

FEDERAL HIGHWAY ADMINISTRATION

FINDING OF NO SIGNIFICANT IMPACT

FOR

ROUTE: Interstate 95 HOT Lanes Project

LOCATION: Spotsylvania, Stafford, Prince William, and Fairfax Counties and City of Fredericksburg

FEDERAL PROJECT: None assigned yet

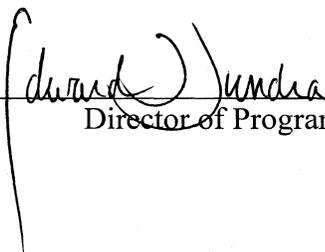
STATE PROJECT: 0095-96A-107, PE-101; UPC 70849

FROM: 1.10 miles south of U.S. Route 17 (Mills Drive)

TO: Interstate 495 (Capital Beltway)

The FHWA has determined that this proposed project will not have any significant impact on the environment. This finding of no significant impact is based on the attached Environmental Assessment (EA) and supporting documentation which has been independently evaluated by the FHWA and determined to adequately and accurately discuss the expected environmental issues and impacts of the proposed project. All substantive environmental comments received as a result of the early coordination process, the public hearings, and the clearinghouse notification process have been considered and addressed as needed. This EA and supporting documentation provides sufficient evidence and analysis for determining that an Environmental Impact Statement is not required. The FHWA takes full responsibility for the accuracy, scope, and content of the attached EA and supporting documentation.

12/5/2011
Date



Director of Program Development

Rationale for Finding of No Significant Impact

Interstate 95 HOT Lanes Project

Spotsylvania, Stafford, Prince William, and Fairfax Counties and City of Fredericksburg

Introduction

FHWA has reviewed VDOT's November 7, 2011, submittal of the Revised Environmental Assessment (EA) for the Interstate 95 (I-95) High Occupancy Toll (HOT) Lanes project which consists of the original EA dated September 8, 2011, and VDOT's transmittal letter requesting a Finding of No Significant Impact (FONSI) for the subject project. VDOT did not submit a final EA for this project nor is one required under 23 CFR Part 771. Instead, VDOT's submittal, in addition to including the original EA, provides 1) a summary of pertinent comments received on the EA and VDOT's responses; 2) a summary of changes to the proposed action and mitigation measures from comments received on the EA as a result of the public hearing and other factors; and 3) a summary of the findings, agreements, and determinations made for the project.

The approach of submitting a transmittal letter to complete the EA process is acceptable under NEPA and is prescribed in FHWA Technical Advisory T6640.8A under Section II(h). To summarize the transmittal letter, several comments were submitted on the EA which have been summarized and addressed. No changes have been made to the project or mitigation measures as a result of comments received on the EA. Further, a no effect determination has been made in accordance with Section 106 of the National Historic Preservation Act. In conjunction with the issuance of this FONSI, FHWA is making a wetland finding and has determined that there will be no direct or constructive use of Section 4(f) properties by the project.

This EA was prepared in accordance with 23 CFR 771.119 to assess the environmental impacts of the proposed project. Based upon our review and the information that follows, FHWA has determined that NEPA and all other applicable environmental requirements have been adequately addressed and have concluded that the project, as currently proposed, will not have a significant impact on the environment requiring the preparation of an Environmental Impact Statement.

The termini of the project are considered logical and are generally described as U.S. Route 17 (Mills Drive) on the south and Interstate 495/95/395 (Springfield Interchange) on the north. Specifically, the project will extend beyond these termini a nominal distance to allow for sufficient transition back to the general purpose lanes on the south and the existing HOV and general purpose lanes on the north. The length of these transitions is driven by forecasted traffic and design and operational standards. The Interchange Justification Report addresses in detail the transition from the proposed HOV/HOT lanes at the northern terminus to the existing I-395 HOV lanes and general purpose lanes, the transition from the proposed HOV/HOT lanes at the southern terminus of the northern section to the I-95 general purpose lanes south of Route 234 (assuming the northern section is constructed first), and the transition from the proposed HOV/HOT lanes to the I-95 general purpose lanes south of Fredericksburg. The Interchange Justification Report demonstrates that the improvements proposed at each of these transition points do not point the proverbial "loaded gun" at the transportation network requiring additional improvements beyond the scope of the I-95 HOT Lanes

project (recommendations in the Interchange Justification Report for the northern terminus are discussed in further detail below).

In total, the length of the project is approximately 46 miles in length. The proposed project has independent utility, is of sufficient length to allow for appropriate environmental analysis, and the construction of the proposed project represents a reasonable expenditure of funds even if no additional improvements are made in the area. The EA identifies a handful of projects that are under construction in and adjacent to the I-95 corridor, and there are other projects under development such as roadway improvements to accommodate traffic associated with the decisions of the Base Realignment and Closure (BRAC) Commission that affect the Mark Center on Seminary Road north of the I-95 HOT Lanes project. These and other projects have independent utility, serve their own purpose and need, and are being developed separate from the I-95 HOT Lanes project. Failure to implement any of these projects wouldn't have any bearing on the functionality or operations of the I-95 HOT Lanes project.

Background:

This project has a history that goes back several years. Under the Virginia Public Private Transportation Act, VDOT selected the Fluor/Transurban team over a competing proposal and signed an Interim Agreement on October 24, 2006, to expand the HOV system in the I-95/I-395 corridor and apply the HOT concept (a.k.a. the original proposal). As proposed at the time, the improvements would expand the existing HOV lanes in the I-95/I-395 corridor (from Eads Street near the Pentagon south to Dumfries/Route 234); convert the resulting three HOV lanes to HOT lanes; and construct new HOV/HOT lanes from the southern terminus of the existing HOV lanes from south of Dumfries/Route 234 to south of the Fredericksburg area. The proposal was divided into a northern and southern project with the northern project receiving the necessary environmental clearances in January of 2009. However, in August 2009, VDOT indicated that the PPTA process for the northern section was slowing because of the economic downturn and undertook an effort to re-evaluate the scope. Shortly thereafter, the County of Arlington filed a lawsuit challenging the environmental document on the northern section of the project, the approach to develop the proposal as multiple projects, and other issues. While the state and the private sector were looking at different options for developing the northern project in light of the economic conditions, FHWA approved an EA for public availability for the southern project in August 2010. In February 2011, VDOT withdrew its plans for the original I-95/I-395 HOT Lanes proposal and announced plans for a new I-95 HOT Lanes proposal that included a reduced scope; the new I-95 HOT Lanes project would not include any improvements on I-395 in the City of Alexandria and Arlington County. In March of 2011, FHWA formally withdrew its approval of the NEPA document for the northern project. At the same time, FHWA and VDOT decided to prepare a single EA for the new I-95 HOT Lanes proposal. That EA was signed on September 8, 2011 and made available to the public at a series of public hearings at the end of September.

