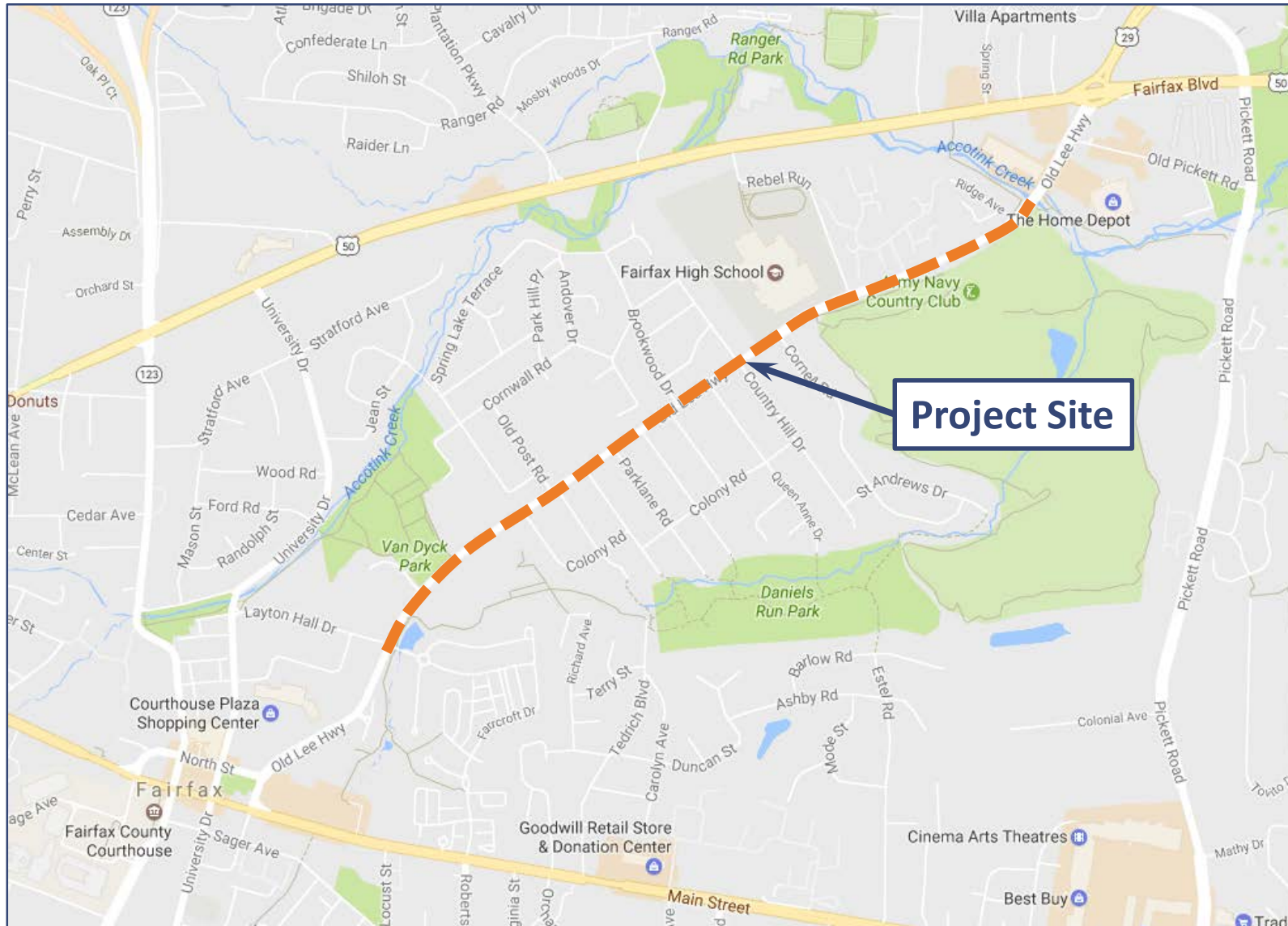# Old Lee Highway Multimodal Improvements

