

**UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW HAMPSHIRE**

Vertex Towers, LLC

v.

Case No. 24-cv-45-PB-AJ
Opinion No. 2025 DNH 087

**Zoning Board of Adjustment of the
Town of Hampton, N.H. and
Town of Hampton, N.H.**

MEMORANDUM AND ORDER

Vertex Towers, LLC, a telecommunications infrastructure developer, seeks review of a Hampton Zoning Board of Adjustment decision denying its application for a height and use variance. The variance sought would allow Vertex to construct a 150-foot cellular tower on a residentially zoned property in Hampton, New Hampshire. The proposed tower would accommodate at least four cellular network service providers.

After the Hampton Zoning Board denied both Vertex's variance application and its motion for rehearing, Vertex filed this suit, asserting claims based on the federal Telecommunications Act of 1996 (TCA), [Pub. L. No. 104-104](#), [110 Stat. 56](#) (codified as amended in scattered sections of Title 47 of the U.S. Code), and New Hampshire zoning variance law.

Vertex seeks an order directing the Board to grant its application for a variance. In addition, Vertex asks the Court to order the Board and town of

Hampton to grant any other permits or approvals necessary to allow the construction, maintenance, and operation of the proposed cell tower. The matter is now before the Court on cross-motions for summary judgment.

I. BACKGROUND

A. Vertex's Proposed Cell Tower

Vertex Towers has been in the business of developing telecommunications infrastructure across the United States for more than twenty years. [Doc. 22-2 at 29](#). Though not itself licensed to operate as a network carrier by the Federal Communications Commission (FCC), Vertex works closely with licensed carriers, including Verizon, T-Mobile, and AT&T, to facilitate the provision of personal wireless services. [Doc. 22 at 30](#). Vertex handles much of the groundwork required to set up personal wireless services facilities, such as cell towers and their associated equipment compounds. Vertex identifies particular strategic sites for facilities and then takes those sites through the permitting and building stages. [Doc. 22-2 at 29](#). Carriers, also known as service providers, then contract with Vertex to place antenna arrays and ground equipment on its facilities. [Id.](#)

In 2023, Vertex identified an area in Hampton that lacks reliable wireless coverage and planned to develop a site within that target area for a potential telecommunications facility. This gap in wireless service coverage extends across a one-to-two-mile area east of U.S. Route 1, west of the

seacoast, and bounded by New Hampshire State Routes 111 and 27. [See Doc. 25-6 at 2](#). No major network currently provides comprehensive personal cellular service coverage in the target area. Nor can any existing facilities or buildings in the area adequately support the telecommunications equipment necessary to remedy the coverage gap. [See id.; see also Doc. 22-15 at 4](#).

After surveying the target area for a site on which to build a telecommunications facility, Vertex found 17R Barbour Road, a privately owned parcel of land situated in a sparsely populated part of Hampton. [Doc. 25-6 at 3](#). The 17R Barbour Road parcel is roughly twenty-one acres and has several structures on it already, including a house and several commercial buildings. [Id.](#) More than half the parcel is heavily forested, and the parcel abuts Twelve Shares, the Hampton municipal forest, to the north, west, and east. [Id. at 4](#).

Vertex plans to site a cell tower in the forested portion of 17R Barbour Road. The company identified a sixty square-foot portion of the parcel and confirmed that the location satisfied its criteria for cell tower placement. [Id.](#) Though the land is currently zoned for residential usage, the proposed cell tower site would be at least 750 feet away from the nearest existing residential home. [Id.](#) Vertex plans to build a 149-foot galvanized steel tower on a one-foot concrete base. The tower would also have a lightning-rod topper that extends its height an additional six feet. In all, the tower would stand

156 feet above ground level. [Id. at 5](#). Vertex based its plans on its estimate that, given the height of the surrounding trees, it would need to place antenna installations at 115, 125, 135, and 145 feet in order to accommodate a minimum of four network carriers. [Id.](#)

Vertex also plans to build an equipment compound at the tower's base. The compound will be enclosed by a six-foot-tall fence topped with barbed wire. [Id.](#) To access and maintain the cell tower, Vertex also proposed to extend a nearby paved road by about 725 feet and construct multiple new electric utility poles along that road. [Id.](#) In September 2023, the owners of 17R Barbour Road authorized Vertex to seek planning, zoning, and building permits. [Id. at 6](#).

B. Vertex's Application for Zoning Variances

Several ordinances operate together to regulate land use and building structures in Hampton. The town's zoning ordinance regulates the use of land and height of buildings within the town's borders generally. In addition, the town Telecommunications Facility Ordinance, enacted in 1999, created a telecommunications zone that extends 350 feet on either side of Interstate 95/Route 1. [See Doc. 22-14 at 48-51](#). Telecommunications facilities, including

antennae and cell towers, can be built within that zone only.¹ [Id.](#) at 48.

Within the zone, no structure can exceed 100 feet in height. [Id.](#) The ordinance further provides that any facilities built should, “to the extent possible,” support the co-location of multiple carriers, including, for example, multiple cellular antennae. [Id.](#)

Because Vertex plans to build its 150-foot cell tower on privately owned, residentially zoned land outside of the existing telecommunications zone, the company had to apply to the town’s Zoning Board for a variance from two regulations. First, the variance would relieve Vertex from residential land use restrictions and allow it to operate a cell tower on the proposed site. Second, the variance would permit Vertex to exceed the 100-foot height restriction on telecommunications facilities that would apply were the tower situated in the designated telecommunications zone. [See Doc. 22 at 7.](#)

Over the course of several months, the Hampton Zoning Board considered materials both in Vertex’s initial application and in supplemental submissions, along with evidence from other parties. The Board ultimately

¹ If the applicant plans to retrofit certain existing structures on town-owned or -controlled property outside the telecommunications zone, the ordinance allows the applicant to seek a special exception from the Board—instead of a variance—to build the proposed facilities. Because no such suitable sites exist in the target area, Vertex applied for a variance to build a cell tower on private property.

focused on two key issues: first, how tall the cell tower at 17R Barbour Road needed to be to remedy the coverage gap and, second, the effect of the proposed tower on property values in the area.

