

4.0 Land Acquisitions

4.1 Introduction

This technical memorandum reports potential right-of-way (ROW) impacts of the current Streetcar Build Alternative under consideration as part of the Columbia Pike Transit Initiative. The ROW analysis examined the potential ROW needs for guideway and permanent facilities of the Streetcar Build Alternative and the Transportation Systems Management (TSM) Alternatives. It did not assess potential temporary ROW needs during construction or driveway impacts. The potential ROW impacts were assessed at a broad level to provide inputs to the initial capital cost estimation and to the Environmental Assessment (EA).

4.2 Alternatives Considered

4.2.1 No Build Alternative

The following projects, which are relevant to the ROW analysis, are assumed to occur under the No Build Alternative:

- **Arlington County Columbia Pike Multimodal Project** - The project consists of standard cross-sections for the Columbia Pike roadway, sidewalk widening and streetscape improvements.
- **Arlington County Super Stops Program** - There are four stops currently under construction (eastbound and westbound stops near Dinwiddie Street, eastbound stop at Walter Reed Drive, and westbound stop at Penrose Square near Barton Street). In addition, the program will implement Super Stops along the full extent of Columbia Pike (from Jefferson Street to Joyce Street) that would be able to serve both bus and streetcar modes. The locations and specifications of the Super Stops would be consistent with and meet the needs of the Columbia Pike Transit Initiative's plans for high-capacity limited-stop transit service along the corridor. The Pentagon City and Fairfax County portions of the Columbia Pike Transit Initiative corridor are not included in the Super Stops program.
- **Various Roadway Projects** - The No Build Alternative also includes the realignment of Buchanan Street at Columbia Pike, redesign of the Washington Boulevard Interchange, and the extension of 12th Street South between Fern Street and Eads Street.

The ROW impacts of the projects listed above would be accounted for as part of the No Build Alternative.

4.2.2 Transportation Systems Management Alternatives

The Columbia Pike Transit Initiative Alternatives Analysis/Environmental Assessment (AA/EA) is assessing two Transportation Systems Management (TSM) Alternatives:

- **TSM 1 Alternative** - consists of operational improvements to bus service and improvements to stops within existing ROW. Storage and maintenance facility needs for additional vehicles would be accommodated within existing bus facilities. The alternative would have no ROW impacts.
- **TSM 2 Alternative** - includes additional facilities with potential ROW impacts, consisting of improved transit stops in Pentagon City and Fairfax County (see description of Streetcar Build Alternative stop specifications below) and the proposed Jefferson Street Transit Center. Storage and maintenance facility needs for additional vehicles would be accommodated within existing bus facilities. **Figure 4-1** shows the alignment and facility locations of the TSM 2 Alternative.

4.2.3 Streetcar Build Alternative

Figure 4-2 shows the current Streetcar Build Alternative under consideration. It has three design options for the Alternative's terminus at Skyline:

- **Jefferson Street Transit Center** - near Route 7 at the proposed Transit Center
- **Skyline Central Plaza** - along the private street in the center of Skyline
- **Skyline Route 7** - along the frontage of the Skyline City development near the Target store

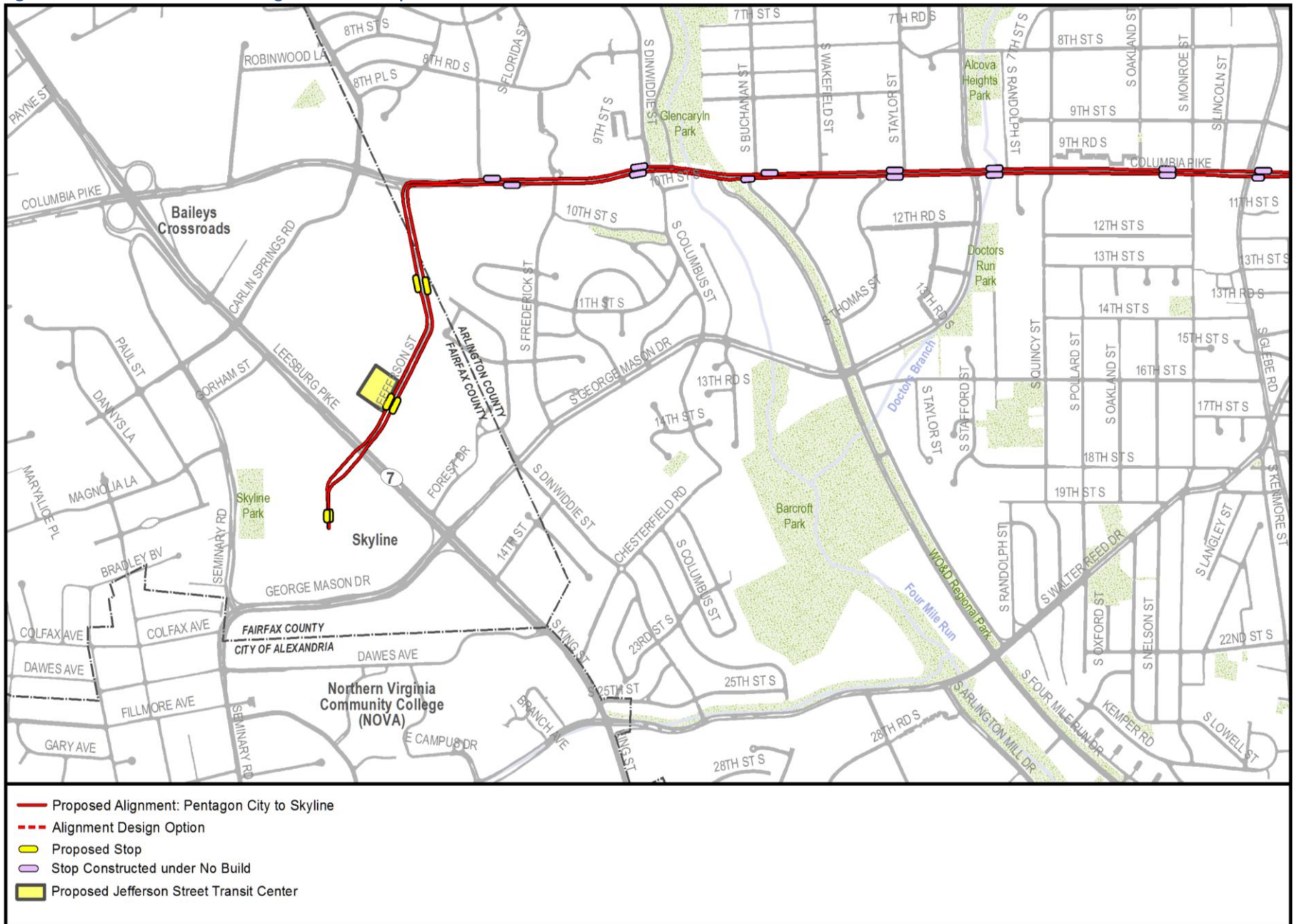
Elements of the Streetcar Alternative that have ROW implications are described below, including the facility assumptions used in this analysis.

