



Economic Benefits of the Governor's Transportation Program

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Economic Benefits of the Governor's Transportation Program

- This presentation will highlight 10 highway projects across the state and includes all construction districts. These projects received funding as a result of the Governor's Transportation Package approved last year.
- The direct quantitative economic impact of each of these projects will be highlighted.
- There are less quantifiable benefits of these projects that should be recognized as well, such as reduced travel time, improved movement of goods and services, increased economic development opportunities and crash reductions.

Sources of Information and Explanation of Terms

Need: Describes the problems that the project is designed to remedy. Based on asset condition assessments, measures of travel delay, accident statistics, or other indicators.

Scope: Describes the work to be performed as part of the project. Based on VDOT plans and design documents.

Economic benefits: Describes the expected cost savings or the expected value added once the project is complete. Based on traffic forecasts, traffic flow models, accident reduction factors, cost estimates, etc.

Short-term economic impact: Describes the project's economic "footprint" – on employment, income, and tax revenues – while it is in progress. Based on project cost. Not a measure of benefit.

Gross State Product: The measurement of the economic output of a state. It is the sum of all value added by industries within the state and serves as a counterpart to the Gross Domestic Product (GDP).

I64 / US15 Interchange Improvements Louisa County (UPC 86453)

Need:

- Traffic generated by new development at Zion's Crossroads experiences congestion delays at the interchange
- Existing structures (overpasses) have 25-30 years remaining service life

Scope:

- Construction of a “diverging diamond” interchange in place of the existing “diamond”
- Requires a fraction of the right-of-way necessary for a traditional “clover-leaf” interchange
- No impact on current structures carrying US15 over I64

I64 / US15 Interchange Improvements Louisa County (UPC 86453)



I64 / US15 Interchange Improvements Louisa County (UPC 86453)

Economic benefits: travel time savings, agency cost savings

- Greater throughput capacity than existing “diamond” interchange, especially for left turns from US15
- A fraction of the cost of a “cloverleaf” interchange
- Preserves remaining service life of existing structures
- Will accommodate current and future traffic growth

Short-term economic impact 2012-15:

- 22 jobs x 4 years, \$4.56 M personal income, \$6.07 M Gross State Product
- \$320 K state tax revenue, \$27 K local tax revenue

Active Traffic Management on I66 Fairfax County and Prince William County (UPC 98017)

Need:

- Peak traffic volumes on I66 last for 3-4 hours in the morning and 3-4 hours in the afternoon
- During peak periods an accident, or even a braking maneuver, can cause flow breakdowns (travel delays) and/or more accidents

Scope:

- Gantries equipped with changeable message signs, radar detectors, and CCTV cameras, at half-mile intervals
- Cameras and signs monitored and controlled from Traffic Operation Center (TOC)
- VA is third state, after WA and MN, to deploy ATM

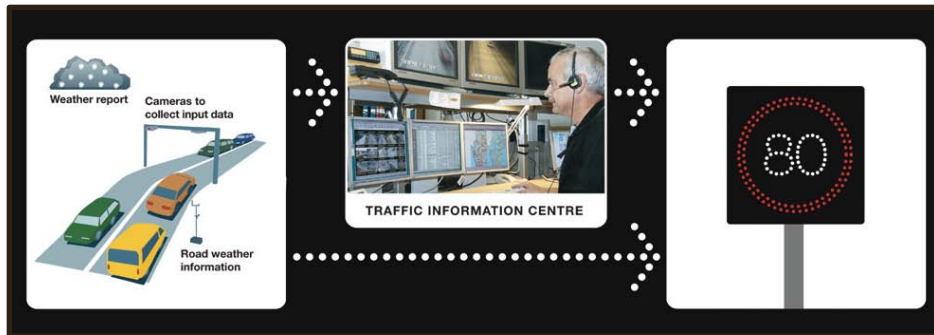
ATM Operating Strategies



Peak Operations
 (Speed Harmonization,
 Hard Shoulder Running,
 Queue Warning)



Capacity Reduction
 (Lane Closures, Speed Harmonization,
 Queue Warning)



Weather-Related
 (Speed Harmonization,
 Weather / Queue Warning,
 Lane Closures)



Managed Lanes
 (Part-Time HOV Lane, Hard Shoulder Running,
 Speed Harmonization, Queue Warning)