1. Minimum Necessary Height

Vertex's application requested relief from the town's 100-foot height limitation to allow it to build a 150-foot tower. In its application for a variance, it contended that 150 feet is the "the minimum height necessary to connect coverage from the proposed [cell tower] with coverage from adjacent cell sites in the carriers' respective networks (i.e. to remedy the existing 'gap' in service [. . .])." [Id. at 52](#). As part of its application, Vertex submitted an affidavit from Jose Hernandez, a radiofrequency engineer. Hernandez's affidavit included attestations regarding the scope of the coverage gap and the need for a 150-foot cell tower located at the 17R Barbour Road site to remedy the gap. [See id. at 82-88](#). At the Town's request, Vertex supplemented the materials in its application with additional maps of the coverage gap and submissions showing carrier-specific coverage information. [Doc. 22-3 at 3-48](#); [Doc. 22-4 at 10-26](#). Hernandez's conclusions aligned with Vertex's position, as reflected in its application, that it needed to build a 150-foot cell tower at 17R Barbour Road in order to support -95 dBm coverage² from four carriers. A

² Both parties agree that -95 dBm is the appropriate standard of coverage necessary to close the existing coverage gap. [See Doc. 22-13 at 57](#).

150-foot tower would allow placement of antennae between 115 and 145 feet above ground level. He noted that 150 feet was the “minimum height necessary to accommodate co-location of multiple carriers as required by the Hampton [Telecommunications Ordinance] and satisfy the significant gap in coverage experienced by all of the carriers in this market.” [Id. at 48](#).

In September 2023, the Board authorized Ivan Pagacik of IDK Communications to evaluate the coverage gap and the site proposal in light of Vertex’s application and supplemental materials. In the IDK Communications report, [see Doc. 22-9 at 6-21](#), Pagacik concluded that a shorter tower with its highest antenna placed at 105 feet would remedy the coverage gap in a manner similar to a tower accommodating an antenna at 145 feet. [Id.](#) The IDK report contemplated a cell tower with three antenna locations for the three major cell service providers (AT&T, T-Mobile, and Verizon). The report concluded that AT&T’s coverage gap could be remedied with an antenna placed at 105 feet, [id. at 12](#); T-Mobile’s coverage gap could be remedied with an antenna at 95 feet, [id. at 15](#); and Verizon’s coverage gap could be remedied with an antenna at 85 feet, [id. at 17](#). To summarize, Pagacik wrote: “Lowering the antenna height at the proposed location to 105 feet offers similar coverage to the areas with less than reliable coverage in Hampton.” [Id. at 20](#).

In December, Vertex responded to the IDK report with further submissions from Hernandez. Hernandez posited that Pagacik's conclusions were not supportable because they did not consider the tree and building clutter that would affect the transmission of signal from antennae below 105 feet. [Doc. 22-4 at 47-48](#). The tree canopy within the target area ranges from 60 feet to 85 feet. In Hernandez's view, the canopy would interfere with the provision of cell service from antennae placed at the heights proposed by Pagacik. [Id. at 47](#). He also advised that a taller tower would accommodate at least four carriers (rather than the three contemplated by Pagacik) and would reduce concerns about future tree canopy growth interfering with coverage. [Id.](#) Hernandez concluded that Pagacik's analysis and findings in the IDK report "over predicted the coverage on the existing sites" and, accordingly, rejected his view that the coverage provided by a shorter tower at 17R Barbour Road is adequate. [Id. at 47-48](#).

2. Effect on Property Values

The Board was also concerned that the tower's visibility and presence would negatively affect nearby property values. In its variance application, Vertex included materials supporting its position that the proposed tower would not diminish the values of surrounding properties and that the tower was designed at the minimum height necessary to resolve the coverage gap

while also minimizing visual impacts. [Doc. 22 at 40](#). To support its claim regarding visual impacts, Vertex pointed out that the tower would sit on a “large, undeveloped and amply vegetated parcel” with “existing mature tree growth”; that it would feature a “substantial setback and vegetative buffer to mitigate the visual impact of the [equipment] compound from abutting properties and the public right of way”; that it would take the form of a monopole with non-reflective galvanized finish and internal cabling; and that it would not require any visible light markers. [Id. at 44-46](#).

Despite these assurances in Vertex’s initial application, members of the Hampton community raised concerns about the impacts of the tower early on in the Board’s review of the variance application. [See Doc. 22-10 at 35](#) (noting community member concerns about “diminished property values and aesthetics”). Vertex ultimately commissioned a balloon-visibility demonstration, wherein engineers floated a balloon at the location and height of the proposed tower to assess its visibility. Vertex filed a public notice of the demonstration on September 6, 2023. [See Doc. 22-1 at 124](#). On September 13, 2023, Vertex conducted the balloon visibility demonstration, [id.](#), and then filed a report, including photos, demonstrating the limited visibility of the balloon from public lands nearby. [Doc. 22-2 at 2-23](#). The Hampton town planner, Jason Bachand, also submitted two photos and a video taken on the 17R Barbour Road property. [See Doc. 22-8 at 86-89](#). Bachand noted that he

“could not see the balloon at all from various points outside the [17R Barbour Road] property.” [Id.](#) at 86.

