

Grant Applicant: Northern Virginia Transportation Commission, Arlington County Government, and Washington Metropolitan Area Transit Authority
Proposed Project: Crystal City/Potomac Yard Transit Improvements Project
Date: August 03, 2010

**INFORMATION REQUIRED FOR PROBABLE
CATEGORICAL EXCLUSION
(SECTION 771.117(d))**

- √ A. DETAILED PROJECT DESCRIPTION: See attachment Part A.
- √ B. LOCATION (INCLUDING ADDRESS): See attachment Part B and Appendix 1, Figure 1: Site Location and Planned Alignment Map.
- √ C. METROPOLITAN PLANNING AND AIR QUALITY CONFORMITY: See attachment Part C and Appendix 2, 2010 CLRP and FY2011-2016 TIP Air Quality Conformity Inputs.
- √ D. ZONING: No change. See attachment Part D.
- √ E. TRAFFIC IMPACTS: See attachment Part E and Appendix 3, Traffic and Transportation Technical Memorandum Update, 2010.
- √ F. CO HOT SPOTS: See attachment Part F and Appendix 4, Air Quality Assessment Technical Memorandum Update, 2010.
- √ G. HISTORIC RESOURCES: See attachment Part G and Appendix 5, Cultural Resources Technical Memorandum Update, 2010.
- √ H. NOISE: See attachment Part H and Appendix 6, Noise and Vibration Technical Memorandum Update, 2010.
- √ I. VIBRATION: See attachment Part I and Appendix 6, Noise and Vibration Technical Memorandum Update, 2010.
- √ J. ACQUISITIONS & RELOCATIONS REQUIRED: No change. See attachment Part J.
- √ K. HAZARDOUS MATERIALS: See attachment Part K and Appendix 7, Phase I ESA Technical Memorandum Update, 2010.
- √ L. COMMUNITY DISRUPTION AND ENVIRONMENTAL JUSTICE: See attachment Part L and Appendix 8, Socioeconomic and Community Characteristics Technical Memorandum Update, 2010.
- √ M. USE OF PUBLIC PARKLAND AND RECREATION AREAS: See attachment Part M.
- √ N. IMPACTS ON WETLANDS: No change. See attachment Part N.
- √ O. FLOODPLAIN IMPACTS: No change. See attachment Part O.
- √ P. IMPACTS ON WATER QUALITY, NAVIGABLE WATERWAYS, & COASTAL ZONES: See attachment Part P and Appendix 9, Water Resources Technical Memorandum Update, 2010.
- √ Q. IMPACTS ON ECOLOGICALLY-SENSITIVE AREAS AND ENDANGERED SPECIES: No change. See attachment Part Q.
- √ R. IMPACTS ON SAFETY AND SECURITY: No change. See attachment Part R.
- √ S. IMPACTS CAUSED BY CONSTRUCTION: No change. See attachment Part S.

APPENDICES

- Appendix 1: Figure 1: Modified Alignment and CCPY Improvements
Figure 2: Planned Alignment and CCPY Improvements (From 2007 Approved Documented CE)
- Appendix 2: 2010 CLRP and FY2011-2016 TIP Air Quality Conformity Inputs
- Appendix 3: Technical Memorandum Update: Traffic and Transportation
- Appendix 4: Technical Memorandum Update: Air Quality Assessment
- Appendix 5: Technical Memorandum Update: Cultural Resources, SHPO Project Review Form, and Approval
- Appendix 6: Technical Memorandum Update: Noise and Vibration Assessment
- Appendix 7: Technical Memorandum Update: Phase I ESA
- Appendix 8: Technical Memorandum Update: Socioeconomic and Community Resources
- Appendix 9: Technical Memorandum Update: Water Resources Technical Memorandum and Coastal Zone Consistency Determination
- Appendix 10: Agency Correspondence
- Appendix 11: Public Outreach

Note: Updates to the Technical Memoranda are incorporated 'by reference' into the 2006-2007 Technical Memoranda (see attached CD).

