

WEST END TRANSITWAY



POLICY ADVISORY GROUP BRIEFING

JULY 30, 2014

ALEXANDRIA ACCELERATED

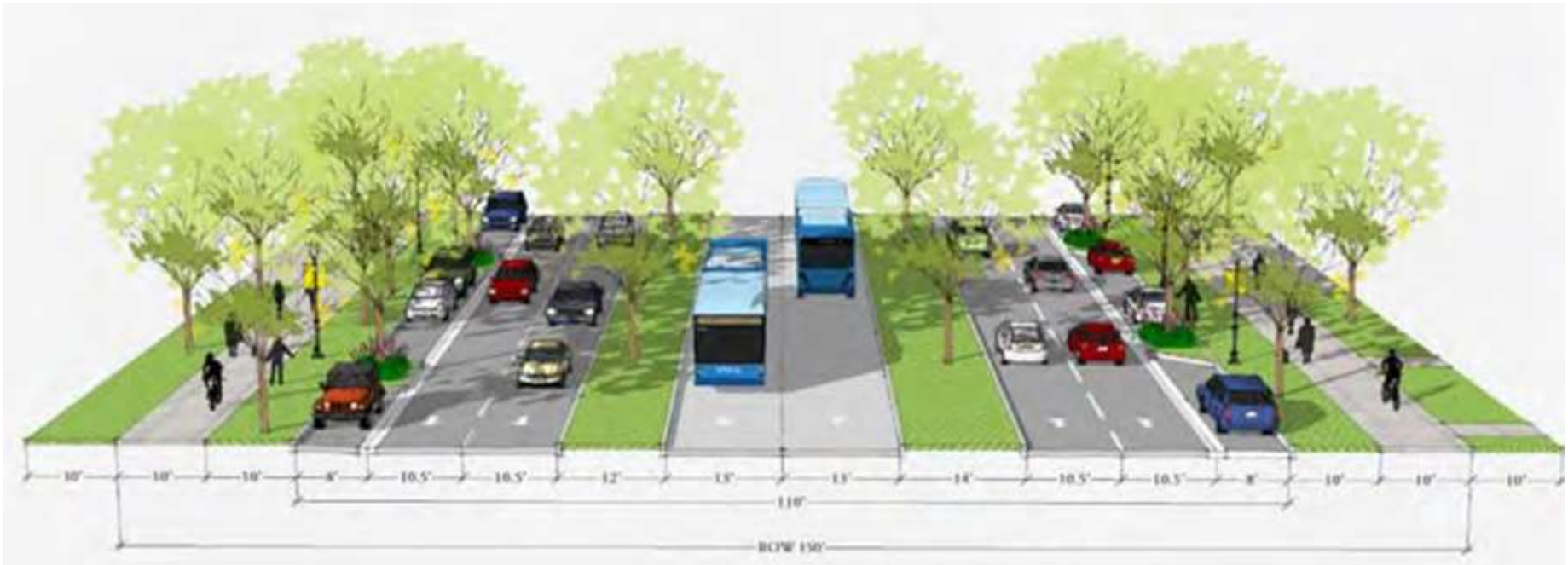
MEETING AGENDA

- 1 Project Background and Purpose
- 2 Design Options
- 3 Draft Evaluation Measures
- 4 Project Outcomes and Next Steps
- 5 Discussion



1 INTRODUCTION





Bus Rapid Transit in Dedicated Lanes from Van Dorn Metro to Pentagon

Physical Characteristics

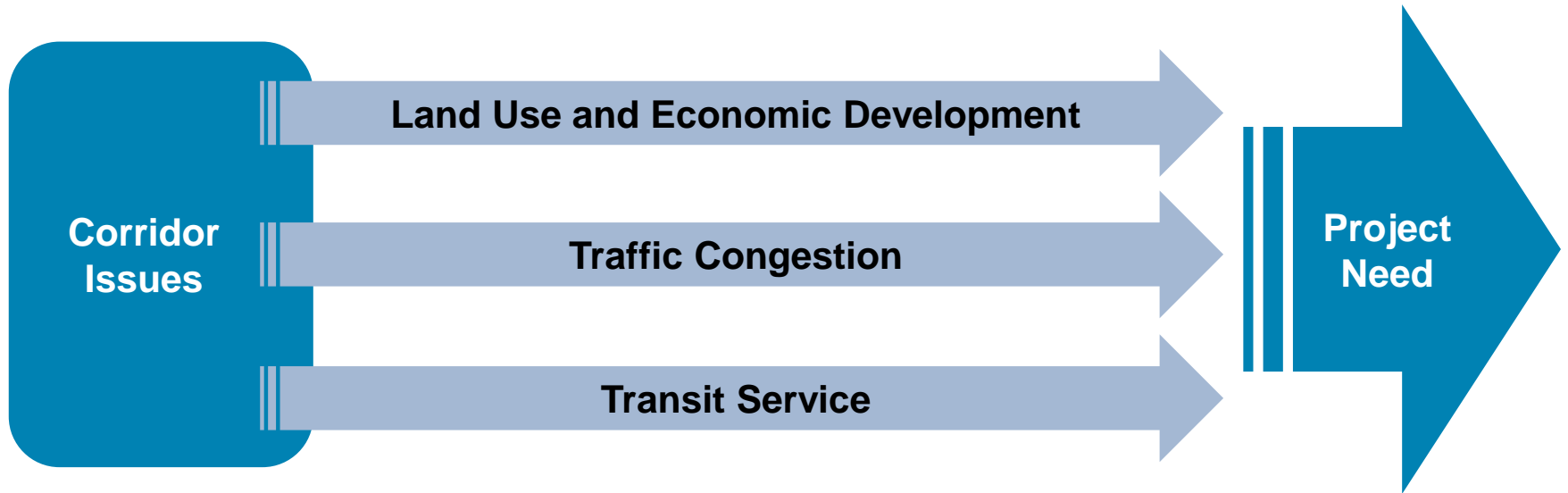
- Near-level boarding at stations
- Dedicated lanes majority of corridor
- Off-board fare collection
- Service specific branding and identity
- Substantial transit stations
- Potential to convert to streetcar in future

