

1. Introduction

In consultation with officials from the towns of Meredith and New Hampton, the Lakes Region Planning Commission (LRPC) sought funding from the New Hampshire Department of Transportation (NH DOT) 2004 State Planning and Research (SPR) program to conduct a corridor access management study along the NH Route 104 corridor from the junction of U.S. Route 3 in Meredith westerly through New Hampton to the Bristol town line. The project was initiated in early 2006 and completed in April 2007.

The intent of the New Hampshire Route 104 Corridor Study is to assess current conditions, identify potential safety improvements, assess future traffic demand related to potential land use development, and outline future strategies related to access management along the corridor.

A wide variety of information was compiled to assess the current conditions along the NH Route 104 corridor. Members of the NH Route 104 Corridor Study Committee, residents, business owners, and representatives of local government were queried regarding safety and land use issues, traffic and speed counts were undertaken, the location of existing access points were mapped, and data necessary to complete a buildout analysis of the corridor were collected. These data together highlight a growing corridor that has existing safety and access issues. These issues are sure to intensify as local and regional through traffic increases at the same time that additional commercial and residential uses seek to locate along NH Route 104.

To identify potential safety improvements the LRPC and NH Route 104 Corridor Study Committee sought pre-engineering and graphics support from Fay, Spofford, Thorndike, Inc. (FST). FST staff provided assistance in both the identification of short to medium-term improvements as well as the production of the project specific graphics included within this study. While these graphics are planning level only and are not intended to represent final design solutions, it is hoped that the potential projects detailed in this study lead to future implementation. The identified safety improvement locations include:



NH Route 104 near Chase Road in Meredith

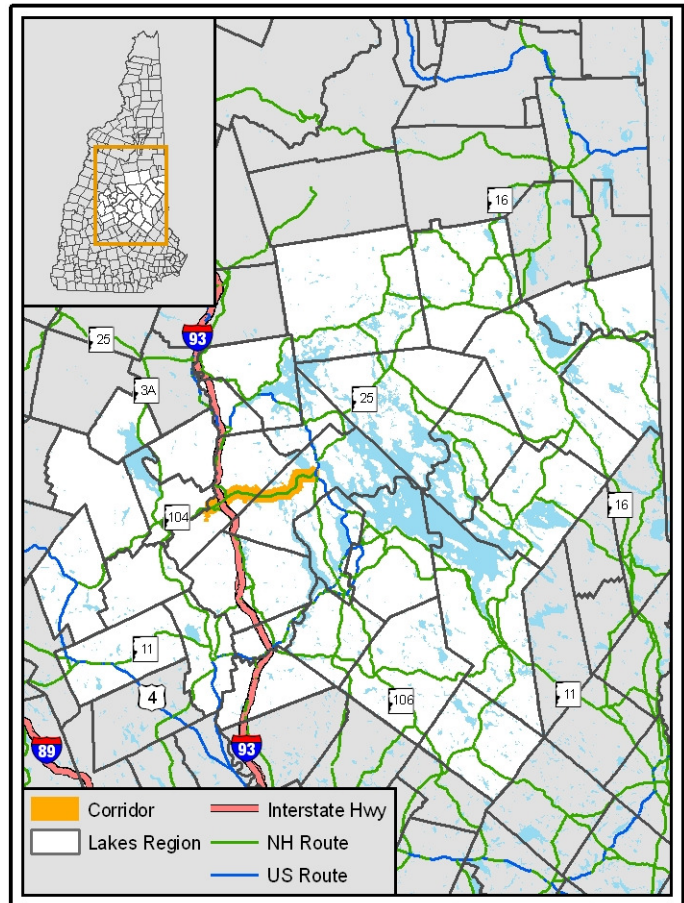
- Residential/Commercial Area (Bobby's Girl Diner) at NH Route 104 (New Hampton)
- Meredith Woods/Clearwater Campgrounds Crossings (Meredith)
- NH Route 104 at Shingle Camp Road and I-93 Off-Ramp (New Hampton)
- Chase and Meredith Center Roads at NH Route 104 (Meredith)
- Town House Road (east) at NH Route 104 (New Hampton)

- Main Street at NH Route 104 (New Hampton)

Finally, a variety of strategies to address access management in both Meredith and New Hampton are outlined. Access management is defined by the Federal Highway Administration as “the process that provides access to land development while simultaneously preserving the flow of traffic on the surrounding system in terms of safety, capacity, and speed.” Methods to improve this process include the provision of access management-related sections in each community’s subdivision and site plan review regulations, the consideration of incentive-based zoning initiatives, and the approval of a memorandum of understanding (MOU) between NHDOT District 3 and each respective planning board related to necessary communications during the development review process along state highways. Also included in the discussion of access management strategies is the potential acquisition of access rights of specific parcels along NH Route 104.

