F. **TELECOMMUNICATIONS INFRASTRUCTURE**

**History**

The New England Telephone and Telegraph Company brought telephone service to East Montpelier around 1891. Public telephones were installed at general stores in East Montpelier Village and North Montpelier, the Montpelier and Wells River Railroad depot. A few residences were also early adopters. By 1912 telephone service extended along most of the town’s major roads.

Deregulation and new technologies have brought major changes to how telephone service is provided. Verizon sold its Vermont landline business to Fairpoint Communications in 2008, which was then acquired by Consolidated Communications in 2016.

Cell phones began to become more common in the 1990s and early 2000s, and the first smartphones were introduced in that decade.

The fire department and road crew have historically relied on radios to communicate within the town. This has continued, at least in part, due to a lack of universal cell coverage within the town. Emergency service communications are moving towards greater reliance on wireless phone networks, however. In 2017 the federal government signed a contract with AT&T for the creation of a nationwide first responder communications network known as FirstNet. This contract has required AT&T to ensure coverage in areas that it could not previously reach, which has created pressure to place new transmitters and build new towers.

East Montpelier residents have been served by cell towers and transmitters in other towns. Carriers have attempted to build towers in the East Montpelier Center area and near Jacobs Rd, and in both cases neighbors have bought out the development rights to the properties that would have hosted the towers.

**Current Status**

Traditional landline telephone service plays an important, but diminishing, role. **Many residents rely on landlines to ensure telephone service when the power goes out.** Consolidated Communications is the primary landline service provider, although some residents obtain service through resellers such as FirstLight.

New technologies are disrupting traditional landline telephone service. Some residents get their telephone service through their internet service provider. Increasingly, however, people are relying on cell phones not just for mobile communications but as their primary telephone service.

Comment [ZS60]: The town plan doesn’t address broadband access as a substantive topic anywhere (lack of broadband is listed as a risk under economic development). I think that we should add it to this section. We also don’t talk about the introduction of 5G cell service, potential to use mobile data rather than hardwired connections.

Comment [ZS61]: Quickly becoming less true — review most recent data on how many people have landlines to determine if this should stay in.
While we do not have data at the town level, 48% of Vermonters had only cell phones in 2018, and another 11.3% primarily use cell phones although they still have landline numbers. Just 12.1% have only a landline, and 5% have no phone at all. Vermont is a significant outlier in this regard – in most states 3-5% of adults have only landlines, and in no other state was that number greater than 7%. The number of adults relying solely on cell phones has increased rapidly: in 2013, only 31.4% had no landline and 15.3% relied exclusively on landlines. Younger adults are more likely to live in cell-phone only households: in 2020, 80.4% of all Americans aged 25-29 and 83% of those aged 30-34 only had cell phones, compared to 35% of those aged 65 or over. We do not have reason to believe that this pattern would be significantly different in Vermont than it is nationally.

Availability of cell phone service is therefore very important to the town’s ability to attract new residents, particularly those of prime working age and younger families who will continue to bring children into the East Montpelier’s schools. People moving from outside Vermont are also more likely to rely on cell phones.

As of early 2022, East Montpelier does not host any cell towers, though transmitters are in the process of being installed on one farm silo in town. At the same time, the vast majority of town residents are believed to own and use cell phones. Some areas of town have very good coverage, but others do not. The maps below show coverage for Verizon and AT&T as of 2019. These are the two most significant carriers serving the town.
The burden of hosting communications infrastructure is often not borne evenly, however. Towers can have a significant impact on the visual landscape in their immediate areas, while offering benefits to people far from the area immediately impacted. The town has an interest in mitigating the disparate nature of these impacts, both by suggesting areas where transmitters or towers can be placed which will limit the impact and by identifying those areas that the town most wants to protect.

**Regulatory Process**

Regulation of telecommunications towers is governed by federal and state laws. The state Public Utility Commission (PUC, formerly the Public Service Board) is responsible for permitting telecommunications facilities under 30 V.S.A. § 248a. An applicant may alternatively choose to go through permitting at the municipal level rather than through the PUC, but this is an unlikely scenario. If an applicant applies for and receives a Certificate of Public Good from the PUC under the 248a process, they do not need to get a permit from the town. Municipalities are allowed to participate in the state permitting process and are automatically granted party status in 248a cases if they request it.
Section 248a requires that the PUC give ‘substantial deference’ to town plans, although the PUC may determine that the public good overrides a town plan. Section 248a also requires that the facility not have an undue adverse impact on “aesthetics, scenic beauty, historic sites, rare and irreplaceable natural areas; endangered species; necessary wildlife habitat.” The town’s Land Use and Development Regulations provide criteria related to siting and design of cell towers. Under Section 248a, the PUC may consider local regulations as the town’s interpretation of its town plan.