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



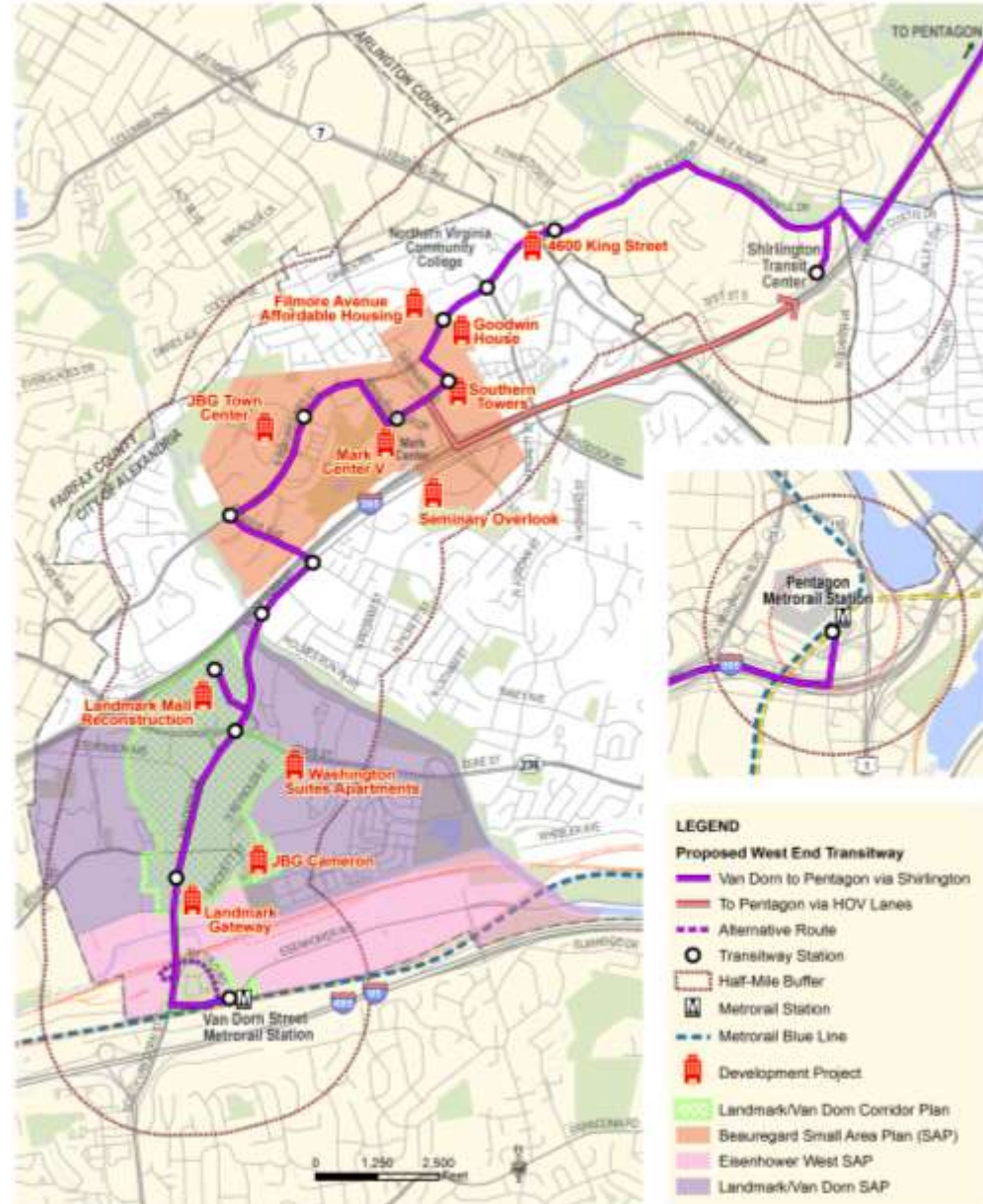
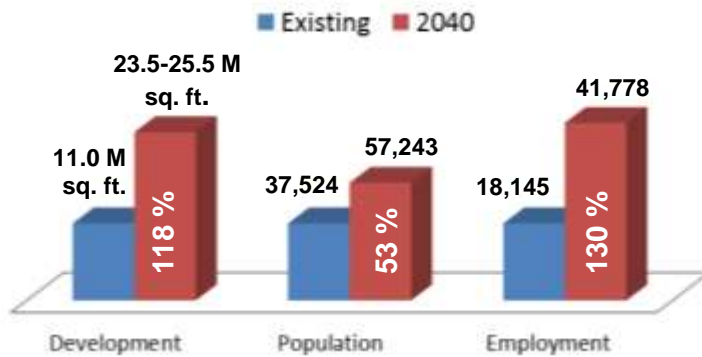
CONTEXT | Project Need



