

# **Agenda**

## **Underground Transmission Line Working Group Meeting #4**

**Date:** October 23, 2014

**Time:** 7:00 PM to 9:30 PM

**Location:** Lee Center Multi-Purpose Room, 1108 Jefferson St.

**Purpose of the Meeting:** Convene the fourth meeting of the Underground Transmission Line Working Group (UTLWG). Discuss draft memo to council, matrix and alignment narratives, and develop Working Group Recommendations.

### **Agenda**

- |   |                |
|---|----------------|
| A. Review Matrix and Alignment Narratives | 7:00 – 8:15 PM |
| B. Develop working Group Recommendations  | 8:15 – 9:00 PM |
| C. Citizen Comments                       | 9:00 - 9:15 PM |
| D. Wrap Up and Adjourn                    | 9:15 – 9:30 PM |

Attachment 1 – Meeting #3 Notes

Attachment 2 – Draft Routing Matrix & Narratives (Agenda Item A)

Attachment 3 – Alignment Maps (Agenda Item A)

City of Alexandria, Virginia

# UNDERGROUND TRANSMISSION LINE & SUBSTATION WORKING GROUP

OCTOBER 23, 2014

7 PM TO 9:30 PM

LEE CENTER



# WORK GROUP MEETING #4



## **PROCESS:**

*October 23, 2014: WORKING GROUP MEETING*

- Discuss draft memo, matrix & alignment narratives, and recommendations

*November 6, 2014 : WORKING GROUP MEETING*

- Review package (draft memo, matrix & alignment narratives and recommendations)

*November 11, 2014: CITY COUNCIL LEGISLATIVE SESSION*

- Presentation to City Council

*November 15, 2014: CITY COUNCIL PUBLIC HEARING*

*November 21, 2014: CITY COUNCIL CONVEYS RECOMMENDATIONS TO DVP*

# WORK GROUP MEETING #4



## OCTOBER 23<sup>rd</sup> WORK GROUP INSTRUCTIONS:

1. Review matrix, submit additional information for inclusion and review alignments
2. Select three or four least objectionable alignments
3. Make recommendations

# WORK GROUP MEETING #4



TIER 1:	TIER 2:	TIER 3:
<ul style="list-style-type: none"><li>• CSX</li><li>• Metro/GW Parkway</li><li>• Four Mile Run/Potomac River</li><li>• CSX/DRCA Alternate</li></ul>	<ul style="list-style-type: none"><li>• Commonwealth Ave/East Glebe Road</li><li>• Route 1/Slaters Lane</li><li>• Potomac Avenue</li><li>• GW Parkway</li><li>• Main Line Blvd.</li></ul>	<ul style="list-style-type: none"><li>• Mount Jefferson Park Trail</li><li>• Mount Jefferson Park Trail Alternate</li><li>• Overhead Transmission Line</li></ul>

**UNDERGROUND TRANSMISSION LINE  
AND SUBSTATION WORKING GROUP**

**Meeting #3  
Meeting Notes**

**DATE & TIME:** October 9, 2014, 7:00 PM

**LOCATION:** City Hall Room 1101 (Sister Cities)

**ATTENDEES:** **Work Group:** Jason Nestlerode (Chair), Elizabeth Chimento, Nathalie Simon, Ben Sylla, Patrick Harenburg, Judy Noritake, Nancy Appleby  
**City of Alexandria Staff:** Yon Lambert, William Skrabak, Maurice Daly, Bill Eger, Dana Wedeles, Jeff Farner, Kathleen Leonard, Khoa Tran  
**City Council:** Mayor Bill Euille, Vice Mayor Allison Silverberg, Council member Paul Smedberg  
**Dominion Virginia Power:** Deborah Johnson, Charles Penn, Greg Baka, Peter Nedwick, Wes Keck  
**Pepco:** Joe Schall, Marc Battle, Pat Kurowski, Alex Vermoer, Sean Kelly, Gus Hamilton  
**Consultant:** Chris Kocher, STV  
**NRG:** Steve Arabia  
**Members of the Public:** George & Rochelle Schneickert, Annika Moman, Dana Neese, Ray Petuniunas, Charles Bailey, Tom Soapes, Steve Walz, Nicole Devore, Cheryl Leonard, India Stagg, Sol Safran

Yon Lambert called the meeting to order. He explained there would be three major parts to the meeting: A Recap of the Dominion Virginia Open House, a Pepco Presentation on Substation C and discussion of the Routing Matrix.

**AGENDA:**

**A. Dominion Open House Summary**

Bill Skrabak asked meeting participants to save questions until the end of the meeting during the public comment period. He also requested that all comments be limited to three minutes. Bill provided a summary of the Dominion Open House, which included the following items:

- The meeting was held October 1, 2014 at Mount Vernon Elementary School.
- Individual stations were set up explain the need for the project and alternatives considered.
- The Substation C site was set up to show the proposed station expansion.
- Renderings showed the possible overhead alignment.
- There were sketches showing construction cross sections that showed what the underground site would look like during the day.
- Attendees could see different views from aerial maps depending on their residence.

- Other stations included a flight path station, a station set up to answer questions about Electro Magnetic Force (EMF).
- The project consultant from Dewberry was there to answer questions.
- There were 112 attendees.

Deborah Johnson from Dominion Virginia Power responded to the question about the overhead power lines. The SCC requires that Dominion show one overhead route. All information from the meeting can be found at Dom.com by searching “Glebe”. Dominion still plans to file by the end of November (working date of November 25). Comments on the project can be made to Dominion up to the filing time; once Dominion files, input can be given to the State.

Bill Skrabak informed the work group that the City’s webpage would provide a link to the Dominion page. There is a package of information on the City website that recaps the first two meetings. Bill thanked Kathleen Leonard for the website and for videotaping tonight’s meeting.

#### **B. Pepco Presentation of Substation C Expansion**

Joe Schall presented information on the joint Dominion-Pepco Transmission Project. Joe explained that the presentation tonight was a higher-level presentation and that he would like to come back to give more information to the community after preliminary engineering is completed. They expect to have renderings around a December timeframe. They will seek public input at that time.

Pepco provides 793,000 customers power in Maryland and the District of Columbia. They are owned by Pepco Holdings Inc. Dominion will construct a new 230 kV transmission line to begin at the Dominion’s Glebe Substation and end at Pepco’s substation C in Alexandria. The handout identified an area of existing facilities and the new facility. The proposed expansion is about 3.8 acres, which includes open space. The existing substation is 2.8 acres. The entire area needed is 6.6 acres. PJM regional transmission does modeling. PJM identified overloads to owner, Virginia Power. Dominion and Pepco went to PJM with a proposed solution. The work group raised several points during the Pepco presentation.

- The work group asked who asked for a solution because there appears to be conflicting information.
- The work group asked if PJM considered other alternatives. Joe explained that other routes were considered, but this one was the preferred route. PJM, who was in attendance at the open house, wouldn’t share other routes.
- The question was raised, why is all the open space needed, and Joe explained that trucks need to be able to access the equipment.
- The work group feels the terminology “open space” shouldn’t be used since the citizens definition of open space is land accessible to the public. After filing, all comments go through the state.
- A question was asked if Pepco needed a DSUP. Jeff Farner responded that currently a DSUP is not needed because of existing zoning, but the plan is in a historic district, and does need to go through the site plan and BAR

(Board of Architecture Review) process, with the National Park Service in an advisory capacity.

Pepco is using the latest technology to reduce the footprint of the existing substation. They expect by 2018 the transmission line will be in place. Joe reiterated that the facility is necessary to be built and that the existing substation is in use, and currently serving Washington, D.C., and will continue to be used, and is not in the scope of the project. The benefit to Dominion Virginia Power is it resolves issues meeting federal requirements by 2018. The project will allow Dominion Virginia Power to meet the N-1-1 requirement.