City Council Work Session

July 23, 2019

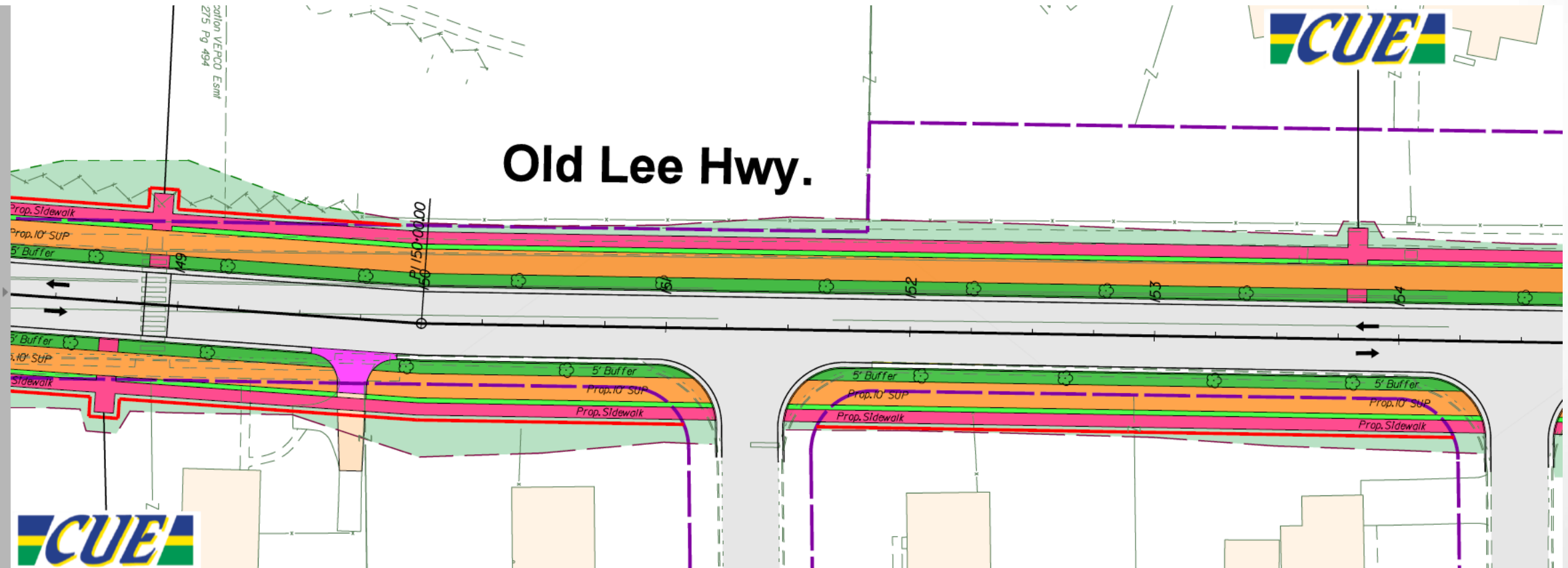# Project Location

City Council Work Session Goals

- Review survey information

- Review design options and costs

- Review utility relocation options and costs

- Obtain Council input on next steps

Project Goals

- Provide continuous multimodal facility connections along Old Lee Highway from Old Town Fairfax to Fairfax Circle
  - Pedestrian facilities (concrete sidewalk)
  - Dedicated bicycle facilities
  - Concrete pads and ADA-accessibility for 14 existing CUE bus stops
- Improve safety for all roadway users
- Promote alternative modes of transportation for accessing the library, the community center, the three schools, and commercial properties along the corridor

