

1 January 2018

To: Zoning Board of Appeals & Planning Board
Village of Nelsonville
258 Main Street
Nelsonville NY 10516

Re: The application of Homeland Towers, LLC, New York SMSA Limited Partnership d/b/a Verizon Wireless and New Cingular Wireless PCS, LLC ("AT&T") collectively (hereafter "Applicant") to construct a wireless telecommunications facility at 15 Rockledge Road, Village of Nelsonville, New York (41° 25' 20.32"N, 73° 56' 27.56"W).

The conclusions of this assessment review are intended to inform and aid the Nelsonville Zoning Board of Appeals (ZBA) and Planning Board (PB) members in their decision-making process by providing this third-party analysis in the form of a technical report. The resultant maps, images, and simulations of the Applicant's visual resource assessment (VRA) and additionally-submitted documents are considered in this review for their validity, accuracy, and compliance with the standards of VRA best management practices. All assessments and conclusions reached within this review are based upon the information presented, and to the best of the undersigned's knowledge and belief, that the information contained therein is true, accurate, and complete.

This assessment of the Applicant's VRA and design proposal is based upon the evaluation criteria, foundational concepts, and best practices described in the National Cooperative Highway Research Program (NCHRP) REPORT 741: *Evaluation of Methodologies for Visual Impact Assessments* (Churchward et al. 2013), among other respectable sources and manuals. This assessment discusses the potential visual impact of the proposed telecommunications tower (hereafter "tower") at two spatial scales: 1) Landscape and 2) Village.

LANDSCAPE

Example - The Hudson Highlands (Nelsonville, NY) valley has a notable, topographic change from the ridgelines down to the Hudson River corridor, affording the valley with open vistas. **What is the extent of the visual impact of the proposed tower to the open vistas of the Hudson River Valley and to the character of the surrounding areas?**

VILLAGE

Example - The proposed installation of the tower and the associated access road will require the removal of existing trees. (JMC drawing entitled: TREE REMOVAL PLAN, ZD-4, dated 07/11/2017). **How will the proposed removal of trees impact the visibility of the tower – and associated support features – within the Village of Nelsonville?**

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Review of Methodologies for Visual Resource Assessment: Nelsonville, NY (Homeland Towers LLC application)



Photo source: Ani Drone - www.youtube.com

Table of Contents

<u>Page</u>	<u>Content</u>
1	I. Landscape scale
1	I.a Regional distinction
2	I.b Vegetative character
5	I.c Valley vistas
6	I.d Topography
7	II. Village scale
7	II.a Village of Nelsonville, NY
7	II.b Site effects
8	II.c Cold Spring Cemetery
9	III. Conclusions: Saratoga Associates VRA
9	IV. Final comments to ZBA & PB
11	V. Appendix
11	V.a Evaluation criteria
12	V.b Tower design principles
19	V.c Referenced attachments
20	V.d Descriptive bio and resumes

I. Landscape scale

I.a Regional distinction

“The tower site is located within the Hudson Highlands **Scenic Area of Statewide Significance (SASS)** as designated by the New York State Coastal Management Program (CMP). This is a regional designation which takes into account the unique scenic characteristics of the surrounding steep terrain, dense forest and grandeur of the Hudson River itself. The **relatively minor addition of a low profile and slender stealth monopine** telecommunications tower is *unlikely* to create a **point of visual distinction** that would be **considered detrimental to the scenic quality of the regional landscape.**”

–Matthew W. Allen, RLA. Saratoga Associates VRA “*Proposed Wireless Telecommunications Facility. Site Name: Cold Spring Site, NY–170. 15 Rockledge Road Nelsonville, NY*”, page 7.

Comments:

- The designation of being a Scenic Area of Statewide Significance (SASS) is principally relevant when conducting a VRA. As a result of that determination for an area, the scenic views and resources are accordingly affirmed as valuable and important factors to consider when planning potential development within the landscape. Any development planning – be it minor or major – is then burdened with justifying its visual impact upon such a landscape with much-greater scrutiny and criticism than in a non-SASS designated area. Notably, it is inferable from the Saratoga Associates VRA that their report was completed in a predominantly-compliant way to nationally recognized templates of procedures and methodologies for conducting visual resource analyses.

However, the following comments identify some insufficient practices that are of considerable importance:

- EC1: Objectivity (See Appendix V.a Evaluation Criteria) – The term “unlikely” in the statement above represents a subjective prediction that is neither tied to statistical data (consensus of community standpoint by means of surveys), referenced standards (SASS designation guidelines for scenic quality), nor regional landscape patterns (identification of adjacent forest canopy cover or average tree height). The presumptive impact of this tower design is not mentioned in any context of previous testimonials from similarly-impacted communities, but rather, is posed here as an assumed statement of fact.

- Qualifying adjectives such as “relatively *minor* addition”, “*low* profile”, “*slender*”, and “*stealth*” are ultimately subjectively-valued descriptive terminologies that hold little credibility in the conveyance of realized scenic impacts. Ideally, to adhere to purely technical guidelines, a VRA’s results cannot wage unquantifiable aesthetic descriptions when referring to “scenic quality”; only quantifiable data would be defensible in the presentation of a VRA. Once that data is produced, the affected people, community, and representative councils may then collectively determine the aesthetic impact for their best interests (See Referenced attachments: *Salkin 2012* and *T-Mobile Ne. LLC v. Town of Islip*). In this subjectivity/objectivity-predicament, the defining responsibilities of an ‘expert opinion’ are crucial to break the tension. Here, these responsibilities are in question as to whether an offered description in a report – such as the case with Mr. Matthew W. Allen of Saratoga Associates – is able to be reinforced by supporting data and referenced standards of the profession. In this example, those descriptive terminologies are indeed *able* to be used; however, one could argue that they are not justifiable nor defensible when it comes to defined standards of best design principles and visual resource contrast ratings.