- The work group commented that for years citizens were told that nothing was wrong with the plant; it was operating above standards, when in reality the plant was in violation. The citizens in North Old Town feel jaded by the conflicting stories.
- The work group pointed out the public notice in the paper about Buzzard Point power line. He asked if there were overlaps with this project. Joe explained that Buzzard Point was a distribution substation and it supplied local need in the Buzzard Point area. This project is a transmission line, which is a line to supply that substation. A distribution substation serves residential homes. A transmission substation serves substations that serve homes.
- The work group requested a map of infrastructure. Pat and Joe told him it was not possible for Pepco to provide a map for the work group.
- The work group has received several emails asking why building materials are being received at the power plant site over the last five weekends. Joe explained that equipment is being replaced at the substation. Old oil circuit breakers are being replaced with gas circuit breakers. It is more routine maintenance of equipment.
- The work group asked if the proposed substation was using enclosed components or would be an enclosed building. Joe responded that some portions of the facility will be enclosed and some won't. It's too early in the design process to discuss screening.
- The work group asked if the largest amount of EMF would be at the substation. Joe explained that readings are taken at peak and off peak times. The consultant will prepare a report after actual models are completed. Pat Kurowski explained that the normal day to day operations would be just like they are now-but the electricity suppliers will be able to lean on each other when necessary.

Vice-Mayor Allison Silberberg thanked the incredible group of citizens on the work group. She expressed that most of the community does feel jaded. Citizens are very concerned about this route. If the power is needed for the City of Alexandria, it is one thing, but there have been differing answers to where power is going. Presenters should give consistent answers. Initially it was explained that power was needed for Alexandria, then Arlington and Northern Virginia, now we hear it is needed for government agencies in the District of Columbia. The questions here are only the tip of the iceberg of citizen questions. The project will be disruptive to the community.

Joe explained the need for the project has been consistent. The previous presentations gave the multiple benefits. Pepco has been in business a long time and has good customer service. When they have plans, they will share them with the community. Pat Kurowski from Pepco

reiterated that no new power is being generated. They are simply putting a connection between two stations as a result of a Dominion Virginia Power violation. Dominion Virginia has to prepare for outages. If there is not enough capacity, there has to be another source. Yon thanked Joe for the presentation. Yon asked the work group to prepare additional questions between meetings and send them to him.

### **C. Review of Routing Matrix**

The City's energy manager, Bill Eger presented a review of the matrix tool. City staff worked hard to outline the criteria important to the work group. City staff and consultants prepared narrative summaries of each alternative and the pros/cons of each. The work group is under a constrained time frame, but staff asked the work group to review the information in the matrix.

- Staff has grouped the alternatives into tiers. Tier 1 is the least objectionable, no impact on the City Right of Way. Tier 2 is the area where staff asks the work group focus their time. They have to review the concerns to the community and make recommendations to City Council on one or two alternatives. Tier 3 are the most objectionable routes and least desirable (overhead alternative). The five Tier 2 projects need to be ranked by least objectionable to most objectionable. Staff is not abandoning Tier 1 alternatives, but feels it is not practical to only rely on Tier 1.
- The work group asked what data and analysis went into the development of the matrix impact areas. Bill explained comments from the work group, consultants input and subject matter experts (T&ES, P&Z and RPCA) on the number of households impacted, schools and overall population of each alternative. The coding from the legend is a way to rank the alternatives.
- The work group asked about the impact on the ROW for line, will it be able to accommodate trees, parks? Dominion staff explained there are limitations to things planted. Ground cover is allowed (shrubs) but no large growing trees due to roots. There is a 30 ft. ROW that allows access to fix equipment. The work group wondered if the impacts would lessen over time with the Four Mile Run Trail for example.
- Construction will be disruptive. After it ends will damage be mitigated? What are the long-term effects? If we have a park, will we get it back? For example, large oak trees cannot be replanted. Jeff Farner from Planning & Zoning commented that Dominion is very sensitive to grade issues. Dominion Virginia Power will need to give permission before anything is done.

Mayor Euille joined the meeting. He thanked the work group members and staff. He commended that Dominion has been a valuable resource to the city. When electricity is needed after storms, they have been very responsive. However the current issue is troubling to the City when putting power lines through neighborhoods; it is a safety issue and causes disruption. The City is not supporting the line; they are working on the best solution with Dominion.

Bill asked that by the next meeting (October 23, 2014), the work group members review the matrix and come up with draft recommendations.

- The work group asked if the ROW is 50 or 30 ft. Dominion Virginia prefers to have their own Right of Way of 30 ft.
- One of the alternatives is Route 1. There are a lot of businesses along Route 1. The work group asked if the project cost includes compensation for businesses impacted by project. Deborah Johnson from Dominion explained that generally there is compensation if an easement is needed and generally no compensation for lost business due to construction. Dominion will conduct further research on this issue.
- The work group asked of all the overhead alternatives, why is Potomac Avenue highlighted? An overhead line needs an 80 ft. easement. It will be very difficult to find where 80 ft. might be. Residents of Potomac Yard are very concerned about playgrounds and parks.  
Greg Baka from Dominion reiterated that the SCC requires one overhead line alternative. It considers all kinds of impacts and due diligence is done for overhead and underground lines. Elizabeth Chimento asked for confirmation that was the only reason the overhead is being considered is the SCC requires it. Dominion responded that they are presenting the project as a 230 kV underground line. Once the alternative is given to the SCC, Dominion won't know what decision will be made. Bill Skrabak responded that the work group doesn't support any overhead line.
- The work group asked if Dominion Virginia Power was doing due diligence and working with CSX and the National Park Service-NPS (GW Parkway alternative)?  
Dominion responded that they had initial meetings with NPS and CSX. The meetings were productive and positive. NPS is studying ROW for the historically sensitive and well-traveled corridor.
- The work group asked if the underground options take into account future vegetation. Pulte has plans to plant trees on these routes in Potomac Yard. Dana Wedeles indicated where new trees were impacted on the matrix.
- Councilman Smedberg asked if the plan takes into account the future Metro locations.
- Question for Jeff Farner: The substation will be there long term, will that take redevelopment off the table? Jeff responded that the substation is 3 ½ acres right off the parkway. How the site is enclosed may impact development.

#### **D. Develop Work Group Recommendation**

- The work group asked if Beneficial Result was a valuable category on the matrix. Bill Skrabak explained that the recommendation memo would have the following sections:
- Introduction of Issue: Limited by time and knowledge.
- Qualifiers: Based on information we have to date. The City may rescinding ability to be flexible when additional information is available

- Recommendations: Potomac Yard consolidated with Glebe. SUP for North Potomac Yard Terminal Station expired. Potential positive outcome. There are a limited number of least objectionable alignments. The matrix can be included as an attachment.
- Mitigations: Hard to know what alignments are and what mitigations can be done until we get to the next level, try to capture examples-e.g. reversible lanes-undergrounding some existing lines. City will have consultants review need and alternatives once Dominion files with SCC. The cost for the consultants could be mitigated as a part of recommendation or deal with Dominion Virginia Power.
- Placeholder for other items.

At the next meeting, the goal is to get core recommendations. The meeting on November 6<sup>th</sup> the group will finalize recommendation memo. How do we get to the least objectionable alignments-Tier I & Tier II?

Next two meetings (10/23/14 & 11/6/14) and will be held at the Lee Center. The first legislative meeting is 11/11/14 with a public hearing 11/15/14. We need to have initial docket memo for the first legislative meeting. The City has asked for more time. We are proceeding with the time we have now until we get information from Dominion about filing an extension with the SCC.

- The feeling around the work group is one additional month is needed to consider alternatives. Dominion's feeling is one month's time does matter. The project has to be constructed and in-service prior to the winter peak or summer peak. Dominion is reviewing the letter sent by the City (via email and hard copy). Dominion will respond to the letter.
- A work group member will share the form for questions that is a part of the SCC filing.

## **E. Citizen Comments**

Yon said that 15 minutes have been set aside for questions/comments. As previously stated, a 3-minute time limit is set per question.

- Question for Dominion: There were 112 attendees at open house. What was the number of questions received? Will the individual questions be answered and given as a group of answers?
  - Deborah Johnson replied that answers would be put on line. She asked for the gentleman to give her his name and she would send them to him.
- Firm represents Potomac Yard development still has all the same concerns as previously mentioned.
- Several questions were raised about the handouts: On Page 10 (F) - During the due diligence could ties into Buzzard Substation could it be an alternative?
- On page 16 of the matrix alternative Commonwealth Glebe-utilities 50 Ft ROW is that porch rail to porch rail? If so, that could be a problem.

