

## **Appendix C – Traffic Forecast Development Notes**

### Step 1 – Convert Approach Volumes to 2010 Base Year

Intersections 7 and 8 - The east approach volumes for the PM peak for the intersection of Chatham Street at Harrison Avenue (Intersection 7) were adjusted to match volumes at the west approach of the intersection of Chatham Street at Academy Street (Intersection 8). As a result, the remaining approaches at Intersection W-2 were adjusted so the turning movement volumes could converge when using the TURNSW32 program.

Intersections 12-15 – The east approach volumes on Chapel Hill Street at Intersection 12 were adjusted to match west approach volumes on Chapel Hill Street at Intersection 13. East approach volumes on Chapel Hill Street at Intersection 13 were adjusted to match west approach volumes on Chapel Hill Street at Intersection 14.

### Step 2 – Apply Growth Rates Derived from TRM to 2010 Base Year Peak Hour Volumes

Intersection 2: NW Cary Parkway at Park Place Shopping Center. A three percent annual growth rate was applied to the east approach.

Intersection 4: Towerview Court at James Jackson Avenue. A two percent annual growth rate was applied to the north and south approaches.

Intersection 5: NW Maynard at James Jackson Avenue/Carousel Lane. A two percent annual growth rate was applied to the east approach.

Fairgrounds Subarea – To estimate the 2035 Design Year No-Build Peak Hour Approach Volumes, a 1-2 percent growth rate was used whenever there model link volumes were not available within the TRM.

Downtown Raleigh Subarea – Many roadways are missing in Downtown Raleigh in the Triangle Regional Model, thus causing many roadways in the subarea to not be represented. As a result, a two percent annual growth rate was assumed. This percentage was determined from those links that are represented in the model in the Downtown Raleigh Subarea.

Intersection 14: Corporate Center Drive at Chapel Hill Road. A three percent annual growth rate was applied to the south approach.

Intersection 15: Nowell Road at Chapel Hill Road. A three percent annual growth rate was applied to the north, east and south approaches.

NERC Subarea – To estimate the 2035 Design Year No-Build Peak Hour Approach Volumes, annual growth rates between 3-5.5 percent were used whenever there volumes were not available within the TRM. This growth was consistent with the growth calculated from the model output in the area.