



TRANSPORTATION IMPROVEMENT PROGRAM

Fiscal Years 2019-2028

April 2017

Central New Hampshire
Regional Planning Commission



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**Central NH Regional Planning
Commission**

**DRAFT Transportation Improvement
Program**

FY 2019 - 2028

**Adopted by the
CNHRPC Full Commission:**

April 13, 2017



**Central NH Regional Planning Commission
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Introduction

The Regional Transportation Improvement Program (TIP) for Fiscal Years 2019-2028 consists of a list of transportation projects for the Central New Hampshire Regional Planning Commission (CNHRPC) Region that is consistent with the goals and vision for the Region established in the comprehensive CNHRPC Regional Plan, adopted in February, 2015. The CNHRPC Region consists of the following communities:

Allenstown	Chichester	Henniker	Pittsfield
Boscawen	Concord	Hillsborough	Salisbury
Bow	Deering	Hopkinton	Sutton
Bradford	Dunbarton	Loudon	Warner
Canterbury	Epsom	Pembroke	Webster

In New Hampshire, each of the nine regional planning commissions prepares a Regional TIP every two years based on input from local municipalities, NHDOT and each planning commission's Transportation Advisory Committee (TAC). This is concurrent with the New Hampshire Department of Transportation's (NHDOT) State Transportation Improvement Program (STIP) or Ten Year Plan.

New Hampshire **RSA 228:99** and **RSA 240** require that NHDOT propose a plan for improvements to the state's transportation system. The purpose of this legislation is to develop and implement a plan allowing New Hampshire to fully participate in federally supported transportation improvement projects.

CNHRPC TIP Update Process

The current TIP update process formally began in the Central New Hampshire Region on December 16, 2016 when the CNHRPC distributed notification to each of its member communities and known interested parties located within the Region that the Regional TIP Update had commenced.

Accompanying this formal communication was a comprehensive Project Proposal Form which requested updated information for existing projects and detailed information on potential new projects as well as continued local support for projects previously contained in the FY 2017-2026 TIP.

In response to the request for new projects, member communities submitted a number of locally prioritized projects ranging from complete streets projects to intersection improvements based on safety concerns. In addition, support for each of the projects identified in the FY 2017-2026 TIP remains strong. The Regional TIP

update process gives a clear indication of the wide-ranging transportation needs in the Central NH Region.

The Regional TIP serves as a significant opportunity to fully understand the current transportation needs in the region. Just as the Ten Year Plan is established as the transportation project guide for New Hampshire, CNHRPC will utilize this regional TIP to plan for current and future transportation needs in the Central NH Region.

Project Selection and Evaluation

Project selection begins with the initial screening of all projects submitted to CNHRPC. Potential projects are initially screened for their feasibility and whether there is support. Projects are then evaluated for which eligible funding source is best suited. CNHRPC staff screens for projects that directly affect state roadways or are otherwise regionally significant. Some regionally significant projects are not eligible for inclusion in the Ten Year Plan or are better suited for other programmatic funding sources.

Projects that are otherwise regionally significant may also be included in the Regional TIP. As regional and local priorities, these projects should be documented and other sources of funding should be explored. An example would be the construction or upgrade of a municipal roadway that might alleviate congestion or safety concerns along a state highway. Projects on state owned highways that are not eligible for federal aid due to their federal functional classification are documented in the Regional Highways table.

Due to the different funding categories for projects, the FY2017-2026 Regional TIP Update is presented in a stratified format that better reflects the distinct needs of projects. The different categories considered during the TIP update consist of the following:

Existing Ten Year Plan FY 17- 26 Projects – Considered Funded

Regionally Significant Projects – Ten Year Plan Eligible

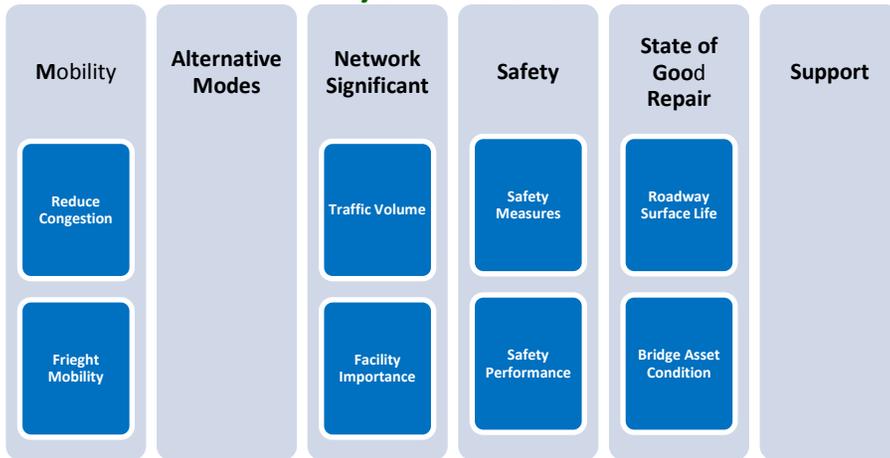
**Interstate
Projects**

**City of Concord Urban
Compact**

**Regional
Highways**

CNHRPC staff and the TAC evaluate the proposed projects based on approved evaluation criteria that were revised in FY 2015 by NHDOT and New Hampshire's nine regional planning commissions.

Project Evaluation Criteria



Regional Issues and Themes

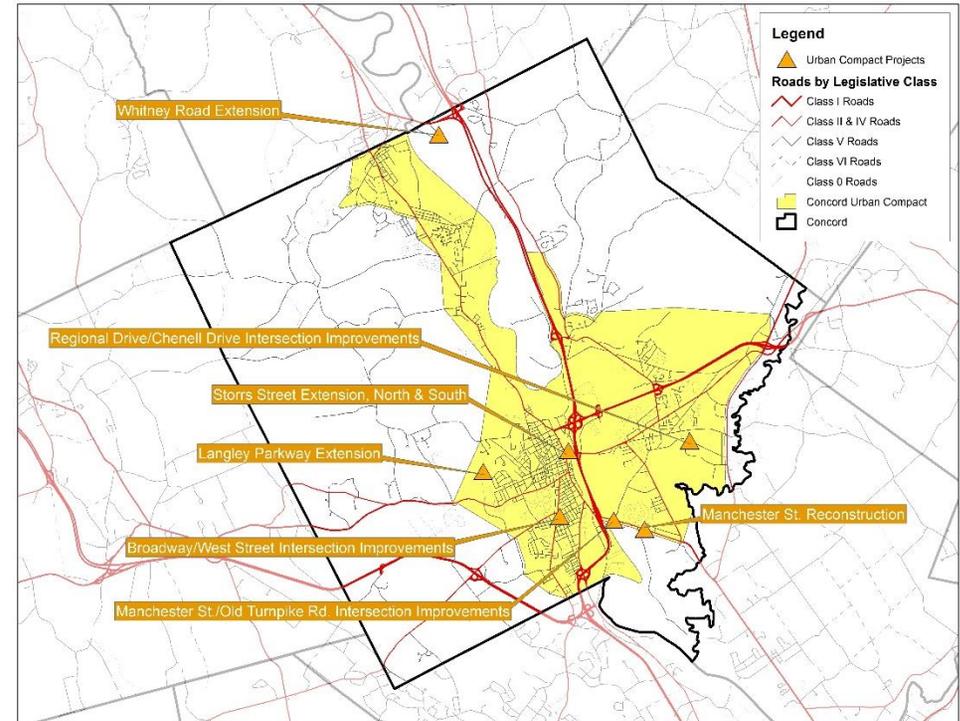
City of Concord – Urban Compact

Sections of certain roads within the City of Concord are designed as “urban compact” roads by the NH DOT. NH RSA 229:5 V designates twenty-seven communities within the state where the NHDOT Commissioner may establish compacts; within the CNHRPC region, only Concord is so designated. The Urban Compact agreements usually delegate responsibilities for the highway between the community and NHDOT, wherein the community is often responsible for snowplowing, street sweeping, and perhaps certain ordinary maintenance and the issuance of curb cuts for new driveways.