- On page 32 Route Cons: Contains the word “Potential” impact to Cora Kelly School- strike the word potential.
- Some of the routes have mature trees within 30 Ft ROW and expanded-would trees have to come down? (Yes) Can the trees be replanted somewhere else? Do we get an equivalent in another part of park? Do we expect mitigation somewhere else?
- What is the 100 ft. buffer area referred to on the matrix? City staff chose that width to help determine the effects of the project.
- There’s been tremendous change in the waterfront the recent controversy was for only 15 acres and now this is 25 acres controversy, what is the maximum power the city has over 25 acres? To deal with what is going on? Couldn’t the property be rezoned? He thinks this is out of character with the rest of the development.
  - Jeff Farner explained that the city has discretion over what goes on the NRG site, which will require re-zoning. For the substation itself, it requires site plan approval and BAR approval.
  - There is a federal act that gives utility companies power to plan and construct facilities necessary to provide services to their customers. The City has no ability to stop it.

Dominion indicated it intends to file with SCC by November 25<sup>th</sup>. The initial filing process could take 1 year to 18 months. Citizens have a say and can make comments within the SCC process. Bill Skrabak explained that the nature of the work group would change once filing with the SCC is completed.

- How much authority does SCC have? The SCC has the ultimate authority.
- Who is lobbying the SCC? The City has hired consultants.

#### **F. Wrap Up and Adjourn**

Dominion will answer the group letter before the next meeting per Deborah Johnson.

Yon Lambert reminded everyone that the location for the next meeting is the Lee Center 1108 Jefferson Street.

Meeting adjourned at 9:30 pm.

## DRAFT DOMINION GLEBE SUBSTATION TO POTOMAC RIVER SUBSTATION: PLANNING AND DEVELOPMENT ISSUES

Information Provided By City Staff and Their Consultants - Route Colors In This Chart Align With the Dominion Project Map Routes Colors

Impact Areas	Commonwealth Ave / E Glebe Rd	Route 1 / Slaters Lane	Potomac Avenue	CSX
<b>Traffic</b>	Code <input checked="" type="radio"/> Potential traffic impacts along Slaters and Massey Lane. Significant impacts to Potomac Ave, East Glebe RD and Commonwealth Ave	Code <input checked="" type="radio"/> Potential traffic impacts along Slaters and Massey Lane. Major impacts to Route 1	Code <input type="radio"/> Potential traffic impacts along Slaters and Massey Lane. Significant impacts to Potomac Ave	Code <input type="radio"/> Potential traffic impacts along Slaters and Massey Lane. Impacts to freight and commuter rail service along CSX main line
<b>Open Space</b>	Code <input type="radio"/> Potential impacts to open space along Potomac Ave. Impacts on Four Mile Run banks and park. Possible impacts to existing street trees.	Code <input type="radio"/> Impacts on Four Mile Run banks and park. Possible impacts to existing street trees.	Code <input type="radio"/> Potential impacts to open space along Potomac Ave. Impacts on Four Mile Run banks and park. Impact on future planned park at Land Bay E. Impacts to new street trees.	Code <input type="radio"/> Majority of route is CSX right-of- way or immediately adjacent to CSX right of way. Impacts on Four Mile Run banks and park. Impact on future planned park at Land Bay E.
<b>Development</b>	Code <input type="radio"/> Majority of this route has already been developed, but some potential redevelopment sites remain.	Code <input checked="" type="radio"/> Could interfere with future plans to develop along route 1. If located within the existing travel lanes will have a low impact. If located within the sidewalk or adjacent to the site will have a moderate to high impact on the planned development.	Code <input checked="" type="radio"/> Potential to significantly constrain future access, design, grading and location of planned mixed-use density development area. Potential impacts to future Potomac Yard infill Metrorail Station.	Code <input checked="" type="radio"/> Majority of route is CSX right-of- way or immediately adjacent to CSX right of way. Potential impacts to future Potomac Yard infill Metrorail Station. Impacts to future RO-AF 4th track project.
<b>Environmental</b>	Code <input type="radio"/> Potential environmental issues when working in areas with contaminated soils.	Code <input type="radio"/> Potential environmental issues when working in areas with contaminated soils.	Code <input type="radio"/> Majority of this route has already been developed. Potential environmental issues when working in areas with contaminated soils.	Code <input type="radio"/> Majority of route is CSX right-of- way or immediately adjacent to CSX right of way. Likely environmental issues when working in areas with contaminated soils.
<b>School/Population</b>	Code <input checked="" type="radio"/> Impacts to Cora Kelly School, businesses and residents along Potomac Ave, East Glebe Rd and Commonwealth Ave. 142 residential buildings, 1144 residences in the 100-foot buffer area. Substantial residential use along right-of-way.	Code <input checked="" type="radio"/> Impacts to businesses and residents along Route 1. 84 residential buildings, 630 residences in the 100-foot buffer area. Substantial residential use near right-of-way, but substantial setbacks for most.	Code <input checked="" type="radio"/> Impacts to businesses and residents along Potomac Ave. 83 residential buildings, 519 residences in the 100-foot buffer area. Wide right-of-way where adjacent to residential use. Impacts to the existing Theater site during construction. Adjacent to Future Potomac Yard School.	Code <input type="radio"/> Majority of route is CSX right-of- way or immediately adjacent to CSX right of way
<b>Right-of-Way</b>	Code <input checked="" type="radio"/> Would have significant impact existing right-of-way on this route and add the required 30-ft right-of-way for the underground utility. Right-of-way varies depending on other utility impacts.	Code <input checked="" type="radio"/> Would have significant impact existing right-of-way on this route and add the required 30-ft right-of-way for the underground utility. Right-of-way varies depending on other utility impacts.	Code <input type="radio"/> Would impact existing right-of-way on this route and add the required 30-ft right-of-way for the underground utility. Right-of-way varies depending on other utility impacts.	Code <input type="radio"/> Majority of route is CSX right-of- way or immediately adjacent to CSX right of way. 24 residential buildings, 50 residences in buffer area. within CSX right-of-way. There would be temporary impacts during construction
<b>Aesthetics</b>	Code <input type="checkbox"/> Utility is underground	Code <input type="checkbox"/> Utility is underground	Code <input type="radio"/> Utility is underground. The proposed alignment may impact the existing Potomac Greens Park .	Code <input type="checkbox"/> Utility is underground
<b>Cost</b>	Code <input type="radio"/>	Code <input type="radio"/>	Code <input type="radio"/>	Code <input type="radio"/>
<b>Catalyst</b>	Code <input type="radio"/> Potential streetscape improvements for Glebe Road and Commonwealth Avenue.	Code <input type="radio"/> Potential to underground utilities and make long-term roadway improvements if along west side of right-of-way.	Code <input type="checkbox"/>	Code <input type="checkbox"/>
<b>Beneficial Result</b>	Code <input type="checkbox"/>  *To be more thoroughly analyzed at a later date	Code <input type="checkbox"/>  *To be more thoroughly analyzed at a later date	Code <input type="checkbox"/>  *To be more thoroughly analyzed at a later date	Code <input type="checkbox"/>  *To be more thoroughly analyzed at a later date
<b>City Staff Grouping</b>	Tier 2	Tier 2	Tier 2	Tier 1

## DRAFT DOMINION GLEBE SUBSTATION TO POTOMAC RIVER SUBSTATION: PLANNING AND DEVELOPMENT ISSUES

Information Provided By City Staff and Their Consultants - Route Colors In This Chart Align With the Dominion Project Map Routes Colors

