



General Comments Received From the June 2023 Public Hearing

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General Project Comments

Bicycles, Pedestrians, and Transit Comments

Why aren't bicycle and pedestrian accommodations included along U.S. 1?

NCDOT is committed to Complete Streets improvements to provide for all modes of transportation and has continued to coordinate efforts with the City of Raleigh, Town of Wake Forest, and GoTriangle to incorporate these improvements into the project in compliance with applicable design and cost-sharing guidelines.

Bicycle and pedestrian facilities cannot be provided along U.S. 1 for safety reasons since this will be converted to a fully controlled-access freeway. As a result, where existing accommodations are being disturbed along service/connector roads, the proposed design shows these resources being replaced. Along new service/connector roadways, NCDOT is proposing either sidewalk, multi-use path (MUP)/side path, or both.

What facilities are included for bicycles and pedestrians in a Diverging Diamond Interchange?

For the Diverging Diamond Interchanges (DDI) at Durant Road/Perry Creek Road and Falls of Neuse Road/U.S. 1A (S Main Street), bicycles and pedestrians will use signalized crossings before traveling through the DDI along a 10' minimum path. Additional information on DDIs is available here - https://www.ncdot.gov/projects/i40-i77-interchange/Documents/diverging_diamond.pdf.

Can Bus Rapid Transit be included along the project corridor?

NCDOT is providing 12' full depth shoulders that can accommodate transit and/or EMS vehicles. These shoulders are consistent with the CAMPO/GoTriangle Triangle Region Bus on Shoulder Study (October 2020). Current designs do not preclude bus on shoulder in the future, but this will be dependent upon municipal involvement.

How is the project accounting for future development and the S-line? The current plans are car dependent.

The Project Team has maintained coordination with the NCDOT Rail Group, the City of Raleigh, Town of Wake Forest, and GoTriangle throughout the U-5307 project development and how it might relate to future non-vehicular development. GoTriangle is completing studies to evaluate potential temporary and permanent park-and-ride locations. The NCDOT Integrated Mobility Division is partnering with a seven communities along a 95-mile-long section of the S-line rail corridor to develop the [S-Line Transit-Oriented Development Study](#).

Funding and Project Timeline

Why are Segments B-D delayed in the most recent State Transportation Improvement Program (STIP)?

NCDOT capital projects are evaluated and identified for funding through a process called Strategic Prioritization. Projects are submitted into the prioritization process by MPO, RPO, and Division partners, and each project is assigned a score via a data-driven approach that also involves local input. Projects involved in this process include Highway, Aviation, Bicycle/Pedestrian, Ferry, Public Transportation, and Rail improvements. Prioritization occurs approximately every two years and uses the project scores to determine which projects will be scheduled for funding in the next 10-year STIP (State Transportation



Improvement Program). Due to limited funds, NCDOT is unable to fund every requested improvement. Additional information about Strategic Prioritization can be found at the following links:

- <https://www.ncdot.gov/initiatives-policies/Transportation/stip/Pages/strategic-prioritization.aspx>
- <https://connect.ncdot.gov/projects/planning/pages/prioritizationresources.aspx>.

Currently, Segment A is planned to be Let for construction in October 2025. The remaining segments are funded for preliminary engineering only. The purpose of the project planning phase is to identify the best transportation solution for the project. The funding and schedule challenges currently faced by the U5307 project are being experienced across the state. NCDOT and the NC Legislature are diligently working to find solutions to deliver projects as efficiently as possible.

Why is the project so expensive?

The right-of-way, construction, and utility costs presented at the Public Hearing are based on preliminary design plans and are subject to change. In the last few years, we have seen a substantial increase in the costs of labor and materials further impacting projected project cost.

General support and Opposition

How does NCDOT address noise since U.S. 1 will be a freeway?

During planning and design for highway projects, NCDOT must identify traffic noise impacts, examine potential noise abatement, incorporate feasible and reasonable noise abatement measures, and coordinate with local officials to provide helpful information on compatible land use planning and control. The procedures for doing this are stipulated by Federal regulation (23 CFR 772) and the NCDOT Traffic Noise Policy.

NCDOT has performed preliminary noise analyses for this project and an initial Traffic Noise Report has been prepared. Based on that analysis, traffic noise levels due to the project are predicted to be high enough in the project's design year to constitute a traffic noise impact as defined by NCDOT Traffic Noise Policy. Where noise impacts are predicted, noise abatement was considered. Noise walls were evaluated and found to preliminarily meet feasibility and reasonableness criteria defined in the NCDOT Traffic Noise Policy in seven locations and can be seen on the Public Hearing maps (areas with red outline with red hatching).

A more detailed analysis will be completed during final design. Noise barriers preliminarily found to be feasible and reasonable during the preliminary noise analysis may not be found to be feasible and reasonable during the final design noise analysis due to changes in proposed project alignment and other design considerations, surrounding land use development, or utility conflicts, among other factors.

Conversely, noise barriers that preliminarily were not considered feasible and reasonable may meet the established criteria and be recommended for construction.

