

# Route 1 Corridor At Marine Corps Base Quantico Planning/Preliminary Engineering Study

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## Project Update

October 2012



U.S. Department of Transportation  
Federal Highway Administration

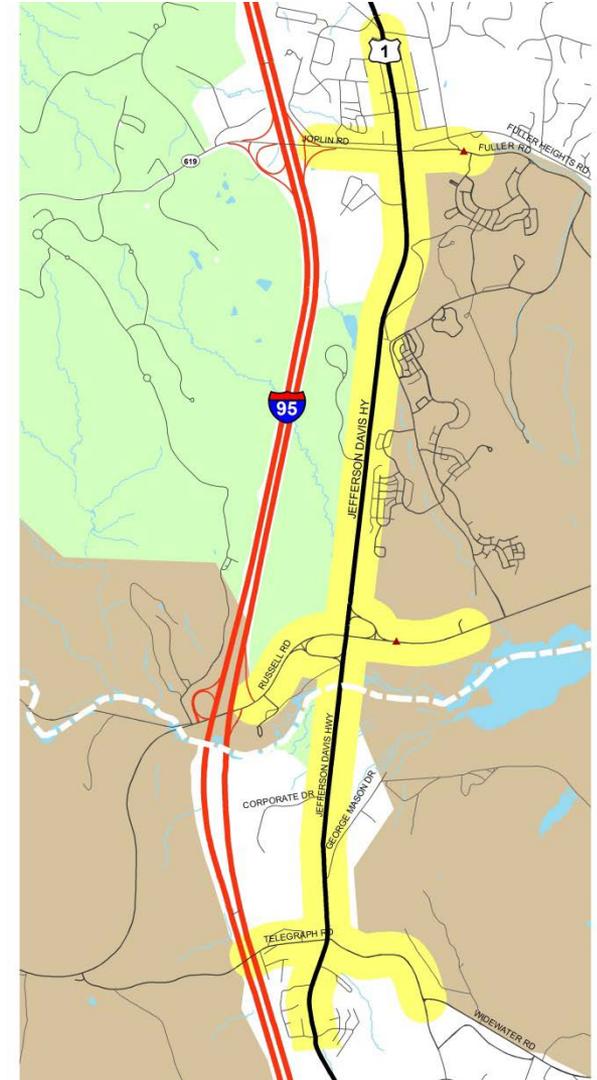


# Agenda

- Project Overview & Objectives
- Project Progress to Date
- Conceptual Plan Overview
  - Route 1
  - Route 1 / Russell Road Interchange
- Remaining Project Schedule

# Project Overview

- Needs assessment for Route 1 corridor from Joplin Road/Fuller Road through Telegraph Road
- Transportation and environmental feasibility study
- Preparation of “preferred” concept design for Route 1
- Foundation for future National Environmental Policy Act (NEPA) document



# Objectives

- Support adopted local and regional plans by improving the Route 1 corridor
- Efficiently facilitate the movement of peak hour traffic flows to, from, and along Route 1
- Reduce peak hour traffic congestion and its effects on adjacent facilities by making improvements at key locations
- Improve safety along Route 1 and intersecting roadways
- Accommodate future travel demand
- Support national defense and national capital mobility needs in the Route 1 corridor

