

CONSIDERATIONS FOR SITE PLAN APPROVAL OF A WINDMILL

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Windmills literally come in all shapes and sizes, but for comprehensive and site planning purposes they basically come in the form of residential, commercial and industrial uses. Regardless of their use, its important to take into account what impact a windmill may have on adjacent land use as well as the community. Windmills have a life span of about 20 years, but will likely be upgraded during their operation to increase efficiency and life expectancy. The following are suggestions as to how best to proceed when considering the site plan approval of a windmill.

Comprehensive plan. During a comprehensive plan update; a municipality may want to consider where the use of renewable energy sources such as a windmill are to be considered. It may be prudent to include such language during the update process.

Visit the proposed site. Ideally check out the site where the windmill is to be built. There may be some local site considerations that cannot be gleaned from an application. The placement of a windmill can be site specific, and each site may not be created equally in terms of site considerations. The topography can impact both the safe operation of a windmill and the direction of sound that is emanates from the blades and turbine. Valleys and ravines can direct sound waves and the type of ground surface can impact a sound level since ground covers vary in their ability to absorb and reflect sound waves. Consequently, visiting a site can help better determine what factors should be emphasized for such a use.

Noise level. It is hard to determine an official noise level of a windmill and be able to determine a suitable decibel level for its operation. In some cases, the noise of the wind can actually be louder than the operation of the wind turbine. In order to determine an acceptable decibel level, one New York municipality has established a guideline of a conversational tone at the property line.



A view shed analysis that includes computerized photos, historical and other scenic considerations should be considered and is consistent with a municipality's comprehensive plan.

Setback and operation requirements. Topography and adjacent land uses can heavily influence an appropriate set back because of valleys and ravines or developed uses that may or may not increase the risk associated with the safe operation of a windmill. In addition, windmills are subject to icing and lightning strikes, consequently, a setback requirement may also be of interest in case a windmill was to experience damage and potentially throw a blade. In cases of anticipated icing, it may be advisable to prevent rotation during icing conditions.

Other factors to be considered may include; a bird migration study, FAA lighting requirements, interference with microwave and TV transmissions, and implications for shared municipal boundaries.