Previous Studies:

Since 2005, FHWA has been involved in NEPA discussions, reviews and decisions related to the HOT Lanes proposals in the I-95/I-395 corridor. As part of the original I-95/I-395 HOT Lanes proposal, which was divided into a northern and southern project, FHWA reviewed a variety of studies and analyses that assessed the environmental impacts of the proposed improvements on the surrounding environment. These included:

Noise Analysis Technical Report (December 2008, February 2010);
Air Quality Analysis Technical Report (November 2008, February 2010);
Joint Permit Application (October 2008);
Draft Interchange Justification Report (October 2008);
Existing Conditions Report (March 2008);
Section 4(f) Applicability Analysis (December 2007);
Phase I Archeological Surveys and addendums (May 2007, September 2007, December 2007, April 2008, July 2008, February 2009, March 2009, June 2009);
Phase I Architectural Surveys (July 2007, March 2009);
Waters of the U.S. and Resource Protection Area Evaluation (June 2007);
Habitat Evaluation and Search Report for Rare, Threatened and Endangered Species (March 2007; revised June 2007, November 2007, April 2008, and July 2008);

In preparing the EA for the new I-95 HOT Lanes proposal, the traffic analysis was updated which necessitated that some of the previous studies and analyses be updated such as the air and noise analyses. In addition to updated traffic, the reduction in the scope necessitated that the Interchange Justification Report for the northern section be updated also. Likewise, major modifications to the October 2008 joint permit application were submitted to the Corps of Engineers and Virginia Marine Resources Commission. Because of the numerous architectural and archeological surveys that had been conducted for the original proposal including the associated coordination with the State Historic Preservation Officer (SHPO), a memorandum was prepared that summarized the results of all of those surveys and the coordination with the SHPO. The other studies and analyses did not need updating because they were not dependent upon traffic data. Further, because those earlier studies and analyses were based on a larger project footprint when they were developed as part of the original I-95/I-395 HOT Lanes proposal, the reduction in the scope for the new I-95 HOT Lanes proposal, especially at the northern end of the corridor, further diminished the need to update them.

Purpose and Need:

The purpose and need that the I-95 HOT Lanes proposal will address is to 1) reduce daily congestion and accommodate travel demands more efficiently; 2) provide higher reliability of travel times; and 3) expand travel choices by increasing the attractiveness and utility of ridesharing and transit useage while also providing an option for single-occupant vehicles to bypass congested conditions (EA, page 7). The Interchange Justification Report (November 2011 version) shows that the proposed I-95 HOT Lanes will have an improvement in operations compared to the no-build scenario in terms of travel time, percent of LOS F, average speeds, and total demand served.

Alternatives and Scope:

The EA considered the No Action alternative and the Build alternative. The build alternative is described in detail in the EA beginning at page 11. Generally, the I-95 HOT Lanes proposal will expand the existing two HOV lanes to three lanes from just north of the I-95/I-395/I-495 interchange

in Fairfax County (in the vicinity of the I-395/Edsall Road interchange) to the Prince William Parkway in Prince William County (Exit 158) and convert them to HOT Lanes. The existing two HOV lanes will be maintained from the Prince William Parkway to south of the Town of Dumfries/Route 234 in Prince William County but be converted to HOT Lanes. Two new HOV/HOT Lanes will be constructed for approximately 26 miles from south of the Town of Dumfries/Route 234 through Stafford County, the City of Fredericksburg and Spotsylvania County to approximately one mile south of Route 17 in Spotsylvania County. Except for four locations identified in the EA where flyovers would be constructed, the project will include several at-grade slip ramps to facilitate movement between the HOV/HOT lanes and the general purpose lanes. Pull-off areas will also be provided for enforcement and breakdown purposes.

As indicated in the Interchange Justification Report (section 3.1), the project development process considered a number of different iterations and options for transportation system management solutions, geometric design configuration and manner of existing and future access. Although transportation system management strategies alone will not solve the system linkage and operational safety issues identified in the purpose and need, they are included as a component of the proposed project to maximize the efficiency of the facility. Examples include modified traffic signals, additional/modified turn lanes at select intersections, and auxiliary lanes in isolated locations.

An alternative that did not involve the conversion of the HOV lanes and application of a toll was not considered since the project would not exist without toll funding. The proposed project is being developed under the Virginia Public Private Transportation Act with the private sector as the project applicant. If it weren't for the private sector's proposal and their intent to apply tolls, the project would not be developed using public funds.

Summary of Environmental Impacts:

The following social and environmental impacts were identified in the EA and supporting documentation and will result if the project is implemented. It should be noted that the EA documents impacts at two levels. At the first level, impacts are based on the assumption that the entire median of I-95 will be impacted (this is particularly relevant at the southern end of the project where the existing HOV lanes will be extended; at the northern end, the entire median has already been impacted by the construction of the existing HOV lanes and additional impacts from expanding the number of lanes from two to three by restriping will be minimal). At this level, it doesn't matter what the final location of the improvements will be within the median because the impacts will already have been accounted for. At the second level, impacts are assessed based on the conceptual plan construction limits and provides a more realistic assessment of what the impacts might be (again, this is particularly relevant at the southern end of the project; at the northern end of the project, the location of the improvements to expand the HOV lanes from two to three lanes are fixed by the presence of the existing facility). However, the location of the project represented by the conceptual plans is not final and subject to change. Where relevant to the discussion below, both levels of impacts have been addressed.

* **Socioeconomic:** The land impacted by the project is located in the median of an existing Interstate facility. The project will not physically impact any neighborhoods, public parks, community facilities, non-profit organizations, schools, commercial development, etc. The project is consistent with current and planned local land use. (EA, page 22)

* **Relocations/Right-of-Way:** No homes, businesses, farms, or non-profit facilities will be displaced by the proposed project. The project will be located within the median of an existing Interstate facility but in a couple of locations, the median is not wide enough to accommodate the project. Accordingly, the Interstate will be pushed out to accommodate the improvements or additional right-of-way will be needed to accommodate flyovers, causing the acquisition of approximately eight acres of right-of-way outside the existing right-of-way. Any right-of-way that might be needed for the project will be acquired in accordance with the Uniform Relocation and Real Property Acquisition Act of 1970 as amended. (EA, pages 13-15, 22)

* **Environmental Justice:** The proposed project has been developed in accordance with Executive Order 12898, Federal actions to Address Environmental Justice in Minority Populations and Low Income Populations. According to Census data, there are Census tracts along the corridor where the percent of minorities or percent of low income individuals exceeds the locality-wide average for where those tracts are located, which increases the likelihood of minority or low income populations being located in those tracts. As one moves south to north in the corridor, the number of Census tracts where this is the case increases. However, because the proposed improvements are located in the median of an existing Interstate facility, there are no minority or low income populations or communities located along the corridor that will be directly impacted by the project let alone would experience disproportionately high and adverse environmental effects from the project. Any impacts experienced by minority or low income populations will be comparable to impacts experienced by non-minority or non-low income populations in the corridor. As explained below, the air quality analysis, using worst-case assumptions, looked at particulate matter, ozone, mobile source air toxics and carbon monoxide and did not identify any impacts in the corridor associated with these pollutants. Likewise, the noise analysis demonstrated that there would be few noise impacts in the corridor that could be attributed to the project; the overwhelming majority of sites that will experience noise impacts will experience those impacts even if the project is not implemented. For the handful of sites where new noise impacts are predicted to occur, only one (i.e. a golf course) will experience a noise impact greater than 3 dBA. All sites that will experience a noise impact have been considered for noise mitigation regardless of race or income; the proposed project will allow many sites in the corridor that are currently impacted under existing conditions to receive mitigation for those impacts.