How will the project impact property values?

The project is not expected to have negative impacts to property values and is expected to provide a benefit to adjacent neighborhoods. The project will provide operational improvements and safety enhancements in the project study area. An improved and more efficient project corridor can be expected to improve market-reach of businesses along and in the vicinity of the project.



How did NCDOT decide on the proposed improvements? Is a freeway needed? Why can't we just add a few lanes and improve signals along U.S. 1?

Development activity has increased travel demand in the project study area as municipalities have approved/allowed substantial growth. The project is needed to improve traffic congestion and travel times and maintain regional mobility and local connectivity.

Based on existing and future traffic projections, simply adding a lane and/or adjusting signals would not be sufficient to address this growth. Conditions along U.S. 1 are already deteriorating, with a trip in the evening peak hour taking nearly four times longer than non-peak travel times.

After extensive review of options, and coordination with local and agency partners, the current designs were developed. See *Section 3* of the [Environmental Assessment](#) for details regarding Alternatives Analysis.

Why not construct an alternate route to U.S. 1? This will also help during major accidents and road closures.

The purpose of the project is to address traffic congestion and travel times. Constructing an alternate route would be extremely impactful to the community, especially in heavily developed areas like Raleigh and Wake Forest. The service/connector roads included as part of the project maintain, and improve, local connectivity and will help to provide residents with an alternate option if they choose.

Public Hearing

The maps are confusing. Can someone help me understand what's going on?

All the materials from the Public Hearing are available on the project website, <https://publicinput.com/capital-boulevard-upgrade>. There is also a recording of the Public Hearing presentation where the Environmental Assessment and maps are explained. If you still have questions, please reach out to the Project Team at capital-boulevard-upgrade@publicinput.com or 984-205-6615 (project code 3243) and someone will contact you.

Right-of-Way Impacts

I'm concerned about the amount of right-of-way needed for this project.

Since the project is being funded with federal dollars, NCDOT must follow specific procedures, which include presenting preliminary designs to the public for review and comment. The hearing maps are labeled with property owners' names so that attendees can easily identify their property on the map.

Once a preferred alternative corridor is determined this fall, the design will be further refined and will take into consideration engineering feasibility, safety, economics, public well-being, and the least amount of impact and inconvenience to the public. NCDOT will continue to avoid and minimize property impacts to the greatest extent practicable. After decisions are made regarding the final design, the proposed right-of-way limits will be noted.

If right-of-way or easement is required, NCDOT will offer fair market value for the property. A right-of-way agent will contact property owners and work with them directly during the right-of-way acquisition phase of the project.



Private Development and Environmental Impacts

Does the project account for all of the development going on in Raleigh and Wake Forest right now? Can it support all of this additional traffic coming from new developments?

The project is being designed to address future traffic volume needs which include both local and regional growth in traffic, as well as the other identified needs in the purpose and need section of the Environmental Assessment. The scale of the project is appropriate to meet future traffic needs and to maintain adequate traffic operations for all road users. NCDOT will continue to make efforts to further avoid and minimize impacts due to the project to the greatest extent practicable during final design and construction.

General Service Road Comments

Will new signage be included as part of this project? Navigating our local streets can be very challenging.

Signage will be included throughout the project area along new and improved roadways in accordance with NCDOT policies and standards and FHWA's Manual on Uniform Traffic Control Devices.

I think that the plan should include service roads and/or median U-turns.

Upgrading U.S. 1 to a controlled access freeway has been determined as the best option for reducing traffic congestion and improving travel times, and as a result, direct access to U.S. 1 will be removed. To provide access to properties adjacent to U.S. 1 and maintain local connectivity, service/connector roadways are proposed throughout the project area giving businesses and residents connection options to/from proposed interchanges and other major roadways.

Special Use Lanes

Are you able to incorporate emergency lanes for EMS, fire, or police use only?

The entire project corridor is expected to experience improved emergency response times during peak hours due to reduced congestion. In addition to the general widening, 12' paved shoulders (inside and outside) are being incorporated in the project which can be utilized during emergency responses.

I think you should use two (2) SMART lanes that reverse direction for the morning and evening peak hours rather than widen in both directions.

Multiple alternatives have been studied throughout the development of the project and each considered the impacts to the human and natural environments while also meeting the purpose and need of the project. In addition to the alternatives requested to be investigated by the public, NCDOT has also investigated modifications of existing alignments to further avoid and minimize impacts.

The NCDOT Recommended Alternative presented at the Public Hearing considers all of these elements and has been determined to be the best option for balancing impacts with improving traffic congestion and trip time unreliability. Once a preferred alternative is chosen, NCDOT will update traffic projections, impact studies, and refine engineering designs.



Travel Times

Is this going to reduce traffic traveling south from Harris Road? What will travel times through the corridor be after the project is completed?

The project is being designed to account for existing and future (2040) traffic projections along the U.S. 1 corridor. Construction of the project is not expected to reduce traffic traveling through the project corridor, but rather improve the efficiency of which it flows through the corridor.