4

Design Option 1 – Both Sides of Street

- Bicycle facilities on both sides of the street

Cost Estimate for Option 1

- Project cost for this option is approximately $41M
- This assumes approximately $8M in ROW costs, $3M in utility relocation costs, and $27M in construction costs.
  - This option would require curb relocation on both sides of the road, which would require a significant amount of right of way on the south side
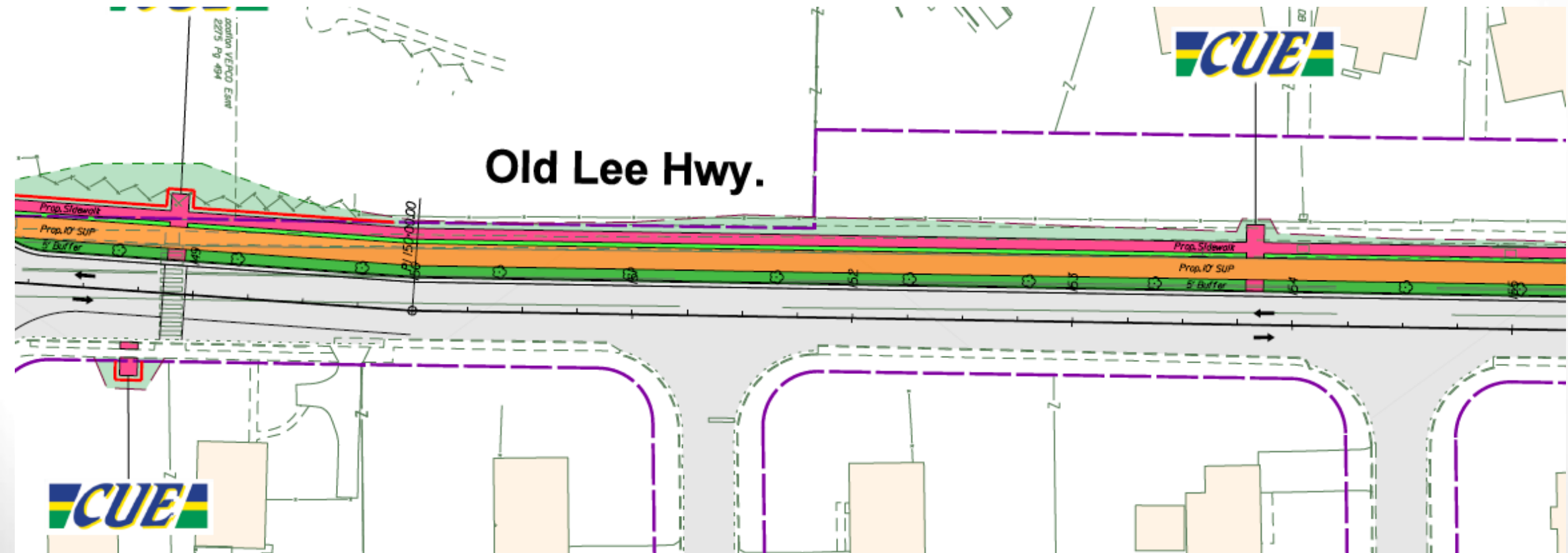
ROW Impacts

- City has less right of way on the south side
  - ROW would be needed from 21 residential properties plus churches, Daniel's Run ES and golf course
- ROW needed would be in larger widths in many cases (1' – 24')
  - Some homes on the south side are lower than the road in elevation, so project would require extensive fill into front yard.
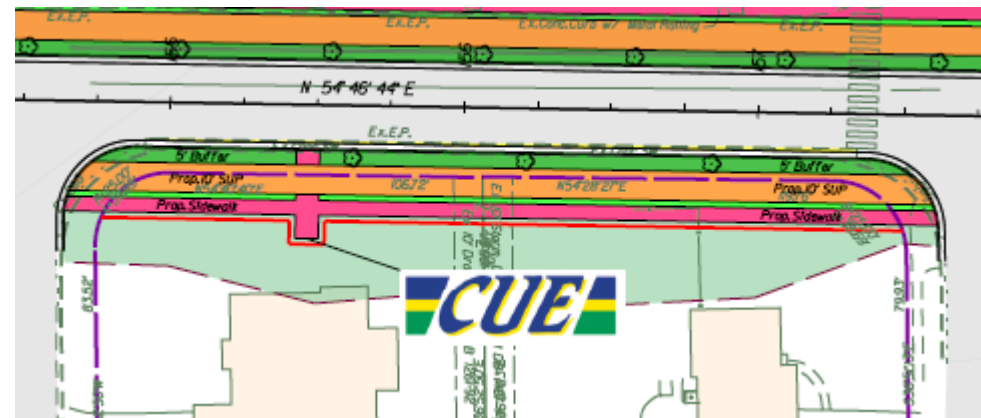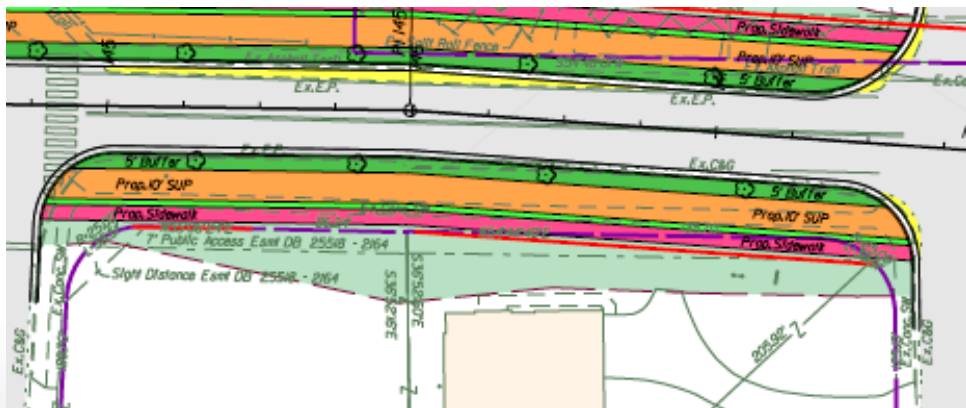
Design Option 2 – One Side of Street