(See Referenced attachments: *BLM Visual Resource Contrast Ratings, 1986*)

Regional implications:

Approval/disapproval of this communications tower will inevitably set a precedent case for other municipalities along the Hudson River faced with similar development projects. Therefore, approving this application may potentially foster a cumulative negative impact on the Hudson River Valley regional landscape, due to an amassing of towers along the riparian corridor’s recognizably-valuable scenic ridgelines. Disapproving the proposed tower would likewise set a precedent example for nearby villages, in that it may afford the empowerment of communities to legally wield a greater measure of control and preservation ability towards high-visibility structures becoming introduced among the SASS-designated scenic resources.

I.b Vegetative Character

“As evidenced by the photo simulations, in many instances **the proposed stealth monopine tower will be seen at extended distance through intervening deciduous vegetation. Such filtered views will be substantially or completely screened during summer leaf-on season. Moreover, use of a *stealth* “monopine” tower design helps to blend the structure with the visual characteristics of the surrounding forest further reducing visual impact.”**

- Saratoga Associates VRA, page 8.

Comments:

- Pine trees, being coniferous and evergreen, make for an intelligent design basis in many settings because of how paralleled the real trees' characteristics are to the artificial branches and foliage of the synthetic tower, both of which will persist throughout the year as "ever-green". These characteristics are in direct contrast to deciduous trees, which lose their leaves annually and leave behind bare tree limbs without foliage during over half of the year in the northeastern US. This feature is of crucial concern for the design specification of this monopine tower in the Nelsonville landscape, being as the forest composition is predominantly deciduous trees. Thus, the choice of a pine-like camouflage design is scarcely minimizing visual impact, whether during leaf-on or leaf-off seasons.

"The two-mile study area is heavily wooded and moderately populated. A mature tree canopy covers approximately 4,930 acres of the 6,590 acre of land area within 2 miles of the Project site (74.8%). The water surface of the Hudson River accounts for an additional 1,450 acres± within the 2-mile study area. Mature tree cover generally ranges from approximately 50 to 75 feet in height."

- Saratoga Associates VRA, page 1.

Comments:

- The vertical height of the proposed tower (110 feet) will be inconsistent with the average height of most of the forest trees that encompass the landscape vegetation along the valley's hillside (<75 feet). The visual rendering in the Saratoga Associates VRA (see image right) clearly depicts this, which is misaligned with the best design principles outlined in the Planning and Design Manual for the Review of Applications for Wireless Telecommunications Facilities (see Appendix V.b).
- Additionally, the proposed removal of trees (JMC drawing entitled: TREE REMOVAL PLAN, ZD-4, dated 07/11/2017) would leave a distinct scar upon the vegetative character of the hillside landscape. This site-based impact is not portrayed in the VRA photo simulations, nor is it revealed in the statements made when referring to the visual impacts of the tower.

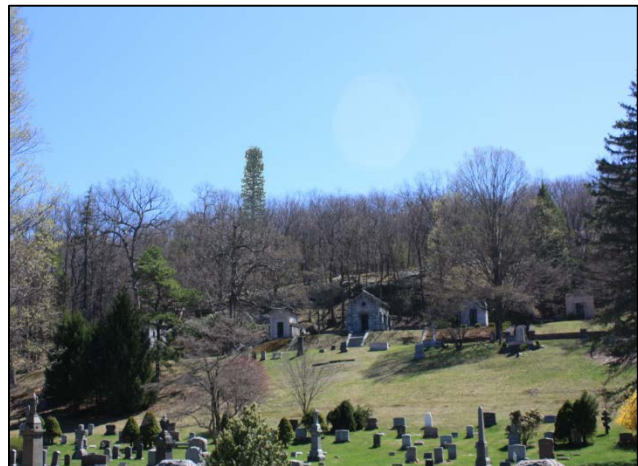


Photo source: Saratoga Associates VRA – VP11:
Cold Spring Cemetery (near historic Gatehouse) – "Figure 5b"

“In fact, deciduous woodlands provide a substantial visual barrier in all seasons. **Since the digitized forest cover overlay generally identifies only larger stands of woodland vegetation that is clearly distinguishable from aerial photography, the land cover viewshed map is substantially representative of both leaf-on and leaf-off seasons...**

By themselves, **the viewshed maps do not determine how much of the proposed wireless telecommunications tower would be visible above intervening landform or vegetation (e.g., 100%, 50%, 10% etc. of total tower height), but rather the geographic area within which some portion of the facility theoretically would be visible. Their primary purpose is to provide a general understanding of a project's potential visibility and identify areas where further investigation is appropriate.**”

- Saratoga Associates VRA, page 3.

Comments:

- The above statement in bold presents a logical fallacy of inconsistent reasoning, which gives way for the potentially-misleading statement that the viewshed map is accurately depicting seasonal variations of visibility. The syllogism of ‘since A then B’ does not follow in the reasoning presented, whereby “forest cover... identifying larger stands of woodland vegetation” determines that “the... viewshed map is substantially representative of both leaf-on and leaf-off seasons”. Leaf-off conditions inarguably allow for a more-visible line of sight through vegetative canopy covers, especially within hilly terrain and across valleys. The digitized forest cover overlay, due to its attributes/restrictions of what it can and cannot render, are therefore limited to only being representative of leaf-on conditions – thus, creating a viewshed map of only restricted-visibility seasons of the year with foliage, subtly lessening the illustration of how much the tower would be visible during leaf-off seasons.
- The determined areas that viewshed maps identify as vantage points are then consequently the most prioritized sites to conduct visual simulations of the proposed tower installation. The visual renderings of the VRA only identified these areas in ground-view perspectival Photoshop simulations within a ½ mile study area. Best practices suggest that additional renderings of the proposed tower be conducted from birds-eye views, orthographic sectional views, and especially from farther distances to give landscape context to the vegetative character of the site as it relates to the tower (see Appendix V.b).

