

# District One Rail Traffic Evaluation Study

Workshop  
December 10, 2008

[www.fdotrailtrafficevaluation.com](http://www.fdotrailtrafficevaluation.com)

FDOT Rail Traffic Evaluation



# Agenda

- Overview of Study
- Update on Work Status
  1. Identify Impacts /Develop Mitigation
  2. Evaluate Freight Routing
  3. Passenger Rail Feasibility Assessment
- Next Steps

# Overview of Study

# Scope of Work

- Four Work Elements
  1. Identify Impacts / Develop Mitigation
  2. Evaluate Freight Routing
  3. Passenger Rail Feasibility Assessment
  4. Public/Stakeholder Outreach

# Completed Work Tasks To Date

- Ongoing Stakeholder Outreach & Communications
- Review of Previous Studies and Available Information
- Collection of Supplemental Data
- Documentation of Existing Conditions
- Development of Methodologies
- Initiated Technical Analyses

# Traffic Impacts and Mitigation

# Traffic Impacts/Mitigation Methodology

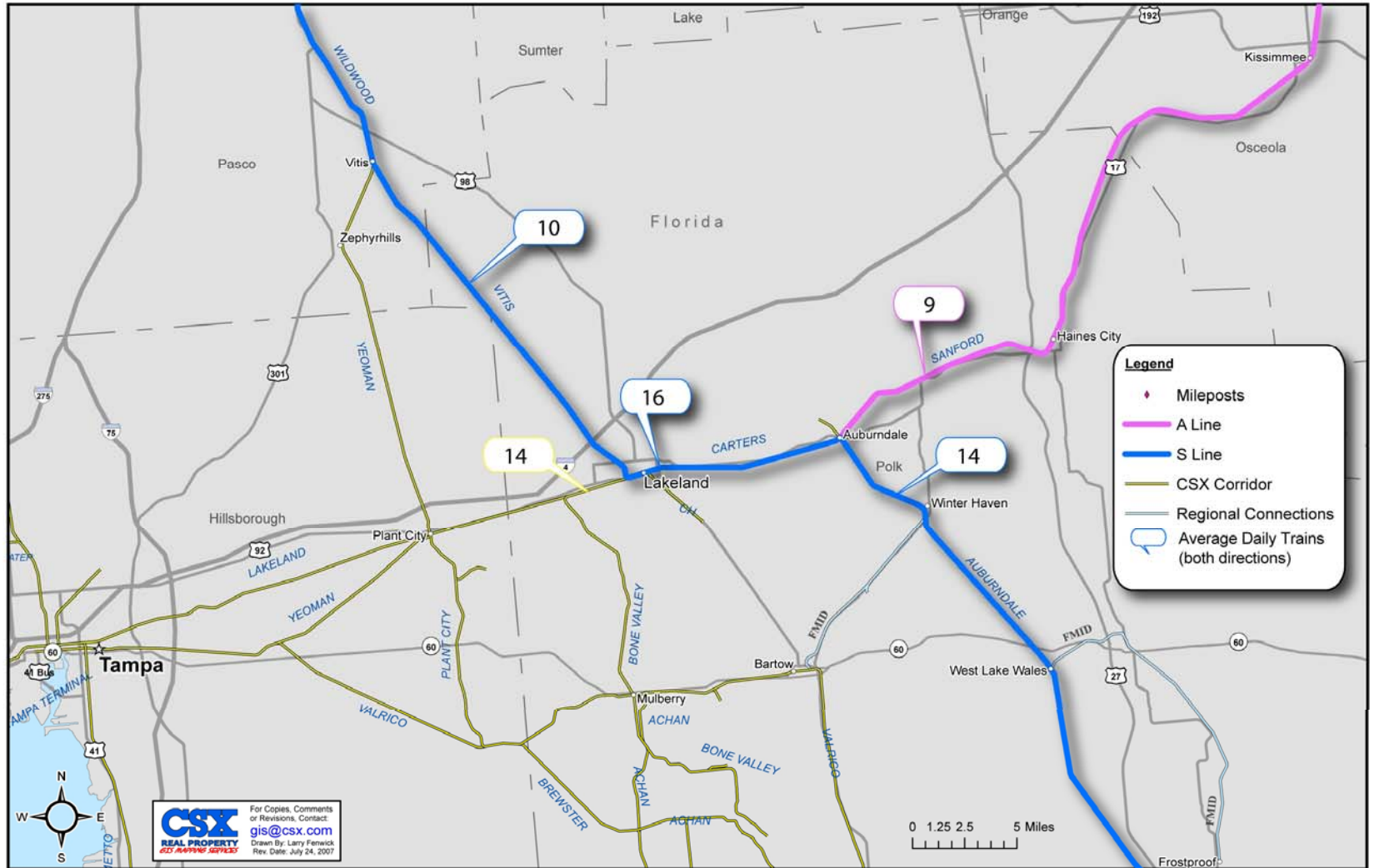
- Establish Existing Conditions (2008)
- Adjust Roadway Traffic to Future Year (2030)
- Factor in ILC and Associated Development
- Factor in Freight Growth Assumptions
- Analyze Grade Crossings

