

# Cabarrus-Rowan MPO CTP

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## ***Introduction***

Under State law ([N.C.G.S. § 136-66.2](#)), MPOs and municipalities shall develop Comprehensive Transportation Plans (CTP) in cooperation with NCDOT. For municipalities and counties, or portions thereof, located within an MPO planning area, the development of a CTP shall be by the MPO in cooperation with the NCDOT. The CTP is not required to be fiscally constrained and no minimum horizon year or update timeframes are specified. The CTP is the element of the Metropolitan Transportation Plan (MTP) that identifies transportation needs before fiscal constraint is applied.

Under Federal law ([23 U.S. Code § 134](#)), Metropolitan Planning Organizations (MPOs) are required to prepare a MTP. The MTP is required to address the federal planning requirements in 23 U.S.C. § 134, which include being fiscally constrained, having a minimum 20 year horizon, and being updated every 4 years in air quality non-attainment or maintenance areas (every 5 years in attainment areas).

It is important to note that the [CTP/MTP](#) does not include every road on the highway system. As such, in accordance with G.S. § 136-66.2, to complement the roadway element of the CTP, municipalities and MPOs may develop a collector street plan and/or include additional projects that may be included in the transportation plan if reasonable additional resources beyond those identified in the financial plan were available to assist in developing the roadway network. The Department of Transportation may review and provide comments but is not required to provide approval of the collector street plan. The CTP and the locally approved collector street plan(s) work together to identify the future transportation system. The street and highway elements of the plans developed pursuant to G.S. § 136-66.2 shall serve as the plan referenced in [G.S. § 136-66.10\(a\)](#), which addresses the dedication of right-of-way under local ordinances.

Locally approved transportation plans may contain street or highway right-of-way dedication recommendations or requirements, and collectively function as the collector street plan for the MPO or municipality as referenced under G.S. § 136-66.2.

## ***Comprehensive Transportation Plan***

A CTP is developed to ensure that the progressively developed transportation system will meet the needs of the region for the planning period. The CTP serves as an official guide to providing a well-coordinated, efficient, and economical transportation system for the future of the region. This document

should be utilized by the local officials to ensure that planned transportation facilities reflect the needs of the public, while minimizing the disruption to local residents, businesses and the environment.

NCDOT adopted a "Complete Streets<sup>1</sup>" policy in July 2009. The policy directs the Department to consider and incorporate several modes of transportation when building new projects or making improvements to existing infrastructure. Under this policy, the Department will collaborate with cities, towns and communities during the planning and design phases of projects. Together, they will decide how to provide the transportation options needed to serve the community and complement the context of the area. The benefits of this approach include:

- making it easier for travelers to get where they need to go;
- encouraging the use of alternative forms of transportation;
- building more sustainable communities;
- increasing connectivity between neighborhoods, streets, and transit systems;
- improving safety for pedestrians, cyclists, and motorists.

Complete streets are streets designed to be safe and comfortable for all users, including pedestrians, bicyclists, transit riders, motorists and individuals of all ages and capabilities. These streets generally include sidewalks, appropriate bicycle facilities, transit stops, right-sized street widths, context-based traffic speeds, and are well-integrated with surrounding land uses. The complete street policy and concepts were utilized in the development of the CTP. The CTP proposes projects that include multi-modal project recommendations as documented in the problem statements within this chapter. Refer to Appendix C for recommended cross sections for all project proposals and Appendix D for more detailed information on the typical cross sections.

This document presents recommendations for each mode of transportation in the Cabarrus-Rowan MPO CTP as shown in Figure 1. More detailed information on each recommendation is tabulated in Appendix C.

## ***Implementation***

The CTP is based on the projected growth for the planning area. It is possible that actual growth patterns will differ from those logically anticipated. As a result, it may be necessary to accelerate or delay the implementation of some recommendations found within this plan. Some portions of the plan may require revisions in order to accommodate unexpected changes in development. Therefore, any changes made to one element of the Comprehensive Transportation Plan should be consistent with the other elements.