Impact Areas	Metro / GW Parkway	GW Parkway	Mt. Jefferson Park Trail	Main Line Blvd
Traffic	<p>Code <input checked="" type="radio"/> Potential traffic impacts along Slaters Lane and George Washington Parkway depending on alignment locations within GW Parkway Right-of-Way</p>	<p>Code <input checked="" type="radio"/> Potential traffic impacts along Slaters Lane and George Washington Parkway depending on alignment locations within GW Parkway Right-of-Way</p>	<p>Code <input checked="" type="radio"/> Potential traffic impacts along Slaters and Massey Lane and significant impacts to East Custis Ave and Commonwealth Ave</p>	<p>Code <input checked="" type="radio"/> Potential traffic impacts along Slaters and Massey Lane and significant impacts to Main Line Blvd, cross streets in Potomac Yard as well as parking and access for multiple businesses in the Potomac Yard Center shopping plaza to the north</p>
Open Space	<p>Code <input checked="" type="radio"/> Potential impacts depending on alignment locations within GW Parkway right-of-way. Impacts on Four Mile Run banks and park. Impact on future planned park at Land Bay E. Impact to passive and wetland area of Potomac Greens Park. Possible impacts to existing street trees.</p>	<p>Code <input checked="" type="radio"/> Potential impacts depending on alignment locations within GW Parkway Right-of-Way. Impacts on Four Mile Run banks and park. Impact on future planned park at Land Bay E. Impact to passive and wetland area of Potomac Greens Park. Possible impacts to existing street trees.</p>	<p>Code <input checked="" type="radio"/> Significant Impacts to Mt Jefferson Park and Impacts from crossings through parks along Potomac Greens Drive and Potomac Ave. Impacts on Four Mile Run banks and park, Custis Finger Park (Just Completed) and passive area of Potomac Yard Park. Potential impacts to existing and future tree plantings.</p>	<p>Code <input checked="" type="radio"/> Majority of this route has already been developed. Impacts on Four Mile Run banks and park. Will impact a portion of the planned open space for North Potomac Yard. Possible impacts to existing street trees.</p>
Development	<p>Code <input checked="" type="radio"/> Potential impacts to future Potomac Yard infill Metrorail Station</p>	<p>Code <input type="radio"/> Majority of route is in national park land and would have little impact on future development</p>	<p>Code <input checked="" type="radio"/> The required transmission line right-of-way would interfere with any future redevelopment of businesses and residents along Commonwealth Ave and potentially East Custis Ave in Potomac Yard. Potential conflicts with track alignment of Potomac Yard Metro Station Build Alternate D.</p>	<p>Code <input checked="" type="radio"/> Impacts future redevelopment and significantly constrain future access, design, grading and location of planned mixed-use development including Potomac Yard Center shopping plaza and the Potomac Yard development. Potential conflicts with track alignment of Potomac Yard Metro Station Build Alternate D.</p>
Environmental	<p>Code <input checked="" type="radio"/> Impacts to national park land</p>	<p>Code <input checked="" type="radio"/> Considerable Impacts to national park land</p>	<p>Code <input checked="" type="radio"/> Route traverses park land. Potential environmental issues when working in areas with contaminated soils.</p>	<p>Code <input type="radio"/> Majority of this route has already been developed. Potential environmental issues when working in areas with contaminated soils.</p>
School/Population	<p>Code <input type="radio"/> Majority of route is on National Park Land or WMATA right-of-way and would have little impact on local population. No residential buildings in the 100-foot buffer area. No adjacent residential use.</p>	<p>Code <input type="radio"/> Majority of route is in national park land and would have little impact on local population. No residential buildings in the 100-foot buffer area. No adjacent residential use.</p>	<p>Code <input checked="" type="radio"/> Significant impacts to Jefferson Park &amp; Trail and potential impacts to Cora Kelly School, businesses and residents along Commonwealth Ave and residents along Potomac Greens Drive. 203 residential buildings, 769 residences in the 100-foot buffer area.</p>	<p>Code <input checked="" type="radio"/> Impacts to residents along Potomac Greens Drive. 145 residential buildings, 1038 residences in the 100-foot buffer area. Relatively short distance adjacent to residential use. Impacts to existing businesses within the Potomac Yard retail center during construction.</p>
Right-of-Way	<p>Code <input type="radio"/> Majority of route is in WMATA &amp; CSX right-of-way</p>	<p>Code <input checked="" type="radio"/> Would have significant impact existing right-of-way on this route and add the required 30-ft right-of-way for the underground utility. Right-of-way varies depending on other utility impacts.</p>	<p>Code <input checked="" type="radio"/> Would impact existing right-of-way on this route and add the required 30-ft right-of-way for the underground utility. Right-of-way varies depending on other utility impacts.</p>	<p>Code <input checked="" type="radio"/> Would have significant impact existing right-of-way on this route and add the required 30-ft right-of-way for the underground utility. Right-of-way varies depending on other utility impacts.</p>
Aesthetics	<p>Code <input checked="" type="radio"/> Utility is underground. Will Impact existing trees and landscaping.</p>	<p>Code <input type="radio"/> Utility is underground. Will Impact existing trees and landscaping.</p>	<p>Code <input checked="" type="radio"/> Utility is underground. Will impact the existing trees, and park improvements within the park.</p>	<p>Code <input type="checkbox"/> Utility is underground</p>
Cost	<p>Code <input checked="" type="radio"/></p>	<p>Code <input checked="" type="radio"/></p>	<p>Code <input checked="" type="radio"/></p>	<p>Code <input checked="" type="radio"/></p>
Catalyst	<p>Code <input checked="" type="radio"/> Opportunity to integrate construction with Metro line relocation for new Potomac Yard Metro Station</p>	<p>Code <input type="checkbox"/></p>	<p>Code <input type="checkbox"/></p>	<p>Code <input type="checkbox"/></p>
Beneficial Result	<p>Code <input type="radio"/> Potential for increased landscaping and management/mitigation of invasive species.</p> <p style="text-align: center;">*To be more thoroughly analyzed at a later date</p>	<p>Code <input type="radio"/> Potential for increased landscaping and management/mitigation of invasive species.</p> <p style="text-align: center;">*To be more thoroughly analyzed at a later date</p>	<p>Code <input checked="" type="radio"/> Potential to implement trail and park enhancements as part of the project construction.</p> <p style="text-align: center;">*To be more thoroughly analyzed at a later date</p>	<p>Code <input type="checkbox"/></p> <p style="text-align: center;">*To be more thoroughly analyzed at a later date</p>
City Staff Grouping	Tier 1	Tier 2	Tier 3	Tier 2

## DRAFT DOMINION GLEBE SUBSTATION TO POTOMAC RIVER SUBSTATION: PLANNING AND DEVELOPMENT ISSUES

Information Provided By City Staff and Their Consultants - Route Colors In This Chart Align With the Dominion Project Map Routes Colors Where Applicable

Impact Areas	4 Mile Run / Potomac River	Overhead Transmission Line	Pepco Potomac River Substation Expansion	
Traffic	Code <input type="checkbox"/> Route would have no impact to open traffic	Code <input checked="" type="checkbox"/> Overhead should have limited impact to traffic	Code <input type="checkbox"/> Potential traffic impacts along Slaters Lane.	
Open Space	Code <input type="checkbox"/> Impacts on Four Mile Run banks and park. Impact on future planned park at Land Bay E. Impact to passive and wetland area of Potomac Greens Park.	Code <input checked="" type="checkbox"/> Overhead will take up available open space	Code <input type="checkbox"/> Area to be redeveloped is currently a parking lot	
Development	Code <input type="checkbox"/> Route would have little impact to future development	Code <input checked="" type="checkbox"/> Overhead will inhibit future development and will be in view of local businesses	Code <input checked="" type="checkbox"/> Impacts potential redevelopment of 2.5-3 acre site.	
Environmental	Code <input checked="" type="checkbox"/> Waterway impacts to Potomac River and Four Mile Run	Code <input checked="" type="checkbox"/> Overhead will impact natural spaces and may raise some health concerns with the public in proximity	Code <input type="checkbox"/> Area to be redeveloped is currently a parking lot	
School/Population	Code <input type="checkbox"/> Route would have minimum impact to local population. Impacts to Marina Towers, 283 units, at edge of the 100-foot buffer area.	Code <input checked="" type="checkbox"/> Overhead will inhibit future development and will be in the view of local population	Code <input checked="" type="checkbox"/> Impacts to adjoin office buildings during construction.	
Right-of-Way	Code <input type="checkbox"/> Route should have no impact to existing or proposed right-of-way	Code <input checked="" type="checkbox"/> Would have significant impact existing right-of-way on this route and add the required 80-ft right-of-way for the overhead utility.	Code <input type="checkbox"/> Site to be developed is within Pepco property	
Aesthetics	Code <input type="checkbox"/> Utility is underground	Code <input checked="" type="checkbox"/> Overhead transmission lines would be perceived as a significant eye sore to the local community	Code <input checked="" type="checkbox"/> Proposed substation will be visible from the George Washington Memorial Parkway and within the Historic District	
Cost	Code <input checked="" type="checkbox"/> This would be the most expensive routing option	Code <input type="checkbox"/> This would be the least expensive routing option	Code <input checked="" type="checkbox"/>	
Catalyst	Code <input type="checkbox"/>	Code <input type="checkbox"/>	Code <input type="checkbox"/> Potential opportunity to reduce existing substation footprint as part of expansion though use of technology.	
Beneficial Result	Code <input type="checkbox"/>	Code <input type="checkbox"/>	Code <input type="checkbox"/>	
	*To be more thoroughly analyzed at a later date	*To be more thoroughly analyzed at a later date	*To be more thoroughly analyzed at a later date	
City Staff Grouping	Tier 1	Tier 3	N/A	