Currently, the City of Concord is entirely responsible for maintenance and improvement of the following components of the State Highway System within the compact area:

US Route 3	US Route 3A	NH Route 13
US Route 202	NH Route 9	NH Route 132

Concord Urban Compact Area Projects



Direct highway access to the State Capitol Complex, Office Park South and Hazen Drive are provided by the listed State and Federal Highways which are the responsibility of the City of Concord to maintain and improve. The City is also obligated to maintain access to State facilities on city streets including Storrs Street, Centre Street, Park Street, Capitol Street, Green Street, South Fruit Street, Airport Road, Pillsbury Street, Broadway and Liberty Street without any significant contribution towards providing this access.

Projects within urban compacts are typically funded through the city’s Capital Improvements but may also be funded through other sources as best fits the project, such as Congestion Mitigation Air Quality improvement program (CMAQ), the Transportation Alternatives Program (TAP) and the Highway Safety Improvement Program (HSIP).

The City of Concord is an active partner with the Central New Hampshire Regional Planning Commission and actively supports projects in the TIP for its neighboring

and regional communities. Many of the Class IV highways in the City are important local, regional and sub-regional connections which are also a major component of the National Highway System in New Hampshire, and thus must be accurately represented in the Regional TIP.

Projects within the Urban Compact in Concord are listed separately in the Regional TIP. This is due to the fact that, because of their location within the Compact, they are not eligible for Federal Aid funding through the State Ten Year Plan. When considered from a local, regional and statewide perspective, these projects are of the highest priority and every effort should be made to maintain and improve the functionality and performance of these roadways.

Regional Highways

As documented in the Regional Highways section of the TIP, the condition of a number of strategically important regional highways is of major concern. These roadways, typically falling outside of the classification for Federal Aid funding, are in extremely poor condition. Data on each of these roadways is readily available through NHDOT's Road Comfort Index as well as a number of Road Surface Condition Analyses completed by CNHRPC. Communities in the CNHRPC Region such as Bradford, Canterbury, Deering, Salisbury, Sutton and Webster are negatively impacted by the poor condition of these respective routes, sections of which are in a severe state of disrepair. For example, the cost to operate and maintain vehicles increases for motorists when traveling on roads in poor condition.

CNHRPC and the TAC believe that the condition of these regionally significant roadways has a negative impact on the physical, social, and economic well-being of our member communities. As such it is imperative that these projects are documented in the Regional TIP. Although not eligible for inclusion in the State Ten Year Plan, CNHRPC is committed to working with our member communities and NHDOT to explore opportunities to improve these important routes in our Region.

Bicycle and Pedestrian Infrastructure

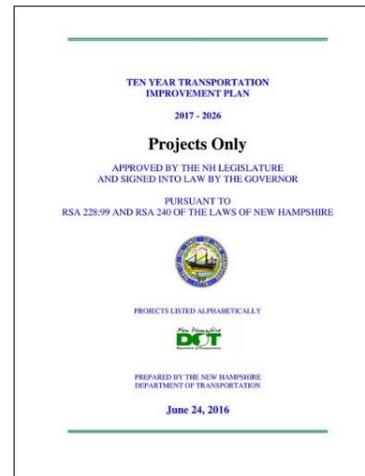
As outlined in CNHRPC's Regional Plan, it is important that pedestrian and bicycle transportation components are properly incorporated into the design of transportation infrastructure improvements. In addition to considering pedestrians and cyclists with the design of new projects, there is also a great need for new and improved standalone bicycle and pedestrian infrastructure. The following four

projects were unfunded projects from NHDOT's 2016 Transportation Alternatives Program round of funding. Five projects were ranked by the CNHRPC TAC, ranks were used as part of NHDOT's statewide scoring process. Only one project was funded in the CNHRPC region.

Town/City	Location/Project Name	Regional Rank	State Rank
Concord	Merrimack Greenway Multi Use Path	1	15
Bradford	West main Street Sidewalks	2	14
Pembroke	US 3 Sidewalks and Multi Use Path	3	35
Henniker	Western Ave Sidewalks	5	40

Existing State Ten Year Plan FY 17- 26 Projects – Considered Funded

The following tables display how the Surface Transportation Block Grant (STBG) funds are spent in the CNHRPC Region on State owned highway projects as documented in the 2017-2026 Ten Year Plan.



Fiscal Year	CNHRPC STGB Funds
2017	\$ 940,500
2018	\$ 4,058,340
2019	\$ 2,923,404
2020	\$ 2,478,481
2021	\$ 4,124,908
2022	\$ 4,143,278
2023	\$ 2,887,715
2024	\$ 150,849
2025	\$ 1,496,263
2026	\$ 931,996
Total	\$ 24,135,737

