



# THE TYSONS TUNNEL DECISION:

## A CASE STUDY OF SUBOPTIMAL DECISION-MAKING IN MAJOR TRANSIT INVESTMENTS

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### ABSTRACT

In 2014 Washington, D.C.'s Metrorail system opened Phase 1 of its new Silver Line, which extends the current system to include significant portions of Fairfax County in Northern Virginia. This extension runs through Tysons Corner – a major regional business district that is notorious as a sprawling and auto-oriented “edge city” – on elevated tracks that are an average of 36 feet off the ground. Fairfax County hopes the Silver Line will help transform Tysons Corner into a true urban downtown that is walkable and transit-oriented. This goal, however, is shadowed by a heated debate that occurred between 2005 and 2008 over the “Tysons Tunnel,” which was a proposal to build the Silver Line underground through Tysons Corner instead of the elevated design that was originally planned and ultimately built. The tunnel was widely popular and proponents believed it would more effectively transform Tysons Corner into a walkable, transit-oriented district, while the elevated design would only harm these goals by dividing the area with bulky infrastructure. Opponents did not disagree, but argued the tunnel's added costs would disqualify the entire Silver Line project from federal funding. The ensuing debate pitted all levels of government, local businesses, and community members against one another, until the elevated design gained final approval in 2008 due to a series of disputed political constraints. Still, the debate leaves serious questions about the Silver Line's ability to transform Tysons Corner with its elevated design.

This thesis seeks to determine whether the decision against the Tysons Tunnel was optimal given the political and economic constraints faced at the time, or whether the decision was suboptimal and based on unfounded constraints. To this end, it explores in depth the history of the Tysons Tunnel debate, the perspectives of all major actors in the debate, and the elevated Silver Line's current impact on Tysons Corner. This investigation presents strong evidence that the prevailing reasons against the tunnel were based on unfounded constraints, particularly: flawed federal funding criteria, the political interests of high-level politicians in Virginia, and an uncompetitive contracting process. Further, the current impacts of the Silver Line in Tysons Corner are found to undermine the area's goals for transit-oriented development. The Tysons Tunnel decision, therefore, was suboptimal and has led to the problematic results that manifest today in Tysons Corner. To improve future decision-making processes in major transit investments, this thesis provides several recommendations for how the Federal Transit Administration can reframe its evaluation criteria and general outlook to become more supportive of local government interests and promote local transit investment in order to make the most out of limited federal funding for transit.

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# INTRODUCTION

## INTRODUCTION

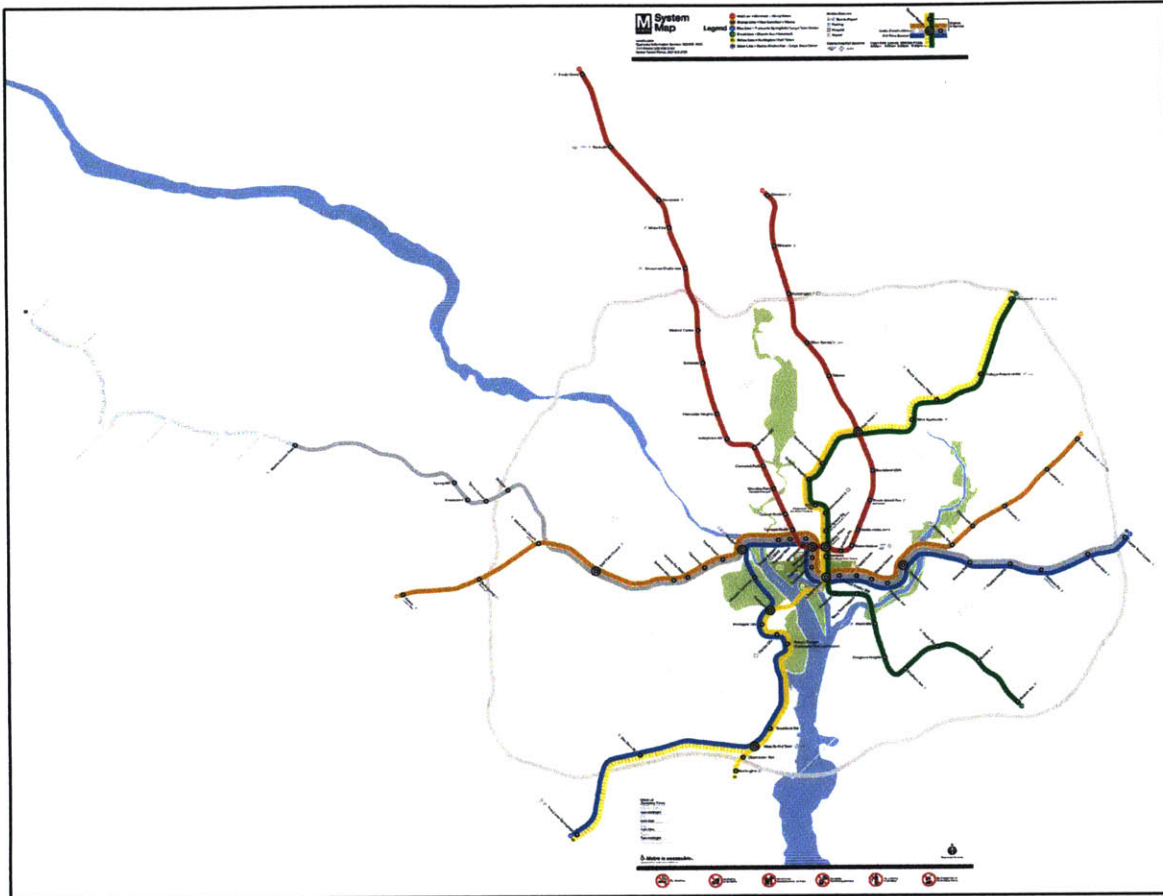
After decades of planning, the Washington Metropolitan Area Transit Authority (Metro) opened Phase 1 of its new Metrorail line – the Silver Line – on July 26<sup>th</sup>, 2014. Phase 1 represented an 11.7-mile extension of the original Washington, D.C. Metrorail system, expanding the system’s service area to include significant portions of Fairfax County in Northern Virginia (Figure 1). Phase 2 is projected to open in 2018 and will extend the Silver Line another 11 miles northwest into Loudoun County, Virginia<sup>1</sup>. Phase 1 of the Silver Line, however, carries particular importance for future development in the Washington metropolitan area because it serves four new stations in Tysons Corner – a major regional business and retail district. Tysons Corner is notorious for being a sprawling and auto-oriented “edge city” located at the intersection of several major highways. However, Fairfax County has long advocated for the Silver Line as an opportunity to transform Tysons Corner into a “true urban downtown” that is transit-oriented, pedestrian friendly, and mixed-use<sup>2</sup>. Indeed, a major motivation behind the Silver Line project itself was to promote alternative modes of transportation in traffic-choked Tysons Corner and to enable the sustainable development of jobs and housing in this fast-growing district<sup>3</sup>. Almost a year after the Silver Line’s debut, the results of the new Metrorail line and Fairfax County’s planning efforts are now beginning to materialize in Tysons Corner, although it will be decades before these changes are fully realized.

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<sup>1</sup> Washington Metropolitan Area Transit Authority, “About,” Silver Line website, accessed October 6, 2014, <http://silverlinemetro.com/sv-about/>.

<sup>2</sup> Fairfax County Department of Planning and Zoning, 2013, “Fairfax County Comprehensive Plan, 2013 Edition, Area II, Tysons Corner Urban Center,” Fairfax County, Virginia website, accessed October 30, 2014. <http://www.fairfaxcounty.gov/dpz/comprehensiveplan/area2/tysons1.pdf>, 6.

<sup>3</sup> Virginia Department of Rail and Public Transportation and the Washington Metropolitan Area Transit Authority, 2002, “Dulles Corridor Rapid Transit Project, Final Environmental Impact Statement and 4(f) Evaluation,” Dulles Corridor Metrorail Project website, accessed November 2, 2014, <http://www.dullesmetro.com/about-dulles-rail/environment/>, S-4.



**Figure 1:** Map of the Washington, D.C. Metrorail system with Phase 1 (dark gray) and Phase 2 (light gray) of the Silver Line extension<sup>4</sup>

The goal of transforming Tysons Corner into an urban, transit-oriented district has endured through many years of tumultuous politics surrounding the Silver Line’s planning and development. Most significantly, these goals endured the debate between 2005 and 2008 over what became known as the “Tysons Tunnel” proposal. This debate emerged in 2005 when Metro proposed building a four-mile tunnel underneath Tysons Corner – the Tysons Tunnel – so that the Silver Line could run underground through this segment. This proposal was a stark contrast to the Silver Line’s approved design at the time, in which the Silver Line would run through Tysons Corners on elevated tracks that

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<sup>4</sup> Sodd, Anthony, “This is the Most Accurate DC Metro Map You’ll Probably Find,” *DCInno*, September 17, 2013, accessed May 7, 2015, <http://dcinno.streetwise.co/2013/09/17/this-is-the-most-accurate-dc-metro-map-youll-probably-find/>.

were an average of 36 feet off the ground<sup>5</sup>. The debate that ensued raised serious doubts about the Silver Line's ability to deliver true urban development in Tysons Corner with its original elevated design.

Proponents of the Tysons Tunnel believed that the underground design would be much more effective in transforming Tysons Corner into a walkable, transit-oriented district. They argued that the elevated design would only harm these goals by adding bulky transit infrastructure along the area's highways. Opponents of the Tysons Tunnel did not disagree with these claims, but believed that the added costs of the Tysons Tunnel would disqualify the entire Silver Line project for federal funding due to the Federal Transit Administration's (FTA) strict cost-effectiveness standards. In fact, support for the Tysons Tunnel was remarkably widespread, even opponents frequently concurred that the tunnel would be preferable for transit-oriented development. These opponents simply prioritized getting the Silver Line done – in any form that would secure federal funding – over risking funding approval to build a more effective project. After years of heated debate, during which project partners at all levels of government, the local business community, private engineering firms, and community members were pitted against one another, the Silver Line's original elevated design through Tysons Corner was ultimately given final approval in 2008 and advanced to construction in 2009.

Jumping ahead to present-day 2015, Phase 1 of the Silver Line through Tysons Corner has been operational for almost one year and its elevated design is now a physical part of the Tysons Corner landscape. Meanwhile, Phase 2 is under construction and is generating controversies of its own. Essentially all the stakeholders involved in the Tysons Tunnel debate – politicians, planners, business groups, community members – have moved past the Tysons Tunnel proposal and are focused on transforming Tysons Corner around the new elevated Silver Line. This acceptance is necessary for many reasons, but now is also an important time to reflect upon the Tysons Tunnel debate and the ultimate decision to elevate Phase 1 of the Silver Line. The Silver Line as it stands

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<sup>5</sup> Metropolitan Washington Airports Authority, "Dulles Corridor Metrorail Project Timeline," Dulles Corridor Metrorail Project website, accessed October 19, 2014, [http://www.dullesmetro.com/silverline/assets/File/project\\_docs/Project%20History%20Update%2020APCO%20-%202011.pdf](http://www.dullesmetro.com/silverline/assets/File/project_docs/Project%20History%20Update%2020APCO%20-%202011.pdf).



today is essentially the direct result of the decision to forgo the Tysons Tunnel. The Silver Line and Tysons Corner will of course continue to coevolve in the coming decades; but also many events will unfold that decision-makers during the Tysons Tunnel debate could have never foreseen. Thus, the state of the Silver Line and Tysons Corner in 2015 is uniquely germane to an analysis of the Tysons Tunnel debate because it represents the immediate result of the debate with minimal uncertainty and confounding factors. The current state reveals whether the immediate impacts of elevating the Silver Line through Tysons Corner validate, or invalidate, the Tysons Tunnel decision.

Along these lines, this thesis will explore the history of the Tysons Tunnel debate and the perspectives of major stakeholders in the debate in light of the Silver's Line current impact on Tysons Corner. This analysis seeks to determine whether the decision to forgo the Tysons Tunnel was optimal given the political and economic constraints at the time; or whether the decision was adversely influenced by policies and politics that have led to sub-optimal results in 2015. This research has important implications for how major investments in transit infrastructure are currently decided and managed in the United States. Phase 1 of the Silver Line ultimately cost an astounding \$2.9 billion<sup>6</sup> for an elevated design that many still doubt will successfully transform Tysons Corner into an urban, transit-oriented district. Simply, the costs are too high and the need for transit-oriented communities is too great for the United States to continue making transit investments in this manner without critically evaluating the results. This thesis offers such a critique.

The analysis is organized by chapters under the following framework: Chapter Two, the Case Study, offers an account of the Silver Line's history from conception through the end of the Tysons Tunnel debate. This chapter strives to be as neutral and concise as possible, relying on the following chapters to construct an analysis on top of this narrative. Chapter Three, the Snapshot of 2015, jumps forward to the current state of the Tysons Corner and the Silver Line now that the result of the Tysons Tunnel debate has become a physical reality. This chapter provides an overview of the current state and makes the argument for why this current state is suboptimal – and even detrimental – given the

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<sup>6</sup> Metropolitan Washington Airports Authority, "Dulles Metrorail: Funding," Dulles Corridor Metrorail Project website, accessed May 17, 2015, <http://www.dullesmetro.com/about-dulles-rail/funding/>.

motivation behind the Silver Line and Fairfax County's goals for Tysons Corner. To better understand why this seemingly suboptimal decision was made, Chapter Four, the Stakeholder Analysis, takes a deeper dive into the Tysons Tunnel debate by systematically examining the role of all stakeholders involved in the debate. The purpose here is to determine which stakeholders and which rationales ultimately prevailed in the debate. This then allows for an assessment of whether the dominant stakeholders and rationales provided legitimate reasons for rejecting the Tysons Tunnel, which is taken up in the next chapter. Chapter Five, the Discussion, synthesizes previous chapters and finds that federal funding criteria, the political interests of high-level politicians in Virginia, and an uncompetitive contracting process unnecessarily constrained the Tysons Tunnel debate, leading to a suboptimal decision that manifests today in Tysons Corner. This chapter ends by looking towards the future with recommendations for improvement, focusing on how on the FTA can revise and reframe both its funding criteria and its general perspective to encourage local governments to invest in the broader benefits offered by transit projects.

# CASE STUDY

## CASE STUDY

The Silver Line has a long and continuing history. In an effort to focus on the Tysons Tunnel debate and its relationship to the Silver Line and Tysons Corner today, the case study below concentrates on Phase 1 and, specifically, Phase 1 through Tysons Corner. This account does not delve into the specifics of Phase 2, although the early history is pertinent to all aspects of the Silver Line. Of important note, the name of Silver Line project changed throughout the years. The Metrorail line was not commonly referred to as the Silver Line until the late 2000s and did not officially become the Silver Line until Phase 1 opening day in 2014. The project had no official name for decades, eventually became the Dulles Corridor Rapid Transit Project, then the Dulles Corridor Metrorail Project, and finally the Silver Line. The case study refers to the project by the name it was called at the relevant time.

### ORIGIN STORY: 1960 – 1990

The idea of building a Metrorail line out to Dulles International Airport dates back to the conception of the original Washington, D.C. Metrorail system in the 1960s. President Eisenhower established the National Capital Transportation Agency (NCTA) in 1960 with the goal of developing a rapid rail system for the Washington, D.C. region<sup>1</sup>. In 1962, NCTA released a study that proposed, among many other things, a monorail line from Georgetown to the new Dulles International Airport<sup>2</sup>. Construction on the airport, located northwest of D.C. on the border of Fairfax County and Loudoun County in Virginia, began in 1958 (Figure 2). It officially opened for business in 1962<sup>3</sup>. However, by 1968 NCTA had evolved into the Washington Metropolitan Area Transit Authority (Metro) – the current

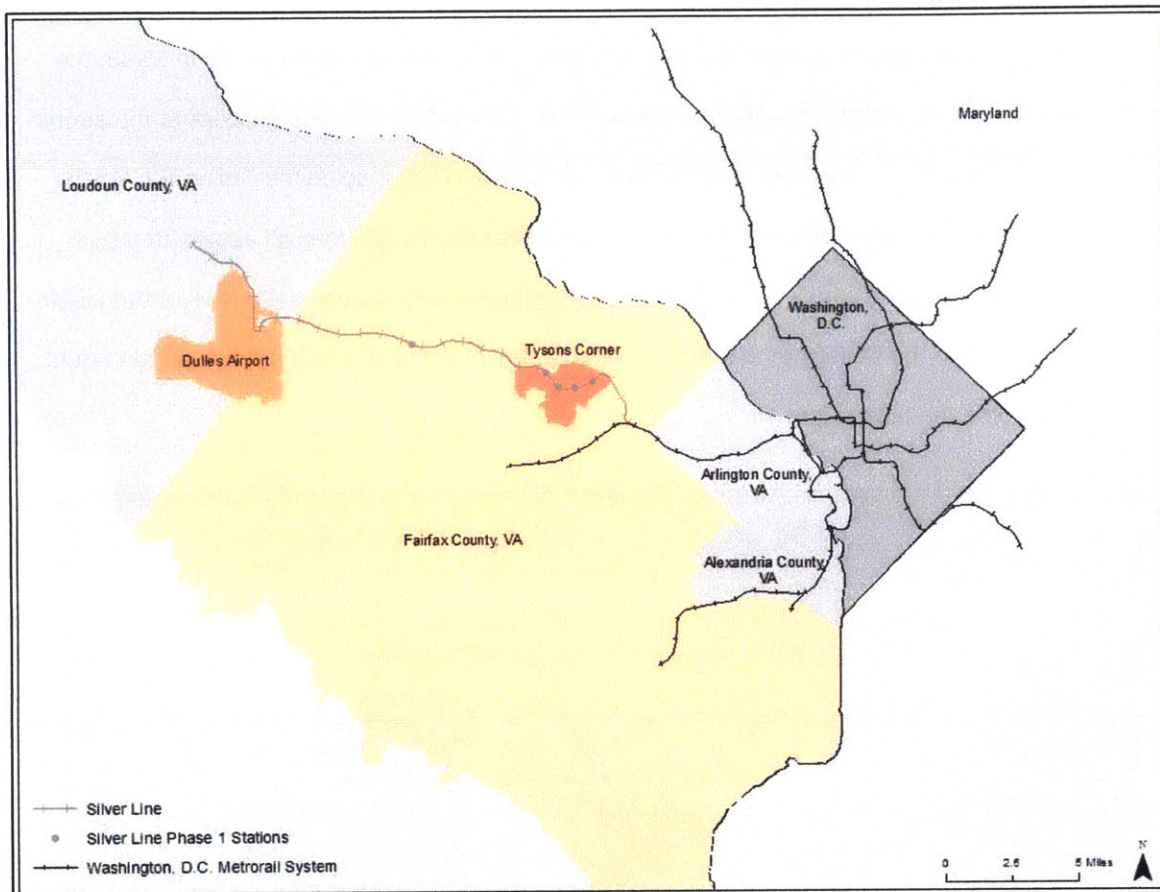
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<sup>1</sup> Washington Metropolitan Area Transit Authority, “Metro History,” Metro website, accessed January 15, 2015, [http://www.wmata.com/about\\_metro/docs/history.pdf](http://www.wmata.com/about_metro/docs/history.pdf).

<sup>2</sup> Metropolitan Washington Airports Authority, “Dulles Corridor Metrorail Project Timeline,” Dulles Corridor Metrorail Project website, accessed October 19, 2014, [http://www.dullesmetro.com/silverline/assets/File/project\\_docs/Project%20History%20Update%2020APCO%20-%202011.pdf](http://www.dullesmetro.com/silverline/assets/File/project_docs/Project%20History%20Update%2020APCO%20-%202011.pdf).

<sup>3</sup> Ibid.

operator of D.C.'s Metrorail system – and Metro had approved plans for a 97.2-mile rapid rail system that did not include any form of rapid rail serving Dulles International Airport<sup>4</sup>.



**Figure 2:** Major jurisdictions surrounding the future Silver Line corridor– with Tysons Corner, the Dulles International Airport, and the Metrorail system

Dulles International Airport represented a significant investment for the region, but in the 1960s it was relatively removed from both the downtown core and many of the denser suburbs. Even Tysons Corner, a major regional business and retail district in Fairfax County, was still a predominantly rural area in the 1960s – although the introduction of the Capital Beltway in 1962 and the Tysons Corner Center supermall in 1965 had started to transform Tysons Corner into a more commercial area<sup>5</sup>. Nonetheless, there was early consensus that the regional transit system needed to eventually serve Dulles International Airport. There was just no clear vision about how to do this.

<sup>4</sup> WMATA, “Metro History.”

<sup>5</sup> Tysons Partnership, “History of Tysons,” [Tysonspartnership.org](http://tysonspartnership.org), accessed April 27, 2015, <http://tysonspartnership.org/new-tysons/timeline/>.

While transit plans to serve Dulles International Airport limped along, automobile access to the airport surged ahead, and heavily influenced how transit in the newly established “Dulles corridor” would later proceed. The Dulles International Airport Access Highway opened alongside the airport in 1962<sup>6</sup> and ran from where the Capital Beltway intersects Tysons Corner to the airport. In 1983, the Dulles International Airport Access Highway Connector to 1-66 further increased access to the airport<sup>7</sup>. Then, in 1984, the Virginia Department of Transportation (VDOT) constructed the Dulles Toll Road alongside the original access highway to increase local access to the commercial activity that had developed along the Dulles corridor<sup>8</sup> (Figure 3). These highways later shaped the routes of both rapid rail and bus transit in the Dulles corridor and provided a significant source of funding for what would eventually become the Silver Line.

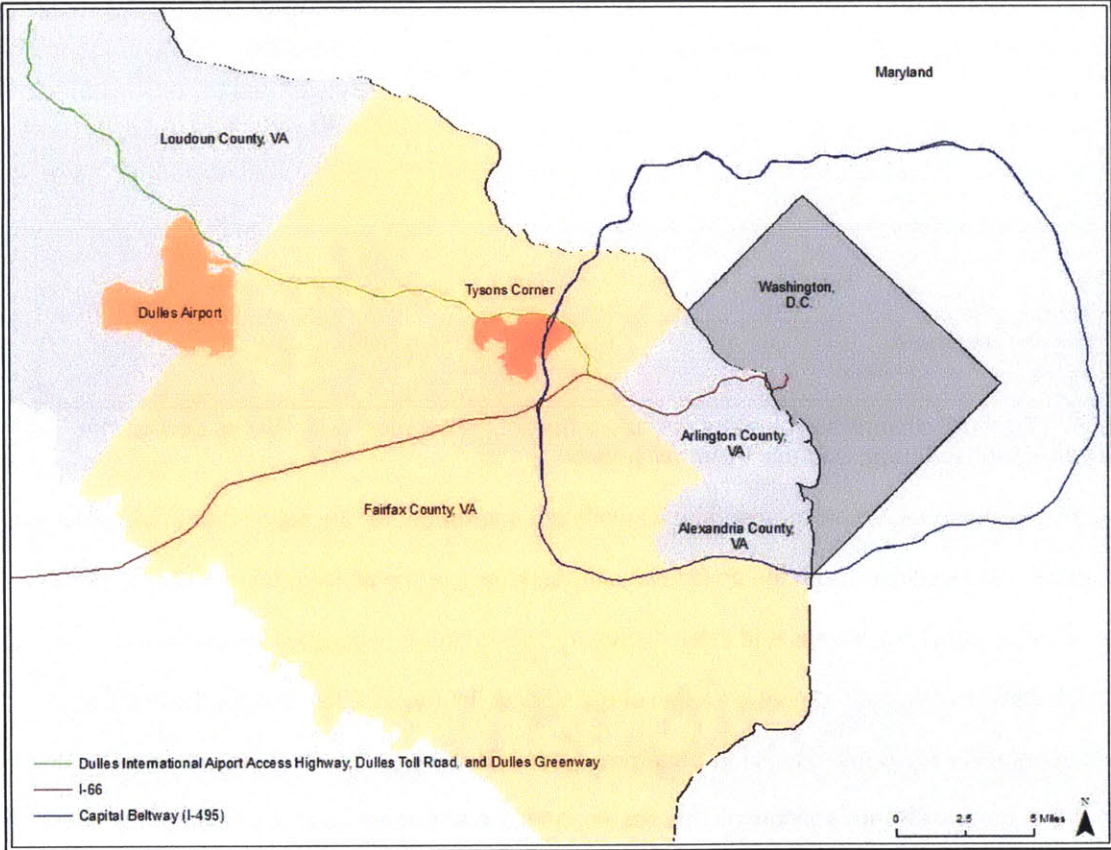


Figure 3: Major highways surrounding the future Silver Line corridor

<sup>6</sup> MWA, “Dulles Corridor Metrorail Project Timeline.”  
<sup>7</sup> Ibid.  
<sup>8</sup> Metropolitan Washington Airports Authority, “About Dulles Toll Road: At A Glance,” Dulles Toll Road homepage, accessed April 27, 2015, <http://www.metwashairports.com/tollroad/917.htm>.

In 1964, the Federal Aviation Administration (FAA) took advantage of the new Dulles International Airport Access Highway, recommending in its *Master Plan for Dulles International Airport* that the highway's median be reserved for a future rapid rail transit line<sup>9</sup>. This recommendation was well received, but the development of an actual rapid rail transit line made little progress until 1990. During this period of inactivity, multiple studies either considered or proposed rapid rail transit in the Dulles corridor. Most notably, two local organizations – Northern Virginia Light Rail, Inc. and Dulles Access Rapid Transit – independently proposed constructing rapid rail transit to Dulles International Airport in the early 1980s. Subsequently, the Urban Mass Transit Administration (now the Federal Transit Administration) produced the *Dulles Corridor Transit Development Feasibility Study*, evaluating various private sector funding strategies for transit and concluding that rail transit in the Dulles corridor would be financially feasible<sup>10</sup>. However, in 1985 the FAA released its *Updated Master Plan for Dulles International Airport*, which simply recommended the continued reservation of the Dulles International Airport Access Highway median for a future transit line<sup>11</sup>. This updated plan effectively marked two decades of zero progress.

Placing the idea of rapid rail transit to Dulles International Airport in a larger context makes clear why the project's development was so slow from 1960 to 1990. It was conceived in the 1960s alongside many other transportation investments – both in the D.C. region and across the county<sup>12</sup>. Rapid rail transit in the Dulles corridor, however, was not considered a priority. Thus, it did not advance. By comparison, priority transportation projects, such as the D.C. Metrorail system and the Interstate Highway System, moved forward and consumed substantial funding as they were constructed over the course of several decades. For example, Metro broke ground on the Metrorail system in 1969 and steadily built out the system until the five originally planned Metrorail lines were complete in 2001<sup>13</sup>. Metro did not undertake serious planning to begin extending the original system

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<sup>9</sup> MWAA, "Dulles Corridor Metrorail Project Timeline."

<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

<sup>12</sup> Transportation for America, 2011, "Transportation 101: An Introduction to Federal Transportation Policy," [Transportationforamerica.org](http://t4america.org/docs/Transportation%20101.pdf), accessed January 10, 2015, <http://t4america.org/docs/Transportation%20101.pdf>.

<sup>13</sup> WMATA, "Metro History."

until the 1990s<sup>14</sup>. Essentially, rapid rail transit in the Dulles corridor missed its window of opportunity in the 1960s, although authorities reserved it as a possibility once the region had the capacity to take it on.

The story of the Silver Line's origin illustrates two major themes that play out in the later development of rapid rail transit in the Dulles corridor. The first is that the project was conceived in order to serve Dulles International Airport. Tysons Corner and the other commercial and resident communities in the Dulles corridor had not yet been built. They were not a focus of the early planning process. The second theme is that rapid rail transit in the Dulles corridor has an incredibly long planning history and the weight of this history became a drag in several ways. Most notably, any proposed changes that went against the project's history became quite controversial. This made it difficult to adapt the project to reflect changes in Tysons Corner and the Dulles Corridor.

## **VIRGINIA GETS THE BALL ROLLING: 1990 – 2000**

In the 1990s, the Commonwealth of Virginia and Fairfax County started taking steps to advance rapid rail transit in the Dulles corridor. At the state level, Virginia's Commonwealth Transportation Board (CTB) – an 18-member group appointed by the Governor and chaired by the state's Secretary of Transportation – adopted a transportation program for the Dulles corridor in 1990 with rapid rail transit as its primary focus. This program proposed that revenue from the Dulles Toll Road fund the rapid rail project to the greatest extent possible<sup>15</sup>. Two years later, CTB fortified this suggestion with its 1992 *Dulles Corridor Plan*, setting the goal of implementing rapid rail transit in the corridor by 2005. Subsequently, Virginia Secretary of Transportation John Milliken took action on CTB's *Dulles Corridor Plan* by creating a Policy Advisory Committee to implement the plan and evaluate alternatives for the corridor<sup>16</sup>.

Around the same time, Fairfax County was busy conducting its 1990 *Dulles International Airport Access Highway Corridor Transit Alternatives Study*. This study recommended reserving land and

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<sup>14</sup> Ibid.

<sup>15</sup> MWAA, "Dulles Corridor Metrorail Project Timeline."

<sup>16</sup> Ibid.



promoting the construction of other facilities in the Dulles corridor that might later be necessary to facilitate rapid rail transit. This included acquiring key station sites. The study also recommended advancing express bus service in the corridor in the interim<sup>17</sup>.

These initial studies at the state and county level spurred further action by Virginia's transportation agencies, culminating in several important developments in the late 1990s. First, in 1996 the Virginia Department of Rail and Public Transportation (DRPT) completed the *Dulles Corridor Transportation Study* (also known as the *Major Investment Study* (MIS)). This echoed earlier recommendations for a rapid rail line along the median of the Dulles International Airport Access Highway and proposed that the rapid rail line operate as an extension of the Metrorail system. The MIS also made the important point that stations in Tysons Corner should be located within the commercial core instead of in the Access Highway median<sup>18</sup>. At the time, the alternative of building the rapid rail line underground through Tysons Corner was never given serious consideration. The assumption that the entire project would be built above ground was never challenged. The recommendations in the MIS were fortified when CTB approved its recommendations and DPRT published a MIS Final Report in 1997<sup>19</sup>.

Next, in 1998, U.S. Congressman Frank Wolf (representing Virginia's 10<sup>th</sup> District, including Loudoun County and parts of Fairfax County) and U.S. Senator John Warner asked VDOT to conduct a *Dulles Corridor Innovative Intermodal Study* (DCIIS). Although VDOT and DPRT both report to the Virginia Secretary of Transportation, they operate separately. VDOT's study focused on the integration of all transportation modes in the corridor and relevant pre-rail developments. It was clear at this point that the project had become a major agenda item and that collaboration was needed. A few months later, Virginia Secretary of Transportation Shirley Ybarra formed the Dulles Corridor Task Force, with representatives from CTB, DPRT, VDOT, Metro, the Metropolitan Washington Airports Authority (MWAA), Fairfax County, Loudoun County, Town of Herndon, City of Falls Church, Northern Virginia

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<sup>17</sup> Ibid.

<sup>18</sup> Ibid.

<sup>19</sup> Ibid.

Transportation Commission, Northern Virginia Planning District Commission, and the Federal Highway Administration<sup>20</sup>.

The Dulles Corridor Task Force advanced DRPT's recommendation that the Dulles corridor rapid rail line operate as an extension of the Metrorail system. In 1999, the Task Force formally requested that Metro serve as the technical manager for the project as well as the official applicant for federal funds. DRPT would oversee all work as the project sponsor. This partnership was affirmed in 2000 when DRPT and Metro signed the "First Agreement" of the Comprehensive Agreement between the two agencies<sup>21</sup>. Therefore, by the turn of the millennium, Virginia had transformed four decades of disparate plans for a rapid rail line into an official project dubbed the Dulles Corridor Rapid Transit Project.

## **THE ENVIRONMENTAL REVIEW PROCESS: 2000 – 2004**

The Dulles Corridor Rapid Transit Project's environmental review process (in accordance with the National Environmental Protection Act (NEPA)) formally began in July 2000<sup>22</sup>. The process started with a scoping stage. This involved public meetings to discuss the wide range of issues related to the project and to generate a list of concerns and alternatives that needed to be taken into consideration. Metro and DRPT incorporated this initial feedback into the Draft Environmental Impact Statement (EIS), which they completed in June 2002<sup>23</sup>.

The Draft EIS evaluated no build, bus-rapid transit (BRT), Metrorail, and combined BRT-Metrorail options for meeting transit needs in the Dulles corridor. Within the Metrorail options, the Draft EIS considered four alignments for the Metrorail segment through Tysons Corner. All four included four stations and covered approximately four miles. All four Tysons Corner alignments proposed a predominately elevated design – meaning that the rail track and stations would be approximately 50

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<sup>20</sup> Ibid.

<sup>21</sup> Ibid.

<sup>22</sup> Ibid.

<sup>23</sup> Ibid.

feet aboveground<sup>24</sup>. However, three of these predominately elevated alignments included small underground portions through the intersection of Route 7 and Route 123. These coincided with the highest elevation in Tysons Corner and, therefore, would make elevated construction problematic. None of the alignments considered the possibility of constructing the entire Tysons Corner segment underground. Only one of the alignments with short underground portions also considered constructing a station underground<sup>25</sup>. At the time, project partners believed a tunnel under Tysons Corner would be far too costly (based on standard U.S. construction techniques)<sup>26</sup>.

Public hearings on the Draft EIS were held in July 2002. The public comment period ran for the following two months, resulting in the publication of a *Public Hearings Report* in October 2002 and a *Public Hearings Report Supplement* in November 2002. Following this work and outreach, the many public bodies involved endorsed the Metrorail alternative with the alignment through Tysons Corner that included a short underground tunnel and one underground station (the T6 alignment). The rest of the Tysons Corner segment would be elevated. This alternative was officially selected as the Locally Preferred Alternative (LPA) in December 2002 as the Draft EIS process was completed<sup>27</sup>.

Immediately following the selection of the LPA, the Dulles Corridor Metrorail Project hit its first federal roadblock when the FTA informed Virginia that the project could not be funded as a single project due to federal funding limitations. The FTA recommended constructing the project in two phases. In response, DRPT and Metro amended their Comprehensive Agreement to reflect the additional work that phasing would require. By the end of 2003, DRPT and Metro completed a Supplemental Draft EIS that incorporated phasing into the LPA they had selected one year prior. The Supplemental Draft EIS proposed that the Wiehle Avenue station, the station just beyond the four Tysons Corner stations, would serve as the interim terminus for Phase 1 of the project. This meant

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<sup>24</sup> Metropolitan Washington Airports Authority, "Silver Line Stations," Dulles Corridor Metrorail Project website, accessed April 24, 2015, <http://www.dullesmetro.com/stations/>.

