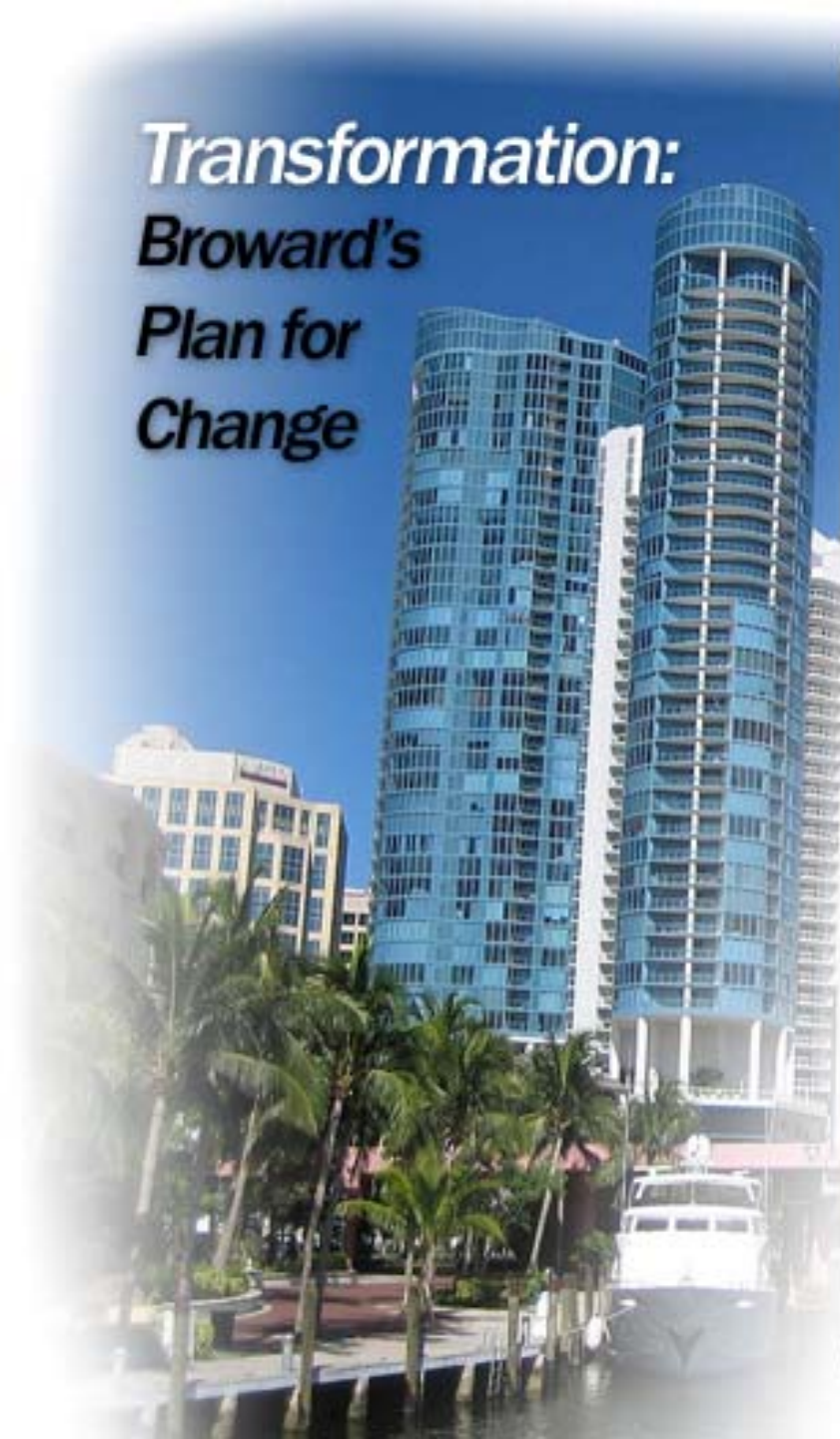
