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**THE JOHN R. McADAMS COMPANY, INC.**

## MEMORANDUM

Date: May 5, 2008

To: Town of Chapel Hill Planning Board Members  
 Kumar Neppalli, Chapel Hill Engineering Services Manager

From: Earl Lewellyn, P.E. *EL*

Re: **Woodmont TIA Summary**  
**CAP-06000**

At the April 29, 2008 Planning Board meeting, several members requested information regarding the Traffic Impact Analysis (TIA) for this project. Given the size of the document and the complexity of the information presented, we felt it may be helpful to have the relevant comparison of traffic conditions. Also, in reviewing the document itself, we realized that the TIA did not present a simple comparison of future traffic conditions both with and without the Woodmont project. After compiling this information we shared it with Kumar Neppalli.

Attached is a summary of levels of service for all signalized intersections in the study area, comparing future traffic conditions (year 2018) both with and without the Woodmont project traffic and associated improvements.

As you can see from the table, levels of service either stay the same or improve with approval of the Woodmont project. In addition to the Barbee Chapel – NC 54 intersection, other intersections are able to operate more efficiently because of committed roadway improvements by Woodmont and the resulting benefits in signal timing and coordination along NC 54. It is also important to acknowledge that NC 54 operates quite well during non-peak times and even during the midday peak.

In my recent presentation to the board, I noted several ways in which this traffic study was presented in a conservative manner. For greater clarity I listed those below.

1. The TIA includes the cumulative traffic impacts of other approved developments in this area, as is appropriate. In addition, it includes an annual background growth in traffic. By including specific approved development traffic in addition to annual traffic growth, there is likelihood for double-counting of trips, resulting in overestimation of future traffic demands.

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2. The TIA makes no adjustment for the possibility of "linked trips" between approved developments, Woodmont traffic and existing traffic. This is another opportunity for double-counting traffic impact.
3. The office portion of this project is proposed to be Class-A Office which typically generates lower trips than presented in the Institute of Transportation Engineers (ITE) Trip Generation Manual. This is due to the fact that Class-A Office generally have more square footage per employee, and the trips are not as concentrated in the peak hours because of employees (Attorneys, Executives, Professionals) working non-standard hours.
4. There are also several default assumptions in the analysis method (such as peak hour factors and saturation flow rates) that result in an 8 - 12 % "safety factor" or "design cushion".

Collectively, the above conservative assumptions ensure that future traffic conditions are not underestimated, but are more likely overestimated in the analysis.

Finally, from a broader planning perspective, the infusion of additional office space in this area has the potential to (and the intention of) "capturing" local traffic that would otherwise be destined for Durham or RTP. Although not assumed in the analysis, this has the positive effect of reducing overall "vehicle miles of travel". Simply stated, the trips are made shorter and therefore impact fewer street segments.