# Project Progress

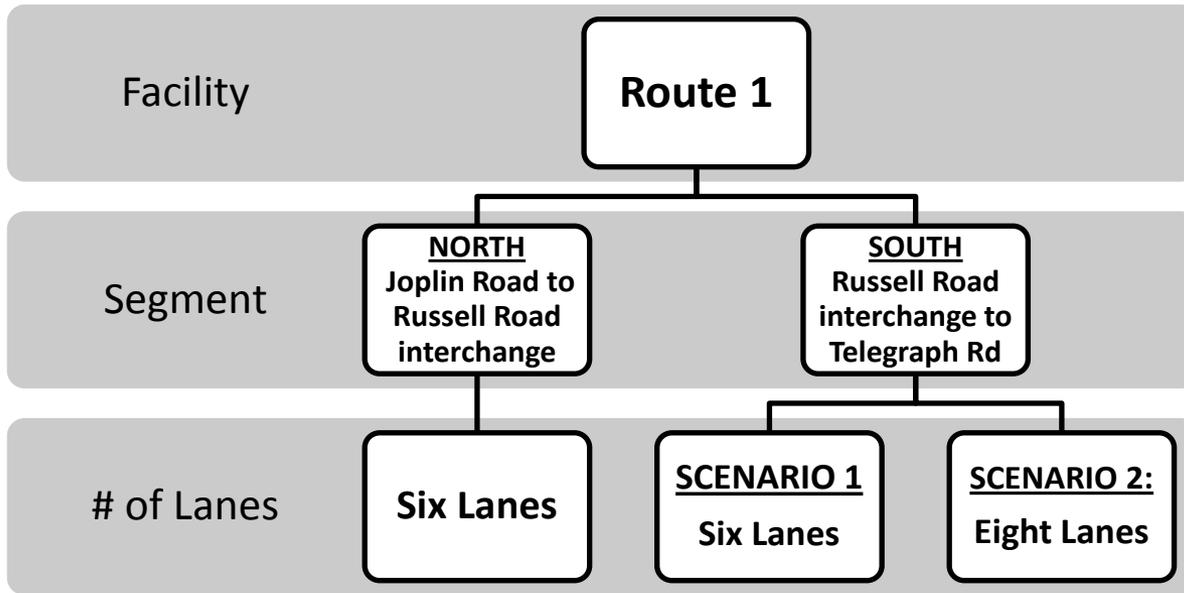
- **Transportation Analysis**
  - Completed existing conditions analysis
  - Completed interim (2018) & future (2040) volume forecasting process
  - Began preliminary build concept screening and analysis
  - Began concept design plans for Route 1 and Russell Road interchange
- **Environmental Analysis**
  - Completed existing conditions analysis
  - Completed preliminary resource impact analysis
  - Completed wetland delineation for study area
- **Outreach**
  - Conducted multiple coordination meetings with agency participants
  - First public meeting was held in May 2012

# Public Input Summary

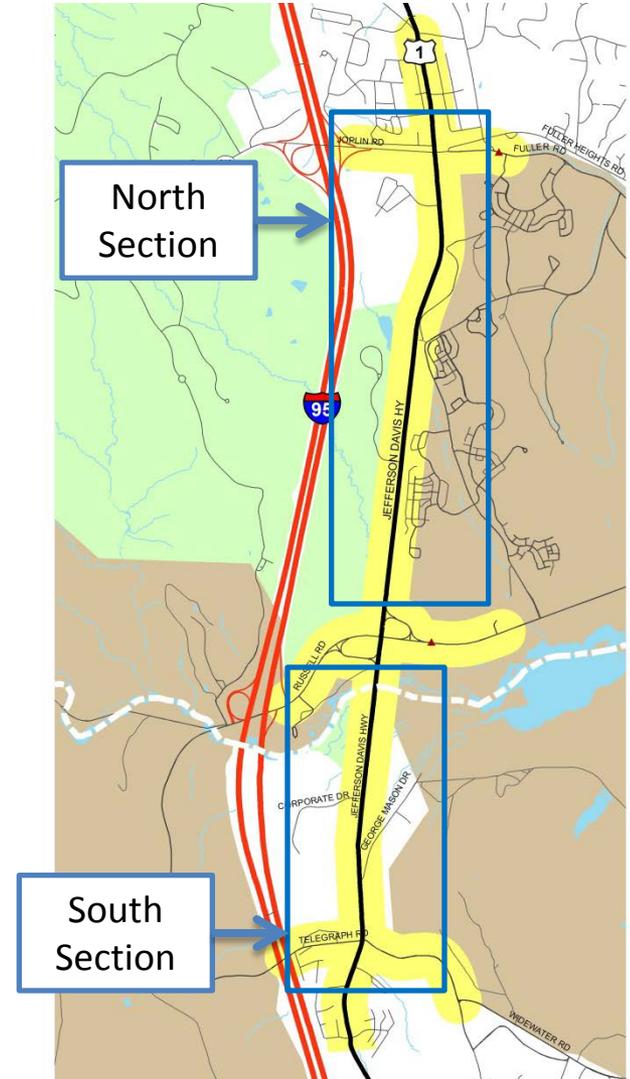
- Public comments were received during the public meeting and through mail and email.
- Main topics of public comment included:
  - Congestion associated with access to MCBQ at Fuller and Russell Roads
  - Congestion associated with the use of Route 1 as an alternative to I-95
  - Need for safe bicycle and pedestrian facilities in the corridor
  - Effect of widening on businesses and residences along Route 1
  - Role of private developers in funding roadway improvements
  - How this portion of Route 1 will connect with the adjacent portions north and south of the study area



