

## Chapter 4

**TRANSPORTATION****I. INTRODUCTION AND PURPOSE**

Essential to any municipality's well-being is a transportation system that supports efficient and safe movement of people, goods, and services both within the town limits and the region. Moving into the next decades Milford's transportation system must be fully integrated with housing, commercial, and industrial land uses, protection of water and air quality, and must be cost-effective both in construction, maintenance, and service. The overall public and economic health of both the individual and the community relies on an affordable and accessible transportation system that can adapt to the forces of growth, fuel availability and cost, regulatory requirements, and changes in environmental conditions.

There are ten commonly accepted smart growth principles (US EPA) that reflect the interrelationship of the elements that make up a community's land use patterns and development. These principles have been incorporated into updates of chapters of the Milford Master Plan to guide Town growth:

- *Mix land uses*
- *Take advantage of compact housing design*
- *Create a range of housing opportunities and choices*
- *Create walkable neighborhoods*
- *Foster distinctive, attractive communities with a strong sense of place*
- *Preserve open space, farmland, natural beauty, and critical environmental areas*
- *Strengthen and direct development towards existing communities*
- *Provide a variety of transportation choices*
- *Make development decisions predictable, fair, and cost-effective*
- *Encourage community and stakeholder collaboration in development decisions*

New Hampshire RSA 674:2.I states that the purpose of the master plan is to set down as clearly and practically as possible the best and most appropriate future development of the area under the jurisdiction of the Planning Board, to aid the board in designing ordinances that result in preserving and enhancing the unique quality of life and culture of New Hampshire, and to guide the board in the performance of its other duties in a manner that achieves the principles of smart growth, sound planning, and wise resource protection. A transportation section is recommended by this statute, and the section should consider all pertinent modes of transportation+ and also provides for a framework for both adequate local needs and for coordination with regional and state transportation plans. Considerations may include but are not limited to public transportation, park and ride facilities, and bicycle routes, or paths, or both+.

The Transportation chapter outlines how the Town of Milford will face the challenges and opportunities to incorporate short-term and long range planning needed to maintain, improve, and sustain an efficient transportation system integrated with desired land use, community character, and environmental goals.

## II. HISTORICAL CONTEXT

Milford physically developed in a pattern typical of New England towns. During the middle years of the 18<sup>th</sup> century a gristmill and sawmill were established on the Souhegan River just east of the present day stone arch Colonel John Shepard Bridge. Milford's current downtown grew in the vicinity of the Souhegan River and Great Brook. By the time the Town incorporated in 1794 this area had developed into a village center with a mixture of civic, commercial, small-scale manufacturing, and residential buildings surrounding a town common<sup>3</sup> and remains as the hub of the community to this day.

Settlement in this area created the need for roads and one of the earliest roadways later became the main route between Nashua and Wilton. Other routes leading to the village center developed from the adjacent farms and outlying granite quarries and Nashua Street, South Street, Elm Street, and Mont Vernon Street became primary routes. Textiles, foundries, granite quarrying, lumber, and farming formed the basis of the Milford economy during the 1800s, and the arrival of the railroad in 1852 allowed Milford to connect to larger markets. After growing to a population of 3,939 in 1910, Milford's population remained relatively unchanged through 1950 when the population was 4,159.

In the early 1900s the automobile emerged as a new means of transportation and began to shape the building patterns and infrastructure of the Town. By 1930 there were nine gas stations and by 1939 the downtown Oval area was experiencing parking problems.<sup>4</sup> During the mid-1920s rail usage was in decline, and by 1941 rail passenger service was discontinued and a bus line was established between Manchester and Fitchburg, Massachusetts with stops in Milford and Wilton.

Significant road construction and improvements were accomplished in the first half of the twentieth century as a result of the establishment of both state and federal road systems. Around 1920 the State had established a series of trunk lines and cross state roads, including the South Side Highway which was subsequently designated as NH Route 101. In Milford the route began at the Milford/Wilton town line and followed Elm Street through Union Square, crossed the Souhegan River and proceeded to Amherst. In 1935 Jones's and Richardson's crossings in the west end of town were eliminated with the construction of a federal road between Milford and Wilton. The Elm Street portion of NH Route 101 became NH Route 101A at the time the Route 101 Bypass was constructed (1969-1978). Currently, NH Routes 101, 101A (both east-west) and NH Route 13 (north-south) have created major highway transportation corridors that provide significant regional linkages for the Town and carry high traffic volumes.

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<sup>3</sup> Page 7, NHDHR Area Form, Downtown Milford Commercial, Civic, and Residential Historic District (Area MIL-CCR), Preservation Company, August 9, 2010.

<sup>4</sup> Page 17, NHDHR Area Form, Downtown Milford Commercial, Civic, and Residential Historic District (Area MIL-CCR), Preservation Company, August 9, 2010.

## 2.01 PREVIOUS MILFORD MASTER PLANS

Since 1963 the Town has completed three comprehensive planning cycles that included traffic and transportation sections.

**2.01.1** In the **Master Plan for the Town of Milford N.H., 1963-1983**, these major issues and actions were identified:

- *Milford was described as carrying its traffic on streets that were originally designed for horses and carriages. Streets were found to be in fair condition. Sidewalks were in need of improvement. Traffic flow on Nashua Street and around the Oval was found to be congested to the point of being detrimental to business.*
- *It was recommended that street classifications be established and adopted and improvements made on the basis of classification.*
- *Construction of the NH Route 101 Bypass was a priority, however it was noted that a 'bypass' can create both positive and negative impacts and the Master Plan identified downtown revitalization as critical to draw people downtown and that the Bypass not result in travelers circumventing the Town and harming the economic health of the business community.*
- *Street construction and improvements should accommodate future traffic and that it was a community responsibility to most appropriately deal with the automobile to the satisfaction of not only the highway user but also to abutting property owners.*

**2.01.2** The **1993 Milford Master Plan** provided detailed listings of road classifications, traffic counts, accident locations, scenic roads (first established in 1974), intersection capacity analysis (level of service or  $\pm$ OSq), and intersection turning movement counts. Specific recommendations included:

- *Further analyze and prioritize problem intersections discussed (in chapter) and include these projects in the Capital Improvements Plan.*
- *It should be the policy of the Planning Board to discourage the construction of dead-end streets.*
- *The Planning Board should encourage obtaining rights-of-way to adjacent lands. Both this policy and the one above are intended to increase the efficient flow of traffic throughout the community.*
- *Long term traffic improvements should be a Route 13 bypass to avoid the Oval and the connection of Powers Street with South Street. Both of these proposals would reduce traffic on both Nashua and Elm Streets.*
- *The Planning Staff, on a yearly basis, should obtain the accident report data from the Department of Transportation in order to analyze these statistics and determine if a particular area is becoming a problem.*