CONTEXT | Corridor Issues

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

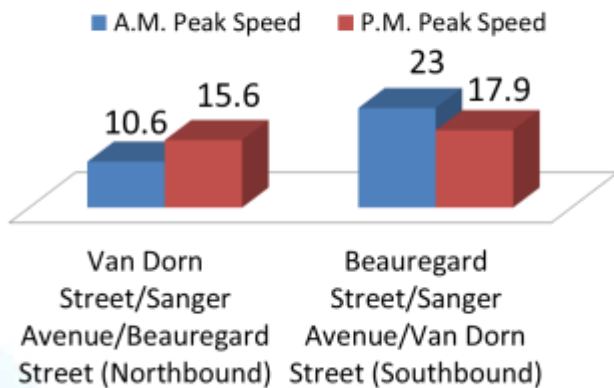


Traffic Congestion

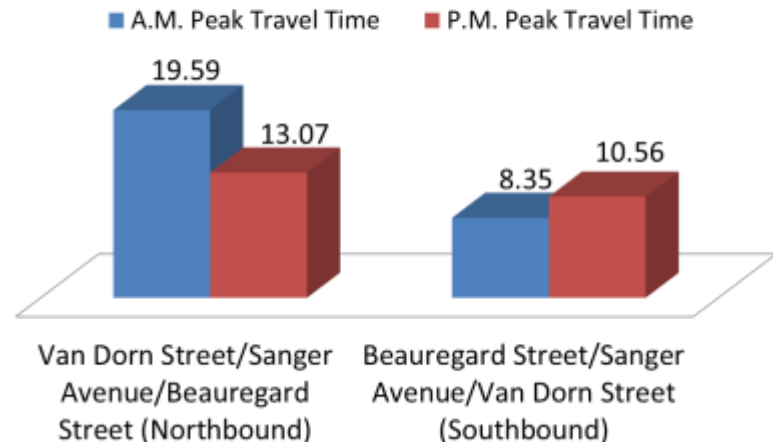
- Traffic congestion leads to delays and unpredictable travel times for motorists
- Peak hour traffic congestion leads to delays and reduced reliability for transit services
- **Without additional transportation investment, future higher density land uses will result in more traffic congestion**



Peak A.M. and P.M. Travel Speeds (in miles/hour)



Peak A.M. and P.M Travel Times (in Minutes.Seconds)

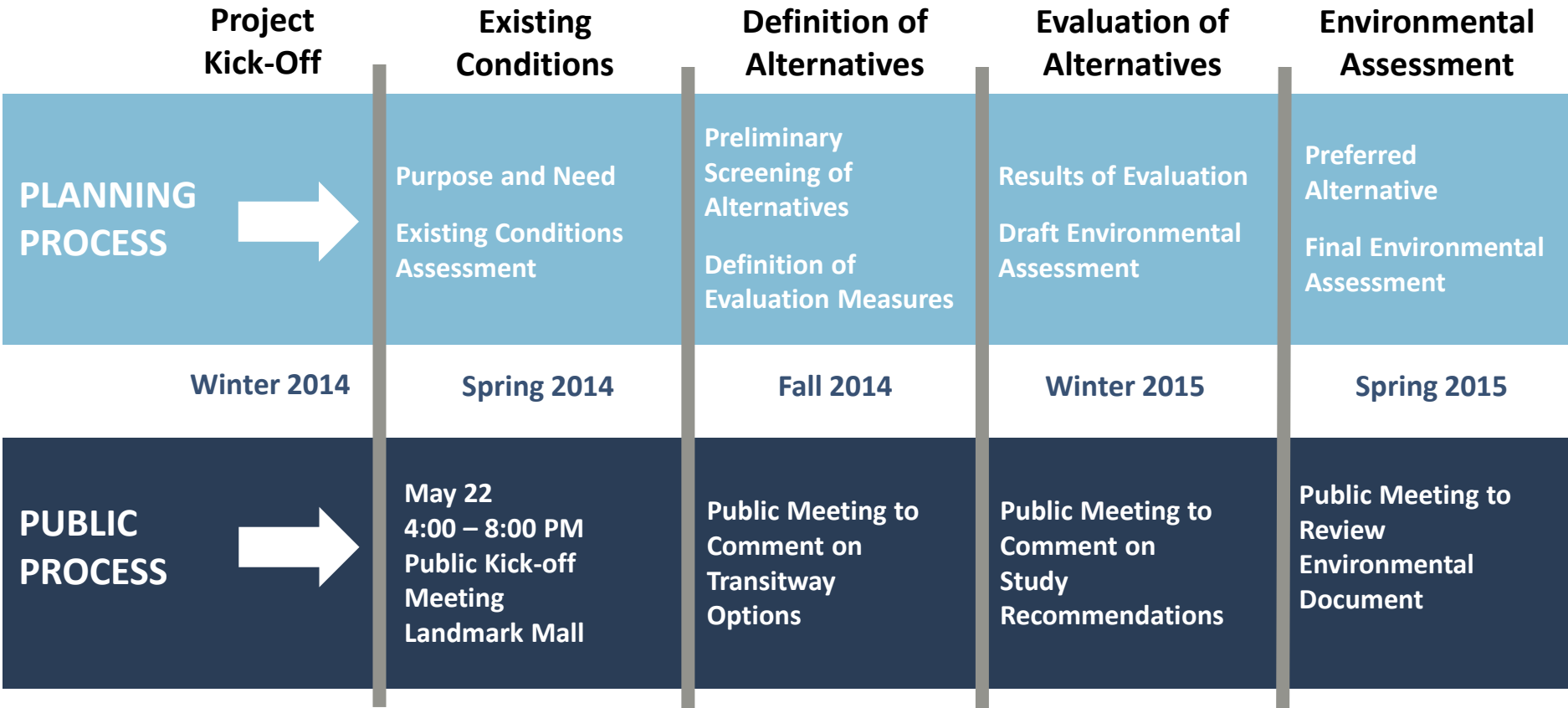


CURRENT PROJECT SCOPE OF WORK | Alternatives Analysis / Environmental Assessment (AA/EA)

