

Rock Hill-Fort Mill Area Transportation Study

2035 Long Range Transportation Plan

About the Plan

The 2035 Long Range Transportation Plan (LRTP) Update is for the urbanized areas of York and Lancaster Counties. It has been prepared by the Rock Hill - Fort Mill Area Transportation Study (RFATS), which is the local Metropolitan Planning Organization (MPO) responsible for regional transportation planning in this area.



The plan is multi-modal, covering highways, public transportation, freight, bicycle travel, pedestrian travel, and aviation. It includes a financial plan for transportation expenditures to 2035, as well as a congestion monitoring process. The plan also takes social and environmental considerations into account, along with public involvement during the course of its preparation. It is in compliance with the federal transportation bill MAP-21 or Moving Ahead for Progress in the 21st Century, as well as applicable transportation conformity requirements.

The RFATS 2035 Long Range Transportation Plan is the result of a multi-level partnership that brought local, state, and federal partners to the table with local residents, business owners, and stakeholders.

Required Planning Elements

The Moving Ahead for Progress in the 21st Century Act (MAP-21) was signed into law on July 6, 2012. It provides over \$105 billion in funding for surface transportation programs for fiscal years 2013 and 2014 and will guide the growth and development of America's transportation infrastructure. The goals of MAP-21 include:

- Strengthening America's highways
- Establishing a performance-based program

Moving Ahead for Progress in the 21st Century

(MAP-21)



- Creating jobs and supporting economic growth
- Supporting the United States Department of Transportation's aggressive safety agenda
- Streamlining Federal highway transportation programs
- Accelerating project delivery and promoting innovation

The goals of the MAP-21 language manifest themselves into eight broad planning factors that have been identified for special focus within the MPO long range transportation planning program. These planning factors are addressed throughout this plan and are specifically discussed in subsequent sections. Local officials must consider how projects and transportation initiatives address the following areas:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency
- Increase the safety of the transportation system for motorized and non-motorized users
- Increase the security of the transportation system for motorized and non-motorized users
- Increase the accessibility and mobility of people and for freight
- Protect and enhance the environment, promote energy conservation, improve quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
- Promote efficient system management and operation
- Emphasize the preservation of the existing transportation system

Public Involvement

The public participation process for the LRTP Update was initiated with staff developing a comprehensive public participation / outreach schedule which was endorsed by the RFATS Study Team, CAC, and Policy Committee in May 2012. A series of community meetings as well as targeted outreach efforts were then held and common themes from these meetings included the following:

Road Widening (i.e., Additional Lanes; Dedicated Turning Capacity)

- Mt Gallant Road – Widen from Celanese Road to Hwy 274
- Sutton Road – Should be widened to improve roadway efficiency; growth management
- Dobys Bridge Road – Development pressures; proximity to school locations
- India Hook Road – Widen to 4 Lanes

Bicycle / Pedestrian Needs

- Bike Lanes / Paths – Longer distances; improved connectivity
- Sidewalks – Particularly in Nations Ford High and Sugarcreek areas

Congestion Management (Priority Areas)

- Celanese Road Corridor
- SC 160
- SC 160 / Hensley
- Regent Pkwy Area
- Gold Hill Road / Access Points at I-77

Transportation System Needs

- New Catawba River Bridge – This project should be restored to active consideration to properly plan for current and long term growth pressures
- Traffic Circles – Should be used more often to improve safety and efficiency



Public Transit

- More service options / availability to access employment centers in York County
- Additional public transit needed for seniors and individuals with special needs

With the completion of this public outreach effort – which involved the general public, business owners, transit operators, human service organizations as well as numerous federal and state partners, staff then began the task of assembling and reviewing all the submitted information. Following up on this work, staff then evaluated this input with the Study Team, Citizens Advisory Committee, as well as the Policy Committee during the initial stages of developing the draft transportation needs and priorities project list. This information was then reviewed and further discussed from fall 2012 through early spring 2013, with the Policy Committee formally endorsing the Transportation Needs List on March 22, 2013.

