

# Rezoning Transportation Analysis

Petition Number: 2016-115

General Location Identifier: 04742101, 04742102, 04742106

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CDOT's review of this rezoning petition is intended to ensure consistency with the Transportation Action Plan (TAP) which seeks to ensure that the City'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.

This document is primarily for communication to Planning Department staff as part of the overall City staff analysis of the rezoning petition and includes an overall summary of the case from a transportation perspective, information on trip generation, and resolved or outstanding site plan concerns. Additional advisory information about the driveway permit process is provided for information only.

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Based on our review of the petition, we offer the following information for your consideration.

## Transportation Summary

This site is located along a local street at the signalized intersection with a major thoroughfare. The proposed land use revisions generate approximately the same trips as the original rezoning; however the petitioner has reduced or removed some of the prior transportation mitigation commitments. Additionally, CDOT has concerns with the form of the street connection provided from the multifamily and through the retail portion of the site. This petition does provide a connected bike/pedestrian system from Mallard Creek through the development via the site's multi-use paths and proposed street network.

## General Description

Site extends along Senator Royall, a local street that functions as a collector street carrying high peak hour traffic volumes from the activity center to the major thoroughfare, and Mallard Creek Church, a major thoroughfare, at a signalized intersection. Both Mallard Creek Church Rd. and Senator Royall Dr. are state-maintained facilities; therefore the petitioner needs to contact Ms. Wendy Taylor with NCDOT to obtain their rezoning comments. The City is in the process of accepting the State-maintained streets within the University Research Park, including Senator Royall.

A 2010 Traffic Impact Study (TIS) was conducted with the 2011-036 rezoning petition.

Site is in an activity center outside Route 4 and falls within the University Research Park Area Plan.

## Trip Generation

Scenario	Land Use	Intensity	Trip Generation (vehicle trips/day)	Source
Existing Use	Vacant	N/A	0	Tax Records
Entitlement with Current Zoning	Hotel Office Retail	200 rooms 250k sf 75k sf	9900	RZ 2011-036
Proposed Zoning	Hotel Retail Apartments	100 rooms 100k sf 300 dwellings	9550	Site Plan: 06-23-16

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## Resolved Issues

1. The petitioner should revise the site plan Section "C" to include 5' bike lane, 2.5' curb and gutter, 8' planting strip, and 12' wide multiuse path (MUP) along the site's Mallard Creek Church Rd.'s frontage.
2. The petitioner should revise the site plan and associated notes for multiuse paths as follows:
  - a. Note 7d – a 6' sidewalk is not considered a multi-use path.
  - b. Multiuse paths along all local east-west streets are not necessary, although not inappropriate. Bicyclists should be able to share the street on low-speed, low-volume streets. If MUPs are retained, Sections "A" and "B" should be revised to reflect a path width.
  - c. Include future multi-use paths throughout the site as called out and depicted on the 2011-036 approved rezoning petition.
3. The petitioner should revise the site plan to depict and label the following street types and identify them as public streets:
  - a. Alexander Village Main Dr. extension – Local Office/Commercial Wide Street (CLDSM U-05)
  - b. Heritage Pond Dr. extension – Local Residential Wide Street w/Curb Extension (CLDSM U-03)
4. Include Parcel "C" Improvements - the extension of the existing SB Senator Royall Dr. outside travel lane for approximately 730 feet to Heritage Pond Dr. as a right-turn only lane.
5. The petitioner should revise the site plan to include a "public" north-south office/commercial street section near the site's western property line connecting Mallard Creek Church Rd. and stubbing to the site's property line near Heritage Pond Dr. CDOT anticipates this proposed N/S street would extend eventually and connect to One Electrolux Way (a platted public network street, west of the site).
  - a. A portion of this street was shown on the approved 2011-036 site plan and should be carried into this site plan amendment  
8/26/16 Update: Label and dimension future street right-of-way along the site's western boundary of Parcel C. Multi-family parking lot in Parcel C should be connected to Alexander Village extension via driveway/drive aisle generally along the western boundary and connecting in to realigned street requested for Parcel A (see comment (b) below).
6. The petitioner should revise the site plan and associated notes for multi-use paths (MUP) as follows:
  - a. Note 7d – add "upon CDOT approval" to the end of the first sentence about 6' pinch points.
7. The petitioner should revise the site plan to add the following transportation improvements as identified in the approved 2011-036 rezoning petition and October 4, 2012 letter re: Senator Royall Developer Mitigation Agreement. The following traffic mitigation improvements shall be completed and approved before the first building CO is issued on the site (i.e.: development parcels A, B, or C):
  - a. An additional NB Senator Royall Dr. 200' left turn storage lane w/appropriate bay taper length at Mallard Creek Church Rd. (the existing Senator Royall Dr. median must remain 8' wide to provide adequate pedestrian refuge space) (see below exhibit).
  - b. Channelized NB dual right turn lanes with protected traffic signal pedestrian phasing (see below exhibit).  
8/26/16 Update: Revise note 4a to include this transportation improvement and remove from 4c (iii).
  - c. Traffic signal modifications to accommodate the NB dual lefts and NB dual right turns on Senator Royall Dr. NB approach at Mallard Creek Church Rd. (see exhibits below).  
8/26/16 Update: Revise note 4a to include this transportation improvement and remove from 4c (last sentence).
8. Include Parcel "C" Improvements - The widening of Senator Royall Dr. includes an 8' raised landscaped median, and up to three (3) pedestrian refuge islands located at Alexander Village Main Dr., Heritage Pond Dr. and one to be determined during the construction permitting process (see below exhibit).
9. The petitioner should revise the site plan to add a note specifying dedication and fee simple conveyance of all rights-of-way to the City before the site's first building certificate of occupancy is issued.  
8/26/16 Update: Revise note 5b to first (not last) building certificate of occupancy is issued.