* **Historic/Archeological Resources:** The EA identifies several historic resources located in proximity to the project but based on coordination with the SHPO for the original I-95/I-395 HOT Lanes proposal, the project will have no effect on them. A handful of archeological sites potentially eligible for the National Register of Historic Places were identified in the median of I-95. However, the project was redesigned to avoid these sites. It is important to note that when the original I-95/I-395 HOT Lanes proposal was coordinated with the SHPO, that coordination resulted in a conditional no adverse effect determination for the northern project and a no effect determination for the southern project. The basis for the conditional no adverse effect determination for the northern project was the Fairlington Historic District, a property located in Arlington County and eligible for the National Register of Historic Places. Under the new I-95 HOT Lanes proposal, the scope has been reduced and all improvements in Arlington County have been eliminated. Accordingly, the Fairlington Historic District no longer lies within the area of potential effect for the project and the conditional no adverse effect determination is no longer applicable; instead, the project will have no effect on historic resources at both the southern and

northern ends of the proposal. VDOT communicated this information to the SHPO, and they verbally concurred that no additional coordination was necessary. (EA, pages 23-24; Memorandum of Review of Historic Properties Identification and Evaluation, page 1)

- * **Section 4(f) Resources:** In addition to historic and archeological resources, there are numerous park and recreational resources located in proximity to the project corridor. There is also one trail (Embrey Dam Trail) that crosses under I-95 and another trail (Virginia Central Rail Trail) that is planned to cross under I-95 along an old rail bed. Both the existing trail and the old rail bed will be bridged by the project as they are by existing I-95. The project will not require any direct or constructive use of resources protected under Section 4(f). (EA, pages 22-24)
- * **Section 6(f) Resources:** Because there will be no direct use of resources protected under Section 4(f), there will be no use of any land from resources protected under Section 6(f) of the Land and Water Conservation Act (LWCA) of 1970.
- * **Air Quality:** The northern section of the project is located in an area designated nonattainment by the Environmental Protection Agency (EPA) for PM_{2.5} and ozone because the area does not meet the National Ambient Air Quality Standards (NAAQS) established by EPA for these criteria pollutants. The southern section of the project is located in an area that was once designated nonattainment for ozone but has since attained the ozone standard and now has a plan in place to maintain it. Accordingly, a variety of air quality-related issues were addressed in the Air Quality Analysis conducted for the project.

The NAAQS were established by EPA for six pollutants based on comprehensive studies of available ambient air monitoring data, human health effects data, and material effects studies. The NAAQS regulate the six pollutants by establishing both a primary and secondary ambient air concentration as well as a length of exposure standard. The primary standard is established to protect everyone including children, individuals with asthma, and the elderly from health risks. The secondary standard is established to prevent unacceptable effects on the public welfare such as unacceptable damage to crops, vegetation, buildings, property, and ecosystems. (EPA website) For most of the criteria pollutants, the secondary standard is the same as the primary standard.

A qualitative PM_{2.5} project-level hot-spot analysis was conducted in accordance with EPA's 2006 amendments to the transportation conformity rule (71 FR 12468). The analysis determined that project-level PM_{2.5} levels are expected to be below the daily and annual standards established by EPA during the projects opening year with a continued steady decline into the future due to national vehicle emission control programs and cleaner fuels (Air Quality Analysis, pages 31-40). In addition to the project-level analysis, PM_{2.5} is also addressed at the regional level through EPA's transportation conformity process, which is addressed in greater detail in the following paragraph.

In accordance with EPA's transportation conformity rule, ozone is addressed on a regional scale by metropolitan planning organizations (MPO) and at the statewide level in the State Implementation Plan (SIP). For regions designated nonattainment or maintenance for ozone, MPOs conduct conformity analyses of their transportation plans and programs to ensure that they conform to the SIP for attainment and maintenance of the NAAQS for ozone. Two different MPOs are responsible for conformity within the project area. The I-95 HOT Lanes project was amended into the Metropolitan Washington Council of Government's Transportation Planning Board's (TPB)

2010 Constrained Long Range Plan (CLRP) and FY 2011 Transportation Improvement Program (TIP). TPB conducted a conformity analysis of the amended CLRP and TIP and following EPA review, FHWA and FTA issued their joint conformity finding on September 27, 2011. Likewise, the I-95 HOT Lanes project was included in the Fredericksburg Area MPO's FY 2012 TIP and amended into its 2035 CLRP. VDOT conducted a conformity analysis on behalf of the MPO and following EPA review, FHWA and FTA issued their joint conformity finding on September 29, 2011. In addition to ozone, regional PM_{2.5} is also addressed by the TPB through the same transportation conformity process as ozone, subjected to the same review by EPA, and covered by the same FHWA and FTA joint conformity finding. (Air Quality Analysis, pages 49-50)

In addition to addressing the NAAQS requirements for nonattainment and maintenance areas, a quantitative mobile source air toxics (MSAT) analysis was prepared for seven air toxics that FHWA considers a priority. There are several uncertainties associated with the effects of air toxic emissions impacts on human health that undermine one's ability to perform a credible analysis at the project-level. However, there are tools that allow one to reasonably predict relative emission changes between alternatives for large-scale projects like the I-95 HOT Lanes proposal. Based on this effort, MSAT emissions are expected to decline significantly from 2011 (existing conditions) to 2018 build conditions (opening year) and will continue to decline even further out to 2035 (design year). In comparing 2035 build and no-build conditions, MSAT emissions will be reduced between 10.6% and 31.2% for each of the MSATs analyzed. A comparison of the 2035 build condition and the 2011 existing condition shows that MSAT emissions will be reduced between 60.7% and 91.3% for each of the MSATs analyzed. The results also show that MSAT emissions for three of the toxics analyzed will increase between 1.5% and 2.1% and decrease from 1.2% to 1.9% for the other four toxics analyzed when comparing the 2018 build condition with the 2018 no-build condition. However, despite the forecasted increases for three of the MSATs when comparing the 2018 build and no-build scenarios, a comparison of the 2018 build condition with the 2011 existing condition shows that the MSAT emissions for all seven toxics analyzed will decrease between 56.4% and 76.1%. What this means is that all seven MSATs will decrease between 2011 and 2018 but the decrease for three of those MSATs will not be as great with the project (build) as without the project (no-build). Accordingly, the minor increase in MSAT emissions for three of the toxics when comparing the 2018 build condition with the 2018 no-build condition is not significant in light of the decrease that is predicted when comparing the 2018 build condition with the 2011 existing condition. Despite recognizing the uncertainties referenced above that make a meaningful quantitative analysis difficult, there do not appear to be any adverse impacts from MSAT emissions that can be attributed to the I-95 HOT Lanes proposal. (Air Quality Analysis, pages 41-49)

A quantitative, worst-case, project-level carbon monoxide (CO) analysis was also prepared which demonstrated that the predicted one and eight-hour CO concentrations for the project will be well below the NAAQS for CO. In conducting the CO analysis, the top 20 adjacent signalized intersections based on worst case peak hour traffic volumes were identified. From these, the top two worst-case intersections that would not only experience the highest traffic volumes but also experience the largest percent increase in traffic volumes were identified. The intersections with the highest peak hour volume and the largest increase in traffic volumes from the no-build condition were then selected for the CO analysis. The CO analysis also looked at the five worst-case interchanges based on peak hour traffic, annual daily traffic projections, and adjacent sensitive receptors. In accordance with EPA guidance, a total of 144 receptors were selected in proximity to

the worst-case intersections and interchanges and considered in the CO analysis. Based on the analysis, the project will have a limited effect on CO concentrations. A review of the tables included in the Air Quality Analysis shows that under all comparisons (2018 build vs. 2018 no-build; 2035 build vs. 2035 no-build, 2018 build vs. 2011 existing, 2035 build vs. 2011 existing, etc.), changes in CO concentrations will be minor (i.e. less than 1 ppm at most receptors). Regardless, CO concentrations at all analyzed receptors will be well below the 1-hour and 8-hour CO NAAQS of 35 ppm and 9 ppm, respectively. Therefore, the project will not cause or contribute to a violation of the NAAQS for CO. In accordance with EPA guidance, if the receptors located adjacent to the worst-case intersections and interchanges selected for analysis do not show an exceedance of the NAAQS for CO, then it can be assumed that all other locations within the project corridor will remain below the CO NAAQS (Air Quality Analysis, pages 9-30).