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<sup>1</sup> For more information on Complete Streets, go to: <http://www.completestreetsnc.org/>

Initiative for implementing the CTP rests predominately with the policy boards and citizens of the MPO and its member jurisdictions. As transportation needs throughout the State exceed available funding, it is imperative that the local planning area aggressively pursue funding for priority projects. Projects should be prioritized by the MPO and submitted to NCDOT. Local governments may use the CTP to guide development and protect corridors for the recommended projects. It is critical that NCDOT and local government coordinate on relevant land development reviews and all transportation projects to ensure proper implementation of the CTP. Local governments and the North Carolina Department of Transportation share the responsibility for access management and the planning, design and construction of the recommended projects.

Recommended improvements shown on the CTP map represents an agreement of identified transportation deficiencies and potential solutions to address the deficiencies. While the CTP does propose recommended solutions, it may not represent the final location or cross section associated with the improvement. All CTP recommendations are based on high level systems analyses that seek to minimize impacts to the natural and human environment. Prior to implementing projects from the CTP, additional analysis will be necessary to meet the National Environmental Policy Act (NEPA) or the North Carolina (or State) Environmental Policy Act<sup>2</sup> (SEPA). During the NEPA/SEPA process, the specific project location and cross section will be determined based on environmental analysis and public input. This CTP may be used to support transportation decision making and provide transportation planning data in the NEPA/SEPA process.

### ***Problem Statements***

Problem statements describe the transportation system deficiencies identified during the CTP process and recommend improvements to alleviate the deficiencies. The following pages contain problem statements for each recommendation, organized by CTP modal element. The information provided in the problem statement is intended to help support decisions made in the NEPA/SEPA process. A full, minimum or reference problem statement is presented for each recommendation, with full problem statements occurring first in each section. Full problem statements are denoted by a gray shaded box containing project information. Minimum problem statements are more concise and less detailed than full problem statements, but include all known or readily available information. Reference problem statements are developed for TIP projects where the purpose and need for the project has already been established.

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<sup>2</sup>For more information on SEPA, go to: <http://www.doa.nc.gov/clearing/faq.aspx>.

## **HIGHWAY**

### ***Horizon Years 2016 to 2025***

#### **I-85, TIP No. I-3802 (Includes I-3610)**

The I-85 corridor from Concord to Salisbury is currently over capacity. The 2016-2025 TIP includes project I-3802 that is intended to address this problem. The project includes widening the existing facility to eight lanes and the reconfiguration of the interchange at I-85 (I-3610). The project limits are from Exit 55 (NC 73) in Cabarrus County to Exit 68 (US 29/US 601/NC 152) in Rowan County. These projects are within the 2025 horizon year of the CRMPO MTP.

These projects are currently under construction. For additional information about this project, including Purpose and Need, contact either the NCDOT Division 9 or Division 10 Office.

#### **NC 3, TIP No. U-3440**

The NC 3 corridor from Mooresville to Kannapolis is projected to be over capacity by 2040. The 2016-2025 TIP includes project U-3440 that is intended to address this problem. The project limits are from the Kannapolis Parkway (SR 1624) to Loop Road (SR 1691) in Kannapolis and is within the 2025 horizon year of the CRMPO MTP. The TIP project includes widening NC 3 to a four lane divided cross section.

This project is currently in the right of way phase and is scheduled for construction in state fiscal year 2016. For additional information about this project, including Purpose and Need, contact the NCDOT Division 10 Office.

#### **Derita Road (SR 1445), TIP No. U-4910**

Derita Road (SR 1445) between Poplar Tent Road (SR 1394) and Concord Mills Boulevard (SR 2894) in Concord is currently over capacity. The 2016-2025 TIP includes project U-4910 that is intended to address this problem. The project includes widening Derita Road (SR 1445) to multi-lanes. This project is within the 2025 horizon year of the CRMPO MTP.

