Lee Roy Selmon Crosstown Expressway

Reversible Elevated Express Lanes

A Solution for Urban Traffic Congestion

Martin Stone, Ph.D., AICP
Director of Planning
Tampa-Hillsborough Expressway Authority
1975
Open to Downtown

1986
Open to I-75
1987 Tampa Interstate Study (EIS) Masterplan

I-275 & I-4: Add 1 Lane

Crosstown: Add 1 lane
1987 Tampa Interstate Study (EIS) Masterplan

I-275 & I-4: Add 1 Lane

Crosstown: Add 1 lane and connect to I-4
1988 – 1995
Traffic growth significantly exceeded 20-yr projections

1987 Tampa Interstate Study (EIS) Masterplan
I-275 & I-4: Add 1 Lane
Crosstown: Add 1 lane and connect to I-4
Brandon suburb grew to over 200,000
Would be 4th largest Fla city

1988 – 1995
Traffic growth significantly exceeded 20-yr projections

Crosstown WB traffic service decreased from LOS B to LOS F during AM Peak by 1995.
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East Crosstown Traffic Characteristics

• 50,000 ADT
• 75/25 D split
• 15% Peak Hour
• 98% Repeaters
East Crosstown Traffic Characteristics

Connecting I-4 to Expressway would result in LOS F for both roads within <10 years

Crosstown WB traffic service decreased from LOS B to LOS F during AM Peak by 1995
Problems

1. **Severe AM/PM Peak Traffic Congestion**
   - Long-term Need for 10 Lanes
Problems

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   - Long-term Need for 10 Lanes

2. **Physical Considerations**
   - Narrow ROW - Constrained
1. **Severe AM/PM Peak Traffic Congestion**
   - Long-term Need for 10 Lanes

2. **Physical Considerations**
   - Narrow ROW - Constrained

3. **Fixed Rail Not Feasible**
   - Population (Approx 1,000,000)
   - Land Use & Density Not Suitable
   - No Complimentary Infrastructure
   - Ridership **NOT** Large Enough to Positively Affect Traffic Congestion
   - No Local Capital or O&M Subsidies
   - BRT a More Flexible Transit Solution
I-4/Crosstown Solution

1. Scrapped original expansion to 6 lanes
I-4/Crosstown Solution

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2. Developed 3 reversible express lanes
   - Divert at least 50% of commuter traffic from existing lanes to express lanes
   - Use excess capacity on existing lanes to handle traffic from I-4 connection
I-4/Crosstown Solution

1. Scrapped original expansion to 6 lanes

2. Developed 3 reversible express lanes
   - Divert at least 50% of commuter traffic from existing lanes to express lanes
   - Use excess capacity on existing lanes to handle traffic from I-4 connection

3. Build most of project as a concrete segmental bridge in the median “6 lanes on 6 feet” – to save valuable ROW for future transportation needs
Selmon Crosstown Expressway Typical Section

Existing 4 Lanes

12' 12' 12' 12'

46'

150'
Selmon Crosstown Expressway Typical Section

Existing 4 Lanes with 3 Express Lanes

59'

10' 12' 12' 12' 10'

12' 12'

12' 12'

46'

150'
Selmon Crosstown Expressway Typical Section

Expand to 6 Lanes with 3 Express Lanes

59'

10' 12' 12' 12' 12' 10'

10' 12' 12' 12' 6' 12' 6' 12' 12' 12' 12' 12' 10'

34'

150'
Selmon Crosstown Expressway Typical Section

Add Transit with 3 Express Lanes
**Project Costs & Benefits**

**Total Project Cost = $300 Million**

- Planning & Env Studies = $2M
- Design = $4M
- Bridge Section (6 miles) = $144M
- Downtown gateway (1 mile) = $20M
- At-Grade Section (3 miles) = $40M
- All ITS Controls & TMC = $17M
- ROW (ponds) = $5M
- ROW (downtown gateway) = $28M
Transportation Benefits

- Total Traffic = 115,000 ADT
- East End Traffic = 75,000 ADT
- LOS F in AM & PM Peak
- AM Peak Trip Time = 30-40 Minutes
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- Total Traffic = 115,000 ADT
- East End Traffic = 75,000 ADT
- LOS F in AM & PM Peak
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**With Reversible Express Lanes**
- 150% Increase in Capacity
- Divert 10,000 Trips from Local Roads
- LOS B-C for East End of Expressway
- AM Peak Trip time = 10 Minutes
- Four New Express Bus Routes
Typical New Projects Planning & Production Schedule

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## Elevated Lanes Planning & Production Schedule

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Reversible Elevated Express Lanes

A Solution for Urban Traffic Congestion

Martin Stone, Ph.D., AICP
Director of Planning
Tampa-Hillsborough Expressway Authority
Intelligent Transportation System

Reversible Express Lane Operations
AM OPERATION
Open WB Ramps 6:00 - 10:00 AM
Close Brandon Entry for Direction Change 10:00 - 10:30 AM
Open Brandon
Eastbound Ramp 10:30 AM

Twiggs Street

Main Toll Plaza

Downtown

78th St

Palm River Road

Brandon

301

Falkenburg Road

Town Center Blvd

Brandon Mall
Close Downtown for Direction Change 2:30 PM - 3:00 PM
Open Downtown to Brandon
3:00 PM
ITS Fiber Optic Backbone & Gateset Master Controllers

Twiggs Street

78th St

301

I-75

Brandon Mall

TMC

Main Toll Plaza

Palm River Road

Falkenburg Road

Town Center Blvd

Downtown

Brandon
Current Traffic Flow Direction: 78th STREET EAST & WEST
Current Roadway Safety Status: Free Flowing and SAFE
Safe Reversal Time: 7:00
Current Supervisor: RCOLLINS