- *Pedestrian safety is a major problem in and around the Oval. Improvements which should be considered include: The existing signs that indicate cars must stop at crosswalks should be made more visible. In addition, these signs should note that fines up to \$100 can be issued to those who fail to stop at crosswalks. Improve the visibility of the crosswalks.*
- *The Planning Board should continue to require that developers participate in off-site road improvements when it is reasonable and necessary.*

**2.01.3** The **1999 Master Plan Update** included an updated chapter for Traffic and Transportation, which began with the following philosophy:

*“The Town of Milford, as well as the region, will likely continue to grow at a moderate pace within the next five to ten years. This residential, commercial, and industrial growth and development will place ever-increasing demands on the existing road and transportation network. The Town’s transportation system should be safe and support the needs of the community, and impacts of transportation-related improvements and growth must not override the community’s desired quality of life.”*

The Chapter specified high and medium actions to occur during the following years. For 1999/2000 the foremost high priority action to be taken was to develop and begin implementation of a Town Traffic Management Plan to be a coordinated effort between the Planning Board, Planning and Public Works Departments, and the Nashua Regional Planning Commission. The Traffic Management Plan was intended to address levels of service and deficiencies of the existing road system; identify where future deficiencies could occur based on anticipated growth; determine methods to address existing and future deficiencies; identify roads that serve as regional links; evaluate road, sidewalk, drainage, and utility construction specifications; incorporate pedestrian, bicycle, and intermodal improvements; evaluate implementation of traffic impact fees; and evaluate public transportation needs and implement services. Additionally, the Planning Board determined that road corridor plans should be developed that incorporated access management, aesthetics, and land use intensity.

Medium priority actions noted in 1999 included implementing appropriate recommendations from the Traffic Management Plan, specifically programming improvements projects into the annual Capital Improvements Plan (CIP) to insure phased and orderly implementation of projects and encouraging increased traffic calming and individual courtesy and responsibility by citizens when traveling Milford roadways.

## **2.02 TRANSPORTATION RELATED EFFORTS IN MILFORD – 2000 TO PRESENT**

Over the past decade there has been much planning and groundwork completed to implement specific road projects, but no overall Transportation Management Plan has been created and adopted to fully coordinate and integrate the goals set forth by prior master plans. However, existing planning documents will be instrumental in carrying out the goals set forth in the current 2012 Master Plan update. Additionally, the recognition that

transportation systems are just one element of an overall systems approach to planning Milford's future has become an overarching principle insuring that economic development, protection of natural and built infrastructure, land use, community character, and public health are all integrally related components and are not independent of each other. This awareness, in conjunction with smart growth principles, is critical at both the local and regional levels.

### ***Major Studies and Plans Guiding Current Transportation Projects***

An itemized list and description of completed studies and plans with detailed data to incorporate into near term and long range project planning follows:

#### **2.02.1 Evaluation of Highway Improvement Alternatives in Milford, New Hampshire (January 2002, Hoyle, Tanner and Associates)**

Authorized by Town vote in 2000 to begin implementation of the 1999 Master Plan update goal, this document with supporting data and analysis, provides a baseline from which to develop Oval traffic congestion and additional primary roadway improvements recommendations throughout Milford. This study also included a preliminary analysis of additional potential road crossings of the Souhegan River (the West Street Corridor, the Powers Street Corridor, and the BROX Corridor).

#### **2.02.2 NH 101A Corridor Master Plan and Improvements Program (August 2002, prepared by VHB, Inc. for the Nashua Regional Planning Commission (NRPC))**

Commissioned by the NRPC with New Hampshire Department of Transportation (NHDOT) and federal funding, this Master Plan and associated recommended improvements studied the NH 101A Corridor from its intersection with NH 101 at the Milford/Amherst town line to its intersection with US Route 3 in Nashua.

This Corridor Master Plan provides recommendations that address the following goals:

- *Preserve the existing roadway capacity of NH 101A through access management, intersection improvements, and traffic signal system optimization.*
- *Provide a priority capital improvement program for use by the NHDOT for purpose of implementation and funding.*
- *Enable safe pedestrian, bicycle, and transit access throughout the corridor.*
- *Improve the appearance of the corridor through the development of landscaping and lighting guidelines.*
- *Guide future development and redevelopment through the development review process.*
- *Provide recommendations for long-term solutions.*
- *Protect groundwater quality through establishment of stormwater management guidelines and the implementation of flexible design standards.*

**Current Plan Implementation Status:**

Specific to Milford is a recommendation for a conceptual interchange upgrade at the NH 101A/101 interchange and short term recommendations for at-grade interchange improvements and sidewalk reconstruction from the interchange westerly to James Street in Milford.

In March 2011, the NHDOT began soliciting additional public input from NRPC communities on the recommendations in the Corridor Master Plan with the intent of implementing additional improvements during 2012 and 2013 contingent on federal and state funding availability. Included at this time is additional design for the NH 101A/101 short term upgrades.

**2.02.3 New Hampshire Route 101 Corridor Plan – Amherst, Milford, Wilton (September 2002, prepared by VHB, Inc., Wallace Floyd Design Group, and RKG Associates, Inc. for the Nashua Regional Planning Commission (NRPC))**

Commissioned by the NRPC with NHDOT and federal funding, this Master Plan and associated recommended improvements studied the NH 101 Corridor from the highway intersection with Abbott Hill Road in Wilton to the Bedford town line. A separate corridor plan was completed during the same time period for NH 101 through Bedford.

The goal of this Corridor Plan is to implement a comprehensive highway improvements approach with these intended results:

- *A safer roadway with less congestion.*
- *Less diversion of traffic into residential areas.*
- *A better commercial center in Bedford encouraging lower vehicular speeds and accommodating pedestrians, and better conditions for development in western Milford and Wilton.*
- *An attractive highway corridor through all four towns, preserving existing character.*

The NH 101 Corridor Plan provides a thorough inventory and analysis of traffic volumes, pedestrian and bicycle transportation accommodations, traffic operations, and identification of visual, natural systems, land use and development regulatory conditions, utilities, economic development conditions, and historic and cultural resources. Specific to the segment of NH 101 that traverses Milford are conceptual short term and long term improvements at the NH 101/NH 101A interchange, at the NH 101/NH 13 interchange, and for NH 101 westerly to Wilton (inclusive of an extension of the 101 Bypass to relieve congestion on existing NH 101 from its intersections with Old Wilton Road, Phelan Road, Elm Street (NH 101A) and Wilton Road).