This project is currently in the right of way phase and construction is scheduled for state fiscal year 2017. For additional information about this project, including Purpose and Need, contact the NCDOT Division 10 Office.

#### **Julian Road (SR 2528), TIP No. U-5738**

Julian Road (SR 2528) between US 601 (Jake Alexander South) and Summit Park Rd (SR 2667) is currently over capacity due to increased development around the south side of Salisbury. The 2016-2025 TIP includes project U-5738 that is intended to address this problem. The project includes widening Julian Road (SR 2528) to multi-lanes.

This project is currently in the planning/design phase and is funded for right of way and construction in state fiscal years 2018 and 2020, respectively. For more information on this project, including Purpose and Need, contact the NCDOT Project Development and Environmental Analysis Branch.

**Klumac Road (SR 2541) Grade Separation, TIP No. U-3459**

The rail corridor from Charlotte to Raleigh is part of the Southeast High Speed Rail corridor. The current rail crossing at Klumac Road (SR 41) is at grade and does not align with the future vision of the rail corridor. The 2016-2025 TIP includes project U-3459 that is intended to address the problem. The proposed project includes constructing a grade separation at this location. This project is currently under construction. For additional information about this project, including Purpose and Need, contact the NCDOT Division 9 Office.

**Kimball Road Extension, TIP No. U-5608/P-5206C**

Kimball Road (SR 1211) is located on the west side of Main Street between the towns of Landis and China Grove. The primary purpose of this project is to address anticipated congestion and improve mobility and connectivity through the residential neighborhood between the future railroad grade separation and US 29. The 2016-2025 TIP includes project U-5608 that is intended to address the problem.

The proposed project includes constructing a two lane connector on new location from North Chapel Street to Bostian Road (SR 1221) in Landis. Additionally, a grade separation (P-5206C) is proposed under the railroad along this corridor. This project is currently in the planning/design phase and is funded for right of way and construction in state fiscal years 2017 and 2018, respectively. This project is not identified as regionally significant within the Cabarrus-Rowan MTP. For more information on this project, including Purpose and Need, contact the NCDOT Project Development and Environmental Analysis Branch.

**Newsome Road Extension, TIP No. U-5820**

The 2016-2025 TIP includes project U-5820 that will connect US 52 (East Innes Street) to Bendix Drive (SR 2576) to improve the system continuity through a major shopping development in southern Salisbury. The proposed project includes constructing a new multi-lane roadway.

This project is currently in the planning/design phase and is funded for right of way and construction in state fiscal years 2017 and 2018, respectively. For additional information about this project, including Purpose and Need, contact the NCDOT Division 9 Office.

**Old Beatty Ford Road (SR 1210/1221) Interchange, TIP No. I-3804**

The primary purpose of this project is to promote the recognized economic development potential of the area surrounding a new interchange and design

improvements should be consistent with this vision and provide direct access to I-85 for the residents of the town of Landis, southern Rowan County and the North Carolina Research Campus in the center of Kannapolis. The closest two interchanges north and south of the proposed interchange are five miles apart. Local streets currently do not provide direct access to the Interstate in this portion of the county. The 2016-2025 TIP includes project I-3804 that is intended to address this problem.

The proposed project included converting the existing grade separation to an interchange. This project is currently funded for right of way and construction in state fiscal years 2020 and 2022, respectively. This project is identified as regionally significant within the Cabarrus-Rowan MTP. For additional information about this project, including Purpose and Need, contact the NCDOT Division 9 Office.

### ***2026 to 2030 Horizon Years***

#### **NC 73 (Davidson Highway), TIP No. R-5706**

NC 73 is a high growth corridor with several large subdivisions built or approved and is a major commuter corridor for the region. The primary purpose of this project is to address the existing and anticipated congestion and improve mobility along NC 73 between US 29 and Poplar Tent Road (SR 1394) due to increased urban development. The 2016-2025 TIP includes project R-5706 that is intended to address this problem.

