Bellaire Blvd.
Signature Bus Service

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Existing 2 Bellaire Route Characteristics

• Local Fixed Route Bus Service
• Very Heavily Traveled: 11,000+ weekday boardings
• 100 +/- weekday trips each direction
• 5-7 minute headways during peak
• 15 minute headways off peak
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Major Elements of BRT
- Running Ways
- Stations
- Vehicles
- Fare Collection
- ITS
- Service and Operations Plan

System Performance
- Travel Time Savings
- Reliability
- Identity and Image
- Safety & Security
- Capacity

System Benefits
- Reliability
- Transit-Supportive Land Development
- Environmental Quality
- Capital Cost Effectiveness
- Operating Efficiency

Source: Characteristics of Bus Rapid Transit, FTA, 2004

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BRT Element - Service and Operating Plans

- Route Length 9 miles
- Route Structure 9 - stop overlay
- Service Span Peak period only
- Frequency of Service 15 minutes
- Station Spacing 1 mile average
- Method of Schedule Control Schedule
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BRT Element - Running Way

- Running Way Segregation: Limited
- Running Way Marking: TBD
- Guidance (Lateral): No

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BRT Element – Stations

- Station Type: Enhanced bus shelter
- Platform Height: 6-inch curb
- Platform Layout: Linear
- Passing Capability: N/A
- Station Access: Typical urban sidewalk*

* Exceptions atExisting Transit Centers, Gessner
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BRT Element – Vehicles

- Vehicle Configuration: 40 ft. transit bus
- Aesthetics: Unique brand & colors, premium interior
- Passenger Circulation Enhancement: No fare box, low floor
- Propulsion: Hybrid diesel - electric

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BRT Element - Fare Collection

- Fare Collection Process: Onboard
- Fare Transaction Media: Q-card only
- Fare Structure: Local fare

Five Free Rides For Every 50 Paid Trips!
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BRT Element – Intelligent Transportation Systems

• Vehicle Prioritization Yes
• Driver Assist and Automation Technology No
• Operations Management Standard
• Passenger Information Next bus arrival
• Safety and Security On-board cameras, plus station features TBD

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Bellaire Blvd. Signature Route Characteristics (at start-up)

• Limited-stop fixed route bus service
• 1000 +/- weekday boardings
• 15 minute headways during peak
• 20-30% faster end-to-end running time
Traffic Engineering Objectives

• Reduce run-time
• Primary run-time savings come from limited stop route design
• How can we deliver additional time savings?
  – Coordinate signal timing among jurisdictions
  – Signal optimization
  – Transit signal priority
  – Bus stop relocation
  – Queue jumping (?)

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METRO RCTSS Program

• RCTSS Improved intersection

Freeways
Major Roads
RCTSS System Components

- Transtar
  - Central traffic monitoring and control elements
- Intersections
  - Distributed traffic control elements
  - Transit Signal Priority (TSP) detectors
- Communications
  - Intersections-to-TranStar
  - METRO facility-to-facility
- Buses
  - TSP emitters

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TRANSIT SIGNAL PRIORITY - Implementation Process

Conduct before studies for General purpose (GP) Traffic and Transit – baseline
Collect data – and develop timing model – present findings
Optimize the system – deploy new timing plans – lots of fresh data!
Conduct before and after studies to measure improvement - share
Review and discuss with jurisdictional partners
Deploy TSP Control strategies – monitor and adjust
Conduct after studies for GP and Transit – adjust
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Project status

• On schedule for June 2007 start of service
• Vehicles in production
• Shelter concepts, stop locations approved
• “Before” data collected
• Signal conditions verified
• Optimization work to begin this month

Thank You!