Departmental Report for:
Reporting Period
April 2016

EVALUATION OF MULTIMODAL MOBILITY OPTIONS: SOUTH MIAMI DADE

EVALUATION OF MULTIMODAL MOBILITY OPTIONS

In the South Miami-Dade Area

May 26, 2016
SAC Meeting #2

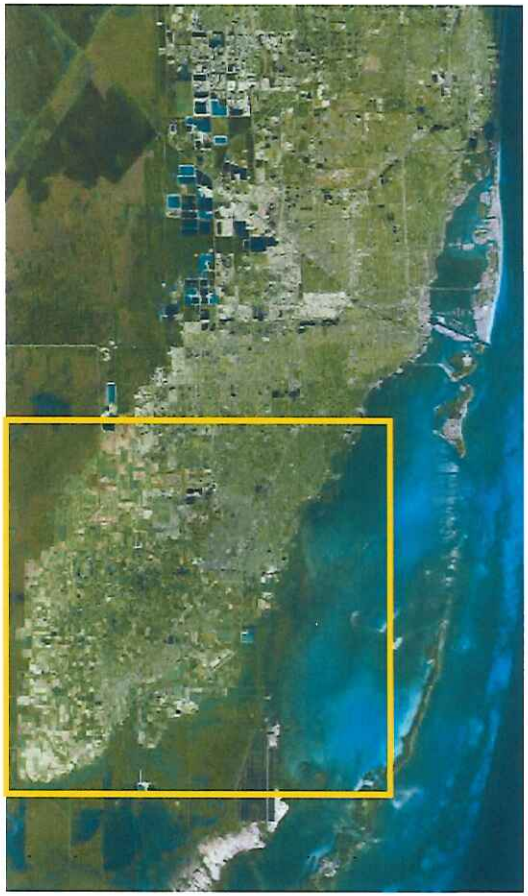
DATRAN Centre
9155 S Dadeland Blvd #1812
Miami, FL 33156

MIAMI-DADE METROPOLITAN PLANNING ORGANIZATION

THE CORRADINO GROUP

INTRODUCTION - TODAY

- Scope of Study – Where are we in the study?
- Recap from Last Meeting (March 17, 2016)
- Additional Research Based on feedback
  - US-1 Alternate Mode Timings
  - US-1 Alternative Transit Facilities Costs
- How do we get this to work?
- Questions and Comments
- Field Trip



SCOPE OF STUDY

- **Task 1: Study Coordination**
- *Task 2: Analysis of Existing Conditions*
- **Task 3: Identification of Future Needs**
- **Task 4: Identification and Analysis of Potential Improvements**
- Task 5: Cost Estimates and Potential Funding Sources
- Task 6: Recommended List of Actionable Improvements

PROJECT TIMELINE

	Task	January	February	March	April	May	June	July	August	September
1	Study Advisory Committee									
2	Analysis of Existing Conditions									
3	Identification of Future Needs									
4	ID/Analysis of Potential Imps									
5	Cost Est / Funding Sources									
6	Recommended Actionable Imps									

Expected Report Completion Date: 9/30/16

STUDY CHALLENGES

- The Study Area is large! How do we move forward?
  - ➢Planning occurs regionally, subregionally, locally
    - ❑Roadways
    - ❑Transit
    - ❑Bicycle networks
    - ❑Sidewalks
- US-1 Corridor – Main Street
  - ➢Population density and project growth areas
- Beyond the Busway
  - ➢Key activity centers including those in Kendall

APPROACH – KEY FACTORS

- Economic Development
- Land Use
- Where do people go?
  - What are the time and monetary costs of travel for people in South Dade?
- Multimodal – a Balancing Act
- Intermodality
  - Connections
  - Ease of use
  - Level of integration

HOW DO WE MOVE FORWARD?

Hub Identification:

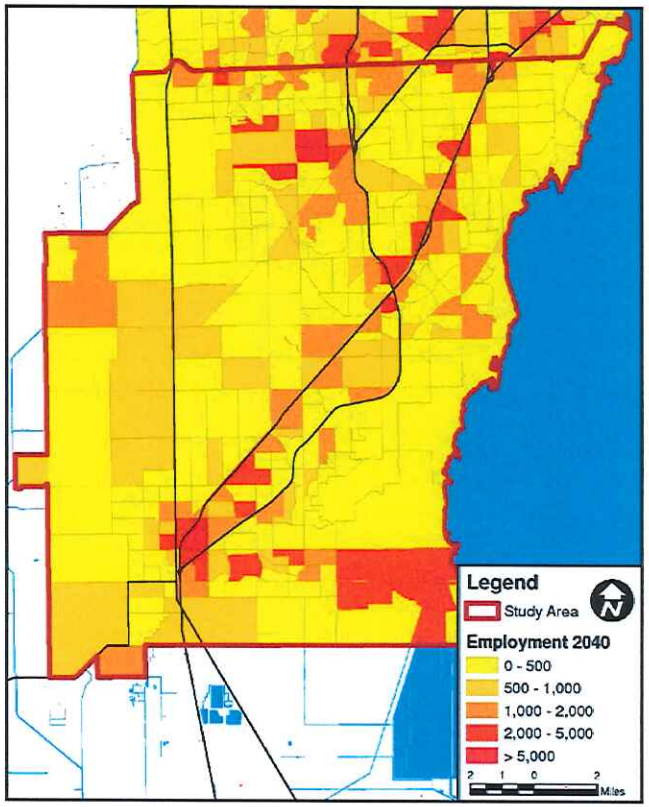
Demographic, geospatial, and long range planning approach.

1. Existing hubs
   a) Population
   b) Employment

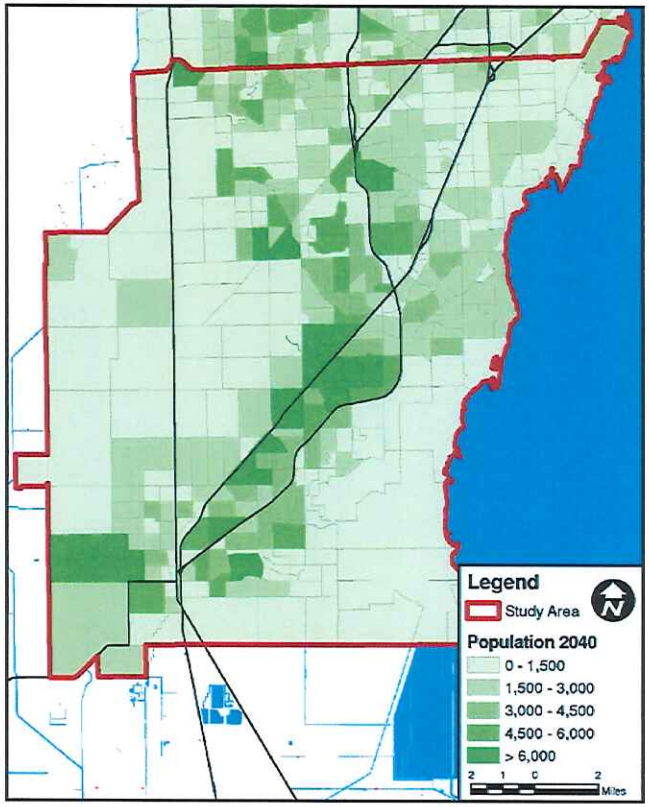
2. Geographic convergence points
   a) Roadways
   b) Intermodal
   c) Transit