After the visibility demonstration, some residents raised concerns about the timing of the demonstration, including that the demonstration did not extend into the afternoon. [Doc. 22-13 at 15](#). They also expressed concern that the demonstration took place in the late summer and speculated that the tower would be more visible at other times of year when the foliage is sparser. [See, e.g., Doc. 22-10 at 127](#).

In addition to the balloon-visibility demonstration, Vertex commissioned an impact study to determine “whether or not proximity to a cellular communication tower adversely effects [\[sic\]](#) the selling price of single-family dwellings.” [See Doc. 22-1 at 95](#). Vern Gardner of Horizon Associates completed a report for Vertex along with “Before/After” appraisals of two nearby properties. [Id.](#); [Doc. 22-6 at 9-35](#). Gardner’s impact study report concluded that “there is no evidence that the cellular communication tower [\[would\]](#) have any adverse effected [\[sic\]](#) on the selling price of the single-family dwellings.” [Doc. 22-1 at 95](#).

Over the course of several meetings, the Board continued to address concerns about whether Vertex had met its burden to prove that property values would not be diminished. In response, Vertex submitted supplemental information, including appraisals of specific properties. [See Doc. 22-6 at 4-35](#).

Members of the public challenged Gardner’s findings on several grounds. In addition, residents submitted three letters from other New Hampshire appraisers for the Board’s consideration. The first letter, from Robert Tozier, noted that cell towers could lower neighboring property values between five and twenty percent. It emphasized the effects of the cell towers that were located “across the street” from homes, as opposed to ones that are in “more isolated areas.” [Doc. 22-12 at 2](#). The Tozier letter was a statement on the effect of cell towers generally in the New Hampshire housing market—not a project-specific report. The second letter, from Louis Manias, focused on Gardner’s report and criticized its methodology, approach, and conclusions. [See id. at 3-6](#). Manias also gave testimony to the Board at a public meeting in January 2024 and emphasized the limited scope and depth of Gardner’s submissions to the Board. [See Doc. 22-13 at 55](#). The third letter, from Jennifer DiBurro, included similar criticisms of Gardner’s impact study and report. [See Doc. 22-12 at 83](#).

C. The Zoning Board’s Decisions

The Zoning Board issued a decision denying Vertex’s application and included findings to support its decision. [Doc. 6-1 at 1](#). The Board agrees with Vertex that there is an existing gap in quality cell phone coverage in the area that would be served by the proposed cell tower. It further acknowledged that that gap could not be filled by building a cell tower either within the town’s

telecommunications zone or on town-owned property. Crediting Pagacik's conclusions in the IDK report, the Board found that a 110-foot tower at the 17R Barbour Road site "would be sufficient to provide coverage" at the in-house standard level of -95 dBm. [Id. at 4-5](#). In drawing that conclusion, the Board noted that a 110-foot tower would support three service carriers with antennae at 85, 95, and 105 feet. Even so, it ultimately denied Vertex's application because it did not agree with Vertex's position that a 150-foot tower was necessary to close the coverage gap.

While the Board acknowledged that it has an obligation under federal law to facilitate the construction of cell tower infrastructure where gaps in coverage persist, it emphasized that that obligation does not require Hampton to "allow infrastructure firms such as Vertex to build to whatever height they please." [Id. at 5](#). After concluding that a 110-foot tower would suffice to remedy the coverage gap, the Board explained why it would not approve a 150-foot tower. It found that a 150-foot tower would be highly visible and that Vertex failed to provide convincing evidence to satisfy its burden under state variance law that the proposed project would not diminish property values nearby.

The Board focused on three particular criteria when explaining its denial of Vertex's application. The Board found: first, that a variance allowing Vertex to build a tower extending 50 feet above the town's usual

100-foot ceiling would be contrary to the public interest; second, the proposed tower would violate the spirit of the ordinance because only ten feet of relief would be strictly necessary to accommodate multiple antennae; and, third, that Vertex failed to satisfy its burden to show that property values would not be diminished by a 150-foot tower. [Id.](#) at 6.

Vertex later filed a motion for rehearing of the Board's decision, which was also denied. [See Doc. 6-2](#). This action followed.

D. Procedural Background

Vertex asserts in Count I that the Board's decision to deny its variance application violates the TCA because it was not supported by substantial evidence, as required by 47 U.S.C § 332(c)(7)(B)(iii). [See Doc. 6 at 22-23](#). Count II asserts that the Board's decision effectively prohibited wireless services from being provided in the target area, in violation of § 332(c)(7)(B)(i)(II). [See id. at 23-25](#). Count III contends that the Board's decision was illegal or unreasonable under state zoning variance law, in violation of N.H. Revised Statutes Annotated § 677:4. [See id. at 26-27](#). Count IV asserts that the Board's decision was improperly made "on the basis of the environmental effects of radio emissions" from the proposed cell tower, in violation of § 332(c)(7)(B)(iv). [See id. at 27-28](#). The parties address all four claims on cross-motions for summary judgment. [See Doc. 25](#); [Doc. 26](#).

II. STANDARD OF REVIEW

The familiar summary judgment standard operates somewhat differently when the Court is reviewing a decision of a local regulatory authority to determine whether it is supported by substantial evidence, as required by § 332(c)(7)(B)(iii), or whether the local authority relied on impermissible radiofrequency evidence, as set forth in § 332(c)(7)(B)(iv).

The “substantial evidence” standard of review is “the same as that traditionally applicable to a review of an administrative agency’s findings of fact” in an administrative law context. See [Green Mountain Realty Corp. v. Leonard](#), 688 F.3d 40, 49-50 (1st Cir. 2012) (internal quotations omitted).

