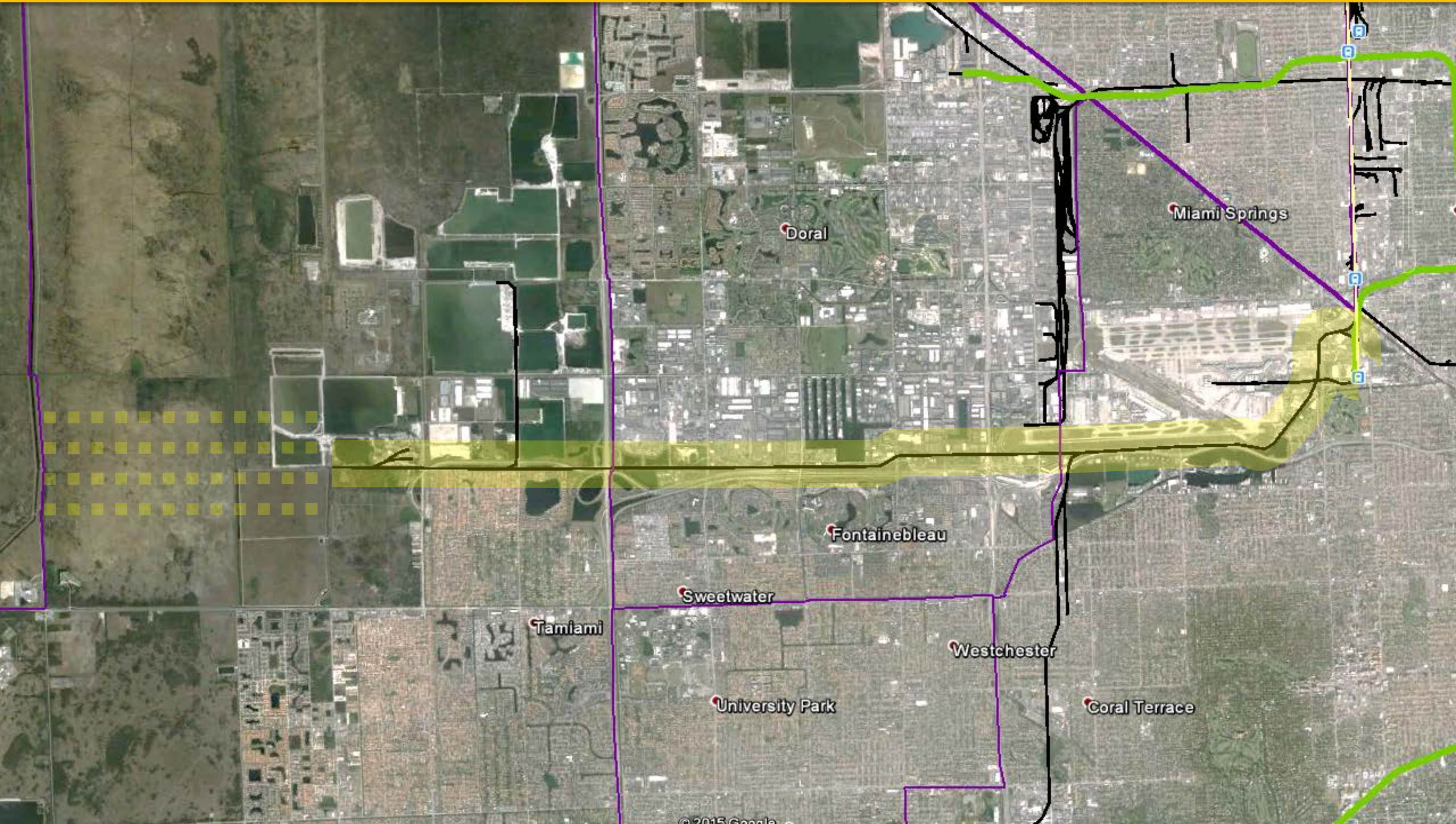
Tuesday August 25, 2015

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Agenda

- **Introductions**
- **Recap of SAC Meeting # 2**
- **MIC to Dolphin Station Alternative**
- **MOS Recommendation – Open Discussion**
- **Phase 2 – Future Evolution of Initial MOS**
- **Phase 2 Development – Open Discussion**
- **Next Steps**
- **October SAC Meeting**

SAC Meeting # 2 Recap



Study Phasing

Phase 1 - Focus on Evaluating Potential Start- Up Service

- Stations
- Operations
- Ridership
- Infrastructure Needs
- Costs

Phase 2 – Expanded Services Building Off Start-Up Service

- FIU
- Krome Avenue
- Kendall
- Improvements to Start-up Service

Starter Service

Service Parameters

- Minimal lead time starter service
- Serve two key markets
 - Western commuters with destinations along Metrorail
 - Travelers to FIU and Doral
- 46 weekday trains
- 30/60 headways
- Starter service designed for future refinements
- 20-minute max. travel time from Dolphin Station to MIC
- Coordinated timed transfers with Metrorail

Starter Service Options

MIC to 137th Ave.