The NH 101 Corridor Plan provides detailed economic development/market analysis background on the BROX commercial-industrial area and Milford in general as well as design guidelines for future development.

**Current Plan Implementation Status:**

Within the past several years the NHDOT has made significant improvements to NH 101 within Milford and Amherst to address critical safety issues related to fatal traffic accidents. Additionally the NHDOT has performed major road maintenance and paving work with the availability of federal American Recovery and Reinvestment Act 2009 (ARRA) funding. In March 2011 the NHDOT began initial public meetings to begin the process of implementing the short and long term recommendations included in the NH 101 Corridor Plan. In April 2011 the Milford Board of Selectmen, based on input from Town staff members and the Planning Board, provided the NHDOT and the NRPC an official notification that safety improvements on the NH 101 segment between Phelan/Old Wilton Roads and Wilton Road be prioritized as the Town's foremost short term improvement.

Based on anticipated growth and development scenarios projected in Milford in the coming decades one new NH 101 project has been submitted for incorporation into the State 10-Year Transportation Improvement Plan (TIP) and one existing project has been requested for removal from the TIP. Town staff has officially notified the NHDOT and the NRPC that a new access on NH 101 to serve the planned west Milford mixed-use development area (Commerce and Community District) be incorporated into the TIP. Concurrently, the Town, based on changing conditions, project cost, and project feasibility, has requested that the NH 101 Bypass extension be removed from the TIP.

Due to its comprehensive nature, the NH 101 Corridor Plan will continue to be utilized as the Town progresses on master planning the west Milford area for mixed-use development, site development guidelines, and capital improvements planning.

#### **2.02.4 Transportation and Community and Systems Preservation Study, Milford, New Hampshire (July 2006, prepared by the Nashua Regional Planning Commission (NRPC))**

The 2006 Transportation and Community and Systems Preservation (TCSP) Study, funded through NRPC Metropolitan Planning Organization federal grants, expands upon the 2002 NH Route 101 Corridor plan with an in-depth review of those Town transportation systems exclusive of the NH 101 and NH 101A state routes. The stated purpose of this study is to improve the interface between land use and the transportation system through strategies that:

- Reduce dependence upon the automobile for meeting transportation needs.
- Provide access management techniques that preserve roadway capacity and reduce safety problems.
- Incorporate design guidelines that decrease visual clutter along local transportation corridors.

As stated in this study, the strategies presented are intended to decrease wear and tear on the local road system which will lessen the need for future roadway expansion; reduce diversion of traffic from State routes into residential neighborhoods to create safer roads; and develop alternate modes of transportation that are feasible for Milford including bicycle, pedestrian and public transit options. These strategies, if implemented, will lead to less-vehicle-miles traveled by reducing the number of single occupancy vehicles on the

roads. A reduction in overall vehicle-miles-traveled improves air quality, reduces cost for the individual and the Town in time and maintenance dollars, and benefits public health.

The study includes several key components for the Town, forming the basis for transportation planning initiatives over the past 5-7 years. In particular, the 2006 recommendations include:

- On Nashua Street, the westbound left turn lane at Clinton Street should be extended east past the Edgewood Plaza Shopping Center to Monson Place. A left turn lane should also be installed on the Nashua Street westbound- approach to Powers Street. These projects would improve the poor levels of service that currently exist at those locations.
- The Nashua Street / Ponemah Hill Road intersection should be improved and signalized.
- Nashua Street sidewalks are lacking in the vicinity of Lorden and Richmond Plazas. Existing sidewalks should be extended on both sides of Nashua Street from the cemetery all the way to these shopping centers. These improvements will encourage increased biking and walking to calm traffic and provide safe alternatives to motorized vehicles.
- Architecture and building design on segments of Elm Street are out of character and scale with the rest of Milford. Site plan guidelines that maintain residential character and reflect traditional Milford architecture should be adopted.
- South Street is narrow, varies in width, bulges in sections and has many undefined curb cuts which results in concern for pedestrian and motorist safety. Safety and aesthetic improvements need to be made.
- The feasibility of an additional crossing of the Souhegan River should be studied and incorporated into any future NH 101 widening project.
- The transition from western Milford to Wilton is a bottleneck with traffic signals, at grade railroad crossings, and poor access management. An access management plan and center-turn lane should be developed and constructed.
- The transition from the highway system to the local street system could be greatly enhanced by landscaped gateways at key entries into Town.
- An effort should be made to enhance the perception that Milford is a pedestrian and bicycle friendly Town. This can be accomplished by developing programs that help maintain pavement, policies that encourage increased biking and walking and designated bicycle and pedestrian routes.
- The location of Milford on the urban fringe of the Nashua region provides an opportunity to integrate public transit into the planning process. Full day fixed- route bus service would assist Milford in best meeting the needs of households with limited incomes, limited vehicle availability, and the disabled population, and would reduce vehicle miles traveled.

This study provides data from the period 2005-2006 relative to existing conditions on the Town's roads and sidewalks as well as many tools and recommendations for revisions to regulations and policies.

**Current Plan Implementation Status**

The Town has taken steps to implement several of the 2006 TCSP Study recommendations in the last 5-7 years. Specifically:

1. Nashua Street improvements from Clinton Street past Edgewood Plaza Shopping Center have been conceptually developed and included as an improvement project in the **2009 Traffic and Pedestrian Evaluation for Milford Downtown Area** and are tentatively scheduled for implementation in 2013-2014. This project will be funded by the federal Section 1702 Transportation Improvements grant and local matching funds.
2. A signal warrant study and engineering plans have been completed for the Nashua Street/Ponemah Hill Road intersection. A warrant article for the project did not receive voter approval in 2007. The project remains in the Town's Capital Improvements Plan for implementation in 2015.
3. Engineering plans have been completed for the construction of sidewalks on Nashua Street to complete the connection to the Lorden and Richmond shopping centers. The project is included as a three-phase project in the Town's Capital Improvements Plan for implementation in 2013, 2014, and 2015.
4. The Planning Board developed a Nashua Street/Elm Street Corridor Overlay zoning district with design guidelines to address development and redevelopment reflective of community character and inclusive of safe and multi-modal transportation provisions. These regulations were adopted by the Town in 2008.
5. In 2011 the Planning Board and Economic Development Advisory Council (EDAC), with assistance from NRPC, expanded the corridor design regulations and guidelines effort to include west Elm Street and NH 101 to the Wilton town line, resulting in the Town adopting the West Elm Street Gateway District in March 2012.
6. A significant safety and aesthetics improvement project is underway for South Street from its intersection with Union Square southerly to the railroad right-of-way. Construction is intended to begin in late 2012. This project is funded by federal Transportation Enhancement and Section 1702 Transportation Improvements funding as well as local matching funds.
7. Addressing the NH 101 transition in west Milford is a high priority safety issue identified by the Board of Selectmen, Planning Board, and town staff and in April 2011 the NHDOT was made aware of its importance for inclusion in NHDOT short term NH 101 safety enhancements programming.
8. Pedestrian safety improvements and sidewalk linkages have been constructed through the utilization of local, federal, and private funding sources at the following locations:
  - a. On West Street and Osgood Road, adjacent to the Milford Middle School and Milford High School;
  - b. North River Road, from its intersection with Mont Vernon Road to the MCAA/North River Road athletic fields;

- c. Across the Souhegan River, connecting Keyes Field via the Gregg Crossing Pedestrian Bridge and a gravel packed pathway to Mont Vernon Street;
  - d. Detached asphalt sidewalks on portions of Heron Pond Road, Philip Way, and Ponemah Hill Road; and attached sidewalks within the Ledgewood development and portions of the east-end Nashua Street commercial area.
9. In 2010 the Town applied for and received federal Congestion Mitigation and Air Quality (CMAQ) funding to address critical safety and congestion issues at the Route 13 South/Emerson Road/Armory Road intersection with the intent to undertake signalization and intersection improvements. Design is anticipated to be completed in the summer of 2012 and construction is anticipated to begin in late 2012, pending NHDOT funding.
10. The Souhegan Valley Transportation Collaborative (SVTC) organized and implemented a limited non-emergency community transportation service in 2008. The current service is a demand response, dial-a-ride type bus service available to residents of Milford, Amherst, Brookline, and Hollis. SVTC subcontracts the buses, drivers, and call center operations through the Nashua Transit System (NTS). Working closely with the NRPC, NTS, and the four towns, SVTC was able to leverage federal funding in 2010 that allowed expansion of the service from three days to five days per week, added destinations, and added hours of operation based on community input. SVTC continues to work with local and regional stakeholders on further service improvements and sustainable funding plans.

#### **2.02.5 Traffic and Pedestrian Improvement Evaluation for Milford Downtown Area, Milford, New Hampshire (March 2009, prepared by CLD Consulting Engineers)**

The Traffic and Pedestrian Improvement Evaluation for Milford Downtown Area was developed as a requirement by the NHDOT as the plan for guiding the utilization of federal Section 1702 and Transportation Enhancement (TE) funding for downtown traffic and safety improvement projects. The evaluation is based on community and town staff input on priority safety improvements in the downtown area defined as The Oval/Union Square, Nashua Street easterly to Tonella Road, South Street southerly to the South Street/Lincoln Street/Marshall Street/Prospect Street intersection, the Westside Neighborhood (Lincoln St/Union St/Garden St/Cottage St/Elm St) and the Mont Vernon/Grove/Amherst Street area.

This comprehensive evaluation consists of traffic and turning movement counts, signal warrant analyses, accident rates and locations, capacity analyses, cultural and historic documentation, and conceptual plans/cost estimates for improvements.

#### ***Current Plan Implementation Status:***

In line with requirements established by federal and NHDOT funding, the Town has outlined the following anticipated schedule for implementation contingent on funding availability:

1. South Street Improvements Project: anticipated start of construction late 2012.

2. Oval Area/Union Square: engineering and plan approval late 2012/early 2013; construction 2013.
3. Westside Neighborhood/southern South Street area: engineering and plan approval 2013; construction 2014.
4. Nashua Street area: engineering and plan approval late 2013; construction 2014.
5. Mont Vernon/Grove/Amherst Street area: engineering and plan approval late 2014/early 2015; construction 2015.

### III. VISION

Based upon a review and analysis of Milford's existing transportation system and infrastructure, existing and anticipated land use, the 1999 Traffic and Transportation chapter of the Master Plan and subsequent updates of the Community Character (2005), Community Facilities (2008), and Housing (2010) chapters, the following vision statement to guide transportation planning and development for the Town has been established:

*Milford will have a transportation system that integrates land use with efficient and safe flow of multi-modal transportation and utilizes roadways at optimal capacity and energy efficiency. The transportation and circulation system shall balance the needs of all residents and businesses and promote and maintain the economic, social, public, and environmental health and character of the community while recognizing Milford's integral role in the regional transportation system.*

### IV. TRANSPORTATION ACTION PROGRAM

The following section shall form the blueprint for realizing the Town's vision for its transportation system. To implement these actions the Town will need to undertake a concerted effort, drawing upon the expertise and resources of staff, volunteer boards, professional consultants, and the community's citizens.

**Goal No. 1: Promote the development and redevelopment of the Town's transportation system by incorporating smart growth principles and policies balancing desired community character with a reduction in dependence on the automobile.**

#### **Actions:**

1. Develop a Town future land use plan that integrates transportation system improvements with desired and appropriate land uses.
2. Wherever possible, address and incorporate measures that reduce impacts on air quality, water quality, climate, and hazard mitigation with the intent to improve public health, environmental quality, and cost-effectiveness.

3. Develop corridor design guidelines and overlay districts for South Street/Route 13, and Mont Vernon Street/Mont Vernon Road.
4. Insure that the downtown area traffic plans and improvements, as identified in the Traffic and Pedestrian Improvement Evaluation for Downtown Milford Area (2009) and funded by federal and local sources maintain and enhance the character of downtown Milford.
5. Integrate into development plans wherever possible trail connections and improvements as identified in the Town-wide trail master plan by the Conservation Commission and other entities.