Active Traffic Management on I66 Fairfax County and Prince William County (UPC 98017)

Economic benefits: accident reduction, greater travel time predictability, possible travel time savings

- Enable Traffic Operation Center to detect and respond promptly to incidents by opening shoulder lanes and/or changing posted speed
- Higher vehicle density = higher throughput
- Fewer secondary congestion-related collisions
- Make maintenance activities safer, less disruptive

Short-term economic impact 2012-13:

- 21½ jobs x 2 years, \$2.85 M personal income, \$4.00 M Gross State Product
- \$245 K state tax revenue, \$29 K local tax revenue

I66 / US15 Interchange Reconstruction Prince William County (UPC 100566)

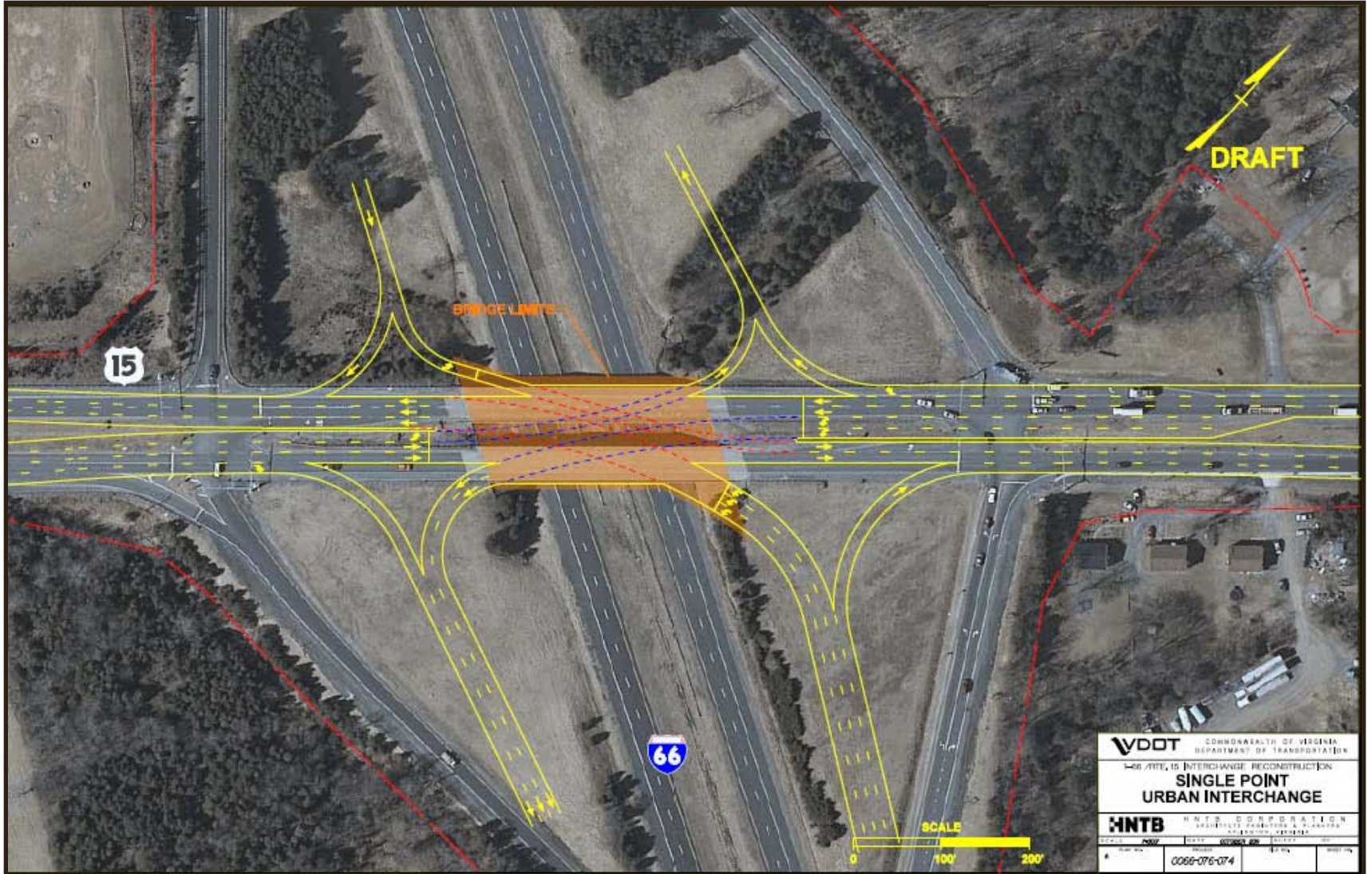
Need:

- Rural “compressed diamond” interchange is functionally obsolete – insufficient throughput capacity
- Severe congestion during peak hours in recent years often leads to hazardous travel conditions
- Stationary vehicle queues on exit ramps as far back as main travel lanes of I66

Scope:

- Reconstruction and reconfiguration of the existing interchange
- Still early in design stage

I66 / US15 Interchange Reconstruction Prince William County (UPC 100566)



I66 / US15 Interchange Reconstruction Prince William County (UPC 100566)

Economic benefits: travel time savings, accident reduction

- Better traffic flow, less queuing
- Increased motorist safety

Short-term economic impact 2012-15:

- 158 jobs x 4 years, \$34.1 M personal income, \$45.1 M Gross State Product
- \$2.40 M state tax revenue, \$202 K local tax revenue

I64 Widening / SR623 Interchange Improvements Goochland County (UPC 70542)

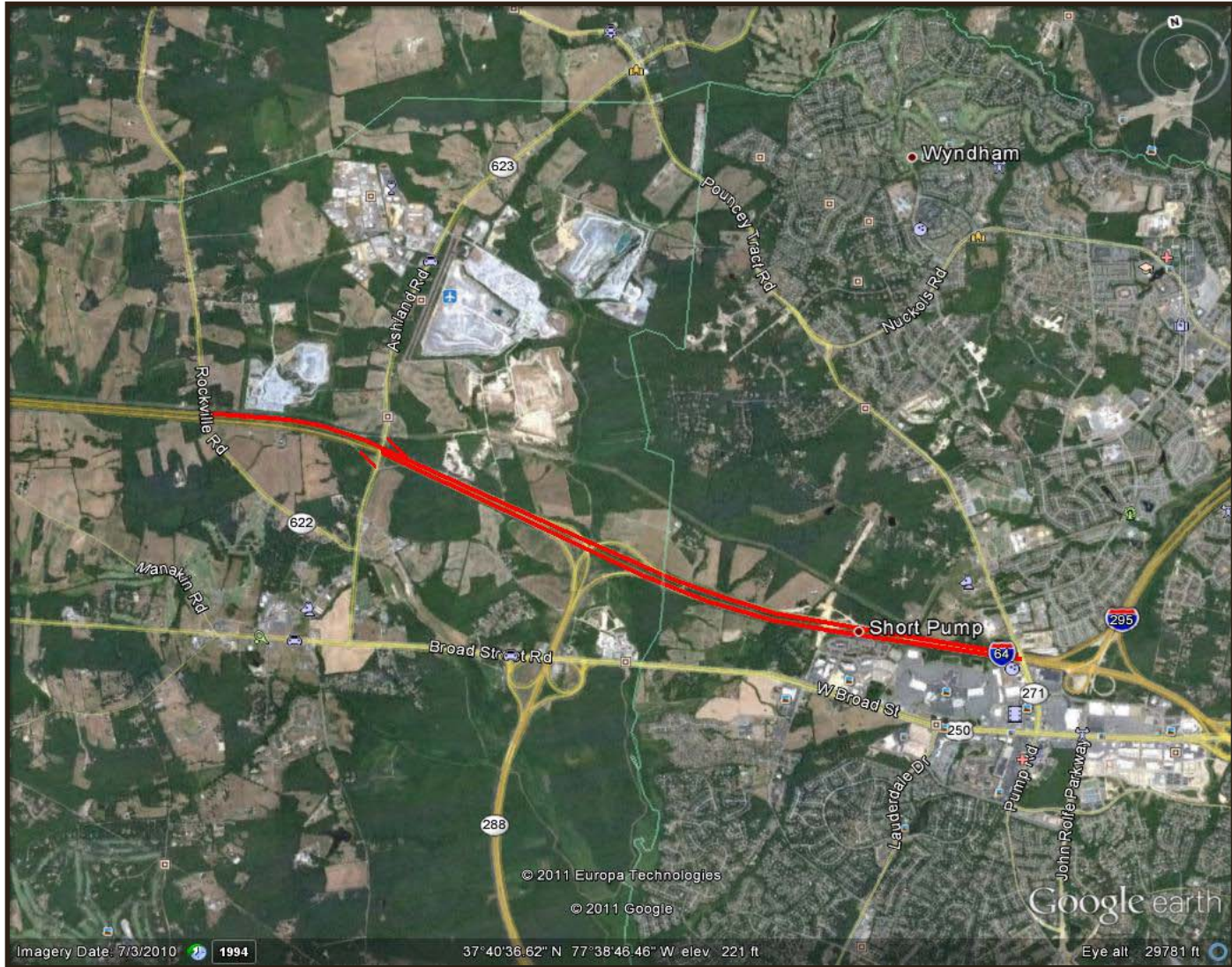
Need:

- Traffic generated by new development at Short Pump suffers (and inflicts) congestion delays on I64 between the I295 and SR288 interchanges
- Three I-64 interchanges within 4 miles = disrupted traffic flow (weaving)

Scope:

- Addition of third through-lane in each direction of I-64 on existing right-of-way between east and westbound lanes for about 4.5 miles between SR 623 and Pouncey Tract Road
- Minor improvements to off ramps at western terminus (SR 623)
- Within existing right-of-way

I64 Widening / SR623 Interchange Improvements Goochland County (UPC 70542)



I64 Widening / SR623 Interchange Improvements Goochland County (UPC 70542)

Economic benefits: travel time savings, Vehicle Operating Cost savings

- Extra lane expands capacity, improves flow
- Level of service 'D' or better through at least 2020

Short-term economic impact 2012-17:

- 75 jobs x 6 years, \$25.1 M personal income, \$33.2 M Gross State Product
- \$1.78 M state tax revenue, \$149 K local tax revenue

I581 / Valley View Boulevard Interchange Phase II City of Roanoke (UPC 16595)

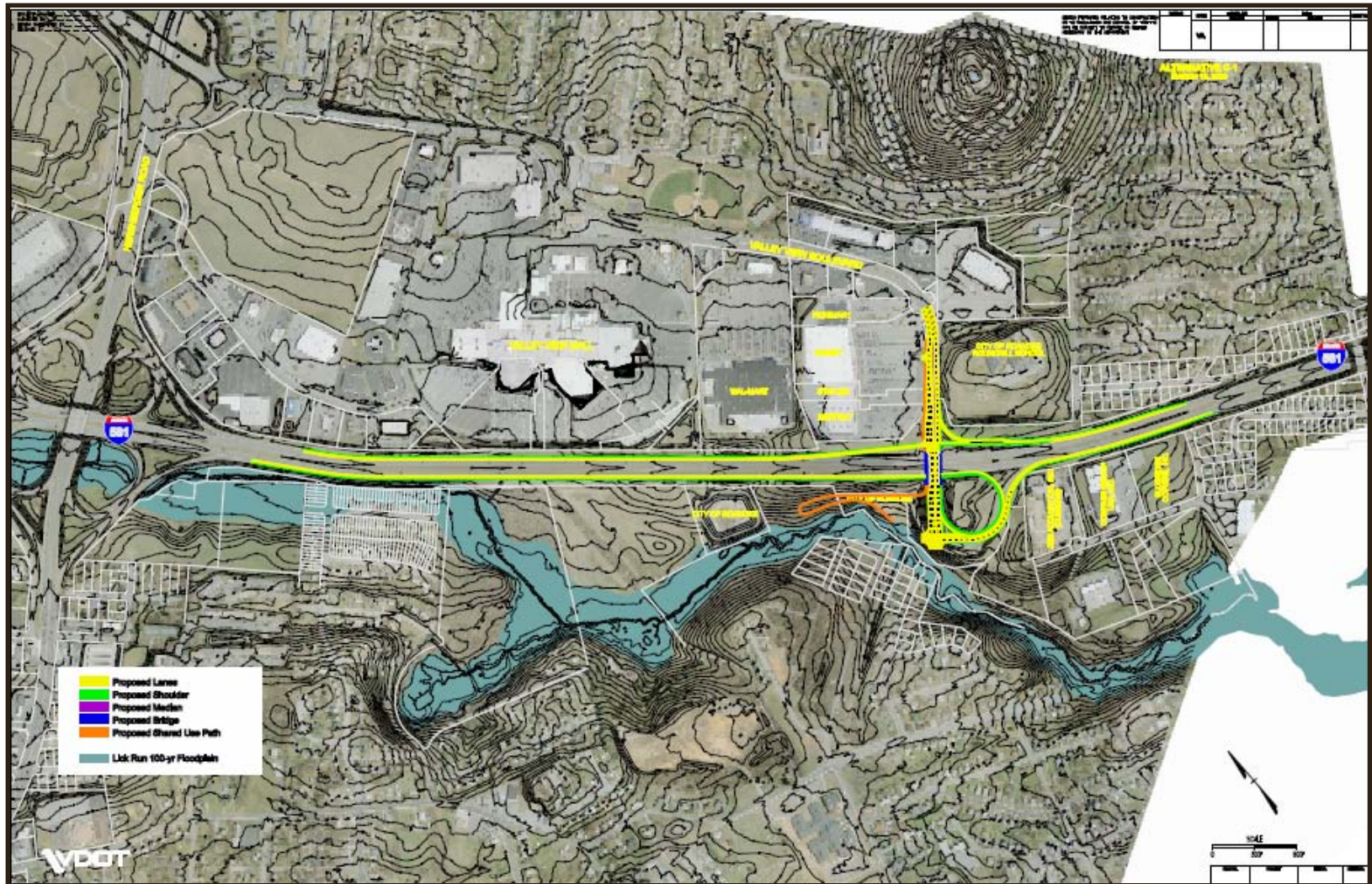
Need:

- No current SB exit from I581 to Valley View Boulevard, no current NB entrance from Valley View Boulevard to I581
- Mall traffic from points north must use Hershberger Road interchange = congestion on Hershberger Road, which serves Roanoke Regional Airport traffic

Scope:

- Completion of interchange at I581 and Valley View Boulevard to accommodate all directional movement to and from I581
- Widening of Valley View Boulevard over I581 to accommodate ramps required for full directional movements
- One 12-foot auxiliary lane in each direction of I581 between Hershberger Road and Valley View Boulevard interchanges

I581 / Valley View Boulevard Interchange Phase II City of Roanoke (UPC 16595)



I581 / Valley View Boulevard Interchange Phase II City of Roanoke (UPC 16595)

Economic benefits: travel time savings, Vehicle Operating Cost savings, possible accident reduction, possible economic development

- Relieve local congestion, principally on Hershberger Road
- Increase safety on I581
- Improve access to 56 undeveloped acres in city

Short-term economic impact 2012-15:

- 177 jobs x 4 years, \$37.5 M personal income, \$49.8 M Gross State Product
- \$2.63 M state tax revenue, \$222 K local tax revenue

SR640 Reconstruction Russell County (UPC 16894)

Need:

- SR640, 2-lane rural collector in mountainous terrain, serves traffic to recreational facility and local park
- Accident statistics reveal safety issues, likely due to horizontal and vertical roadway alignment

Scope:

- Three-mile-long widening of two lanes from 9 feet to 11 feet each
- Six-foot cut-and-fill shoulders
- Four-foot paved shared-use corridors for ped / bike in shoulder
- Three-foot shoulder supplement where guardrail is required

SR640 Reconstruction Russell County (UPC 16894)



SR640 Reconstruction Russell County (UPC 16894)

Economic benefits: accident reduction

- Less severe curvature, longer sight distance
- Improved geometrics will allow posted speed to increase from 35 mph to 40 mph, with safety gains for all users

Short-term economic impact 2012-14:

- 30 jobs x 3 years, \$4.16 M personal income, \$5.75 M Gross State Product
- \$299 K state tax revenue, \$29 K local tax revenue

Widening of Fall Hill Avenue City of Fredericksburg (UPC 88699)

Need:

- Existing bridge over I95 inadequate for current motorized traffic
- No sidewalks or shoulders for heavy pedestrian traffic
- Existing bridge piers will not accommodate I95 HOV lanes

Scope:

- Replace bridge now carrying Fall Hill Avenue over I95 with a wider bridge with longer spans
- Widen Fall Hill Avenue to a four-lane roadway for approximately 2 miles, including proposed Mary Washington Blvd extension
- Curb and gutter, 16-foot raised median, 10-foot trail, paved sidewalk opposite trail

Widening of Fall Hill Avenue City of Fredericksburg (UPC 88699)