Starter Service Options

MIC to 137th Ave.

Attributes

- Allows for single track/passing siding operation
- Minimizes Rolling Stock Needs
- Takes advantage of SFRTA available rolling stock
- Matches existing Metrorail schedule at the MIC
- Serves western portion of the County well

Challenges

- No cushion in operating plan
- On the edge of the Urban Development Boundary
- Greater infrastructure needs

Starter Service Options

MIC to 132nd Ave.



Starter Service Options

MIC to 132nd Ave.

Attributes

- Allows for single track/passing siding operation
- Minimizes Rolling Stock Needs
- Takes advantage of SFRTA available rolling stock
- Matches existing Metrorail schedule at the MIC
- Serves Tamiami neighborhood with a station
- Provides for limited cushion in operating plan

Challenges

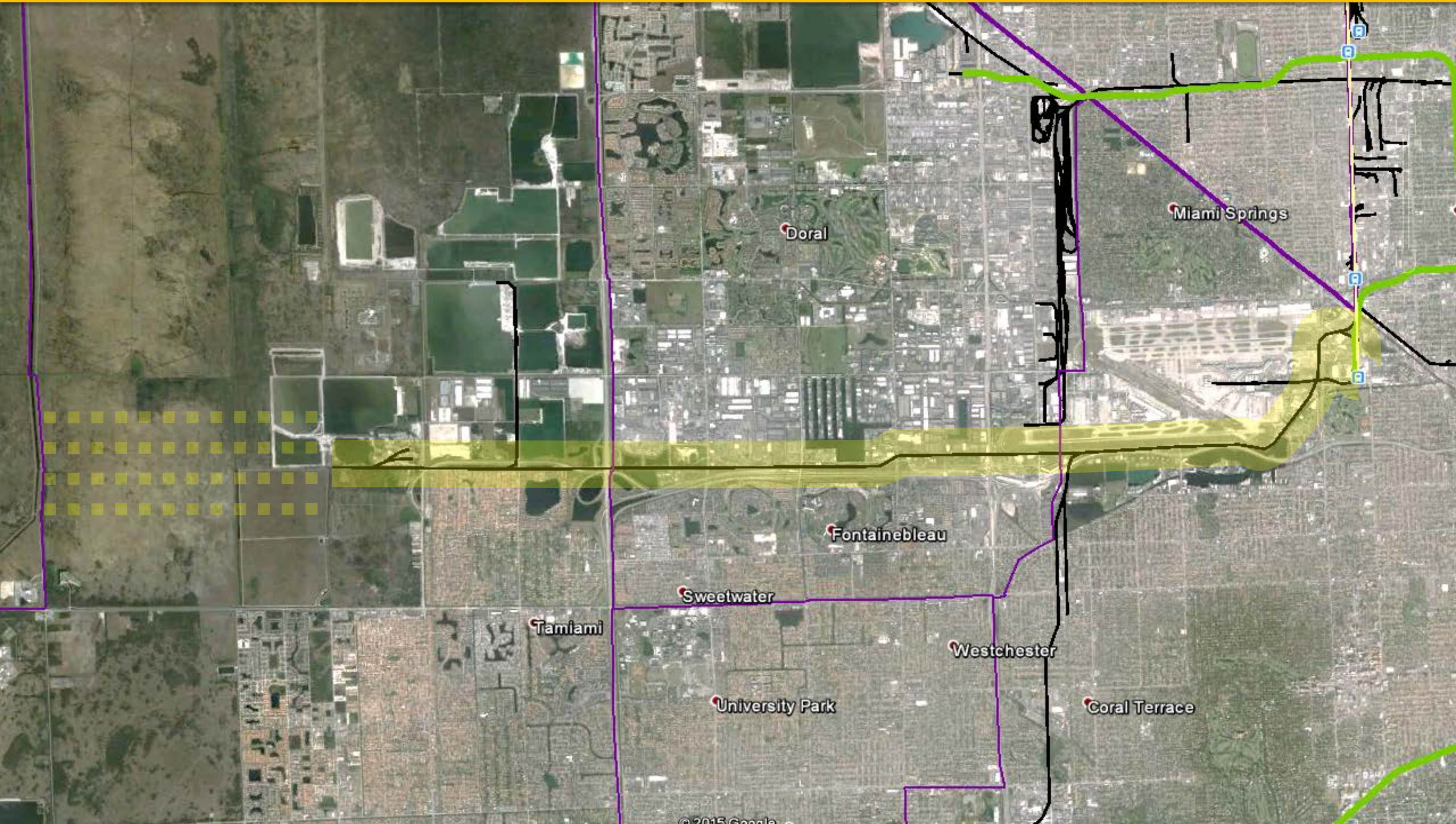
- Terminal station in residential area
- Additional infrastructure needs

Starter Service Options

SAC Recommendations/Conclusions

- Eliminate station at 97th Avenue
- Hold MIC-137th Avenue option for later phase, not as starter service
- Analyze an option terminating at Dolphin Station