# Establish Existing Conditions

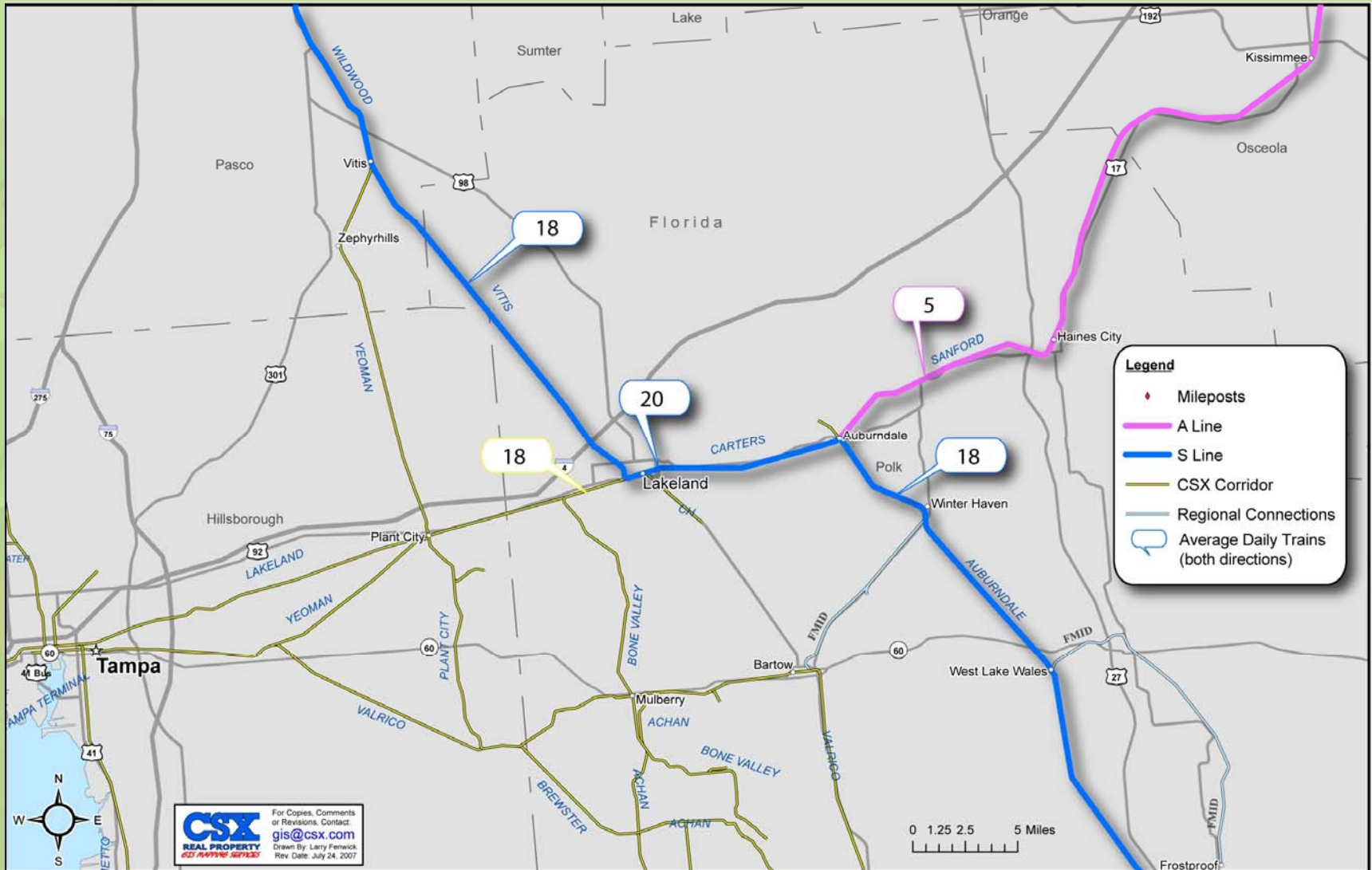
- Obtain Current Traffic Volumes
- Obtain Traffic Operations Data
- Interview
  - Emergency Service Providers
  - Municipal Officials
  - Bus Operators
- Amtrak – 4 Trains Per Day
- Freight Volumes



# 2008 Average Daily Train Movements



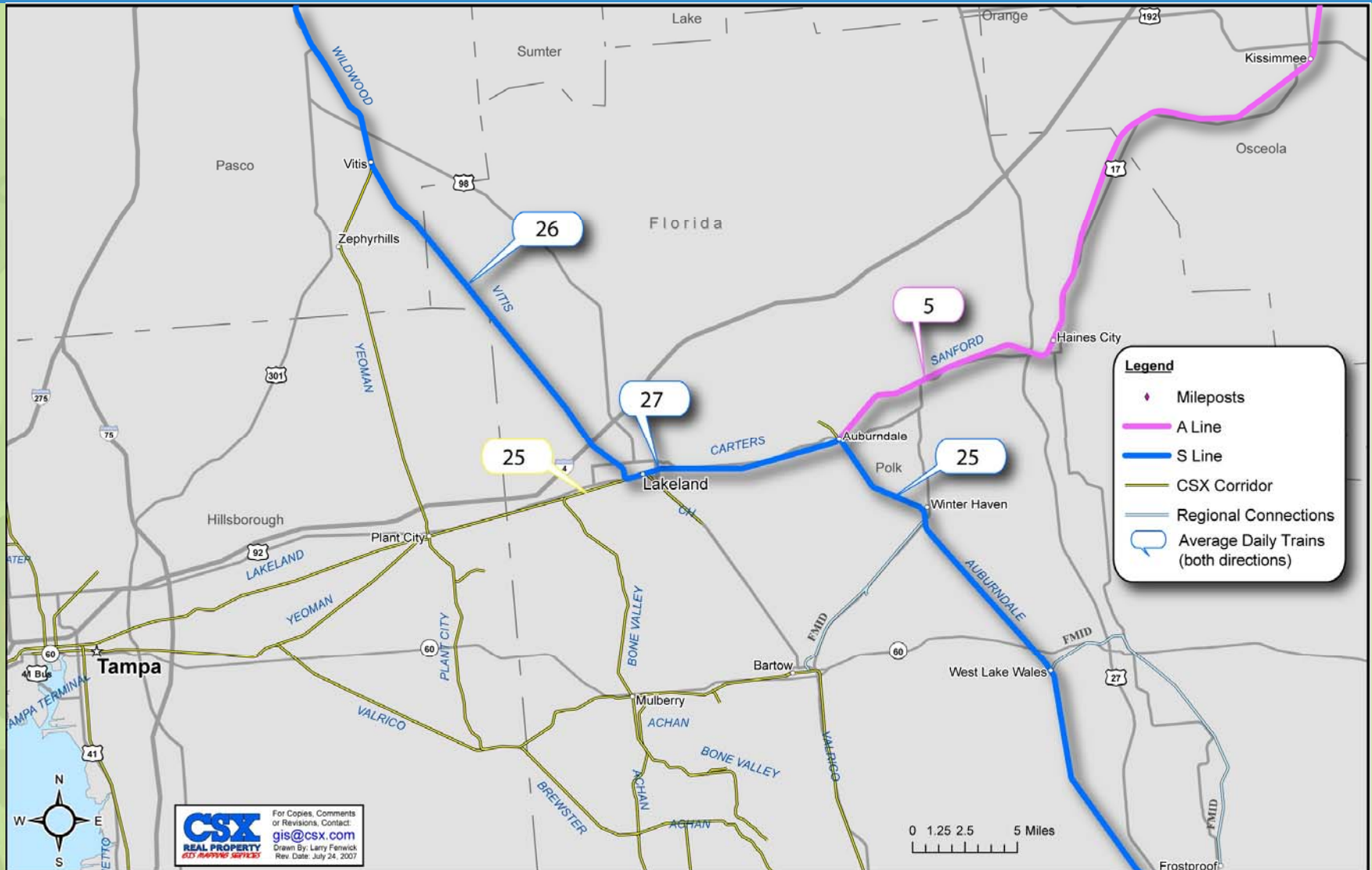
# 2010 Projected Average Daily Train Movements