Finally, greenhouse gas emissions (as they relate to global climate change) were not addressed as part of the Air Quality Analysis. Climate change is inherently a global issue that is more appropriately addressed at the state or national level by assessing the impact of transportation systems as opposed to individual projects. Further, climate change does not readily lend itself to an analysis at the local level, and national standards have not been established. Relative to the scope of global climate change, any change in greenhouse gas levels as a result of the project are likely to be insignificant. For example, the difference in VMT in comparing the 2035 build and no-build scenarios for the project is expected to be 5%. However, similar to MSATs, despite increases in VMT, greenhouse gas emissions from vehicles are expected to decrease over time as new vehicle standards, cleaner vehicles, and federal programs are implemented. Accordingly, the magnitude of the changes in climate caused by the project and any corresponding impacts on environmental resources would be too small to measure since current analytical tools are not sophisticated enough to accurately reflect minute differences. Attributing any environmental consequences to the differences in emissions or assessing how they contribute to impacts occurring around the world is not possible in any meaningful way either. As a result, we cannot have confidence that an assessment of greenhouse gas emissions from the project will yield information that will be helpful to the public or relevant to project decision making.

* **Noise:** A noise analysis that satisfies the requirements of FHWA's new noise regulations, which went into effect July 13, 2011, was completed for the project. The area surrounding the project corridor was divided into 60 areas of common noise environment. CNEs are groupings of receptor sites that, by location, form distinct communities within the project area and contain receptors with similar exposures to noise sources. Within each CNE, a receptor sites were established which represented anywhere from one to 317 (CNE D) individual dwelling units (e.g. single family residences, condominiums, townhomes, apartment complexes, etc.). The number of receptor sites for each CNE ranged anywhere from one (CNE V) to over 100 (CNE S) receptor sites. Individual receptor sites were also used to represent churches, pools, tennis courts, baseball fields, parks, hospitals, outdoor public use areas, school athletic fields, etc. As a result, a total of 980 receptor sites were considered within the CNEs.

In summary, 43 of the 60 CNEs will experience noise impacts that approach or exceed the noise abatement criteria in the design year for the build scenario. None of the CNEs will experience a substantial noise increase of 10 dBA or more. With regard to the receptor sites, noise impacts are predicted to occur at approximately 326 of the receptor sites comprising the 43 CNEs. Of these 326 receptor sites, only 26 sites that do not currently experience a noise impact will experience a

noise impact because of the project. Of these 26 sites, 19 will experience a one dBA increase, five will experience a 2 dBA increase, one will experience a three dBA increase, and one (a golf course) will experience a four dBA increase over existing conditions. In accordance with FHWA guidance and regulation, a noise increase of 3 dBA is barely perceptible under normal environmental conditions. The remaining 300 receptor sites already experience noise impacts under existing conditions and will continue to experience noise impacts even if the proposed project is not constructed. Also, for the overwhelming majority of these 300 receptor sites, the noise levels under the build condition will be the same or only one dBA higher than existing noise levels. (Noise Analysis, Appendix C)

The impacted receptor sites represent approximately 1,779 residential units, one church, three athletic fields, two tennis courts, the Forest Greens Golf Course, the Marine Corps Museum, and four areas of planned future development. To address these impacts, noise abatement was considered, and noise barriers were found to be the most effective form of noise mitigation. Based on the preliminary analysis conducted, noise abatement appears reasonable and feasible for 22 of the CNEs and would provide noise reduction benefits to 2,313 residential units, one church, one athletic field, two tennis courts, and one area of planned future development. This noise abatement includes nearly 75,000 linear feet of noise barrier at an estimated cost of approximately \$53 million. There are special circumstances involving several CNEs which are discussed in greater detail in the Noise Analysis beginning at page 27. The noise abatement conclusions are considered preliminary because the noise analysis is based on preliminary design plans. During the final design phase of the project, a more detailed noise analysis will be conducted and the noise abatement conclusions re-evaluated. As a result, noise abatement that may appear reasonable and feasible at this stage of project development may be found not to be feasible or reasonable during final design. The converse is also true. Noise mitigation that currently does not appear to be feasible and/or reasonable may be found to be feasible and reasonable during final design. All noise abatement that is found to be feasible and reasonable during final design will be incorporated into the project.

- * **Floodplains:** The proposed project will cross 20 streams with designated 100-year floodplains. Approximately 58 acres of floodplains are located within the median of I-95 and approximately 42 acres are located within the construction limits of the conceptual plans. Floodplain encroachments will be avoided or minimized to the extent practicable, but there are limits to the extent to which impacts can be minimized because of the location of the floodplains within the median, the location of the project relative to the floodplains (i.e. perpendicular), and the limited area available to avoid impacts within the median. Crossings will be designed so that there will not be an appreciable increase in the 100-year floodplain or the risk of flooding. No substantial effects on natural or beneficial floodplain values are expected as a result of the proposed project. Because the proposed project is located with the median of an existing Interstate facility, it will not promote development within the floodplain areas affected. (EA, page 30)

- * **Wetlands:** Approximately 7.7 acres of wetlands lie within the median of I-95, primarily on the southern section of the corridor. Approximately 3.5 of these acres lie within the construction footprint of the conceptual plans. Impacts to the wetlands would primarily be from filling in wetlands during construction of the roadbed. Wetland functional values that would be lost include sediment trapping, nutrient reduction, habitat for wildlife, groundwater discharge, and seasonal flood attenuation. Avoidance and minimization has been considered to the extent practicable given

the location of the wetlands within the median and the limited area available to avoid impacts. Wetland mitigation for the southern section of the project will be coordinated with the Corps of Engineers during the permit process and would be consistent with their preferred hierarchy for mitigating wetland impacts which includes wetland banks, use of in-lieu fees, wetland creation on-site and off-site, and wetland enhancement or restoration. (EA, page 29) When it comes to the northern section of the project, the Corps of Engineers issued a permit in March of 2009 for the northern project of the original I-95/I-395 HOT Lanes proposal. Because of the changes to the scope of the project, the previously approved compensatory mitigation for the northern section of the project has been revised, and those revisions are detailed in Exhibit 14 of the Corps of Engineers Individual Permit Modification Request (July 2011). Specifically, wetland (and stream) impacts on the northern section of the project will be mitigated for by purchasing wetland credits from the Cedar Run Wetlands Bank and stream credits from the Northern Virginia Stream Restoration Bank and Buena Vista and Coan Mill Mitigation Banks as necessary. The Corps of Engineers approved the permit modification in October 2011.