MIC to Dolphin Station MOS Alternative



Starter Service Options

Potential Service Option

- MIC to Dolphin Station (122nd and Turnpike)



Starter Stations Preferences

Dolphin Station 122nd Avenue - Turnpike	9.4	Park and Ride station available for local residents but primarily for commuters coming from the Turnpike (Up to 1000 parking spaces provided by others)
107th Ave (SW Doral)	8.0	Primarily a destination station served by connecting buses to provided by the Malls and an FIU shuttle. (assume 0 parking spaces)
82nd Avenue (SE Doral)	5.5	Walk/Bike and Park and Ride for Residential community to the south and to intense industrial and warehousing employment to the north (assume 300 spaces)
Miami Intermodal Center	0.0	Transfer to Metrorail Orange Line

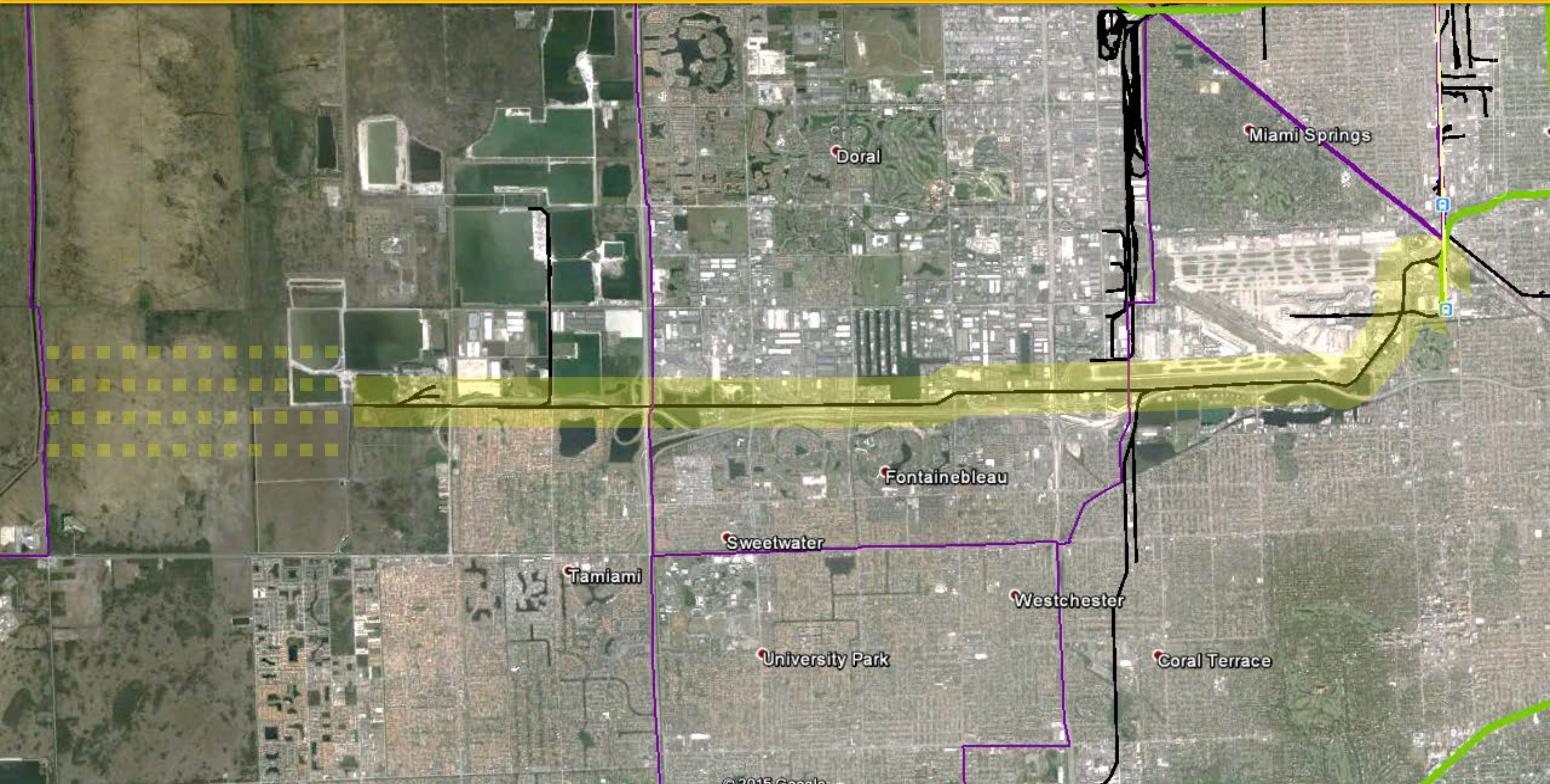
Capital Investment Differences

Component	132 nd Street Terminal	Dolphin Station Terminal
Rehab Mainline Track (Miles)	10.5	9.4
New Mainline Track (Miles)	2	2
Passenger Stations	5	4
Turnouts Replaced	11	10
Grade Crossings	17	14