# Future Year Assumptions

- Forecast 2030 Traffic Volumes
  - Polk TPO Model
  - Off-Line Modifications
    - ILC & Related Development
- Amtrak
  - 4 Trains Per Day
- Freight Volumes
  - 4 Train Shift ( “A” to “S” Line through downtown Lakeland)
  - Increase by 7 Train Movements (through downtown Lakeland)
    - U.S. DOT’s Freight Analysis Framework

# 2030 (Forecasted) Train Movements



# Grade Crossing Screening Criteria

- Level of Service
  - Traffic Volumes
  - Delay
- Safety
  - Collision History Review
- Condition of Crossing
- Location/Functional Classification
  - Type of Road – Local, Collector, Arterial, Federal, etc.
- System Interconnection
  - Buses (School Or Public Transit), Bike/Pedestrian Route
- Socio-Economic Considerations
  - Access To Schools, Emergency Services & Cultural Facilities



# Next Steps

- Traffic Impacts/Mitigation
  - Finalize Analysis
  - Determine Impacts
  - Develop Mitigation If Necessary
  - Prioritize Improvements

# Freight Rail Routing

# Freight Corridors Methodology

- Connectivity Test
  - Meet Delivery Needs of CSX & Its Customers
  - Serve the ILC in Winter Haven
  - Maintain CSX Through Routes between Jacksonville and Points South (Miami/Tampa)
  - Assess Alternative Routes to Current Proposal

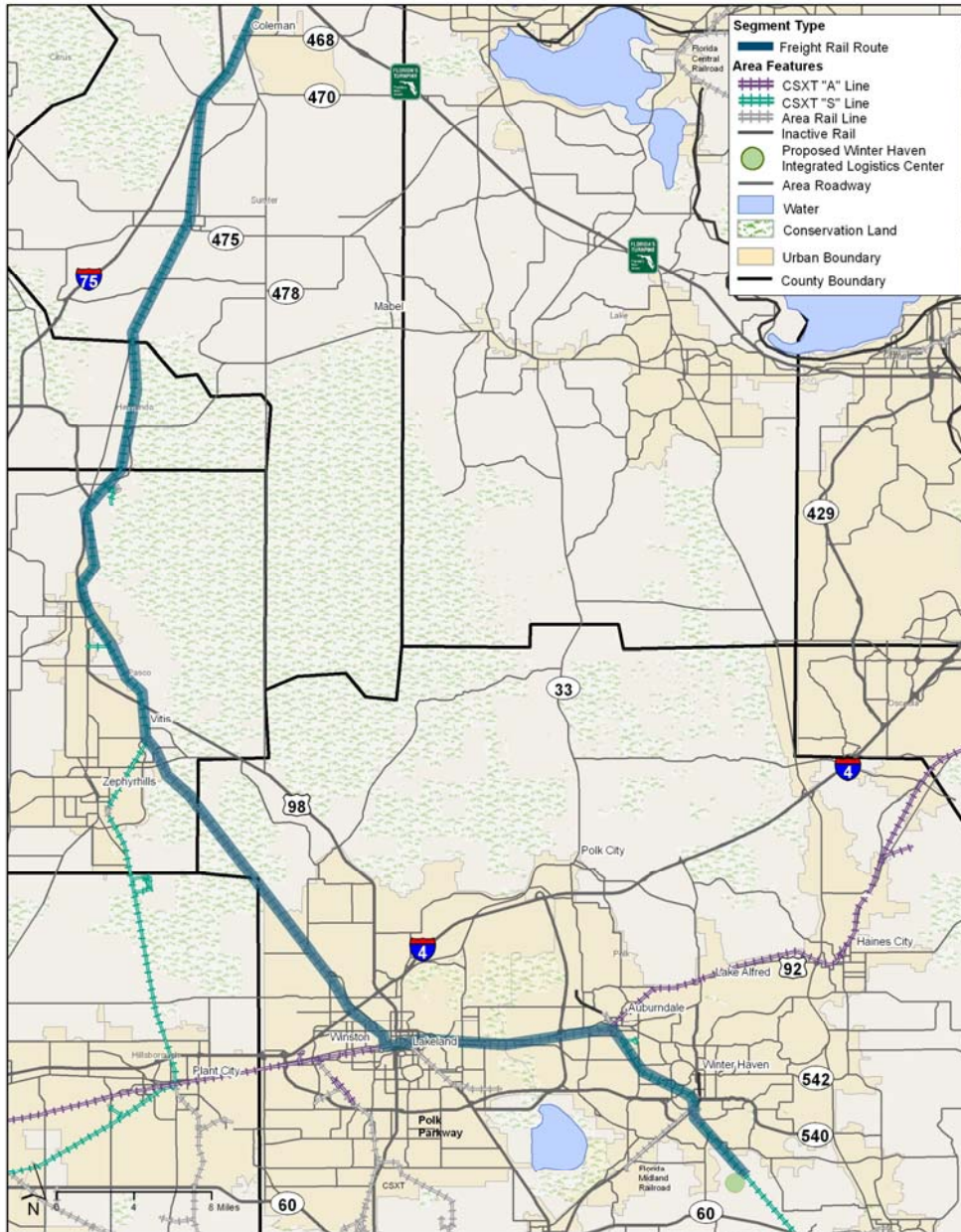


# Freight Corridors Methodology

- Long List of Corridors Have Been Screened
  - Active Rail Rights-of-Way
  - Underutilized & Abandoned Rail Rights-of-Way
  - Utility Rights-of-Way
  - Existing & Planned Roadway Rights-of-Way
  - New Corridors