3. Planned Hubs
   a) Population
   b) Employment
   c) Planned hubs

Employment 2040 (TAZ)
South Miami - Dade County



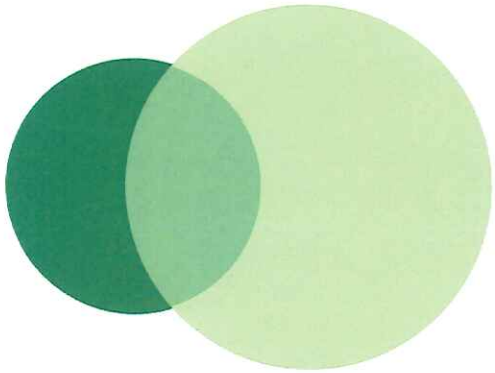
Population 2040 (TAZ)
South Miami - Dade County



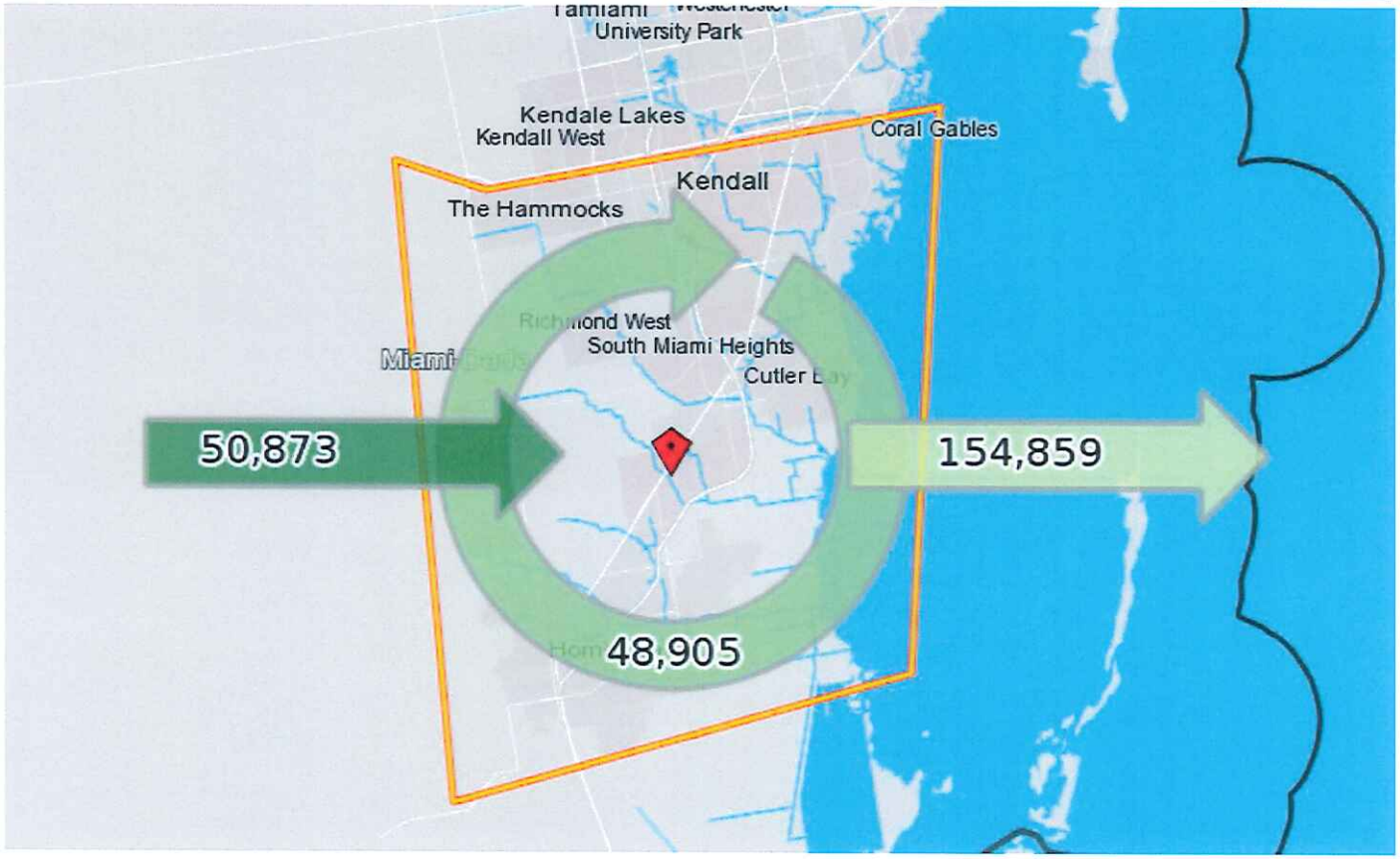
INFLOW/OUTFLOW ANALYSIS

South Dade

50% Jobs/
Workers



50,873 - Employed in Selection Area, Live Outside
154,859 - Live in Selection Area, Employed Outside
48,905 - Employed and Live in Selection Area

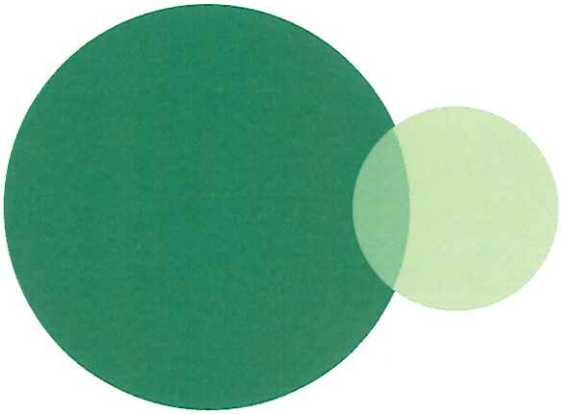


Data Source: LEHD Data (US Census OntheMap)

