

# *Public Services, Utilities, and Transportation*

## *Introduction*

Londonderry's residential, commercial, and industrial growth during the past years has dramatically changed the need for public services. The town must now provide public services to a variety of new industrial and commercial centers, as well as new residential neighborhoods. Furthermore, the needs of existing developed areas continually change as infill occurs, infrastructure ages, and demographics change. To meet this ever-changing and growing demand, the town has undertaken a series of recent investments including construction of the Leach Library addition, a new town hall (to be occupied summer of 2005) and police station, and establishment of a new kindergarten school (among other initiatives).

During workshops and other public events held in support of this plan, participants commonly stressed the need for continued high quality public services – strong schools, good roads, a safe and stable drinking water supply, etc. – while paying close attention to tax rates. Historically, Londonderry's tax rates were some of the highest in the region. However, primarily due to changes in state property taxation law that established Londonderry as a recipient community to receive state education funds, there has been a comparative reduction in property taxes in recent years (compared with municipalities state-wide). For example, as of 2002, out of the 234 total municipalities in New Hampshire, Londonderry had the 94<sup>th</sup> lowest rate in the state (there were 140 communities with higher tax rates).<sup>1</sup> By way of comparison, in 1990, Londonderry was ranked 213 out of 234 (there were only 21 municipalities in the state with higher tax rates). Note: additional changes or refinements in state property tax law will likely have some type of impact the

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<sup>1</sup> Comparison is based on "Equalized Tax Rates," a reflection of the true market value of property in all municipalities. Source: NH Department of Revenue Administration; Municipal Services Division, compiled by the NH Office of Energy and Planning.

town's tax rate (it is unclear whether these impacts will result in an increase or decrease).

The town's overall goal for the provision of public services is to maintain efficient delivery of services, meeting the needs of the community, while considering the impacts of services on taxes. The following section provides a general background and recommendations to meet this goal for specific public service departments, community infrastructure resources, schools, and transportation.

### *Town Administration*

Since 1996, Londonderry has operated under a charter with a Council-Manager form of local government. The Town Council consists of five members and acts as the legislative body of the town and appoints a Town Manager to serve as the town's chief executive. The Town Manager is responsible for the administrative and financial affairs of the town and implements policies established by the Town Council. A budgetary town meeting approves long-term debt, in addition to the annual budget.

The town provides a full-range of services to residents including waste water collection; refuse collection and disposal; highway construction and maintenance; storm sewer systems; police and fire protective services; library and recreational facilities and services; human services (health and welfare services); and planning, economic and community development, zoning and code enforcement services. Map #11 Public Services highlights some of the town's main public service resources (e.g., library, town hall, fire stations, etc.).

The town is currently in the process of relocating its administrative offices from Londonderry Square along Route 102 to the town center area on Mammoth Road. The new offices will complement the other civic resources at the town center including the new police station, library, schools, and town common.

Additional information, background, and a discussion of issues, recommendations, and strategies for various town functions and public services are presented in the following text.



*Rendering of the future Londonderry Town Hall on Mammoth Road in the town center.  
Source: AG Architects*

### *Library*

Londonderry's Leach Library, constructed in 1973 and expanded in 1997, is a popular community facility located in the "town center" area next to the new police station/town hall on Mammoth Road. The library's mission is to provide materials, information and services for community residents of all ages to meet their personal, educational, and recreational needs.

The primary issues facing the library are related to technology and meeting space. According to the Library Director, while the facility is in good condition and should be sufficient to meet the general library needs of the community for several years into the future, there is insufficient on-site meeting space to satisfy all groups and competing interests. However, this need for community meeting space can be seen as



a town-wide issue, rather than solely a library issue, and could also be addressed through other measures (see community center below).

Regarding technology, according to the Director, the library is slowly slipping behind the curve in terms of online resources and regional connectivity. For example, information regarding the town's library holdings is not available online and the system is not tied into GMILCS Library Consortium (please see [www.gmilcs.org](http://www.gmilcs.org)), the regional web-accessible library system. (Note: according to the library director, there have been a number of requests for this type of integration by Londonderry residents).

In addition, the library has had issues with local internet access and stability. Currently, the library shares access with the High School located across Mammoth Road and due to the high level of usage at both the school and library there have been a number of service interruptions.

### **||** *Library Recommendations*

- Review and analyze the technical issues surrounding the library's internet resources.
- Identify ways to advance the technological capacity of the library (e.g., assist with grants/funding).
- Identify opportunities for community meeting space town-wide.