Based on travel time studies for future (2040) traffic projections, AM and PM peak hour travel times through are estimated to be 15 to 17 minutes for the entire 15-mile segment from south of Sumner Boulevard to North of Holden Road.

Emissions/Carbon Footprint

What is the project's carbon footprint during and after construction? I am concerned with pollution levels and loss of tree canopy.

A quantitative assessment of greenhouse gases (GHG) and mobile source air toxins (MSAT) is currently being completed. Results will be presented in the final environmental document (anticipated Spring 2024).

Additional information regarding traffic speeds and carbon emissions can be found here - <https://www.nrdc.org/stories/speed-sweet-spot>.



Location Specific Comments

U.S. 1 Overall Comments

Instead of freeway conversion, I think you should turn the traffic signals off after 6:30 PM and before 6:30 AM to create a free-flow corridor.

Multiple alternatives have been studied throughout the development of the project and each considered the impacts to the human and natural environments while also meeting the purpose and need of the project. In addition to the alternatives requested to be investigated by the public, NCDOT has also investigated modifications of existing alignments to further avoid and minimize impacts.

The NCDOT Recommended Alternative presented at the Public Hearing considers all of these elements and has been determined to be the best option for balancing impacts with improving traffic congestion and trip time unreliability. Once a preferred alternative is chosen, NCDOT will update traffic projections, impact studies, and refine engineering designs.

I-540 Interchange Comments

The two (2) lights at I-540 need to be removed. The traffic signals at this location are counterproductive.

Since the project's southern limit is I-540, the freeway design must taper back down to meet existing conditions and laneage just south of the I-540 interchange. The two (2) traffic signals at I-540 are not new signals, but existing, and will remain to help control the flow of traffic exiting the I-540 ramps.

NCDOT is aware of the Capital Boulevard corridor study from I-440 to I-540 and is in discussions with the City of Raleigh and other stakeholders regarding the future of this corridor.

Gresham Lake Road Comments

Why are you recommending Option 2? I prefer Option 4 since it has better connectivity for our community.

While Option 1 meets the traffic needs of the project, there is concern from the City of Raleigh and CAMPO regarding the lack the connectivity across U.S. 1 without substantial detours, especially once the northeast quadrant of the I-540/U.S. 1 interchange is fully developed. The City of Raleigh and CAMPO prefer Option 4; however, both have agreed that Option 2 provides the additional benefit of better meeting the local connectivity needs of the project versus Option 1. NCDOT, the City of Raleigh, and CAMPO have agreed to compromise with Option 2 predicated on the understanding that additional connections will be a local responsibility.

I think a roundabout at the intersection of Gresham Lake Road and Capital Hills Drive should be constructed.

A roundabout at this location is still an option but a decision has not yet been made, as a roundabout requires additional traffic evaluation and design review with local stakeholders.



Durant Road/Perry Creek Road Interchange Comments

How will we access U.S. 1 during construction?

Access to U.S.1 will be maintained during construction; however, temporary lane closures and night construction should be expected. It is expected that service/connector roadways will be constructed prior to removal of direct access to U.S. 1.

Does the recommended alternative consider the rail crossing project about ½ mile west of U.S. 1 along Durant Road?

Yes, the U-5307 project accounts for NCDOT STIP Project No. P-5720 and the projects will be coordinated accordingly.

Burlington Mills Road Interchange Comments

Why is NCDOT recommending the Diamond Interchange (Option A) over the Partial Cloverleaf Interchange (Option B)?

Based on traffic operations, Option A is able to process more vehicles with less delay than Option B and provides more long-term stability with the industrial truck traffic at this interchange. Additionally, Option B would result in total displacement of the residents along Circle Drive which can be reduced substantially through Option A.

I am concerned about the potential impacts to the Circle Drive community.

In order to help address these concerns, NCDOT is recommending Option A which results in notably less right-of-way and relocation impacts than Option B. Impacts shown on the public hearing maps reflect the “worst-case” scenario anticipated based on the most current data; they are preliminary and subject to change. NCDOT will continue to make every effort to minimize impacts and relocations where possible, and additional measures to minimize relocations will be investigated during the final design.

Ponderosa Service Road Comments:

The impacts to residences and businesses near Wakefield Commons are concerning.

In certain instances, private property must be acquired to provide North Carolinians with a safe and modern transportation system. When a property is shown to be impacted, many factors have been taken into consideration in determining that the affected site is the most practical location for the needed connections.

Impacts shown on the public hearing maps reflect the “worst-case” scenario anticipated based on the most current data; they are preliminary and subject to change. NCDOT will continue to make every effort to minimize impacts and relocations where possible, and additional measures to minimize relocations will be investigated during the final design.

N.C. 98 Bypass Comments

Can you explain how we'll navigate the area surrounding this interchange? I don't understand the service roads and connectivity around the interchange.

Due to the recent construction of the N.C. 98 Bypass, it was determined that there was no need to replace this interchange at this time. Improvements at N.C. 98 Bypass include minor modifications to the end of the existing ramps to tie into the work along U.S. 1 mainline. Access to and from U.S. 1 will remain the same since this section of U.S. 1 is currently a controlled-access corridor.



