

## 1 **F. Telecommunications Infrastructure**

### 2 **History**

3 The New England Telephone and Telegraph Company brought telephone service to East Montpelier  
4 around 1891. Public telephones were installed at general stores in East Montpelier Village and North  
5 Montpelier, the Montpelier and Wells River Railroad depot. A few residences were also early adopters.  
6 By 1912 telephone service extended along most of the town's major roads. (*Across the Onion*, 1983)

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

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

12 The fire department and road crew have historically relied on radios to communicate within the town.  
13 This has continued, at least in part, due to a lack of universal cell coverage within the town. Emergency  
14 service communications are moving towards greater reliance on wireless phone networks, however. In  
15 2017 the federal government signed a contract with AT&T for the creation of a nationwide first  
16 responder communications network known as FirstNet. This contract has required AT&T to ensure  
17 coverage in areas that it could not previously reach, which has created pressure to place new  
18 transmitters and build new towers.

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

### 23 **Current Status**

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

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

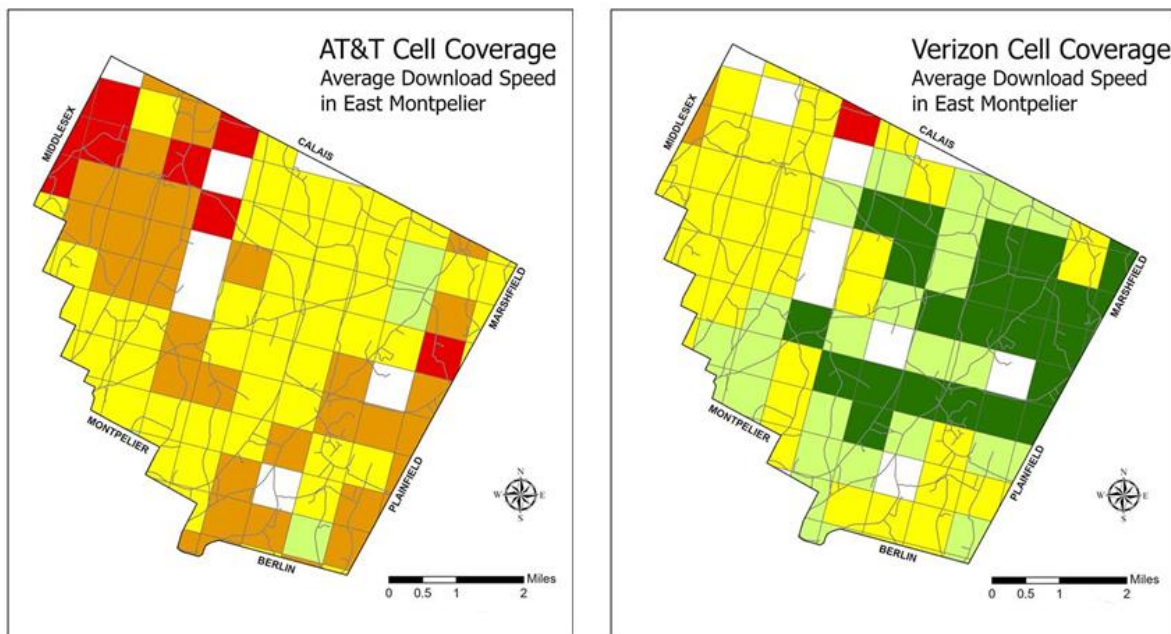
31 While we do not have data at the town level, 48% of Vermonters had only cell phones in 2018, and  
32 another 11.3% primarily use cell phones although they do still have landline numbers. Only 12.1% have  
33 only a land-line, and 5% have no phone at all (NCHS 2018). Vermont is a significant outlier in this regard  
34 – in most states 3-5% of adults have only landlines, and in no other state was that number greater than

1 7%. The number of adults relying solely on cell phones has increased rapidly: in 2013, only 31.4% had no  
2 landline and 15.3% relied exclusively on landlines (NCHS 2013). Younger adults are more likely to live in  
3 cell-phone only households: in 2020, 80.4% of all Americans aged 25-29 and 83% of those aged 30-34  
4 only had cell phones, compared to 35% of those aged 65 or over (Blumberg and Luke 2021). We do not  
5 have reason to believe that this pattern would be significantly different in Vermont than it is nationally.

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

10 As of early 2021, East Montpelier does not host any cell towers, though transmitters are in the process  
11 of being installed on one farm silo in town. At the same time, the vast majority of town residents are  
12 believed to own and use cell phones. Some areas of town have very good coverage, but others do not.  
13 The maps below show coverage for Verizon and AT&T as of 2019. These are the two most significant  
14 carriers serving the town.

