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REPORT OF JOE MEHRA, P E PTOE, CONCERNING TRAFFIC STUDY SUBMITTED BY VISION McMILLAN PARTNERS FOR THE McMILLAN SAND FILTRATION SITE PUD RELATED TO THE MEDICAL OFFICE BUILDING

My comments in this report are only for the medical office building at the site The comments for the master plan including all the other uses will be presented later on May 13 The following comments are based on the Traffic Study dated March 17, 2014 and the supplemental information dated April 17 and prepared by Gorove/Slade, industry practices and published transportation engineering manuals and WMATA publications

The proposal for the McMillan Sand Filtration Site includes 860,000 square feet of health care related office building with ground floor retail of 15,000 square feet A single parking garage of 1,900 parking spaces will serve this office building The most critical and important component of the traffic study is the trip generation for the proposed health care related office building Gorove/Slade estimated the vehicle trip generation using the ITE Trip Generation Report and developed mode of travel using a methodology that is based on assumptions rather than substantiated facts and data Gorove/Slade assumed that 30 percent of the persons traveling to and from the medical office building will be using transit, 4% would walk, 1% would bike and the remainder 65% would use the automobile These assumptions lead to the following mode share during the AM, PM and Saturday peak hours for the medical office building use only (excludes the ground floor retail)

Medical Office Trip Generation

Time Period	Auto	Transit	Bicycle	walk
AM Peak Hour	1136	1134	38	151
PM Peak Hour	1314	1116	37	149
Saturday Peak Hour	354	301	10	40

As noted above, more than 1,100 transit trips are projected in each of the weekday AM and PM peak hours Using the same assumptions and methodology as Gorove/Slade, I have estimated the daily trips to and from the medical office building at McMillan Sand Filtration Site and are as follows

Medical Office Trip Generation

Time Period	Auto	Transit	Bicycle	walk
AM Peak Hour	1136	1134	38	151
PM Peak Hour	1314	1116	37	149
Saturday Peak Hour	354	301	10	40
Weekday Daily	**22718**	**19292**	**643**	**2572**

As shown above, the proposed medical office building is projected to generate 22,718 vehicle trips and 19,292 transit trips on a weekday to and from the McMillan Sand Filtration Site

I have researched the use of 30 percent for transit use at the site and find that it is extremely high given the site location All metro rail stations are located more than one mile from the site WMATA's 2005 Development Related Ridership Survey showed the following results for office buildings located in close proximity to the metro station

Summary for Office Commute and Residential Trips By Distance from Station

Distance	All Transit Mode Share (1)		Auto Mode Share	
Miles	Office Commute	Residential	Office Commute	Residential
0	46%	55%	48%	29%
1/4	30%	45%	66%	41%
1/2	13%	36%	83%	54%

(1) Includes Metrorail, Metrobus, Commuter rail and other transit options

This table shows that the transit share for office buildings are as high as 46% near the Metro station and drop to 13% for office buildings located one half mile from the metro station The McMillan Sand Filtration Site is located more than one mile from the Metro stations and the transit share, based on the WMATA survey, would be expected to be less than 13 percent However, Gorove/Slade has assumed 30 percent transit which is obviously extremely difficult to achieve given its location with respect to the Metro stations Further, 1,100 passengers using transit would require 30 additional buses to be run every hour at full capacity and a minimum of 480 bus trips on a daily basis to accommodate just the medical office building traffic

I have assumed that with an aggressive travel demand management program, a transit mode share of 20 percent may be achieved at the site With a 20% transit mode share the AM, PM peak hours and weekday daily trips would be as follows

Medical Office Trip Generation

Time Period	Auto	Transit	Bicycle	walk
AM Peak Hour	1541	756	38	151
PM Peak Hour	1519	745	37	149
Daily	**26213**	**12862**	**643**	**2572**

This shows that Gorove/Slade have underestimated the vehicle trips by 15 percent or approximately 200 trips during the AM and PM peak hours These 200 additional trips during the one hour period will have a significant impact on the traffic flows and levels of service at the study intersections

CONCLUSIONS

The Gorove/Slade assumption that 30 percent of the traffic will use transit to access the McMillan Sand Filtration Site medical office buildings is based on assumptions and not factual data WMATA survey shows that such a transit usage can be achieved at an office building located in close proximity to a Metro station Further, 30 percent transit usage would require 30 additional buses to serve only the medical office building at the site during the peak hours and over 480 buses on a daily basis Gorove/Slade has not provided any firm commitment from WMATA or any other agency to show that such buses and service would be available 20 percent transit mode share is more achievable with an aggressive travel demand management program This program would still require approximately 20 buses to serve the site on an hourly basis A firm commitment is needed from the Applicant to ensure that a 20 percent transit mode share is achieved before this application is approved