N.C. 98 Business Comments

There is a lot of development in this area. Are the service roads NCDOT is recommending going to be able to keep up with demand?

The project is being designed to address current and future (2040) traffic volume needs which include both local and regional growth in traffic, as well as the other identified needs in the purpose and need section of the Environmental Assessment. The scale of the project is appropriate to meet future traffic needs and to maintain adequate traffic operations for all road users.

Stadium Drive/Jenkins Road Overpass Comments

Why is the overpass designed in its current location? It seems like it could be moved closer to U.S. 1 and minimize some of the residential impacts.

A Hot SPOT analysis was completed as part of the CAMPO Northeast Area Study (NEAS) on possibly adding an interchange as a future project. The currently recommended project design does not preclude the NEAS recommendations of an interchange in the future.

More information of the CAMPO NEAS is available here - <https://www.campo-nc.us/programs-studies/area-studies/northeast-area-study>.

Purnell Road/Harris Road Interchange Comments

There is a lot of empty, undeveloped, space in the southwest quadrant of the current intersection. It seems like you could have used this space for the interchange and avoided some other impacts. Several configurations of a Partial Cloverleaf Interchange were evaluated at this location. These options vary based on constructability and geometric constraints. The current recommendation accounts for the Wakefields/Sutherland House which is listed on the National Register of Historic Places. Impacts to the southwest quadrant of the Purnell Road/Harris Road interchange would have resulted in an adverse effect on this historic resource.

How do people in Devon Square get to U.S. 1?

As part of the Devon Square development, the developer has constructed Devon Square Boulevard and connected to Harris Road. The NCDOT Recommended Alternative includes an additional connection to Devon Square and the neighborhoods along Templeridge Road and St. Catherines Drive via the Y26B service road.



Municipal/Stakeholder Comments

City of Raleigh Public Hearing Comments



July 7, 2023

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

Subject: U-5307 Environmental Assessment Public Hearing Comments

Mr. Farr:

Thanks for the opportunity to review the Environmental Assessment Documents for the Capital Boulevard North Upgrade (U-5307). City of Raleigh staff have the following comments and questions on this document.

- City of Raleigh staff are supportive of option 2, which includes a new structure connecting Y10 to Gresham Lake Road. This street is now in the *City of Raleigh 2030 Comprehensive Plan Update, Map T-1: Street Plan (COR Street Plan)* as a two lane divided avenue. It is also a part of 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.
- To support the City's Vision Zero initiative, the City supports the Gresham Lake Road/Capital Hills Drive Roundabout Option (intersection of Y9A and Y9C). According to NCDOT's roundabout information page, a roundabout is predicted to reduce crashes by 46%, and fatal/injury crashes by 76%, compared to other intersection types.
- We would like to ask NCDOT to remove the proposed right turn slip lane at this roundabout. Due the proposed Multi-use path, and the proximity to greenway trails, neighborhoods, and employment centers, bike and pedestrian use is expected in this area. Per NCHRP Research Report 1043, "Guide for Roundabouts:"
 - "A bypass lane creates one or two additional pedestrian crossings. The potentially higher speeds of bypass lanes and the lower expectation of drivers to stop may require active traffic control and increase the risk of pedestrian collisions. Bypass lanes also introduce additional complexity for pedestrians who are blind or have low vision navigating the intersection."
- A roundabout in this location has the added benefits of reduced future maintenance cost compared to a signal, and reduced roadway cross section on the approaches to the intersection, due to elimination of turn lanes.

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- 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. Changes to the proposed design made in this area since our comments dated February 11, 2022 are positive, but do not fully address the purpose and need set forth in the *US-1 Corridor Study*. Including a wider bridge for Wadford Drive has the additional benefits of increase safety during temporary use during construction as well as resiliency during adverse advents after the completion of the project.
- Provide a greenway connection from Wadford Drive 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) and NR Perry Creek Simms Branch (just south of Durant Road) 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.
- 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 bikeways behind the curb are included in all Avenue designations. Specifically, the maps do not appear to include appropriate bikeways for the following Y-lines:
 - Y2: Durant Rd/Perry Creek Rd, Avenue 4-Lane, Divided
 - Y4: Falls of Neuse Rd west of US 1, Avenue 6-Lane, Divided
- 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. Subsequent to the comments provided by the City of Raleigh on February 7, 2022, NCDOT has communicated a willingness to revisit the traffic project in the future and has reduced the number of lanes where US-1 crosses the Neuse River. City of Raleigh staff are supportive of these developments, but a deeper re-evaluation of traffic projections is necessary.