Attached CD includes:

- 2007 Approved Documented CE
- Appendix 1: Figure 1: Planned Alignment and CCPY Improvements
Figure 2: Zoning in Alexandria
Figure 3: Zoning in Arlington
- Appendix 2: National Capital Region Transportation Planning Board TIP Amendment
- Appendix 3: Technical Memorandum: Traffic and Transportation
- Appendix 4: Technical Memorandum: Air Quality Assessment
- Appendix 5: Technical Memorandum: Cultural Resources, SHPO Project Review Form, and Approval
- Appendix 6: Technical Memorandum: Noise and Vibration Assessment
- Appendix 7: Technical Memorandum: Phase I ESA
- Appendix 8: Technical Memorandum: Socioeconomic and Community Resources
- Appendix 9: Technical Memorandum: Water Resources Technical Memorandum and Coastal Zone Consistency Determination
- Appendix 10: Agency Correspondence
- Appendix 11: Public Outreach

The action described above meets the criteria for a National Environmental Policy Act (NEPA)

Categorical Exclusion in accordance with 23 CFR Part 771.117 (d) (9).

Applicant's Environmental Reviewer

Date

FTA Grant Representative

Date

**Crystal City/Potomac Yard Transit Improvement Project
Documented Categorical Exclusion Update
Attachment**

A. Detailed Project Description:

The purpose of this updated Documented Categorical Exclusion (CE), undertaken by Arlington County, in coordination with the Washington Metropolitan Area Transit Authority (WMATA), is to incorporate modifications made to the transit alignment since the previously approved 2007 CE for the Crystal City/Potomac Yard (CCPY) Transit Improvements Project within Arlington County, Virginia. As with the 2007 CE, this document addresses Segments D and modified Segment E only, as shown in Figure 1 (Appendix 1). Additional environmental clearance will be necessary for Segments A through C (City of Alexandria) and Segment F (Arlington County).

The entire CCPY project corridor extends from the Braddock Road Metrorail Station in the south to the Pentagon and Pentagon City in the north, a distance of approximately five miles. However, due to the independent utility of a portion of the transit route and the associated logical termini in Arlington County, initial construction of the transitway will occur in Segment D and a modified Segment E (See Section B for a detailed description).

The 2007 approved Documented CE cleared the initial operable segment of the transit route within Segments D and E only. A map showing the previously approved alignment and level of dedicated or exclusive right-of-way can be found in Figure 2 (Appendix 1).

The planned alignment in Arlington County begins at a new mixed use development at the Arlington County/City of Alexandria line in the south and extends northward to 15th Street South. Segment D remains the same as previously documented in the 2007 Documented CE, with transit operating in a dedicated right-of-way from the County/City line to 26th Street South. For Segment E, the previously approved CE evaluated two-way transit service along Clark and Bell Streets. However, the Master Plan vision for Crystal City as documented in the 2008 Crystal City Multimodal Transportation (CCMT) Study included changes in lane configurations, one-way to two-way conversions and modified street cross-sections. The proposed alignment in modified Segment E was revised using input from the Crystal City Master Plan. The modified transit alignment for Segment E would use a two-way coupled pair that would operate northbound along Crystal Drive and southbound along Clark and Bell Streets.

B. Location Including Address: The CCPY Corridor is located in Arlington County and the City of Alexandria, Virginia. The alignment for the CCPY Corridor Transit Improvements Project begins at the Braddock Road Metrorail Station and ends near the Pentagon in Arlington County, as shown in Figure 1 (Appendix 1). For the purpose of technical analysis and the 2007 environmental clearance process, the CCPY Alignment was divided into six segments based on roadway and transit operations features. The updated segments are described below:

Segments A, B and C – Alexandria Route 1 and Potomac Yard

Segments A, B and C lie in the City of Alexandria portion of the transit corridor, between the Braddock Road Metrorail Station and the Alexandria/Arlington border in Potomac Yard. A detailed description of these segments is provided in the 2007 approved Documented CE. These segments are not included in the current document.

Segment D - Arlington Potomac Yard

Segment D begins at the Alexandria - Arlington border running in mixed traffic north on Potomac Avenue. Segment D transitions to dedicated lanes as it turns west on South Glebe Road, running on the northern side of the roadway in right-of-way donated as part of the development of Potomac Yard. The alignment remains in this right-of-way as it turns north on Jefferson Davis Highway and merges with Crystal Drive, running on the east side of the roadway to the intersection of Crystal Drive and 26th Street South.