## DRAFT DOMINION GLEBE SUBSTATION TO POTOMAC RIVER SUBSTATION: PLANNING AND DEVELOPMENT ISSUES

Information Provided By City Staff and Their Consultants - Route Colors In This Chart Represent Dominion Work Group Alternative Routes

Impact Areas	4 Mile Run / Potomac River / GW Parkway - Alternate	Mt. Jefferson Park Trail - DRCA Alternate	CSX - DRCA Alternate	
Traffic	Code <input checked="" type="radio"/> Potential traffic impacts along Slaters Lane and George Washington Parkway depending on alignment locations within GW Parkway Right-of-Way	Code <input checked="" type="radio"/> Potential traffic impacts along Slaters and Massey Lane and significant impacts to East Custis Ave and Commonwealth Ave. Major impacts to section along Route 1.	Code <input type="radio"/> Potential traffic impacts along Slaters and Massey Lane. Impacts to freight and commuter rail service along CSX main line	
Open Space	Code <input checked="" type="radio"/> Potential impacts depending on alignment locations within GW Parkway Right-of-Way. Impacts on Four Mile Run banks and park. Impact on future planned park at Land Bay E. Impact to passive and wetland area of Potomac Greens Park.	Code <input checked="" type="radio"/> Significant Impacts to Mt Jefferson Park and Impacts from crossings through parks along Potomac Greens Drive and Potomac Ave. Impacts on Four Mile Run banks and park. Potential impacts to existing trees and the possibility of future tree plantings.	Code <input type="radio"/> Majority of route is CSX right-of- way or immediately adjacent to CSX right of way. Route crosses 4 Mile Run via rail bridge and connects with Glebe Substation in Arlington County. Impact on future planned park at Land Bay E.	
Development	Code <input type="radio"/> Route would have little impact to future development	Code <input checked="" type="radio"/> The required transmission line right-of-way would interfere with any future redevelopment of businesses and residents along Commonwealth Ave. Could interfere with future plans to develop along route 1.	Code <input checked="" type="radio"/> Majority of route is CSX right-of- way or immediately adjacent to CSX right of way. Potential impacts to future Potomac Yard infill Metrorail Station. Impacts to future RO-AF 4th track project.	
Environmental	Code <input checked="" type="radio"/> Waterway impacts to Potomac River and Four Mile Run with additional impacts to national park land	Code <input checked="" type="radio"/> Route traverses park land but this route alternative avoids sensitive impact areas. Potential environmental issues when working in areas with contaminated soils.	Code <input checked="" type="radio"/> Majority of route is CSX right-of- way or immediately adjacent to CSX right of way. Likely environmental issues when working in areas with contaminated soils.	
School/Population	Code <input type="radio"/> portions of route is in national park land and would have little impact on local population	Code <input checked="" type="radio"/> Significant impacts to Jefferson Park & Trail and potential impacts to Cora Kelly School, businesses and residents along Commonwealth Ave and residents along Potomac Greens Drive.	Code <input type="checkbox"/> Majority of route is CSX right-of- way or immediately adjacent to CSX right of way	
Right-of-Way	Code <input checked="" type="radio"/> Would impact existing right-of-way on this route and add the required 30-ft right-of-way for the underground utility. Right-of-way varies depending on other utility impacts.	Code <input checked="" type="radio"/> Would impact existing right-of-way on this route and add the required 30-ft right-of-way for the underground utility. Right-of-way varies depending on other utility impacts.	Code <input type="radio"/> Majority of route is CSX right-of- way or immediately adjacent to CSX right of way. 24 residential buildings, 50 residences in buffer area. within CSX right-of-way. There would be temporary impacts during construction	
Aesthetics	Code <input type="checkbox"/> Utility is underground	Code <input checked="" type="radio"/> Utility is underground. Will impact the existing trees, and park improvements within the park.	Code <input type="checkbox"/> Utility is underground	
Cost	Code <input checked="" type="radio"/> This would also be a high cost routing option	Code <input checked="" type="radio"/>	Code <input checked="" type="radio"/>	
Catalyst	Code <input type="checkbox"/>	Code <input type="checkbox"/>	Code <input type="checkbox"/>	
Beneficial Result	Code <input type="checkbox"/>	Code <input checked="" type="radio"/> Opportunity for potential betterments to Jefferson Park and Trail	Code <input type="checkbox"/>	
	*To be more thoroughly analyzed at a later date	*To be more thoroughly analyzed at a later date	*To be more thoroughly analyzed at a later date	
City Staff Grouping	Tier 2	Tier 3	Tier 1	

# DRAFT DOMINION GLEBE SUBSTATION TO POTOMAC RIVER SUBSTATION: PLANNING AND DEVELOPMENT ISSUES

Symbols, Legends and Notes

Coding Key	
<p>Code  High Level of Impacts</p> <p>Code  Medium Level of Impacts</p> <p>Code  Low Level of Impacts</p>	<p>Code  No Impacts</p> <p>Code  Further Study / See Report</p>

Dominion Route Legend	Working Group Alternate Route Legend
<p> Commonwealth Ave / E Glebe Rd</p> <p> Route 1 / Slaters Lane</p> <p> Potomac Ave</p> <p> CSX</p> <p> Metro / GW Parkway</p> <p> GW Parkway</p> <p> Mt Jefferson Park Trail</p> <p> Main Line Blvd</p> <p> 4 Mile Run / Potomac River</p>	<p> 4 Mile Run / Potomac River / GW Parkway</p> <p> Mt. Jefferson Park Trail - DRCA Alternate</p> <p> CSX - DRCA Alternate</p>

Impact Area Descriptions / Subcategories	
<p><b>Traffic</b></p> <ul style="list-style-type: none"> <li>➤ Road Classification</li> <li>➤ Traffic Volume</li> <li>➤ Transit / Multi-Modal</li> </ul> <p><b>Open Space</b></p> <ul style="list-style-type: none"> <li>➤ Developed / Parkland</li> <li>➤ Undeveloped</li> </ul> <p><b>Development</b></p> <ul style="list-style-type: none"> <li>➤ Existing Development</li> <li>➤ Future Commercial / Retail / Residential</li> <li>➤ Undeveloped</li> </ul> <p><b>Environmental</b></p> <ul style="list-style-type: none"> <li>➤ Water Quality</li> <li>➤ Air Quality / Traffic</li> <li>➤ Electro Magnetic Field (EMF)</li> </ul>	<p><b>School / Population</b></p> <ul style="list-style-type: none"> <li>➤ Proximity to Current Locations</li> <li>➤ Proximity to Future Locations</li> </ul> <p><b>Right-of-Way</b></p> <ul style="list-style-type: none"> <li>➤ Existing</li> <li>➤ Proposed</li> </ul> <p><b>Catalyst</b></p> <ul style="list-style-type: none"> <li>➤ Dovetails Current City Efforts?</li> </ul> <p><b>Beneficial Result</b></p> <ul style="list-style-type: none"> <li>➤ Mitigation Opportunities</li> <li>➤ Positive Impacts</li> </ul> <p><b>Cost</b></p> <ul style="list-style-type: none"> <li>➤ Projected Cost of Construction</li> </ul> <p><b>Aesthetics</b></p>

# Commonwealth Ave / E Glebe Rd

*Information Provided By City Staff and Their Consultants*

## Route Summary

The Commonwealth Avenue / East Glebe Road Route begins by leaving Arlington County to the north and crossing Four Mile Run into the City of Alexandria. From there it continues southbound along Commonwealth Avenue before turning south east at East Glebe Road. Next the route crosses Route-1 and continuing east on East Glebe Road before turning south and following Potomac Ave to the intersection of Main Line Blvd where the alignment transitions southeast crossing under CSX mainline track and passing over Metrorail tunnel before reaching Massey Lane.

## Connection to Glebe Substation

This route connects to the Glebe Substation through various optional crossings from Arlington County to Alexandria in and around Four Mile Run.

## Connection to Potomac River Substation

This route connects to the Potomac Substation through various optional routes that start along Massey Lane and continue to the substation after branching off from either Slaters Lane to the north or via the railroad siding track alignment to the southwest of the facility.