- 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



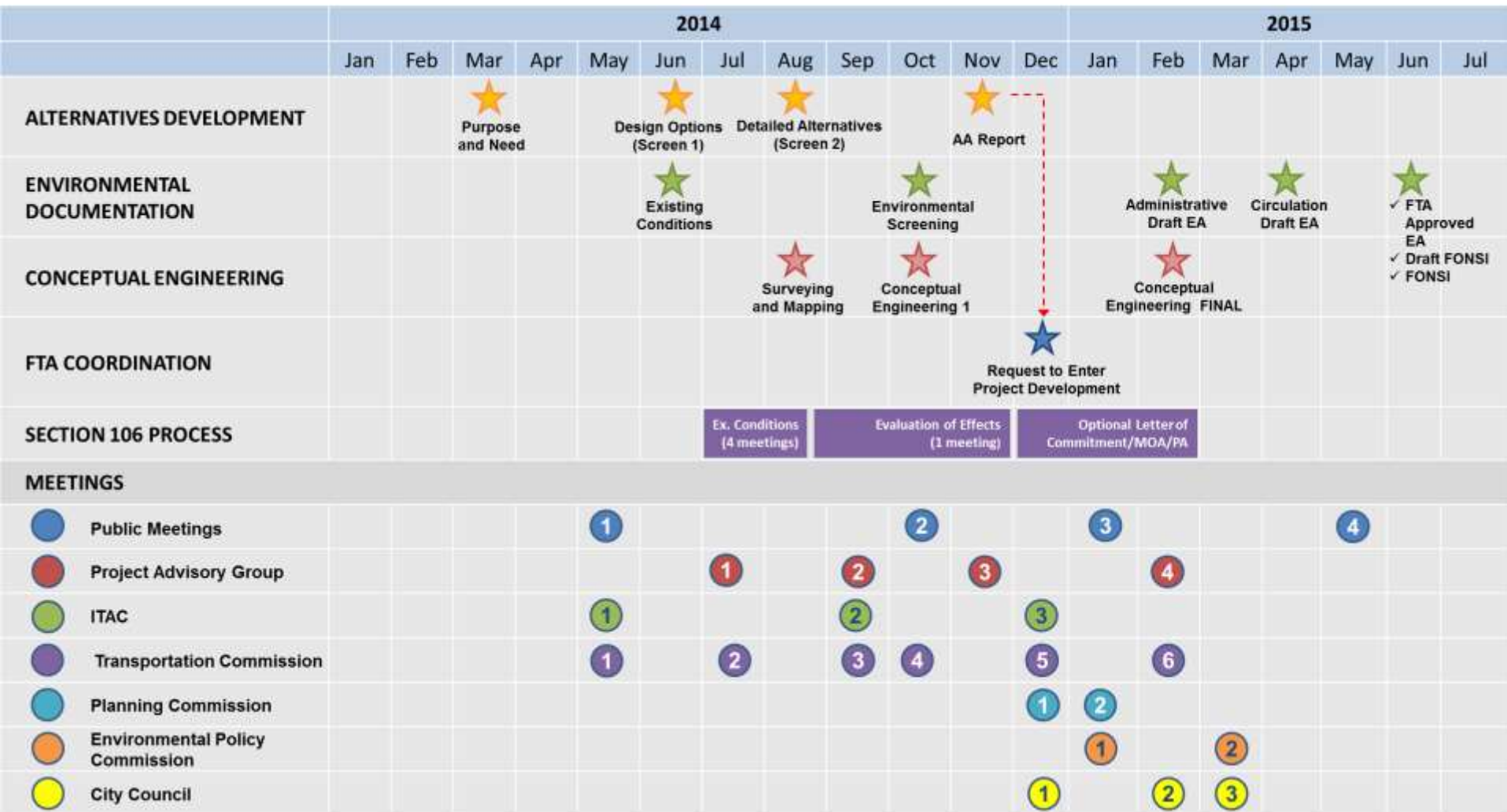
AA/EA | Timeline



18 Months



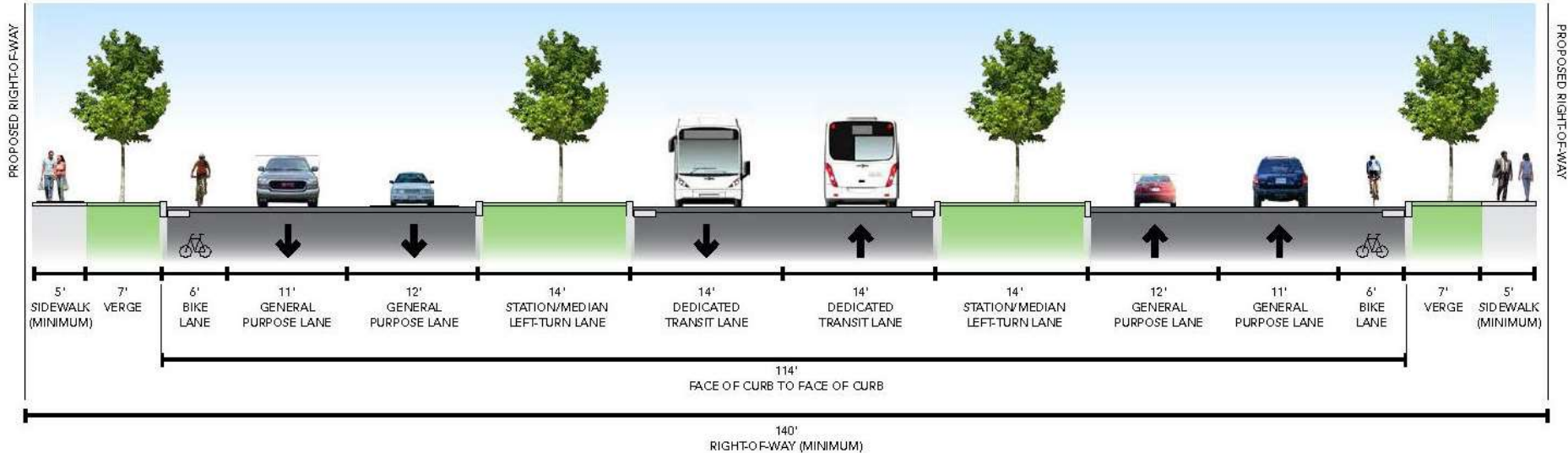
AA/EA| Detailed Technical Schedule



AA/EA | Alternatives

• Build Alternative

- Increased bus system frequency and capacity
- Dedicated transit lanes along significant portions of corridor



• Transportation Systems Management (TSM) Alternative

- System changes to improve speed and reliability
- No major capital investment like dedicated lanes