I.c Valley vistas

"The largest area of potential Project visibility is found on the water surface of the Hudson River. Views from the River presently include the developed coastal area in and around the Village of Cold Spring. The vast majority of the **2-mile study area** will be substantially or fully screened by intervening landform or dense forest vegetation including much of the trail network within Hudson Highlands State Park. "

- Saratoga Associates VRA, page 4.

Comments:

- The distance of a 2-mile study area for the VRA is not representative of the visible range of the Hudson River Valley municipalities that are upstream or downstream from Nelsonville. Guidelines would suggest an approach that is comprised of renderings from 0-5 mile distances (see Referenced Attachment: BLM Visual Resource Inventory, 1986 - pg. 5).

"Of the 8,041 acres within the 2-mile study area, a view of the proposed telecommunications tower is theoretically possible from approximately 518 acres **(6.4%)**. Of the 502 acres within the 1/2-mile study area, a view of the proposed tower is possible from approximately 45 acres **(9.0%)**.

Of the 77 miles of public roads within the 2-mile radius Study Area, potential Project views are found along approximately 1.9 linear miles **(2.5%)**. **Of the 22.9 miles of public roads within the 1/2-mile radius study area,** potential Project views are found along less than 1.3 miles **(5.7%)**."

- Saratoga Associates VRA, page 4.

Comments

- Extending the viewshed beyond 2 miles would introduce new percentages of visible acreage surrounding the proposed tower that are currently undiscussed. The total acreage that is broken down by the VRA's summary of percentages is not necessarily indicative of every nearby vantage point of scenic significance.
- Such methodologies/word choice which constrain the study area to 2-mile and ½-mile buffer zones creates possible biases with perceived percentages of visibility. Given the dramatic topographic variation of the Hudson Valley landscape, vistas and vantage points beyond a 2-mile zone are certainly present and significant to the regional landscape.
- Given the location of the village being considered a 'river/boating community' whose scenic waterfront and marshes supply great views for watercraft-based tourism, the nearby section of the Hudson River provides an important resource area to consider for potential visual impact that cannot be omitted in a VRA.

- The SASS designation also speaks directly to the geographic passages which contain valuable cross-valley vistas from the river facing the shoreline. Below are excerpts from the Hudson Highlands SASS report supporting this theme:
 - i. "Views from one side of the river to the other unify the landscape and often make the two shores of the Hudson appear as one, since their nature is essentially the same. The SASS is generally free of discordant features. **Interruption of these views or blocking these views with highways, power lines, signs and other structures in conspicuous locations would introduce manufactured elements into a predominantly natural landscape. Such structures would constitute discordant features and would reduce the unity of the landscape, impairing the scenic quality of the views.** In certain circumstances and from certain perspectives, such structures could block views, particularly the intimate interior views and tunnel views to the Hudson along the bluffs on the eastern shore, ***destroying some of the contributing scenic components of the SASS.***"
 - ii. "Between Storm King and Breakneck Ridge [At the proposed tower site], where the high peaks drop straight to the water, the Hudson River corridor is a fjord, deepened by glacial action and filled by the rising sea as the ice melted. ***This landscape feature is unique in New York State and very rare in the eastern United States.***"
 - iii. "Cross-river views include many dramatic peaks... Viewed from the Hudson River, the wooded shore lands and cliffs of the SASS rise abruptly from the Hudson River to the mountain peaks and ridges. ***Views are confined in the narrow corridor...***"

I.d Topography

Comments:

- As stated in subsection I.c, the strong variation in hillsides and ridgelines within the Hudson River Valley provide vantage points that allow for unimpeded views of the tower site. The views that are claimed to be “**substantially or fully screened by intervening landform[s]**” (Saratoga Associates VRA, page 4) refer to the locations situated on opposing sides of mountains which were noticeably identified in the viewshed maps and do not need further consideration. What is not accounted for with visual simulations and renderings are the topographically-significant views that *have been* identified by the viewshed map (as well as those areas beyond the 2-mile buffer zone surrounding the proposed tower) which depict superior and inferior vantage angles of the tower as it relates to farther-away places.
- Topographical variations in an area provide great contrast when viewing peak structures along a horizon line or silhouetted landscape in contrast to the sky (see Appendix V.b).

II. Village scale

II.a Village of Nelsonville, NY

Comments:

- Using an aerial image such as the basemap layer of the VRA viewshed map and supplemental zoning boundary maps of the village, land-use interpretations of the Village of Nelsonville present an obvious mosaic of land-use types (forested, urban/suburban, wetland, mountainous, impervious roadways, etc.). This variety of nearby land-use raises concerns for the problematic imposition that the proposed tower could have on areas with residential neighborhoods, state/local parks, identified cultural resources that are only partially represented in the VRA photo simulations, and other nearby village resources. The alternative to such a potentially-imposing site would be a commercially-zoned parcel of land that is nestled within a less-developed area and is farther away from residences and cultural resources.
- The 600+ resident population of the village affords a density of need/demand – albeit through-traffic and visitor abundance are accounted for – which calls in to question the qualification of major roads and areas being designated as having a “significant need” within the presented “coverage gaps” for data service. Those arguments/conversations are somewhat beyond this review’s purview, but when pertaining to the visual resources being assessed from the installation of a telecommunications facility, minimizing/mitigating impacts must consider the necessity of such a proposed tower in its form, function, and contextual placement.