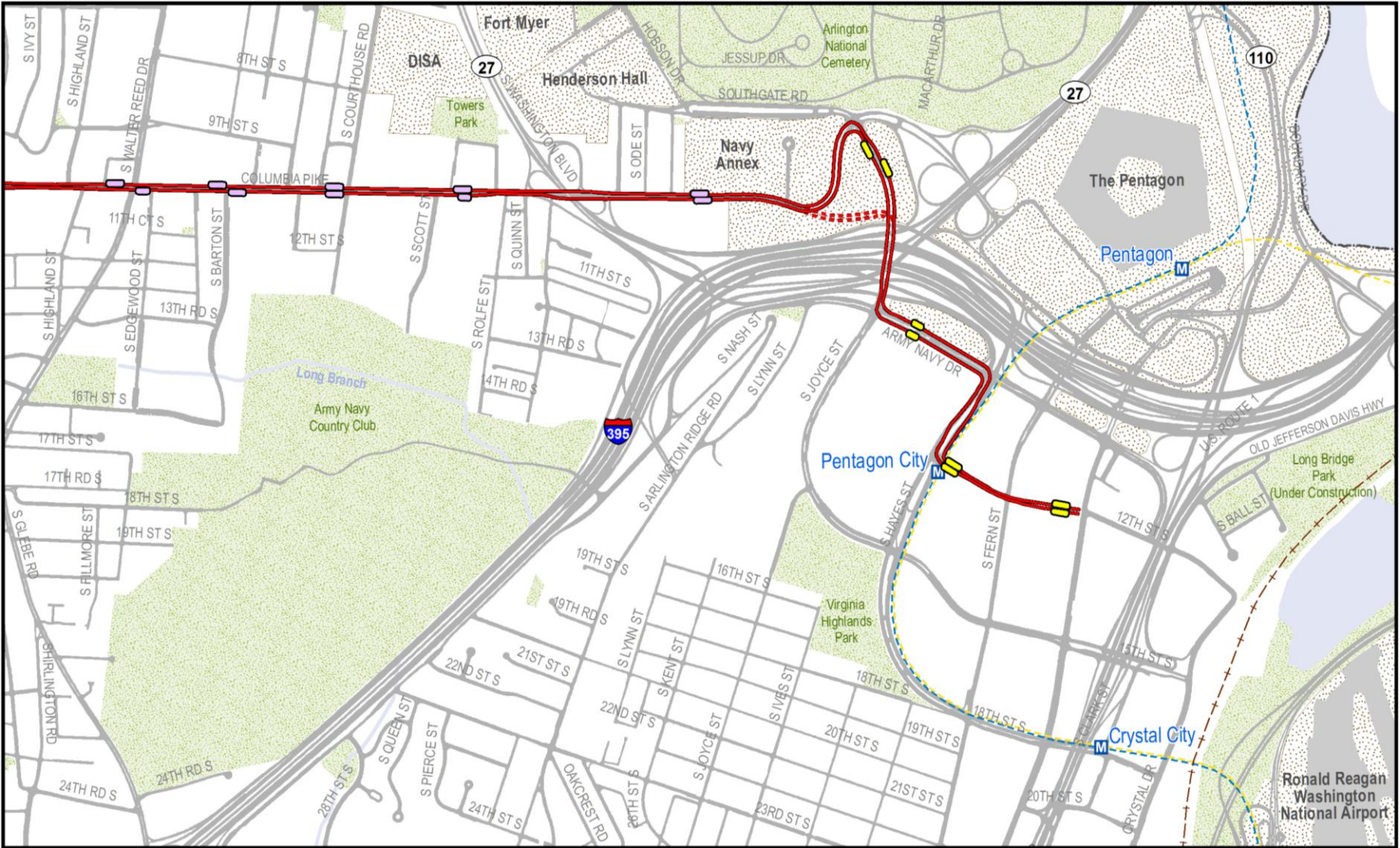
Guideway

Most of the guideway is in-street along existing public streets; however, some segments of the alignment would utilize private streets or portions of parcels along streets.

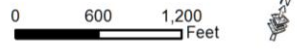
- **Pentagon City** - Minor changes are proposed to the curb line at 12th Street South and Fern Street to accommodate the streetcar; however, all changes to the roadway and sidewalk would occur within existing public street ROW.
- **Columbia Pike** - Roadway design uses the proposed Multimodal Project curb lines (implementation assumed under No Build).
- **Jefferson Street** - No changes are proposed to curb lines to accommodate the streetcar between Columbia Pike and Goodwin House. However, the three design options have different stop and alignment locations along Jefferson Street at the intersection with Route 7, which would require varying degrees of lane reconfiguration, roadway realignment and additional ROW along the west side of Jefferson Street.
- **Skyline Central Plaza and Route 7 Terminus Design Options** - Segments of the guideway would use private streets or portions of private land parcels adjacent to public streets.

