



COPI

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

October 11, 2012

To: Earl Lewellyn, P.E.
102 City Hall Plaza
Durham, NC 27701

Subject: Proposed Covington Place Apartments Traffic Impact Analysis

The proposed Covington Place Apartments is to be located at in the eastern quadrant of the Page Road and Slater Road intersection in Durham, North Carolina. The development will consist of 300 apartments, a 10,000 square foot health/fitness club, and an access point on Page Road across from Terrace Pine Drive. The build out year for this project is 2014. The development is expected to produce 1874 daily trips with 158 A.M. peak hour trips (35 entering and 123 exiting) and 211 P.M. peak hour trips (134 entering and 77 exiting).

The TIA analyzed the following intersections:

- NC 54 / Slater Road and S. Miami Boulevard (Signalized)
- Page Road and Slater Road (Signalized)
- Page Road and I-40 Eastbound Ramp / Emperor Boulevard (Signalized)
- Page Road and I-40 Westbound Ramp (Signalized)
- Emperor Boulevard and Slater Road / Hotel Entrance (Unsignalized)
- Slater Road and West Site Drive (Unsignalized)
- Slater Road and East Site Drive (Unsignalized)
- Page Road and Proposed Site Driveway / Terrace Pine Intersection (Unsignalized)

Approved Surrounding Developments

1. Triangle Metro Center: This mixed-use development is to be located on the north side of Hopson Road and the east side of Davis Drive. It is proposed to have 2,285 apartment units, 75,000 square feet of office space, and 45,000 square feet of retail space.
2. Creekstone Apartments: This proposed apartment development will have 262 units and will be located on the west side of S. Miami Boulevard, north of Hopson Road.
3. Quintiles Hotel: This proposed hotel will be located on the east side of Page Road, north of Emperor Boulevard.

TIP Roadway Improvement Projects Relevant to Proposed Development

- No significant scheduled transportation improvement projects are in the study area vicinity.

Trip Generation and Distribution

- 25% to/from the Southwest via Page Road
- 15% to/from the West via NC 54
- 15% to/from the North via Miami Boulevard
- 10% to/from the South via Emperor Boulevard (NC 54)
- 15% to/from the West via I-40
- 15% to/from the East via I-40
- 5% to/from the Northeast via Page Road

Capacity Analysis for Existing and Future Conditions

- Existing (2012) Conditions
- Projected (2014) Background Traffic (Existing traffic + Annual Background Growth)
- Projected (2014) Built-out Traffic (Existing traffic + Annual Background Growth + Site Traffic)

Summary of Road Improvements

The Department has reviewed the preliminary site plan and Traffic Impact Analysis (TIA) for the Covington Place Apartments prepared by Kimley-Horn and Associates, (Sealed and dated 8-2-2012). In order to accommodate the site-generated traffic safely and efficiently, while also attempting to protect the functional integrity and operational capacity of the adjacent roadway facilities, we recommend the following improvements and/or restrictions related to this development. Any additional changes to the site plan must be submitted in writing to the District Office.

NC 54 / Slater Road and S. Miami Boulevard (Signalized)

No future geometric improvements are necessary at this intersection at this time to mitigate site-generated traffic.

Page Road and Slater Road (Signalized)

No future geometric improvements are necessary at this intersection at this time to mitigate site-generated traffic.

Page Road and I-40 Eastbound Ramp / Emperor Boulevard (Signalized)

Poor intersection Level of Service exists with excessive queuing and is anticipated to persist at this location, however, no improvements are recommended for site traffic.

Page Road and I-40 Westbound Ramp (Signalized)

No future geometric improvements are necessary at this intersection at this time to mitigate site-generated traffic.

Emperor Boulevard and Slater Road / Hotel Entrance (Unsignalized)

No future geometric improvements are necessary at this intersection at this time to mitigate site-generated traffic.

Slater Road and West Site Drive (Unsignalized)

No future geometric improvements are necessary at this intersection at this time to mitigate site-generated traffic. New development can utilize the existing driveway.