**Goal No. 2: Carefully preserve road capacity, function, and efficiency of movement by coordinating land use and transportation. Encourage the development of a circulation system to safely and efficiently move vehicular, pedestrian, bicycle, and public transit transportation alternatives between residential neighborhoods, commercial and industrial areas, mixed-use zones, and rural areas, as well as into and out of adjacent towns.**

**Actions:**

1. Analyze existing and future zoning and land uses to determine current roadway capacity and function, and insure there is adequate capacity for development and future growth.
2. Utilize existing traffic studies and NRPC traffic analysis resources to develop a comprehensive transportation plan for anticipated development impacts in west Milford (Commerce and Community District)/ Route 101/Elm Street/Phelan Road/Old Wilton Road area and surrounding lands.
3. Utilize a variety of funding sources for anticipated improvements to lessen property tax burden, including but not limited to tax increment financing, fair-share developer contributions, grants opportunities, vehicle registrations, and impact fees.
4. Require interconnectivity for roadways, pedestrian links, trails, and bicycle routes in new development and incorporate interconnections where feasible in existing developed areas.
5. Develop a comprehensive town-wide sidewalk/pedestrian plan which identifies locations for new sidewalks and locations for sidewalk improvements.
6. Utilize region-wide bicycle plan recommendations to develop a town-wide bicycle route plan, implement methodologies to make Milford's transportation system more bicycle-friendly, and incorporate specifications for bicycle lanes in the Department of Public Works Infrastructure Design, Construction, and Administration Standards.
7. Continue efforts to work with the NHDOT and the NRPC to analyze feasibility, location, preliminary design and cost for the construction of an additional access from Route 101 to serve anticipated development, and to include this project in the NHDOT 10-Year Transportation Improvement Plan.

8. Continue efforts to work with the NHDOT and the NRPC to prioritize safety improvements and access management for the segment of NH 101, as identified in the 2002 Route 101 Corridor Plan, from its intersection with Elm Street and North River Road westerly to Wilton Road, and to include this project in the NHDOT 10-Year Transportation Improvement Plan.
9. Keep the following Nashua Street corridor improvements in the Milford Capital Improvements Plan:
  - a. Intersection improvements and signalization at the Nashua Street/ Ponemah Hill Road intersection;
  - b. Completed sidewalk connections between Medlyn Street and the west traffic signal at Lorden Plaza and the Nashua Street/Ponemah Hill Road intersection and the Quarrywood Green residential development;
  - c. Access management improvements in the Shepard Park, St. Joseph's Medical Center, Kaley Park, and Riverside Cemetery neighborhood.
10. Keep the Osgood Road Sidewalk/Bicycle Lane . Phase II Project in the Milford Capital Improvements Plan to improve pedestrian and bicycle safety and provide non-vehicular link from the High School/Middle School complex to the heavily utilized Adams Field/Osgood Pond recreation areas.
11. Incorporate interconnectivity and neighborhood-level transportation design in the master-planned development of the west Milford Commerce and Community District based on smart growth principles of environmental sensitivity, bike/hike/pedestrian infrastructure, and cost-effectiveness.
12. Work with the NRPC on the future utilization of the Guilford Transportation railroad corridor through Town relative to rail usage and/or joint usage as a regional bicycle-pedestrian corridor.

**Goal No. 3: Expand local and regional public transportation systems and implement sustainable funding mechanisms.**

**Actions:**

1. Be open to collaboration with other Souhegan Valley communities and regional organizations in order to develop efficient, effective, and sustainable solutions to local public transportation needs.
2. Support the ongoing development of the Souhegan Valley Transportation Collaborative (SVTC) as a provider of non-emergency community transportation.
3. Initiate discussions with the Nashua Regional Planning Commission, Nashua Transit System, other public transit service providers, and community stakeholders to determine the feasibility of implementing regular bus service to and within Milford.

4. Explore the need for and feasibility of locating a park and ride facility in Milford.

**Goal No. 4:** Integrate stormwater management and drainage improvements as necessary and appropriate in all project planning and implementation of the Department of Public Works roadway maintenance and upgrade projects to insure protection of surface and groundwater quality.

## IV. APPENDICES

1. Town of Milford Road Map (June 2011)
2. Traffic Volumes . Most Recent Volumes / 2035 Volumes (No Build / Build)
  - a. NH 101A West of NH 101 (near Lorden Plaza)
  - b. NH 101A East of Oval
  - c. NH 101A West of West Street
  - d. NH 101A West of Old Wilton Rd
  - e. NH 101 East of NH 13
  - f. NH 101 West of NH 13
  - g. NH 101 South of NH 101A
  - h. NH 101 at Wilton Town Line
  - i. NH 13 North of NH 101
  - j. NH 13 South of North River Road
3. Map of Most Recent Traffic Volume Counts
4. Map of 2035 Traffic Volumes (No Build/Build)
5. Map of 2035 Forecast Changes in Traffic Volume (No-Build)
6. Map of 2035 Forecast Changes in Traffic Volume (Build)
7. Existing Intersection Level of Service (2011)
  - a. NH 101/Phelan Road/Old Wilton Road
  - b. Elm Street/West Street
  - c. Phelan Road/Meadowbrook Road/Jones Road
8. Future (2035) Intersection Level of Service (No Build/Build)
  - a. NH 101/Phelan Road/Old Wilton Road
  - b. Elm Street/West Street
  - c. Phelan Road/Meadowbrook Road/Jones Road



