

ASSESSING VISUAL EFFECTS ON HISTORIC PROPERTIES*

– VIRGINIA DEPARTMENT OF HISTORIC RESOURCES –

Communication and transmission towers, wind turbines, highways, additions to historic buildings, and other types of construction may cause adverse effects to the landscape and surrounding properties in a variety of ways, including visually. Adverse visual effects can be caused by a change in aesthetic values or by obstruction of views. In regard to a historic property, adverse visual effects are those that diminish the property's integrity, which negatively affects its historic significance and hence its eligibility for listing in the National Register of Historic Places (NRHP).

Some effects, such as demolition of an historic property or disturbance of an archaeological site, can be easily evaluated. However, assessing the impact of visual effects is not so easily accomplished and may require more in depth evaluation and discussion. To assist in this evaluation, the Department of Historic Resources (DHR) has developed this document which attempts to define the issues, outline the tools needed to assess visual effects, and present options for mitigating adverse visual impacts on historic properties in Virginia.

POLICY

DHR recommends avoidance of adverse visual effects on historic properties. If avoidance is not possible or feasible, DHR recommends minimizing adverse visual effects through modifications to the project's location, scale, or design. If, even after efforts to minimize impacts, the adverse visual effect persists, further mitigation may be necessary.

DEFINITIONS

<i>Adverse Effect</i>	when an undertaking alters, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration should be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP. Adverse effects may include reasonably foreseeable effects that may occur later in time, be farther removed in distance or be cumulative.
<i>Historic Property</i>	any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP.
<i>Landscape</i>	the natural and man-made environment.
<i>Viewshed</i>	the area that is visible from a specified location or locations.

*Portions of this document were adapted from the Delaware SHPO's "Assessing Visual Effects on Historic Properties."

ISSUES OF VISUAL EFFECTS AND HISTORIC PROPERTIES

Subjectivity

The introduction of a new feature to a landscape can create visual effects, which may be positive or negative. Due to the fact that visual effects cannot be quantitatively measured and may not harm the elements of a historic property in a physical manner, assessing visual effects on historic properties can be difficult and relies primarily on subjective analysis. However, it is possible to remove much of the bias from the process by gaining knowledge about the historic property visually affected. An historic property is affected when its historic integrity, that is, those characteristics that convey a resource's significance, has been diminished. Therefore, determining why a property is significant and understanding what characteristics make it so are essential to assessing visual effects.

Historic Significance and Integrity

Historic properties convey their significance through their integrity. The aspects of integrity are: location, design, setting, materials, workmanship, feeling, and association. During review of projects taking place on or near an historic property, consideration of the criteria in which the property was determined historically significant and evaluation of whether the introduction of the new feature will adversely affect the property's integrity are critical. Therefore, whether or not the new feature is located on the historic property, it is necessary to evaluate the changes and alterations the new feature will introduce, physically and visually, to the historic property. In addition, the changes the project may cause to the total landscape are important factors in assessing the historic property's relationship to its setting, which may include the property's surrounding features and open spaces. However, simply being visible from the historic property may not cause an adverse effect. For instance, if the setting of an historic property is not essential to understanding its significance, then the introduction of a new feature in that setting may not diminish the integrity of the historic property. For additional information on applying the criteria of significance and assessing the aspects of integrity, please reference the National Park Service's [*National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*](#).

Cumulative Visual Effect

A cumulative visual effect is a visual impact on an historic property that increases by successive additions to the landscape. For example, the construction of a cellular communications tower within the viewshed of an historic farmhouse may not in and of itself constitute an adverse effect. However, if over time additional cell towers are constructed within the historic farmhouse's viewshed, the cumulative visual effect of the cell towers taken in total may constitute an adverse effect because the ability of the farmhouse to impart its rural character, *i.e.* setting, is diminished. As with visual effects, determining when the successive addition of new features to the landscape has a cumulative visual effect is a subjective judgment. As before, understanding the nature of the historic property and what makes it significant will greatly assist in evaluating cumulative visual effects.