- Cycle track on north side of the street

8

Segment 2 – Daniel's Run E.S. to Cornell Road

PROP BUFFER VARIES (2' MIN)

PROP SIDEWALK 5'

PROP BIKE LANE 10' (MIN)

PROP BUFFER VARIES (5' MIN)

PROP THRU LANE 11'

PROP THRU LANE 11'

PROP BUFFER VARIES (5' MIN)

PROP SIDEWALK 5'

RETAINING WALL (WHERE NECESSARY)

Typical Section

9
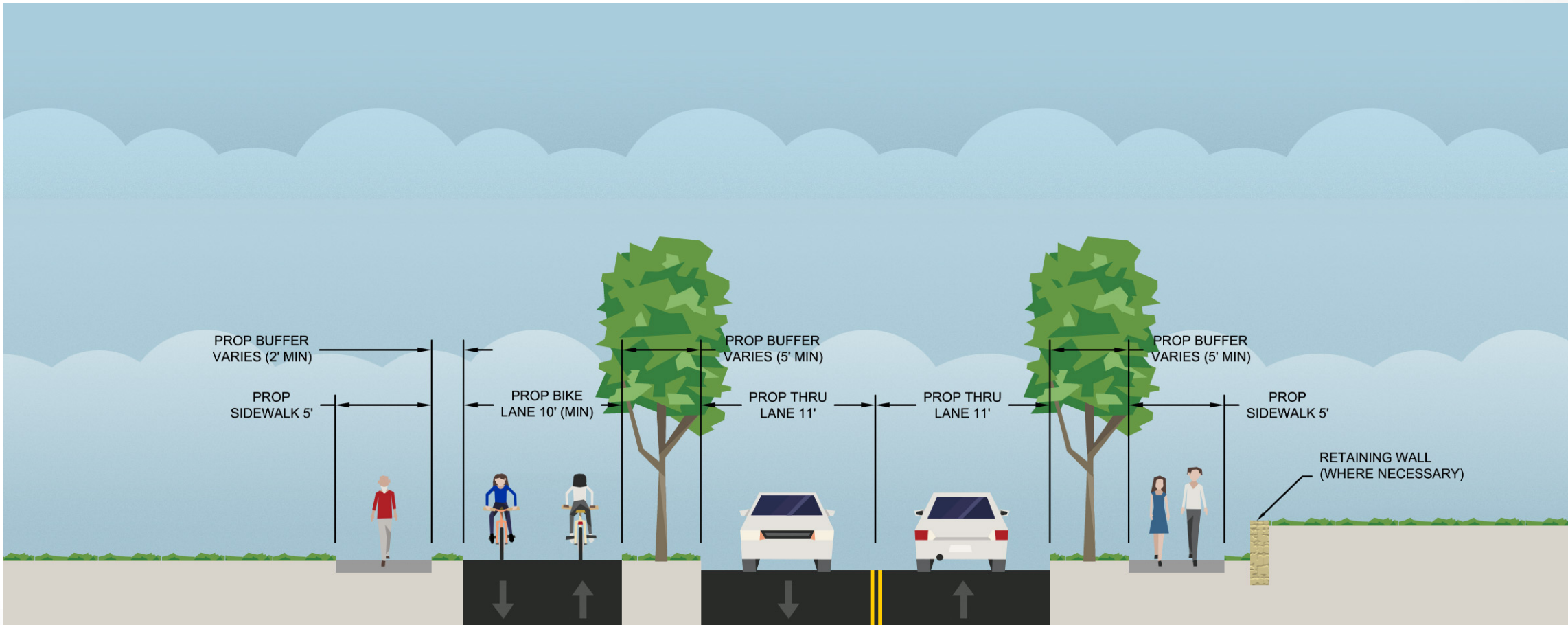
Segment 2 – Daniel's Run E.S. to Cornell Road
Conceptual Rendering