Figure 4-1: TSM 2 Alternative: Alignment and Stop Locations





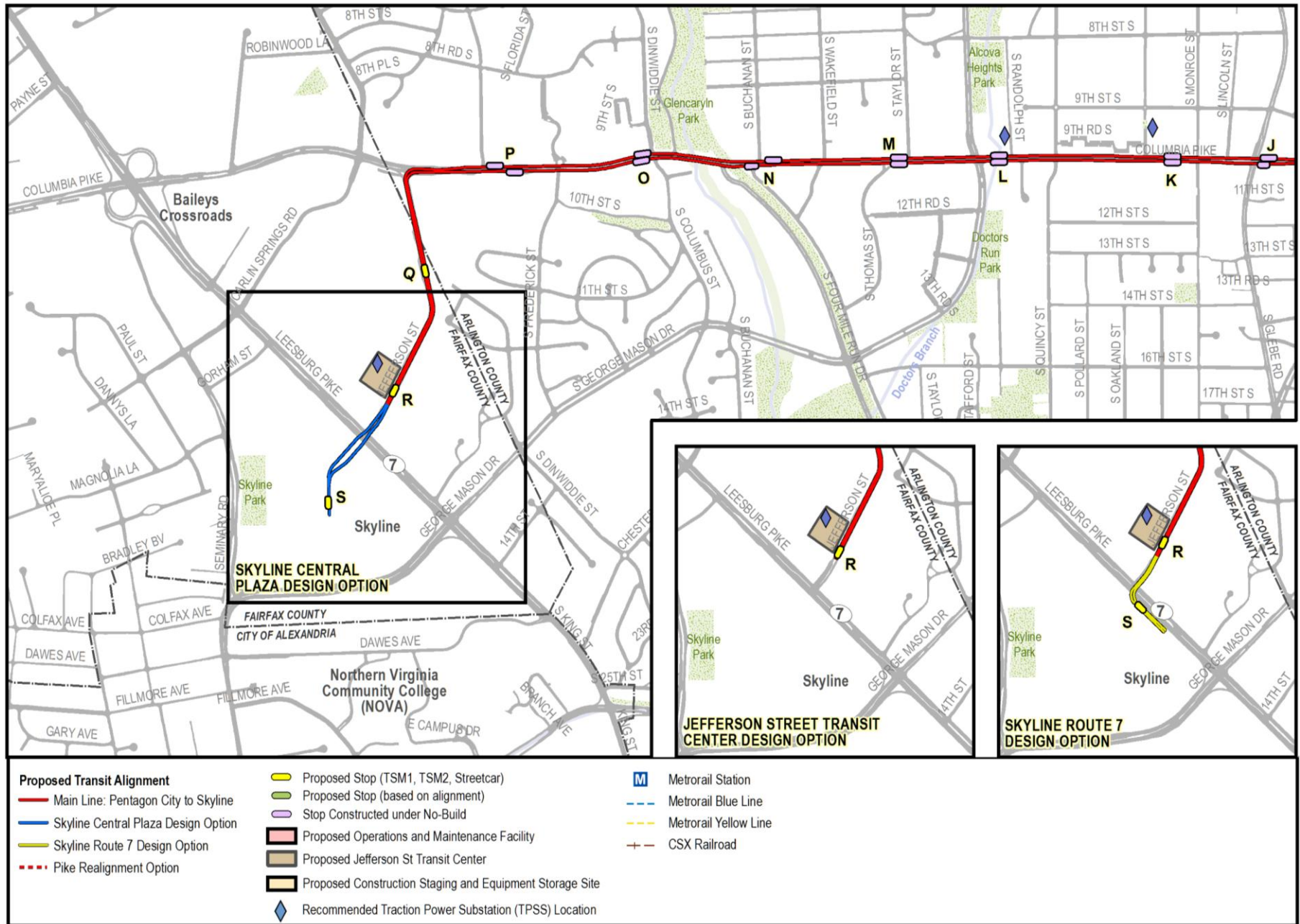
Proposed Transportation Systems Management 2 (TSM 2) Alternative Alignment and Stop Locations

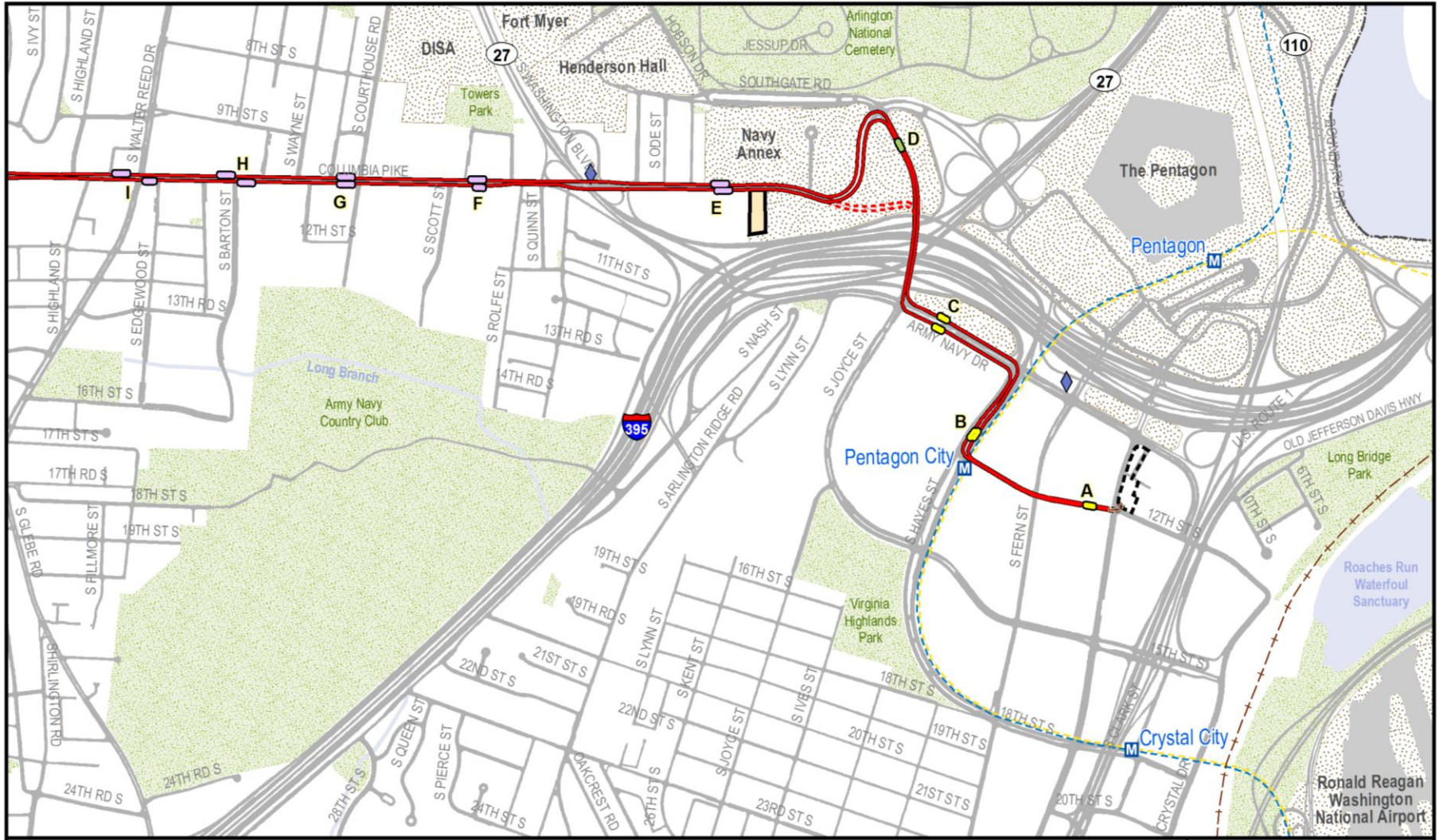


Source: Arlington County, Fairfax County, and City of Alexandria data

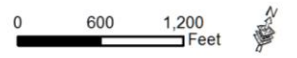


Figure 4-2: Streetcar Build Alternative: Proposed Alignment and Stop Locations





Proposed Alignment and Stop Locations



Source: Arlington County, Fairfax County, and City of Alexandria data



Stops

There are 18 stops on the main line terminating on Jefferson Street at Route 7 and one additional stop in the design options that terminate across Route 7 in the Skyline development. Streetcar stops along Columbia Pike are assumed to be implemented in the No Build Alternative as part of the Super Stops program. Thus, there are seven stops considered in the ROW analysis.

