MEETING AGENDA

1. Project Background and Purpose
2. Design Options
3. Draft Evaluation Measures
4. Project Outcomes and Next Steps
5. Discussion
INTRODUCTION
Bus Rapid Transit in Dedicated Lanes from Van Dorn Metro to Pentagon

**Physical Characteristics**
- Near-level boarding at stations
- Dedicated lanes majority of corridor
- Off-board fare collection
- Service specific branding and identity
- Substantial transit stations
- Potential to convert to streetcar in future

**Operational Characteristics**
- Transit signal priority at intersections
- Real-time passenger information
- High frequency and long span of service
- 2035 Weekday ridership estimate - 12,500 to 17,500
CONTEXT | Project Need

Corridor Issues

1. Land Use and Economic Development
2. Traffic Congestion
3. Transit Service

Project Need
Land Use and Economic Development

- Land use density will increase from 11.0 million sq. ft. to 23.5~25.5 million sq. ft. at full build-out
- 53% increase in population by 2040
- 130% increase in employment by 2040
- Existing transportation and transit infrastructure is not adequate to support future land use changes
CONTEXT | Corridor Problems and Issues

Traffic Congestion

• Traffic congestion leads to delays and unpredictable travel times for motorists
• Peak hour traffic congestion leads to delays and reduced reliability for transit services
• Without additional transportation investment, future higher density land uses will result in more traffic congestion

<table>
<thead>
<tr>
<th>Corridor Problems and Issues</th>
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<tbody>
<tr>
<td>Van Dorn Street/Sanger Avenue/Beauregard Street (Northbound)</td>
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<tr>
<td>A.M. Peak Speed</td>
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Buses in traffic on Van Dorn Street
CONTEXT | Corridor Problems and Issues

Transit Service

• Significant unmet transit demand
  o 360,000 daily trips generated in the corridor
  o 31% have destinations in the corridor but only 2% of trips use transit

• Transit network not unified
  o Routes operate at low frequencies along portions of the corridor,
  o Transfers between routes lead to longer travel times

• Poor service discourages transit riders and worsens traffic congestion
CURRENT PROJECT SCOPE OF WORK | Alternatives Analysis / Environmental Assessment (AA/EA)

- Additional planning work necessary to define project and apply for federal funding
- Alternatives Analysis (AA)
  - Evaluates three alternatives
  - Provides information on benefits, costs, and impacts, so that a locally preferred alternative can be identified
- Environmental Assessment (EA)
  - Analyzes potential transportation, social, economic, and environmental impacts of preferred alternative
  - Identifies mitigation measures, as necessary
AA/EA | Timeline

**PLANNING PROCESS**

- **Project Kick-Off**
  - Winter 2014

- **Existing Conditions**
  - Spring 2014
  - Purpose and Need
  - Existing Conditions Assessment

- **Definition of Alternatives**
  - Fall 2014
  - Preliminary Screening of Alternatives
  - Definition of Evaluation Measures

- **Evaluation of Alternatives**
  - Winter 2015
  - Results of Evaluation
  - Draft Environmental Assessment

- **Environmental Assessment**
  - Spring 2015
  - Preferred Alternative
  - Final Environmental Assessment

**PUBLIC PROCESS**

- **Purpose and Need**
  - Public Kick-off Meeting
  - Landmark Mall

- **Existing Conditions**
  - Purpose and Need
  - Existing Conditions Assessment

- **Definition of Alternatives**
  - Public Meeting to Comment on Transitway Options

- **Evaluation of Alternatives**
  - Public Meeting to Comment on Study Recommendations

- **Environmental Assessment**
  - Public Meeting to Review Environmental Document

**18 Months**

**We Are Here**
# AA/EA | Detailed Technical Schedule

<table>
<thead>
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<th>2015</th>
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<td>Design Options (Screen 1)</td>
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<td>Detailed Alternatives (Screen 2)</td>
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<td><strong>Environmental Documentation</strong></td>
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<td>Evaluation of Effects</td>
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<td>Optional Letter of Commitment/MOA/PA</td>
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*West End Transitway*
AA/EA | Alternatives

• **Build Alternative**
  o Increased bus system frequency and capacity
  o Dedicated transit lanes along significant portions of corridor

• **Transportation Systems Management (TSM) Alternative**
  o System changes to improve speed and reliability
  o No major capital investment like dedicated lanes

• **No Build Alternative**
  o Existing and planned transportation network
DESIGN OPTIONS
Design Option Locations
<table>
<thead>
<tr>
<th>Design Option</th>
<th>Recommendation</th>
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<tbody>
<tr>
<td>1. Van Dorn Metro Station</td>
<td>Additional technical analysis as part of the AA/EA Process</td>
</tr>
<tr>
<td>2. S. Van Dorn (Courtney Ave to Landmark Mall)</td>
<td>Additional technical analysis to provide Complete Street while minimizing property acquisition</td>
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<tr>
<td>3. Landmark Mall</td>
<td>Provide service into the mall</td>
</tr>
<tr>
<td>4. Holmes Run</td>
<td>Additional technical analysis as part of the AA/EA Process</td>
</tr>
<tr>
<td>5. Intersection of N. Van Dorn &amp; Sanger Ave.</td>
<td>Additional technical analysis as part of the AA/EA Process</td>
</tr>
<tr>
<td>6. Sanger Ave. from N. Van Dorn to Beauregard</td>
<td>Additional technical analysis as part of the AA/EA Process</td>
</tr>
<tr>
<td>7. Southern Towers</td>
<td>Operate along existing routing until construction of transitway</td>
</tr>
<tr>
<td>8. NVCC Station</td>
<td>Two stations: Beauregard @ Fillmore and Beauregard @ W. Braddock</td>
</tr>
</tbody>
</table>
Design Option – Map Reference #1