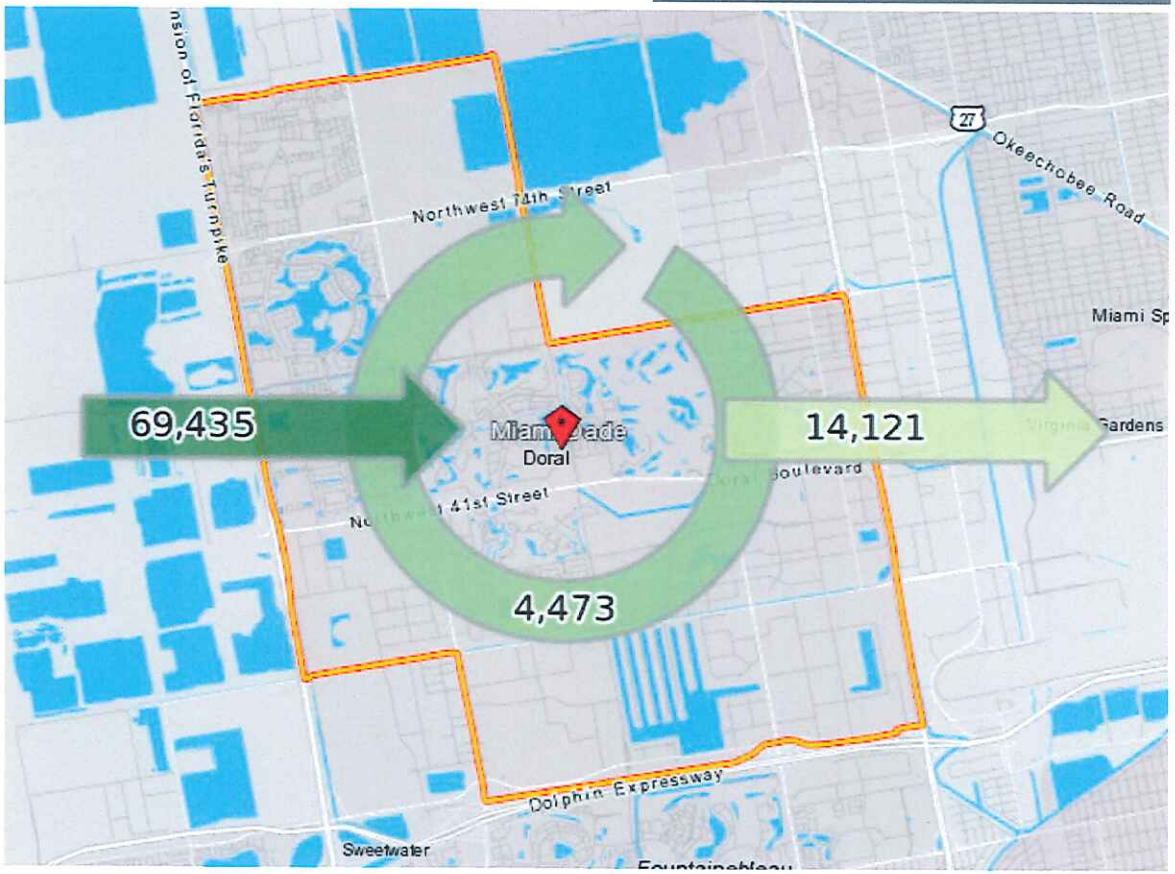
INFLOW/OUTFLOW ANALYSIS

Doral

400% Jobs/
Workers



69,435 - Employed in Selection Area, Live Outside
14,121 - Live in Selection Area, Employed Outside
4,473 - Employed and Live in Selection Area



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INFLOW/OUTFLOW COMPARISON

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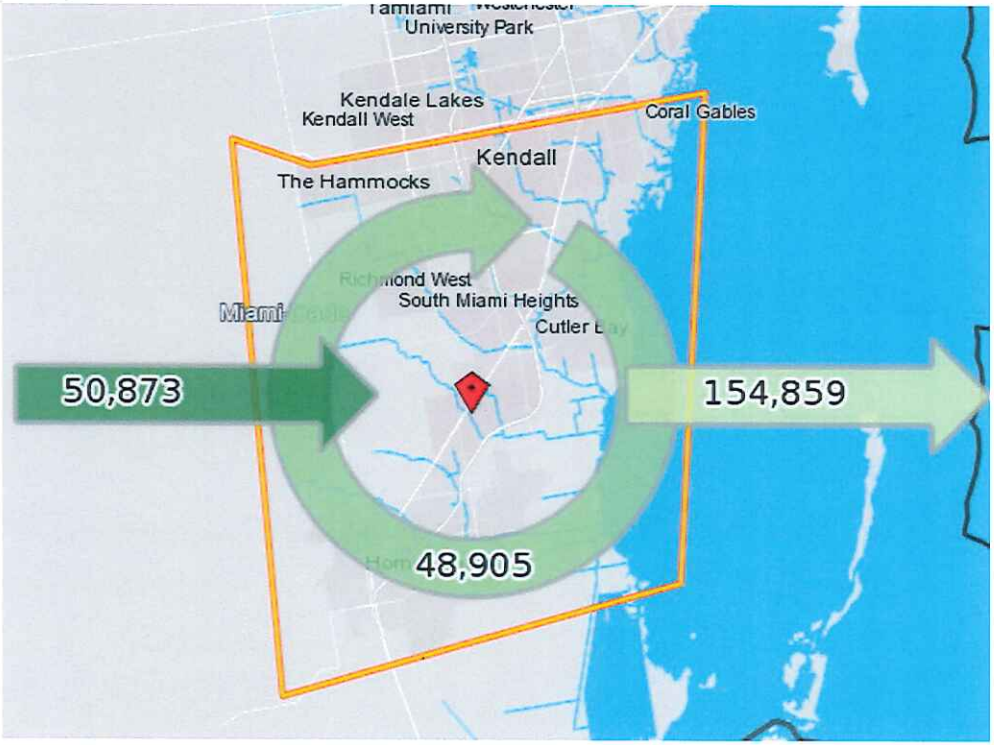

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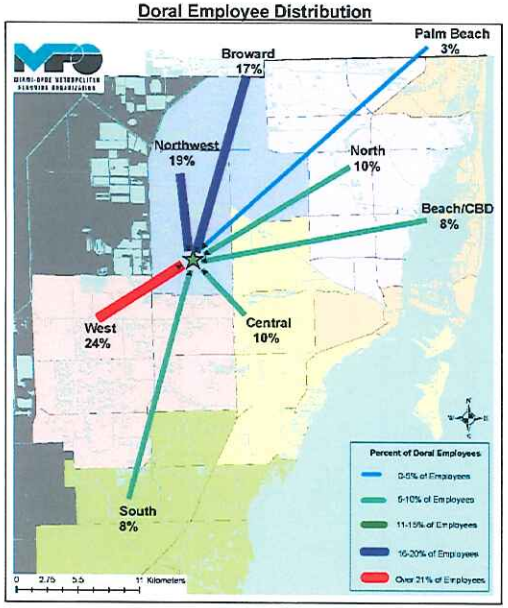
WHERE DO WE GO?