- **Curbside Stops** - Typical stops are 12 feet wide by 120 feet long with a 6-foot sidewalk along the sides and back. Stop designs have been modified (e.g., narrower or shorter platforms) in locations where existing structures, such as buildings and retaining walls, would be adversely affected by typical facility designs. Further facility design will address locations where driveway access would be adversely impacted.
- **Median Stops** - Median stops within public streets would not require additional ROW.

Operations and Maintenance Facility

The proposed facility site is in Pentagon City on land parcels between Eads Street, Army Navy Drive and 12th Street. The total proposed footprint of the facility site is included in the area of ROW impact and affected parcels reported in this memorandum. The estimation of ROW acquisition costs for the site assumes that the facility will be implemented through joint development with the property owners. One property is used for a public utility facility, and the cost of acquiring a portion of the parcel (0.64 acres) is assumed as part of the estimated ROW acquisition cost for the site. Portions of the other two properties (total of 0.39 acres from two parcels) are assumed to be part of the joint development and no cost to the project.

Jefferson Street Transit Center

The proposed transit transfer center would consolidate bus operations in Baileys Crossroads in a facility located at the intersection of Route 7 and Jefferson Street adjacent to the proposed streetcar stop.

Traction Power Substations (TPSS)

The Streetcar Build Alternative would need four TPSS spread out along its length. Five potential locations have been identified and are included in the ROW analysis. Each TPSS facility is designed as a single enclosure that includes substation, train control and communications equipment. The dimensions are 40 feet by 110 feet (4,400 sq. ft. in area).

Construction Staging and Permanent Equipment Storage

A proposed site has been identified for long-term equipment storage in addition to temporary construction needs. Current discussions have explored a site on Columbia Pike across from the Navy Annex that would be subject to implementation of a separate project and possibly acquired as part of a land swap related to the other project. Thus, this proposed facility site is not included in the ROW impact estimates but is instead noted separately.

4.3 Right-of-Way Analysis Methodology

4.3.1 Definition of Right-of-Way Impacts

The analysis assessed potential ROW needs and impacts for guideway or facilities that would require some type of permanent easement or land acquisition.

Types of ROW Impacts Considered

The analysis assessed the following types of ROW impacts:

- **Permanent Use of Parcels Outside of Public ROW** - Potential ROW impacts reported in this memorandum are defined as locations where the Alternatives' guideway, facility footprints and supporting infrastructure improvements (e.g., street realignments and sidewalk widening) extend outside of existing public street ROW or Arlington/Fairfax County-owned properties onto portions of adjoining parcels. This analysis does not specify whether the ROW impact would require grant of an easement or land acquisition (fee simple or other).
- **Direct Impacts to Buildings and Structures** - The analysis identified locations where the Alternatives' guideway, facility footprints and supporting infrastructure improvements would require permanent displacement of an existing building or other type of significant fixed structure. Note that within the Skyline development, the proposed alignment of those design options would utilize private roadways on top of a below grade structured parking deck and commercial space; this analysis assumes that the guideway and stop facility would not require permanent displacement of the structure or uses within it. Potential impacts to the Skyline structure or required improvements to it are noted but not assessed in this memorandum. The structural requirements of the design options at Skyline are being assessed under a separate task.
- **Displacement of Residences and Businesses** - The analysis assessed locations where potential ROW impacts would likely permanently displace existing residences or businesses as a result of displacing existing buildings and structures or over 50 percent of open air commercial uses (e.g., parking and storage businesses).

Types of ROW Impacts Not Considered

The analysis did not assess the following types of ROW impacts:

- **Virginia Department of Transportation (VDOT) Public Street ROW** - Some proposed facilities or improvements extend onto VDOT-owned public street ROW (e.g., potential TPSS site on I-395 ROW near Army Navy Drive). These areas are noted but are not considered ROW impacts for the purposes of this memorandum and are not included in total acreage of ROW impacts reported.
- **Access Easements** - Facilities without direct frontage on public streets, such as some TPSS sites, may require separate access

easements. These situations are noted in the analysis findings. In most cases, vehicular access can be provided by existing private driveways and would not disrupt the existing land use. Thus, this type of potential property impact is not included in the ROW impacts as defined in this analysis.

- **Construction Easements** - Any temporary works, access routes, or staging areas necessary for construction may require temporary construction easements but are not considered in this analysis. The potential facility site near the Navy Annex that is being discussed for equipment storage over the life of the project as well as temporary construction staging (subject to a land swap related to a separate project) is noted but not included in the total of potential ROW impacts for the Build Alternative.
- **Driveway Impacts** - Some proposed transit stops would potentially impact driveway access to adjacent parcels. This analysis did not identify impacts to driveway openings within the public ROW. Impacts to driveways on private parcels are counted in the total acreage of potential ROW impacts, but the number of driveways impacted or the potential effects to uses on the parcel were not assessed in this exercise. The transportation task is separately assessing those impacts.

4.3.2 Geographic Information Systems (GIS) Analysis

Data Sources

ROW impacts were determined using GIS analysis, including data layers for tax parcels, streets, sidewalks, buildings and other features. Data sources included the following:

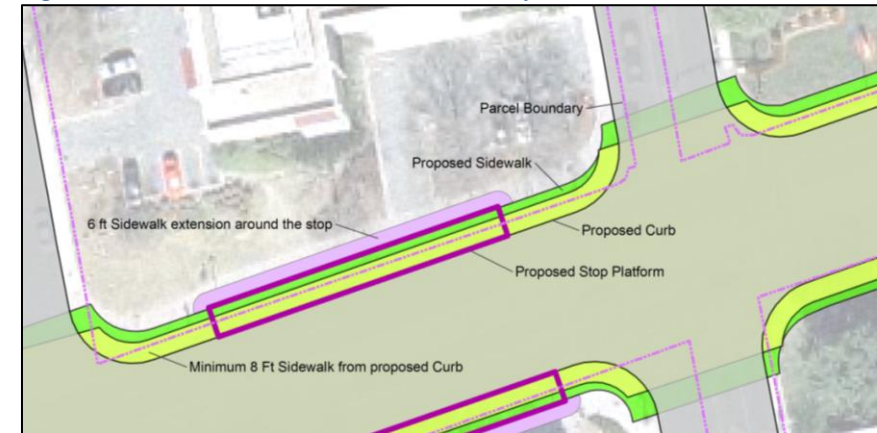
- GIS layers provided by Arlington County (2009 data) and Fairfax County (2009 data);
- Streetcar Build Alternative alignment and facility locations based on August 2011 Columbia Pike Transit Initiative project team AutoCAD files;
- Columbia Pike Multimodal Project roadway curb lines and sidewalk locations based on July 2011 Multimodal Project team AutoCAD files; and
- Parcel assessment values for land and improvements based on 2011 values from Arlington County and Fairfax County online real estate websites.