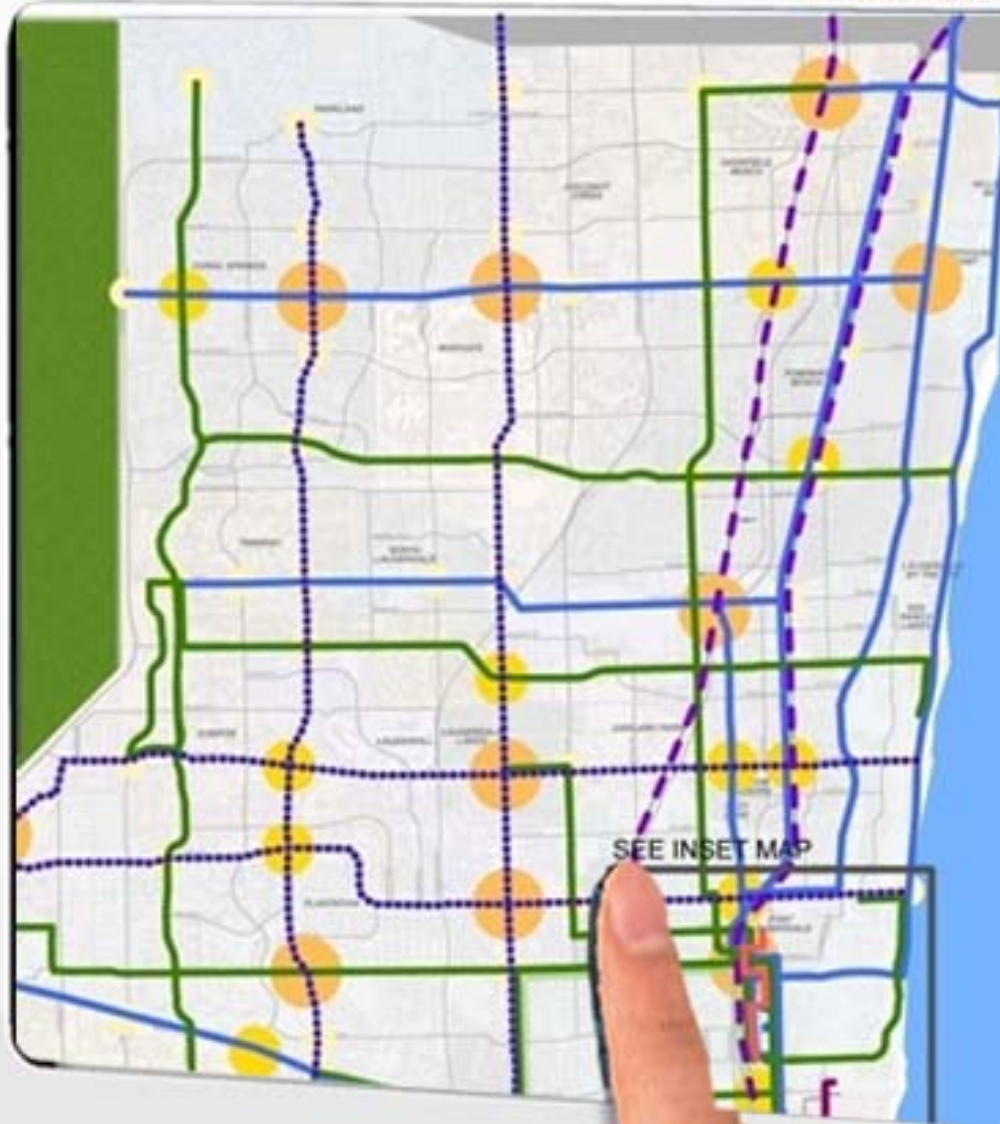