Goals and Objectives

Introduction and Overall Goal

The 2035 LRTP is guided by the following goals and objectives. These goals and objectives are based on comments received during the public involvement process and endorsed by the RFATS Citizens Advisory Committee and Policy Committee.

The overall goal of the LRTP is to develop plans and strategies that promote an efficient and effective transportation system for all users in the RFATS Study Area. This goal and several related objectives guided the development of this update to the LRTP. These are listed below.

Highway System Goals

- Enhance mobility by improving existing roads and corridors and street connectivity.
- Maintain and protect the existing transportation system and components and require maximum efficiency and utilization of existing arterials.
- Explore improvements to the street network that will most effectively handle capacity deficiencies.
- Protect existing corridors and reserve future rights-of-way affected by both public and private development.

- Provide a safe transportation system that will focus on reducing crashes at problematic intersections and providing better facilities for pedestrians and bicyclists.
- Encourage opportunities to engage freight providers in operational and transportation system upgrade planning.

Congestion Management Goals

- Continue to support the ongoing Congestion Management Process and fully integrate congestion measures and strategies into the project selection process.
- Continue to improve traffic signalization timing in jurisdictions throughout the Study Area.
- Encourage the incorporation of access management strategies on major roads and corridors and require development to provide adequate internal circulation and connectivity to maximize linkages with other nearby development.

Transportation Alternatives Goals

- Implement transit plans and strategies that encourage a more comprehensive transit system and accommodate more riders.
- Implement land use policies to encourage transit supportive development patterns along the rapid transit corridor.
- Seek public support and funding sources needed to implement long range transit projects.
- Incorporate pedestrian and bicycle accommodations in planned improvements to roads and corridors.
- Incorporate bicycle facilities/lanes in state and local maintenance and pavement marking projects where feasible.
- Pursue strategies and funding for a coordinated and comprehensive network of sidewalks and bicycle routes throughout the Study Area.
- Require developments to provide pedestrian and bicycle facilities and connections.

Freight Goals

- Invest in undertaking a comprehensive Freight Study that considers the needs of freight shippers and receivers, as well as how the RFATS Study Area may benefit from Charlotte's existing and planned intermodal facilities.
- RFATS should review existing policies and practices on the preservation of rail-served industrial sites and preservation of industrial railroad corridors.

Environmental Goals

- Continue to apply strategies that would improve air quality for the Study Area and result in ozone attainment status.
- Continue to seek ways to promote better integration of land use and transportation planning that will support sustainable growth patterns and maximize the transportation system.
- Encourage more efficient and compact growth in urban areas away from environmentally sensitive areas.
- Minimize environmental impacts of the transportation system with proper planning and preservation techniques of the area's natural features.
- Promote a transportation system that includes equitable options for low income and minority populations.

Public Outreach and Awareness Goals

- Continue to seek ways to educate and inform the RFATS Study Area citizens about the MPO transportation planning process and goals and encourage their participation.
- Utilize visualization techniques to illustrate and inform the public about transportation projects.
- Educate the public regarding funding needs and resources to finance a long range plan.

Air Quality and Conformity Goals

- Continue to seek ways to educate and inform the RFATS Study Area citizens about the MPO Air Quality Conformity and the current status of the RFATS area.
- Continue to work with EPA, FHWA, and DNR to maintain and update as needed the Transportation Conformity for the RFATS Study Area.

Key Projects

The challenges facing the future of the transportation network in the RFATS Study Area are the collective result of sustained growth, continued reliance on the automobile for even short trips, and competing demands for scarce transportation resources. With these challenges in mind, a more targeted approach to reducing congestion levels and managing area growth pressures was utilized in this LRTP update.

RFATS’s top priorities for federally funded projects are outlined in Table Ex-1, below.