Figure 4-3 illustrates the GIS layers used to determine potential ROW impacts. Figure 4-4 shows typical cross sections of the Streetcar Build Alternative in-street alignment to illustrate in section view the relationship of the streetcar tracks, proposed curb, proposed sidewalk under the Multimodal Project, existing parcel boundary, and situations in which ROW impacts would or would not occur.

Note that the Columbia Pike Multimodal Project is conducting its own NEPA documentation of potential effects, including potential ROW impacts. The

analysis of the Multimodal Project conducted in this technical memorandum is for reference purposes only and is not intended to fulfill NEPA requirements for that project's documentation of effects.

Figure 4-3: Schematic Illustration of GIS Analysis



Data and Analysis Assumptions

Easements - Note that in some cases tax parcel data may not show the full extent of public and other easements. This analysis assumed that existing sidewalks not within the roadway ROW (as shown in the GIS parcel layer) are assumed to have public easements allowing usage for transit stops and pedestrian access. Thus, the analysis assumed that portions of proposed transit stops on top of existing sidewalks would not need to acquire additional ROW and were not included in the tallies of ROW impacts.

Sliver Impacts - In some cases, the GIS analysis showed potential parcel impacts that were very thin slivers (less than 6 inches in width). These “sliver” impacts were not included in the reported list of parcel impacts, because the current analysis is intended to be at a broad level, using GIS rather than survey data. Reporting sliver impacts in the results may exaggerate the number of potentially impacted parcels, especially given the efforts of the project team to adjust project designs where feasible to minimize ROW impacts.

Estimated Value of Impact Areas - The estimated value of the impacted areas was determined by pro-rating the county tax assessed land value by the percentage of parcel that would be impacted. This method assumed a uniform value across the parcel area¹.

¹ The total parcel area was taken from the local government GIS parcel data. Note that in some cases the square foot parcel area as listed in the GIS data differed from the parcel area listed in the online tax assessment records. As the analysis of potential ROW impact areas was based on GIS, the GIS parcel area was used.

Estimated ROW Acquisition Cost - This memorandum provides an order-of-magnitude estimate for potential acquisition costs of ROW impact areas for use in the capital cost estimation task. The estimated value of impact areas includes an added factor of 100 percent on top of the tax assessed land value to cover additional costs such as assumed higher fair market land values and legal and other fees associated with land/easement acquisition. This percentage is a conservative “round number” and is not based on market studies or land acquisition costs for recent infrastructure projects in the vicinity of the study area.

Condominium Parcels - Some private common area parcels of condominium developments do not have separately listed tax values. For these parcels, the total common area parcel land value was estimated by adding up the individual condominium tax parcel land values. For Skyline Plaza, due to the large number of condominium tax parcels, an average square foot land parcel value was estimated based on a sample of parcels and was totaled using the total building ground floor area.

Tax Exempt Parcels - One of the land parcels proposed for use as part of the Pentagon City operations and maintenance facility site is currently used for public utility purposes (tax parcel #35001018) and classified by Arlington County as tax exempt. Its listed assessed land and improvements values are zero. To estimate the potential acquisition cost of the facility parcel, the average assessed land values per square foot were calculated for the adjacent parcels within the proposed footprint of the operations and maintenance facility site. This average value was applied to the area of the portion of the public utility facility parcel proposed for the operations and maintenance facility. A factor of 50 percent was added to yield an estimated acquisition cost.

4.4 Environmental Consequences

Table 4-1 summarizes potential ROW impacts in the following categories for each of the alternatives:

- Number of parcels potentially impacted
- Number of full parcel acquisitions
- Number of building displacements
- Number of displacements of residences or businesses
- Total area of ROW impact
- Total assessed value of the ROW impact
- Total estimated ROW acquisition cost

None of the current alternatives would incur full parcel acquisitions, displacements of buildings or other permanent structures, or displacements of residences or businesses.

Streetcar Build Alternative design options within Skyline may affect the below grade parking structure under the driveways and at-grade parking areas, but this potential impact is not considered a building displacement for the purposes of this memorandum.

4.4.1 No Build Alternative - Columbia Pike Multimodal Project and Super Stops Program

The Columbia Pike Super Stops Program and Multimodal Project would widen sidewalks and realign portions of roadway, requiring land or easement acquisition of portions of parcels along the length of Columbia Pike. In addition, other planned roadway projects assumed in the No Build Alternative would have localized ROW impacts to parcels in the corridor, such as the extension of 12th Street South from Fern Street to Eads Street in Pentagon City and the realignment of Buchanan Street at Columbia Pike. The ROW impacts from these projects would occur independent of the Columbia Pike Transit Initiative. The potential realignment of Columbia Pike is assumed to occur under the No Build Alternative, contingent upon land swap negotiations between the DOD and Arlington County.

4.4.2 TSM 1 Alternative

The TSM 1 Alternative would have no ROW impacts. In addition, while the TSM 1 Alternative may ultimately run along the proposed realignment of Columbia Pike at the eastern end of the corridor; the realignment would not occur as part of the Columbia Pike Transit Initiative.

4.4.3 TSM 2 Alternative

The TSM 2 Alternative would not require full parcel acquisitions or affect any buildings. The most significant ROW need would be for the proposed Jefferson Street Transit Center with minor ROW needs for several curbside stops in Pentagon City and Fairfax County. **Attachment A** lists parcels that would be potentially impacted by the TSM 2 Alternative.

In addition, while the TSM 2 Alternative may ultimately run along the proposed realignment of Columbia Pike at the eastern end of the corridor; the realignment would not be implemented as part of the Columbia Pike Transit Initiative.

