AGENDA

1. Project Background
2. Project Goals & Process
3. Public Outreach Activities
4. Streetcar Overview
5. Results of Technical Analysis
6. Potential Funding Scenarios
7. Next Steps
8. Questions & Answers
PROJECT BACKGROUND
PREVIOUS STUDIES

• Legacy Comprehensive Plan (2001, Updated in 2012):
  - Promotes the construction of a modern rail streetcar system to connect destinations in the larger Center City area and be a catalyst for development.
  - Promotes transit connections between Downtown and suburban areas to increase ridership.

• 2006 Streetcar Feasibility Study:
  - Established concept for streetcar route through urban core.
  - Envisions a plan that encourages new residential development, establishes better transportation linkages and stimulates other parts of the city and surrounding areas.
PROJECT GOALS & PROCESS
# PROJECT GOALS

## Enhance Economic Competitiveness
- Focus development and coordinate investments to maximize economic return and minimize sprawl
- Encourage a mixture of uses including equitable and affordable housing
- Protect and enhance the City’s distinct character

## Increase Mobility Options
- Connect key destinations in urban core
- Connect to local and regional transit to provide the “last mile” of service
- Support existing communities and infrastructure
- Extend pedestrian connectivity

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Developed using input from Policy Advisory and Technical Committees made up of key organizational and institutional stakeholders such as PTRP and WFBMC, WSSU, DWSP, Chamber, DOT Board, PART, RJR, Goler CDC, WSTA, Council rep., etc.
PROJECT PROCESS

- Initial Screening
- Stakeholder Input
- Conceptual Engineering
- Ridership Estimates
- Public Input

Spring 2012: Select a Route
Summer 2012: Select a Technology/Refine Route
Fall 2012: Review and Adoption
Summer 2013: Locally Preferred Alternative

Study required to pursue federal funding.

ROUTE AND VEHICLE OPTIONS
ROUTE SELECTION
TECHNOLOGY SELECTION / ROUTE REFINEMENT
LOCALLY PREFERRED ALTERNATIVE
SELECTING A ROUTE

• Route connecting major activity centers:
  – More than 11,000 Baptist Medical Center employees;
  – BB&T Ballpark with 300,000 game-day and 50,000 non-game day visitors annually,
  – 6.1 million gross square feet of planned redevelopment space and an estimated 20,000 additional employees at Innovation Quarter (PTRP);
  – Downtown – regional business and arts center, home to special events venues;
  – An additional 20,000 employees and over 2,000 residents throughout greater downtown;
  – The Transportation Center, serving nearly 11,000 passengers per day;
  – Nearly 6,500 students attending Winston-Salem State University;
  – Union Station, which is the planned destination for future commuter and intercity rail; and
  – The commercial center of the East Winston community.
SELECTING A ROUTE
SELECTING A ROUTE

Initial Screening of Conceptual Route Alternatives

Detailed Evaluation

Select Locally Preferred Alternative

Source: HDR Engineering, 2013
SELECTING A MODE

Streetcar
Fixed rail technology, operating in mixed traffic

Enhanced Bus
Bus option offering physical and technological enhancements

Standard Bus
Continuation of current local bus service
PUBLIC OUTREACH
PUBLIC OUTREACH

- 3 Open Houses
- Planning Workshop on August 29, 2012
- Policy Advisory / Technical Committees
- 4th Street Stakeholders
- Creative Corridor Coalition
- Wake Forest Baptist Medical Center
- Innovation Quarter (PTRP)
- BB&T Ballpark
- Convention Center
- WSSU
- Online Survey (200 respondents)
- Public Works Committee
JANUARY 31 OPEN HOUSE SUMMARY

• What we heard:
  − Route preferences
  − Funding/fares
  − Operating hours
  − Connectivity with existing transit services
  − Frequency of service
  − Accessibility by disabled and seniors
  − Preference for streetcar as mode of service
STREETCAR OVERVIEWS
STREETCARS: FACTS

• Low floors/multiple doors for easy boarding.
• Larger than typical transit buses and can carry more passengers.
• They operate on streets with regular traffic and on rails embedded in those streets.
• Most modern streetcars are powered by a single overhead wire to reduce visual clutter.
• Stops are located every 900 – 1,200 feet on average with amenities, built into the adjacent sidewalk and placed in a parking lane.
## STREETCARS: BENEFITS IN OTHER CITIES