* **Streams:** Approximately 6.9 miles of streambed lie within the median of I-95 and approximately 4.2 miles of these streambeds are within the construction limits of the conceptual plans. Several of the streams that will be crossed by the project are listed as impaired by the Department of Environmental Quality. Impacts to streams would primarily be from filling of stream channels during construction of the roadbed, placement of culverts, and the construction of bridges. Long term impacts to streams could occur as a result of pollutant loading in runoff from impervious surfaces but stormwater retention measures will be incorporated into the project. As designed, these measures will retain runoff for a period of time or slow down the runoff allowing sediments and pollutants to settle out. As with wetland impacts, avoidance and minimization has been considered to the extent practicable but due to the location of the streams within the median, the perpendicular crossing of many of the streams by the project, and the limited area available to avoid impacts within the median, stream impacts are unavoidable. Stream mitigation will be coordinated with the appropriate agencies during the permit process; however, all practicable measures will be taken to avoid and minimize impacts which could include but is not limited to temporary and permanent stormwater measures, open bottom or countersunk culverts, limiting stream work to dry periods, etc. (EA, page 28-29)

* **Endangered Species and Wildlife:** The project was reviewed for federally listed endangered or threatened species and critical habitat. Based on a comprehensive review of the technical data, coordination with state and federal agencies, and field reconnaissance in the study area, appropriate habitat exists for a handful of endangered or threatened species, but no occurrences of those species were identified. The specific species included in the review were bald eagle, small whorled pogonia, harperella, American ginseng, dwarf wedgemussell, sensitive joint vetch, shortnose sturgeon, and swamp pink. The majority of the project alignment has been previously disturbed but the lack of maintenance over time has allowed trees and shrubs to grow up in the median, which remains on the southern section of the corridor. In sections with the widest median, there is wildlife which includes species adapted to urban/suburban conditions. It is anticipated that most, if not all, of the vegetation in the median will be removed for the project. Impacts to wildlife would include the elimination of habitat. However, the habitat is typical for the region, and it has already been disturbed and degraded and lacks connectivity to other habitats in the area. While the habitat may serve as a refuge for wildlife that may try to navigate from one side of the corridor to the other, the habitat is not conducive to wildlife movements given its location in the median of an

Interstate facility. (EA, pages 30-31)

* **Cumulative Impacts:** A qualitative cumulative impacts assessment, which looked at impacts from past, present, and reasonably foreseeable future actions, was included in the EA. Based on that analysis, the incremental impacts from the project are considered minor when considered within the context of cumulative impacts from past, present, and reasonably foreseeable future projects. Based on past actions in the corridor which consists of residential and commercial development, construction of the Interstate itself and other transportation improvements, establishment of military bases, etc, many of the environmental resources that once existed have been depleted or severely diminished in size. Resources that do remain and are not protected in public parks (i.e. federal, state, regional, and stream valley parks) or wildlife refuges generally lack integrity and value. As documented above, there are few natural resources impacted as a result of this project; the primary natural resources impacted by this project are wetlands, floodplains and streams located within the median of an Interstate facility. The incremental impact to these resources that can be expected from this project, when added to the cumulative impacts that these resources have experienced over time, are not considered significant. Moreover, because of the location of the project (the median of an existing Interstate facility), there are no other present and reasonably foreseeable future improvements that are expected to impact the same resources that are impacted by this project.

Findings and Determinations:

Section 106 Determination of No Effect

Based on coordination with the SHPO, it has been determined that the proposed project will have no effect on historic architectural and archeological properties located in, adjacent to and in proximity to the corridor (i.e. area of potential effect). This includes the Neabsco Iron Works, Prince William Forest Park, Aquia Church, Fritter Farmstead, Hunter's Dam, Rappahanock Navigation, Idlewild, Berclair Plantation, and Salem Church Battlefield Historic District.

Determination that there will be no direct or constructive use of Section 4(f) resources – The proposed project will require the acquisition of approximately eight acres of right-of-way. None of this right-of-way will be acquired from resources protected under Section 4(f). Likewise, the proposed project will not have a constructive use of resources protected under Section 4(f). Appendix C of the Noise Analysis identifies several sites representing resources protected under Section 4(f) that fall within the area adjacent to the proposed project analyzed for noise impacts. To the extent that these resources represent noise-sensitive facilities per 23 CFR 774.15(e)(1), none of the resources that will be impacted will experience an increase in noise levels due to the project over 3 dBA (i.e. barely perceptible) except one. The Forest Greens Golf Club will experience noise increases of 4 dBA on two of its greens but this increase is not considered a constructive use because a golf course is not considered a noise sensitive site. Finally, there will be no constructive use of historic resources because compliance with the requirements of Section 106 has resulted in a no effect determination for the project.

Wetland Finding – Wetland impacts have been considered in light of Executive Order 11990. Given that the project is located in the median of an existing Interstate facility and given that many of the wetlands in the median are associated with streams that cross the corridor perpendicular to the roadway, the ability to avoid and minimize wetland impacts is limited. Further, because of

development located adjacent to the project corridor, there is no practicable alternative to the proposed project that would avoid all wetland impacts. However, the proposed project does include all practicable measures to minimize harm that can be developed at this stage of project development. Based on the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands, and the proposed project includes all practicable measures to minimize harm to wetlands that can be developed at this stage of project development which may result from such use.

Mitigation and Minimization Commitments: FHWA, in conjunction with VDOT, has committed to the following mitigation and minimization measures to address the impacts to the social and natural environment resulting from the implementation of the proposed project (note: this does not include mitigation for impacts during construction, which are addressed in accordance with VDOT's *Road and Bridge Specifications*):

- ▶ The project was redesigned to avoid impacts to three potentially eligible archeological sites located within the median of the project (EA, Table 3, page 23).
- ▶ Approximately 75,000 linear feet of noise barrier that would provide noise reduction benefits to approximately 2,313 residential units, one church, one athletic field, two tennis courts, and one area of planned future development have been found to be feasible and reasonable based on preliminary design information. During final design, a more detailed analysis will be conducted and the noise abatement conclusions re-evaluated. At that time, all noise barriers that are found to be feasible and reasonable will be incorporated into the project (EA, page 32; Noise Analysis, page 32).
- ▶ Floodplain crossings will be designed so that there will not be an appreciable increase in the 100-year floodplain or the risk of flooding (EA, page 30).
- ▶ VDOT will minimize impacts to streams and wetlands by complying with Virginia erosion and sediment control and stormwater management regulations (EA, Table 3, page 25; page 29).
- ▶ Wetland and stream impacts on the southern section of the project will be mitigated in accordance with Army Corps of Engineers and Virginia Department of Environmental Quality mitigation requirements. Specific mitigation measures will be identified during the permitting process in coordination with the Corps of Engineers (EA, pages 29). Wetland and stream impacts on the northern section of the project will be mitigated in accordance with the Corps of Engineers permit modification approval dated October 29, 2011.
- ▶ Intersections that are degraded as a result of the project (Interchange Justification Report, section 9.3.4.1) will be reviewed to determine if minor improvements can be made to improve the operational efficiency of them compared to the no-build scenario.

Public Involvement: VDOT hosted three public hearings where the EA and supporting studies were made available to the public for the entire project and the design plans were made available for the northern section of the project. The public hearings were held on September 26 at Botts Fire Hall in Woodbridge, September 28 at the Waterford at Springfield, and September 29 at North Stafford High School in Stafford County. When it comes time for the southern section of the project to move

forward, additional design public hearings will be held once the plans are developed.

