



County of Fairfax, Virginia

Route 28 Widening

Prince William County/ Fairfax County Line to Route 29

Community Information Meeting Noise Barriers

**(Virtual)
June 17, 2021**

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James Beall, PE
Fairfax County Department of Transportation**





Asking Questions

- ✓ Use the Q&A Function
- ✓ Questions may be held so that everyone can participate
- ✓ Unanswered questions will be addressed post-meeting
- ✓ Phone participants with questions will be called on after the presentation
- ✗ Do not use the Chat function



Introductions

- District Supervisors and Staff
 - Sully District – Supervisor Kathy Smith
 - Springfield District – Supervisor Pat Herrity
- Fairfax County Department of Transportation (FCDOT)
 - Shirley Contracting Company- Tripper Henson
 - Dewberry Engineers- Erik Dull
 - Skelly & Loy- Bill Kaufell
 - VDOT
 - Northern Virginia Transportation Authority (NVTA)
 - Others



Agenda

- Project Overview, Schedule, and Upcoming Construction
- Land Acquisition Process
- Noise Analysis, Proposed Noise Barriers, Design, Voting Process
- Questions





Project Overview

Route 28 Widening and Reconstruction:

- Construct an additional through lane in each direction (three lanes in each direction) from just north of the bridge over Bull Run to the Route 29 Interchange
- Include Shared Use Paths- both sides of Route 28
- Total Project Budget = \$78,782,000 (Preliminary Engineering, Right of Way, Construction, Inspection, Administration, etc.)

FCDOT awarded a Design Build contract to Shirley Contracting Company in June 2020

- | | |
|---------------------------------------|-------------------|
| • Substantial Construction Completion | December 31, 2022 |
| • Final Construction Completion | Spring 2023 |





Estimated ROW Requirements

Based Upon 100% Design

| | Number of Parcels | | |
|-----------------------------|--------------------------|-----------------------|----------------|
| | Total parcels affected | ROW and/ or Easements | Easements Only |
| Route 28 Roadway | 44 | 19 | 25 |
| Stormwater Management Ponds | 4 (3 total acquisitions) | 4 | 0 |
| | | | |
| | | | |
| Total Parcels | 48 | 23 | 25 |

No demolition or removal of residential or commercial structures.

Utility relocations will require additional easements



Land Acquisition Process

- Land Acquisition must be completed in accordance with FHWA, VDOT, and Fairfax County procedures.
- Plats will be prepared showing easements and/or right-of-way needed.
- Appraisals will be conducted in accordance with County, VDOT and FHWA requirements.
- A Land Acquisition Agent from the Design-Build Team will contact property owners to negotiate fair market value for easements and/or right-of-way needed.





Land Acquisition Process

- Negotiations with property owners cannot commence until VDOT and FHWA authorize FCDOT and the Design-Build Team to do so.
- Initial ROW acquisition for Storm Water Management facilities is expected to begin in Summer 2021
- Initial acquisition includes three full parcel acquisitions and one partial acquisition
- Remaining land acquisition will begin in Summer or Fall 2021





Construction Update

- Recently Completed:
 - Advanced Temporary Shoulder Strengthening to allow shifting traffic
 - Advanced Mill and Overlay of the existing Lanes to address deteriorating asphalt
 - Installation of shifted Temporary Pavement Markings to facilitate widening activities
- Ongoing Activities: (Through June)
 - Temporary Traffic Barrier Placement from Southern Limits to Green Trails
 - Expect Daily Lane Closures (Mon – Thurs (9:30 AM to 3:00 PM), Fri (9:30 AM to 2:00 PM))
- Upcoming Construction Activities: (Later this Summer)
 - Clearing and Grubbing from Southern Limits to Green Trails
 - Erosion and Sediment Control Installation
 - Storm Drainage Installation
 - Excavation activities



Construction Update

- No construction will occur on private property before Land Acquisition occurs. County and Contractor will coordinate with property owners
- Work hours are set by VDOT and Fairfax County
 - **Night work (10:00 PM- 5:00 AM) will occur**
- Contractor must maintain pedestrian and vehicular traffic and signals during construction.
- No lane closures will be allowed during peak travel hours.