Dolphin Station Terminus

- The reduction would save
 - 1.1 miles of track rehabilitation
 - Three grade crossings
 - One station

MOS Analysis and Recommendations



Preliminary Cost Estimates

	<u>MIC to 132nd</u>	<u>MIC to Dolphin Station</u>
Track and Switches	\$14,000,000	\$13,000,000
Signals & Communications	\$8,000,000	\$8,000,000
Stations	\$13,000,000	\$10,000,000
Sitework, Utilities, Environmental & Grade Crossings	\$6,000,000	\$5,000,000
Sub-total Construction Elements	\$41,000,000	\$37,000,000
Property Acquisition (Stations and Parking)	\$28,000,000	\$23,000,000
Vehicles	\$0	\$0
Special Conditions, Mobilization, Temporary Facilities	\$4,000,000	\$3,000,000
Professional Services	\$14,000,000	\$14,000,000
Contingency	\$13,000,000	\$11,000,000
Sub-total Non-Construction Elements	\$59,000,000	\$52,000,000
Total Capital Cost	\$100,000,000	\$88,000,000
Annual O&M Costs	\$7,900,000	\$7,600,000

ROW costs not included

Preliminary Capital Cost Estimates

- Do NOT include:
 - Right of way from CSX
 - Parking at the proposed Dolphin Station
 - Rolling Stock: Will use Tri-Rail existing fleet

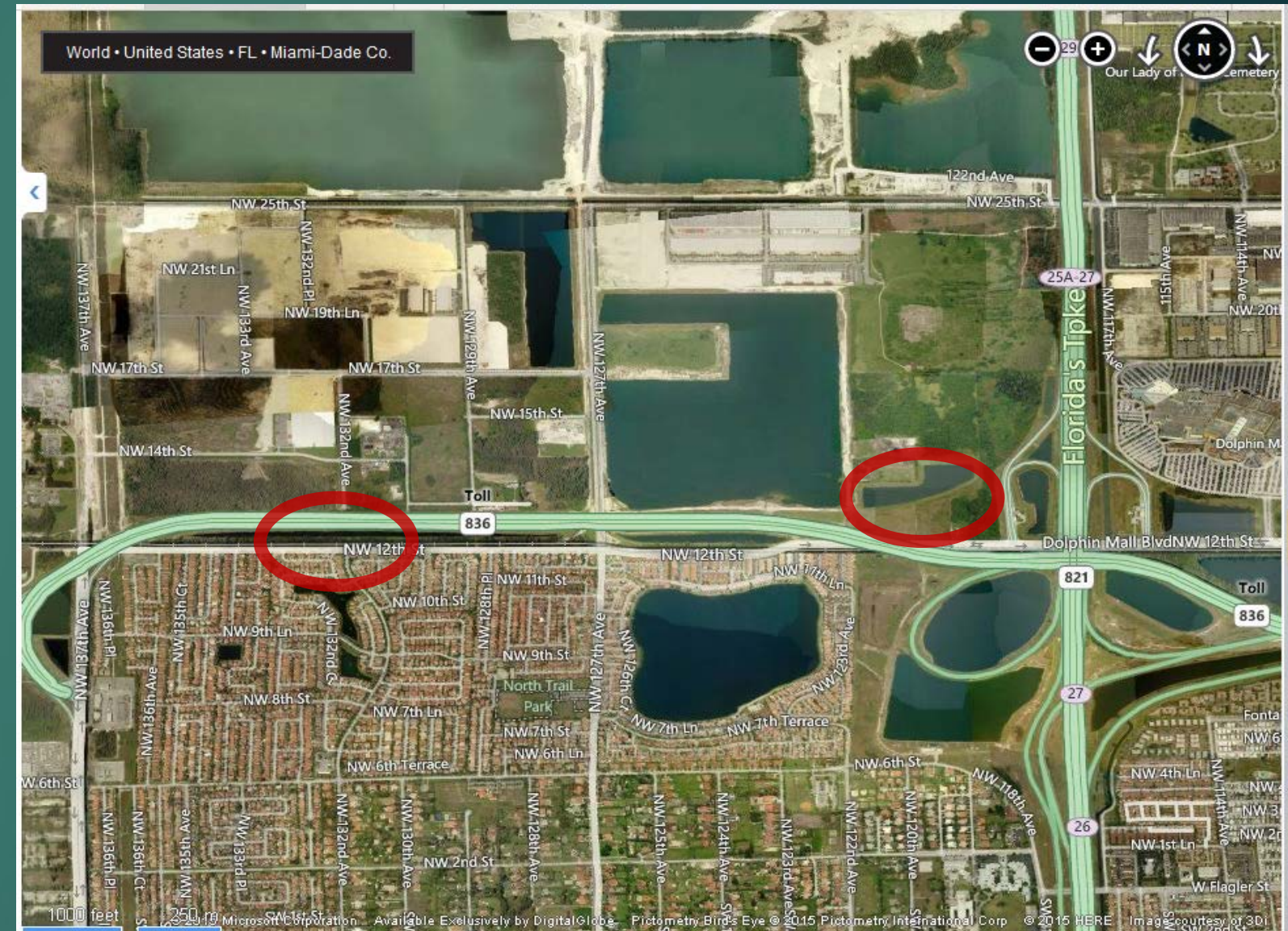
Terminus Station - 132nd Ave. or Dolphin Station