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## Outstanding Issues

1. The petitioner should revise the site plan to include a “public” north-south office/commercial street section near the site’s western property line connecting Mallard Creek Church Rd. and stubbing to the site’s property line near Heritage Pond Dr. CDOT anticipates this proposed N/S street would extend eventually and connect to One Electrolux Way (a platted public network street, west of the site).
  - a. A right-in/right-out driveway connection through a surface parking lot to Mallard Creek Church as shown in the site plan does not accomplish the desired connectivity and block spacing for an activity center. CDOT would support the continuation of this north-south street to Mallard Creek Church Rd instead.

9/26/16 Update: The petitioner should depict and revise the site plan to relocate the proposed right-in/right-out driveway on Mallard Creek Church Rd. approximately 500’ west of Senator Royall Dr.
  - b. A local commercial/office narrow street section is appropriate, unless on-street parking is needed.
  - c. This site plan proposes conversion of office to residential. This changes the anticipated directional split pattern of the development and further warrants the additional N/S street in the network.
2. The petitioner should revise the site plan and associated notes for multi-use paths (MUP) as follows:
  - a. All 10’ widths MUPs should be changed to 12’ widths, CDOT will consider less than 12’ wide MUPs during the permitting process and as approved by CDOT when deemed unfeasible.

8/26/16 Update: Labels for paths less than 12’ should be revised to “Sidewalk”

9/26/16 Update: The petitioner should revise the site plan to show a 12’ multiuse path on Senator Royall. 10’ paths as noted on Alexander Village and Heritage Pond extensions are adequate for these facilities.
3. The petitioner should revise the site plan to show the west side Senator Royall Dr. curblines to be relocated to accommodate an additional travel lane and raised landscaped median along the site’s frontage. Senator Royall Drive’s future west side curblines at Alexander Village Main Dr. and Heritage Pond Dr. is 54.5’ as measured from its existing double yellow centerline. (8’ raised landscaped median + 4-11’ travel lanes + 2.5’ c/g = 54.5’).

8/26/16 Update: CDOT has received and will consider the Senator Royall Dr. concept prepared by DRG (below, dated 8/24/2016) during the permitting process to avoid relocating the existing west side curblines. However, the petitioner should commit to accommodating the 4-lane divided with curb and gutter cross section and acknowledge that this may require curblines relocation.
4. The petitioner should revise the site plan to add the following transportation improvements as identified in the approved 2011-036 rezoning petition and October 4, 2012 letter re: Senator Royall Developer Mitigation Agreement. The following traffic mitigation improvements shall be completed and approved before the first building CO is issued on the site (i.e.: development parcels A, B, or C):
  - a. A WB Research Dr. 100’ right turn lane storage lane w/appropriate bay taper length at David Taylor, including a raised right turn channelized median with pedestrian refuge.
5. The petitioner should revise the western alignment extension of Alexander Village to avoid the existing pond (RZ-1) and align with parcel # 04742105’s northern property line as generally depicted on the approved 2011-036 rezoning petition.

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## Advisory Information

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. The setback for this district is measured from the back of the existing or future curbline as determined by CDOT and Planning during the permitting process.
2. 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.
3. Adequate sight triangles must be reserved at the existing/proposed street entrance(s). Two 35' x 35' sight triangles (and two 10' x 70' sight triangles on North Carolina Department of Transportation on NCDOT maintained streets) 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.
4. The proposed driveway connection(s) to public streets will require a driveway permit(s) to be submitted to CDOT (and the North Carolina Department of Transportation on NCDOT maintained streets) for review and approval. The exact driveway location(s) and type/width of the driveway(s) will be determined by CDOT 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.
5. All proposed commercial driveway connections to a future public street will require a driveway permit to be submitted to CDOT for review and approval.
6. Any fence or wall constructed along or adjacent to any sidewalk or street right-of-way requires a certificate issued by CDOT.
7. 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.

## Revision Log

Date	Description	By
07-19-2016	First Review	RHG
08-31-2016	Hearing Review – Transportation summary added. Resolved/outstanding issues updated.	RHG
09-26-2016	3 <sup>rd</sup> Review	RHG