ROCKINGHAM PLANNING COMMISSION

156 Water Street, Exeter, NH 03833
Tel. 603-778-0885 ◆ Fax: 603-778-9183
email@rpc-nh.org ◆ www.rpc-nh.org

RPC Technical Advisory Committee
March 24th, 2016
9:00-11:00 AM
RPC Office
156 Water Street, Exeter
(Directions on reverse)

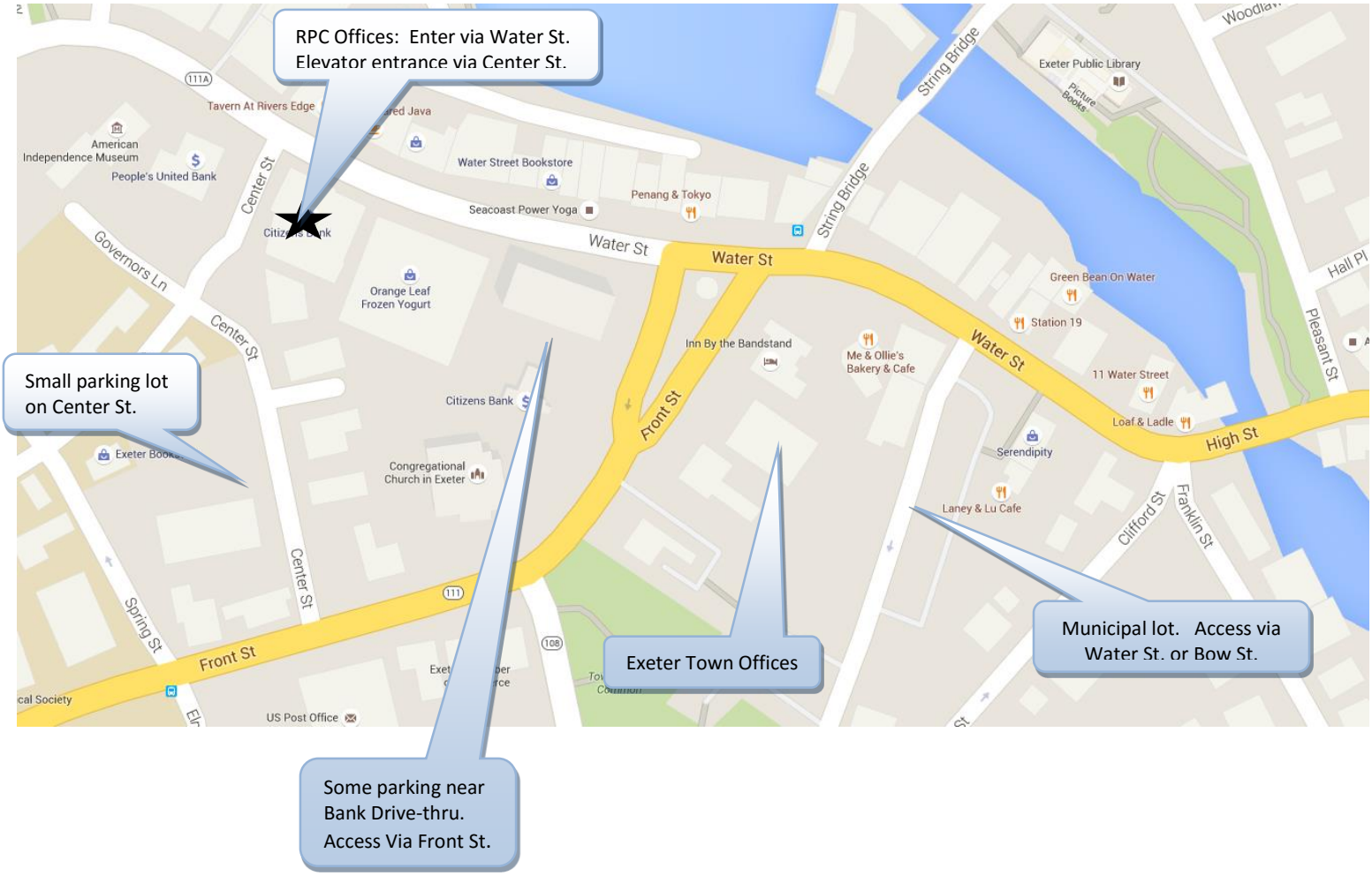
Paper copies of the attachments will be available at the meeting

1. Introductions
2. Minutes of 2/25/16 TAC meeting (**Attachments #1**)— ***[motion to approve]***
3. Hampton TIGER Grant Proposal – Letter of Support [John Nyhan – Hampton Beach Area Commission] ***[motion to approve]***
4. Draft Ten Year Plan project swap – Maplewood Avenue (Portsmouth) RR Crossing for the Market Street (Portsmouth) RR crossing – ***[motion to approve]***
5. TIP Amendment #3 **(Attachment #2)** — ***[motion to approve]***
6. CMAQ Update
7. Long Range Transportation Plan Update – Discussion of Regional Background, Existing Conditions, and Issues and Challenges **(Attachment #3)**
8. Website Preview (if time is available)
9. Project Updates (handout to be distributed at meeting)

TAC MEETING SCHEDULE For 2016 (Next meeting highlighted)

~~January 28th~~	May 26th	September 22nd
~~February 25th~~	June 23rd	October 27th
~~March 24th~~	July 28th	December 15th
April, 28th	August 25th	

There is **two hour on-street parking** along Water Street and Center Street. There is also long term parking in the lot on Center Street, by the Citizens Bank Drive-thru (Non-numbered spaces), and in the municipal lot behind the Town Offices. Handicapped parking spaces are available on the bottom floor of the parking structure adjacent to the RPC office as well as on Water Street in front of the RPC office.



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RPC TAC MEETING

Minutes

February 25, 2016
RPC Conference Room

Members Present: Art Ditto, Chair, Rye; Richard McDermott, Hampton Falls; Robert Clark, Atkinson; Steve Gerrato, Greenland; Juliet Walker, Portsmouth; Richard Hartung, Hampstead; Dave Sharples, Exeter; Tim Moore, Plaistow; Tavis Austin, Stratham; Ken Christiansen, Brentwood; Don Woodward, Exeter Transportation Committee; Brian Deguzis, COAST; Mark Nelson, CART; Tony Komornick, MVPC; Carol Macuch, NH DOT; and Leigh Levine, FHWA.

Staff Present: Cliff Sinnott, Dave Walker, Scott Bogle, and Roxanne Rines, RPC.

Meeting Opened at 9:01 a.m.

1. Introductions

Attendees introduced themselves and stated what municipality they were from or the agency they represented.

2. Minutes of January 28, 2016, TAC Meeting

Motion: **McDermott** made a motion to approve the minutes of January 28, 2016, as written. **Clark** seconded the motion. **Motion carried with abstentions.**

3. FAST Act Overview

Leigh Levine, FHWA, gave a powerpoint presentation explaining the new legislation, he reviewed the highway side of the bill, key highway points and funding programs, changes to the freight program, transit authority changes and the new planning requirements.

Discussion ensued about safety programs for freight, new program funding, need for clarification of rules, concern for transit and funding, rail funding and the inclusion of documents for transportation programs. **Levine** then distributed the funding tables and discussion ensued.

4. UPWP Amendment

Walker reviewed the amendment along with the documents goals and objectives and stated there has been some redistribution of funds. This item will be on the Policy Committee's agenda for their April meeting.

Motion: **Woodward** made a motion to endorse the requested UPWP changes and forward to the MPO Policy Committee for their approval. **McDermott** seconded the motion. **Motion carried.**

5. Long Range Transportation Plan Update

Bogle reviewed the goals, objectives and policies document from the meeting packet. Staff recommends adding four goals to the original six included in the Transportation Chapter of the Regional Master Plan and is looking for input from TAC members. Discussion ensued.

Walker gave a brief overview of how the performance measures will be handled. **Bogle** asked that any comments or suggestions be sent to him within the next two weeks. He stated staff's goal is to have a completed draft of the Long Range Plan for review at both the July TAC and Policy Committee meetings.

6. Project Updates

A handout was distributed with other project updates and discussion ensued.

Meeting adjourned at 10:36 a.m.

Respectfully submitted,

Roxanne M. Rines
Recording Secretary

ROCKINGHAM PLANNING COMMISSION

Attachment #2

156 Water Street, Exeter, NH 03833
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MEMORANDUM

To: MPO Transportation Advisory Committee

From: Dave Walker, Transportation Program Manager

Date: 3/16/2016

RE: 2015-2018 TIP Amendment #3

Attached is a table that summarizes the changes that Amendment #3 proposes to make to the 2015-2018 Transportation Improvement Program (TIP) within the Rockingham Planning Commission region. The full TIP/STIP revision report is available on the RPC website (www.rpc-nh.org) for those interested in additional detail regarding the proposed changes to each project as well as those from other parts of the state being amended. Overall, there are 3 Statewide and 4 regional project changes (7 total) proposed that the RPC needs to address, and these take the form of additional funding needs and changes in scope as shown in the table below. The Long Range Transportation Plan (LRTP) is also being updated at this time to maintain consistency between the project lists in the two documents. The MPO is conducting a 10 day public comment period on Amendment #3 that will begin on April 1st, 2016 and conclude on April 11th, 2016. A final opportunity for comments will be during the public hearing at the **April 13th, 2016** ***RPC Meeting (7:00 PM) at a location to be determined*** which will take place prior to MPO action on the amendment.

Change	# of Projects	Approved Cost	Proposed Cost	Net Change
Increased Funding/Cost	4	$ 17,813,448	$ 20,960,006	$ 3,146,973
Scope Only	3	$ 18,051,967	$ 18,051,967	$ 0
Totals	7	$ 35,865,448	$ 39,011,973	$ 3,146,973

Analysis

This amendment consists of the changes to four regional projects and three statewide programs with a net increase in cost of just over $3.1 million. There are four projects that are increasing in cost while another three have changes to the scope description and these are shown on the accompanying table. There are no delays to projects included in this Amendment and one project, East Kingston 26942, is advancing based on an earlier than anticipated advertising date. Scope changes are identified with ~~strikethroughs~~ marking the old text and ***bold italicized*** text marking the new additions. The full revision report provided by NHDOT includes additional detail on projects and proposed changes at that is available on the RPC website.

Recommendation

Based on the information provided regarding the movement of projects in time, and changes in scope and cost, staff concludes that:

- The fiscal constraint of the TIP/STIP is maintained according to the DOT fiscal constraint documentation which is included in the informational packet on the RPC website.
- As of July 20, 2013, all of New Hampshire is unclassifiable/attainment for the 2008 8-Hour Ozone National Ambient Air Quality Standards (the 2008 ozone standard) and as of April 6, 2015, the 1997 8-Hour Ozone National Ambient Air Quality Standard (the 1997 ozone standard) is revoked for all purposes, including transportation conformity purposes in the Boston-Manchester-Portsmouth (SE) NH area. For this reason no air quality conformity analysis is necessary.
- Consistent with the RPC's Public Participation Process, this notice and comment period is also intended to meet FTA requirements for public comment on the programs of transit projects put forward by NHDOT, UNH and the COAST and CART transit systems.

Recommend that the TAC endorse approval of TIP Amendment #3 by the MPO Policy Committee.

Project Summary Table – Amendment #2

Location: East Kingston	Project ID: 26942	Facility: NH 107A

Description: NH 107A over B&M Railroad and road, deck replacement and rehabilitation, BR NO 061/064

Proposed Amendment: **Construction phase added to the TIP in 2018 for an increase of $1,171,526.**

Total Proposed 2015-2018 TIP Funding: $1,336,526

Location: FTA 5307 Boston UZA	Project ID: FTA5307	Facility: Boston UZA

Description: FTA Section 5307 apportioned funds for Boston UZA ***for NHDOT Projects***

Proposed Amendment: Scope description change to include the phrase "for NHDOT projects"

Total Proposed 2015-2018 TIP Funding: $14,768,613

Location: Plaistow-Kingston	Project ID: 10044E	Facility: NH 125

Description: Reconstruct NH 125 anticipated 3 lanes ~~with some sideroad realignment~~ ***from south of town line northerly approx. 1.8 mi.***

Proposed Amendment: Scope description change only

Total Proposed 2013-2016 TIP Funding: $2,758,354

Location: UNH/Wildcat Transit	Project ID: 40419	Facility: Transit

Description: ~~Fleet replacement vehicles for Wildcat Transit.~~ ***UNH/Wildcat Transit: Replace six existing cutaway small transit vehicles***

Proposed Amendment: Scope description change only

Total Proposed 2015-2018 TIP Funding: $525,000

Location: Statewide	Project ID: PVMRK	Facility: Statewide

Description: Statewide Pavement Marking Annual Project

Proposed Amendment: **Increase in construction funds for FY 2017 and 2018. Shift to all federal funding.**

Total Proposed 2015-2018 TIP Funding: $12,400,000

Location: Statewide	Project ID: RWIS	Facility: Statewide

Description: Install Road and Weather Information Systems (RWIS) stations around the state

Proposed Amendment: **PE added utilizing Turnpike funds to implement RWIS on NH Turnpikes**

Total Proposed 2015-2018 TIP Funding: **$448,555**

Location: Statewide	Project ID: RCTRL	Facility: ITS

Description: Recreational Trails Fund Act – Projects selected annually

Proposed Amendment: **Funds redistributed to PE, ROW, and Construction based on obligated project needs. All unobligated funds reassigned to "Other" phase. Small decrease in federal funds. Small increase in "Other" funding from local match.**

Total Proposed 2015-2018 TIP Funding: $6,774,925

Revision Report

Pending Approval

A04

3/4/2016

Proposed Dollars

Andover 40392

Proposed Scope: **US 4 over Blackwater River rehabilitation or replacement.**

Regionally Significant:No Managed By: DOT CAA Code:ATT All Project Cost **$5,903,918.66**

Phase	Year	Federal	State	Other	Total	Funding
PE	2018	$193,442	$48,361	$0	$241,803	Bridge On/Off System, NH Highway Fund
ROW	2018	$48,361	$12,090	$0	$60,451	Bridge On/Off System, NH Highway Fund
		$241,803	**$60,451**	**$0**	**$302,254**	

RPC: LRPC

Project is being removed from the STIP.

Approved Dollars

Bennington 29486

Approved Scope: **S. Bennington Rd over Russell Brook Bridge Rehab or Replacement**

Regionally Significant:No Managed By: DOT CAA Code:ATT All Project Cost **$844,671.22**

Phase	Year	Federal	State	Other	Total	Funding
PE	2016	$0	$0	$20,640	$20,640	Non Participating
PE	2017	$0	$0	$31,951	$31,951	Non Participating
PE	2018	$0	$0	$21,982	$21,982	Non Participating
ROW	2016	$0	$0	$5,160	$5,160	Non Participating
ROW	2017	$0	$0	$5,325	$5,325	Non Participating
ROW	2018	$0	$0	$10,991	$10,991	Non Participating
		$0	**$0**	**$96,049**	**$96,049**	

RPC: SWRPC

Project is being removed from the STIP.

Proposed Dollars

Bennington 29486

Proposed Scope: **No Change**

Regionally Significant:No Managed By: DOT CAA Code:ATT All Project Cost **$972,365.93**

Phase	Year	Federal	State	Other	Total	Funding
		$0	**$0**	**$0**	**$0**	

RPC: SWRPC

Proposed Dollars

Danbury 40395

Proposed Scope: **US 4 over Smith River bridge rehabilitation or replacement**

Regionally Significant:No | Managed By: DOT | CAA Code:ATT | All Project Cost **$4,975,141.35**

Phase	Year	Federal	State	Other	Total	Funding
PE	2018	$96,721	$24,180	$0	$120,902	Bridge On/Off System, NH Highway Fund
ROW	2018	$4,836	$1,209	$0	$6,045	Bridge On/Off System, NH Highway Fund
		$101,557	**$25,389**	**$0**	**$126,947**	

RPC: CNHRPC

Approved Dollars

East Kingston 26942

Approved Scope: **NH 107A over B&M Railroad & Road, Deck Replacement and Rehabilitation, Br No 061/064**

Regionally Significant:No | Managed By: DOT | CAA Code:ATT | All Project Cost **$1,638,203.73**

Phase	Year	Federal	State	Other	Total	Funding
PE	2016	$165,000	$0	$0	$165,000	STP-Off System Bridge, Toll Credit
		$165,000	**$0**	**$0**	**$165,000**	

RPC: RPC

Proposed Dollars

East Kingston 26942

Proposed Scope: **No Change**

Regionally Significant:No | Managed By: DOT | CAA Code:ATT | All Project Cost **$1,562,026.40**

Phase	Year	Federal	State	Other	Total	Funding
PE	2016	$165,000	$0	$0	$165,000	Bridge Off System, Toll Credit
Construction	2018	$1,171,526	$0	$0	$1,171,526	STP-Off System Bridge, Toll Credit
		$1,336,526	**$0**	**$0**	**$1,336,526**	

RPC: RPC

Project is being removed from the STIP.

Approved Dollars

Lebanon 25821

Approved Scope: **Bridge Rehabiliatation, for Redlist Bridge carrying Mascoma Street over I-89 (Br No 103/116)**

Regionally Significant:No Managed By: DOT CAA Code:ATT All Project Cost **$5,645,337.68**

Phase	Year	Federal	State	Other	Total	Funding
ROW	2015	$27,500	$0	$0	$27,500	STP-State Flexible, Toll Credit
		$27,500	**$0**	**$0**	**$27,500**	

RPC: UVLSRPC

Project is being removed from the STIP.