132nd Avenue

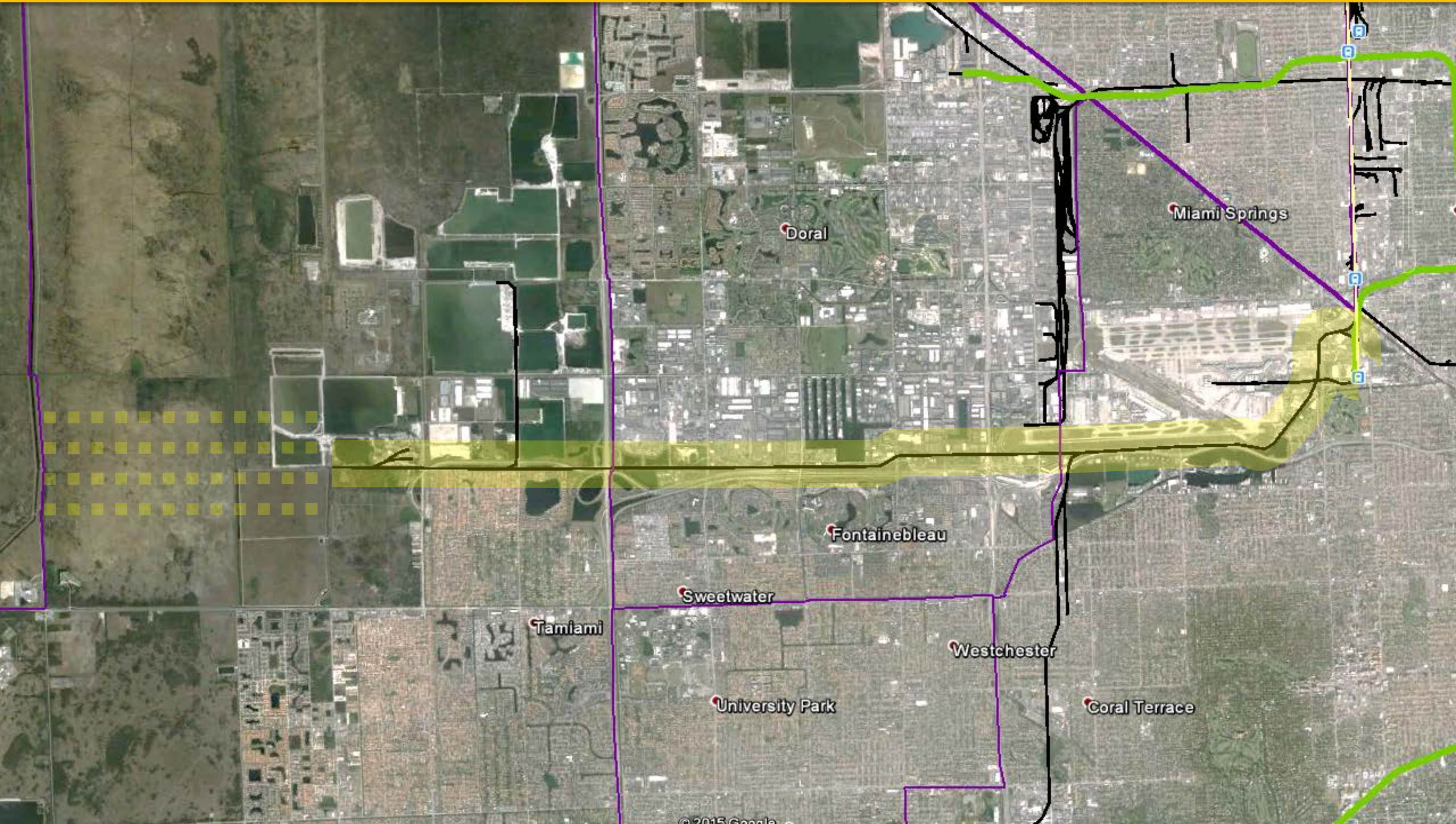
- ✓ Improved accessibility to Tamiami neighborhood
- ✓ Slightly higher capital cost
- ✓ Slightly higher O&M cost
- ✓ Operational objectives achieved

Dolphin Station

- ✓ Greater operating plan cushion
- ✓ Less penetration into western neighborhoods
- ✓ Decision on western terminus at later date
- ✓ Good regional access
- ✓ Less than 10% reduction in ridership



