VTCA/NOVA District Dialogue
I-66 Outside the Beltway

Susan Shaw, P.E., Northern Virginia Megaprojects Director
Virginia Department of Transportation

December 12, 2018
Project Overview

- Multimodal improvements to 22.5 miles of I-66
- 2 express lanes in each direction from I-495 to Gainesville
- 3 general purpose lanes in each direction
- HOV and transit access to express lanes
- Median space reserved for future transit
- Improved park and ride options with access to express lanes
- Bike-pedestrian trail integrated with existing and planned trails
Economic Benefits

Construction
- Over $600 million for Disadvantaged Business Enterprises (DBE) and Small, Woman, and Minority (SWAM) owned businesses
- 75% of new project hires: local, veterans.
- FAM Construction LLC, certified as a Virginia Values Veterans (V3) Certified Business.

Operational – Reduced Hours of Congestion

<table>
<thead>
<tr>
<th></th>
<th>2014 Existing</th>
<th>2040 No-Build</th>
<th>2040 Build</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014 Existing</td>
<td>10, 42%</td>
<td>9, 37%</td>
<td>5, 21%</td>
</tr>
<tr>
<td>2040 No-Build</td>
<td>15, 63%</td>
<td>7, 29%</td>
<td>2, 8%</td>
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<tr>
<td>2040 Build</td>
<td>2, 8%</td>
<td>17, 71%</td>
<td>5, 21%</td>
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</table>
Economic Impact: By the Numbers
$2.3 B through December 2022

- 12 interchanges
- 63 bridges and overpasses
- 3.1 million tons of asphalt
- 57 million pounds of steel
- 300+ pieces of heavy equipment
- 2.2 million square feet of sound wall
- 2.3 million square feet of retaining wall
- 4,000 new park and ride spaces
- 18+ miles of new bike trail

2,000+ expected jobs needed to build
Project Roadmap

- **December 2017**: Early Construction Activity
- **Starting Spring 2018**: ROW Acquisition
- **Spring 2018**: Construction Ramp Up
- **Today**:
- **Early 2019**: Results of Noise, Environmental, and Traffic Analyses
- **Summer 2019**: Park and Ride Milestone (960 Spaces near Gainesville)
- **July 5-September 7, 2020**: WMATA Planned Orange Line Shutdown
- **Summer 2020**: Route 28 Signalization (Begin Phased Removal of 4 Traffic Signals from Route 28)
- **December 2022**: Express Lanes Open

- **November 2017**: Design Public Hearings
- **Today**:
- **Spring 2018**: Construction Ramp Up
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Technology Innovation: 3D Design
Example: Gallows Bridge Model
Alternative Technical Concepts:
Example: Nutley Interchange
“Dog Bone” Design Alternative vs. Diverging Diamond

- Improves traffic flow
- Eliminates traffic signals
- Improves pedestrian facilities
- Reduces impacts
- Reduces interchange footprint
- Adds Express Lanes Access
Construction Oversight Tools

Scope
• Pilot study with Research Council
• Used on all project types and locations

Benefits
• Access to electronic project documents
• Improved field efficiencies
• As-built processes
• Reporting capabilities
Route 28 Park Access Road
Current and Upcoming Construction Activities

- **Currently:**
  - Building box culverts for shared use path in the southwest quadrant of Chain Bridge Road Interchange
  - Excavating and building of retaining walls along I-66 near Jermantown Road
  - Continued clearing and grubbing, erosion and sediment control, drainage, utility work
- **Upcoming work to build the new ramp from I-66 East to Route 123 South**
- **The new ramp from I-66 East to Route 123 South is estimated to be open by April 2019**
New traffic patterns introduced from I-66 WB and I-66 EB to Rt. 123 NB and SB.

Demolition of old ramps.

Finalize work on bridge abutments for the new Chain Bridge Road (Route 123) Overpass. No traffic impact.
**Current Activities**

- Clearing and grubbing along the corridor
- Bridge foundations and abutments at I-495 and Route 28 Interchanges
- Box culverts within the Chain Bridge Road Interchange for future Shared Use Path
- Excavation for future E. C. Lawrence Park access road
- Utility relocation at Poplar Tree Road
- Excavation at future Gainesville/University Blvd park and ride lot

**Upcoming Activities**

- Temporary concrete for Chain Bridge Road Ramp detours
- Post and panel retaining walls at Jermantown Road
- Noise wall removal near Jermantown Road
- Clearing at future Manassas/Balls Ford Road park and ride lot
Upcoming Contracting Opportunities with FAM Construction

Professional Services

- Asbestos and Lead Based Paint Abatement Services

Material Supply

- Light backfill - Light Aggregates Supply
- Bearing Assemblies
- Expansion Joints
- Signs
- H-Piles Supply
- Quicklime for Soil Stabilization
- Formwork and Falsework Rental
- Shoring for excavation
- Aggregate Processing Equipment

Subcontractors

- Soil Stabilization
- MSE Wall Installation
- Soldier Piles & lagging Installation (3rd package)
- Drilled Shafts Installation
- Sound Walls Installation
- Pavement Removal
- Soil Stabilization with Lime & Cement
- Drilling and Blasting
- Drainage Installation (1st package)
- Micropiles Installation
- Bridge Construction
- Earth work and grading operation
- Cast in-place Box Culvert
- Milling
- Bridge Pile Install (3rd package)
- Steel girders installation (erectors)
- Concrete Barrier
- Guardrail
- Traffic Signal Relocation (2nd package)
- Gantries
DBE/SWAM
Goals and Progress

• Transform 66-Outside the Beltway Developer/Contractor (DC) project team is committed to engaging DBE and SWaM certified companies to help meet or exceed the project 15% DBE and 27% SWaM goals.

