





## WELLS & ASSOCIATES, LLC

TRAFFIC, TRANSPORTATION, and PARKING CONSULTANTS

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### MEMORANDUM

**TO:** District of Columbia Zoning Commission

**FROM:** Jami L. Milanovich, P.E.

**DATE:** December 21, 2006

**RE:** Square 54 PUD (Case No. 06-27)

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At the hearing before the Zoning Commission for Case No. 06-27 on November 20, 2006, additional information was requested regarding the non-auto mode splits utilized in the Square 54 Transportation Impact Study. The non-auto mode splits utilized for the proposed Square 54 office and residential uses initially were determined based on information contained in WMATA's Development Related Ridership Survey II (JHK & Associates, December 1989). This document provides equations to determine the percentage of trips made by transit for various land uses. The transit mode share is dependent on the distance from the subject building to the nearest Metro station measured as a walkable route. For downtown office sites, the transit mode share is calculated as follows:  $61.37 - 0.76 * M$  (Page 94); where M is the distance to the nearest Metro station in hundreds of feet. The Foggy Bottom – GWU Metro Station is approximately 250 feet from the Square 54 development. Therefore, the transit mode share for the Square 54 office component was calculated at 59.5%.

For residential sites, the transit mode share is calculated as follows:  $66.52 - 1.56 * M$  (Page 102); where M is the distance to the nearest Metro station in hundreds of feet. Therefore, the transit mode share for the Square 54 residential component was calculated at 62.6%.

In March 2006, subsequent to submitting the revised Square 54 Transportation Impact Study (October 2006), the 2005 Development Related Ridership Survey was published. This study was reviewed to ensure that the non-auto mode splits derived from the 1989 Ridership Survey were still valid. Unlike the 1989 Ridership Survey, the 2005 Ridership Survey does not provide equations. Instead, the 2005 Ridership Study groups the surveyed sites into three concentric location typologies, which include "within the CBD", "suburban locations inside the beltway" and "suburban locations outside the beltway." The surveyed sites within the CBD are most comparable to the Square 54 site and are therefore the most appropriate for purposes of comparison.

Table 4, *Commute Mode Share at Office Sites by Concentric Location Typology*, (Page 23) of the 2005 Ridership Survey indicates that 63% of commuters surveyed at sites within the CBD utilize Metrorail, 12% utilize Metrobus or other transit, 5% walk or bike, and 21% travel via auto. Therefore, the 60% non-auto mode reduction assumed for the Transportation Impact Study as determined from the 1989 Ridership Survey would be considered conservative when compared to the more recent data.

Similarly, Table 10, *Residential Mode Share for All Trips by Concentric Location Typology* (Page 30), of the 2005 Ridership Survey indicates that 50% of residents surveyed at sites within the CBD utilize Metrorail, 6% utilize Metrobus or other transit, 26% walk or bike, and 18% travel via auto. Again, the 63% non-

auto mode reduction as determined from the 1989 Ridership Survey is conservative compared to the 2005 Ridership Survey data.

In response to a question raised by the Zoning Commission, a comparison of the office spaces in the 2005 Ridership Survey was conducted to determine if the class of office space at the surveyed sites impacts the non-auto mode split. Wells & Associates was able to determine the class of office space for 16 of the 17 sites surveyed. The following table displays the office sites, the class of office space and the non-auto mode split for the sites.

Office Class	Office Building	Non-Auto Mode Split
B	1634 I Street	83%
A	1701 Pennsylvania Avenue	75%
A	Metro Plaza 1	56%
A	333 John Carlyle	50%
B	Crystal Square 2	43%
A	Chevy Chase Plaza	43%
B	Reeves Center	42%
A	Courthouse Tower	40%
A	2100-2200 Clarendon Blvd.	30%
A	King Street Station	29%
A	8380 Colesville Road	25%
B	8720 Georgia Avenue	23%
A	3 Ballston Plaza	20%
A	Crystal Park IV	19%
A	Ballston One	16%
A	8400 Corporate Drive	11%

As shown in the table, the majority of the sites are Class A office buildings (i.e. 12 of 16). Furthermore, the non-auto mode splits for the Class B office buildings are not consistently higher or lower than the Class A buildings; rather, they are interspersed throughout the data set. Of note, the two office buildings with the highest non-auto mode splits, one Class A and the other Class B, are located in the CBD. The non-auto mode splits for these two CBD office buildings are higher than the non-auto mode split of 60% assumed in the study. Additionally, the office building with the lowest non-auto mode split (i.e. 8400 Corporate Drive) is located outside of the beltway and the remaining office sites are located inside the beltway, but not in the CBD. Based on this information, a significant correlation exists between the location of the office space and the non-auto mode split. Since the Square 54 site is in the CBD and is therefore most similar to the two office buildings with the highest mode splits, the 60% non-auto mode split assumed in the study should be easily achievable.

Additionally, in response to a comment raised by the Zoning Commission, Boston Properties conducted a study of the 13 largest law firms that currently lease space within their Washington, D.C. portfolio to determine how many of these law firms provide pre-tax transportation benefits to their employees. All 13 of the law firms contacted, which represents over 1.83 million rentable square feet of space, offer pre-tax transit incentives to their employees. This study further reinforces the validity of the 60% non-auto mode split assumption noted above.



## **EXHIBIT G**

In response to the Commission's inquiries regarding the construction of the Square 54 Project and the proffered grocery store, the Applicant proposes the following as a condition of approval of the PUD:

The PUD approved by the Commission shall be valid for a period of two years from the effective date of this order. Within such time, an application must be filed for building permit for Phase 1 (defined below) as specified in 11 DCMR § 2409.1. The Applicant shall have the flexibility to construct the Project in two phases.

a. Phase 1 consists of the underground parking and loading and below-grade retail space, including the grocery store. Within two (2) years of the receipt of a certificate of occupancy for the occupiable areas of the Phase 1 improvements, the Applicant shall commence construction of Phase 2 improvements (defined below).

b. Phase 2 consists of the office, residential and retail components of the Project. A certificate of occupancy may be issued for any of the Phase 2 components of the Project provided that a building permit has been issued for the other Phase 2 components.

c. If a certificate of occupancy has not been issued for a grocery store measuring no less than 25,000 square feet within two years of the issuance of certificates of occupancy for the residential and office components, the Applicant shall return to the Zoning Commission for reconsideration of the grocery store requirement and appropriate amendment of the PUD.

## CERTIFICATE OF SERVICE

I hereby certify that copies of this submission were hand delivered to the persons listed below on December 26, 2006.



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