ROUTE 28 & DULLES TOLL ROAD/
DULLES GREENWAY STUDY

Welcome to the Virtual Public Meeting

July - August 2020
PRESENTATION OUTLINE

- Project Overview
- Existing Conditions
- Future Analysis
- Evaluation Criteria
- Project Development Process
- Improvement Alternatives
- Recommended Preferred Alternative
- Next Steps
PROJECT OVERVIEW

- Land development and traffic continues to grow in areas in and around the Route 28 corridor in both Fairfax and Loudoun counties

- The goal of this study is to:
  - Identify mitigation strategies to improve operations and safety at the interchange of Route 28 and Route 267 (Dulles Toll Road/Dulles Greenway)
  - Analyze changes in roadway conditions, evolving land development patterns, and projected traffic growth
  - Develop Implementation Plan to program future project efforts within the study area
PARTNERS

- Virginia Department of Transportation (VDOT)
- Metropolitan Washington Airports Authority (MWAA) – Operator of the Dulles Toll Road
- TRIP II - Operator of the Dulles Greenway
- Fairfax County
- Loudoun County
## Project Study Area

<table>
<thead>
<tr>
<th>Roadway</th>
<th>Limits</th>
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<tbody>
<tr>
<td>3-mile segment of Route 28</td>
<td>Frying Pan Road to S. Sterling Blvd</td>
</tr>
<tr>
<td>2.5-mile segment of Route 267 (Dulles Toll Road and Dulles Greenway)</td>
<td>Centreville Road/Elden Street to Dulles Greenway Toll Plaza</td>
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<tr>
<td>2-mile segment of Dulles International Airport Access Highway</td>
<td>Centreville Road/Elden Street to Rudder Road</td>
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</table>
EXISTING CONDITIONS
EXISTING CONDITIONS - AM PEAK HOUR TRAFFIC OPERATIONS CHALLENGES

1. **AM Peak**: Southbound Route 28 to Eastbound Dulles Toll Road

2. **AM Peak**: Eastbound Dulles Toll Road between Route 28 and Centreville Road
**EXISTING CONDITIONS - PM PEAK HOUR TRAFFIC OPERATIONS CHALLENGES**

1. **PM Peak**: Northbound Route 28 north of Dulles Toll Road

2. **PM Peak**: Westbound Dulles Toll Road east of Route 28 to northbound Route 28, spillback to Centreville Road
10 High Crash Locations Identified

- Route 28 (4)
  - Closely spaced interchanges
  - Weaves between ramps
  - Congestion
- Route 267 (4)
  - Slip lanes to/from Dulles International Airport Access Highway
  - Congestion
- Dulles International Airport Access Highway (2)
  - Weaves between ramps
  - Slip lanes to/from Dulles Toll Road
ANALYSIS OF FUTURE CONDITIONS

- Forecasting and analysis assumes future travel patterns
  - Approved development
  - Programmed/Funded Transportation Projects
- 2025 and 2045 Design Years

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EVALUATION CRITERIA

- Safety – Address crash hot spots and geometric challenges
- Operations – Address known congestion areas
- Implementation – Constructability and potential impacts
- Cost (Relative)
1. **Sketch-level Concepts**

2. **Conceptual Layouts**
   - Evaluation

3. **Revised Preferred Alternative**
   - Evaluation

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**Alternatives Development - Project Development Process**

1. **Current Study**
   - Roadway Mainline
   - Interchanges
   - Policy

2. **Design Study**
   - Geometric Safety
   - Operations
   - Tolling and HOV

3. **3 Concept Alternatives**
   - Partner Input
   - Evaluation Criteria

   - Preferred Alternative
   - Revised Preferred Alternative

   - Short Term Improvement Design Plans
   - Implementation Plan
   - Mid and Long Term Improvement Design Plans
ALTERNATIVES DEVELOPMENT APPROACH

- Develop “packages” of interchange improvements for evaluation with criteria
- Create differences at locations to test performance
- Each alternative has a unique strategy to address challenges
SUMMARY OF ALTERNATIVES

Alternative 1: Maximizing Existing Infrastructure

- Influence travel patterns/capacity through policy changes
- Minimize impacts

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SUMMARY OF ALTERNATIVES

Alternative 1: Maximizing Existing Infrastructure

- Influence travel patterns/capacity through policy changes
- Minimize impacts

Example: Alternative 1 at Route 606/Route 28

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Summary of Alternatives

Alternative 2: Addressing Critical Needs

- Southbound Route 28 to Eastbound Dulles Toll Road and the Westbound Dulles Toll Road to Northbound Route 28 movements
- Route 28 weaving movements
  - Between Dulles Toll Road and Innovation Avenue
  - Within the Route 606 interchange
- Eastbound Dulles Toll Road congestion
- Frying Pan Road/Route 28 interchange safety
- Dulles Toll Road weaves between Centreville Road and Dulles Airport
SUMMARY OF ALTERNATIVES