Cost Estimate for Option 2

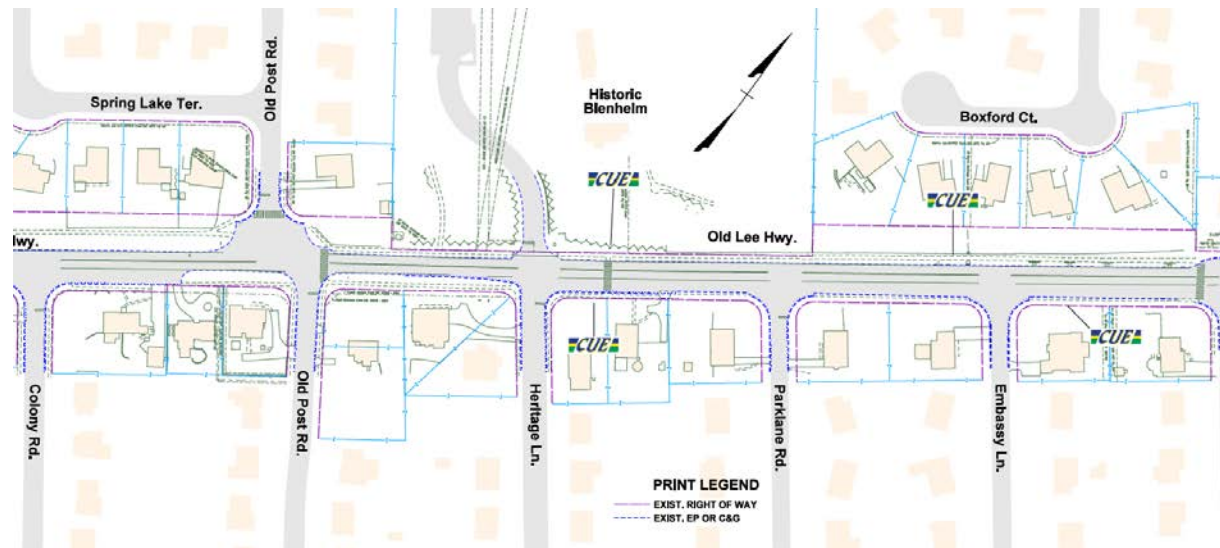- Project costs for this option are approximately $25M
- This includes approximately $3M in ROW, $1.5M in utility relocation costs, and $18M in construction costs
 - City has more right of way on the north side and there are some large areas dedicated for public use

Summary of Design Options

	Facilities on Both Sides of Street	Facilities on One Side of Street
Preliminary Engineering	$ 2,500,000	$ 2,500,000
ROW	$ 8,000,000	$ 3,000,000
Construction (2023)	$ 27,000,000	$ 18,000,000
Utility Relocation (Overhead) - City Cost	$ 3,000,000	$ 1,500,000
Total with Overhead Relocation	$ 40,500,000	$ 25,000,000
Total with Underground Relocation	$ 54,000,000	$ 38,500,000