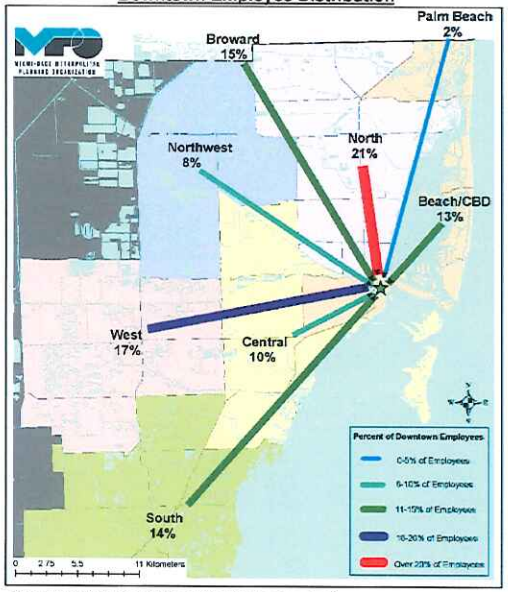
Doral Employee Distribution



Prepared by: Miami-Dade Metropolitan Planning Organization

Date: 07/2015

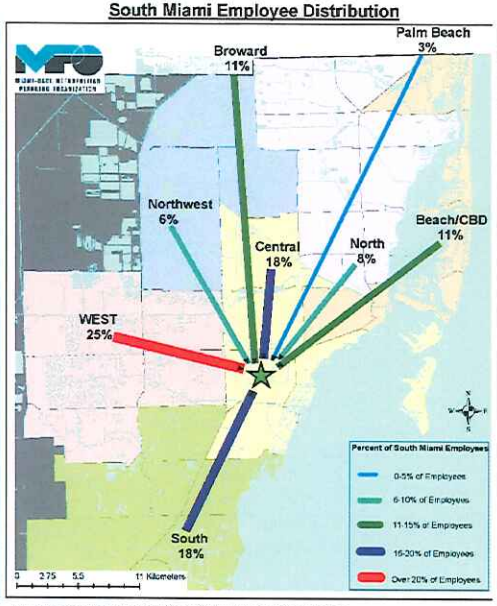
Downtown Employee Distribution



Prepared by: Miami-Dade Metropolitan Planning Organization

Date: 07/2015

South Miami Employee Distribution



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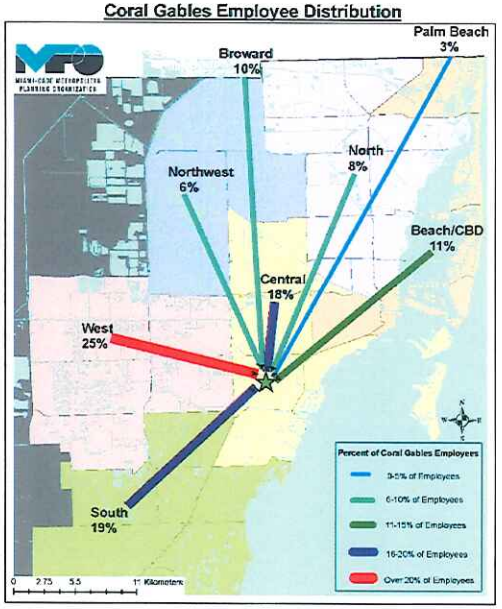
Coral Gables Employee Distribution



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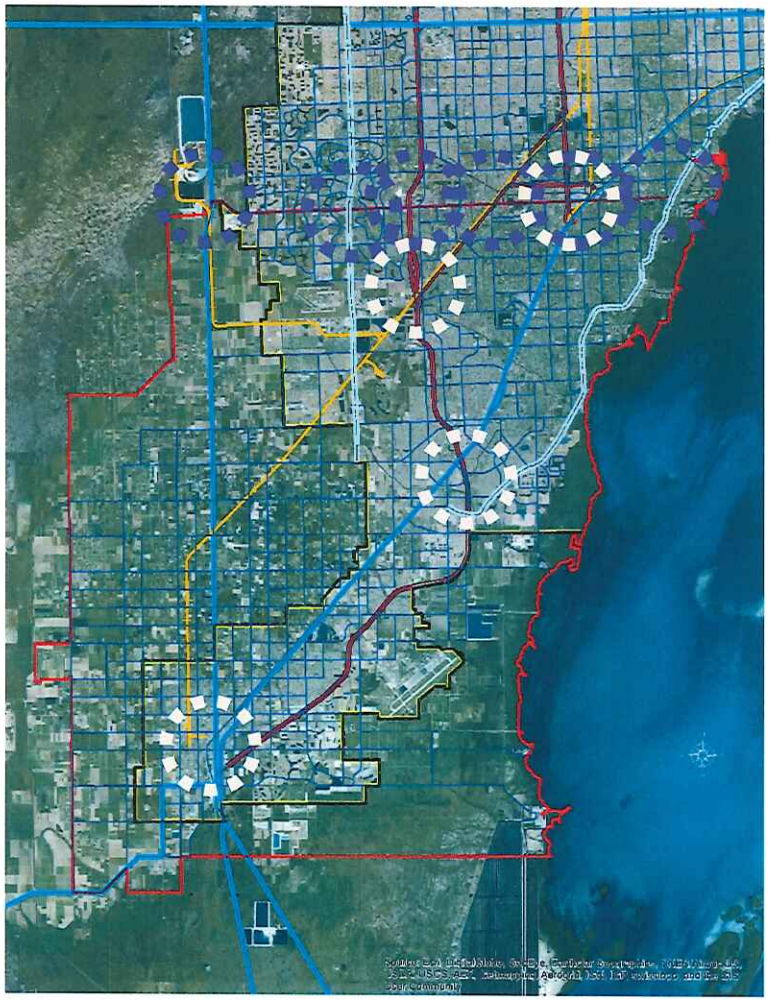
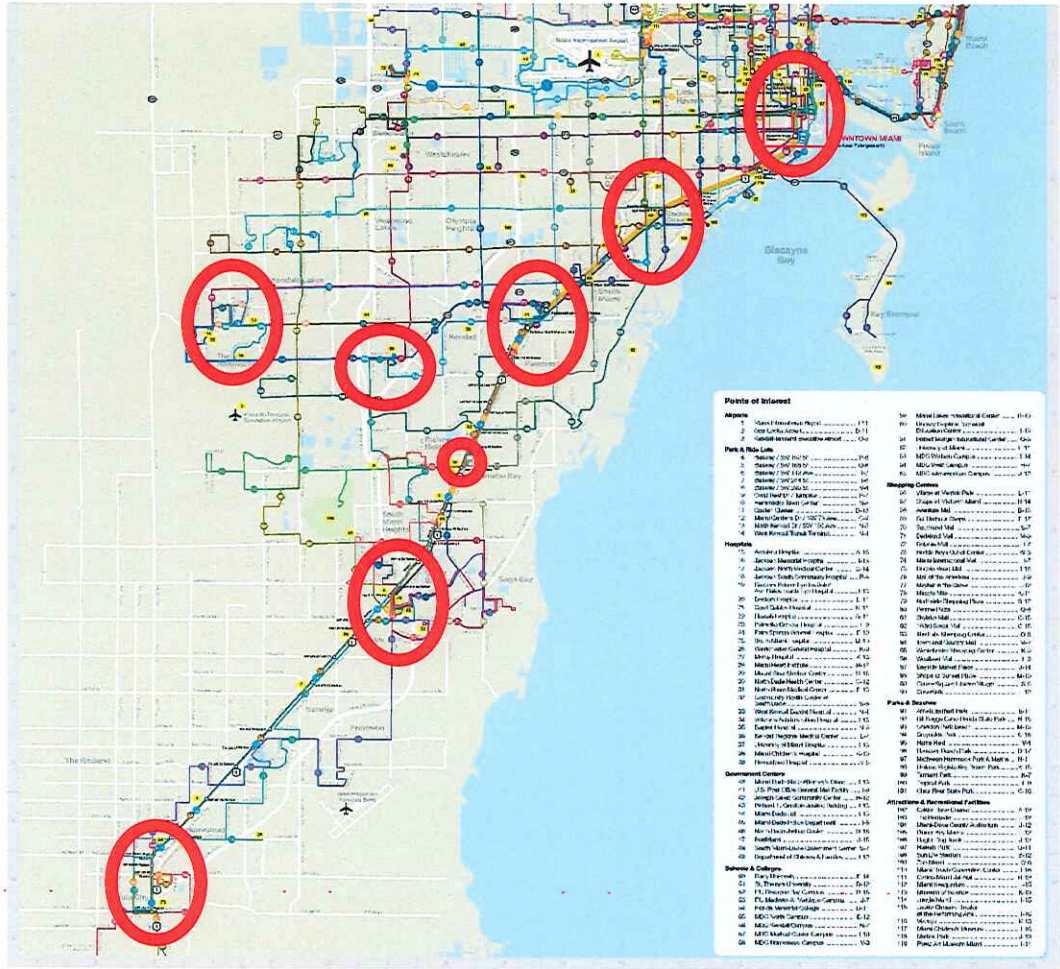
South Dade Subareas

- Study Area
  - 258 Sq. Mi. Total
  - Approx. 131 Sq. Mi. inside Urban Development Boundary
  - Few roads in and out
  - Fractured grid with **bottlenecks**

  - **Notice that the bottle neck areas correspond to very specific unsatisfactory LOS and directional traffic**