Proposed Dollars

Lebanon 25821

Proposed Scope: **Bridge Rehabiliatation, for Redlist Bridge carrying Mascoma Street over I-89 (Br No 103/116)**

Regionally Significant:No Managed By: DOT CAA Code:ATT All Project Cost **$5,426,621.01**

Phase	Year	Federal	State	Other	Total	Funding
		$0	**$0**	**$0**	**$0**	

RPC: UVLSRPC

Approved Dollars

Manchester, Mta-2 2496

Approved Scope: **Operating assistance for capital maintenance of Manchester Transit Authority Fleet.**

Regionally Significant:No Managed By: Other CAA Code:E-21 All Project Cost **$2,291,805.10**

Phase	Year	Federal	State	Other	Total	Funding
PE	2015	$424,000	$0	$106,000	$530,000	FTA 5307 Capital and Operating Program, Other
PE	2016	$445,824	$0	$111,456	$557,280	FTA 5307 Capital and Operating Program, Other
PE	2017	$469,463	$0	$117,366	$586,828	FTA 5307 Capital and Operating Program, Other
PE	2018	$494,158	$0	$123,539	$617,697	FTA 5307 Capital and Operating Program, Other
		$1,833,444	**$0**	**$458,361**	**$2,291,805**	

RPC: SNHPC

Proposed Dollars

Manchester, Mta-2 2496

Proposed Scope: **No Change**

Regionally Significant:No Managed By: Other CAA Code:E-21 All Project Cost **$2,237,175.49**

Phase	Year	Federal	State	Other	Total	Funding
PE	2015	$424,000	$0	$106,000	$530,000	FTA 5307 Capital and Operating Program, Other
Other	2016	$432,000	$0	$108,000	$540,000	FTA 5307 Capital and Operating Program, Other
Other	2017	$454,906	$0	$113,726	$568,632	FTA 5307 Capital and Operating Program, Other
Other	2018	$478,835	$0	$119,709	$598,543	FTA 5307 Capital and Operating Program, Other
		$1,789,740	**$0**	**$447,435**	**$2,237,175**	

RPC: SNHPC

Approved Dollars

Manchester, Mta-5 5917

Approved Scope: **Replacement of ADA Paratransit Vans.**

Regionally Significant:No Managed By: Other CAA Code:E-30 All Project Cost **$643,478.53**

Phase	Year	Federal	State	Other	Total	Funding
PE	2015	$133,600	$0	$33,400	$167,000	FTA 5307 Capital and Operating Program, Other
PE	2016	$149,434	$0	$37,358	$186,792	FTA 5307 Capital and Operating Program, Other
PE	2017	$231,749	$0	$57,937	$289,687	FTA 5307 Capital and Operating Program, Other
		$514,783	**$0**	**$128,696**	**$643,479**	

RPC: SNHPC

Proposed Dollars

Manchester, Mta-5 5917

Proposed Scope: **No Change**

Regionally Significant:No Managed By: Other CAA Code:E-30 All Project Cost **$628,704.00**

Phase	Year	Federal	State	Other	Total	Funding
PE	2015	$133,600	$0	$33,400	$167,000	FTA 5307 Capital and Operating Program, Other
Other	2016	$144,800	$0	$36,200	$181,000	FTA 5307 Capital and Operating Program, Other
Other	2017	$224,563	$0	$56,141	$280,704	FTA 5307 Capital and Operating Program, Other
		$502,963	**$0**	**$125,741**	**$628,704**	

RPC: SNHPC

Proposed Dollars

Orford 40366

Proposed Scope: **Bridge Replacement is anticpated for the bridge carrying NH Route 25A over Brackett Brook (217/112)**

Regionally Significant:No Managed By: DOT CAA Code:ATT All Project Cost **$3,207,832.72**

Phase	Year	Federal	State	Other	Total	Funding
PE	2017	$175,729	$0	$0	$175,729	Bridge On/Off System, Toll Credit
PE	2018	$96,721	$24,180	$0	$120,902	Bridge On/Off System, NH Highway Fund
		$272,450	**$24,180**	**$0**	**$296,630**	

RPC: UVLSRPC

Approved Dollars

Ossipee 14749

Approved Scope: **NH 16/NH 25; Replace three Red List bridges, 137/299, 137/297, 152/268 & Resurface approx 3.2 miles.**

Regionally Significant:No Managed By: DOT CAA Code:ATT All Project Cost **$10,995,407.71**

Phase	Year	Federal	State	Other	Total	Funding
PE	2015	$440,000	$0	$0	$440,000	National Highway System, Toll Credit
PE	2016	$27,500	$0	$0	$27,500	National Highway System, Toll Credit
PE	2017	$22,704	$0	$0	$22,704	National Highway System, Toll Credit
ROW	2015	$192,500	$0	$0	$192,500	National Highway System, Toll Credit
ROW	2016	$110,000	$0	$0	$110,000	National Highway System, Toll Credit
ROW	2017	$22,704	$0	$0	$22,704	National Highway System, Toll Credit
		$815,408	**$0**	**$0**	**$815,408**	

RPC: LRPC

Proposed Dollars

Ossipee 14749

Proposed Scope: **No Change**

Regionally Significant:No Managed By: DOT CAA Code:ATT All Project Cost **$21,022,764.87**

Phase	Year	Federal	State	Other	Total	Funding
PE	2015	$440,000	$0	$0	$440,000	National Highway System, Toll Credit
PE	2016	$440,000	$0	$0	$440,000	National Highway System, Toll Credit
PE	2017	$1,021,680	$0	$0	$1,021,680	National Highway System, Toll Credit
PE	2018	$11,715	$0	$0	$11,715	National Highway System, Toll Credit
ROW	2015	$192,500	$0	$0	$192,500	National Highway System, Toll Credit
ROW	2016	$110,000	$0	$0	$110,000	National Highway System, Toll Credit
ROW	2017	$22,704	$0	$0	$22,704	National Highway System, Toll Credit
Construction	2018	$3,748,884	$0	$0	$3,748,884	National Highway System, Toll Credit
		$5,987,484	**$0**	**$0**	**$5,987,484**	

RPC: LRPC

Approved Dollars

Statewide PVMRK

Approved Scope: **Statewide Pavement Marking Annual Project**

Regionally Significant:No Managed By: DOT CAA Code:ALL All Project Cost **$47,763,636.36**

Phase	Year	Federal	State	Other	Total	Funding
Construction	2015	$3,100,000	$0	$0	$3,100,000	STP-State Flexible, Toll Credit
Construction	2016	$3,100,000	$0	$0	$3,100,000	STP-State Flexible, Toll Credit
Construction	2017	$2,181,818	$0	$0	$2,181,818	STP-State Flexible, Toll Credit
Construction	2018	$1,745,455	$436,364	$0	$2,181,818	NH Highway Fund, STP-State Flexible
		$10,127,273	**$436,364**	**$0**	**$10,563,636**	

RPC: Undetermined

Proposed Dollars

Statewide PVMRK

Proposed Scope: **No Change**

Regionally Significant:No Managed By: DOT CAA Code:ALL All Project Cost **$49,600,000.00**

Phase	Year	Federal	State	Other	Total	Funding
Construction	2015	$3,100,000	$0	$0	$3,100,000	STP-State Flexible, Toll Credit
Construction	2016	$3,100,000	$0	$0	$3,100,000	STP-State Flexible, Toll Credit
Construction	2017	$3,100,000	$0	$0	$3,100,000	STP-State Flexible, Toll Credit
Construction	2018	$3,100,000	$0	$0	$3,100,000	STP-State Flexible, Toll Credit
		$12,400,000	**$0**	**$0**	**$12,400,000**	

RPC: Undetermined

Approved Dollars

Statewide RCTRL

Approved Scope: **RECREATIONAL TRAILS FUND ACT- PROJECTS SELECTED ANNUALLY**

Regionally Significant:No Managed By: Other CAA Code:ALL All Project Cost **$19,206,445.00**

Phase	Year	Federal	State	Other	Total	Funding
PE	2015	$84,700	$0	$48,000	$132,700	Non Participating, Recreational Trails, Toll Credit
PE	2016	$80,000	$0	$20,000	$100,000	DRED, Recreational Trails
PE	2017	$80,000	$0	$20,000	$100,000	DRED, Recreational Trails
PE	2018	$80,000	$0	$20,000	$100,000	DRED, Recreational Trails
ROW	2015	$5,390	$0	$100	$5,490	Non Participating, Recreational Trails, Toll Credit
ROW	2016	$20,000	$0	$5,000	$25,000	DRED, Recreational Trails
ROW	2017	$20,000	$0	$5,000	$25,000	DRED, Recreational Trails
ROW	2018	$20,000	$0	$5,000	$25,000	DRED, Recreational Trails
Construction	2015	$1,528,346	$820,000	$104,609	$2,452,955	Betterment, DRED, Recreational Trails, Toll Credit
Construction	2016	$1,150,000	$0	$287,500	$1,437,500	DRED, Recreational Trails
Construction	2017	$900,000	$0	$225,000	$1,125,000	DRED, Recreational Trails
Construction	2018	$900,000	$0	$225,000	$1,125,000	DRED, Recreational Trails
		$4,868,436	**$820,000**	**$965,209**	**$6,653,645**	

RPC: Undetermined

Proposed Dollars

Statewide RCTRL

Proposed Scope: **No Change**

Regionally Significant:No Managed By: Other CAA Code:ALL All Project Cost **$19,078,987.18**

Phase	Year	Federal	State	Other	Total	Funding
PE	2015	$84,700	$0	$48,000	$132,700	Non Participating, Recreational Trails, Toll Credit
PE	2016	$33,600	$0	$8,400	$42,000	DRED, Recreational Trails
ROW	2015	$5,390	$0	$100	$5,490	Non Participating, Recreational Trails, Toll Credit
Construction	2015	$1,528,346	$820,000	$104,609	$2,452,955	Betterment, DRED, Recreational Trails, Toll Credit
Construction	2016	$1,121,680	$0	$280,420	$1,402,100	DRED, Recreational Trails
Other	2016	$94,720	$0	$23,680	$118,400	DRED, Recreational Trails
Other	2017	$1,032,000	$0	$258,000	$1,290,000	DRED, Recreational Trails
Other	2018	$1,065,024	$0	$266,256	$1,331,280	DRED, Recreational Trails
		$4,965,460	**$820,000**	**$989,465**	**$6,774,925**	

RPC: Undetermined

Approved Dollars

Statewide-Rwis 25198

Approved Scope: **To install Road and Weather systems around the State.**

Regionally Significant:No Managed By: DOT CAA Code:ATT All Project Cost **$525,800.00**

Phase	Year	Federal	State	Other	Total	Funding
Construction	2016	$431,200	$0	$0	$431,200	STP-State Flexible, Toll Credit
		$431,200	**$0**	**$0**	**$431,200**	

RPC: Undetermined

Proposed Dollars

Statewide-Rwis 25198

Proposed Scope: **No Change**

Regionally Significant:No Managed By: DOT CAA Code:ATT All Project Cost **$543,155.00**

Phase	Year	Federal	State	Other	Total	Funding
PE	2016	$0	$17,355	$0	$17,355	Turnpike Capital
Construction	2016	$431,200	$0	$0	$431,200	STP-State Flexible, Toll Credit
		$431,200	**$17,355**	**$0**	**$448,555**	

RPC: Undetermined

Proposed Dollars

Troy 40371

Proposed Scope: **Bridge Replacement of the bridge (Br No 096/091) carrying NH Route 12 over NHRR (ABD)**

Regionally Significant:No Managed By: DOT CAA Code:ATT All Project Cost **$6,560,037.39**

Phase	Year	Federal	State	Other	Total	Funding
PE	2017	$175,729	$0	$0	$175,729	Bridge On/Off System, Toll Credit
PE	2018	$241,803	$60,451	$0	$302,254	Bridge On/Off System, NH Highway Fund
		$417,532	**$60,451**	**$0**	**$477,983**	

RPC: SWRPC

Project is being removed from the STIP.

Approved Dollars

Whitefield 14425

Approved Scope: **Pedestrian improvements to Kings Square intersection/Town common area of Whitefield [04-66TE]**

Regionally Significant:No Managed By: Muni/Local CAA Code:ATT All Project Cost **$155,020.00**

Phase	Year	Federal	State	Other	Total	Funding
PE	2015	$800	$0	$200	$1,000	STP-Enhancement, Towns
Construction	2015	$101,616	$0	$25,404	$127,020	STP-Enhancement, Towns
		$102,416	**$0**	**$25,604**	**$128,020**	

RPC: NCC

Project is being removed from the STIP.

Proposed Dollars

Whitefield 14425

Proposed Scope: **No Change**

Regionally Significant:No Managed By: Muni/Local CAA Code:ATT All Project Cost **$12,200.35**

Phase	Year	Federal	State	Other	Total	Funding
		$0	**$0**	**$0**	**$0**	

RPC: NCC

Revision Report

A04

Scope Only Changes

Pending

3/14/2016

FTA 5307 Boston UZA

Regionally Significant:No

Managed By: DOT

CAA Code: ATT

FTA5307

Current Scope: ---

Proposed Scope: FTA SECTION 5307 apportioned funds for Boston UZA for NHDOT projects.

Phase	Year	Federal	State	Other	Total	Funding
PE	2015	$2,815,664	$0	$703,916	$3,519,581	FTA 5307 Capital and Operating Program, Other
PE	2016	$2,905,766	$0	$726,441	$3,632,207	FTA 5307 Capital and Operating Program, Other
PE	2017	$2,998,750	$0	$749,688	$3,748,438	FTA 5307 Capital and Operating Program, Other
PE	2018	$3,094,710	$0	$773,678	$3,868,388	FTA 5307 Capital and Operating Program, Other
		$11,814,890	**$0**	**$2,953,723**	**$14,768,613**	

MPO: RPC, SNHPC

All Project Cost

$50,521,335

Nashua

Regionally Significant:No

Managed By: DOT

CAA Code: LMP

10136B

Current Scope: ---

Proposed Scope: Phase II, Widening and improvements from Somerset Pkwy to Sunapee St & Blackstone Dr to Celina Ave

Phase	Year	Federal	State	Other	Total	Funding
PE	2018	$1,934,424	$0	$0	$1,934,424	National Highway System, Toll Credit
		$1,934,424	**$0**	**$0**	**$1,934,424**	

MPO: NRPC

All Project Cost

$14,443,297

Includes indirects and inflation

Revision Report

A04

Scope Only Changes

Pending

3/14/2016

PLAISTOW - KINGSTON

Regionally Significant:No

Managed By: DOT

CAA Code: 0

10044E

Current Scope: Reconstruct from Town Line approximately 1.8 miles.

Proposed Scope: Reconstruct NH 125: anticipated 3 lanes, from south of town line northerly approx 1.8 mi

Phase	Year	Federal	State	Other	Total	Funding
PE	2017	$567,600	$0	$0	$567,600	National Highway System, Toll Credit
PE	2018	$2,190,754	$0	$0	$2,190,754	National Highway System, Toll Credit
		$2,758,354	**$0**	**$0**	**$2,758,354**	

MPO: RPC

All Project Cost

$31,158,009

Wildcat Transit Fleet Replacement Phase VI

Regionally Significant:No

Managed By: Other

CAA Code: ATT

40419

Current Scope: ---

Proposed Scope: UNH/WILDCAT TRANSIT: Replace six existing cutaway small transit vehicles

Phase	Year	Federal	State	Other	Total	Funding
Other	2015	$420,000	$0	$105,000	$525,000	FTA 5307 Capital and Operating Program, Other
		$420,000	**$0**	**$105,000**	**$525,000**	