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Summary of Alternatives

Alternative 3: Considering Unconstrained Infrastructure

- Address all safety, all operational, and nearly all geometric challenges

- Adds more roadway connectivity and capacity

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SUMMARY OF ALTERNATIVES

Alternative 3: Considering Unconstrained Infrastructure

- Address all safety, all operational, and nearly all geometric challenges
- Adds more roadway connectivity and capacity

Example: Alternative 3 at Route 28 and Pacific Boulevard

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Alternative 3-Option B: Considering Unconstrained Infrastructure

- Similar to Alternative 3

- Only exception is connection from Innovation Avenue to Centreville Road
  - Changed to westbound only from Centreville Road to the future Davis Drive bridge
  - New connection from Dulles Corner Drive to the northbound Route 28 ramp to Route 267
SUMMARY OF ALTERNATIVES

Alternative 3-Option B: Considering Unconstrained Infrastructure

- Similar to Alternative 3

- Only exception is connection from Innovation Avenue to Centreville Road
  - Changed to westbound only from Centreville Road to the future Davis Drive bridge
  - New connection from Dulles Corner Drive to the northbound Route 28 ramp to Route 267

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RECOMMENDED PREFERRED ALTERNATIVE
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PLEASE SEE THE SUMMARY MATRIX FOR A COMPARISON OF ALTERNATIVES BY INTERCHANGE AREA

NOTE: NO PROPOSED IMPROVEMENTS TO STERLING BLVD INTERCHANGE

LEGEND

- PARCEL/PROPERTY/VDOT EASEMENT LINE
- LOUDOUN COUNTY/FAIRFAX COUNTY LINE
- PROJECT UNDER CONSTRUCTION
- PLANNED ROADWAY/PATH (CLRP OR DEVELOPER COMMITTED)
- (X) PROPOSED IMPROVEMENT - REFER TO TABLE 1
- PROPOSED TRAVEL LANE & FLOW DIRECTION
- PROPOSED PEDESTRIAN FACILITY
- PROPOSED STRUCTURES
- EXISTING STRUCTURES
- RAMP TO BE CLOSED
- NEW ELECTRONIC TOLLING LOCATION
- PROPOSED TRAFFIC SIGNAL (BY PROJECT)
- EXISTING TRAFFIC SIGNAL
- PLANNED/FUTURE TRAFFIC SIGNAL (BY OTHERS)
- APPROXIMATE PROPOSED RIGHT-OF-WAY LINE

ADDITIONAL POLICIES INCLUDED IN RECOMMENDED PREFERRED ALTERNATIVE

- ADD DISTANCE-BASED TOLLING ON THE DULLES GREENWAY
- INCREASE PEAK PERIOD TOLLING IN PEAK DIRECTION ONLY ON DULLES TOLL ROAD
- ADD TECHNOLOGY, CAMERAS, AND DYNAMIC MESSAGE SIGNS FOR TRAFFIC MONITORING/ MANAGEMENT
Recommended Preferred Alternative: Policy

ADDITIONAL POLICIES INCLUDED IN RECOMMENDED PREFERRED ALTERNATIVE

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- ADD TECHNOLOGY, CAMERAS, AND DYNAMIC MESSAGE SIGNS FOR TRAFFIC MONITORING/ MANAGEMENT
Recommended Preferred Alternative: Route 606/Route 28 Interchange Area
Recommended Preferred Alternative: Innovation Avenue/Route 28 Interchange Area
Recommended Preferred Alternative: Route 28/Route 267 Interchange Area
Recommended Preferred Alternative: Frying Pan Road/Route 28 Interchange Area
Recommended Preferred Alternative: Centreville Road/Dulles Toll Road Interchange Area
Recommended Preferred Alternative: Route 267 Mainline
BENEFITS OF RECOMMENDED PREFERRED ALTERNATIVE

- **Addresses critical movements and reduces travel time:**
  - Southbound Route 28 to eastbound Dulles Toll Road
  - Westbound Dulles Toll Road to northbound Route 28/Innovation Avenue

- **Removes weaves at critical areas:**
  - Southbound Route 28 between on-ramp from Dulles Greenway/ Dulles Toll Road and off-ramps to Dulles Airport and eastbound Dulles Toll Road
  - Eastbound Dulles International Airport Access Highway between Route 28 ramps
  - Northbound Route 28 between on-ramp from westbound Dulles Toll Road and off-ramp to Innovation Avenue
  - Route 28 and Route 606 cloverleaf interchange (4 weaves)
**NEXT STEPS**

- **Public Engagement through August 3rd**
  - Provide input on the Recommended Preferred Alternative at [www.Route28DTRGreenwayStudy.org](http://www.Route28DTRGreenwayStudy.org)
  - Submit comments to VDOT Project Manager: Abi Lerner, P.E.
    
    Email: meetingcomments@vdot.virginia.gov

    Please reference the Route 28 DTR Greenway Study in the subject line.

- **Develop Implementation Plan for Programming Improvements**

- **Future Public Input Opportunities**
Thank you!

ROUTE 28 AND DULLES TOLL ROAD/DULLES GREENWAY STUDY

Thank you!