# Alternatives For Further Evaluation

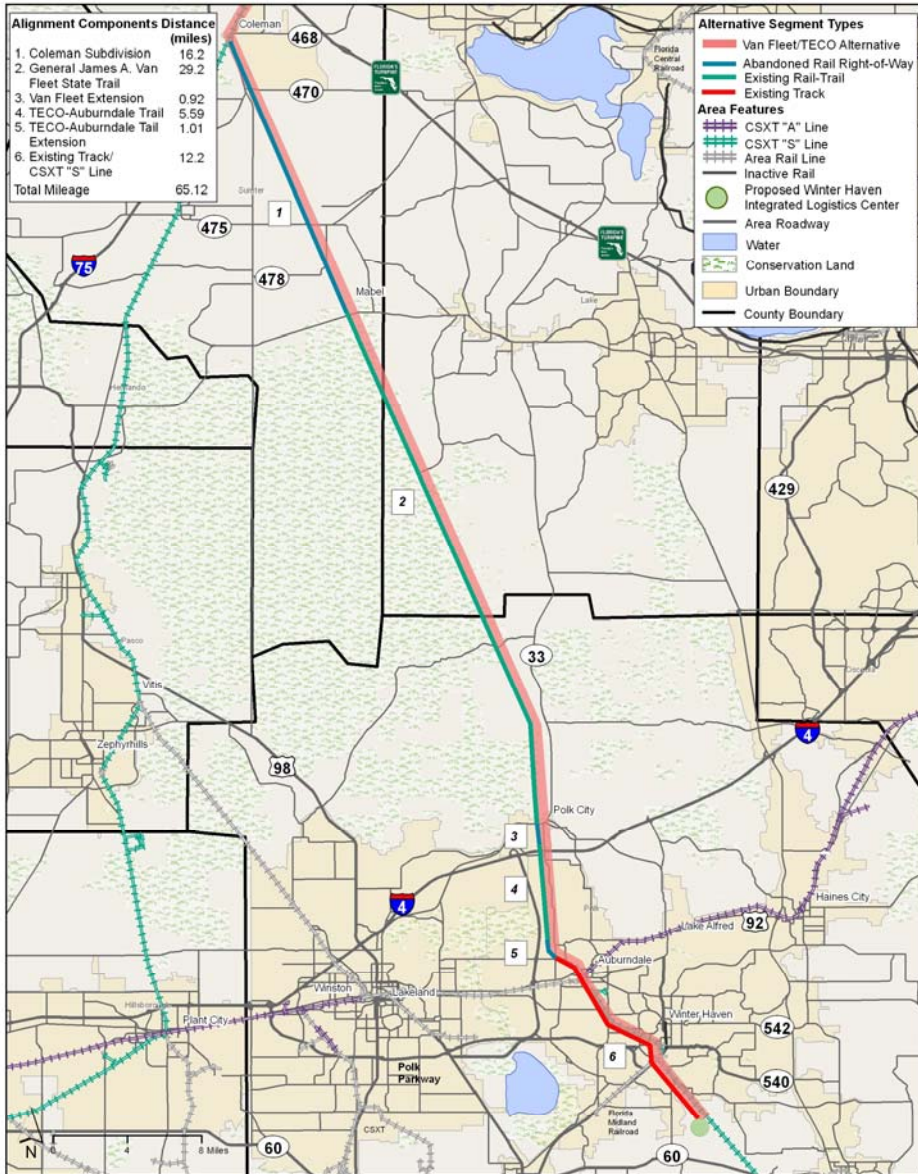
# CSX "S" Line



- 79 Miles
- Existing Rail ROW (79 Miles)



# Alternative 1: Van Fleet/TECO



- 65 Miles
  - Former Rail ROW (18 miles)
  - Former Rail ROW, Trail (35 miles)
  - Existing Rail ROW (12 Miles)

