• Purpose of Tonight’s Meeting

• Project Need

• Study Area

• 2012 Staten Island North Shore Alternatives Analysis (SINSAA) Process

• 2012 SINSAA Goals & Objectives

• Why Is A Supplement to the SINSSA Needed?

• Re-Evaluation of BRT & LRT Alternatives

• Next Steps
Passenger Service on the North Shore in the 1950s
Project Need: North Shore Transit & Growth
Right-of-Way

- ~5 miles of abandoned North Shore Railroad right-of-way
- Street running on South Avenue
2012 SINSAA Process

An Alternatives Analysis (AA):

- Facilitates objective decision-making
- Recommends a single alternative
- Considers public input
- Describes:
  - How and why alternatives were developed
  - Criteria used to evaluate the effectiveness of alternatives
  - Which alternative best meets the study area needs
2012 SINSAA Project Goals

- Improve Mobility
- Preserve & Enhance the Environment, Natural Resources & Open Space
- Maximize Limited Financial Resources for the Greatest Public Benefit
2012 SINSAA Short List Alternatives

- **Transportation Systems Management (TSM)**
  - Low-cost bus transit improvements (e.g., intersection & signalization improvements, route restructuring, etc.)
  - FTA requirement (baseline option) at the time of 2012 study

- **Bus Rapid Transit (BRT) to West Shore Plaza**
  - One-seat ride from St. George to West Shore Plaza
  - Dedicated busway & mixed traffic in South Avenue
  - Provides access for feeder bus service
  - Lower cost & higher ridership than LRT
  - Highest flexibility of modes considered

- **Electric Light Rail Transit (LRT) to West Shore Plaza**
  - One-seat ride from St. George to West Shore Plaza
  - Dedicated rail line & mixed traffic in South Avenue
  - Would have utilized modified Clifton Shop/Yard for fleet maintenance & some storage
  - Highest cost & lowest ridership vs. BRT
2012 SINSAA Short List Alternatives

- **Transportation Systems Management (TSM)**
  - Low-cost bus transit improvements (e.g., intersection & signalization improvements, route restructuring)
  - FTA requirement (baseline option) at the time of 2012 study
  - No longer required

- **Bus Rapid Transit (BRT) to West Shore Plaza**
  - One-seat ride from St. George to West Shore Plaza
  - Selected as Preferred Alternative in 2012 SINSAA
  - Lower cost & higher ridership than LRT
  - Highest flexibility of modes considered

- **Electric Light Rail Transit (LRT) to West Shore Plaza**
  - One-seat ride from St. George to West Shore Plaza
  - Eliminated in 2012 SINSAA
  - Highest cost & lowest ridership vs. BRT
Summary of 2012 SINSAA Public Involvement Process

- **Multi-Tiered Approach**
  - Over 30 meetings

- **Interagency Committee**
  - Government Agencies

- **Community Engagement Committee**
  - Elected Officials, Community Boards, Civic Groups

- **Public Open House Presentations**
  - April 2010
  - February 2011
  - September 2011
  - May 2012

- **Final SINSAA published in August 2012**
Why We Need to Supplement the 2012 SINSAA

- Changes since 2012
  - Development at St. George
  - Infrastructure changes to support resiliency

- The 2012 SINSAA Supplement will account for changes in conditions

- Updating BRT & Electric LRT Options
Access to St. George Terminal
2019 Updated BRT Option

- **2019 Updated Access**
  - Uses former North Shore Railroad ROW to Nicholas Street
  - New ramp at Nicholas Street to access Richmond Terrace
  - 2-lane dedicated median busway (0.5 miles) in Richmond Terrace
  - Uses TSP at intersections
  - Uses existing NYCT St. George Bus Terminal
Proposed Richmond Terrace Busway
2019 Updated Electric LRT Option

2019 Updated Access
- Uses former North Shore Railroad ROW to St. George Terminal
- Access to ferry from SIR level
- New LRT-only maintenance facility required
- Modifications to structural columns (Empire Outlets/Bus Deck)
- Impacts to SIR operations
SIR Tracks Beneath Empire Outlets
## 2019 Alternatives Comparative Matrix