NC 73 currently is a rural two lane road with 24 foot lanes. Based on a traffic analysis using the Metrolina Regional Model (MRM15v1), several sections of the existing facility are projected to be near or over capacity by 2040, especially during peak commuting hours. Traffic volumes range from 10,000 to 22,000 vpd in 2013. By 2040, traffic volumes range from 13,400 to 41,400 vpd. The current capacity of the facility ranges from 10,400 to 15,900 vpd. Additionally, between 2007 and 2011 there were 4 to 40 segment crashes and 10 to 50 and above intersection crashes along the existing corridor.

The proposed project includes widening NC 73 to a four lane boulevard from Davidson-Concord Road (SR 2693) TO US 29 in Cabarrus County. This project is currently funded for right of way and construction in state fiscal years 2023 and 2025, respectively. This project is identified as regionally significant within the Cabarrus-Rowan MTP.

#### **NC 150 ( Mooresville Road), TIP No. U-3623**

NC 150 (Mooresville Road) is a radial route located on the west side of Salisbury toward Mooresville. By 2040, NC 150 is projected to be near or over capacity from Airport Road (SR 1514) to west of Grant's Creek. The primary purpose of

this project is to address the existing and anticipated congestion and improve mobility along this section of NC 150 due to increased urban development.

NC 150 from Airport Road (SR 1514) to Grant's Creek is currently a five lane facility with 12 foot lanes. Based on a traffic analysis using the Metrolina Regional Model (MRM15v1), several sections of the existing facility are projected to be near or over capacity by 2040, especially during peak commuting hours. Traffic volumes range from 3,900 to 15,000 vpd in 2013. By 2040, traffic volumes range from 5,400 to 16,400 vpd. The current capacity of the facility ranges from 11,700 to 13,600 vpd. Additionally, between 2007 and 2011 there were 4 to 9 segment crashes and 10 to 30 intersection crashes along the existing corridor.

NC 150 from Airport Road (SR 1516) to Grants Creek is recommended to be widened to a four lane boulevard. This project is not identified as regionally significant within the Cabarrus-Rowan MTP.

**NC 152 Bypass, Local ID: ROWA0031-H**

Traffic using NC 152 to travel from western Rowan County to reach Rockwell must maneuver narrow and signalized intersections and streets through downtown China Grove and the interchanges with US 29 and I-85. By 2040, NC 152 is projected to be near or over capacity from Miller Road (SR 1509) to Menius Road (SR 2553). The primary purpose of this project is to address the existing and anticipated congestion and improve mobility along this section of NC 152.

NC 152 Miller Road (SR 1509) to Menius Road (SR 2553) is currently a two lane facility with 24 to 40 foot lanes. Based on a traffic analysis using the Metrolina Regional Model (MRM15v1), several sections of the existing facility are projected to be near or over capacity by 2040, especially during peak commuting hours. Traffic volumes between Goodman Road (SR 1210) and Menius Road (SR 2553) range from 7,700 to 11,000 vehicles per day (vpd) in 2013. By 2040, traffic volumes range from 7,000 to 14,100 vpd. The current capacity of NC 152 through China Grove ranges between 11,100 and 15,100 vpd. Additionally, between 2007 and 2011 there were 4 to 9 segment crashes and 10 to 19 intersection crashes along the existing corridor.

The recommended improvement is a three lane major thoroughfare with provisions for pedestrians and bicycles. This project is not identified as regionally significant within the Cabarrus-Rowan MTP.

**Poplar Tent Road (SR 1394), TIP No. U-3415**

Poplar Tent Road (SR 1394) between I-85 and US 29/601 is already over capacity due to increased development and commuter traffic between Concord and Mecklenburg County. The primary purpose of this project is to address the existing and anticipated congestion and improve mobility along this section of Poplar Tent Road. Improvements to this section of Poplar Tent Road are listed

in the 2030 horizon year of the CRMPO MTP. Planning and environmental studies have been completed for this project; however this project did not rank well during prioritization and is not currently funded in the 2016-2025 STIP. For additional information about this project, including Purpose and Need, contact the NCDOT Project Development and Environmental Analysis Branch.