II.b Site effects

Comments:

The *fragility* of the proposed site is concerning, as it relates to atmospheric impacts of clear cutting 50+ trees, potential construction pollution events along a residentially-sensitive hillside, creation of a forest gap thereby affecting wildlife corridors, as well as non-ecological factors such as:

- The proposed 8-foot fence defining the perimeter of the tower site would also be visibly impactful from many vantage points identified in the immediately-adjacent vicinity (cemetery, neighborhoods, roadway, etc.)
- All of the photo simulations show the ½-mile radius area *with all existing trees remaining*; the simulations do not account for trees that will be removed for road construction and tower installation.

- Removal of trees will increase visual access to the base of the tower and its associated infrastructure. For example, the chain link fence and gate at an 8-foot height would be more noticeable from certain viewpoints as well as the equipment shelter as shown in the submitted JMC Site Plan drawings.
- There would be changes to the backdrop/contextual setting of the Cold Spring Cemetery (see subsection II.c).
- Disturbances in the stability of the wooded area would persist; this relates not only to forest health as a community resource but also to visual quality. The removal of trees by cutting into the forest and reshaping the wooded area's edge would make the site more likely to experience increased tree wind-blow events due to prevailing winds whipping over the hill's ridgeline.
- Fewer trees would remain on-site to visibly screen the tower and its associated infrastructure from the viewpoint of cemetery visitors, in addition to other locations that have neighboring access to the tower site. (see Appendix V.b)

II.c Cold Spring Cemetery

- This property is of very significant value both on the national level (National Register of Historic Places - NRHP) as well as at the community level, being designated as one of many areas of cultural and scenic importance. Coincidentally, this cemetery site would receive the most impactful view of the proposed tower due to its proximity and unimpeded sight-lines.
- The VRA's photo simulations provide representations of the cemetery from the two identified vantage points of the viewshed analysis. However, by simply providing two main photos with only one demonstrating an actual rendering of the proposed tower, the minimum requirements to complete a VRA for the simulation/visualization section *might* be satisfied, but additional renderings would most likely need to be submitted in order to appease the obligation of providing sufficient evidence of minimal impact.

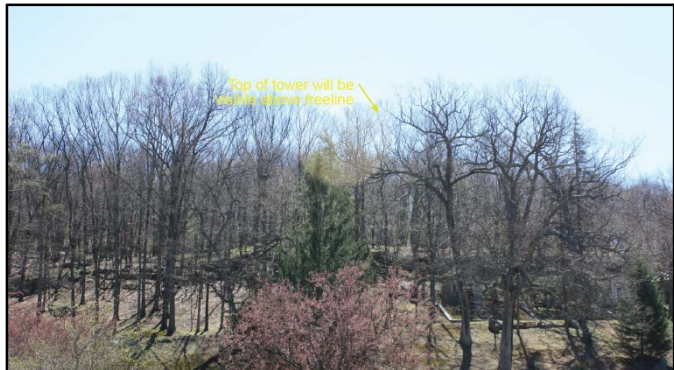


Photo source: Saratoga Associates VRA – VP12:
Cold Spring Cemetery (north end) – “Figure A7”

- Proof of minimal disturbance of the cemetery site during construction (noise, runoff, equipment placement/travel, etc.) was not provided in the Applicant's submission package.
- Specifically, the cemetery's Gate House building is a listed property on the NRHP. However, the entire cemetery was deemed 'eligible' for the Register by New York's State Historic Preservation Office (NY-SHPO). Additionally, the area of potential visual impact for the proposed tower site contains 13 individually-listed properties on the National Register, which amounts to a very high concentration of historically-significant properties within a ½-mile radius of the proposed 110-foot tower.

III. Conclusions: Saratoga Associates VRA

This review – conducted as a third-party critique intending to objectively analyze the methodologies and overall effectiveness of the Saratoga Associates Visual Resource Assessment (VRA) and additional documents for the Homeland Towers LLC & affiliates' application to install a proposed wireless telecommunications tower/facility in Nelsonville, New York – was completed to aid in the review process as the Nelsonville Zoning Board of Appeals and Planning Boards jointly determine the outcome of the Applicant's request.

This review's emphasis on inadequacies, inefficiencies, or unsatisfactory practices demonstrated in the VRA (in light of best management practices and recognized standards of conducting VRAs) was in no way to be overly-disapproving or discouraging. In truth, the majority of the VRA was completed to an acceptable template of methodologies for satisfactorily finalizing a VRA in many other contexts and circumstances. It should be understood that the Saratoga Associates VRA report, apart from the important exceptions pointed out in this review, is exceptionally done and should be respected for its thoroughness and adherence to technical viewshed mapping protocols. Nevertheless, the uniqueness of *this* proposed site, specifically within its village and regional settings, would suggest that additional materials of submission need to be provided in order to confidently approve this VRA as an acceptable report that has appropriately assessed the scenic and visual resources of the proposed site.

IV. Final comments to ZBA & PB

Again, the goal of this technical report was to provide an academically-accountable record of the aspects and nuances of the Applicant's proposal materials – namely, the Visual Resource Assessment.