<sup>25</sup> Virginia Department of Rail and Public Transportation and the Washington Metropolitan Area Transit Authority, 2002, "Dulles Corridor Rapid Transit Project, Draft Environmental Impact Statement and 4(f) Evaluation, Executive Summary" Dulles Corridor Metrorail Project website, accessed November 2, 2014, [http://www.dullesmetro.com/silverline/assets/File/project\\_docs/Executive\\_Summary.pdf](http://www.dullesmetro.com/silverline/assets/File/project_docs/Executive_Summary.pdf), S-15.

<sup>26</sup> Lisa Rein, "Metro Considers Tysons Options; Tunneling Technique Might Make an Underground Rail Line More Affordable," *The Washington Post*, January 19, 2006.

<sup>27</sup> MWAA, "Dulles Corridor Metrorail Project Timeline."

that Phase 1 would include 11.6 miles of track and five stations, serving Tysons Corner and terminating just before the growing Reston Town Center. Phase 2 would include an additional 11.5 miles of track along the Dulles International Airport Access Highway, serving Reston, Herndon, Dulles International Airport, and terminating in eastern Loudoun County<sup>28</sup>.

During this Draft EIS period, state and local governments began to make preliminary arrangements about how they would divide funding for the project. In September 2001, CTB passed a resolution that no less than 85 percent of net surplus revenues from the Dulles Toll Road would be put aside for mass transportation starting in fiscal year 2003. These surplus revenues would represent the majority of the state's contribution. In January 2002, MWAA, Fairfax County, and Loudoun County agreed that 25 percent of the project's capital costs that would be funded locally with an allocation of 16.1 percent from Fairfax County, 4.8 percent from Loudoun County, and 4.1 percent from MWAA. Federal funding was assumed at 50 percent and state funding at 25 percent<sup>29</sup>. Later in 2002, the DIER confirmed this by proposing that the FTA Federal New Starts Funds cover 50 percent of capital costs for Metrorail alternatives<sup>30</sup>. Finally, a local landowners group, Landowners Economic Alliance for the Dulles Extension of Rail (LEADER), petitioned Fairfax County to create a special commercial tax district to fund the county's share of the Phase 1 costs (up to \$400 million). In February 2004, Fairfax County approved LEADER's petition and established the Dulles Rail Transportation Improvement District. One month later, all parties approved the Supplement Draft EIS and its recommended phasing changes to the LPA, concluding the Draft EIS process for the second portion of the process<sup>31</sup>.

The environmental review process swiftly moved ahead with the preparation of the Final EIS. This began in March 2004 and was complete by December 2004<sup>32</sup>. The Final EIS sought to respond to issues raised during the circulation of and public meetings for the Draft EIS and Draft Supplemental EIS. Yet, the discussion of the LPA in the Final EIS – both for the Phase 1 Wiehle Avenue Extension

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<sup>28</sup> Ibid.

<sup>29</sup> Ibid.

<sup>30</sup> Virginia DRPT and WMATA, "Draft EIS", S-28.

<sup>31</sup> MWAA, "Dulles Corridor Metrorail Project Timeline."

<sup>32</sup> Ibid.

and the Phase 2 “Full LPA” – indicates that revisions to the LPA were minor<sup>33</sup>. Public outreach efforts continued throughout the preparation of the Final EIS and the concurrent preliminary engineering (PE) work that began in April 2004. No significant changes to the LPA were given serious attention during this period<sup>34</sup>.

Work on preliminary engineering for the project steadily advanced in 2004. Dulles Transit Partners, LLC (DTP) – a consortium of Washington Group International and Bechtel Corporation – officially became the PE contractor.<sup>35</sup> DTP had formed in 2000 specifically to ensure the successful execution of the project and had been in confidential negotiations with DRPT for several years. This unique, and less competitive, method of contracting services was encouraged by Virginia’s Public-Private Transportation Act of 1995 (PPTA). Though the lack of competition generated some controversy with Metro<sup>36</sup>, in June 2004 the FTA provided the project with PE approval for Phase 1 and gave the project the “Recommended” rating it needed to move forward. Subsequently, DRPT gave DTP notice-to-proceed with Phase 1 project development and staffing<sup>37</sup>.

By the end of 2004, the Final EIS was complete and PE work was well underway. The Final EIS reported that Phase 1 was estimated to cost \$1.52 billion, while the full project was estimated to cost \$3.5 billion<sup>38</sup>. This number was consistent with what the press had been reporting for over a year<sup>39</sup>. The Final EIS also reflected the initial funding arrangements that had been agreed upon over the previous several years. Federal funding through the FTA New Starts was requested to cover 50 percent of capital costs for both phases, while the state and local governments would each cover 25 percent. By all accounts, the project – now officially called the Dulles Corridor Metrorail Project – proceeded with relative ease through its environmental review process, preliminary engineering, initial

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<sup>33</sup> Virginia DRPT and WMATA, “Final EIS.”

<sup>34</sup> Ibid.

<sup>35</sup> MWA, “Dulles Corridor Metrorail Project Timeline.”

<sup>36</sup> Lyndsey Layton, “Metro Agrees to Privatize Rail Plan; Board Questions Dulles Partnership,” *The Washington Post*, April 16, 2004.

<sup>37</sup> MWA, “Dulles Corridor Metrorail Project Timeline.”

<sup>38</sup> Virginia DRPT and WMATA, “Final EIS.”

<sup>39</sup> Lyndsey Layton and Michael D. Shear, “Metrorail Plan May Be Tough Sell for Virginia; Possible Difficulties Foreseen in Winning Federal Funding,” *The Washington Post*, August 1, 2003.

budgeting and fundraising, and public outreach between 2000 and 2004. However, everything changed dramatically in 2005.

## THE TYSONS TUNNEL DEBATE: 2005-2008

2005 began on a positive note with the FTA's FY 2006 New Starts Report to Congress in February 2005, officially giving the Dulles Corridor Metrorail Project the recommended rating it had been informally granted in June 2004. Shortly after, in March 2005, the FTA also released a Record of Decision (ROD) to DRPT. This authoritatively approved the LPA described in the Final EIS<sup>40</sup>. However, in June 2005, the project encountered the first of many budgetary challenges. While Phase 1 capital costs had long been estimated at \$1.5 billion, in June 2005 new preliminary engineering work by DTP estimated that Phase 1 capital costs would fall between \$1.8 billion and \$3.4 billion. More specifically, DTP predicted the project as planned would probably cost \$2.4 billion<sup>41</sup>. This new estimate sent project partners scrambling to find cost saving measures. Several were soon incorporated into the LPA – most notably, project partners decided to shorten the length of the already short tunnel under the intersection of Route 7 and Route 123 in Tysons Corner to about half a mile<sup>42</sup>.

Soon after, in August 2005, DPRT submitted its annual New Starts request to the FTA using a revised cost estimate of \$1.8 billion. Representing the lowest end of DTP's new estimated range, this updated cost estimate incorporated cost savings measures, such as the shortened tunnel, in the LPA. Significant changes to the previously approved LPA design prompted the FTA to require that DRPT hold additional public meetings as part of a supplemental environmental review. The supplemental environmental review and the associated public meetings on the revised LPA were conducted from late 2005 through the spring of 2006.<sup>43</sup>

In late 2005, around the same time the LPA's design was reopened for environmental review and public input, new information came to light about a new tunneling technique being used abroad that

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<sup>40</sup> MWA, "Dulles Corridor Metrorail Project Timeline."

<sup>41</sup> Peter Whoriskey, "Price Soars For Extension Of Metrorail; Cuts to Be Sought In Tysons Project," *The Washington Post*, June 25, 2005.

<sup>42</sup> MWA, "Dulles Corridor Metrorail Project Timeline."

<sup>43</sup> Ibid.

could bore through twice as much soil as traditional machines. It could excavate the two tunnels needed for an underground Metrorail line at once<sup>44</sup>. Given the escalation in the project's estimated cost, Metro officials believed that constructing a four-mile tunnel under Tysons Corner using the large bore tunnel technique could be less expensive than the current LPA's complex alignment through Tysons Corner. Constructing the entire Tysons segment as a tunnel would also allow for around-the-clock construction and eliminate the disturbances and costs associated with street closures during construction<sup>45</sup>. DTP was open to the idea, but skeptical that the tunnel would indeed prove less expensive. DTP Executive Director Roger Picard stated that tunnels require expensive ventilation and that excavation often comes with unpredictable and costly difficulties<sup>46</sup>. More generally, it was impossible to ignore the fact that the Dulles Corridor Metrorail Project had already undergone lengthy environmental review and that preliminary engineering was well underway. A tunnel would require a new design and environmental review process that, coupled with the consequences of delayed construction, could prove very costly<sup>47</sup>.

Nonetheless, in December 2005, Metro asked Virginia to evaluate the potential benefits of building a Metrorail tunnel under the Tysons Corner using this promising technique as an alternative to the proposed elevated alignment. In response, DRPT asked DTP to prepare a preliminary cost estimate for constructing a tunnel under Tysons Corner using this technique. DTP released a report in March 2006 concluding that the tunnel would increase project costs by 28 percent – an additional cost of approximately \$500 million that would increase Phase 1 costs from \$1.8 billion to \$2.3 billion. Meanwhile, DTP reported the very same month that capital costs for Phase 1 *without the tunnel* had escalated from \$1.8 to over \$2 billion<sup>48</sup>. These cost increases were attributed to subcontractor costs and expensive property acquisition. Project partners began to consider eliminating fundamental elements such as pedestrian bridges over highways to reduce costs<sup>49</sup>. Despite pressing cost concerns, the interest in a “Tysons Tunnel” sparked by the large bore tunnel technique was far from over. In fact,

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<sup>44</sup> Rein, “Metro Considers Tysons Options.”

<sup>45</sup> Ibid.

<sup>46</sup> Ibid.

<sup>47</sup> Ibid.

<sup>48</sup> MWA, “Dulles Corridor Metrorail Project Timeline.”

<sup>49</sup> Alec MacGillis, “Key Items Face Cuts As Price Tag Swells; Estimate Hits Projected Approval Limit,” *The Washington Post*, March 23, 2006.

the Tysons Tunnel quickly became very popular in the local community, which vocalized strong support for a range of benefits the tunnel could provide over the elevated design – including fewer disturbances during construction and actual operations, lower environmental impacts, higher property values and property taxes, and the ability to more effectively transform the streetscapes, the street network, adjacent properties, and land use patterns in Tysons Corner from suburban and auto-oriented to urban and transit-oriented<sup>50</sup>.

Unfortunately, at this point the project also began to confront opposition from federal transportation officials over issues unrelated to the tunnel. The FTA's FY 2007 New Starts Report to Congress, released in February 2006, demoted the Dulles Corridor Metrorail Project to a "medium" rating due to escalating costs. This threatened the project's ability to move forward<sup>51</sup>. At over \$2 billion, Phase 1 was pushing the limit of the FTA's strict cost-effectiveness standard for the New Starts Program. Agency support was critical to gaining the \$900 million the project had requested in the FTA New Starts funding (representing 50 percent of Phase 1 costs based on DTP's earlier \$1.8 billion estimate)<sup>52</sup>. The FTA judged cost-effectiveness based on *total* project costs<sup>53</sup> relative to mobility benefits measured in travel time savings<sup>54</sup>. For Tysons Tunnel supporters, this meant that the tunnel would hurt the project's cost-effectiveness rating if it added *any* additional costs – no matter how minor – to the project<sup>55</sup>. The FTA cost-effectiveness standard also did not bend if the extra costs were funded locally, causing critics to argue that the policy discouraged states and municipalities from using their own resources to improve projects<sup>56</sup>. Still, the FTA stood by its policy and its application to

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<sup>50</sup> Roger K. Lewis, "Going Over, Under and Around and Around on the Dulles Metro Expansion," *The Washington Post*, April 1, 2006.

<sup>51</sup> MWAA, "Dulles Corridor Metrorail Project Timeline."

<sup>52</sup> MacGillis, "Key Items Face Cuts As Price Tag Swells."

<sup>53</sup> Alex MacGillis, "Tysons Tunnel Could Risk U.S. Funds; Metro Extension To Dulles Must Be 'Cost-Effective'," *The Washington Post*, May 8, 2006.

<sup>54</sup> Reconnecting America, "Overview of the Final New Starts / Small Starts Regulation and Frequently Asked Questions," [Reconnectingamerica.org](http://reconnectingamerica.org), accessed March 28, 2015, <http://reconnectingamerica.org/assets/Uploads/OverviewNewStartsRuleFINAL.pdf>.

<sup>55</sup> MacGillis, "Tysons Tunnel Could Risk U.S. Funds."

<sup>56</sup> *Ibid.*



the Dulles Corridor Metrorail Project<sup>57</sup>, pitting the possibility of the Tysons Tunnel against the FTA's approval and funding of the entire project in the minds of many.

Despite this troublesome new development, in April 2006 Fairfax County asked Virginia Governor Tim Kaine to commission an independent study of the tunnel proposal, as the DTP study could have been biased by DTP's disinclination to share the project with another firm specializing in the large bore tunnel technique<sup>58</sup>. In comparison to DTP's study, Metro engineers had estimated that the Tysons Tunnel would at most cost \$200 million to \$300 million more than the current LPA<sup>59</sup>. Virginia agreed and Virginia Transportation Secretary Pierce Homer requested that the American Society of Civil Engineers (ASCE) conduct a 60-day panel review of tunnel costs and related issues. The panel concluded that constructing the Tysons Tunnel using the large bore tunnel technique was feasible and that it would cost \$250 million more than the current predominately elevated alignment. It is important to note, however, that the panel found that the current elevated alignment would cost \$2.25 billion – slightly more than the DTP's current estimate of approximately \$2 billion. Thus, they concluded that the tunnel option would cost \$2.5 billion total<sup>60</sup>. The panel demonstrated that the tunnel option would save the project money needed for temporary and permanent land acquisitions<sup>61</sup>, which had already been a source of cost escalations for DTP. Further, the tunnel would save \$5 million each year in maintenance and operating costs and would have a lifespan of 120 years, compared to 60 years for the aerial option<sup>62</sup>. In media coverage of the panel study, it was reported that DTP's project costs estimates had actually increased to \$2.3 billion due to project delays<sup>63</sup>.

Despite the ASCE panel's findings, Governor Kaine – who had commissioned the panel – announced in September 2006 that the state would no longer pursue the Tysons Tunnel and would

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<sup>57</sup> Ibid.

<sup>58</sup> MacGillis, "Tysons Tunnel Could Risk U.S. Funds."

<sup>59</sup> Ibid.

<sup>60</sup> Metro Planning, Development, and Real Estate Committee, 2007, "Briefing on Tysons Tunnel proposal," WMATA website, accessed March 25, 2014, [http://www.wmata.com/about\\_metro/board\\_of\\_directors/board\\_docs/030807\\_RevTysonsTunnel.ASCE.pdf](http://www.wmata.com/about_metro/board_of_directors/board_docs/030807_RevTysonsTunnel.ASCE.pdf).

<sup>61</sup> Ibid.

<sup>62</sup> Ibid.

<sup>63</sup> Alec MacGillis, "Tysons Metro Tunnel Buoyed; Cost Wouldn't Threaten Completion, Panel Says," *The Washington Post*, July 29, 2006.

proceed with the elevated alignment through Tysons Corner<sup>64</sup>. This announcement came after months of speculation that Kaine was leaning towards the Tysons Tunnel based on strong support from Kaine's Deputy Secretary of Transportation, Scott Kasprovicz, and the WestGroup, a major landowner in Tysons Corner<sup>65</sup>. While many were shocked, Kaine indicated that the decision was based on the well-established concern that the tunnel's additional costs would jeopardize the project's FTA funding, as well as uncertainties around the costs and timing of additional environmental review<sup>66</sup>. Another factor may have been a strongly worded July 2006 letter to Kaine from U.S. Congressmen Frank Wolf and Thomas M. Davis III. In the letter, Wolf and Davis expressed concern that Kaine was risking the entire project over the Tysons Tunnel, emphasizing that losing the project was not an option<sup>67</sup>. After Kaine's announcement, Fairfax County Board of Supervisors Chairman Gerald Connolly noted that this letter undermined Kaine's ability to negotiate with the FTA by making it public knowledge that the Tysons Tunnel had lost support in Congress<sup>68</sup>. Kaine's announcement, however, did help appease the FTA, which in November 2006 issued an amended ROD that approved the project's final design with the predominately elevated alignment through Tysons Corner<sup>69</sup>.

While Kaine's withdrawal of support represented a huge – arguably insurmountable – blow to Tysons Tunnel supporters, a strong and growing group continued advocating for the Tunnel. These supporters saw the tunnel as essential to transforming Tysons Corner into a true transit-oriented community<sup>70</sup>; a goal they believed would strengthen the area's sustainability, economy, and community. The Greater McLean Chamber of Commerce rallied local businesses and community groups in favor of the tunnel to form a coalition known as Tysons Tunnel, Inc. Taking advantage of widespread upset over Kaine's announcement, the coalition raised \$3 million – most of it from

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<sup>64</sup> MWA, "Dulles Corridor Metrorail Project Timeline."

<sup>65</sup> Alec MacGillis, "Kaine's Pick Is Said to Be Tunnel For Tysons; Campaign Backers Push Rail Choice," *The Washington Post*, August 27, 2006.

<sup>66</sup> Alec MacGillis, "No Tunnel For Tysons, Kaine Says; Federal Concerns About Cost Prove Insurmountable," *The Washington Post*, September 7, 2006.

<sup>67</sup> Alec MacGillis, "Wolf, Davis Say Tunnel May Delay Dulles Rail; Metro Project's Future Questioned," *The Washington Post*, July 27, 2006.

<sup>68</sup> Alec MacGillis, "For McLean Chamber Group, Tysons Tunnel Dream Endures," *The Washington Post*, November 19, 2006.

<sup>69</sup> MWA, "Dulles Corridor Metrorail Project Timeline."

<sup>70</sup> Alec MacGillis, "Finger-Pointing After Death of Tunnel Plan; Supporters Blame Kaine's Handling, Federal Demands," *The Washington Post*, September 8, 2006.

WestGroup – to commission an engineering study and design of the four-mile Tysons Tunnel. The group retained the services of ARUP, Dr. G. Sauer Corporation, KGP Design Studios, and various sub-contractors<sup>71</sup>. Tysons Tunnel, Inc. hoped that their study would convince Virginia that the Tysons Tunnel’s costs would be similar to those of the elevated alignment. If DTP’s cost estimates continued to escalate, the Tysons Tunnel would actually be less expensive. In this case, Tysons Tunnel, Inc. believed that supplying Virginia with engineering designs might encourage the state to break its contract with DTP and reopen the project for competitive bidding by firms specializing in the large bore tunnel technique.<sup>72</sup>

Tysons Tunnel, Inc. acted quickly and by January 2007 submitted its engineering study to DRPT. The study demonstrated that the tunnel was feasible and could be constructed for the same cost as the elevated alignment – if not less<sup>73</sup>. The study also found that the tunnel could be completed six months faster than the elevated option, offsetting some of the challenges associated with delaying the project for the tunnel.<sup>74</sup> DRPT swiftly responded by commissioning an independent review of Tysons Tunnel, Inc.’s study, led by Carter and Burgess, Inc. This review undermined Tysons Tunnel, Inc.’s conclusions, stating that the study’s engineering analysis did not meet industry standards for 100 percent complete Preliminary Engineering work and, therefore, did not meet the FTA criteria for bidding<sup>75</sup>. The review agreed that the large bore tunnel technique would be feasible, but deemed Tysons Tunnel, Inc.’s cost and schedule estimates overly-optimistic as they relied on best-case scenarios and did not adequately take risks and uncertainties into account<sup>76</sup>. Despite this rebuttal, the Tysons Tunnel, Inc. study spurred U.S. Congressman James Moran and Congressman Davis, who previously urged Kaine to forgo the tunnel, to ask the FTA to review the tunnel proposal in a “dual-track” process alongside the existing plans. However, the FTA Administrator James Simpson firmly

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<sup>71</sup> Carter & Burgess, Inc., 2007, “Review of Large Bore Tunnel Engineering and Environmental Studies from Tysons Tunnel, Inc.,” Dulles Corridor Metrorail Project website, accessed October 27, 2014, [http://www.dullesmetro.com/silverline/assets/File/project\\_docs/LBT\\_PDF\\_Report\\_Only\\_02\\_26\\_2007.pdf](http://www.dullesmetro.com/silverline/assets/File/project_docs/LBT_PDF_Report_Only_02_26_2007.pdf), 3.

<sup>72</sup> MacGillis, “For McLean Chamber Group, Tysons Tunnel Dream Endures.”

<sup>73</sup> Carter & Burgess, Inc., “Review of Large Bore Tunnel Engineering and Environmental Studies,” 1.

<sup>74</sup> *Ibid.*, 1

<sup>75</sup> *Ibid.*, 1

<sup>76</sup> *Ibid.*, 1

rejected this request, stating that it would be inappropriate for the FTA to approve existing plans while simultaneously reviewing a significantly different alternative plan<sup>77</sup>.

Meanwhile, the Dulles Corridor Metrorail Project's budgetary woes continued to grow with even more cost overruns in early 2007. In March 2007, DRPT negotiated a \$1.6 billion design-build agreement with DTP for the final design and construction of Phase 1. However, these negotiations revealed that Phase 1 capital costs had officially escalated to somewhere between \$2.4 to \$2.7 billion<sup>78</sup>. Nonetheless, the agreement eventually advanced in June 2007 under the approval of the Metropolitan Washington Airports Authority (MWAA), which had been in the process of assuming oversight of the Dulles Corridor Metrorail Project as well as operations of the Dulles Toll Road from the Commonwealth of Virginia and the DRPT. The transfer of responsibility to the MWAA was complete by the end of 2008 and the MWAA continues to oversee the project and the Dulles Toll Road<sup>79</sup>. Despite its new responsibilities, the MWAA played a passive role in the state's Tysons Tunnel decision. An MWAA spokeswoman told the Washington Post that the authority did not want responsibility for making the final call on the Tysons Tunnel although it expressed openness to considering all options<sup>80</sup>.

To the dismay of tunnel supporters, DTP's latest cost escalation in the range of \$2.4 billion to \$2.7 billion did little to advance Tysons Tunnel, Inc.'s engineering study. Virginia and DRPT maintained the conclusions from their independent review of the study. DRPT Director Matthew Tucker told the Washington Post: "From our perspective, the planning phase of this project is closed. We're ready to move toward construction."<sup>81</sup> This strongly indicated that DRPT was not open to giving further consideration to the Tysons Tunnel following Kaine's September 2006 announcement. Tysons Tunnel, Inc. President Scott Monet expressed open disgust over the state's dismissal of such strong support

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<sup>77</sup> Alec MacGillis, "Tysons Tunnel Request Rebuffed; Lawmakers Sought Opinion on Revival," *The Washington Post*, January 31, 2007.

<sup>78</sup> MWAA, "Dulles Corridor Metrorail Project Timeline."

<sup>79</sup> MWAA, "Dulles Corridor Metrorail Project Timeline."

<sup>80</sup> Alec MacGillis, "Tunnel Back On Table for Dulles Rail; Cost Dispute Threatens To Delay Metro Project," *The Washington Post*, April 26, 2006.

<sup>81</sup> Bill Turque and Lena H. Sun, "Tunnel at Tysons Would Be Costly Risk, Study Says; State-Ordered Analysis a Setback to Fairfax County Group Opposed to an Aboveground Line," *The Washington Post*, March 9, 2007.

for the tunnel, stating: “We’re shocked and dismayed by the sheer arrogance.”<sup>82</sup> Shortly after DRPT’s firm dismissal, the Tysons Tunnel received its deepest setback yet, from long-time supporter Fairfax County. In June 2007, Fairfax County officials, along with Loudoun County officials, voted to approve operating and funding agreements for the Dulles Corridor Metrorail Project that included the aerial alignment through Tysons Corner<sup>83</sup>. This decision more or less signaled defeat for the Tysons Tunnel, although Tysons Tunnel, Inc. continued to advocate for the tunnel for almost another year<sup>84</sup>.

The latest escalation of Phase 1 capital costs, however, prompted the federal government to issue another, sterner warning to the project in July 2007. The U.S. Department of Transportation’s (U.S. DOT) Inspector General reported that the project’s costs had increased so much over the past three years (from \$1.52 billion in December 2004 to the latest estimate of \$2.4 to \$2.7 billion) that the project might no longer meet federal funding criteria. As before, the issue was that the project’s total costs translated into a very poor FTA cost-effectiveness rating, which was critical to gaining the FTA approval and funding. Thus, after Virginia spent almost one year rebutting Tysons Tunnel supporters to avoid risking the project’s federal funding, the FTA’s reluctance to fund the project once again threatened to terminate the entire Metrorail line. If Virginia had not already clarified their new stance against the tunnel, this warning sent a clear message that project partners needed to incorporate additional cost savings measure or risk losing the project all together. This cemented the antagonism between the Tysons Tunnel – and any associated costs no matter how small – against the future of the entire project and, indirectly, the Dulles corridor and the Dulles International Airport.

In response to the FTA’s warning, Virginia launched a robust campaign to save the Dulles Corridor Metrorail Project during the latter half of 2007. In August 2007, Governor Kaine and U.S. Congressmen from Virginia met with federal transportation officials in an effort to assuage the FTA’s concerns about project costs and its potential value<sup>85</sup>. In September 2007, Governor Kaine, and a group of prominent Virginia politicians made their efforts more visible by publically announcing that

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<sup>82</sup> Ibid.

<sup>83</sup> Robert Thomson, “In the End, Federal Funding Elevated Metrorail at Tysons,” *The Washington Post*, June 25, 2007.

<sup>84</sup> Amy Gardner, “Tysons Tunnel Supporters Raise Money to Continue Fight,” *The Washington Post*, May 20, 2008.

<sup>85</sup> MWAA, “Dulles Corridor Metrorail Project Timeline.”

the Dulles Corridor Metrorail Project must proceed. Kaine announced that the project had made \$306 million in cost adjustments, although the Phase 1 capital costs were up to \$2.8 billion at this time<sup>86</sup>.

In hopes that this campaign had buoyed the project, MWAA submitted the 2007 the FTA New Starts proposal for the Dulles Corridor Metrorail Project in September 2007. However, in January 2008, the FTA Administrator informed Governor Kaine and MWAA that the current project would not qualify for New Starts funding, indicating that the project's problems were major and could not be fixed by small revisions<sup>87</sup>. In response, Governor Kaine, the Commonwealth of Virginia, MWAA, Congressional leaders, local officials, and local business leaders increased the intensity of their efforts to win federal support between January and April 2008. Finally, on April 30, 2008, US Transportation Secretary Mary Peters reversed the federal stand on the Dulles Corridor Metrorail Project and the project was given the green light to move to final design<sup>88</sup>. The FTA gave permission for preconstruction work to begin in August 2008, accelerating the closing window of opportunity for Tysons Tunnel advocates<sup>89</sup>.

Following Fairfax County's approval of Dulles Corridor Metrorail Project agreements that included the elevated alignment through Tysons Corner, Tysons Tunnel supports began losing steam. Tysons Tunnel, Inc. attempted to confront the source of the opposition, the FTA, by filing a lawsuit against the FTA in November 2007 demanding a competitive bidding process for the project. The lawsuit, however, was short-lived as the sole plaintiff withdrew by December 2007 and long-time Tysons Tunnel, Inc. supporter, WestGroup, rejected any involvement in the lawsuit<sup>90</sup>. Meanwhile, local businesses and landowners organized in late 2007 to push back against Tysons Tunnel, Inc.'s effort, which at the time further jeopardized federal funding that Virginia's political leaders were working so hard to salvage<sup>91</sup>. Tensions had also grown between the Greater Reston Chamber of Commerce and Tysons Tunnel, Inc., with the Reston Chamber publically criticizing Tysons Corner business leaders for

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<sup>86</sup> Ibid.

<sup>87</sup> Ibid.

<sup>88</sup> Ibid.

<sup>89</sup> Ibid.

<sup>90</sup> Amy Gardner, "Tysons Tunnel Loses Backers As Landowners Unite for Growth," *The Washington Post*, December 2, 2007.

<sup>91</sup> Ibid.

burdening the entire Dulles corridor region with costs and risks for benefits that would be concentrated in Tysons Corner<sup>92</sup>. In the end, the Tysons Tunnel was effectively dead when the FTA reversed its stance on the project in April 2008 and allowed project partners to advance to final design. Tysons Tunnel, Inc. vowed to continue advocating for the tunnel in May 2008, but little materialized from this final claim<sup>93</sup>. The FTA's issuance of permission to begin preconstruction work in August 2008 was the final nail in the Tysons Tunnel's coffin.

It is important to note that the only substantive change to the Dulles Corridor Metrorail Project between the FTA's first "medium" rating for the project in February 2006 and Secretary Peters' final approval in April 2008 was the emergence of increased political will, rather than changes in the project's design or organization. In July 2008, MWAA and DTP signed a somewhat revised fixed-price \$1.6 billion design-build contract for Phase 1, although the contract they negotiated in March 2007 was \$1.6 billion as well<sup>94</sup>. Therefore, after years of fighting over costs, project partners and the FTA ultimately advanced Phase 1 with its original design and a price tag of \$2.8 billion; almost double its initial cost.

## **EPILOGUE: 2009 – PRESENT**

In early 2009 the federal government finalized action on the project. Outgoing U.S. Transportation Secretary Mary Peters forwarded U.S. DOT's final approval and Full Funding Grant Agreement of the Dulles Corridor Metrorail Project to Congress for 60-day review. This agreement officially provided \$900 million for Phase 1 of the project. The new U.S. Transportation Secretary Ray LaHood, appointed by President Barack Obama, signed the agreement in March 2009. Immediately after, construction began on the short Phase 1 tunnel, near the intersection of Route 123 and Route 7<sup>95</sup>.

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<sup>92</sup> Bill Turque, "Reston, McLean Chambers Open Feud Over Fate of Tysons Tunnel," *The Washington Post*, March 12, 2007.

<sup>93</sup> Gardner, "Tysons Tunnel Supporters Raise Money to Continue Fight."

<sup>94</sup> MWAA, "Dulles Corridor Metrorail Project Timeline."

<sup>95</sup> *Ibid.*

The execution of Phase 1 was relatively smooth after 2009. There were some construction delays – project partners originally reported that Phase 1 would be done by 2013<sup>96</sup>, but it was not complete until 2014<sup>97</sup> – and final cost escalations in 2011<sup>98</sup> that brought Phase 1 total costs up to \$2.9 billion<sup>99</sup>, but Phase 1 opened for passenger service in July 2014 to much fanfare<sup>100</sup>. Upon opening, Phase 1 of the Dulles Corridor Metrorail Project officially became the Silver Line<sup>101</sup>, although the project had largely been referred to as the Silver Line since 2009.

Phase 2, on the other hand, has experienced its own microcosm of Phase 1's political drama since 2009. After all of Phase 1's issues with the FTA and DTP, it was decided that Phase 2 would receive no federal funding<sup>102</sup> and that the Phase 2 design-build contractor would not be DTP, but Capital Rail Constructors – a new joint venture between Clark Construction Group, LLC and Kiewit Infrastructure South Co.<sup>103</sup> Despite these changes, Phase 2 capital costs ballooned by \$1.3 billion in 2010, from approximately \$2.5 billion to over \$3.5 billion. This spurred a debate between the state and local municipalities, who were covering the entirety of Phase 2 costs, over potential cost saving measures. This debate focused on whether to build the station at Dulles International Airport directly beneath the terminal as planned or aboveground and further away from the terminal, which would save Phase 2 anywhere from \$300 million to \$600 million.<sup>104</sup> Despite widespread support from the public and the MWA for the more convenient, underground station, project stakeholders – particularly the new Fairfax County Board of Supervisors Chairman Sharon Bulova – successfully

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<sup>96</sup> Derek Kravitz, "Silver Line cost soars for 2nd phase; Entire project could hit \$6.6 billion if Dulles stop is under terminal," *The Washington Post*, September 16, 2010.

<sup>97</sup> WMATA, "About."

<sup>98</sup> Dana Hedgpeth, "Dulles Metrorail project's rising costs are a concern," *The Washington Post*, October 20, 2011.

<sup>99</sup> MWA, "Dulles Metrorail: Funding."

<sup>100</sup> Paul Duggan and Lori Aratani, "At last, the Silver Line is ready; Metro says passenger service will start July 26," *The Washington Post*, June 23, 2014.

<sup>101</sup> Metropolitan Washington Airports Authority, "FAQs," Dulles Corridor Metrorail Project website, Accessed April 25, 2015, <http://www.dullesmetro.com/faqs/>.

<sup>102</sup> Ibid.

<sup>103</sup> Kravitz, "Silver Line cost soars for 2nd phase."

<sup>104</sup> Ibid.



fought to construct the station aboveground<sup>105</sup>. Phase 2 costs have since diminished; the section is now projected to cost approximately \$2.6 billion and to be complete by 2018<sup>106</sup>.

As of the completion of this thesis, Phase 1 of the Silver Line has been operational for ten months. The elevated section through Tysons Corner that was heatedly debated is now a physical reality. In the six plus years since the Dulles Corridor Metrorail Project gained FTA approval and began construction, new real estate development in Tysons Corner has boomed. Finally, despite the downfall of the Tysons Tunnel, Fairfax County has completed a comprehensive plan for Tysons Corner that aims to work around the elevated tracks and shape Tysons Corner into a transit-oriented, urban district. While these new developments are still evolving, now is an important time to reflect upon the Tysons Tunnel decision and its ramifications while the relationship between the two is still direct and clear. The following chapter provides a snapshot of the Silver Line and Tysons Corner in 2015 and evaluates the Tysons Tunnel decision through the lens of these early results.

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<sup>105</sup> Tom Jackman, "Walking people through the facts of a Dulles tunnel," *The Washington Post*, April 20, 2011.

<sup>106</sup> WMATA, "About."

# SNAPSHOT OF 2015

# SNAPSHOT OF 2015

When Phase 1 of the Silver Line opened on July 26<sup>th</sup>, 2014, it was universally celebrated by Tysons Tunnel supporters and opponents alike. A dedication ceremony held at the new Wiehle-Reston East station featured congratulatory remarks by U.S. Transportation Secretary Anthony Foxx, Metro General Manager Richard Sarles, Virginia Governor Terry McAuliffe, and now Congressman Gerry Connolly<sup>1</sup> – who had been elected as the U.S. Representative for Virginia’s 11<sup>th</sup> District in 2008<sup>2</sup>. Congressman Frank Wolf, Congressman James Moran, the Fairfax County Board of Supervisors, the Metro Board of Directors, and the MWAA Board of Directors also attended the ceremony<sup>3</sup>. While these actors often clashed during the Tysons Tunnel debate and throughout the Dulles Corridor Metrorail Project’s development, praise for the elevated Metrorail line was virtually unanimous by 2014. On the whole, concerns over the Silver Line’s elevated design appeared to have been forgotten as all parties moved towards the future.

