



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE
GOVERNOR

EUGENE A. CONTI, JR.
SECRETARY

June 13, 2012

To: Mr. William Letchworth, P.E.
WilberSmith Associates
421 Fayetteville Street, Suite 1303
Raleigh, NC 27601

Subject: Proposed Southpointe Apartments Revised Traffic Impact Analysis Review

The proposed Southpointe Apartments Development, prepared for Duraleigh Investments, Inc., is located on the southeast quadrant of the NC 55 (Apex Highway) and SR 1171 (Riddle Road) intersection in Durham, NC. The proposed development will consist of approximately 179 apartment units and is anticipated to generate unadjusted daily trips of 1,766 with 137 A.M. peak hour site trips and 167 P.M. The build-out year of the development, as stated in the TIA, is 2012 with an analysis year of 2013.

The TIA analyzed the following four (4) intersections:

- NC 55 (Apex Highway) and SR 1171 (Riddle Road) – Signalized
- NC 55 (Apex Highway) and SR 1158 (Cornwallis Road)– Signalized
- NC 55 (Apex Highway) and Proposed Site Drive #1 – Unsignalized
- NC 55 (Apex Highway) and Proposed Site Drive #2 – Unsignalized

Approved Surrounding Developments as stated in the TIA

There are currently no approved developments in the study area.

TIP Roadway Improvement Projects Relevant to Proposed Development

There are currently no funded TIP projects in the study area.

Trip Generation and Distribution

- 45% to/from the north via NC 55 (Apex Highway)
- 25% to/from the south via NC 55 (Apex Highway)
- 5% to/from the west via SR 1171 (Riddle Road)
- 10% to/from the east via SR 1171 (Riddle Road)
- 5% to/from the west via SR 1158 (Cornwallis Road)
- 10% to/from the east via SR 1158 (Cornwallis Road)

Capacity Analysis for Existing and Future Conditions

- Existing (2011) Conditions
- Projected (2013) No-Build Conditions
- Projected (2013) Build Conditions

Summary of Road Improvements

The Department has reviewed the Traffic Impact Analysis (TIA) and addendum for the Southpointe Apartments Development prepared by WilberSmith Associates. (Sealed and dated November 2, 2011). 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 require 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 55 (Apex Highway) and SR 1171 (Riddle Road) Intersection (Signalized)

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

NC 55 (Apex Highway) and SR 1158 (Cornwallis Road) Intersection (Signalized)

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

NC 55 (Apex Highway) and Site Drive#1 Intersection (Unsignalized)

Westbound Proposed Site Drive #1

- Construct a three (3) lane cross-section consisting of one (1) ingress lane and two (2) egress lanes. The egress lanes should provide an exclusive right and left-turn lane with a minimum of 100 feet of internal protected storage.

Northbound NC 55 (Apex Highway)

- Provide an exclusive right turn lane with 100ft minimum of storage and adequate taper.

NC 55 (Apex Highway) and Site Drive #2 Intersection (Right-in/Right-out) (Unsignalized)

Westbound Proposed Site Drive #2

- Construct a two (2) lane cross-section as a right in /right out consisting of one (1) ingress lane and one (1) egress lane. The egress lanes should provide an exclusive right turn lane with a minimum of 100 feet of internal protected storage.

Northbound NC 55 (Apex Highway)

- Provide an exclusive right turn lane with 50ft minimum of storage and adequate taper.

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 development, 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.

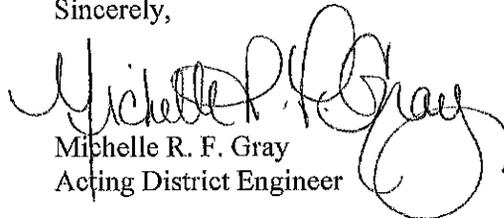
Any roadway modifications or improvements necessitated by the development should be the responsibility of the developer unless otherwise noted.

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

An NCDOT driveway permit will be required for driveway access onto NC 55 (Apex Highway). Once the driveway permit has been approved and issued, a copy of the final driveway permit requirements should be forwarded to the office in which the permit was approved. If we can provide further assistance, please contact me at (919) 220-4750.

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Sincerely,


Michelle R. F. Gray
Acting District Engineer

Attachments

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

GENERAL RECOMMENDATIONS ATTACHMENT
(For Proposed Southpointe Apartments Development)

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 foot (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.

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, II dated July 2003.

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