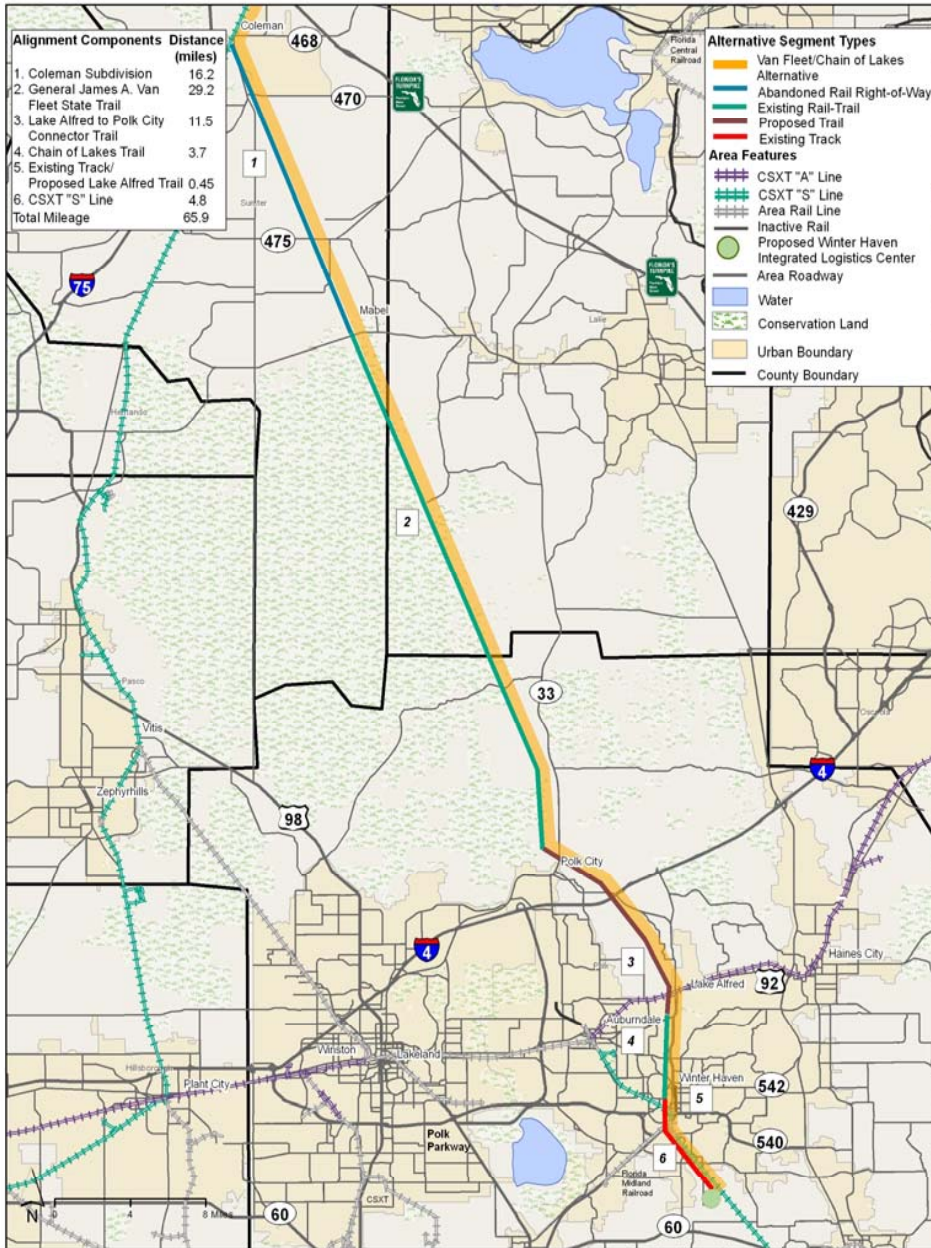
Alternative 1: Van Fleet/TECO  
Rail Traffic Evaluation  
November 2008

Source: Bureau of Transportation Statistics National Transportation Atlas Database, FDOT, FDEP, ESRI Data





# Alternative 2: Van Fleet/Chain of Lakes



Alternative 2: Van Fleet/Chain of Lakes  
Rail Traffic Evaluation  
November 2008



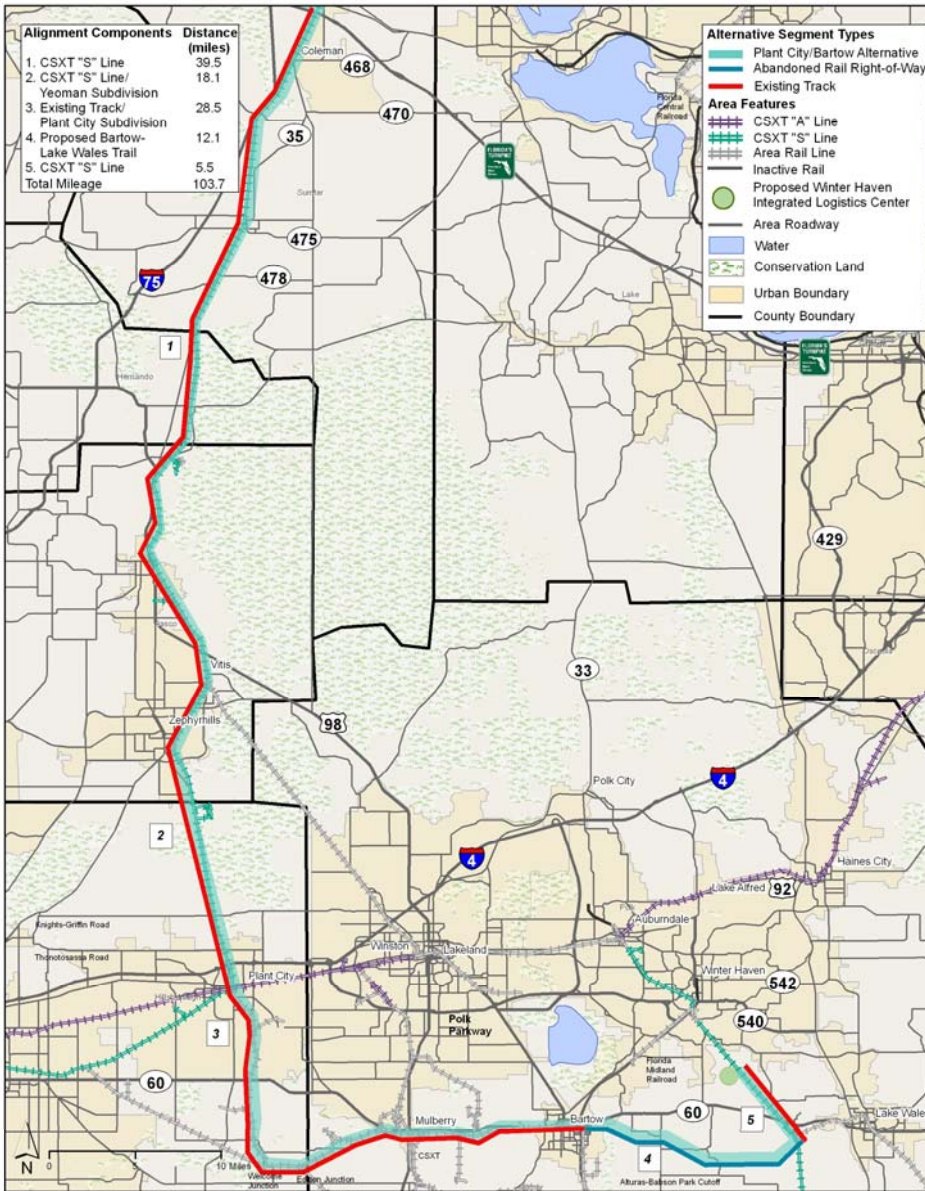
Source: Bureau of Transportation Statistics National Transportation Atlas Database; FDOT; FDEP; ESRI Data