MPO: RPC, SRPC

All Project Cost

$525,000

Includes indirects and inflation

	2015 Improvement Program					2016 Improvement Program				
	*Federal Resouces	State Resource	Local/Other Resource	Total Resource	Total Programmed	*Federal Resouces	State Resource	Local/Other Resource	Total Resource	Total Programmed
	Available	Available	Available	Available	Inflated	Available	Available	Available	Available	Inflated
FHWA (Federal-Aid with Match)										
Bridge Off System	$ 3,672,842.52	$ -	$ 1,320,000.00	$ 4,992,842.52	$ 5,465,156.01	$ -	$ -	$ 960,000.00	$ 960,000.00	$ 6,852,240.00
Bridge On System	$ -	$ -	$ 1,403,141.95	$ 1,403,141.95	$ 37,461.85	$ -	$ -	$ -	$ -	$ -
Bridge On/Off System	$ -	$ -	$ -	$ -	$ 7,623,891.27	$ -	$ -	$ 712,080.00	$ 712,080.00	$ 14,687,174.40
Congestion Mitigation and Air Quality Program	$ 9,883,163.83	$ -	$ 160,927.00	$ 10,044,090.83	$ 12,449,222.49	$ 10,102,892.00	$ -	$ 782,687.25	$ 10,885,579.25	$ 8,987,378.65
Highway Safety Improvement Program (HSIP)	$ 8,813,692.22	$ -	$ -	$ 8,813,692.22	$ 8,100,000.00	$ 8,366,127.00	$ -	$ -	$ 8,366,127.00	$ 8,100,000.00
Interstate Maintenance	$ -	$ -	$ -	$ -	$ 11,307,638.13	$ -	$ -	$ -	$ -	$ 10,504,271.43
National Highway Freight	$ -	$ -	$ -	$ -	$ -	$ 4,709,130.00		$ 204,336.00	$ 4,913,466.00	$ -
National Highway System	$ 51,769,470.03	$ -	$ -	$ 51,769,470.03	$ 48,551,890.57	$ 89,186,940.00	$ -	$ -	$ 89,186,940.00	$ 35,079,586.73
NSTI National Summer Transportation Institute	$ -	$ -	$ -	$ -	$ 30,000.00	$ -	$ -	$ 312,500.00	$ 312,500.00	$ 30,000.00
RL - Rail Highway				$ -		$ 1,750,000.00	$ -	$ -	$ 1,750,000.00	$ 1,044,000.00
Recreational Trails	$ 1,255,265.02	$ -	$ 104,609.00	$ 1,359,874.02	$ 1,378,436.00	$ 1,267,944.00	$ -	$ -	$ 1,267,944.00	$ 1,250,000.00
Redistribution	$ 561,527.29	$ -	$ -	$ 561,527.29	$ 2,189,994.42	$ 499,732.00	$ -	$ -	$ 499,732.00	$ 44,000.00
Restoration	$ -	$ -	$ -	$ -	$ 716,713.60	$ -	$ -	$ 638,420.00	$ 638,420.00	$ -
Safe Routes to School	$ -	$ -	$ -	$ -	$ 676,696.39	$ -	$ -	$ -	$ -	$ 1,446,678.00
TAP - Transportation Alternatives	$ 2,433,051.58	$ -	$ 39,057.86	$ 2,472,109.44	$ 156,231.44	$ 2,623,489.00	$ -	$ 719,454.22	$ 3,342,943.22	$ 2,553,680.00
Transportation and Community and System Preservation	$ -	$ -	$ 55,000.00	$ 55,000.00	$ 220,000.00	$ -	$ -	$ 200.00	$ 200.00	$ -
STP-5 to 200K	$ 5,598,576.51	$ -	$ 325,783.80	$ 5,924,360.31	$ 3,844,220.42	$ 7,266,622.00	$ -	$ 212,245.72	$ 7,478,867.72	$ 4,026,847.42
STP-Areas Less Than 200K	$ 8,534,433.60	$ -	$ -	$ 8,534,433.60	$ 1,775,340.03	$ -	$ -	$ -	$ -	$ 75,104.00
STP-Areas Over 200K	$ 1,495,222.50	$ -	$ -	$ 1,495,222.50	$ 1,521,795.89	$ 5,084,135.00	$ -	$ 4,023.80	$ 5,088,158.80	$ 4,548,075.93
STP-DBE	$ -	$ -	$ -	$ -	$ 90,000.00	$ -	$ -	$ -	$ -	$ 90,000.00
STP-Enhancement	$ -	$ -	$ 1,651,112.75	$ 1,651,112.75	$ 8,278,835.17	$ -	$ -	$ -	$ -	$ 16,095.20
STP-Hazard Elimination	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
STP-Non Urban Areas Under 5K	$ 8,764,611.73	$ -	$ -	$ 8,764,611.73	$ 1,218,800.00	$ 9,093,276.00	$ -	$ -	$ 9,093,276.00	$ 1,548,905.60
STP-Off System Bridge	$ 2,935,857.09	$ -	$ -	$ 2,935,857.09	$ -	$ 3,672,842.00	$ -	$ -	$ 3,672,842.00	$ 541,200.00
STP-Rail	$ 1,099,999.54	$ -	$ -	$ 1,099,999.54	$ -	$ -	$ -	$ 308,753.92	$ 308,753.92	$ -
STP-Safety	$ 662,757.15	$ -	$ -	$ 662,757.15	$ -	$ -	$ -	$ -	$ -	$ -
STP-State Flexible	$ 50,623,418.06	$ -	$ 1,431,444.66	$ 52,054,862.72	$ 34,412,907.98	$ 15,590,944.00	$ -	$ -	$ 15,590,944.00	$ 35,944,694.97
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
TIFIA	$ -	$ -	$ -	$ -	$ -	$ 199,970,619.20	$ -	$ -	$ 199,970,619.20	$ 199,970,619.16
TIGER Grants	$ 4,642,152.80	$ -	$ -	$ 4,642,152.80	$ 4,642,152.80	$ -	$ -	$ -	$ -	$ -
TIGER Grants (Maine)	$ 25,000,000.00	$ -	$ -	$ 25,000,000.00	$ 25,000,000.00	$ -	$ -	$ -	$ -	$ -
Bridge Special	$ 1,381,040.00	$ -	$ -	$ 1,381,040.00	$ 1,381,040.00	$ 640,000.00	$ -	$ 33,947.80	$ 673,947.80	$ 673,947.80
National Scenic Byways	$ 400,000.00	$ -	$ -	$ 400,000.00	$ 400,000.00	$ 20,000.00	$ -	$ -	$ 20,000.00	$ 20,000.00
FHWA Earmarks	$ 3,245,163.02	$ -	$ 189,910.75	$ 3,435,073.77	$ 3,245,163.02	$ 5,506,258.10	$ -	$ -	$ 5,506,258.10	$ 5,506,258.10
Training and Education	$ 150,000.00	$ -	$ -	$ 150,000.00	$ 150,000.00	$ 150,000.00	$ -		$ 150,000.00	$ 150,000.00
National Highway (NHPP) Exempt	$ 2,070,965.00	$ -	$ -	$ 2,070,965.00	$ 2,070,965.00	$ 2,499,932.00	$ -	$ -	$ 2,499,932.00	$ -
Redistribution (Year End)	$ 10,061,275.00			$ 10,061,275.00		$ -			$ -	
Toll Credit	$ -	$ -	$ -	$ -	$ 24,042,513.02	$ -	$ -	$ -	$ -	$ 27,841,567.48
Total	$ 205,054,484.49	$ -	$ 6,680,987.77	$ 211,735,472.25	$ 210,977,065.50	$ 368,000,882.30	$ -	$ 4,888,648.72	$ 372,889,531.01	$ 371,532,324.87
FTA (Federal-Aid with Match)										
FTA5307	$ 10,536,339.89	$ -	$ 3,451,790.31	$ 13,988,130.19	$ 13,880,003.00	$ 10,483,937.84	$ -	$ 3,366,896.16	$ 13,850,834.00	$ 14,138,748.00
FTA5307_NHDOT	$ 2,889,264.42	$ -	$ 703,916.11	$ 3,593,180.53	$ 3,611,580.53	$ 2,981,720.89	$ -	$ 726,441.42	$ 3,708,162.31	$ 3,727,151.11
FTA5309	$ 1,600,000.00	$ -	$ 400,000.00	$ 2,000,000.00	$ 2,000,000.00	$ 800,000.00	$ -	$ 200,000.00	$ 1,000,000.00	$ 1,000,000.00
FTA5310	$ 2,052,299.20	$ -	$ 513,074.80	$ 2,565,374.00	$ 2,565,374.00	$ 2,201,919.65	$ -	$ 544,307.35	$ 2,746,227.00	$ 2,746,227.00
FTA5311	$ 6,673,240.00	$ -	$ 1,668,310.00	$ 8,341,550.00	$ 8,341,550.00	$ 6,886,784.00	$ -	$ 1,721,696.00	$ 8,608,480.00	$ 8,608,480.00
FTA5339	$ 2,045,178.40	$ -	$ 511,294.60	$ 2,556,473.00	$ 2,556,473.00	$ 2,603,869.47	$ -	$ 619,665.49	$ 3,223,534.96	$ 3,223,534.96
Prior Grant Funds	$ 7,072,385.81	$ -	$ -	$ 7,072,385.81		$ 7,485,909.22	$ -	$ -	$ -	$ -
Total	$ 32,868,707.72	$ -	$ 7,248,385.81	$ 40,117,093.54	$ 32,954,980.53	$ 33,444,141.07	$ -	$ 7,179,006.42	$ 33,137,238.27	$ 33,444,141.07
VA/FTA Total	$ 237,923,192.21	$ -	$ 13,929,373.58	$ 251,852,565.79	$ 243,932,046.03	$ 401,445,023.37	$ -	$ 12,067,655.14	$ 406,026,769.28	$ 404,976,465.94
Innovated Financing										
GARVEE Bond Funds	$ -	$ 28,344,541.00	$ -	$ 28,344,541.00	$ 28,344,541.00	$ -	$ 773,779.82	$ -	$ 773,779.82	$ 773,779.82
Total	$ -	$ 28,344,541.00	$ -	$ 28,344,541.00	$ 28,344,541.00	$ -	$ 773,779.82	$ -	$ 773,779.82	$ 773,779.82
StateFund Sources										
Turnpike Capital	$ -	$ 31,727,910.16	$ -	$ 31,727,910.16	$ 31,727,910.16	$ -	$ 48,780,000.00	$ -	$ 48,780,000.00	$ 48,780,000.00
Turnpike Program	$ -	$ 30,563.51	$ -	$ 286,690.95	$ 30,563.51	$ -	$ 23,992.12	$ -	$ 23,992.12	$ 23,248.18
Turnpike Renewal & Replacement	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,700,000.00	$ -	$ 9,700,000.00	$ 9,700,000.00
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ 31,758,473.67	$ -	$ 54,092,355.03	$ 31,758,473.67	$ -	$ 58,503,992.12	$ -	$ 58,503,992.12	$ 58,503,248.18
ALL SOURCES TOTAL	$ 237,923,192.21	$ 60,103,014.67	$ 13,929,373.58	$ 334,289,461.82	$ 304,035,060.70	$ 401,445,023.37	$ 59,277,771.94	$ 12,067,655.14	$ 465,304,541.22	$ 464,253,493.94

	2017 Improvement Program					2018 Improvement Program				
	Federal Resouces Available	State Resource Available	Local/Other Resource Available	Total Resource Available	Total Programmed Inflated	Federal Resouces Available	State Resource Available	Local/Other Resource Available	Total Resource Available	Total Programmed Inflated
FHWA (Federal-Aid with Match)										
Bridge Off System	$ -	$ -	$ 930,000.00	$ 930,000.00	$ 5,024,860.80	$ -	$ -	$ 930,000.00	$ 930,000.00	$ 3,720,000.00
Bridge On System	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Bridge On/Off System	$ -	$ -	$ -	$ -	$ 6,812,246.85	$ -	$ -	$ -	$ -	$ 7,850,943.49
Congestion Mitigation and Air Quality Program	$ 10,634,708.23	$ -	$ 97,455.54	$ 10,732,163.78	$ 4,028,269.82	$ 11,194,519.28	$ -	$ -	$ 11,194,519.28	$ 2,663,478.28
Highway Safety Improvement Program (HSIP)	$ 8,806,519.93	$ -	$ -	$ 8,806,519.93	$ 8,100,000.00	$ 9,270,095.13	$ -	$ -	$ 9,270,095.13	$ 8,100,000.00
Interstate Maintenance	$ -	$ -	$ -	$ -	$ 9,847,596.54	$ -	$ -	$ -	$ -	$ 5,744,434.12
National Highway Freight	$ 4,957,018.60		$ 105,437.38	$ 5,062,455.98		$ 5,217,956.06			$ 5,217,956.06	
National Highway System	$ 93,881,740.52	$ -	$ -	$ 93,881,740.52	$ 47,638,688.98	$ 98,823,675.34	$ -	$ 169,262.13	$ 98,992,937.48	$ 62,001,151.90
NSTI National Summer Transportation Institute	$ -	$ -	$ 258,000.00	$ 258,000.00	$ 30,000.00	$ -	$ -	$ -	$ -	$ 30,000.00
RL - Rail Highway	$ 1,842,120.00		$ -	$ 1,842,120.00		$ 1,939,089.20			$ 1,939,089.20	
Recreational Trails	$ 1,334,688.57	$ -	$ -	$ 1,334,688.57	$ 1,032,000.00	$ 1,404,946.58	$ -	$ 266,256.00	$ 1,671,202.58	$ 1,065,024.00
Redistribution	$ 526,037.89	$ -	$ -	$ 526,037.89	$ 45,408.00	$ 553,728.53	$ -	$ -	$ 553,728.53	$ -
Restoration	$ -	$ -	$ 638,420.00	$ 638,420.00	$ -	$ -	$ -	$ -	$ -	$ -
Safe Routes to School	$ -	$ -	$ -	$ -	$ 1,111,900.00	$ -	$ -	$ -	$ -	$ 1,035,000.00
TAP - Transportation Alternatives	$ 2,761,589.46	$ -	$ 41,280.00	$ 2,802,869.46	$ 2,553,680.00	$ 2,906,959.53	$ -	$ 638,420.00	$ 3,545,379.53	$ 2,553,680.00
Transportation and Community and System Preservation	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
STP-5 to 200K	$ 7,649,136.98	$ -	$ -	$ 7,649,136.98	$ 1,440,767.77	$ 8,051,787.55	$ -	$ -	$ 8,051,787.55	$ 4,827,978.38
STP-Areas Less Than 200K	$ -	$ -	$ -	$ -	$ 1,807,132.72	$ -	$ -	$ -	$ -	$ 38,688.49
STP-Areas Over 200K	$ 5,351,763.87	$ -	$ -	$ 5,351,763.87	$ 5,924,168.52	$ 5,633,480.72	$ -	$ -	$ 5,633,480.72	$ 21,573.20
STP-DBE	$ -	$ -	$ -	$ -	$ 90,000.00	$ -	$ -	$ -	$ -	$ 90,000.00
STP-Enhancement	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
STP-Hazard Elimination	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
STP-Non Urban Areas Under 5K	$ 9,571,946.05	$ -	$ -	$ 9,571,946.05	$ 3,154,493.76	$ 10,075,813.29	$ -	$ -	$ 10,075,813.29	$ 3,201,157.46
STP-Off System Bridge	$ 3,866,180.40	$ -	$ -	$ 3,866,180.40	$ 54,489.60	$ 4,069,696.14	$ -	$ -	$ 4,069,696.14	$ 937,221.12
STP-Rail	$ -	$ -	$ 189,888.00	$ 189,888.00	$ -	$ -	$ -	$ -	$ -	$ -
STP-Safety	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
STP-State Flexible	$ 16,411,651.29	$ -	$ -	$ 16,411,651.29	$ 35,330,809.73	$ 17,275,560.62	$ -	$ -	$ 17,275,560.62	$ 31,360,196.67
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
TIFIA	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
TIGER Grants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
TIGER Grants (Maine)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Bridge Special	$ 673,689.60	$ -	$ 2,476.80	$ 676,166.40	$ 676,166.40	$ 4,237,199.63	$ -	$ 64,997.35	$ 4,302,196.98	$ 1,299,946.99
National Scenic Byways	$ 400,000.00	$ -	$ -	$ 400,000.00	$ 400,000.00	$ 20,000.00	$ -	$ -	$ 20,000.00	$ 20,000.00
FHWA Earmarks	$ 1,853,554.56	$ -	$ -	$ 1,853,554.56	$ 1,853,554.56	$ 3,292,512.11	$ -	$ 769,940.73	$ 4,062,452.84	$ 4,062,452.84
Training and Education	$ 150,000.00	$ -		$ 150,000.00	$ 150,000.00	$ 150,000.00	$ -	$ -	$ 150,000.00	$ 150,000.00
National Highway (NHPP) Exempt	$ 2,631,528.42	$ -	$ -	$ 2,631,528.42	$ -	$ 2,070,965.00	$ -	$ -	$ 2,070,965.00	$ -
				$ -					$ -	
Toll Credit	$ -	$ -	$ -	$ -	$ 28,815,285.91	$ -	$ -	$ -	$ -	$ 20,197,054.81
Total	$ 173,303,874.38	$ -	$ 2,262,957.72	$ 175,566,832.10	$ 165,921,519.95	$ 186,187,984.70	$ -	$ 2,838,876.21	$ 189,026,860.92	$ 160,969,981.76
FTA (Federal-Aid with Match)										
FTA5307	$ 7,719,270.30	$ -	$ 3,029,945.20	$ 10,749,215.50	$ 10,868,414.08	$ 7,396,379.04	$ -	$ 3,120,540.19	$ 10,516,919.23	$ 10,516,919.23
FTA5307_NHDOT	$ 3,037,943.07	$ -	$ 749,687.55	$ 3,787,630.61	$ 3,797,428.83	$ 3,094,710.19	$ -	$ 773,677.55	$ 3,868,387.74	$ 3,868,387.74
FTA5309	$ 800,000.00	$ -	$ 200,000.00	$ 1,000,000.00	$ 1,000,000.00		$ -		$ -	
FTA5310	$ 2,185,748.00	$ -	$ 546,437.00	$ 2,732,185.00	$ 2,732,185.00	$ 2,255,692.00	$ -	$ 563,923.00	$ 2,819,615.00	$ 2,819,615.00
FTA5311	$ 7,107,160.80	$ -	$ 1,776,790.20	$ 8,883,951.00	$ 8,883,951.00	$ 7,334,590.40	$ -	$ 1,833,647.60	$ 9,168,238.00	$ 9,168,238.00
FTA5339	$ 2,319,796.94	$ -	$ 579,949.23	$ 2,899,746.17	$ 2,899,746.17	$ 2,470,639.80	$ -	$ 617,659.95	$ 3,088,299.75	$ 3,088,299.75
Prior Grant Funds	$ 7,011,805.98	$ -	$ -	$ -	$ -	$ 6,909,448.29	$ -	$ -	$ -	$ -
$ -	$ 30,181,725.08	$ -	$ 6,882,809.18	$ 30,052,728.28	$ 30,181,725.08	$ 29,461,459.72	$ -	$ 6,909,448.29	$ 29,461,459.72	$ 29,461,459.72
Total	$ 203,485,599.47	$ -	$ 9,145,766.90	$ 205,619,560.38	$ 196,103,245.04	$ 215,649,444.42	$ -	$ 9,748,324.50	$ 218,488,320.64	$ 190,431,441.48
Innovated Financing										
GARVEE Bond Funds	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
StateFund Sources										
Turnpike Capital	$ -	$ 43,060,000.00	$ -	$ 43,060,000.00	$ 43,060,000.00	$ -	$ 31,280,000.00	$ -	$ 31,280,000.00	$ 31,280,000.00
Turnpike Program	$ -	$ 27,187.31	$ -	$ 27,187.31	$ 27,187.31	$ -	$ 26,445.48	$ -	$ 26,445.48	$ 26,445.48
Turnpike Renewal & Replacement	$ -	$ 9,600,000.00	$ -	$ 9,600,000.00	$ 9,600,000.00	$ -	$ 11,500,000.00	$ -	$ 11,500,000.00	$ 11,500,000.00
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ 52,687,187.31	$ -	$ 52,687,187.31	$ 52,687,187.31	$ -	$ 42,806,445.48	$ -	$ 42,806,445.48	$ 42,806,445.48
Total	$ 203,485,599.47	$ 52,687,187.31	$ 9,145,766.90	$ 258,306,747.69	$ 248,790,432.35	$ 215,649,444.42	$ 42,806,445.48	$ 9,748,324.50	$ 261,294,766.12	$ 233,237,886.96

ROCKINGHAM PLANNING COMMISSION

Attachment #3

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MEMORANDUM

To: MPO Transportation Advisory Committee

From: Scott Bogle, Senior Transportation Planner

Date: March 16, 2016

RE: Draft Existing Conditions and Key Issues Elements for Long Range Plan

At each of our next three monthly TAC meetings Staff will ask the TAC to review updated components of the Long Range Transportation Plan, with a goal of having a complete draft for review at the July TAC and Policy Committee meetings. At the February meeting we reviewed draft Goals and preliminary work on objectives and policies. At the March meeting we will ask the TAC for feedback on draft sections addressing Existing Conditions and Key Issues & Challenges.