FY 17 - 26 State Ten Year Plan Projects – Surface Transportation Block Grant						
Town(s)	Location	Description	Phase	FY	Cost	
Concord	Stickney Avenue	Removal of State owned buildings at Stickney Avenue	PE	2017	\$	49,500.00
Concord	Stickney Avenue	Removal of State owned buildings at Stickney Avenue	ROW	2017	\$	451,000.00
Loudon-Canterbury	NH 106	NH 106 Improvements from Clough Road to Shaws Road	PE	2017	\$	440,000.00
Bow	NH 3A	NH Rte 3A Corridor safety improvements	PE	2018	\$	340,560.00
Loudon-Canterbury	NH 106	NH 106 Improvements from Clough Road to Shaws Road	PE	2018	\$	227,040.00
Loudon-Canterbury	NH 106	NH 106 Improvements from Clough Road to Shaws Road	ROW	2018	\$	652,740.00
Loudon-Canterbury	NH Rte 106	NH Rte 106 Construction from Shaker Road to beyond NHMS	CON	2018	\$	2,838,000.00
BOW - CONCORD	I-93	I-93 widening from I-89 to between Exit 15 and 16	PE	2019	\$	1,500,000.00
Concord	NH 13	Improvements at I89 exit 2 NB and SB ramps	PE	2019	\$	292,881.60
Concord	NH 13	Improvements at I89 exit 2 NB and SB ramps	ROW	2019	\$	29,288.16
Loudon-Canterbury	NH 106	NH 106 Improvements from Clough Road to Shaws Road	ROW	2019	\$	1,101,234.82
Bow	NH 3A	NH Rte 3A Corridor safety improvements	PE	2020	\$	120,901.52
Bow	NH 3A	NH Rte 3A Corridor safety improvements	ROW	2020	\$	544,056.86
Loudon-Canterbury	NH Rte 106	NH 106 Roadway Widening for 3.6 miles	CON	2020	\$	1,813,522.87
Concord	NH 13	Improvements at I89 exit 2 NB and SB ramps	PE	2021	\$	373,063.42
Concord	NH 13	Improvements at I89 exit 2 NB and SB ramps	ROW	2021	\$	8,733.93
Loudon-Canterbury	NH Rte 106	NH 106 Roadway Widening for 3.6 miles	CON	2021	\$	3,743,111.20
Bow	NH 3A	NH Rte 3A Corridor safety improvements	CON	2022	\$	3,860,000.03
Chichester	NH 28 and Main Street	Intersection Improvements	PE	2022	\$	154,515.63
Loudon	NH 106 & South Village Rd	Intersection Improvements	PE	2022	\$	128,763.03
Concord	NH 13	Improvements at I89 exit 2 NB and SB ramps	CON	2023	\$	2,787,999.59
Henniker - Hopkinton	US 202, NH 9, NH 127	Intersection Improvements	PE	2023	\$	99,715.73
Chichester	NH 28 and Main Street	Intersection Improvements	ROW	2024	\$	82,281.43
Loudon	NH 106 & South Village Rd	Intersection Improvements	ROW	2024	\$	68,567.86
Chichester	NH 28 and Main Street	Intersection Improvements	CON	2025	\$	1,443,545.36
Henniker - Hopkinton	US 202, NH 9, NH 127	Intersection Improvements	ROW	2025	\$	52,717.71
Henniker - Hopkinton	US 202, NH 9, NH 127	Intersection Improvements	CON	2026	\$	931,996.67

Regionally Significant Projects – Ten Year Plan Eligible					
Project Name	Location	Current Situation	Scope of Work	Cost (millions)	Category Ranking
I-89 Southbound Exit 1 on ramp at Logging Hill Road	Bow	As vehicles enter I-89 southbound from the exit 1 on ramp, vehicles traveling down the highway at a high rate of speed are also exiting I-89 southbound onto I-93. The project is addressing the insufficient room to safely merge on and off the highway by increasing the length of the weave.	The project would involve realignment of the southbound on ramp on to I-89 south from Logging Hill Road. It may also include the I-89 southbound off ramp onto I-93.	5.0	1
US 4 (King Street) Complete Streets Project	Boscawen	As an outgrowth of the North Main Street/King Street Multi-Use Zoning Study, the Town of Boscawen is interested in addressing a number of issues along the corridor, notably safety concerns related to opposing left turns and speeds at the northern US3/4 split. At the same time, the Town is interested in improving bike/pedestrian facilities and the overall aesthetics of the corridor.	Evaluation, Engineering, Right of Way acquisition and improvements along King Street, including the addition of a future center turn lane, the development of improved bike/pedestrian facilities, and improvements to the northern US3/4 intersection.	1.4	2
US Route4/King Road Intersection Improvements	US Route 4 Town of Chichester	The US Route 4/King Road intersection has been identified in numerous planning documents as an accident hot spot. Sight distance is limited, vehicle speeds are problematic and the lack of designated turning and passing lanes combine to make travel hazardous at this intersection.	Construction of a left turn lane onto King Road with two through lanes from the truck passing lane to the Main Street Intersection.	0.31	3
US Route 4 and Whitney Road Intersection Improvements	Concord – Intersection of US Route 4 and Whitney Road	US Route 4 connects I-93 to Penacook, Boscawen, and other points to the North and West. US Route 4 has one lane in each direction through this intersection with turn lanes provided for Whitney Road. Long delays on Whitney Road and Old Boyce Road due to the high volume of traffic travelling at high speed on US Route 4 result in difficulty making left turn movements and increased crash potential.	The proposed project will address serious safety concerns at this intersection as well as current and future traffic demand. Design work is ongoing by the City of Concord.	2.25	4
NH 103 (West Main Street) Complete Streets Project	Warner	Development at Exit 9 in Warner has resulted in a substantial increase in the number of pedestrians and bicyclists travelling between where they live in the town center and the retail shopping at Exit 9, where the work and shop. The road is narrow with uneven shoulders, making travel hazardous for those persons.	This “Complete Streets” project begins on the north side of NH Route 103 at the intersection of Roslyn Avenue and extends westerly tying into the recently completed roundabout sidewalks near exit 9.	0.91	5

Interstate Projects

Project Name	Location	Current Situation	Scope of Work	Cost (millions)	Category Ranking
I-93 Improvements	I-93 (Bow – Concord) from just south of the I-89/93 interchange north to the bridge over the Merrimack River.	Marked by aging infrastructure and limited transportation options, the Bow-Concord I-93 Corridor neither meets the varied transportation and safety demands of interstate highway users, nor appropriately balances those demands against the interests of the Capitol Region communities.	Specific improvements in line with the final recommendations contained in the Bow-Concord Interstate 93 transportation planning study. These include widening I-93 and addressing safety issues while preserving and enhancing natural and historic resources.	190.0	<p style="text-align: center;">1</p> <p style="text-align: center;">Work Ongoing</p>

City of Concord – Urban Compact				
Project Name	Location	Current Situation	Scope of Work	Cost (millions)
Storrs Street Extension, North and South	City of Concord	The purpose of this project is to provide municipal infrastructure in accordance with the 2006 “Opportunity Corridor Master Plan” in order to promote and encourage economic redevelopment in the corridor. The project is being coordinated with the Bow-Concord I-93 expansion project.	Completed in stages, the project aims to extend Storrs street from the current north end at the Holiday Inn to Constitution Avenue. The second stage of the project schedules construction southerly from Theatre Street beneath the Water Street Bridge to Langdon Avenue.	7.55
Whitney Road Extension	City of Concord	The purpose of this project is to expand the existing municipal infrastructure in an effort to promote and encourage future development within the Whitney Road Industrial Park and abutting lands located between Whitney Road and Sewalls Falls Road.	Extend Whitney Road from its current terminus near the waste to energy facility southerly to the Monitor Drive and Sewalls Falls Road.	3.53
Manchester Street/Old Turnpike Intersection Improvements	City of Concord	Following the completion of Regional Drive in 2005, traffic within the Manchester Street/Old Turnpike Road/Regional Drive corridor has continued to grow. As a result, recent changes to signal timing at the Manchester Street and Old Turnpike Road has improved levels of service. However, with traffic growth expected in the near term, intersection geometry improvements will be required.	This project includes traffic signal design and expansion of the Old Turnpike Road approach to two (2) right turn lanes unto Manchester Street. This project will be coordinated with the ongoing design efforts at Terrill Park.	0.5
Broadway Street/West Street (McKee Square) Intersection Improvements	City of Concord	Currently this intersection experiences significant congestions and delays, especially during peak hours. Pedestrian facilities are also in need of improvement.	Improve safety and minimize congestion by adding lane capacity at the intersection, providing orderly turning and through traffic movement capability along with pedestrian access and crosswalk improvements. The approved conceptual design incorporates a modified single lane roundabout at the intersection and includes alterations to nearby intersections.	1.13