<table>
<thead>
<tr>
<th>Screening Categories</th>
<th>2019 BRT Option</th>
<th>2019 LRT Option</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 2 Dedicated Lanes</td>
<td>• 2 LRT Exclusive Tracks</td>
</tr>
<tr>
<td></td>
<td>• Uses North Shore Railroad ROW &amp; Richmond Terrace</td>
<td>• Uses North Shore Railroad ROW</td>
</tr>
<tr>
<td></td>
<td>• Access: Upper Level Bus Depot at St. George Terminal</td>
<td>• Access: SIR Level at St. George Terminal</td>
</tr>
<tr>
<td></td>
<td>• Accommodates articulated buses</td>
<td>• Federal Rail Administration (FRA) Waiver would likely be required to operate with SIR</td>
</tr>
<tr>
<td></td>
<td>• Uses existing bus depots</td>
<td>• Needs dedicated LRT maintenance facility (Clifton Yard no longer available)</td>
</tr>
<tr>
<td></td>
<td>• Signalized intersections</td>
<td>• No signalized intersections</td>
</tr>
<tr>
<td><strong>Parking Displacement</strong></td>
<td>• Loss of approximately 200 spaces on Richmond Terrace</td>
<td>• No on-street parking loss</td>
</tr>
<tr>
<td><strong>Effects</strong></td>
<td>• <strong>Community Effects:</strong> No change in number of Richmond Terrace traffic lanes; intersections modified with TSP; loss of 0.5 miles of exclusive bicycle lane</td>
<td>• <strong>Community Effects:</strong> No change to Richmond Terrace</td>
</tr>
<tr>
<td></td>
<td>• SIR: No impacts</td>
<td>• <strong>SIR:</strong> Operational conflicts &amp; impacts to existing yard</td>
</tr>
<tr>
<td></td>
<td>• <strong>Construction:</strong> Impacts from:</td>
<td>• <strong>Construction:</strong> Impacts to:</td>
</tr>
<tr>
<td></td>
<td>o Reconstruction of Richmond Terrace</td>
<td>o SIR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o bus deck &amp; ramp (column relocations)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>o Empire Outlets (column relocations)</td>
</tr>
<tr>
<td><strong>Potential Ridership</strong></td>
<td>• 11,732 AM peak users</td>
<td>• 10,590 AM peak users</td>
</tr>
<tr>
<td><strong>Estimated Cost in 2010 $</strong></td>
<td>• Capital Cost: $484 Million</td>
<td>• Capital Cost: $1.14 Billion</td>
</tr>
<tr>
<td></td>
<td>• O&amp;M Cost: $6.6 Million</td>
<td>• O&amp;M Cost: $8.17 Million</td>
</tr>
</tbody>
</table>
## 2019 Alternatives Evaluation Matrix

<table>
<thead>
<tr>
<th>Goal: Improve Mobility*</th>
<th>BRT</th>
<th>LRT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Stations Served</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Access from transit dependent populations</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Travel Time from Arlington to St. George</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Improved Access to Business Parks (Teleport &amp; Matrix)</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Intersection Impacts</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Estimated Ridership</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
</tbody>
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<tr>
<th>Goal: Preserve &amp; Enhance the Environment, Natural Resources &amp; Open Space*</th>
<th>BRT</th>
<th>LRT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential Land Use Impacts</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Potential Noise Impacts</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Potential Impacts to Parklands</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Air Quality (Emissions)</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Waterfront &amp; Visual Resource Effects</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Goal: Maximize Limited Financial Resources for the Greatest Benefit*</th>
<th>BRT</th>
<th>LRT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Capital Cost</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Operating &amp; Maintenance Costs</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Compatibility with NYCT Operations</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
<tr>
<td>Implementation Period</td>
<td>⬜️</td>
<td>⬜️</td>
</tr>
</tbody>
</table>

*Based on SINSAA goals as evaluated in 2012 SINSAA
2019 Updated BRT Alternative: Recommended to Advance

- Improved Service
- Enhanced Stations
- Intelligent Transportation Systems (ITS)
- Dedicated Running Ways
- Off-Board Fare Collection
- Stylized, Low-Floor Vehicles
- Special Branding
Next Steps

Project Scoping
Preparing Conceptual Engineering
Environmental Review

Robust Stakeholder & Community Engagement Throughout Project
We want to hear from you!

https://new.mta.info/northshoreeis

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