## *Schools*

Londonderry's schools are considered one of the community's strongest resources. The town's schools play a rather large role in the daily lives of residents providing education, opportunities for team athletics, recreation, and youth development. The Londonderry School District includes six (6) schools: Londonderry High School, Londonderry Middle School, Matthew Thornton Elementary, North Londonderry Elementary, South Londonderry Elementary, and Moose Hill Kindergarten.

Four of the schools are located in the town center area along Mammoth and Pillsbury Roads. This collection of facilities contributes to the "campus feel" of the area and creates a type of education complex. The most recent addition to this area, the Moose Hill Kindergarten began operations for the 2001 - 2002 school year and, in addition to providing education for kindergarteners, includes a special developmental preschool servicing youngsters ages three and four (called the Londonderry Early Education Program).



*Londonderry High School*

The Londonderry School District prides itself on providing students with a high level of service in a very efficient manner. The district maintains a teacher to student ratio of 13.8 at a per pupil cost lower than the state average (Year 2000 - 2001 per pupil costs: Londonderry \$6,841, New Hampshire: \$7,233).

### *Issues facing the school district:*

#### New students and space/facility needs

According to the district superintendent, the district expects to add students over the next 20 years with increases most severely impacting facilities for

younger students. The High School is considered adequate to meet expected growth for the next 15 to 20 years. Currently there are approximately 1,700 students, while due to a recent major renovation, the facility has the capacity for 2,400 students. According to the district's 20-year estimates, the most serious space needs will occur at the elementary level and at the middle school. Furthermore, residential growth in northern Londonderry is changing the geographic stability of the community and may result in an imbalance of students at existing facilities. To address this issue, the district's Space Needs Committee is considering redistricting options as well as opportunities to create new education facilities.

Table 5.1: Percent change in enrollment, Londonderry School District

	1997 to 1998	1998 to 1999	1999 to 2000	2000 to 2001	2001 to 2002	2002 to 2003
New Hampshire	1.4%	1.0%	0.7%	0.8%	0.4%	-0.1%
Londonderry School District	4.4%	0.7%	4.2%	5.5%	-0.3%	-1.4%

Source: New Hampshire Department of Education.

#### Staff Issues:

Londonderry's students enjoy small classes taught by highly qualified and well trained professionals. However, the school district estimates that within next five to ten years thirty percent (30%) of the staff will have twenty years experience or more and likely begin considering retirement. At that point, there will be a need for new teachers while maintaining the high standard expected from Londonderry's education services.

#### *Snapshot: Londonderry School District's New Teacher Mentoring Efforts*

With the understanding that new, high quality teachers will be essential to Londonderry's schools in the near future, the "Teacher Induction Program" was developed to promote:

- A supportive environment and a professional learning opportunity

- Access for new teachers to professional expertise and the opportunity for collaboration and professional dialogue
- An avenue for exploring the teaching practice as a guide for professional development and growth
- An opportunity for professional development credit

The school district is well known for the quality of teachers it recruits and retains. It is anticipated that the Teacher Induction Program will be of immeasurable value to the new teachers as they have the opportunity to be mentored by teachers who have experience within the school district.

### **||** *Continue collaboration efforts between the school district and town*

Cooperation between the school district and town helps provide for efficient and high quality services. For example, while the town regulates growth rates and land use patterns through growth management and zoning, these decisions directly influence the needs of the school district and its ability to operate efficiently. The town should continue working closely with the district and cooperating on a variety of projects, initiatives, and policies such as:

- Keep accurate student number projections and understand the impact of future residential growth (location, growth management issues, etc.) on schools.
- Recognizing the need for quality instructors, the town should partner with the school district and review opportunities for recruiting new educators to the area. In fact, many economic development professionals recommend targeting specific professions (e.g., teacher, high tech worker) rather than industries (for a recent discussion on this topic please see the Summer 2004 Journal of the American Planning Association, “Targeting Occupations in Regional and Community Economic Development”). This strategy could

be addressed in the recommended economic development action plan (see page 5 - 18).

- Maintain and enhance the partnership between the town and school district for community events and recreation. The town should expand this relationship with a focus on sharing resources and cultivating civic enthusiasm.

### *Police*

The Londonderry Police Department recently relocated to a new structure in the town center area (in front of the future town hall). This facility is projected to meet the needs of the department for the next twenty years.



*Recently completed Police Department building on Mammoth Road*

The department currently employs 44 sworn officers and 16 civilian staff. Sworn officers include a number of patrolmen, as well as sergeants, lieutenants, safety, community relations and animal control officers, detectives, two captains, and a department chief.