City of Concord – Urban Compact				
Project Name	Location	Current Situation	Scope of Work	Cost (millions)
Regional Drive/ Chenell Drive Intersection Improvements	City of Concord	Following the completion of Regional Drive in 2005, traffic along the Regional Drive corridor continues to grow. As a result of continued development along Chenell Drive as well as development along the Regional Drive corridor, the Traffic Operations Committee has been monitoring traffic volumes, accident data and the frequency of pedestrian activities at critical intersections along the arterial corridor. To maintain acceptable levels of service and traffic safety, intersection improvements will be required.	Improved vehicle safety and increased capacity along this designated arterial corridor	0.5
Manchester Street widening and Reconstruction	City of Concord	The widening of Manchester Street from two to three lanes and five lanes from Garvin Falls Road to Airport Road. The signalized intersection of Airport Road/Integra Drive and Manchester Street including the realignment of Broken Bridge Road was completed in 2012. Future traffic modeling projects volumes over 50,000 ADT on this corridor. These improvements will improve traffic flow, minimize congestion and increase safety.	The corridor improvement project includes a five-lane travel section with new sidewalk on both sides on Manchester Street, vertical curbing and a drainage infiltration system.	3.83
Langley Parkway Extension	City of Concord – Clinton-Pleasant Street; Penacook/Auburn Street; North State Street	Traffic congestion and through traffic in residential areas north and south of Pleasant Street and along Pleasant Street east of the Capital Regional health care complex is an ongoing issue.	Phase I and II of the project were completed in 1995 and 2008 respectively. The City of Concord has initiated design work on phase III of the project from Pleasant Street to Rumford and Penacook Street. These improvements will further reduce traffic congestion and through traffic in residential areas north and south of Pleasant Street and along US Route 202 and NH Route 9.	13.19

State Maintained Regional Highways						
Project Name	Location	ADT	Current Situation	Scope of Work	Cost (millions)	Category Ranking
NH Route 114 Rehabilitation	Bradford/Sutton	1,500-2,900	The roadway is a typical two-lane rural highway with minimal shoulders. Currently NH Route 114 as it runs through Sutton is in a severe state of disrepair. The pavement is cracked and uneven, shoulders are crumbled to non-existent and drainage is a major issue along the roadway.	Complete rebuild of NH Route 114 from the Town of Bradford to New London. The project scope should include replacement of the existing roadbed, repair and replacement of culverts, alignment of intersections and complete repaving where necessary.	6.04	Previous TAC Ranking 1
Salisbury – NH Route 127	Salisbury	840-1,000	The roadway is a typical two-lane rural highway with minimal shoulders. Currently NH Route 127 through Salisbury is in a severe state of disrepair. The pavement is cracked and uneven, shoulders are crumbled to non-existent, and drainage is a major issue. Parts of the road have been paved with overlays as an interim measure.	Complete rebuild of the portions of NH Route 127 in Salisbury south of US Route 4. The project scope should include replacement of the existing roadbed, repair and replacement of culverts, alignment of intersections and complete repaving where necessary.	1.82	Previous TAC Ranking 2
Webster – NH Route 127	Webster	810-1,633	The roadway is a typical two-lane rural highway with minimal shoulders. Currently NH Route 127 as it runs through Webster is in a severe state of disrepair. The pavement is cracked and uneven, shoulders are crumbled to non-existent and drainage is a major issue along the roadway.	Complete rebuild of NH Route 127 to the Salisbury town line. The project scope should include replacement of the existing roadbed, repair and replacement of culverts, alignment of intersections and complete repaving where necessary.	2.68	Previous TAC Ranking 3

State Maintained Regional Highways						
Project Name	Location	ADT	Current Situation	Scope of Work	Cost (millions)	Category Ranking
Hillsborough – NH Route 149 West Main Street Improvements	West Main Street - Hillsborough	2,900-9,582	The identified project area suffers from severe differences in grade between sidewalks and roadway surface caused by recurring road resurfacing without any roadway reclamation. This results in hazardous travel conditions, particularly during the winter months.	Surface reclamation, drainage improvements and new curbing and sidewalks.	0.91	Previous TAC Ranking 5
Baptist Road – Town of Canterbury	Canterbury – Baptist Road	650-980	Baptist Road is in extremely poor condition. The pavement is cracked and uneven, shoulders are crumbled to non-existent and drainage is a major issue along the roadway.	Complete rebuild of Baptist Road. The project scope should include replacement of the existing roadbed, repair and replacement of culverts, alignment of intersections and complete repaving where necessary.	1.574	Previous TAC Ranking 6
Center Road – Town of Canterbury	Canterbury – Center Road	632	Center Road is in extremely poor condition. The pavement is cracked and uneven, shoulders are crumbled to non-existent and drainage is a major issue along the roadway.	Complete rebuild of Center Road. The project scope should include replacement of the existing roadbed, repair and replacement of culverts (where applicable), alignment of intersections and complete repaving where necessary.	0.425	Previous TAC Ranking 7
Kimball Pond Road – Town of Canterbury	Canterbury - Kimball Pond Road	1,134	Kimball Pond Road is in extremely poor condition. The pavement is cracked and uneven, shoulders are crumbled to non-existent and drainage is a major issue along the roadway.	Complete rebuild of Kimball Pond Road. The project scope should include replacement of the existing roadbed, repair and replacement of culverts, alignment of intersections and complete repaving where necessary.	0.471	Previous TAC Ranking 8

Appendix I

Project Descriptions

Ten Year Plan Projects – Considered Funded

Ten Year Plan Project – Considered Funded

Name: NH 3A Safety Improvements

Estimated Cost: \$ 4,865,518.41 (NHDOT Estimate)

Location: Town of Bow - NH 3A

NH Route 3A is a major north/south connector linking the Manchester/Hooksett area with the greater Concord region. NH 3A parallels much of I-93 and often serves as an alternative route to the Interstate. Several large industrial areas are located along this stretch of 3A, most notably the Bow Business Development District. NH 3A is also an important commuter route in Bow and Hooksett resulting in traffic volumes exceeding 13,000 VPD during peak travel seasons. Combined with the high percentage of heavy vehicle traffic the need for improvements is well established.

The Town of Bow has taken an extremely proactive approach to identifying specific problem intersections in numerous planning documents produced over the years. The intersections of Dunklee Road, Robinson Road and Johnson Road (each projected to cost \$1.2million) are the three main intersections in immediate need of attention. Intersection alignment and geometry is a problem, especially owing to the high volume of heavy vehicle turning movements along the corridor. In addition, smaller intersections and sections of the corridor are in need of remedial work which may include, intersection signalization, the addition of turning and passing lanes, shoulder widening, regrading and general safety improvements to enhance safety along the corridor. Intersection improvements at the Dunklee Road intersection are also being designed in 2017.