When Congress used the substantial evidence standard in the TCA, it imported the established “cluster of ideas” associated with that term. [T-Mobile South, LLC v. City of Roswell](#), 574 U.S. 293, 301 (2015) (internal quotations omitted).

As such, a district court conducting substantial evidence review of a zoning authority’s decision under the TCA must evaluate the decision on the basis of the record the agency had in front of it when it ruled. See [id.](#) at 301-302 (describing the scope of substantial evidence review under the TCA and holding that agency must provide a written decision describing its reasons) (citing [SEC v. Chenery Corp.](#), 318 U.S. 80, 94 (1943)).

The reviewing court should defer to the agency's factual findings and does not itself act as an independent fact-finder. [Leonard](#), 688 F.3d at 50. Even so, the substantial evidence standard "is not a rubber stamp." [Penobscot Air Servs., Ltd. v. Fed. Aviation Admin.](#), 164 F.3d 713, 718 n.2 (1st Cir. 1999). It is an objective test that requires that the reviewing court set aside any local agency decisions if those decisions cannot be supported by either a "fair estimate of the worth of the evidence" or the local agency's own "informed judgment on matters within its special competence." [Id.](#) at 718 (cleaned up).

A court's review of a local zoning authority's decision pursuant to New Hampshire Revised Statutes Annotated § 667:4 is similarly limited and deferential. I draw the relevant standard of review from state law: "Factual findings of a local zoning board are deemed prima facie lawful and reasonable and will not be set aside absent errors of law, unless the court is persuaded by a balance of probabilities on the evidence before it that the decision is unreasonable." [Malachy Glen Assoc. v. Town of Chichester](#), 155 N.H. 102, 105 (2007) (quoting [Garrison v. Town of Henniker](#), 154 N.H. 26, 29 (2006)) (cleaned up).

In other words, I am limited to a deferential review of the administrative record as it appeared before the Board in ruling on motions

for summary judgment with respect to the TCA substantial evidence claim, the state law claim, and the TCA radiofrequency emissions claim.

The final claim alleging effective prohibition of personal wireless services under TCA, though, is before me on the more traditional summary judgment standard. In the typical Rule 56(a) posture, summary judgment is warranted when the record reveals “no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” [Fed. R. Civ. P. 56\(a\)](#). This standard was developed to provide parties with a way to avoid the delay, expense, and uncertainty of a trial when material facts are not in dispute. Because a court may not engage in fact-finding when it decides a summary judgment motion, ambiguous evidence ordinarily must be construed in favor of the nonmoving party. [See Estrada v. Rhode Island](#), 594 F.3d 56, 62 (1st Cir. 2010).

“Cross-motions for summary judgment require the district court to ‘consider each motion separately, drawing all inferences in favor of each non-moving party in turn.’” [AJC Int’l, Inc. v. Triple-S Propiedad](#), 790 F.3d 1, 3 (1st Cir. 2015) (quoting [D & H Therapy Assocs., LLC v. Boston Mut. Life Ins. Co.](#), 640 F.3d 27, 34 (1st Cir. 2011)). This standard is the appropriate one for reviewing Vertex’s effective prohibition claim. Therefore, I review the parties’ cross-motions for summary judgment on that claim under the familiar Rule

56 standard as stated and construe any material dispute of fact in the light most favorable to the non-moving party, taking each motion in turn.

III. ANALYSIS

In resolving the motions before me, I first take up Vertex’s claim that the Board’s decision is not supported by substantial evidence, as required by the TCA, and its claim that the decision is contrary to state law. I then turn to claim that the Board improperly based its decision on the environmental effect of radiofrequency emissions. I close with the claim that the Board’s decision amounts to an effective prohibition of personal cell service in the relevant portion of Hampton.

A. Counts I and III: Review of the Board’s Decision

1. The TCA and State Variance Law

Ordinarily, state law governs the reviewability of a local zoning board’s decision to deny an application for a variance. Since 1996, however, the TCA has partially preempted state law and curtailed zoning boards’ authority to deny the placement of a cell tower. The TCA reflects a delicate balance between two competing objectives. On the one hand, Congress sought to “facilitate nationally the growth of wireless telephone service.” [Nat’l Tower, LLC v. Plainville Zoning Bd. of Appeals](#), 297 F.3d 14, 20 (1st Cir. 2002) (internal quotations omitted). On the other hand, it preserved “substantial local control over siting of towers.” [Id.](#) (internal quotations omitted). Section

332(c)(7) of the TCA embodies this balance. See [47 U.S.C. § 332\(c\)\(7\)](#). It first provides that nothing in the TCA “shall limit or affect the authority of a State or local government or instrumentality thereof over decisions regarding the placement, construction, and modification of personal wireless services facilities.” [Id. § 332\(c\)\(7\)\(A\)](#). The section goes on, though, to limit state and local authority in several ways. [Id. § 332\(c\)\(7\)\(B\)](#). For example, state and local governments and instrumentalities may only regulate the placement of wireless service facilities provided they make all decisions in writing and support those decisions with substantial evidence contained in a written record. See [Id.](#)

Congress gave parties adversely affected by decisions of state and local authorities a private right of action to enforce the limitations on zoning authority set forth in the TCA. See [Id. § 332\(c\)\(7\)\(B\)\(v\)](#). “Ultimately, the burden of demonstrating that the determination of a local authority is not supported by substantial evidence is with the party seeking approval.” [Id.](#) (internal citations omitted). The reviewing court should defer to the local authority so long as its decision reflects reasonable inferences from the record before it. See [Nat’l Tower](#), 297 F.3d. at 22-23 (“[[I]f the issue is simply one of whether the board’s decision is supported by substantial evidence, the courts defer to the decision of the local authority, provided that the local board picks between reasonable inferences from the record before it.”). Additionally,

where there is no claim of procedural irregularity, the reviewing court is limited to the record as it existed. [Leonard](#), 688 F.3d at 50.