Issues and needs facing the department focus on technology and communications, personnel costs, equipment and training, and changes in the town's growth patterns. One of the most significant issues related to public safety is the limited communications coverage in town. Due to Londonderry's rolling topography, communications are somewhat limited – particularly for use of cellular telephones and radios. According to the town's police chief there are several "dead spots" in town where officers and staff cannot communicate with department headquarters. A police communications tower is being constructed on the site of the new structure. However, this will not solve town-wide communications issues.



### *Keep an open, ongoing dialogue*

Keep a dialogue open with the police department, particularly in regard to the impacts future growth and development might have on public safety needs. Continue to work together to find the appropriate level of public safety for Londonderry and to identify methods and opportunities to solve technology and communications issues.

### *Fire*

The town's fire fighting services are provided by the Londonderry Fire and Rescue Department out of three facilities; the central station on Mammoth Road in the town center, north station #1 on Foxglove Street in North Londonderry, and south station #2 on Buttrick Road near Route 102. The department employs approximately 50 staff members for fire suppression, prevention, communications, and administration. The primary issues facing the fire department are staffing and the need for new facilities. The department is hoping to replace the south station with a new facility in a nearby location and, due to the town's recent growth patterns, is considering opportunities to provide enhanced fire protection services in the north-western part of Londonderry through new facilities and/or consolidation.



*Londonderry Fire Department's Central Station on Mammoth Road.*

### *Continue planning for future needs*

Continue to plan for future needs in terms of staff, equipment, and facilities, paying close attention to changes in land use patterns and transportation. Recognize that significant growth in existing undeveloped or low density areas could impact fire protection services. Continue planning for new sub-station(s) to limit response times and provide space for fire fighters.

## *Water and Sewer Utilities*

### *Water*

Londonderry's public water is provided through a variety of sources including Manchester Water Works, Pennichuck Water Works, and private wells. The town's water service area, shown on map #9 covers a significant portion of the town's eastern and northern areas. Water source locations are outside of the town's boundaries, and according to interviews with providers there is sufficient capacity for existing and projected users in Londonderry.

Regarding Londonderry's local water supply – water provided from aquifers within the town's borders and typically accessed through private wells – there is less known about future capacity. Londonderry's Water Resource and Management Protection Plan (developed by the Southern New Hampshire Planning Commission and adopted by the town in 1991) provides baseline information regarding the town's water system (e.g., streams, location of aquifers, etc.) and major water-related issues (erosion and sedimentation, flood storage, etc.). The plan concluded with an estimate that the town's existing groundwater and surface water resources were adequate to meet demands until 2005. However, the study did not attempt to determine whether there was sufficient capacity to meet demand for subsequent years.

### *Sewer*

Similar to the town's water supply pattern, Londonderry's sewage disposal system is a combination of septic systems and sewers. Sewage is collected by the town's sewer system, but treated by the City of Manchester and Town of Derry. Sewers are only available in a small section of eastern Londonderry at the Exit 4 interchange, along Route 28 and the North Londonderry area, around the Manchester Airport, and along Route 128 (Mammoth Road) to the town center area just north of Pillsbury Road (see map #8). The town is

currently updating its sewer facilities plan to identify future expansion areas and maintenance needs.

#### **||** *Protect public health and the environment*

Continue to ensure that residents and local businesses are adequately served by public utilities to protect public health and the environment.

#### **||** *Assess water supplies*

Assess the town's water supplies and encourage development of an update of the Water Resource and Management Protection Plan. The update should focus on capacity issues of the next 20 to 30 years, water quality concerns and strategies, and identify distribution needs as well as a strategy for future expansion.

#### **||** *Continue to coordinate with non-town service providers*

The ability to tap into the resources of these organizations, municipalities, and private companies allows the town to provide the community with a high level of services without the need to cover major infrastructure costs. These relationships are important to efficient management of the town and provision of quality services and should be maintained.

#### **||** *Consider the recommendations of this plan prior to future infrastructure expansion programs*

Investments in infrastructure can dramatically alter the potential for development and land use change. Prior to any future expansions, particularly in regards to sewage, the town should carefully consider how these investments might impact the vision and recommendations of this Master Plan.

### *Other Infrastructure*

Telecommunications and Technology: High speed Internet, stable cellular telephone coverage, and cable television have become accepted standards for

today's business and residential areas – no longer considered amenities, but essential infrastructure for business, travel, and home. At times, access to this infrastructure has been difficult for small Londonderry businesses.