### ***2031 to 2040 Horizon Years***

#### **US 29 Widening, Local ID: CABA0041-H**

There are very few high capacity north and south corridors in the region. US 29 between Church Street and I-85 is located north of the Concord central business district. There are major commercial generators in the area such as a regional shopping mall, a regional hospital, and the regional transit station. By 2040, US 29 is projected to be over capacity from Church Street to I-85. The primary purpose of this project is to address current and anticipated congestion along this section of the US 29 corridor.

US 29 (Concord Parkway) from Church Street to I-85 currently has a four lane divided cross section. Based on a traffic analysis performed using the Metrolina Regional Model (MRM15v1), traffic volumes range from 36,000 to 37,000 vpd in 2013. Projected traffic volumes for 2040 range from 32,900 to 49,000 vpd. The existing capacity of this section of the facility ranges between 28,100 and 35,100 vpd. Additionally, between 2007 and 2011 there were 10 to 19 segment crashes and over 50 intersection crashes along the existing corridor.

The northern section of this corridor, between I-85 and Mall Drive, will be reconstructed as part of the widening of I-85 (TIP Project I-3802A). The recommended improvement from Church Street to Mall Drive is to widen to a six lane boulevard with provisions for transit. This project is identified as regionally significant within the Cabarrus-Rowan MTP.

#### **US 601 Widening, Local ID: CABA0045-H**

US 601 (Concord Highway) between Flowes Store Road (SR 1132) and NC 3 (Branchview Road) is located in southern Cabarrus County. By 2040, this section of US 601 (Concord Highway) will be over capacity. The primary purpose of this project is to address current and anticipated congestion along this section of the US 601 corridor.

The section between Flowes Store Road (SR 1132) and NC 49 has a two lane cross section and the section between NC 49 and NC 3 (Branchview Road) has a four lane divided cross section. Based on a traffic analysis using the Metrolina Regional Model (MRM15v1), traffic volumes range from 18,000 to 25,000 vpd in 2013. By 2040, projected traffic volumes range from 30,600 to 39,100 vpd. The



existing capacity of this section of the facility is between 14,600 and 22,300 vpd. Additionally, between 2007 and 2011 there were 20 to 29 intersection crashes along the existing corridor.

The recommended improvement is a four lane boulevard between Flowes Store Road (SR 1132) and NC 3 (Branchview Road). This project is not identified as regionally significant within the Cabarrus-Rowan MTP.

**NC 3 (Branchview Road), TIP No. U-5773**

NC 3 (Branchview Road) between NC 3 (Dale Earnhardt Boulevard) and US 601 South is located on the east side of Concord and parallels US 29, Church Street (NC 73) and Union Street (SR 1007) through Concord. NC 3 between Copperfield Boulevard (SR 2126) and US 601 is currently near or over capacity. The primary purpose of this project is to address the existing and anticipated congestion and improve mobility along this section of NC 3 due to increased urban development.

The existing cross section of NC 3 between Copperfield Boulevard (SR 2126) and Burrage Road is three lanes with 12 foot lanes and turn bays. From Burrage Road to US 601, the cross section is two 18 foot lanes with paved shoulders and turn bays at major access points and intersections.

Based on a traffic analysis using the Metrolina Regional Model (MRM15v1), several sections of the existing facility are projected to be near or over capacity by 2040. Traffic volumes range from 11,000 to 20,000 vpd in 2013. By 2040, traffic volumes range from 14,600 to 24,900 vpd. The capacity of the existing facility ranges from 11,100 to 12,200 vpd. Additionally, between 2007 and 2011 there were 4 to 39 segment crashes and 10 to 39 intersection crashes along the existing corridor.