- 66 Miles
  - Former Rail ROW(28 miles)
  - Former Rail ROW, Trail (33 miles)
  - Existing Rail ROW (5 Miles)



# Alternative 3: Plant City/Bartow

- 104 Miles
  - Former Rail ROW (12 miles)
  - Existing Rail ROW (92 Miles)



Alternative 3: Plant City/Bartow  
Rail Traffic Evaluation  
November 2008

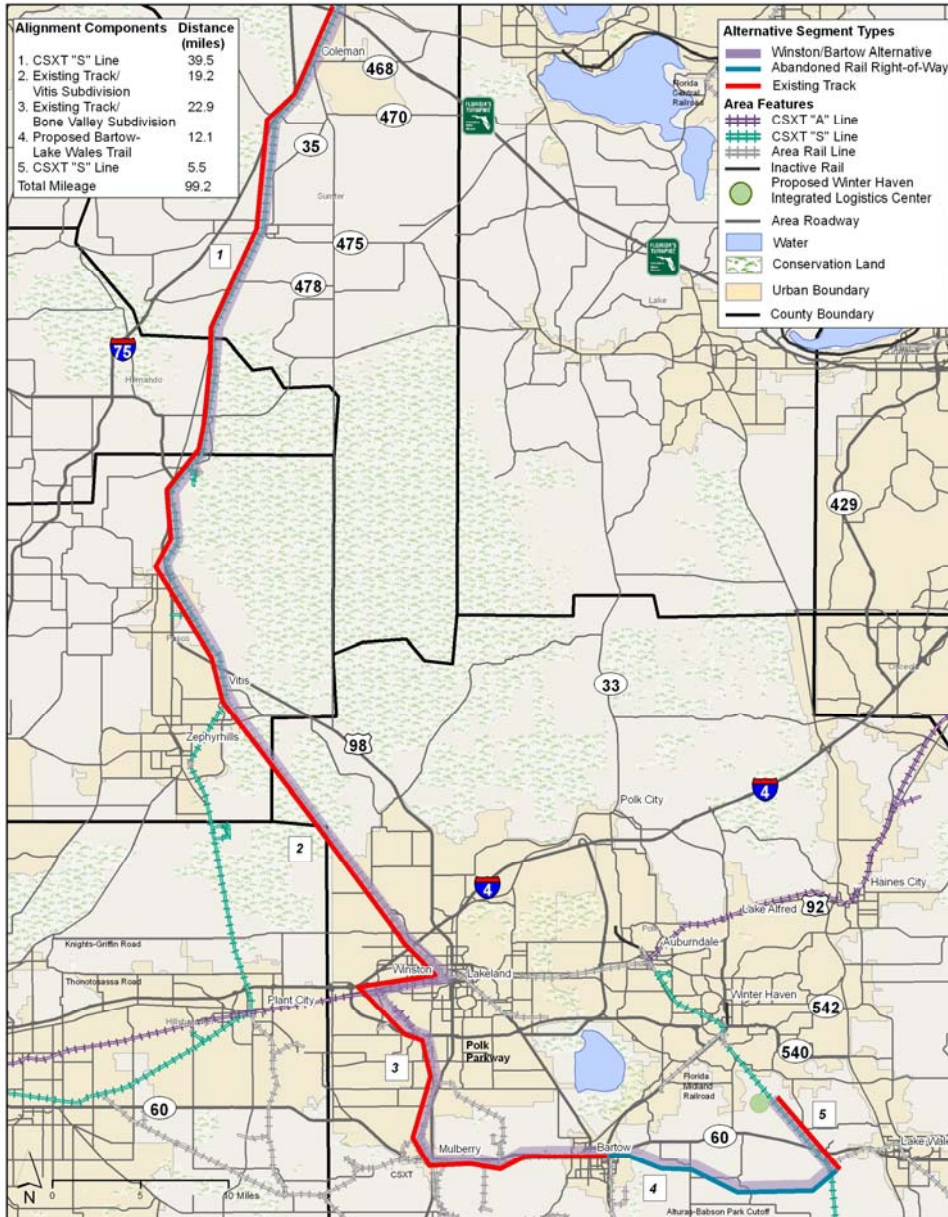


Source: Bureau of Transportation Statistics National Transportation Atlas Database; FDOT, FDEP, ESRI Data





# Alternative 4: Winston/Bartow



- 99 Miles
  - New Rail ROW, (12 miles)
  - Existing Rail ROW (87 Miles)

# Alternative 5: Winston / Homeland



Alternative 5: Winston/Homeland  
Rail Traffic Evaluation  
November 2008

Source: Bureau of Transportation Statistics National Transportation Atlas Database; FDOT; FDEP; ESRI Data

- 107 Miles
  - New Rail ROW (18 miles)
  - Existing Rail ROW (89 Miles)