4.4.4 Streetcar Build Alternative

Table 4-2 lists ROW impacts for the Streetcar Build Alternative by facility type and design option. The most significant ROW need would be for the proposed operations and maintenance facility, the Jefferson Street Transit Center, and traction power substations. The Streetcar Build Alternative would not require full parcel acquisitions or affect any existing buildings. **Attachment A** lists potentially impacted parcels of the Streetcar Build Alternative design options.

In addition, while the Streetcar Build Alternative may ultimately run along the proposed realignment of Columbia Pike at the eastern end of the corridor, the realignment would not occur as part of the Columbia Pike Transit Initiative.

TPSS Site Access

None of the TPSS sites, with the exception of the site included within the Jefferson Street transit center, are directly accessible from public ROW without crossing a portion of property. These sites would require short access easements for service vehicles to periodically access the facilities. The potential area needed for access easements is not included in the ROW impact totals in **Tables 4-1** and **4-2**.

4.5 Minimization and Mitigation Measures

All land acquisitions would be subject to the provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended, which ensures that property owners, residents, and businesses affected by the acquisition or demolition of real property during the construction of federally-funded projects are treated fairly, consistently and equitably and that they do not suffer disproportionate injuries. Additionally, any state or local policies relating to relocation and property acquisition will be adhered to.

Figure 4-4: Schematic Illustration of Potential Right-of-Way Impacts

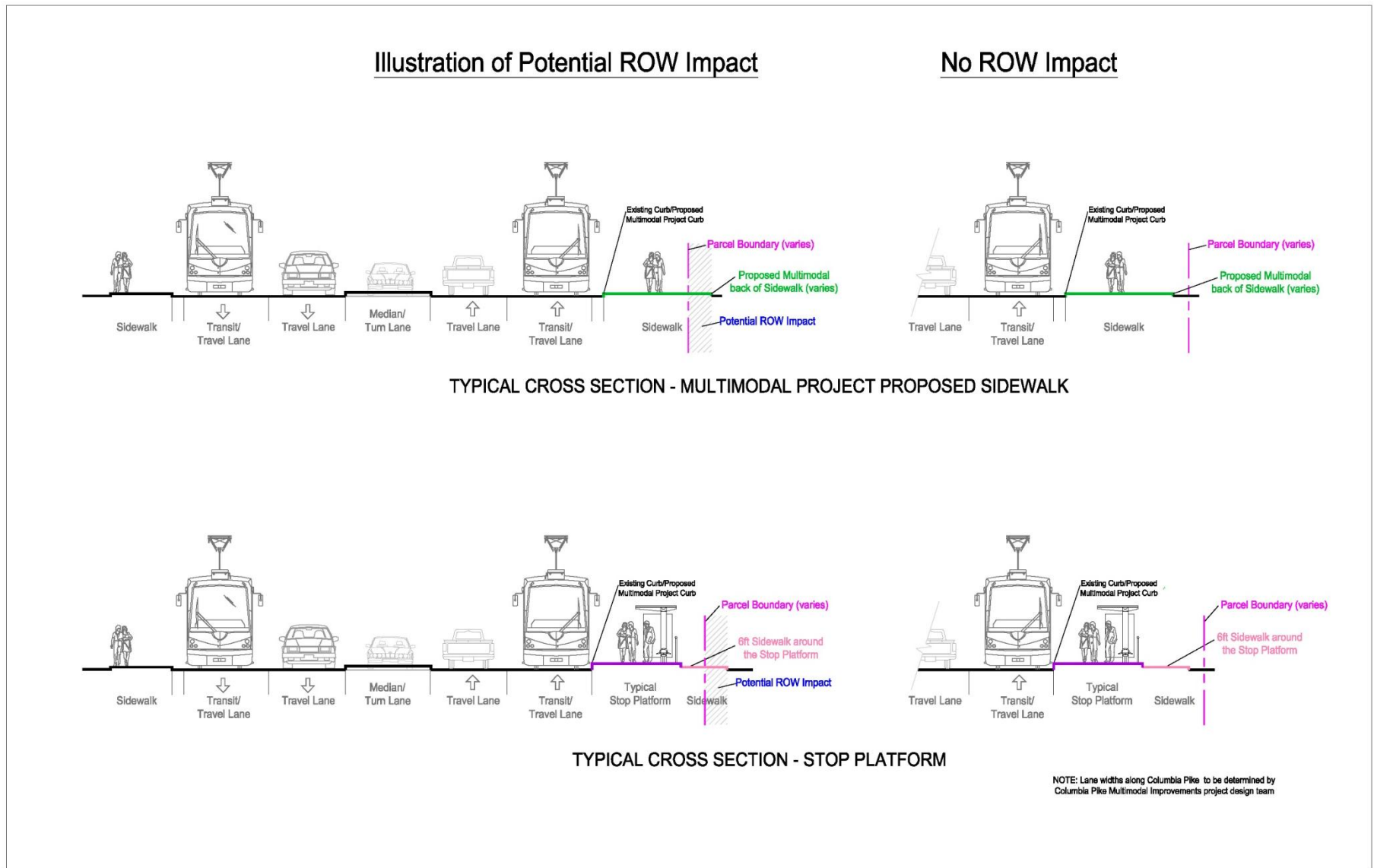


Table 4-1: Potential ROW Impacts by Alternative

Alternative	Number of Parcels Affected	Number of Full Parcel Acquisitions	Number of Building Displacements	Number Displacements of Residences or Businesses	Area of ROW Impact (acres)	Assessed Value of ROW Impact	Estimated ROW Acquisition Cost
No Build Alternative							
Multimodal Project (proposed curb line and widened sidewalk), Columbia Pike Super Stops Program, and other projects	<i>Various minor property impacts, consisting of ROW/land acquisition for multiple roadway, transit and streetscape enhancement projects.</i>						
Transportation Systems Management (TSM) Alternatives							
TSM 1 Alternative	0	0	0	0	0.00	\$0	\$0
TSM 2 Alternative	11	0	0*	0	2.39	\$1,721,212	\$3,442,425
Streetcar Build Alternative							
Jefferson Street Transit Center Design Option	9	0	0	0	3.67	\$4,735,284	\$10,452,032**
Skyline Central Plaza Design Option	14	0	0*	0	3.98	\$5,568,007	\$10,435,124**
Skyline Route 7 Design Option	10	0	0*	0	3.83	\$4,844,634	\$10,670,732**

*Alternative would utilize private roadway on top of structured parking/commercial development in Skyline. Potential structural impacts or need for reinforcement would be evaluated under separate task.