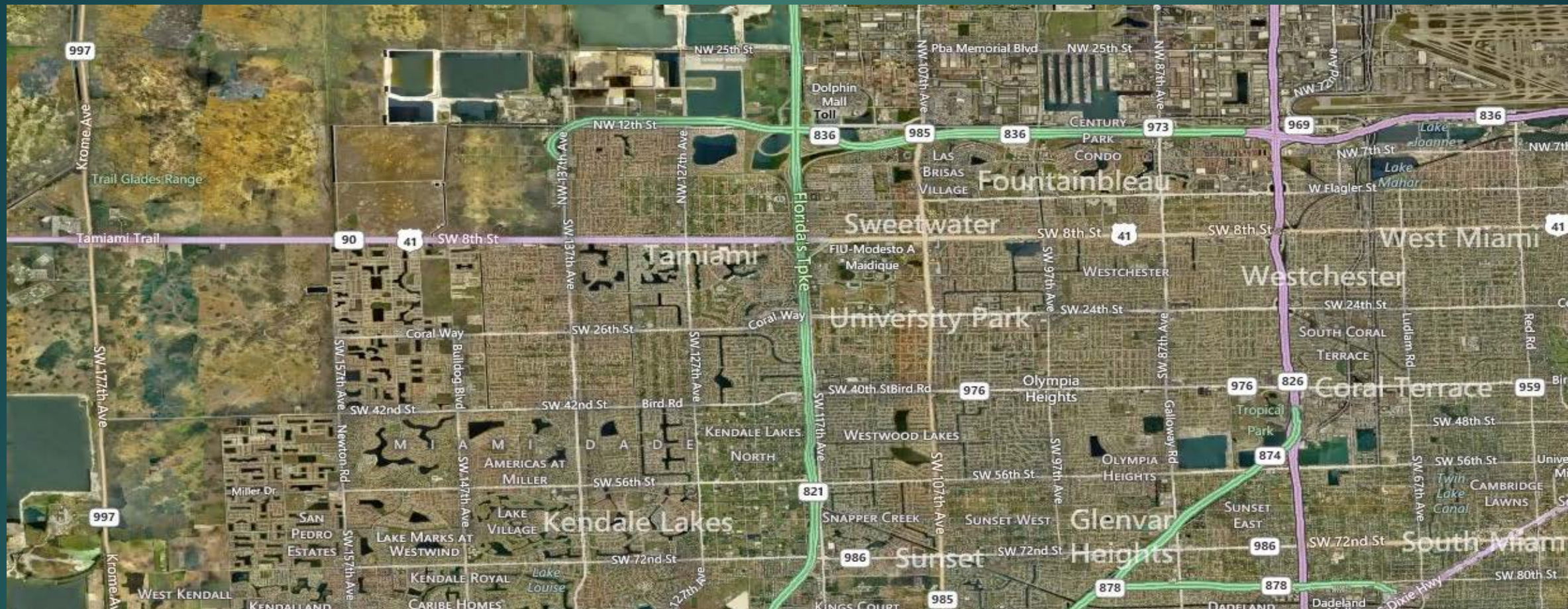
Phase 2 – Future Evolution of Initial MOS