Ten Year Plan Project – Considered Funded

Name: NH 28 and Main Street Intersection Improvements – Town of Chichester

Estimated Cost: \$ 1,680,342.42

Location: Town of Chichester – Intersection of NH Route 28 and Main Street

The safety concerns at this intersection are primarily due to the horizontal layout of the side road approaches. Main Street has three one-way connections to NH Route 28, and this is complicated further by the fact that Depot Street intersects NH Route 28 nearly opposite one of those connections.

The operational characteristics of the intersection play an important role in generating the safety concerns. The traffic volume data at this location indicate that Main Street has become a significant commuter cut through between NH Route 28 and US Route 4 and so this intersection becomes stressed to the point that drivers may take risks that put themselves and others in danger.

Remedial work at this intersection involves adding a traffic signal and consolidating all of the Main Street legs so they intersect at one location opposite Depot Street. Pedestrian signals as well as turn lanes are to be provided on both NH Route 28 approaches. This solution could be arrived at in stages. The first stage could include adding a right turn lane to Depot Street, followed by a phase that adds left turns. Signals could then be installed when warranted.

Ten Year Plan Project – Considered Funded**Name:** Improvements at I89 exit 2 NB and SB ramps – City of Concord**Estimated Cost:** \$ 3,491,966.7**Location:** City of Concord – NH Route 13 intersection with I89 exit 2 on and off ramps

Heavy traffic flow along NH Route 13, and at relatively high speed, creates substantial delay for traffic turning to/from the ramps. The I-89 northbound off-ramp has substantial peak period delay and can back up to near the freeway off-ramp gore area. Interchange volumes are expected to continue to increase due to growing regional-traffic demand associated with the regional medical campus and state office park campus in southwest Concord and planned extension of the Langley Parkway. Residential growth in the towns west of Concord has will continue to increase traffic volumes in this area.

The proposed project will address increasing traffic delays, capacity deficiency and safety issues at both ramp intersections on Clinton Street.

Ten Year Plan Project – Considered Funded**Name:** Intersection Improvements at US 202/NH 9 and NH 127/Old Concord Road – Town of Henniker/Hopkinton**Estimated Cost:** \$ 1,084,430.11**Location:** Town of Henniker/Town of Hopkinton – US Route 202/NH Route 9 intersection with NH Route 127 and Old Concord Road

US 202/NH 9 intersects with NH Route 127 and Old Concord Road to form a four-legged, un-signalized intersection at the Henniker/Hopkinton town line. US Route 202/NH Route 9 contains exclusive right and left turn lanes in each direction. Both NH Route 127 and Old Concord Rd have exclusive right turn lanes and shared left/thru lanes. The intersection has been a safety concern for several years and has been the subject of an NHDOT safety review. Old Concord Rd serves several commercial and industrial businesses that generate a great deal of truck traffic. Tractor trailers often have difficulty using the intersection and frequently detour through the center of Henniker to avoid the intersection. The intersection currently meets warrants for a traffic signal.

The proposed project will address serious safety and capacity issues as well as future traffic demand. The site may be considered for signalization, a roundabout or a grade separated interchange.

Ten Year Plan Project – Considered Funded**Name:** NH 106 and South Village Road Intersection Improvements – Town of Loudon**Estimated Cost:** \$ 1,400,285**Location:** Town of Loudon – NH 106 intersection with South Village Road and Chichester Road

NH Route 106 and Chichester Road/South Village Road meet to form a skewed four-legged, un-signalized intersection. Both the NH Route 106 northbound and southbound approaches consist of an exclusive left turn lane, and a shared through/right-turn lane. The Chichester Road approach provides one shared left turn/through/right-turn lane. The South Village Road approach provides one shared left turn/through/right-turn lane. The proposed project will enhance the intersection by adding a fully actuated traffic control signal and turn lanes where possible, including sidewalks and pedestrian crossings where warranted

Primary State Highway System Projects – Ten Year Plan Eligible

Primary State Highway System Project – Ten Year Plan Eligible

Name: US Route 4/King Road Intersection Improvement

Estimated Cost: \$300,000.00 (NHDOT Estimate)

Location: Town of Chichester – US Route 4/King Road Intersection

This intersection is a concern due to the pressures on the eastbound left lane of Route 4 as it is used primarily as a high-speed travel lane due to the presence of an additional right hand lane. Shortly before the intersection there is a bottle neck that creates additional issues. Route 4 also intersects with King Road at a point east of the steepest sections of the roadway. This problematic intersection was identified in the Route 4 Corridor Study prepared by CNHRPC and VHB and adopted by the Town of Chichester in 2004. The proposed project consists of adding a through lane so there is no bottleneck before the intersection.

Primary State Highway System Project– Ten Year Plan Eligible

Name: I-89 Southbound Exit 1 on ramp improvements at Logging Hill Road

Estimated Cost: \$5,000,000.00 (McFarland-Johnson Estimate)

Location: Town of Bow – I-89 Southbound Exit 1 on ramp at Logging Hill Road

As vehicles enter I-89 southbound from the exit 1 on ramp, vehicles traveling down the highway at a high rate of speed are also exiting I-89 southbound onto I-93. The project is addressing the insufficient room to safely merge on and off the highway by increasing the length of the weave. Preliminary Engineering is currently underway as part of the Bow-Concord I-93 expansion study.

The project would involve realignment of the southbound on ramp on to I-89 south from Logging Hill Road.

Primary State Highway System Project– Ten Year Plan Eligible

Name: NH 103 (West Main Street) Complete Streets Project

Estimated Cost: \$910,000.00 (CNHRPC Estimate)

Location: Town of Warner – NH 103 (West Main Street) from Roselyn Drive to the roundabout

Development at Exit 9 in Warner has resulted in a substantial increase in the number of pedestrians and bicyclists travelling between where they live in the town center and the retail shopping at Exit 9, where the work and shop. The road is narrow with uneven shoulders, making travel hazardous for those persons.

This “Complete Streets” project begins on the north side of NH Route 103 at the intersection of Roslyn Avenue and extends westerly tying into the recently completed roundabout sidewalks near exit 9.

Primary State Highway System Project– Ten Year Plan Eligible

Name: US 4 (King Street) Complete Streets Project

Estimated Cost: \$1,400,000.00 (CNHRPC Estimate)

Location: Town of Boscawen – US 4 (King Street) from southern US 3/4 split to northern US 3/4 split

As an outgrowth of the North Main Street/King Street Multi-Use Zoning Study, the Town of Boscawen is interested in addressing a number of issues along the corridor, notably safety concerns related to opposing left turns and speeds at the northern US3/4 split. At the same time, the Town is interested in improving bike/pedestrian facilities and the overall aesthetics of the corridor.

Evaluation, Engineering, Right of Way acquisition and improvements along King Street, including the addition of a future center turn lane, the development of improved bike/pedestrian facilities, and improvements to the northern US3/4 intersection.