Transformation: Broward's Plan for Change



JACOBS



2035 Needs Assessment

DISCUSSION TOPICS

- **What is a Needs Assessment?**
- **Building Blocks**
- **2035 Conditions**
- **2035 Relief**

What is a Need?

- A condition requiring relief



2035 Conditions

- Demographics
- Traffic
- Mode Share
- Travel Patterns
- Gas Prices
- Global Warming
- Urbanization
- Elderly Population

2035 Conditions – Future Trends

Population – 2.3 million, 29% growth

Employment (Jobs) – 1 million, 37% growth

Vehicles – 1.3 million, 22% growth

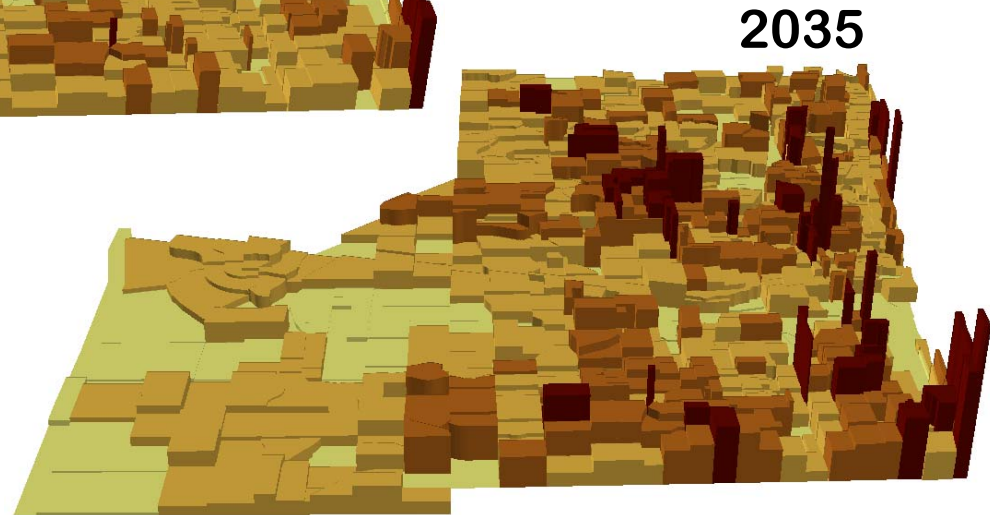
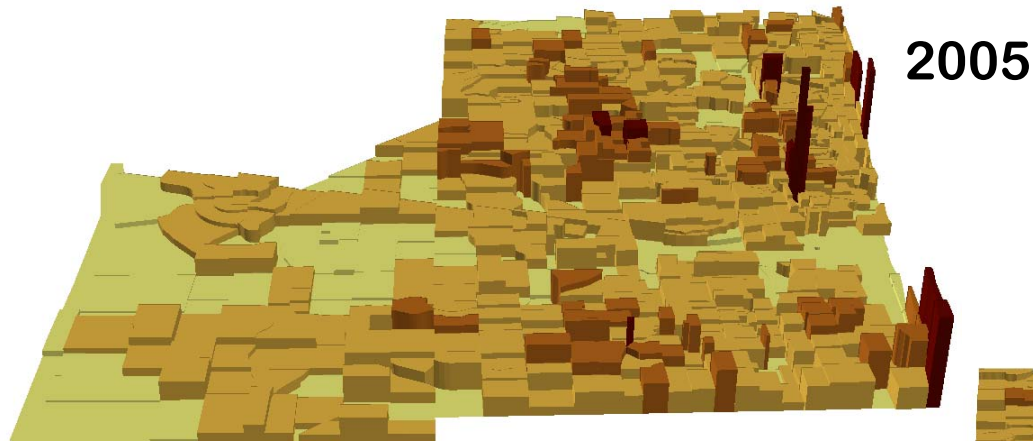
VMT – 49 million miles, 31% growth

Delay – 353,000 hours, 64% increase





Mode Split (Transit Share) – 2.1% to 1.6% (HBW trips, PK)

2035 Conditions

Population Density (persons/acre)

