

MEMORANDUM

TO: Roger L. Stancil, Town Manager

FROM: David Bonk
Mary Jane Nirdlinger

SUBJECT: Carolina North Design Mode Split Analysis

DATE: June 15, 2009

PURPOSE

This memorandum provides additional information on Carolina North parking and mode split analysis provided by the TIA consultant, VHB. The current draft of the Development Agreement recommends a maximum number of parking spaces with the first 800,000 square feet (SF) of development (1,525 spaces), a requirement that parking ratios are consistently below the baseline ratios, and an incentive (in the form of reduced traffic mitigation measures) for achieving ratios beyond a 10% reduction.

Development beyond the first 800,000 SF will comply with parking spaces and parking ratios as agreed upon after additional analysis and evaluation with the intent being to reduce parking as transit, bicycle and pedestrian alternatives are increased.

The Addendum, distributed at the June 8, 2009 Business Meeting, is located at:
<http://townhall.townofchapelhill.org/agendas/2009/06/08/11/>

Summary

At the Council's request, the TIA Consultant, VHB, prepared an Addendum to the Transportation Impact Analysis for Carolina North that provided additional mode split analyses for the 2025 development program (3 Million SF).

During the June 8 Council Work Session, a Council member asked that the staff provide additional information on the constrained parking space ratios. A Council member requested information on the difference in need for additional transit vehicles and park ride spaces with a 10% and 20% reduction in parking spaces.

Analysis

The analyses showed the impact of reducing parking for 3 Million SF of development by an additional 10% – 40% over the baseline. The report also compared baseline parking ratios at Carolina North with Chapel Hill requirements and national requirements. For every category, the baseline ratios were at or below the levels in use nationally and in Chapel Hill. Transit impacts were also analyzed for these four levels of constraint.

All the scenarios require transit service enhancements but the proportional increases were greatest for the 30% and 40% constraints. At this level, none of the displaced parking trips shift to walk/bike since the potential users are exhausted at the 20% scenario; thereby creating a relatively greater need for transit service.

The impact of the baseline parking ratios, at 3 Million SF, on future transit ridership is projected to require an additional 17 transit vehicles over existing vehicle requirements. The parking reductions and shifts to other modes at 10% and 20% require an additional 6 and 8 new vehicles respectively. At a 30% reduction, 13 additional vehicles are needed and 17 are required at 40%.

Similarly, Park and Ride space needs increase from the 3 Million SF baseline of 1,514 spaces by 353 (10%), 690 (20%), 1,049 (30%) and 1,391(40%) spaces.

These changes reduce vehicle trips to Carolina North from 23,261 at the 3 Million SF baseline to 20,995 at 10%, 18,774 at 20%, 16,574 at 30% and 14,254 at 40%.

The impacts for different parking reductions were assessed for the proposed 3 million square foot development scenario. In this analysis the difference between a 10% reduction and 20% reduction in parking is 2 transit vehicles and 337 park ride spaces. The original TIA contained an analysis for the 800,000 development proposal at a 10% constraint. Using that analysis, which suggested that 1 additional bus and 96 additional park ride spaces would be needed for a 10% reduction in parking, we could expect a total of 2 additional buses and approximately 200 additional park ride spaces would be required for a 20% reduction in parking at 800,000 square feet of development.

While there is agreement that a reduced number of vehicle trips is a desired outcome, the transit system and other supporting systems (park and ride, greenways, sidewalks) necessary to accommodate the additional alternate trips will need time to mature with the development.

The staffs discussed the interrelationship of the development program, the transit system, the other support systems and the mechanisms in the Development Agreement for monitoring traffic impacts. Given the various assumptions that are required in this type of analysis (described on pages 9-11) and the periodic monitoring of the project, it seems necessary to set a goal that would continue to improve over the baseline while allowing an opportunity develop a more aggressive reduction of vehicle trips.