

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT L. MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

April 8, 2014

Molly Mathewson, PE
Ramey Kemp & Associates, Inc.
5808 Faringdon Place, Suite 100
Raleigh, NC 27609

Subject: Hendrick Southpoint TIA

The proposed development, Hendrick Southpoint Phase II, includes 150,000 square-foot floor area for multiple proposed auto dealers. The proposed development is expected to generate 288 a.m. peak-hour trips (216 entering and 72 exiting) and 393 p.m. peak-hour trips (158 entering and 235 exiting). The proposed development is located on the west side of Fayetteville Road, south of Renaissance Parkway.

The TIA analyzed two proposed external access points. Site Drive 1 will utilize the existing public street connection of Kentington Drive at Fayetteville Road. Site Drive 2 will utilize the existing street connection of Rolando Drive at Renaissance Parkway. The expected completion year is 2016, and the TIA analysis year is 2017. The TIA study was prepared for the proposed development by Ramey Kemp & Associates, Inc. in January 2014.

The TIA analyzed the following intersections:

- Fayetteville Road and Herndon Road
- Fayetteville Road and Southpoint Mall Driveway
- Fayetteville Road and Renaissance Parkway
- Fayetteville Road and Kentington Drive (proposed Site Access #1)
- Fayetteville Road and Massey Chapel Road (northern intersection)
- Fayetteville Road and Massey Chapel Road (southern intersection)
- Renaissance Parkway and Rolando Drive (proposed Site Access #2)
- Renaissance Parkway and Western Southpoint Mall Driveway

Approved Surrounding Developments

- The 751 Assemblage – This is mixed use development to the south of the Hendrick Southpoint development. Only 10% of the 751 Assemblage traffic was included in Hendrick Southpoint's TIA due to its slow build-out.

- Westpoint at 751 – This is commercial development on the west side of NC 751 near Renaissance Parkway. This development is assumed to be fully built out at the study year of 2017.
- The Hills at Southpoint – This is a residential development to the south of the site near Scott King Road and Fayetteville Road with an estimated 200 single family units to be constructed. This development is assumed to be fully built out at the study year of 2017.
- Hendrick Southpoint Phase 1: 180,000 square feet of new car sales on the west side of Fayetteville Road and south side of Renaissance Parkway adjacent to the proposed development. The TIA assumed 100% of this development would be constructed by the 2017 build-out year.

TIP Roadway Improvement Projects Relevant to Proposed Development

- None in the area

Trip Generation and Distribution

The Hendrick Southpoint, Phase 2 development is estimated to produce 288 a.m. peak hour trips (216 entering and 72 exiting) and 393 p.m. peak hour trips (158 entering and 235 exiting). The trips will be distributed as follows:

- 45% to/from the North via Fayetteville Road
- 15% to/from the East via Massey Chapel Road
- 13% to/from the West via Renaissance Parkway
- 10% to/from the South via Fayetteville Road
- 5% to/from the West via Massey Chapel Road
- 5% to/from the East via Herndon Road
- 5% to/from Southpoint Mall via Renaissance Parkway
- 2% to/from the East via Renaissance Parkway

Capacity Analysis for Existing and Future Conditions

- Existing (2014) conditions
- No-Build (2017) conditions (2014 Existing + Background growth traffic)
- Build (2017) conditions (2014 Existing + Background growth traffic + Site traffic)
- Build (2017) with Improvements conditions (2017 Build + Improvements)
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Summary of Road Improvements

The Department has reviewed the preliminary site plan and Traffic Impact Analysis (TIA) for the proposed Hendrick Southpoint, Phase 2 development prepared by Ramey Kemp & Associates Inc., (Sealed and dated 1/21/14). 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.

Improvements required of both Hendrick Southpoint Phase I and Hendrick Southpoint Phase II:

Fayetteville Road

- Widen the west side of Fayetteville Road to provide a one-half of the future four-lane divided roadway (with curb, gutter, and bicycle lanes) from the existing four-lane section near Renaissance Parkway to the southern property line of the site. (Phase I)
- Construct a monolithic concrete island per NCDOT Standards on Fayetteville Road from north of Kentington Drive to James Ross Road. The island must be designed to prevent left-turns from Kentington Drive onto northbound Fayetteville Road. (Phase I)
- Construct a southbound left-turn lane with adequate storage and appropriate tapers on Fayetteville Road at James Ross Road. Provide adequate widening on northbound Fayetteville Road to accommodate southbound u-turn movements at James Ross Road. (Phase I)

Fayetteville Road and Kentington Drive (Site Access #1)

- Construct a second southbound through lane on Fayetteville Road. (Phase I)
- Construct a median on Fayetteville Road to NCDOT Standards to limit access to/from Kentington Drive to left in, right in and right out only. (Phase I)
- Construct a northbound left-turn lane on Fayetteville Road with 100 ft. of storage plus sufficient taper length. (Phase I)
- Construct an exclusive southbound right-turn lane with a minimum of 100 feet of storage and appropriate tapers. (Phase I)

Renaissance Parkway and Rolando Drive (Site Access #2) / Eastern Southpoint Mall Driveway

- Construct an additional northbound lane on Rolando Drive (Site Access #2) to provide an exclusive northbound right-turn lane with adequate storage and appropriate tapers and a shared through-left lane with 200 feet of internal protective storage. (Phase I)
- Install a traffic signal with steel poles and mast arms (subject to MUTCD warrants and approval by the City of Durham). (Phase I)
- Restripe the Eastern Southpoint Mall Driveway to provide an exclusive southbound right-turn lane and a shared through-left lane. (Phase I)

Fayetteville Road and Massey Chapel Road (northern intersection)

- Construct an exclusive westbound right-turn lane with 100 ft. of full storage and appropriate tapers.
- Construct an exclusive northbound right turn lane with 100 ft. of full storage and appropriate tapers.

Fayetteville Road and Massey Chapel Road (southern intersection)

- Construct an exclusive eastbound right-turn lane on Massey Chapel Road with 100 ft. of full storage and appropriate tapers.

Fayetteville Road and Renaissance Parkway

- Extend the inside eastbound left-turn lane on Renaissance Parkway at Fayetteville Road to provide 400 ft. of full storage and appropriate tapers.

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.

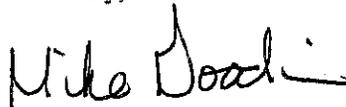
Any pavement marking revisions/modifications necessitated by the development should be the responsibility of the developer and coordinated with the Division Traffic Engineer.

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."

If we can provide further assistance, please contact me at (919) 220-4750.

Sincerely,



Mike Goodwin
Assistant District Engineer

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

General Recommendations Attachment
(For Hendrick Southpoint Developments Phase I & Phase II)

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.