

Zoning Commission Case Nos. 06-11 and 06-12

TESTIMONY OF JOE MEHRA, P.E.,
ON BEHALF OF THE FOGGY BOTTOM ASSOCIATION
IN OPPOSITION TO THE GEORGE WASHINGTON UNIVERSITY APPLICATIONS

The comments included in this testimony are based on the Traffic Study for the George Washington University (GWU) prepared by Wells and Associates, dated August 24, 2006.

EXISTING CONDITIONS

Wells collected an extensive set of traffic data to do the traffic analysis. However, some critical data elements were not presented in the report and may have not been observed or collected in the field. These data items include truck trips, their travel patterns and their percentage of total travel.

Truck trips to GWU include deliveries as well as trash pick-up. The higher the truck proportion, the lower the levels of service. Another missing data item is the existing queues at congested intersections and the spillback onto adjacent intersections. Pennsylvania Avenue and K Street are congested during peak hours, and queues extend back in to the adjacent intersections. This is critical to the analysis and impacts the levels of service.

The observed traffic counts data summarized in the Wells Report were compared with the data used to compute levels of service for the existing conditions. There were significant differences in this data. For example, the southbound observed traffic counts on 21st Street at Eye Street were 634 vehicles in the PM peak hour. However, the number used to compute levels of service is 434. This is almost a 50% difference and impacts the levels of service. Similar discrepancies were also noted at other intersections.

PEAK HOUR DETERMINATION

Wells report states that the street peak hours are 8:30 to 9:30 AM and 5:30 to 6:30 PM. Further, the report states that the GWU peaks hours are 8:00 to 9:00 AM and 5:00 to 6:00 PM. This suggests that the GWU traffic only overlaps the street traffic for one half hour. I have reviewed the data for the 31 intersections that were included in the Wells Report. Using Wells data and their summaries, the data shows that 23 out of 31 intersections have street peaks that are earlier than 8:30 to 9:30 AM. Further, Wells data shows that 21 out of 31 intersections have street peaks that are earlier than 5:30 to 6:30 PM. This means that the GWU peaks occur generally at the same time as the street peak. Therefore most of the traffic analysis presented for the future conditions with GWU expansion would not be valid.

ZONING COMMISSION
District of Columbia

CASE NO. 06-11

EXHIBIT NO. 198

ZONING COMMISSION
District of Columbia
CASE NO. 06-11
EXHIBIT NO. 198

GWU TRIP GENERATION

The Wells report utilized parking lot observation data to come up with existing GWU trip generation and trips. These trips were increased by 25% to account for GWU trips that do not park at the university facilities. Wells computed the existing GWU trips to be 804 and 909 during the AM and PM peak hours based on the parking lot data.

Wells also conducted a travel survey of students and faculty/staff to obtain the trip rates and mode of travel to and from the university. Using these trip rates, I have computed the existing GWU trips to be 1522 and 862 trips, during the AM and PM peak hours. There is a significant difference in the AM trips using Wells data (804 using parking lot data versus 1522 using the travel survey data). The PM peak hour travel survey data shows low trips in comparison to the AM data, primarily due to the faculty/staff trips. The travel survey showed that the faculty and staff generate one person trip for every three employees during the AM peak hour and only one person trip for every 13.6 employees during the PM peak hour. This is an anomaly and needs to be checked.

Further, the Wells report states that about 2,500 travel survey responses were received. Table 3-2 shows a survey response of 2,470 responses whereas, Table 3-3 in the Wells Report shows that 3,080 responses were received. This difference needs explanation.

In comparison, the existing GWU trips are estimated to be 3,948 trips during the AM and PM peak hours using the ITE trip generation report. The comparison is summarized below:

Existing GWU Trip Generation

<u>Peak Hour</u>	<u>Based on Parking</u>	<u>Based on Travel Survey</u>	<u>Based on ITE Report</u>
AM Peak	804	1522	3948
PM Peak	909	862	3948

26

FUTURE CONDITIONS

The future conditions are for the year 2025. Wells assumed 0.5% per year growth for through traffic to obtain background conditions. DDOT study for the Lower West End Traffic Study, which included part of the GWU study area, was released in July of this year. This study assumed a 1% per

year growth for background conditions. Due to the differences in growth rates (0.5% versus 1.0%), the total trips forecasted for some movements by Wells are as much as 400 vehicles per hour less than the use of the DDOT study growth rate.

The GWU growth in vehicle trips does not include vehicular travel that may occur from other campuses in private vehicles or non-GWU buses. Further, the use of travel survey data to project vehicular travel for the GWU expansion (1,000 faculty/staff and 1,198 students) is also suspect, as noted previously. The total trips with the GWU expansion are therefore significantly less than the projections based on DDOT growth rate and corrected GWU trips.

LEVELS OF SERVICE

The existing conditions analysis, based on Wells study, showed that 9 out of 37 intersections analyzed have some approaches failing (they are currently operating at LOS E or LOS F). With the GWU expansion, the future conditions analysis showed that 16 out of 37 intersections will have some approaches that will fail based on Wells study. After mitigation, proposed by Wells, 15 out of 37 intersections still fail. The mitigation will result in loss of curbside parking, but still results in levels of service failure.

If the DDOT growth rates are used and the GWU trips are corrected, then it is conceivable that some or all of the intersections that are projected to operate at LOS D may fail. Potentially, six more intersections could fail.

TRANSPORTATION MANAGEMENT PLAN

The Wells study presents a transportation management plan (TMP) for GWU. This TMP is very generic. It does not include any specifics and there are no binding actions included in the TMP. The proposed TMP may not result in any vehicle trip reductions.

CONCLUSIONS

The Wells report is extensive in its coverage, but has several technical inconsistencies and deficiencies that impact the study results, including the levels of service, as described above. Due to these reasons, the study results are invalid. Even for a moment, if it is assumed that the study is correct, it shows that with the GWU expansion and with the proposed mitigation, 15 out of 37 intersections still fail in comparison to only 9 intersections failing in the existing conditions.