

Roland Bartl

From: Roland Bartl
Sent: Wednesday, February 16, 2005 1:20 PM
To: Lauren Rosenzweig; Greg Niemyski
Subject: RE: Amateur Radio Towers - draft zoning article

What is your sense and preference. Should we put out the Steve Anderson version for the public hearing. As much as don't like the special permit idea, his point of better positioning in case of a legal challenge makes sense. It often seem to come down to that.

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-----Original Message-----

From: Stephen Anderson
Sent: Tuesday, February 15, 2005 8:24 PM
To: Roland Bartl
Cc: Lauren Rosenzweig; Greg Niemyski
Subject: RE: Amateur Radio Towers - draft zoning article

I recommend the hybrid approach (as of right up to 80' etc., and a special permit for other cases) because:

1. It affords reasonable "as of right" regulations to encourage licensed operators to follow the "as of right criteria" where feasible.
2. It allows a non-variance deviation from certain of those criteria upon a sufficient showing.
3. It should withstand any generalized challenge that the Bylaw is prohibitive on its face.
4. It allows the Board (not a court) to decide in the first instance if the as of right criteria should be modified for a particular case.
5. It is less likely to result in successful litigation against the Town or the Board.

Steve

-----Original Message-----

From: Roland Bartl [mailto:rbartl@acton-ma.gov]
Sent: Tuesday, February 15, 2005 4:14 PM
To: Stephen D. Anderson
Cc: Lauren Rosenzweig; Greg Niemyski
Subject: RE: Amateur Radio Towers - draft zoning article

Thank you Steve for the input. We will share it with the entire Board. I think we were trying to avoid a special permit not only for the reasons I mentioned earlier (creating the impression of discretionary authority where none exists), but also for the expected lack of expertise on the Board (any Board - Planning or Appeals) and staff to determine what is reasonable to regulate or, in reverse, what would be a violation of federal regulations. If you listen to some of the folks that have spoken so far, anything short of allowing everything that is asked for would be in violation of federal rules. Not sure if we could impose the same scrutiny on an amateur operator that we apply to telecommunication tower proponents, including their funding of an expert consultant to the Town. Would it be reasonable in this case? If we end up just having to take their word for it, the

special permit becomes a farce with window dressing, such as requiring landscaping around the tower base to show the neighbors that we have done something. It's not an appealing thought. Finally, we don't have the staffing resources to keep adding special permits, let alone if the override should fail.

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-----Original Message-----

From: Stephen Anderson
Sent: Tuesday, February 15, 2005 3:55 PM
To: Roland Bartl
Cc: Lauren Rosenzweig; Greg Niemyski
Subject: RE: Amateur Radio Towers - draft zoning article

Roland:

I recommend inclusion of a "safety valve" in the form of a special permit as I have redliend on the attached draft. Please call me if you have any questions.

Steve

-----Original Message-----

From: Roland Bartl [mailto:rbartl@acton-ma.gov]
Sent: Tuesday, February 15, 2005 12:28 PM
To: Stephen D. Anderson
Cc: Lauren Rosenzweig; Greg Niemyski
Subject: Amateur Radio Towers - draft zoning article

Hi, Steve:

End of last week I sent you a draft article on the subject matter. We are getting a lot inquiries and some feed back from operators. Many are coming out of the woodworks. By some accounts there are as many as 100 of them in Acton. Some are challenging the remaining limitations in the proposed draft as inconsistent with FCC regulations and therefore illegal under federal law. Attached is one such e-mail comment that we received. Lauren Rosenzweig, the Planning Board's Chairman has asked me to share it with you and ask for your comment and advise.

Here are some background bullet points to help you understand how the Planning arrived at the current draft:

- Towers by right: A special permit would, unfairly to any abutters, create the impression that the Board had some kind of authority to allow or disallow the antenna tower, when in fact that does not appear true under FCC regulations and State law. That leaves us with proposing standards which must be reasonable and not impede amateur radio communications. Presumably such standards can be established without a special permit.
- The Board reviewed many different bylaws and ordinances on the subject from all across the country, including the one you sent me from Andover. Regulations vary widely.
- The Planning Board's Vice Chair, Greg Niemyski, happens to be an amateur radio operator and was very helpful in reality-checking the various ideas and drafts for discussion before the Board. Much of his input was considered in arriving at the final draft, including the height limit, now 80 feet overall, and the

limit to one tower per lot.

- The proposed height limit seeks to accommodate antenna support structures that are available on the market for a reasonable price and therefore the most likely types that will be used in Acton. How far does the Town have to go with the height to be considered reasonable - all the way to allow optimum operations in all instances?

Also, I attach a slight redraft to clarify setbacks in section e) ii.

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To see if the Town will vote to amend the zoning bylaw as follows:

A. Insert under section 3.8.3 – Accessory Uses permitted in any Zoning District, a new sub-section 3.8.3.6 as follows:

3.8.3.6 Not more than one Amateur Radio Tower on a LOT, inclusive of all antennas, appurtenances, support STRUCTURES, anchors, and guys, subject to the following requirements:

- a) The Tower shall be owned and operated by an amateur radio operator who is licensed by the Federal Communications Commission (FCC).
- b) The operator of the Tower or the owner of the LOT shall dismantle and remove the Tower within 60 days after the cessation of the FCC-licensed operator's ownership or tenancy, or the expiration or rescission of the operator's FCC license.
- c) The Tower height shall not exceed 80 feet from ground level when fully extended, including all antennas and appurtenances.
- d) A Tower is prohibited in the front yard of the principal BUILDING or BUILDINGS on the LOT as defined in section 5.2.4.
- e) In Residential Districts, a Tower shall be set back at least 30 feet from all side and rear LOT lines regardless of the otherwise applicable yard requirements, except when:
 - i. The Tower, even when extended, does not exceed the maximum height limit for STRUCTURES; or
 - ii. The tower is directly attached to the side or rear of the principal BUILDING or BUILDINGS on the LOT and complies with the minimum side and rear yard requirements for STRUCTURES.