Existing Conditions

The Existing Conditions chapter provides a snapshot of the region's transportation system, broken out by transportation mode. The Highway section describes the region's highway network, road classifications, traffic volumes, areas of major congestion, crash data and major changes to the system since the last update to the Long Range Plan. The Transit section describes the range of public and private transportation options in the region, including intercity bus and rail, regional public transportation, special needs transportation, and efforts at improving coordination of public transit and human service transportation. The Bicycle & Pedestrian element describes the current range of bicycle and pedestrian facilities in the region, variation by municipality, local and regional initiatives to improve safety for all road users through the 5Es approach (Engineering, Education, Encouragement, Enforcement and Evaluation.

The Existing Conditions chapter has as its core the analogous portion of the Regional Master Plan Transportation chapter. Updates include most recent data on traffic volumes, crashes, overall vehicle miles traveled, commute mode share, transit services and transportation demand management efforts in the region, and bicycle and pedestrian volumes.

Additional updated needed include the addition of regional demographic and economic data at the front of the chapter, and insertion of updated maps that are not yet available.

Key Issues & Challenges

The starting point for the Key Issues & Challenges section was also the analogous section developed for the RPC Regional Master Plan in 2015. Data were updated throughout the chapter, including for Vehicle

Miles Traveled (VMT), state spending on public transportation, crash statistics, findings from the Tides to Storms project, and elsewhere.

Two significant changes to the section include analysis of a significant shift in the state and regional trends in Vehicle Miles Traveled (VMT), and the addition of a section on transportation and public health. The public health section identifies the multiple ways in which transportation investments impact health, including air quality, transportation safety, access to medical care and other basic life needs for transportation dependent populations, and also lack of safe accommodation for walking as a contributing factor to declining rates of physical activity and increasing rates of obesity nationally.

Regarding VMT, data available for the 2012 Long Range Transportation Plan and the 2015 Regional Master Plan showed a flattening and downturn in the long term growth curve for total vehicle miles traveled, which had increased steadily for decades. Flattening of that curve began in 2004, and VMT actually declined between 2007 and 2013. An assumption all along has been that this was driven in part by the Great Recession, but additional contributing factors have been posited including electronic communications and e-commerce replacing certain trips, more young people choosing alternate modes and , and other factors. This downward trend turned around in 2014, though, with the first increase in VMT in a decade. Major contributing factors to the uptick include the sharp drop in fuel costs stimulating travel demand, as well as continued economic recovery. The resumption of this trend may have implications for air quality attainment and conformity in the long term, as well as future congestion scenarios.

Each of the key issues and challenge described shape the draft plan goals, and the set of performance measures the MPO ultimately defines to track progress in addressing those challenges and attaining defined goals.

Requested Action

Staff request that the TAC review the attached Existing Conditions and Key Issues & Challenges chapters and provide feedback at the TAC meeting on March 24th. TAC feedback will be incorporated into revised drafts that will be brought to the MPO Policy Committee at the July meeting. TAC comments are welcome after the meeting as well. Staff request that additional comments on these chapters be submitted by April 15th.

HIGHWAYS

In post-World War II New Hampshire the pattern of development has been defined almost solely by the extent of the roadway network. Since that time, emphasis has been placed on expansion of the capacity of the highway system, and this is reflected in the more than 1,800 miles of well-developed state and local roads in the region.

These roadways are organized in different classification schemes depending upon their urban or rural location, their role in providing mobility or access to property, and the volume and type of traffic that they are intended to serve, who they are maintained and owned by, or other attributes. Several of these classification schemes are used in New Hampshire.

FUNCTIONAL CLASSIFICATION

The roadway functional classification system is designed to provide consistency in how roadways are classified based on how the facility serves varying transportation needs. This is couched in terms of how each facilitates accessibility and mobility for communities, the region, and the state while taking into account locational context and other livability factors. Accessibility refers to the ability to reach desired opportunities (property, goods, services, activities and destinations), while mobility refers to the actual physical movement between locations (Victoria Transport Policy Institute, 2014). Figure TR2 illustrates the role of each class of roadway as well as where it fits on the access/mobility continuum with regional examples. All regional highways are shown on Map TR1 and discussed below, organized based around that classification from the most heavily used roadways to the least. While there is some overlap at the transition points, larger capacity roadways generally have the role of providing mobility between regions and have more restricted access while local roads have frequent direct access to individual properties but operate at much lower volumes and speeds.

ARTERIALS

Arterials compose the backbone of transportation routes that carry the majority of long distance motor vehicle travel and connect the RPC region to the rest of New Hampshire, Maine, and Massachusetts. These routes tend to be on the Federal National Highway System (NHS) and are made up of Interstate Highways, Expressways, and other Principal Arterials. The focus of these roadways, particularly Interstate Highways and Expressways, are generally on mobility via motor vehicle travel and have limited access points and wider, faster designs to facilitate that movement.

INTERSTATES

Interstates are roadways designed to serve long-distance travel needs. They are generally divided highways that have limited access points that are grade separated from connecting roads of lower classes. This region is served directly by two: Interstate 93 in the western portion, and Interstate 95 in the eastern, and indirectly by Interstate 495 in Massachusetts.

FREEWAYS AND EXPRESSWAYS

Expressways look similar to Interstates and like them are designed to maximize mobility, have limited access locations, and do not serve abutting land uses directly. In this region there are two freeways that fit this classification; NH 16, known as the Spaulding Turnpike, and NH 101.

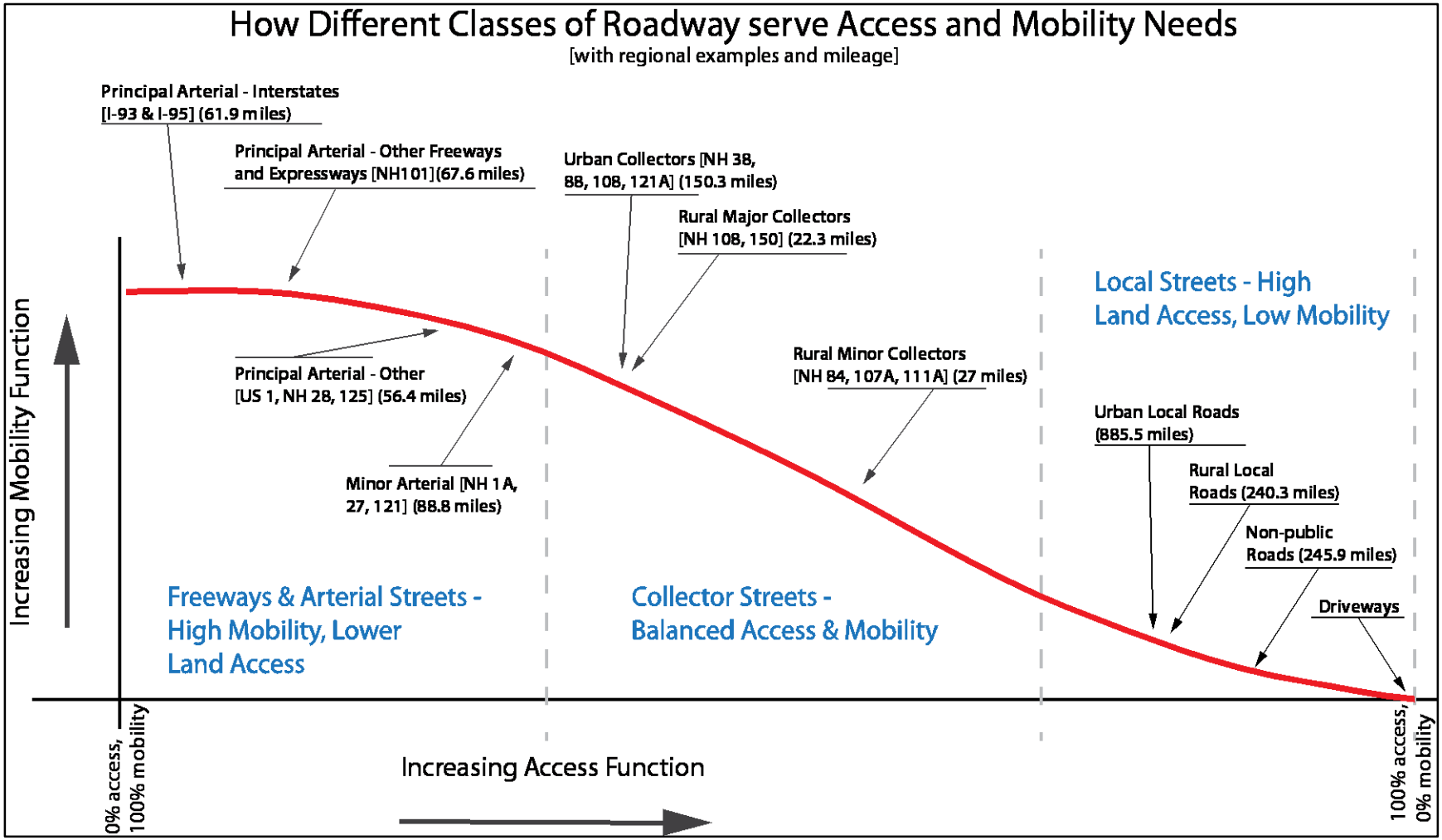


Figure: Functional Classification & Access/Mobility. Source: Adapted from FHWA diagram

Other Principal Arterials

Other Principal Arterials provide a high amount of mobility serving major centers of activity. They are sometimes grade separated and provide a degree of access to abutting land uses through at-grade intersections and driveways.

Minor Arterials

Minor Arterials provide smaller geographic areas with connectivity between higher and lower classifications of roadways. In urban areas they often connect different parts of a community while in rural areas they may provide higher speed travel speeds. This region has several state highways classified as Minor Arterials and is where some community owned facilities, such as North and South Policy Streets (10,000 AADT) in Salem and Woodbury Avenue (20,000 AADT) in Portsmouth, start to appear in the classification scheme.

Collectors

In addition to the set of interregional roadways, there is a larger set of state secondary and local roadways that carry lower volumes of more localized traffic on the shorter trips between the communities. These roadways provide an important connection between local streets and the arterial network and in some cases, roadways classified as collectors are segments of arterial roadways that have lower use, such as the southern portion of NH 108, and NH 111 between Exeter and Kingston.

Legislative Classification

Another method of organizing roadways in New Hampshire is based on the ownership of the facility and who is responsible for maintenance. The New Hampshire Legislative Classification is required by RSA 229:5 and helps to define what roadways are eligible for different types of state aid. The breakdown of these types of roads within the region can be seen on Map X.

- *Class I* – Trunk line highways that consists of all highways on the primary state highway system except for those that are part of the urban compact. The state maintains full control over maintenance and construction activities.
- *Class II* – Highways on the state secondary highway system except for those within urban compacts. All improved sections of these roadways are maintained by the state.
- *Class III* – Recreational roads that access state parks and other reservations.
- *Class IV* – All roadways within the urban compact sections of certain communities. These roadways are maintained by the community even though some may be portions of numbered state highways. RSA 229:5 establishes which communities can have urban compacts.
- *Class V* – Rural roadways owned and maintained by communities.
- *Class VI* – Unmaintained highways owned by a community or the state.

NH Highway Tiers

More recently, the New Hampshire Department of Transportation has looked to group highways based around similarities such as connectivity to economic centers, regional significance, and maintenance requirements to manage the road network in a more efficient and effective method. In that regard, the agency has established a six tiered system from highest to lowest priority roadways that combines aspects of both the functional and legislative classification systems. This classification scheme can be seen on Map X (https://www.nh.gov/dot/org/projectdevelopment/planning/amps/documents/tier_definitions.pdf).

- *Tier 1 – Interstates, Turnpikes, and Divided Highways* that have high traffic volumes and carry the majority of commuter, tourist, and freight traffic around the state.
- *Tier 2 – Statewide Corridors* have moderate to high traffic volumes as they carry passengers and freight between regions of the state and to and from adjacent states. Some of these roadways are high speed while others are more rural roadways that have gained traffic as development has spread
- *Tier 3 – Regional Transportation Corridors* that provide travel with regions, access the statewide corridors and support moderate traffic volumes at moderate speeds.
- *Tier 4 – Local Connectors* are low volume and speed secondary highways and unnumbered state routes that act as local connectors and proved travel between communities.
- *Tier 5 – Local Roads* are community owned roads and bridges or state owned roads with urban compact limits that provide travel within communities. These facilities carry varying volumes of traffic at varying speeds.
- *Tier 6 – Off Network* are assets such as park and ride lots, rest stops, and maintenance facilities.

Congestion Management Network

Federal law requires that metropolitan regions with more than 200,000 people (known as Transportation Management Areas (TMAs)) maintain a Congestion Management Process (CMP) and use it to improve transportation planning and decision making. While the RPC region is not a TMA, the region includes 12 communities that are part of the Boston Urbanized Area and is and so the MPO was asked by FHWA to implement a CMP. As part of that process, the MPO defined the components of the transportation network that should be included and evaluated for congestion related impacts. This network is shown on Map X and generally includes the primary arterials in the region along with routes serving the largest tourist destinations, regional and intercity transit services, and the park and ride facilities in the region.

National Highway System

The National Highway System (NHS) consists of roadways considered important nationally for economic, mobility, and defense purposes. This system consists of interstate highways

and other principal arterials, intermodal connectors that provide access between intermodal facilities (such as ports) and the rest of the NHS, and the Strategic Highway Network (SRAHNET) and related network connectors which include the access roads to major military installation and other highways designated to provide defense access, continuity, and emergency capabilities. The intent of this system is to encourage states and MPOs to focus federal aid improvement funds on a limited number of high-priority roadways within their bounds. The NHS roadways in this region are listed below and can be seen on Map X.

- Interstate 93
- Interstate 95
- NH 101
- NH 16(Spaulding Turnpike) and NH 101
- US 1 from the Hampton/Hampton Falls border to the US 1 Bypass and following the bypass to Maine.
- The connections from I-95 to the Portsmouth Park and Ride and the Port of New Hampshire. In addition, Route 103 connecting I-95 and US 1 Bypass to the Portsmouth Naval Shipyard is included as part of the STRAHNET.
- NH 125 (entire length)
- NH 111 from Kingston west to Nashua
- NH 28 from the Massachusetts border to Windham.

Bridge Conditions

The collapse of a bridge in Minnesota in 2007 has kindled renewed interest in the structural integrity of the bridges in New Hampshire and has accelerated work on many bridges in the area including the Memorial Bridge over the Piscataqua River between Portsmouth and Kittery (replaced in 2013). As of April, 2013, there 145 state-owned and 352 municipally-owned bridges listed as "Red Listed" indicating structural or functional obsolescence. The RPC region hosts 41 of these structures that need to be rehabilitated or replaced and basic information about these bridges can be found in the appendix of this chapter. *Figyre XX* shows the challenge that the state and communities face in addressing the bridge replacement and rehabilitation needs of the state. Since 2000, the state has averaged adding 18 bridges each year to the list of those in need of repair while removing 17. If this timeframe is narrowed to the last five years, 23 have been added on average while only 21 have been removed which indicates that bridges are deteriorating into poor condition faster than they can be repaired given existing resources. This points to the increasing complexity and cost of these projects and

Progress on Addressing State Red List Bridges

Year	Start Total	End Total	Net Change
2000	144	157	13
2001	157	168	11
2002	168	167	-1
2003	167	153	-14
2004	153	146	-7
2005	146	140	-6
2006	140	137	-3
2007	137	137	0
2008	137	139	2
2009	139	142	3
2010	142	148	6
2011	148	140	-8
2012	140	145	5
2013	145	147	2
2014	147	153	6
2015	153		

Figure XX. Progress on State Red List Bridges, 2000-2015

while some very large projects are currently being addressed, resources do not allow for continued strong progress in reducing the number of structurally and functionally deficient bridges in the state and the region.