Noise Barriers 101

- As required by Federal law, a preliminary noise impact analysis was conducted as part of the NEPA process per VDOT Noise Policy
- Where project noise levels are projected to exceed established criteria, FCDOT is *required to propose noise mitigation*
- Noise Barriers will be constructed *only* if the people who are directly benefitted vote in favor of them
- Noise Analysis
 - Computer model calibrated to existing conditions
 - Based on design year traffic volumes (2040)
 - Loudest hour



Final Noise Analysis

- As part of Final Design, Shirley Contracting conducted a Final Noise Analysis. VDOT and FCDOT have reviewed and concur with this final analysis.
- VDOT defines “noise impacts” as noise levels approaching (within 1 dBA) or exceeding the Noise Abatement Criteria (67 dBA (Leq)) during the loudest hour of the day. Currently, 37 noise-sensitive receptors (e.g., residences, etc.) experience noise impacts.
- By 2040, it is anticipated that the number of impacted receptors will increase to 81.
- Noise impacts are predicted at building exteriors



LEVELS OF NOISE In decibels (dB)

| | | |
|---|-----|---|
| PAINFUL & DANGEROUS | | |
| Use hearing protection or avoid | 140 | • Fireworks • Gun shots • Custom car stereos (at full volume) |
| | 130 | • Jackhammers • Ambulances |
| UNCOMFORTABLE | | |
| Dangerous over 30 seconds | 120 | • Jet planes (during take off) |
| VERY LOUD | | |
| Dangerous over 30 minutes | 110 | • Concerts (any genre of music) • Car horns • Sporting events |
| | 100 | • Snowmobiles • MP3 players (at full volume) |
| | 90 | • Lawnmowers • Power tools • Blenders • Hair dryers |
| Over 85 dB for extended periods can cause permanent hearing loss. | | |
| LOUD | | |
| | 80 | • Alarm clocks |
| | 70 | • Traffic |
| MODERATE | | |
| | 60 | • Normal conversation • Dishwashers |
| | 50 | • Moderate rainfall |
| SOFT | | |
| | 40 | • Quiet library |
| | 30 | • Whisper |
| FAINT | | |
| | 20 | • Leaves rustling |

“Impact”: 66 dbA

Source: American Academy of Audiologists





Noise levels

- Decibels are measured on a logarithmic scale. An increase of 10 dB will be perceived as a doubling of the sound level.
- A 3dB sound level change is barely detectable by the human ear.
- dbA is average hourly decibel level.





Final Noise Analysis

- Shirley evaluated potential 10 Noise Barriers, based on VDOT's five criteria of reasonableness and feasibility:
 1. Acoustically effective by reducing levels at impacted receptors by at least 5 dBA.
 2. Possible to design and construct the barrier (Feasible).
 3. Face of barrier cannot be larger than 1,600 sq. ft. per benefited receptor (Reasonable).
 4. At least one receptor achieves a 7 dBA reduction or greater.
 5. A majority of owners or residents of benefited receptors must favor the barrier