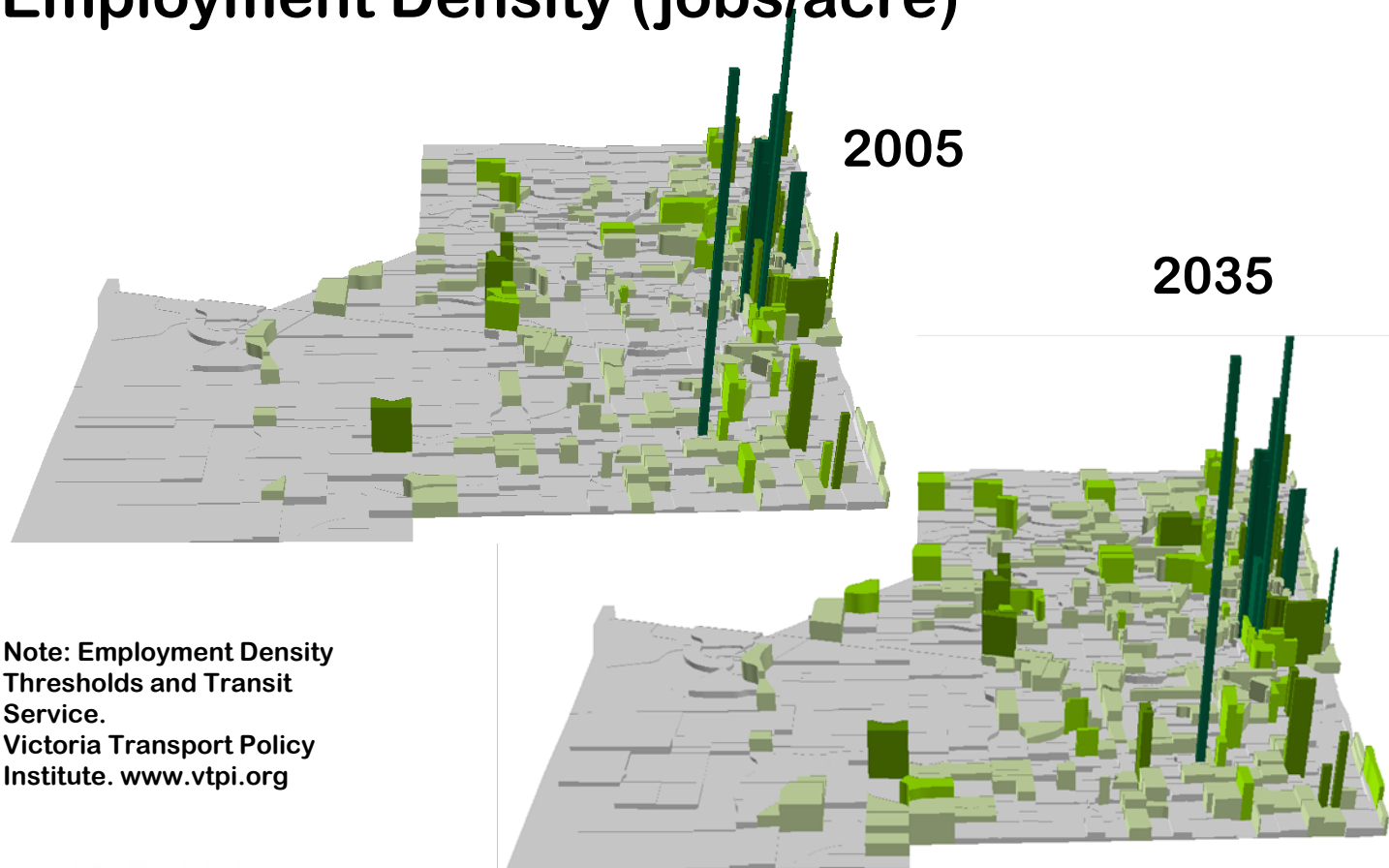


Note: Feasibility of transit service based on gross urban density. A Guide to Land Use and Public Policy for Snohomish County, WA. The Snohomish County Transportation Authority, Dec. 1989.






-  Less than 3 persons/acre (Fixed Route Bus Service)
-  4 to 13 persons/acre (Fixed Route Bus Service)
-  14 to 24 persons/acre (Frequent Bus Service)
-  Greater than 25 persons/acre (Premium Transit Service)

2035 Conditions

Employment Density (jobs/acre)



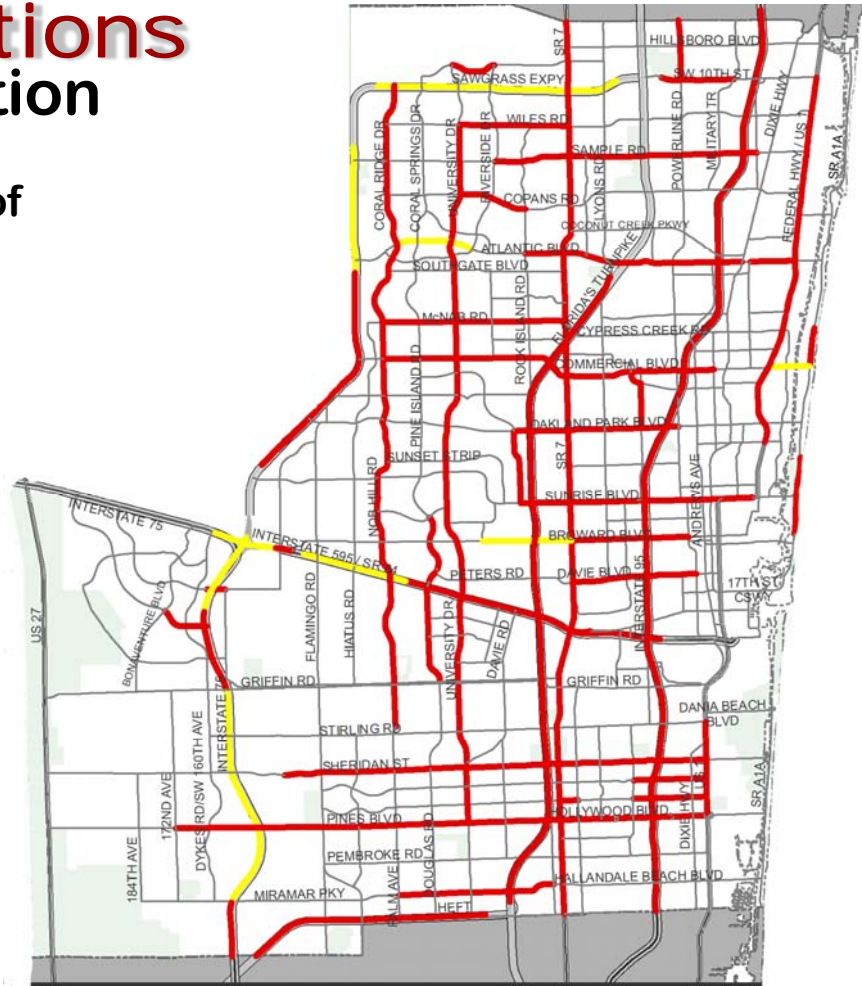
Note: Employment Density
Thresholds and Transit
Service.
Victoria Transport Policy
Institute. www.vtpi.org