For local politicians and practitioners, this acceptance is both understandable and necessary. Evaluating the Tysons Tunnel decision in light of its immediate results, however, helps to determine whether this decision was optimal given the political and economic constraints at the time or adversely constrained by unnecessary policies and politics – offering important lessons for future decision-making around major transit investments. The Silver Line and Tysons Corner will of course continue to coevolve in the coming decades; Tysons Corner in 2025 will no doubt be profoundly different than it is now in 2015. Still, the Silver Line and Tysons Corner as they stand in 2015 are uniquely germane to an analysis of the Tysons Tunnel decision because they represent the direct result of the decision with minimal uncertainty and confounding factors. To this end, this chapter offers an in-depth snapshot of Tysons Corner and the Silver Line in 2015. Given the current state, the

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<sup>1</sup> Ashley Halsey III, Lori Aratani, and Paul Duggan, “All aboard! Metro’s new Silver Line rolls down the tracks for the first time,” *The Washington Post*, July 26, 2014.

<sup>2</sup> Congressman Gerald Connolly’s official website (Connolly.house.gov), “Biography: Congressman Gerald E. Connolly, 11<sup>th</sup> District of Virginia,” accessed February 15, 2015, <http://connolly.house.gov/about-gerry/>.

<sup>3</sup> Washington Metropolitan Area Transit Authority, “Wiehle-Reston East is Metro’s 12th Busiest Station This Morning,” Silver Line website, accessed April 24, 2015, <http://silverlinemetro.com/wiehle-12th-busiest/>.

chapter then makes the argument for why these immediate results are suboptimal, pulling on transit-oriented development principles and comparative case studies for support. But first, in order to determine the optimality of the Tysons Tunnel decision, it is necessary to review the goals behind building the Silver Line in Tysons Corner.

## TRANSFORMING TYSONS CORNER

The motivation behind constructing the Silver Line through Tysons Corner was essentially to transform the area into a transit-oriented, urban center as it grows in the coming decades. This goal was introduced in the Final Environmental Impact Statement (EIS) for the Dulles Corridor Metrorail Project, but was fully developed through Fairfax County's comprehensive plan for Tysons Corner and the associated "Transforming Tysons" initiative. The concept of transit-oriented development (TOD), or transit-oriented communities (TOCs), has become so ubiquitous in urban revitalization plans that it is important to define the term so that it does not become meaningless jargon. One such definition comes from Reconnecting America, a national nonprofit specializing in TOD, which defines TOD as: "compact development within easy walking distance of transit stations (typically a half mile) that contains a mix of uses such as housing, jobs, shops, restaurants, and entertainment."<sup>4</sup> A similar definition comes from TransLink, the regional transportation authority in Vancouver, Canada, which characterizes TOCs as: "place[s] that, by their design, allow people to drive less and walk, cycle, and take transit more. In practice, this means concentrating higher-density, mixed-use, human scale development around frequent transit stops."<sup>5</sup> These concepts can be seen in both the Dulles Corridor Metrorail Project and Fairfax County's goals for the Silver Line through Tysons Corner.

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<sup>4</sup> Reconnecting America, 2007, "TOD 101: Why Transit-Oriented Development And Why Now," Reconnectingamerica.org, accessed April 25, 2015, <http://www.reconnectingamerica.org/resource-center/browse-research/2007/tod-101-why-transit-oriented-development-and-why-now/>, 4.

<sup>5</sup> TransLink, "Transit-Oriented Communities: A Primer on Key Concepts," Reconnectingamerica.org, accessed April 25, 2015, <http://www.reconnectingamerica.org/assets/Uploads/20120104TransitOrientedCommunitiesPrimer.pdf>, 1.

## *DULLES CORRIDOR METRORAIL PROJECT FINAL EIS*

The Dulles Corridor Metrorail Project's Final EIS states that Metrorail was needed in the Dulles corridor to relieve its congested highway system, which was harming air quality, economic vitality, and quality of life in the area. The corridor was also expected to experience high population and job growth between 2005 and 2030 and therefore needed Metrorail to promote more sustainable development and travel behavior in the area going forward – or else these negative trends would continue<sup>6</sup>. Tysons Corner, in particular, was singled out as an area that was expected to grow rapidly in the coming decades. Although the Final EIS also covers corridor-wide goals for the Dulles Corridor Metrorail Project – such as serving the Dulles International Airport – the project's intention to promote transit use and to foster sustainable, transit-oriented development in Tysons Corner was clearly a main project goal.

## *FAIRFAX COUNTY TRANSFORMING TYSONS INITIATIVE*

At the local level, Fairfax County expanded on the motivations in the Final EIS and left no question that the Silver Line's primary goal in Tysons Corner was to transform the district into an urban, transit-oriented center. The county launched the Transforming Tysons initiative, which is the umbrella for all county actions in Tysons Corner. This initiative operates under the following mission statement:

*“By 2050, Tysons will be transformed into a walkable, sustainable, urban center that will be home to up to 100,000 residents and 200,000 jobs. Tysons is envisioned to become a 24-hour urban center where people live, work, and play; where people are engaged with their surroundings; and, where people want to be<sup>7</sup>.”*

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<sup>6</sup> Virginia Department of Rail and Public Transportation and the Washington Metropolitan Area Transit Authority, 2004, “Dulles Corridor Rapid Transit Project, Final Environmental Impact Statement and 4(f) Evaluation,” Dulles Corridor Metrorail Project website, accessed November 2, 2014, <http://www.dullesmetro.com/about-dulles-rail/environment/>.

<sup>7</sup> Fairfax County, “Transforming Tysons,” Fairfax County, Virginia website, accessed April 25, 2015, <http://www.fairfaxcounty.gov/tysons/>.

Fairfax County planners fully acknowledge that an urban retrofit of Tysons Corner is ambitious and will likely take decades<sup>8</sup>, but the county has begun to implement many measures that promote urban, transit-oriented development in Tysons Corner. The county's Board of Supervisors even endorsed an unofficial name change from Tysons Corner to just "Tysons" in 2012, under recommendations from the business community that the name change would symbolize the area's transition from suburban malls and office parks to an urban, economic center<sup>9</sup>. (Mailing address can still use either name.) The most substantive changes so far, however, were enacted through Fairfax County's 2010 update of Tysons Corner's comprehensive plan<sup>10</sup>. The effects of the comprehensive plan are only beginning to materialize, but the strategies themselves offer useful insight into what Tysons Corner is hoping to achieve from the arrival of the new Silver Line

Broadly speaking, the Tysons Corner comprehensive plan envisions increasing development intensity in the areas immediately surrounding the four new Silver Line stations, with intensity tapering off further from the stations (Figure 4). The plan encourages such increases in intensity by allowing developers to obtain significant floor-area ratio (FAR) bonuses for developments near Silver Line stations in exchange for community benefits such as affordable housing, parks, local roads, and other public facilities<sup>11</sup>. The provision of such community benefits allows developers to build to the remarkable heights shown in the county's conceptual map of building heights (Figure 5), which prescribes building heights between 225 and 400 feet in areas immediately surrounding Silver Line stations and building heights between 130 and 225 feet in areas within an approximately one-third mile walkshed. These planning strategies strongly encourage denser development around the currently sparse Silver Line stations in Tysons Corner.

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<sup>8</sup> Tanya Snyder, "Transforming Tysons Corner: A High-Stakes Suburban Retrofit," *Streetsblog USA*, October 27, 2011, accessed April 24, 2015, <http://usa.streetsblog.org/2011/10/27/transforming-tysons-corner-a-high-stakes-suburban-retrofit/>.

<sup>9</sup> Corinne Reilly and Victor Zapana, "Tysons Corner is unofficially dropping the 'corner' from its name," *The Washington Post*, October 4, 2012.

<sup>10</sup> Scott Sizer, Fairfax County Revitalization Program Manager, March 13, 2015, personal communication.

<sup>11</sup> Fairfax County Department of Planning and Zoning, 2013, "Fairfax County Comprehensive Plan, 2013 Edition, Area II, Tysons Corner Urban Center," Fairfax County, Virginia website, accessed October 30, 2014, <http://www.fairfaxcounty.gov/dpz/comprehensiveplan/area2/tysons1.pdf>, 28.

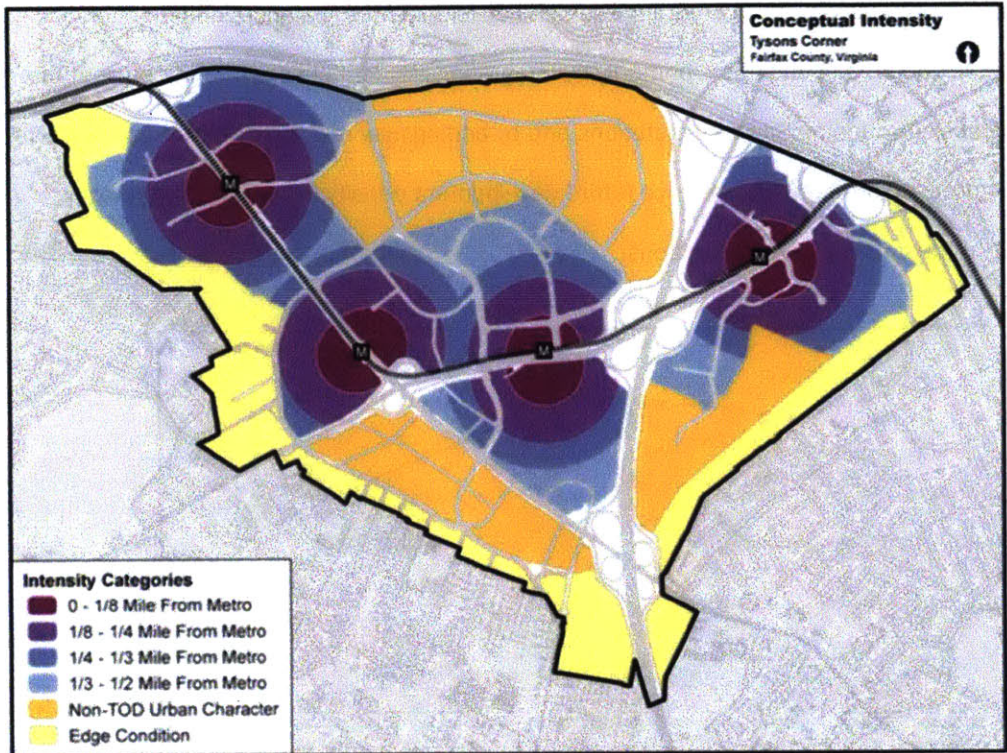


Figure 4: Conceptual development intensity in Tysons Corner (Source: Fairfax County DPZ, "Fairfax County Comprehensive Plan, 2013 Edition, Area II, Tysons Corner Urban Center," 22.)

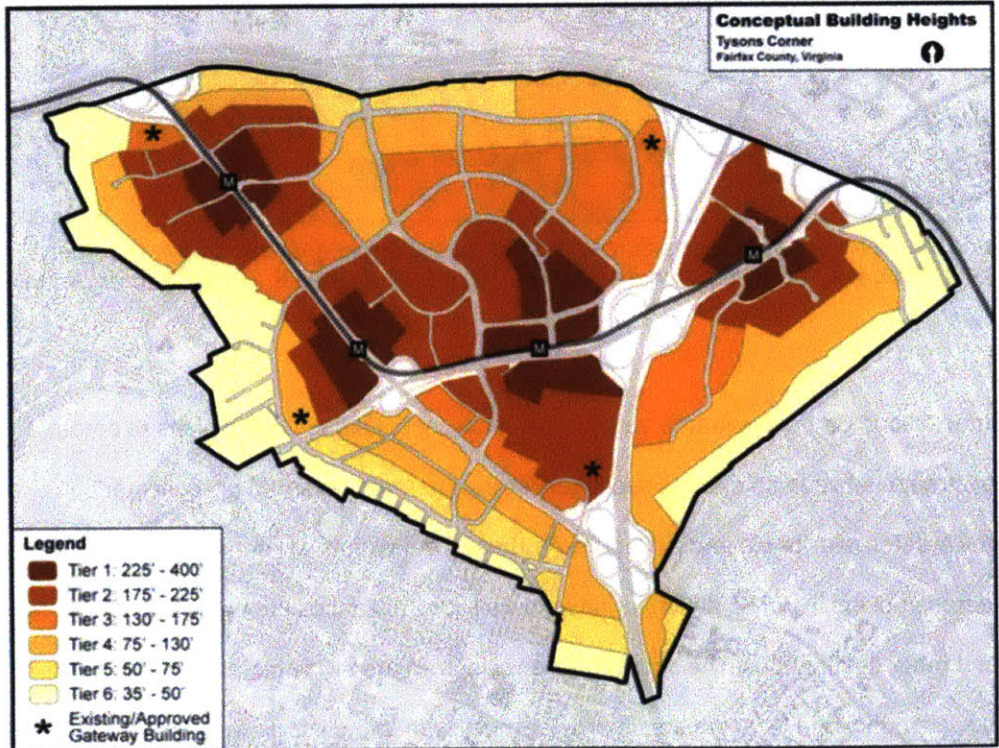
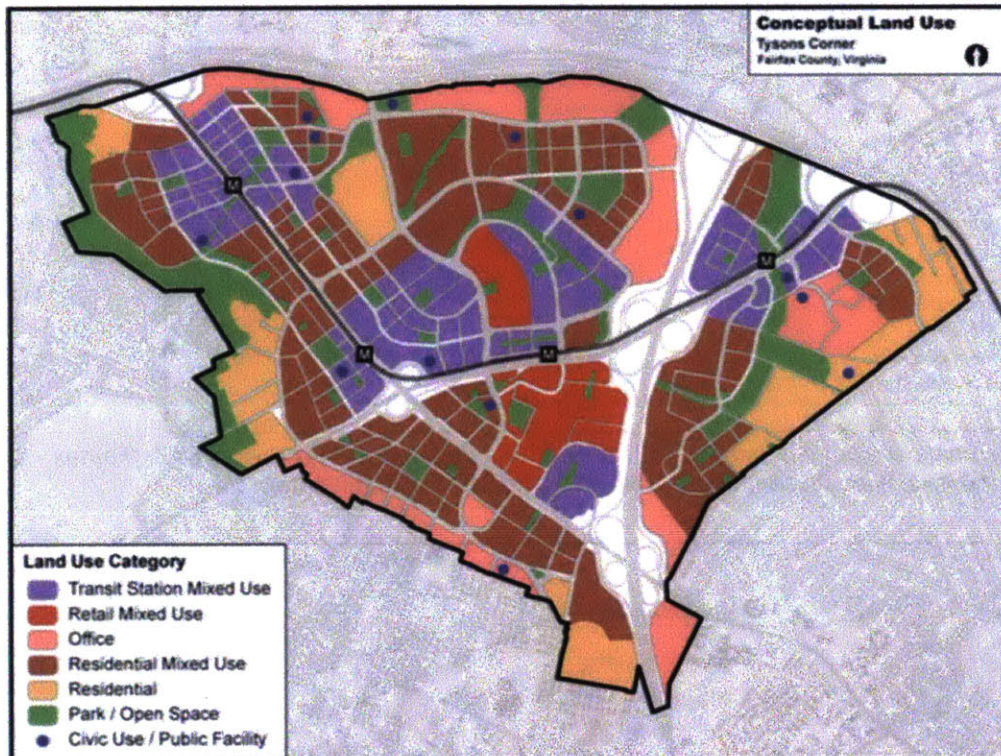


Figure 5: New building heights in Tysons Corner (Source: Fairfax County DPZ, "Fairfax County Comprehensive Plan, 2013 Edition, Area II, Tysons Corner Urban Center," 116)

Fairfax County is also pursuing more mixed-used development to balance the homogenous landscape of retail and office buildings – primarily by integrating residential uses into the current mix of commercial uses surrounding Silver Line stations and by adding new residential mixed-use districts (Figure 6). This mix-used strategy will enhance future development density in the area by providing a greater diversity of destinations and attractions.

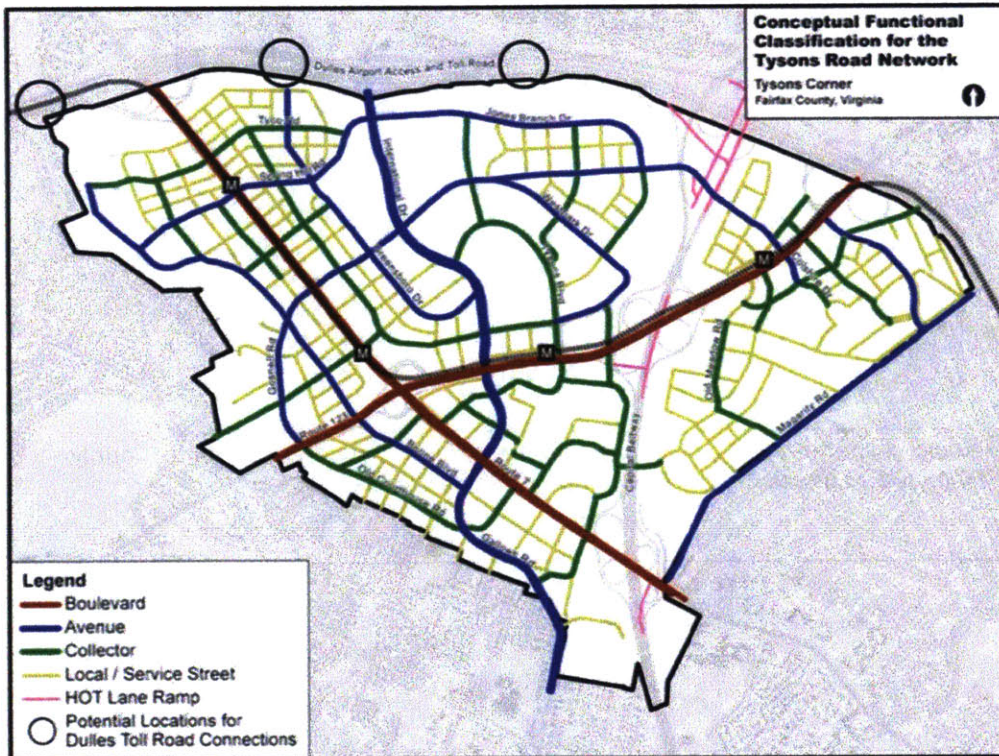


**Figure 6:** New land use categories in Tysons Corner, with proposed street grid also shown (Source: Fairfax County DPZ, “Fairfax County Comprehensive Plan, 2013 Edition, Area II, Tysons Corner Urban Center,” 25)

To counter Tysons Corner’s extreme auto-centric landscape, Fairfax County plans to create a tight grid of local streets between its existing secondary streets (termed “avenue” or “collector” streets) and highways (termed “boulevards”) (Figure 7). These local streets will enhance mobility for pedestrians and transit-users, who will no longer have to walk long distances through mega-blocks to access transit and other destinations. The county also envisions an area-wide bicycle network throughout these secondary and local streets, improving mobility for bicyclists as well (Figure 8). Of course, increasing pedestrian and bicycle mobility in Tysons Corner will require considerable

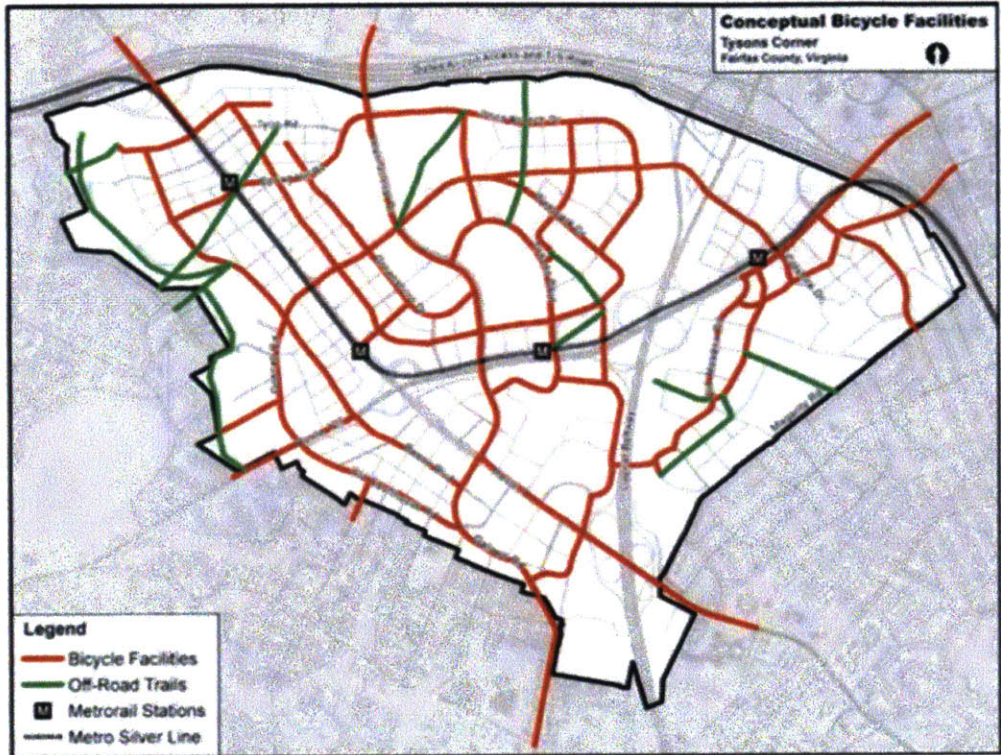


infrastructure in the form of sidewalks and bike lanes – both of which are currently lacking. To this end, Fairfax County includes this type of infrastructure in the community benefits that developers can trade for FAR bonuses or other regulatory incentives<sup>12</sup>. The county intends that pedestrian and bicycle infrastructure will be implemented according to the recommended design guidelines for local streets and secondary streets, also detailed in the comprehensive plan (Figures 9 and 10).

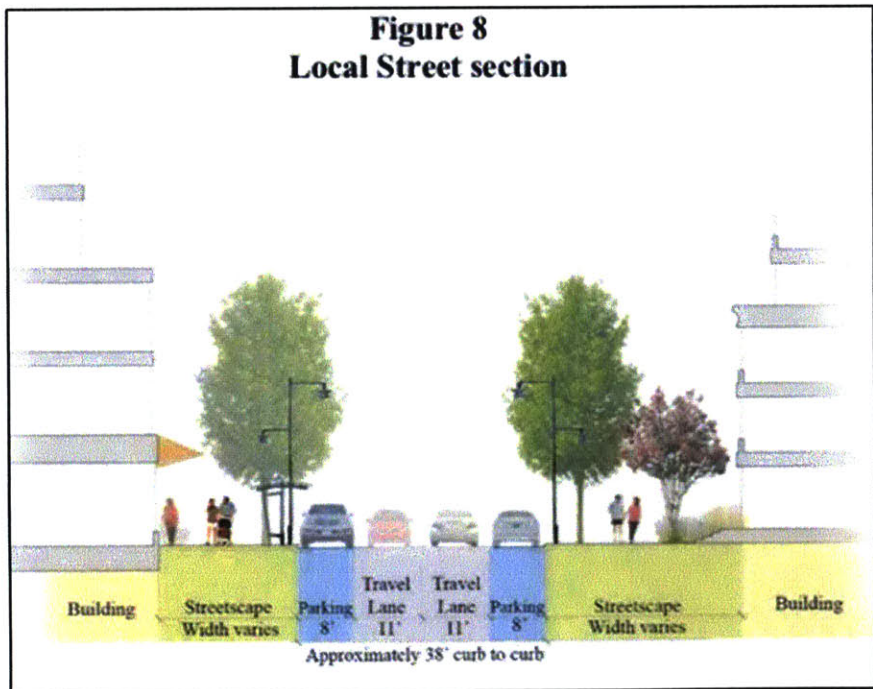


**Figure 7:** Proposed street network in Tysons Corner (Source: Fairfax County DPZ, "Fairfax County Comprehensive Plan, 2013 Edition, Area II, Tysons Corner Urban Center," 49)

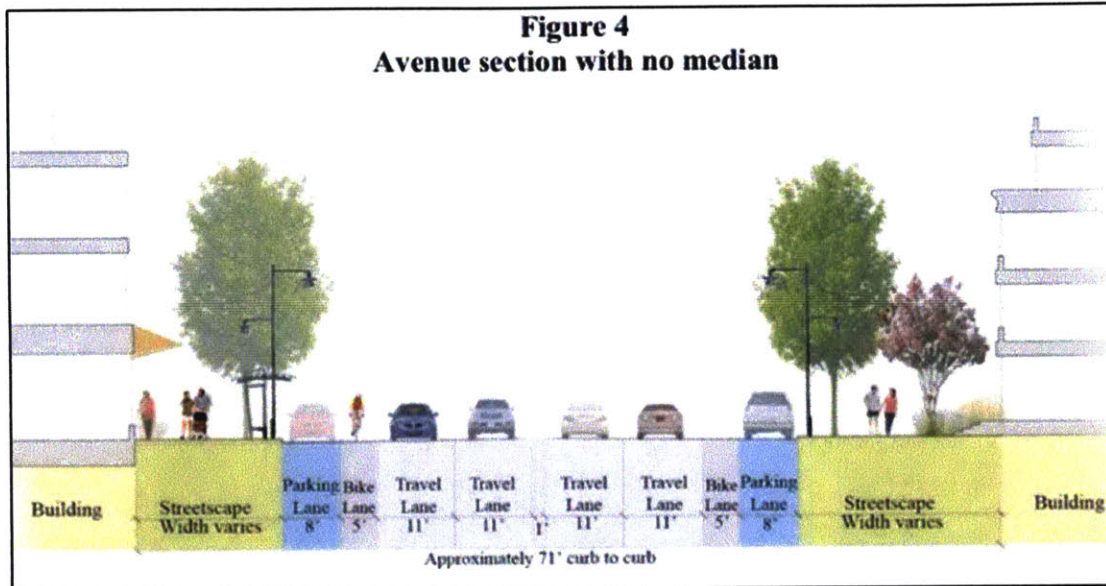
<sup>12</sup> Fairfax County DPZ, "Fairfax County Comprehensive Plan, 2013 Edition, Area II, Tysons Corner Urban Center, 24 and 66-67.



**Figure 8:** Proposed bicycle network in Tysons Corner (Source: Fairfax County DPZ, "Fairfax County Comprehensive Plan, 2013 Edition, Area II, Tysons Corner Urban Center," 58)



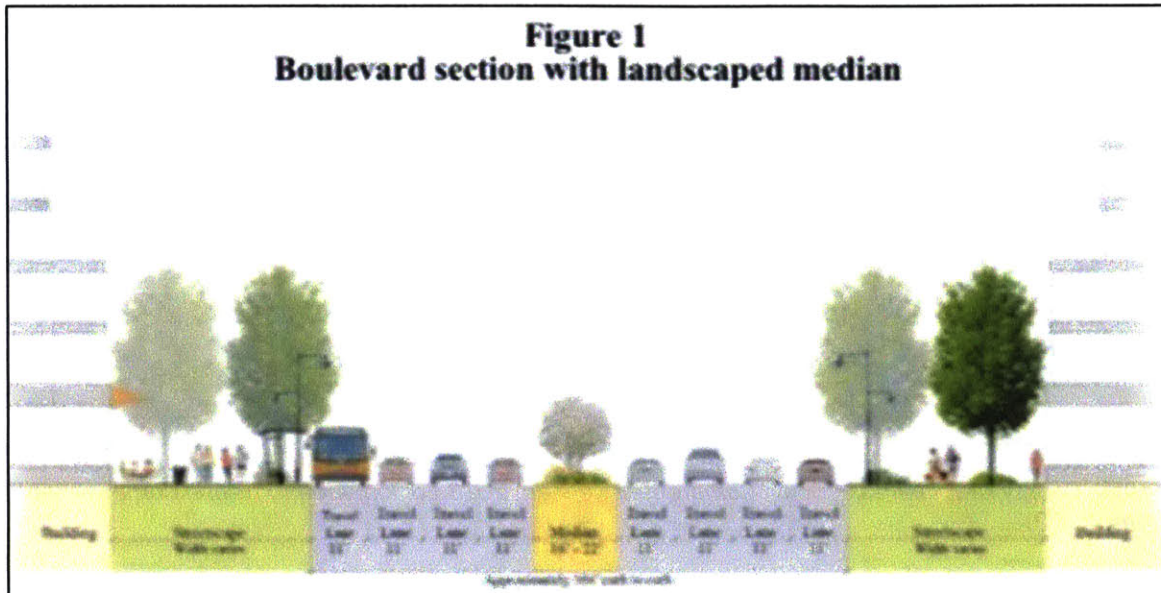
**Figure 9:** Guidelines for future street design of local streets in Tysons Corner (Source: Fairfax County DPZ, "Fairfax County Comprehensive Plan, 2013 Edition, Area II, Tysons Corner Urban Center, 55)



**Figure 10:** Guidelines for future street design of secondary (avenue) streets in Tysons Corner (Source: Fairfax County DPZ, “Fairfax County Comprehensive Plan, 2013 Edition, Area II, Tysons Corner Urban Center,” 52)

Interestingly, Fairfax County’s strategies to promote multimodal mobility in Tysons Corner somewhat avoid the major highways that dominate the area’s current transportation network. The conceptual map of Tysons Corner’s road network (Figure 7) shows a buffer between the new, denser street grid and both the Capital Beltway and the Dulles Toll Road. This is practical, although the Capital Beltway severs the McLean Silver Line station from the rest of the area in a way that greatly compromises pedestrian and bicycle mobility. The county has made greater efforts to transform its slightly smaller highways, Route 123 and Route 7 (shown in red as “boulevards”), into more urban thoroughfares by building the dense grid of local streets around them. Fairfax also hopes to make these routes more pedestrian friendly by constructing generous sidewalks and medians along them, in accordance to the design guidelines for boulevards (Figure 11). The comprehensive plan is less prescriptive when it comes to addressing the Silver Line’s elevated infrastructure along these routes.

Though this may change as the county recently held a design charette to address issues that the Silver Line stations pose for pedestrians and aesthetics<sup>13</sup>.



**Figure 11:** Guidelines for future street design of boulevards in Tysons Corner (Source: Fairfax County DPZ, “Fairfax County Comprehensive Plan, 2013 Edition, Tysons Corner Urban Center,” page 50)

All together, it is clear Fairfax’s County primary goal for the Silver Line is to promote urban, walkable, transit-oriented development in Tysons Corner as the district grows. These county goals align with the intentions laid out in the Final EIS by promoting economic vitality and quality of life. They also support mode-shift from automobiles to the Silver Line through transit-oriented land use strategies. Tysons Corner’s ambitious goal of TOD around elevated transit infrastructure that runs along highways, however, is relatively untested. It is possible that the county will be able to extract sufficient community benefits from developers to make the comprehensive plan work. Though Tysons Corner never had “good bones” for transit-oriented development with all of its highways, cloverleaf ramps, and parking lots. Now, a network of elevated Metrorail stations, tracks, and pedestrian bridges has been added to this concrete jungle. During the Tysons Tunnel debate, tunnel supporters argued that this additional elevated infrastructure would undermine the very type of development that Fairfax

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<sup>13</sup> Fairfax County Office of Community Revitalization, “Silver Line Under/Rail Design Charette,” Fairfax County, Virginia website, accessed March 14, 2015, [http://www.fcrevit.org/publications/download/SilverlineCharette\\_101614.pdf](http://www.fcrevit.org/publications/download/SilverlineCharette_101614.pdf).

County's comprehensive plan still hopes to achieve<sup>14</sup>. In this light, the following section provides an in-depth analysis of the Silver Line's current relationship to Tysons Corner and highlights areas where the concerns of Tysons Tunnel supporters are coming to fruition.

## THE SILVER LINE TODAY

The Silver Line today largely reflects the Locally Preferred Alternative (LPA) for Phase 1 that the Dulles Corridor Metrorail Project detailed in the Final EIS<sup>15</sup>. The existing Silver Line Phase 1 is an 11.6-mile extension of the Metrorail system that stems from the Orange Line's East Falls Church station, serves four stations in Tysons Corner, and terminates at Wiehle-Reston East station in Reston, Virginia (Figure 12). As discussed in the Case Study, the most significant change to the LPA after the Final EIS was the reduction of the short tunnel under the highest point in Tysons Corner, from 1.5-miles<sup>16</sup> in length to one half-mile in length<sup>17</sup>. The rest of the Tysons Corner section was original planned and ultimately constructed as elevated track. On average, the Silver Line's elevated track is approximately 36 feet high, with a maximum height of over 55 feet just east of McLean station<sup>18</sup>. The tunnel reduction also meant that Greensboro station was changed from a fully underground station to a partially underground station situated at the end of the short tunnel. Of note, both of these changes to the LPA were made before the Tysons Tunnel debate began. This means that the general route and design of the Silver Line today is exactly what decision-makers during the Tysons Tunnel decision should have expected.

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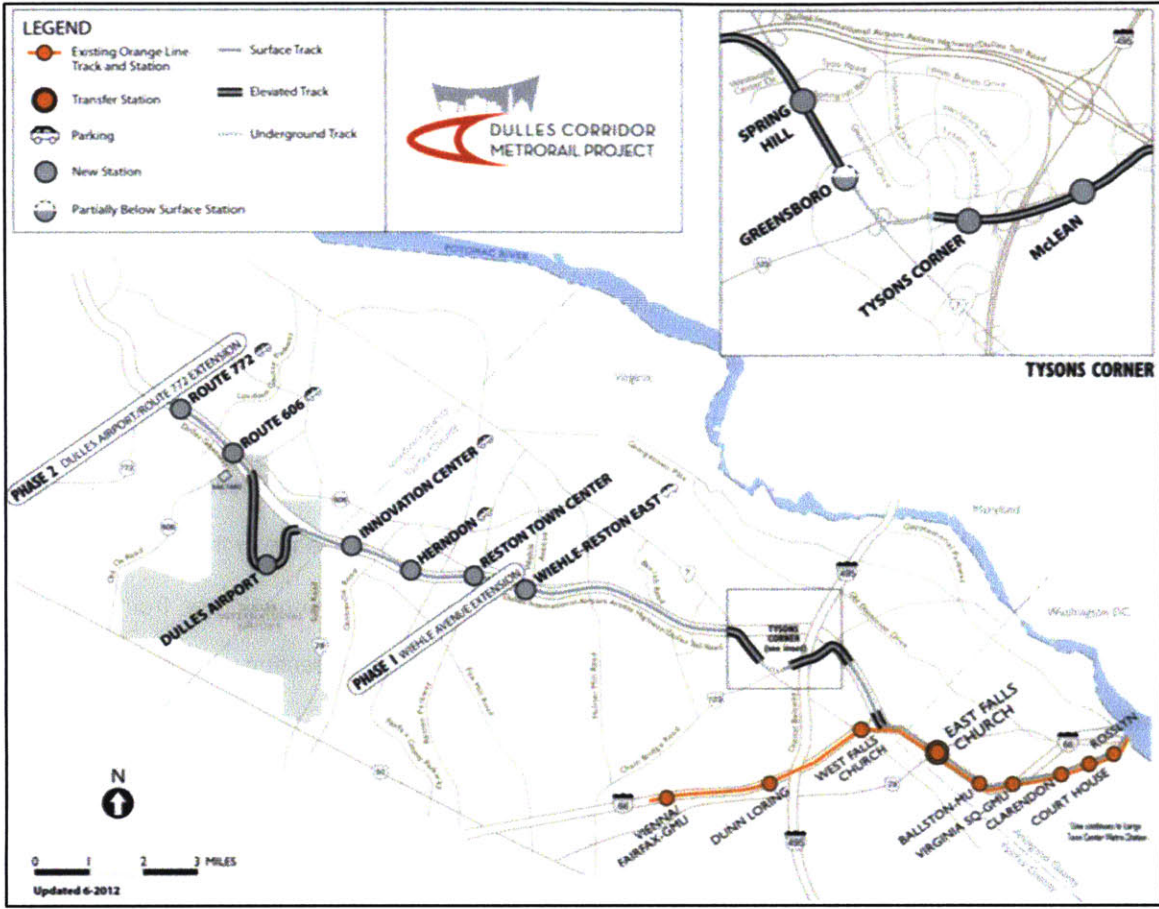
<sup>14</sup> MacGillis, Alec. "No Tunnel For Tysons, Kaine Says; Federal Concerns About Cost Prove Insurmountable." *The Washington Post*, September 7, 2006.