Under New Hampshire law, a local zoning board of adjustment can grant a variance only if the applicant can show that (1) the variance would not be contrary to the public interest; (2) the spirit of the zoning ordinance would be observed; (3) substantial justice would be done by granting the variance; (4) the values of surrounding properties would not be diminished; and (5) the literal enforcement of terms in the zoning ordinance would result in an unnecessary hardship to the applicant. [N.H. Rev. Stat. Ann. § 674:33.I\(a\)\(2\)](#). New Hampshire state law, like the TCA, allows for deferential judicial review of local zoning authority decisions. [See Id. § 677:4](#).

The federal “substantial evidence” claim under the TCA and the state law “illegal and unreasonable” decision claim are closely related. Both require that I consider the same record, review the same decision documents, evaluate the Board’s decision in light of its obligations under the same state law, and treat that decision in a similarly deferential manner. Accordingly, I address the two claims together.

2. Application to the Board’s Decision

The Hampton Zoning Board issued written decisions denying both Vertex’s application for a variance and its motion for rehearing. [See Doc. 6-1](#). In the former document, the Board listed a series of factual findings based on

a 173-day-long review and decision process. It denied Vertex’s height-and-use variance application in its entirety because Vertex sought to build a 150-foot tower. In the Board’s view, there was no need for a cell tower taller than 110 feet at 17R Barbour Road to remedy the cell service coverage gap. In short, the Board denied Vertex’s application because it sought permission to build a tower forty feet taller than the Board believed necessary. In reaching this conclusion, the Board conceded that a tower was appropriate at the proposed site and indicated that it would have approved a shorter tower. However, given that Vertex applied for a 150-foot tower—not a 110-foot one—the Board found that the application had failed satisfy three of the five criteria necessary to get a variance under state law: the public interest, the diminution of property values, and the spirit of its zoning ordinance. Vertex now argues that the Board’s decision was unreasonable under state law and that the Board lacked substantial evidence to support its denial. I assess the evidence supporting the Board’s analysis of each of these factors.

a. The Spirit of the Ordinance

In its application, Vertex argued that allowing it to build a 150-foot cell tower at 17R Barbour Road was within the spirit of the town’s zoning ordinance. [Doc. 22 at 38](#). The Hampton telecommunications ordinance provides that any facilities built should, “to the extent possible,” support the co-location of multiple antennae for multiple carriers. [See Doc. 22-14 at 48-](#)

51. Vertex posited that “[t]he proposed Facility has been designed to fulfill the stated goals of the Town of Hampton’s Zoning Ordinance regulating Telecommunications Facilities as much as possible.” [Doc. 22 at 38](#). The company based its application, in part, on Hernandez’s expert opinion that a 150-foot tower would allow for the co-location of a greater number of antennae than a 110-foot tower would. [Doc. 22-14 at 12-13](#). It would also have room for town public safety equipment. [Id.](#) Because a higher capacity tower would provide greater coverage and possibly prevent the need to build future additional facilities elsewhere in town, Vertex contended that a 150-foot tower would thereby fall more in line with the spirit of the telecommunications ordinance than a shorter one with lower capacity. [See Doc. 22 at 38](#).

The Board rejected Vertex’s argument. It concluded that a tower with capacity for three antennae would be sufficient to satisfy the spirit of the ordinance’s preference for co-location. [See Doc. 6-1 at 6](#). The Board drew this conclusion based on evidence presented to it over the course of the application review process. It considered the ordinance itself, the efficacy of a shorter tower, the needs of the community, and also the likelihood that more than three carriers would even be interested in leasing antennae on this proposed tower. Because the Hampton ordinance does not specify a number of antennae or even a preference for any particular capacity other than

“multiple” carriers, the Board did not feel that the potential for four antennae was necessarily more in line with the ordinance given how much taller the tower would have to be accommodate the additional carrier. The Board also now points out that it based its decision to disallow a taller tower, at least in part, on the fact that Vertex did not have firm commitments from multiple carriers interested in placing antennae at all.³ Because merely having a taller tower with unused capacity was not within the spirit of the ordinance, the Board denied Vertex’s application.

b. Contrary to Public Interest

Vertex claims it met its burden to show that the proposed tower was not contrary to the public interest because it would provide improved cell service coverage and would not otherwise negatively impact the town or its residents. [Doc. 22 at 37-38](#). In particular, it noted that better service coverage would be more convenient for members of the public and improve safety during emergencies. [Id. at 37](#). It also posited that “the requested use at [17R Barbour Road would] not result in a change in the appearance of the surrounding neighborhoods.” [Id.](#) It described its proposed use of the site as

³ Vertex discussed the possibility of four—or five—carriers at several points throughout its application process and this litigation. However, at the time the Board considered the variance application, Vertex had submitted evidence from only one carrier (DISH) regarding its interest in leasing an antenna on the proposed 17R Barbour Road tower. [See Doc. 22-1 at 122](#).

