

Substations

Land Use Policy Committee
January 28, 2025

Carmen Bishop, Zoning Administration Division

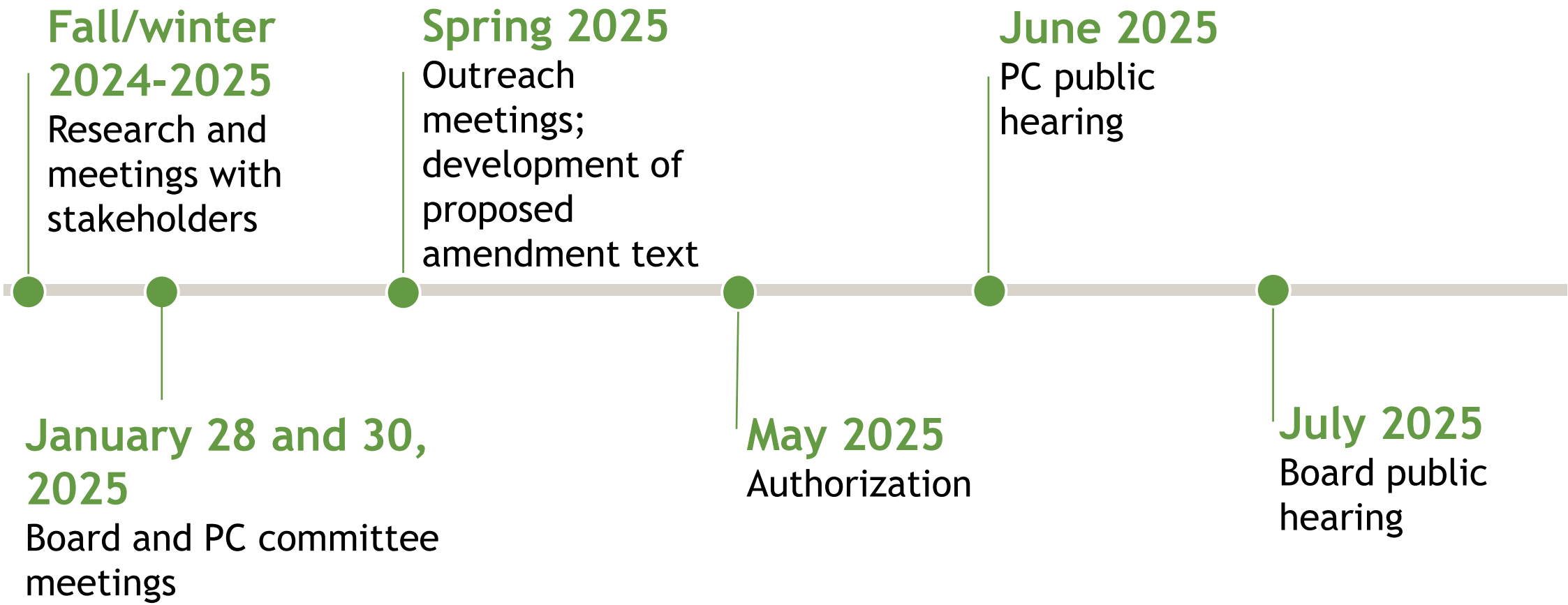
Zoning Ordinance Work Program

- 2018 – added to Priority 2 work program
  - To consider provisions to protect adjacent residential uses
- March 19, 2024 – included in Board Matter for data centers
  - Stated that it may be appropriate to include new permissions and standards for substations
- July 2024 – added to Priority 1 work program



Idylwood substation, Pictometry Dec. 2023

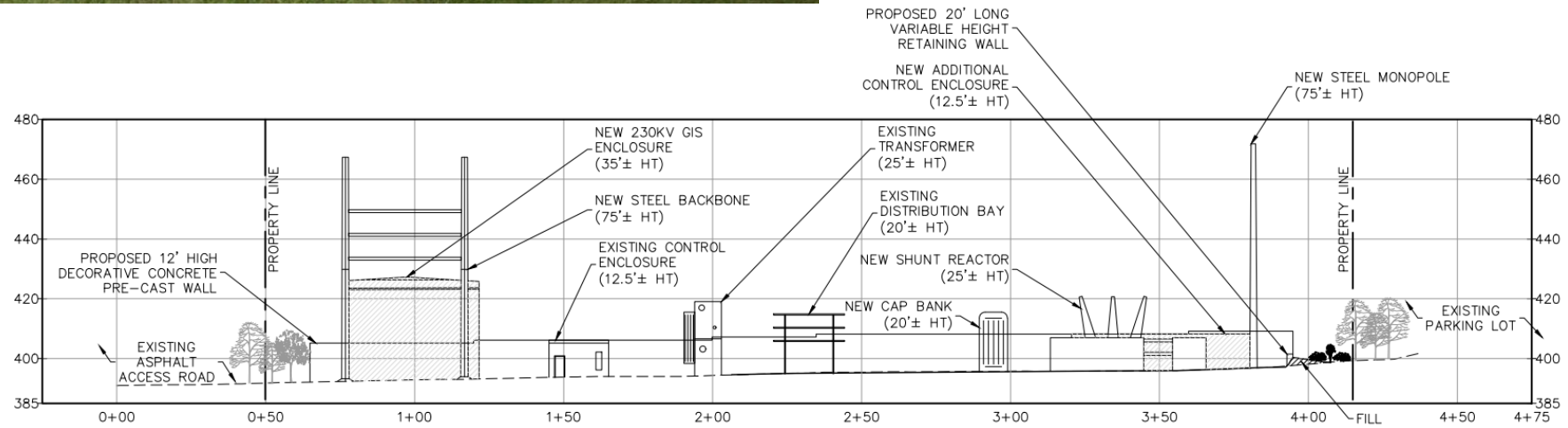
Tentative project timeline



Substations – part of the energy network



Image provided by Dominion Energy



TYSONS SUBSTATION – SECTION VIEW A–A' – Scale: H: 1"=30', V: 1.00:1

Substations in Fairfax

- Dominion Energy: ~76
- NOVEC: 8
- 7 applications in past 5 years (SE and/or 2232)
- Upgrading older facilities
- Data centers