### **||** *Continue to enhance Londonderry's technological infrastructure*

The majority of these technological resources are supplied through private providers. Nevertheless, while the town does not directly provide high speed internet or cable to the community, it can help to ensure that small businesses in particular can tie into the infrastructural resources they need to operate. This can be accomplished by reaching out to small businesses to gain a better understanding of need and deficiencies and working to present a unified voice to infrastructure providers.

## *Transportation*

### *Existing transportation network and issues*

Londonderry's transportation system is closely integrated with surrounding municipalities and the region. Interstate 93, passing through the eastern section of Londonderry, connects the town with Manchester and Concord to the north and Interstate 495 and the Boston Metropolitan area to the south. Three state highways, Route 28, Route 102, and Route 128 cross the town and provide connections between Londonderry and surrounding municipalities (Nashua, Derry, Manchester, etc.). Note: both Route 28 and Route 102 were studied as part of the "thoroughfares" initiative of this Master Plan and are discussed on page 5 - 3.

As was the case stated in the 1997 Master Plan, transportation – particularly traffic congestion – is a major concern among Londonderry residents and businesspeople. In addition, several long-awaited transportation improvement projects are moving closer to reality – specifically, the widening of I-93 (estimated completion in 2014) and construction of the airport connector road.

Initiation of these major projects could result in significant added congestion during construction (I-93 more so than the airport connector). For example, local roads may be pushed to higher levels of use as travelers and commuters seek alternative routes in an effort to avoid construction delays.

#### **Londonderry's Commuting Culture**

The automobile is the primary transportation method for local commuters, many of whom have decided to travel the extra distance in exchange for the quality of life Londonderry offers. As a result, the average commute for a worker residing in Londonderry is almost 30 minutes– longer than the county, state and national averages. *Note: The most recent national average commute to work is just over 26 minutes (Bureau of Transportation Statistics Omnibus Household Survey, August 2003).*

Table 5.2: Average Commute

	United States	New Hampshire	Rockingham County	Londonderry
Average commute to work in minutes	25.5	25.3	28.6	29.7

*Source: US Census 2000, SF-3, GCT-P12. Employment Status and Commuting to Work.*

Over the long-term, increased regional capacity could also result in increased use of local roads. The airport connector road will likely stimulate more development in the area surrounding the Manchester Airport, and consequently, more traffic along Route 28. Further, increased highway capacity on the widened I-93 could also encourage a faster rate of development, putting more cars in the area, and more pressure on local roads.

#### *Automobile Alternatives*

There is a relative lack of options for non-automotive transportation in Londonderry. The “park and ride” facility at Exit 4 offers an opportunity for commuters to rideshare and catch a bus to regional destinations. However, there are no local bus services or other forms of public transportation available from other areas in Londonderry. There are also only a few facilities designed to encourage bicycle and pedestrian mobility and reduce the need for local use

of the automobile. However, it is important to note the relationship between transportation facilities such as roads, sidewalks, trails, park and ride lots, and bus stops and land use. Londonderry's decentralized development pattern can have a limiting effect on the ability to encourage the use of alternatives to the automobile for local travel. For example, even a safe and well-maintained sidewalk will not encourage a shopper to walk two or three miles to local stores.

### *Traffic conditions and forecasts*

The State of New Hampshire Department of Transportation calculates traffic volume across the state at varying intervals and locations. Some roads, such as I-93, are reviewed annually while traffic figures for smaller arterials, collectors and local roads are calculated on a much more limited frequency. Over the past ten years the highest percentage increases in traffic volume have occurred at the following locations within Londonderry (see map #10):

- Gilcreast Road (north of Route 102): 155% (1996 - 2001)
- Auburn Road (north of Wilson Rd.): 89% (1994 - 2001)
- NH 28 (east of I-93): 83% (1995 - 2003)
- Hardy Road (south of Spring St.): 76% (1994 - 2003)
- Mammoth Road (north of B&M Railroad): 73% (1997 - 2003)
- Pillsbury Road (south of Hardy Rd.): 73% (1994 - 2003)
- Hall Road (over Little Cohas Brook): 70% (1996 - 2002)
- Ash Street (east of I-93): 63% (1994 - 2003)
- NH 128 (north of 102): 60% (1995 - 2002)
- Litchfield Road (west of Route 28): 56% (1996 - 2001)
- High Range Road (north of Pillsbury Rd.): 50% (1995 - 2001)
- NH 28 (west of I-93): 38% (1994 - 2001)
- Stonehenge Road (east of NH 128): 36% (1997 - 2003)

The Southern New Hampshire Regional Planning Commission's 2002 Regional Transportation Plan assesses the adequacy of the regional transportation network and includes a traffic forecasting model through the year 2022. Using 1995 traffic volumes as a base year, the report forecasts a forty-seven percent (47%) increase in the total number of vehicle trips per day for the overall region (by 2022) and suggests that regional travel patterns will remain relatively unchanged with few exceptions, most notably the construction of the

Airport Access Road (Manchester Airport) in Londonderry. Finally, the report forecasts a one-hundred percent (100%) increase in traffic volume along Route 28 in Londonderry (with or without development of the access road).