“passive” and added that the tower would not “generate any traffic, smoke, dust, heat, glare, [or] discharge of noxious substances.” [Id.](#) Nor would the tower “pollute waterways.” [Id.](#)

The Board, however, found that any tower taller than necessary to remedy the coverage gap—in its view, 110 feet—would be contrary to the public interest absent some other showing. [Doc. 6-1 at 6](#). The Board based this conclusion on evidence regarding the necessary height of a cell tower at 17R Barbour Road. Over the course of the application review process, the Board considered evidence from different sources on how tall a tower would need to be in order to provide wireless service and close the gap in coverage in the identified area. Though Vertex relied on, and continues to rely on, the Hernandez report and submissions in its application, Hernandez’s view was not the only one before the Board when it made its decision. The Board also had evidence from the IDK report. The Board had the chance to review both Hernandez’s submissions and his comments critiquing the IDK report. After reviewing these materials, the Board made several findings of fact, including some that adopted IDK’s position on the feasibility of a shorter tower. [See id.](#) The Board was not persuaded by Hernandez’s criticisms of the IDK report, including his qualms regarding the lack of drive test data, the overstatement of existing coverage, and the interference from tree clutter. Instead, the Board was persuaded by evidence that a shorter tower would suffice to close

the coverage gap without being an excessive intrusion on the landscape. It found that a shorter tower with capacity for just three antennae was adequate and in the best interest of the town.

c. No Diminution in Property Values

Vertex also claimed that property values surrounding its proposed 150-foot tower would not be diminished. [Doc. 22 at 38](#). To support this claim, Vertex provided the Board with evidence, including the Gardner impact study on property sale price and the balloon-visibility demonstration. Vertex now argues that it successfully demonstrated through that evidence that the 150-foot tower would not be visible from surrounding properties and that there would be no impact of neighboring property values.

The Board, though, disagreed. It found that Vertex failed to show that property values would not be diminished. [Doc 6-1 at 6](#). The Board was unpersuaded by the Gardner impact study regarding property values in light of comments, letters, and materials submitted by other appraisers. As noted above, several comments and submissions to the Board took issue with the Gardner impact study and appraisals—both in methodology and scope.

d. Conclusion

Neither the substantial evidence standard nor state law allow a reviewing court to pick and choose among reasonable options in front of a local zoning Board. The Board here made judgment calls based on the

evidence it believed to be credible within its experience and knowledge. Under state law, zoning board “members may base their conclusions upon ‘their own knowledge, experience and observations.’” [Dietz v. Town of Tuftonboro](#), 171 N.H. 614, 624 (2019) (quoting [Biggs v. Town of Sandwich](#), 124 N.H. 421, 427 (1984)). That is what the Board did here. It laid out a complete decision with sixteen in-depth findings of facts and addressed the three criteria on which it based its denial explicitly. [See Doc. 6-1 at 4-6](#). Its conclusions were not cursory but tied the three relevant factors closely to evidence in the record before it.⁴ [See id. at 6](#).

As such, I cannot displace the Board’s judgment in favor of my own. Its members did not make their decision arbitrarily but instead weighed evidence differently than Vertex would have. Such differences do not make the Board’s decision unsupportable. I find that the Board’s decision was supported by substantial evidence, as required by the TCA, and did not amount to an unreasonable decision under state variance law. Accordingly, I

⁴ The Board found in its decision that the tower would be “highly visible.” [Doc. 6-1 at 5](#). They drew this conclusion without any evidence in the record to directly support this proposition. At most, the Board had evidence before to suggest that the 150-foot tower might be more visible during seasons with less foliage cover. Though this “highly visible” claim is not supported by substantial evidence, I nonetheless conclude that there is adequate additional evidence in the record to support the Board’s decision regarding the property-value diminution prong of the variance analysis.

grant the defendants' motion for summary judgment on Count I and III and deny the plaintiff's motion as to the same.

B. Count IV: Radiofrequency Emissions

The TCA further preempts state and local authority to regulate the construction or placement of cell towers “on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the [Federal Communications Commission]’s regulations concerning such emissions.” [47 U.S.C. § 332\(c\)\(7\)\(B\)\(iv\)](#). This provision essentially ensures that state and local governments cannot prevent the construction of a cell tower, or other personal wireless service facilities, based on their own radio frequency emissions standards.

When enforcing this provision, courts look at the record underlying a zoning board’s decision to see if the decision was, in fact, impermissibly based on evidence regarding radiofrequency emissions. See, e.g., [AT&T Wireless PCS, Inc. v. City Council of City of Virginia Beach](#), 155 F.3d 423, 431 n.6 (4th Cir. 1998) (noting that basing a denial on the health concerns of citizens that arose out of radiofrequency emissions would fall under the prohibition set forth in § 332(c)(7)(B)(iv)). However, the mere fact that concerns about radiofrequency emissions arose over the course of a zoning review process does not necessarily run afoul of the TCA. In fact, the local authority itself may inquire into such concerns. See [Smart SMR v. Zoning Comm’n](#), 995 F.

[Supp. 52, 58 \(D. Conn. 1998\)](#) (“[A] local authority does not violate the [TCA] for merely inquiring into the safety of emissions from a wireless facility.”). Instead, the local authority must have actually relied on impermissible evidence regarding radiofrequency emissions in order for it to rise to the level of a violation of § 332(c)(7)(B)(iv). [Id.](#)

Here, Vertex argues that the Board impermissibly relied on concerns regarding radiofrequency emissions in denying its application for a variance. Vertex concedes that the Board’s written decision and denial of its motion for rehearing do not explicitly rely on any impermissible evidence regarding emissions. However, it suggests that the Board used “property value” as a proxy for the effects of radiofrequency emissions. Vertex points to evidence sprinkled across the record. [See Doc. 25 at 30](#). In its summary of the facts filed in support of its motion for summary judgment, Vertex notes that that “of all concerns raised by members of the public during the [Board’s] proceedings through written submissions, none was more prominent or more frequent than [radiofrequency emissions].” [Doc. 25-6 at 36](#). Vertex cites multiple statements by members of the public who expressed concerns about health issues for both children and adults, impacts on wildlife, and anecdotal incidences of brain cancer near cell towers. [See id.](#) (citing collected statements in the administrative record summarized in [Doc. 25-6 at 36-42](#).)