15




### East Montpelier Average Download Speed and Service

- No service: text, voice and data not available
- Spotty service under 0.256 Mbps: text may be possible, voice not likely

- Ok service up to 5 Mbps: text, voice and email likely, web browsing may be possible
- Good service 5 - 10 Mbps: voice, text and web browsing likely, streaming may be possible
- Great service > 10 Mbps: voice, text and video streaming likely
- Not assessed

These maps present information about AT&T and Verizon wireless coverage in East Montpelier, Vermont. It includes the results of a drive test conducted by the Central Vermont Regional Planning Commission in 2019 with data processed by the Vermont Department of Public Service. The drive test results are presented as blocks with colors representing the average download speeds (Mbps) recorded in those blocks (1 square km). This information is a guide and does not guarantee or imply service throughout the tested blocks.

Map created 6/8/2021  
Data is only as accurate as the original sources  
This map is for planning purposes only.  
This map may contain errors or omissions.



16

1 The burden of hosting communications infrastructure is often not borne evenly, however. Towers can  
2 have a significant impact on the visual landscape in their immediate areas, while offering benefits to  
3 people far from the area immediately impacted. The town has an interest in mitigating the disparate  
4 nature of these impacts, both by suggesting areas where transmitters or towers can be placed which will  
5 limit the impact and by identifying those areas that the town most wants to protect.

## 6 **Regulatory Process**

7 Regulation of telecommunications towers is governed by federal and state laws. The state Public Utility  
8 Commission (PUC, formerly the Public Service Board) is responsible for permitting telecommunications  
9 facilities under 30 V.S.A. § 248a. An applicant may alternatively choose to go through permitting at the  
10 municipal level rather than through the PUC, but this is an unlikely scenario. If an applicant applies for  
11 and receives a Certificate of Public Good from the PUC under the 248a process, they do not need to get  
12 a permit from the town. Municipalities are allowed to participate in the state permitting process and are  
13 automatically granted party status in 248a cases if they request it.

14 Section 248a requires that the PUC give ‘substantial deference’ to town plans, although the PUC may  
15 determine that the public good overrides a town plan. Section 248a also requires that the facility not  
16 have an undue adverse impact on “aesthetics, scenic beauty, historic sites, rare and irreplaceable  
17 natural areas; endangered species; necessary wildlife habitat.” The town’s *Land Use and Development*  
18 *Regulations* provide criteria related to siting and design of cell towers. Although the town does not have  
19 any regulatory authority over cell towers, the language in the regulations may be considered by the PUC  
20 as the town’s interpretation of its Town Plan.

21 Federal law constrains what both the town and the state can regulate. The Telecommunications Act of  
22 1996 bans municipalities and states from denying permitting of cell towers on the basis of the  
23 environmental impacts of radio frequency (RF) emissions. This means that the town or state cannot  
24 deny a permit for a cell tower based on health impacts of the radio emissions, though as a party to a  
25 case the town could request evidence showing that a proposed tower will meet FCC health  
26 requirements. States and/or municipalities can regulate the impacts of the tower itself and any  
27 infrastructure that must be built to accommodate it separately from the impacts of the radio waves, e.g.  
28 the visual impact of the tower, impacts on sensitive habitats from construction or if a tower falls, etc.,  
29 but the Federal Communications Commission sets the standards for RF emissions.

## 30 **Cell Tower Siting Standards**

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

## 33 **Resources to be protected**

34 East Montpelier has significant scenic and natural resources, as outlined in Chapter 9 of the town plan.  
35 Many of the identified scenic areas act functionally as public parks, with people from outside the area  
36 coming to walk the roads there. The town plan’s scenic resources section specifically calls out impacts

1 on foreground areas, defined as the area within ½ mile of the viewing area. This distance was chosen  
2 based on research showing that this is the distance at which people can see detail. Cell towers can still  
3 have a significant impact on scenic areas beyond this distance if they are particularly incongruous with  
4 the surrounding area (for example if a tower has significant prominence above a ridgeline).