Other Current and Recent Planning Efforts

Both New Hampton and Meredith have recognized the importance of the NH Route 104 corridor through their own local planning processes. The *New Hampton Master Plan: 2002 Update*, identified the town of New Hampton’s concerns about strip commercial zoning along NH Route 104 and the possible consequences of increased curb cuts, impediments to traffic flow, increased accidents, and diminished pedestrian safety and use. The Master Plan also recognizes that the NH Route 104 Corridor between I-93 and Meredith is highly desirable for commercial development, and recommends that the community take an active role in access management along the corridor. This would include the integration of land use and transportation principles in the development of a new town office complex, potentially to be located directly off NH Route 104 west of I-93. Since the development of the Master Plan, the town has updated its zoning in the area immediately to the east of Interstate 93 along NH Route 104 to allow for mixed uses, updated the Planning Board’s Site Plan Review Regulations, and made plans for the update of the Planning Board’s Subdivision Regulations in 2007.



The Lakes Region

The town of Meredith also recently updated their Master Plan, called the *Meredith Community Plan* (2002). Similar to New Hampton, the community recognizes the dangers of allowing the Land Use and Transportation Cycle to continue along major highway corridors such as NH Route 104. Specifically, that plan identified the goal to improve traffic flow, efficiency, and safety on highway networks, and recommended that Meredith work with New Hampton to preserve the capacity of the Exit 23/NH Route 104 corridor. Working together with the town of New Hampton on the NH Route 104 Access Management Study was a logical continuation of the planning process initiated by the Master Plan.

The current Lakes Region Transportation Plan, *PLAN 2000: A Lakes Region Transportation Plan Update for the Year 2000* (LRPC, 2000), identified east-west corridors as top transportation planning priorities. NH Route 104 was further identified as a “Lifeline Corridor” having critical importance for the State and the Region. *PLAN 2000* identified two specific recommendations regarding the NH Route 104 Corridor:

- New Hampton and Meredith should work together to discourage sprawl.
- The purchase of access rights should be a priority on NH Route 104 in New Hampton and Meredith.

Shortly after the adoption of *PLAN 2000* by the LRPC, the NH Office of State Planning embarked on a multi-agency, multi-jurisdictional study called *Managing Growth in New Hampshire: Change and Challenges* (NH Office of State Planning, 2000). New Hampton-Meredith-Moultonborough was selected as one of four (4) case studies in New Hampshire to examine statewide growth indicators and the impacts of growth on communities and regions. The selection of these communities for the case study, and the resulting final report, clearly recognized the unique challenges facing these communities with respect to high traffic



NH Rte. 104 at Meredith Woods/Clearwater Campgrounds

volumes and the substantial influx of seasonal residents and visitors. Overall, the study raised concern about potential commercial development along NH Route 104 and the impacts such development could have on traffic flow and safety due to increased access points. Specific recommendations included the need to develop buildout analyses along major highway corridors, including NH Route 104.

Another significant planning process currently underway is the Meredith US 3/NH 25 Improvements

Transportation Planning Study. The stated goal of the study is “to develop a solution to the specific traffic and transportation needs in the Town of Meredith that is compatible with the town’s vision to maintain a village character for its downtown area along US Route 3 and a rural character along NH Route 25.” To meet this goal, the study has made use of

context sensitive solution (CSS) design considerations, highlighted by an emphasis on seeking assistance from stakeholders from the area to help lead the study and the use of the “Placemaking” process to involve members of the community in the ultimate design of the project that has the support of the community as a whole. The overall study is a CSS pilot project, and could serve as a model for future implementation projects along NH Route 104.