Economic benefits: travel time savings (for motorists), safety improvement (for pedestrians), agency cost savings

- New, wider bridge and roadway; continuous 4-lane corridor
- Greater capacity for motorized traffic
- Safer accommodation for pedestrian traffic
- Room underneath for I95 HOV lanes
- Cost savings by improving Fall Hill Avenue and extending Mary Washington Boulevard concurrently with bridge replacement

Short-term economic impact 2012-14:

- 110 jobs x 3 years, \$15.7 M personal income, \$21.2 M Gross State Product
- \$1.14 M state tax revenue, \$110 K local tax revenue

Lesner Bridge Replacement Virginia Beach (UPC 97737)

Need:

- US60 (Shore Drive), only east-west arterial in Va Beach north on Lynn Haven Bay, important route for military and civilian traffic
- Traffic growth expected to exceed 13% between 2008 and 2020 will make structure functionally obsolete in near term
- Naturally corrosive marine environment has caused extensive deterioration to portions of existing bridge over Lynn Haven Inlet
- Significant pedestrian use (e.g., by anglers)

Scope:

- Construction of required approaches to new bridge
- New bridge with two lanes in each direction, shoulders sufficient to accommodate a third lane in each direction in the future
- Parallel ten-foot shared-use paths outside rigid barriers on each side of structure

Lesner Bridge Replacement Virginia Beach (UPC 97737)



Lesner Bridge Replacement Virginia Beach (UPC 97737)

Economic benefits: connectivity, system preservation, safety improvement (for pedestrians)

- Timely replacement minimizes cost of system preservation
- Multi-use paths outside rigid barriers enhance pedestrian safety
- Maintains two lanes of traffic in each direction during construction

Short-term economic impact 2012-14:

- 292 jobs x 3 years, \$41.7 M personal income, \$56.4 M Gross State Product
- \$3.04 M state tax revenue, \$294 K local tax revenue

Construction of Erickson Road on New Location City of Harrisonburg (UPC 64648)

Need:

- No direct east-west multi-modal through access currently exists south of city center
- Streets close to city center carry heavier traffic for lack of a high-capacity east-west route farther south

Scope:

- 1-mile relocation and extension of Erickson Road to join Stone Spring Road
- Four 11-foot lanes, two 4-foot bike lanes, curbs and gutters
- Sidewalk on north side of roadway and graded space for future sidewalk on south side
- Provides a link in the “Southeast Connector” between State Routes 253 and 42

Construction of Erickson Road on New Location City of Harrisonburg (UPC 64648)



Construction of Erickson Road on New Location City of Harrisonburg (UPC 64648)

Economic benefits: connectivity, travel time savings, possible Vehicle Operating Cost savings

- Enhances east-west mobility within Harrisonburg by completing one link in the “Southeast Connector” between SR253 and SR42 on south side of city
- Alleviates congestion on streets closer to city center

Short-term economic impact 2012-14:

- 48 jobs x 3 years, \$7.29 M personal income, \$9.70 M Gross State Product
- \$509 K state tax revenue, \$43 K local tax revenue

Odd Fellows Road Extension and Interchange City of Lynchburg (UPC 100023)

Need:

- No existing interchange on US460/US29 bypass at Odd Fellows Road
- Freight traffic to First Industrial Park, and through traffic to US29 Business, use Candler's Mountain Road interchange
- Congestion on Candler's Mountain Road, which also serves Liberty University traffic
- Delays and accidents especially at Mayflower Drive intersection

Scope:

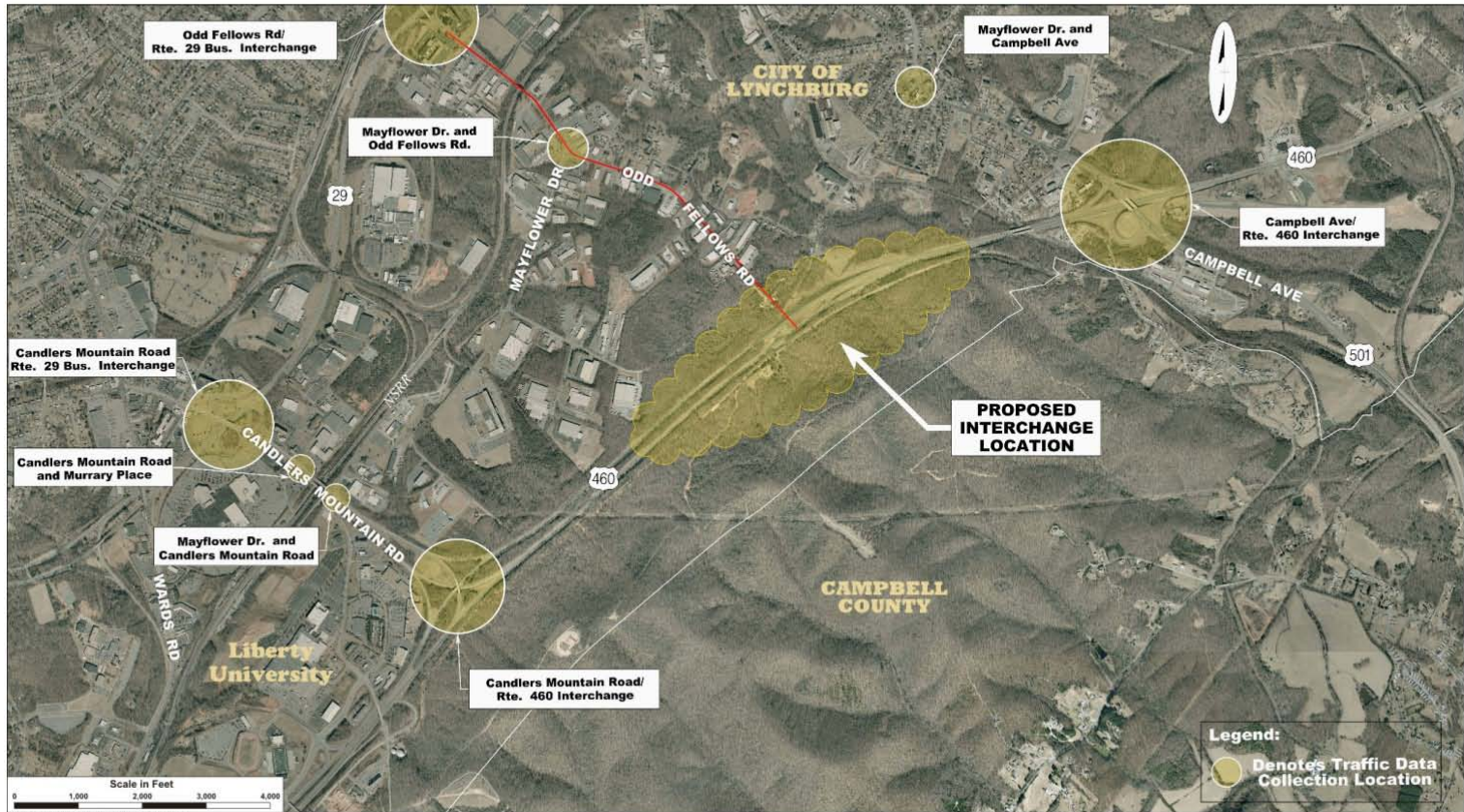
- New interchange at US460/US29 bypass
- One-mile extension of Odd Fellows Road to, and over, bypass
- Possible redesign of existing intersection at Odd Fellows Road and Mayflower Drive

Odd Fellows Road Extension and Interchange City of Lynchburg (UPC 100023)



Odd Fellows Road Interchange at Routes 460/29 City of Lynchburg

State Project: 0460-118-217, P101, R201, C501 | Federal Project: STP-5118(209)



Odd Fellows Road Extension and Interchange City of Lynchburg (UPC 100023)

Economic benefits: travel time savings, possible accident reduction, possible economic development

- Direct access for freight traffic from US460/US29 bypass to First Industrial Park
- Alternative route for through traffic between the US460/US29 bypass and US29 Business
- Better access to undeveloped land on south side of bypass

Short-term economic impact 2012-17:

- 53 jobs x 6 years, \$18.0 M personal income, \$23.8 M GSP
- \$1.28 M state tax revenue, \$107 K local tax revenue

Summary

- In summary, the 10 projects highlighted today provide the following :

✓ \$378.4 M	Total Project Cost
✓ 3,676	Total Employment During Construction
✓ \$190.8 M	Personal Income
✓ \$255.0 M	Gross State Product
✓ \$13.6 M	State Tax Revenue
✓ \$1.2 M	Local Tax Revenue