The decision to accept, reject, or defer the proposed application is completely outside of this review's intention and ability, and will inevitably be decided with more than this review's information in mind. It is with great caution, however, that we suggest you proceed in the review process by seriously considering the incompleteness of the assessed visual

(among other) impacts that this tower could impose upon the landscape of Nelsonville and the greater Hudson Highlands region.

For your convenience, some significant statements from this review of the Saratoga Associates VRA have been provided below as findings of fact:

- I.a Regional Distinction (page 1) – (EC1: Objectivity) The presumptive impact of this tower design is not mentioned in any context of previous testimonials from similarly-impacted communities, but rather, is posed here as an assumed statement of fact.
- I.b Vegetative Character (page 3) - The vertical height of the proposed tower (110 feet) will be inconsistent with the average height of most of the forest trees that encompass the landscape vegetation along the valley's hillside (<75 feet). The visual rendering in the Saratoga Associates VRA clearly depicts this, which is misaligned with the best design principles outlined in the Planning and Design Manual for the Review of Applications for Wireless Telecommunications Facilities (see Appendix V.b).
- I.b Vegetative Character (page 4) - The visual renderings of the VRA only identified these areas in ground-view perspectival Photoshop simulations within a ½ mile study area. Best practices suggest that additional renderings of the proposed tower be conducted from birds-eye views, orthographic sectional views, and especially from farther distances to give landscape context to the vegetative character of the site as it relates to the tower
- I.c Valley vistas (page 5) - Such methodologies/word choice which constrain the study area to 2-mile and ½-mile buffer zones creates possible biases with perceived percentages of visibility. Given the dramatic topographic variation of the Hudson Valley landscape, vistas and vantage points beyond a 2-mile zone are certainly present and significant to the regional landscape.
- I.c Valley vistas (page 6) - The SASS designation also speaks directly to the geographic passages which contain valuable cross-valley vistas from the river facing the shoreline. Below are excerpts from the Hudson Highlands SASS report supporting this theme (see 3 excerpts)
- II.c Cold Spring Cemetery (page 8) - by simply providing two main photos with only one demonstrating an actual rendering of the proposed tower, the minimum requirements to complete a VRA for the simulation/visualization section *might* be satisfied, but additional renderings would most likely need to be submitted in order to appease the obligation of providing sufficient evidence of minimal impact.

V. Appendix

V.a Evaluation Criteria (“EC’s”)

“These evaluative criteria prescribe desirable overarching characteristics of visual impact assessment methods and procedures.”

-Churchward et. al, 2013. *“Report 741: Evaluation of Methodologies for Visual Impact Assessments”*, pages 6 and 7.

The ten criteria are:

EC1. Objective — the procedure is designed to eliminate individual bias.

EC2. Valid — the procedure can be defended as measuring what it intends to measure.

EC3. Reliable — adequately trained professionals following the procedure reach the same conclusion.

EC4. Precise — the data required by the procedure are measured at a grain or scale sufficiently fine to validly measure or describe characteristics of substantive interest, and sufficiently coarse to be pragmatically implemented.

EC5. Versatile — the procedure supports valid assessment of different types of proposed changes from the perspectives of different viewer groups interacting with different landscape settings.

EC6. Pragmatic — the procedure can be easily and efficiently implemented by a trained professional.

EC7. Understood easily — the procedure and resultant assessments are accessible by the public and decision makers.

EC8. Useful — the procedure and resultant assessments affect location, design, or mitigation decisions.

EC9. Implemented consistently — the procedure can be applied consistently among different projects, and individual assessments are consistent with the chosen procedure.

EC10. Legitimate — the procedure is supported by laws, regulations or other legal mechanisms, uses socially/culturally accepted standards, and uses scientifically accepted standards

V.b Tower design principles

Pages 12 – 18: **Planning and Design Manual for the Review of Applications for Wireless Telecommunications Facilities: A Practical Guide for Communities Managing Wireless Telecommunications Facilities Siting in New York State.**
Town of Pittsford. March 2001.



BASIC PRINCIPLES OF DESIGN

This section provides information on basic design principles and terminology that can be used to evaluate the visual impacts of applicant proposals. The basic design elements that should be considered when reviewing new wireless facilities include scale, line, form, texture, and color. The impact a new wireless facility has on a community is usually based on its degree of change to these existing elements. A good understanding of these elements should help municipality representatives form objective comments on the degree of contrast a new facility may present.

The basic design principles:

- **Scale:** the proportionate size relationship between an object and the surroundings in which the object is placed.
- **Form:** the structure, mass, or shape of a landscape or of an object. Landscape form is often defined by edges outlines of landforms, rockforms, vegetation patterns, waterforms, or the enclosed spaces created by these attributes.
- **Line:** the intersection of two planes; a point that has been extended; a silhouette of form. In landscapes—

20

ridges, skylines, structures, changes in vegetation, or individual trees and branches—may be perceived as line.

- **Texture:** the visual manifestations of the interplay of light and shadow created by the variations in the surface of an object or landscape.
- **Color:** The property of reflecting light of a particular

wavelength that enables the eye to differentiate otherwise indistinguishable objects. A hue (red, green, blue, yellow, and so on), as contrasted with a value—black, white, or gray.

The following illustrations identify the major design principles one should understand in order to evaluate the visual impact of applicant proposals:

■ Scale

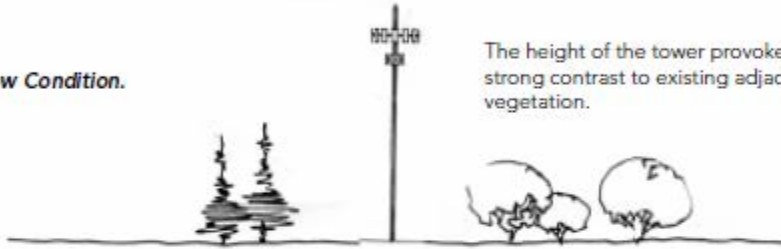
Existing Condition.