## APPENDIX V.2

### MOST RECENT & FUTURE (2035) TRAFFIC VOLUME

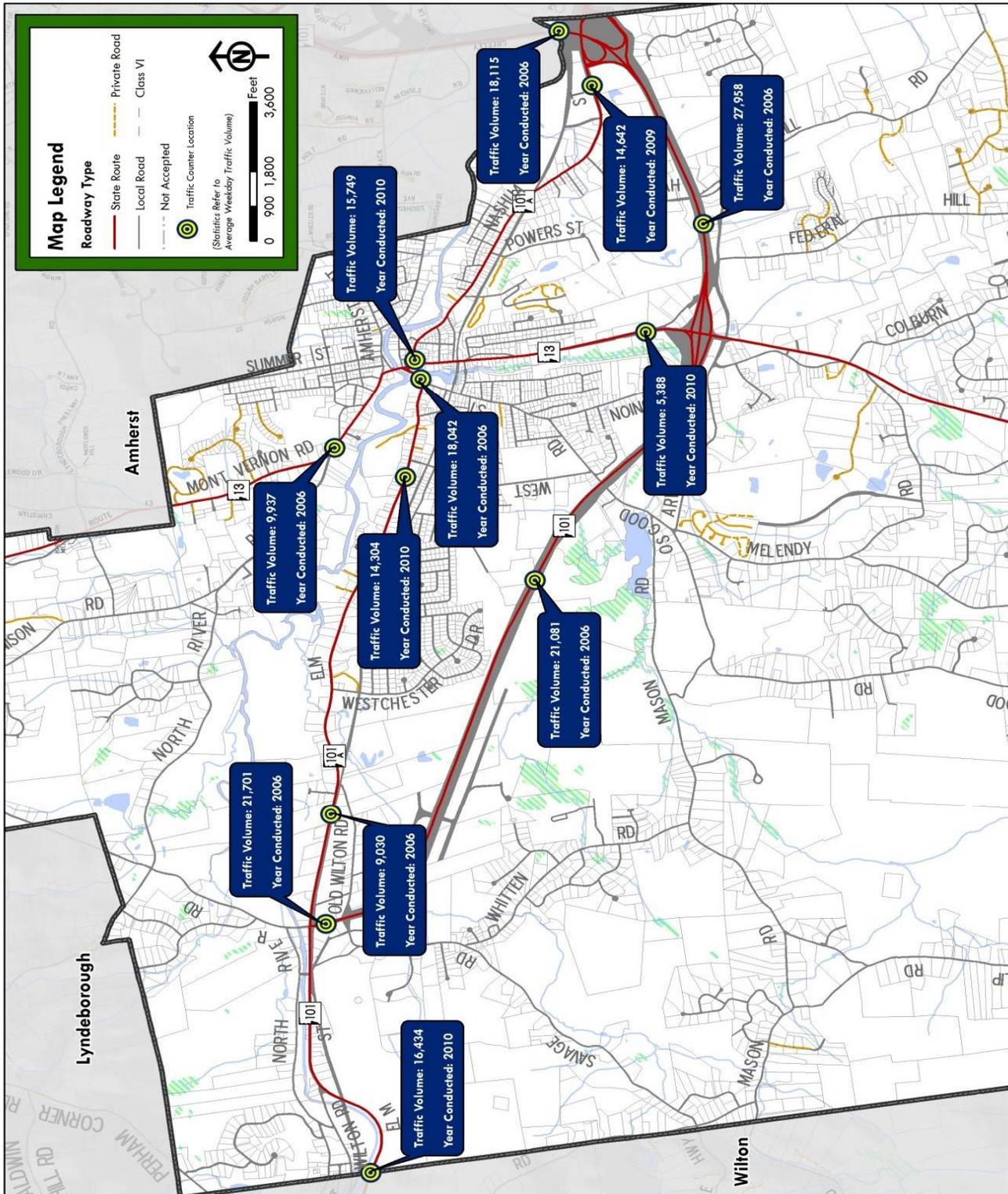
Most Recent Traffic			2035 Forecast Volume			
Location	Vehicles/ Day	Year	No Build	% Change Present/Future	Build	% Change Present/Future
NH 101A West of NH 101 (near Lorden Plaza)	14,642	2009	15,213	3.9	11,465	-21.7
NH 101A East of the Oval	15,749	2010	16,316	3.6	12,709	-19.3
NH 101A West of West St	14,304	2010	16,292	13.9	12,788	-10.6
NH 101A West of Old Wilton Rd	9,030	2006	10,204	13.0	7,486	-17.1
NH 101 East of NH 13	27,958	2006	36,066	29.0	42,720	52.8
NH 101 West of NH 13	21,081	2006	30,905	46.6	32,359	53.5
NH 101 South of NH 101A	21,701	2006	25,954	19.6	30,012	38.3
NH 101 @ Wilton T/L	16,434	2010	20,526	24.9	20,855	26.9
NH 13 North of NH 101	5,388	2010	6,293	16.8	6,331	17.5
NH 13 South of North River Rd	9,937	2006	12,073	21.5	10,921	9.9

NOTE: 2035 No-Build scenario assumes no major infrastructure improvements to Milford network from 2011.

2035 Build scenario assumes additional access on NH101 Bypass and widening of NH101 Bypass from 2 lanes to 4 lanes from Wilton town line through Bedford, NH.