# Route 1 Concepts



- Forecasted traffic volumes expected to be higher in south section due to projected growth at areas such as Quantico Corporate Center, Boswell's Corner, and MCBQ
- Widening alignment options considered for each segment and scenario to limit potential right-of-way and environmental impacts
- Concepts for the US Route 1 & Russell Road interchange developed



# Route 1 – Joplin/Fuller Road to Russell Road (North Section)

- Six lanes from Joplin Road/Fuller Road to Russell Road interchange
  - Sidewalks on one side, multiuse path on one side
  - Left- and right-turn lanes at intersections
  - Raised-curb median throughout section
- Widen to the east to avoid impacts to Locust Shade Park
- Signalized intersections operate at acceptable levels of service
  - US Route 1 & Joplin Road/Fuller Road
  - US Route 1 & Marine Corps Heritage Center Parkway (assumed, future)



# Route 1 – Russell Road to Telegraph Road (6-lanes) (South Section)

- Six Lanes from Russell Road interchange to Telegraph Road
  - Sidewalks on one side, multiuse path on one side
  - Left- and right-turn lanes at intersections
  - Raised-curb median throughout section
- Symmetric, east, or west widening
- Signalized intersections operate at overall acceptable levels of service (LOS D or better)
  - US Route 1 & Corporate Drive
  - US Route 1 & Corporate Center Access/George Mason Drive (assumed, future)
  - US Route 1 & Telegraph Road
- Preliminary analysis using forecast traffic volumes indicates that there may be some back-ups at intersections



# Route 1 – Russell Road to Telegraph Road (8-lanes) (South Section)

- Eight lanes from Russell Road interchange to Telegraph Road
  - Sidewalks on one side, multiuse path on one side
  - Left- and right-turn lanes at intersections
  - Raised-curb median throughout section
- Alternatives for widening
  - Symmetric widening
  - Maintain the west side right-of-way line and widen to the East
  - Maintain the east side right-of-way line and widen to the West
  - Potential combination of alignment options
- Signalized intersections operate at overall acceptable levels of service (LOS D or better)
  - US Route 1 & Corporate Drive
  - US Route 1 & Corporate Center Drive Extension/George Mason Drive (assumed, future)
  - US Route 1 & Telegraph Road