The existing trees are the distinct feature in the landscape.



New Condition.

The height of the tower provokes a strong contrast to existing adjacent vegetation.



Existing Condition.

The existing buildings are the distinct feature in the landscape.



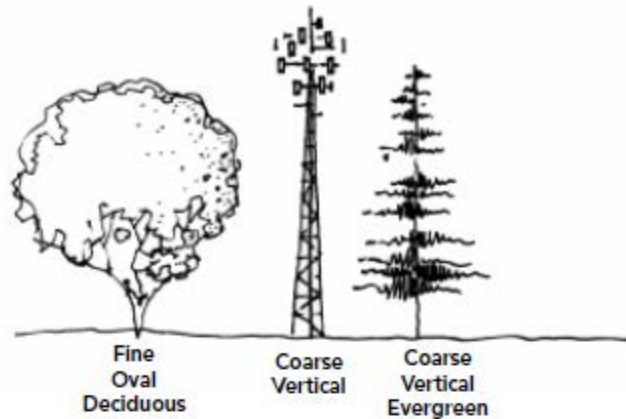
New Condition.

Tower height contrasts height of surrounding buildings and structures. Also, use of materials is foreign to the existing built environment.

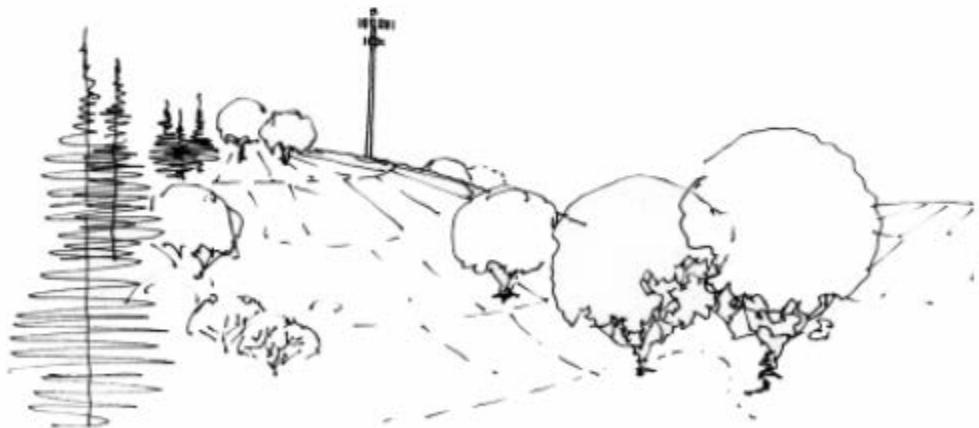


■ Form

A typical tower construction has a distinct vertical form. Often the form of the tower can contrast adjacent vegetation height and texture.



In this view, the form of the tower appears to have less contrast and therefore less impact on the surrounding landscape. The landform, rather than the tower, is the dominating feature in the landscape.

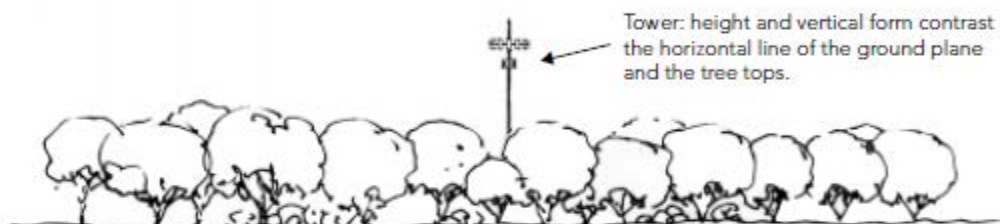


In this view, the form of the tower contrasts the landform. The contrast is increased because the tower also contrasts the open background view of the sky.

■ Line

Existing Condition.

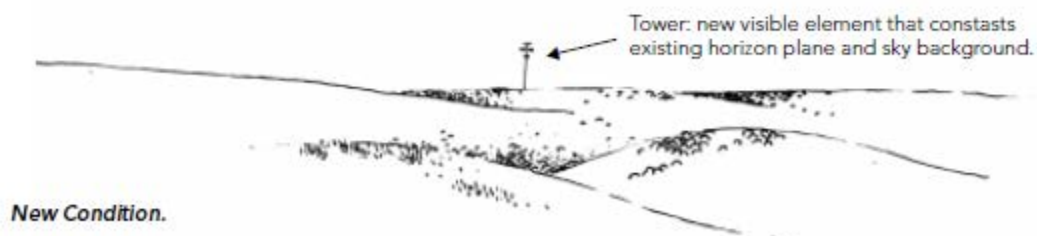
The common vegetation form and height creates a perceived horizontal line.



New Condition.

Existing Condition.

The landform in this view creates the perception of line.



New Condition.

■ Texture

Existing Condition.

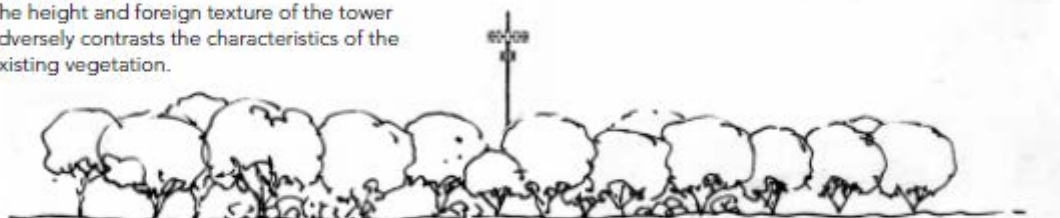
The common texture and massing of the vegetation unifies the landscape.