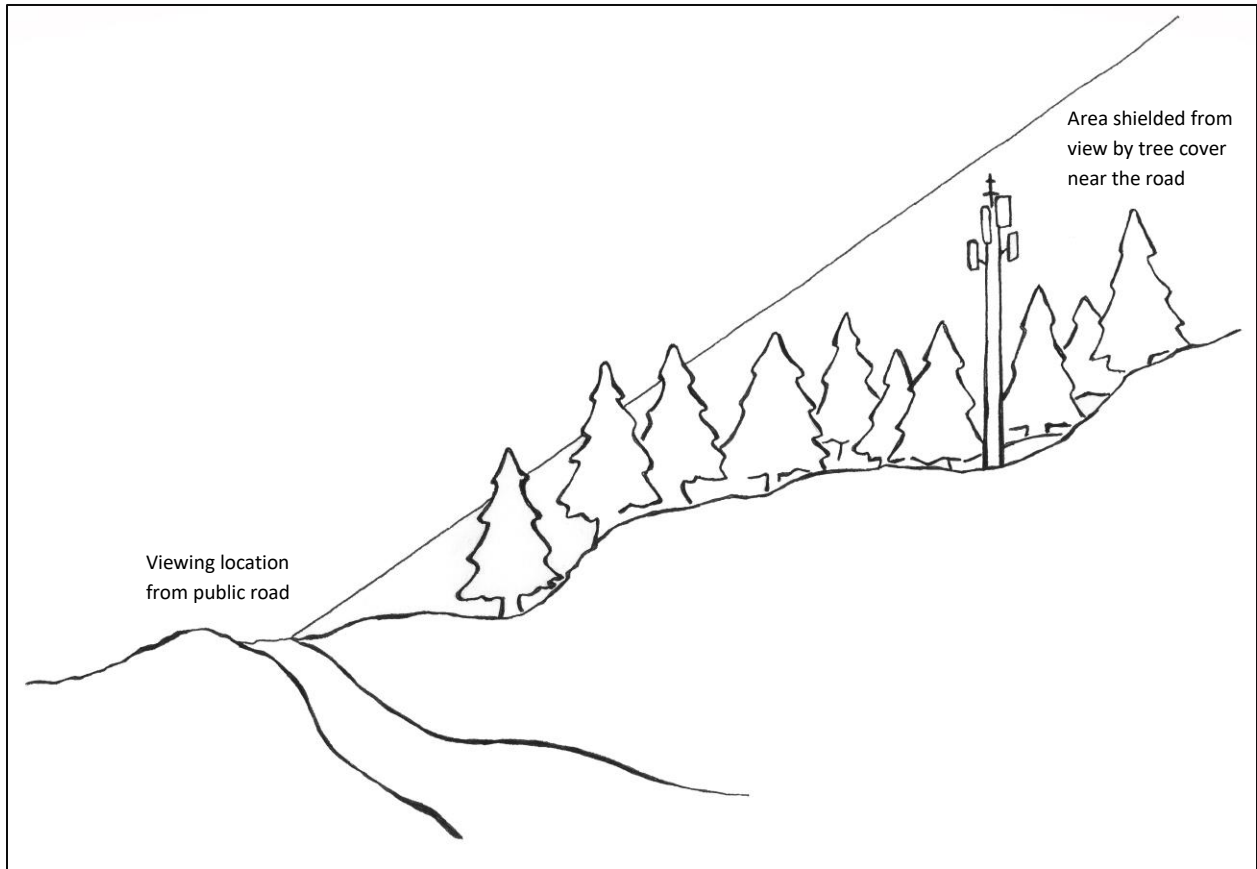
5 The town also has a well-used network of trails maintained by East Montpelier Trails, Inc, as well as a  
6 number of other trail resources. The town’s trail resources are described in Chapter 4 of the town plan.  
7 Many of these trails are permanently protected for public use so access is preserved as it would be for  
8 the public roads which are the focus of the scenic resources section of the town plan. Scenic views of  
9 forests, farms and vistas are an important element of the trail experience. Areas of trail that meet the  
10 significant scenic resources criteria in Chapter 9, Section G (“at least two exemplary examples of the  
11 scenic characteristics” described in that section) should be treated as significant scenic resources for the  
12 purposes of this determining whether a site is appropriate for cell tower siting.

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

#### 16 Preferred Sites

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

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



1  
2 A person standing on the road as shown here will not be able to see the tower due to tree cover near the road blocking view of anything  
3 beneath the diagonal line shown here. The complexity of the topography makes it difficult to calculate these visual impacts directly, but a  
4 balloon test can show whether a tower will be visible and how high it will appear to rise above the trees from important viewpoints.

### 5 **Areas not suitable for cell towers**

- 6 • **Village areas.** Communications towers should not be built within state designated village  
7 centers or within the zones making up the Village. This applies specifically to towers:  
8 transmitters may be located in these areas provided that they are hidden.
- 9 • **Scenic Public Views.** Significant scenic areas are identified in the town plan under chapter 9,  
10 section G, and shown on map 12. This section also defines the characteristics that contribute to  
11 each area's status as a significant scenic area. No communications tower shall be visible within  
12 the foreground of these areas. The Land Use and Development Regulations specify the  
13 minimum distances that towers should be from these scenic areas.
- 14 • **Ridgelines.** Communications towers shall not be placed at the tops of ridgelines. Towers should  
15 not exceed the elevation of an immediate ridgeline when prominent views of a site exist.
- 16 • **In areas where a tower could damage homes, sensitive natural environments, and the**  
17 **property of those not hosting the tower.** The *Land Use and Development Regulations* give  
18 distances that towers should be set back from structures, water features, and property lines.