**Airport Parkway Extension, TIP No. U-5901 (formally U-3821)**

Commercial development around the Rowan County airport is projected to increase over the next 30 years. The primary purpose of this project is to improve access to the development surrounding the airport and improve mobility between US 70, NC 150, US 29 and I-85 on the southwest side of Salisbury.

The recommended improvement is a four lane boulevard with provisions for pedestrians, bicycles, and transit. With the already planned railroad grade separation (P-5206A) at Peeler Road (SR 2538), and the more direct connection to I-85, this new location project will improve system connectivity for vehicles accessing the development around the airport. This project is identified as regionally significant within the Cabarrus-Rowan MTP.

**George Liles Parkway, TIP No. R-2246A**

The traffic volumes on the western side of Cabarrus County from Kannapolis and Concord to Mecklenburg County have grown considerably. The radial routes

from NC 3 to NC 49 are currently approaching or over capacity. There are only a few short and unconnected facilities that join them and travelers must weave between them. The 2016-2025 TIP includes project R-2246 that is intended to address this problem. The project limits are from NC 49 to south of I-85 and includes widening to a four lane divided facility, partially on new location. The project is within the 2025 and 2040 horizon years of the CRMPO MTP.

Section C of the project from Weddington Road (SR 1431) to south of I-85 is complete. Section B of the project from Roberta Road (SR 1304) to Weddington Road (SR 1431) is also complete. Section A of the project from NC 49 to Roberta Road (SR 1304) is currently unfunded but appears in the Governor's 2015 CONNECT NC Bond package. This project is not identified as regionally significant within the Cabarrus-Rowan MTP. For additional information about this project, including Purpose and Need, contact the NCDOT Division 10 Office.

**Old Concord Road (SR 1002), Local ID: ROWA0025-H**

Old Concord Road (SR 1002) between Ritchie Road (SR 2574) and Town Creek is expected to be over capacity by 2040. The primary purpose of this project is to address the anticipated congestion and improve mobility along this section of Old Concord Road (SR 1002) due to increased urban development.

Old Concord Road (SR 1002) from Ritchie Road (SR 2574) to Town Creek is currently a two lane facility with 22 to 24 foot lanes. Based on a traffic analysis performed using the Metrolina Regional Model (MRM15v1), several sections of the existing facility are projected to be near or over capacity by 2040. Traffic volumes range from 6,300 to 9,400 vpd in 2013. By 2040, the projected traffic volumes range from 8,100 to 10,200 vpd. The existing capacity of this section of the facility ranges between 13,100 and 14,600 vpd. Additionally, between 2007 and 2011 there were 4 to 9 segment crashes and 10 to 39 intersection crashes along the existing corridor.

The recommended improvement is a four lane boulevard with provisions for pedestrians, bicycles, and transit. This project is not identified as regionally significant within the Cabarrus-Rowan MTP.

**Poplar Tent Road (SR 1394), Local ID No. CABA0037-H**

Poplar Tent Road (SR 1394) between Derita Road (SR 1445) and NC 73 is currently over capacity. The primary purpose of this project is to address the existing and anticipated congestion and improve mobility along this section of Poplar Tent Road due to increased urban development.

Poplar Tent Road (SR 1394) from Derita Road (SR 1445) and NC 73 is currently a two lane facility with 22 foot lanes. Based on a traffic analysis using the Metrolina Regional Model (MRM15v1), several sections of the existing facility are projected to be near or over capacity by 2040, especially during peak commuting hours. The 2013 traffic volume is 14,000 vpd and is anticipated to increase to

20,800 vpd in 2040. The existing capacity of this section of the facility is 11,800 vpd. Additionally, between 2007 and 2011 there were 4 to 29 segment crashes and over 10 to 19 intersection crashes along the existing corridor.

The recommended improvement is a four lane boulevard with provisions for pedestrians, bicycles, and transit. This project is not identified as regionally significant within the Cabarrus-Rowan MTP.