Miscellaneous Issues and Considerations:

Extension of the acceleration/deceleration lane from the Turkeycock flyover to Duke Street:

The EA mentions that the project currently proposes to connect the acceleration/deceleration lane from the Turkeycock flyover to the eastbound off-ramp at Duke Street and that there may be a need to extend this acceleration/deceleration lane to the westbound off-ramp at Duke Street to mitigate for slightly higher traffic volumes associated with the HOT Lanes project. Further, since the release of the EA for public availability, it has been learned that FHWA's engineers will likely condition their approval of the Interchange Justification Report for the I-95 HOT Lanes Project on the construction of an extension of the acceleration/deceleration lane from the Turkeycock flyover past Duke Street all the way to the Seminary Road interchange. This raises the question of whether the need to extend the acceleration/deceleration lane to Seminary Road is triggered by the I-95 HOT Lanes project and therefore, needs to be included in the scope for the I-95 HOT Lanes project and its impacts addressed in the EA. A review of the Interchange Justification Report for the I-95 HOT Lanes project shows that the need to extend the acceleration/deceleration lane is caused by traffic going from I-495 eastbound (EB) to I-395 northbound (NB). Traffic on the I-495 EB to I-395 NB ramp does not currently back up onto the mainline, but it is estimated that in the 2018 no-build scenario, traffic on the I-495 EB to I-395 NB ramp will back up onto the mainline of I-495 for approximately an hour and a half during the peak period and for approximately two hours in the 2035 no-build scenario (Interchange Justification Report, exhibit 9-44 and 9-55, respectively). It is further estimated that in the 2018 build scenario, traffic on the I-495 EB to I-395 NB ramp will back up onto the mainline of I-495 for approximately two hours during the peak period and for approximately two and a half hours in the 2035 no-build scenario (Interchange Justification Report, exhibit 9-44 and 9-55, respectively). A major contributing element to operations at the northern terminus is the downstream congestion and queuing resulting from operations at the Seminary Road interchange and the northbound freeway segment between Duke Street and Seminary Road (Interchange Justification Report, page 17). Therefore, while the I-95 HOT Lanes project will contribute to the length of the backup onto I-495 mainline, it is not the trigger or cause of that problem and as such, it does not need to be addressed as part of the NEPA process for this project. In discussing the anticipated condition of tying the approval of the Interchange Justification Report for the I-95 HOT Lanes project to the extension of the acceleration/deceleration lane to Seminary Road with the reviewing official, it was indicated that when FHWA approves an Interchange Justification Report, they strive to correct whatever deficiencies exist whether or not they can be attributed to the project at hand. Accordingly, VDOT will pursue the extension of the acceleration/deceleration lane as a separate project with a separate purpose and need.

Tolling of Interstate 95:

On September 14, 2011, FHWA granted VDOT conditional provisional approval to move forward with their proposal to toll I-95 under the Interstate System Reconstruction and Rehabilitation Pilot Program (ISRRPP). The conditional provisional approval covers the entire length of I-95 in Virginia including the I-95 HOT Lanes project area, and it gives VDOT the authority to take whatever additional actions are necessary to submit an application that satisfies the statutory requirements of the ISRRPP. FHWA's approval letter goes on to state that full approval to toll I-95 will not be granted until after conclusion of the NEPA review process for the tolling proposal and execution of a toll agreement. These actions won't likely occur until late-2012. At this time, VDOT is in the early

stages of studying the corridor to determine the specific tolling approach and toll collection infrastructure locations. Therefore, it is not possible to determine the potential impact that VDOT's tolling proposal may have on the I-95 HOT Lanes project and whether it will divert traffic from the corridor to parallel facilities. If traffic were to divert, it could reduce the air quality levels of the criteria pollutants and the noise impacts that have been predicted for the I-95 HOT Lanes project since those levels and impacts are dependent, in part, on traffic. Once the NEPA process for the I-95 tolling proposal is conducted, FHWA and VDOT may need to re-evaluate the I-95 HOT Lanes project in light of the findings.

Phasing of construction and operational independence:

As currently anticipated, the proposed I-95 HOT Lanes improvement will be developed and delivered in at least two independent phases and possibly as public private partnerships. The first phase is expected to focus on the northern section of the project and would begin approximately two miles north of the I-95/I-395/I-495 interchange (near Turkeycock Run). The existing HOV lanes between the northern terminus and the Prince William Parkway will be expanded from two to three lanes. The existing two HOV lanes from the Prince William Parkway to south of the Town of Dumfries will be maintained and two new HOV lanes will be constructed approximately 9 miles from south of the Town of Dumfries down to Route 610. The HOV lanes will be operated as HOT lanes and access on and off the HOT lanes will be implemented. This northern section of the project can function and operate as a viable transportation facility even if the rest of the work described below isn't implemented.

In the second or subsequent phase(s), two new HOV lanes would be constructed from Route 610 to approximately 1.1 mile south of Route 17 and be operated as HOT lanes. Access on and off the HOT lanes will be implemented.

Traffic on cross-streets:

2035 build and no-build peak hour traffic was forecasted for the interchanges in the corridor and for the signalized intersections located adjacent to the corridor. (Table 5 and 7, Air Quality Analysis; Table 2, EA) Peak hour traffic is important because, generally, it is used when designing interchanges or intersections or making improvements to them. Since the PM peak hour traffic is generally greater than the AM peak hour traffic throughout the I-95 corridor, the PM peak hour traffic is the more critical of the two. A review of Table 5 of the Air Quality Analysis shows that the percent change in PM peak hour traffic between the 2035 build and no-build scenario for the interchanges is not significant and in many cases, comparable; at five interchanges, the PM peak hour traffic will actually decrease with the project in place.

A total of 73 intersections were analyzed in the project area in the northern section of the proposed project (Interchange Justification Report, Table 4-1; (Note: An Interchange Justification Report hasn't been prepared for the southern section of the project yet because it is anticipated that the northern section improvements would be constructed first. However, because the northern section of the project has higher traffic volumes (EA, Table 1), that is where issues with intersections are a greater concern)). These intersections included ramp terminal intersections and adjacent local street intersections. In the 2018 AM build scenario, the number of intersections operating at better level of service is expected to increase. In the 2018 PM build scenario, intersection operations are expected to degrade slightly. (Interchange Justification Report, sections 9.3.2.6 and 9.3.2.7) In the 2035 AM build scenario, there is no significant degradation in intersection operations expected. In the 2035

PM build scenario, intersection operations are expected to degrade slightly. (Interchange Justification Report, sections 9.3.3.6 and 9.3.3.7)

Effect of the project on “slugging”:

A couple of comments received on the EA expressed concern about the impact of the project on “slugging”. To the extent that the effect of the project on slugging is considered a human environment issue, the EA does not address it. However, some general comments can be made and conclusions drawn about the issue. Slugging, also known as casual carpooling, is the practice of forming ad hoc, informal carpools, to take advantage of the HOV lanes on I-95 and I-395. Slugging has also been described as a form of hitchhiking between strangers that is beneficial to both parties. Usually, sluggers will line up at a park and ride lot, and drivers will come by looking for individuals that have a destination that is compatible with their own.