Primary State Highway System Project– Ten Year Plan Eligible

Name: US Route 4 Whitney Road Intersection Improvements

Estimated Cost: \$2,250,000.00 (City of Concord Estimate)

Location: City of Concord – Intersection of US Route 4 and Whitney Road

US Route 4 connects I-93 to Penacook, Boscawen, and other points to the North and West. US Route 4 has one lane in each direction through this intersection with turn lanes provided for Whitney Road. Long delays on Whitney Road and Old Boyce Road due to the high volume of traffic travelling at high speed on US Route 4 result in difficulty making left turn movements and increased crash potential.

The proposed project will address serious safety concerns at this intersection as well as current and future traffic demand. Design work is ongoing by the City of Concord.

Interstate Project

Interstate Project

Name: I-93 Improvements

Estimated Cost: \$138,950,000.00 (NHDOT Estimate)

Location: City of Concord, Town of Bow from the I-89 / I-93 Interchange to between I-93 Exits 15 & 16 and parts of I-393

NHDOT in partnership with McFarland-Johnson, Inc. have undertaken a comprehensive three phase study of this section of the I-93 corridor. The study focused on a context sensitive solutions approach; involving a wide range of stakeholders. The study has been guided by the following Problem Statement and Goal Statement for the corridor outlined at the beginning of the planning process: The second Phase of the project is currently underway.

Problem Statement:

Marked by aging infrastructure and limited transportation options, the Bow-Concord I-93 Corridor neither meets the varied transportation and safety demands of interstate highway users, nor appropriately balances those demands against the interests of the Capitol Region communities in their unique identities and visions, their economic vitality, preservation of and access to their natural and historic resources, and their quality of life. Future population and economic growth in the region and beyond, will increase transportation demand and further exacerbate this problem.

Goal Statement:

The Bow-Concord I-93 Corridor should balance the needs of all users and surrounding communities by providing a safe, affordable, reliable, and environmentally acceptable and community compatible transportation system. The system will offer mobility choices and complement the unique character of the Capitol Region communities. It will support their economic initiatives, preserve and/or enhance their natural and historic resources, facilitate non-vehicular access and sustain the communities' quality of life, now and into the future.

Specific improvements may include roadway widening, interchange improvements, new local connections and enhancing river access. The final improvements will be developed in line with the defined problem and goal statements.

Urban Compact Highway System Projects

Urban Compact Highway System Project

Name: Storrs Street Extension (North & South)

Estimated Cost: \$4,950,000.00 (City of Concord Estimate)

Location: City of Concord – Storrs Street

The purpose of this project is to provide municipal infrastructure in accordance with the 2006 “Opportunity Corridor Master Plan” in order to promote and encourage economic development in the corridor. Storrs Street currently serves as a support and service road to main street Concord and has the potential to offer enhanced connectivity to commercial development to the north and south by adding new extensions along and parallel to the west side of the railroad tracks. Completed in stages the project aims to extend Storrs Street from the current north end at the Holiday Inn to Constitution Avenue. The second stage of the project schedule construction southwards from Theatre Street beneath the Water Street Bridge to Langdon Avenue. General streetscape improvements will also greatly add to the area. The project is essential to the ongoing plans to promote economic development/redevelopment in the south end development corridor.

Urban Compact Highway System Project

Name: Whitney Road Extension

Estimated Cost: \$3,530,000.00 (City of Concord Estimate)

Location: City of Concord – Whitney Road to Sewalls Falls Road

The purpose of this project is to expand the existing municipal infrastructure in an effort to promote and encourage future development within the Whitney Road Industrial Park and abutting lands located between Whitney Road and Sewalls Falls Road.

This project involves extending Whitney Road from its current terminus near the waste to energy facility to Sewalls Falls Road.

Urban Compact Highway System Project

Name: Manchester Street/Old Turnpike Intersection Improvements

Estimated Cost: \$500,000.00 (City of Concord Estimate)

Location: City of Concord – Manchester Street and Old Turnpike Road Intersection

Following the completion of Regional Drive in 2005, traffic within the Manchester Street/Old Turnpike Road/Regional Drive corridor has continued to grow. As a result, recent changes to signal timing at the Manchester Street and Old Turnpike Road has improved levels of service. However, with traffic growth expected in the near term, intersection geometry improvements will be required.

This project includes traffic signal design and expansion of the Old Turnpike Road approach to two (2) right turn lanes unto Manchester Street. This project will be coordinated with the ongoing design efforts at Terrill Park.

Urban Compact Highway System Project

Name: Broadway/West St. Intersection Improvements

Estimated Cost: \$600,000.00 (City of Concord Estimate)

Location: City of Concord – Broadway/West St (McKee Square)

This intersection currently experiences significant traffic volumes and associated back up from each approach to the intersection. Pedestrian facilities are also lacking at this location as identified in the Safe Routes to School Travel Plan for Conant/Rundlett School. This project is intended to minimize congestion and improve safety by adding lane capacity at the intersection, providing orderly turning and through traffic movement capability along with pedestrian access and crosswalk improvements at the McKee Square intersection. Preliminary design for the intersection and adjacent streets and driveways has been completed .

Urban Compact Highway System Project

Name: Regional Drive/Chenell Drive Intersection Improvements

Estimated Cost: \$500,000.00 (City of Concord Estimate)

Location: City of Concord – Regional Drive and Chenell Drive Intersection

Following the completion of Regional Drive in 2005, traffic along the Regional Drive corridor continues to grow. As a result of continued development along

Chenell Drive as well as development along the Regional Drive corridor, the Traffic Operations Committee has been monitoring traffic volumes, accident data and the frequency of pedestrian activities at critical intersections along the arterial corridor. To maintain acceptable levels of service and traffic safety, intersection improvements will be required.

The Project will improve vehicle safety and increase capacity along this designated arterial corridor.

Urban Compact Highway System Project**Name:** US Route 3 Corridor Improvements (South)**Estimated Cost:** \$7,871,000.00 (City of Concord Estimate)**Location:** City of Concord – US Route 3 (Manchester Street) from Old Turnpike Road to Airport Road

This roadway carries a significant amount of regional traffic travelling to and from Concord, Pembroke, Allenstown, Hooksett and other points south and east. Average daily traffic (ADT) has been recorded as high as 27,000 vehicles per day (VPD) along certain sections of the roadway. This section of US Route 3 is populated by many trip generating businesses and also by several residential developments. The existing roadway consists of two-lanes with minimal paved shoulders flanked by low dirt shoulders.

The proposed project involves significant roadway enhancements and the construction of shoulders and curbed sidewalks with associated landscaping. Right-of-Way acquisition has been completed and the City of Concord has recently completed project redesign to conform with new design guidelines from AOT.

This project will dramatically reduce congestion along this regional travel corridor. General safety along the route will be vastly improved, while the addition of defined shoulders and curbed sidewalks will promote opportunities for safer bicycle and pedestrian movements. Better access management at business driveways and parking lots will also contribute to a reduction in congestion and an increase in safety.

Urban Compact Highway System Project**Name:** Langley Parkway Extension**Estimated Cost:** \$13,900,000.00 (City of Concord Estimate)**Location:** City of Concord – Clinton-Pleasant Street; Penacook-Auburn Street; North State Street

This project primarily aims to alleviate traffic congestion and through traffic in residential areas north and south of Pleasant Street and along Pleasant Street east of the Capital Regional Health Care Complex.