TRAFFIC SAFETY [NOT FULLY UPDATED]

During the ten year period from 2006 and 2015, there were approximately 46,000 crashes in the RPC region involving cars, trucks, bicycles, and pedestrians. There is generally a trend indicating that the number of accidents per year is decreasing and the crash rates are following that trend as well with the overall rate dropping from 2.7 crashes per million Vehicle Miles of Travel (VMT) to 2.2 per million VMT and shown in ***Figure TR4***. Fatal and Injury accidents follow this trend as well decreasing from .086 to .068 per million VMT or about 6.8 injury/fatal crashes for every one hundred million VMT. The paragraphs below contain some basic traffic safety data and there are additional tables included in Appendix B detailing these, and other, safety statistics.

Just over 70 percent include a collision with another moving vehicle. Another 17 percent involve colliding with a fixed object such as a telephone pole, tree, or building. The remaining accidents include everything from striking an animal (2.9 percent), pedestrian (0.9 percent), or bicyclist (0.5 percent), to overturns (1.5 percent).

Regional analysis of crash locations shows unsurprisingly that the majority of crashes occur in more urbanized areas and along heavily traveled roadway corridors. ***Map TR2*** shows this crash activity and highlights the areas of the region that have the highest crash frequencies. Region wide, the general locations of the accidents are distributed mainly between intersection/driveway access related (32.6 percent) and along the roadway (40 percent). An additional 14 percent occur in parking lots, with the remainder made up of run-off road, crashes at toll booths, exit ramps, rotaries and others.

Friday is the most common day for accidents with just over 17 percent occurring on that day. Thursday and Saturday are the next highest days with almost 15 percent each. During weekdays, the timing of accidents occurs with spikes during commuter periods and near noon. On weekends the pattern changes with most crashes occurring during the middle of the day.

FREIGHT TRANSPORTATION [NOT UPDATED]

The Rockingham Planning Commission area is well served by a broad range of domestic and international freight transportation carriers and all modes of goods movement are available within or near to the region. In addition to the major highways, the region is home to the Port of New Hampshire, Pan Am Railways main line (the former Eastern Line of the Boston and Maine Railroad), the Pease Airport, and a natural gas pipeline. The primary source of data regarding freight movement is the FHWA Freight Analysis Framework (FAF) and this system measures goods movement in three ways:

- Value – In 2007 dollars

- Tons – In thousands of short tons (2000 lbs.)
- Ton-miles – Product of tons and the weighted average distance by mode of shipment

Depending upon the unit of measure, each mode of goods movement handles a different percentage of the total volume of freight moving into and out of the region. The facts and figures in this section will focus on the tonnage of freight moved, however, Appendix C will include the full tables with value and ton-miles as well. With the exception of the data for the Port of New Hampshire, all information available is for the state as a whole and not specific to the region.

With the exception of air based freight services at Pease Tradeport, and Atlas Motor Express in Plaistow, freight transportation companies do not operate transportation facilities in the RPC region. Freight carriers located in other parts of New Hampshire and in other New England states use trucks to carry freight to and from companies located here. LTL and TL motor carriers all (except Atlas) operate from terminal facilities outside of the region. With the minor exception of limited direct rail loading in Portsmouth and Newington, all rail shipments are loaded in or on rail cars at facilities located outside the area as well. The Port of New Hampshire is expected to expand and accept containerized shipments. Currently they move by highway to and from ports in Boston, Montreal and New York. Containerized shipments to and from the Far East generally move to rail facilities in Massachusetts for rail shipment via "Mini Land Bridge" to the West Coast for ship movement across the Pacific. Increasing volumes of airfreight move though Pease, but most airfreight continues to move through Logan. Carriers provide most truck services through freight terminals located elsewhere in New Hampshire or in Massachusetts.

The Freight Analysis Framework (FAF) version 3 (USDOT) estimates that currently about 111 million tons of freight is shipped to, from, or within New Hampshire (2011) with trucks carrying 94 percent of those goods moving within the state, 86 percent of the goods leaving, and 78 percent of those coming into New Hampshire. Movement by Pipeline (7 percent) and Water (5.6 percent) are the next largest modes, while rail moves about 2.1 percent of goods. 31.1 million tons of goods are shipped within the state, the leading commodity by weight is gravel at 17.5 million tons, followed by Coal-N.E.C. at 13.5 million tons. By value there was approximately $160 billion in shipped goods moved to or from New Hampshire. The leaders were pharmaceuticals ($56.6 billion), electronics ($11.8 billion), textiles ($9.7 billion) and machinery ($9.6 billion).

Port of New Hampshire, 2003 Source: RPC

SHIPPING

The region is host to the Port of New Hampshire in Portsmouth, an active port handling over 8.8 million tons of cargo (***Table TR4***)

each year and expected to nearly double that by 2040 (USDOT). The Division of Ports and Harbors (DPH) Market Street Marine Terminal, located on the Piscataqua River, is the only public access, general cargo terminal on the River. The Piscataqua is a year-round, ice-free, deep draft river. The Market Street Terminal has 8 acres of paved outside lay down area, 50,000 square feet of covered warehouse space, onsite rail access, and is close to the regional highway network (1/2 mile from Interstate 95). The terminal can handle bulk cargo such as scrap metal, salt and wood chips, break bulk such as industrial machinery parts and construction materials, project cargo such as power plant components and vacuum tanks, as well as container cargo. In addition, Portsmouth is within 50 miles of the Port of Boston, one of America's major port facilities, and has convenient access by highway and rail to other major and regional ports including New York, Portland, and Montreal.

Table TR4:

Estimated Goods Movement through the Port of New Hampshire (1000s of tons)

	2011	2015	2020	2025	2030	2035	2040
Imports	8,378	9,330	10,437	11,461	12,263	13,198	14,256
Exports	474	622	814	1,041	1,270	1,492	1,746
Total	8,852	9,952	11,251	12,503	13,533	14,690	16,002

Source: Freight Analysis Framework

RAIL

The area is served by the main line of Pan Am Railways, a major U.S. regional railroad, which was historically known as the Boston and Maine Railroad (B&M) Main Line West running between Boston and Portland, and in the RPC region traversing the towns of Atkinson, Plaistow, Newton, Kingston, East Kingston, Exeter, and Newfields. The mainline is currently categorized as a Class 4 track which allows passenger rail speeds up to 80 MPH and freight rail speeds of up to 60 MPH. Branch line freight services are currently available between the main line and Portsmouth and over the Sarah Long Bridge into Maine on a Class 1 track that limits speeds to 10 MPH. The Eastern Railroad corridor also ran from Boston to Portland, via Seabrook and Portsmouth in the RPC region. This later became the B&M Main Line East, and is also known as the Hampton Branch, but is no longer in active rail use. The State has owned the segment from Hampton center to the Massachusetts border since the late 1990s, and is in negotiation to purchase the recently abandoned balance of the line, from Hampton to Portsmouth. Intermodal (rail-truck) facilities operated both by Pan Am and Conrail in the Boston area and by the St. Lawrence and Atlantic Railway in Auburn, Maine are within easy reach of the Seacoast region. Through these connections, shippers have access by rail to points throughout North America and, using Rail Land Bridge services, throughout the world.

TRUCK

While the trucking industry is privately operated, it depends upon state and local government to provide and maintain the

highway network upon which it operates. The majority of freight shipments, both long distance movement to distribution centers and local delivery services to factories, wholesale and retail facilities, and households within the United States, occur via truck. Southeastern New Hampshire shippers and receivers are well served by motor carriers. High quality services are provided by the following types of carriers:

- National TL (truckload) and LTL (less-than-truckload) carriers such as Roadway and J.B. Hunt
- Regional TL and LTL carriers such as Atlas Motor Express.
- Bulk liquid carriers such a Superior and Matlack.
- Private carriers serving special markets such as the Wal-Mart fleet.
- Major parcel carriers such as United Parcel Service and Federal Express.

AIR FREIGHT

The region enjoys the potential for direct airfreight service at Pease International Tradeport. The Fixed Base Operator at Pease Airport provides cargo handling capability for build, break, load, offload, and onload, and includes cross dock transfer fly-truck, truck-fly operations. The facility can accommodate the largest cargo planes and includes 45,000 square feet of warehouse facilities available in close proximity to rail, deep water port and I-95. Boston's Logan Airport and the Manchester-Boston Regional Airport are located less than 50 miles away, adding access to a wide variety of air cargo services serving markets throughout North America and the world.

PIPELINE

A natural gas pipeline is currently in place. As reported in the Federal Energy Regulatory Commission publication FERC/EIS-0111D, dated April 1997, Granite State Pipeline operates "a 10- and an 8-inch-diameter pipeline between Haverhill and Exeter" as well as "an 8-inch-diameter pipeline between Exeter, New Hampshire and Wells, Maine." (Federal Energy Regulatory Commission, 1997) In addition, Portland Natural Gas Transmission System and Maritimes & Northeast Pipeline, L.L.C. (Maritimes), are currently developing expanded natural gas pipeline service with the construction of a 30-inch-diameter high-pressure natural-gas pipeline between Dracut, MA and Wells, Maine. The pipeline is designed to deliver 60 million cubic feet per day of natural gas from the Sable Offshore Energy Project, offshore from Nova Scotia. The project includes 31.4 miles of 30-inch-diameter pipeline passing through Plaistow, Newton, East Kingston, Exeter, Stratham, Greenland, Portsmouth and Newington, in Rockingham County. The project also includes lateral lines as follows: 0.6 mile of 20-inch pipeline between the main trunk line in Plaistow and Haverhill, MA and 1.1 miles of 16-inch-pipeline in Newington. A number of projects are currently underway to interconnect pipelines to bring additional natural gas resources into the New England region from the Southeast states.

PUBLIC TRANSPORTATION

Public transportation plays an important and growing role in addressing the mobility, traffic congestion, and air quality issues facing the RPC region. The number of communities in the region served by transit has increased in the past ten years, from five to seven; and ridership on all forms of transit has seen dramatic growth in response to rising fuel prices and growing transit dependent populations. Still, fewer than a third of the 26 communities in the region are served by public transportation, and significant challenges exist to expanding services, including funding availability, low density development patterns making fixed route service inefficient in many towns. Regional transit routes are shown on ***Map TR1.***

LOCAL AND REGIONAL PUBLIC TRANSPORTATION SERVICE

Two public transit agencies serve the communities in the RPC region. The Cooperative Alliance for Seacoast Transportation (COAST) provides service in Exeter, Stratham, Greenland, Portsmouth and Newington, with connections northward to Dover, Somersworth, Rochester, Farmington, and South Berwick, Maine. COAST ridership has increased 54% in the past decade, and more than doubled since 2000 as shown in ***Table TR5***. The Greater Derry-Salem Cooperative Alliance for Regional Transportation (CART) provides demand-response public transportation to two RPC communities, including Salem and Hampstead; as well as Derry, Londonderry, Chester, and out-of-region medical facilities in Manchester and northern Massachusetts. CART provides mainly demand-response transit service given the low density of much of its service area, but added a flex route service in 2012 with the Salem Shuttle. CART has grown from carrying fewer than 500 passengers per month at start-up in 2006, to moving approximately 1,100 passengers/month in 2015. A third fixed route system is UNH Wildcat Transit. Wildcat Transit connects the UNH campus in Durham to Newington and Portsmouth in the RPC region, as well as to Dover, Madbury, and Newmarket.

Table TR5: COAST Ridership

Fiscal Year	Ridership
2000	199,967
2001	211,920
2002	212,502
2003	242,235
2004	293,917
2005	316,867
2006	354,433
2007	375,535
2008	398,853
2009	370,068
2010	416,942
2011	461,866
2012	506,514
2013	506,173
2014	489,408
2015	487,594

Source: COAST

INTERCITY BUS SERVICE

Intercity bus service is available in the I95, I93, NH Route 125 and NH Route 101 corridors, with an emphasis on Boston-bound commuter travel as well as access to Logan Airport and Manchester-Boston Regional Airport (MBRA). C&J, formerly C&J Trailways, provides 32 round trips daily between Boston and the Portsmouth Transportation Center, with northbound connections to Dover. In the I93 corridor Boston Express operates extensive Boston-bound commuter bus service out of Exits 4 and 5 in Londonderry plus Exit 2 in Salem, with a combined 29 daily round trips. Greyhound provides two daily round trips between Portland and Boston with service to

downtown Portsmouth. Since 2013 NHDOT has supported a pilot East-West Express transit connection between Portsmouth, Epping, MBRA and downtown Manchester. The service has not been as productive as projected, and was reduced from 20 daily round trips to 5 daily round trips in 2015, and will likely be discontinued at the end of its pilot funding in 2016. One significant challenge for intercity bus service in the I95 corridor is capacity at intermodal centers. The 1210 space Portsmouth Transportation Center at Exit 3A is routinely at or over capacity, as is the 650 space Newburyport Transportation Center at Exit 57 in Newburyport. Constraints at both sites limit potential for further expansion. One option for capacity expansion in the corridor is a new intermodal center at the interchange of Route 101 and Route 1 in Hampton, which was the subject of a feasibility study by RPC in 2013-2014. The concept has been endorsed by the town of Hampton in conjunction with a realignment of that interchange.

Passenger Rail Service

Amtrak's Downeaster service between Boston, Portland and Brunswick Maine includes several station stops in Southern Maine, Northern Massachusetts, and three New Hampshire communities – Exeter, Durham, and Dover. The service provides five daily round trips between Boston and Portland. In 2012 two daily trains extended the service from Portland north to Freeport and Brunswick, Maine. Plans are underway to construct an enclosed layover facility in Brunswick. When this is complete, all five daily trains will make stops at Freeport and Brunswick with a potential 6th daily round trip being added between Brunswick and Boston. During FY2014 the Downeaster carried over 536,000 riders, with 30 percent of passengers boarding or alighting at New Hampshire stations. MBTA commuter rail service is available from Newburyport, Haverhill and Lawrence in Northern Massachusetts.

In 2014-2015 a feasibility study was conducted to determine if an extension of the Haverhill commuter service to Plaistow, N.H., would have sufficient ridership to be financially viable. The service concept also included a partnership with the MBTA to construct a new layover facility at or near the station site. In 2015 voters in Plaistow rejected the rail extension concept.

Park and Ride Facilities

There are currently seven Park & Ride facilities in the region operated by the N.H. Department of Transportation (NHDOT). These include lots in Epping at the intersection of Routes 101 and 125; in Hampstead at the intersection of Route 111 and 121; in Hampton at the intersection of Route 101 and 27; in Plaistow on Westville Road just east of Route 125; in Salem at Exit 2 on I93 and in Portsmouth at Exit 3A on I95, and on Route 33 just east of I95. The Exeter rail station, operated by the Town of Exeter, also functions as a Park & Ride facility. Of these, four feature Boston-bound intercity transit service (Portsmouth, Salem, Plaistow and Exeter); and two feature East-West service to Manchester (Portsmouth and Epping). Those communities without transit service have seen limited usage historically, but are increasingly being used by car-poolers responding to

increasing gas prices. The Route 101/Route 1 Interchange Realignment and Intermodal Transit Center Feasibility Study conducted in 2013-2014 identified a preferred design for a new intermodal transit facility in Hampton to support intercity bus service in the I95 and Route 101 corridors, as well as a shuttle connection between Hampton Beach, Hampton Town Center and the park and ride facility. Such a facility would be integrated with a plan to realign the interchange for safety and efficiency.

Other Community Transportation Services

In addition to the transportation providers listed above, there are a number of other transportation services available to communities in the RPC region. These can most easily be differentiated by type of service provided.

Shuttle and Taxi Services

Numerous companies offer shuttle services between the RPC region, Logan Airport and Manchester-Boston Regional Airport. Both door-to-door service and scheduled pickups at central locations are available. Over twenty companies also offer local and regional taxi service.

Special Population Services

There are more than two dozen health and human service agencies and volunteer driver organizations in Rockingham County providing demand response transportation for agency clients or specific eligible populations such as senior citizens or individuals with disabilities. Many of these agencies have been involved with regional planning initiatives in the Derry-Salem area or Seacoast area focused on coordinating and consolidating functions such as trip scheduling and dispatching, and expanding access in communities with limited service. These collaborative efforts are formalized through the Southeast New Hampshire Regional Coordination Council (RCC) for Community Transportation, and the Greater Derry-Salem RCC.

Transportation Demand Management

Transportation Demand Management (TDM) is an approach to improving the efficiency of the transportation system through encouraging alternatives to driving alone – particularly for commute trips. A number of TDM initiatives serve the RPC region, including statewide programs for New Hampshire and Massachusetts, as well as commuteSMARTSeacoast, the regional Transportation Management Association (TMA) working with Seacoast employers to encourage alternatives to driving alone on daily commutes. Efforts targeting Boston area commuters have a successful history, given high levels of congestion, high parking costs, a long commute distance, and a Massachusetts state law requiring large employers to invest in commute trip reduction programs. Initiatives in New Hampshire have had a more difficult time convincing employees to shift modes, given relatively limited traffic congestion, relatively abundant free parking, less frequent transit services, and lack of a state mandate for employers. However, over the past ten years these efforts have gained traction. Multiple years of increasing gas prices were one driver of this, but even with relatively low gas prices in 2015-2016, interest and participation in ridesharing

has continued to increase. Existing TDM programs serving the RPC region are described below.

