

Dominion 230kV Underground Transmission Line

City Council
May 8, 2018

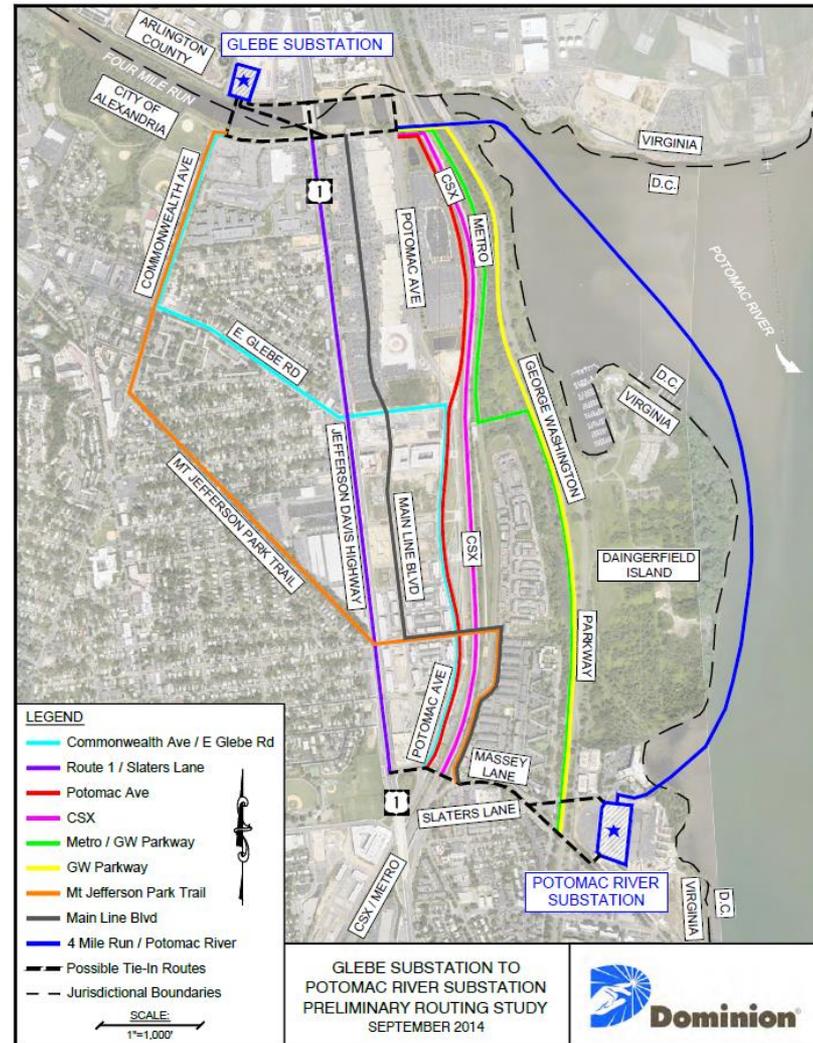


Overview

- **Resolution** recommending Potomac Avenue as a 'least objectional alternative' for Dominion's proposed 230kV line
- **Memorandums of Agreement** for terms and process

Background

- **June 2014:** Project proposed & Working Group established to review 9 alignments
- **May 2016:** City adopts resolution opposing overhead lines, selects CSX railroad corridor as 'least objectionable'
- **December 2017:** Dominion update with major project changes
- **2018:** Working Group reestablished to reconsider Potomac Ave