In addition to the planning processes underway that affect the corridor, there is a project contained in the State of New Hampshire Transportation Improvement Plan (10 Year Plan) to reconstruct NH Route 104 from I-93 east to Meredith Center Road (approximately four miles) to improve horizontal and vertical alignment and to widen shoulders. The project is currently slated for construction in 2015 in the 10 Year Plan, with preliminary engineering planned for 2008-2010 and right-of-way acquisition currently scheduled for 2012. The overall estimated cost of the project is \$9 million. Many projects contained in the 2007-2016 Ten Year Plan were moved to later years due to a variety of reasons, including increased costs of major projects already underway in New Hampshire (notably the I-93 Salem to Manchester improvements); general cost increases due to energy costs and inflation, and updated statewide priorities. The NH Route 104 project was no exception, with proposed construction delayed one year from 2014 in the previously adopted 2005-2014 Ten Year Plan.

New Hampton NH 104 Access Management and Interconnection Plan

At the same time the NH Route 104 Access Management Study has been under development, a committee comprised of local property owners and representatives, New Hampton officials and staff, NHDOT staff, and LRPC staff have met to discuss approaches to preserving and improving access to commercial properties along the south side of NH Route 104 between Exit 23 and Drake Road in New Hampton. This study was identified as a high priority at the start of the study and received added emphasis due to imminent development pressures.

The results of this process has been the preparation of the *New Hampton NH 104 Access Management and Interconnection Plan*. The plan and associated graphic developed by NHDOT staff follows:

New Hampton NH 104 Access Management and Interconnection Plan

In recent years NH 104 in the area east of the Exit 23 interchange with I-93 has seen an increase in development demand. On NH 104 there has been an Irving “Blue Canoe” gas station and convenience store constructed, the Dunkin Donuts satellite shop has been replaced with a full service store and the New Hampton Post Office has been constructed. All of this development has occurred within the short distance on NH 104 between Exit 23 and the intersection with NH 132. Additional development is now under consideration that will place greater demand on the transportation system in this area. There is currently a proposal (Hilshar Development) to construct an office/retail building with a gas station/convenient store opposite the existing Irving Station on NH 104. Also proposed is a large home improvement center (KGI Properties, LLC) that is planned to be constructed

behind Munce's Kwik Stop and the Exit 23 Plaza. Access to this home improvement center would be the fourth leg of the NH 104 intersection with NH 132. This intersection is anticipated to be signalized. As part of this development will be construction of smaller outparcels, one being a possible restaurant on the vacant lot between Munce's and the Exit 23 Plaza.

At the behest of the Town of New Hampton, the Lakes Region Planning Commission facilitated several meetings between the Town of New Hampton, the New Hampshire Department of Transportation, and several area property owners. The major point of discussion of these meetings was how to accommodate the existing and future development demands being placed on NH 104 without allowing the transportation system to become over capacity, congested, and unsafe.

One possibility to decrease the amount of turning traffic from NH 104 into the developments and vice versa, is the construction of an interconnecting roadway system between the various parcels. This interconnecting roadway could be constructed behind the developed lots, with connections to the various parking lots, and then tie into the development drive to the KGI Properties site. This interconnecting road would allow vehicles entering one site from NH 104 to patronize other businesses without going back out onto NH 104. With a connection to the KGI Properties drive this will allow those seeking to turn left onto NH 104 to make that maneuver at a signalized intersection, in a much safer and easier manner. This type of interconnecting roadway will decrease the number of vehicles on NH 104, decrease the number of vehicles turning to and from NH 104, reduce congestion, reduce traffic delay, and increase safety. With the modest improvement of the interconnecting roadway the longevity of NH 104 could be increased and lessen the impact the developments have on the transportation system.

During the numerous discussions concerning this issue a concept plan was developed to attempt to visualize the intent of these interconnecting roadways. As shown in the attached graphic the interconnecting roadway could be constructed in phases. The Phase 1 improvement would interconnect the Hilshar site with Dunkin Donuts, connect Dunkin Donuts with Munce's and construct the interconnecting roadway from Hilshar site to the KGI Properties drive. This interconnecting roadway would have a direct connection to Munce's and the future restaurant. As the properties behind Dunkin Donuts and the Hilshar site are developed these properties could also tie into the interconnecting roadway.