Federal law constrains what both the town and the state can regulate. The Telecommunications Act of 1996 bans municipalities and states from prohibiting cell towers or denying permitting of cell towers on the basis of the environmental or health impacts of radio frequency (RF) emissions. The town could request evidence showing that a proposed tower will meet FCC health requirements. States and/or municipalities can regulate the impacts of the tower itself and any infrastructure that must be built to accommodate it separately from the impacts of the radio waves, e.g. the visual impact of the tower, impacts on sensitive habitats from construction or if a tower falls, etc., but the Federal Communications Commission sets the standards for RF emissions.

**Cell Tower Siting Standards**

This Town Plan identifies resources to be protected and standards for cell tower siting and design. Further details are found in Section 4.14 of the town’s *Land Use and Development Regulations*.

**Resources to be protected**

East Montpelier has significant scenic and natural resources, as outlined in Chapter 9 of the town plan. Many of the identified scenic areas act functionally as public parks, with people from outside the area coming to walk the roads there. The town plan’s scenic resources section specifically calls out impacts on foreground areas, defined as the area within ½ mile of the viewing area. This distance is based on research showing that this is the distance at which people can see detail. Cell towers can still have a significant impact on scenic areas beyond this distance if they are particularly incongruous with the surrounding area (for example if a tower has significant prominence above a ridgeline).

The town also has a well-used network of trails maintained by East Montpelier Trails, Inc, as well as a number of other trail resources. The town’s trail resources are described in Chapter 4 of the town plan. Many of these trails are permanently protected for public use so access is preserved as it would be for the public roads that are the focus of the scenic resources section of the town plan. Scenic views of forests, farms and vistas are an important element of the trail experience.

The town places a priority on protecting its natural environment, and the *Land Use and Development Regulations* specify minimum distances that towers must be from streams and wetlands to protect them from damage during construction or should a tower fall.
Preferred Sites

This plan does not identify specific locations that would be best suited for telecommunications infrastructure, but it does identify certain types of sites where cell transmitters would be preferred.

- **Co-located on existing cell towers.** Where towers currently exist, the first priority should be to co-locate new communications equipment on those towers.
- **Co-located with or affixed to existing infrastructure.** Transmitters may be mounted on existing large buildings such as industrial buildings, farm buildings or inside church steeples. Transmitters should not be visible in the foreground of areas identified as significant scenic resources (Chapter 9, section G), but can be sited in ways that are not visible (e.g., within church steeples, on top of large buildings).
- **In forested areas where forest growth and topography can be used to mitigate visual impacts.** By setting towers back in forested areas, towers can have significant prominence above the canopy while causing minimal or no visual impact on areas accessible to the public (e.g. public roads and trail systems protected for public use) or residences. The effectiveness of these measures in mitigating visual impact of a tower’s prominence above tree line shall be established using photographic evidence from balloon tests, which will establish the apparent height of the tower and show whether the tower will be visible. In cases where a tower is shielded by deciduous trees, this criterion will be best met by tests conducted when the leaves are off the trees. The graphic below shows an example of this type of mitigation could work.
Areas not suitable for cell towers

- **Village areas.** Communications towers should not be built within state designated village centers or within the zones making up the Village. This applies specifically to towers: transmitters may be located in these areas provided that they are hidden.

- **Significant Scenic Public Views.** Significant scenic areas are identified in Chapter 9, section G, and shown on map 12. This section also defines the characteristics that contribute to each area’s status as a significant scenic area. No communications tower shall be visible within the foreground of these areas. The town’s *Land Use and Development Regulations* specify the minimum distances that towers should be from designated scenic roads.

- **Ridgelines.** Communications towers shall not be placed at the tops of ridgelines. Towers should not exceed the elevation of an immediate ridgeline when prominent views of a site exist.

- **In areas where a tower could damage homes, sensitive natural environments, and the property of those not hosting the tower.** The *Land Use and Development Regulations* give distances that towers should be set back from structures, water features, and property lines.
Goals and Actions

- **Goal 6.18**: Enable all areas of East Montpelier to have adequate cell service coverage to meet the needs of residents, businesses and emergency service providers, while protecting the town’s scenic and natural resources.

  - **Policy 6.18.1**: East Montpelier supports cell service infrastructure that enables adequate cell service coverage in all areas of town and that is sited and designed to protect the town’s scenic and natural resources.

- **Action 6.18.1**: File for intervener status and/or submit public comments on Section 248a applications before the Public Utility Commission that do not meet the siting and design criteria described in the Town Plan and Land Use and Development Regulations.

- **Action 6.18.2**: Consider whether conducting an inventory of suitable cellular facility locations would be beneficial for both the town and cellular carriers and whether grant funding for such a study is available.

**Comment [ZS64]**: This action should not be carried over in its current form. Make a decision on whether we should do an inventory or not. We likely won’t do the inventory in time for the new town plan, but if we decide to do one the new item should be “consider conducting inventory” rather than “consider conducting inventory”. If we do do an inventory, it should probably be a multi-town effort, since the most underserved part of town is in the corner with Middlesex, Worcester, and Calais.

If we decide not to do an inventory, this item can be deleted.