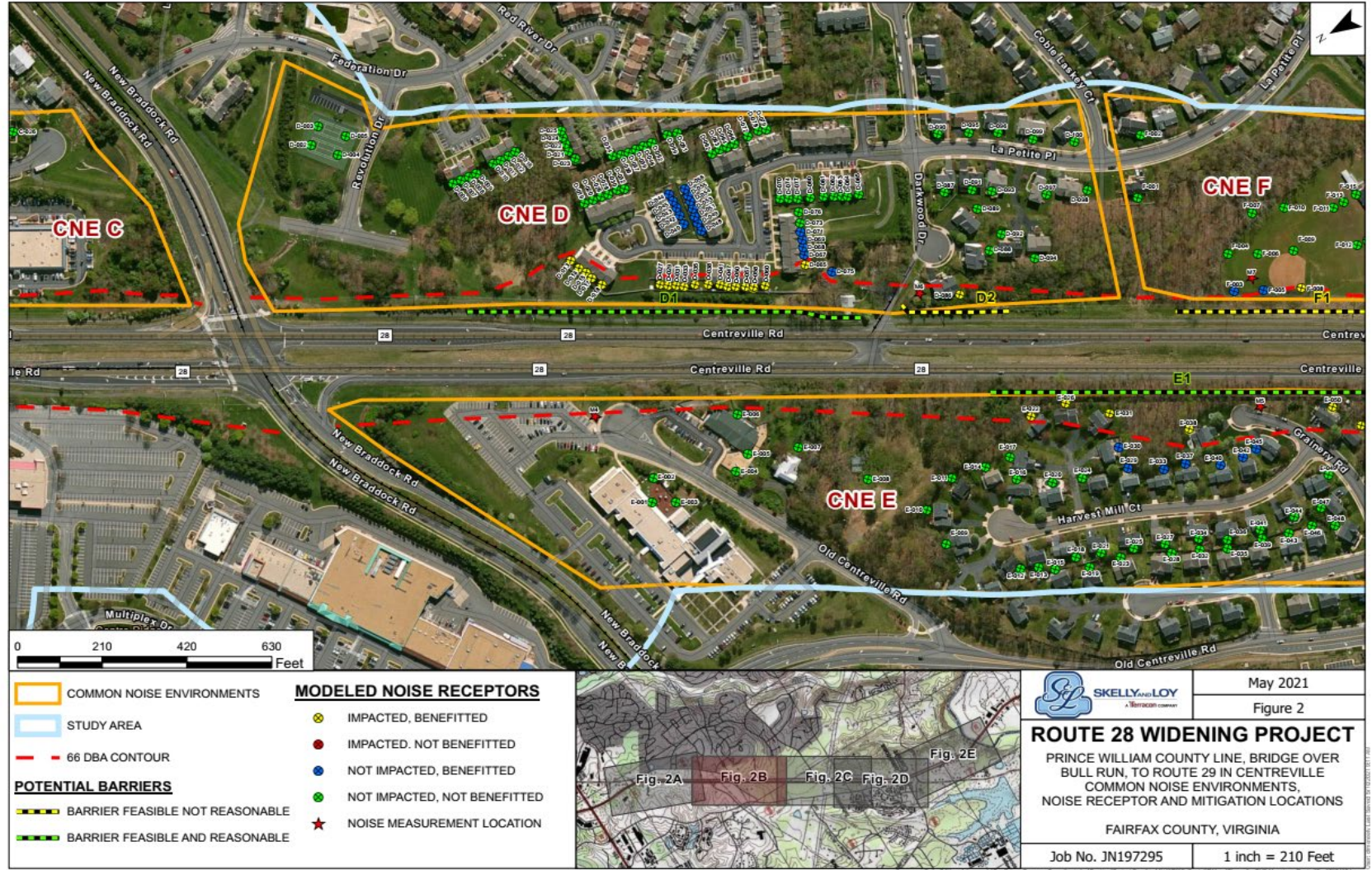


Final Noise Analysis

- Four barriers were found to meet the first four criteria (“reasonableness and feasibility”)
 - A. Barrier D1 - East side of Route 28 between New Braddock Road and Darkwood Drive
 - B. Barrier E1 - West side of Route 28, east of Harvest Mill Court **NEW!**
 - C. Barrier I1-I2 - West side of Route 28 north of Compton Road
 - D. Barrier J - East side of Route 28 north of Compton Road **NEW!**