-  Less than 5 jobs/acre
-  6 to 15 jobs/acre
-  16 to 25 jobs/acre (Low ridership, peak hour only)
-  26 to 50 jobs/acre (Ridership increases marginally)
-  Greater than 51 jobs/acre (Employees shift to transit)

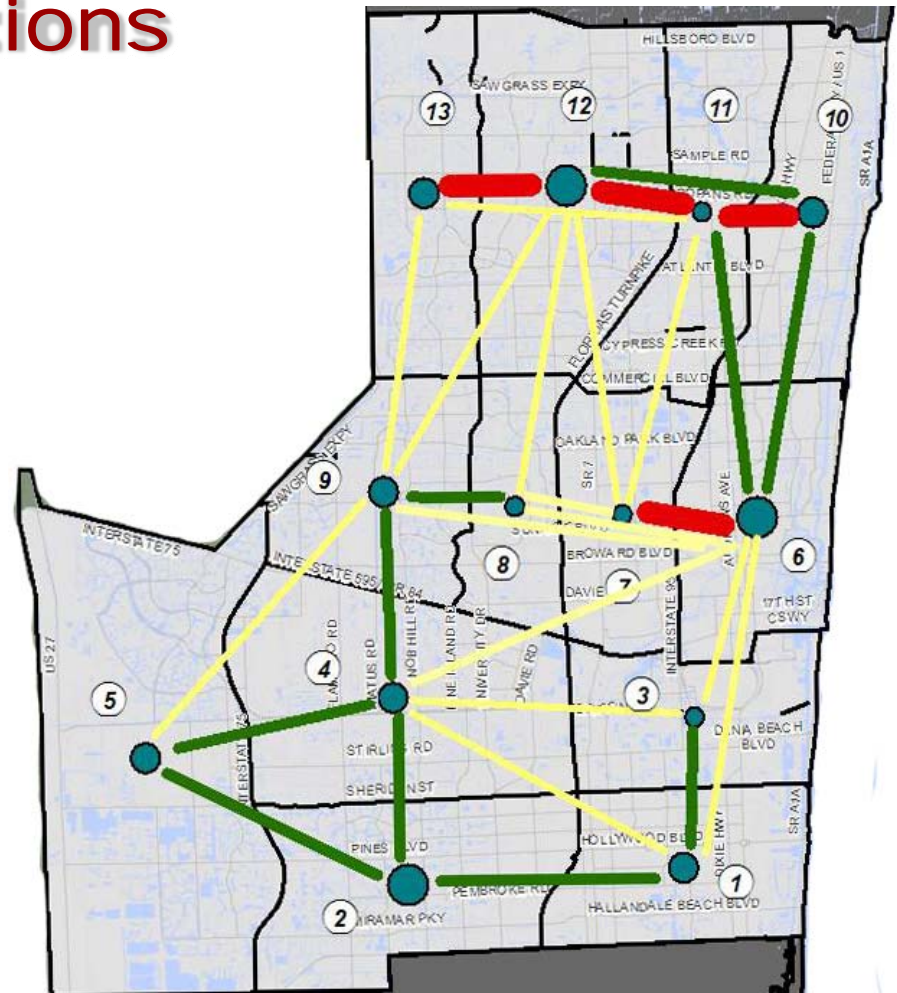
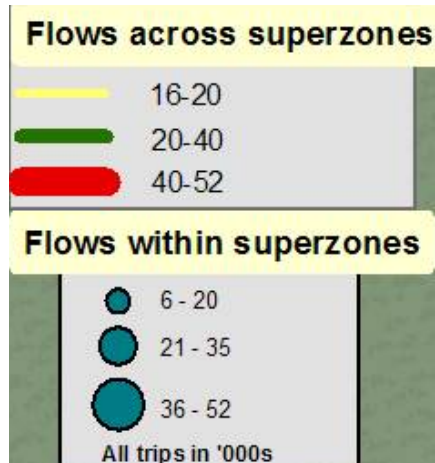
2035 Conditions Traffic Congestion