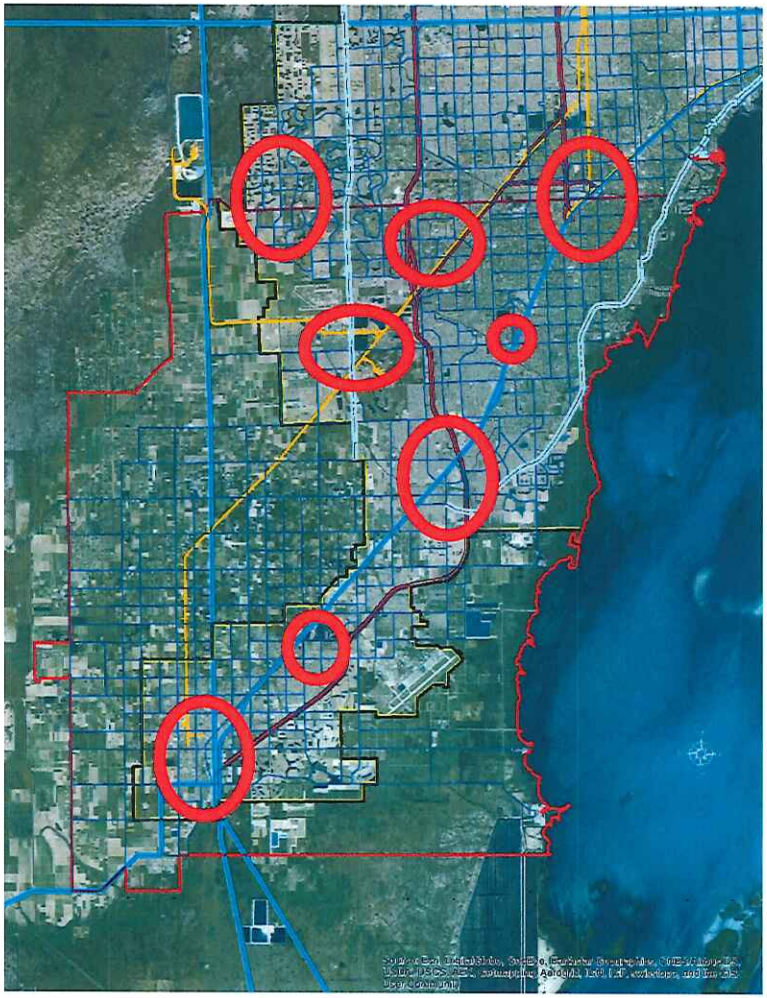
HOW DO WE GET THIS TO WORK?



- "Hub" Approach
- Identify:
  - Locations
  - Hub Priority
  - "Inter-hub" activity Connections between hubs
  - Regional "Sectors"
- Convalesce on areas of concentrated activity (Sub-Market)

HUB APPROACH - LOCATIONS

- How did we identify the locations?
  - Demographics
  - Land Use
  - Transportation Network
  - Geography
  - Future Potential



Hubs:

1. Dadeland
2. Cutler Bay (Southland Mall)
3. Palmetto Bay (Franjo Triangle)
4. Homestead
5. Naranja
6. SW 152nd Street and SW 137th Ave
7. MDC – Kendall area
8. Kendall West

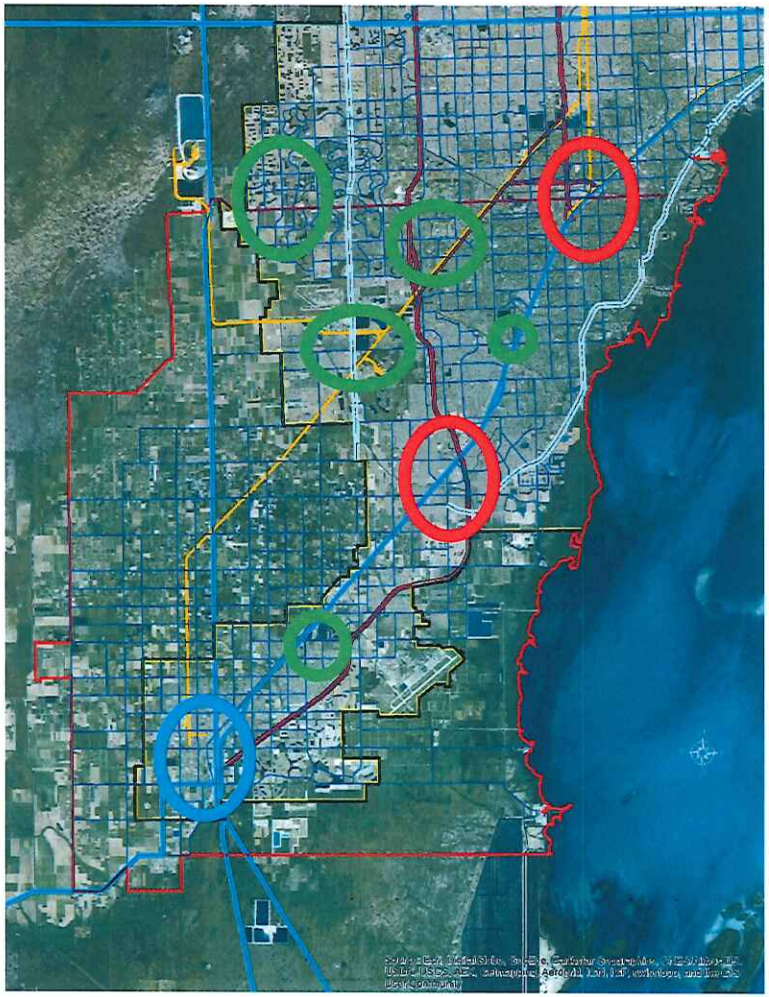
HUB APPROACH – TIERS/EMPHASIS

Plan:

- Tier the hubs (Based on Identifying factors)

  1. Main - Regional hubs
  2. Secondary – Community hubs
  3. Tertiary – Neighborhood/Planned hubs

- Identify potential means to shifting land use and encouraging economic development (specific to hub).



HUB APPROACH - CONNECTIONS

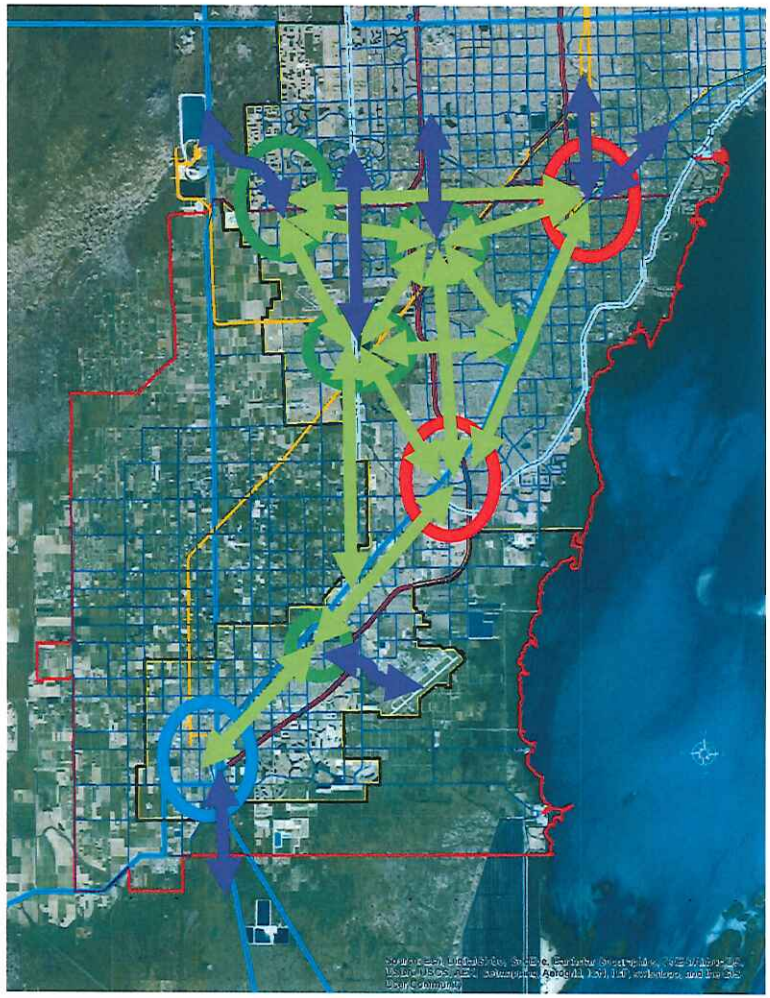
Connect the Hubs:

1. **Vehicular Corridors**: Note Direct Lines of Travel and Parking Needs, needs based on model

2. **Pedestrian**: Full walkability and ADA compliance within ½ mile of Regional Hubs, ¼ mile of Other Hubs

3. **Bicycle**: Corridor enhancement into the Hub areas, sub area planning for bicycle parking, bike-share stations

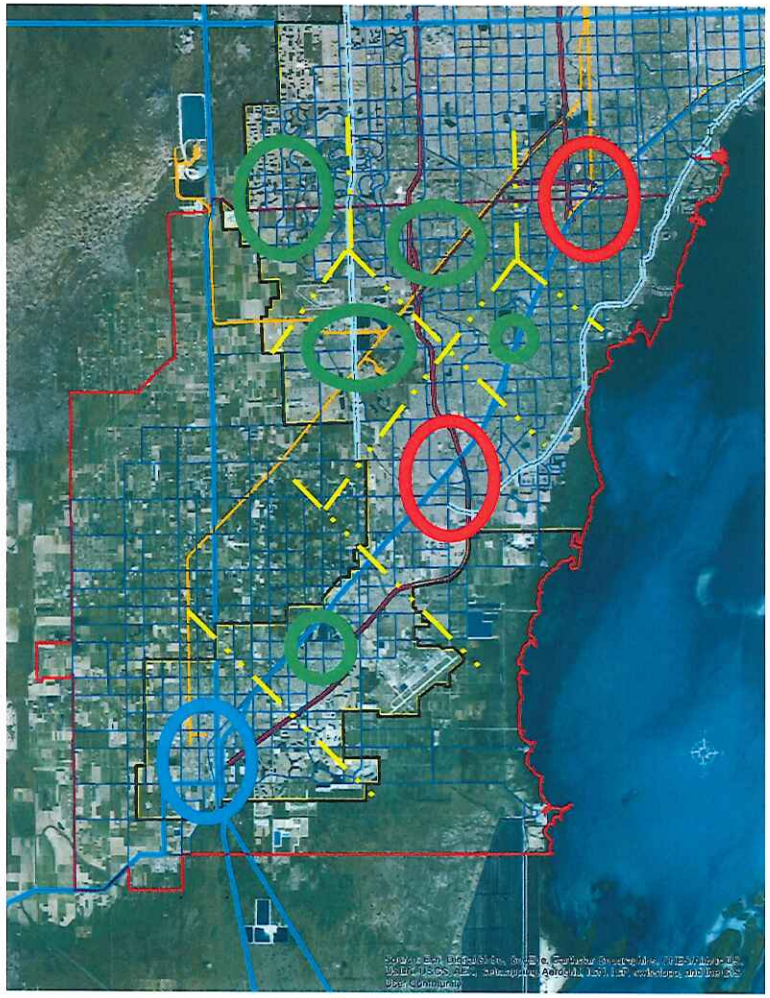
4. **Transit**: Reassess transit infrastructure and "directness." Implement new direct corridor lines as needed.



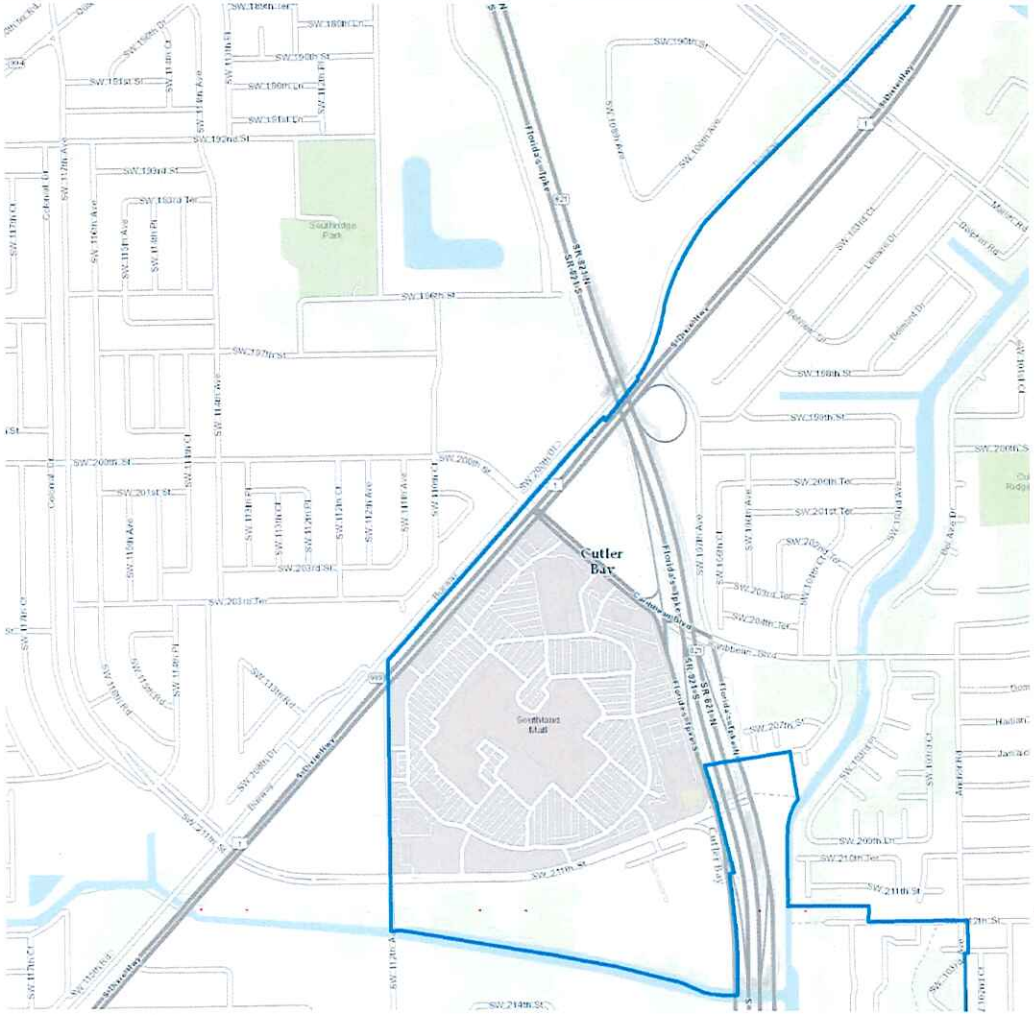
HUB APPROACH – SUBMARKETS

Each Hub will have a natural area of influence

Identify potential means to shifting land use and encouraging economic development (specific to hub and surrounding areas).