Common Noise Environment (CNE) D and E





Barrier D1



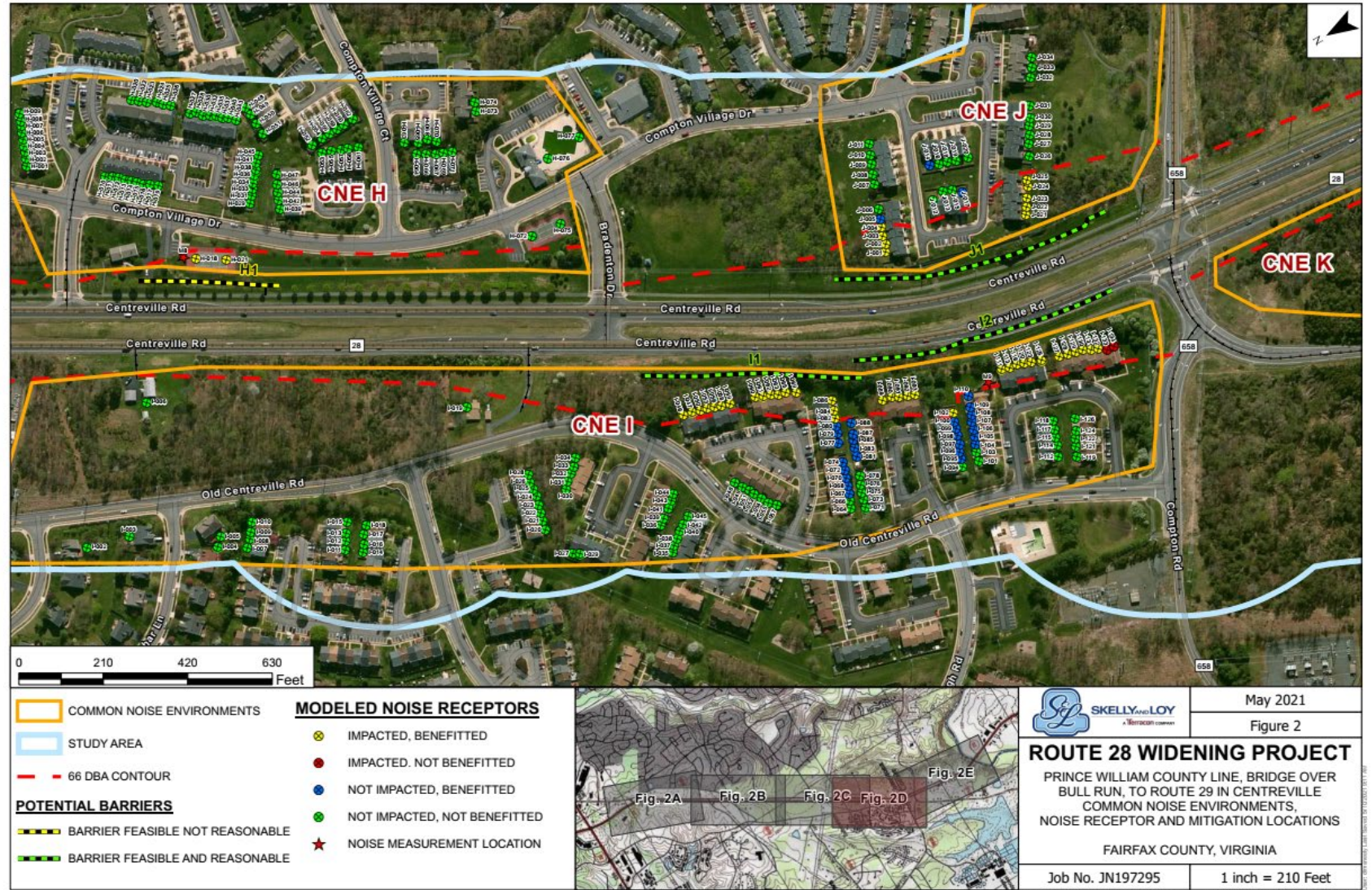


Barrier E1





CNE I and J



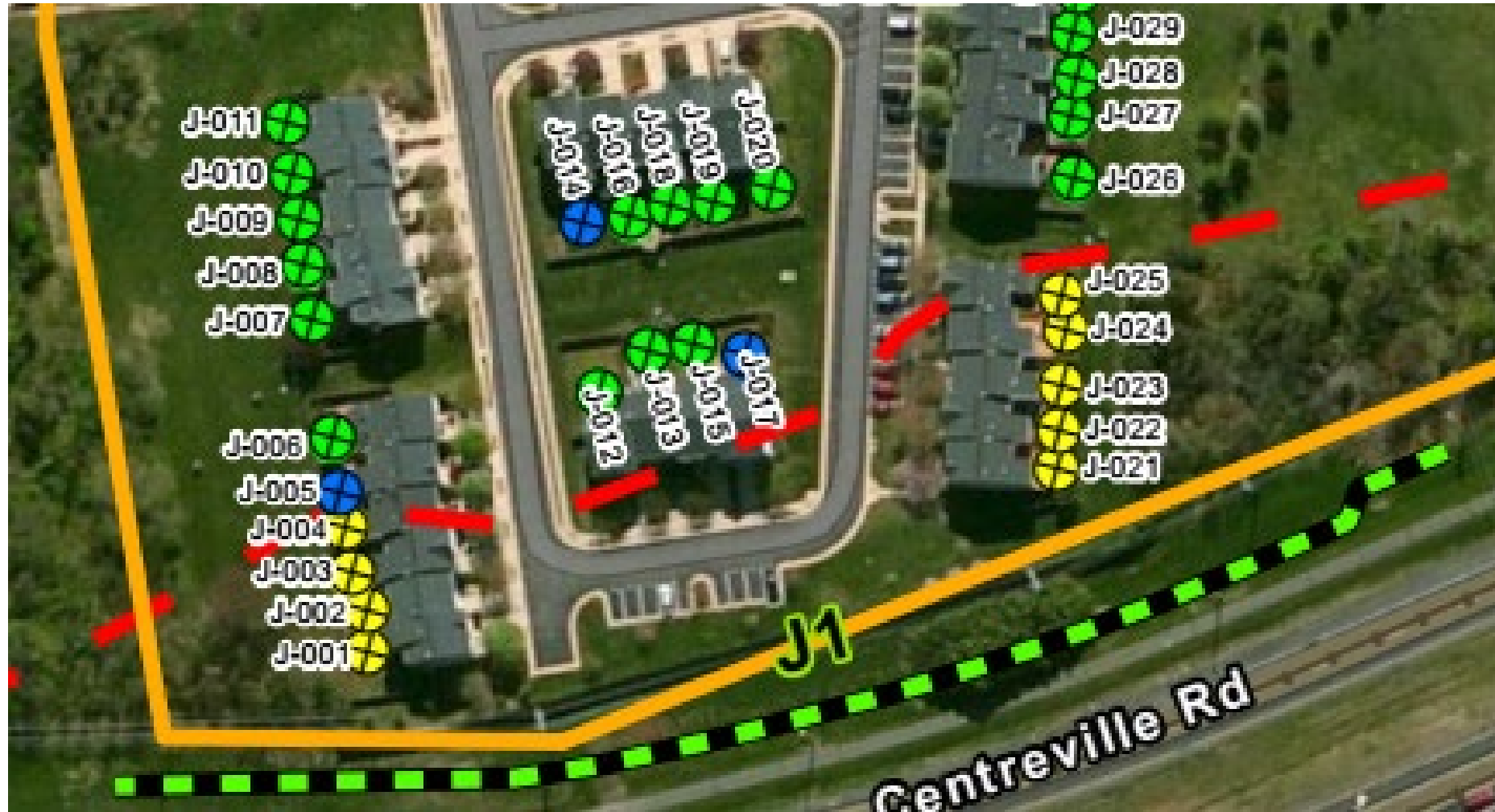


Barriers I1 and I2





Barrier J1





Final Noise Analysis

- FCDOT will contact benefited receptors (property owners and/or tenants) to start the voting process. Ballots will be sent to property owners and tenants by certified mail and will include a stamped return envelope.
- Design-Build Contractor will perform final design of the Barriers that are approved by the benefited receptors, including exact location, length, height, architectural treatment, etc., under the supervision of FCDOT, VDOT and FHWA.
- FCDOT's noise consultant is here tonight to respond to questions.