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- Design to the following criteria at all new or affected signals in accordance with polices 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 impacted streets in Raleigh in accordance with Section 11.2.8 of the *Raleigh Street Design Manual*. According to the FHWA's Proven Safety Countermeasures, lighting can reduce crashes up to 42% for nighttime injury crashes at intersections, 33-38% for nighttime crashes at rural and urban intersections, and 28% for nighttime injury crashes on rural and urban highways. The following Y-lines should have lighting added in conjunction with other U-5307 improvements:
 - Y9C – Bridge connecting Gresham Lake Road and Triangle Town Blvd and realigned sections of Gresham Lake Road (Y9A).
 - Y10 – Frontage Street from Jacqueline Lane to Perry Creek Road, on the east side of US-1
 - Y12A – Extension of Wadford Drive
 - Y13 – Realignment and extension of Ponderosa Service Road
- 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 polices 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.

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,

Paul Kallam
Assistant Director
919-996-2406, paul.kallam@raleighnc.gov

City of Raleigh Department of Transportation

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Town of Wake Forest Public Hearing Comments



TOWN of
WAKE FOREST

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Memo

To: North Carolina Department of Transportation

From: Jennifer Currin, Assistant Planning Director

CC: Kip Padgett, Town Manager
Joe Guckavan, Town Engineer
Courtney Tanner, Planning Director

Date: July 7, 2023

Re: U-5307 Public Hearing Map Comments

US-1 (Capital Boulevard) is the major north/south arterial the Town of Wake Forest providing local, regional, and state access via connections to I-540, I-440, and I-85. US-1 has 2020 average daily traffic (ADT) volumes of almost 60,000, and it is anticipated that the ADT in 2040 will be approaching 110,000 trips through Wake Forest. The Town of Wake Forest Board of Commissioners approved a Resolution of Support with Recommended Changes to North Carolina Department of Transportation's (NCDOT) November 2021 Proposed U-5307 US-1 (Capital Boulevard) Interchange and Service Road Public Meeting Maps in January 2022 (Attachment A). The resolution included 23 comments for NCDOT consideration based on the [November 2021 public meeting maps](#).

Since January 2022, Town staff has been meeting with NCDOT and RS&H to advocate for the Town's position and comments in Attachment A.

In May 2023, CAMPO and Town staff were notified that NCDOT is reallocating the funding assigned to U-5307 Segments B and C in Wake Forest to a project in Cumberland County. U-5307 Segment A, located in Raleigh, remains funded in the STIP.

This memo outlines the Town's comments from Attachment A that have not been satisfactorily addressed and critical concerns related to Segments B and C being unfunded in the STIP. If these comments are not adequately addressed as



part of U-5307, the project will not meet the stated purpose and need and will continue to have a detrimental impact on the quality of life for those living and working in the Town of Wake Forest.

1. In June 2023, the NC Board of Transportation adopted the 2024-2033 State Transportation Improvement Program (STIP) removing committed funding for U-5307 Segments B & C. NCDOT District 5 Engineer, Brandon Jones, presented to the Town of Wake Forest Board of Commissioners on June 6, 2023 and noted that U-5307 Segments B-D would be eligible to recomplete for funding in future STIPs; however, the best case scenario for completion of the project would be 2035. The Town of Wake Forest contracted with Exult Engineering to study two intersections, which are in U-5307 Segment B to understand the impact on level of services (LOS) and delays with no improvements being made until 2035 as part of the best-case scenario timeline NCDOT presented. The intersections studied were US-1 (Capital Boulevard) at South Main Street/Falls of Neuse Road and US-1 (Capital Boulevard) at Burlington Mills Road. In the PM Peak at US-1 and South Main Street, the overall intersection delay is anticipated to be 421 seconds (7 minutes); and at US-1 and Burlington Mills Road, the overall delay at the intersection is anticipated to exceed 740 seconds (12 minutes). See Tables 4 and 7. The results are abysmal and unacceptable.

Table 4: Level-of-Service: Existing and No-Build Results – US 1 (Capital Boulevard) at South Main Street/Falls of Neuse Road

Condition	AM Peak		PM Peak	
	LOS and Delay (sec/veh)	Turn Lane Synchro 95% Queue Length/SimTraffic Max Queue Length	LOS and Delay (sec/veh)	Turn Lane Synchro 95% Queue Length/SimTraffic Max Queue Length
2023 Existing	Overall – F (120.3) EB – F (87.3) WB – F (445.3) NB – D (38.0) SB – E (67.3)	EBL – 320'/430' EBR – 187'/211' WBL/U – 474'/325' NBL – 245'/468' NBR – 228'/282' SBL/U – 246'/270' SBR – 581'/340'	Overall – E (72.1) EB – E (63.8) WB – E (59.7) NB – D (41.0) SB – F (115.0)	EBL – 159'/291' EBR – 118'/257' WBL – 257'/341' NBL – 112'/128' NBR – 230'/258' SBL/U – 313'/302' SBR – 357'/332'
2035 No-Build	Overall – F (365.4) EB – F (266.0) WB – F (532.7) NB – F (273.5) SB – F (409.8)	EBL – 206'/281' EBR – 285'/348' WBL/U – 429'/260' NBL – 350'/410' NBR – 558'/241' SBL/U – 252'/248' SBR – 904'/340'	Overall – F (421.2) EB – F (501.9) WB – F (742.5) NB – F (401.1) SB – F (231.1)	EBL – 208'/306' EBR – 242'/460' WBL – 546'/336' NBL – 218'/89' NBR – 684'/192' SBL/U – 342'/279' SBR – 550'/340'