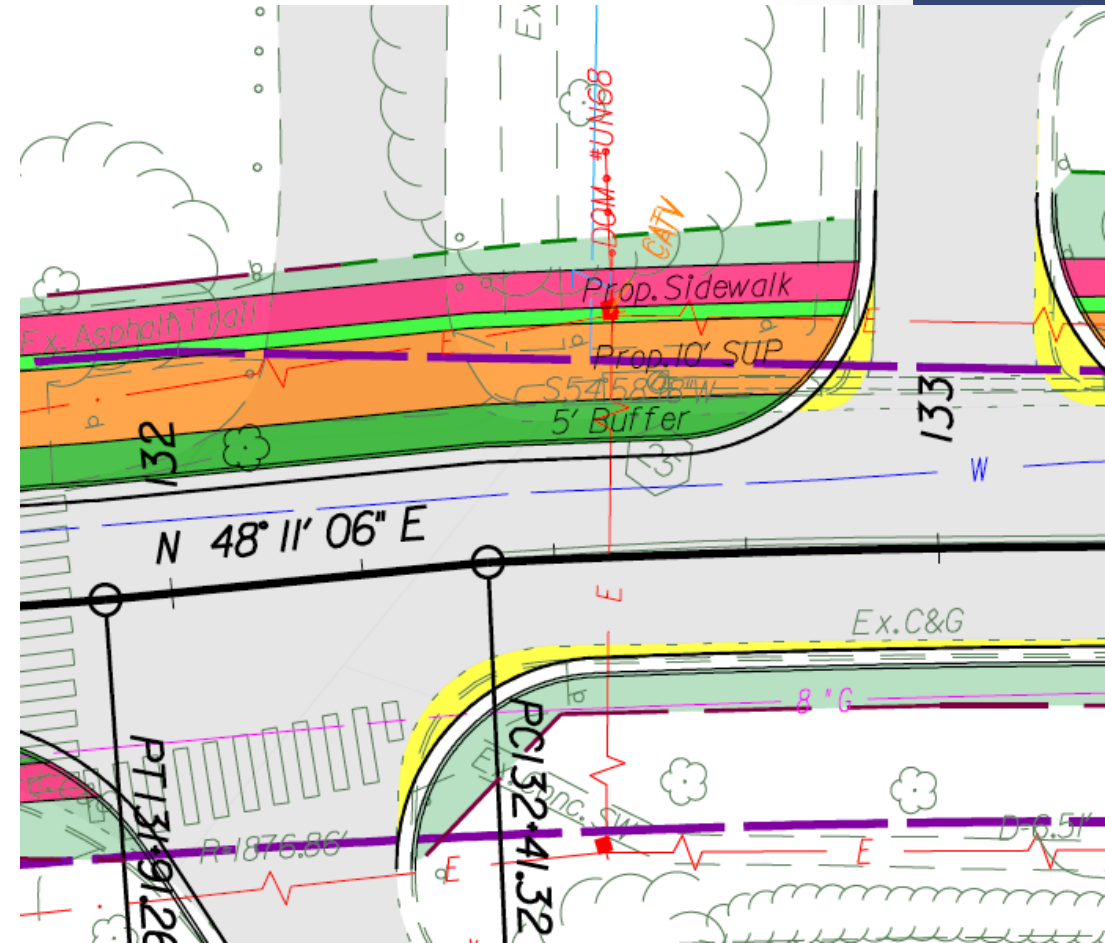# Project Funding

- City has $14M in funding
  - $7M in Revenue Sharing
  - $5M in NVTA 70% funding
  - $2M in local C&I match
- City planning to submitting Revenue Sharing and NVTA funding applications for additional $10M in funding
- Project would not qualify for Smart Scale
- Project is almost at $10M Revenue Sharing project cap
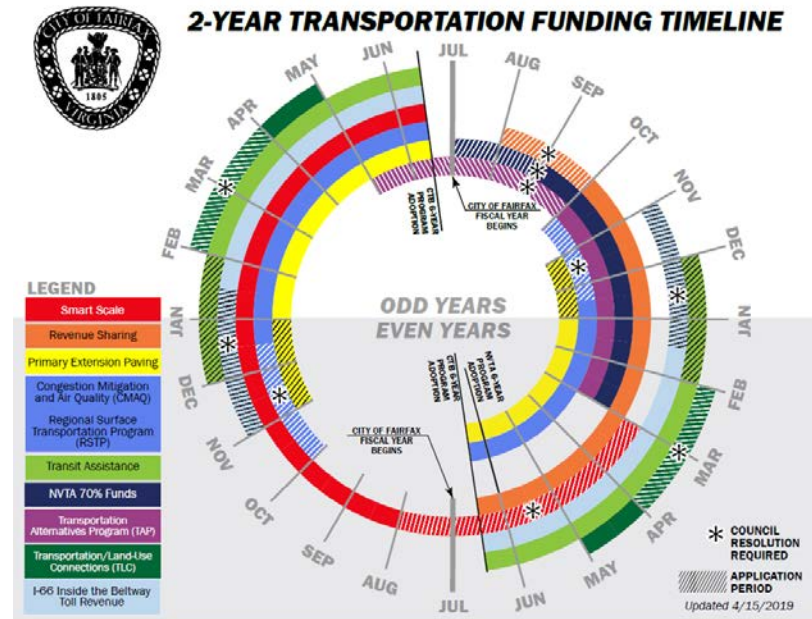
Overhead Utility Relocation Option

- City cost for Option 2 estimated at $1.5M to relocate overhead utility poles

- 45/95 poles are in conflict with project

  - 45 poles require relocation

  - 50 poles remain in current location

  - There is potential to consolidate wires onto north-side poles and remove some poles on the south side of the street.

- VDOT funding will cover the $1.5M cost

- Option 1 city cost is $3.0M; also would be covered by VDOT funding

Underground Utility Option

- Total cost of $15M to underground all utilities
  - All utilities would need be undergrounded, including the 50 that are not in conflict with the project.
  - VDOT funding will pay for cost to relocate overhead ($1.5M)
  - The City would pay $13.5M, which is the difference between total cost and VDOT eligible cost
  - Undergrounding cost is the same regardless of design option (facilities on one side or both)

- Adds time and cost to project schedule
  - 2-3 year project delay. Cannot proceed with bike/ped improvements until poles are removed and underground utilities are energized
  - Increases construction cost due to inflation

Other Options

- Relocate overhead poles, construct duct bank only
  - Approximate $10M cost not covered by VDOT
- Spot undergrounding
  - Total depends on distance, generally $1,500- 2,000/linear foot
- Relocate overhead now. Underground at a later date
