County of Fairfax, Virginia

MEMORANDUM

DATE: April 15, 2010

TO: Members, Fairfax County Planning Commission

FROM: Leonard Wolfenstein, Chief
Transportation Planning Section
Fairfax County Department of Transportation

L.W.

SUBJECT: Chapter 527 Review of Tysons Plan Amendment

The County's Chapter 527 submittal for the Tysons Corner Urban Center Comprehensive Plan Amendment and VDOT's comments on the submittal are posted at this web address: http://landtrx.vdot.virginia.gov/page/SubmissionRead.aspx?MastId=625. A voluminous amount of material comprises the submission and comments. This memorandum summarizes the contents of the County's submittal and major points in VDOT's comments. Further information or hard copies of these materials can be provided if desired.

County's Submittal

The County's submittal, dated December 22, 2009, also posted on the County's web site, http://www.fairfaxcounty.gov/dpz/tysonscorner/ch527_fcdot.pdf summarizes the proposed Plan Amendment and the transportation analyses done over several years in support of the Tysons Land Use Task Force and subsequent to the completion of the Task Force's "Vision and Area Wide Recommendations" document. It included the results of other supporting transportation analyses completed in the last 18 months in support of the Planning Commission Tysons Committee including: 2050 Sketch Planning Analysis, Impact on Surrounding Communities, Transit Needs Assessment and Phasing Analysis. Below is a listing of the chapters and sub-chapters in the County's submittal which provides a good snapshot of its contents:

1. Introduction and Background
2. Land Use Inputs
   2.1 Land Use Concepts in Proposed Plan
   2.2 Inputs to Transportation Model
3. Urban Design
   3.1. Urban Design Strategy
   3.2. Street Cross Sections
4. Transportation System Inputs
   4.1. Road Network
   4.2. Transit Network

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5. Transportation Impact Analysis and Needs Assessment
   5.1. Technical Analysis Overview
   5.2. Modeling Process
   5.3. Land Use Scenario Analysis
   5.4. Transit Needs
   5.5. Year 2050 Land Use Scenario Analysis
   5.6. Phasing Analysis
6. Recommendations
   6.1. Recommended Highway, Transit and Other Improvements
   6.2. Cost Estimates
   6.3. Recommended Transportation Strategy for Tysons
   Attachment A: Proposed Plan Amendment – Transportation Chapter
   Attachment B: Model Methodology
   Attachment C: Neighborhood Traffic Impact Study

During the review process, VDOT staff sought additional documentation beyond the original submission and received additional background and clarification on several technical questions regarding the transportation modeling, which they used to prepare their comments.

VDOT Comments

VDOT sent their comments to the County on March 22, 2010 and they are posted on the Tysons web site at http://www.fairfaxcounty.gov/dpz/tysonscorner/ch527_vdot.pdf. Noted below are those comments that we believe represent the major points in VDOT's evaluation, which comprised 58 pages. Many of VDOT's comments were related to the results of the transportation modeling and are technical or informational, intended to express VDOT's understanding of the analyses presented.

Modeling Related Comments:

- VDOT noted that all of the model output assumes that "all proposed improvements are feasible from the engineering perspective, can be approved by appropriate agencies, will be funded, and implemented in the schedule timeframes. If a major proposed connection or assumed transit or TDM level is not implemented, the trip distributions and performance of the surrounding road network would be different from those modeled." County staff has also consistently made this point when presenting analysis results.
- VDOT noted that traffic is not projected to grow proportionate to the increase in development in the proposed Plan. The model results even indicated that some road segments would operate better under the proposed Plan than today or under the current Plan. Although VDOT considered these results initially surprising, they noted that the added transit and road capacity, lower trip generation per square foot of development due to the mix of uses are reasonable explanations for such a result.
- On the grid system VDOT commented that "The proposed grid system adds capacity to the overall road network and allows travelers to turn toward their destinations as early

as possible, which tends to free arterial capacity. However, the effect of the resulting many new intersections has not been fully assessed." It is true that intersections internal to Tysons were not evaluated. Given the scale of transportation analysis done for Tysons, it has been County staff's view that the intersection analysis needs to be done in the review of development applications, i.e. in the Zoning process.