Table 7: Level-of-Service: Existing and No-Build – US 1 (Capital Boulevard) at Burlington Mills Road

Condition	AM Peak		PM Peak	
	LOS and Delay (sec/veh)	Turn Lane Synchro 95% Queue Length/SimTraffic Max Queue Length	LOS and Delay (sec/veh)	Turn Lane Synchro 95% Queue Length/SimTraffic Max Queue Length
2023 Existing	Overall – F (132.8) EB – F (112.4) WB – F (100.1) NB – F (110.2) SB – F (163.0)	EBL – 26'/34' WBL – 457'/642' NBL/U – 203'/479' NBR – 160'/525' SBL/U – 478'/627' SBR – 23'/155'	Overall – F (207.0) EB – F (145.7) WB – F (115.9) NB – D (51.9) SB – F (405.8)	EBL – 106'/100' WBL – 332'/653' NBL/U – 262'/574' NBR – 236'/525' SBL/U – 981'/756' SBR – 24'/252'
2035 No-Build	Overall – F (688.1) EB – F (306.6) WB – F (864.6) NB – F (613.5) SB – F (748.8)	EBL – 531'/1100' WBL – 709'/668' NBL/U – 385'/575' NBR – 371'/525' SBL/U – 541'/748' SBR – 162'/340'	Overall – F (740.6) EB – F (278.5) WB – F (600.2) NB – F (682.3) SB – F (898.0)	EBL – 456'/1087' WBL – 490'/666' NBL/U – 583'/575' NBR – 605'/525' SBL/U – 771'/865' SBR – 195'/340'

- Review the modeling performed for U-5307 to ensure it is updated using the current Triangle Regional Model (TRM) as the TAZs have been updated and are more reflective of realistic development patterns projected to occur in Wake Forest.
- Provide the service road over the Neuse River connecting Y12A in Raleigh to Y12A in Wake Forest providing regional vehicular, pedestrian and bicycle connectivity and contributes to the reduced travel times on US-1.

While NCDOT has agreed to construct a permanent bridge across the Neuse River connecting a multi-use path (MUCP) from the Wadford Dr. extension and Meadstone Way cul-de-sacs, the Town does not believe that this solution addresses the project's statement of purpose which is to improve traffic congestion and travel times and to maintain regional mobility and local connectivity. Without the vehicular connectivity, local connectivity is not achieved, and traffic congestion is not reduced. All vehicular traffic is still being routed to US-1.

- Include Ligon Mill Road and the Ligon Mill Road extension in the study area as it is serving as primary north/south service road in Wake Forest on the east side of US-1.

Again, Section 1.2 of the Concurrence Point 2 Revisions project's statement of purpose which is to improve traffic congestion and travel times and to maintain regional mobility and local connectivity. Without the vehicular connectivity, local connectivity is not achieved, travel



times are not maintained, and traffic congestion is not reduced. NCDOT is treating Ligon Mill Road as a service road to address traffic capacity and distribution while at the same time not including it in the study area.

5. Extend Y25B to Purnell Road.

From our understanding, NCDOT will proceed with the preliminary designs as shown at the December 2021 Public Meeting with minor changes to the northern end of the proposed Wake Union Church Rd terminus to avoid impacting the parcel behind the historic Sutherland House property. Per the Historic Preservation Office (HPO), this revision will allow a No Adverse Effects finding, which would have avoided the need for an Environmental Assessment. However, an Environmental Assessment is needed for the project and the benefits of extending Y25B to Purnell significantly contribute to meeting the project's statement of purpose and need by providing local connectivity and reduce traffic congestion on US-1.

6. Provide an interchange instead of a grade separated crossing at Stadium and US-1 in accordance with the Northeast Area Plan hotspot study.

7. Revise the U-5307 Project Segments, specifically Segments C and D, to align with the descriptions in the STIP, November 2018 public meeting maps and MTP. It is imperative that the inclusion of NC98 Business interchange is in Segment C.

8. Provide a full movement traffic signal at the intersection of Wake Drive and S. Main Street to ensure left turning movements may be made by residential and commercial activity on Star Road.

According to NCDOT, due right-of-way constraints along this section, NCDOT will proceed with preliminary designs as shown at the December 2021 Public Meeting since additional widening of the typical section would result in impacts to adjacent properties. The Town of Wake Forest finds NCDOT's comment inadequate due to the development existing and approved on Star Road. Residents and businesses will be significantly impacted and will be forced to travel on Ligon Mill Rd. or Main Street to access US-1. This scenario further demonstrates that NCDOT is considering Ligon Mill Road as a service road and therefore, it is critical that Ligon Mill Road is included in the study area and extended as part of the project scope.