<sup>15</sup> Virginia DRPT and WMATA, "Final EIS Executive Summary", S-5.

<sup>16</sup> *Ibid.*, S-6.

<sup>17</sup> Metropolitan Washington Airports Authority, "Dulles Corridor Metrorail Project Timeline," Dulles Corridor Metrorail Project website, accessed October 19, 2014, [http://www.dullesmetro.com/silverline/assets/File/project\\_docs/Project%20History%20Update%20%20APCO%20-%202011.pdf](http://www.dullesmetro.com/silverline/assets/File/project_docs/Project%20History%20Update%20%20APCO%20-%202011.pdf).

<sup>18</sup> Metropolitan Washington Airports Authority, "Silver Line Stations," Dulles Corridor Metrorail Project website, accessed April 24, 2015, <http://www.dullesmetro.com/stations/>.



**Figure 12:** Existing (Phase 1, McLean through Wiehle-Reston East) and planned (Phase 2, Reston Town Center through Route 772) Silver Line stations (Source: MWA, "Silver Line Stations," Dulles Corridor Metrorail Project website.)

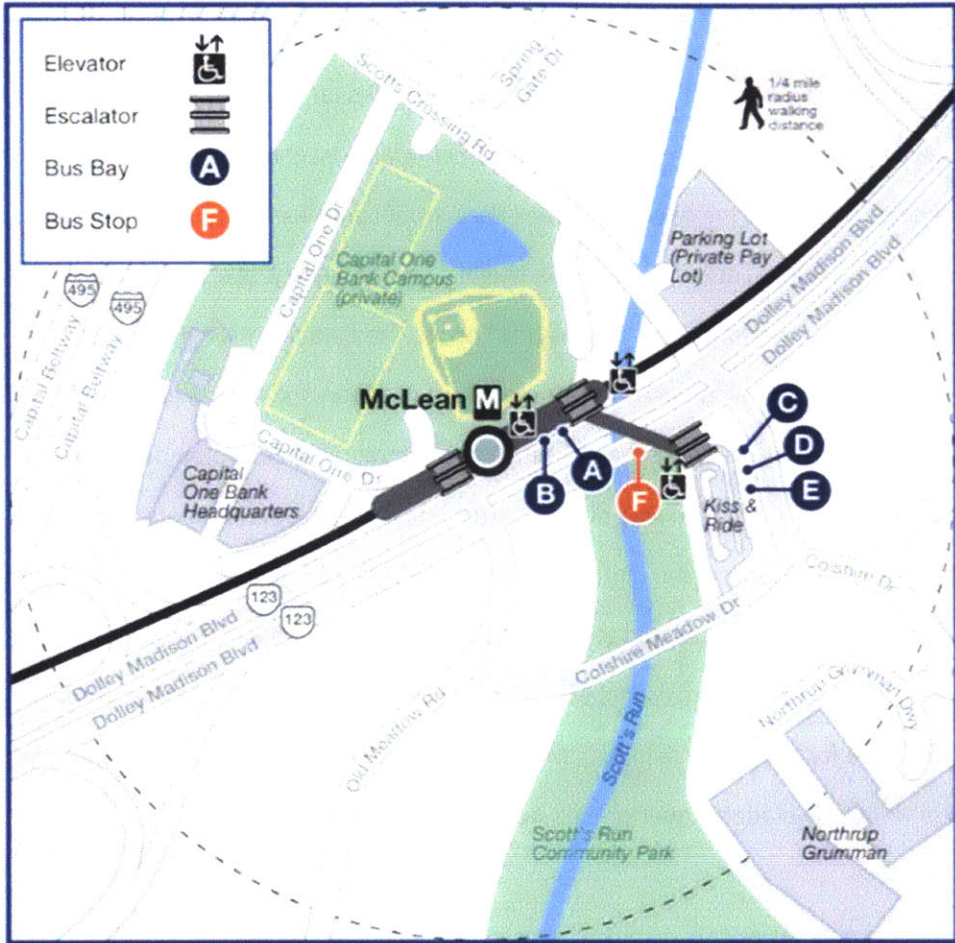
Such large route and design details are important to decision-makers, but the specifics of how the Silver Line actually looks, feels, and relates to its environment exert a powerful impact on Silver Line riders and the many people who live, work, and shop in Tysons Corner. Again, these details are generally in line with that decision-makers during the Tysons Tunnel debate should have expected, although they are more difficult to grasp in abstract or through visualizations. Below is a brief overview of the Silver Line's Tysons Corner section, covering the track, the four Tysons Corner stations, and the land surrounding these stations in order from east to west. The terminal Silver Line station of Wiehle-Reston East is excluded from this discussion since it is located approximately six miles outside of Tysons Corner.

## *MCLEAN STATION*

McLean station is the first station after the Silver Line branches off from the Orange Line's East Falls Church station. East Falls Church is an at-grade station while McLean is the highest elevated station in Tysons Corner, so the Silver Line track rises significantly as it approaches McLean. As previously mentioned, the track reaches a maximum height of over 55 feet just east of McLean station. On average the McLean platform is 44 feet high<sup>19</sup>. The elevated station is located alongside Route 123 – a major road through Tysons with four lanes in each direction and limited crosswalks. Because Route 123 is so uninviting for pedestrians, Metro has constructed an elevated pedestrian bridge from McLean station to the opposite side of the highway. However, the elevated station, track, and pedestrian infrastructure only add to the uninviting nature of Route 123. The pedestrian bridge, in particular, precludes the improvements needed to Route 123's street-level pedestrian infrastructure now that it houses a Metrorail station. Finally, McLean station is also just east of the Capital Beltway, an insurmountable obstacle for pedestrians. In fact, Metro's station area map for McLean shows that the Capital Beltway is within the station's quarter-mile walkshed (Figure 13).

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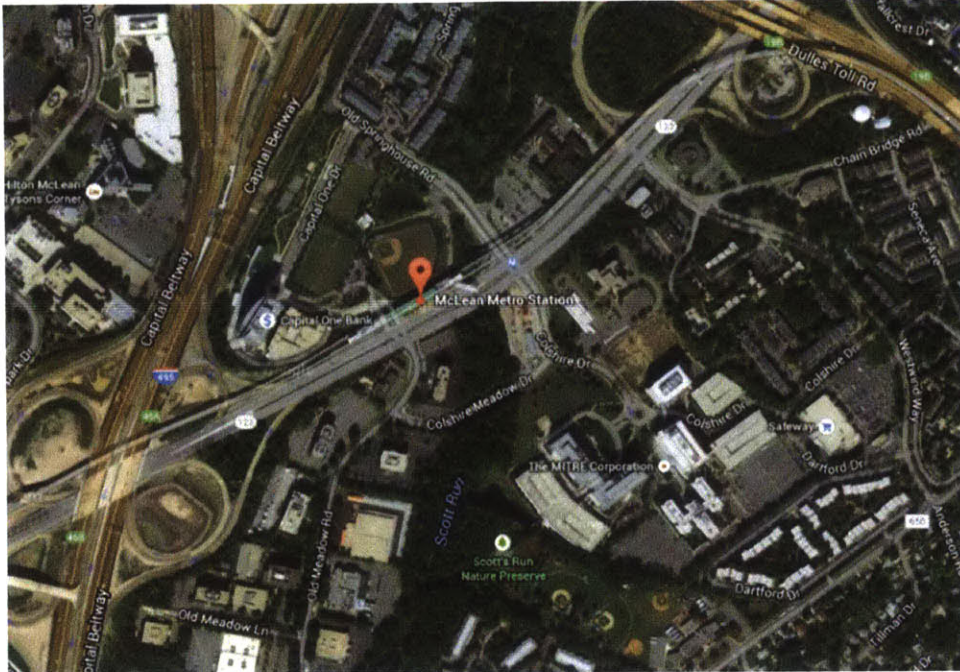
<sup>19</sup> Metropolitan Washington Airports Authority, "Silver Line Stations, McLean," Dulles Corridor Metrorail Project website, accessed April 24, 2015, <http://www.dullesmetro.com/silver-line-stations/mclean/>.



**Figure 13:** Map of the McLean station area (Source: Washington Metropolitan Area Transit Authority, "McLean," Silver Line website, accessed April 25, 2015, [http://silverlinemetro.com/mclean/.](http://silverlinemetro.com/mclean/))

The map also shows that the McLean station area is far from a dense, walkable urban environment. Building footprints cover only a small percentage of the quarter-mile walkshed, meaning there are a few destinations for transit users and pedestrians. Further, the sprawling and poorly connected road network amplifies walking distances to these few destinations. These patterns hold true beyond the quarter-mile walkshed, as demonstrated by Google Maps satellite imagery for the area (Figure 14).





**Figure 14:** Google Maps satellite imagery of the McLean station area (Source: Google Maps, accessed April 24, 2015.)

### *TYSONS CORNER STATION*

The elevated Silver Line track continues west along Route 123 to Tysons Corner station, which is also elevated at an average height of 33 feet<sup>20</sup>. Like McLean station, Tysons Corner station is located on the shoulder Route 123, but just west of the Capital Beltway. Metro's map of the Tysons Corner station area shows the station provides easy access to two major destinations – the Tysons Corner Center and the Tysons Galleria malls (Figure 15). Google Maps satellite imagery illustrates that the area around the Tysons Corner station is relatively denser than the area around McLean station (Figure 16), although much of this density is comprised of indoor malls and office parks. The street network is slightly denser and better connected, but the large block sizes still favor driving over walking.

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<sup>20</sup> Metropolitan Washington Airports Authority, "Silver Line Stations, Tysons Corner," Dulles Corridor Metrorail Project website, accessed April 24, 2015, <http://www.dullesmetro.com/silver-line-stations/tysons-corner/>.

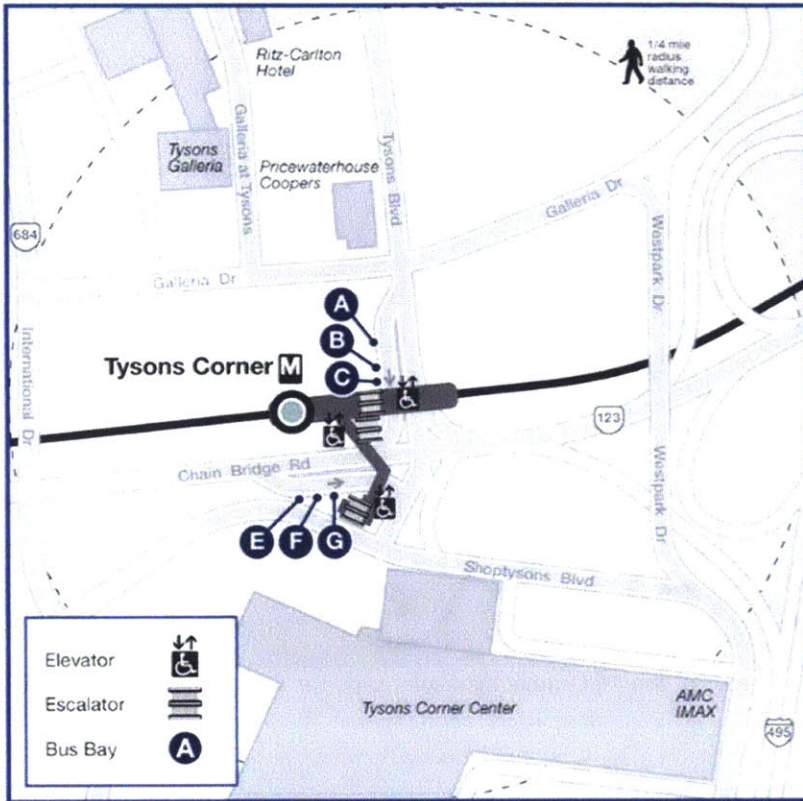


Figure 15: Map of the Tysons Corner station area (Source: Washington Metropolitan Area Transit Authority, "Tysons Corner," Silver Line website, accessed April 25, 2015, <http://silverlinemetro.com/tysons-corner/>.)

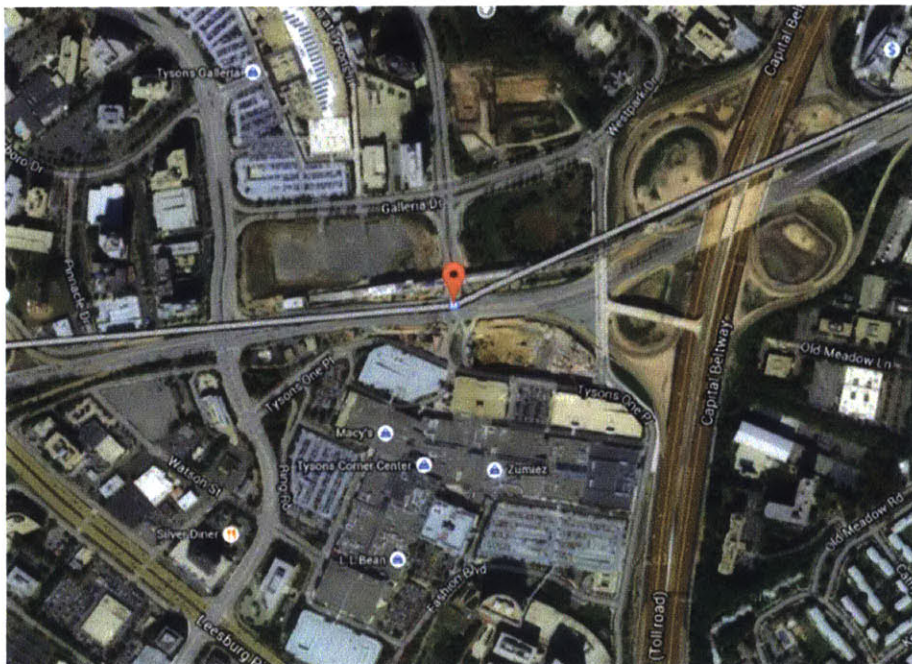
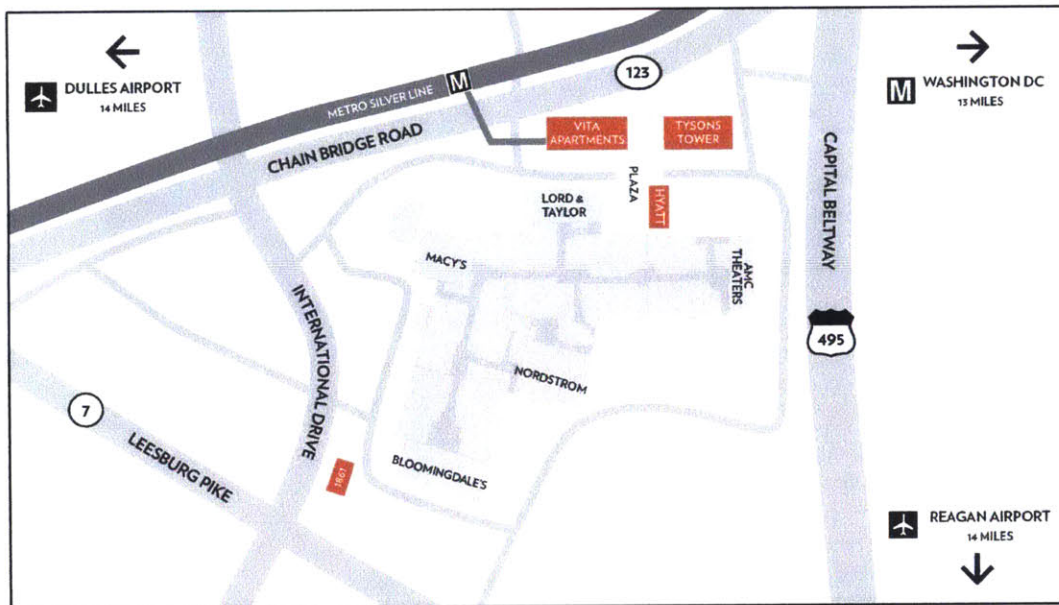


Figure 16: Google Maps satellite imagery of the Tysons Corner station area (Source: Google Maps, accessed April 24, 2015)

Of important note, Google Maps satellite imagery also demonstrates how quickly development is happening in this area. Just south of Route 123, between the Metrorail station and the Tysons Corner Center mall, the owners of Tysons Corner Center have recently constructed a new office tower (Tysons Tower), residential tower (VITA Apartments), and hotel (Hyatt Regency) – all of which overlook an elevated plaza (“The Plaza”) that connects to the mall<sup>21</sup> (Figure 17). This complex of new development is a brown construction site in the Google Maps satellite imagery, even though this same imagery shows significant progress on Silver line track and station construction. As of spring 2015, the complex is almost entirely built out (see Figures 18 and 19), the Tysons Tower is leasing<sup>22</sup>, and the Hyatt is open to visitors<sup>23</sup>.



**Figure 17:** New development adjacent by the owners of Tysons Corner Center (Source: Tysons Corner Center, “About Tysons Corner Center.”)

<sup>21</sup> Tysons Corner Center, “About Tysons Corner Center,” Tysons Corner Center website, accessed April 24, 2015, <http://www.tysonscornercenter.com/About#development>.

<sup>22</sup> Tysons Corner Center, “Work: Tysons Tower,” Tysons Corner Center website, accessed April 24, 2015, <http://www.tysonscornercenter.com/Work/TysonTower>.

<sup>23</sup> Tysons Corner Center, “Visit: Hyatt Regency,” Tysons Corner Center website, accessed April 24, 2015, <http://www.tysonscornercenter.com/Visit/HyattRegency>.



**Figure 18:** New development at Tysons Corner Center: VITA Apartments (left) and the Tysons Tower (right) both look onto The Plaza



*Figure 19: New development at Tysons Corner Center: Hyatt Regency (left) opens onto The Plaza, which connects directly to the Tysons Corner Center mall entrance (center)*

As an important caveat, this type of dense, transit-oriented development has not been widespread around Tysons Corner station. For example, the two lots directly north of the Tysons Corner station currently house a concrete lot and unprogrammed green space (Figures 20 and 21, respectively). However, cranes and building frames dotting the horizon provide physical evidence that development interest in the area is high (Figure 21) and that the landscape is changing.



Figure 20: A concrete lot immediately northwest of Tysons Corner station

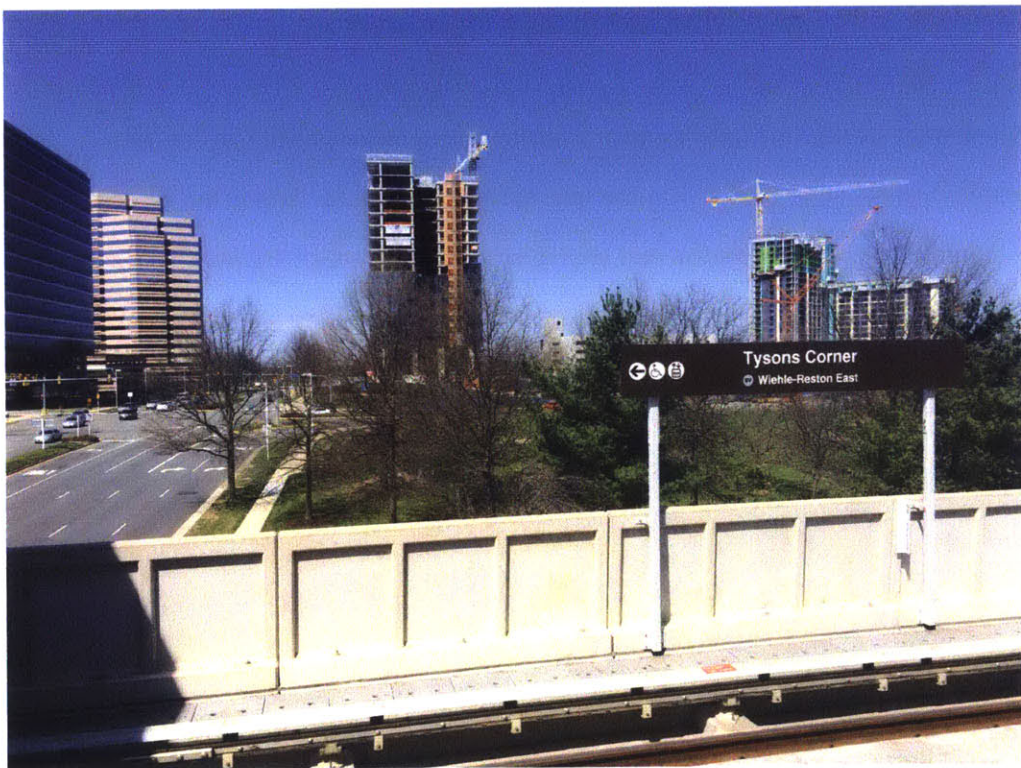


Figure 21: Unprogrammed green space immediately northeast of Tysons Corner station

Despite the new development, the elevated Tysons Corner station still does not interact well with the street-level environment. Figure 22 shows that the station is situated on top of a major intersection with limited street-level pedestrian facilities and no crosswalks. Again, Metro's decision to construct a pedestrian bridge across Route 123 here (visible on the left-hand side of Figure 22) precludes needed street-level pedestrian improvements and future street activity.



**Figure 22:** View of Tysons Corner station from the opposite end of the area's pedestrian bridge system (near The Plaza at Tysons Corner Center)

Moreover, Tysons Corner Center has extended Metro's pedestrian bridge by constructing another (publicly accessible) bridge that connects Metro's bridge to The Plaza and the Tysons Corner Center mall (Figures 23 and 24). As shown in Figure 24, The Plaza itself is elevated over ShopTysons Boulevard. This creates a whole network of elevated pedestrian infrastructure between the station and the Tysons Corner Center that is totally removed from the street. Since the Tysons Corner Center is a major shopping destination and The Plaza is a newly popular amenity (Figure 25), the elevated

pedestrian network appears to quite well utilized (Figure 26). However, it remains to be seen whether this small network of elevated pedestrian infrastructure can overcome the significant shortcomings of the street-level pedestrian environment in this area. This appears doubtful, as it would require a massive amount of connected infrastructure.



**Figure 23:** View of the pedestrian bridge system that extends from Tysons Corner station to The Plaza at Tysons Corner Center, taken from the station platform





*Figure 24: View of the extended pedestrian bridge system between the Tysons Corner station, The Plaza, and the Tysons Corner Center mall. The Plaza (center) is shown elevated above ShopTysons Boulevard.*



*Figure 25: People enjoying lunch and a playground on The Plaza at Tysons Corner Center (photo taken around noon on Monday, April 6, 2015)*



**Figure 26:** Pedestrians on the extended pedestrian bridge from Tysons Corner station to the Tysons Corner Center mall during off-peak hours (photo taken around noon on Monday, April 6, 2015)

## GREENSBORO STATION

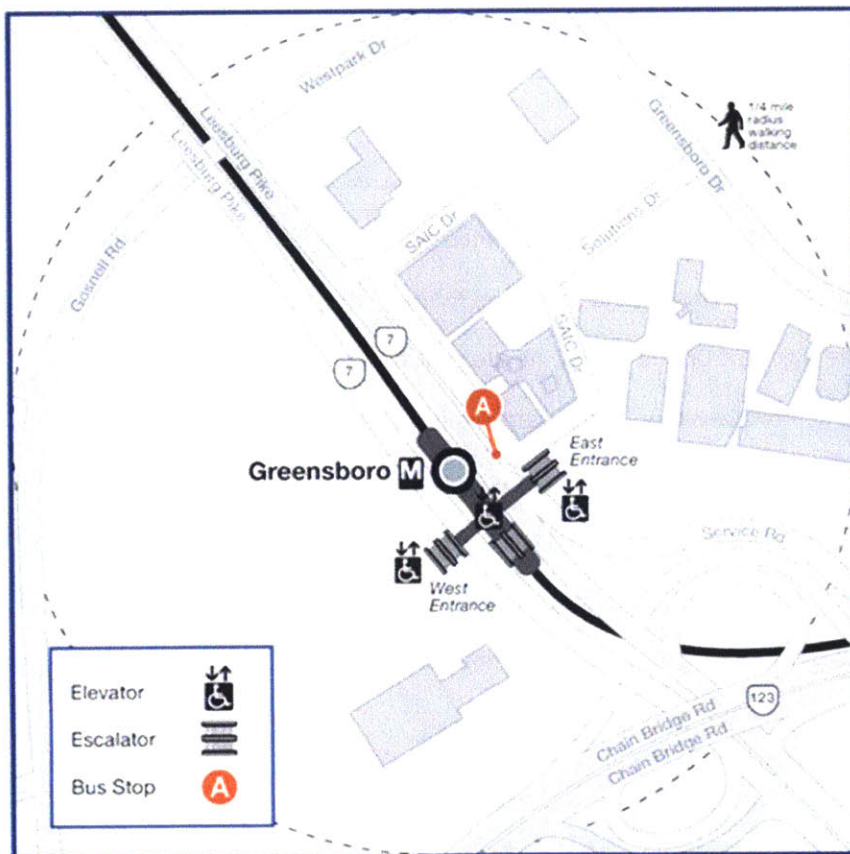
After Tysons Corner station the Silver Line enters the half-mile tunnel under the highest point in Tysons Corner. Greensboro station lies at the opposite end of this tunnel. The station is partially underground, though the average platform height is one foot, or essentially at-grade<sup>24</sup>. The station is located in the median of Route 7 (Leesburg Pike) so, despite the at-grade design, riders access or exit the station from two pedestrian bridges that extend from the station's upper-level mezzanine (22-feet

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<sup>24</sup> Metropolitan Washington Airports Authority, "Silver Line Stations, Greensboro," Dulles Corridor Metrorail Project website, accessed April 24, 2015, <http://www.dullesmetro.com/silver-line-stations/greensboro/>.

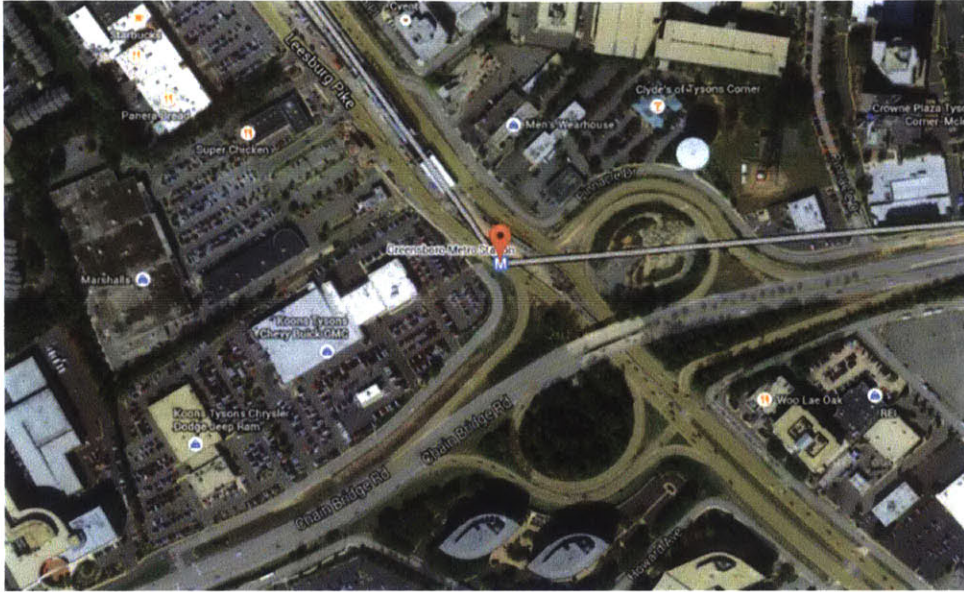
high) to either side of Route 7<sup>25</sup>. Much like Route 123, Route 7 is a major road with three lanes in each direction and limited street-level pedestrian infrastructure and crosswalks. The construction of a pedestrian bridge over route 7 instead of a crosswalk indicates that is unlikely to change now that the Silver Line is complete.

Metro's station area map for Greensboro shows that development in the area is currently sparse and the street network is very spread out and poorly connected (Figure 27). Google Maps satellite imagery confirms that the only amenities in the area are car dealerships and strip malls surrounded by vast parking lots (Figure 28). The Silver Line appears to have had a minimal impact on development in this station area so far. On the whole, this stretch of Route 7 remains extremely car-oriented and offers limited services to transit riders or pedestrians.



**Figure 27:** Map of Greensboro station area (Source: Washington Metropolitan Area Transit Authority, “Greensboro,” Silver Line website, accessed April 25, 2015, <http://silverlinemetro.com/greensboro/>.)

<sup>25</sup> Ibid.



**Figure 28:** Google Maps satellite imagery of the Greensboro station area (Source: Google Maps, accessed April 24, 2015.)

### SPRING HILL STATION

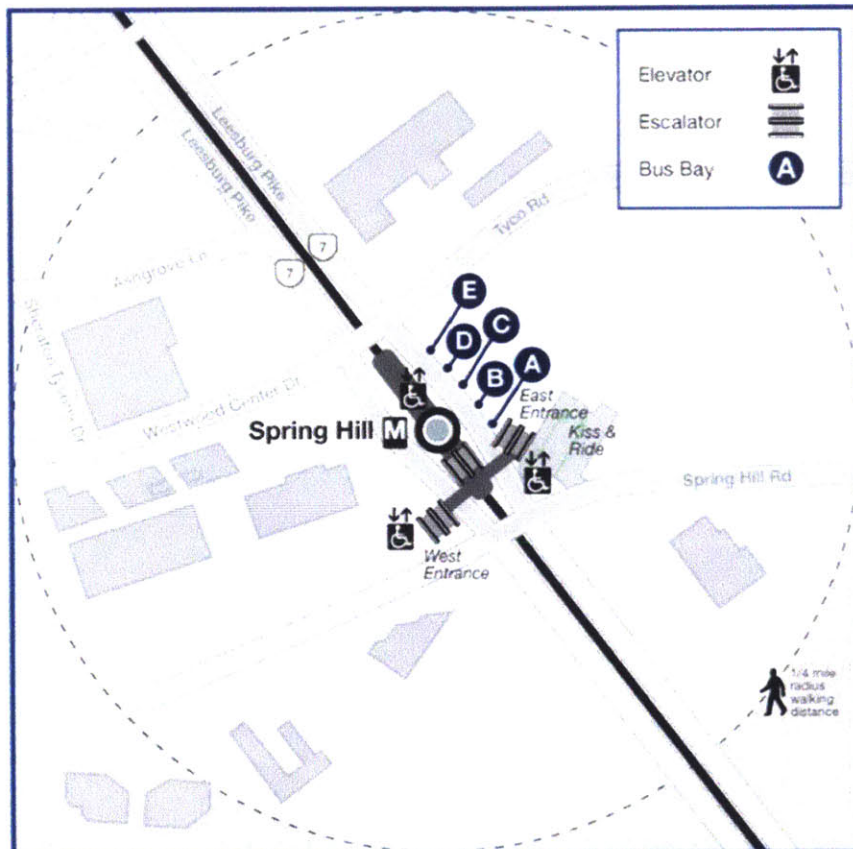
The Silver Line tracks ascend again after Greensboro station, as the Metrorail line continues down the median of Route 7 to Spring Hill station. This elevated station has an average platform height of 50 feet<sup>26</sup>. Spring Hill station is also in the median of Route 7 and has two pedestrian extending to either side of the highway. On the whole, the area surrounding Spring Hill station is similar to that of Greensboro station. Development is sparse, although the street network is slightly more dense and connected around Spring Hill relative to Greensboro (Figure 29). Most of the development is comprised of car dealerships and strip malls surrounded by extensive parking lots (Figure 30). A photo taken from the Spring Hill platform demonstrates how transit riders look out on to a Porsche dealership and the large parking lot of a new Walmart, which opened in August 2013

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<sup>26</sup> Metropolitan Washington Airports Authority, "Silver Line Stations, Spring Hill," Dulles Corridor Metrorail Project website, accessed April 24, 2015, <http://www.dullesmetro.com/silver-line-stations/spring-hill/>.

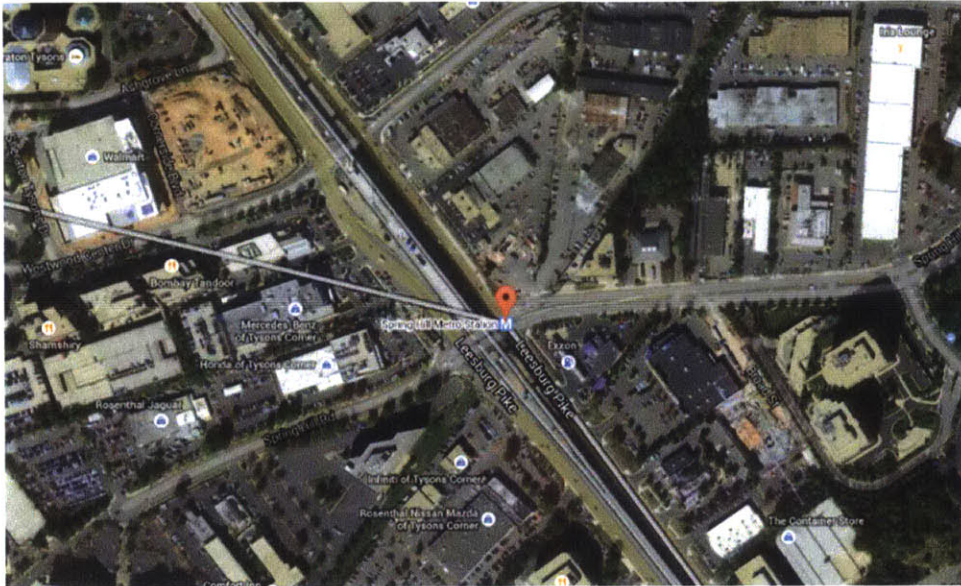
(Figure 31)<sup>27</sup>. Similar to Greensboro, the area around Spring Hill remains very car-centric and suburban with little indication of change due to the Silver Line.

