




# Charlotte Department of Transportation

## Memorandum

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**Date:** February 25, 2015

**To:** Tammie Keplinger  
Charlotte-Mecklenburg Planning Department

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

**Subject:** Rezoning Petition 15-022: Approximately 188 acres located on the north side of Ardrey Kell Road near the intersection of Providence Road and Ardrey Kell Road.

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CDOT previously commented on this petition in our December 31 and January 28 memoranda to your office. CDOT has reviewed the traffic impact study submitted to our office on January 30. Based on a review of the traffic study and the site plan dated February 9, we have the following comments:

### Overview

In our December 31 memorandum we indicated that:

*This petition is currently in a Wedge area, yet seeks to develop an intense mix of land uses that will generate a significant volume of traffic, more characteristic of a Center. This petition might effectively amend the limits of the adjacent Activity Center, however it should be noted that the existing street network is deficient for the purposes of supporting an Activity Center. Therefore this petition will need to make strong commitments to creating an adequate local street network and arterial mitigations, as well as strong urban design to support walkability and transit access. In general, by making good connections to the local street network should reduce the need for arterial mitigations.*

Since writing these comments we have learned that the petitioner will be unable to make external connections to the level we have recommended. While we understand the reasons for not making these connections, this does reduce the ability of the site to function properly as a true activity center. While this site has strong internal connectivity, the lack of strong external connectivity means that we would seek to ensure a stronger level of commitment to arterial capacity improvements that effectively mitigate the external traffic impacts of the site.

CDOT publishes guidance on traffic impact studies that is available on your website that provides the thresholds of congestion mitigation that are expected based on the existing level of congestion and the level of incremental impact of the development. The traffic study analyzes the conditions that occur when the development is fully built out and when all of the transportation improvements by the petitioner are constructed. Based on the findings of the petitioner's traffic impact study, none of the studied intersections would be mitigated to the recommended levels with the build out of the site and the construction of the proposed

transportation improvements. In short, if this site develops as proposed, it will increase congestion and delay on Providence Road, Ardrey Kell Road, and the I-485 ramps.

However, the petition does propose a significant package of off-site mitigations that will be beneficial to the operation of the Providence Road corridor that might not be achieved if the rezoning were not approved and if the site were developed under the existing zoning. Also, the improvements proposed are generally reasonable with respect to what the apparent opportunities are for improvement projects in the area, notwithstanding our specific comments to follow below. Lastly, there are considerable transportation benefits to concentrating a variety of uses in a compact manner on a single site, as is proposed with this petition, as compared to the alternative of serving those market needs in a more dispersed land use pattern that creates longer vehicle trip lengths.

Below are our specific comments on the latest site plan based on our review of the traffic impact study.

#### Transportation Commitments

- 1) Notes V.d.4.ii, and iii includes the phrase “if feasibly possible.” These notes relate to the construction of an additional southbound through lane from Ardrey Kell to Providence Country Club and a new southbound right-turn lane onto Ardrey Kell from Providence Road. These improvements, if constructed, have considerable transportation benefit, but the phrasing of the note means this improvement is not a commitment of the petition at this time because we do not know if the project is feasibly possible. We recommend this phrase be removed, or if the petitioner determines this project to not be feasible, that the note be removed from the plan. We recommend this be resolved in advance of the public hearing so as not to leave this matter in question.
- 2) The petitioner’s traffic impact study recommends the construction of three new right-turn lanes at the intersection of Tom Short and Ardrey Kell. We recommend the conditional plan include these turn lanes.
- 3) The traffic study also reveals that the storage for the existing westbound left-turn lane from Ardrey Kell Road onto Tom Short Road will be insufficient to accommodate the site generated traffic. We recommend the plan be revised to include the extension of the left-turn lane to provide 400’ of storage.
- 4) The study reveals that the dual left-turn lane storage needs for the eastbound approach of Golf Links Drive to Providence Road will extend beyond the driveways to the existing retail on both sides of Golf Links Drive. A median must be constructed along Golf Links to extend from Providence Road to a point at least 50’ west of Golf Links Drive North.
- 5) The study reveals that the dual left-turn lane storage needs for the eastbound approach of Ardrey Kell Road to Providence Road will extend beyond the driveway to the existing retail on the north side of Ardrey Kell. A median must be constructed along Ardrey Kell to extend from Providence Road to a point at least 50’ west of this driveway.

- 6) The proposed reconfiguration of the westbound approach of the I-485 inner loop ramp will shift the location of the through lane. In order to ensure proper lane alignment it may be necessary to make an alteration to the receiving lane on the other side of Providence Road. We recommend the petition include a note to this effect.
- 7) We request the petitioner include a pedestrian refuge to cross Ardrey Kell on the east side of the Fairway Row intersection. Note V.d.6.iii appears to make this commitment at the intersection at the proposed Access "D" where it is not needed.
- 8) Please correct note v.b.10 to reference sheet RZ-5 instead of RZ-4.
- 9) Items V.b.11-14 are acceptable to CDOT however they should be evaluated for compliance with the requirements of the Subdivision Ordinance if they have not been already.
- 10) The petitioner should include a note committing to the funding the proposed traffic signals when the corresponding improvements are implemented. The petitioner will need to enter into an agreement with the City so that CDOT can implement the traffic signals at the developer's cost.
- 11) The geometry of the Providence Row Lane connection to Ardrey Kell is not designed for signalization. The final design of the intersection may require some modifications to this approach in order to ensure the intersection can function properly.
- 12) The Ardrey Kell curblin must be set in a location that will accommodate a half of a future median and the westbound bike lane. The exact location of the curblin will be determined at a later date.

#### Phasing of Improvements

This plan includes phasing of development improvements. In general we support the phasing of the internal streets; however we have the following comments on the phasing of off-site improvements:

- 13) It appears that the intent of the phasing is to require some improvements to be deferred until certain development intensities trigger them. We request that a note be added that more explicitly indicates that all improvements not being deferred to future phases will be installed with the first building on the site.
- 14) We do not support the phasing thresholds that have been proposed. The phasing languages uses an "and" condition for office and retail development which allows for the possibility that either one of the uses could be greatly exceeded without the other use exceeding its threshold. We recommend the two phases described in V.b.7, and 8 be modified to trigger the phased improvements when the combination of uses exceeds 200,000 sf for the first set of phased improvements and 400,000 sf for the final improvements.

Tammie Keplinger  
February 25, 2015, 2014  
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Anticipated NCDOT Requirements

NCDOT has submitted the traffic impact study to their Congestion Management Unit in Raleigh for evaluation. We anticipate that NCDOT could have requirements in addition to or different than our recommended improvements. We suggest the petitioner work directly with NCDOT in order to determine their requirements.

If we can be of further assistance, please advise.

cc: Brett Canipe, NCDOT (via email)  
Sean Epperson, NCDOT (via email)