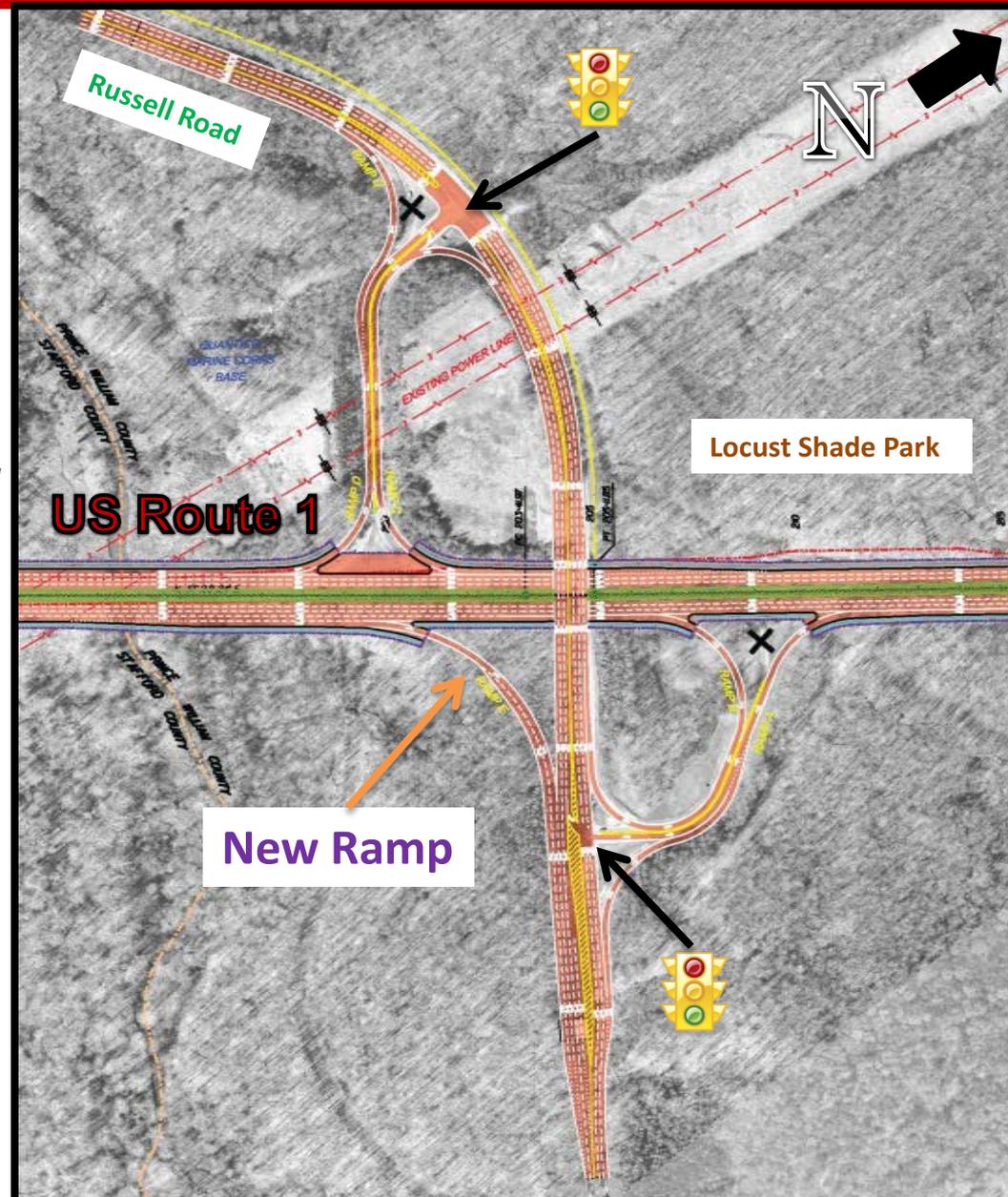
# Route 1 / Russell Road Interchange

- Re-design of the interchange considered
  - Existing operational deficiencies
  - Future projected traffic volume growth
  - Stakeholder and public comment
- Initial concepts (No-build and six build alternatives) were comparatively evaluated on:
  - Traffic operations
  - Relative construction and right-of-way costs
  - Potential environmental impacts
- Three concepts that scored the highest will be retained for further cost-benefit analysis