Beyond Spring Hill, the elevated Silver Line runs north until it meets the Dulles Toll Road. It then continues at-grade along the median of Dulles Toll Road until the Phase 1 terminal station of Wiehle-Reston East.



**Figure 29:** Map of Spring Hill station area (Source: Washington Metropolitan Area Transit Authority, “Spring Hill,” Silver Line website, accessed April 25, 2015, <http://silverlinemetro.com/spring-hill/>.)

<sup>27</sup> Ethan Levine, “Tysons Walmart Grand Opening Set for Aug. 14: Plans for the Tysons Walmart’s grand opening are still in development, officials said,” *Vienna Patch*, August 10, 2013, accessed April 25, 2015, <http://patch.com/virginia/vienna/tysons-walmart-grand-opening-set-for-aug-14>.



**Figure 30:** Google Maps satellite imagery of the Spring Hill station area (Source: Google Maps, accessed April 24, 2015.)



**Figure 31:** View from the Spring Hill station platform, looking onto a Porsche dealership (right) and a new Walmart (left)

## SUMMARY

Tysons Corner in 2015, overall, remains an auto-oriented, suburban community. Development around stations is relatively low density and comes with generous parking lots. Land use is

predominately office and retail. The street network is made of sprawling highways, large blocks, a poorly connected grid, and minimal pedestrian infrastructure. This is not surprising as such change occurs slowly. The few changes that have occurred, however, are somewhat concerning in that they may undermine Tysons Corner's goal of becoming an urban, transit-oriented district – validating the concerns of Tysons Tunnel supporters.

Most importantly, the pedestrian bridges at all four Silver Line stations send a clear message to pedestrians and transit users: do not walk on the streets below. This undermines Fairfax County's aspirations to transform Route 123 and Route 7 into urban boulevards with wide sidewalks, planting, and medians for pedestrian crossings. The county's design guidelines for these boulevards do not speak to the elevated Silver Line stations or the pedestrian bridges, although the county was surely aware of these factors. Considering that the Silver Line stations are intended to be the core of new transit-oriented development in Tysons Corner, this seems like a significant oversight and raises questions about the feasibility of Fairfax County's plans. Moreover, the pedestrian bridges accommodate the current high-speeds of these highways and, therefore, will likely preclude any street-level pedestrian improvements. Tysons Corner station exemplifies this concern – the intersections underneath pedestrian bridges built by Metro and Tysons Corner Center lack crosswalks and have only limited sidewalks.

The nature of new development in Tysons Corner also raises some concerns about the consequences of elevated infrastructure. The new development at Tysons Corner Center certainly adds value to the public realm, but The Plaza is both elevated and surrounded by a circle of buildings. The new development's frontage onto Route 123 and Tysons Corner station is a sheer wall with some service functions (Figure 32). This indicates that developers do not consider the Silver Line corridor along routes 123 and 7 to be a welcoming environment for anything but cars. This is of course not all the fault of the Silver Line, but the fact remains that the Silver Line's elevated design is not changing the status quo in Tysons Corner so far. Indeed, a review of development proposals for the entire area shows that many include significant setbacks, interior public spaces and focal points, and generous

parking<sup>28</sup> -- indicating that the desire to orient new development away from the Silver Line corridor is common. So, the Silver Line is prompting development close to transit, but development that has its back oriented towards transit.



**Figure 32:** The façade of new development at Tysons Corner Center, as seen from Route 123 and Tysons Corner station

These concerns have yet to develop into full-blown problems, but there is ample evidence to suggest that these and other issues with the Silver Line’s elevated design will continue to undermine Tysons Corner’s TOD goals. The following section explores how TOD best practices and comparative case studies apply to these concerns and finds that the decision to elevate the Silver Line will likely have enduring consequences for the area.

## TRANSIT-ORIENTED DEVELOPMENT (TOD) PRINCIPLES

The ubiquity of TOD in urban revitalization plans means that a large and growing literature on its best practices has emerged. Unfortunately, Fairfax County is not in reasonable alignment with

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<sup>28</sup> Fairfax County, “Tysons Development Activity,” Fairfax County, Virginia website, accessed April 25, 2015, <http://www.fairfaxcounty.gov/tysons/development/>.



these best practices. The relationship between transportation and land use has long been evaluated by the “three Ds” – density, diversity, and design<sup>29</sup>. The “three Ds” eventually grew into the “six Ds” when destination accessibility, distance to transit, and demand management were added<sup>30</sup>. TOD practitioners have largely adopted these metrics<sup>31</sup> since TOD, at its core, is a model for how to relate transportation and land use. Briefly, the six D’s translate into the following TOD principles, or best practices<sup>32</sup>:

- High densities of jobs, dwelling units, population and/or building floor area
- High diversity of land uses and housing types
- Urban design that operates at a human scale and is safe and comfortable for pedestrians and bicyclists
- Major destinations that are accessible by walking and transit
- Walking distances to transit that are minimized by tight, well-connected street grids
- Transportation demand management measures that discourage unnecessary automobile trips

Fairfax County’s comprehensive plan addresses several of these best practices – notably, the density, diversity, and distance principles – but the Silver Line seriously undermines the design principle by adding super-human infrastructure and by diverting pedestrians away from the area’s primary corridors.

A TransLink primer on transit-oriented communities emphasizes the importance of the design principle, stating: “an attractive, engaging, and well-designed public realm that invites walking and cycling is critical to success.<sup>33</sup>” The Silver Line’s elevated infrastructure and pedestrian bridges alongside the many lanes of routes 123 and 7 do just the opposite – they repel pedestrians and cyclists from these major corridors. In fact, the Silver Line corridor along routes 123 and 7 fits the definition of automobile-oriented areas, which TransLink characterizes as “a public realm that prioritizes high speed vehicle movement.<sup>34</sup>” The Silver Line’s pedestrian bridges may directly be for pedestrians, but indirectly they allow routes 123 and 7 to continue as high-speed, automobile-centric

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<sup>29</sup> Reid Ewing and Robert Cervero, “Travel and the Built Environment,” *Journal of the American Planning Association* 76 no. 3 (2010): 267.

<sup>30</sup> *Ibid.*, 267

<sup>31</sup> TransLink, “Transit-Oriented Communities: A Primer on Key Concepts,” 4.

<sup>32</sup> *Ibid.*, 4.

<sup>33</sup> *Ibid.*, 8.

<sup>34</sup> *Ibid.*, 8.

roads. Though Fairfax County hopes to eventually build new, local streets with TOD design principles, the Silver Line corridor along routes 123 and 7 will always provide essential connections between virtually every part of Tysons Tunnel. Indications that the Silver Line has only made these route more uninviting is, therefore, highly problematic for pedestrians, bicyclists, and transit-users traveling within Tysons Corner.

While Fairfax County's efforts towards promoting other TOD principles – such as density and diversity – are important, design shortcomings are particularly problematic because urban design is a relatively permanent component of the TOD best practices<sup>35</sup> – and is even more permanent at this large of a scale. Density and diversity are generally tied to cycles in real estate and the economy and, therefore, are relatively fluid and experience turnover. The decision to elevate the Silver Line was closer to a once-in-a-lifetime decision; and Tysons Corner must live with it for many decades. Thus, Tysons Corner's pursuit of TOD adheres to best practices in many ways, but fails in one major and inflexible way.

The potential consequences of the Silver Line's design shortcomings for TOD in Tysons Corner are extensive. A recent article in The Transport Politic does a job summarizing how this one shortcoming impacts all of Tysons Corner's efforts to promote TOD:

*“What is true is that the project is producing major new real estate projects near the four stations planned for the business district. The availability of excellent transit service will undoubtedly increase the number of people taking the train to and from work. Yet the manner in which the rail line was constructed – elevated, in the median of large roads – and the existing built environment should put into question whether Tysons will ever become the sort of “livable” downtown for which new urbanists articulate the need<sup>36</sup>.”*

Essentially, Tysons Corner will do no doubt see some results in the vein of more development and commuting via transit, but given the Silver Line's elevation it is unlikely that these results will resemble the type of TOD that Fairfax County envisions.

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<sup>35</sup> TransLink, “Transit-Oriented Communities: A Primer on Key Concepts,” 5.

<sup>36</sup> Yonah Freemark, “What kind of TOD can occur around Dulles Metro?” *The Transport Politic*, August 4, 2014, accessed October 8, 2014, <http://www.thetransportpolitic.com/2014/08/04/what-kind-of-tod-can-occur-around-dulles-metro/>.

## LESSONS FROM THE ORANGE LINE

Perhaps the most obvious evidence for why the Silver Line's elevated design undermines Tysons Corner's TOD goal is found not too far away in neighboring Arlington County, Virginia. There, Metro's Orange Line serves five Metrorail stations in the Rosslyn-Ballston corridor. This corridor is universally heralded as a textbook example of successful TOD. Reconnecting America's *TOD 101* report identifies the Rosslyn-Ballston corridor as one of two exemplary TOD case studies<sup>37</sup>. Similarly, the U.S. Environmental Protection Agency's report, *Smart Growth: A Guide to Developing and Implementing Greenhouse Gas Reductions Program*, profiles the Orange Line corridor, calling Arlington County "a nationally-recognized leader in smart growth and TOD."<sup>38</sup> There was even a movie made about the Orange Line corridor's TOD success. Released in 2009, the movie is titled *Arlington's Smart Growth Journey*.<sup>39</sup>

These profiles all tell the same tale. When Metro was planning the original Metrorail system in the 1960s and 1970s, Arlington County lobbied hard to have the Orange Line run underground through their main commercial corridor, now the Rosslyn-Ballston corridor<sup>40</sup>. Interestingly, Metro initially leaned towards constructing the Orange Line along the median of I-66, which runs parallel to the Rosslyn-Ballston corridor. Arlington County, however, was adamant that the Orange Line run belowground through the corridor, stating that the "freeway's alignment through Arlington did not suit the county's future land use plans<sup>41</sup>." Arlington County's advocacy was so strong and unfaltering that Metro dropped the freeway alignment entirely and advanced plans for an underground Orange Line<sup>42</sup>.

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<sup>37</sup> Reconnecting America, "TOD 101: Why Transit-Oriented Development And Why Now," 13.

<sup>38</sup> U.S. Environmental Protection Agency, 2011, "Smart Growth: A Guide to Developing and Implementing Greenhouse Gas Reductions Programs," U.S. EPA State and Local Climate and Energy Program website, accessed November 17, 2014, [http://www.epa.gov/statelocalclimate/documents/pdf/sm\\_growth\\_guide.pdf](http://www.epa.gov/statelocalclimate/documents/pdf/sm_growth_guide.pdf), 26.

<sup>39</sup> Steve Davis, 2009, "Arlington, Virginia's story of smart growth: The movie," Smart Growth America, accessed April 25, 2015, <http://www.smartgrowthamerica.org/2009/05/08/arlington-virginias-story-of-smart-growth-the-movie/>.

<sup>40</sup> Ibid.

<sup>41</sup> Zachary M. Schrag, *The Great Society Subway: A History of the Washington Metro* (Baltimore: Johns Hopkins University Press, 2006), 224.

<sup>42</sup> Ibid., 224

The rest is history. Arlington County launched a comprehensive planning process for the corridor with significant public engagement. The result was a program that increased density around stations, promoted mixed-uses, and set guidelines for station area design and public amenities. Of note, Arlington County took great care to develop each station area's unique urban character, which contributes to diversity in the corridor<sup>43</sup>. The plan has been an astounding success. Development around the stations has been enormous and concentrated – the core of the corridor is estimated to cover eight percent of county land but generate a third of county revenues<sup>44</sup>. There is a high diversity of land uses, with an especially high diversity of housing options<sup>45</sup>. Finally, about half of Arlington County residents currently take transit to work while automobile traffic has risen only modestly over several decades.

By all measures, Arlington County's TOD efforts have been an extraordinary success. On the whole, Arlington County's approach resembles the strategies and goals in Fairfax County's comprehensive plan. However, so much of Arlington County's success has been predicated on its determination to route the Orange Line underground through the Rosslyn-Ballston corridor. Arlington County understood that its goals for this corridor were not compatible with an at-grade Metrorail Line running along the median of a major highway. Fairfax County officials during the Tysons Tunnel debate had the opportunity to completely recreate the Orange Line's success, but instead chose to pursue this model while skipping the crucial first step of fighting for underground transit.

Some may argue that the Orange Line corridor's success cannot be directly attributed to the decision to build Metrorail underground – although it is widely accepted that regardless of design the Orange Line was the agent of change<sup>46</sup>. Admittedly, direct causality between the Orange Line's design and the Rosslyn-Ballston corridor's success is difficult to prove. Still, the Orange Line's story offers compelling empirical evidence that underground alignments do foster successful transit-oriented communities. And as far as comparisons go, the context of the Orange Line is very similar to that of

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<sup>43</sup> U.S. EPA, "Smart Growth: A Guide to Developing and Implementing Greenhouse Gas Reductions Programs," 26.

<sup>44</sup> Reconnecting America, "TOD 101: Why Transit-Oriented Development And Why Now," 13.

<sup>45</sup> *Ibid.*, 13

<sup>46</sup> Davis, "Arlington, Virginia's story of smart growth: The movie."

the Silver Line. Following the proven model of a neighbor certainly would not have been a naïve choice for Silver Line project partners. Finally, if the proven success of underground infrastructure is not enough, there are compelling examples of how elevated infrastructure has deterred development and led to urban decay; these are discussed further in the section below.

## **TWO SIDES OF THE SAME COIN: NEGATIVE IMPACTS OF ELEVATED INFRASTRUCTURE**

Elevated transit infrastructure in the United States has a long and complicated history. At the risk of oversimplifying, much of this elevated infrastructure has either degraded the surrounding area or required intervention from municipalities in order to prevent such degradation. Gordon Hansen (MIT Master in City Planning 2009) offers a detailed analysis of the American experience with elevated railways in his master's thesis, focusing on the cities of Boston, Chicago, and Philadelphia. While each city's experience was unique and context-dependent, Hansen does find that the foreseen negative impacts of elevated railways – such as noise, shadow, and other disturbances – ultimately decreased land and building values along the rail lines in all three cities. In many cases, the elevated railways became a symbol of blight. Each city responded to these problems differently – Boston deconstructed its elevated rail lines, Chicago launched a citywide campaign to reclaim the image of its “L”, and Philadelphia embarked on focused revitalization projects<sup>47</sup>. Despite recent improvements in Chicago and Philadelphia, in all cases the experience of the elevated rail lines was initially inhospitable.

While Hansen's thesis focuses on a different time in United States history, the lessons are still important for elevated transit today. Hansen writes that even though technology has advanced considerably a stigma remains against elevated rail lines that threatens these projects. To counter this Hansen offers a series of recommendations for how to enliven elevated rail projects, but the important indication here is that elevated rail projects create urban design problems that need to be negated.

The negative impacts of elevated rail lines are especially significant to the Silver Line and Tysons Corner's TOD goals, but the negative impacts of elevated highways in urban communities is

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<sup>47</sup> Gordon Hansen, 2009, “The experience and image of American elevated railways: rapid transit infrastructure in the urban consciousness,” Thesis (Master of City Planning), Massachusetts Institute of Technology, Department of Urban Studies and Planning, 98-105.

also relevant here. Elevated highways are notorious for degrading the public realm, creating an inhospitable pedestrian environment, and repelling both residential and commercial land uses. The negative effect is such that cities have started taking major action to remove urban, elevated highways in an effort to revitalize these struggling areas. The most well known example is Boston's Big Dig, in which the city replaced a six-lane elevated highway with a large, underground highway directly beneath the old road. The old highway had been experiencing dire congestion, but its elevated infrastructure was also harming the economic vitality of Boston's North End and waterfront neighborhoods<sup>48</sup>. Much like the Silver Line, the project encountered controversy with its management and large cost overruns, prompting public turmoil. However, now that the project is complete the public is largely in awe of the Big Dig's transformative effect on Boston's downtown, which opened up high-value land for development and open space<sup>49</sup>. For example, in a 2015 Boston.com article, a local resident had the following to say about the city's expensive effort to relocate this elevated infrastructure underground: "Were the complications worth the result? Absolutely. Ten-fold."<sup>50</sup>

A similar but smaller-scale example of a detrimental elevated highway can be found in nearby Somerville, Massachusetts. There, the city and state are currently working to de-elevate McGrath Highway in an effort to promote connectivity and TOD in the area, which will soon be served by an extension of Boston's Green Line light rail transit line<sup>51</sup>. The current elevated highway has fostered homogenous industrial development as well as unsafe and incomplete pedestrian infrastructure in the surrounding area. The City of Somerville is hopeful that the de-elevation of McGrath Highway, along with the Green Line extension, will enable TOD in the surrounding neighborhoods. Unlike the Big Dig, the results of de-elevating McGrath Highway have yet to be seen; however, the important takeaway in

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<sup>48</sup> Massachusetts Department of Transportation, "The Big Dig," MassDOT Highway Division website, accessed April 26, 2015,

<http://www.massdot.state.ma.us/highway/TheBigDig/ProjectBackground.aspx>.

<sup>49</sup> Justine Hofherr, "Can We Talk Rationally about the Big Dig Yet?" *Boston.com*, January 5, 2015, accessed April 26, 2015, <http://www.boston.com/cars/news-and-reviews/2015/01/05/can-talk-rationally-about-the-big-dig-yet/OBPodDnIbNtsTEPFfc4i10/story.html>.

<sup>50</sup> Ibid.

<sup>51</sup> Massachusetts Department of Transportation, 2013, "Grounding McGrath: Determining the Future of the Route 28 Corridor, Final Report, Executive Summary," MassDOT Highway Division website, accessed May 18, 2015, <http://www.massdot.state.ma.us/highway/HighlightedProjects/McCarthyOverpassMcGrathHighway/DocumentsandMeetingMaterials.aspx>.

both cases is that cities are now working to dismantle their elevated infrastructure to enable urban revitalization. This stands in stark contrast to the Silver Line's attempt to revitalize Tysons Corner by building new, elevated infrastructure.

It is important to note that the negative impacts of elevated infrastructure were both understood and vocalized during the Tysons Tunnel debate. Roger K. Lewis, a practicing architect and University of Maryland professor of architecture, pleaded the following in an April 2006 Washington Post article:

*"History also should be heeded. In recent decades, governments have expended billions of dollars to demolish elevated highways and rail lines that seemed like good ideas at the time but turned out to be eyesores and urban barriers. What folly it would be to design and construct an elevated rail line through Tysons Corner in light of such history<sup>52</sup>."*

Along the same lines, Clark Tyler, then chairman of a Fairfax County task force involved in drafting Tysons Corner's comprehensive plan, was quoted in September 2006 saying: "It's sad. The last thing Tysons needs is another silly barrier, and that's what it's getting. We've got the Beltway and Route 123 and Route 7, and now we'll get this thing sticking up that you can see from Pittsburgh<sup>53</sup>." Comments such as these reflect poorly on the Tysons Tunnel decision – indicating that decision-makers ignored credible and widespread warnings that the Silver Line's elevated design would undermine its own goals.

## POPULAR SUPPORT

Stakeholders and community members involved in the Tysons Tunnel decision also understood, at some level, essentially all of the reasoning presented up to this point. Support for the Tysons Tunnel was widespread throughout Fairfax County, from politicians, residents, and businesses alike. The fact that Tysons Tunnel, Inc. was able to raise \$3 million dollars is a testament to how much the community did not want to elevate the Silver Line through Tysons Corner. In this light, the Tysons

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<sup>52</sup> Roger K Lewis, "Going Over, Under and Around and Around on the Dulles Metro Expansion," *The Washington Post*, April 1, 2006.

<sup>53</sup> Alec MacGillis, "Finger-Pointing After Death of Tunnel Plan; Supporters Blame Kaine's Handling, Federal Demands," *The Washington Post*, September 8, 2006.

Tunnel decision was suboptimal simply because everyone agreed a tunnel would be preferable to an elevated Metrorail line. Decision-makers went against the better judgment of countless organizations and individuals – including Metro engineers, Metro’s Board of Directors, Kaine’s American Society of Civil Engineers panel, Tysons Tunnel, Inc.’s private contractors, the entire Tysons Corner business community, smart growth advocates, and Fairfax County residents. Even Tysons Tunnel opponents frequently admitted the tunnel would be better. Robert Thomson, who covered the Tysons Tunnel debate for the Washington Post and generally sides with the opposition, nicely summed up the state of popular opinion on this issue, sharing:

*“It seemed to me that nearly everyone, including me, believed that putting the rail line underground was preferable, as a design concept that would open up Tysons Corner to become more of a real city, than the space station it is today. And my concern was, as they say, practical, the cost of it.”*

Thomson later expanded on this, saying:

*“I think that, indeed, as the tunnel advocates said, it would be far easier to create the desired grid pattern streets in Tysons with the rail line underground. [...] In that sense, it contributes to the divide in Tysons Corner. It’s not the most effective way of relating land use to transportation.”*

If nothing else, this near universal acceptance of the Tysons Tunnel’s superiority as well as its consequences for Tysons Corner today needs to be critically examined against the reasons for forgoing the Tysons Tunnel.

## **CONCLUSION**

The purpose of this chapter is not to declare Tysons Corner ruined. Rather, the purpose is to show how the decision to elevate the Silver Line poses serious problems for the future of this growing district – most of which were recognized during the Tysons Tunnel debate. In this light the decision to forgo the Tysons Tunnel flagrantly undermined a major motivation behind building the entire Silver Line: to transform Tysons Corner into an urban, transit-oriented community. Evidence for this concern can be found in the current landscape of the Silver Line stations, in TOD best practices, in comparative case studies from Massachusetts and neighboring Arlington County, and in popular opinion. The widespread impact of the concerns and problems discussed in this chapter warrants a close inspection of the reasons behind the decision to elevate the Silver Line. To this end, the following



Stakeholder Analysis and Discussion chapters explore in-depth the roles and rationales of major stakeholders in the Tysons Tunnel debate to determine whether the reasons for rejecting the Tysons Tunnel truly justified these suboptimal results.

# STAKEHOLDER ANALYSIS

# STAKEHOLDER ANALYSIS

To fully understand why the Silver Line was elevated despite the substantial support and evidence in favor of the Tysons Tunnel, the entire Tysons Tunnel decision-making process must be considered through the lens of each major stakeholder that shaped the decision. The rationales for and against the tunnel were not given equal weight in the decision and this has everything to do with the relative degree of influence and decision-making authority held by each stakeholder. In other words, the rationales of powerful stakeholders exerted more influence in the Tysons Tunnel decision than the rationales of less powerful stakeholders. An understanding of which stakeholders and rationales prevailed allows for an assessment of the legitimacy of these dominant factors against the consequences of the Tysons Tunnel decision.

The Stakeholder Analysis is presented in the order of federal, state, and then local stakeholders. This order is intended to mirror the power structure at play in the Tysons Tunnel decision by considering the concerns of the federal government before the concerns of the Commonwealth of Virginia, and so on. As evidenced by the Case Study, the federal government was capable of terminating the entire project by denying the FTA New Starts funding and, therefore, held the most leverage in the decision-making process. Further, the federal government had little to lose should the project be terminated. The Commonwealth of Virginia had secondary power as the project's primary sponsor and, more generally, as an authority over the local municipalities. Finally, the local municipalities and local private actors had the least power over the direction of the project, but also had the most to lose in missed opportunities. This hierarchy helps to demonstrate the stakeholders and reasons that won out in the Tysons Tunnel debate.

## FEDERAL GOVERNMENT

### *FEDERAL TRANSIT ADMINISTRATION (FTA)*

The FTA became an important player in the Dulles Corridor Rapid Transit Project in 2000 when the project began the environmental review process under the National Environmental Protection Act. The FTA, however, remained largely in the background from 2000 through 2005, with

the exception of imposing the requirement, in 2002, that the project be constructed in two phases. This all changed in February 2006 when the FTA's Fiscal Year 2007 New Starts Report to Congress demoted the project to a "medium" rating due to its escalating total costs and, therefore, its poor cost-effectiveness rating<sup>1</sup>. From this point on the FTA's power to deny federal funding due to the project's poor cost-effectiveness rating majorly shaped the development of the Dulles Corridor Metrorail Project as well as the Tysons Tunnel decision.

The FTA maintained that the project's overall alignment and Kaine's decision against the Tysons Tunnel were entirely the state's decisions<sup>2</sup>, but a review of several major project decisions between 2006 and 2008 make it abundantly clear that the FTA heavily influenced these decisions. To begin with, the FTA's first warning over the project's poor cost-effectiveness rating, in February 2006, occurred as Tysons Tunnel supporters began picking up steam and DTP's cost estimates continued to rise. Tunnel supporters had expressed willingness to pay more for the tunnel and argued that a region as wealthy as Northern Virginia should pitch in extra funding to "do the project right<sup>3</sup>." However, since the FTA cost-effectiveness standard depended on the project's total costs, the project's cost-effectiveness rating would not change even if localities provided all additional funding<sup>4</sup>. In this light, the FTA's first warning effectively limited Virginia and Fairfax County's ability to advance the widely supported proposal for the Tysons Tunnel. For example, these constraints likely led the DRPT manager for the project to tell the Washington Post in May 2006: "The project team would support a tunnel under Tysons Corner to avoid traffic congestion, but the project needs to be cost-effective and comply with the FTA criteria.<sup>5</sup>" This statement highlights that the FTA's first warning restrained the DRPT's support of the tunnel early on in the Tysons Tunnel debate. Around the same time, the FTA staunchly defended the importance of its cost-effectiveness standard in response to criticism that the standard

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<sup>1</sup> Metropolitan Washington Airports Authority, "Dulles Corridor Metrorail Project Timeline," Dulles Corridor Metrorail Project website, accessed October 19, 2014, [http://www.dullesmetro.com/silverline/assets/File/project\\_docs/Project%20History%20Update%2020APCO%20-%202011.pdf](http://www.dullesmetro.com/silverline/assets/File/project_docs/Project%20History%20Update%2020APCO%20-%202011.pdf).

<sup>2</sup> Alec MacGillis, "For McLean Chamber Group, Tysons Tunnel Dream Endures," *The Washington Post*, November 19, 2006.

<sup>3</sup> Alec MacGillis, "Tysons Tunnel Could Risk U.S. Funds; Metro Extension To Dulles Must Be 'Cost-Effective'," *The Washington Post*, May 8, 2006.

<sup>4</sup> Ibid.

<sup>5</sup> Ibid.

limited local investment – effectively reiterating that the DRPT had to comply with the standard during this critical early period in the Tysons Tunnel debate<sup>6</sup>.

Later, in September 2006, the FTA's influence over the project was shown in full force when Governor Kaine announced that Virginia would no longer pursue the Tysons Tunnel. Kaine's actual announcement only vaguely attributed his decision to uncertainties surrounding the costs and timing of the tunnel; in his own words: "Too many unanswered questions remain about cost and timing. These uncertainties cannot be allowed to jeopardize this critical project."<sup>7</sup> However the chain of events leading up to Kaine's decision make it clear that the decision was made largely to prevent the project from losing federal funding. In the weeks leading up to Kaine's decision, all signs indicated that Kaine would endorse the tunnel<sup>8</sup>. Meanwhile, the FTA made a public statement in August 2006 that indirectly threatened to revoke the project's funding: "Should [Virginia] chose to make significant changes to its original plan, including building a tunnel, [the FTA] will need to make new, additional examinations [of the project]."<sup>9</sup> Then, the day before Kaine's announcement, the governor met with the FTA Administrator James S. Simpson and several Virginia lawmakers, including congressmen Wolf and Davis. A spokesman for Kaine reported that, at this meeting, Simpson directly told Kaine the project would lose federal funding if he pursued the tunnel<sup>10</sup>. The next day, Kaine announced that Virginia would no longer consider the Tysons Tunnel. A few months later, the FTA amended its Record of Decision and approved the project's final alignment<sup>11</sup>. It is clear from this series of events that the FTA's power to revoke funding is the primary reason Virginia officially turned against the tunnel.

While Virginia did not stray far from the FTA-approved elevated alignment after Kaine's announcement, local support for the tunnel from Fairfax County and Tysons Tunnel, Inc. only grew between late 2006 and early 2008. When DTP's cost estimates for Phase 1 with the elevated

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<sup>6</sup> Ibid.

<sup>7</sup> Alec MacGillis, "No Tunnel For Tysons, Kaine Says; Federal Concerns About Cost Prove Insurmountable," *The Washington Post*, September 7, 2006.

<sup>8</sup> Ibid.

<sup>9</sup> Alec MacGillis, "Virginia to Review Rival Bid For Tysons Rail Extension," *The Washington Post*, August 1, 2006.

<sup>10</sup> MacGillis, "No Tunnel For Tysons, Kaine Says."

<sup>11</sup> MWA, "Dulles Corridor Metrorail Project Timeline."

alignment skyrocketed into the range of \$2.4 billion to \$2.7 billion in March 2007<sup>12</sup>, tunnel supporters hoped that the FTA would reconsider the tunnel, which at that point would have been less expensive according to Tysons Tunnel, Inc.'s study<sup>13</sup>. This argument spurred Davis and fellow U.S. Congressman James Moran to ask the FTA in early 2007 to review the tunnel proposal in a “dual-track” process alongside the existing proposal. Simpson firmly rejected this request, forcing Virginia to stick to the increasingly more expensive elevated design<sup>14</sup>. So, even as the FTA made progressively severe threats to deny funding between July 2007 and early 2008, Simpson did not grant project partners any flexibility to make substantive – and potentially cost-saving – changes to the project’s design. Project partners could either remove nonessential elements from the current design or forgo the project entirely.

Overall, the coevolution of the Tysons Tunnel debate and the FTA’s involvement in the Dulles Corridor Metrorail Project reveals that the FTA heavily influenced a series of major decisions that eventually defeated the Tysons Tunnel proposal. The FTA’s influence was primarily derived from the power to deny federal funding, which came foremost from the discretionary nature of the News Starts program. However, the rationale behind the FTA’s threats to deny funding was focused entirely on the cost-effectiveness standard, which was one rating among many that the FTA used to evaluate New Starts applications. Because of this, the FTA’s influence over major project decisions and the cost-effectiveness rating were effectively conflated as one in the same. This raises an important question: If all the politics and timing of the FTA’s involvement are taken out of the equation, was the cost-effectiveness standard a valid reason to forgo the Tysons Tunnel? The cost-effectiveness standard’s merits and limitations are explored further in the next section.

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<sup>12</sup> MWA, “Dulles Corridor Metrorail Project Timeline.”

<sup>13</sup> MacGillis, “For McLean Chamber Group, Tysons Tunnel Dream Endures.”

<sup>14</sup> Alec MacGillis, “Tysons Tunnel Request Rebuffed; Lawmakers Sought Opinion on Revival,” *The Washington Post*, January 31, 2007.

## **FTA COST-EFFECTIVENESS STANDARD**

By early 2006 the Dulles Corridor Metrorail Project had officially requested \$900 million in federal funding through the FTA's New Starts program<sup>15</sup>. At the time, this amount represented 50 percent of the \$1.8 billion that DTP estimated for Phase 1 capital costs – although that cost estimate would quickly rise to \$2 billion<sup>16</sup> and eventually to \$2.9 billion<sup>17</sup>. The New Starts program is the primary federal resource for funding capital investments in fixed guideway public transportation, which includes rapid rail transit, commuter rail, light rail transit, bus rapid transit, and trolleys<sup>18</sup>. Under the federal surface transportation bill that was active from August 2005 through July 2012<sup>19</sup> (the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users, or SAFETEA-LU), the New Starts program contained \$6.6 billion in funding through fiscal year 2009<sup>20</sup>. As a discretionary funding program, New Starts is merit-based and very competitive. Because of this, the FTA requires New Starts applicants to meet a series of criteria – including the cost-effectiveness standard, which falls under the category of “project justification” criteria<sup>21</sup>. During the period in question, the FTA judged cost-effectiveness based on total project costs relative to mobility benefits measured in travel time savings<sup>22</sup>. In general, the standard did not consider many benefits of rapid rail transit, such as economic development opportunities. The cost-effectiveness standard also did not take into account the relative proportion of federal funding to local funding<sup>23</sup>. As the primary source of federal funding

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<sup>15</sup> Alec MacGillis, “Key Items Face Cuts As Price Tag Swells; Estimate Hits Projected Approval Limit,” *The Washington Post*, March 23, 2006.

<sup>16</sup> MWAA, “Dulles Corridor Metrorail Project Timeline.”

<sup>17</sup> Metropolitan Washington Airports Authority, “Dulles Metrorail: Funding.” Dulles Corridor Metrorail Project website, accessed May 17, 2015, <http://www.dullesmetro.com/about-dulles-rail/funding/>.

<sup>18</sup> Transportation for America, 2011, “Transportation 101: An Introduction to Federal Transportation Policy,” [Transportationforamerica.org](http://t4america.org/docs/Transportation%20101.pdf), accessed January 10, 2015, <http://t4america.org/docs/Transportation%20101.pdf>.

<sup>19</sup> U.S. Department of Transportation Federal Highway Administration, “MAP-21 – Moving Ahead for Progress in the 21<sup>st</sup> Century,” Federal Highway Administration website, accessed March 28, 2015, <http://www.fhwa.dot.gov/map21/summaryinfo.cfm>.

<sup>20</sup> U.S. Department of Transportation Federal Transit Administration, “Introduction to New Starts,” Federal Transit Administration website, accessed March 28, 2015, [http://www.fta.dot.gov/12304\\_2608.html](http://www.fta.dot.gov/12304_2608.html).

<sup>21</sup> *Ibid.*

<sup>22</sup> Reconnecting America, “Overview of the Final New Starts / Small Starts Regulation and Frequently Asked Questions,” [Reconnectingamerica.org](http://reconnectingamerica.org/assets/Uploads/OverviewNewStartsRuleFINAL.pdf), accessed March 28, 2015, <http://reconnectingamerica.org/assets/Uploads/OverviewNewStartsRuleFINAL.pdf>.

<sup>23</sup> MacGillis, “Tysons Tunnel Could Risk U.S. Funds.”

for projects such as the Dulles Corridor Metrorail Project, project partners had essentially no alternative federal funding options.

The FTA defended the cost-effectiveness standard as an important method for distributing limited federal transit funds and for preventing project costs from ballooning<sup>24</sup>. Tunnel opponents largely took the cost-effectiveness standard as a given, arguing the project needed to comply to gain funding rather than arguing that the standard was a defensible metric. Tunnel supporters, on the other hand, argued that the cost-effectiveness standard limited local investment in transit projects by focusing only on total costs<sup>25</sup>. In the case of the Dulles Corridor Metrorail Project, this argument was proven true by numerous indications from Fairfax County officials, businesses, and residents that the county was willing to contribute more for the tunnel.

