



## COMMONWEALTH of VIRGINIA

### DEPARTMENT OF TRANSPORTATION

1801 Orange Road  
Culpeper, Virginia 22701-3819

**Stephen C. Brich, P.E.**  
Commissioner

October 26, 2018

Federal Highway Administration  
Attention – Vanna P. Lewis, P.E., Area Engineer  
Virginia Division, FHWA, US DOT  
400 N. 8th Street, Suite 750  
Richmond, VA 23219-4825

Virginia Department of Transportation  
Attention – Garrett W. Moore, P.E., Chief Engineer  
1401 E. Broad Street  
Richmond, VA 23219

Re: Contract ID. No. C00077384DB100  
Project No. 0029-030-121, P101, R201, C501, B616  
FHWA No. STP-032-7(032)

Subject: Warrenton Southern Interchange, US Route 15/17/29  
**Final Design Noise Analysis Concurrence Letter**

Dear Ms. Lewis and Mr. Moore:

In accordance with Part 2, Section 2.4.8 – Noise Mitigation, a Final Design Noise Analysis was completed by the Design-Builder, Shirley Construction Company LLC (Shirley), during final design. It was submitted to VDOT for review and received final approval on 09/21/18. The Final Design Noise Analysis consisted of a re-analysis of all noise sensitive receptors identified in the RFP documents within the project area. A synopsis of the findings follows.

The noise analysis was conducted in accordance with Federal Highway Administration (FHWA) and Virginia Department of Transportation (VDOT) noise assessment regulations and guidelines. The FHWA regulations are set forth in 23 CFR Part 772. VDOT's revised policy, updated on February 20, 2018, was followed. The study involved monitoring of existing noise conditions and modeling of existing (2017) and design year (2040) noise conditions in the study area with the FHWA-approved computerized Traffic Noise Model.

Two residential units are impacted in the existing and future conditions as they exceed threshold for Activity Category B (approach or exceed 67 dBA). There are no impacts associated with the "substantial increase above existing" impact threshold. The total length, estimated cost, and benefits which would be provided by the noise barriers were evaluated in the study. Noise abatement was found to be not feasible at one location along the project corridor where existing driveway access to US 15/17/29 is to be maintained in the design year. A noise barrier was evaluated to mitigate the

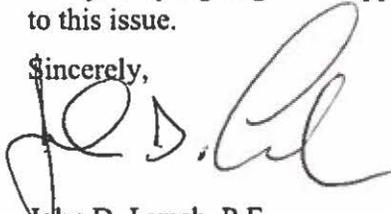
predicted noise impact at the single family home located at 8464 Turkey Run Drive. Although the barrier was found to be feasible, it was found to be not reasonable with a surface area per benefited receptor value of 2,294 SF/BR.

Part 2, Section 2.4.8 of the design build RFP required the noise consultant that completed the Final Design Noise Analysis, Skelly and Loy, to review the sound barrier plan set and certify the proposed design meets the noise abatement requirements. **The results of the noise analysis concluded there are not noise barriers that are feasible and reasonable, and therefore noise barriers have not been included in the plan set.** The design outlined in the design build plan set was used for this noise analysis and Skelly and Loy certified the design is reflected accurately in the noise modeling.

The District has determined that, as the results of the Final Design Noise Analysis concluded there are no noise barriers which are feasible and reasonable, the Design-Builder will not be required to prepare and mail letters to benefitted receptors ascertaining their desire to have noise barriers constructed. Noise barriers are no longer being considered as part of this Design-Build project, and thus there are no benefitted receptors.

Please provide your concurrence with the results of the subject project Final Design Noise Analysis by signing in the appropriate space below. Thank you for your time and consideration to this issue.

Sincerely,



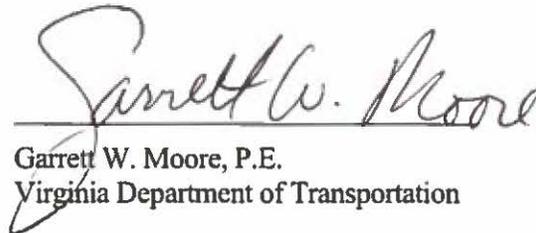
John D. Lynch, P.E.  
Culpeper District Engineer

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I concur with the results of the Warrenton Southern Interchange Design-Build project Final Design Noise Analysis.



Vanna P. Lewis, P.E.  
Federal Highway Administration



Garrett W. Moore, P.E.  
Virginia Department of Transportation

CC: Susan Keen, P.E.  
Satish Airi, P.E.  
Greg Cooley, P.E.  
John Glass, P.E.