• No Build Alternative

- Existing and planned transportation network

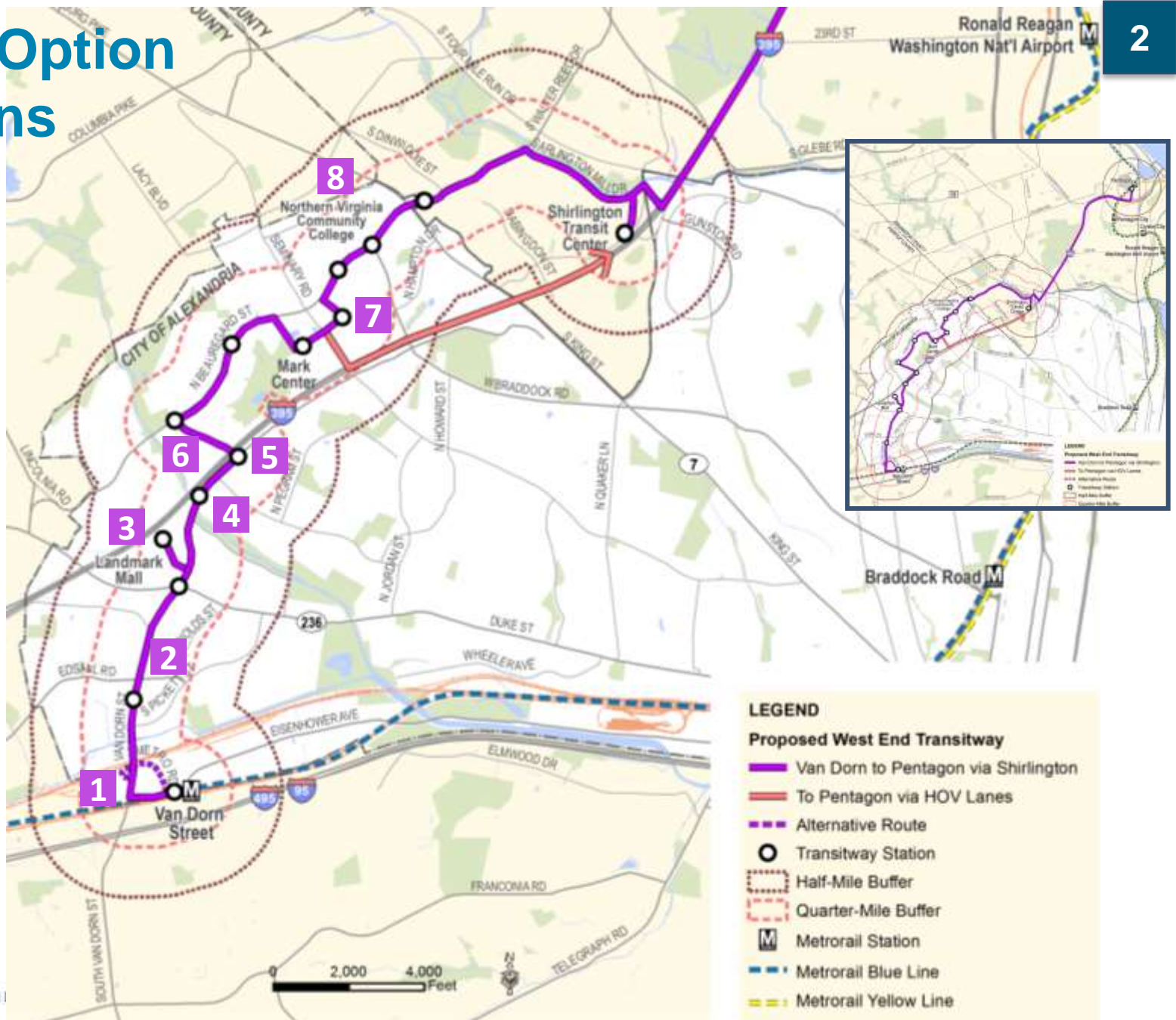


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DESIGN OPTIONS



Design Option Locations



Design Options Summary

Design Option	Recommendation
1. Van Dorn Metro Station	Additional technical analysis as part of the AA/EA Process
2. S. Van Dorn (Courtney Ave to Landmark Mall)	Additional technical analysis to provide Complete Street while minimizing property acquisition
3. Landmark Mall	Provide service into the mall
4. Holmes Run	Additional technical analysis as part of the AA/EA Process
5. Intersection of N. Van Dorn & Sanger Ave.	Additional technical analysis as part of the AA/EA Process
6. Sanger Ave. from N. Van Dorn to Beauregard	Additional technical analysis as part of the AA/EA Process
7. Southern Towers	Operate along existing routing until construction of transitway
8. NVCC Station	Two stations: Beauregard @ Fillmore and Beauregard @ W. Braddock