- **Location:** Van Dorn Metro Station

- **Purpose of Design Option:** Evaluate operational and physical benefits to traffic and transit operations among two transit routing alternatives to access the Van Dorn Metrorail station

- **Recommendation:** Additional technical analysis as part of the AA/EA process
Design Option – Map Reference #2

• **Location:** South Van Dorn Street (Courtney Ave to Landmark Mall)

• **Purpose of Design Option:** Determine the cross-section of S. Van Dorn street and whether the transitway will operate in dedicated lanes

• **Recommendation:** Additional technical analysis to provide Complete Street while minimizing property acquisition
Design Option – Map Reference #2

• Existing

• Potential
Design Option – Map Reference #3

• **Location:** Landmark Mall

• **Purpose of Design Option:** Determine the location of the station and transitway alignment in the Landmark Mall area

• **Recommendation:** Landmark Mall Loop
Design Option – Map Reference #4

- **Location:** Holmes Run

- **Purpose of Design Option:** Identify optimal transit operational strategy within existing right-of-way and traffic demands on Van Dorn Street adjacent to Holmes Run

- **Recommendation:** Additional technical analysis as part of the AA/EA process
Design Option – Map Reference #5

- **Location**: Intersection of N. Van Dorn Street and Sanger Avenue

- **Purpose of Design Option**: Identify optimal transit operational strategy within existing right-of-way and traffic demands on intersection

- **Recommendation**: Additional technical analysis as part of the AA/EA process
Design Option – Map Reference #6

- **Location:** Sanger Ave. between N. Van Dorn and Beauregard

- **Purpose of Design Option:** Evaluate parking policy changes along Sanger Avenue, identify possible operational strategies to improve transit performance along Sanger Avenue and at the I-395 underpass

- **Recommendation:** Additional technical analysis as part of the AA/EA process
Design Option – Map Reference #7

• **Location:** Southern Towers

• **Purpose of Design Option:** Confirm the final alignment through Southern Towers in coordination with ongoing site development planning

• **Recommendation:** Transit service will operate along existing service patterns until construction of dedicated ROW
Design Option – Map Reference #8

• **Location:** Northern Virginia Community College

• **Purpose of Design Option:** Determine station location and transitway alignment in the NVCC campus area

• **Recommendation:** Station at intersection of Beauregard & W. Braddock, also station at Beauregard & Fillmore Ave.
3 EVALUATION MEASURES
EVALUATION PROCESS

• Evaluation measures needed to determine performance of alternatives.

• Performance of alternatives will determine Locally Preferred Alternative.

• Effects of Locally Preferred Alternative will be documented in the Environmental Assessment.

1. Identify initial alternatives based on previous studies and resolutions (No Build, TSM, Build)

2. Evaluate refined alternatives (apply full set of evaluation measures to distinguish among Build, TSM, No Build)

3. Document effects of the recommended alternative in Environmental Assessment.
DRAFT EVALUATION MEASURES | Transit

- **Ridership**
  - Corridor Daily Ridership
  - Ridership by Station

- **Coverage**
  - Station Walksheds for Residents, Jobs, and Transit Dependent Populations

- **Transit Connectivity**
  - Transit Travel Time to Corridor and Regional Destinations
  - Connections to Existing and Planned Transit Routes

- **Transit Operations**
  - Average Transit Travel Speed
  - Schedule Adherence
  - Passengers/vehicle
  - Frequency
DRAFT EVALUATION MEASURES | Other Modes

- **Traffic Operations**
  - Intersection LOS/Delay
  - Intersection Queuing
  - Vehicular Travel Time

- **Bicycles and Pedestrians**
  - Miles of sidewalk improvements along Proposed Alignment
  - Miles of Bicycle Facility along Proposed Alignment
DRAFT EVALUATION MEASURES | Land Use & Financial

LAND USE
• Development
  o Transportation Infrastructure and Capacity Supports Planned Development Projects

FINANCIAL
• Capital Cost
  o Capital Cost/Rider

• Operating Cost
  o Passengers/Revenue Hour
  o Subsidy/Passenger

• Funding Eligibility
  o Available Funding Programs
DRAFT EVALUATION MEASURES | Environment

- **Natural Environment**
  - Air Quality Impact
  - Water Body/Stream Impacts
  - Section 4(f) Impacts (Parks)
  - Threatened or Endangered Species Impacts
  - Unsuitable Soils
  - Wetland and Floodplain Impacts

- **Social Environment**
  - Cultural and Historic Resource Impacts
  - Community Facility Impacts
  - Land Use Impacts
  - Environmental Justice Impacts

- **Physical Environment**
  - Noise and Vibration Impacts
  - Steep Slopes
  - Contaminated Site Impacts
  - Visual Impact
  - Property Impacts (Land and Structures)
  - Approximate Number of On- and Off-Street Parking Spaces
4 PROJECT OUTCOMES
PROJECT OUTCOMES

• Policy Decision
  o Locally Preferred Alternative selected by City Council
    • Transit Technology
    • Alignment
    • Configuration
    • Project Cost Estimate

• Project Finance Strategy

• Approved Environmental Document
  o Finding by FTA after review by federal and state agencies
NEEDED TO DETERMINE THE LOCALLY PREFERRED ALTERNATIVE

- Input on Design Options
  - Prepare definition of alternatives report
- Input on Evaluation Measures
  - Begin evaluation of Design Options
- Questions and Comments

Thank you!

http://www.alexandriava.gov/WestEndTransitway