Voting process:

- Vote yes or no on the noise barrier that benefits your residence.
- Vote for preferred color and architectural pattern (for all barriers).
- 21 days allowed from anticipated ballot delivery date for initial response. Please return ballots as soon as possible.
- Only the owners and residents of those receptor units that will be benefited by the proposed noise barrier may vote on whether the barrier should be constructed.
- The owner/resident of each benefited receptor unit shall be entitled to one weighted vote, regardless of the number of owners
- All ballots must be signed by the owner and/or tenant.



County of Fairfax, Virginia

Route 28 (Centreville Rd) Widening
UPC: 108720
Fairfax County, Virginia

Potential Noise Barrier XX (Considered for Construction)
Public Input Survey Questionnaire

Sample ballot

June 25, 2021

Property Owner or Resident

Street Address

City, State

Email: _____

Phone: _____

Are you the current property owner? Yes No

If you are the property owner, do you
Reside at the address noted above? Yes No

If you are not the owner, are you a
Renter/tenant at the address noted above? Yes No

Do you want the noise barrier system? Yes No

What architectural treatment do you prefer? Virginia Drystack Virginia Rustic Brick

What federal standard color
finish do you prefer? 16492 (Grey) 26306 (Dark Brown) 37150 (Light Brown)

Comments: _____





Weighted voting

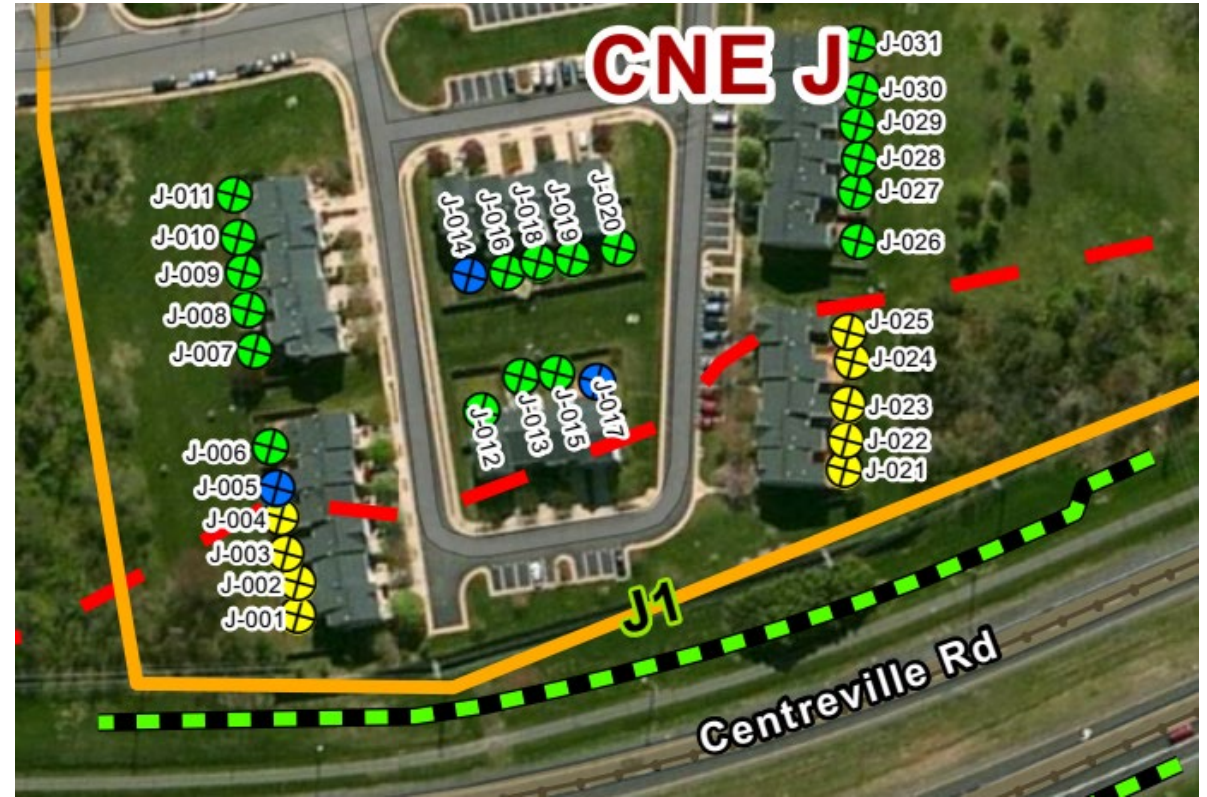
| Impact and benefit category | Activity Category | Resident Owner | Non-Resident Owner | Renter |
|-----------------------------|-------------------|----------------|--------------------|--------|
| Impacted & Benefited | Residential | 5 | 3 | 2 |
| Not Impacted & Benefited | Residential | 3 | 2 | 1 |