## Route Pros

- Potential streetscape improvements for Glebe Road and Commonwealth Avenue.
- Impacts to Freight and Commuter rail service along CSX Mainline tracks could be avoided by bore and jack operations.

## Route Cons

- Significant impacts to traffic on Commonwealth Ave, E. Glebe Rd., Route-1 and Potomac Ave. Potential for traffic impacts along Massey Lane and Slaters Lane.
- The route will require coordination and approval by CSX and WMATA.
- A lease will be required for track crossing from CSX for use of railroad right-of-way.
- Impacts to Cora Kelly School, businesses and residents along Potomac Ave, East Glebe Rd and Commonwealth Ave. 142 residential buildings, 1144 residences in the 100-foot buffer area.
- Potential impacts to open space along Potomac Ave.
- Environmental issues when working in areas with contaminated soils.
- Impacts on Four Mile Run banks and park.
- Possible impacts to existing street trees.
- GIS Analysis - Potential conflicts with large sewers: Sanitary (2) 24", (1) 27" pipes. Storm (2) 42", (2) 48", (1) 60" pipes.

# Route 1 / Slaters Lane

*Information Provided By City Staff and Their Consultants*

## Route Summary

The Route -1 (Jefferson Davis Highway) / Slaters Lane Route begins by leaving Arlington County to the north and crossing Four Mile Run into the City of Alexandria. From there it turns to the south and follows Route-1 to Potomac Ave. From there the route turns east before transitions southeast crossing under CSX mainline track and passing over Metrorail tunnel before reaching Massey Lane.

## Connection to Glebe Substation

This route connects to the Glebe Substation through various optional crossings from Arlington County to Alexandria in and around Four Mile Run.

## Connection to Potomac River Substation

This route connects to the Potomac Substation through various optional routes that start along Massey Lane and continue to the substation after branching off from either Slaters Lane to the north or via the railroad siding track alignment to the southwest of the facility.

## Route Pros

- Potential to underground utilities and make long-term roadway improvements if along west side of Route-1 right-of-way.
- Impacts to Freight and Commuter rail service along CSX Mainline tracks could be avoided by bore and jack operations.

## Route Cons

- Significant impacts to traffic on Route-1 and potential for traffic impacts along Massey Lane and Slaters Lane.
- Could interfere with future plans to develop along route 1.
- The route will require coordination and approval by CSX and WMATA.
- A lease will be required for track crossing from CSX for use of railroad right-of-way.
- Impacts to businesses and residents along Route-1. 84 residential buildings, 630 residences in the 100-foot buffer area.
- Possible environmental issues when working in areas with contaminated soils.
- Impacts on Four Mile Run banks and park.
- Possible impacts to existing street trees.
- GIS Analysis - Potential conflicts with large sewers: Sanitary (1) 24" pipe. Storm (1) 30", (5) 36", (2) 48", (1) 60" pipes.

# Potomac Avenue

*Information Provided By City Staff and Their Consultants*

## Route Summary

The Potomac Avenue Route begins by leaving Arlington County to the north and crossing Four Mile Run into the City of Alexandria. From there it turns to the south and follows Potomac Ave to intersection of Main Line Blvd where the alignment transitions southeast crossing under CSX mainline track and passing over Metrorail tunnel before reaching Massey Lane.

## Connection to Glebe Substation

This route connects to the Glebe Substation through various optional crossings from Arlington County to Alexandria in and around Four Mile Run.

## Connection to Potomac River Substation

This route connects to the Potomac Substation through various optional routes that start along Massey Lane and continue to the substation after branching off from either Slaters Lane to the north or via the railroad siding track alignment to the southwest of the facility.

## Route Pros

- A majority of this route has already been developed.
- Impacts to Freight and Commuter rail service along CSX Mainline tracks could be avoided by bore and jack operations.

## Route Cons

- Significant impacts to traffic on Potomac Ave and potential for traffic impacts along Massey Lane and Slaters Lane.
- The route will require coordination and approval by CSX and WMATA.
- A lease will be required for track crossing from CSX for use of railroad right-of-way.
- Impacts to businesses and residents along Potomac Ave. 83 residential buildings, 519 residences in the 100-foot buffer area.
- Potential impacts to future Potomac Yard infill Metrorail Station.
- Potential impacts to open space along Potomac Ave.
- Impacts on Four Mile Run banks and park.
- Impact on future planned park at Land Bay E.
- Impacts to new street trees.
- GIS Analysis - Potential conflicts with large sewers: Sanitary (1) 24", (1) 27" pipes. Storm (1) 30", (3) 36", (2) 42", (2) 48", (3) 60" pipes.

# CSX

## *Information Provided By City Staff and Their Consultants*

### Route Summary

The CSX Route begins by leaving Arlington County to the north and crossing 4 Mile run into the City of Alexandria. The route continues south along CSX Mainline tracks to Slaters Lane. From there the route continues east crossing over the Metrorail tunnel going further east on Slaters Lane.

### Connection to Glebe Substation

This route connects to the Glebe Substation through various optional crossings from Arlington County to Alexandria in and around 4 Mile Run.

### Connection to Potomac River Substation

This route connects to the Potomac Substation through various optional routes that start along Massey Lane and continue to the substation after branching off from either Slaters Lane to the north or via the railroad siding track alignment to the southwest of the facility.

### Route Pros

- Implementing a route that stays away from population centers and will provide reduced impacts to schools, businesses and residents.

### Route Cons

- Potential for traffic impacts along Massey Lane and Slaters Lane.
- Freight and Commuter rail service will be impacted along CSX Mainline tracks.
- Impacts to future RO-AF 4th track project.
- The route will require coordination and approval by CSX and WMATA.
- A lease will be required from CSX for use of railroad right-of-way.
- Potential impacts to future Potomac Yard infill Metrorail Station.
- Environmental issues when working in areas with contaminated soils.
- Impacts on Four Mile Run banks and park.
- Impact on future planned park at Land Bay E.
- GIS Analysis - Potential conflicts with large sewers: Sanitary (1) 27" pipe. Storm (1) 36", (1) 60", (1) 96" pipes.

# Metro / GW Parkway

*Information Provided By City Staff and Their Consultants*

## Route Summary

The Metro / GW Parkway Route begins by leaving Arlington County to the north and crossing Four Mile Run into the City of Alexandria. From there it turns to the south and follows Metrorail tracks before turning to the east near E. Glebe Road. From there the route turns south again and follows the alignment of George Washington Parkway.

## Connection to Glebe Substation

This route connects to the Glebe Substation through various optional crossings from Arlington County to Alexandria in and around Four Mile Run.

## Connection to Potomac River Substation

This route connects to the Potomac Substation from either Slaters Lane to the north or via the railroad siding track alignment to the southwest of the facility.

## Route Pros

- Implementing a route that stays away from population centers and will provide reduced impacts to schools, businesses and residents.

## Route Cons

- Traffic on George Washington Parkway and Slaters Lane will be impacted.
- Commuter rail service will be impacted along the Metrorail section of the route.
- The route will require coordination and approval by the National Park Service and WMATA.
- Route has potential to impact existing trees and open spaces along George Washington Parkway.
- Route has potential to impact location of future Potomac Yard infill Metro Station.
- Impacts on Four Mile Run banks and park.
- Impact on future planned park at Land Bay E.
- Impact to passive and wetland area of Potomac Greens Park.
- Possible impacts to existing street trees.
- GIS Analysis - Potential conflicts with large sewers: Storm (1) 30", (1) 36", (1) 60", (1) 96" pipes.

# GW Parkway

*Information Provided By City Staff and Their Consultants*

## Route Summary

The GW Parkway Route begins by leaving Arlington County to the north and crossing Four Mile Run into the City of Alexandria. From there it turns to the south and follows the alignment of George Washington Parkway.

## Connection to Glebe Substation

This route connects to the Glebe Substation through various optional crossings from Arlington County to Alexandria in and around Four Mile Run.

## Connection to Potomac River Substation

This route connects to the Potomac Substation from either Slaters Lane to the north or via the railroad siding track alignment to the southwest of the facility.

## Route Pros

- Implementing a route that stays away from population centers and will provide reduced impacts to schools, businesses and residents.