Table EX-1 - RFATS ROADWAY PROJECTS

Project	2013 Cost Estimate
Roadway Widening	
Fort Mill Highway (SC-160) from Springfield Pkwy (SC 460) to Rosemont-McMillan Business Park	\$15,735,500
Cel-River / Red Red River Road (S-50) from Southern Eden Terrace Extension (S-645) to Dave Lyle Boulevard (SC 122)	\$14,000,000
Interchange Projects	
I-77 (Exit 82C) and Celanese Road (SC 161)	\$15,500,000
I-77 and SC-160	\$15,500,000
I-77 and Anderson Road (SC 5/US 21)	\$2,000,000
Feasibility Study	
East-West Connector	\$350,000
Total	\$63,085,500

The intent will be to fully fund these projects. Other projects are expected to be locally-funded as shown in the tables below.

Table EX-2: FUNDED ONE CENT SALES TAX PROJECTS (1997)

Ref	Project description	Funding Source	Project Obligation (millions)	Length (miles)
1	SC – 901 (SC-72 to I-77) – 4/5 Lanes	One Cent I	\$6.5	3.00
TOTAL			\$6.5	

Table EX-3: FUNDED ONE CENT SALES TAX PROJECTS (2003)

Ref	Project description	Funding Source	Project Obligation (millions)	Length (miles)
1	Mt. Gallant Road (Anderson Road to Celanese Road) - 3 Lanes	One Cent II	\$8.5	1.00
2	Fort Mill Southern Bypass (SC 160 to US 21 Business) - 2 Lanes	One Cent II	\$15.0	5.70
3	Tega Cay / Gold Hill Connector - 2 Lanes (INCLUDES SAFETEA-LU EARMARK OF \$666,900)	One Cent II	\$2.2	0.57
4	Intersection Improvements - Hwy 274 Corridor	One Cent II	\$7.1	N/A
5	US 21 (North of Celanese Road to US 21 Business -- including bridge cost) - Multilane	One Cent II	\$17.1	0.80
6	White Street Rail Crossing -- including Realignment	One Cent II	\$2.5	N/A
7	McConnells Highway (Heckle Boulevard to Hwy 324) - 2 / 3 Lanes	One Cent II	\$7.6	0.50
8	Mt. Gallant Road (From Dave Lyle Boulevard to Anderson Road) - 3 Lanes	One Cent II	\$6.8	1.50
9	Ebinport Road (Cherry Road to India Hook) - 3 Lanes	One Cent II	\$6.3	2.00
TOTAL			\$73.1	

Table EX-4: FUNDED ONE CENT SALES TAX PROJECTS (2011)

Ref	Project description	Funding Source	Project Obligation (millions)	Length (miles)
1	SC 160 (Gold Hill Road to NC State Line) - 5 Lanes	One Cent III	\$8.8	1.10
2	SC HWY 274 / 279 (Pole Branch Road) - 5 Lanes	One Cent III	\$25.8	2.40
3	US 21 North Phase I & SC 51 (Springfield Parkway to NC State Line) - 5 Lanes	One Cent III	\$22.4	2.90
4	Cel-River / Red River Road (Cherry Road to Eden Terrace) - 5 Lanes	One Cent III	\$5.8	0.63
5	Gold Hill Road / I-77 (Gold Hill Road / I-77 Interchange Improvement)	One Cent III	\$11.6	1.00
6	US 21 / Anderson / Cowan Farm Road Intersection Realignment	One Cent III	\$28.9	1.75
7	Sullivan Middle School (Cherry Road / Eden Terrace near Anderson Road) - Pedestrian Safety Improvements	One Cent III	\$564	1.00
8	Cherry Road -- Pedestrian Safety Improvements adjacent to Winthrop University)	One Cent III	\$1.2	1.50
9	White Street / West Main / Constitution / West Black Street Realignment and Round-a-bout	One Cent III	\$5.0	2.00
10	Paraham Road (SC 55 to SC 161) Base Stabilization and Shoulder Widening)	One Cent III	\$6.5	7.2
11	SC 160 East (Springfield Parkway to Lancaster County Line; formerly project in 2003 PFP) - 3 Lanes	One Cent III	\$4.8	0.75
12	Riverview Road (From Eden Terrace to Celanese Road) - 3 Lanes	One Cent III	\$7.9	1.0
13	Mt Gallant Road (Celanese / Twin Lakess - Intersection Corridor Improvement)	One Cent III	\$12.0	2.5
14	SC HWY 72 (SC 901 - Saluda Street to Rambo Road; formerly in 2003 PFP) - Multilane	One Cent III	\$12.6	2.0
TOTAL			\$153.9	