Criterion 5: Noise Barrier Voting (example) - Barrier J

| Color | No. of Benefited Receptors |
|--------|----------------------------|
| Yellow | 9 |
| Blue | 3 |



For resident owners:

- Yellow receptor**– impacted and benefited: each owner’s vote weighted as 5
- Blue receptor**– not impacted but benefited: each owner’s vote weighted as 3
- Green receptor** – Not impacted and not benefited: do not vote
- Both owners and renters can vote**



Voting process:

- Voting for each barrier is separate. Of the votes tallied, 50% or more of the impacted and benefited receptors at each barrier must be in favor of a proposed noise barrier for that noise barrier to be constructed.
- FCDOT staff will assess the number and location of any opposing votes on a noise barrier by noise barrier basis. This may result in construction of some but not all four of the proposed barriers; or construction of noise barriers despite opposing votes.
- All ballots must be signed by the owner and/or tenant!
- Color and Architectural treatment selection will be based upon all votes received, regardless of which barrier benefits a receptor.
- Please complete all questions on the survey, whether or not you support a noise barrier.



Voting process:

- Your vote is important!
- Per VDOT policy, we allow 21 days from the anticipated ballot delivery date to review and respond to the survey. Ballots will be mailed about June 25 and delivered the week of June 28; signed ballots are due back by July 23.
- A second mailing is required when the outstanding votes could change the results of the initial survey. A valid vote requires a majority of benefitted receptors at each barrier, not just a majority of votes cast. For the second mailing, we allow 14 days from the anticipated delivery date to review and respond to the survey.
- A second vote will delay construction of the project. Please encourage your neighbors to vote.





Noise Barrier Architectural Treatment

- The only patterns eligible for use on this Project are a choice of the Virginia Drystack or the Virginia Rustic Brick standard.
- Medallions, seals, banners, or other graphic elements appearing in VDOT standard detail drawings are not eligible for use on the project.
- If more than one barrier is constructed as part of the project, all barriers shall be fabricated using the same face pattern; the same color shall be used on all barriers. Patterns and color shall be provided on both sides of each barrier.
- All exposed, vertical faces of retaining wall elements shall receive architectural treatments to match the treatment selected for noise barrier walls.
- Noise barrier posts and top band will not be stained. Posts may be either steel or concrete.