Rideshare Programs Managed by NHDOT and Massachusetts Entities

MassRides, funded by the State of Massachusetts, operates a relatively successful ride matching and vanpool program for Boston commuters, with daily vanpools to Boston and suburban employment centers departing from Portsmouth, Salem, Windham and other New Hampshire communities outside the RPC region. Between 1996-2011 the NHDOT ran a statewide Rideshare program designed to match individuals interested in carpooling or vanpooling using an on-line ride matching service. This program was eliminated by the legislature in 2011 as part of cuts to the NHDOT budget, though a statewide ride matching database continues to exist for use by regional ridesharing initiatives.

Transportation Management Associations (TMAs) – Seacoast and I93 Corridor

In 2013 COAST launched commuteSMARTseacoast – a TMA focused on employees at Pease Tradeport and other major employers in the Greater Portsmouth-Dover Area. TMAs work with employers to promote alternative commute options to employees and establish incentives such as discounted transit passes, online ride matching programs, commuter challenges and prize drawings, emergency rides home to provide flexibility for transit users, and programs allowing use of pre-tax dollars for transit or vanpool expenses. Funding for commuteSMARTseacoast is part of the Newington-Dover Little Bay Bridges highway widening project. As of early 2016 commuteSMARTseacoast has signed up 38 member companies representing over 10,500 employees, established over 120 carpools, and won national awards for successful commuter challenge events encouraging commuters who previously drove alone to try alternate commute options. Funding has also been programmed as part of the I93 widening project for TDM activities in the I93 corridor. Planning for these activities is currently underway by NHDOT.

Table TR6
Commuter Mode Share 2000-2014

Mode of Travel to Work	NH 2000	NH 2014	Rock County 2000	Rock County 2014	Exeter 2000	Exeter 2014	Ports-mouth 2000	Ports-mouth 2014
Car, truck, or van - drove alone	81.8%	86.3%	84.8%	89.3%	78.2%	86.4%	80.5%	81.3%
Car, truck, or van - carpooled	9.8%	8.4%	7.8%	6.8%	9.9%	5.2%	6.4%	7.9%
Public transportation	0.6%	0.9%	0.7%	0.9%	0.8%	1.1%	1.4%	1.6%
Walked	2.9%	3.1%	1.7%	1.8%	4.6%	5.6%	4.9%	7.1%
Taxi, motorcycle, bicycle, other	0.9%	1.3%	0.9%	1.2%	1.3%	1.8%	1.4%	2.0%

Source: 2000 U.S. Census; 2010-2014 ACS 5-Year Data Compilation

Telecommuting Infrastructure

The number of people working from home and telecommuting in the United States has grown significantly since 2000. Between 2000 and 2010, those working from home nationally grew from an estimated 3.6 percent to 4.6 percent of the workforce. Telecommuters make up a larger share of the workforce in Rockingham County, where telecommuting grew from an estimated 4.1 percent to 5.8 percent of the workforce between 2000 and 2012. For Portsmouth this share is still larger, and grew from 5.4 percent to 7.3 percent of the workforce between 2000 and 2012.

This relatively high instance of telecommuting in the region is consistent with the relatively high education levels and employment mix in the region. The increase since 2000 is also consistent with improvements in access to broadband telecommunications infrastructure, but there are still gaps within the region.

Bicycle Facilities and Programs

While the private automobile is the dominant mode of transportation in the RPC region, and will continue to be for the foreseeable future, improving the safety and convenience of non-motorized transportation is a key policy of the MPO. According to the most recent National Household Travel Survey (2009), more than 60 percent of all trips are fewer than five miles in length, and more than 22 percent are shorter than one mile – distances easily traveled by bicycle or on foot. However, more than 80 percent of these trips are taken with an automobile. Converting some of these short trips to bicycling and walking has the potential to reduce vehicle miles traveled, and consequently congestion, air quality impacts, and parking demand in downtowns. Investments in bicycle and pedestrian facilities also support public health and safety; and even economic development in the form of bicycle tourism. Achieving this increase in non-motorized transportation, though, will require investments in a combination of facility improvements and programs to encourage bicycling, teach safe bicycle operation to children and adults, and ensure enforcement of laws related to bicycle operation and safety.

Bicycle Transportation Facilities

For the purposes of this chapter, bicycle transportation facilities consist of shoulders with a width of four feet or greater on the region's roads (the minimum width for a shoulder bicycle route recommended by AASHTO) and paved off-road multi-use paths. Of course, roads without such provisions are legally and appropriately used by bicyclists. In addition, the State Bureau of Trails maintains a number of trails in the State and region that are unpaved or paved with gravel, such as the Rockingham Recreation Trail between Newfields and Manchester.

Paved off-road paths in the region are uncommon, but include the Southern New Hampshire Rail Trail being developed between Salem and Concord, the recently completed Pease Multi-Use Path at the south entrance to the Pease TradePort, a path connecting Fox Point Road in Newington to the Tradeport,

and a side-path in Odiorne State Park in Rye. Planning is also underway for the New Hampshire segment of the East Coast Greenway, stretching from Florida to Maine. The State of New Hampshire is currently negotiation with Pan Am Railways to purchase a ten-mile segment of the Hampton Branch rail corridor between Hampton and Portsmouth for use as a rail trail. The State already owns the southern 4.5 miles of the corridor between Hampton and the Massachusetts border, on which the Town of Seabrook is actively pursuing rail trail development.

The remainder of what may be termed bicycle facilities in the region consists of paved shoulders on roads. Shoulders on many state roads in the region are narrower than four feet. The RPC has worked with Seacoast Area Bicycle Riders (SABR) and member communities to secure funding to extend shoulders and complete regional routes including the Great Bay Bicycle Loop and the Exeter-Hampton-North Hampton Bicycle Loop. The success of these efforts has varied by municipality, depending on the willingness of Towns to appropriate matching funding needed to access federal funding under the Transportation Enhancement (TE), Transportation Alternatives (TAP), or Congestion Mitigation/Air Quality (CMAQ) programs. Two towns in the region, Hampton and Newfields, have secured TE or CMAQ funding but later lost if after failing to appropriate matching funding. This points to the need for a more active role on the part of the state of New Hampshire in ensuring safe bicycle access on state highways. NHDOT has adopted a policy to add width for shoulder bicycle routes when state highways are rebuilt, which happens on a 20 to 30 year cycle. NHDOT Maintenance District 6 has also created extra shoulder width in some cases as part of routine resurfacing by narrowing travel lanes to 11′ from 12′ or more. In some cases opportunities remain to allocate more width to shoulders on low-speed roads where 10′ lanes would be adequate according to the Institute for Transportation Engineers.

After "maintenance of roads and bridges, respondents to the summer 2013 UNH Regional Needs Survey identified "availability of bike paths" as the next highest priority for increase transportation system investment in the region. Community meeting and other public input underscored this, identifying a particular need for improved bicycle and pedestrian facilities within communities that connect residential areas to services and schools and provide safe passage for students or adults on foot or bicycle. Reflecting this, six communities in the RPC region have initiated Safe Routes to School (SRTS) initiatives, including Hampton, Newfields, Plaistow, Portsmouth, Rye, and Seabrook. While federal Safe Routes to School funds have now been rolled into the new Transportation Alternatives program under MAP-21 and the FAST Act, the SRTS model remains an excellent one for municipalities and school districts.

Supporting Facilities for Bicycles

Bicycling is greatly supported by the provision of secure racks at school, work and recreational areas. Some larger businesses

in the area do provide amenities for bicycle commuters such as allowing them to store their bicycles indoors and providing shower facilities. The RPC also works with commuteSMARTseacoast, the regional Transportation Management Association (TMA) to promote annual events for national Bike Month and Seacoast Bike/Walk to Work Day.

Another important step is to support better connections between bicycles and other modes of transportation. This includes secure parking at bus stops and train stations as well as accommodations for carrying bicycles such as racks on the front of buses. COAST has installed bike racks on the front of all of their buses, as has Wildcat Transit. The NHDOT has installed bicycle lockers or racks at most Park & Ride locations as well as the Exeter rail station. With assistance of FTA Transit Enhancements funding from COAST, the City of Portsmouth has made extensive improvements to bicycle parking at downtown transit stops and other locations the past four years.

The ***"Five E"s*** of bicycle/pedestrian accommodation:

- Engineering
- Education
- Encouragement
- Enforcement
- Evaluation

EDUCATION, ENCOURAGEMENT, AND ENFORCEMENT

Providing new facilities is only part of the solution to encouraging non-motorized alternatives to driving. The other part of the equation involves changing behavior – of both potential cyclists as well as drivers. This integrated approach is often referred to as the "Five Es" – Engineering (bicycle infrastructure) must be accompanied by efforts at Education (regarding cyclists rights and responsibilities), Encouragement (to try a new way to travel), Enforcement (of traffic rules for both drivers and cyclists), and Evaluation to ensure data-driven decision making.

At present, educational efforts in the region and much of the state are limited to outreach to young children first learning to ride a bicycle. The Bike/Walk Alliance of New Hampshire (BWANH) provides classroom instruction in bike safety to 4th and 5th grade classes with funding through the Safe Routes to School program. There is a significant need for companion efforts targeting older children, as well as adult cyclists and drivers. RSA 265:143a, passed in 2010, clarified many state traffic laws around bicycling, and included an innovative provision known as the Three Foot Law – that automobiles must allow at least 3 feet of buffer when passing a bicycle at 30 mph, and an additional foot for each 10 mph above that. BWANH has worked to get information on bike-related traffic law into the state driver education curriculum, as well as into police officer training. A public outreach program known as NH-PASS, involving signage and Public Service Announcements (PSAs) designed to raise awareness of the Three Foot Law has been piloted by the Claremont Police Department. RPC is working to expand the program in the RPC region.

Greater effort is also necessary to enforce traffic laws related to bicycles. A lack of bicycle safety education as well as enforcement results in some cyclists putting themselves and others at risk by failing to obey traffic laws. This causes resentment among drivers. Likewise, traffic enforcement to protect the rights of cyclists is rarely a priority.

In 2013, NHDOT took an important step by reconstituting its Bicycle Pedestrian Transportation Advisory Committee (BPTAC), which advises the department on bicycle and pedestrian accommodation, and safety issues. This advisory committee includes representation from state agencies, regional planning commissions, local government, public health and medical organizations, trails organizations, the bicycle industry and citizen members. The BPTAC is currently working on a range of initiatives including developing a cooperative bicycle and pedestrian data collection program among the nine regional planning commissions, working with the NHDOT Bureau of Traffic to update policies for lane marking on state highways to improve bicycle and pedestrian safety, updating the state bicycle route network, an economic impact assessment of bicycling and walking in New Hampshire, and an update to the State Bicycle & Pedestrian Plan.

Improving data on bicycle and pedestrian travel volume is a key need identified through the work of the BPTAC, the regional master plan process, and efforts to date to define performance metrics for the MPO. While extensive data are available on automobile traffic volumes, data on bicycle and pedestrian travel has to date been collected only as part of specific planning studies such as the Corridor Management Plan for the NH Coastal Byway, the NH-ME Connections Study, or the Portsmouth Bicycle/Pedestrian Master Plan. In 2015 RPC purchased automated bicycle and pedestrian counting equipment as part of a statewide project initiated through the BPTAC. RPC is also analyzing a year's worth of data from the smartphone app Strava, purchased by NHDOT for the BPTAC. The Strava app is used by many recreational walkers and bicycle riders for tracking riding and walking data, and allows a statewide picture of major walking and riding routes. NHDOT recently committed to purchasing two more years of Strava data, and work is underway to identify the extent to which Strava volume data correlates with overall bike/ped usage. Combined with an expanded program of manual bicycle and pedestrian counts, the Strava data and automated counting equipment will greatly expand the MPO's data on bicycle and pedestrian travel patterns to support planning and project evaluation.

Pedestrian Facilities and Programs

In the RPC region, pedestrian facilities vary considerably from community to community. Portsmouth, Exeter and Hampton feature substantial downtowns, as well as centrally located elementary schools, which favor the pedestrian and thus encourage people to walk. Many of the more rural communities

in the region have few if any sidewalks. Beyond sheer size, the presence or absence of sidewalks relates in large part to when and how a community has grown. Salem provides a case in point. While the largest municipality in the region, Salem has experienced much of its development in the last 40 years when accommodating the automobile has been the focus of most transportation planning. As such, the town has a less comprehensive sidewalk network than smaller communities that developed earlier, such as Portsmouth and Exeter.

In more rural communities residents walk on shoulder or in the automobile travel lane. While people have done this for generations, increasing traffic volumes and speeds, and drivers increasingly distracted by cell phones and other devices, have reduced safety for all users of the road, whether on foot, on bicycle or in an automobile. This can be made somewhat safer when shoulder lanes are available for use. In general, the more rural communities in the region have given pedestrian facilities less consideration, with an exception for recreational trails in some communities. Part of this has to do with relatively large distances between schools or other town facilities and the nearest residential neighborhoods, which would discourage walking even if sidewalks existed. Many communities readily acknowledge that particular roadway segments are used frequently by pedestrians and that the provision of pedestrian facilities will play an important role in future growth. For example, in Plaistow sidewalks are already in place in parts of Town and the Town has developed a three-phase plan for developing sidewalks linking all the major facilities in the community that generate substantial pedestrian traffic. The Town has implemented the plan incrementally using Transportation Enhancement (TE) funds. The Town of Salem also has sidewalks in place in some areas, but they do not form a cohesive network.

Construction of sidewalks can be expensive, and many communities are unable to identify local funds to fully support construction of facilities for pedestrians. The Transportation Alternatives Program (TAP) and its predecessor the TE program, have been is the primary sources of federal funding assistance for sidewalk construction used in New Hampshire. These funds have always been limited and highly competitive, and will be still more competitive in the future as TAP program is funded at a level about 30% lower than the combination of the four programs it replaced.

Another barrier to sidewalk construction is the cost of long term maintenance, including winter snow clearing; and the question of who assumes this responsibility. Current NHDOT policy is to build sidewalks as part of highway reconstruction projects, but only if municipalities request the sidewalks and will assume maintenance responsibility. In some cases municipalities have been unwilling to take on this maintenance responsibility out of cost concerns, and the result has been a lost opportunity to improve pedestrian safety along state highways.

Road Miles by Functional Class and Community

	Rural						Urban						
							Principal Arterials						
Town	Private Roads	Principal Arterials	Minor Arterials	Major Collector	Minor Collector	Local Road	Interstate	Other Freeways & Expressways	Other	Minor Arterial	Collector	Local Road	Grand Total
Atkinson	11.8								1.2	4.2	2.2	49.8	69.2
Brentwood	6.4			3.4	1.3	32.1		8.9	1.8		2.5	9.3	65.8
Danville	12.9				1.5	11.3			1.7		2.9	24.0	54.4
East Kingston	7.3			2.5	2.1	7.4					4.8	7.1	31.2
Epping	22.4	1.8			4.1	38.8		16.2			5.0	27.9	116.1
Exeter	17.9		0.6	1.0	1.8	11.7		15.5		9.5	9.3	45.6	112.8
Fremont	15.2			3.6	1.4	23.4					1.4	15.6	60.6
Greenland	4.1			1.1		3.8	6.2			3.3	3.7	23.5	45.8
Hampstead	14.3								4.2	5.0	3.4	59.8	86.7
Hampton	10.1					3.1	8.5	4.2	11.8	13.8	9.3	56.1	116.9
Hampton Falls	0.9			0.4	6.0	16.4	4.3			1.8	1.9	9.2	41.0
Kensington	2.4			6.7	3.5	20.6							33.2
Kingston	9.6					11.1			10.6		6.7	52.0	90.0
New Castle	3.4									2.6		5.0	11.0
Newfields	0.4				2.4	5.2					4.2	9.0	21.1
Newington	19.0					8.4		7.7		1.0	2.4	9.9	48.4
Newton	4.4			0.6		1.7					10.3	28.3	45.3
North Hampton	6.5			1.1		10.3	7.9		3.4		12.4	22.4	64.0
Plaistow	4.7								3.5	7.0	13.9	28.2	57.2
Portsmouth	24.9						18.0	10.4	6.1	14.1	8.1	82.9	164.5
Rye	7.7					4.2			1.2	1.1	15.2	34.7	64.1
Salem	11.2					0.2	12.2		9.2	14.1	17.4	153.0	217.3
Sandown	7.7			0.4		12.8					6.6	42.8	70.2
Seabrook	8.3			0.1			4.9			4.7	5.2	38.3	61.4
South Hampton	2.6			1.4	2.9	8.3						1.8	17.1
Stratham	9.8					9.4	0.0	4.7		6.0	1.5	49.5	80.9
Grand Total	245.9	1.8	0.6	22.3	27.0	240.3	61.9	67.6	54.6	88.2	150.3	885.5	1846.2

