



February 11, 2022

Terry E. Farr, PE
NCDOT Project Management Unit
1582 Mail Service Center
Raleigh, NC 27699-1582

Subject: U-5307 Project Map Review

Mr. Farr:

Thanks for the opportunity to review the project maps for the Capital Boulevard North Upgrade (U-5307). City of Raleigh staff have the following comments and questions on these maps for your consideration.

- Include the Gresham Lake Road Extension Option 4 in the base project, as shown in the *City of Raleigh 2030 Comprehensive Plan Update, Map T-1: Street Plan (COR Street Plan)* and the *US 1 Corridor Study*. This connection is vital to the local connectivity element of the defined purpose and need of U-5307. It is also necessary to avoid an adverse effect on local traffic patterns and community cohesiveness. Without the Gresham Lake Road extension, traffic is likely to utilize local streets to navigate around the barrier created by US 1, which impacts Raleigh neighborhoods and works against current City efforts to reduce speeds and cut-through traffic on neighborhood streets. It is not reasonably foreseeable that improvements to eliminate these impacts can be made outside of the U-5307 and therefore the impacts are permanent. We therefore believe that not including the Gresham Lake Road Extension Option 4 in U-5307 would result in this project no longer being eligible for a Categorical Exclusion under the National Environmental Protection Act. This was described in our comments on the draft traffic analysis that were submitted in a memorandum dated 2/3/22. Those comments are included by reference.
- Include the Wadford Drive Bridge over the Neuse River Option in the base project, as shown in the *COR Street Plan* and the *US 1 Corridor Study*. This connection is vital to the local connectivity element of the defined purpose and need of U-5307. It is also necessary to avoid an adverse effect on local traffic patterns and community cohesiveness. It is not reasonably foreseeable that improvements to eliminate these impacts can be made outside of the U-5307 and therefore the impacts are permanent. We therefore believe that not including the Wadford Drive Bridge U-5307 would result in this project no longer being eligible for a Categorical Exclusion under the National Environmental Protection Act. This was described in our comments on the draft traffic analysis that were submitted in a memorandum dated 2/3/22. City of Raleigh staff believe that this can be done at little or

no additional cost by reducing the width of the US-1 structures by removing the auxiliary lanes between the Durant/Perry Creek Burlington Mills interchanges that are not required by the American Association of State Highway and Transportation Officials (AASHTO) *Policy on Geometric Design of Highways and Streets* (Green Book).

- Provide a bridge connection from Common Oaks Drive to Caveness Shoppes Drive, as shown in the *COR Street Plan*. This connection is vital to the local connectivity element of the defined purpose and need of U-5307. It is also necessary to avoid an adverse effect on local traffic patterns and community cohesiveness. It is not reasonably foreseeable that improvements to eliminate these impacts can be made outside of the U-5307 and therefore the impacts are permanent.
- Provide a greenway connection from Wadford Road to the Neuse River Trail, as supported by the City's *Comprehensive Plan* policies PR 3.1, PR 3.8, and PR 3.11. The City expects to pay for this connection as a betterment to the project.
- Accommodate planned east-west trail development along the Richland Creek (just south of NC 98), NR Perry Creek Simms Branch (just south of Durant Road), and NR Perry Creek (near I-540) corridors by providing a pedestrian culvert next to the stream culvert at each of these three planned greenway crossings. The project should not impede future buildout of these trail facilities, which are planned in the *City of Raleigh Greenway Master Plan* and supported by the City's *Comprehensive Plan* policies PR 3.1, PR 3.6, PR 3.11.
- Accommodate the planned north-south trail corridors that run from Ruritania Street to Greshams Lake on the west side of US 1 and from the Spring Forest Trail to the NR Perry Creek Corridor on the east side of US 1. These trails are planned in the *Final Draft of the Greenway Master Plan Update* and *City of Raleigh Greenway Master Plan*, respectively, and supported by the City's *Comprehensive Plan* policies PR 3.1, PR 3.6, PR 3.11.
- Keep the Neuse River Trail open during construction and provide detours around construction if necessary. This is supported by NCDOT's adopted *Complete Streets Policy*.
- Provide lane configurations, sidewalks, and bike facilities for all Y-lines in accordance with the street designations in the *COR Street Plan* and the cross-sections laid out in Raleigh's *Unified Development Ordinance (UDO)*. These sections include sidewalks on both sides of all street types and bike facilities appropriate to the context and characteristics of the street. Sidewalk-level bike lanes behind the curb are included in all Avenue designations. For reference, the following designations apply to the Y-lines in the project:
 - Y2: Durant Rd/Perry Creek Rd, Avenue 4-Lane, Divided
 - Y3: Burlington Mills Rd, Avenue 4-Lane, Divided
 - Y4: Falls of Neuse Rd west of US 1, Avenue 6-Lane, Divided
 - Y4: Falls of Neuse Rd east of US 1, Avenue 4-Lane, Divided
 - Y6: Durham Rd, Avenue 4-Lane, Divided
 - Y9A/Y9B/Y30: Capital Hills Dr, Avenue 2-Lane, Divided
 - Y9C: Gresham Lake Rd west of Capital Hills Dr, Avenue 2-Lane, Divided
 - Y9C: Gresham Lake Rd east of Capital Hills Dr, Avenue 4-Lane, Divided
 - Y10: Service Rd, Avenue 2-Lane, Divided
 - Y10A: Jacqueline Ln, Neighborhood Street
 - Y10C: Homestead Dr, Neighborhood Street
 - Y12A: Wadford Rd/Meadstone Way, Avenue 2-Lane, Divided