Table 5.3: Route 28 Annual Average Daily Traffic Assignments

	Increase 1995 - 2022 <i>Existing</i>	Increase 1995 - 2022 <i>No Build</i>	Increase 1995 - 2022 <i>Build</i>
Route 28 at Manchester Town Line	109%	129%	93%
Route 28 just north of Route 28A	89%	113%	72%

Table legend:

Existing: forecasts based on existing transportation network.

No Build: planned transportation projects (1) with National Environmental Policy Act (NEPA) approval, (2) where NEPA approvals are not necessary, (3) that had received other required approvals and was being implemented, or (4) that had been in a previously approved TIP.

Build: all other projects (e.g., Manchester Airport Access Road, Exit 4a, widening of Route 102, and widening of I-93).

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*Source: Regional Transportation Plan for the Southern New Hampshire Planning Commission Region, August 2002.*

## *Roads, traffic safety, and congestion recommendations*

*Continue to ensure for a safe, well maintained transportation system that meets the needs of Londonderry's residents and businesses*

In today's economic system roads provide the backbone for growth and economic development. The town's roads must remain well-maintained to allow for regional travel (commuting, shopping, etc.), efficient operation of existing businesses, and new commercial and industrial growth.

*Review roadway design specifications*

Review the town's specifications for roadway design (within the subdivision regulations) to ensure that new roads will be built with a consideration for the natural, cultural, and historic setting of Londonderry. In addition:

- Consider ways to utilize traffic calming measures to slow traffic speed and increase pedestrian safety.

- Reduce impervious surfaces and amount of land dedicated to roadways without adversely impacting the town's transportation system.

### || *Improve congested roadway areas and traffic safety*

As a first step, the Traffic Safety Committee should build off of the issues and needs presented in this Master Plan to generate a master list of deficient intersections and roadway areas and develop a strategy to alleviate these issues. Particular attention should be paid to the traffic needs present along Route 28 and increased development in the northern parts of town. In addition, the town should continue efforts to limit new curb cuts on arterials and encourage the use of shared driveways and access roads.

### || *Undertake efforts to encourage reduced automobile use*

The town should encourage reduced automobile use through a variety of techniques including maintaining existing and establishing new land use policies that create connections for bicycle and pedestrian users, encouraging car-pooling, identifying ways to encourage private (non-government) solutions, and working with other municipalities to identify regional methods to reduce the number of automobile trips required for shopping and commuting to work.

### *Alternative transportation*

### || *Continue non-motorized facility planning and implementation*

The town should support regional efforts to establish commuter transit services to major employment areas. Specifically, the Boston and Maine Railway right of way could serve as a future passenger rail connection.

### || *Create safe roads for multi-modal use*

All new roads should be designed with consideration of non-motorized users' needs. Of course, specifications should relate to the location in town, surrounding land uses, potential for bike and pedestrian use, and potential



future connections to other non-motorized transportation networks. These design recommendations could be integrated into the town's trail plan (see recreation section) which will identify potential trail character types for specific areas in town. However, rather than looking to "retrofit" existing roads, this section would discuss future roads and associated bicycle and pedestrian amenities.

#### *Encourage bicycle and pedestrian links between new developments*

New developments should be linked through trails and pathways in an effort to establish connections between neighborhoods, commercial areas, civic resources, and parks. These connections should be identified and prioritized in the prioritized trail plan (recommended on page 4 - 33).

#### *Encourage development of transportation services for those without easy access to automobiles.*

Londonderry already has a large youth population who rely on parents for rides to shopping areas, athletics (after school and weekend sports), or just visiting friends. In addition, the growing number of seniors and the general acceptance and encouragement of age-restricted housing in Londonderry will result in an even larger "non-driver" demographic. Sound land use planning and the provision of pedestrian amenities will go a long way to ensure these citizens can be and remain mobile. However, due to the general dispersal of neighborhoods, commercial areas, and senior housing units these efforts alone cannot solve mobility issues. The town should encourage implementation of a bus service for children, seniors, and those without access to automobiles through the provision of small incentives or subsidies to private business (e.g., a "para-transit" provider) or organizations (e.g., school district).