<table>
<thead>
<tr>
<th>City</th>
<th>Streetcar Infrastructure Cost</th>
<th>Development Investment along Route</th>
<th>Return on Investment</th>
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</thead>
<tbody>
<tr>
<td>Portland, OR</td>
<td>$103.2 million</td>
<td>$3.5 billion</td>
<td>34 : 1</td>
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<tr>
<td>Little Rock, AR</td>
<td>$28 million</td>
<td>$400 million</td>
<td>14 : 1</td>
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<tr>
<td>Tampa, FL</td>
<td>$48.3 million</td>
<td>$1 billion</td>
<td>21 : 1</td>
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<td>Kenosha, WI</td>
<td>$5.2 million</td>
<td>$150 million</td>
<td>29 : 1</td>
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The case of Portland:

Portland Floor Area Ratio (FAR) Achieved Before and After Streetcar Project

Source: Portland Streetcar Inc; Reconnecting America
STREETCARS: BENEFITS TO WINSTON-SALEM

• A new **reliable** choice of transit service.
• Ability to **park once and travel** throughout Center City without driving.
• Creates new **employment opportunities**.
• Provides **more housing options**.
• Increased tax base in Center City means **improved infrastructure and services** throughout Winston-Salem.
KEY RESULTS OF ALTERNATIVES ANALYSIS
RESULTS OF TECHNICAL ANALYSIS

- Development impacts:
  - additional 4,000 residential units;
  - 2.6 million square feet of commercial development; and
  - 13,000 jobs.
- Projected ridership (2017): 2,250 daily riders
- Capital cost: $179 million (at full-build in 2017 dollars)
- Annual operating and maintenance cost is $4.3 million (8 Vehicles)
- Proposed Operating Hours:
POTENTIAL STOPS
POTENTIAL FUNDING SCENARIOS
# Funding Scenarios

Revenue levels may not match total costs due to rounding*

<table>
<thead>
<tr>
<th>Potential Sources</th>
<th>Minimum Federal Participation</th>
<th>Moderate Federal Participation*</th>
<th>Maximum Federal Participation*</th>
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<tr>
<td>FHWA Funds</td>
<td>$20</td>
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<tr>
<td>Future Competitive Grant</td>
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<td>State Match – FHWA Funds</td>
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<td>FTA Small Starts</td>
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<tr>
<td>FTA New Starts</td>
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<td>-</td>
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<td>Other Federal Funding</td>
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<td>NCDOT SFFGA</td>
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<td>$18</td>
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<tr>
<td>Local Sources</td>
<td>$130</td>
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<tr>
<td>Total</td>
<td>$179</td>
<td>$179</td>
<td>$179</td>
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</table>

Source: Sharon Green Assoc.; HDR Engineering
TRANSPORTATION COST COMPARISONS

Capital cost: $179 million (at full-build in 2017 dollars)

Roadway Projects vs. Streetcar Project

<table>
<thead>
<tr>
<th>Project</th>
<th>Miles</th>
<th>Cost per Mile</th>
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<tbody>
<tr>
<td>Salem Creek Connector</td>
<td>1.1</td>
<td>$62.6 Million</td>
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<tr>
<td>Rehab US 421, west of 4th St. to east of Church St.</td>
<td>1.1</td>
<td>$44.6 Million</td>
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<tr>
<td><strong>Urban Circulator Streetcar</strong></td>
<td>4.0</td>
<td><strong>$44.7 Million</strong></td>
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<tr>
<td>Future I-74, Winston-Salem Northern Beltway</td>
<td>34.2</td>
<td>$31.6 Million</td>
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<tr>
<td>Rehab US 421, west of Old Vineyard Road</td>
<td>1.6</td>
<td>$7.8 Million</td>
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<tr>
<td>US 158, Multi-lanes north of US 421/I-40 Business</td>
<td>18.8</td>
<td>$5.6 Million</td>
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NEXT STEPS
NEXT STEPS

• Federal Transit Administration briefing
• City Council presentation
• City Council decision on Locally Preferred Alternative

http://www.WinstonSalemCirculator.com
QUESTIONS & ANSWERS