2018 Process

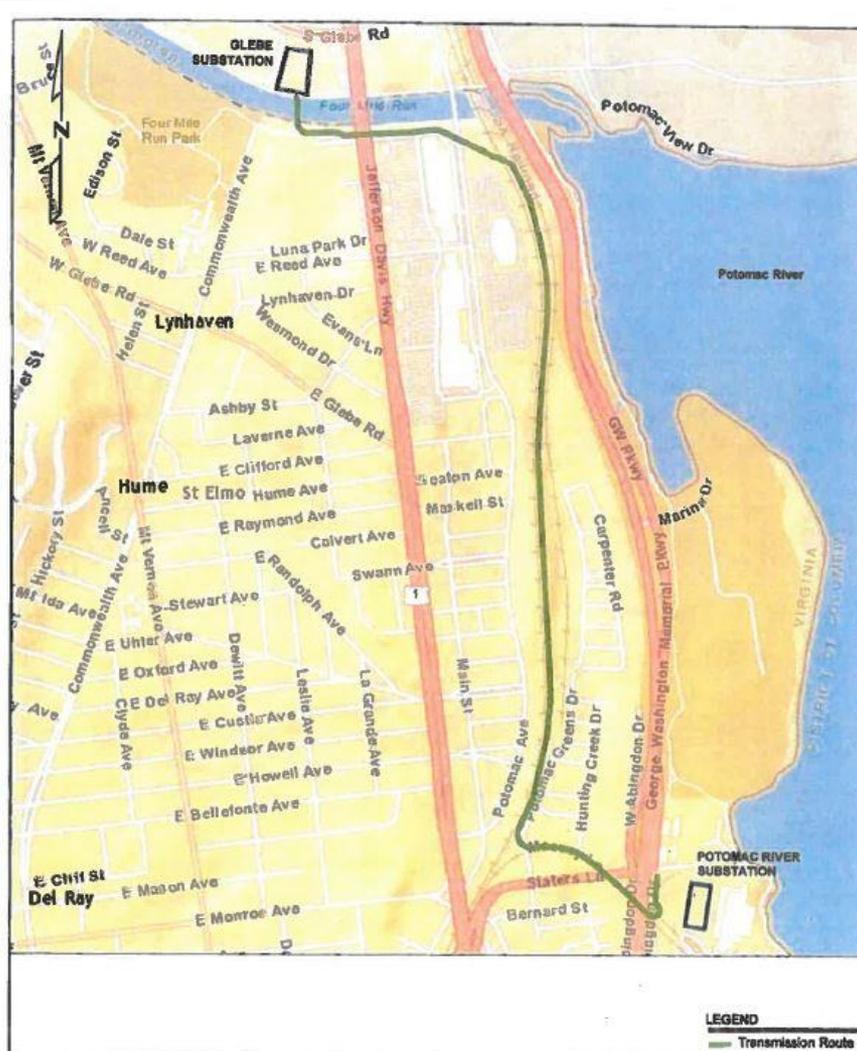
- **Working Group**
 - Reconvened for January – March
 - Reps from community, business, boards
 - January: Decision to hear proposal
 - February: Q&A format, informational
 - March: Voted 6-2 to reconsider Potomac Ave.
- **Open House (April)**
 - Recent community outreach to address remaining specific concerns (EMF)

Potomac Avenue Alternative

- Primarily open trench
- 9-12 months on Potomac Ave, 1-2 blocks at a time (3 years total)
- Underground lines in Four Mile Run, relocate substation

