



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, Jr.
SECRETARY

February 17, 2010

ORANGE COUNTY

Kumar Nepalli
Traffic Engineering Program Manager
Town of Chapel Hill
405 Martin Luther King Jr. Blvd.
Chapel Hill, NC 27514

Subject: Proposed Walgreens Pharmacy Located on SR 1010, East Franklin Street
At SR 1750, Estes Drive – Review of Traffic Impact Study and Preliminary Plan

Dear Mr. Nepalli,

Per your request, this office has reviewed the traffic impact study with technical memorandum addendum, and preliminary site plan for the above subject. We offer the following comments based on the submitted materials.

General Description:

The proposed project consists of redevelopment of the existing service station at the northeast corner of the intersection to a 13,284 SF pharmacy with no drive thru. The proposed development will have limited right turn in/right turn out only access to East Franklin Street and Estes Drive via two (2) new redesigned driveways. The existing full access driveways are to be removed. The site is expected to generate approximately 1081 daily trips upon full build out in 2011. In comparison, the existing land use generates approximately 917 daily trips.

Analysis:

The traffic analysis indicates that the intersection of East Franklin Street and Estes Drive currently experiences significant congestion and will operate at a relatively poor level of service with or without the proposed site development. The proposed site development traffic will have only marginal impact on the roadway operation. Accident analysis

indicates a higher than average crash occurrence at this intersection likely due to congestion, a number of unrestricted driveways creating a number of vehicle conflict points and limited sight distance due to queued traffic. Crash data indicates a significant number of rear end collisions as well as left turn collisions. Left turning collisions are likely the result of attempted turns with little or no available gaps and limited sight distance. Traffic volumes indicate a relatively low number of left turn ingress or egress movements at existing driveways in the intersection vicinity during peak periods. This is likely due to drivers avoiding lengthy delays and unsafe conditions due to insufficient gaps and limited sight distance. It should be noted that, although the number of drivers attempting to make left turns is low, a significant number of left turn collisions have occurred in the three year study period.

Recommendations and Requirements:

Right In/ Right Out Only Access Configuration:

This office concurs with the study findings that the proposed access configuration of two (2) right in/right out only drives will serve to improve overall safety and operation in the immediate area of the intersection by a substantial reduction in left turn conflict points and more organized flow in and out of the site. Typically, installation of a median island on the roadway adjacent to the access point is considered to be the most effective method of positively controlling the left turn prohibitions and is consistent with NCDOT guidelines. The desirable minimum island width is 4' with an additional 1' offset to the adjacent lane. In areas where available space is limited alternate island widths can be considered but should not be less than 3' in order to provide sufficient width to accommodate median signage and to provide structural integrity. At times the installation of a median may affect access to adjacent properties. In this case the median installation on Estes Drive would restrict left turn movements at an existing full movement access at the Caribou Coffee site. Median installation on East Franklin Street will not affect any adjacent properties as the existing access at the Kangaroo site is currently restricted to right in/right out only. In an effort to ensure a balance of property owner rights to access with protection of the transportation infrastructure, and based on the traffic information provided, this office is prepared to consider other design alternatives such a "pork chop islands" should Town officials determine that the proposed medians will have an undue impact to other property owners.

Bicycle and Pedestrian Accommodations:

This office concurs with Town staff recommendations to provide 14' wide through lanes on Estes Drive and East Franklin Street to accommodate bicycles.

This office concurs with proposed sidewalk upgrades subject to compliance with ADA and NCDOT guidelines.

General Requirements:

All work within the NCDOT right of way shall meet current NCDOT design and construction standards.

The developer shall dedicate any additional right of way necessary to accommodate the required road improvements or future improvements as stipulated.

It is necessary to submit traffic signal construction and/or modification plans to the NCDOT Division Traffic Engineer for review and approval prior to construction

Intersection radii and geometry shall be designed to accommodate turning movements of the largest anticipated vehicle.

All pavement markings shall be long life thermoplastic. Pavement markers shall be installed if they previously existed on the roadway.

The permittee shall be responsible for the installation and relocation of any additional highway signs that may be necessary due to these improvements and shall comply with the requirements of the MUTCD.

It is necessary to obtain an approved driveway permit and/or encroachment agreement prior to performing work on the NCDOT right of way. An approved permit will be issued upon receipt of approved roadway and signal construction plans, inspection fee, and any necessary performance and indemnity bonds.

Feel free to contact me if you have any questions.

Sincerely,

C. N. Edwards Jr., PE
District Engineer

Cc: J. M. Mills, PE, Division Engineer