# Freight Corridors Methodology

## ■ Next Steps

### — Input on These Draft Corridors

- Feasibility
- Other Options to be Explored

### — Define Corridor Characteristics in More Detail

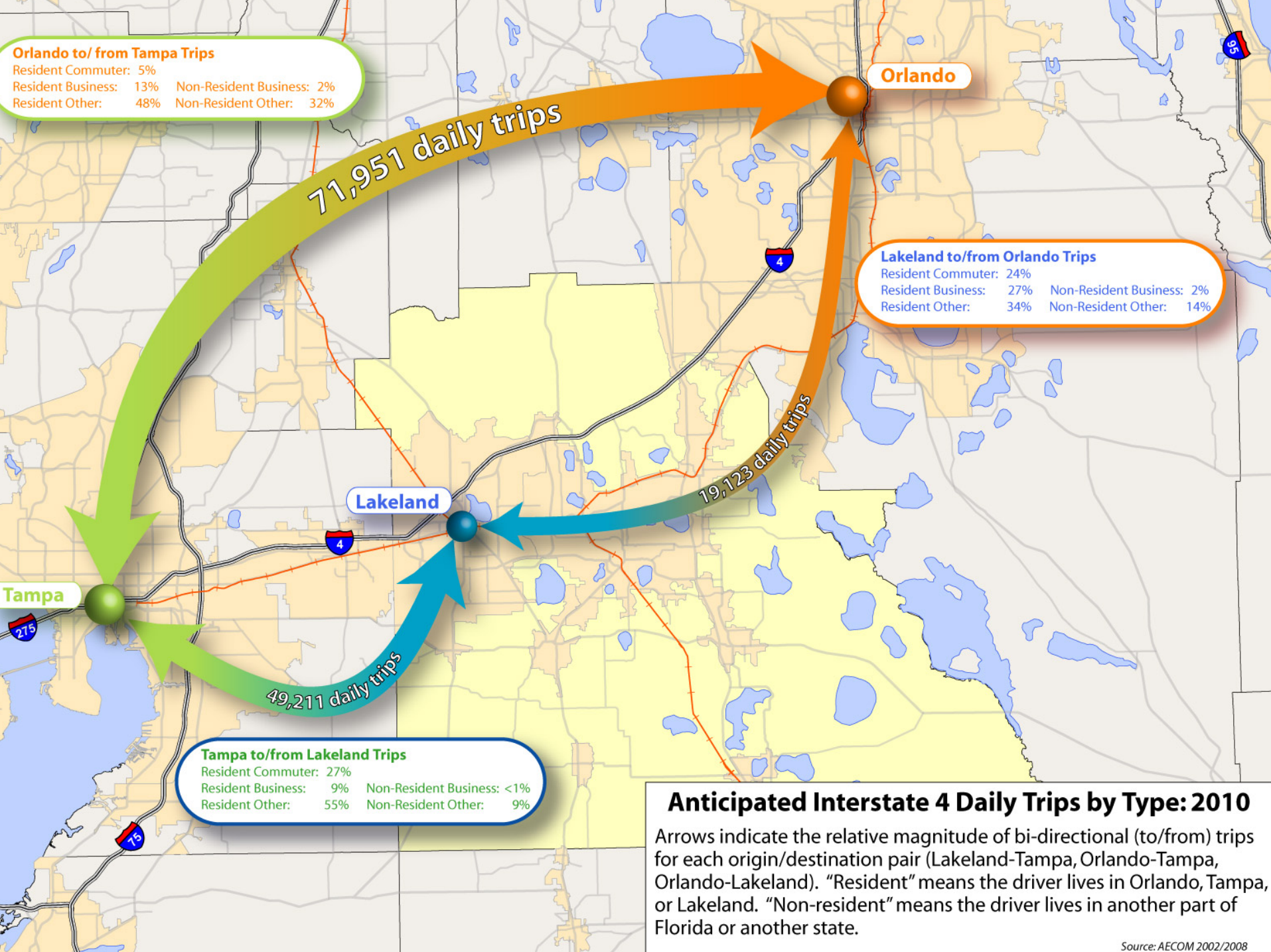
- ROW Availability/Requirements
- Physical Conditions
- Operational Considerations
- Conceptual Costs
- Institutional Issues

### — Presentation of Findings

# Passenger Rail Feasibility

# Passenger Rail Feasibility Work Conducted

- Related Studies/Initiatives
  - TBARTA
  - Central Florida Rail
  - High Speed Rail Initiative
  - Intercity Rail Vision Plan
- Establish Feasibility Study Level Methodologies
  - Physical Needs & Cost
  - Operations
  - Demand
- List of Alternatives for Testing



**Orlando to/ from Tampa Trips**  
 Resident Commuter: 5%  
 Resident Business: 13% Non-Resident Business: 2%  
 Resident Other: 48% Non-Resident Other: 32%

**Lakeland to/from Orlando Trips**  
 Resident Commuter: 24%  
 Resident Business: 27% Non-Resident Business: 2%  
 Resident Other: 34% Non-Resident Other: 14%

**Tampa to/from Lakeland Trips**  
 Resident Commuter: 27%  
 Resident Business: 9% Non-Resident Business: <1%  
 Resident Other: 55% Non-Resident Other: 9%

71,951 daily trips

19,123 daily trips

49,211 daily trips

**Anticipated Interstate 4 Daily Trips by Type: 2010**

Arrows indicate the relative magnitude of bi-directional (to/from) trips for each origin/destination pair (Lakeland-Tampa, Orlando-Tampa, Orlando-Lakeland). "Resident" means the driver lives in Orlando, Tampa, or Lakeland. "Non-resident" means the driver lives in another part of Florida or another state.

Source: AECOM 2002/2008

# Passenger Rail Market Test Assumptions

- Right of Way Location
  - I-4 and CSX Corridors
- Right Of Way Capacity
  - Limitations By Other Users (Freight, Amtrak, Other Passenger) Were Not Placed On The Alternatives
- Station Locations
  - Generalized Locations Assumed
- CFRail and TBARTA
  - Infrastructure, Service & Stations Assumed To Be Operational
- Mode Assumptions

# Passenger Rail Market Test Methodology

- Projection Year – 2030
- Requires Integration or “Stitching” of Several Travel Demand Models
  - West Central Florida Regional Planning Model
  - Central Florida Regional Planning Model
  - Tampa – Orlando Intercity Passenger Rail Model



# Passenger Rail Market Test Alternatives

- CSX Corridor Regional Rail
- I-4 Corridor Regional Rail
- TBARTA Extension to Polk County
- CFRail Extension to Polk County

