

The Sanbornton Telecommunication Advisory Committee would like to propose the addition of the following Telecommunications and Utilities Chapter to the Sanbornton Master Plan.

Chapter VIII: TELECOMMUNICATIONS & UTILITIES

Background

Affordable and reliable high-speed broadband access is an increasingly important asset for rural communities like Sanbornton. Access to reliable to high speed broadband internet services is critical for community public information, rural economic development, small business growth, education, emergency services and healthcare. Such broadband access can result in increased property values and improved quality of life. The proliferation and expansion of broadband access today is often paralleled with the great public infrastructure projects of the Twentieth Century – namely the expansion of the electricity network and the creation of the interstate highway system. Like those two monumental public works projects, high speed broadband access creates economic development opportunities, increases the potential of business and industry, provides greater educational opportunities to both adults and children, and improves the ability and efficiency of emergency responders and government officials to effectively do their jobs and improve the lives of all citizens.

Currently, high speed broadband access is often hindered by factors such as low population densities and infrastructure costs as well as by geographical barriers such as topography. It does not make economic sense for internet service providers to extend the necessary “last mile” broadband infrastructure to homes and businesses in remote locations. As a result, rural residents and businesses must deal with spotty or non-existent broadband coverage.

Telephone and Cable Television Service

Cable Television Service

In 1991, the Town of Sanbornton approved the “1991 Franchise” with Metrocast for cable television and internet services and “voice over internet protocol” (VOIP) telephone services to the citizens of Sanbornton. Metrocast is the current provider for these services in Sanbornton.

Landline Phone and DSL Service

In 2012, the Town of Sanbornton paved the way for FairPoint to bring phone and DSL services for internet to the citizens of Sanbornton. FairPoint is the current provider for DSL service in town.

Cell Phone Service

In today’s world, cell phone and mobile devices have become the number one source for phone use. Cell phones have many integrated technology features built within the mobile device. The advance technology in mobile devices in use in today’s economy is incorporated into our way of life in the 21st Century.

Cell Towers

Currently Sanbornton has two cell towers:

- SBA Towers II LLC, located at 173 Brook Road.
- Crown Castle International, located at 516 Steele Hill Road.

Community Anchor Institutions and Drop Points

Municipal Buildings	Address	Category
Department of Public Works	60 Hunkins Pond Road	Community Support
Fire Department	565 Sanborn Road	Public Safety
Town Hall	573 Sanborn Road	Community Support
Police Department	565 Sanborn Road	Public Safety
Library	27 Meeting House Hill Road	Library
Recreation Department	573 Sanborn Road	Community Support
Transfer Station	184 Shaw Hill Road	Community Support
Fire Station	11 Weeks Road	Public Safety
Old Town Hall	19 Meeting House Hill Road	Community Support
Schools	Address	Category
Sant Bani School	19 Ashram Road	School K-12
Sanbornton Central School	16 Hunkins Pond Road	School K-5
Montessori House of Children	748 New Hampton Road	School K-5 & Preschool

Issues, Considerations and Actions

The following recommendations are action steps that can be taken now and in the near future to improve broadband access in the Town of Sanbornton. Some of the recommendations will be easier to implement than others which require greater state and federal government involvement. However, all the recommendations are tools that can be used to reduce barriers to broadband access, make Sanbornton more economically competitive, and improve the quality of life for all the town's residents, businesses, and visitors.

Identified Broadband Issues and Needs

The Town of Sanbornton has in place cable and DSL broadband services covering the majority of the community, while terrestrial fixed and mobile wireless service providers have ample coverage throughout the town, with only few wireless carriers that have spotty reception throughout the town.

The lack of sufficient broadband coverage to some areas within Sanbornton could be a deciding factor for resale of real estate property. The majority of the upload and download speeds found in Sanbornton are within the FCC and State guidelines except for the unserved and underserved areas of town. It is crucial that Sanbornton look into other service providers for the future economic growth and development of the town. To improve the provisions of these services, the Town of Sanbornton should do all it can to promote and facilitate state/private broadband programs and initiatives to expand these technologies within the community.