Phase I of the project was completed in 1995 and included a new traffic signal at the intersection of Pleasant Street and Langley Parkway and associated turn lanes.

Phase II was completed in 2008 from Clinton Street to the signalized intersection at Pleasant Street and Langley Parkway.

Phase III of the project includes northerly extensions from Pleasant Street (via Langley Parkway) to Rumford and Penacook Street. The Phase III improvements will further reduce traffic congestion and through traffic. The City of Concord is currently engaged in phase III project design.

Regional State Highway System Projects

Regional State Highway System Project

Name: NH 114 Rehabilitation – Town of Sutton

Estimated Cost: \$4,140,000.00 (NHDOT District 2 Estimate)

Location: Town of Sutton - NH 114

The condition of NH Rte. 114 has been a long standing issue for the Town's residents. As the main north-south thoroughfare in town, Route 114 is a vital piece of infrastructure which serves an extremely important role in the physical, economic and social composition of Sutton. This regional state highway is the primary roadway connecting the villages of Sutton, North Sutton, Sutton Mills and South Sutton. In addition, it is the central connection point to the Towns of Bradford to the South and New London to the North. Currently, Route 114 is in a severe state of disrepair, pavement conditions are extremely poor and shoulders, in many areas are non-existent.

The condition of this state maintained roadway in Sutton prohibits safe and acceptable emergency response times. Highway trucks and school buses are also severely impacted on their normal routes of travel on account of damage to vehicles, while the potential risk to the safety of school children and individual vehicle operators is a constant concern.

Sutton is home to the Kearsarge Regional Middle and High Schools, geographically the largest regional school district in the state. The Kearsarge Regional Campus serves the towns of Bradford, Newbury, New London, Springfield, Sutton, Warner and Wilmot. Route 114 is the principal roadway travelled for school children coming from these surrounding towns and in its current condition it is completely unacceptable to transport school children along the route. Regional school districts are strongly supported at the state level, yet the adequate infrastructure was not put in place to serve this facility. The lack of coordination at the state level has served to exacerbate the situation and has had an extremely negative impact on Sutton and its surrounding communities.

The proposed project, based on the recommendations of the NHDOT District 2 Engineer, includes removal of 18" of existing material, replacement with 12" gravel, 6" crushed gravel and 4" of pavement. The work needs to include under-drain to eliminate groundwater issues that are creating today's frost heave concerns.

Regional State Highway System Project

Name: NH 114 Rehabilitation – Town of Bradford

Estimated Cost: \$1,710,000.00 (NHDOT District 2 Estimate)

Location: Town of Bradford - NH 114

Similar to the situation in Sutton, this shorter section of NH 114 in Bradford requires significant work. The roadway is in a severe state of disrepair, pavement conditions are extremely poor and shoulders, in many areas are non-existent.

The proposed project, based on the recommendations of the NHDOT District 2 Engineer, includes removal of 18" of existing material, replacement with 12" gravel, 6" crushed gravel and 4" of pavement. The work needs to include under-drain to eliminate groundwater issues that are creating today's frost heave concerns.

Regional State Highway System Project**Name:** Canterbury – Baptist Road**Estimated Cost:** \$1,524,000.00 (NHDOT Estimate)**Location:** Town of Canterbury – Baptist Road

Similar to other member communities in the region, the Town of Canterbury experiences significant problems with the maintenance of state maintained rural highways within its boundaries. Baptist Road is a typical two lane rural highway in a severe state of disrepair, pavement conditions are extremely poor and shoulders, in many areas are non-existent. The condition of this state maintained roadway in Canterbury prohibits safe and acceptable emergency response times. Highway trucks and school buses are also severely impacted on their normal routes of travel on account of damage to vehicles, while the potential risk to the safety of school children and individual vehicle operators is a constant concern.

In addition, this roadway experiences considerable traffic volumes each summer when traffic from the NH Motor Speedway is diverted from NH 106 through the town. This causes enormous headaches for the town as well as raising serious safety concerns for residents and visitors alike. Shaker Village, a significant tourist destination is also accessed by this route.

The proposed project calls for complete reclaim and rebuild of Baptist Road including replacement of the existing roadbed, repair and replacement of culverts, alignment of intersections and complete resurfacing.

Regional State Highway System Project**Name:** Canterbury – Center Road**Estimated Cost:** \$412,000.00 (NHDOT Estimate)**Location:** Town of Canterbury – Center Road

The Town of Canterbury experiences significant problems with the maintenance of state maintained rural highways within its boundaries. Similar to Baptist Road, Center Road is a typical two lane rural highway in a severe state of disrepair, pavement conditions are extremely poor and shoulders, in many areas are non-existent. The condition of this state maintained roadway in Canterbury prohibits safe and acceptable emergency response times. Highway trucks and school buses are also severely impacted on their normal routes of travel on account of damage to vehicles, while the potential risk to the safety of school children and individual vehicle operators is a constant concern.

In addition, this roadway experiences considerable traffic volumes each summer when traffic from the NH Motor Speedway is diverted from NH 106 through the town. This causes enormous headaches for the town as well as raising serious safety concerns for residents and visitors alike. Shaker Village, a significant tourist destination is also accessed by this route.

The proposed project calls for complete reclaim and rebuild of Center Road including replacement of the existing roadbed, repair and replacement of culverts, alignment of intersections and complete resurfacing.

Regional State Highway System Project**Name:** Canterbury – Kimball Pond Road**Estimated Cost:** \$456,000.00 (NHDOT Estimate)**Location:** Town of Canterbury – Kimball Pond Road

In line with the existing situation for Baptist and Center Road in Canterbury, Kimball Pond Road is also in need of substantial remedial work. Kimball Pond Road is a typical two lane rural highway in a severe state of disrepair, pavement conditions are extremely poor and shoulders, in many areas are non-existent. The condition of this state maintained roadway in Canterbury prohibits safe and acceptable emergency response times. Highway trucks and school buses are also severely impacted on their normal routes of travel on account of damage to vehicles, while the potential risk to the safety of school children and individual vehicle operators is a constant concern.

In addition, this roadway experiences considerable traffic volumes each summer when traffic from the NH Motor Speedway is diverted from NH 106 through the town. This causes enormous headaches for the town as well as raising serious safety concerns for residents and visitors alike. Shaker Village, a significant tourist destination is also accessed by this route.

The proposed project calls for complete reclaim and rebuild of Kimball Pond Road including replacement of the existing roadbed, repair and replacement of culverts, alignment of intersections and complete resurfacing.

Regional State Highway System Project**Name:** NH 127 Rehabilitation – Town of Salisbury**Estimated Cost:** \$1,760,000.00 (NHDOT Estimate)**Location:** NH 127 - Town of Salisbury

Currently, NH 127 as it runs through Sutton is in a severe state of disrepair, pavement conditions are extremely poor and shoulders, in many areas are non-existent. NH 127 is of extreme importance to the Town of Salisbury and is a principal travel route for local as well as regional traffic. Roadway surface is in poor condition year round, however, during the winter months frost heaves make travel especially treacherous along the route.

