Hillsborough County
MPO Transit Study
Transit Concept for 2050
November 5, 2007

Transit Technologies
Technologies Considered

- Bus
- Light Rail
- Commuter Rail

Bus

- Standard or articulated high-capacity vehicles
- Special lanes or signal priority – Bus Rapid Transit
- Advantage of flexible service
- Congestion problem

Capacity of about one new arterial lane
**Commuter Rail**

- Locomotive pulling passenger cars
- Shares freight tracks
- Flexible capacity
- Peak hour service
- Long haul or suburb to city
- Needs to run flat and straight

**Light Rail**

- Powered from above by electric wires
- Has its own tracks
- Frequent service
- All day service
- Suburb to city and urban area travel
- Quick acceleration
- Can climb and turn
Future Commute

- Congested travel is projected to increase by 1,000% by 2050
- Average commute time for vehicles would triple
- Rail transit provides reliable trip times that don’t change
- Bus transit can also do this in exclusive or special purpose lanes

Study Summary
MPO Transit Study Process

Identify Needs And Opportunities June

Analyze Transit Concepts August

Recommend Transit Concept For 2050 October

Study Information

Transit Concept For 2050 Brochure
Transit Concept for 2050

- Basis of Concept
  - Improve Mobility
  - Support Economic Vitality
  - Quality of Life and Growth Management

- Transit Service Characteristics
  - Major Destinations
  - Quality of Service
  - Service Area
Concept Selection Process

- Identified best opportunities for transit corridors
  - Past studies and current concepts
  - Built system concept
- Determined projected growth
  - Compared concepts with trend for 2050
  - Created a transit oriented future concept
- Tested technology choices
  - Evaluated capacity of transit corridors to accommodate development
  - Evaluated overall ridership potential and order of magnitude costs

Transit Needs & Opportunities
Light Rail
- New Tampa-Westshore
- Brandon-Westchase
- South Tampa-Downtown

Commuter Rail
- Lutz
- SouthShore
- Plant City

Bus
- Complementary Bus Network
Connects major activity centers
Continuous all-day service
Closely spaced station
- 30 miles
- 26 Stations
Serves urban living, transit dependent, choice riders & special event
Capacity to supports future growth

Red Line (Light Rail):
New Tampa/USF – Westshore

Connects housing & employment
Brandon as regional center
Infill east of CBD
Closely spaced station
- 27 miles
- 27 Stations
Serves urban living, transit dependent, choice riders & special event

Blue Line (Light Rail):
Westchase – Brandon
Serves densely populated area and activity centers
- Closely spaced station
  - 8 miles
  - 9 Stations
- Serves urban living, transit dependent, choice riders & special events

**Green Line (Light Rail): South Tampa – Downtown Tampa**

- Commuter rail service to north Hillsborough and Pasco counties
- Peak period travel & transfer stations to light rail
- Express service
  - 17 miles
  - 6 Stations
- Provides alternative to commuters, transit dependent & underserved areas
- Added capacity alternatives to major road investments

**Magenta Line (Commuter Rail): Lutz – Downtown Tampa**
Commuter rail service to Plant City, Brandon and Polk County
Peak period travel & transfer stations to Brandon light rail
Express service
- 26 miles
- 5 Stations
Provides alternative to commuters, transit dependent & underserved areas
Added capacity alternatives to major road investments

Purple Line (Commuter Rail):
Plant City/Brandon – Downtown Tampa

Commuter rail service to SouthShore and Sarasota/Manatee counties
Peak period travel & transfer stations to light rail
Express service
- 26 miles
- 7 Stations
Provides alternative to commuters, transit dependent & underserved areas
Added capacity alternatives to major road investments

Orange Line (Commuter Rail):
SouthShore – Downtown Tampa
Commuter rail service to Plant City along I-4 and East Central Florida
- Peak period travel to Tampa
- Express service
  - 26 miles
  - 5 Stations
- Provides alternative to commuters, transit dependent & underserved areas
- Added capacity alternatives to major highway investments

**Red Line** (Commuter/Regional Rail): Plant City/I-4 – Downtown Tampa

**Light Rail**
- New Tampa-Westshore
- Brandon-Westchase
- South Tampa-Downtown

**Commuter Rail**
- Lutz
- SouthShore
- Plant City

**Bus**
- Complementary Bus Network
Transit Concept Characteristics

**Light Rail** (Average 1 mile station spacing)
- New Tampa-Westshore (Red Line) 30 miles 26 stations
- Brandon-Westchase (Blue Line) 27 miles 27 stations
- South Tampa-Downtown (Green Line) 8 miles 9 stations

**Commuter Rail** (Avg. 3-5 mile station spacing)
- Lutz (Magenta Line) 17 miles 6 stations
- SouthShore (Orange Line) 26 miles 7 stations
- Plant City/Brandon (Purple Line) 26 miles 5 stations
- Plant City/I-4 (Red Line) 26 miles 5 stations

Denver Comparison

Hillsborough County
- Light Rail
  - 65 miles and 62 stations
- Commuter Rail
  - 95 miles and 23 stations

Denver
- Light Rail
  - 72 miles and 65 stations
- Commuter Rail
  - 80 miles and 20 stations
Analysis of 2050 Transit Future

Station Types
- **Regional**
  - 50-100 DU/Ac
  - 30-500 Jobs/Ac
- **Community**
  - 20-75 DU/Ac
  - 5-100 Jobs/Ac
- **Neighborhood**
  - 10-50 DU/Ac
  - 2-15 Jobs/Ac
HH Density
Transit Concept
- < 2
- 2 - 4
- 4– 8
- 8 – 16
- > 16

DU/Acre (2050)
Projected Transit Growth Increment

HH Density
Current
- < 2
- 2 - 4
- 4– 8
- 8 – 16
- > 16

DU/Acre (2000)
HH Density
Transit Concept
- < 2
- 2 - 4
- 4 - 8
- 8 - 16
- > 16

DU/Acre (2050)
Projected Total
With Transit

Jobs Density
Transit Concept
- < 1
- 1 - 5
- 5 - 25
- 25 - 50
- > 50

Jobs/Acre (2050)
Projected Transit
Growth Increment
This figure illustrates the total projected households and jobs based on the Transit Concept for 2050 that are located within 1/4 mile of stations.

This figure illustrates the total projected households and jobs for the Transit Concept for 2050 that are located up to 1 mile from stations based on station type designation.
This figure illustrates the percentage of households and jobs projected for 2050 that are served by the Transit Concepts for 2050 investment.

This figure illustrates the percentage of the total incremental growth in households and jobs projected between 2000 and 2050 that are served by the Transit Concepts for 2050 investment.
The capacity of Future Land Use Plans are supportive of Transit Oriented Development.

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<th>Within 1/4 Mile of Stations</th>
<th>Within 1/2 Mile of Stations</th>
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<td>Households</td>
<td>Employment</td>
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<td>Projected Trend 2050 Density</td>
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<td>Projected Transit Concept for 2050 Density</td>
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<td>Future Land Use Capacity</td>
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