9. Ensure any radius improvements are made to accommodate a traffic signal at Wake Drive and S. Main Street.



According to NCDOT, due right-of-way constraints along this section, NCDOT will proceed with preliminary designs as shown at the December 2021 Public Meeting since additional widening of the typical section would result in impacts to adjacent properties. The Town of Wake Forest finds NCDOT's comment inadequate due to the development existing and approved on Star Road. Residents and businesses will be significantly impacted and will be forced to travel on Ligon Mill Rd. or Main Street to access US-1. This scenario further demonstrates that NCDOT is considering Ligon Mill Road as a service road and therefore, it is critical that Ligon Mill Road is included in the study area and extended as part of the project scope.



Attachment A

RESOLUTION 2022-01-A

RESOLUTION OF SUPPORT OF THE BOARD OF COMMISSIONERS OF THE TOWN OF WAKE FOREST WITH RECOMMENDED CHANGES TO NORTH CAROLINA'S DEPARTMENT OF TRANSPORTATION (NCDOT) NOVEMBER 2021 PROPOSED U-5307: US-1 (CAPITAL BOULEVARD) INTERCHANGE AND SERVICE ROAD PUBLIC MEETING MAPS

WHEREAS, the Town of Wake Forest ("Town") is committed to preserving the quality of life for all those living in the Town by ensuring an adequate transportation network is provided; and

WHEREAS, US-1 (Capital Boulevard) is the major north/south arterial in the Town of Wake Forest providing local, regional, and state access via connections to I-540, I-440 and I-85; and

WHEREAS, US-1 has 2020 average daily traffic (ADT) volumes of almost 60,000, and it is anticipated that ADT in 2040 will be approaching 110,000 trips through Wake Forest; and

WHEREAS, to address safety and increasing traffic on US-1, the US-1 Corridor Study was originally completed in 2006 in a joint effort between NCDOT, CAMPO, City of Raleigh, Town of Wake Forest, Town of Youngsville, Wake County, Franklin County, Triangle Transit (now GoTriangle) and the Kerr-Tarr RPO; and

WHEREAS, the project purpose of the 2006 US-1 Corridor Study was to develop "...an integrated multimodal transportation plan that provides for a high level of mobility along the US 1 Corridor while maintaining a high quality environment for the surrounding communities by providing for well-planned and sustainable growth along this corridor"; and

WHEREAS, to address increasing traffic and safety concerns, NCDOT is proposing to convert US-1 to a controlled access freeway by removing direct driveway connections and providing access via interchanges; and

WHEREAS, this project is referenced by the NCDOT STIP project number U-5307; and

WHEREAS, in June 2018, the US 1 (Capital Boulevard) Freeway Upgrade Concurrence Point 1 Final Document for STIP Project U-5307 was provided; and

WHEREAS, Section 4 of the Concurrence Point 1 document noted the overall need of the project is to relieve traffic congestion, improve travel times and reduce or eliminate crashes; and

WHEREAS, Section 5 of the Concurrence Point 1 document stated the overall purpose of the project is to improve traffic congestion and travel times; and

WHEREAS, in June 2018 Concurrence Point 1 was discussed among the NEPA/404 Merger Team and one of the consensus items identified was that the Need of Proposed Action and Purpose for Proposed Action needed to be revised; and



WHEREAS, in March 2021, the US 1 (Capital Boulevard) Freeway Upgrade Concurrence Point 2 Revisions Document for STIP Project U-5307 was provided; and

WHEREAS, Section 1.2 of the Concurrence Point 2 Revisions document noted that the overall need of the project is due to traffic congestion and trip time unreliability; and stated that the purpose for proposed action was to improve traffic congestion and travel times and to maintain regional mobility and local connectivity; and

WHEREAS, the Town of Wake Forest supports U-5307 and the rationale for the improvements to US-1; and

WHEREAS, NCDOT's proposed U-5307: US-1 (Capital Boulevard) project will have a significant impact on the Town of Wake Forest's transportation network and landowners; and

WHEREAS, due to the Town's proximity along US-1, the properties along US-1 are vital to the Town's economic development success; and

WHEREAS, the Town finds that proposed U-5307: US-1 (Capital Boulevard) November 2021 public meeting maps are well intentioned but fall short at providing an adequate transportation network in Wake Forest and ensuring the project allows for successful economic development opportunities along the corridor; and

WHEREAS, the Town has coordinated with NCDOT to ensure the impacts to the quality of life of Wake Forest citizens, businesses and landowners are minimized to the greatest extent possible; and

WHEREAS, based on the Town concerns raised at the coordination meetings, NCDOT addressed some of the Town of Wake Forest staff comments, such as including multi-use paths where appropriate and some additional service road segments; and

WHEREAS, NCDOT has not addressed all the Town's outstanding comments related to U-5307; and

WHEREAS, this project is likely to have many unintended consequences for municipalities and counties in North Carolina, to established neighborhoods, thriving commercial uses, and future proposed developments and the Town of Wake Forest needs to protect the interests of these parties as much as possible; and