Modified Segment E - Arlington Crystal City

Modified Segment E begins at 26th Street South and Crystal Drive and splits into a couplet of one-way alignments. The alignment runs northbound along Crystal Drive to 15th Street South. Here, it turns west on 15th Street South, and south on South Bell Street. It turns west on 20th Street South, south again on South Clark Street, finally turning east on 26th Street South. At Crystal Drive, it rejoins the northbound alignment and connects with Segment D. This segment runs entirely in dedicated curbside lanes, except for a short section along Crystal Drive, just south of 23rd Street South, where it travels in mixed traffic.

Segment F - Arlington Pentagon

Segment F lies in the Arlington portion of the transit corridor, beginning at the intersection of Clark/Bell Streets and 15th Street South, providing transit service to the Pentagon and Pentagon City. A detailed description of this segment is provided in the 2007 approved Documented CE. This segment is not included in the current document.

C. Metropolitan Planning and Air Quality Conformity: The project supports improved regional air quality goals by allowing for capacity improvements necessary for increased transit ridership in the future. It is listed in the draft 2010 Financially Constrained Long-Range Transportation Plan (CLRP) and FY2011-2016 TIP air quality conformity inputs (see Appendix 2).

D. Zoning: The project is consistent with current zoning. No change from 2007 Documented CE. Relevant text from Part D of the 2007 approved Documented CE is below:

The transit improvements would be within the existing transportation right-of-way, and would be consistent with current zoning. Zoning for the districts located within the CCPY Corridor varies from apartment housing units to industrial and professional districts... Zoning in Arlington, Segments D, E, and F, consists of medium-density single family districts at the southern and western edge of the study area, higher density commercial, light industrial and residential districts in the strip on the western side of Jefferson Davis Highway, and high density office and apartment districts in Crystal City and Pentagon City. Maps of zoning in the corridor can be seen in Figures 2 and 3 in Appendix 1 [of the 2007 Documented CE on CD].

E. Transportation Impacts: Transit service will perform better with the CCPY dedicated transit lanes. Anticipated bus travel time improvement averages 5 and 8 percent in 2015 and 2030, respectively, compared to transit operations under No Build conditions. This will reduce potential bus bunching, reduce overcrowding, increase transit vehicle throughput and therefore improve service reliability. Additionally, a total of approximately 5,700 and 22,800 person-hours of travel time savings annually are anticipated for 2015 and 2030 respectively due to the proposed improvements along the entire Segment D and E loop. As such, the proposed improvements offer benefits to transit users including travel time savings and reliability improvements.

Based on the analysis conducted, implementation of the proposed transitway would result in minor changes in level of service (LOS) at some intersections for both the 2015 and 2030 peak hours. However, these minor changes in LOS would not create unacceptable conditions at these intersections. The proposed action would not further degrade the intersections that are already expected to perform at a poor LOS (E or F) in the 2015 and 2030 No Build scenarios. Table 1 shows the projected LOS at study intersections in modified Segment E. See Appendix 3, Transportation Effects Technical Memorandum for detailed results.

Table 1: 2015 and 2030 Projected Intersection Level of Service

Intersection	2015 AM Peak Hour		2015 PM Peak Hour		2030 AM Peak Hour		2030 PM Peak Hour	
	No Build	Build	No Build	Build	No Build	Build	No Build	Build
	15 th St/ Crystal Dr	C	C	B	C	D	D	C
18 th St/ Bell St	C	C	C	B	C	C	C	C
18 th St/ Crystal Dr ⁴	B	B	A	B	C	C	B	B
20 th St/ Jeff Davis Hwy	F	F	E	E	F	F	F	F
20 th St/ Clark St	C	C	D	D	C	C	E	E
20th/ Bell ¹	B	B	C	C	B	B	C	C
20 th St/ Crystal Dr ⁴	A	A	B	B	B	B	C	C
Pedestrian crossing Crystal Dr- South of 20th St ^{2,4}	A	B	B	B	B	A	C	C
Midblock Crossing Crystal Dr- North of 23rd St ⁴	A	B	A	A	A	A	A	B
23 rd St/ Jefferson Davis Hwy	F	F	F	F	F	F	F	F
23 rd St/ Clark St	C	C	D	D	C	C	D	D
23 rd St/ Crystal Dr ³	C	D	C	D	D	D	D	D
26 th St NL/ Clark St ¹	C	C	B	B	C	C	C	C
26 th St SL/ Clark St ¹	B	B	B	B	B	B	C	C
26 th St NL/ Crystal Dr	B	C	B	C	B	D	C	C
26 th St SL/ Crystal Dr ¹	D	D	D	D	E	E	F	F