These references, Vertex suggests, reveal that concerns regarding property values were, in fact, just dressing for underlying concerns regarding radiofrequency emissions. Vertex cites several district court cases in which the court concluded that concerns about property values were a proxy for underlying concerns about radiofrequency emissions. See Doc. 25 at 27-28 (citing, for example, [AT&T Wireless Servs. of Calif. LLC v. City of Carlsbad](#), 308 F. Supp. 2d 1148, 1162-63 (S.D. Cal. 2003)).

For its part, the defendants emphasize that the statute does not prohibit residents from voicing concerns about emissions, even though it does bar the Board from relying on those concerns when denying an application. The Board points out that it did not rely directly or indirectly on publicly expressed concerns about such emissions. Instead, it makes clear that concerns about property values related to the visibility of the tower and its excessive height drove the denial—not emissions.

The Board's decision denying Vertex's application for a variance included sixteen factual findings. None of these findings referenced radiofrequency emissions. In fact, in recommending that the Board deny Vertex's request for rehearing on its denied variance application, a member of the Board stated: "Let me be clear, this Board did not consider the environmental effects of radio frequency emissions" when it issued its decision of denial. [Doc. 22-13 at 64](#).

To be sure, the Board did base its denial of Vertex's application in part on concerns regarding property values. See Doc. 6-1 at 5 (noting the Vertex failed to meet its burden to show that there would be no negative impacts on property values). However, the Board indicated that it was concerned more with the inadequacy of the record submitted by Vertex to support its application than with any specific environmental effect from radiofrequency emissions. See id. The Board expressed skepticism about the Gardner impact study. In its decision, the Board took issue with the study's lack of data regarding specific properties in the relevant neighborhood, the source of the data included in the study, Gardner's methodology, his emphasis on selling price (rather than value), and the disclaimers included in the report itself. Id.

Unlike in AT&T Wireless Services v. City of Carlsbad, in which a district court decided that there was no evidence in the record to show that that Carlsbad considered anything apart from the negative effects of radiofrequency emissions when it drew its conclusions about property values, the Hampton Board had a lot to go on here, including multiple appraisers comments at odds with Vertex's expert. Notably, the Board did not even make a finding that the proposed tower would diminish property values. It only concluded that the evidence submitted by Vertex in support of its application for a variance was not adequate to satisfy the no-diminution-of-property-values factor under state law.

The concerns regarding the Gardner impact study cited in the Board's decision mirror closely those criticisms raised by the third-party appraisers in submissions to the Board. Compare, e.g., Doc. 22-12 at 4 ("The [ordinance] refers to [property] value and the Gardner [impact study] only refers to prices which are two distinctly different items."), with Doc. 6-1 at 5 ("[Applicant] only spoke to selling price – not value"). The TCA does not stand in the way of the Board considering such issues in an application for the siting of a cell tower.

In light of the fact that the Board included ample written language explaining why it denied Vertex's application on the property-values prong of the variance analysis and did not indicate that it relied on radiofrequency-emission concerns in any place, I deny Vertex's motion for summary judgment on Count IV and grant defendants' motion with respect to the same.

C. Count II: Effective Prohibition

Vertex's final claim challenges the Board's decision not for its insufficiency but for its effect: Vertex alleges that even if the Board's decision is supported by substantial, permissible evidence and is not unreasonable or illegal under state law, this Court should nonetheless step in and set aside the decision. It argues that absent such an intervention, the Board's decision

amounts to an effective prohibition on the provision of personal wireless services in violation of the TCA.

The TCA provides that “[t]he regulation of the placement [. . .] of personal wireless services facilities by any State or local government [. . .] shall not prohibit or have the effect of prohibiting the provision of personal wireless services.” [47 U.S.C. § 332\(c\)\(7\)\(B\)\(i\)](#). In short, zoning boards, such as the Hampton Board, cannot “effectively prohibit” the construction of cell towers.

The First Circuit has developed a two-part test for reviewing effective prohibition claims. First, the carrier (or party alleging an effective prohibition⁵) must show that a “significant gap” in coverage exists in the relevant area—and not “a mere, and statutorily permissible, dead spot.” [Second Generation Props., L.P. v. Town of Pelham](#), 313 F.3d 620, 631 (1st Cir. 2002). The significance of a coverage gap within any individual carrier’s network can depend on, among other things, “the physical size of the gap, the area in which there is a gap, the number of users the gap affects, and whether all [. . .] users in that area are similarly affected by the gaps.” [Omnipoint Holdings, Inc. v. City of Cranston](#), 586 F.3d 38, 49 (1st Cir. 2009).

⁵ The First Circuit has recognized that effective prohibition claims under the TCA can be brought by property owners (and their representatives) as well as the carriers themselves. See, e.g. Leonard, 688 F.3d at 57 n.13.

Second, the court must inquire into the feasibility of alternative sites. See [id.](#) at 48; see also [MetroPCS, Inc. v. City & Cnty. of San Francisco](#), 400 F.3d 715, 733 (9th Cir. 2005), abrogated on other grounds by [T-Mobile South, LLC](#), 574 U.S. at 299. When considering whether alternative solutions to close the coverage gap exist, courts can look at whether there are less sensitive sites available for the location of a proposed tower, whether there are alternative designs for the tower, or whether antennae could be placed on existing structures in lieu of constructing a new tower. [Omnipoint Holdings](#), 586 F.3d at 48 (citing [MetroPCS](#), 400 F.3d at 733).