Key Issues and Challenges

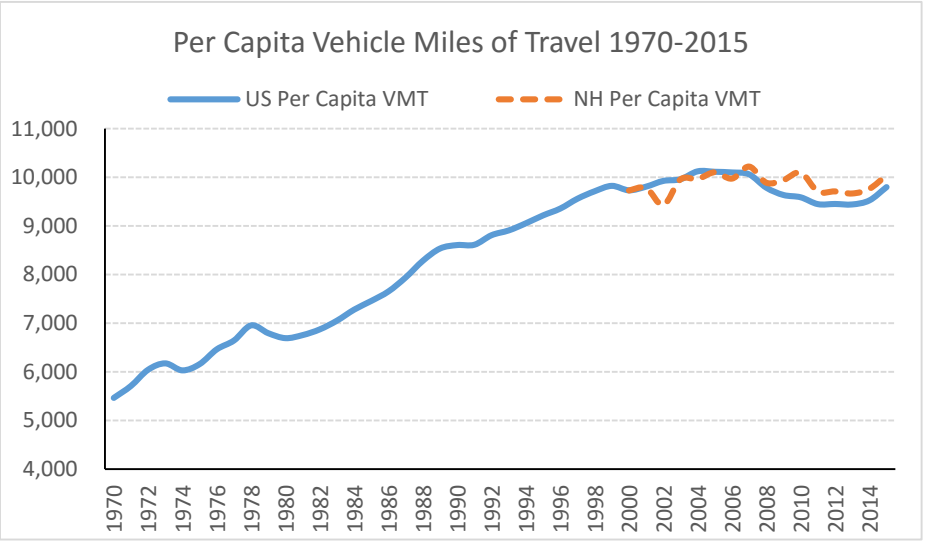
Vehicle Miles of Travel (VMT)

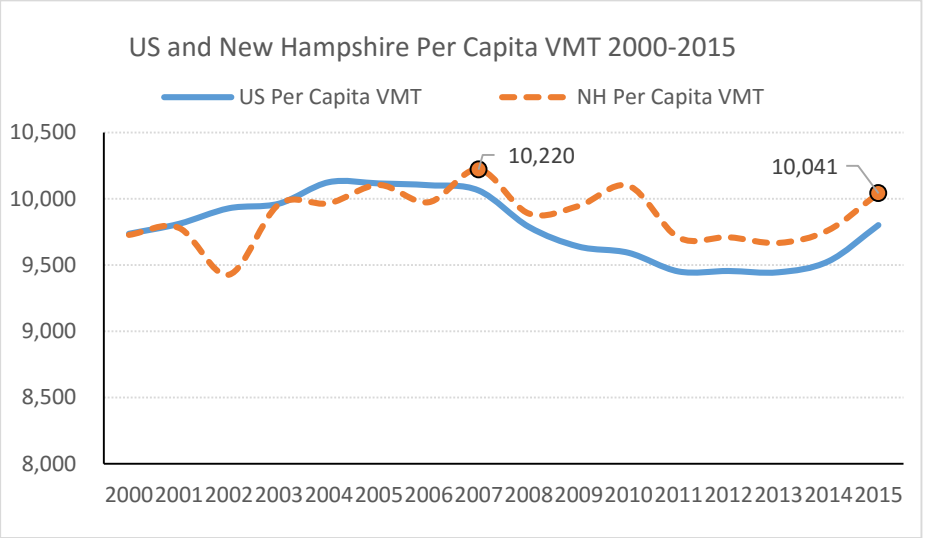
From the 1980 until 2004, the growth in the annual amount of vehicle miles of travel (VMT) per person in the United States exceeded the growth in population. Annual travel per capita grew at an average rate of 1.7% per year (FHWA, 2014), while population consistently increased about 1.1% per year (US Census Bureau, 2014). In 2005 this began to change as the per capita VMT began to decline for the first time since the late 1970s corresponding with a marked increase in fuel prices and economic downturn that began about the same time. This trend was reflected nationally as well as in New Hampshire data which saw declining per capita VMT beginning in 2005 (***Figure TR5***). This trend is seen in the traffic count data as well with approximately 67 percent of count locations showing year over year declines in volumes since 2007. This has important implications for future investment in the transportation network as current efforts are focused on expanding capacity to reduce congestion.

There are three main reasons generally attributed to this change (Davis, 2012):

- Fuel Prices remained high.
- The Millennial generation, born between the early 1980s and early 2000s, are choosing more cost effective ways to travel.
- Technology is replacing the need for some trips.

Gas prices peaked in New Hampshire during 2012 and since that time have dropped by over 50%. Correspondingly, travel trends have begun to respond to those lower prices, and the last two years have seen per capita VMT grow again with a 1% increase in 2014 and a 2.8% increase in 2015.

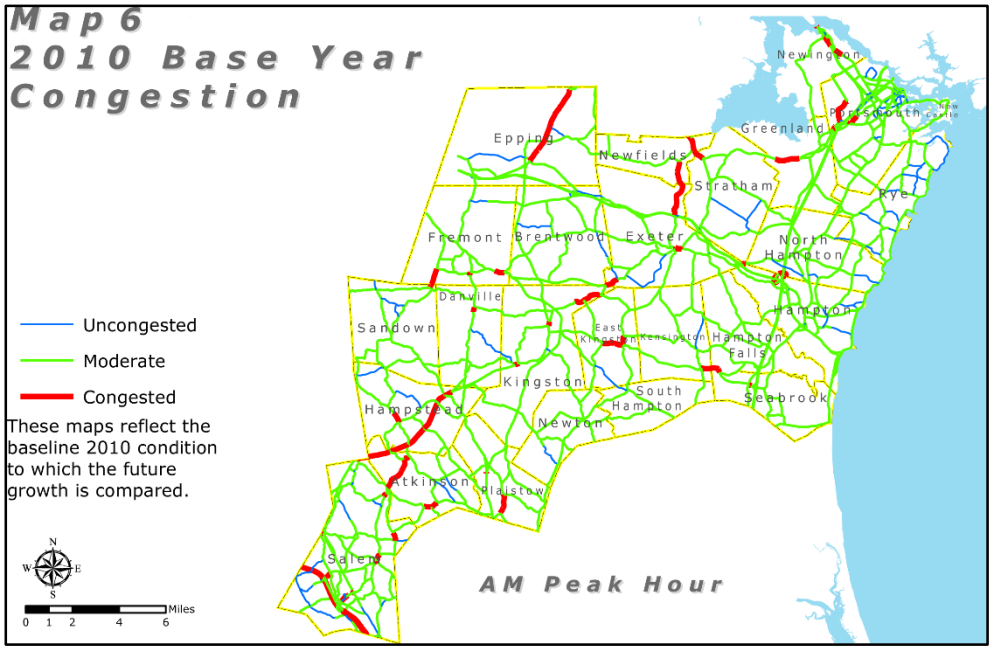


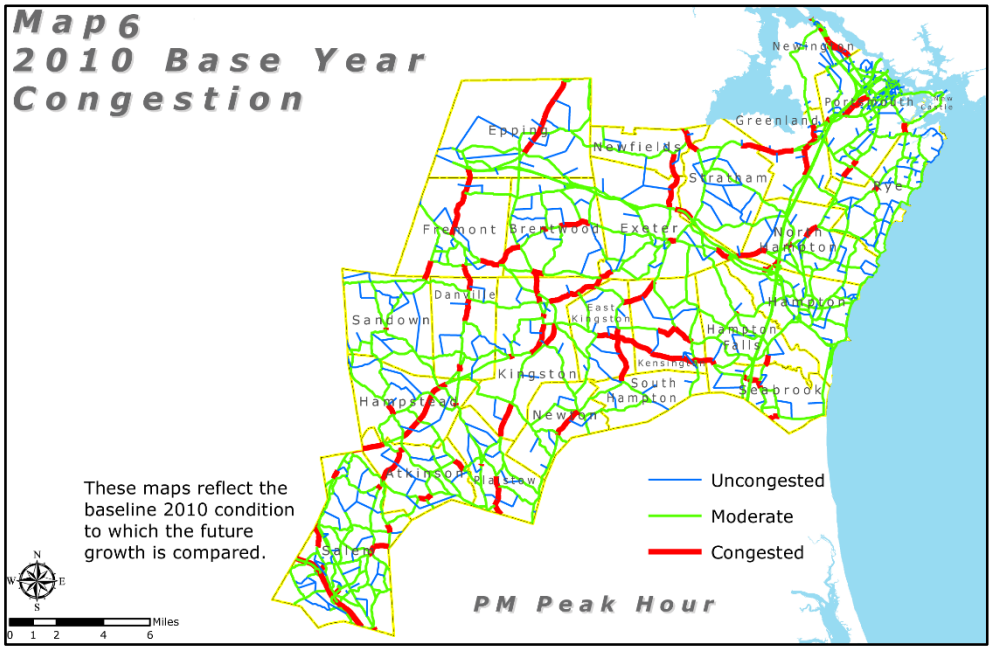


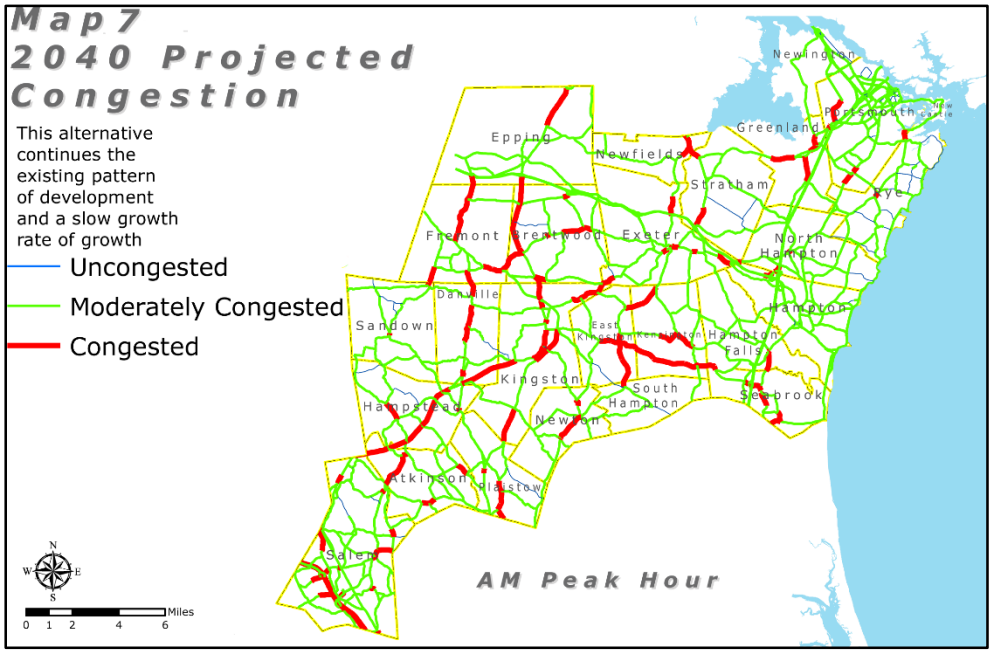
Short term, VMTs are likely to increase as fuel prices are expected to remain low for at least a year or two and strategies should look towards addressing greater congestion through network efficiencies and selective capacity improvements. Long term, low fuel prices cannot be sustained and the trends towards lower per capita VMTs, reduced driving, and increased transit use are likely to continue. The direction of our investment in the transportation system needs to reflect this as well. Efforts should continue to move away from large, capacity increasing highway projects, and correspondingly, more resources should be directed towards preservation of the existing system and expansion of access to pedestrian, bicycle, and transit.

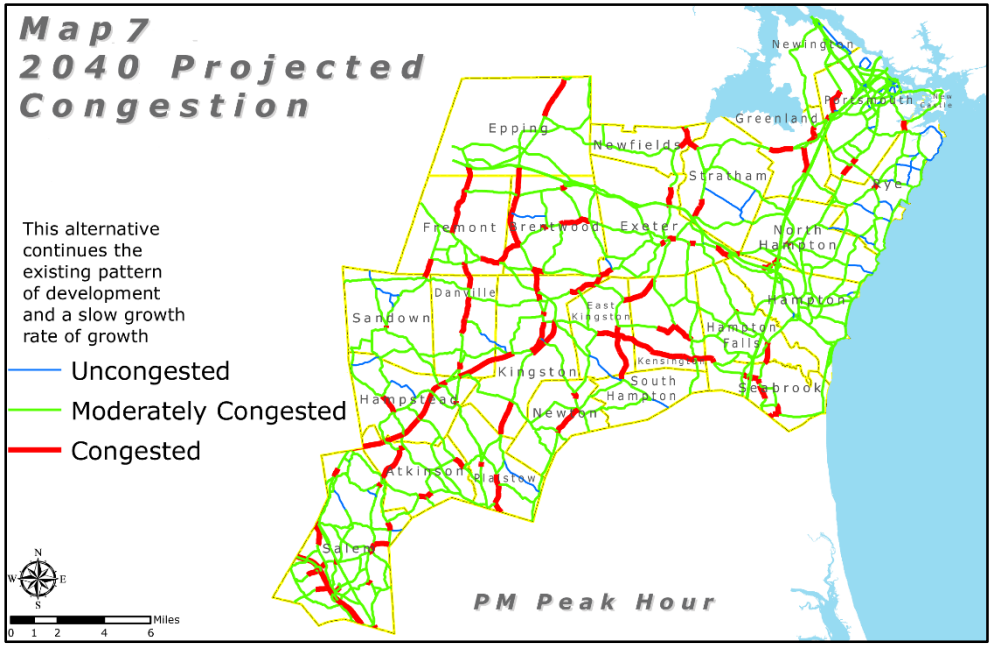
CONGESTION

The short-term trend of increasing personal travel as indicated by growing per capita VMT would also seem to point toward increased levels of congestion in the region. At the same time development continues to spread to new areas, employment is growing, and population is slowly increasing and all are contributing to congested travel along commuting corridors, near retail centers, and accessing recreational areas along the seacoast. ***Maps 6 and 7*** utilize the regional travel demand model to estimate and compare congestion on regional roadways in a bases year (2010) and in 2040. This analysis is based on the expected growth in population and employment in the region as well as historical traffic patterns. Widening of the Spaulding Turnpike is anticipated to reduce peak hour congestion in that area, however the same cannot be said on the I-93 corridor in









Salem. Traffic congestion can also be seen spreading further along commuter corridors on NH 33, NH 111, NH 125 and begins to be seen on more rural roadways as well such as NH 111A in Danville, NH 151 in Greenland as well as smaller roadways such as Beede Hill Road in Fremont. Peak hour congestion also begins to have more of an impact on US Route 1 by 2040. While many segments of that roadway are impacted from tourism and retail activities, it has never been a substantial commuter corridor and so the worst travel periods tended to be on weekends or mid-day. While the 2010 map shows small areas of congestion primarily in Seabrook, by 2040 both AM and PM peak hour traffic in Seabrook, Hampton Falls, and Portsmouth will be experiencing more severe congestion.

Changing Demographics

The slowing of migration, particularly of young people, into the state has brought to the forefront the issue of the aging New Hampshire population. While the state and nation as a whole are graying as the baby boom generation reaches retirement age, Rockingham County skews older than the state as a whole, due in part to significant development of age-restricted 55+ housing in the past two decades. This has implications for the transportation system as well as public health. AARP estimates that one in five Americans over age 65 does not drive, and 95% of New Hampshire seniors want to remain in their homes as they age. Making this viable will require substantial investment in senior transportation, as few options exist in many rural parts of

the state, including central Rockingham County. (AARP Public Policy Institute, 2011)

Another aspect of changing demographics of the region is the growing ethnic and language diversity – particularly the growth in the region's Spanish-speaking population. This has implications for CART and other providers of transit service, to begin providing information on services in multiple languages.

Imbalance of Available Funding and Infrastructure Needs

The poor physical state of transportation infrastructure in the region has been a significant issue for many years and maintaining the system in the current era of inadequate funding remains a challenge. Bridges are added to the NHDOT's Red List at a faster rate than repairs can be made to remove others from the list (Figure XX). While NHDOT has traditionally targeted paving/rehabilitation of 500 miles of roadway on an annual basis, in recent years fiscal constraint has allowed less than 300 miles to be completed per year. The gas tax and other methods of funding the transportation system have remained static since the early 1990s and when combined with fuel efficiency gains, have not kept pace with inflationary pressures that have raised construction and materials costs significantly over the same timeframe. This has resulted in significant underfunding of investment in the transportation infrastructure.

Funding for public transportation is a particular problem in New Hampshire. Most states provide a significant portion of the funding needed to match Federal Transit Administration (FTA) resources supporting regional public transportation. New Hampshire ranks consistently near the bottom nationally in the amount of State funding contributed to public transportation (*Table TR7*). In 2012 the national average per capita state spending on public transportation was $47.20. Removing the influence of states with major urban rail systems, the median per capita state investment was $4.20. In comparison, New Hampshire contributed $0.18 per capita to public transportation, and most of this was in support of Intercity Bus service in the I93 corridor. Perhaps most important from a public transit operations standpoint, New Hampshire provides only $0.09/capita in support for public transit operations. Most matching funding for COAST and CART is provided by municipalities together with on-bus advertising and interagency partnerships. This reliance on municipal match creates challenges in supporting multi-town regional transit services,

Progress on Addressing State Red List Bridges

Year	Start Total	End Total	Net Change
2000	144	157	13
2001	157	168	11
2002	168	167	-1
2003	167	153	-14
2004	153	146	-7
2005	146	140	-6
2006	140	137	-3
2007	137	137	0
2008	137	139	2
2009	139	142	3
2010	142	148	6
2011	148	140	-8
2012	140	145	5
2013	145	147	2
2014	147	153	6
2015	153		

Figure XX. Progress on State Red List Bridges, 2000-2015

where the loss of funding from one town can make a regional route unsustainable.