The condition of this state maintained roadway in Salisbury prohibits safe and acceptable emergency response times. Highway trucks and school buses are also severely impacted on their normal routes of travel on account of damage to vehicles, while the potential risk to the safety of school children and individual vehicle operators is a constant concern.

The proposed project calls for complete reclaim and rebuild of NH 127 in Salisbury including replacement of the existing roadbed, repair and replacement of culverts, alignment of intersections and complete resurfacing.

Regional State Highway System Project**Name:** NH 127 Rehabilitation – Town of Webster**Estimated Cost:** \$2,600,000.00 (NHDOT Estimate)**Location:** NH 127 - Town of Webster

The current condition of NH 127 in Webster and Salisbury is similar to that of NH Rte. 114 in Bradford and Sutton, in that this primary regional highway which is a principal piece of infrastructure in both towns has declined to such an extent that travel on the roadway is treacherous, particularly during the winter months. In line with the recommendations for NH 127 in Salisbury, this project calls for complete reclaim and rebuild of NH 127 in Webster including replacement of the existing roadbed, repair and replacement of culverts, alignment of intersections and complete resurfacing.

Regional State Highway System Project**Name:** Merrimack River Greenway Trail (MRGT)**Estimated Cost:** \$4,000,000.00 (Phase I & II Consultant Estimate)**Location:** City of Concord

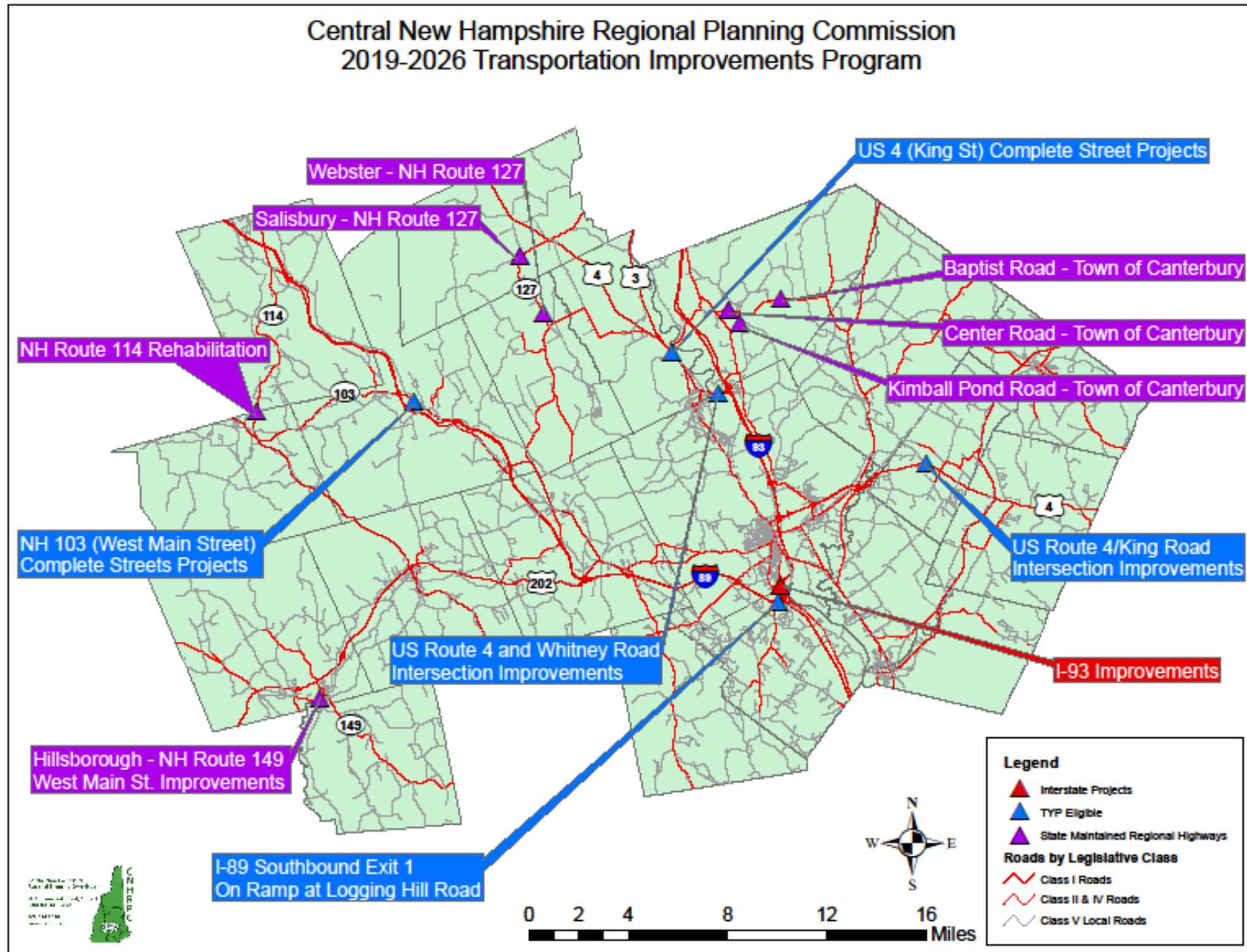
The MRGT is envisioned as a continuous, off-street path, roughly following the Merrimack River in Concord, connecting the eventual terminus of the “Northern Rail Trail” at the Boscawen Town Line to the proposed “Salem to Concord Bikeway” at the Pembroke Town Line. Although in the early stages of the development, the project is likely to be significant addition to the local, regional and statewide transportation infrastructure and as such warrants inclusion in the Regional TIP. The path is intended to be a 4-season paved facility, meeting the definition of a “shared use path” given by AASHTO, to serve bicyclists, pedestrians, skiers, snowshoers and other non-motorized users, and to be universally accessible to the extent practicable. Approximate length is 15 miles.

It is intended the Path serve both transportation and recreation purposes, connecting villages, providing access to the Merrimack River and adjacent open space, and providing safe and inviting health and fitness opportunities. The Path will provide river views as well as access to the River when possible, and it will follow a somewhat direct north-south route to facilitate transportation use. It is consistent with the Concord 2030 Master Plan and Concord’s Vision for 2020 by connecting neighborhoods and re-connecting Concord to the River.

This project is intended to be developed in phases using a variety of strategies and funding sources. Most phases require ROW acquisition; all require relevant environmental permitting and the construction of a multi-use trail. Proposed Phase 1 is an approximately 1.2 mile stretch from Manchester Street to Loudon Rd in Concord. The northern portion of the trail would be located along the Merrimack River along a corn field, across properties owned by the City of Concord. After entering a wooded area, a 1,200’ boardwalk will likely be required to cross wetlands. The path would continue through Terrill Park to Manchester Street. The next phases would likely continue the trail south through the Garvin’s Falls area and connect to the Salem-Concord Bikeway in Pembroke in the South and to the existing trail segments at Sewalls falls in the north.

Appendix II

Project Maps



Concord Urban Compact Projects