Lincoln Park substation, Oct. 2024



Topics for review

- Visual impacts
  - Location
  - Setbacks
  - Buffering (transitional screening)
  - Barriers (fences, walls, enclosures)
- Noise

Braddock Rd substation, Oct. 2024

Current Zoning Ordinance regulations

Use definition

Light utility facility: distribution of utility services, including water and sewer pump stations, water storage tanks, electrical substations

Permissions

- Not allowed: R-A, I-I, PCC
- By right: I-3 – I-6
- SE: all other conventional districts
- Development plan or SE: all P districts (except PCC)

Standards

- Lot size and bulk regulations (setbacks, height, FAR) do not apply
- No maximum fence height limits
- No storage yard, except in I-5 and I-6
- In R districts, must determine there is no alternative site in C or I district within:
  - 500 feet
  - 1 mile for transformer station
- Transitional screening/barrier: Type 2 (35’ width) and min. 6’ solid fence or wall next to residential
- Parking and loading: no requirement

Preliminary amendment concepts

Use definition

Light utility facility: minor edits for clarification

Proposed permissions

- Not allowed: R-A, I-I
- By right: I-5 and I-6
- SE: all other districts

Standards

- Add a minimum setback from adjacent residential and public streets
- Add SE standard for screening (landscaping/fences/walls/enclosures) based on site-specific considerations
- Consider adding a standard for screening for by right substations
- Revise the review of alternative sites to be consistent for all types of substations within R districts
- Consider increasing transitional screening
- Minor edits for clarification

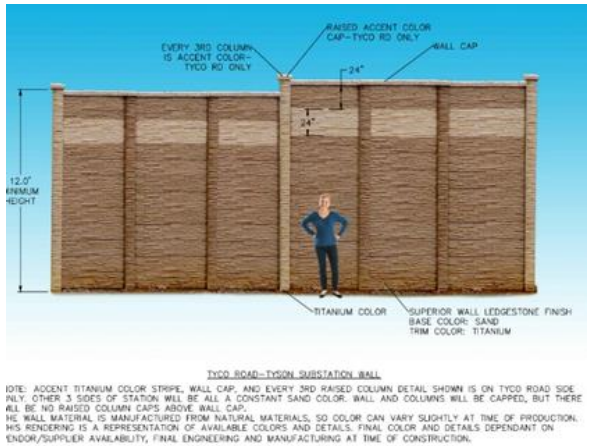
Screening - example images



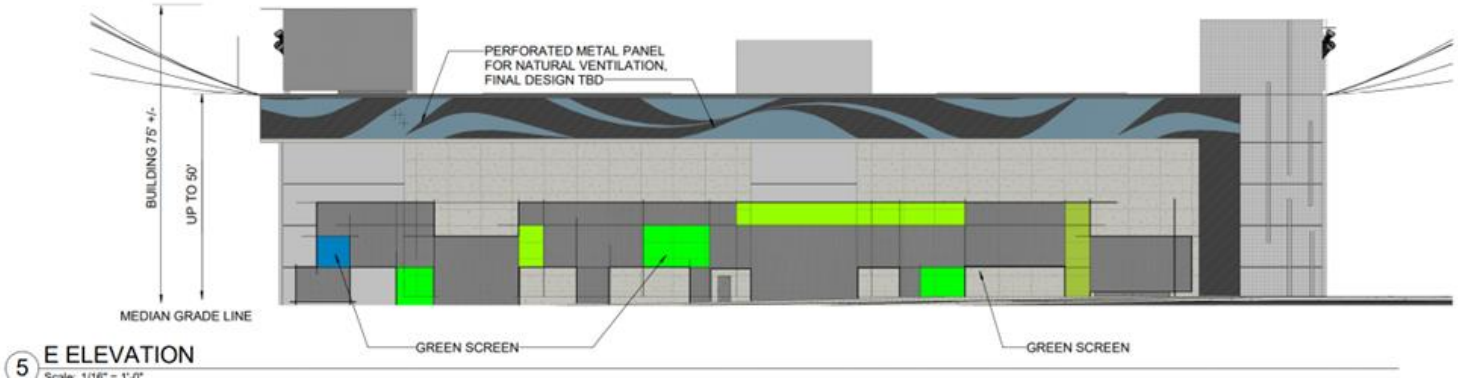
Idylwood substation, Google Maps May 2023



Image provided by Dominion Energy



Tysons substation, applicant rendering



Spring Hill substation, applicant rendering

Screening – example images, cont'd



Burke substation, Google Maps May 2022





Sideburn substation, Dec 2024



Popes Head substation, 2024

PLANNING & DEVELOPMENT

Webpage:
https://www.fairfaxcounty.gov/planning-development/zoning-ordinance/amendments

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