Slater Road and East Site Drive (Unsignalized)

WB Driveway

- Construct Driveway with Two-Lane Cross-section: one ingress, one egress
- Egress is to have 1 Left/Thru/Right Lane
- Construct driveway with 100 ft. of internal protected stem

Page Road and Proposed Site Driveway/Terrace Pine Intersection

NB Driveway

- Construct Driveway with Two-Lane Cross-section: one ingress, one egress
- Egress is to have 1 Left/Thru/Right Lane
- Construct driveway with 100 ft. of internal protected stem

General

Cross-access to adjacent properties is strongly encouraged to reduce repetitive trips and provide future alternative routes of ingress/egress.

Due to, but not limited to, the comments and recommendations from this review of the proposed developments, changes in the internal circulation may be necessary to ensure that driver confusion is minimized to the maximum extent possible.

Any signal revisions, modifications, or additions necessitated by the development should be coordinated with the Regional Traffic Engineer, the Division Traffic Engineer, the Signals and Geometrics Section and the City of Durham.

Any pavement marking revisions/modifications necessitated by the development should be the responsibility of the developer and coordinated with the Division Traffic Engineer.

Any roadway modifications or improvements necessitated by the development should be the responsibility of the developer unless otherwise noted.

Reference should also be made to the information included in the "General Recommendations Attachment."

NCDOT driveway permits will be required for driveway access on Page Road. Once the driveway permit has been approved and issued, a copy of the final driveway permit requirements should be forwarded to this office. If we can provide further assistance, please contact me at (919) 220-4750.

Sincerely,



R. C. Capehart, P.E.
District Engineer

NEG

Attachment

cc: Mr. H. Wesley Parham, P.E.

General Recommendations Attachment
(For Covington Place Apartments)

Adequate horizontal and vertical sight distances should be reserved at all proposed entrances. Foliage that interferes with sight distance should be cut back to protect lines of sight. The District Engineer should determine if all drainage facilities are adequate. Curb cuts and curb ramps should be constructed in conformance with the "*Guidelines for Curb Cuts and Ramps for Disabled Persons*," if applicable.

The developer may be required to obtain an approved encroachment agreement covering proposed work within the state right-of-way. If this is the case, the encroachment should be cross-referenced to this review.

All street and driveway entrances onto state system roadways should be controlled with appropriate traffic control devices, including but not limited to, stop, yield, directional, regulatory, and advisory signs and pavement markings. All traffic control devices shall conform to the requirements set forth in the Manual on Uniform Traffic Control Devices. Final pavement marking and signing plans should be submitted to the Division Traffic Engineer for approval prior to the installation of any signs and/or pavement markings.

Unless otherwise noted, a recommended width of 40 feet (curb face to curb face) should be used at each drive. It is also recommended that 40 feet (minimum) radii should be used at each drive to accommodate any service type vehicles or truck traffic that may visit the site.

If the developer anticipates adding or petitioning for addition to the state system, all roads/streets should be designed and constructed in conformance with the current North Carolina Department of Transportation design and construction guidelines.

All "outparcels" or "excluded areas" should be served internally with no additional access onto abutting roadways. The developer should convey this condition in any lease or sell agreements.

As required by the "*Policy on Street and Driveway Access to North Carolina Highways*," dated July 2003, the applicant is responsible for identifying all right-of-way and/or control-of-access limits and for including this information on all submittals. Failure to accurately disclose R/W and C/A limits could result in the denial or closure of access points.

Adequate right-of-way for widening and sight distance triangles should be reserved: Any additional development, either within this site or adjacent to this site, that intends on using the developments access will require an updated driveway permit and re-evaluation of geometric and traffic control needs

Any additional development, either within this site or adjacent to this site, that intends on using this development's access will require an updated driveway permit and re-evaluation of geometric and traffic control needs.

All widening should include appropriate transitional and deceleration tapers. Recommended turn lane and transitional treatments are shown on pages 78 and 79 of the "*Policy on Street and Driveway Access to North Carolina Highways*," dated July 2003.

Where possible, opposite side driveways should be aligned to prevent the operational and safety problems caused by offset driveways.