More remote communities often lack middle mile infrastructure, meaning that broadband lines are not present in the town and access is not available anywhere. It is also common that many communities have middle mile infrastructure, but large segments of the town are not serviced by the last mile. In many places, it may not make financial sense for service providers to extend broadband lines to individual homes in moderately to sparsely populated areas, resulting in large areas with no wired service. These two problems are common in many rural New Hampshire communities and must be addressed.

Future Growth and Technology Considerations

The technology and techniques for providing fast, reliable internet service are constantly changing. It is important to remain aware of these emerging technologies and the potential infrastructure, zoning, and planning challenges they can create.

Terrestrial fixed wireless internet sources, such as Wi-Fi, are transmitted through radio waves and require no cable connections or hookups and less physical infrastructure than DSL or cable. Terrestrial mobile wireless internet, which can be accessed by mobile electronic devices like smart phones, has become increasingly popular. Like fixed wireless internet, mobile requires little in the way of physical infrastructure. However, it is limited by the provider's service range, typically slower connection speeds, small screen sizes and limited operability compared to a PC, Laptop or iPad.

Satellite internet, as its name suggests, provides service through satellites orbiting the earth. Like wireless, this method of delivery requires little terrestrial infrastructure but at its current stage of development has many limitations. Satellite internet has the potential to become a more viable internet delivery option in the future as the technology associated with it improves. Currently, mainly those who do not have access to cable or DSL lines in their area use satellite internet.

Fiber optic cables, which deliver information using pulses of light through optical fiber, are becoming an increasingly popular method of high-speed internet delivery. Able to deliver higher bandwidths of information over longer distances than DSL or cable, fiber optics should become more and more common in the future. However, there will be significant last mile delivery problems associated with fiber optics, even more so than currently exist with DSL or cable, as entirely new lines will have to be laid to the homes and businesses of end users.

Broadband over Power Line (BPL) is another emerging technology. It delivers broadband over the existing electric power distribution network, so there is little need in the way of added infrastructure or extending lines and has speeds similar to those currently found in DSL and cable modems. Today BPL is only available in a very limited number of areas but it has the potential to bring high-speed internet access to anyone connected to the electrical grid.

In today's world, broadband is a critical infrastructure for both businesses and citizens within the Sanbornton Community.

Future Goals

The three goals of this chapter are to: (1) provide a brief overview of broadband technology, identify strengths and weaknesses that exist in the Town of Sanbornton's broadband coverage, (2) identify barriers to access for expansion of coverage, and (3) make recommendations for what improvements can be made to increase high-speed affordable broadband access throughout Sanbornton.

Broadband Recommendations

- Utilize the cable franchise agreement negotiation process as an opportunity to leverage expansion of cable infrastructure, which would inherently have a positive impact on reach of improved broadband service with reference to prioritize economic growth segments.
- Engage in discussion with providers, policy-makers, and surrounding communities to uncover and develop opportunities for improved telecommunications.
- Aggregate Demand – Develop a working group with other communities in the region to identify pockets of demand that will be attractive to providers.
- Expand availability of public internet. Easy, consistent access to computers with internet during all times of the day will help ensure that all members of the community are able to benefit from opportunities offered through advanced telecommunications.
- Encourage the public to utilize the telecommunication infrastructure in order to gain economic and social benefits.
- Orient the public with expanded internet use through outreach and education.
- Form a telecommunications committee to continue ongoing efforts.
- Improve the quality of Sanbornton's telecommunications network.

Following is a list of items for consideration by the Town of Sanbornton:

- Create minimum broadband requirements for new residential, commercial and industrial developments requiring installation of current broadband infrastructure.
- Provide affordable broadband service with acceptable standards throughout the town/community.
- Provide incentives for the unserved and underserved areas of the community, with priority and focus on the four areas recommended in the Land Use Chapter of the Master Plan for economic development (specifically the Village Center and the three Neighborhood Commercial areas).
- Foster a cooperative relationship with broadband vendors.
- Engage County, Regional and State organizations in evaluating, developing and supporting opportunities for broadband initiatives.
- Create broadband and digital literacy awareness programs.
- Monitor, evaluate and maintain Sanbornton's relative service levels and costs within the region.
- Research alternative broadband technologies and providers.

Sanbornton Telecommunications Advisory Committee

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Dick Gardner - Resident

Tim Lang - Resident

Steve Jamele - Resident

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