19

1 **Goals and Actions**

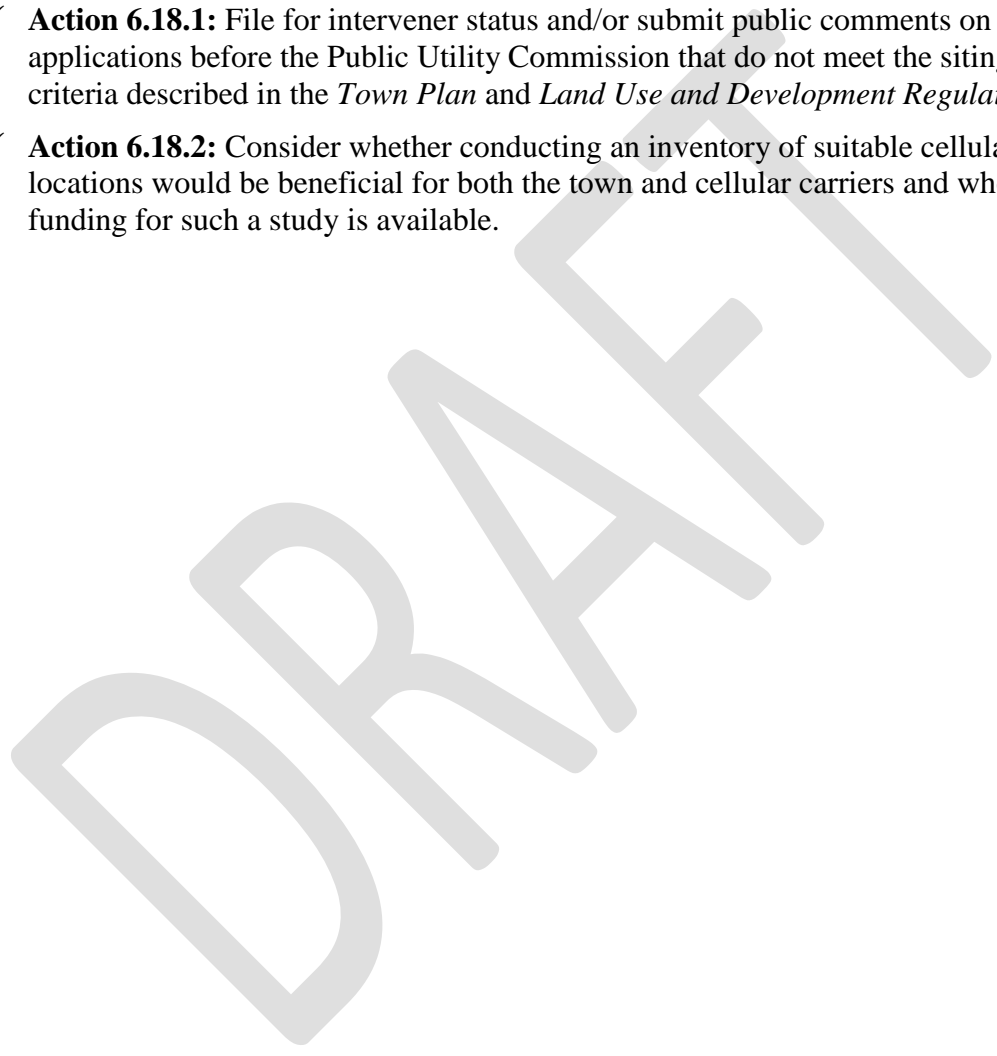
2 ➤ **Goal 6.18:** Enable all areas of East Montpelier to have adequate cell service coverage to meet  
3 the needs of residents, businesses and emergency service providers, while protecting the  
4 town’s scenic and natural resources.

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

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

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

14  
15  
16



1 Sources:

2 National Center for Health Statistics, National Health Interview Survey, Modeled estimates (with  
3 standard errors) of the percent distribution of household telephone status for adults aged 18 and over,  
4 by state: United States, 2018,  
5 [https://www.cdc.gov/nchs/data/nhis/earlyrelease/Wireless\\_state\\_201912-508.pdf](https://www.cdc.gov/nchs/data/nhis/earlyrelease/Wireless_state_201912-508.pdf), accessed  
6 3/21/2021.

7

8 National Center for Health Statistics, National Health Interview Survey, Modeled estimates (with  
9 standard errors) of the percent distribution of household telephone status for adults aged 18 and over,  
10 by state: United States, 2013,  
11 [https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless\\_state\\_201412.pdf](https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless_state_201412.pdf), accessed 3/21/2021

12

13 Blumberg SJ, Luke JV. Wireless substitution: Early release of estimates from the National Health  
14 Interview Survey, January-June 2020. National Center for Health Statistics. February 2021. DOI:  
15 <https://doi.org/10.15620/cdc:100855>, accessed 3/21/2021