## Route Cons

- Traffic on George Washington Parkway and Slaters Lane will be impacted.
- The route will require coordination and approval by the National Park Service.
- Route has potential to impact existing trees and open spaces along George Washington Parkway.
- Impacts on Four Mile Run banks and park.
- Impact on future planned park at Land Bay E.
- Impact to passive and wetland area of Potomac Greens Park.
- Possible impacts to existing street trees.
- GIS Analysis - Potential conflicts with large sewers: Storm (1) 30", (1) 36", (1) 60", (1) 96" pipes.

# Mt. Jefferson Park Trail

*Information Provided By City Staff and Their Consultants*

## Route Summary

The Mount Jefferson Park Trail Route begins by leaving Arlington County to the north and crossing Four Mile Run into the City of Alexandria. From there the route travels southbound along Commonwealth Avenue before turning southeast at the Mount Jefferson Park Trail. The route then continues through the park before crossing Route-1 and turning east on Custis Ave. From there the alignment continues east crossing under CSX mainline track and Metrorail tracks before reaching Potomac Greens Drive. The route then transitions south on Potomac Greens Drive to the intersection of Massey Lane.

## Connection to Glebe Substation

This route connects to the Glebe Substation through various optional crossings from Arlington County to Alexandria in and around Four Mile Run.

## Connection to Potomac River Substation

This route connects to the Potomac Substation through various optional routes that start along Massey Lane and continue to the substation after branching off from either Slaters Lane to the north or via the railroad siding track alignment to the southwest of the facility.

## Route Pros

- Potential to implement trail and park enhancements as part of the project construction.
- Impacts to Freight and Commuter rail service along CSX Mainline tracks and Metrorail tracks could be avoided by bore and jack operations.

## Route Cons

- Significant impacts to traffic on Commonwealth Ave, E. Glebe Rd., Route-1 and Potomac Ave. Potential for traffic impacts along Massey Lane and Slaters Lane.
- The route will require coordination and approval by CSX and WMATA.
- Potential conflicts with track alignment of Potomac Yard Metro Station Build Alternate D.
- A lease will be required for track crossing from CSX for use of railroad right-of-way.
- Significant impacts to Jefferson Park & Trail and potential impacts to Cora Kelly School, businesses and residents along Commonwealth Ave and residents along Potomac Greens Drive. 203 residential buildings, 769 residences in the 100-foot buffer area.
- Environmental issues when working in areas with contaminated soils.
- Impacts on Four Mile Run banks and park, Custis Finger Park (Just Completed) and passive area of Potomac Yard Park. Potential impacts to existing trees and the possibility of future tree plantings.
- GIS Analysis - Potential conflicts with large sewers: Sanitary (1) 24" pipe. Storm (4) 36", (1) 42", (3) 48" pipes.

# Main Line Blvd

*Information Provided By City Staff and Their Consultants*

## Route Summary

The Main Line Boulevard Trail Route begins by leaving Arlington County to the north and crossing Four Mile Run into the City of Alexandria. From there it turns southbound through the Potomac Yard Center shopping plaza parking lot continuing south through Potomac Yard development on Main Line Boulevard to the intersection of Custis Ave before turning east. From there the alignment continues east crossing under CSX mainline track and Metrorail tracks before reaching Potomac Greens Drive. The route then transitions south on Potomac Greens Drive to the intersection of Massey Lane.

## Connection to Glebe Substation

This route connects to the Glebe Substation through various optional crossings from Arlington County to Alexandria in and around Four Mile Run.

## Connection to Potomac River Substation

This route connects to the Potomac Substation through various optional routes that start along Massey Lane and continue to the substation after branching off from either Slaters Lane to the north or via the railroad siding track alignment to the southwest of the facility.

## Route Pros

- Impacts to Freight and Commuter rail service along CSX Mainline tracks and Metrorail tracks could be avoided by bore and jack operations.

## Route Cons

- Significant impacts to traffic in Potomac Yard Center shopping plaza, Main Line Boulevard, Custis Avenue and Potomac Greens Drive. Potential for traffic impacts along Massey Lane and Slaters Lane.
- The route will require coordination and approval by CSX and WMATA.
- Potential conflicts with track alignment of Potomac Yard Metro Station Build Alternate D.
- A lease will be required for track crossing from CSX for use of railroad right-of-way.
- Will interfere with mixed-use development including Potomac Yard Center shopping plaza and the Potomac Yard development.
- Impacts to residents along Potomac Greens Drive. 145 residential buildings, 1038 residences in the 100-foot buffer area. Relatively short distance adjacent to residential use.
- Environmental issues when working in areas with contaminated soils.
- Impacts on Four Mile Run banks and park. Possible impacts to existing street trees.
- Will impact a portion of the planned open space for North Potomac Yard.
- GIS Analysis - Potential conflicts with large sewers: Storm (1) 30", (1) 36", (2) 42", (2) 48", (1) 60" pipes.

# 4 Mile Run / Potomac River

*Information Provided By City Staff and Their Consultants*

## Route Summary

The For Mile Run / Potomac River Route begins by leaving Arlington County to the north and crossing Four Mile Run into the City of Alexandria. From there it snakes its way out into the Potomac River and the District of Columbia before taking a turn to the south and following the coast line tracking south before reaching land and re-entering Virginia near Slaters Lane.

## Connection to Glebe Substation

This route connects to the Glebe Substation through various optional crossings from Arlington County to Alexandria in and around Four Mile Run.

## Connection to Potomac River Substation

This route connects to the Potomac Substation from the Potomac River to the east of the facility. It is unique to other proposed routes in that respect.

## Route Pros

- Implementing a route that stays away from population centers and roadways will provide the least possible impact to open spaces, schools, businesses, residencies and the traveling public.
- The fifty foot right-of-way required for the transmission line would typically impact existing and future development but with this route it will be primarily located out in the water avoiding such conflicts.

## Route Cons

- The primarily underwater route will present considerable challenges and costs to the construction of the transmission line duct bank.
- Having to locate the line in the riverbed of the Potomac and 4 mile run will cause significant environmental impacts.
- This route also spans state lines between the District of Columbia and Virginia adding to jurisdictional oversight.
- Impacts to Marina Towers, 283 units, at edge of the 100-foot buffer area.
- This should be the highest cost option.
- Impact on future planned park at Land Bay E.
- Impact to passive and wetland area of Potomac Greens Park.
- GIS Analysis - Potential conflicts with large sewers: Storm (1) 30", (1) 36", (1) 60", (1) 96" pipes.

# Overhead Transmission Line

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*Information Provided By City Staff and Their Consultants*

## Route Summary

The Overhead Transmission Line option route has yet to be determined.

## Connection to Glebe Substation

This route connection to the Glebe Substation has yet to be determined.

## Connection to Potomac River Substation

This route connection to the Potomac River Substation has yet to be determined.

## Route Pros

- Low Cost Option

## Route Cons

- Significant Aesthetic impacts to local residents and businesses.
- Overhead will impact natural spaces, Potomac Yard Park and may raise some health concerns with the public in proximity

# 4 Mile Run / Potomac River / GW Parkway - Alternate

*Information Provided By City Staff and Their Consultants*

## Route Summary

The 4 Mile Run / Potomac River / GW Parkway Route begins by leaving Arlington County to the north and crossing Four Mile Run into the City of Alexandria. From there it snakes its way out into the Potomac River and the District of Columbia before taking a turn to the south and following the coast line tracking south before reaching land and re-entering Virginia just north of the marina. From there it crosses land to follow the George Washington Parkway alignment south to Slaters Lane.

## Connection to Glebe Substation

This route connects to the Glebe Substation through various optional crossings from Arlington County to Alexandria in and around Four Mile Run.

## Connection to Potomac River Substation

This route connects to the Potomac Substation from Slaters Lane to the north of the facility.

## Route Pros

- Implementing a route that stays away from population centers and will provide reduced impacts to schools, businesses and residents.
- The fifty foot right-of-way required for the transmission line would typically impact existing and future development but with this route a good portion will be located out in the water avoiding such conflicts.

## Route Cons

- The underwater section of the route will present considerable challenges and costs to the construction of the transmission line duct bank.
- Having to locate portions the line in the riverbed of the Potomac and 4 mile run will cause significant environmental impacts.
- This route also spans state lines between the District of Columbia and Virginia adding to jurisdictional oversight.
- Traffic on George Washington Parkway and Slaters Lane will be impacted.
- The route will require coordination and approval by the National Park Service.
- Route has potential to impact existing trees and open spaces along George Washington Parkway.
- Impacts on Four Mile Run banks and park.
- Impact on future planned park at Land Bay E.
- Impact to passive and wetland area of Potomac Greens Park.
- GIS Analysis - Potential conflicts with large sewers: Storm (1) 30", (1) 36", (1) 60", (1) 96" pipes.