WHEREAS, the Town of Wake Forest believes that, unless the following comments are incorporated into STIP U-5307: US-1 (Capital Boulevard), the project will not meet the stated purpose and need included in the Concurrence Point 1 document:



1. Review the modeling performed for U-5307 to ensure it is updated using the current Triangle Regional Model (TRM) as the TAZs have been updated and are more reflective of realistic development patterns projected to occur in Wake Forest.
2. Provide the service road over the Neuse River connecting Y12A in Raleigh to Y12A in Wake Forest providing regional vehicular, pedestrian and bicycle connectivity and contributes to the reduced travel times on US-1.
3. Provide 16' wide outside shoulders on US-1 for transit and emergency service access.
4. Include Ligon Mill Road and the Ligon Mill Road extension in the study area as it is serving as primary north/south service road in Wake Forest on the east side of US-1.
5. Extend Y25B to Purnell Road.
6. Provide an interchange instead of a grade separated crossing at Stadium and US-1 in accordance with the Northeast Area Plan hotspot study.
7. Revise the U-5307 Project Segments, specifically Segments C and D, to align with the descriptions in the STIP, November 2018 public meeting maps and MTP.
8. Provide a 5' sidewalk on both sides of Y16.
9. Pedestrian infrastructure is a crucial component of this project. Therefore, NCDOT needs to ensure appropriate pedestrian refuges and/or pedestrian signals are being provided at and/or on the proposed ramps and interchanges.
10. Provide a full movement traffic signal at the intersection of Wake Drive and S. Main Street to ensure left turning movements may be made by residential and commercial activity on Star Road.
11. Ensure any radius improvements are made to accommodate a traffic signal at Wake Drive and S. Main Street.
12. Provide a 10' multi-use path on both sides of Durham Road (Y6).
13. Ensure the Y24B T-intersection at Agora Drive can accommodate the ultimate 4-lane median divided cross section identified in the Town of Wake Forest Comprehensive Transportation Plan (CTP).
14. Continue the sidewalk on Jenkins Road (Y7).



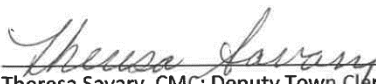
15. Provide outstanding portions of Y25A and Y25B not shown on public meeting maps for review and comment.
16. Include sidewalk on Country Club Drive (Y25B-1).
17. Revise the sidewalk to a multi-use path at the intersection of Y7 and Y26B.
18. Provide sidewalk on both sides of Templeridge Road (Y26B-1).
19. Eliminate the easements on the cemetery property (PIN 1831842795) in the Wake Forest Crossing Shopping Center.
20. Include 5' sidewalks on both sides of Y28 in Option 1 to connect to existing infrastructure.
21. Provide 5' sidewalks on both sides of Y28 in Option 2.
22. Show 5' sidewalks on both sides of DR2 at Wallridge Road to connect to existing infrastructure in Option 2.
23. Allow an additional 30-day comment period due to the current comment period falling over the holidays.

NOW, THEREFORE, BE IT RESOLVED by the Board of Commissioners of the Town of Wake Forest provide these comments to the North Carolina Department of Transportation for inclusion in the U-5307 design to ensure the project need and purpose are met and severe harm to the Town of Wake Forest is reduced to the greatest extent possible.

This the 18th day of January 2022.

ATTEST:


Vivian A. Jones, Mayor


Theresa Savary, CMC; Deputy Town Clerk





GoTriangle Public Hearing Comments



July 10, 2023

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

RE: U-5307 Capital Boulevard North Upgrade (Raleigh to Wake Forest)

Dear Mr. Farr:

GoTriangle appreciates our partnership with NCDOT and the opportunity to provide comments on this project. The project provides a cost-effective opportunity to deliver meaningful improvements to existing transit service, providing enhanced alternatives for travelers within the corridor. GoTriangle is supportive of the overall design and offers the following comments:

- **Bus on Shoulder:** We support the inclusion of full-depth, 12-foot wide shoulders to provide for bus on shoulder. The recently adopted BOSS (Bus on Shoulder System) Implementation Blueprint includes the US 1 North corridor. We request that the project include necessary signage and coordinate with GoTriangle, CAMPO, and the North Carolina State Highway Patrol to develop an operations plan to enable bus on shoulder operations concurrent with the opening of each project phase.
- **Park and Ride:** The adopted Wake Transit Plan includes a new park and ride lot in the Capital Boulevard North corridor. We request that the project evaluate opportunities for ROW purchases necessary to construct the project to support a 2-3 acre park and ride lot in the vicinity of interchanges at NC 98 Bypass and Harris Road. In particular, there could be the potential for existing ROW and remnant parcels to support such a park and ride at the northeast quadrant of the interchange at NC 98 Bypass as well as the southeast quadrant of the interchange with Harris Road.

We look forward to continued partnership with NCDOT to address these comments as design progresses on this project.

Sincerely,

Charles Lattuca
President and CEO
clattuca@gotriangle.org



Cc via email:
Brandon Jones, Division 5 Engineer, NCDOT
Chris Lukasina, Executive Director, CAMPO