The cost-effectiveness standard was also problematic in the case of the Tysons Tunnel because it only measures project benefits in travel time savings. This overlooks countless other benefits that the tunnel would bring, such as reduced operation and maintenance costs, property values, economic and community development opportunities, transit-oriented development goals, aesthetics, and public health improvements. Fairfax County Supervisor T. Dana Kauffman made this argument in May 2006, when he urged Virginia's congressional delegation to persuade the FTA that the tunnel would confer many longer-term advantages missed by the cost-effectiveness standard.<sup>26</sup>

In 2006 Congress had actually already directed the FTA to integrate land use into the cost-effectiveness standard, although there was no question it would be years until such modifications took effect<sup>27</sup>. Indeed, since the Tysons Tunnel debate ended, the standard has changed in ways that would have been favorable to the tunnel – confirming that the standard was flawed during the debate. In 2010 the FTA took measures to balance the cost-effectiveness standard with the percent of funding provided by local authorities – granting leeway to projects with a high percentage of local funding<sup>28</sup>.

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<sup>24</sup> Ibid.

<sup>25</sup> Ibid.

<sup>26</sup> Ibid.

<sup>27</sup> Ibid.

<sup>28</sup> Yonah Freemark, "For 2011, FTA Shifts Focus Away from Project Cost-Effectiveness Index and Towards Local Financing Commitment," *The Transport Politic*, February 3, 2010, accessed March 28,



Then, in 2012 the FTA modified the cost-effectiveness standard to exclude certain “enrichments” from the total project costs, including pedestrian and bicycle improvements, artwork, and elements that foster economic development or environmental benefits<sup>29</sup>. The FTA will only accept a limited list of approved enrichments<sup>30</sup>, but the principal behind this change aligns with Tysons Tunnel supporters’ criticism of the standard: the cost-effectiveness standard should not restrain local ability to make investments that improve transit projects. The revision of the FTA’s cost-effectiveness standard since the Tysons Tunnel debate casts doubt on the validity of the earlier standard’s application to the Dulles Corridor Metrorail Project as a primary justification for rejecting the Tysons Tunnel.

### *FEDERAL AVIATION ADMINISTRATION (FAA)*

The FAA played a formative role in the planning of rapid rail transit in the Dulles Corridor from 1960 to 1990. It took measures to reserve the median of the Dulles International Airport Access Highway for a future rapid rail transit line in its 1964 *Master Plan for Dulles International Airport*<sup>31</sup> and its 1985 *Updated Master Plan for Dulles International Airport*<sup>32</sup>. The Dulles Corridor Metrorail Project did ultimately follow the FAA’s designated route along the Access Highway – with the exception of Tysons Corner – but the FAA started to completely defer to the FTA on a project issues from 1990 onward. A review of the project’s timeline from 2000 to 2009 reveals that the FAA’s Record of Decision simply follows the lead of the FTA<sup>33</sup>. Therefore, the FAA does not appear to have been a significant factor in the decision-making process behind the Tysons Tunnel.

### *U.S. DEPARTMENT OF TRANSPORTATION (U.S. DOT) LEADERSHIP*

The Tysons Tunnel debate was bookended by major shifts in both the U.S. DOT and the FTA leadership. In October 2006, Mary E. Peters became the U.S. Secretary of Transportation, replacing Norman Y. Mineta as the head of the U.S. DOT. Peters left the office in January 2009, when President

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2015, <http://www.thetransportpolitic.com/2010/02/03/for-2011-fta-shifts-focus-away-from-project-cost-effectiveness-index-and-towards-local-financing-commitment/>.

<sup>29</sup> Reconnecting America, “Detailed Summary of Project Justification Criteria Changes in the Final New Starts / Small Starts Rule,” [Reconnectingamerica.org](http://reconnectingamerica.org/assets/Uploads/NewStartsFinalRuleSummaryChart.pdf), accessed March 28, 2015, <http://reconnectingamerica.org/assets/Uploads/NewStartsFinalRuleSummaryChart.pdf>.

<sup>30</sup> Ibid.

<sup>31</sup> MWA, “Dulles Corridor Metrorail Project Timeline.”

<sup>32</sup> Ibid.

<sup>33</sup> Ibid.

Obama was inaugurated<sup>34</sup>. The FTA, one of many administrations under the U.S. DOT's direction, experienced a similarly timed shift. In August 2006 James S. Simpson became the FTA Administrator<sup>35</sup>. Simpson held the office until the end of 2008, shortly before Obama's inauguration<sup>36</sup>.

The timing of Peters and Simpson's tenures has potential significance for the Dulles Corridor Metrorail Project and the Tysons Tunnel decision. Simpson became the FTA Administrator shortly before Kaine's September 2006 announcement, which means one of Simpson's earliest acts as administrator was to pressure Kaine to forgo the Tysons Tunnel during the meetings that occurred the day before Kaine's announcement<sup>37</sup>. In all likelihood, it was Simpson's unnoticed entrance into the project's decision-making process that caught so many tunnel supporters by surprise when Kaine withdrew his support. Likewise, Peters became the U.S. Secretary of Transportation shortly after Kaine's announcement, but one month before the FTA officially amended its Record of Decision on the project and approved the elevated design. The timing of this approval indirectly implicated Peters in the advancement of the project's elevated design, albeit to a lesser degree.

Jumping ahead two years to 2008, the FTA's threats of denying funding to the Dulles Corridor Metrorail Project due to cost-effectiveness ratings had reached a pinnacle, cementing the tension between the Tysons Tunnel and the viability of the entire project. Governor Kaine and Virginia lawmakers had exerted great political will to save the project, yet only minor changes were made to the project's actual design and management. Despite this, in April 2008 Peters reversed the federal stance on the Dulles Corridor Metrorail Project and Phase 1 moved ahead to final design with a price tag of \$2.8 billion in capital costs. Then, in August 2008, Simpson granted permission for the project to begin preconstruction work. A few months later, Simpson stepped down as the FTA Administrator, while touting his accomplishment of approving \$14 billion in capital transit investments nationwide

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<sup>34</sup> U.S. Department of Transportation Office of the Historian, "United States Department of Transportation - Date of Service," National Transportation Library website, accessed January 18, 2015, <http://ntl.bts.gov/historian/service.htm>.

<sup>35</sup> *Ibid.*

<sup>36</sup> Mass Transit Magazine, "Former Federal Transit Administration's James S. Simpson," Mass Transit Magazine website, December 21, 2008, accessed March 28, 2015, <http://www.masstransitmag.com/article/10220710/former-federal-transit-administrations-james-s-simpson>.

<sup>37</sup> MacGillis, "No Tunnel For Tysons, Kaine Says."

over his tenure<sup>38</sup>. Similarly, in January 2009 Peters forwarded the U.S. DOT's final approval and Full Funding Grant Agreement for the Dulles Corridor Metrorail Project to Congress for a 60-day review. Given President Obama's upcoming inauguration, it was no secret that this was Peters' last month in office. Therefore, finalizing the Dulles Corridor Metrorail Project's elevated design was one of her final acts as Secretary of Transportation.

While correlation does not mean causation, the fact that Simpson and Peters began their tenures by approving the Dulles Corridor Metrorail Project's elevated design over the Tysons Tunnel and ended their tenures by allowing the project to advance with an expensive, elevated design suggests that leadership transitions had some impact on the beginning and end of the Tysons Tunnel debate. The beginning of Simpson's tenure, especially, appears to have been instrumental in Kaine's shocking decision to withdraw state support from the tunnel. And, given that Tysons Tunnel supporters made essentially no progress after the U.S. DOT's and the FTA's approval of the elevated design in 2008, Simpson and Peters' efforts to finalize the project before they left office effectively ended the Tysons Tunnel debate.

## **VIRGINIA'S U.S. CONGRESSIONAL DELEGATION**

### *CONGRESSMAN FRANK WOLF*

Congressman Wolf served as the U.S. Representative for Virginia's 10<sup>th</sup> District – which includes Loudoun County and parts of Fairfax County among other areas – from 1981 to 2014, making Wolf a respected veteran congressman at the time of the Tysons Tunnel debate<sup>39</sup>. Moreover, Wolf had a legacy of working on high profile Metrorail and highway projects in the region<sup>40</sup> and had been an essential early supporter of the Dulles Corridor Metrorail Project. Wolf was also a Republican – making him relatively more allied with Bush administration officials at the time. Between 1998 and 2006 Wolf secured millions of dollars each year in earmarked appropriations for the project. In total,

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<sup>38</sup> Mass Transit Magazine, "Former Federal Transit Administration's James S. Simpson."

<sup>39</sup> Friends of Frank Wolf, 2011, "Meet Frank Wolf," [Wolfforcongress.com](http://www.wolfforcongress.com), accessed March 29, 2015, <http://www.wolfforcongress.com/about/>.

<sup>40</sup> Ibid.

Wolf secured over \$200 million in earmarked federal funds for the project<sup>41</sup>. All together, this gave Wolf great standing in the project's development and in the Tysons Tunnel debate.

In spite of this standing, Wolf insisted throughout the Tysons Tunnel debate that the decision was solely Governor Kaine's. In May 2006, as the tunnel began amassing support, Wolf declined to comment on the tunnel proposal, saying through a spokesman that it was the state's decision<sup>42</sup>. Wolf later maintained this position during the backlash against Kaine's September 2006 decision against the tunnel. In November 2006, Wolf stated that: "Governor Kaine could have gone any way he wanted. Nobody forced the governor to make that decision."<sup>43</sup> The FTA joined Wolf in promulgating this position<sup>44</sup>.

While Wolf's denial of responsibility for Kaine's decision is technically true, the Congressman did take significant political action in opposition of the tunnel. In July 2006 Wolf and Congressman Thomas M. Davis III wrote Kaine a public letter that strongly cautioned the Governor against pursuing the Tysons Tunnel. Chief among Wolf and Davis' concerns was that the tunnel would imperil the project's federal funding by violating the FTA's cost-effectiveness standard<sup>45</sup>. Wolf's concern over the FTA standard was widely reported in media coverage on the issue<sup>46</sup>, which only reaffirmed the power that the FTA and the standard wielded over the Tysons Tunnel and the entire Dulles Corridor Metrorail Project. Even Tysons Tunnel supporters recognized Wolf's opposition as a significant setback<sup>47</sup>. As one of the project's primary federal sponsors, Wolf exercised important influence over federal involvement in the project regardless of his actual decision-making authority. Indeed, Fairfax County Board of Supervisors Chairman Gerald Connolly posited that Wolf and Davis' letter had such influence that it

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<sup>41</sup> MWAA, "Dulles Corridor Metrorail Project Timeline."

<sup>42</sup> MacGillis, "No Tunnel For Tysons, Kaine Says."

<sup>43</sup> MacGillis, "For McLean Chamber Group, Tysons Tunnel Dream Endures."

<sup>44</sup> Ibid.

<sup>45</sup> Alec MacGillis. "Wolf, Davis Say Tunnel May Delay Dulles Rail; Metro Project's Future Questioned," *The Washington Post*, July 27, 2006.

<sup>46</sup> Alec MacGillis, "Kaine's Pick Is Said to Be Tunnel For Tysons; Campaign Backers Push Rail Choice," *The Washington Post*, August 27, 2006.

<sup>47</sup> MacGillis. "Wolf, Davis Say Tunnel May Delay Dulles Rail; Metro Project's Future Questioned."

undermined Kaine's ability to negotiate with the FTA by showing that the Tysons Tunnel had lost support from Virginia's Congressional delegation<sup>48</sup>.

Further, it appears that Wolf's powerful opposition influenced Kaine's own decision against the tunnel. As noted in the above discussion on the FTA's role, there is circumstantial evidence that Kaine's meetings with Wolf, Davis, and the FTA the day before his announcement swayed the governor's decision. During these meetings Wolf reportedly made increasingly strong arguments against risking federal funds for the Tysons Tunnel, purportedly banging his fist on the table to emphasize the gravity of his point<sup>49</sup>. Finally, Wolf's statement following Kaine's decision was a demonstration that the congressman's will had prevailed: "I commend the governor for his decision," Wolf said. "It was a tough decision, a Solomonic decision. You wouldn't want to roll the dice."<sup>50</sup> Wolf may not have had decision-making authority, but it is clear that he strongly influenced the Tysons Tunnel decision.

### *CONGRESSMAN THOMAS M. DAVIS III*

As co-author of Wolf's letter to Kaine, Congressman Davis' role in the Tysons Tunnel debate is similar to that of Wolf with three notable exceptions: (1) Davis had relatively less standing on the Dulles Corridor Metrorail Project than Wolf, (2) Davis was more vocal of his opinions on the Tysons Tunnel, and (3) Davis reversed his stance and began supporting the tunnel in February 2007.

Davis, who was also a Republican, served as the U.S. Representative for Virginia's 11th District from 1995 to 2008<sup>51</sup>. While Davis did not have the same legacy as Wolf on the Dulles Corridor Metrorail Project or on transportation issues in general, he was certainly an important federal sponsor of the project. Davis' 11th District includes a significant portion of Fairfax County, most importantly: the core of Tysons Corner, the area south of the Dulles Corridor Metrorail Project's planned route

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<sup>48</sup> MacGillis, "For McLean Chamber Group, Tysons Tunnel Dream Endures."

<sup>49</sup> MacGillis, "No Tunnel For Tysons, Kaine Says."

<sup>50</sup> Ibid.

<sup>51</sup> GovTrack, "Rep. Thomas "Tom" Davis III," Govtrack.us, accessed March 29, 2015, [https://www.govtrack.us/congress/members/thomas\\_davis/400098](https://www.govtrack.us/congress/members/thomas_davis/400098).

along the Dulles Toll Road, and the Reston area<sup>52</sup>. Essentially the entire Dulles Corridor Metrorail Project was planned to run through or border Davis' district, making Davis an incredibly pertinent voice on the project's future.

The relevance of the Dulles Corridor Metrorail Project to Davis' work perhaps explains why he was more outspoken in his opposition to the Tysons Tunnel. Given his coordination with Wolf, Davis' various public statements help clarify both his own and Wolf's position on the issue. For example, in August 2006 – after Wolf and Davis' letter but before Kaine's announcement – Davis confirmed that their opposition to the Tysons Tunnel was due to concern over the FTA's funding criteria, saying: "I don't think there are any guarantees that the FTA will approve the project. I don't think they can make this thing bulletproof. We'd rather have a tunnel, the question is, what additional risks are you undertaking by doing this at the last minute?"<sup>53</sup> Similarly, in September 2006 Davis also indicated that this same logic influenced Kaine's decision against the tunnel, stating: "It was clear that if you gambled and went for gold, that chances for success were very small. In the start, it was, 'How do we make this thing work,' but in the end it was clear it was not only a risk but a likelihood that we would lose federal approval."<sup>54</sup> In general, Davis' public statements confirm what can be ascertained from circumstantial evidence – that Kaine withdrew state support for the Tysons Tunnel based largely on arguments from the FTA, Wolf, and Davis that the tunnel would imperil federal funds due to poor cost-effectiveness ratings.

Then, in early 2007 when the Tysons Tunnel had gained significant support through the organization of Tysons Tunnel, Inc., Davis completely reversed his stance on the tunnel<sup>55</sup>. Of important note, Davis had admitted that a tunnel would be preferable over the elevated design throughout the Tysons Tunnel debate, but opposed the tunnel on the grounds that it would threaten the FTA funding and delay construction. Davis attributed his shift to the recent displays of support from his constituents, stating: "Is there politics when you get crowds out there? Yes. Would I be doing this if no

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<sup>52</sup> GovTrack, "Virginia's 11th Congressional District," Govtrack.us, accessed March 29, 2015, <https://www.govtrack.us/congress/members/VA/11>.

<sup>53</sup> MacGillis, "Kaine's Pick Is Said to Be Tunnel For Tysons; Campaign Backers Push Rail Choice."

<sup>54</sup> MacGillis, "No Tunnel For Tysons, Kaine Says."

<sup>55</sup> Alec MacGillis, "Davis Joins Tysons Tunnel Backers; Some See Shift As Helping Wife," *The Washington Post*, February 15, 2007.

one asked about a tunnel? Of course not.<sup>56</sup> He noted that he was particularly swayed by widespread public support for the tunnel over faster construction at a town hall meeting held by his wife, Virginia State Senator for Fairfax County Devoletes Davis. The conflict of interest with his wife's political career predictably led many to question the motivation for Davis' shift, though he maintained he was simply responding to the concerns of his constituents<sup>57</sup>.

Ultimately, Davis' shift had little impact on the fate of the Tysons Tunnel and the Dulles Metrorail Project. In coordination with Congressman James Moran, Davis did ask the FTA to review Tysons Tunnel, Inc.'s proposal in a "dual-track" process alongside the existing plans. FTA Administrator Simpson, however, quickly rejected their request and this relatively meager effort dissipated<sup>58</sup>. All together, Davis' initial opposition had a much larger impact on the tunnel's demise by augmenting Wolf's already formidable influence than his later support had on attempts to resuscitate the Tysons Tunnel.

#### *OTHER MEMBERS OF VIRGINIA'S CONGRESSIONAL DELEGATION*

Other members of Virginia's congressional delegation played minor roles in the Tysons Tunnel debate, most notably Congressman James Moran (Democrat) and Senator John Warner (Republican). Moran – who represented Virginia's 8th District from 1991 to 2014<sup>59</sup> – joined Davis in asking the FTA to review Tysons Tunnel, Inc.'s proposal in a dual-track process in January 2007. Moran, however, never gave the Tysons Tunnel his complete support. During a 2007 Tysons Tunnel rally in which Davis declared his full support, Moran drew heckles when he attempted to give the crowd a reality check on the federal position on the project<sup>60</sup>. In general, Moran interacted with the Tysons Tunnel issue as more of an outsider trying to move the process along than as a true stakeholder trying to steer the process in one direction or another.

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<sup>56</sup> Ibid.

<sup>57</sup> Ibid.

<sup>58</sup> MacGillis, "Tysons Tunnel Request Rebuffed; Lawmakers Sought Opinion on Revival."

<sup>59</sup> GovTrack, "Rep. James "Jim" Moran Jr.," Govtrack.us, accessed March 29, 2015, [https://www.govtrack.us/congress/members/james\\_moran/400283](https://www.govtrack.us/congress/members/james_moran/400283).

<sup>60</sup> MacGillis, "Davis Joins Tysons Tunnel Backers."

Likewise, Senator John Warner was not a major force in steering the project, although he was involved in and aware of the project's progress as Virginia's Senior Senator at the time of the Tysons Tunnel debate. Warner reportedly challenged the FTA's threats to deny funding during the meeting held the day before Kaine's announcement, but was dwarfed by Wolf's strong opposition<sup>61</sup>. Overall, it is evident that Wolf and Davis exercised the most influence over the Tysons Tunnel and the Dulles Corridor Metrorail Project within Virginia's congressional delegation.

## COMMONWEALTH OF VIRGINIA

### *GOVERNOR TIM KAINE*

In Virginia the Governor is limited to single term, which means this office changed administrations many time throughout the Dulles Corridor Metrorail Project. Governor Mark Warner, a Democrat, served from 2002 to 2006, but did not focus on transportation, infrastructure, or development policy<sup>62</sup>. In keeping with this, it appears that Warner did not directly inject himself into the Dulles Corridor Metrorail Project planning process during his term as Governor<sup>63</sup>. On the other hand, Governor Tim Kaine, also a Democrat, entered the office in 2006 having run on a platform that included a growth management agenda to limit sprawl in rapidly growing Northern Virginia<sup>64</sup>. The Tysons Tunnel proposal was one of the first high-profile issues Kaine dealt with as Governor. This timing helps explain the tensions between the new Kaine administration and Virginia's veteran congressmen over the Tysons Tunnel decision in 2006.

Kaine's role in the Tysons Tunnel debate was clearly pivotal, but it is less clear how Kaine himself shaped both the debate and the decision that he announced in September 2006. As Wolf and the FTA reminded tunnel supporters, the Tysons Tunnel decision was ultimately Kaine's responsibility. Yet Kaine's approach to decision-making in this case appears to have closer to arbitration in that he

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<sup>61</sup> MacGillis, "No Tunnel For Tysons, Kaine Says."

<sup>62</sup> National Governors Association, "Virginia Governor Mark R. Warner," National Governors Association website, accessed February 15, 2015, [http://www.nga.org/cms/home/governors/past-governors-bios/page\\_virginia/col2-content/main-content-list/title\\_warner\\_mark.html](http://www.nga.org/cms/home/governors/past-governors-bios/page_virginia/col2-content/main-content-list/title_warner_mark.html).

<sup>63</sup> MWA, "Dulles Corridor Metrorail Project Timeline."

<sup>64</sup> Amy Gardner, "Virginia To Weigh Impact Of Projects; Land-Use Studies Crucial, Kaine Says," *The Washington Post*, August 28, 2006.



balanced both sides and then awarded his decision. While Kaine was initially receptive to the Tysons Tunnel proposal and it was widely speculated that he would support the tunnel, Kaine did not publicize his opinions on this issue leading up to his announcement. Further, the announcement itself was very diplomatic. Kaine attributed his withdrawal of support to vague uncertainties, stating: “Too many unanswered questions remain about cost and timing. These uncertainties cannot be allowed to jeopardize this critical project.<sup>65</sup>” To reconcile his prior receptiveness to the Tysons Tunnel, he indicated that new arguments had been brought to light in the days leading up to this announcement that forced him to reconsider his stance on the tunnel<sup>66</sup>. Timing suggests that these new arguments were the forceful views of Wolf, Davis, and Simpson. Overall, Kaine’s decision-making process was more a diplomatic funnel for external forces than an exercise of Kaine’s executive authority as Governor.

While the above sections already review how exactly the FTA and Virginia’s congressional delegation influenced Kaine, former Fairfax County Supervisor T. Dana Kauffman shed light on how Kaine himself may have approached this precarious decision. In an interview for this thesis, Kauffman reframed Kaine’s decision from the perspective of a politician: “Can you stand there and say ‘I delivered this project’? Or, can you open yourself up to saying ‘I lost this project’? At the end of the day, some of us were willing to take that risk, some of us were not.<sup>67</sup>” Essentially, Kaine had to decide between absolutely delivering a satisfactory project and risking everything to deliver a better project. The consequences of the former, however, likely outweighed the potential benefits of the latter – causing Kaine to forgo the Tysons Tunnel. Or, as Kauffman put it: “Governor Kaine had the ultimate decision. If it came out well, he could have had all the glory (...) and at the end of day, at least to date, he has certainly not been vilified for having made the decision he did.” Indeed, the consequences of forging the Tysons Tunnel have been mild for Kaine, who was elected as U.S. Senator for Virginia in 2012. Even Kauffman, who fought for the tunnel and still believes that supporting it would have been the right decision, understands why Kaine and others withdrew their support. All together, Kaine’s

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<sup>65</sup> MacGillis, “No Tunnel For Tysons, Kaine Says.”

<sup>66</sup> Alec MacGillis, “Finger-Pointing After Death of Tunnel Plan; Supporters Blame Kaine’s Handling, Federal Demands,” *The Washington Post*, September 8, 2006.

<sup>67</sup> T. Dana Kauffman, Northern Virginia Community College Director of Government Affairs and Community Relations, March 13, 2015, Personal communication.

diplomatic statements, conciliatory decision-making process, and cautious decision indicate that the Governor's perspective on the Tysons Tunnel decision can be understood as predictable political calculus.

### ***COMMONWEALTH TRANSPORTATION BOARD (CTB)***

Virginia's Commonwealth Transportation Board (CTB) is an 18-member group appointed by the Governor<sup>68</sup>. The Virginia Secretary of Transportation serves as the CTB Chairman and the Virginia Department of Transportation (VDOT) Commissioner serves as the Vice-Chairman. The remaining members are primarily private citizens appointed by the Governor to represent either specific districts or the state at-large. The CTB's current structure and its responsibilities to allocate state funding, locate routes, and review contracts have been in place since 1990, with some minor changes. Most notably, the Director of Virginia's Department of Rail and Public Transportation (DRPT) was added as a non-voting in 1999<sup>69</sup>.

The CTB played a large role in the early development of the Dulles Corridor Rapid Transit Project during the 1990s. In 1990, the CTB adopted a transportation program for the Dulles corridor with rapid rail transit as its primary objective, which it later fortified with its 1992 *Dulles Corridor Plan*. The CTB was then involved in approving the DRPT's early plans and in the Dulles Corridor Task Force's work. In the 2000s the CTB remained involved in the project's development but did less to steer the project. For example, the CTB approved the project's Draft Environmental Impact Statement (EIS), Final EIS, and Locally Preferred Alternative (LPA) between 2000 and 2004, but these actions simply continued the project's current direction at the time<sup>70</sup>. One of the CTB's more significant actions was increasing tolls on the Dulles Toll Road in 2005 to help fund the project's growing costs<sup>71</sup>. Still, the CTB's role in the Dulles Corridor Metrorail Project generally transitioned to a more supportive role in

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<sup>68</sup> Virginia Commonwealth Transportation Board, "Welcome to the Commonwealth Transportation Board Web site!" Commonwealth Transportation Board website, accessed March 5, 2015, <http://www.ctb.virginia.gov/default.asp>.

<sup>69</sup> Virginia Commonwealth Transportation Board, "A History of the Commonwealth Transportation Board," Commonwealth Transportation Board website, accessed March 5, 2015, [http://www.ctb.virginia.gov/resources/ctb\\_history.pdf](http://www.ctb.virginia.gov/resources/ctb_history.pdf).

<sup>70</sup> MWAA, "Dulles Corridor Metrorail Project Timeline."

<sup>71</sup> Ibid.

the 2000s. This trend continued throughout the Tysons Tunnel debate, during which CTB was almost entirely in the background.

High profile members of the CTB, such as the Virginia Secretary of Transportation, were similarly in the background during the Tysons Tunnel debate. In 2006 Governor Kaine appointed Governor Warner's Acting Secretary of Transportation, Pierce Homer, as Secretary of Transportation<sup>72</sup>. As part of the Kaine administration Homer's actions – or more accurately, inactions – mirrored Kaine's reluctance to exercise his executive authority in the Tysons Tunnel decision. However, Kaine's Deputy Secretary of Transportation, Scott Kasprowicz, was a known supporter of the Tysons Tunnel. As a former board member of the Piedmont Environmental Council, Kasprowicz had advocated for transit-oriented development in the region<sup>73</sup>. Nonetheless, any advocacy for the Tysons Tunnel on the part of Kasprowicz evidently did not prevail over the external forces influencing Kaine. In general, all of Virginia's executive transportation entities played background roles in the Tysons Tunnel debate.

#### *VIRGINIA DEPARTMENT OF RAIL AND PUBLIC TRANSIT (DPRT)*

The DRPT was heavily involved in the Dulles Corridor Metrorail Project starting in the 1990s all the way through to the end of the Tysons Tunnel debate in 2008, at which time the MWA had completely taken over management of the project from Virginia and the DRPT<sup>74</sup>. Focusing just on the DRPT's involvement during the Tysons Tunnel debate, however, reveals some irregularities in how the state agency approached the tunnel proposal in its early stages of development.

The Virginia Secretary of Transportation oversees the DRPT and, therefore, the DRPT's position in the Tysons Tunnel debate theoretically should have aligned with Governor Kaine. Yet, the DRPT was averse to the tunnel proposal many months before Kaine made his announcement. As early as April 2006 Sam Carnaggio, the project manager for the state, recommended in writing that the project cease consideration of the Tysons Tunnel in order to stay on schedule<sup>75</sup>. He added that, given DTP's estimate that the tunnel would increase costs by \$500 million, the Tysons Tunnel would only be

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<sup>72</sup> Virginia CTB, "A History of the Commonwealth Transportation Board."

<sup>73</sup> MacGillis, "Kaine's Pick Is Said to Be Tunnel For Tysons."

<sup>74</sup> MWA, "Dulles Corridor Metrorail Project Timeline."

<sup>75</sup> MacGillis, "Kaine's Pick Is Said to Be Tunnel For Tysons."

feasible if “money and time are not considerations.”<sup>76</sup> In May 2006 Carnaggio slightly reframed his concerns in opposition to the Tysons Tunnel, stating that: “The project team would support a tunnel under Tysons Corner to avoid the traffic congestion, but the project needs to be cost-effective and comply with the FTA criteria.”<sup>77</sup> These statements are curious in that they resist the Tysons Tunnel during a time when Kaine was still giving the proposal serious consideration. Carnaggio indicated that the state team held the FTA cost-effectiveness standard in high regard, which is more in keeping with Wolf and Davis’ perspective than with Kaine’s optimism in early 2006 that the FTA would allow the tunnel to move forward.

These discrepancies between the DRPT’s and Kaine’s positions may be due to the fact that Virginia was in the process of transferring project management from the DRPT to the MWAA. Though Carnaggio was identified in early 2006 as the state’s manager for the project, he was ultimately positioned within the MWAA<sup>78</sup>. While the MWAA renounced any responsibility for making the Tysons Tunnel decision, the authority certainly had a distinct interest in protecting the entire project as manager of Dulles International Airport as well. The airport’s passengers and employees were expected to double in the next two decades, making the new Metrorail line critical in providing a more sustainable, affordable, and convenient alternative to driving<sup>79</sup>.

A more significant complicating factor in the DRPT’s early position on the Tysons Tunnel was likely its contract with Dulles Transit Partners (DTP), which is discussed at length in the following section. Essentially, DTP’s involvement in the Dulles Corridor Metrorail Project damaged the tunnel’s prospects for a variety of reasons. Since the DRPT was the state agency that negotiated Virginia’s public-private partnership with DTP, it follows that the DRPT’s would show relatively more allegiance to DTP. Indeed, this is evident in Carnaggio’s April 2006 statement, which accepted without question DTP’s \$500 million cost estimate for the tunnel and used this information to counter the Tysons

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<sup>76</sup> Alec MacGillis, “Tunnel Back On Table for Dulles Rail; Cost Dispute Threatens To Delay Metro Project,” *The Washington Post*, April 26, 2006.

<sup>77</sup> MacGillis, “Tysons Tunnel Could Risk U.S. Funds.”

<sup>78</sup> American Society of Civil Engineers National Capital Section, “Dulles Metrorail Project [1/18/2011],” ASCE National Capital Section website, accessed March 20, 2015, [http://www.asce-ncs.org/index.php?option=com\\_content&view=article&id=267:dulles-metrorail-](http://www.asce-ncs.org/index.php?option=com_content&view=article&id=267:dulles-metrorail-)

<sup>79</sup> Washington Post (editorial), “Tunnel Vision; There’s more to the Dulles Metro extension than the Tysons controversy,” *The Washington Post*, June 25, 2007.

Tunnel proposal. Thus, it is possible that the DRPT's allegiance with DTP made it more difficult for tunnel supporters within the state, such as Deputy Transportation Secretary Kasprovicz, to gain any traction.

The DRPT's position on the Tysons Tunnel, however, was well in line with the Kaine administration by the end of 2006. Following Kaine's announcement the state did not revisit the tunnel proposal and the DRPT certainly did its part to keep the issue at bay. For example, in January 2007 the DRPT commissioned the review that refuted Tysons Tunnel, Inc.'s study and in March 2007 DRPT Director Matthew Tucker dismissed Tyson Tunnel, Inc.'s advocacy, stating: "From our perspective, the planning phase of this project is closed. We're now ready to move toward construction.<sup>80</sup>" In the end, the DRPT's early opposition to the tunnel may have worked against any internal state efforts to advance the Tysons Tunnel proposal, but the DRPT's actions after Kaine's announcement simply fortified the state's general opposition to the tunnel from September 2006 onward.

### *DULLES TRANSIT PARTNERS (DTP)*

As the Dulles Corridor Rapid Transit Project developed into an official project between 1998 and 2000, private engineering firms began to submit unsolicited bids to design and construct the project. Raytheon Engineers and Constructors (later renamed Washington Group International after it was sold in July 2000) submitted the first bid in 1998. Shortly thereafter a group led by the Bechtel Corporation and WestGroup submitted a competing bid for the project. In October 2000, these three private firms joined forces to form Dulles Transit Partner, LLC (DTP) with the clear goal of earning a design-build contract for the project from the DPRT<sup>81</sup>.

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<sup>80</sup> Bill Turque and Lena H. Sun, "Tunnel at Tysons Would Be Costly Risk, Study Says; State-Ordered Analysis a Setback to Fairfax County Group Opposed to an Aboveground Line," *The Washington Post*, March 9, 2007.

<sup>81</sup> MWAA, "Dulles Corridor Metrorail Project Timeline."

Prior to this project, every segment of the Metrorail system had been built by Metro<sup>82</sup>. Virginia's Public-Private Transportation Act of 1995 (PPTA), however, allows the state to authorize private entities to construct, improve, maintain, operate, and/or acquire transportation facilities<sup>83</sup>. This policy was typically applied to toll roads and other revenue generating transportation facilities. Since DTP would not be able to collect fares from a rapid transit line in the Metro system, the application of the PPTA in this context was widely questioned as it meant DTP would need to profit from its consulting and constructing services alone<sup>84</sup>.

Another major concern was the fact that since the formation of DTP in 2000 the DRPT received no additional bids, casting doubt as to whether Virginia was getting the lowest, most competitive price for these services. As early as 2001 DTP was readily incorporated into the project's development and was the sole private entity invited to sign a project-wide Memorandum of Coordination in 2001<sup>85</sup>. The DRPT asked DTP to submit a detailed proposal in 2002 and immediately thereafter the DRPT and DPT entered into confidential negotiations that lasted over a year<sup>86</sup>. In 2004 the DRPT and Virginia finally agreed to DTP's proposal and sought approval from Metro's Board of Directors and the FTA, which were both skeptical of the public-private partnership's merits. Chris Zimmerman, the Metro Board of Directors representative from Arlington County, Virginia, was quoted saying: "It's not entirely clear why privatization would be preferred. Does it really save money? Are there advantages?"<sup>87</sup> The FTA reportedly had to hire outside consultants to evaluate the partnership since it had never dealt with such an approach to a transit project<sup>88</sup>.

Ultimately, both Metro and the FTA agreed to the public-private partnership<sup>89</sup>. Still, outside critics continued to argue that Virginia's process of securing the partnership lacked competition, making it difficult to know whether or not the state would receive the lowest price for these services.

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<sup>82</sup> Lyndsey Layton, "Va. Hopes to Privatize Dulles Rail Project; State to Seek Metro Approval of Deal With Partnership," *The Washington Post*, April 15, 2004.

<sup>83</sup> MWA, "Dulles Corridor Metrorail Project Timeline."

<sup>84</sup> Layton, "Va. Hopes to Privatize Dulles Rail Project."

<sup>85</sup> MWA, "Dulles Corridor Metrorail Project Timeline."

<sup>86</sup> Ibid.

<sup>87</sup> Lyndsey Layton, "Metro Agrees to Privatize Rail Plan; Board Questions Dulles Partnership," *The Washington Post*, April 16, 2004.

<sup>88</sup> Layton, "Metro Agrees to Privatize Rail Plan."

<sup>89</sup> MWA, "Dulles Corridor Metrorail Project Timeline."

