



# Charlotte Department of Transportation

## Memorandum

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**Date:** March 4, 2008

**To:** Tammie Keplinger & Tom Drake  
Charlotte-Mecklenburg Planning Department

**From:**   
Scott L. Putnam  
Development Services Division

**Subject:** Rezoning Petition 08-053: Located on the south side of West Arrowood Road between I-485 and Whitehall Executive Center Drive

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**Consistency with Transportation Action Plan (TAP):** The two goals of the TAP that most directly affected the staff's review of this petition define the integration of land use and transportation, and the provision of transportation choices.

- Goal 1 of the TAP relies on the Centers, Corridors and Wedges land use strategy to be implemented. This project site is located in a Center and does not appear to support the Centers, Corridors, and Wedges land use strategy. However, if significant changes including increased infrastructure supportive of large-scale development and/or reduced land use intensity are made, this project could support the Centers, Corridors and Wedges land use strategy as an appropriately-scaled activity Center.
- Goal 2 of the TAP describes various connectivity and design features that are important for motorists, pedestrians and bicyclists. Specific comments are identified below that need to be addressed for CDOT's support of the petition and to bring the site plan into compliance with the TAP and best practices for multimodal transportation.

### Vehicle Trip Generation

This site could generate approximately 9,300 trips per day as currently zoned. Under the proposed zoning the site could generate approximately 20,000 trips per day. This will have a significant impact on the surrounding thoroughfare system.

Therefore, we request that the developer submit a Traffic Impact Study (TIS) in order to evaluate the effect that site generated traffic will have on the thoroughfare system in the vicinity.

The preparer of the TIS must contact Rick Grochoske (704.432.1556) of the Charlotte Department of Transportation (CDOT) prior to beginning the TIS to determine the study requirements. Since access is proposed to an NCDOT-maintained roadway, they may also require a TIS as part of their driveway permit approval process. They may have additional or different requirements for their approval than what is identified in this rezoning process. The developer/petitioner is recommended to meet with NCDOT early in the development process to identify any issues that they may have.

We have the following specific comments that are critical to CDOT's support of the rezoning petition:

1. The proposed land use development plan and site plan do not adequately integrate land use and transportation. The proposed access/street network in the area is insufficient to support the proposed development scale. The site plan proposes that all of the site traffic access Arrowood Road by using two very closely-spaced intersections that are unlikely to adequately accommodate the expected traffic demand, even after signalization and the addition of multiple left- and right-turn lanes. Other connections to nearby public and private streets (not just stubs to parcels), including but not limited to Arrowood Road via Moody Lake Drive as well as the main circulating roadway in the Whitehall Commons Shopping Center, are necessary. This additional road network is necessary to accommodate this site's traffic and allow it to access complementary land uses, primarily the retail in Whitehall Commons. CDOT can support the provision of additional connectivity (not just stubs) as mitigation in lieu of the inappropriate widening intersections. This additional connectivity is consistent with the Transportation Action Plan objective #2.9 and the Urban Street Design Guidelines. The appropriate amount of connectivity that could be considered in lieu of some intersection modifications will be determined through the TIS process and is subject to NCDOT approval.
2. Using typical suburban parking ratios (1 space per 300 ft<sup>2</sup> for office, 1 space per 250 ft<sup>2</sup> for retail, 1.5 spaces per multifamily unit), this site will require approximately 8,000 parking spaces. While some reduction in that number may result with consideration of shared parking between land uses, internal trip capture, transit use, etc., a significant number of parking spaces will still be needed. The site plan does not provide enough street network to adequately serve the necessary parking decks.
3. The western half of Road E needs be constructed across Moody Lake to connect to Moody Lake Drive as part of the initial site development.
4. The entirety of Roads A, B, and D, and the eastern half of Road E (the part southeast of Road A), need to be public streets.
5. Two streets (which can be public or private) need to connect Road A and Road C, on each side of Parcel 3.
6. Direct driveway access from the retail outparcels to Roads A and D will not be supported. These accesses need to be obtained from Road B exclusively.
7. Bike lanes need to be provided on all internal public streets and on the private street portion of Road E. Bike lanes also need to be provided on any widened portion(s) of Arrowood Road in both directions.

8. Once the site's traffic impacts have been identified, the design of affected intersections will need to be determined through the Six-Step Process identified in the Urban Street Design Guidelines (USDG). This process can occur at any time before subdivision plan submittal. It is recommended that the developer and the developer's consultant(s) meet with CDOT staff early in the rezoning process to discuss/become familiar with USDG's Six-Step Process.
9. Given the intensity of the proposed land uses, the sidewalk along Arrowood Road needs to be increased in width to 8 feet instead of the minimum 6-foot width required by MUDD.
10. It appears that the current site plan may need two traffic signals on Arrowood Road at the proposed public street intersections (Roads A and E). Because of the short distance between these intersections, both CDOT and NCDOT would only support one signalized intersection provided minimum requirements could be met. This intersection needs to be designed as the main entrance and located at the Whitehall Executive Center Drive/Road D intersection and not at the location shown on the site plan (Road A). Therefore, the site needs to be redesigned so that Road D becomes a more major street serving the development and connecting with Road E.
11. Additional comments will follow our review of the TIS.

We have the following general comments that are provided to aid the petitioner in planning and subsequent permitting phases:

I-485 is a freeway requiring a minimum of 350 feet of right-of-way. Arrowood Road is a boulevard (USDG) requiring a minimum of 135 feet of right-of-way. The developer/petitioner should convey right-of-way in fee simple title to meet these requirements, measuring 175 feet and 67.5 feet from the centerlines of the respective roadways.

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.

The proposed driveway connections to Arrowood Road will require 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 determined by CDOT during the Six-Step process. The locations of the driveways shown on the site plan are subject to change in order to align with street(s)/driveway(s) on the opposite side of the street and comply with City Driveway Regulations and the City Tree Ordinance.

All proposed commercial driveway connections to a future public street will require a driveway permit to be submitted to CDOT for review and approval.

Any fence or wall constructed along or adjacent to any sidewalk or street right-of-way requires a certificate issued by CDOT.

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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 publicly maintained street right-of-way by a private individual, group, business, or homeowner's/business association. An encroachment agreement must be approved by CDOT/NCDOT prior to the construction/installation of the non-standard item(s). Contact CDOT/NCDOT for additional information concerning cost, submittal, and liability insurance coverage requirements.

If we can be of further assistance, please advise.

SLP

c: R. H. Grochoske (via email)  
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Rezoning File