  - $15M + inflation + cost to dig and rebuild along OLH

Summary of Utility Options

	Overhead Relocation	Overhead Relocation + Spot Undergrounding**	Overhead Relocation + Duct Bank Construction	Underground Relocation Now	Underground Relocation Later
Total Cost	$3M or $6M*	$3M + $1,500-$2,000/LF	$13M ($3M + $10M)	$15M	$15M + inflation + cost to dig up and rebuild
City Cost	$1.5M or $3M	$1.5M + $1,500-$2,000/LF	$11.5M ($1.5M + $10M)	$13.5M	$15M + inflation + cost to dig up and rebuild
Funding Mechanism for City Cost	VDOT/NVTA funding	VDOT/NVTA for $1.5M City GF/debt for undergrounded portion	VDOT/NVTA for $1.5M City GF/debt for $10M	GF/debt issuance	GF/debt issuance

* Per City's franchise agreement with utilities, utilties will pay for relocation within City right of way

** Cost depends on linear distance undergrounded

Utility Reliability Improvements

- Currently, all of Old Lee Highway and the feeder streets are fed by a single circuit with no redundancy.

- The City has requested that Dominion do robust tree trimming around the power lines on Old Lee Highway.

- Concurrently, the City has issued a PO to Richter to work with Dominion on backfeeding the system to provide redundancy

- Total cost TBD, but likely hundreds of thousands (not millions)
  - Work will require a supplemental appropriation in FY 20

- Estimate that by Spring 2020, work could be complete

18

Next Steps

- City Council
  - Select design concept (Option 1 or Option 2)
  - Select utility relocation option (above ground or under ground)

- Staff
  - Assemble a stakeholder advisory committee with representatives from adjacent neighborhoods, schools, and other stakeholders to review project details and provide recommendations to staff
  - Pursue the additional funding necessary to complete project budget

19

Questions/Comments?