¹Indicates unsignalized intersections.

²Delay reduction under the dedicated lane scenario occurs due to traffic signal optimization process in Synchro.

³Cycle lengths along Crystal Drive are increased in order to accommodate the growth in traffic. The phase splits are also optimized and adjusted for more efficient operations under the new cycle lengths. As a result of these changes, traffic operations are improved at this signalized intersection in 2015 as compared to existing conditions.

⁴Lane configuration in the Build scenario along Crystal Drive between 15th Street South and 23rd Street South includes a travel lane in each direction and an exclusive left-turn lane for northbound and southbound traffic, in addition to a dedicated northbound transit lane.

Parking and Building Access: Transit improvements will be designed to preserve vehicular access for businesses and residences. Loading/unloading zones may be reconfigured to provide adequate clearance for the transitway, and on-street parking will be relocated along some portions of the transitway. The following provides a description of the parking and access effects:

Modified Segment E is characterized by several areas of existing on-street parking and several existing loading areas. Existing on-street parking along the corridor will be maintained as it currently exists, with the exception of 2 to 3 spaces at the proposed station near Clark and 26th Streets. Each of the loading areas along this segment will be maintained as they currently exist. The transitway will be delineated by pavement markings, and activities along the transitway will be enforced to restrict parked delivery vehicles to acceptable loading areas. Deliveries will be restricted to off-peak times.

Appendix 3, Transportation Effects Technical Memorandum documents detailed results of the updated transportation and traffic analyses in the No Build and Build scenarios.

F. CO Hot Spots: The project will not cause or exacerbate a violation of the applicable National Ambient Air Quality Standards (NAAQS) as a result of the proposed changes to the transit alignment. With respect to regional emissions and conformity, the project has been shown to conform to the State Implementation Plan (SIP) by not exceeding the NAAQS. No mitigation measures are necessary with respect to compliance with the transportation conformity requirements.

A hot spot analysis was conducted for the 2007 Documented CE and was revised for this update to reflect the revised traffic information. Based on the revised analysis and the recent downward trend of pollutant concentrations of CO, the background concentration in 2009 is lower than the background level used in the 2006 analysis, resulting in even lower overall concentration levels. Appendix 4 includes the

detailed results of the updated analysis in a Technical Memorandum Update for Air Quality Assessment.

G. Historic Resources: In March 2010, the Virginia Department of Historical Resources (VDHR) determined that the modified alignment would have “no adverse effect” on historic resources in Segments D and E based on the documentation conducted as part of the Documented CE update process (see SHPO Project Review Form and concurrence e-mail dated 03-31-2010 in Appendix 5). During the previous analysis, no known historical or archaeological resources were identified in Segments D and E. In December 2006, the VDHR determined that the project will have no adverse effect on historic properties in Segments D and E (see concurrence e-mail dated 12-20-2006 in Appendix 5).

See Appendix 5 for additional details of the cultural resources assessment conducted as part of this Documented CE Update.

H. Noise: No impacts are predicted at any residential land-uses along the re-aligned project corridor due to the Proposed Action. Although the Water Park and the park on the east side of Crystal Drive between 20th and 23rd Streets, both privately-owned open spaces, could potentially be affected due to idling buses at the proposed station locations adjacent to them, none of the Day-Night (Ldn) noise levels will exceed the Federal Transit Administration (FTA) *impact* or *severe impact* criteria.

See Appendix 6, the Technical Memorandum Update for Noise and Vibration, for detailed results of the updated analyses.