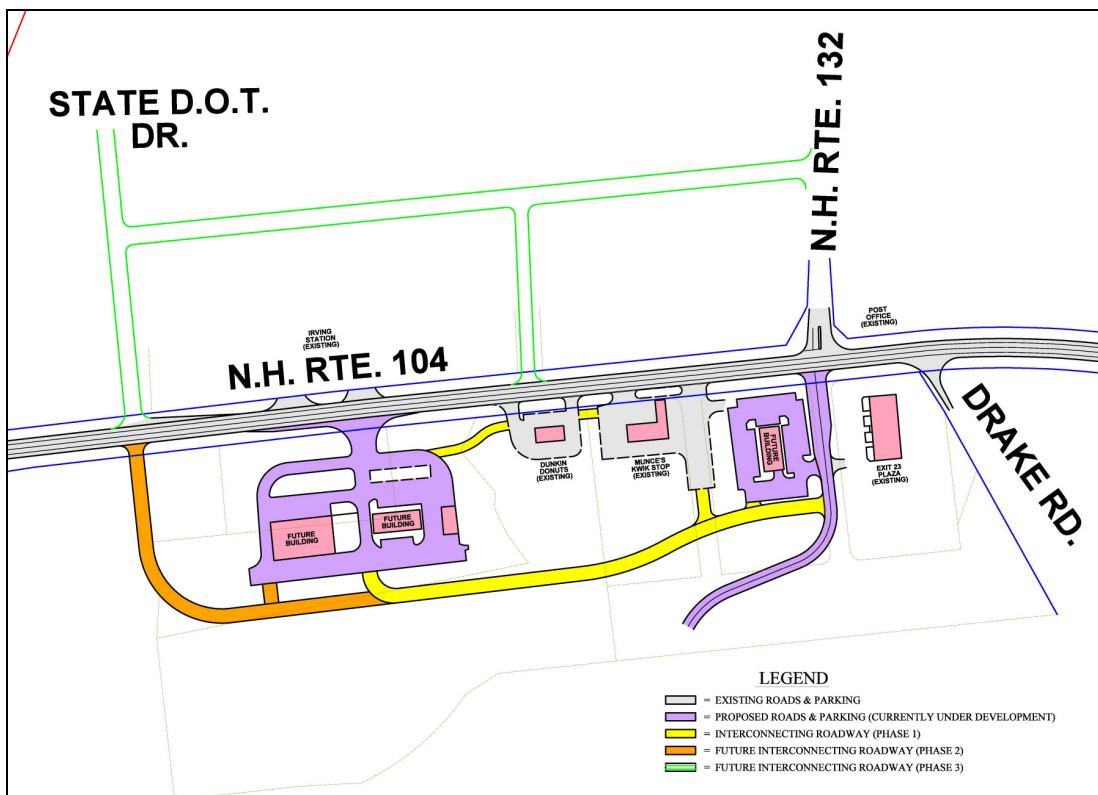
Phase 2 of the interconnecting roadway could include a continuation of the Phase 1 roadway to the west tying back to NH 104 opposite the DOT drive (to the Park and Ride lot). This Phase 2 connection would create a loop road allowing access to the various businesses along the south side of NH 104 without having to re-enter the highway. This additional interconnection would also provide a future access point for any future development that occurs to the south west of the Hilshar site.

A future Phase 3 interconnecting roadway is also shown that could possibly be constructed through State and Town lands on the north side of NH 104 and allow connections to the existing Irving station, those sites just west of NH 132. This Phase 3 roadway would have the same benefits as the Phase 1 and 2 roadway, and would allow a connection to NH 132 and access to the signal at NH 104 and NH 132.

Some of the issues that would have to be taken into consideration when these interconnecting roads are being designed are as follows: 1. The Dunkin Donuts septic system is in the area of the interconnecting drive to the Hilshar property. 2. The terrain is very steep behind the Hilshar site and may make the construction of the Phase 2 roadway problematic. 3. Some portions of the interconnecting roads are within delineated wetlands or the associated wetland buffer. 4. The owner of Dunkin Donuts mentioned the possibility of modifying their access by making the westerly access an “enter only” and the easterly access an “exit only” to limit the number of conflict points on the roadway.

All those in attendance expressed their belief that the interconnecting roadway systems as outlined above would be a good approach to manage the traffic and ensure continued access to all the businesses in the future.

New Hampton NH 104 Access Management and Interconnection Plan



Source: New Hampshire Department of Transportation