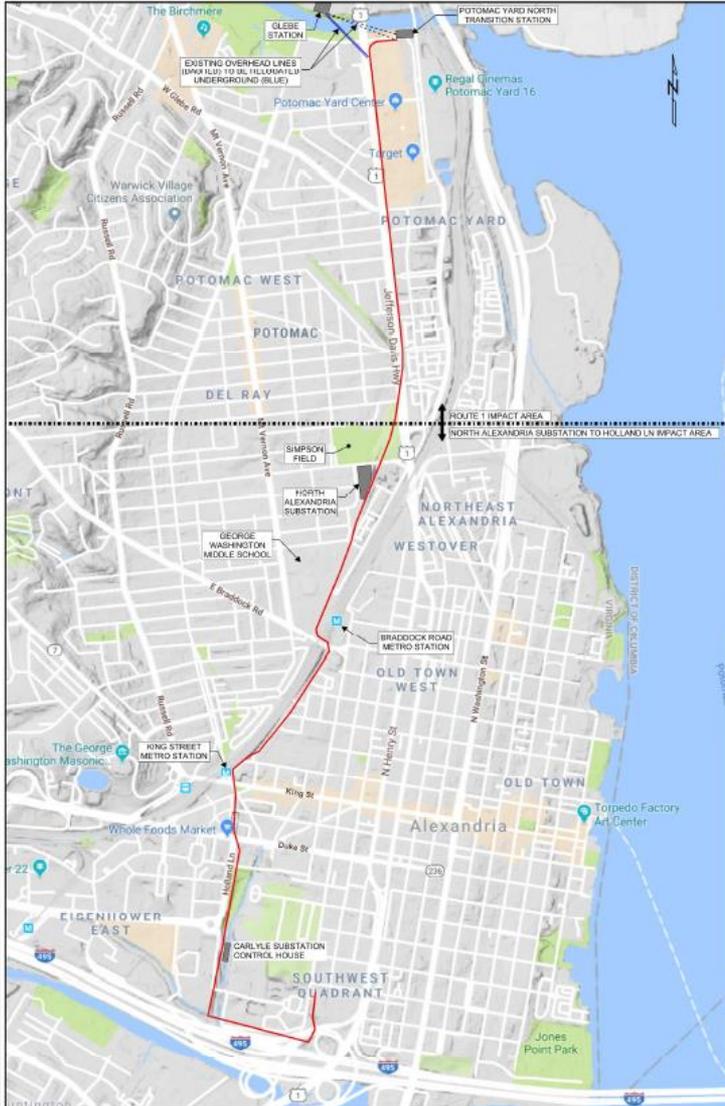


Railroad Corridor Alternative



- Microtunneling
- CSX coordination
- Fewer impacts to City property
- 3 years construction
- Underground lines in Four Mile Run, relocate substation

Rebuild Alternative



- Excavation
- 3-4 years with work from Carlyle to Potomac Yard
- 24/7 work at 11 manholes, traffic disruption
- Underground lines in Four Mile Run, relocate substation



Route Comparison Chart

| | Potomac Avenue | Railroad Corridor | Rebuild Alternative |
|--|--|---------------------------------|---|
| Construction Type: | Primarily open trench | Microtunnel | Underground & excavation |
| Duration: | 3 years, mainly at substations (9-12 months on road), 2 blocks at a time | 3 years, mainly at substations | 3-4 years, double work (one circuit at a time) |
| Traffic & Construction Impacts: | Daytime lane closures; temporary impacts to park | Daytime; no night work expected | Night & day construction, 72+ days lane closures on Route 1, temp impacts to parks, neighborhoods |
| Cost: | \$330 million | \$420 million | \$290 million |