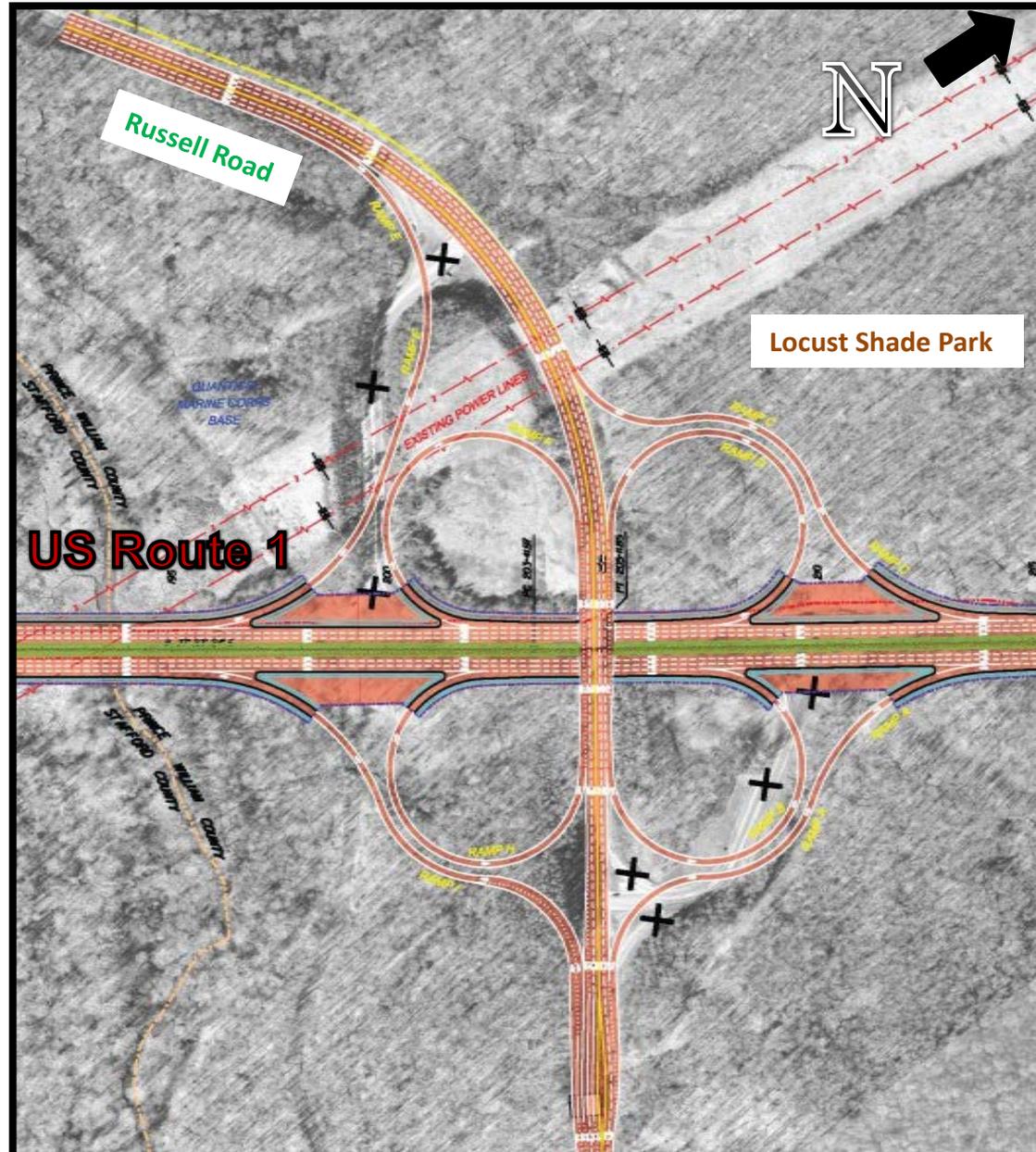
# Route 1 / Russell Road Interchange Concepts – Concept 1

- Features
  - Russell Road widened to 6 lanes
  - New ramp for NB Route 1 to eastbound Russell Road
  - Two signals on Russell Road, east and west of Route 1
  - Reconstruct existing ramps
- Potential Impacts
  - Wetlands and stream crossings
  - Archaeological