Additionally, there are two projects of regional importance that although currently unfunded, nonetheless deserve special note – (1) Proposed Dave Lyle Boulevard Extension; and (2) East-West Connector Project. Both projects would represent significant additions to the Regional Transportation Network and are briefly summarized below:

1) Dave Lyle Blvd Extension – This project has been identified and discussed as a significant opportunity to improve area roadway capacity, traffic operations and regional connectivity within the RFATS Study Area. Specifically, this project would involve widening (5 lanes) and extending Dave Lyle Boulevard from the Rock Hill Galleria Mall Area to Highway 521 in Lancaster County. When current and future congestion on Dave Lyle Boulevard as well as on important east-west corridors adjacent to Dave Lyle are taken into consideration, the potential long term value and impact of this project supports continued attention by all local governments.

It should be noted that funding for the extension of Dave Lyle Boulevard would need to come from several sources, including the State Infrastructure Bank, as well as federal, state and local agencies.

2) East / West Connector – This project is a 5.2 mile, four lane divided roadway that would facilitate a new connection between I-77 at Coltharp Road to the India Hook / Mt Gallant area. This project has been identified as one option for lessening congestion levels on SC 160, Gold Hill Road, as well as along the Celanese Road Corridor. Specifically, this project would involve the construction of a new interchange at I-77 / Coltharp Road as well as a new bridge crossing of the Catawba River. It is important to note that this project is currently in the very early stages of development. With this in mind, to further evaluate the possible impacts of this type of a project, a feasibility study has been recommended as a part of this 2035 LRTP update.

It should similarly be noted that funding for the East / West Connector would need to come from several sources, which may include the State Infrastructure Bank, as well as other local sources.

Summary of Key Points and Recommendations of the Plan

The RFATS Study Area has experienced tremendous population growth over the past 20 years, with a significant growth spurt within the last seven to eight years. Based on population projections through the horizon year 2035, the RFATS Study Area is expected to exceed 200,000 people. This population increase is due in large part to its close proximity to Charlotte.

With population growth comes, increased demands on the transportation system. However, funding from the state and federal levels for transportation improvements is limited and very competitive. Consequently, leaders must be very selective in identifying the top cost-effective projects for funding consideration. In addition, policy makers will need to explore more options for enhancing the existing transportation network, reducing congestion, and encouraging mass transit opportunities. The goals and objectives of the Plan highlight the need for transportation leaders as well as citizens of the RFATS Study Area to come together to support the Plan and funding resources which can address regional transportation infrastructure needs. The One Cents Sales Tax initiative, Pennies for Progress, will continue to be a critical funding source for transportation improvements.

Addressing and implementing multimodal improvements will be an important step in achieving the Plan's goals and objectives. Additional interaction with and assessment of needs for the freight transportation users is anticipated. Incorporating bicycle and pedestrian accommodations in transportation facility planning and implementation was a dominant theme at public meetings. A regional assessment and inventory of existing walking and cycling facilities would be a starting point that could lead to a regional system.

With the expected population growth of the RFATS Study Area, transportation and land use coordination planning is paramount. Thoroughfare and sub-area collector road plans would help preserve new road corridors and ensure connectivity between existing and new developments. Access management standards along high profile corridors and congested areas could promote efficiency of the highway system.