I. Vibration: No change from 2007 Documented CE. No exceedances of the FTA vibration impact criteria are predicted as a result of the CE Update. Text from Part I of the 2007 approved Documented CE is below:

None of the estimated vibration levels are predicted to exceed FTA's impact criterion of 72 VdB (for "frequent events") at Category 2 receptors, such as residences. Therefore, no vibration impacts as a result of the project are expected to occur. Details of the vibration assessment, including results of the monitoring program, are included in the Technical Memorandum (Appendix 6) [of the 2007 Documented CE on CD].

J. Acquisitions and Relocations Required: The transit improvements in the CCPY Corridor, including all changes following the proposed modification to the alignment will be within existing rights-of-way. No acquisitions of land or relocations of residents or businesses are associated with the improvements.

A potential need for easements exists at station locations. This will be refined and coordinated between Arlington County and adjacent property owners during preliminary engineering in a cooperative manner.

K. Hazardous Materials: No identified contamination/hazardous materials sites would require evaluation or monitoring as part of a Phase II Environmental Site Assessment (ESA) during design and construction since there is only a minor potential for impacts from contaminated or hazardous materials. A Phase I ESA was prepared to update the previous analysis. Additional contaminated/hazardous materials sites were found in the vicinity of the modified transit alignment along Crystal Drive between 26th Street South and 15th Street South, and along 15th Street South between Crystal Drive and Clark/Bell Streets. The updated Phase I ESA and other supporting documents are included in Appendix 7, the Hazardous and Contaminated Materials Technical Memorandum Update.

The previous Phase I ESA is provided in Section K and Appendix 7 of the 2007 Documented CE (see attached CD).

L. Community Disruption and Environmental Justice: No community disruption or impact to environmental justice communities is projected. A review of the modified Segment E found two additional community facilities along Crystal Drive: a US Post Office located at 1632 Crystal Drive and the Bright Horizons child development center located at 2451 Crystal Drive. The Bright Horizons facility is a privately owned and operated daycare and afterschool facility. The transit improvements would provide improved access to neighborhoods and community facilities in the study area.

No potential environmental justice communities were identified along modified Segment E; therefore no environmental justice communities are expected to be impacted.

For detailed information, see Appendix 8, the Socioeconomic and Community Resources Technical Memorandum Update.

M. Use of Public Parkland and Recreation Areas: No impact to public parkland or recreation areas is expected. There would be no acquisition; temporary adverse effects to; or adverse proximity effects to public parkland. Therefore, no Section 4(f) analysis is required.

Access to the National Park Service (NPS) Mt. Vernon Trail is within proximity to a proposed station location near 18th Street along the east side of Crystal Drive; however, this access is not owned or maintained by the NPS. No impacts to this trail access are expected. During construction of the proposed station, access to the trail would be preserved.

A review of the alignment for modified Segment E identified several privately-owned open public spaces along Crystal Drive; however none of these privately-owned open spaces would be affected. Stations are proposed adjacent to the Water Park, a privately-owned public space that provides passive recreation, and adjacent to the privately-owned park on the east side of Crystal Drive between 20th and 23rd Streets. As stated in Section H, bus operations are not expected to create impacts given existing ambient noise levels.

N. Impacts on Wetlands: No change from 2007 Documented CE. Relevant text from Part N of the 2007 approved Documented CE is below:

No direct alteration to wetlands is anticipated. The majority of new construction proposed for the project involves permanent roadway modifications. The planned transit improvements would require an increase in impervious surfaces along...South Glebe Road in Segment D, Crystal Drive in Segment E, and at the intersection of 15th Street and South Clark Street in Segment F [modified Segment E], as well as many of the proposed station stops. The increase in impervious surface would be the primary activity with the potential to cause indirect adverse impacts to wetlands due to the transport of pollutants from these impervious areas into the stormwater system, and ultimately discharging into wetlands. See Appendix 9 [of the 2007 Documented CE on CD] for results of the assessment of potential impacts on water resources.

O. Floodplain Impacts: No change from 2007 Documented CE. Relevant text from Part O of the 2007 approved Documented CE is below:

There is no anticipated increase in the 100-year surface water elevation of the floodplain associated with the Potomac River or Four Mile Run...Project operation is not anticipated to impact floodplains since no permanent alterations are proposed within any floodplains identified in the study area. See Appendix 9 [of the 2007 Documented CE on CD] for results of the assessment of potential impacts on water resources.