**Assumes reduced acquisition cost for Pentagon City operations and maintenance facility site.

Table 4-2: Streetcar Build Alternative ROW Impacts by Facility Type

Facility Type	Number of Parcels Affected	Area of ROW Impact (acres)	Assessed Value of ROW Impact	Estimated ROW Acquisition Cost
Main Line - Pentagon City to Jefferson Street (all Design Options)				
Guideway	0	0.00	\$0	\$0
Stops	2	0.01	\$17,251	\$34,502
Operations and Maintenance Center	3	1.03	\$2,713,050	\$6,407,563*
Traction Power Substations	3	0.20	\$419,934	\$839,868
TOTAL	8	1.25	\$3,150,235	\$7,281,933
Jefferson Street Transit Center Design Option				
Transit Center + Jefferson Street Roadway Realignment	1	2.42	\$1,585,050	\$3,170,099
Main Line ROW Impacts (see detail above)	8	1.25	\$3,150,235	\$7,281,933
TOTAL	9	3.67	\$4,735,284	\$10,452,032
Skyline Central Plaza Design Option				
Transit Center + Jefferson Street Roadway Realignment	1	2.20	\$1,440,361	\$2,880,721
Guideway (includes side platform Terminal Stop)	5	0.53	\$977,411	\$272,469
Main Line ROW Impacts (see detail above)	8	1.25	\$3,150,235	\$7,281,933
TOTAL	14	3.98	\$5,568,007	\$10,435,124
Skyline Route 7 Design Option				
Transit Center	1	2.17	\$1,421,374	\$2,842,748
Jefferson Street Roadway Realignment	0	0.00	\$0	\$0
Guideway (includes center platform Terminal Stop)	1	0.41	\$273,025	\$546,051
Main Line ROW Impacts (see detail above)	8	1.25	\$3,150,235	\$7,281,933
TOTAL	10	3.83	\$4,844,634	\$10,670,732
Proposed Construction Staging & Permanent Equipment Storage Site**				
Site availability/value subject to potential land swap	1	1.20	\$1,746,117	-
TOTAL	1	1.20	\$1,746,117	-

* Assumes reduced acquisition cost for Pentagon City operations and maintenance facility site in association with proposed joint development. Estimated ROW acquisition cost for tax exempt parcel #35001018 is based on the average tax assessed land value per square foot of the two adjoining parcels in the O&M Facility site and an added factor of 50%.

**Site is not included in total Design Option impacts listed above or in Table 4-1.

ATTACHMENT A
Potential Affected Land Parcels by Alternative

Transportation Systems Management (TSM) 2 Alternative

Segment	Guideway/Facility Type	Location	Jurisdiction	Parcel Number	Parcel Assessed Land Value	Total Parcel Area (sf)	Area of ROW Impact (sf)	Area of ROW Impact (acres)	Assessed Value of ROW Impact Area	Estimated ROW Acquisition Cost	Notes
East End	Stop	Joyce EB + WB stops	Arlington	34015001	\$ 29,916,100	894,732.92	2,578	0.06	\$ 86,187	\$ 172,374	
East End	Stop	Hayes EB	Arlington	35004001	\$ 55,880,100	731,754.90	243	0.01	\$ 18,554	\$ 37,107	
East End	Stop	Hayes EB	Arlington	35004005	\$ 529,900	8,844.62	185	0.00	\$ 11,098	\$ 22,195	
East end	Stop	Army Navy EB	Arlington	35005031	\$ 49,639,100	585,244	94	0.00	\$ 7,951	\$ 15,901	
East end	Stop	Army Navy WB	Arlington	34017PLA	\$ 200,437,900	10,137,216	470	0.01	\$ 9,300	\$ 18,600	
West end	Transit Transfer Center	Jefferson St	Fairfax	0621 01 0016E	\$ 15,440,130	1,028,709	94,700	2.174	\$ 1,421,374	\$ 2,842,748	
West End	Stop	TSM Goodwin EB	Fairfax	0621 01 0016B	\$ 918,000	39,128.03	1,347	0.03	\$ 31,598	\$ 63,197	
West End	Stop	TSM Goodwin WB	Fairfax	0621 01 0016G	\$ 7,824,000	343,567.91	963	0.02	\$ 21,925	\$ 43,850	
West End	Stop	TSM Jefferson EB	Fairfax	0623 01 0011	\$ 6,344,860	389,922.68	1,218	0.03	\$ 19,826	\$ 39,653	
West End	Stop	Skyline EB	Fairfax	0623 01 0028	\$ 7,140,270	471,100.51	1,246	0.03	\$ 18,878	\$ 37,756	
West End	Stop	Skyline WB	Fairfax	0623 01 0030	\$ 4,182,930	64,934.49	1,157	0.03	\$ 74,521	\$ 149,043	
							TOTAL	2.39	\$1,721,212	\$3,442,425	

Streetcar Build Alternative - Jefferson Street Transit Center Design Option

Segment	Guideway/Facility Type	Location	Jurisdiction	Parcel Number	Parcel Assessed Land Value	Total Parcel Area (sf)	Area of ROW Impact (sf)	Area of ROW Impact (acres)	Assessed Value of ROW Impact Area	Estimated ROW Acquisition Cost	Notes
Columbia Pike	TPSS	Randolph TPSS	Arlington	23033074	\$3,285,100	58,840	4,400	0.10	\$ 245,655	\$ 491,309	
Columbia Pike	TPSS	Oakland TPSS	Arlington	23039032	\$1,351,100	33,162	1,866	0.04	\$ 76,004	\$ 152,008	
Columbia Pike	TPSS	Oakland TPSS	Arlington	23039045	\$297,400	7,670	2,535	0.06	\$ 98,275	\$ 196,551	
East end	Stop	Army Navy EB	Arlington	35005031	\$49,639,100	585,244	94	0.00	\$ 7,951	\$ 15,901	
East end	Stop	Army Navy WB	Arlington	34017PLA	\$200,437,900	10,137,216	470	0.01	\$ 9,300	\$ 18,600	
East end	Operations & Maintenance	Pentagon City	Arlington	35001018	\$0	40,250	27,889	0.64	\$ -	\$ 6,407,563	No assessed value listed in County records; land use classified by County as 710-Public Service Corp. Acquisition cost is based on average of land assessed tax values of parcels #35003012 and #35003014, area of ROW impact, and added factor of 50%.
East end	Operations & Maintenance	Pentagon City	Arlington	35003012	\$36,219,500	248,568	1,724	0.04	\$ 251,262	\$ -	No acquisition cost assumed in association with potential joint development.
East end	Operations & Maintenance	Pentagon City	Arlington	35003014	\$23,325,000	145,216	15,327	0.35	\$ 2,461,788	\$ -	No acquisition cost assumed in association with potential joint development.
West end	Transit Center + roadway realignment	Jefferson St	Fairfax	0621 01 0016E	\$15,440,130	1,028,709	105,605	2.42	\$ 1,585,050	\$ 3,170,099	
							TOTAL	3.67	\$4,735,284	\$10,452,032	
<u>Additional Proposed Facility - subject to land swap under separate project</u>											
Columbia Pike	Construction Staging and Equipment Storage Facility	Navy Annex parking lot	Arlington	34015001	\$29,916,100	894,732.92	52,223.00	1.20	\$ 1,746,117	NA	