The HOT Lane concept has been criticized because it has been suggested that HOV traffic will be crowded out of the HOT lanes by non-HOV traffic, that HOT Lanes are meant for the affluent, or that the operators of the HOT lanes will try to maximize the amount of non-HOV traffic on the HOT Lanes in order to maximize toll receipts. However, this shows a misunderstanding of how HOT lanes are intended to function and operate under the law. Federal law allows for the tolling of HOV facilities. When this is done, the lanes are managed as HOT Lanes. Vehicles that meet the HOV requirements are allowed to use the HOT Lanes for free. Excess capacity is then sold to vehicles that do not meet the HOV requirement and are willing to pay the toll. In accordance with the law, operational performance monitoring systems are required to be implemented to ensure that the facility meets minimum performance standards and that the performance of the facility is not degraded. Accordingly, tolls will fluctuate based on traffic conditions in order to manage demand and keep them operating at an acceptable level of service. As traffic volume and demand increases, tolls will increase in an effort to price out non-HOV traffic and maintain an acceptable level of service. As traffic volume and demand decreases throughout the day, tolls will also decrease in an effort to attract more non-HOV traffic to the HOT lanes. It is expected that the peak periods of use and demand for the HOT Lanes will be during the morning and evening rush hours. During these periods, demand by HOV users will be at its peak limiting the amount of excess capacity that can be sold to non-HOV users; likewise, tolls will be set at a premium rate during these periods. It is conceivable that there may be locations along the facility during these peak periods when non-HOV users will be denied access to the HOT Lanes because there will be no excess capacity to sell off. It will be in the vested interest of the operators of the facility to keep the HOT Lanes uncongested and the traffic flowing. If the performance of the HOT Lanes are allowed to degrade such that there is no advantage to using them over the general purpose lanes, non-HOV users aren't going to pay a toll to experience the same type of traffic conditions that they can experience on the general purpose lanes for free.

The extension of the HOV lanes approximately 26 miles to the south past Fredericksburg will make it more attractive for commuters looking to carpool both formally and informally and provide those living in the southern section of the study area with an additional travel choice. Another factor that might encourage HOV use (i.e. both formal and informal carpooling) while discouraging non-HOV use is the fact that the HOT Lanes are designed to end just north of the I-95/I-395/I-495 interchange where all non-HOV traffic will be required to exit the facility and use the general purpose lanes. The non-HOV traffic commuting into the City of Alexandria, Arlington County, and the District of Columbia lose the benefit of the HOT Lanes at a point where the general purpose lanes are the most

congested. Finally, another factor that might encourage HOV use is the fact that there will be a toll on the HOT Lanes at all hours of the day, but HOV users will be able to continue to use the HOT Lanes for free. In contrast and unlike the conditions today where non-HOV users can use the existing HOV lanes for free and without penalty during non-peak periods, they will have to pay a toll to use the HOT Lanes regardless of the time of day that they use them.

For these reasons, FHWA does not believe that the I-95 HOT Lanes project will have an adverse effect on formal or informal carpooling in the I-95/I-395 corridor. In addition, this past summer VDOT initiated a study to look at the potential mobility impacts of HOT lanes on formal and informal carpooling. If negative impacts are found, the study will recommend mitigation strategies. Should negative impacts be found, FHWA will consider the mitigation strategies that come out of the study for inclusion in the project.

Effect of the project on land-use:

A couple of comments received on the EA also expressed concern over the lack of information on the linkage between transportation and land use. There are two ways of looking at this issue: the influence of transportation decisions on land use and the impact of land use decisions on transportation facilities. The influence of transportation decisions on land use is a complex relationship, and one dependent upon a number of factors. It is commonly accepted that new transportation facilities and transportation improvements in general can be a trigger for development or create pressures that lead to land use changes favorable to development. In fact, some transportation projects are developed with the intent of spurring economic development or to accommodate a specific land use decision made at the local level. However, land use decisions and growth pressures are not strictly a transportation issue. Studies over the last 15-20 years reinforce this idea by supporting the concept that the association between road construction and urbanization has been historically over-stated and that roads, at best, are an inefficient means for inducing or encouraging development in the absence of a combination of other necessary development factors (Hartgen, et al, 1990; Bly, 1998; Hartgen, 2003a) and that major road improvements appear to “accommodate, rather than spur, growth” (Hartgen, 2003b). At the direction of Congress, FHWA completed the Economic Development Highways Initiative which reached a similar conclusion. The overall results of the initiative support the general linkage between highway improvements and development, but validate the contention that highway improvements are a necessary but not sufficient condition for capturing economic growth potential. In other research conducted by FHWA that looked at the link between economic development and interstate facilities, similar conclusions were reached reinforcing the idea that roadways are but one factor that influence land use and development decisions.

To the extent that transportation plays a role in land use decisions, the impact of the proposed improvements on land use decisions is not expected to be significant. The fact that the project area is already served by a major interstate facility six to eight lanes wide that runs the length of the East Coast minimizes the influence of the proposed improvements on land use decisions. Likewise, the proposed project will not provide any new access to secondary or primary roads located in the I-95 corridor where said access does not currently exist, which in turn would create development pressure along these facilities.

There are a variety of reasons why individuals live where they live. For those that have to commute everyday from the outlying localities in the study area to the urban core of northern Virginia or the

District of Columbia, few would cite the ease of the commute or the existing transportation system as a factor effecting their decision to live where they do. Quite simply, many people that live in outlying areas can't afford to live in the urban core due to higher property values, cost of living and taxes typically associated with the northern localities. For example, a review of data at www.city-data.com shows the following:

	2009 Median Household Income	2009 Median Home Value	2011 Cost of Living Index (U.S. Average is 100)
Locality:			
Arlington County	\$96,218	\$559,000	139.2
Alexandria	\$77,095	\$458,000	137.9
Fairfax County	\$94,659	\$504,791	119.9
Prince William County	\$89,785	\$331,400	115.0
Stafford County	\$88,438	\$304,100	114.6
Spottsylvania County	\$76,425	\$272,699	112.5

These factors along with the school system, proximity to parks and green space, access to retail and shopping, etc. all influence one's decision where to live. Therefore, the proposed improvements may be a factor in ones decision to live where they live but it is not expected to be a primary factor for most people.

For years, there has been a push to improve the coordination between transportation and land use decisions. In Virginia, this can be a difficult relationship to address because land use decisions are the prerogative of local governments while transportation planning and funding decisions are generally made at the state level. Roads are a critical public resource and constitute a major investment of the public's money. Land use decisions in the form of new development can create traffic impacts that lead to a reduction in the traffic carrying capacity of roadways leading to increased congestion and decreased safety; this in turn can increase the cost to state and local governments as well as the broader community. Therefore, improving the coordination between transportation and land use decisions is essential for ensuring mobility throughout the state. To this end, Virginia has taken several steps to minimize the impact of land use decisions on transportation and transportation decisions on land use.

To promote more compact urban design and combat sprawl, Virginia is requiring its higher population growth jurisdictions to designate Urban Development Areas (UDAs) inside local comprehensive plans that can accommodate 10 to 20 years of their population growth within areas (i) appropriate for higher density development due to its proximity to transportation facilities, the availability of a public or community water and sewer system, or a developed area and (ii) to the extent feasible, to be used for redevelopment or infill development. The planning requirements, in the Code of Virginia at § 15.2-2223.1, also set land use density standards. The Virginia Secretary of Transportation's Office has sponsored numerous urban development planning grants that provide consultant assistance for affected jurisdictions UDA planning initiatives.