- Y13: Ponderosa Service Rd, Avenue 2-Lane, Divided
 - Y16: Stroller Ridge Dr, Avenue 2-Lane, Divided
 - Y18A: Star Rd, Avenue 2-Lane, Divided
- Extend Y30 as a public street to match the *COR Street Plan* and to maintain access to properties 892, 720, 160. Modify gate locations as needed to maintain a secure perimeter at the Mallinckrodt Facility (property 719).
- Reduce the through lanes on US 1 in the project to cut costs as necessary to meet the available budget while maintaining all service roads and multimodal local connections. Regardless of the number of lanes, conversion to a limited-access highway will improve safety, travel time reliability, and increase capacity on the corridor. Multimodal local connectivity should be prioritized over additional laneage, which is unlikely to reduce congestion due to induced demand. Investments in the parallel S-Line corridor are a higher priority than increasing capacity on US-1 to account for all potential increases in travel demand on the corridor. The Raleigh *Comprehensive Plan* Policies T 1.3, T 1.4, T 2.1, T 2.4, T 2.6, T 2.11, T 3.1, T 3.2, T 3.4, T 7.1 support this approach.
- The project does not preserve reasonable space for the provision for future high-quality transit facilities with dedicated running ways. We recognize that the project does not include construction of these transit facilities, but the proposed design and construction should not preclude other agencies from advancing these initiatives in the future due to prohibitive costs. At a minimum, provide paved shoulder widths and depths that are sufficient to accommodate emergency access use and potential future bus use in accordance with Raleigh *Comprehensive Plan* Policy T 4.4.
- Design to the following criteria at all new or affected signals in accordance with policies T 2.1, T 3.1, T 3.2, and T 3.4 in the Raleigh *Comprehensive Plan*:
 - Design all pedestrian crossings at signals in one phase to avoid stranding pedestrians in the median of wide roadways.
 - Place all signal cabinets at locations accessible for field staff.
 - Design signals with mast arms that are designed for additional equipment like CCTVs.
 - Provide pedestrian crosswalks and pedestrian signal heads at all crossings of all new or affected signals.
- Provide street lighting along all streets in Raleigh in accordance with Section 11.2.8 of the *Raleigh Street Design Manual*.
- Minimize corner radii on all intersections of Y lines, such as at Y30 and Y2, to improve comfort and safety for pedestrians and slow vehicle turning speeds in accordance with policies T 2.1, T 3.1, T 3.2, and T 3.4 in the Raleigh *Comprehensive Plan*. Design radii in accordance with the Roadway Classification Design Vehicle Type and street cross section criteria in Articles 2.3 and 3.1 of the *Raleigh Street Design Manual*, respectively. Use mountable truck aprons where needed to accommodate large vehicles with larger radii.
- Maintain vehicular and ADA-accessible pedestrian connections to all properties that are not being acquired, including those numbered 263, 468, 530, 531, 660, 790, and 791.
- Show the signal at Capital Hills Drive and Durant Road and confirm this will be retained.
- Clarify what will happen to right-of-way that is no longer needed due to changes in access, such as the land between properties 526 and 527.
- Confirm the sidewalk on the east side of Capital Hills Drive will be maintained.

- Confirm NCDOT will maintain all interchange landscaping that will be constructed with the project.
- Clarify who will maintain all structures constructed by the project.
- Clarify who will maintain frontage and backage roads constructed by the project.
- Clarify who will maintain all signals constructed by the project.

Thank you again for the opportunity to comment on the project maps. If you have any questions about these comments or require additional feedback, please feel free to contact me at the number or email below.

Many thanks,



Michael Moore

Director

919-996-3030, Michael.Moore@raleighnc.gov



Paul Kallam

Assistant Director

919-996-2406, paul.kallam@raleighnc.gov

City of Raleigh Department of Transportation