# Preliminary Passenger Transit Corridor Options



**Interstate 4**  
 Transit envelope preserved for future use. Could support BRT or passenger rail.



**CSX Right-of-Way**  
 Currently supports freight and Amtrak passenger rail service.

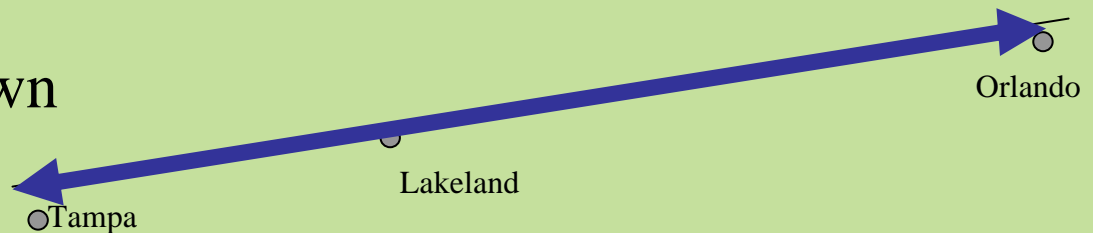


- Legend**
- Urban Boundary
  - Tampa Transit
  - CSX Right-of-Way
  - Other CFCR Stations
  - Polk County
  - Citrus Connection & WHAT
  - CFCR Alignment
  - Surface Road
  - Other Counties
  - Osceola County Transit
  - CFCR Poinciana Station



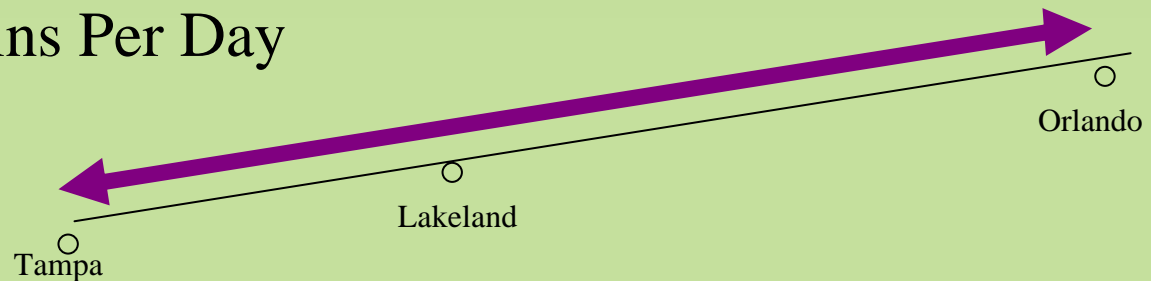
# CSX Corridor Regional Rail

- Utilize CSX Freight Corridor
- Service Oriented Toward the Intercity/  
Business/Recreational Market
  - 8 Round Trip Trains Per Day
- Stations
  - Tampa Union Station
  - Lakeland Downtown
  - Kissimmee
  - Orlando Downtown



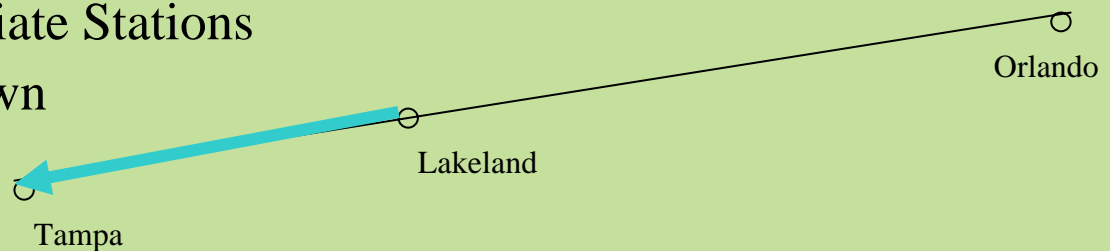
# I-4 Corridor Regional Rail

- Utilize Median of I-4, Reserved for High Capacity Transport
- Service Oriented Toward the Intercity/Business/Recreational Market Stations
  - 8 Round Trip Trains Per Day
- Stations
  - Tampa
  - Lakeland
  - I-Drive
  - Orlando



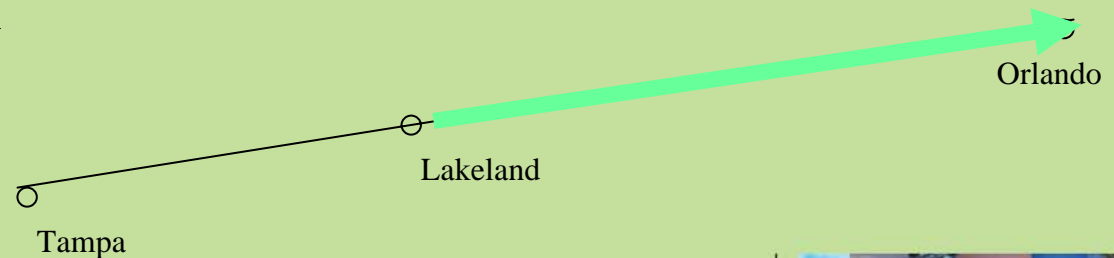
# TBARTA Extension to Polk

- Utilize CSX Freight Corridor
- Expansion of TBARTA Concepts to Polk County
- All Day Service Oriented Toward Tampa Peak Period Market
- Stations
  - Tampa
  - TBARTA Stations
  - Potential Intermediate Stations
  - Lakeland Downtown



# CFRail Extension to Polk County

- Utilize CSX Freight Corridor
- CFRail Extension from Poinciana to Lakeland
- All Day Service Oriented Toward Orlando Peak Period Market
- Stations
  - Planned CFRail Stations
  - Potential Intermediate Stations
  - Lakeland Downtown



# Passenger Rail Service Methodology

- Next Steps
  - Develop Operating Characteristics
  - Determine Market Potential
  - Estimate Order of Magnitude Costs
  - Identify Opportunities and Challenges
  - Presentation of Findings

# Schedule & Outreach

# Schedule & Outreach

## ■ Schedule

- Summer/Fall 2008 - Data Collection & Preliminary Analysis
- Winter 2009 - Technical Results
- Spring 2009 – Findings

## ■ Opportunities to Be Involved

- Attend Public Workshops & Talk with the Study Team
- Visit Website [www.fdotrailtrafficevaluation.com](http://www.fdotrailtrafficevaluation.com) for Updates
- Provide Comments at Tonight's Meeting

# Contact The Team

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