Existing vegetation
(similar scale and species)



New Condition.

The height and foreign texture of the tower adversely contrasts the characteristics of the existing vegetation.



Existing Condition.

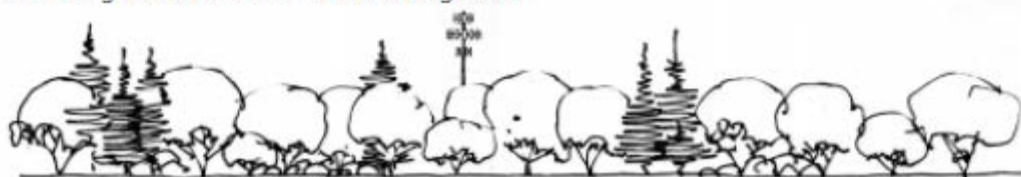
The varied types of vegetation create an irregular pattern and texture.

Existing coarse vegetation texture
(mix of evergreen and deciduous trees of various heights)



New Condition.

The irregular scale and texture of the tower are less intrusive on this irregular and non-unified form of the vegetation.

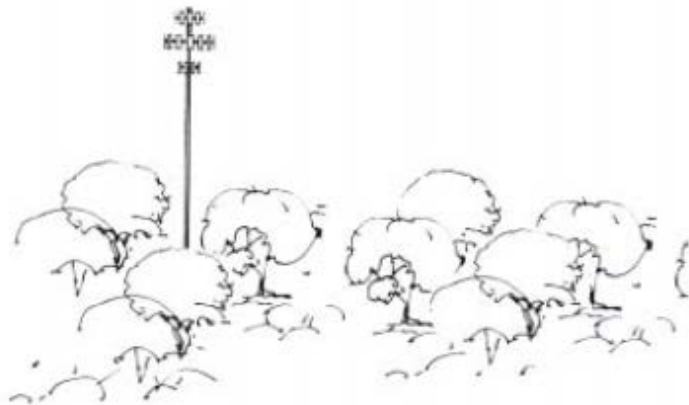


Existing Condition.

The texture and scale of the vegetation is somewhat regular.

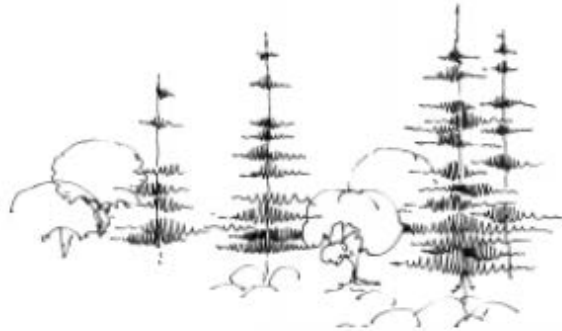


Visual impact of new tower contrasts scale and texture of existing vegetation.



Existing Condition.

The texture of the landscape is varied.

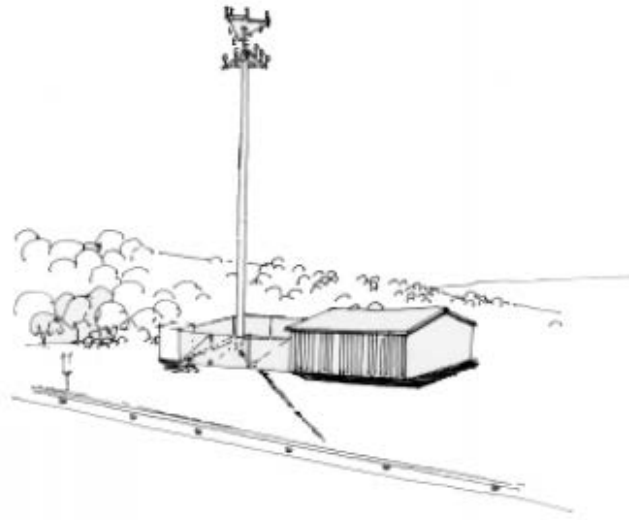


Visual impact of new tower is minimized by the scale and texture of surrounding varied vegetation.

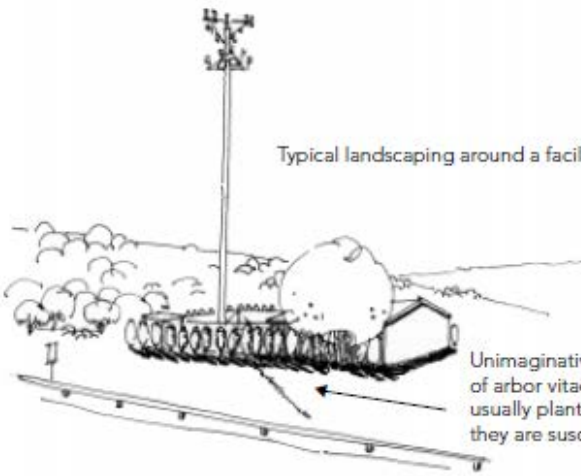


■ Site Design Details

Wireless facilities often include a base building and a tower enclosed in fencing. Usually, the tower has the greatest visual impact on the landscape because of its contrasting scale and form. However, the base building can also impact an existing landscape because of its scale, form, and texture. Often attempts to mitigate the contrasting features of the facility fail to consider these contrasts from various points of view.