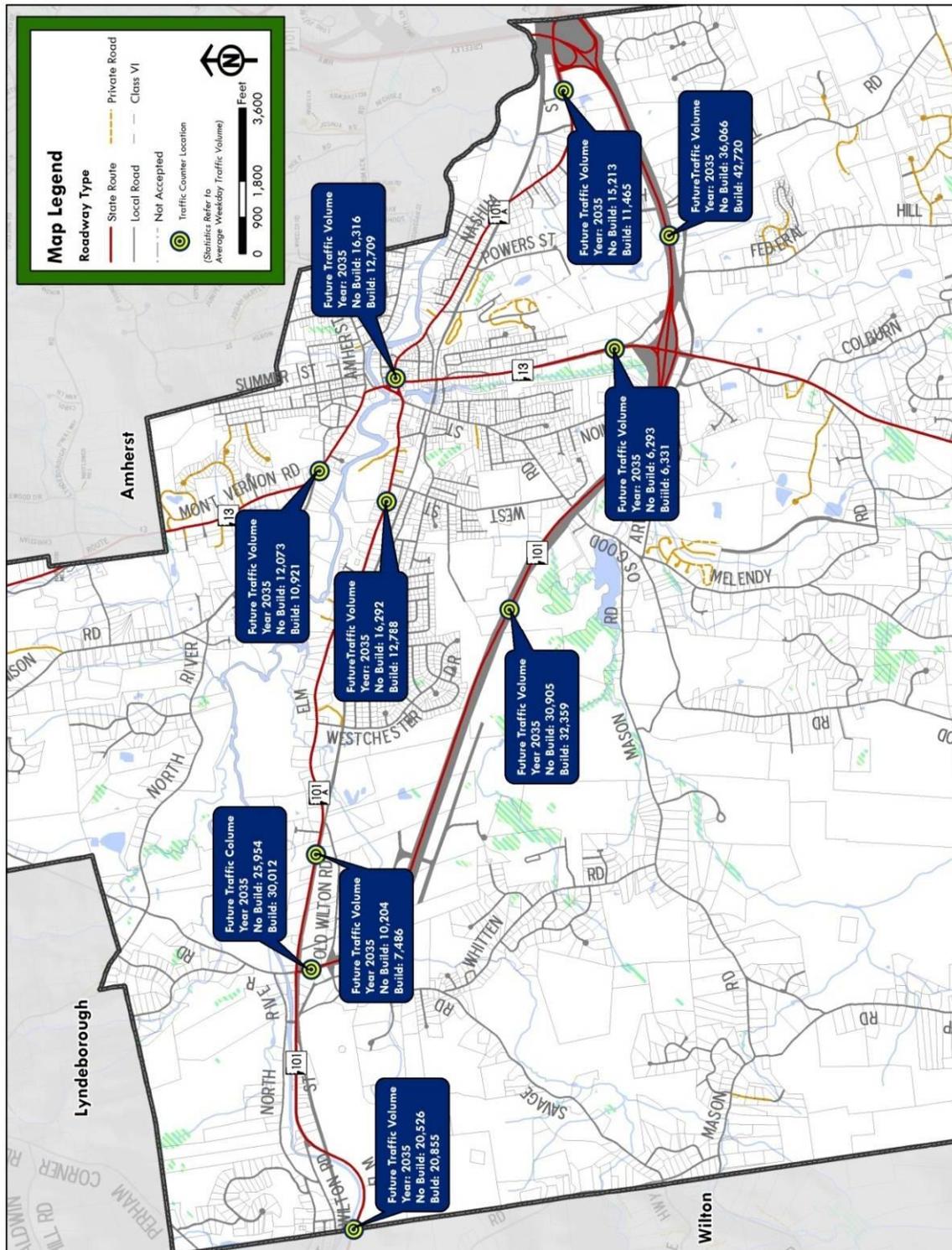
## APPENDIX V.3

### MOST RECENT TRAFFIC VOLUME COUNTS



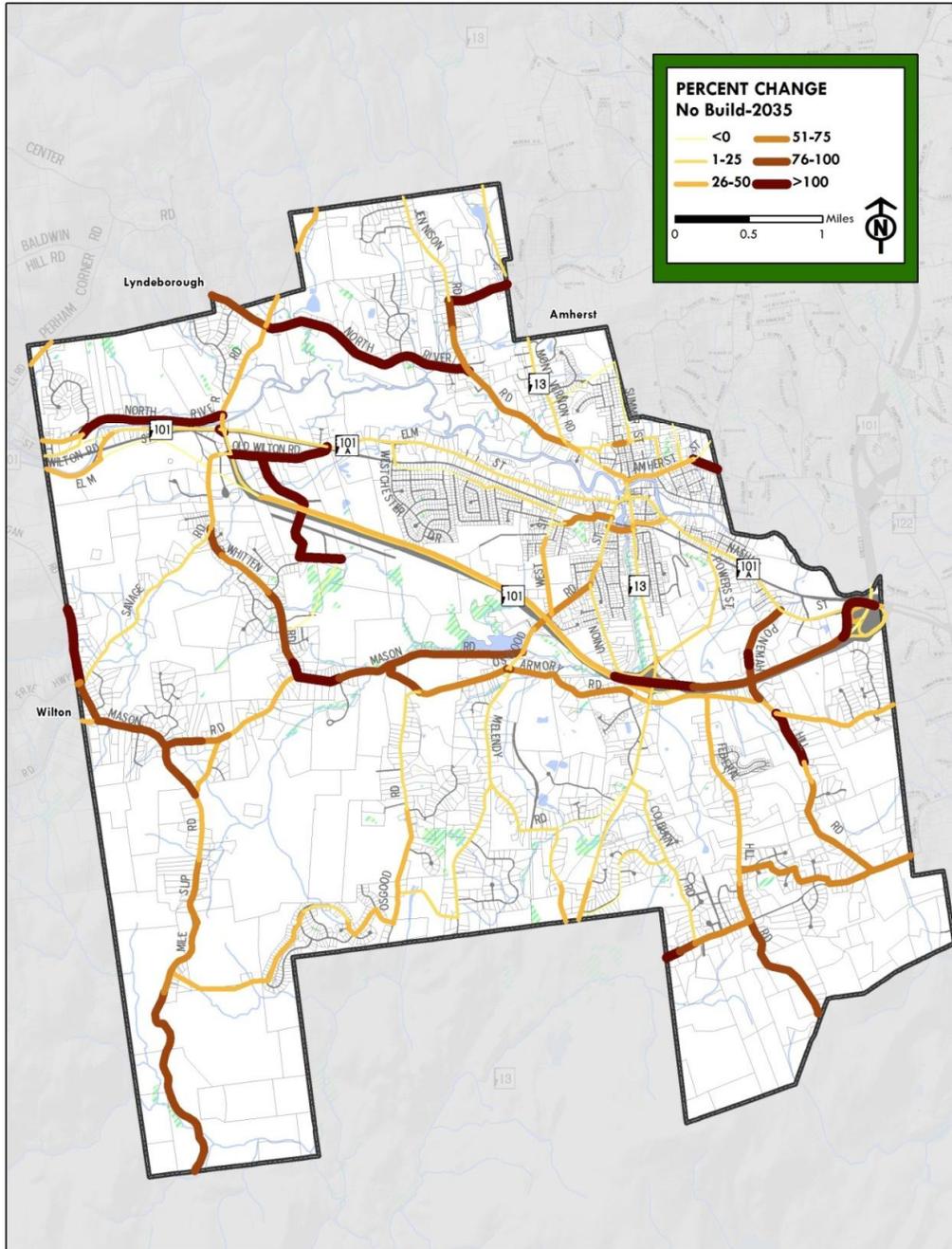
## APPENDIX V.4

### FUTURE (2035) TRAFFIC VOLUME (NO BUILD/BUILD)



## APPENDIX V.5

### 2035 FORECAST CHANGES IN TRAFFIC VOLUME – NO BUILD

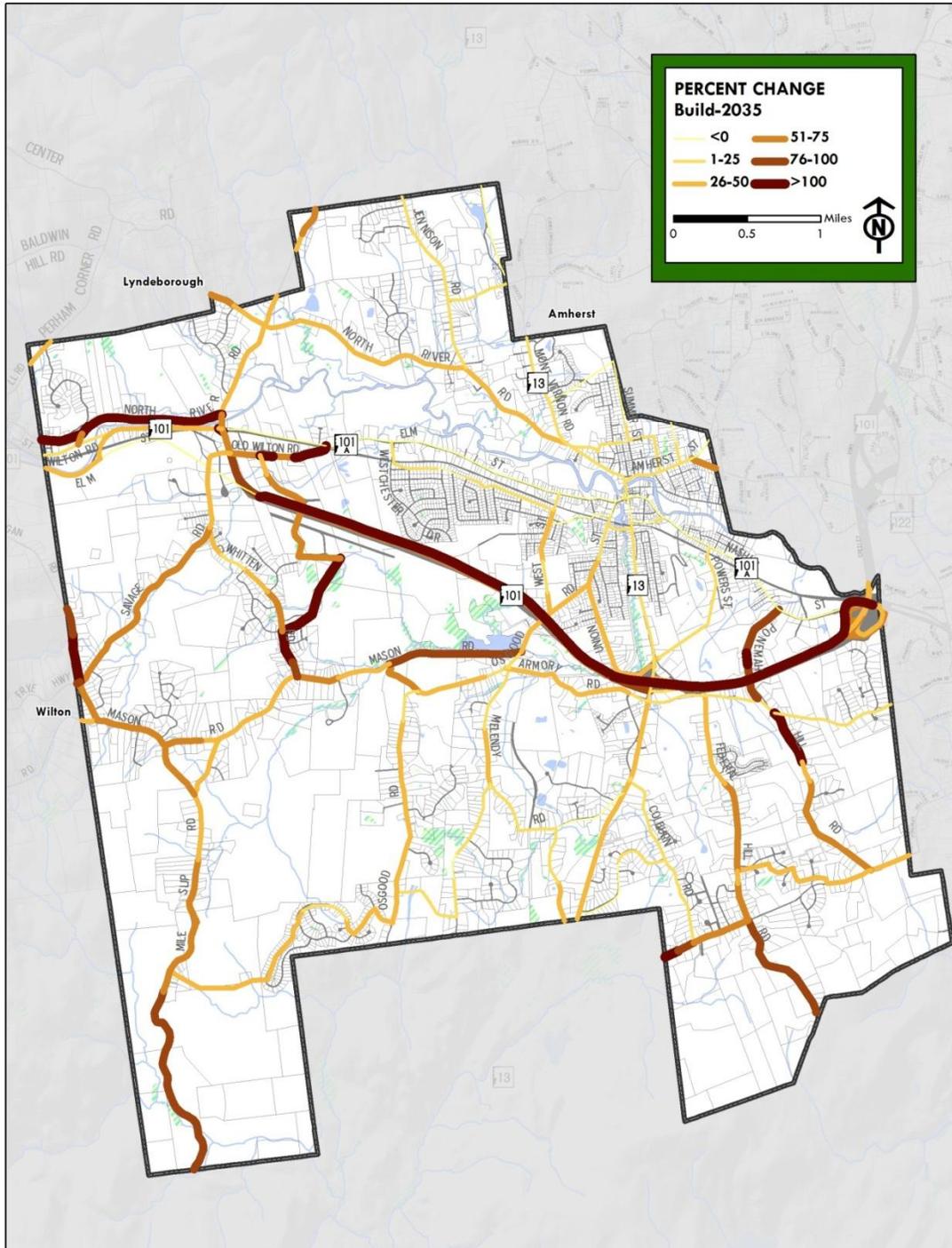


NOTE: 2035 No-Build scenario assumes no major infrastructure improvements to Milford network from 2011.

2035 Build scenario assumes additional access on NH101 Bypass and widening of NH101 Bypass from 2 lanes to 4 lanes from Wilton town line through Bedford, NH.

## APPENDIX V.6

### 2035 FORECAST CHANGES IN TRAFFIC VOLUME –BUILD



NOTE: 2035 No-Build scenario assumes no major infrastructure improvements to Milford network from 2011.

2035 Build scenario assumes additional access on NH101 Bypass and widening of NH101 Bypass from 2 lanes to 4 lanes from Wilton town line through Bedford, NH.

APPENDIX V.7

EXISTING (2011) INTERSECTION LEVEL OF SERVICE

<i>SIGNALIZED INTERSECTIONS:</i>	AM Peak Delay (sec.)	AM Peak LOS	PM Peak Delay (sec.)	PM Peak LOS
<b>NH101/PHELAN RD/OLD WILTON RD</b>				
NH101 NB, approach	36.2	D	103.9	F
NH101 SB, approach	56.5	E	32.6	C
Phelan Rd. EB approach	52.7	D	218.3	F
Old Wilton Rd. WB, approach	51.0	D	73	E
<b>ELM ST/WEST ST</b>				
Elm St WB, approach	15.8	B	22.7	C
West St NB, approach	43.9	D	41.3	D
<i>NO-SIGNALIZED INTERSECTIONS:</i>	AM Peak Delay (sec.)	AM Peak LOS	PM Peak Delay (sec.)	PM Peak LOS