Anchors and guys must in all cases only comply with the minimum side and rear yard requirements that are otherwise applicable to STRUCTURES.

- f) The base of the Tower shall be surrounded by a fence with a locked gate or shall be equipped with an effective anti-climb device.
- g) No portion of the Tower shall be utilized as a sign or have signage attached to it.
- h) No portion of the Tower shall be illuminated or have lights attached to it.
- i) The Board of Appeals may, by special permit, on a case-by-case basis, allow more than one Amateur Radio Tower on a LOT (3.8.3.6.a), an Amateur Radio Tower height higher than 80' (3.8.3.6.c), and/or a set back of less than 30 feet from side and/or rear LOT lines (3.8.3.6.e) where such relief is demonstrated by the applicant to be necessary to reasonably and effectively accommodate amateur radio communications by the federally licensed amateur radio owner/operator of the Amateur Radio Tower, where such relief would not pose a substantial health, safety, or aesthetic problem to the neighborhood in the vicinity of the Amateur Radio Tower, and where denial of such special permit relief would otherwise result in a demonstrated violation of applicable Federal Communications Commission (FCC) regulations and/or Massachusetts General Law Ch. 40A, S. 3.

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B. Delete section 3.10.3 – Applicability of Special Requirements for Wireless Communication Facilities, and replace it with a new section 3.10.3 as follows:

3.10.3 Applicability – This section 3.10 shall apply only to reception and transmission facilities for the purpose of personal wireless communication services identified in the Federal Telecommunications Act of 1996. Nothing in this Bylaw shall be construed to regulate or prohibit customary installations for the reception of wireless communication signals at home or business locations, and nothing in this Bylaw shall be construed to regulate or prohibit a tower or antenna installed solely for use by a federally licensed amateur radio operator. For regulations on Amateur Radio Towers see section 3.8.3.6 of this Bylaw.

[Note: Section 3.10.3 currently states as follows:

3.10.3 Applicability – This section 3.10 shall apply only to reception and transmission facilities for the purpose of personal wireless communication services identified in the Federal Telecommunications Act of 1996. Nothing in this Bylaw shall be construed to regulate or prohibit customary installations for the reception of wireless communication signals at home or business locations, and nothing in this Bylaw shall be construed to regulate or prohibit an antenna installed solely for use by a federally licensed amateur radio operator, provided that the height of such antenna does not exceed applicable height limitations and, if freestanding, that it is set back from all LOT lines at least the distance equal to its height, but not less than the otherwise applicable minimum yard requirement.]

Or take any other action relative thereto.

SUMMARY

Amateur radio operators, or “hams”, communicate with other stations nearby and all over the world. Federal and State government recognize hams for providing vital communications in the event of emergency or disaster. The ability to communicate both over long and short distances increases with the height of an antenna above the ground. A low antenna height can be partially compensated for by boosting power. High power stations with low antenna heights have an increased likelihood to interfere with neighbors’ telephones, televisions, VCRs, and audio equipment. Generally, one or more antennas are mounted to a support tower to achieve the desired height.

This article establishes standards for amateur radio transmission towers. Amateur radio towers would be limited to one per lot, 80 feet in height including any top-mounted antennas, and their location would be limited to side and rear yards. In residential districts, a special 30-foot side and rear yard setbacks would be required for freestanding towers that exceed the otherwise applicable height limit. A special permit will provide relief from the standards in particular circumstances.

Federal Communications Commission (FCC) regulations state: “... local regulations which involve placement, screening or height of antennas and antenna structures based on health, safety, or aesthetic considerations must be crafted to accommodate reasonably amateur communications, and to represent the minimum practical regulation to accomplish the local authority’s legitimate purpose” (47 C.F.R. §97.15(e)); and “a station antenna structure may be erected at heights and dimensions sufficient to accommodate amateur service communications. State and local regulations of a station antenna structure must not preclude amateur service communications. Rather, it must reasonably accommodate such communications and must constitute the minimum practicable regulation to accomplish the State or local authority’s legitimate purpose” (47 C.F.R. §97.15(b)). Massachusetts General Law provides in Ch. 40A, S. 3 the following: “No zoning ordinance or by-law shall prohibit the construction or use of an antenna structure by a federally licensed amateur

radio operator. Zoning ordinances and by-laws may reasonably regulate the location and height of such antenna structures for the purposes of health, safety, or aesthetics; provided, however, that such ordinances and by-laws reasonably allow for sufficient height of such antenna structures so as to effectively accommodate amateur radio communications by federally licensed amateur radio operators and constitute the minimum practicable regulation necessary to accomplish the legitimate purposes of the city or town enacting such ordinance or by-law.”

Presently, Acton allows amateur radio towers by right if their height does not exceed the standard limits for buildings and structures – 36 to 40 feet depending on zoning district. A recent Massachusetts Superior Court decision (*Chedester v. Town of Whately*, November 24, 2004) held that Whately’s 35-foot standard height limit is inconsistent with Federal Code and State Law, overruled the Whately Board of Appeals, and ordered the Town of Whately to issue a building permit for a 140-foot high tower.

This article proposes an overall height limit of 80 feet. This accommodates most commercially available amateur radio towers, and is adequate for reasonably efficient amateur radio operations in Acton’s moderate topography.

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