Critics pointed to Bechtel's infamous involvement in Boston's Big Dig project as evidence that Bechtel, and therefore DTP, would run up costs. A Washington Post article from April 2004 reminded readers that Bechtel's Big Dig contract with Boston had escalated from \$2.5 billion to \$15 billion and that Massachusetts had recently filed a suit against Bechtel and its partner companies in relation to these cost overruns<sup>90</sup>.

Virginia and the DRPT defended its decision to pursue a public-private partnership for this project, stating the deal produced better results than could be accomplished through the traditional approach of contracting with Metro and then having Metro competitively procure external contractors as needed. State officials also contended that the process was competitive prior to 2000, referring to the two bids they received from DTP firms before those firms joined forces to form DTP<sup>91</sup>. Finally, DRPT Director Karen Rae rationalized the benefits to the state of a fixed-price design-build contract with DTP as: "They [DTP] agree to build the project on time and on budget. That's the risk that haunts most of these big project."<sup>92</sup> This meant that in theory DTP would assume the risk of any cost overruns – but only once the final design-build contract was signed. This rationalization, however, circles back to the fact that DTP must first build a profit margin into the design-build contract<sup>93</sup>. Since DTP would not pursue this project unless they thought they stood a reasonable chance to profit, Rae's argument recast doubts as to whether the public-private partnership approach was more expensive than more conventional approaches.

Indeed, DTP's estimates for Phase 1 capital costs rose dramatically after their initial contract was signed in 2004. Through 2004 DTP estimated that Phase 1 would cost \$1.5 billion<sup>94</sup>. In June 2005, after preliminary engineering work had begun, DTP reported that Phase 1 would cost between \$1.8 billion and \$3.4 billion<sup>95</sup>, pegging \$2.4 billion as the most probable cost estimate under current

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<sup>90</sup> Layton, "Va. Hopes to Privatize Dulles Rail Project."

<sup>91</sup> Ibid.

<sup>92</sup> Ibid.

<sup>93</sup> Ibid.

<sup>94</sup> MWA, "Dulles Corridor Metrorail Project Timeline."

<sup>95</sup> Ibid.

plans<sup>96</sup>. Project partners then implemented cost savings measures – most notably, shortening the already short tunnel in Tysons Corners to half a mile – to get Phase 1 costs down to lowest end of DTP’s new range, \$1.8 billion<sup>97</sup>. Nonetheless, in March 2006 DTP completed preliminary engineering work and updated Phase 1 costs to \$2 billion<sup>98</sup>. One year later in March 2007, well after Governor Kaine announced that the state would no longer pursue the Tysons Tunnel, DTP negotiated a final design-build contract with DRPT that brought Phase 1 costs up to \$2.4 to \$2.7 billion<sup>99</sup>. Even Virginia’s final struggle to gain approval from the FTA between July 2007 and April 2008 did little to reduce Phase 1’s escalating costs. Ultimately, Phase 1 capital costs came in at just over \$2.9 billion<sup>100</sup>, meaning that that DTP’s cost calculations almost doubled in the ten years between the beginning of preliminary engineering work in 2004 and the completion of Phase 1 in 2014.

While it is irrefutable that Phase 1 capital costs did escalate significantly, this is not considered uncommon for megaprojects such as the Dulles Corridor Metrorail Project<sup>101</sup>. However, the possibility that Virginia’s exclusive public-private partnership with DTP caused cost escalations that could have been avoided through more competitive contracting processes has major implications for the Tysons Tunnel decision. One of the primary reasons – if not the primary reason – why the tunnel was dropped was that it would likely increase total Phase 1 costs to the point where the project would not meet the FTA cost-effectiveness standards. This concern had more to do with how tunnel costs would impact total Phase 1 costs than with the relatively modest costs of the tunnel itself. Would Governor Kaine have continued to support the Tysons Tunnel if Phase 1 costs had not already escalated from \$1.5 billion to \$2 billion when he revoked his support in September 2006? Would the advocates that continued to support the Tysons Tunnel through spring 2008 have gained more leverage if Phase 1 had not further escalated into the range of \$2.4 billion to \$2.7 billion in March 2007? Tunnel supporters had cost overruns working against them the entire length of the Tysons

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<sup>96</sup> Peter Whoriskey, “Price Soars For Extension Of Metrorail; Cuts to Be Sought In Tysons Project,” *The Washington Post*, June 25, 2005.

<sup>97</sup> MWAA, “Dulles Corridor Metrorail Project Timeline.”

<sup>98</sup> *Ibid.*

<sup>99</sup> *Ibid.*

<sup>100</sup> Metropolitan Washington Airports Authority, “Dulles Metrorail: Funding.” Dulles Corridor Metrorail Project website, accessed May 17, 2015, <http://www.dullesmetro.com/about-dulles-rail/funding/>.

<sup>101</sup> Robert Thomson, Washington Post columnist, March 6, 2015, personal communication.



Tunnel debate. In fact, the period of cost escalation entirely encompasses the Tysons Tunnel debate. The first DTP cost escalation occurred in June 2005 and further escalations continued until DTP's design-build contract was finalized in July 2008<sup>102</sup>. The Tysons Tunnel debate began when Metro learned about large bore tunnel technologies in the fall of 2005<sup>103</sup> and the debate did not simmer out until summer 2008<sup>104</sup>. The unfortunate truth for tunnel supporters is that Virginia ultimately managed to advance the project with an additional \$900 million in questionable cost overruns *after* Governor Kaine revoked support for a tunnel that was variously estimated to cost between \$160 and \$300 million<sup>105</sup>.

In addition to cost overruns, Virginia's public-private partnership with DTP may have harmed the Tysons Tunnel's prospects due to (1) the lack of transparency under the PPTA contracting process and (2) DTP's probable bias against sharing its contact with an outside firm specializing in the large bore tunnel technique. First, the confidential negotiations between the DRPT and DTP between 2002 and 2004 completely lacked transparency. There was no opportunity for public review until the final deal had already been signed<sup>106</sup>. If the process had been more open, other firms or interested professionals may have realized that the project should consider the large bore tunnel technique as an option. Walter Mergelsberg, a former Metro engineer who later worked with the Dr. Sauer Group to produce Tysons Tunnel, Inc.'s study, commented in November 2006 that: "Someone should have raised it [the large bore tunnel technique]. It was a no-brainer that it was adaptable to Tysons."<sup>107</sup>

During the Tysons Tunnel debate, however, the more pressing concern regarding DTP was that DTP had financial incentives to not pursue the tunnel as that would mean sharing its contract with an outside firm specializing in the large bore tunnel technique. Tunnel supporters contended that this was the reason why DTP's cost estimates for the tunnel were so much greater than any other

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<sup>102</sup> MWAA, "Dulles Corridor Metrorail Project Timeline."

<sup>103</sup> Lisa Rein, "Metro Considers Tysons Options; Tunneling Technique Might Make an Underground Rail Line More Affordable" *The Washington Post*, January 19, 2006.

<sup>104</sup> Amy Gardner, "Tysons Tunnel Supporters Raise Money to Continue Fight," *The Washington Post*, May 20, 2008.

<sup>105</sup> For example: (a) MacGillis, "Tysons Tunnel Could Risk U.S. Funds." and (b) Rein, "Metro Considers Tysons Options."

<sup>106</sup> Layton, "Va. Hopes to Privatize Dulles Rail Project."

<sup>107</sup> MacGillis, "For McLean Chamber Group, Tysons Tunnel Dream Endures."

estimate<sup>108</sup>. In comparison, Dragados – a Spanish firm specializing in the large bore tunnel technique that collaborated with the Dr. Sauer Group – reported in April 2006 that it could construct the Tysons Tunnel while keeping Phase 1 costs near the \$2 billion limit advised by the FTA. Dragados estimated that DTP had included \$115 million in contingency costs and \$87 million in overhead and profit in their \$500 million estimate for the tunnel. Dragados, on the other hand, would not need such large contingency costs as it were more experienced with the technique<sup>109</sup>. DTP’s financial bias, therefore, likely artificially increased the tensions between cost concerns and the Tysons Tunnel.

Overall, Virginia and DRPT’s public-private partnership with DTP was a major albeit indirect reason behind the Tysons Tunnel ultimate defeat. The state’s choice to use an uncompetitive and opaque contracting process led the project to overlook the large bore tunnel technique, created disincentives to advance the Tysons Tunnel, and likely caused Phase 1 capital costs to escalate more than necessary. While DTP is the direct perpetrator of these problems, blame lies fundamentally with the state since they could have terminated the contract at any time. Critics of the DRPT’s partnership with DTP commented that private participation in transportation projects had become the prevailing political philosophy in the state following the enactment of PPTA<sup>110</sup>, perhaps causing the state to default to public-private partnerships without considering the consequences. In this light, Virginia’s political philosophy on transportation policy – as manifest in the PPTA – created a very problematic environment for the Dulles Corridor Metrorail Project and especially for the Tysons Tunnel.

## **REGIONAL AUTHORITIES**

### ***METROPOLITAN WASHINGTON AIRPORTS AUTHORITY (MWAA)***

The MWAA renounced any responsibility for the Tysons Tunnel decision in April 2006, many months before Kaine made his announcement. Though, the authority did express openness to exploring the tunnel proposal at the time. Countering this, the MWAA’s gradual assumption of project management responsibility from the DRPT during the Tysons Tunnel debate may have caused a shift

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<sup>108</sup> MacGillis, “Tysons Tunnel Could Risk U.S. Funds.”

<sup>109</sup> MacGillis, “Tunnel Back On Table for Dulles Rail.”

<sup>110</sup> Layton, “Va. Hopes to Privatize Dulles Rail Project.”

in priorities towards promoting the future of Dulles International Airport, which the MWA also manages. As discussed above in the DRPT section, this transfer of project management to the MWA may have caused the DRPT to prematurely dismiss the tunnel in favor of the airport's priorities. Stewart Schwartz of the Washington D.C. based Coalition for Smarter Growth also expressed this concern in 2006, stating: "There are big issues of accountability and oversight. I think in [the MWA's] haste to get rail all the way out to the airport, [the authority] may not be willing to put time into these urban design issues."<sup>111</sup> However, despite these concerns, the MWA's involvement in the Tysons Tunnel debate appears to have been, at most, indirect and likely was not a significant determining factor in the Tysons Tunnel's defeat.

### *WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY (METRO)*

As the technical manager and New Starts applicant of the Dulles Corridor Metrorail Project, Metro was a pivotal stakeholder in the project since it signed the First Agreement with the DRPT in 2000. Moreover, once construction of the project is complete, Metro will ultimately own and operate the rapid rail line<sup>112</sup>. Interestingly, Metro for the most part refrained from entering the Tysons Tunnel debate, although there were several indications that Metro's position was aligned with Tysons Tunnel supporters.

Most notably, it was Metro that first raised the possibility of using the large bore tunnel technique to more cost-effectively construct the Tysons Tunnel<sup>113</sup>. Metro also prodded Virginia to evaluate the merits of this proposal in late 2005 (resulting in DTP's 2006 study), contending that the Tysons Tunnel option might reduce the current project's escalating costs. Thus, it was Metro that truly set the stage for the multi-year Tysons Tunnel debate that followed. However, after this initial prodding, Metro only passively advocated for the Tysons Tunnel in an apparent attempt to stay out of the project's politics.

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<sup>111</sup> Steven Ginsberg and Alec MacGillis, "Dulles Decision Praised, Doubted; Va. Officials Give Airports Authority Toll Road Control," *The Washington Post*, March 28, 2006.

<sup>112</sup> Layton, "Va. Hopes to Privatize Dulles Rail Project."

<sup>113</sup> Rein, "Metro Considers Tysons Options."

For example, Metro engineers expressed skepticism towards DTP's conclusion that the tunnel would add \$500 million in costs to the project, reporting to the Washington Post that the tunnel would at most cost \$200 million to \$300 million more than the LPA<sup>114</sup>. This prompted Fairfax County to ask Governor Kaine for the independent American Society of Civil Engineers (ASCE) panel review in 2006<sup>115</sup>, without any involvement from Metro. Then, following Kaine's announcement against the tunnel, Metro's Board of Directors expressed significant dissatisfaction with Virginia's decision-making process, criticizing the state for ignoring the consequences of the elevated alignment<sup>116</sup>. At the time, Metro was set to approve the project's operating costs in May 2007, and some board members indicated that they would not grant approval unless the Tysons Tunnel was given greater consideration<sup>117</sup>. Chris Zimmerman, an Arlington County representative on Metro's Board stated: "This is a once-in-a-generation – or multigenerational – decision. There's enough reason to doubt that the decision in Richmond is the right one."<sup>118</sup> Nonetheless, the project's operating costs gained approval within a few months<sup>119</sup>.

This clear support for the Tysons Tunnel within Metro's Board appears to have been dwarfed by Metro's deference to Virginia on the issue. As stated in Metro's March 2007 *Briefing on Tysons Tunnel Proposal*: "Metro to date has taken the position that the decision on an alignment, including consideration of changes to the currently approved alignment, is a matter that has to be decided by the project sponsors, namely the Commonwealth of Virginia."<sup>120</sup> T. Dana Kauffman, who served as a member of Metro's Board as well as a Fairfax County Supervisor at the time, explained the rationale for Metro's position here in an interview for this thesis. According to Kauffman, Metro's leadership was weary of ups in downs in public perception of the Metrorail system, which had far-reaching impacts for the authority's management of the entire system. Given the controversial nature of the Tysons Tunnel,

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<sup>114</sup> MacGillis, "Tysons Tunnel Could Risk U.S. Funds."

<sup>115</sup> Ibid.

<sup>116</sup> Turque and Sun, "Tunnel at Tysons Would Be Costly Risk, Study Says."

<sup>117</sup> Ibid.

<sup>118</sup> Ibid.

<sup>119</sup> Amy Gardner, "Airports Authority Signs Deal to Initiate Transit Project," *The Washington Post*, June 7, 2007.

<sup>120</sup> Metro Planning, Development, and Real Estate Committee, 2007, "Briefing on Tysons Tunnel proposal," WMATA website, accessed March 25, 2014, [http://www.wmata.com/about\\_metro/board\\_of\\_directors/board\\_docs/030807\\_RevTysonsTunnel.ASCE.pdf](http://www.wmata.com/about_metro/board_of_directors/board_docs/030807_RevTysonsTunnel.ASCE.pdf), 2.

Metro did not want to engage and risk losing the approval of many constituents<sup>121</sup>. In this light, it is clear that Metro's desire to avoid the politics of the Tysons Tunnel debate overrode internal advocacy for the tunnel proposal. Metro, therefore, represented a minor obstacle for forces opposing the Tysons Tunnel.

## LOCAL MUNICIPALITIES

### *FAIRFAX COUNTY*

While Fairfax County had limited decision-making power in the Dulles Corridor Metrorail Project, the County played an important advocacy role in the Tysons Tunnel debate. A Board of Supervisors governs Fairfax County, with nine members elected from each of the County's districts and one Chairman elected at-large<sup>122</sup>. During the Tysons Tunnel debate, Gerald (Gerry) E. Connolly served as the Chairman of the Board of Supervisors, having been a board member since 1994<sup>123</sup>. Connolly was generally supportive of the Tysons Tunnel, but he was also a very pragmatic leader<sup>124</sup>. Connolly's pragmatism, however, was buoyed by unflagging support for the Tysons Tunnel voiced by T. Dana Kauffman, a member of Fairfax County's Board of Supervisors as well as Metro's Board of Directors. Between Connolly and Kauffman, Fairfax County emerged as a key ally for tunnel supporters.

Interestingly, before Metro raised the prospect of large bore tunnel technology, Fairfax's perspective on the Dulles Corridor Metrorail Project mirrored the views of what would become the Tysons Tunnel opposition. In June 2005 when project partners were scrambling for cost savings measures, Connolly stated that the county would accept measures such as shortening or eliminating the short tunnel in the elevated alignment. He added: "We can live with that [eliminating the tunnel]."

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<sup>121</sup> T. Dana Kauffman, March 13, 2015, Personal communication.

<sup>122</sup> Fairfax County, "Our Government," Fairfax County, Virginia website, accessed April 4, 2015, <http://www.fairfaxcounty.gov/government/>.

<sup>123</sup> Congressman Gerald Connolly's official website (Connolly.house.gov), "Biography: Congressman Gerald E. Connolly, 11<sup>th</sup> District of Virginia," accessed February 15, 2015, <http://connolly.house.gov/about-gerry/>.

<sup>124</sup> Ibid.

Getting this project done is essential to our future.<sup>125</sup> This all changed in 2006 when Fairfax asked Governor Kaine to commission the independent ASCE panel review<sup>126</sup>. After the panel review, Connolly reported that he was surprised by the strength of the support for the tunnel and came out in favor of the Tysons Tunnel<sup>127</sup>. Meanwhile, Kauffman urged Virginia's congressional delegation to promote to the FTA the many benefits the Tysons Tunnel would offer beyond those captured in the federal cost-effectiveness standard<sup>128</sup>.

After Kaine's announcement against the tunnel, Connolly retreated to a more pragmatic position, although he still raised some important concerns about parts of the decision-making process. Most notably, Connolly noted to the media how Wolf and Davis' letter to Kaine undermined the Governor's ability to negotiate with the FTA<sup>129</sup>. Connolly emphasized this point in his statement immediately following Kaine's decision: "We will make [an elevated track] work because we have to. [The governor] had a tough decision to make, given the position of the two congressmen and the FTA. We don't live in an ideal world, and we'll make it work."<sup>130</sup> Connolly for the most part did not deviate from this pragmatic position, even as local support for the Tysons Tunnel boomed through Tysons Tunnel, Inc. In November 2006, he said he viewed Kaine's decision as final and advised others to turn their attention towards making the selected alignment work.<sup>131</sup> Still, Connolly never conceded that federal forces had no sway over Kaine's decision, calling the FTA's claim that the decision was purely the state's call "disingenuous" in June 2007.

Kauffman, on the other hand, only increased his support for the Tysons Tunnel following Kaine's announcement. In regards to Kaine's decision, Kauffman stated: "This will prove to be the wrong decision for the wrong reasons. Ten years from now, I regret my son may pick up a planning text where Fairfax's long-awaited rail extension is highlighted as a failed attempt at service and economic

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<sup>125</sup> Whoriskey, "Price Soars For Extension Of Metrorail."

<sup>126</sup> MacGillis, "Tysons Tunnel Could Risk U.S. Funds."

<sup>127</sup> Alec MacGillis, "Tysons Metro Tunnel Buoyed; Cost Wouldn't Threaten Completion, Panel Says," *The Washington Post*, July 29, 2006.

<sup>128</sup> MacGillis, "Tysons Tunnel Could Risk U.S. Funds."

<sup>129</sup> MacGillis, "For McLean Chamber Group, Tysons Tunnel Dream Endures."

<sup>130</sup> MacGillis, "No Tunnel For Tysons, Kaine Says."

<sup>131</sup> Alec MacGillis, "Businesses, Groups Still Pushing for Tysons Tunnel," *The Washington Post*, November 9, 2006.

development. It can't only be about the here and now."<sup>132</sup> At this time, Kauffman was the only politician still willing to consider the project in terms of its long-term benefits and consequences. He also made efforts to support the growing Tysons Tunnel advocacy, donating \$1,000 to Tysons Tunnel, Inc.<sup>133</sup> and contributing his perspective to numerous Washington Post article to help get frequent and favorable media coverage that rallied and maintained popular support for the tunnel<sup>134</sup>. Ultimately, Kaufmann's advocacy did not prevent Fairfax from approving operating and funding agreements in June 2007 that included the elevated alignment<sup>135</sup>. However, almost ten years later, Kauffman reaffirmed his earlier positions, stating: "I understand why (...) Governor Kaine made the decision he did, and why others supported it. But for me it does remain the wrong decision for the wrong reasons."<sup>136</sup> All together, Fairfax County, Connolly, and Kauffman played a central role in supporting and legitimizing Tysons Tunnel advocates, but in the end the County did not have the power to redirect the project.

### *LOUDOUN COUNTY*

In addition to Fairfax County, several local municipalities held a stake in the Dulles Corridor Metrorail Project and, indirectly, the Tysons Tunnel debate – including Loudoun County, City of Falls Church, and Town of Herndon. However, the governing bodies of these municipalities did not engage in the Tysons Tunnel debate in any significant way. Loudoun County had the most at stake in the debate, since only Phase 2 of the project would serve the county. Still, Loudoun County officials remained quiet on the issue until both Fairfax and Loudoun counties signed the operating and funding agreements in June 2007<sup>137</sup>. It is entirely possible that Loudoun County voiced opposition to the tunnel through back channels in an effort to secure the FTA funding for the entire project. Though, given the limited power of individual counties in the Tysons Tunnel debate, it can be assumed that any quiet opposition on Loudoun's part would have made only very minor impacts.

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<sup>132</sup> MacGillis, "No Tunnel For Tysons, Kaine Says."

<sup>133</sup> MacGillis, "For McLean Chamber Group, Tysons Tunnel Dream Endures."

<sup>134</sup> T. Dana Kauffman, March 13, 2015, Personal communication.

<sup>135</sup> Washington Post (editorial), "Tunnel Vision."

<sup>136</sup> T. Dana Kauffman, March 13, 2015, Personal communication.

<sup>137</sup> Washington Post (editorial), "Tunnel Vision."

## LOCAL PRIVATE ACTORS

### *GREATER MCLEAN CHAMBER OF COMMERCE AND TYSONS TUNNEL, INC.*

Following Kaine's announcement against the Tysons Tunnel, many local stakeholders were shocked and dismayed<sup>138</sup> – including the Greater McLean Chamber of Commerce, which works with many businesses in the Tysons Corner and McLean area<sup>139</sup>. The Greater McLean Chamber of Commerce galvanized and organized these disgruntled stakeholders to establish tysonstunnel.org (which would later form into Tysons Tunnel, Inc.) with the slogan "It's not over til it's over."<sup>140</sup> Scott Monet, then president of the Chamber, also lead the new Tysons Tunnel campaign<sup>141</sup>.

Tysons Tunnel, Inc. was incredibly well received and quickly picked up speed. The campaign's first public meeting attracted over 200 residents<sup>142</sup>. Soon, Tysons Tunnel, Inc. set out to raise over \$3 million to commission an independent engineering and design study for the Tysons Tunnel, in hopes that the study would sway the state once Phase 1 costs inevitably continued to rise<sup>143</sup>. This initiative easily secured funding from WestGroup<sup>144</sup>, a major landowner in Tysons Corner who had long supported and Tysons Tunnel and had even offered to fund a full engineering study of the tunnel for Kaine in 2006<sup>145</sup>. This partnership resulted in Tysons Tunnel, Inc.'s January 2007 study, which concluded that the tunnel was feasible and would cost approximately the same as the elevated alignment<sup>146</sup>. However, DRPT's subsequent review of this study quickly discredited these findings<sup>147</sup> and, ultimately, the study did little to win over key players at the state or federal level in 2007.

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<sup>138</sup> MacGillis, "Businesses, Groups Still Pushing for Tysons Tunnel."

<sup>139</sup> Greater McLean Chamber of Commerce, "About Us," [mcleanchamber.org](http://mcleanchamber.org/pages/AboutUs/), accessed April 5, 2015, <http://mcleanchamber.org/pages/AboutUs/>.

<sup>140</sup> MacGillis, "For McLean Chamber Group, Tysons Tunnel Dream Endures."

<sup>141</sup> MacGillis, "Businesses, Groups Still Pushing for Tysons Tunnel."

<sup>142</sup> MacGillis, "For McLean Chamber Group, Tysons Tunnel Dream Endures."

<sup>143</sup> Ibid.

<sup>144</sup> Bill Turque, "Tysons Tunnel Buried, Again; Legal, Engineering Reasons Are Cited," *The Washington Post*, June 1, 2007.

<sup>145</sup> MacGillis, "Businesses, Groups Still Pushing for Tysons Tunnel."

<sup>146</sup> Carter & Burgess, Inc., 2007, "Review of Large Bore Tunnel Engineering and Environmental Studies from Tysons Tunnel, Inc.," Dulles Corridor Metrorail Project website, accessed October 27, 2014, [http://www.dullesmetro.com/silverline/assets/File/project\\_docs/LBT\\_PDF\\_Report\\_Only\\_02\\_26\\_2007.pdf](http://www.dullesmetro.com/silverline/assets/File/project_docs/LBT_PDF_Report_Only_02_26_2007.pdf), 1.



During the second half of 2007, Tysons Tunnel, Inc. started to lose steam as it faced major setbacks as well as local opposition – Fairfax County signed off on the elevated design<sup>148</sup>, the FTA issued increasingly severe threats to deny funding for the entire Dulles Corridor Metrorail Project<sup>149</sup>, and local landowners organized against Tysons Tunnel, Inc. in an effort to reduce the risk of losing the project<sup>150</sup>. At this point, it had also become clear that Tysons Tunnel, Inc.'s hopes for their engineering and design study were not going to come to fruition. Tysons Tunnel, Inc. unsuccessfully tried a new strategy when it filed a short-lived lawsuit against the FTA in December 2007, demanding a competitive bidding process for the project<sup>151</sup>. However, Tysons Tunnel, Inc.'s campaign was effectively over by mid-2008 when the FTA finally approved funding for the project and project partners moved towards final design and preconstruction<sup>152</sup>.

Given this timeline, the most promising period for the Tysons Tunnel, Inc. movement was late 2006 to mid 2007 – between Kaine's announcement and Fairfax's approval of the elevated designs. During this short period, Tysons Tunnel, Inc. focused most of its resources on a single strategy – the production of their engineering and design study. While this strategy had decent merits – it reduced the delay that pursuing the Tysons Tunnel would have caused and it leveled the playing field somewhat between the elevated alignment and the Tysons Tunnel – it did less to address the complex political forces opposing the Tysons Tunnel, such as the FTA's and Wolf's unwillingness to reconsider the FTA New Starts program's standards. Tysons Tunnel, Inc.'s mobilization of the tunnel supporters, on the other hand, did successfully win over the support of Congressman Davis<sup>153</sup>. In this light, Tysons Tunnel, Inc.'s strategy of confronting interwoven political forces with quantitative measures and cost estimates was perhaps an ill-suited tactic – especially since Virginia's own ASCE panel review had already provided convincing quantitative measures and cost estimates in favor of the tunnel.

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<sup>147</sup> Ibid., 1.

<sup>148</sup> Washington Post (editorial), "Tunnel Vision."

<sup>149</sup> MWAA, "Dulles Corridor Metrorail Project Timeline."

<sup>150</sup> Amy Gardner, "Tysons Tunnel Loses Backers As Landowners Unite for Growth," *The Washington Post*, December 2, 2007.

<sup>151</sup> Ibid.

<sup>152</sup> MWAA, "Dulles Corridor Metrorail Project Timeline."

<sup>153</sup> Alec MacGillis, "Davis Joins Tysons Tunnel Backers; Some See Shift As Helping Wife," *The Washington Post*, February 15, 2007.

Tysons Tunnel, Inc. was certainly a major force in favor of the tunnel following Kaine's 2006 announcement – and likely the only reasons the debate continued into 2007. However, it appears that the Tysons Tunnel's ultimate defeat was due to a mismatch between Tysons Tunnel, Inc.'s own advocacy strategy and the more political forces of behind the tunnel opposition. Nonetheless, the progress made by Tysons Tunnel, Inc. – as a non-governmental actor with limited funding – in this debate was remarkable.

## *WESTGROUP*

WestGroup was an indispensable force in the movement to build the Tysons Tunnel. As a major landowner in Tysons Corner, WestGroup brought economic significance to the Tysons Tunnel supporters. WestGroup believed that the Tysons Tunnel would add much value to their plans for “urban-style” development in the Tysons Corner area<sup>154</sup>. Senior WestGroup officials also recognized that the tunnel would create a more attractive, safer, and pedestrian friendly environment for their developments<sup>155</sup>. Importantly, WestGroup was a constant source of support for the Tysons Tunnel for almost the entire length of the Tysons Tunnel debate, although it distanced itself from Tysons Tunnel, Inc. in late 2007 when defeat seemed imminent<sup>156</sup>.

Interestingly, WestGroup was initially involved in DTP, although it withdrew from of the partnership in 2004, well before the Tysons Tunnel became a serious proposal<sup>157</sup>. It can be assumed that WestGroup joined DTP in the early 2000s because it recognized the large development opportunity afforded by the Dulles Corridor Metrorail Project. By early 2006 – well before Kaine's announcement and the subsequent formation of Tysons Tunnel, Inc. – WestGroup emerged as a key advocate for the Tysons Tunnel, which WestGroup clearly believed would only increase the value of its development opportunities. WestGroup and its president, Gerald Halpin, were large donators to local and state democratic candidates, having donated significantly to Kaine in particular<sup>158</sup>. This gave WestGroup added standing in the deliberation leading up to Kaine's September 2006, although all

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<sup>154</sup> MacGillis, “Kaine's Pick Is Said to Be Tunnel For Tysons.”

<sup>155</sup> MacGillis, “Tunnel Back On Table for Dulles Rail.”

<sup>156</sup> Gardner, “Tysons Tunnel Loses Backers As Landowners Unite for Growth.”

<sup>157</sup> MWAA, “Dulles Corridor Metrorail Project Timeline.”

<sup>158</sup> MacGillis, “Kaine's Pick Is Said to Be Tunnel For Tysons.”

parties emphasized that Kaine's decision was not reflective of WestGroup's monetary support<sup>159</sup>. Indeed, Kaine's decision against the Tysons Tunnels proves that the support from his major campaign contributors only went so far.

After Kaine announced that the state would no longer pursue the tunnel, WestGroup became involved in Tysons Tunnel, Inc.'s advocacy, providing the majority of the funding for Tysons Tunnel, Inc.'s engineering and design study<sup>160</sup>. In all likelihood, Tysons Tunnel, Inc. would not have been able to commission their study and make as much progress as they did without the financial support of WestGroup. In this sense, WestGroup's greatest contribution to the Tysons Tunnel debate was making Tysons Tunnel, Inc.'s advocacy possible. While neither Tysons Tunnel, Inc. nor WestGroup prevailed in the end, there may not have been much of a Tysons Tunnel debate without the collaboration between these two organizations.

## CONCLUSION

By exploring each stakeholder's role in the Tysons Tunnel debate, this analysis reveals which stakeholders and reasons truly influenced the decision against the Tysons Tunnel – as summarized in the table below. As the federal funding agency for this project, the FTA held the most power in the debate since everyone else needed to convince *them* to grant federal funding. The FTA and its unrelenting commitment to the cost-effectiveness standard, therefore, was a primary factor in the Tysons Tunnel decision. Wolf also carried significant influence since his public allegiance with the FTA appears to have prevented other congressional and state actors from building coalition in support of the tunnel. Kaine of course was also incredibly influential in the Tysons Tunnel decision. Although his actions suggest he did not choose to exercise his executive authority, allowing the FTA and Wolf to control his own influence. Finally, DTP was effectively granted the ability to influence the debate through Virginia's public-private partnership. DTP had no decision-making power, but their state-sanctioned action nonetheless shaped the course of the Tysons Tunnel debate and their entire Silver Line project.

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<sup>159</sup> Ibid.

<sup>160</sup> Turque, "Tysons Tunnel Buried, Again; Legal, Engineering Reasons Are Cited."

In contrast, many stakeholders that played a large role in the debate carried relatively less influence. Fairfax County, Tysons Tunnel, Inc., and WestGroup all contributed greatly to the Tysons Tunnel debate and enabled it to continue beyond Kaine’s decision. However, their limited or nonexistent decision-making power meant that these stakeholders’ influence and reasoning was ultimately trumped by higher powers. Alternatively, some stakeholders – in particular, Metro – could have exerted more influence over the Tysons Tunnel decision, but chose not to get involved. The perspectives of these stakeholders are critical to a full understanding of the Tysons Tunnel debate and decision, but their rationale ultimately did not prevail. For this reason, the following Discussion chapter expounds on this stakeholder analysis by critically analyzing the rational and motivation of the Tysons Tunnel decision’s most influential actors.