To successfully show that a local zoning authority effectively prohibited coverage by denying a specific application, the carrier (or tower developer, as the case may be) must show that its “existing proposal [is] the only feasible plan” to remedy the coverage gap and that “prohibiting its plan might amount to prohibiting personal wireless service.” [Town of Amherst v. Omnipoint Commc’ns. Enterprises, Inc.](#), 173 F.3d 9, 14 (1st Cir. 1999). Typically, though, a carrier cannot “insist on one, ideal way to provide service; the TCA require[s] it to consider alternatives more palatable to local zoning authorities.” [Omnipoint Holdings, Inc.](#), 586 F.3d at 50.

Feasibility is a fact-bound analysis that involves trade-offs among opportunities, costs, and the interests of the governing body. See [Town of Amherst](#), 173 F.3d at 15. In [Town of Amherst v. Omnipoint Communications](#)

Enterprises, the First Circuit concluded that a carrier was not entitled to a taller tower in a situation where it had not adequately considered or presented options for a greater number of shorter towers. [Id.](#) Based on the record in that case, the Court could not conclude that the Amherst zoning board would “inevitably reject an alternative [] proposal with lower towers.” [Id. at 16.](#) The court went to on say: “Indeed, conceivably [the plaintiff] could offer [] an alternative with lower towers and yet persuade the Board that, given the consequences (more towers) and perhaps modest height reduction, the Board is best off approving [the] original proposal or some close variant [. . .]. It is too early to give up on the Board.” [Id.](#)

Here, both parties agree that there is a significant gap in coverage for all cellular service providers in the target area of Hampton. [See Doc. 25 at 37-38](#) (describing the one-to-two-mile area identified as a gap in coverage for all major carriers in the region); [Doc. 26-1 at 27](#) (“As there is a gap in coverage in this case [. . .]”). Because they agree, I find that a significant coverage gap exists and do not dwell further on the first prong of the effective-prohibition analysis.

Instead, I turn to the remaining question of whether there is some feasible alternative that exists such that the Board’s denial of Vertex’s application does not amount to an effective prohibition on the provision of personal wireless services. Here, too, the parties agree that the location of a

cell tower on the 17R Barbour Road property is an appropriate solution to the coverage gap. See Doc. 25 at 39-40. Their disagreement is a narrow one.

Vertex argues that denying a 150-foot tower amounts to an effective prohibition of personal wireless service in the relevant portion of Hampton because there are no feasible alternatives. The Board, though, believes that there is a feasible alternative to a 150-foot tower: namely, a 110-foot tower. In the Board's view, relying on the IDK Report and Pagacik's review of the coverage gap, a 110-foot tower would adequately remedy the coverage gap. The Board concluded that a shorter tower would allow coverage from three carriers at an industry standard of -95 dBm within the existing gap.

The question remaining for this Court, then, is a narrow factual one: Did the Board effectively prohibit the provision of personal wireless services by denying Vertex a variance to build a 150-foot tower when it left open the option to build a 110-foot tower on the same site?

The parties both offer evidence to support their respective positions. Vertex relies on Hernandez, his report, his comments, and his affidavit to argue that a 150-foot tower is necessary. In particular, Hernandez highlights that a 110-foot tower would not be adequate because of interference from trees and other natural land features. Vertex's position reflects Hernandez's view that there would not be reliable -95 dBm coverage in the target area with a 110-foot tower. The town and Board, though, rely on another expert.

They point to the IDK report and credit Pagacik’s view that three antennae on a 110-foot tower would close the coverage gap.

In short, there is a genuine dispute of material fact on the question of whether a 110-foot tower is a feasible alternative to a 150-foot tower that would remedy the coverage gap.⁶ Because I am evaluating the effective-prohibition claim on cross-motions for summary judgment, I must credit each party’s experts and evidence in turn. In doing so, I must deny both parties’

⁶ After the First Circuit ruled in Omnipoint, the FCC issued a Declaratory Ruling rejecting the First Circuit’s definition of effective prohibition and, in particular, its focus on coverage gaps. [See 33 FCC Rcd. 9088 \(2018\)](#). In that ruling, the FCC explained that a coverage-gap driven analysis was out of date given the current state of the marketplace for service providers:

Decisions [like Omnipoint] that have applied solely a “coverage gap”-based approach under Section 332(c)(7)(B)(i)(II) reflect both an unduly narrow reading of the statute and an outdated view of the marketplace. Those cases, including some that formed the foundation for “coverage gap”-based analytical approaches, appear to view wireless service as if it were a single, monolithic offering provided only via traditional wireless towers. By contrast, the current wireless marketplace is characterized by a wide variety of offerings with differing service characteristics and deployment strategies. [. . . C]overage gap-based approaches are simply incompatible with a world where the vast majority of new wireless builds are going to be designed to add network capacity and take advantage of new technologies, rather than plug gaps in network coverage.

[Id. at 9106-08](#) (cleaned up). I need not assess Vertex’s argument that the FCC’s standard displaces the First Circuit test because there are material facts in genuine dispute here that require me to deny the cross-motions for summary judgment regardless of which standard applies.

motions with respect to Count II and conclude that there remains a genuine dispute of material fact unresolvable on Rule 56(a) motions.

IV. CONCLUSION

For the foregoing reasons, I grant the defendants' motion for summary judgment on Counts I, III, and IV and deny plaintiff's motion for the same. On Count II, I deny both parties' motions for summary judgment. See [Doc. 25](#); [Doc. 26](#).

SO ORDERED.

/s/ Paul J. Barbadoro
Paul J. Barbadoro
United States District Judge

August 6, 2025

cc: Counsel of Record