# Mt. Jefferson Park Trail - DRCA Alternate

*Information Provided By City Staff and Their Consultants*

## Route Summary

The Mount Jefferson Park Trail – DCRA Alternate Route begins by leaving Arlington County to the north and crossing Four Mile Run into the City of Alexandria. From there the route travels southbound along Commonwealth Avenue before turning southeast at the Mount Jefferson Park Trail. The route then continues through the park before turning east onto Swann Ave. The route turns south onto Route-1 to the area near the bridge crossing over CSX Tracks. From there the route continues east crossing under CSX mainline track and over Metrorail tunnel before transitioning eastbound on Slaters Lane.

## Connection to Glebe Substation

This route connects to the Glebe Substation through various optional crossings from Arlington County to Alexandria in and around Four Mile Run.

## Connection to Potomac River Substation

This route connects to the Potomac Substation from Slaters Lane to the north of the facility.

## Route Pros

- Potential to implement trail and park enhancements as part of the project construction.
- This alternative avoids sensitive park area but cutting down Swann Ave.
- Impacts to Freight and Commuter rail service along CSX Mainline tracks could be avoided by bore and jack operations.

## Route Cons

- Significant impacts to traffic on Commonwealth Ave, E. Glebe Rd. and Route-1. Potential for traffic impacts along Slaters Lane.
- The route will require coordination and approval by CSX and WMATA.
- A lease will be required for track crossing from CSX for use of railroad right-of-way.
- Significant impacts to Jefferson Park & Trail and potential impacts to Cora Kelly School, businesses and residents along Commonwealth Ave, Swann Ave and Route-1.
- Environmental issues when working in areas with contaminated soils.
- Impacts on Four Mile Run banks and park.
- Potential impacts to existing trees and the possibility of future tree plantings.
- GIS Analysis - Potential conflicts with large sewers: Sanitary (1) 24", (1) 27" pipes. Storm (4) 36", (2) 48" pipes.

# CSX - DRCA Alternate

*Information Provided By City Staff and Their Consultants*

## Route Summary

The CSX – DRCA Alternate Route begins on South Glebe Road before leaving Arlington County to the north and crossing Four Mile Run over the CSX Rail Bridge into the City of Alexandria. It continues south along CSX Mainline tracks to Slaters Lane. From there the route continues east crossing over the Metrorail tunnel going further east on Slaters Lane.

## Connection to Glebe Substation

This route connects to the Glebe Substation from South Glebe Road to the north. This route is unique in that regard.

## Connection to Potomac River Substation

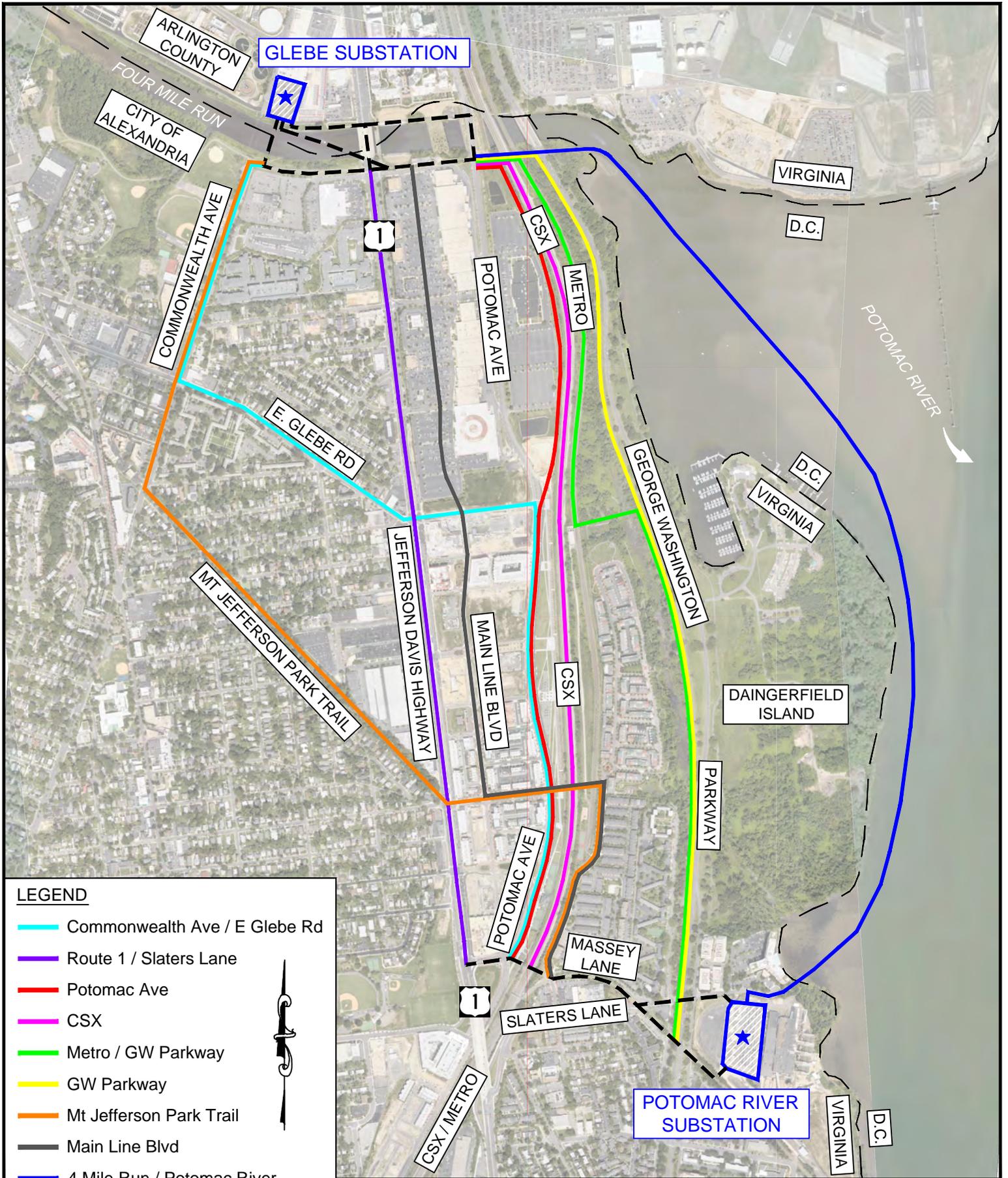
This route connects to the Potomac Substation from Slaters Lane to the north of the facility.

## Route Pros

- A majority of this route stays away from population centers and will provide reduced impacts to schools, businesses and residents.

## Route Cons

- Potential for traffic impacts along Slaters Lane.
- Freight and Commuter rail service will be impacted along CSX Mainline tracks.
- Impacts to future RO-AF 4th track project.
- The route will require coordination and approval by CSX and WMATA.
- A lease will be required from CSX for use of railroad right-of-way.
- Potential impacts to future Potomac Yard infill Metrorail Station.
- Environmental issues when working in areas with contaminated soils.
- Impact on future planned park at Land Bay E.
- GIS Analysis - Potential conflicts with large sewers: Storm (1) 42", (1) 48" pipes.



**LEGEND**

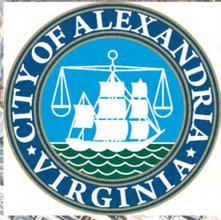
- Commonwealth Ave / E Glebe Rd
- Route 1 / Slaters Lane
- Potomac Ave
- CSX
- Metro / GW Parkway
- GW Parkway
- Mt Jefferson Park Trail
- Main Line Blvd
- 4 Mile Run / Potomac River
- Possible Tie-In Routes
- Jurisdictional Boundaries

SCALE:  
1"=1,000'

**GLEBE SUBSTATION TO  
POTOMAC RIVER SUBSTATION  
PRELIMINARY ROUTING STUDY  
SEPTEMBER 2014**



**Dominion®**



# Dominion Work Group Alternative Alignment



Under-water portion

Underground portion specific route to be coordinate with National Park Service

## Alternative Alignment

 In Potomac River / GW Parkway

 Alexandria Boundary

# Glebe – Potomac River Study Area