Stakeholder	Main Takeaways
Federal Transit Administration (FTA)	<ul style="list-style-type: none"> <li>• FTA exerted strong influence over Kaine’s decision against the Tysons Tunnel. This influence was based primarily on the FTA’s power to deny federal funding for the entire project. The rationale behind the FTA’s opposition was the project’s poor cost-effectiveness rating.</li> <li>• After Kaine’s decision, the FTA’s increasingly serious threats to deny funding over poor cost-effectiveness ratings continued to exert a strong influence against the Tysons Tunnel as Virginia scrambled to save the project <i>without</i> the tunnel.</li> <li>• The FTA’s cost-effectiveness standard was a relatively narrow measure that ignored local investment and benefits beyond travel time savings. Revisions to this standard since the Tysons Tunnel debate further indicate that this metric was not a justifiable reason to oppose the tunnel.</li> </ul>
Federal Aviation Administration (FAA)	<ul style="list-style-type: none"> <li>• The FAA did not play a significant role in the Tysons Tunnel decision.</li> </ul>
U.S. Department of Transportation (U.S. DOT) Leadership	<ul style="list-style-type: none"> <li>• FTA Administrator James Simpson entered the office immediately before Kaine’s decision. Simpson pressured Kaine to forgo the Tysons Tunnel in meetings immediately before Kaine’s decision and, therefore, the timing of Simpson’s tenure may have impacted this decision.</li> <li>• Both Simpson and U.S. Transportation Secretary</li> </ul>

	<p>Mary Peters left office shortly after the Dulles Corridor Metrorail Project (with the elevated design) was finally approved. This approval signified the end of the Tysons Tunnel debate so Simpson and Peters' desire to approve the project before leaving office may have cemented the elevated design's selection.</p>
Congressman Frank Wolf	<ul style="list-style-type: none"> <li>• Wolf's standing and involvement in the Dulles Corridor Metrorail Project gave him significant influence over the Tysons Tunnel decision. By advising Kaine to adhere to the FTA's warning in his public letter and during meetings, Wolf affirmed the FTA's power to thwart the tunnel and disabled Kaine from building a credible coalition against the FTA.</li> </ul>
Congressman Thomas Davis	<ul style="list-style-type: none"> <li>• Davis' alignment with and vocal support of Wolf increased Wolf's influence over the Tysons Tunnel decision. The impact of Davis' reversal after Kaine's decision had a minimal impact of the Tysons Tunnel's fate.</li> </ul>
Virginia's Congressional Delegation	<ul style="list-style-type: none"> <li>• Other members of Virginia's congressional delegation did not play a significant role in the Tysons Tunnel decision.</li> </ul>
Governor Tim Kaine	<ul style="list-style-type: none"> <li>• Kaine played a pivotal role in the Tysons Tunnel debate. His decision to forgo the tunnel in September 2006 effectively ended any consideration of the tunnel by his office and the DRPT, even though support for the Tysons Tunnel only increased after his decision.</li> <li>• While Virginia's choice of whether or not to pursue the tunnel was officially Kaine's decision, Kaine appeared unwilling to exercise executive authority on this issue. He was initially supportive, but in the end was influenced by the FTA and Wolf.</li> </ul>
Commonwealth Transportation Board (CTB)	<ul style="list-style-type: none"> <li>• The CTB did not play a significant role in the Tysons Tunnel debate. Its actions aligned with Kaine's.</li> </ul>
Virginia Department of Rail and Public Transportation (DRPT)	<ul style="list-style-type: none"> <li>• The DRPT played a moderate role in the Tysons Tunnel debate. Its early dismissal of the Tysons Tunnel and adherence to the FTA's warnings did not help the Tysons Tunnel leading up to Kaine's decision. However, DRPT does not appear to have significantly influenced Kaine's decision so this opposition had a minimal impact.</li> <li>• The DRPT's early opposition to the Tysons Tunnel may be rooted in their partnership with DTP. Since DTP created large obstacles for the Tysons Tunnel, the DRPT indirectly contributed to the Tysons Tunnel's downfall by authorizing</li> </ul>

	and supporting DTP.
Dulles Transit Partners (DTP)	<ul style="list-style-type: none"> <li>• DTP's uncompetitive and nontransparent public-private partnership with Virginia may have led to unnecessary cost escalations for the entire project. These cost escalations influenced the Tysons Tunnel debate by exacerbating tensions between the FTA's cost-effectiveness standard and the additional tunnel costs.</li> <li>• DTP's disincentive to share its contract with firms specializing in large bore tunnel technique likely fueled opposition to the Tysons Tunnel through DTP's inflated estimates of tunnel costs and risks.</li> <li>• In general, Virginia's pursuit of a public-private partnership for this project may have influenced the Tysons Tunnel debate because this uncompetitive, nontransparent process eliminated opportunities for serious consideration of a tunnel during early planning stages.</li> </ul>
Metropolitan Washington Airports Authority (MWAA)	<ul style="list-style-type: none"> <li>• The MWAA did not play a significant role in the Tysons Tunnel debate.</li> </ul>
Washington Metropolitan Area Transit Authority (Metro)	<ul style="list-style-type: none"> <li>• Despite introducing the large bore tunnel technique that made the Tysons Tunnel feasible, Metro did not play a large role in the Tysons Tunnel debate. Metro expressed support for the tunnel, but refrained from getting involved in any serious way.</li> </ul>
Fairfax County, Virginia	<ul style="list-style-type: none"> <li>• Fairfax County was a major stakeholder in the Tysons Tunnel decision and an important tunnel supporter. The county, however, had limited decision-making power. Fairfax County influenced the debate primarily by legitimizing and propelling tunnel supporters. Supervisor Kauffman, in particular, was effective in expressing support through media outlets.</li> </ul>
Loudoun County, Virginia	<ul style="list-style-type: none"> <li>• Loudoun County did not play a significant role in the Tysons Tunnel debate.</li> </ul>
Greater McLean Chamber of Commerce / Tysons Tunnel, Inc.	<ul style="list-style-type: none"> <li>• Greater McLean Chamber of Commerce's efforts to spearhead Tysons Tunnel, Inc. were instrumental in the Tysons Tunnel debate. If not for Tysons Tunnel, Inc., the debate likely would have ended soon after Kaine's decision. As a coalition of businesses, Tysons Tunnel, Inc. had strong local influence, which it spread to higher levels of government by commissioning a professional engineering study. Still, Tysons Tunnel, Inc.'s lack of decision-making power ultimately curtailed its influence.</li> </ul>

WestGroup	<ul style="list-style-type: none"><li>• WestGroup carried influence in the Tysons Tunnel debate in two ways. First, through its president's standing with Kaine, though this had limited impact. And second, by financially supporting Tysons Tunnel, Inc. and, thereby, enabling much of the group's work. Like Tysons Tunnel, Inc., WestGroup's lack of decision-making power capped its influence over the Tysons Tunnel decision.</li></ul>
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# DISCUSSION



## DISCUSSION

The Case Study, Snapshot of 2015, and Stakeholder Analysis chapters show that the Tysons Tunnel debate essentially boiled down to two competing arguments. The primary opposition to the Tysons Tunnel stemmed from the FTA and was based on the cost-effectiveness standard. This source of opposition rippled to create additional opposition from Congressman Wolf and, eventually, Governor Kaine and the Commonwealth of Virginia based on an unwillingness to challenge the FTA and risk losing federal funding. On the other side, the main support for the Tysons Tunnel stemmed from the local Tysons Corner community and was based on the goal of fostering urban, transit-oriented development. This rationale was well-received and almost won over the state's support. However, as the Stakeholder Analysis demonstrates, actors opposed to the tunnel generally held greater decision-making power than tunnel supporters did and, therefore, ultimately won out. Because the opposition and its rationale prevailed, this chapter takes a critical look at these stakeholders' reasons for rejecting the Tysons Tunnel to determine whether they presented legitimate arguments against the tunnel. This investigation reveals that the opposition's rationale was largely based on narrow, short-term, and immaterial political factors, rather than real constraints or a consideration of public costs and benefits. The reasons against the Tysons Tunnel, therefore, were not a sound basis for making such a consequential decision and do not justify the Silver Line's suboptimal design.

It is important to note that the Case Study and Stakeholder Analysis show that there were never any real reasons presented for why the Tysons Tunnel could not be built due to physical or financial constraints. Multiple studies testified that the tunnel was feasible from an engineering standpoint and that the additional costs would be minor. Moreover, broad support from Fairfax County government, the local business community, and the general public indicated that raising local funds for the additional tunnel costs would not be an insurmountable issue. Given this, the analysis below assumes that the Tysons Tunnel could have indeed been built and looks for justifications as to why decision-makers actively chose to reject the tunnel.

## THE CASE AGAINST THE TYSONS TUNNEL

### *FTA AND THE COST-EFFECTIVENESS STANDARD*

As the primary antagonist in the Tysons Tunnel debate, the FTA is the natural starting point for a critical evaluation of the opposition's rationale against the tunnel. The FTA's power was derived from its ability to deny funding, but its rationale against the Tysons Tunnel was based entirely on how the tunnel impacted the cost-effectiveness standard. The FTA's threats to deny federal funding to the underground project due to poor cost-effectiveness ratings convinced Wolf, Davis, the DRPT, and finally Kaine to renounce the Tysons Tunnel. Later, the FTA's threats to deny funding to the *elevated* project kept Tysons Tunnel, Inc. at bay as project partners became increasingly concerned with satisfying the FTA. Despite this focus on the cost-effectiveness standard, there is strong evidence to suggest it was – and still is – a flawed metric. It only weighs travel time savings against total project costs, ignoring many long-term benefits such as economic development opportunities and increased property values as well as planning goals like walkability and transit-oriented development. The standard also does not consider local funding contribution, preventing the county and state from investing its own money in locally supported transit improvements such as the Tysons Tunnel. Finally, the shortcomings of the standard have only been confirmed by efforts to revise it since the Tysons Tunnel debate – the standard now takes local funding contributions and land use benefits into slightly more consideration. Given these considerable issues, the narrow cost-effectiveness standard is a poor basis for any decision with wide-ranging impacts.

The standard, however, was particularly problematic in the Tysons Tunnel debate because it did not take into account any of the Tysons Tunnel's merits and it mischaracterized the tunnel's costs. All the benefits that the Tysons Tunnel would have offered over the elevated Silver Line were benefits that the standard ignored, as both options offered similar travel time savings. Similarly, the cost-effectiveness standard's lack of consideration for local funding contribution meant that the FTA penalized Virginia and Fairfax County for proposing to fund a transit improvement, rather than considering how this improvement could augment the FTA's own investment. Therefore, the cost-

effectiveness standard was especially ill suited to the Tysons Tunnel decision and offered no justification for elevating the Silver Line.

The standard's application to the Tysons Tunnel decision became increasingly corrupt as the debate evolved. The fiscal principles behind this already flawed metric were eventually contradicted by the FTA's acceptance of the elevated design's escalating costs. In early 2006, prior to Kaine's decision, DTP estimated that Phase 1 would cost a total of just over \$2 billion. During this time, Metro engineers estimated that the Tysons Tunnel would cost \$200 million to \$300 million more. Virginia's ASCE panel seconded this estimate, finding that the tunnel would cost about \$250 million more than the elevated design. The FTA's strong disapproval of the Tysons Tunnel leading up Kaine's decision indicates that it considered an increase in total project costs from \$2 billion to \$2.3 billion unacceptable under the cost-effectiveness standard. However, DTP's estimates for the elevated design soon rose to the range of \$2.4 billion to \$2.7 billion, and eventually to \$2.8 billion. While tensions between the FTA and project partners escalated along with these costs, the fact that the FTA ultimately allowed the elevated design to advance with a lower cost-effectiveness rating than it had prior to Kaine's decision shows that this standard was given undue weight in the Tysons Tunnel decision.

The FTA's position in the Tysons Tunnel debate is hard to understand. At no point was the FTA asked to contribute any additional funding for the tunnel. Rather, the FTA's vehement opposition to the Tysons Tunnel is seemingly based on an aversion to increasing total project costs in the abstract. Simpson's assumption of office immediately before Kaine's decision offers one possible explanation for the FTA's opposition, since Simpson came out strong against the tunnel. However, it is unlikely that Simpson's entrance totally changed the direction of the FTA's position since the administration had already clashed with project partners over the cost-effectiveness standard.

Another possible explanation comes more generally from federal policies on surface transportation funding. During the Tysons Tunnel debate, the active federal surface transportation bill was the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA-LU authorized \$287 billion in transportation spending over six years, including

\$228 billion for highway programs, \$53 billion for transit, and \$6.5 billion for safety<sup>1</sup>. This means 79 percent of federal transportation dollars went to highway programs while only 18 percent went to transit programs. For the most part SAFETEA-LU maintained the funding levels of its predecessor bills; however, this only maintained the disparity between transit funding and highway funding at the federal level. These funding levels make federal transit programs notably more competitive and intensive than highways programs. The FTA's review process for transit projects typically involves several more steps and criteria than the Federal Highway Administration's (FHWA) review process for highway projects<sup>2</sup>. For these reasons transportation advocates argue that federal transportation policies disadvantage transit projects<sup>3</sup>. In this sense, the FTA's problematic focus on the cost-effectiveness standard during the Tysons Tunnel decision is symptomatic of larger issues with federal transportation policies that disfavor transit projects. The highly competitive nature of New Starts funding and the FTA's practice of intensely scrutinizing applicants likely contributed to its strong commitment to the cost-effectiveness rating.

Regardless of the root cause of the FTA's opposition, the cost-effectiveness standard's preeminence in the Tysons Tunnel debate remains fundamentally flawed. These shortcomings only add to the argument that federal transportation policy needs to be revised to enable more effective transit planning. The decision to elevate the Silver Line has ramifications that will continue for decades, and the forgone benefits of the Tysons Tunnel are likewise a long-term missed opportunity. Basing this decision on a narrow, short-term metric with notable flaws was not sound to say the least. The principles behind the cost-effectiveness standard do not warrant the problems that the elevated Silver Line now poses for Tysons Corner's future development.

### *CONGRESSMAN WOLF'S UNDUE INFLUENCE*

Congressman Wolf had a tremendously successfully and accomplished political career, both in transportation and in other arenas. His prior accomplishments, however, inflated his influence in

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<sup>1</sup> Transportation for America, 2011, "Transportation 101: An Introduction to Federal Transportation Policy," [Transportationforamerica.org](http://t4america.org/docs/Transportation%20101.pdf), accessed January 10, 2015, <http://t4america.org/docs/Transportation%20101.pdf>, 31-33.

<sup>2</sup> *Ibid.*, 49-51.

<sup>3</sup> *Ibid.*, 49.

the Tysons Tunnel debate, where he should not have held so much sway as an individual actor. Wolf's influence over the Tysons Tunnel decision began with his public letter, written with Congressman Davis, which advised Kaine to reject the tunnel to avoid the risk of losing federal funds. This sent a clear message that the Tysons Tunnel did not have the support of Congress and affirmed the power and relevance of the FTA's cost-effectiveness standard. More importantly, it prevented Kaine from building a coalition against the FTA and the cost-effectiveness standard, putting the Governor in a corner with regards to his decision. Reports of Wolf's outspoken challenges to the tunnel during meetings with Kaine and the FTA immediately before Kaine's decision indicate that the congressman continued to influence the Tysons Tunnel decision in this manner.

With this single letter, Wolf also became the voice of the opposition, though he refrained from publically commenting further. Many newspaper articles used the letter to summarize the opposition<sup>4</sup>. Wolf's stature seems to have legitimized the opposition; for, without the letter, there was no real embodiment of the movement against the Tysons Tunnel, just the faceless bureaucracy of the FTA or the DRPT. Davis, of course, was also an influential and outspoken actor in this regard, but his actions can be seen as amplifying Wolf's influence. When Davis later completely reversed his stance on the Tysons Tunnel, his advocacy had little impact on the FTA's willingness to consider the tunnel.

So much influence from an individual actor must be critically examined. Wolf had a legacy of working on transportation issues and was an early supporter of the Dulles Corridor Metrorail Project. He, therefore, had both a reputation and many political relationships to protect and was accustomed to viewing the project holistically. He prioritized safely building the entire project over risking his reputation and relationships to build the project right in Tysons Corner. Most importantly, Wolf's congressional district included Loudoun County and the Dulles International Airport, which would be only be served by Phase 2 of the project. If the Tysons Tunnel terminated the entire project, Loudoun County would suffer. More than anything, this explains why Wolf was so averse to risking federal funding for the entire project for benefits that would be concentrated in Tysons Corner. Interestingly, this motivation of Wolf's went largely unreported during the Tysons Tunnel debate.

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<sup>4</sup> For example: Alec MacGillis, "Virginia to Review Rival Bid For Tysons Rail Extension," *The Washington Post*, August 1, 2006.

Wolf's opposition, therefore, appears to have been motivated by his political career, his personal investment in the project, and his concern for Loudoun County. The first two motivations are certainly unacceptable reasons for rejecting the Tysons Tunnel. Wolf's unwillingness to put the entire project at risk, however, was both his professional obligation and a fair reason for challenging the tunnel. Risking the project for the sake of Tysons Corner would have been detrimental to the very large Dulles corridor. But while this concern was a large part of the opposition's rhetoric and a minority of tunnel supporters argued that no Metrorail line would be preferable to an elevated Metrorail line<sup>5</sup>, this was never a credible threat. Fairfax County, Metro, and other project partners sympathetic to the tunnel never stated or insinuated that they would tank the project for the sake of the Tysons Tunnel; indeed, they had just as much to lose. Further, project partners had already addressed concerns that complications with Phase 1 would cause Phase 2 to be eliminated. After the FTA mandated constructing the project in two phases, it was agreed that Phase 1 would extend to Wiehle Avenue – well past Tysons – as a gesture that Phase 2 was not at risk of being later eliminated. In fact, Phase 2 is now being constructed entirely from state and local funding – a testament to Virginia's commitment to Phase 2<sup>6</sup>. All this is to say, this particular motivation behind Wolf's opposition was reasonable, but was not credible enough to merit the congressman's significant interference. Further, by undermining Kaine's negotiation power with the FTA, Wolf's interference prematurely eliminated the possibility that the FTA might concede and allow a locally funded tunnel to advance without revoking New Starts funding. So, Wolf's rationale for opposing the Tysons Tunnel was unwarranted and possibly a self-fulfilling prophecy.

### *GOVERNOR KAINE'S POLITICS*

Kaine's decision to withdraw state support for the tunnel was arguably the most pivotal moment in the Tysons Tunnel debate. This decision cemented and authorized opposition from the state and congress, while provoking a substantial backlash in support of the tunnel from local governments, the business community, and residents. The backlash, however, was ultimately unable

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<sup>5</sup> Robert Thomson, Washington Post columnist, March 6, 2015, personal communication.

<sup>6</sup> Metropolitan Washington Airports Authority, "Dulles Metrorail: Funding." Dulles Corridor Metrorail Project website, accessed May 17, 2015, <http://www.dullesmetro.com/about-dulles-rail/funding/>.

to overcome the influential and powerful actors in opposition to the tunnel. In retrospect, Kaine's decision was the beginning of the end for the tunnel (though he no doubt intended for the decision to be the end of the end for he tunnel).

Kaine's rationale for opposing the tunnel is frustratingly clouded by diplomacy. Former Fairfax County Supervisor Kaufmann's insight into the decision suggests that Kaine's motivation was predictable political calculus – the immediate political risks of supporting the tunnel outweighed the long-term political benefits of championing a successful project. Indeed, in meetings immediately before Kaine's decision, Simpson, Wolf, and Davis made it clear that Kaine would have to fight an uphill and risky political battle to advance the Tysons Tunnel. In the end, Kaine's only practical choice was to concede. This is a tired reflection of larger issues with politics in decision-making processes, but it necessary to point out here how long-term and extensive benefits to a major economic center were forced to give way to a short-lived coalition of political opposition. Along these lines, Kauffman offers the perfect summary of Kaine's rationale for rejecting the tunnel; it was “the wrong decision for the wrong reasons.”<sup>7</sup> Based on the political context in which Kaine acted, it was an understandable decision – but these are the wrong reasons. Based on the actual consequences and potential benefits of the decision, it was the wrong decision.

### *VIRGINIA'S PARTNERSHIP WITH DULLES TRANSIT PARTNERS (DTP)*

In the background of all these tensions over federal funding and politics is Virginia's public-private partnership with DTP, which influenced the Tysons Tunnel debate in many indirect but major ways. Primarily, the escalation in DTP's Phase 1 cost estimates – from the initial estimate of \$1.5 billion, to between \$2.4 billion and \$2.7 billion in the final design-build contract, and finally to \$2.9 billion by the time Phase 1 was complete – meant that tensions between the tunnel's additional costs and the FTA cost-effectiveness standard were being constantly exacerbated throughout the Tysons Tunnel debate. Because DTP's cost escalations overlapped almost exactly with the Tysons Tunnel

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<sup>7</sup> T. Dana Kauffman, Northern Virginia Community College Director of Government Affairs and Community Relations, March 13, 2015, Personal communication.

debate, it was difficult for tunnel supporters to gain any ground – even when numerous engineering bodies testified that the tunnel’s costs would be moderate.

DTP also damaged the Tysons Tunnel’s prospects in smaller ways. DTP’s bias against sharing its contract with an outside firm specializing in large bore tunnel technology likely led it to overestimate the tunnel’s costs and cast unnecessary doubts about the tunnel’s feasibility. Additionally, the DRPT’s investment in the DTP partnership may have contributed to the DRPT’s early opposition towards the tunnel, which created an adverse environment for the tunnel’s prospects leading up to Kaine’s decision. These sources of opposition are clearly motivated by private gain and convenience, and do not constitute an acceptable justification for elevating the Silver Line. The significance of DTP’s price escalations for the Tysons Tunnel decision, however, does merit further consideration.

The uncompetitive nature of DTP’s contract led many to question whether Virginia received the lowest price for these services. Notably, Metro – arguably the most knowledgeable project partner on this issue – was skeptical of Virginia’s claims that this partnership offered the best deal for the state. In the time that has passed, this controversy seems to have come out in the wash since cost overruns for major transit projects are largely considered commonplace. In an interview for this thesis, Washington Post columnist Robert Thomson (“Dr. Gridlock”) conceded it was possible that DTP caused some avoidable cost overruns, but ultimately dismissed the idea since almost all transit projects have cost escalations. So, it remains unclear whether the negative impact of DTP’s cost escalations on the Tysons Tunnel’s prospects was an unjustifiable consequence of this questionable partnership or was simply unavoidable.

Similarly, there is the joint issue of Virginia’s early engagement with DTP and the general lack of transparency in the DRPT’s negotiations with DTP. Tysons Tunnel supporters later argued that this process eliminated opportunities for other engineering firms – which may have been familiar with the large bore tunnel technique – to propose building a tunnel underneath Tysons Corner earlier in the planning process. This is a serious concern, although it is hard to condemn Virginia and DTP on such a hypothetical basis. Thomson offers important insight here, pointing out that earlier in the planning



process there were several issues up for debate, such as the merits of bus-rapid transit relative to Metrorail, or the decision to construct Phase 1 through Tysons Corner rather than the Dulles Toll Road<sup>8</sup>. Thomson added: "Because it [the Tysons Tunnel proposal] came up in the middle of the movie, there was a lot of focus on it. It had the space to become the big issue of that time period. Otherwise it would have been just one of three or four important issues coming up at the same time." In essence, it is unclear whether Virginia's opaque contracting process with DTP unnecessarily harmed the Tysons Tunnel's prospects. Though it is fair to dispute the lack of transparency on more general grounds.

Overall, Virginia's partnership with DTP greatly influenced the environment in which the Tysons Tunnel debate occurred. It is, however, difficult to prove that the impact of this partnership was unwarranted. It seems possible that the Silver Line may have been elevated even under a different set of contracting processes.

#### *SUMMARY OF THE OPPOSITION*

On the whole, the motivations of the actors opposing the tunnel do not offer a justification for why the Tysons Tunnel was not built. These significant shortcomings in rationale show that the decision to forgo the Tysons Tunnel was far from optimal. The FTA's commitment to the cost-effectiveness standard was flawed in general and poorly suited to the Tysons Tunnel decision. Wolf's concern for Loudoun County and Phase 2 was important, but the impact of his interference was excessive given the low probability that project partners would allow the entire project to unravel. Kaine's decision was understandable, but nonetheless based on politics that had little bearing on the tunnel's actual costs or potential benefits. Finally, it is unclear whether DTP's escalating cost estimates were a true justification against the tunnel. Though, as a background factor and not a decision-maker, DTP's role does change the problematic rationales behind the FTA, Wolf, and Kaine's opposition.

These motivations stand in stark contrast to rationale of Tysons Tunnel supporters, which focused on economic opportunity and the transit-oriented development goals discussed in the

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<sup>8</sup> Dr. Robert Thomson, Washington Post columnist, March 6, 2015, personal communication.

Snapshot of 2015 chapter. The opposition's rationale was focused on narrow, short-term concerns – upfront costs, travel time savings, and fleeting political factors. The rationale of Tysons Tunnel supporters, on the other hand, was concerned with far-reaching, long-term benefits – in essence, building a sustainable, transit-oriented urban center for businesses and residents alike. The problem was that these two rationales did not speak to each other; they had totally different scopes, metrics, and principles. Since the opposition carried much more influence and decision-making power, tunnel supporters stood little chance regardless of how convincing or justified their reasons were.

These issues became even more problematic for the Tysons Tunnel when the rationale behind the opposition was branded as practical or as necessary compromises. Generally, this was meant to explain that the Tysons Tunnel would not have been feasible given the complexities of the context, or the status quo at the time. Kaine's decision exemplifies this branding – his decision was practical given the context, but his motivations were far from practical. It is not practical to give the concerns of individual politicians more weight than the future of development in a major regional economic center. It is not practical to prioritize an arbitrary standard over an entire community's wish to self-fund transit improvements. It is not practical to reject an investment of \$250 million that will add significant value to a project of \$2.9 billion and many times more value to Tysons Corner over the course of several decades. These decisions simply followed the path of least resistance, and the problematic motivations behind these decisions should not be explained away as practical choices.

This conclusion is not meant to blame the opposition for its actions. Indeed, it is acknowledged that Wolf and Kaine's actions were very understandable and foreseeable. Rather, this conclusion is meant to wash away the political pretenses that manipulated the debate and to consider the Tysons Tunnel decision for what it really was at the core: a suboptimal decision based on political constraints that had nothing to do with the project's actual costs and benefits, or the public good. Defending and accepting these political constraints in the name of practicality hinders progress by perpetuating a status quo that results in suboptimal investments. By invalidating these constraints, this thesis rejects the notion that these constraints were unavoidable and calls for improvement in decision-making processes going forward. The argument that the opposition's actions were

understandable in the mid 2000s does not mean that these constraints were valid or that they should be accepted as unavoidable in the future.

## COMPOUNDING FACTORS

The above analysis covers the core reasons why the Tysons Tunnel decision was an unjustified and suboptimal decision. However, the Tysons Tunnel debate is inseparable from the larger Dulles Corridor Metrorail Project and it is important to discuss how this background contributed to the Tysons Tunnel's defeat in order to make effective recommendations for how this decision-making process could be improved. In particular, three compounding factors from the project's background contributed to the Tysons Tunnel opposition that emerged in the late 2000s: the coevolution of the project with Tysons Corner, the project's original purpose of serving the airport, and the momentum and sunk costs associated with having completed decades of planning and, especially, the federal environmental review process.

When the Dulles corridor rapid rail transit project was initially conceived in the 1960s, Tysons Corner was just starting to transition from a rural community. Therefore, it was assumed that any rail transit line through the area would follow down the median of the Dulles International Airport Access Highway (later the Dulles Toll Road). In 1996 the DRPT first recommended that the transit line be rerouted through the major economic center that Tysons Corner had become. While this recommendation appears to have been well received and quickly incorporated, it was seen as a win for Tysons Corner rather than simply as just good planning. In an interview for this thesis, Fairfax County Revitalization Program Manager Scott Sizer commented: "It [the Silver Line] didn't have to come through Tysons Corner. (...) It was originally planned to go out through the Dulles Toll Road. (...) We didn't necessarily need a stop in Tysons." Sizer, who expressed high satisfaction with the number of development proposals the Silver Line has prompted, demonstrates that the rerouting through Tysons Corner is *still* seen as a win. This attitude frames the Tysons Tunnel proposal as more of an added bonus than as the ultimately right choice. The endurance of this mindset today shows how potent it has been throughout the Silver Line's development. Casting Tysons Corner as "greedy," this undermined Tysons Tunnel supporters' ability to prove the tunnel's fundamental worth to the area.

Similarly, the original purpose of Dulles corridor transit was to serve the Dulles International Airport. By the time project partners began the environmental review process in 2000, transforming Tysons Corner had certainly become an equally important goal of the project. But chronologically speaking, this goal came second. The later emergence of goals related to the Tysons Corner likely breed opposition to the Tysons Tunnel proposal from actors such as Congressman Wolf. As both an early supporter of the project and a representative of Loudoun County, Wolf no doubt felt justified in his opposition to the tunnel since the original project did not take Tysons Corner into much consideration at all. In comparison to the original project, Tysons Corner was benefitting quite handsomely from the elevated design.

Finally, the massive amount of work that project partners had poured into the Dulles Corridor Metrorail Project by the time the Tysons Tunnel proposal entered the scene meant that the tunnel went against decades of momentum and sunk costs associated with the original plans. This meant that any change to the project met great resistance and challenged the status quo. For instance, the project's elevated design went essentially unquestioned for decades, so the Tysons Tunnel proposal went against years and years of consensus. But the completion of the federal environmental review process, in particular, meant that project partners had large sunk costs in the elevated design by 2004. This plays out in the Case Study, when the Tysons Tunnel proposal is challenged for added capital costs as well as expensive planning and construction delays. Perhaps most importantly, the FTA had been involved with the four-year environmental review process and had grown accustomed to the elevated design, so the tunnel proposal went against momentum from the federal perspective as well. The Tysons Tunnel debate hinges on the tunnel's capital costs, but these less concrete sunk costs – and the necessity for more planning for the tunnel – were likely just as prominent in the minds of many project partners.

These three compounding factors illustrate how adapting the project to suit modern day Tysons Corner was a stream of constant changes to the project. Moreover, since the project had made changes to benefit Tysons Corner before the Tysons Tunnel proposal, the area was seen as already relatively better off. These factors created a mindset and environment that was predisposed to oppose the tunnel proposal, fostering the opposition that played out during the debate. Unfortunately, these

compounding factors are difficult to control or prevent in major transit projects such as the Silver Line – although recognizing their influence may help curtail any detrimental impacts on decision-making. In this light, the following section makes recommendations for how lessons from the Tysons Tunnel decision can inform and improve future transit investments by focusing on the oppositional actors discussed above, but in recognition that compounding factors also played an important role that is not addressed in the recommendations.

## RECOMMENDATIONS

The problems that manifest during the Tysons Tunnel decision are not unique to the Dulles Corridor Metrorail Project. Given the dire need across the United States to curtail driving in order to conserve energy and natural environments, lessons from the Tysons Tunnel decision can help promote more effective investments in mass transit across the nation. Many lessons from the Tysons Tunnel decision are widely applicable to transit projects throughout the United States. However, most of these lessons can be summarized under one central takeaway: the FTA needs to stop deterring local governments from investing in transit and in transit's broader public benefits. Instead, the FTA needs to start enabling local governments to invest more in federal transit projects in order to make the most out of limited federal transit dollars.

First and foremost, the Tysons Tunnel debate shows that the FTA's cost-effectiveness standard was fundamentally flawed in its focus on total project costs regardless of local contribution. Given how limited federal funding is for transit projects, local contributions need to be encouraged not penalized. Fortunately, as discussed in the Stakeholder Analysis chapter, the FTA has revised the cost-effectiveness standard significantly since the Tysons Tunnel debate. The modified standard now allows applicants to exclude "enrichments" from total project costs. The FTA provides the following definition of enrichments:

"Enrichments" are costs for elements that are not required for mobility but rather foster economic development or environmental benefits: artwork, landscaping, pedestrian and bicycle improvements, sustainable building design elements (up to

2.5 percent of facilities' cost), 50 percent of the cost of clean fuel buses, and joint development costs.<sup>9</sup>

This revision was a concerted effort by the FTA to remove disincentives for local investment and to recognize that transit projects offer benefits beyond mobility<sup>10</sup>. This represents a significant improvement, although there are still some concerning caveats. As the definition reveals, the costs of some enrichments are capped. Moreover, the FTA has created an exclusive list of acceptable improvements, stating that the administration does not intend to review enrichments on a case-by-case basis<sup>11</sup>. This is presumably an effort to streamline the FTA's review process but, as the Tysons Tunnel story demonstrates, community benefits are hard to fit into formulas. Indeed, the full list is relatively narrow and more or less only covers the type of enrichments listed in the above definition.<sup>12</sup> It is unlikely that something on the scale of the Tysons Tunnel would qualify as an enrichment. In this light, the FTA's cost-effectiveness standard has evolved in the right direction, but there is still much room for improvement.

A feasible next step could be creating an avenue for local governments to request FTA review of enrichments on a special basis, thereby adding flexibility to the list of acceptable enrichments and broadening the possible benefits of federal transit projects. This improvement, however, is likely to be minor in its impact. A more far-reaching solution would be for the FTA to only apply the cost-effectiveness standard to the portion of project funding coming directly from the federal government. This would enable local governments to weigh the costs of their own transit investments against broader public benefits as determined by their community, while still allowing the FTA to continue weighing their portion of the funding against only mobility benefits. Finally, there is a spectrum of possible improvements in between these two recommendations. For example, the FTA could apply a credit to the benefit side of cost-effectiveness ratings for projects with a high level of local

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<sup>9</sup> Reconnecting America, "Detailed Summary of Project Justification Criteria Changes in the Final New Starts / Small Starts Rule," [Reconnectingamerica.org](http://reconnectingamerica.org/assets/Uploads/NewStartsFinalRuleSummaryChart.pdf), accessed March 28, 2015, <http://reconnectingamerica.org/assets/Uploads/NewStartsFinalRuleSummaryChart.pdf>.

<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

<sup>12</sup> U.S. Department of Transportation Federal Transit Administration, 2013, "New and Small Starts Evaluation and Rating Process Final Policy Guidance, August 2013," Federal Transit Administration website, accessed April 27, 2015, [http://www.fta.dot.gov/documents/NS-SS\\_Final\\_PolicyGuidance\\_August\\_2013.pdf](http://www.fta.dot.gov/documents/NS-SS_Final_PolicyGuidance_August_2013.pdf)

contribution. This would help balance the FTA's mobility goals with the planning and development goals of local governments so that a more inclusive range of benefits are taken into consideration. Still, these recommendations offer incremental improvements at best. The cost-effectiveness standard's narrow perspective of benefits – meaning, primarily mobility benefits – is the true culprit. It reflects a federal perspective of efficiency – the greatest mobility benefits for the lowest cost – that is frequently against local public interests. In this sense, the FTA will continue to undermine transit investments – resulting in suboptimal results such as those seen in Tysons Corner – until it reframes its evaluation process to better align with the broad public interests of the actual communities that use federal transit projects.

The FTA's hindrance of local governments, however, goes beyond its evaluation criteria. The Tysons Tunnel debate shows that the FTA worked under a culture that is hostile towards local government efforts. The FTA's constant threats to deny funding to the Dulles Corridor Metrorail Project rebuffed the possibility of collaboration between federal and local interests by sending a clear signal that the FTA would not negotiate with local governments. This display of dominance likely bred fear and uncertainty in politicians such as Wolf and Kaine and in administrations such as the DRPT – resulting in a preemptive rejection of the Tysons Tunnel from these actors. These influential stakeholders, therefore, made suboptimal decisions based on uncertainty that the FTA unnecessarily created, rather than on the actual costs and benefits of the Tysons Tunnel. To improve the decision-making processes behind major transit investments in the U.S., the FTA needs to become more supportive of and receptive to local interests. Otherwise, the FTA will continue to create unnecessary disputes between stakeholders like it did in the Tysons Tunnel debate. This culture of hostility only distracts from the real financial, engineering, and environmental issues that transit projects must face.

Similarly, in 2007 the FTA refused to consider the Tysons Tunnel on a dual track process along with the elevated design. This decision appeared to be the executive call of Administrator James Simpson. Had Simpson been more encouraging of local investment and broader public benefits, this dual track process could have been the boost that Tysons Tunnel, Inc. and other tunnel supporters needed at the time. Instead, Simpson's decision created obstacles for the Tysons Tunnel by ensuring

that the elevated design had the advantage of more information while the tunnel continued to have the disadvantage of delaying the project. As detailed in the Compounding Factors section, the momentum against the Tysons Tunnel was a huge source of opposition. While it is difficult to prescribe simple encouragement of local government efforts as a solution to such obstacles, the FTA could consider automatically allowing a dual track process for proposals that receive a certain amount of support from local governments or relevant U.S. congressmen. In either case, the Tysons Tunnel proposal certainly had the support of Fairfax County, WMATA, and Congressman Davis (in 2007). This solution would help prevent some of the discretionary hostility that the FTA displayed during the Tysons Tunnel debate and make the federal review process more supportive and adaptive to changing local interests.

Overall, the Tysons Tunnel debate shows that the process of planning and funding federal transit projects needs to become better aligned with local interests. Widely supported and entirely feasible proposals such as the Tysons Tunnel cannot be rejected for bureaucratic or political reasons. Communities across the United States simply have too much to lose from the continuation of this sort of suboptimal decision-making process. The FTA needs to reframe both its evaluation criteria and its general culture to be more supportive and encouraging of local interests and the broader benefits of transit. This evolution would both promote local interests and help the FTA make the most of out limited federal funding for transit projects. The FTA's currently narrow evaluation criteria, hostility towards local government requests, and inflexibility during the federal review process only undermines the decision-making process and leads to suboptimal results.



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