



Charlotte Department of Transportation

Memorandum

Date: March 27, 2015

To: Tammie Keplinger
Charlotte-Mecklenburg Planning Department

From: 
Dennis E. Rorie, PE
Development Services Division

Subject: Rezoning Petition 15-043: Approximately 4.98 acres located on the south side of Mallard Creek between Kings Grant Drive and Carolina Lily Lane.

CDOT has previously commented on the subject petition in our memorandum to you dated February 27, 2015.

Vehicle Trip Generation

This site could generate approximately 860 trips per day as currently zoned. Under the proposed zoning the site could generate approximately 12,500 trips per day. The proposed rezoning requires a Traffic Impact Study (TIS) which has been submitted for review February 11, 2015. Our comments for the subject TIS are included in this memorandum.

In addition to the comments above, CDOT requests the following changes to the rezoning plan:

1. CDOT requests the petitioner implement two (2) pedestrian refuge right turn islands. These islands need to be located on the southeast and southwest quadrants of Carolina Lily Lane and Mallard Creek Rd. (MCR) intersection. CDOT will work with the petitioner on the appropriate channelized island design.
2. The proposed full access intersections on Mallard Creek Rd. and Carolina Lily Lane are under review and are potentially too close to the existing and/or future signalized intersections. CDOT requests the petitioner revise the site plan to take advantage of Grafton Regis Lane, and eliminate the proposed full-access intersection along Mallard Creek Rd. between Kings Grant Drive (a future signalized intersection) and Carolina Lily Lane. The distance between these two intersections is approximately 1,100 feet. Grafton Regis is an existing public street serving the proposed development, and was designed to provide site access to parcels fronting onto Mallard Creek Rd. Mallard Creek Rd. is designated as a major thoroughfare and will most likely be a four lane divided roadway in the future.
3. CDOT requests the petitioner revise the site plan so that the proposed public street that connects Mallard Creek Rd. to Grafton Regis Lane align with an existing driveway on Grafton Regis Lane (approximately 80 feet to the east).

Mallard Creek Road and Carolina Lily Lane

1. CDOT requests the petitioner implement two (2) pedestrian refuge right turn islands. These islands need to be located on the southeast and southwest quadrants of Carolina Lily Lane and Mallard Creek Road (MCR) intersection. CDOT will work with the petitioner on the appropriate channelized island design. The petitioner will be responsible for all traffic /pedestrian signal modifications at MCR and Carolina Lily Lane intersection associated with the pedestrian refuge islands and accessible ramps, including pedestrian signalization for crossing two (2) of the four intersection approaches.

Mallard Creek Road and Access “C”

2. The proposed full access intersections on Mallard Creek Rd. and Carolina Lily Lane are under review and are potentially too close to the existing and/or future signalized intersections. CDOT requests the petitioner revise the site plan to take advantage of Grafton Regis Lane, and eliminate the proposed full-access intersection along Mallard Creek Rd. between Kings Grant Drive (a future signalized intersection) and Carolina Lily Lane. The distance between these two intersections is approximately 1,100 feet. Grafton Regis is an existing public street serving the proposed development, and was designed to provide site access to undeveloped parcels fronting onto Mallard Creek Rd. Mallard Creek Rd. is designated as a major thoroughfare and currently planned as a four lane divided roadway.
 - a. Before the MCR TIP (four lane divided widening) is implemented CDOT recommends site access “C” be restricted to a RI/RO/Left-In traffic movements controlled by a southbound leftover using a raised 4’ wide median from Access “C” to Carolina Lilly Lane. The southbound MCR leftover needs to have a minimum 150’ left turn storage and appropriate bay taper length. This would also restrict Access “B” to RI/RO movements, as proposed in the TIS. The proposed public street on the west side of the site will need to be designed as a commercial/office wide street to provide for recessed parking and two 11’ travel lanes. The northbound travel lane needs to be marked as a right-turn only lane.

Carolina Lilly Lane and Access “A”

3. Initially Access “C” can operate as a full-access, however in the future access at this location may need to be restricted to a RI/RO movements (implemented by others), should traffic operations caused by the close proximately of this driveway to MCR occur in the future. Please add this statement in the TIS and the rezoning’s conditional Transportation Notes.

Mallard Creek Church and Carolina Lilly Frontage Improvements

4. CDOT recommends the proposed future curb lines along the site’s MCR and Carolina Lilly Lane frontage should be set to accommodate the planned MCR TIP, including the proposed southbound leftover to serve Access ‘C’ and a 5’ bike lane. Also a 8’ wide planting strip

and 6' sidewalk needs to be implemented on the site's public street frontages. To this end, the DRG needs to develop a 1"=30' conceptual geometric plan for MCR frontage between Carolina Lilly Lane (north side) and Access "C", including a typical section. This plan needs to clearly depict the proposed southbound leftover storage length and taper, two (2) northbound travel lanes, northbound left turn storage length at Carolina Lilly Lane, right turn lanes proposed by NCDOT, right turn pedestrian refuge islands (see comment #1), proposed pavement markings, existing and proposed right-of-way lines as measured from MCR's existing centerline. Should any additional right-of-way be needed to set the future MCR curb line, CDOT requests the petitioner dedicate right-of-way as fee simple.

5. CDOT requests the petitioner revise the site plan so that the proposed site's western side public street which connects Mallard Creek Rd. to Grafton Regis Lane align with an "existing" driveway on eastside of Grafton Regis Lane (approximately 80 feet to the east).

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 southbound Mallard Creek Rd. left is allowed into the site a southbound directional left-turn lane is necessary to serve the traffic using the proposed public street 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/NCDOT will determine if a left turn on Mallard Creek Rd. will be required after reviewing the TIS.
2. Adequate sight triangles must be reserved at the existing/proposed street entrance(s). Two 35' x 35' and two 10' x 70' sight triangles are required for the entrance(s) to meet requirements. All proposed trees, berms, walls, fences, and/or identification signs must not interfere with sight distance at the entrance(s). Such items should be identified on the site plan.
3. The proposed driveway connection(s) to Mallard Creed Rd, Grafton Regis Lane, and Carolina Lilly Lane. will require a driveway permit(s) to be submitted to CDOT and the North Carolina Department of Transportation for review and approval. The exact driveway location(s) and type/width of the driveway(s) will be determined by CDOT/NCDOT during the driveway permit process. The locations of the driveway(s) shown on the site plan are subject to change in order to align with driveway(s) 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.

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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 item(s) (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 item(s). Contact CDOT for additional information concerning cost, submittal, and liability insurance coverage requirements.

We anticipate that NCDOT will request the following, and recommend the Petitioner work directly with Mr. Brett Canipe with NCDOT regarding their anticipated request.

We understand that NCDOT is also requiring a TIS as a condition of their driveway permit approval. We anticipate that NCDOT's review of the TIS will occur after the City's Rezoning Process, and any TIS comments from CDOT for this petition will not include NCDOT's response to the subject TIS. The developer/petitioner is recommended to meet with NCDOT early in the development process to identify any issues that they may have. Additional CDOT/NCDOT comments and any required transportation improvements will follow our review of the Traffic Impact Study.

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