

Rezoning Transportation Analysis

Petition Number: Insert Zoning Petition #2021-258

General Location Identifier: 04739101

From: Jake Carpenter, PE
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Reviewer: Patrick Monroe
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Revision Log:

Date	Description
04-28-22	First Review (PDM)
05-25-2022	Second Review (KP)
06-29-2022	Third Review (PDM)

General Review Information

The site is located on University City Boulevard, a State-maintained major thoroughfare, and Neal Rd, a City-maintained minor thoroughfare. The petition is located outside of Route 4 and within the University Research Park Area Plan boundaries.

Active Projects Near the Site:

- Rezoning 2020-086
 - The Site may be developed with up to 712 residential dwellings units together with any incidental or accessory uses allowed in the R-12MF zoning district.
 - The Site may be developed in two phases. Phase I of the site has been permitted and is currently under construction.
 - The project is responsible to install a 12-foot multi-use path along University City Boulevard as well as several offsite turn lane improvements to the surrounding roadway network.

CDOT's review of this rezoning petition is intended to provide consistency with council adopted policies, plans, standards and guidelines including, but not limited to, the [Transportation Action Plan \(TAP\)](#), [Vision Zero](#), [Urban Street Design Guidelines \(USDG\)](#), [Center, Corridor and Wedges](#), [Charlotte BIKES](#), [Traffic Impact Study Guidelines](#) and [Charlotte WALKS](#). With a commitment to design complete streets, this review is 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.

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

Transportation Summary

The site is located on University City Boulevard, a State-maintained major thoroughfare, and Neal Rd, a City-maintained minor thoroughfare. A Traffic Impact Study (TIS) was needed for this site, and CDOT and NCDOT approved the Traffic Impact Study on March 30, 2022. Based upon the findings of the Traffic Impact Study southbound dual left turn lanes are needed on Neal Road at University City Boulevard to mitigate traffic impacts by the proposed site. In addition, several turn lane improvements are required to be installed along University City Boulevard and Neal Road at the site access points.

NCDOT is requiring a request to be submitted to the District Engineer for approval of the proposed median break. The request for median break has not been made by the petitioner as of April 18, 2022. The petitioner is providing multimodal facilities on University City Boulevard throughout the internal street network to provide multimodal connectivity to the proposed Doby Creek Greenway and surrounding network. CDOT has no outstanding comments with this petition.

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Trip Generation

Scenario	Land Use	Intensity	Trip Generation (vehicle trips/day)	Source
Existing Use	Vacant	-	-	<i>Tax Record</i>
Entitlement with Current Zoning	Research (RE-2, 64.05 acres)	-	Too many uses to determine trip generation	<i>General Guidance from Planning</i>
Proposed Zoning	Multifamily (Mid-Rise) Single Family Attached (R-12MF, 64.05 acres)	450 Units 150 Units	3,195	<i>Site Plan: 03-28-22</i>

Provide comments to the specified comments below.

Outstanding Issues

Strikethrough = Resolved

~~1. Traffic Study:~~

~~A Traffic Impact Study is necessary for the complete review of this petition due to the site generating more than 2,500 daily trips.~~

~~A Traffic Impact Study was submitted to CDOT and NCDOT for the proposed development on January 27, 2022. CDOT approved the traffic impact study on March 30, 2022, and NCDOT approved the traffic impact study on February 24, 2022.~~

~~Based upon the findings of the Traffic Impact Study southbound dual left turn lanes are needed on Neal Road at University City Boulevard to mitigate traffic impacts by the proposed site. In addition, several turn lane improvements are required to be installed along University City Boulevard and Neal Road at the site access points.~~

~~2. Revise site plan and conditional note(s) to commit to installing all recommend transportation improvements outlined in the approved traffic study sealed on March 2, 2022. The conditional notes should describe each scenario analyzed in the study and should commit to installing all improvements for each scenario as outlined in the Traffic Impact Study.~~

~~3. University City Boulevard & Neal Road (Signalized)~~

~~Phase 1 Build Suggested Improvements (Scenario 1 & 2)~~

- ~~No suggested improvements~~

~~Phase 2 Build Suggested Improvements (Scenario 1 & 2)~~

- ~~Construct an additional southbound left turn lane on Neal Road with 190 feet of storage utilizing the existing pavement width where available and ensure the northbound and southbound left turn signal phasing run concurrently~~

~~4. University City Boulevard & Offsite Access "A" (Unsignalized)~~

~~Phase 1 Build Suggested Improvements (Scenario 1)~~

~~We propose the following intersection configuration:~~

- ~~One ingress and one egress lane (a terminating southbound right turn lane on proposed Access "A")~~
- ~~Construct a westbound right turn lane on University City Boulevard with 100 feet of storage~~
- ~~100-foot internal protected stem~~