Chapter 527 of the 2006 Acts of Assembly added § 15.2-2222.1 to the Code of Virginia. The legislation established a process by which localities are required to submit development proposals to

the VDOT for review and comment when those proposals will substantially affect the state-controlled transportation network. The legislation is intended to improve how land-use and transportation planning decisions are coordinated throughout Virginia by establishing standardized methodologies (definitions, analytical methods, etc.), procedures for analyzing transportation impacts, and procedures for disseminating that information to citizens and policymakers. As part of this process, localities must conduct a traffic impact analysis.

The Traffic Impact Analysis Regulations (24 VAC 30-155) set forth procedures and requirements implementing § 15.2-2222.1 and governing VDOT's review of and submission of comments regarding comprehensive plans and amendments to comprehensive plans, rezoning proposals, and subdivision plats, site plans and plans of development and the accompanying traffic impact analyses. This regulation identifies types of proposals that "substantially affect" transportation on state controlled highways, and provides additional information to assist policymakers and the public in planning and land-use and transportation decisions. In 2010, the Traffic Impact Analysis Regulations were amended to offer local governments the option of conducting a single traffic analysis at the comprehensive plan stage of the development process for all parcels that are part of a small area plan for an urban development area or for a large transit oriented development.

Evaluation of Significance:

In 40 CFR § 1508.27, the Council on Environmental Quality's regulations identify ten criteria that should be considered in determining whether the intensity of a project's impacts are significant enough to warrant the preparation of an EIS. Those ten criteria are discussed below:

1. *Impacts that may be both beneficial and adverse* – In addition to the adverse effects of the project described above which FHWA believes are neither significant individually nor cumulatively, the project will have some beneficial impact on the environment. However, it is not anticipated that these beneficial impacts will be significant. For example, the social environment, represented by the users of the facility and those living near the project, will benefit from the expanded HOV system, added capacity, improved/expanded access to the managed lanes, and enhanced incident response. The Interchange Justification Report shows an improvement in operations compared to the no-build scenario in terms of travel time, percent of LOS F, average speeds, and total demand served.
2. *The degree to which the project affects public health or safety* – It is not anticipated that the project will adversely affect public health or safety. Two areas where public health arises as an issue is in the area of air and noise impacts. The NAAQS were established with public health in mind. The Air Quality Analysis demonstrated that there would be no exceedances of the NAAQS that apply to the project area and therefore, the project would not adversely affect public health as it relates to particulate matter, ozone, and carbon monoxide. Likewise, the MSAT analysis demonstrated that there does not appear to be any significant change in MSAT emission levels as a result of the I-95 HOT Lanes project and that there would in fact be significant reductions in MSAT emissions over time regardless of the project. Likewise, noise is assessed against noise abatement criteria (NAC) established by FHWA. These NAC were developed by considering several criteria including: 1) hearing impairment; 2) annoyance, sleep, and task interference or disturbance; and 3) interference with speech communication (FHWA's Highway Traffic Noise Analysis and Abatement Guidance). The noise analysis demonstrated that the impact of the project on existing noise

levels would be nominal. At the overwhelming majority of sites analyzed, existing noise levels would remain unchanged or increase by one dBA. At a handful of sites, noise would increase two dBA. At one site, noise would increase three dBA and at another site, noise would increase four dBA. An increase of 3 dBA is considered barely perceptible under normal environmental conditions. As for safety, one of the conclusions of the Interchange Justification Report is that the proposed project will have no significant impacts on operation and safety of the corridor.

3. *Unique characteristics of the geographical area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers or ecologically critical area* – There are historic properties, parks, and recreational resources located adjacent and in proximity to the project corridor; wetlands are located within the existing median of the facility as well. However, it has been determined that the project will have no effect on the historic properties identified and not require any direct or constructive use of resources protected under Section 4(f). Further, the project has been designed to minimize impacts to wetlands in the median. The majority of wetland impacts occur along the southern section of the project where the median is still wooded. However, the ability to minimize wetland impacts is limited because the width of the median restricts how much the alignment of the HOV/HOT lanes can be shifted.
4. *The degree to which the effects on the environment are expected to be highly controversial* – The effects on the environment attributed to this project are not expected to be controversial let alone highly controversial. Environmental issues have been coordinated with the appropriate state and federal resource and regulatory agencies, and they have been provided an opportunity to review the EA. Those agencies that submitted comments did not take issue with the assessment of impacts or disagree with the effect of the project on environmental resources.
5. *The degree to which the effects on the quality of the human environment are highly uncertain or involve unique or unknown risks* – There are no effects on the quality of the human environment associated with this project that can be considered highly uncertain or involve unique or unknown risks. Because the proposed project is located within the median of an existing Interstate facility, the impact on the quality of the human environment is limited. The project will not physically impact any neighborhoods, public parks, community facilities, non-profit organizations, schools, commercial development, etc. Accordingly, no homes, businesses, farms, or non-profit facilities will be displaced by the proposed project. The right-of-way needed for the project is approximately eight acres and that is limited to a couple of locations where the median is not wide enough to accommodate the proposed project. As a result, the median will be pushed out and a minimum amount of property acquired outside the limits of the existing right-of-way. In a couple of other locations, minor amounts of right-of-way will be needed to accommodate flyovers.
6. *The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration* – This action will not establish a precedent for future roadway projects with significant effects or represent a decision in principle about a future project. The impacts associated with this project are not unique and instead, are fairly common for transportation improvements. The decision on this project represented by the FONSI is a stand-alone decision and does not create any obligation or bind decision makers on future actions in any way.
7. *Whether the action is related to other actions with individually insignificant but cumulatively significant impacts* – The scope of the project has been developed with CEQ's regulations at

40 CFR Part 1508.25 in mind. Other reasonably foreseeable actions in proximity to the proposed project were identified in the EA, but none of them meet CEQ's criteria for connected, cumulative, or similar actions such that they should be considered in the I-95 HOT Lanes project NEPA document. In addition, the EA addressed the cumulative effects of these reasonably foreseeable actions and did not identify any significant cumulative effects. Projects like the Fourth Lane Widening that is under construction, the improvements at I-395 and Seminary Road to address developments associated with BRAC that are being studied, and the extension of the acceleration/deceleration lane from the Turkeycock flyover discussed above are all located in the right-of-way of the existing I-95/I-395 corridor and are located in areas where there are no environmental resources because of past actions. Since these other actions have few, if any, environmental impacts associated with them, there are no meaningful cumulative effects to speak of let alone cumulative effects that may be significant. Finally, while some of these reasonably foreseeable actions are located just north of the proposed project, this project has independent utility and logical termini and will serve a legitimate need even if no other improvements are made in the project area; this project is neither dependent upon other projects nor are those projects dependent upon it.

8. *The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss of significant scientific, cultural, or historic resources* – The project will have no effect on the historic properties identified.
9. *The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act* – No federally-listed endangered or threatened species will be effected by the proposed project.
10. *Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment* – The proposed action does not knowingly threaten a violation of any Federal, State, or local law for the protection of the environment. If anything, the project facilitates compliance with Federal, State and local law. The project will include erosion and sedimentation controls during construction and include stormwater management controls in the design of the facility in keeping with State and local laws.

Based on the information contained in the EA and other supporting documentation provided by VDOT, FHWA has concluded that the proposed project will not have a significant impact on the environment, either individually or cumulatively. Therefore, an EIS is not warranted, and a Finding of No Significant Impact is being issued accordingly.



Edward Sundra