2035 Roadway Level of Service (LOS) w/ E+C Network

- LOS 'E'
- LOS 'F'



2035 Conditions Travel Patterns



Building Blocks

- Existing + Committed Network
- Transit Development Plan
- Public Input
- Policy Direction



Building Blocks

Existing + Committed Improvements (through 2014)

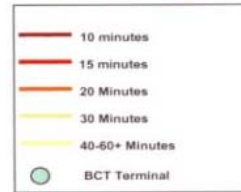


Highway Network – Number of Lanes



Building Blocks

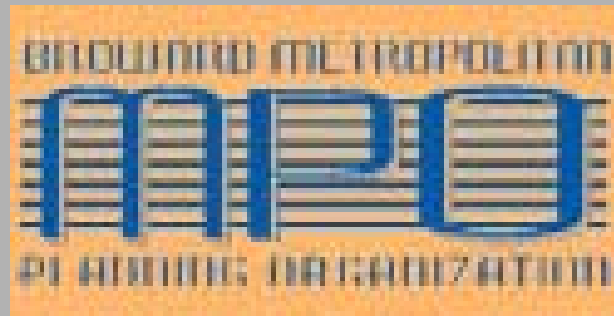
Transit Development Plan (FY 2019)



Building Blocks

Public Policy Direction











- Transit
- Walk
- Bike



Relief – 2035 Plan

Transit Projects & Mobility Hubs

Legend

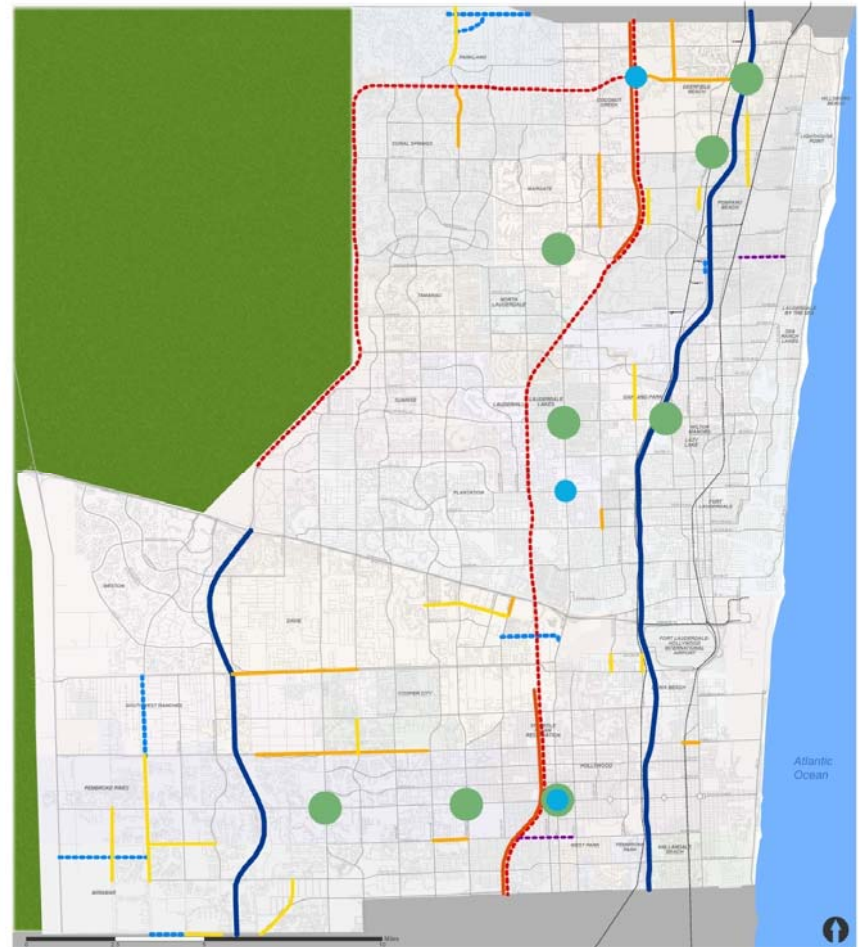
-  Gateway Hub
-  Anchor Hub
-  Community Hub
-  Commuter Rail
-  Light Rail
-  Bus Rapid Transit
-  Rapid Bus and/or Breeze
-  Transit Connector
-  Wave Downtown
-  Automated People Mover