To implement the LRTP, RFATS must work proactively with stakeholders. These include:

- SCDOT
- FHWA
- FTA
- EPA
- DHEC
- RFATS Communities
- Citizens, Businesses and Investors
- Technical Resource Agencies
- SC Legislative Representatives
- Neighboring Communities in Charlotte Region

Continuing coordination and information sharing will be critical to fully implement the Plan's goals and objectives.

Action Plan

The following Action Plan identifies key items and/or steps to implement the recommendations of the LRTP.

Public Awareness Actions:

1. Include an Executive Summary as well as the full Plan on RFATS website.
2. Create a user-friendly, visually enhanced brochure of the LRTP for public distribution.
3. Continue to engage the RFATS Citizen's Advisory Committee in LRTP implementation activities.
4. Share LRTP with other MPOs in the Charlotte region.

Policy Initiative Actions:

1. Work with local community leaders and businesses to continue the One Cent Sales Tax Program for transportation improvements.
2. Take a leadership role in encouraging and promoting transit opportunities in the Study Area.
3. Proactively support bicycle and pedestrian provisions with highway facility improvements. Consider supporting a Complete Streets policy that establishes the need to accommodate a well-balanced transportation system, including cyclists, pedestrians as well as vehicles.
4. Work with federal, state and local partners to address air quality issues and ensure attainment status by 2010. Develop and support policies which limit or reduce ground-level ozone pollution in the Study Area.

Highway System Actions:

1. Prepare a thoroughfare plan and targeted sub-area collector road plans identified in the Congestion Management Study to promote connectivity and efficiency of the highway network.
2. Implement access management measures and design that help protect mobility of high profile corridors.
3. Pursue funding from SCDOT for key safety improvement at identified intersections. RFATS should review its potential contribution to the eight key strategies in the statewide highway safety plan, in the context of specific needs and opportunities in the RFATS Study Area. This could lead to consideration of potential non-traditional safety projects (such as education and/or data analysis projects) as well as physical construction schemes.

4. RFATS and SCDOT should joint further develop RFATS-specific regional based safety strategies tied to specific crash locations in the RFATS Study Area. This effort should be developed in cooperation with all the local jurisdictions within RFATS. The strategies should also document and prioritize safety strategies for projected high crash locations within the RFATS Study Area.
5. Vigorously pursue all public funding sources to complete the Project List included in the Highway Element.

Bicycle and Pedestrian Accommodations Actions:

1. Support bicycle and pedestrian accommodations for state and One Cents Sales Tax road projects.
2. Pursue state, local and private funding to complete priority segments of the Carolina Thread Trail in York and Lancaster Counties.
3. Pursue Safe Routes to Schools funding for cycling and walking facilities with close proximity to public schools.
4. Prepare a regional trail map reflecting trail systems in all RFATS communities.
5. Support Bicycle Friendly Community status for Rock Hill.

Congestion Management Actions:

1. Prepare the next level of the Congestion Management Process including monitoring procedures and measures of effectiveness for the Congestion Management Network.
2. Review findings and recommendations of the Charlotte Region Managed Lanes Study and its implications for the I-77 corridor in York County.

Freight Movement Actions:

1. Prepare a comprehensive Freight Study. This would help understand the specific needs of freight shippers and receivers, as well as how the RFATS Study Area could benefit from Charlotte's existing and planned intermodal facilities. It would also include the congestion impacts of freight and corridor designated truck routes.

Public Transportation Actions:

1. Actively promote transit-supportive land use and site development within the RFATS communities, particularly along the US 21 Bus Rapid Transit (BRT) corridor.
2. Implement the action plan and phasing strategy, including funding proposals, for the US 21 BRT corridor.
3. Develop a marketing plan and tools to promote local funding support for the BRT.
4. Consider expansion of local public transportation service and facilities.