



Charlotte Department of Transportation

Memorandum

Date: August 29, 2014

To: Tammie Keplinger
Charlotte-Mecklenburg Planning Department

From: Michael A. Davis, PE *Mike Davis*
Development Services Division

Subject: Rezoning Petition 14-081: Approximately 391 acres generally located on the east and west side of Amos Smith Road, south of Old Dowd Road and south of the Southern Railroad in this area.

CDOT has completed a review of the subject petition in order to ensure consistency with the Transportation Action Plan (TAP). The TAP seeks to ensure that Charlotte's transportation network supports current and future land uses and includes streets that provide safe and comfortable mobility for motorists, pedestrians, bicyclists, and transit users. Based on our review of the petition, we offer the following comments.

Vehicle Trip Generation

This site could generate approximately 14,100 trips per day as currently zoned. Under the proposed zoning the site could generate approximately 8,300 trips per day.

CDOT and NCDOT have determined that a Traffic Impact Study (TIS) is required for the subject rezoning petition. The subject TIS has been submitted and reviewed by CDOT/NCDOT. The traffic mitigation improvements identified in the TIS are reflected in our comments below.

CDOT has the following site plan comments:

1. Although this rezoning petition reduces the total number of trips, the access relies entirely on a single railroad bridge crossing. The street design for this access is expected to accommodate the vehicular traffic but there will be no redundancy in the street network, should this access point be unavailable for any reason.
2. The submitted TIS, dated July 2014 assumed Parcel "I's" land-use changed from a school site to single-family lots. We understand CMS is requesting Parcel "I" remain as a school site as previously approved in the 2005 petition. The petitioner needs to confirm the proposed land-use for parcel "I" and identify how the 2014 revised land-use aligns with the 2014 TIS.
3. US 74 (Wilkinson Blvd) and Sam Wilson Rd.
 - The petitioner needs to increase the northbound Sam Wilson Rd left-turn lane to 275 feet with the appropriate bay taper.

- The petitioner needs to verify the northbound Sam Wilson Road through lane transition is not be more than 6 feet through the intersection, and if additional right-of-way along Sam Wilson is needed to provide the proper alignment for the proposed northbound through lane transition.
- Before subdivision construction plans containing the 400th lot are approved and permits issued by the City, the petitioner will need to enter into a Traffic Signal Modification Agreement with CDOT and submit funds to CDOT to modify the existing traffic signal at Wilkinson Blvd and Sam Wilson Rd to provide permitted/overlap phasing for the northbound right turn movement.

4. Sam Wilson Rd. and Old Dowd Rd:

- The petitioner needs to increase the southbound Sam Wilson right turn lane storage length to 275 feet with appropriate bay taper.
- The proposed fourth northbound approach needs to have a minimum internal protected storage length of 250 feet. The revised site plan needs to be revised to only depict the NS Zoned Parcel Option 2 for Parcel "K". Option 2 is supported by both CDOT and NCDOT, because it is the only option that provides the required 250' internal storage length.
- The petitioner needs to increase the proposed northbound Sam Wilson Rd right turn storage length to 125 feet with appropriate bay taper.
- The petitioner at his expense needs to conduct traffic signal warrant study/s to help determine the need and potential schedule to install a traffic signal at the intersection of Sam Wilson and Old Dowd Roads, as identified in the petitioner's Traffic Impact Study (TIS). NCDOT and CDOT, at its sole discretion will determine when the traffic signal installation is justified and needs to be installed. At the time when NCDOT/CDOT authorizes the implementation of a traffic signal, the petitioner will implement all necessary intersection geometric improvements as specified in the TIS (if not already constructed by others), to make the intersection site-ready for traffic signal construction by CDOT. The Petitioner will insure the proposed signalized intersection has the proper traffic control in place before the new traffic signal is installed and becomes operational. Before subdivision construction plans containing the 400th lot are approved and permits issued by the City, , the petitioner will need to enter into a Traffic Signal Developer Agreement with CDOT and submit a \$100,000 "Letter of Credit" for the design, purchase of equipment and implementation of a traffic signal at this location. The Traffic Signal Agreement and Letter of Credit will remain in effective until the last subdivision lot is platted. If a traffic signal is not deemed needed by NCDOT/CDOT the terms of the Traffic Signal Agreement and Letter of Credit will become null and void. The institution holding the Letter of Credit needs to notify CDOT six (6) months in advance of its expiration date (i.e. six months before the last lot is platted).
- The petitioner needs to submit future traffic signal warrant analysis prepared by a North Carolina professional engineer. CDOT anticipates a total of three (3) traffic signal warrant analysis will need to be conducted at the following subdivision development thresholds:
 - After 400 lots are platted,