Virginia Drystack (Concrete Posts shown)





Virginia Drystack (Steel Post shown; not yet stained)



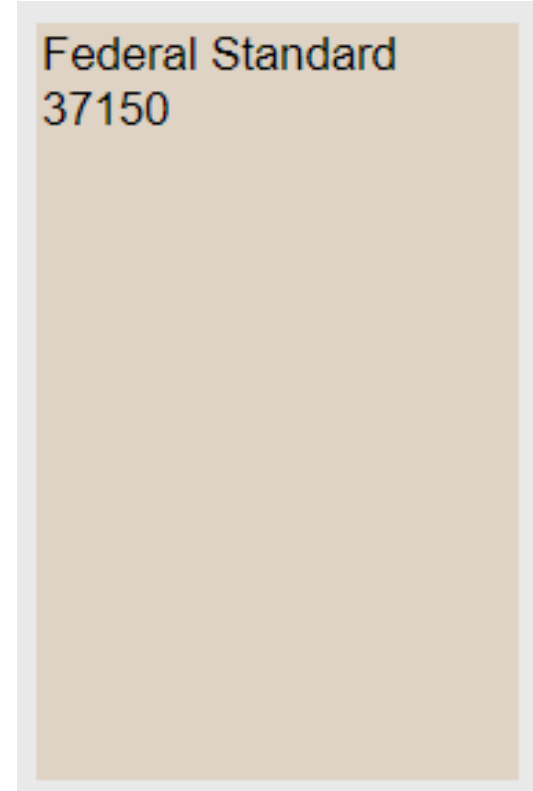
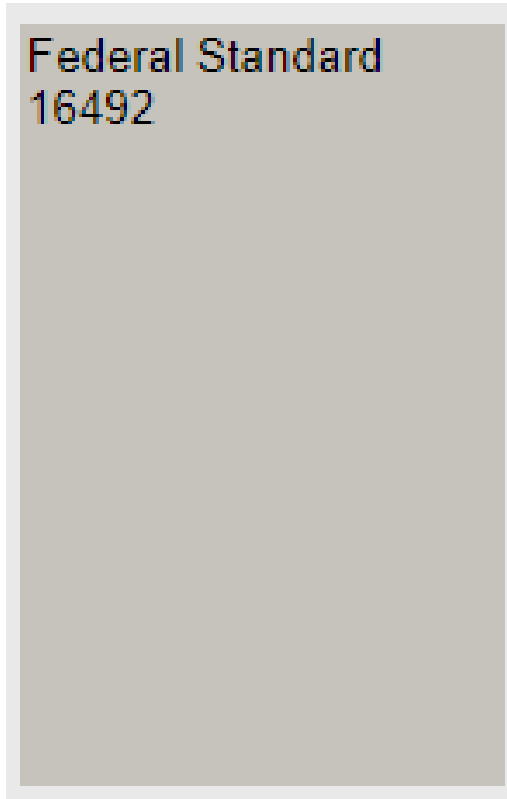


Virginia Rustic Brick (Concrete Posts shown)





Color Choices



Being used on Rte. 28
north of I-66

Being used on Rte. 28
north of I-66



To Ask a Question Now

- Please use the WebEx “Q&A” feature
 - Open the “Q&A” window
 - Type in your question
 - Please do not use the Chat function
- If calling in via telephone:
 - Press *3 to “raise your hand” and be added to the queue
 - When it is your turn, the moderator will call on you
 - After you are finished, press *3 to “lower your hand.”



Project Website

<https://www.fairfaxcounty.gov/transportation/projects/route28-widening>

Website will be updated monthly or as more information/data becomes available.

How to submit Comments/Concerns regarding the project:

1. Feedback via Project Website
2. Email to Project Manager – James.Beall@fairfaxcounty.gov
3. Send comment/ questions by mail to FCDOT, 4050 Legato Road, Suite 400, Fairfax VA 22033-2895, ATTN: Route 28
4. Call at 703-877-5673

FCDOT is requesting comments related to tonight's meeting be submitted by July 9, 2021