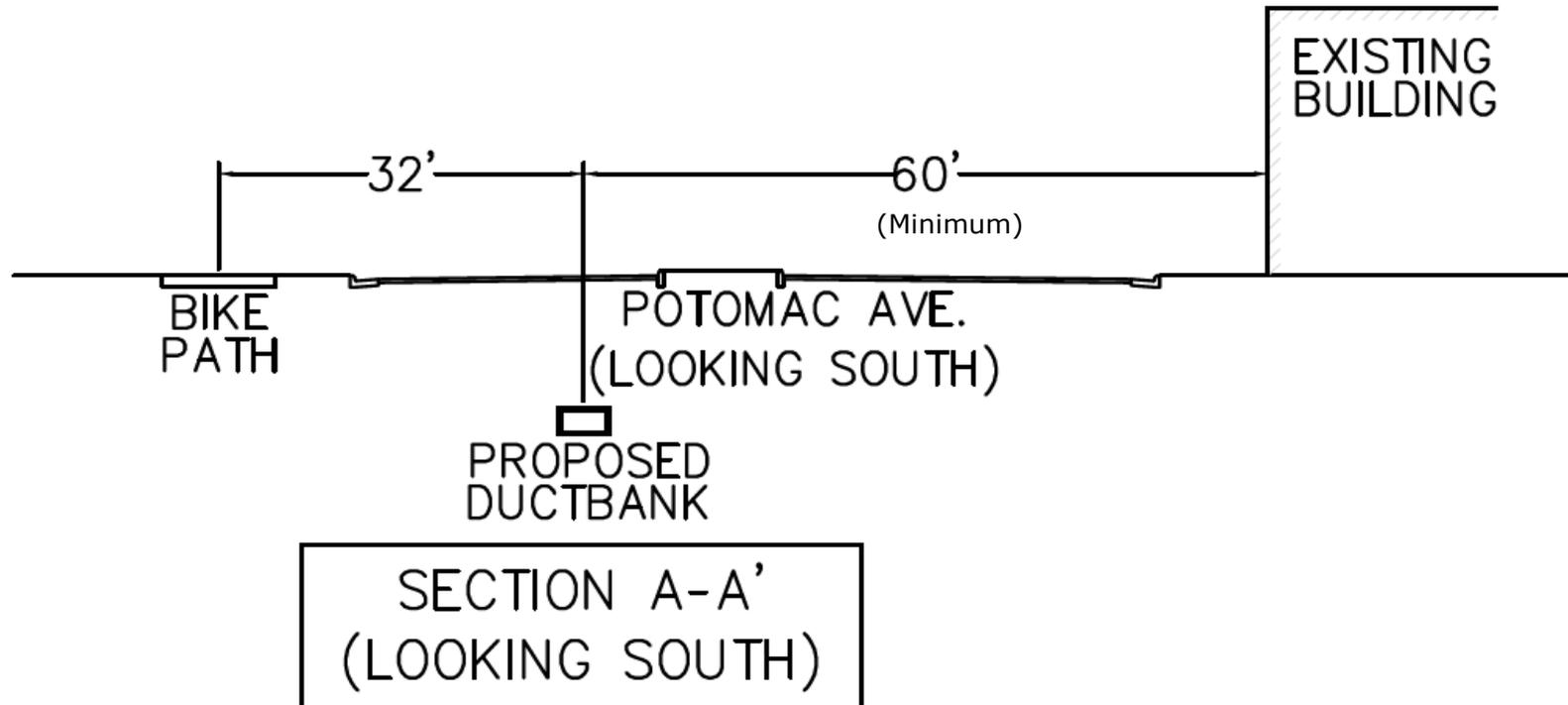


Primary Concerns

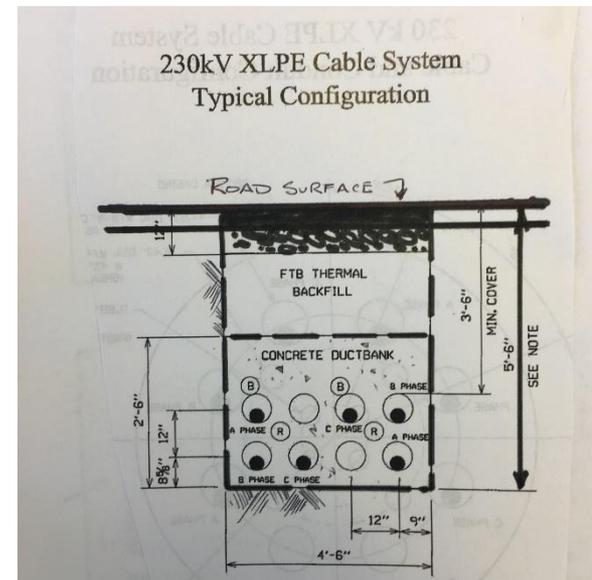
| Issue (Alternative) | Response |
|---|---|
| Trees (Potomac Avenue) | No trees removed on street, very limited in parks. 1:1 replacement. |
| Open Space (Potomac Avenue) | Some impacts to recreation areas, temporary structures possible, full restoration |
| Electric and Magnetic Fields (Potomac Avenue) | Greatly reduced electric field with underground line; magnetic field rapidly decreases in intensity as distance increases |
| Construction Impacts (Potomac Avenue) | No night work except in emergency; strict limits in residential areas |
| Construction & Traffic (Rebuild) | 72+ days on Route 1, many neighborhoods, businesses. Significant traffic delays. |
| Need & Demand (All) | NERC violations remain, load reduction/energy efficiency does not negate need for line |

Magnetic Field

- Underground installation of power lines reduces electric fields to almost zero
- Magnetic field remains (reduced) & diminishing as distance from source increases
- No conclusive evidence that EMF affects health



Construction Impacts





Agreements

| | Potomac Avenue | Railroad Corridor | Rebuild |
|-----------------------------------|---|-------------------------------------|--------------------------------------|
| Form: | Memorandum of Agreement | Memorandum of Agreement | None- subject to franchise agreement |
| Terms: | Perpetual easement, expanded access | Perpetual easement, expanded access | Franchise agreement |
| Utility: | Fiber optic connection for City broadband | Fiber optic <u>subject to CSX</u> | None |
| Right-of-Way Compensation: | \$43.3 million | \$14.6 million | \$0 |



Staff Recommendation & Next Steps

- City Council adopt the resolution
- Authorize Manager to enter MOA's
- Dominion submission to SCC in July
 - Additional public meetings, input possible
 - City expects to participate, testify
- If a new line route is approved (12-18 months), complete easement process
 - Construction start likely 2020
 - Substations first, road impacts managed
 - Line in service approx. 2023

Questions & Discussion