~~Phase 2 Build Suggested Improvements (Scenario 2)~~

~~We propose the following intersection configuration:~~

- ~~One ingress and one egress lane (a terminating southbound right turn lane on proposed Access "A")~~
- ~~Construct a westbound right turn lane on University City Boulevard with 100 feet of storage~~
- ~~Construct an eastbound left turn lane on University City Boulevard with 250 feet of storage~~
- ~~100-foot internal protected stem~~

~~Phase 2 Build Suggested Improvements (Scenario 1 & 2)~~

- ~~We propose the intersection configurations remain the same as noted above for Phase 1 (Scenarios 1 & 2)~~

~~5. Neal Road & Rumstone Lane/Access "B" (Unsignalized)~~

~~Phase 1 Build Suggested Improvements (Scenario 1 & 2)~~

~~We propose the following intersection configuration:~~

- ~~One ingress and two egress lanes (a combined westbound thru-right turn lane and a separate westbound left turn lane with 100 feet of storage on Access "B")~~
- ~~Remark existing painted median for southbound left turn lane on Neal Road and maximize storage~~
- ~~100-foot internal protected stem~~

~~Phase 2 Build Suggested Improvements (Scenario 1 & 2)~~

- ~~We propose the intersection configurations remain the same as noted above for Phase 1 (Scenarios 1 & 2)~~

~~6. University City Boulevard & U-Turn Bulb (Unsignalized) [Scenario 2 Only]~~

~~Phase 1 Build Suggested Improvements (Scenario 2)~~

~~We propose the following U-turn bulb configuration:~~

- ~~Construct an adequate westbound U-turn lane on University City Boulevard with 225 feet of storage designed to accommodate an SU-30 at the minimum~~

~~Phase 2 Build Suggested Improvements (Scenario 2)~~

- ~~We propose the intersection configurations remain the same as Phase 1~~

~~7. University City Boulevard & Offsite Access/Access "C" (Unsignalized)~~

~~Phase 2 Build Suggested Improvements (Scenario 1 & 2)~~

~~We propose the following intersection configuration:~~

- ~~One ingress and one egress lane (a terminating southbound right turn lane on proposed Access "C")~~
- ~~Construct a westbound right turn lane on University City Boulevard with 100 feet of storage~~
- ~~100-foot internal protected stem~~

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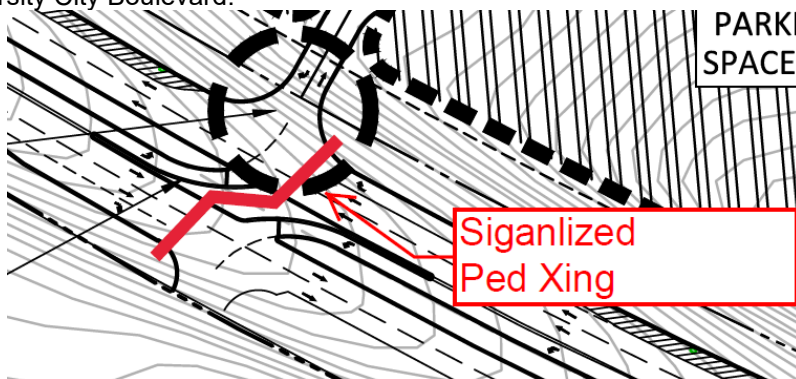
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3. ~~Revise site plan and conditional note(s) to commit to dedicate 35-foot right of way from the road centerline on Neal Road. The site plan shall label and dimension the right of way from the road centerline.~~
4. ~~Revise site plan to label and dimension the right of way on University City Boulevard from the road centerline.~~
5. ~~Revise site plan and conditional notes to commit to installing a 12-foot multi-use path along the entire property frontage of University City Boulevard per Chapter 19 and 20 of the City Ordinance. The multi-use path should be located outside of the limits of the NCDOT controlled access/right-of-way and should be located within a sidewalk utility easement. The multi-use path also meets the requirements outlined in the council adopted Charlotte WALKS and Charlotte BIKES policies. A transition will need to be provided at the intersection of Neal Road to transition bicyclist from the multi-use path to the existing on-street bike lane facilities west of Neal Road.~~

Clarifying comment from 05.25.22: ~~CDOT is having ongoing discussions with the petitioner to determine where the required bike facilities will be installed to meet the intent of this requirement.~~

6. ~~CDOT **RECOMMENDS** revising the site plan and conditional notes to commit to installing a traffic signal at the intersection of University City Boulevard and proposed Entry #1 with a two-stage z-crossing for pedestrians. The traffic signal is recommended by CDOT, NCDOT and Mecklenburg County to provide a safe pedestrian crossing across University City Boulevard. In addition to general vehicular and pedestrian traffic, pedestrian traffic from the proposed Doby Creek Greenway will use this intersection to cross University City Boulevard.~~



