

## **Appendix C**

- **Construction Phasing**

# **Alternatives Evaluation Technical Memorandum**

## **Construction Phasing for the Locally Preferred Alternative**

---

The purpose of this technical memorandum is to outline the proposed construction phasing for the Locally Preferred Alternative for the Dulles Corridor Rapid Transit Project, and to document the reasons for selection of the first phase segment. The evaluation of this phasing option is consistent with the *Evaluation Methodology* (November 2000) developed for the project. This memorandum includes a description of the proposed construction phasing, an evaluation of the Wiehle Avenue Extension, and recommendations regarding further analysis.

### **1.0 PROPOSED PHASING**

It is proposed that the Locally Preferred Alternative (LPA) for the Dulles Corridor Rapid Transit Project be constructed in two phases.

The first segment, referred to as the Wiehle Avenue Extension, would extend from the existing Metrorail Orange Line, through Tysons Corner, to Wiehle Avenue. The Wiehle Avenue Station would function as an interim end-of-line station. The number of bus bays at the station would be increased, and Kiss & Ride parking may be increased. No additional long-term parking would be provided for the interim terminal. The Wiehle Avenue Extension would also include construction of the pocket track located west of the Wiehle Avenue Station. The Wiehle Avenue Extension is expected to be complete by 2011.

Extending the line from Wiehle Avenue, through Dulles Airport, to Route 772 in Loudoun County would complete the LPA. This second extension would include the construction of the new Service and Inspection (S&I) Yard on Dulles Airport property. The full LPA would be complete by 2015.

### **2.0 BACKGROUND**

The Draft Environmental Impact Statement (Draft EIS) and the General Plans for the Dulles Corridor Rapid Transit Project were made available for public review and comment on June 28, 2002. Public hearings were held in late July 2002, and the Project Team (consisting of staff from DRPT and WMATA) accepted written comments for a period of 62 days from June 28, 2002 to August 28, 2002.

Based on the evaluation in the Draft EIS and the public comments received, the Project Team recommended the Metrorail Alternative, with Alignment T6 through Tysons Corner and a Metrorail S&I Yard at Site 15, as the LPA. The WMATA Board of Directors approved this LPA on November 21, 2002. On December 19, 2002, the Commonwealth Transportation Board took similar action. The governing bodies of Fairfax County, Loudoun County, and the Town of

Herndon, as well as the Metropolitan Washington Airports Authority, also endorsed the Metrorail Alternative as the LPA.

Based on subsequent agency coordination, DRPT and WMATA modified the selected LPA to allow for construction of the project in two phases. Guidance on federal funding limitations and the timing of local funding availability were considered in the identification of the proposed phasing, which is described in Section 2.0. The reasons for the selection of the initial construction segment are outlined in Section 3.0.

### **3.0 EVALUATION**

As shown in the evaluation below, the proposed phasing, including an end-of-line station at Wiehle Avenue, would allow the initial Dulles Corridor line to provide the maximum benefit possible with the available resources. Service to this interim terminal location could be accommodated without constructing a new Metrorail S&I yard, but would require improvements to the West Falls Church Yard.

***An interim terminal at Wiehle Avenue would allow the initial segment of the Dulles Corridor line to accommodate a substantial amount of the projected ridership demand for the LPA.***

As shown in Table 6.3-10 in the Draft EIS, the majority of ridership demand for the LPA (Metrorail Alignment T6) is associated with stations in Tysons Corner and the Mid-Corridor. Approximately 43 percent of the total daily boardings in the corridor are at Tysons Corner stations, and an additional 33 percent of daily boardings are at the Wiehle Avenue, Reston Parkway, and Herndon-Monroe stations. In the Mid-Corridor, most of these projected boardings are at the Wiehle Avenue Station (6,645 boardings) and the Herndon-Monroe Station (7,863 boardings).

The Wiehle Avenue Extension would provide access for most of the trips associated with Tysons Corner, as well as many of the trips associated with the Mid-Corridor. An interim terminal at Wiehle Avenue would provide reasonably good access for most Mid-Corridor passengers, because the majority of the boardings indicated above represent area residents that drive to the park-and-ride stations and travel to destinations in Tysons Corner, Arlington County, and the region's core. Moreover, given that the Herndon-Monroe Station is only 2.5 miles from the Wiehle Avenue Station, the proposed interim terminal would still provide reasonably good access for patrons that would otherwise be attracted to the Herndon-Monroe Station. (The typical catchment area for a park-and-ride station is 3 to 5 miles, and can be much greater for a terminal station.)

Overall, when the proposed Wiehle Avenue Extension is complete, the initial segment of the Dulles Corridor line can be expected to provide reasonably good access for approximately 65 percent of the passengers attracted to the full LPA.

***An initial phase that provides Metrorail service beyond Tysons Corner is important to the community.***

Based on comments received during the public review process, the proposed Wiehle Avenue Extension would be acceptable to the community. Many commenters expressed a desire to have Metrorail service in the Mid-Corridor sooner rather than later, and were concerned that the BRT/Metrorail and Phased Implementation alternatives—in which Metrorail service ended at

Tysons Corner (permanently or on an interim basis)—would delay the provision of rail service beyond Tysons Corner or result in rail never being extended further. Some community members proposed an alternative that would extend service to the Mid-Corridor before Tysons Corner (due to the strong demand in Tysons Corner, and other reasons, this alternative was eliminated from further consideration).

***The proposed first phase is affordable and fundable.***

The cost for constructing the LPA to Wiehle Avenue is estimated to be approximately \$1.5 billion, which is roughly half the cost presented for the Metrorail Alternative (Alignment T6) in the Draft EIS. With this cost reduction, the project would be more competitive than other transit projects for Section 5309 New Starts funding.

***A new Metrorail S&I yard would not be required to accommodate service to an interim terminal at Wiehle Avenue.***

In response to some of the comments received on the Draft EIS, the Project Team previously stated that it would not be possible to support operations beyond Tysons Corner without a new service and inspection yard.

Subsequent analysis of the maintenance and storage requirements for a shorter segment of the full Metrorail Alternative demonstrated that with extensive modifications, the West Church Yard could accommodate new rail service as far as Wiehle Avenue.

#### **4.0 CONCLUSIONS AND RECOMMENDATIONS**

The above evaluation indicates that the Wiehle Avenue Extension, as proposed, would provide a logical interim terminal for the adopted LPA. Given that:

- The Wiehle Avenue Extension, when complete, would provide many of the travel benefits provided by the full LPA;
- The Wiehle Avenue Extension would cost approximately half of the cost for the full LPA, and would, therefore, be easier to fund at the local and federal level; and
- A new S&I yard would not be needed to accommodate service to Wiehle Avenue;

the proposed construction phasing is recommended for further consideration during the Dulles Corridor Rapid Transit Project environmental review process.