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



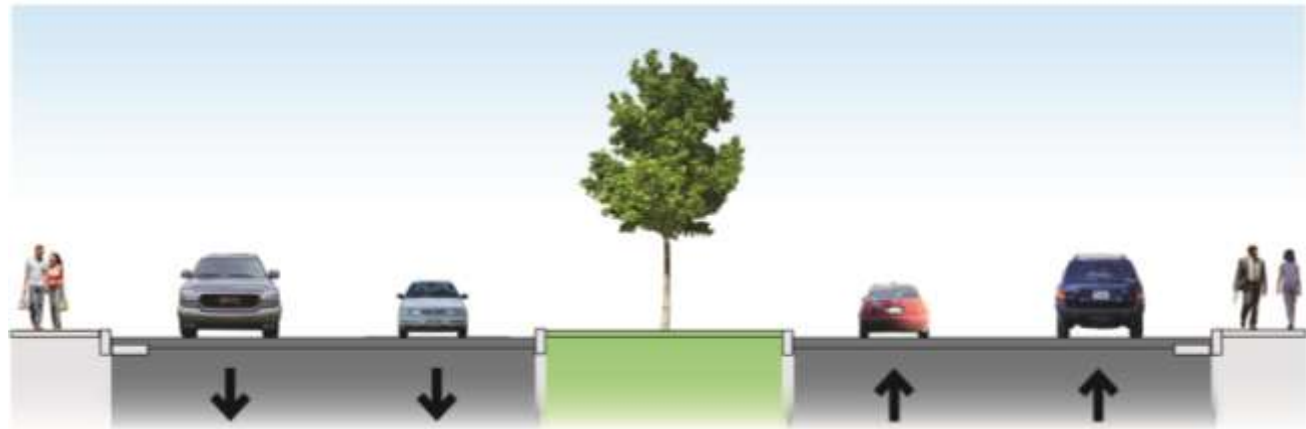
Design Option – Map Reference #2

- *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

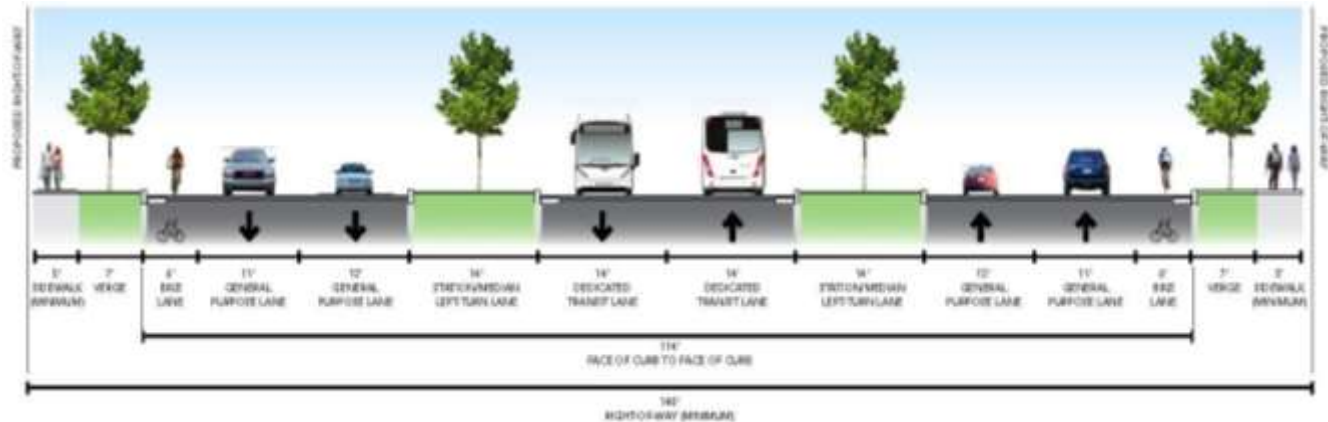


Design Option – Map Reference #2

- 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



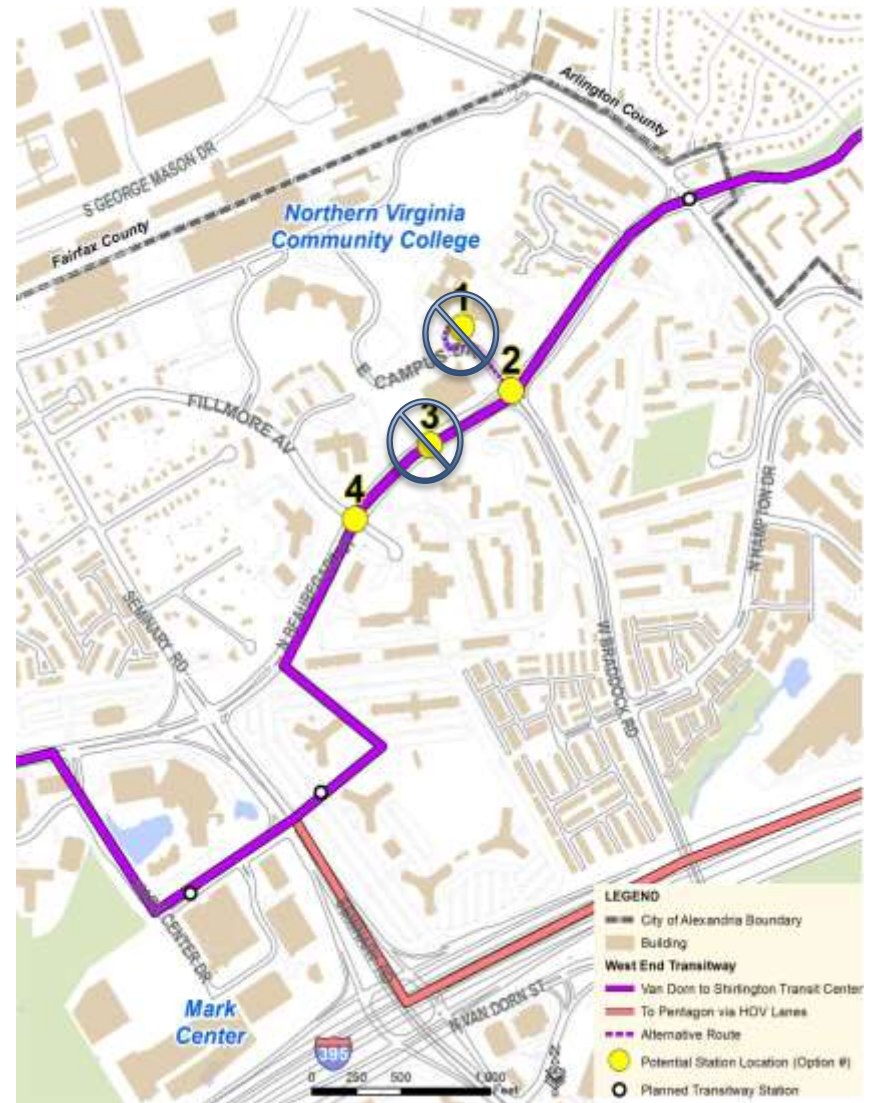
Design Option – Map Reference #7

- *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.