• As of December 7th, the project has awarded 39 DBE subcontracts and 43 SWaM subcontracts either directly or indirectly (first and second tier).

• Current project totals are:
  • DBE $96,874,319.17 (6.40% towards the 15% DBE goal of $227,265,118.05)
  • SWaM $30,899,261.55 (2.04% towards the 27% SWaM goal of 409,077,212.49)

• Questions? Contact Ninfa Etheridge, FAM Diversity Contract Compliance Manager at netheridge@fam66.us or dbeinfo@fam66.us.
Best Practices & Lessons Learned
Erosion and Sediment Control

• Implement internal Environmental Activity Review Program
  • Thorough constructability review and field review of erosion and sediment control (E&SC) plans are a critical step in the construction of E&SC measures as issues can be identified and planned for in advance rather than reacted to once encountered in the field

• Establish additional or redundant E&SC measures in critical/sensitive areas along the Project corridor

• Close internal coordination proven essential E&SC measures to function as designed
  • Due to project size and multiple contractors of different work features working in same areas simultaneously
  • Can reduce number of maintenance issues/cost and need for re-work

• Increased environmental awareness of all Project staff
  • All FAM Field Staff have VDOT E&SC contractor certification
  • All FAM Environmental Staff also have VDEQ E&SC inspector certification and VDEQ SWM inspector certification
Best Practices & Lessons Learned

Maintenance of Traffic

- VDOT Intermediate Work Zone training for all FAM Traffic Control staff (and EMP or VDOT Staff if requested)
  - This training is usually reserved only for supervisors
  - Give all field (and office) personnel greater awareness of things to look out for while working on the road

- Increased coordination between designers and field staff in planning long-term work zones
  - Helping to reduce the number of impact attenuators along the corridor

- Outreach to the traveling public
  - Increased safety service patrols as construction activities increase
495 EXPRESS LANES
NORTHERN EXTENSION
Virginia Department of Transportation
Project Goals

- Reduce congestion and improve roadway safety
- Provide additional travel choices
- Improve travel reliability
About the Study
Potential Express Lanes Access

Dulles Toll Road (VA Route 267) at I-495

<table>
<thead>
<tr>
<th>Existing Express Lane Access</th>
<th>New Express Lane Access To Be Studied</th>
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<tbody>
<tr>
<td>495 South to Rt. 267 West</td>
<td>Rt. 267 East to 495 North</td>
</tr>
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George Washington Memorial Parkway (GWMP) at I-495

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New Access Between Express Lanes and General Purpose Lanes
Traffic Study Area

- Yellow: Project Footprint
- Yellow + Blue: Traffic Ops Analysis Study Area
- 28 at-grade intersections and ramp terminals
- 10 interchanges
  - I-495 general purpose lanes & express lanes
  - Dulles Toll Road
- 30 directional segments of freeways, express lanes, and arterial segments
Conceptual Design Status

- Establishing the Limit of Disturbance to account for widened roadways, ramps, retaining walls, stormwater management, drainage, bike and pedestrian facilities and sound walls

- Developing bridge profiles and typicals:
  - Old Dominion Drive
  - I-495 Capital Beltway over Scott Run
  - Georgetown Pike
  - Live Oak Drive
  - George Washington Memorial Parkway
Conceptual Design: Dulles Toll Road

- I-495/Dulles Toll Road Interchange conceptual design in progress

**Note:** Ultimate configuration will not be precluded by Build Alternative
Conceptual Design Status: George Washington Memorial Parkway

- Direct connection Express Lanes ramps to and from the South
- Coordination with Maryland ongoing
Public Outreach

- Public Information Meeting Schedule

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<tr>
<td>Public Information Meeting</td>
<td>June 11, 2018</td>
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<tr>
<td>Public Information Meeting</td>
<td>March 2019</td>
</tr>
<tr>
<td>Location Public Hearing</td>
<td>Spring 2019</td>
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www.495NorthernExtension.org

- Key Stakeholder Groups
## Schedule

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<tr>
<th>Major Milestones</th>
<th>Dates</th>
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<tr>
<td>Public Information Meeting #1 – Cooper Middle School</td>
<td>June 11, 2018</td>
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<tr>
<td>Begin NEPA – Environmental Assessment</td>
<td>June 2018</td>
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<tr>
<td>Public Information Meeting #2 – Cooper Middle School</td>
<td>March 2019</td>
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<tr>
<td>Publish Draft Environmental Assessment</td>
<td>Spring 2019</td>
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<tr>
<td>Public Hearing</td>
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<td>NEPA Decision from Federal Highway Administration</td>
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