HUB APPROACH – SUBMARKETS

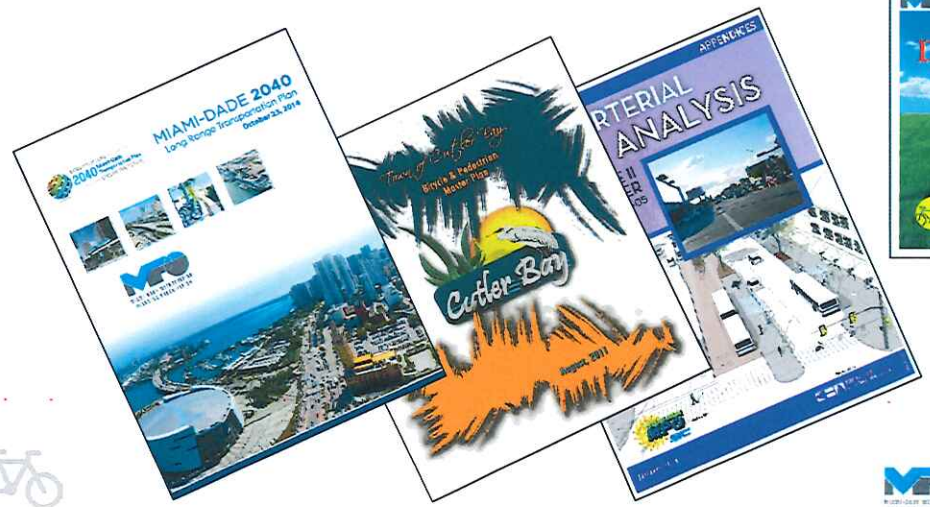


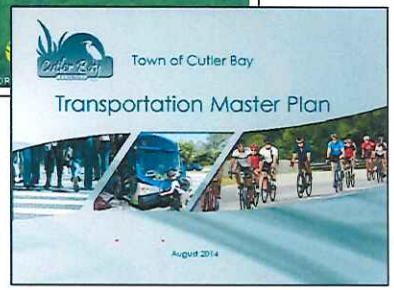
For South Dade, the main distribution point is Cutler Bay.

Let's focus on the Southland Mall area.

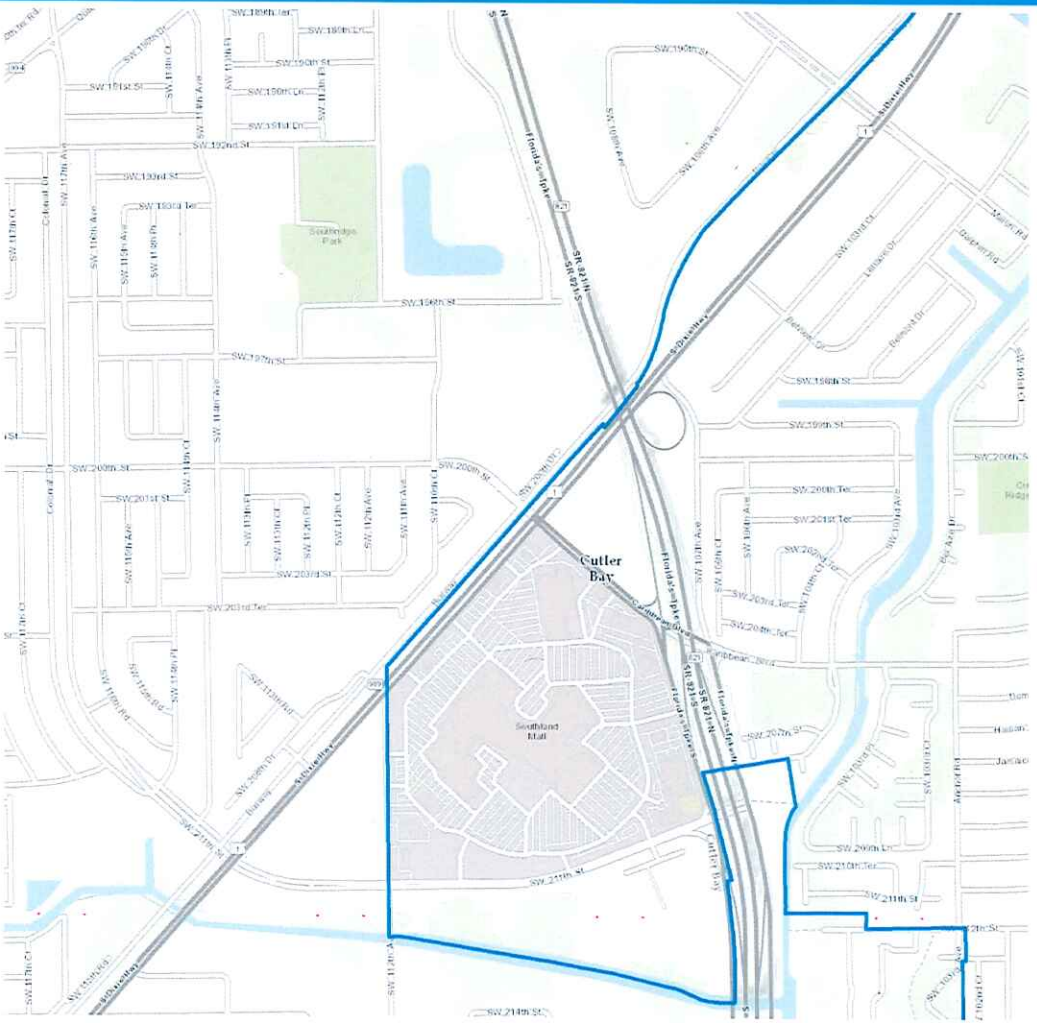
CUTLER BAY - STUDIES REVIEWED

- Cutler Bay – Cutler Bay Transportation Master Plan (2014)
- Cutler Bay Bicycle & Pedestrian Master Plan (2011)
- MPO Studies and Plans:
  - 2040 LRTP
  - 5 year TIP
  - Program Priorities for 2016/17 to 2020/2021
  - Arterial Grid Analysis





CUTLER BAY – SOUTHLAND MALL



Southland Mall area.