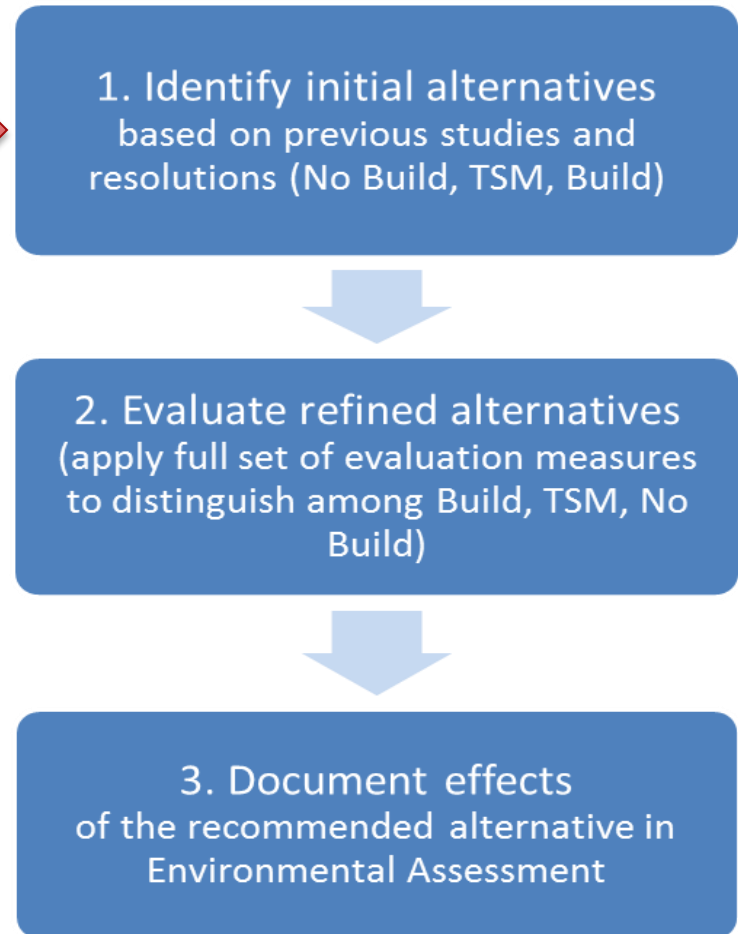


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EVALUATION MEASURES

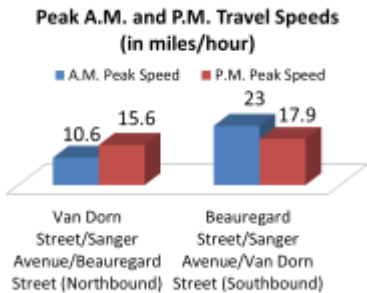


- Evaluation measures needed to determine performance of alternatives
- Performance of alternatives will determine Locally Preferred Alternative
- Effects of Locally Preferred Alternative will be documented in the Environmental Assessment