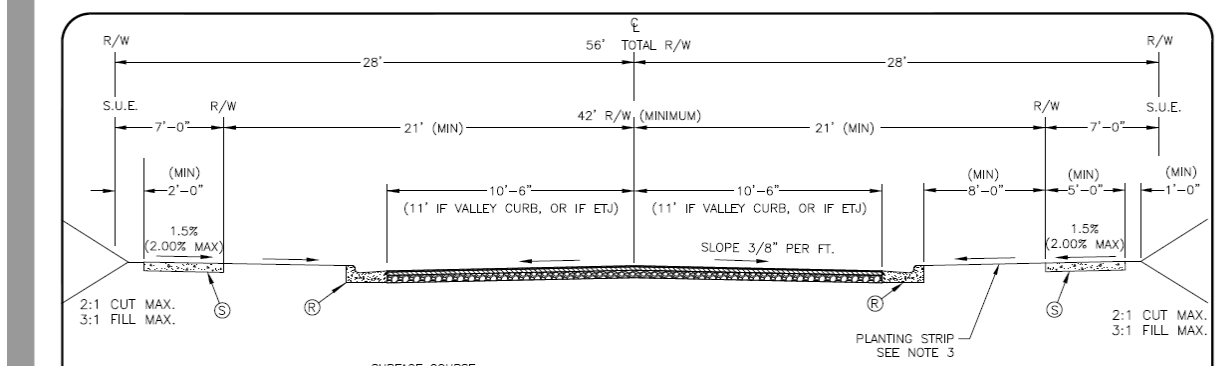
7. ~~Site plan and conditional note(s) revisions are needed to commit to construct bicycle facilities on Neal Road by installing a 12-foot multi-use path to meet the City Charlotte BIKE Policy.~~
8. **Outstanding comment from 04.28.22:** ~~Revise conditional note C.2 to reflect that any driveway adjustment must be approved by CDOT and NCDOT.~~
 2. The Site will be served by internal private streets, drives and alleys. Minor adjustments to the locations of the internal private streets, drives and alleys ~~shall~~ be allowed during the construction permitting process.
 3. Entry # 1 shall be a median divided entrance. may be allowed based on CDOT and NCDOT approval
9. ~~Site plan and conditional note(s) revisions are needed to commit to installing curb and gutter along University City Boulevard per Chapter 19 Ordinance. Curb and gutter is required to be installed in the missing section near the intersection of Neal Rd.~~
10. **Outstanding comment from 04.28.22:** ~~Revise site plan and conditional note(s) to provide the typical sections for all internal private roads. CDOT recommends using the location residential median street~~

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typical section with 8-foot sidewalks per CDLSM U-02. Sidewalks will be required along all private streets. If roads will be built to private street standards specify the appropriate CLDSM typical section.



11. ~~A site plan note(s) 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 as needed. CDOT requests rights-of-way set at 2' behind back of sidewalk where feasible.~~
Clarifying comment from 05.25.22: Include "Fee Simple" conveyance in Transportation note 13.
12. ~~A site plan note specifying that all transportation improvements will be approved and constructed before the site's first building certificate of occupancy is issued as needed. The petitioner may phase transportation improvements if said improvements and phasing are explicitly described in site plan notes. The proposed phasing should match the proposed phasing outlined in the approved traffic impact study.~~
13. ~~Add conditional note "All public roadway improvements will be subject to the standards and criteria of CDOT and NCDOT, as applicable, to the roadway improvements within their respective road system authority. It is understood that such improvements may be undertaken by the Petitioner on its own or in conjunction with other development or roadway projects taking place within the broad north-eastern Mecklenburg area, by way of a private/public partnership effort or other public sector project support."~~

Advisory Information

The following are requirements of the developer that must be satisfied prior to driveway permit approval. These requirements shall be reflected on the rezoning plan, as appropriate.

1. 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, per the City of Charlotte's Driveway Regulations.
2. Adequate sight triangles must be reserved at the existing/proposed street entrance(s). Two 50' x 50' sight triangles (and two 10' x 70' sight triangles on NCDOT-maintained streets) are required for the entrance(s) to meet requirements. All proposed trees, berms, walls, fences, and/or identification signs shall not interfere with sight distance at the entrance(s) and shall be identified on the site plan.
3. The proposed driveway connection(s) to public streets will require a driveway permit(s) to be submitted to CDOT (and NCDOT 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.
4. All proposed commercial driveway connections to a future public street will require a driveway permit 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 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

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association. An encroachment agreement must be approved by CDOT prior to construction/installation. Contact CDOT for additional information concerning cost, submittal, and liability insurance coverage requirements.

7. The petitioner needs to complete and submit the [Right of way Abandonment Petition form](#) to CDOT for review. The decision of this rezoning petition does not correlate with the decision of the possible abandonment, as this decision is issued within the separate Right of Way Abandonment process that is controlled by North Carolina General Statutes.
8. To attain a street and pedestrian lighting recommendation, the petitioner should coordinate with Anthony Mendez, CDOT. Please visit the following link:
<https://charlottenc.gov/Transportation/Programs/Pages/StreetLighting.aspx>