P. Impacts on Water Quality, Navigable Waterways, and Coastal Zones: No impact to water quality, navigable waterways or designated coastal zones is expected. An amended Federal Coastal Zone Consistency Certification was submitted to the Virginia Department of Environmental Quality (DEQ) for the proposed modifications. In a letter dated June 3, 2010, DEQ concurred that the project is consistent with enforceable policies of the Virginia Coastal Zone Program (VCP). See Appendix 9 of this Documented CE for the correspondence with DEQ. For findings of the approved 2007 Documented CE, see Section P and Appendix 9 of the 2007 Documented CE provided on the attached CD.

Q. Impacts on Ecologically-Sensitive Areas and Endangered Species: No change from 2007 Documented CE. Text from Part Q of the 2007 approved Documented CE is below:

As stated in correspondence from the Virginia Department of Conservation and Recreation (VDNR) (see Appendix 10), [of the 2007 Documented CE on CD] no adverse impact to natural heritage resources

within the project area is anticipated. The project area is adjacent to the Potomac River and crosses Four Mile Run, both of which have been designated Confirmed Anadromous Fish Use Areas. No adverse impacts are expected as all construction will occur within the existing transportation right-of-way.

R. Impacts on Safety and Security: No change from 2007 Documented CE. Text from Part R of the 2007 approved Documented CE is below:

Conditions for pedestrians vary widely along the project corridor. In general, streets where existing bus service operates have sidewalks on both sides, and there are crosswalks at existing intersections. Other pedestrian amenities include countdown timers at signalized intersections and high visibility striping at crosswalks.

Many parts of the corridor are experiencing rapid change, with development being constructed or in design along the planned transit alignment. Typically, the development projects include generous sidewalks and landscaped areas that improve the pedestrian environment. Along the busway, bus lanes, and the transit corridor, particularly near station stops, pedestrian improvements will include restriped crosswalks, adequate sidewalks and ramps, and pedestrian countdown timers at signals. All of these improvements will lead to an enhanced pedestrian environment where transit passengers and local pedestrian traffic will have improved access to buildings and amenities along the planned transit route.

S. Impacts Caused by Construction: No change from 2007 Documented CE. Text from Part S of the 2007 approved Documented CE is below:

Potential construction impacts are discussed in the following paragraphs.

Noise and Vibration: *No noise or vibration impact is expected as a result of project construction, although some minor nuisance noise might result. Project will comply with local noise ordinances.*

Utilities: *Construction operations are not anticipated to result in disruption of any energy utility to commercial, industrial, or residential customers in the vicinity.*

Disposal of Debris: *Project contract specifications will require the contractor to dispose construction generated solid waste. The disposal method will be either transportation of materials to an approved disposal facility or collection by an approved agent. No waste will be disposed or incinerated on site.*

Water Quality: *No direct alteration to wetlands, surface waters, floodplains, or RPAs is anticipated unless the proposed station stop south of Four Mile Run requires construction within the designated RPA. The project requires a Virginia Pollutant Discharge Elimination System (VPDES) General Permit for Discharges of Stormwater from Construction Activities due to its disturbance of greater than one acre. Due to work within the RMA, an erosion and sediment control plan must be submitted to Arlington County and the City of Alexandria for review and approval prior to the start of work. During construction, maintaining site stability and controlling runoff from the work area are crucial to avoid the migration of pollutants from the various construction sites to nearby sensitive resource areas.*

Access and Distribution of Traffic: *Implementation would not require the closing of any street or create a major interference in the traffic flow of the surrounding roadways.*

Air Quality: *Direct emissions from construction equipment are not expected to produce adverse effects on local air quality provided that all equipment is properly operated and maintained. These potential impacts include direct emissions from construction equipment and trucks, increased emissions from motor vehicles on the streets due to disruption of traffic flow, and fugitive dust emissions. Emissions from project-related construction equipment and trucks would be much less than the total emissions from other industrial and transportation sources in the region, and therefore, are expected to be insignificant with respect to compliance with the NAAQS.*