- **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



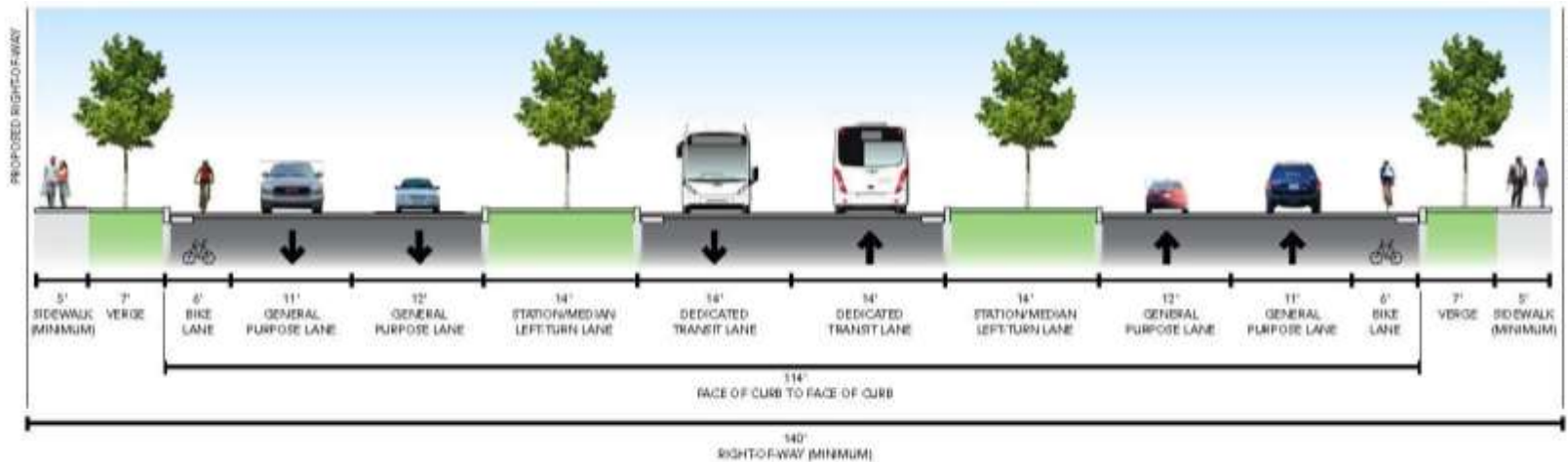


- **Traffic Operations**

- Intersection LOS/Delay
- Intersection Queuing
- Vehicular Travel Time

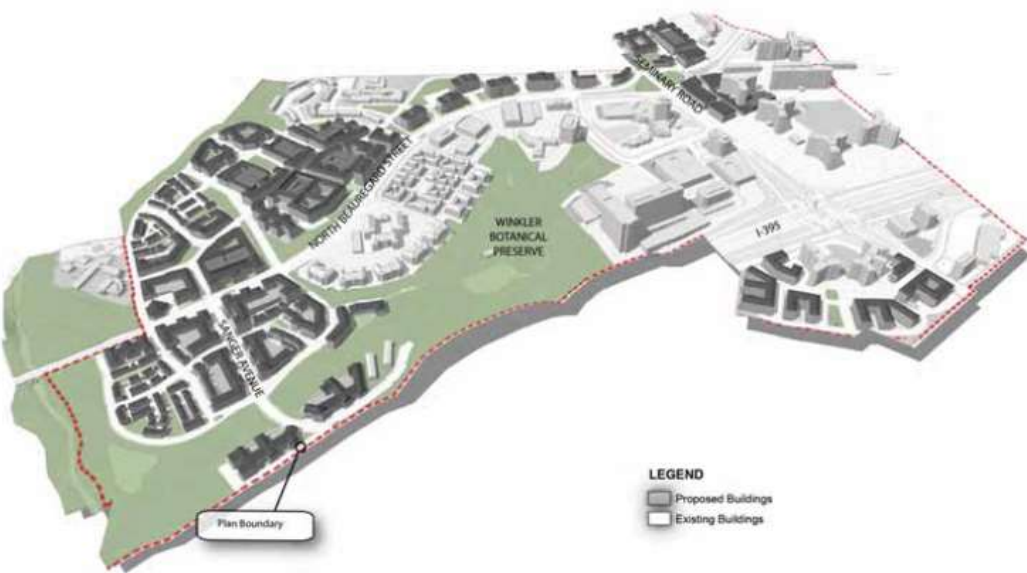
- **Bicycles and Pedestrians**

- Miles of sidewalk improvements along Proposed Alignment
- Miles of Bicycle Facility along Proposed Alignment



LAND USE

- **Development**
 - Transportation Infrastructure and Capacity Supports Planned Development Projects



FINANCIAL

- **Capital Cost**
 - Capital Cost/Rider
- **Operating Cost**
 - Passengers/Revenue Hour
 - Subsidy/Passenger
- **Funding Eligibility**
 - Available Funding Programs

- **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
 - Locally Preferred Alternative selected by City Council
 - Transit Technology
 - Alignment
 - Configuration
 - Project Cost Estimate
- Project Finance Strategy
- Approved Environmental Document
 - 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>