Relief - 2035 Plan

Highway Projects

-  Interchange Modifications
-  Intersection Improvements
-  2 to 4 Lanes
-  4 to 6 Lanes
-  6 to 8 Lanes
-  New Roadway Links
-  Managed Lane Projects
-  ITS Improvements
-  Restriping



Methodology to Identify Transit Improvements

Transit Needs

Step 1: Deficiency analysis (decrease in mode split)

Step 2: Future travel demand and trip patterns within Broward County and between Broward County and adjacent counties to identify corridors experiencing high travel movement

Step 3: Provide high quality transit in corridors and on highest performing BCT routes both existing and in future (2018) per BCT's Transit Development Plan (TDP)

Step 4: Provide direct connections or "one-seat" ride to major employment or activity centers

Step 5: Provide transit service in areas designated as TOC, TOD, RAC, LAC

Step 6: Increase transit service for transit dependent population

Methodology to Identify Mobility Hubs

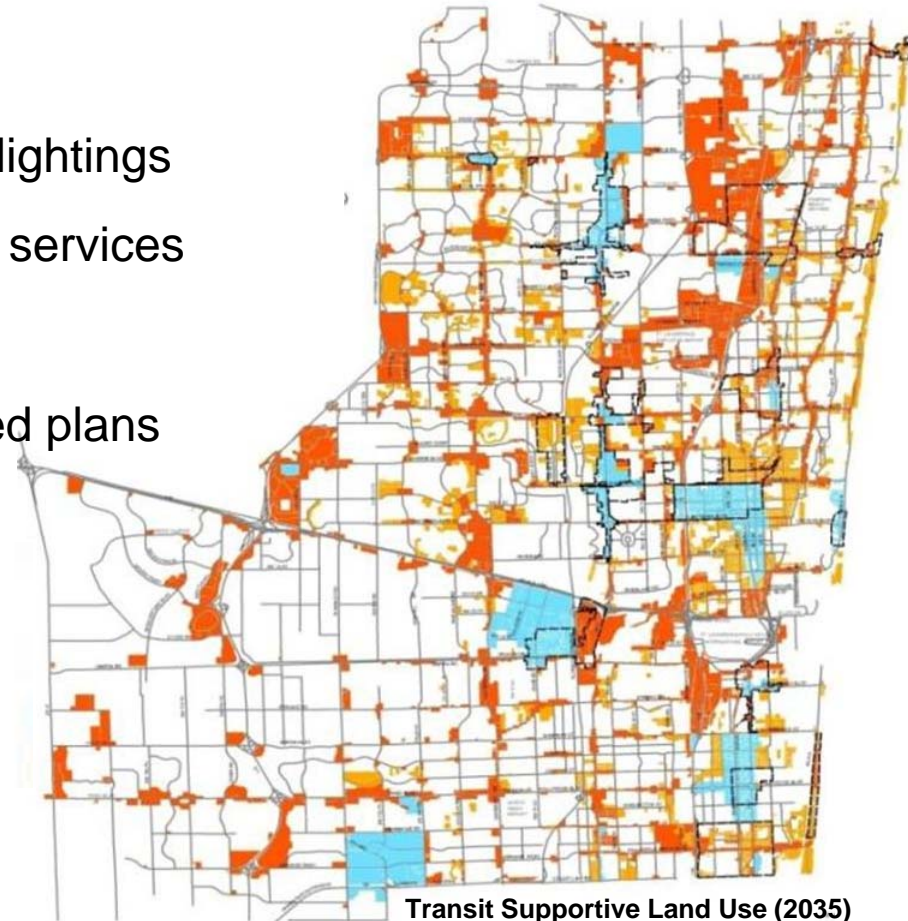
Mobility Hubs

Step 1: Boardings and alightings

Step 2: Proposed transit services

Step 3: Land use

Step 4: Community based plans



Methodology to Identify Highway Improvements

Highway Needs

- Step 1:** Deficiency analysis (level of service) to identify problem areas in terms of capacity
- Step 2:** Future travel demand and trip patterns within Broward County and between Broward County and adjacent counties to identify corridors experiencing high travel movement
- Step 3:** Screen line analysis to identify supply and demand gap
- Step 4:** Support for alternative mode implementation

Relief – Pedestrian Needs

Step 1: Assess regional roadway network for sidewalk availability (excluding limited access facilities)

- Three levels of availability: Full (sidewalk on both sides); partial (only on one side); and none
 - Create GIS map that shows regional roadway network and sidewalk availability (include greenways)

Step 2: Identify current and planned pedestrian activity centers

- Current includes sports facilities, schools, hospitals, libraries, mixed use centers, major transit stops (transfer centers, terminals, and Tri-Rail stations), open spaces and beaches
- Planned includes Local Activity Center, Transit Oriented Development or Corridor, Regional Activity Center, and Mixed Use areas on the Broward County Future Land Use Atlas.