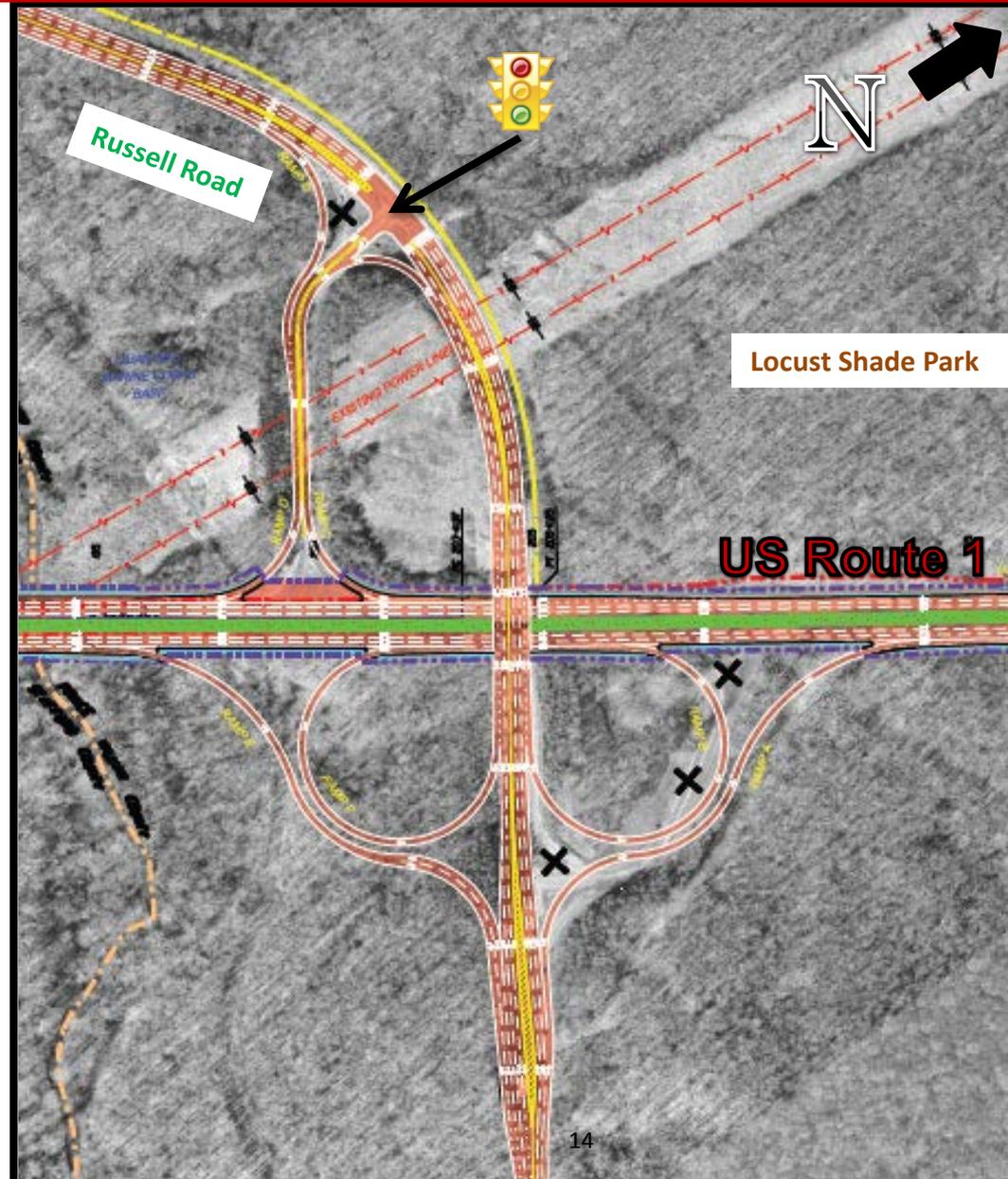
# Route 1 & Russell Road Interchange Concepts– Concept 2

- Features
  - Full Cloverleaf
  - Utilizes Existing Russell Road Centerline
  - No Signals or Left-Turns
  - Reconstruct existing ramps
- Potential Impacts
  - Locust Shade Park
  - Wetlands and stream crossings
  - Archaeological



# Route 1 & Russell Road Interchange Concepts– Concept 3

- Features
  - Merges Concepts A & E
  - One signalized intersection west of Route 1
  - Reconstruct existing ramps
- Potential Impacts
  - Wetlands and stream crossings
  - Archaeological



# Next Steps

- **Transportation**
  - “Build” concept analysis and refinement
  - Traffic and transportation technical report
- **Environmental**
  - Corridor-wide wetland delineation and natural/cultural resource analysis
  - Build concept screening and resource impact analysis
  - Environmental technical report
- **Planning and Preliminary Engineering Report**
  - Draft: November 2012
  - Final: December 2012