GEARY CORRIDOR
BUS RAPID TRANSIT

What is BRT?
What is BRT?

“An integrated system of facilities, services, and amenities that collectively improves the speed, reliability, and identity of bus transit.”

Transit Cooperative Research Program

LA Metro Orange Line

Transitway, Ottawa
BRT Features

- Vehicles
- Running Ways
- Stations and Stops
- ITS and Fare Payment
- Service Plan
Can BRT be Implemented Incrementally?

- Incremental implementation provides momentum for program
- Begin with lower-cost elements
- Get the BRT buses out on the street as soon as possible
  - Immediate benefits
  - Build transit markets
  - Preserve rights-of-way
  - Locate stations to accommodate focused development

LA Orange Line
Enhanced Local Bus

- More frequent service
- Limited stops
- Operates in mixed-flow lanes
- Enhanced bus stops
  - Real-time passenger info
  - Benches
  - Lighting

VTA Rapid 22
BRT “Light”

- Includes all elements of Enhanced Local Bus
- Branded service and/or specialized vehicles
- Operates in mixed-flow lanes or peak-hour bus lanes
- Transit priority
  - Bus signal priority
  - Queue-jump lanes
  - Some bus-only sections
- Some IT elements
Full-Featured BRT, At Grade

- Includes all elements of BRT Light
  - Enhanced stations,
  - Frequent, flexible service plan
  - Specialized vehicles
  - ITS

- Running way
  - Mostly exclusive
  - Generally at-grade with traffic signals to control operation at intersections

South Miami-Dade Busway
Curitiba, Brazil
Full-Featured BRT, Grade-Separated

- Includes all elements of BRT Light
  - Enhanced stations,
  - Frequent, flexible service plan
  - Specialized vehicles
  - ITS

- Running way
  - Mostly exclusive
  - Most intersections are fully grade-separated
# Summary of Characteristics

<table>
<thead>
<tr>
<th>BRT Feature</th>
<th>Enhanced Local Bus (VTA 22)</th>
<th>BRT “Light” (LA Metro Rapid)</th>
<th>Full-featured BRT, At Grade (Curitiba, Miami)</th>
<th>Full-featured BRT, Grade-Separated (Pittsburgh, Ottawa)</th>
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</thead>
<tbody>
<tr>
<td>Specialized vehicles</td>
<td>●</td>
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<tr>
<td>Mixed-flow running ways</td>
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<td>Rail-like stations</td>
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<td>ITS</td>
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<tr>
<td>Pre-paid fares</td>
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<td>Transit priority</td>
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<tr>
<td>Operating plan</td>
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Full-featured BRT, Full-featured BRT, At Grade, Grade-Separated.
Case Study

VIVA
York Transit
York, Ontario, Canada
Case Study: York Viva

Features:

- Off-Board Fare Collection
- Real-Time Passenger Information
- Facilities
- Queue Jumpers
- Vehicles
- Transit Signal Priority
Case Study: York Viva

- Vehicles
  - 40-foot buses and 60-foot buses
  - Low-floor
  - Multiple wide doors
  - Wi-Fi, video, tables
Case Study: York Viva

- Intersection Improvements
  - 65 intersections
    - Queue-jump lanes
    - Far-side bus bays
Case Study: York Viva

- Stations
  - Modular, typically enclosed shelters
  - Smaller, open shelters where space constricted, low demand
  - Special design in heritage areas
Case Study: York Viva

- Intelligent Transportation System
  - Transit signal priority
  - Real-time passenger information
  - Transit control center
Case Study: York Viva

- **Fare Collection**
  - Tickets and passes purchased off-board
  - Proof of payment on board
  - Fare structure integrated with rest of York Region Transit system
Case Study: York Viva

- **Service Plan**
  - Four lines
  - Regional coverage
  - Frequent, all-day service
  - Integrated with other transit services in the City of York and metropolitan Toronto
THANK YOU

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