Table TR7:
FY 2012 Per Capita State Spending on Public Transportation

	Transit	Public Transit Operations
Massachusetts	$ 187.38	$ 177.36
Connecticut	$ 126.30	$ 82.65
Rhode Island	$ 50.53	$ 44.87
Vermont	$ 10.93	$ 9.21
Maine	$ 0.40	$ 0.40
New Hampshire	$ 0.18	$ 0.09
National Average	$ 47.20	
National Median	$ 4.20	

Source: AASHTO 2014

In 2014 the NH Legislature passed a bill that increased the road toll by $0.042/gallon for a period of 20 years. The increased revenue is dedicated to finishing I93 widening from Salem to Manchester, bridge rehabilitation and repair, and a small increase in the Highway Block Grant funding given to municipalities. While this is a step in the right direction, it falls short of providing the funds to address current, let alone future system needs.

New Hampshire has even more significant problems in funding rail service, as the New Hampshire Constitution prohibits use of revenues from gas tax, vehicle registration, or road tolls for rail service. Expansion of passenger rail in the state will require identification of a dedicated state funding source.

Coordination of Community Transportation Services

Beyond the public transportation and intercity bus and rail services described above, there are over two dozen health and human service agencies in the region which provide demand response transportation service for various populations – in particular senior citizens, individuals with disabilities, and low income residents. Often these services target clients of specific human service agencies or communities, though in some cases they are open to broader populations. These agencies have historically operated independently with little coordination. Their vehicle operations should not be viewed as duplicative in that taken all together they collectively still do not meet the full trip need for transit dependent residents in the region. At the same time, each service typically maintains its own trip scheduling and dispatching capacity, agencies often only have operating funds for part-time drivers, such that vehicles are not fully utilized. Federal law requires MPOs to develop plans for coordination among these entities, with a goal of improving efficiency by centralizing functions such as scheduling, dispatching and billing, or developing joint agreements for maintenance and vehicle purchases. The RPC has been a partner in developing two Public Transit/Human Service Transportation Coordination Plans – one for the nine-town Greater Derry-Salem region, and one for the 28 cities and towns in

southeastern New Hampshire, broadly defined as including Rockingham County east of Route 125 together with Strafford County. An initial step toward coordination has been transit agencies purchasing service from human service agencies to more fully leverage public and private resources. The more substantial integration of call taking and dispatching services envisioned in the coordination plans is just beginning to take hold in both regions, with agencies agreeing to consolidate some or all of their trip scheduling and provision through the regional call centers.

Freight Movement

Goods movement continues to be a growing sector of travel in the region as well as an important aspect of the regional and national economy. The Freight Analysis Framework is predicting that overall freight movement will increase by 48 percent between 2011 and 2040. Overall, truck freight share of freight has peaked and more goods will be shipped by all other modes. Truck freight currently carries about 82.5 percent of all goods by weight (KTons) but this is expected to decrease to 80.2 percent by 2040 with all other land based modes showing increased utilization. Between 2011 and 2040 the volume of Air freight is expected to increase by 195 percent, rail freight by 107 percent, and multimodal freight by 109 percent. The increased volume of freight being moved in the region brings with it a number of issues and concerns:

- Longer, heavier trucks are damaging roadways that were not designed to manage current allowable weights and infrastructure not designed for the turning radii necessary for the longest trucks.
- Public concern over the safety of moving hazardous materials through communities on rail and roadway.
- The investment in rail, port, and connecting transportation infrastructure has been lower than may be needed to adequately manage the expected freight volumes.

Regional Land Use Patterns and Transportation Choice

Existing land use patterns represent one of the most significant challenges to expanding transit service in the region. Development that is spread out over a large area is much more difficult to serve with transit than a compact development pattern, where centrally located stops can serve many residents and businesses within a short walking distance. Portsmouth, with its relative density and proximity of residential, retail, and employment locations, has worked with COAST to develop a solid network of transit connections throughout the city and invested in bicycle and pedestrian facility improvements. Higher commute mode shares for transit, bicycling and walking in compact, mixed-use downtowns with transit access, as compared to the county or state as a whole are shown in *Table TR6*. For much of the central part of the RPC region, development densities are low enough that regular fixed route bus service is not practical. CART has sought to address this

through use of demand response service and deviated fixed route service. Similar challenges exist for supporting safe bicycle and pedestrian transportation.

For generations public schools have been located in town centers to allow walking access. In the past two to three decades, new schools have often been constructed on the outskirts of communities. While this allows access to inexpensive land for playing fields, it can greatly increase overall operating costs including school and family transportation. To the extent that communities implement more compact development patterns, and ensure siting of public facilities considers transportation access, public transportation, bicycling and walking can become more convenient travel options.

Environment and Climate

Air Quality

The United States Clean Air Act, as amended, requires the Environmental Protection Agency to establish the National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health. The Environmental Protection Agency (EPA) currently enforces standards for six different pollutants including carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO^2), Ozone (O^3), particle pollution (PM2.5), and sulfur dioxide (SO^2). As of March 2016, the RPC region (and all of New Hampshire) meets EPA standards for all transportation related emissions regulated under the NAAQS, and are therefore classified as attainment areas. This is the result of nearly 20 years as a Non-Attainment area with many efforts focused on reducing the impacts of the transportation system on air quality through projects and policies that reduce Vehicle Miles of Travel and promote less polluting modes of travel. That being said, air pollutants and greenhouse gases are still a concern within the region. The EPA is currently considering lowering the NAAQS and depending on where the threshold is set, the region could move return to a non-conforming status and be required once again to use Transportation Conformity and air emissions analysis to demonstrate that the projects being constructed and implemented in the region do not have a detrimental impact on air quality.

Climate Change

Carbon dioxide (CO^2), a primary contributor to the problem of global climate change, is emitted through the combustion of fossil fuels and the concentration of this compound has increased substantially since the industrial revolution and continues to do so today (EPA, 2014). The transportation sector contributes roughly 28 percent of the total US greenhouse gas emissions each year and is an area where we can continue to make changes to reduce the impacts. Increased frequency and severity of storm events over the past decade, and anticipated continuation of this trend in the coming decades related to climate change, has significant implications for transportation system operations, maintenance and future investment planning. It is the responsibility of the MPO to identify the measures that are necessary to plan for a transportation system that is resistant to damage from extreme weather and more

resilient when weather-related impacts do occur. The challenges that the MPO faces from this are:

- Development of the data necessary to estimate the vulnerability of the transportation system to increased storm activity and sea level rise.
- Finding the funding to address specific facilities that are vulnerable to sea level rise and increased storm activity.

Climate change can have a variety of impacts on the transportation system of the region and coastal areas are particularly vulnerable to those impacts. Higher temperatures can cause problems with softening pavement and expanding bridge joints creating stresses on the effected facilities. More intense storm activity results in more frequent flooding causing traffic problems as well as damage to roadways, culverts, railroads, and bridges. Coastal inundation from storm events brings the addition of damage from wave action and salt water.

RPC is currently in the midst of a vulnerability analysis examining the impacts of flooding due to sea level rise and inundation from storm activity. This analysis has preliminarily data showing that under the highest expected sea level rise, 100 year storm events (1 percent probability per year) will impact over 80 miles of roadway and bridges in the seacoast. ***Map TR3*** shows the extent of these impacts under that scenario. The impacts from this flooding are in many of the regionally significant economic centers along the coast and could have substantial negative effects on tourism and the economy of the region and work needs to continue to mitigate these issues before the problems occur.

Wildlife, Habitat, and Open Space

There are a number of planning efforts that have occurred in the region and the state in recent years that can inform the transportation planning process and aid in understanding the impacts of projects on the natural environment. Several data sources for natural resources exist which can provide detailed information on the location, quality, and extent of discreet natural resource types as map "layers", such as wetlands, aquifers, forest areas by type, and soils. However, there are fewer sources which look at these resource layers in combination and assess the value of different geographical areas based on the presence, quality, and interaction of two or more of these resource layers based on their value as a functioning ecosystem. Data on cultural resources tend to be less comprehensive, as few municipalities have comprehensive and up to date historical and cultural resource inventories. Much of the cultural resource inventory data from the past 20 years has been compiled for limited geographic areas as part of regulatory requirements for permitting public infrastructure projects such as highways or utility lines.

The Rockingham Planning Commission has been involved with the development of two sources of natural resource data for the region that provide resource information within a framework of analysis of the co-occurrence of two or more resource layers: the *New Hampshire Natural Services Network*, and the *Land*

Conservation Plan for New Hampshire's Coastal Watersheds. In addition, the *New Hampshire Wildlife Action Plan* provides another important data set useful in identifying high-value resource areas, and was used in part in the Coastal Land Conservation Plan's co-occurrence data. Both the Wildlife Action Plan and the Natural Services Network contain data at state, regional, and municipal scales and are therefore available for the entire RPC/MPO area. The Land Conservation Plan contains data for the coastal watershed region of New Hampshire, which includes about three-fifths of the land area of the RPC/MPO. RPC has utilized these data sources as a primary source of identifying potential opportunities for mitigation activities that involve habitat protection and resource conservation, such as called for under water quality, wetlands, floodplains, farmland soils and habitat protection.

In addition, land use strategies have become increasingly important to the development and implementation of transportation projects, especially in regards to mitigating environmental impacts. These strategies may include, but are not limited to, land use planning techniques such as districts or ordinances based on identified natural resources areas, such as the Conservation Overlay District model ordinance found in the Land Conservation Plan, as well as ordinances as found in *Innovative Land Use Controls: A Handbook*, prepared jointly by the NH Office of Energy and Planning, the NH Department of Environmental Services, and the regional planning commissions of the state of New Hampshire. Tools in the Handbook include model ordinances on Transfer of Density Rights, The Village Plan Alternative Subdivision, Conservation Subdivisions, Erosion and Sediment Control, and Protection of Wildlife Habitat, among others.

Complete Streets and Safe Accommodation for All Travelers

While experienced bicycle riders are typically comfortable riding on roads with narrow shoulders and significant traffic, the lack of a traffic-separated path or even a shoulder bicycle route will often prevent younger riders or adults unaccustomed to riding from choosing to ride a bicycle for a short trip instead of driving. Significant progress has been made in the past 20 years in developing regional bicycle routes such as the Great Bay Bicycle Loop, the Exeter-Hampton-North Hampton Loop, the Salem-Concord Bikeway; though projects tend to be developed in a piecemeal approach based on availability of local funds, or developer contributions.

FHWA policy directs that bicycle and pedestrian safety and infrastructure needs be considered on an equal footing with motor vehicle accommodations. There has been significant progress in bicycle and pedestrian accommodation in state highway projects in recent years, though in many cases this is an end result following extensive public input and negotiation rather than an integral component of the roadway design process.

A response to this is the concept of *Complete Streets,* which emphasizes the idea that streets should be designed and

operated to enable safe access for all users, whether drivers, transit riders, pedestrians, and bicyclists, as well as for older people, children, and people with mobility impairments. What constitutes a Complete Street will vary by community and development density – what works for Boston, Portsmouth and Brentwood will be different responding to the relative prevalence of pedestrians or the presence of transit service. Fundamentally, though, Complete Streets policies direct transportation planners and engineers to consistently design with all users in mind, not just automobile drivers.

Complete Streets policies have been adopted by 27 states, and more than 720 counties, municipalities and MPOs nationwide. Portsmouth has adopted such a policy, as have the cities of Concord and Keene. New Hampshire is the only New England state without such a policy, though legislation to establish a study committee on developing a statewide policy has been passed by the Senate in the current legislative term.

A related challenge is the current state policy of not maintaining pedestrian infrastructure on state highways. While NHDOT will incorporate sidewalks in highway projects, municipalities must accept maintenance responsibility or sidewalks are omitted. While both state and local authorities have legitimate budget concerns, the end result has too often been a failure to provide safe infrastructure. A better solution to long term maintenance needs will be an important aspect of implementing a Complete Streets approach in New Hampshire.

Distracted Driving

Distracted driving is operating a motor vehicle while doing another activity that takes your attention away from driving and each day in the United States, more than nine people are killed and over 1,000 people are injured in crashes that are reported to involve a distracted driver (NHTSA). Distracted driving activities include things like using a cell phone, texting, and eating and using in-vehicle technologies such as navigation systems. Numerous studies have indicated that cell phone use significantly delays drivers' reaction time while typing and reading text messages had impacts on increased lane deviations as well as the length of time that drivers were not looking at the roadway. The Insurance Institute for Highway Safety estimates that cell phone use can increase the chance of a motor vehicle crash (or near crash) by 17% and that the likelihood of a rear-end collision (or near crash) was 5 times higher when a driver is texting (IIHS, 2016). The New Hampshire Legislature outlawed texting while driving effective in July of 2015 and it is too early to understand the impacts of that change although though surveys suggest (CDC 2014) that it remains a widespread practice after such bans are put in place.

While distracted driving poses a threat to all road users, that threat is particularly great for those travels not protected by the steel frame of an automobile. Crash data provided by NHDOT for the 2003-2012 period shows that distracted driving is one of just two growing factors contributing to crashes (with the other being following too close). *Map TR4* illustrates the extent of distracted driving crashes in the region and it is a problem that

is touching all communities and all roadway types. In 2003, driver distraction was cited as a causative factor in just under 12 percent of crashes in the region. By 2012 distraction had increased to 16 percent of crashes, and according to an article in the Manchester Union Leader, was a factor in 27 percent of fatal crashes over the last three years (Rayno, 2014).

Public Health

The transportation system has implications for public health in multiple ways. These include general transportation safety, impacts of vehicle emissions on air quality, and the extent to which people are able to find transportation to medical care. Multiple agencies have found lack of transportation to be a significant barrier to accessing routine health care for seniors and others in New Hampshire unable to drive themselves. These factors have all been discussed in the previous pages. A fourth facet of public health impacted by the transportation system is physical activity, and the extent to which our communities are built in such a way that people are able to walk or bicycle.

An often cited statistic is that in 1969 48 percent of school age children usually walked or bicycled to school. In 2009 only 13 percent of that same age group walked or bicycled to school. (National Center for Safe Routes to School, 2011). Factors in this change include longer travel distances as communities become more spread out, parent concern about traffic danger as traffic has grown heavier, faster and more distracted; parent concern about crime, and more hectic family schedules.

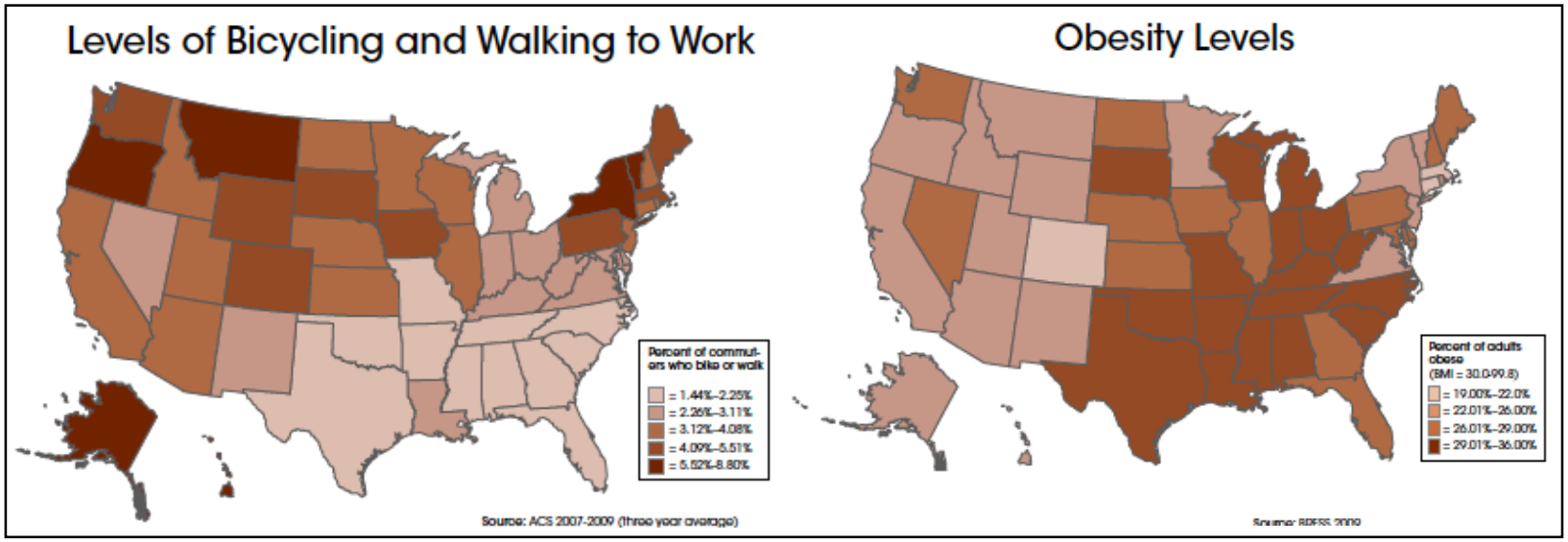


Figure XX. Correlation between obesity levels and bicycling and walking to work by state (2009)

A public health implication of more kids being driven rather than walking or bicycle is a decline in physical activity, which has in turn contributes to significant increases in childhood obesity seen over the past three decades. According to the Center for Disease Control, in 2009 35.7% of New Hampshire adults were obese, compared to fewer than 14% in 1960. In 2009 33% of New Hampshire third graders were above a healthy weight, with 21% of boys and 15% of girls obese. The National Institute of Health has estimated the impact of weight related diseases at $147 billion annually on the U.S. healthcare system – or about 10% of all medical spending. Lost productivity for employers was estimated at an additional $3.4-$6.4 billion annually.