

O. R. GEORGE & ASSOCIATES, INC.

Traffic Engineers – Transportation Planners

10210 Greenbelt Road, Suite 310 • Lanham MD 20706

Tel: (301) 794-7700 • Fax: (301) 794-4400

E-mail: admin@orgengineering.com

MEMORANDUM

DATE: October 18, 2006
TO: Mr David Tuchmann, Assistant Development Manager
AKRIDGE
FROM: Iain J. Banks/Osborne R. George
RE: 5220 Wisconsin Avenue Planned Unit Development – Traffic Data Update

At the Set Down Hearing for the subject case the Zoning Commission requested clarification regarding the levels of service for the intersections studied within the supporting traffic impact analysis. This memorandum presents our response to this issue.

- 1) **Base Traffic Data:** The traffic study analyzed data collected during March, 2006. This time period is quite consistent and representative of traffic conditions fully in accordance with the criteria specified by the District Department of Transportation (DDOT).
- 2) **Analysis Methodology:** The study utilized the Highway Capacity Software (HCM Methodology). This is the universally used (Gold Standard) methodology, which is used for both planning and operational analyses, and considered particularly applicable to urban areas, where actual roadway geometrics, pedestrian volumes, bus and bicycle movements, parking activity, and elements of the signal timing can all be incorporated. The primary measure computed by the process is the average delay per vehicle entering the intersection during the highest AM and PM peak hour, or other analysis period.

The software package allows mainly for “objective” inputs, such as lane widths, posted speed, etc. with the addition of observational data. The most substantial and one of the few “subjective” components which may be incorporated by the analyst in predicting *future* levels of service is a prediction of background growth (i.e. additional vehicles on the road from projects other than that considered in the subject study). As is standard practice, in the 5220 Wisconsin study, the analysis incorporated the increased growth attributable to all approved projects in the subject area in Washington, DC as well as Montgomery County. In addition, we added an extremely conservative estimate of general background growth (see Section 4 below).

In sum, this study is predominantly based on observational data and other objective measures, paired with conservative background growth estimates. The resulting current levels of service as well as predicted future levels of service are quite consistent with the findings of multiple studies also conducted within the local area.

- 3) **Corridor Flow Consideration:** The traffic signals within Wisconsin Avenue Corridor have been programmed by DDOT to optimize flow along Wisconsin Avenue. This ensures that the heaviest traffic flows receive the least delays, while the traffic on the side streets may be subject to longer delays. Signal cycle lengths are typically 100 seconds long; and of this, between 70 to 80 seconds are typically allocated to the Wisconsin

ZONING COMMISSION

District of Columbia

CASE NO. 00-37

EXHIBIT NO. 23C

Avenue approaches. This practice is generally applied throughout the City, and can readily be observed along corridors such as Connecticut Avenue, Sixteenth Street, North Capitol Street, Rhode Island Avenue and Pennsylvania Avenue.

It is also relevant to note that prioritization of flow along major corridors is virtually mandatory within major metropolitan areas such as Washington, DC, considering the requirements of the Environmental Protection Agency and the mandates of the Clean Air Act Amendments regarding vehicle emissions. As a result of this prioritization practice and lengthy signal cycles, it is normal and expected for some vehicles to experience delays of as much as one minute or greater at intersections with levels of service well within the acceptable range.

- 4) **Level of Service Results:** The submitted traffic study shows level of service results at Jenifer Street and Harrison Street near the site to be Level of Service C or better. This compares quite favorably with the results of the DDOT sponsored "Friendship Heights Transportation Study, (2003) performed for the general Friendship Heights area. The results are also quite comparable with the 2005 study update of the adjacent Wisconsin Avenue corridor to the south (also conducted by DDOT). Please see the table below comparing the levels of service for several area intersections, sourced from various recent traffic studies.

SUMMARY OF CAPACITY ANALYSIS RESULTS -
EXISTING TRAFFIC SITUATION

Intersection	AM Peak Hour		PM Peak Hour	
	Level of Service	Avg. Delay (Sec/Veh)*	Level of Service	Avg. Delay (Sec/Veh)*
1) Wisconsin Avenue @ Harrison Street, NW *				
	- ORGA Study (2006)	A	B	15.0
	- DDOT Study (2003)	A	A	9.4
2) Wisconsin Avenue @ Jenifer Street, NW *				
	- ORGA Study (2006)	C	C	29.8
	- DDOT Study (2003)	C	C	24.4
- 5401 Western Ave. (2002)	B	19.2	B	19.1

* Signalized Intersection.

Source: DDOT Friendship Heights Transportation Study and O. R. George & Associates.

We believe that the submitted traffic study methodology is also quite conservative in its forecasts of traffic conditions upon build-out of the site. For example, traffic data collected by both Maryland State Highway Administration (M-SHA) and DDOT have shown that traffic volumes within the Wisconsin Avenue corridor have been quite stable, with a modest annual decrease over the period 2002 – 2005. In order to be conservative, the submitted study applied an annual

Mr. David Tuchmann
AKRIDGE -5220 Wisconsin Avenue
Planned Unit Development
October 18, 2006 - Page 3 of 3

traffic volume growth rate of 1% to the proposed build-out year 2008. The following table presents the relevant data.

Comparative Growth Rates
Wisconsin Avenue Average daily Traffic Volumes

Wisconsin Avenue Average Daily Traffic	2002	2003	2004	2005	Annual Growth Rate
DDOT	30,100	28,400	N/A	27,012	-3.42%
MSHA	44,525	43,475	43,950	43,125	-1.05%
ORGA Study *					+1.00%*

*Estimate of volume growth used for 5220 Wisconsin study.

In addition to the foregoing considerations, it is important to note that Wisconsin Avenue is governed by peak period parking restrictions, which provides for three (3) travel lanes in the dominant AM and PM commuter directions. Observations made during the course of the traffic study suggest that these restrictions are enforced by DDOT. This contributes to the favorable levels of service reported by the study, and which was the primary transportation-related issue raised by the Zoning Commission during the Set Down Hearing on the project.

Please let us know if you have further questions. Thank you.

ORG/IAB/ma