Phase 2 – Future Evolution of MOS

Potential Expansion Markets

- FIU Connection
- Western (Krome Avenue) Extension

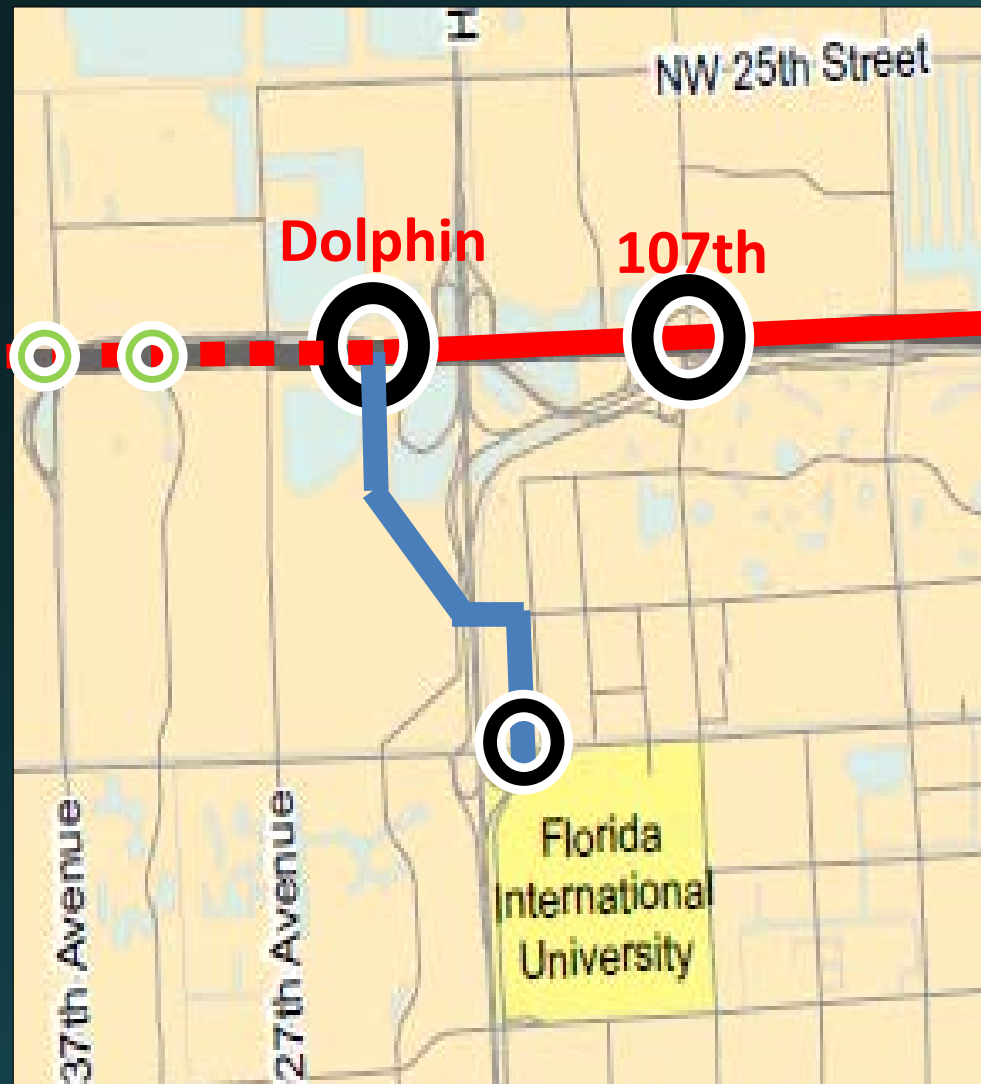


Phase 2 – Future Evolution of MOS

FIU Connection Considerations and Challenges

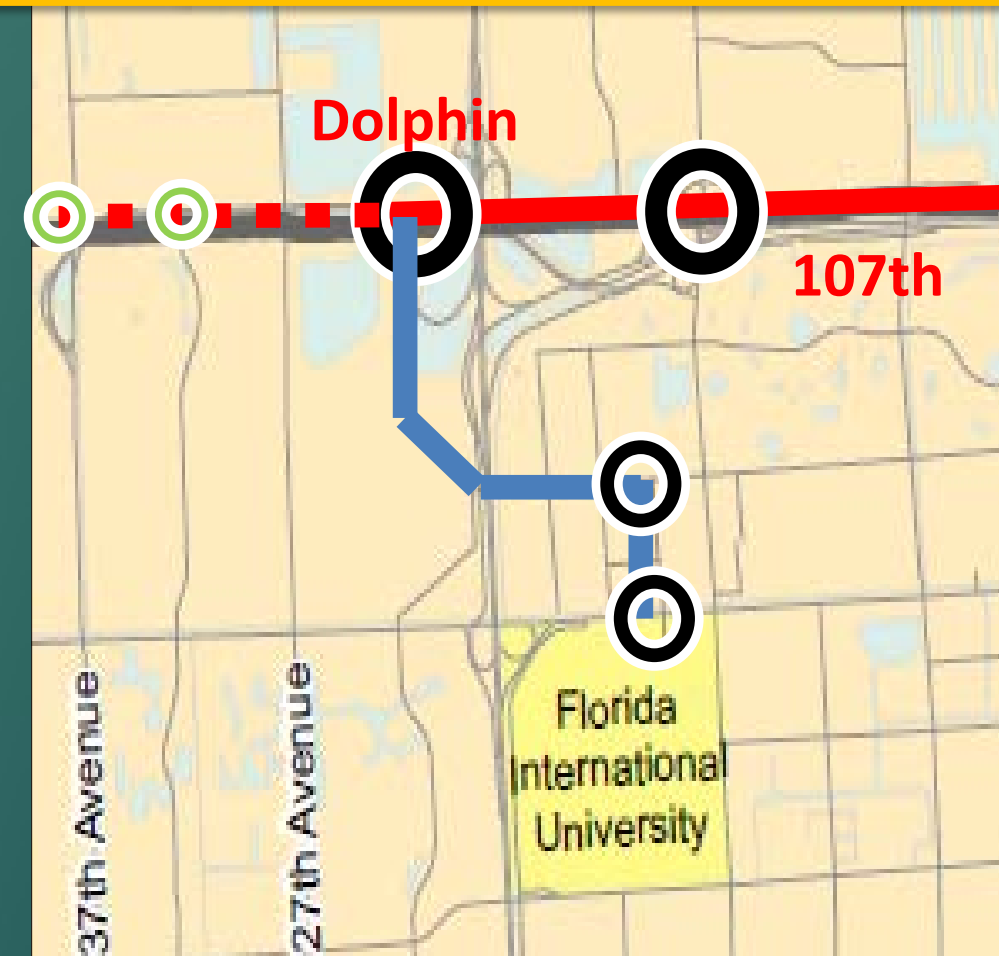
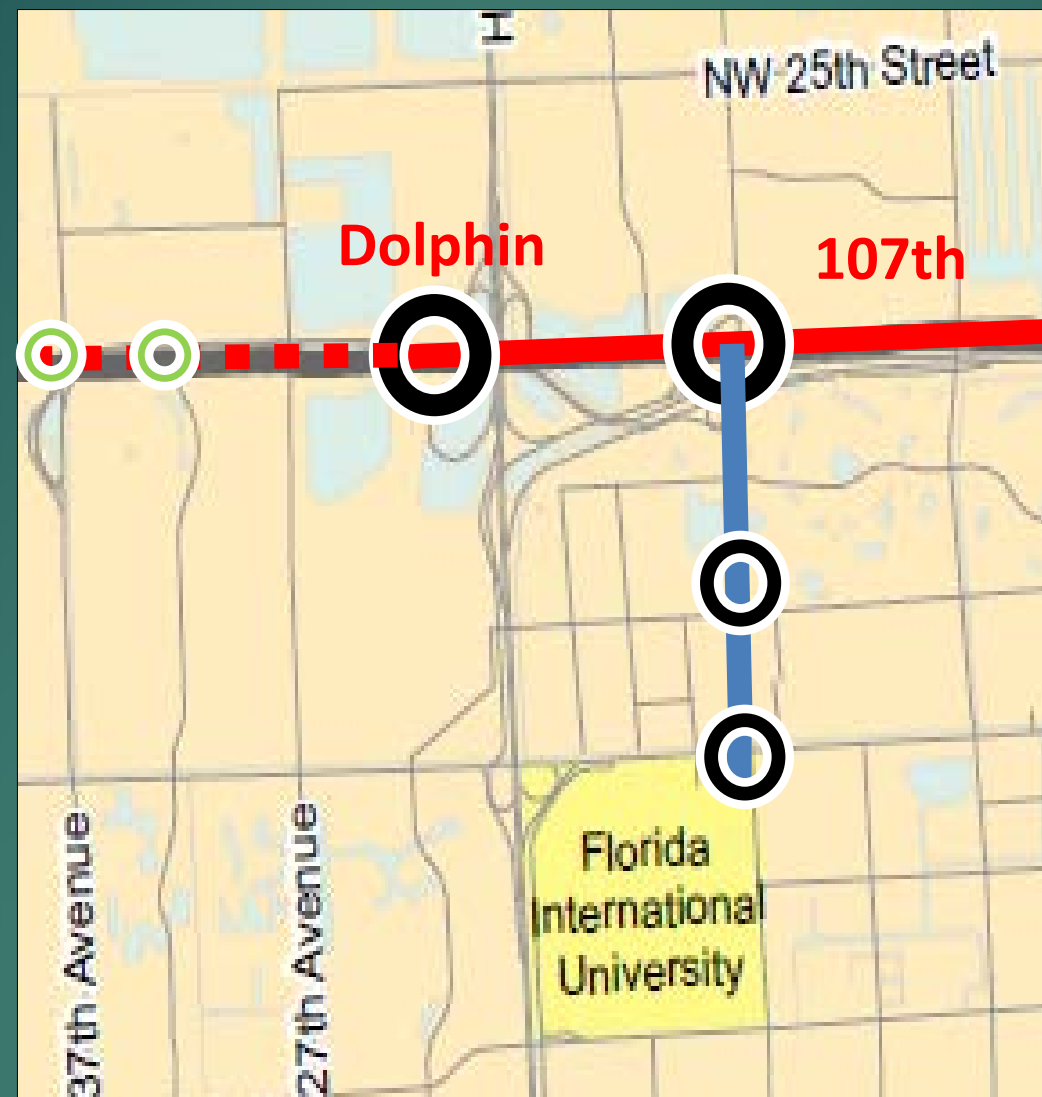
- Vehicle technology
- Availability of ROW
- Long-term vision
- How to best serve FIU Campus(s)
- Sweetwater Station

Phase 2 – FIU Connection



via Turnpike / SW114th Ave

via SW 107th



via Turnpike / SW112th Ave

Phase 2 – Future Evolution of MOS

Considerations and Challenges

- Vehicle technology
- Availability of ROW
- Long-term vision
- How to best serve FIU Campus(s)
- Sweetwater Station

Phase 2 – Future Evolution of MOS

Technology Options

- Diesel Light Rail Vehicle



Diesel Light Rail Service

Attributes/Challenges:

- More nimble vehicle allowing for additional stations
- Increase service frequency
- Allows service to expand with demand
- 20 minute peak / 30 minute off-peak headways achievable
- Can be operated on MOS
- Allows for extensions to FIU
- Community/neighborhood compatibility
- Integration with freight
 - Separate track
 - Temporal separation

Phase 2 – Future Evolution of MOS

Technology Options

- Level Boarding



Level Boarding

Attributes/Challenges:

- Reduced dwell time at stations
- Accommodate additional stations
- Full ADA compliance
- Integration with freight
 - High and wide freight cars
 - Retractable edges



Open Discussion Phase 2 Development

Next Steps

- Complete Phase 1 Final Report – Starter Service Recommendation
- Phase 2 – Fall 2015
 - Develop and evaluate extension options
 - Station Area Concept Plans
 - Visualizations
 - Overall Recommendations
- October 27th 2015 – SAC Meeting # 4



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