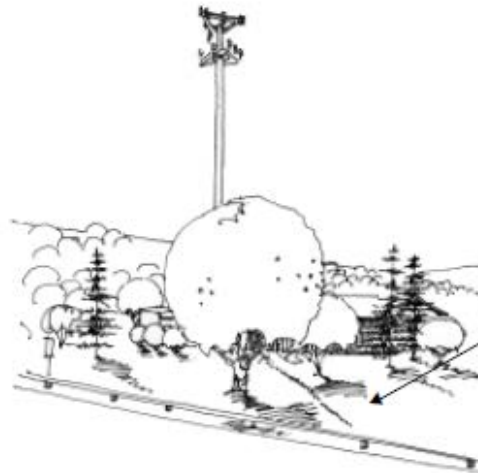


Typical landscaping around a facility.



Unimaginative evergreen screen planting. Use of arbor vitae tree species, for example, are usually planted out of context in areas where they are susceptible to deer browsing damage.

Creative approach to landscaping around the facility.



Use of native evergreen and deciduous plantings for screening. Use of varied plant groupings breaks up appearance of base facility. Foreground planting minimizes the impact of the facility's scale.

V.c Referenced attachments

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V.d Descriptive bio and resumes

Department of Landscape Architecture

SUNY College of Environmental Science and Forestry

<http://www.esf.edu/la/departments.htm>

Since 1911 the Landscape Architecture program at SUNY-ESF has been educating practitioners and teachers, designers and planners, advocates and policy makers who have devoted careers to a viable, sustainable integration of natural and cultural communities.

The Department of Landscape Architecture offers three degree programs designed to educate students to contribute in varied ways to society and the wise use of land and landscape. Each provides a basis for students to establish career directions in the profession of landscape architecture. The Bachelor and Master of Landscape Architecture, and Master of Science degrees are offered.

The large and diverse faculty offer not only a wide range of foundation courses necessary for professional preparation, but also four strong areas of study that encourage in-depth exploration in ecological design and planning, community design and planning, and cultural landscape conservation.

Robin E. Hoffman, PhD

Department of Landscape Architecture
SUNY College of Environmental Science and Forestry
Syracuse, NY

CURRENT POSITION

- 1997-present **Associate Professor, Bachelor of Landscape Architecture Curriculum Director**
- Teaching Design Studios, Professional Practice, Off Campus Experiential Studio, Construction Technology
- Research Visual resource management, specifically the juxtaposition of the cultural and ecological significance of a view.

EDUCATION

- 1993-1997 **Ph.D., Forest Resources Management**
Department of Forest and Natural Resources Management
SUNY College of Environmental Science and Forestry, Syracuse, NY
Dissertation *Testing the Validity and Reliability of Slides as Representations of Northern Hardwoods Forest Conditions.*
- 1983-1985 **Master of Landscape Architecture, Cum Laude**
Department of Landscape Architecture
University of Illinois, Champaign-Urbana, IL
Thesis *Creativity in the Introductory Design Studio: Experience or Setting?*
- 1977-1982 **Bachelor of Landscape Architecture, Cum Laude**
Department of Landscape Architecture
SUNY College of Environmental Science and Forestry, Syracuse, NY
Special Projects: *Off-campus work study program with the Greek National Forest Service. Developed Master Plan proposals for Greece's first botanical and zoological recreation park.*

PROFESSIONAL ACTIVITIES

- Attendee Visual Resource Stewardship Conference
Argonne National Laboratory
Lemont, IL November 6 – 9, 2017
- Presenter *Renewable Energy Development and Land Trust's Role*
Rally 2017: The National Land Conservation Conference
Denver, CO October 26 – 28, 2017
- Presenter *Conservation Management Planning: Responsible, Dynamic, Transparent*
Rally 2012: The National Land Conservation Conference
Salt Lake City, UT September 29 – October 3, 2012
- Trustee Thousand Islands Land Trust
Clayton, NY

Richard Connor Neville, B.S.

Department of Landscape Architecture
SUNY College of Environmental Science and Forestry
Syracuse, NY

CURRENT POSITION

- 2017-present **Graduate Teaching Assistant and DLA Graduate Student Representative**
- Teaching Natural Factors Analysis in Planning & Design (undergrad and grad level course),
Introduction to Geospatial Information Technologies
- Research Community planning and design, historic restorative design

EDUCATION

- 2017-present **Master of Landscape Architecture**
Department of Landscape Architecture
SUNY College of Environmental Science and Forestry, Syracuse, NY
- 2013-2016 **Bachelor of Science, Agricultural Studies - Summa Cum Laude**
Richard A. Henson Honors Program - Graduate, Entrepreneur and Scholar
Department of Agriculture, Food and Resource Sciences
University of Maryland Eastern Shore, Princess Anne, MD
- Special Projects:** *Developed a comprehensive tree inventory map for UMES campus, Aided in creating a campus infrastructure GIS database, QA/QC accuracy assessment for Assawoman Bay Watershed, Digitized the Manokin River Watershed, lead the "Champion Tree Project" quantifying vegetative character of UMES.*

PROFESSIONAL ACTIVITIES

- Attendee **AASHE National Conference & Expo**
Baltimore Convention Center
Baltimore, MD October 9, 2015
- Technician **UMES Geospatial Information Technology Laboratory**
Princess Anne, MD January 2016 – August 2017
- Presenter **'Ditch-itzing' the Manokin River Watershed + Tree Inventory of the UMES Campus**
Maryland State Geographic Information Committee (MSGIC) Summer Quarterly
Salisbury, MD July 21, 2016
- "Outstanding Volunteer" and Land Monitor **Lower Shore Land Trust**
Snow Hill, MD