<b>PHELAN RD/MEADOWBROOK/JONES RD</b>				
Phelan Rd EB, left	7.7	A	8.2	A
Phelan Rd WB left	7.7	A	7.5	A
Jones Rd SB, approach	13.5	B	25.0	D
Meadowbrook Rd NB, approach	9.5	A	10.5	B

## APPENDIX V.8

### FUTURE (2035) INTERSECTION LEVEL OF SERVICE

	No Build Scenario				Build Scenario			
	AM Peak LOS	AM Peak Delay (sec.)	PM Peak LOS	PM Peak Delay (sec.)	AM Peak LOS	AM Peak Delay (sec.)	PM Peak LOS	PM Peak Delay (sec.)
<i>SIGNALIZED INTERSECTIONS:</i>								
<b>NH101/PHELAN RD/OLD WILTON RD</b>								
NH101 NB approach	D	39.9	F	423.9	D	39.9	F	681.1
NH101 SB approach	E	75.6	D	36.7	E	75.6	F	139.8
Phelan Rd. EB, approach	D	53.3	F	232.9	D	53.3	F	819.4
Old Wilton Rd, approach	D	51.2	E	77.5	D	51.2	F	91.1
<b>ELM ST/WEST ST</b>								
Elm St. WB, approach	B	14.7	B	19.0	D	35.4	F	145.0
West St. NB, approach	D	41.6	D	41.8	D	46.0	D	41.4
<i>NO-SIGNALIZED INTERSECTIONS:</i>								
<b>PHELAN/MEADOWBROOK/JONES RD</b>								
Phelan Rd EB left	A	7.8	A	8.4	A	8.4	B	10.5
Phelan Rd WB left	A	7.7	A	7.7	A	7.8	A	7.8
Jones Rd SB, approach	B	12.7	D	27.6	B	13.8	E	45.5
Meadowbrook Rd NB, Approach	B	13.6	B	11.5	C	16.8	B	13.9

NOTE: 2035 No-Build scenario assumes no major infrastructure improvements to Milford network from 2011.

2035 Build scenario assumes additional access on NH101 Bypass and widening of NH101 Bypass from 2 lanes to 4 lanes from Wilton town line through Bedford, NH.