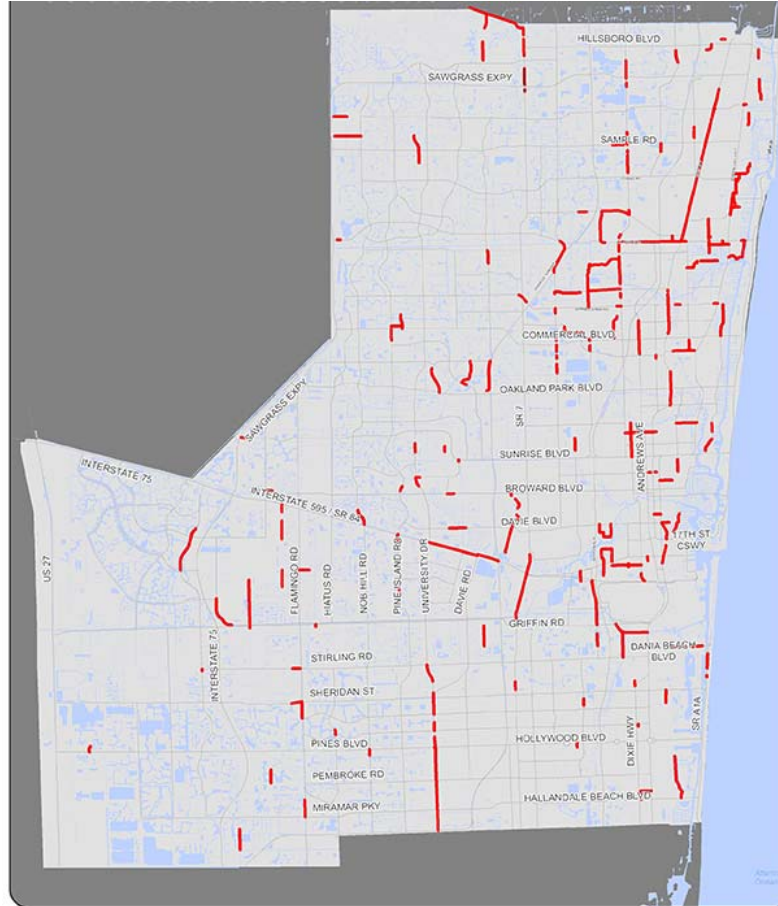
Methodology to Identify Pedestrian Improvements

Pedestrian Needs

Step 3: Assess sidewalk availability on regional roadway network within $\frac{1}{4}$ to $\frac{1}{2}$ mile of pedestrian activity centers

- Create GIS map for region, plus maps for each activity center that has partial availability
- Six levels of assessment associated with level of need:
 - $\frac{1}{4}$ mile, no facilities – greatest need
 - $\frac{1}{4}$ mile, partial facilities – second priority
 - $\frac{1}{4}$ mile, full facilities – no need
 - $\frac{1}{2}$ mile, no facilities – third priority
 - $\frac{1}{2}$ mile, partial facilities – fourth priority
 - $\frac{1}{2}$ mile, full facilities – no need

2035 Pedestrian Improvements



Methodology to Identify Bicycle Improvements

Bicycle Needs

Step 1: Assess regional roadway network for bike lane and path availability (excluding limited access facilities)

- Three levels of availability: Full (lanes or paths on both sides); partial (lane or path on only one side); and none.
- Create GIS map showing regional bike lane and path availability (include greenways)

Step 2: Identify current and future bicycle activity centers

- Current includes schools, hospitals, libraries, major transit stops (transfer centers, terminals and Tri-Rail stations), and recreation areas
- Future includes same land use designations as for pedestrian.

Methodology to Identify Bicycle Improvements

Bicycle Needs

Step 3: Assess bicycle lane and path availability on regional roadways that connect to bicycle activity centers

- Three levels of assessment:
 - Poor availability – regional roadway with no bike lanes or paths
 - Moderate availability – regional roadway with lane or path on one side
 - Good availability – regional roadway with lanes or paths on both sides

Step 4: Combine assessment results with Bicycle Suitability Map to develop priorities

- Roadways with High interaction with traffic may not be best locations to encourage bicycle traffic so these may get lower priority
- Roadways with Least interaction with traffic may not need bicycle improvements as much as others
- Roadways with Low or Moderate interaction with traffic and lack of facilities may be highest priorities

Thank you!!