- After 800 lots are platted
 - After 1,000 lots are platted
 - The petitioner needs to provide for the construction of the following roadway improvements before the NS parcel (Parcel "K") is platted and/or during the a City/NCDOT's commercial construction plan approval process:
 - Construct the fourth northbound approach leg to provide three (3) travel lanes (a 150 feet exclusive right turns lane with appropriate bay taper; a combination through-left turn lane with 250 feet of internal storage length; and a one receiving lane).
 - Construct a 150 feet westbound Old Dowd Road left turn storage lane with appropriate bay tapers.
5. Amos Smith Rd. at Southern Railroad Crossing:
- The petitioner needs to obtain in writing from the City of Charlotte Fire Department that the previously approved Amos Smith Rd. second grade-separated railroad crossing specified in the current 2005-014 rezoning petition's conditional notes has been eliminated as a requirement. The documentation from the Fire Department needs to be included in the signed/sealed TIA and revised 2014-081 rezoning plan submitted to City Planning.

The following are requirements of the developer that must be satisfied prior to driveway permit approval. We recommend that the petitioner reflect these on the rezoning plan as-appropriate.

1. According to the City of Charlotte's Driveway Regulations, CDOT has the authority to regulate/approve all private street/driveway and public street connections to the right-of-way of a street under the regulatory jurisdiction of the City of Charlotte. CDOT has determined that a left-turn lane is necessary to serve the traffic using the proposed public street/private driveway connections for this site. The engineering design and construction of the left-turn lane is the responsibility of the owner, and shall be performed by a professional engineer registered in the State of North Carolina who has roadway-design experience. CDOT will only approve the proposed public street/private driveway connections provided that a westbound left-turn lane is constructed on Old Dowd Road at Sam Wilson Road. We recommend the rezoning plan reflect the design of this required left-turn lane prior to submittal/approval of the public street/private driveway connection(s). The left-turn lane needs to be designed using NCDOT standards with a minimum 150 feet of storage. This roadway improvement is required to meet the traffic demands of the proposed development.
2. Adequate sight triangles must be reserved at the existing/proposed street entrances. Two 35' x 35' and two 10' x 70' sight triangles are required for the entrances to meet requirements. All proposed trees, berms, walls, fences, and/or identification signs must not interfere with sight distance at the entrances. Such items should be identified on the site plan.
3. The proposed connections to Amos Smith Road and Old Dowd Road will require a driveway permits to be submitted to CDOT and the North Carolina Department of Transportation for review and approval. The exact driveway locations and type/width of the driveways will be

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determined by CDOT during the driveway permit process. The locations of the driveways shown on the site plan are subject to change in order to align with driveways on the opposite side of the street and comply with City Driveway Regulations and the City Tree Ordinance.

4. All proposed commercial driveway connections to a future public street will require a driveway permit to be submitted to CDOT for review and approval.
5. Any fence or wall constructed along or adjacent to any sidewalk or street right-of-way requires a certificate issued by CDOT.
6. A Right-of-Way Encroachment Agreement is required for the installation of any non-standard items (irrigation systems, decorative concrete pavement, brick pavers, etc.) within a proposed/existing City maintained street right-of-way by a private individual, group, business, or homeowner's/business association. An encroachment agreement must be approved by CDOT prior to the construction/installation of the non-standard items. Contact CDOT for additional information concerning cost, submittal, and liability insurance coverage requirements.

If we can be of further assistance, please advise.

R. Grochoske

cc: S. Correll
Brett Canipe, NCDOT (via email)
Sean Epperson, NCDOT (via email)
Rezoning File