- "The recommendation to eliminate from the current Comprehensive Plan three interchanges in Tysons (International Dr. at both Route 7 and at Route 123, Route 7 at Westpark Dr./Gosnell Rd.) is supported by the model results."
- VDOT noted that "Both the number and proportion of trips internal to Tysons are anticipated to increase relative to current conditions and the current Comprehensive Plan. The analysis presented did not evaluate where regional trips that would have otherwise gone through Tysons arterials will distribute." However, the County did evaluate the impact on key intersections surrounding Tysons.
- "Under the proposed 2030 amendment, several of the ramps to the freeway system and some of the internal roads in Tysons would operate at V/C above 1.0 (LOS F). More detailed analysis, including operations and safety reviews and identification of mitigation measures, will be necessary concurrent with design of proposed connections to the freeways or with individual submissions for localized land use implementation."
- VDOT sought and received model files and put considerable effort in understanding several aspects of the model. In this effort, they made note of where they found differences with the regional model, results that seemed counterintuitive, volume-to-capacity ratios that appeared low and other technical issues. For those questions raised in the review process, the County and the consultant provided additional technical information to address these issues. VDOT still noted some of these technical issues in their final comments. After reviewing these with the consultant, County staff believes there are explanations for all of these issues.

Other Comments:

- VDOT noted that the proposed typical street sections (urban cross-sections) incorporate the concept of "complete streets" which provide capacity, mobility and safety for various users and are in agreement with the minimum AASHTO design standards, which include flexibility to consider urban design issues. However, VDOT recommended that ultimate design of streets take a comprehensive "context sensitive" approach rather than rely on minimum values across the board. By this, they meant that there should be some flexibility to adjust the ultimate design to specific conditions. This is consistent with the intent of the Comprehensive Plan.
- With respect to the additional ramp connections at the Dulles Toll Road, VDOT agreed that additional connections are needed as the existing interchanges at Route 7 and Spring Hill Road would not be able to handle projected 2030 traffic. However, VDOT noted that while the ramps appear feasible from an engineering perspective, other issues have been identified and further coordination from stakeholder agencies is necessary. More detailed studies will be required. Given the lengthy lead time for major projects, VDOT recommended that more rigorous feasibility analyses and preliminary engineering begin immediately.

- VDOT noted that the proposed Plan is premised on changing travel behavior and that in order to achieve the desired results, a number of supporting actions need to be taken between now and 2030 including:
    i. Providing additional road capacity
    ii. Providing additional connections and improvements to major freeways
    iii. Implementing an efficient transit circulator within Tysons without removing needed capacity for other traffic
    iv. Providing significantly expanded transit service to and from Tysons
    v. Implementing aggressive TDM programs, with monitoring and follow-up by the County
    vi. Establishing a monitoring entity to ensure that desired travel characteristics are being achieved
    vii. Implementing additional innovative measures
- "VDOT supports measures aimed at achieving improved balance between land use and transportation. However, it is not clear at this time how the complex phasing of land use activity will be reviewed and approved (both for 2030 and eventual 2050 levels), how the supporting infrastructure will be funded and fully implemented, how the potential imbalance between transportation demand and supply will be monitored, and how corrective measures will be targeted and implemented. We recommend that these be further defined as much as possible in the near future, so that they can be incorporated into the phasing and review of future private development applications and further infrastructure planning."

Summary:
Overall, VDOT stated that "The submission demonstrates the strong efforts by County staff and their consultants, over months of assessments and evaluations, to translate the complex vision into manageable components for analysis, assumptions, and transportation recommendations for 2030 and intermediate phases." VDOT noted that the County had used "state-of-the-practice" models, tailored to Tysons Corner conditions. The comments did not call into question any of the recommended improvements (roadway or transit); however, they did note the challenges in implementing such an ambitious program of improvements. In particular, they noted that public funding availability is a current concern. VDOT noted where they thought the model results showed better results (less congestion) than they would have expected. However, in those instances they acknowledged that these results likely reflected the significant transportation capacity additions assumed in the model and that the model did in fact account for people behaving differently as Tysons becomes more urban; i.e. taking fewer vehicle trips. Finally, the VDOT comments recognized that there will still be many uncertainties following the adoption of the Plan Amendment and strongly encouraged the monitoring and other implementation steps contained in the Plan.