Streetcar Build Alternative - Skyline Central Plaza Design Option

Segment	Guideway/Facility Type	Location	Jurisdiction	Parcel Number	Parcel Assessed Land Value	Total Parcel Area (sf)	Area of ROW Impact (sf)	Area of ROW Impact (acres)	Assessed Value of ROW Impact Area	Estimated ROW Acquisition Cost	Notes
Columbia Pike	TPSS	Randolph TPSS	Arlington	23033074	\$3,285,100	58,840	4,400	0.10	\$ 245,655	\$ 491,309	
Columbia Pike	TPSS	Oakland TPSS	Arlington	23039032	\$1,351,100	33,162	1,866	0.04	\$ 76,004	\$ 152,008	
Columbia Pike	TPSS	Oakland TPSS	Arlington	23039045	\$297,400	7,670	2,535	0.06	\$ 98,275	\$ 196,551	
East end	Operations & Maintenance	Pentagon City	Arlington	35001018	\$0	40,250	27,889	0.64	\$ -	\$ 6,407,563	No assessed value listed in County records; land use classified by County as 710-Public Service Corp. Acquisition cost is based on average of land assessed tax values of parcels #35003012 and #35003014, area of ROW impact, and added factor of 50%.
East end	Operations & Maintenance	Pentagon City	Arlington	35003012	\$36,219,500	248,568	1,724	0.04	\$ 251,262	\$ -	No acquisition cost assumed in association with potential joint development.
East end	Operations & Maintenance	Pentagon City	Arlington	35003014	\$23,325,000	145,216	15,327	0.35	\$ 2,461,788	\$ -	No acquisition cost assumed in association with potential joint development.
East end	Stop	Army Navy EB	Arlington	35005031	\$49,639,100	585,244	94	0.00	\$ 7,951	\$ 15,901	
East end	Stop	Army Navy WB	Arlington	34017PLA	\$200,437,900	10,137,216	470	0.01	\$ 9,300	\$ 18,600	
West end	Guideway	Alignment - Skyline	Fairfax	0623 01 0028	\$7,140,270	471,101	8,988	0.21	\$ 136,235	\$ 272,469	
West end	Guideway	Alignment - Skyline	Fairfax	0623 01 0033	\$4,235,870	64,370	4,196	0.10	\$ 276,145	\$ -	No acquisition cost assumed for easement over existing roadway.
West end	Guideway	Alignment - Skyline	Fairfax	0623 01 0035	\$2,965,100	67,940	344	0.01	\$ 15,013	\$ -	No acquisition cost assumed for easement over existing roadway.
West end	Guideway	Alignment - Skyline	Fairfax	0623 01 0038B	\$11,635,940	220,123	4,741	0.11	\$ 250,629	\$ -	No acquisition cost assumed for easement over existing roadway.
West end	Guideway/Stop	Alignment - Skyline	Fairfax	0623 01 0030	\$4,182,930	64,934	4,648	0.11	\$ 299,390	\$ -	No acquisition cost assumed for easement over existing roadway.
West end	Transit Center + roadway realignment	Jefferson St	Fairfax	0621 01 0016E	\$15,440,130	1,028,709	95,965	2.20	\$ 1,440,361	\$ 2,880,721	
							TOTAL	3.98	\$5,568,007	\$10,435,124	
<u>Additional Proposed Facility - subject to land swap under separate project</u>											
Columbia Pike	Construction Staging and Equipment Storage Facility	Navy Annex parking lot	Arlington	34015001	\$29,916,100	894,732.92	52,223.00	1.20	\$ 1,746,117	NA	

Streetcar Build Alternative - Skyline Route 7 Design Option

Segment	Guideway/Facility Type	Location	Jurisdiction	Parcel Number	Parcel Assessed Land Value	Total Parcel Area (sf)	Area of ROW Impact (sf)	Area of ROW Impact (acres)	Assessed Value of ROW Impact Area	Estimated ROW Acquisition Cost	Notes
Columbia Pike	TPSS	Randolph TPSS	Arlington	23033074	\$3,285,100	58,840	4,400	0.10	\$ 245,655	\$ 491,309	
Columbia Pike	TPSS	Oakland TPSS	Arlington	23039032	\$1,351,100	33,162	1,866	0.04	\$ 76,004	\$ 152,008	
Columbia Pike	TPSS	Oakland TPSS	Arlington	23039045	\$297,400	7,670	2,535	0.06	\$ 98,275	\$ 196,551	
East end	Operations & Maintenance	Pentagon City	Arlington	35001018	\$0	40,250	27,889	0.64	\$ -	\$ 6,407,563	No assessed value listed in County records; land use classified by County as 710-Public Service Corp. Acquisition cost is based on average of land assessed tax values of parcels #35003012 and #35003014, area of ROW impact, and added factor of 50%.
East end	Operations & Maintenance	Pentagon City	Arlington	35003012	\$36,219,500	248,568	1,724	0.04	\$ 251,262	\$ -	No acquisition cost assumed in association with potential joint development.
East end	Operations & Maintenance	Pentagon City	Arlington	35003014	\$23,325,000	145,216	15,327	0.35	\$ 2,461,788	\$ -	No acquisition cost assumed in association with potential joint development.
East end	Stop	Army Navy EB	Arlington	35005031	\$49,639,100	585,244	94	0.00	\$ 7,951	\$ 15,901	
East end	Stop	Army Navy WB	Arlington	34017PLA	\$200,437,900	10,137,216	470	0.01	\$ 9,300	\$ 18,600	
West end	Guideway	Alignment - Rt.7	Fairfax	0623 01 0028	\$7,140,270	471,101	18,014	0.41	\$ 273,025	\$ 546,051	
West end	Transit Center	Jefferson St	Fairfax	0621 01 0016E	\$15,440,130	1,028,709	94,700	2.17	\$ 1,421,374	\$ 2,842,748	
							TOTAL	3.83	\$4,844,634	\$10,670,732	
<u>Additional Proposed Facility - subject to land swap under separate project</u>											
Columbia Pike	Construction Staging and Equipment Storage Facility	Navy Annex parking lot	Arlington	34015001	\$29,916,100	894,732.92	52,223.00	1.20	\$ 1,746,117	NA	