Blue = Cutler Bay Boundary, other areas in map are Unincorporated Miami-Dade

Area = Upzoning for higher intensity land use

Located where US-1, Turnpike Converge

CUTLER BAY – SOUTHLAND MALL

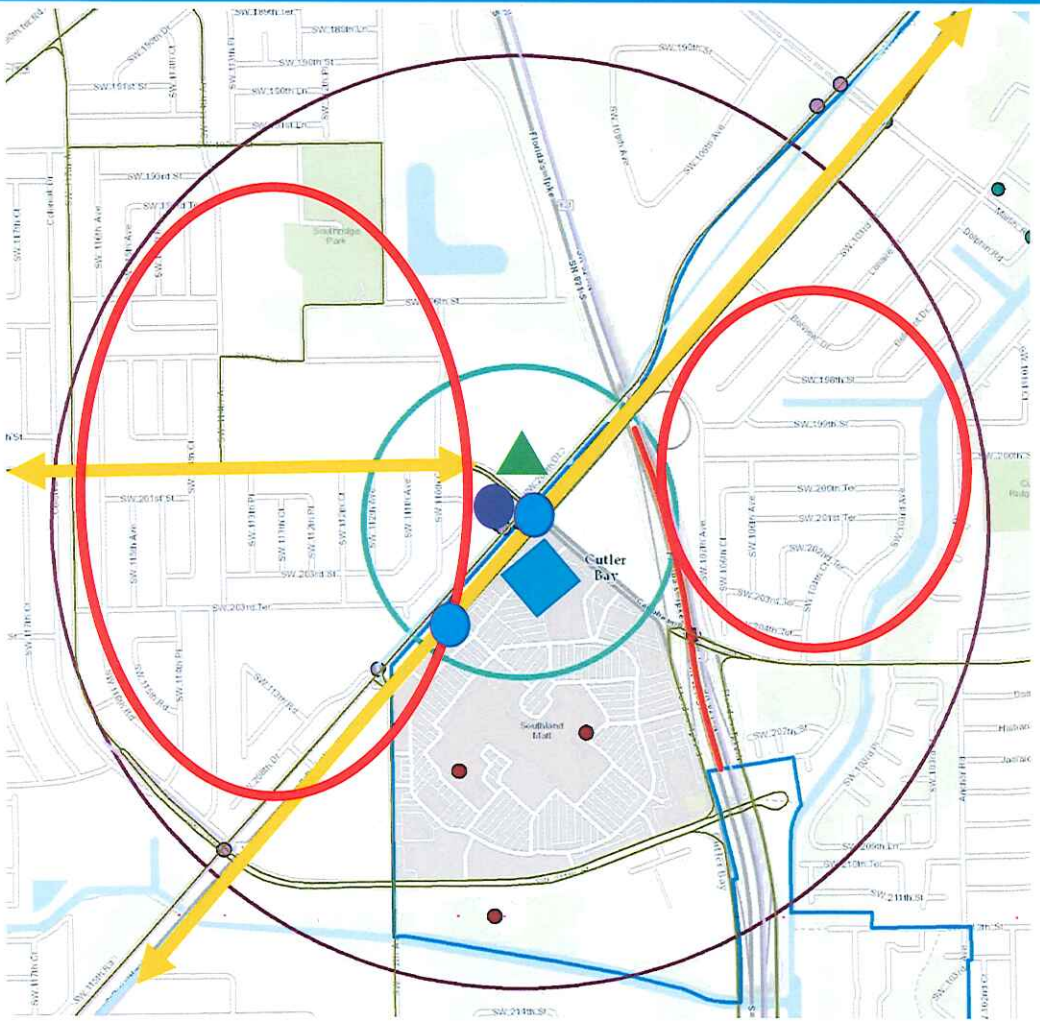
Reviewed plans and policies

Blue = ¼ Mile Radius
Purple = ½ Mile Radius

Existing long range projects range from US-1 Express Lanes to Turnpike widening

TIP and Cutler Bay Plans include Pedestrian and Bicycle Facilities Improvements, Congestion Management

CUTLER BAY – SOUTHLAND MALL



Needs analysis will yield projects. Feedback from Local Communities needed.

Examples: M-Path beautification, Location of Park and Ride, Improved Pedestrian Crossing at Caribbean Boulevard and US-1

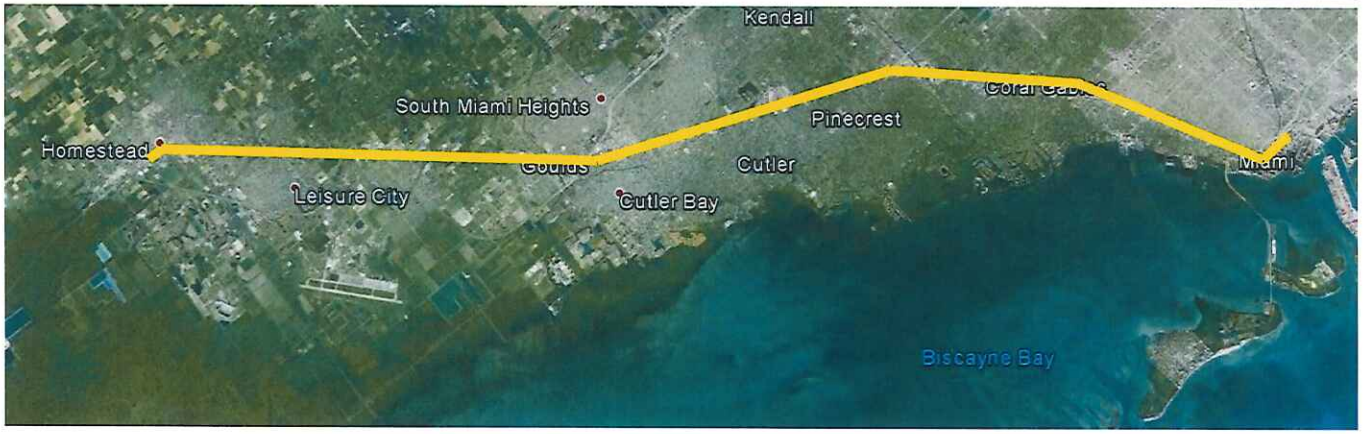
Park and Rides at Capacity in some parts of South Dade at full capacity

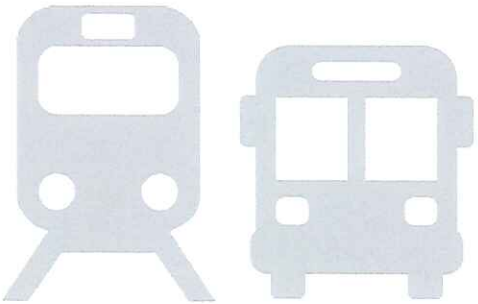
Need to consider first and last mile gaps in facilities and feeders

Each hub will need corridors for access – bicycles, etc. Start locally, then emanate regionally.

HOMESTEAD TO MIAMI

- **US-1**
  - Different Modal Options
  - Different Timing
  - Time = family, money, quality of life





90 Minutes
Transit

120 Minutes
Vehicle

180 Minutes
Bicycling

BUSWAY

- **US-1 Busway**

Homestead to Downtown Miami (Potential Improvements)						
Improvement	Homestead to Dadeland South			Dadeland South to Downtown		Total Travel Time (Min)
	Travel Time (min)	Transfer Time (min)	Average Speed (MPH)	Travel Time (min)	Average Speed (MPH)	
Public Transportation						
No Build	53	10	22	19	32	82
TSM	48	10	25	19	32	77
BRT	44	10	27	19	32	73
LRT	41	10	29	19	32	70
Metrorail	25	-	48	19	32	44

BUSWAY

- **What is the difference?**
  - Cost:
    - Metrorail – ~$3 Billion
    - LRT – ~$1.5 Billion
    - BRT – ~$500 Million
  - Time
    - 3 minutes difference (BRT vs. LRT)
  - Cost = $1.5 Billion - $500 Million = $1 Billion
    - 3 minutes for 1 Billion = **$333.3 million/min.**
  - O and M per minute with improvement for LRT?
    - **$15.2 million/min.** annually (41k riders to justify cost)
  - But what is the O and M cost if we did BRT correctly?
    - **$4.8 million/min.** annually (13k riders to justify cost)
  - Currently ~15k riders

OTHER CONSIDERATIONS

1. Value Capture
2. Reverse Commuting
3. Technology based projects

COMMENTS AND QUESTIONS

- Discussion
  - Questions
  - Work Outline
  - Other feedback?

- Field Trip
  - Let's take a look at the area

NEXT STEPS

- Next Meeting:
  - SAC # 3
    - Tentatively: August 25, 2016
    - Location: Homestead City Hall
  - Topics:
    - Refining the Model/Looking at Projects
    - Recommendations
    - Estimate of Probable Costs
    - Implementation Steps/Prioritization