GUIDANCE FOR ASSESSING VISUAL EFFECTS

Establishing Viewshed

As stated earlier, determining what constitutes a visual effect is largely subjective. However, a general rule to follow is that if something can be seen from an historic property, obscures the historic property from being seen at primary locations or is visible within the boundary of the historic property, there is a visual effect to that historic property. Therefore, it is important to first identify the geographic area within which the effects may occur. To do this, it is necessary to illustrate the anticipated extent to which a proposed facility will be visible to the surrounding area.

Viewshed studies can take two forms. One popular method is to conduct a “red balloon test,” which consists of raising a highly-visible helium-filled balloon on a tether to the height of the proposed facility and driving around the area to determine from where the balloon can be seen. Those areas from which the balloon can be seen are considered the viewshed. Another more advanced method of determining viewshed involves the use of geographical information systems (GIS), where based upon topography, relative elevation, and vegetative cover, a virtual viewshed is constructed. In using GIS modeling, field verification may be necessary to refine the viewshed.

Identifying Historic Properties

Once the extent of the viewshed is established, cultural resources survey should be conducted within that area to identify specific historic properties that may be affected. In general, this survey should conform to DHR’s *Guidelines for Conducting Cultural Resource Survey in Virginia*. Once a specific historic property has been identified within the viewshed, a number of techniques are available to determine the extent of visibility.

Balloon tests, as discussed above, can be a valuable tool in determining visibility from specific historic properties. To enhance the visibility of the balloon in photographs or to provide a more representative depiction of the proposed facility, a scale image of the facility can be digitally inserted in the photograph. Such illustrations are referred to as “photo-simulations.”

Regardless of the method used to determine the expected visibility of a facility from an historic property it is important to remember to make the calculations from the maximum height of the facility, not merely its site location. It is also essential that the photo-simulations clearly and accurately convey the anticipated visual effect of the proposed facility from the historic resource and other significant vantage points on the property.

Assessing Visual Effects

Once photo-simulations are available to provide an accurate understanding of how much of a new facility will be visible from a historic property and from where, one may then begin to

assess the visual effect that the undertaking will have on the resource. In doing so, one should ask the following questions:

- Why is the historic property significant?
- What characteristics of the historic property convey that significance?
- How and to what degree are those characteristics diminished by the visibility of the project facility from the historic property?
- Does the diminishment of those characteristics lessen one's understanding or appreciation for the historic property?
- If one's understanding or appreciation for the historic property is lessened, how is it lessened and to what degree?

Why is the historic property significant? This question is answered by understanding the historic context of the property and evaluating it within that context by applying the NRHP Criteria for eligibility. Briefly, in order for a property to be eligible for listing in the NRHP, a property must be significant under at least one of the following criteria:

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| Criterion A | An event, series of events or activities, or patterns of an area's development. |
| Criterion B | Association with the life of an important person. |
| Criterion C | A building form, architectural style, engineering technique, or artistic value, based on a stage of physical development, or the use of a material or method of construction that shaped the historic identity of an area. |
| Criterion D | The potential to yield information important in prehistory or history. |

What characteristics of the historic property convey that significance? It is not enough that a property is significant under one or more of the above NRHP Criteria, the property must also be able to convey that significance through its historic integrity. In order to retain its historic integrity, a property will possess several, if not all, of its characteristics of integrity. These characteristics of integrity consist of the property's location, design, setting, materials, workmanship, feeling, and association. The relative importance of each of these characteristics to a particular property will vary depending on the why, where, and when the property is significant.

How and to what degree are those characteristics diminished by the visibility of the project facility from the historic property? After one has determined what characteristics of a property are important in conveying its significance, one must then consider how and by how much those characteristics are impacted by the introduction of the new facility to the property's viewshed. For example, if one considers the physical location of an historic property essential to its significance, it is unlikely that this characteristic will be appreciably diminished by the mere visibility of the new structure from the historic resource. However, if the property's setting is deemed an important element of its integrity, clearly perceiving the new facility from the historic resource may be considered to diminish that characteristic. Even if this is the case, one must then evaluate to what degree the property's setting is diminished. In a situation

where the historic resource is already surrounded by modern development, the construction of another facility in the property's viewshed will certainly have less of an impact than if the new facility was impacting a pristine rural setting. However, one must be sure to consider the concept of cumulative effect when assessing the degree of diminishment.

Does the diminishment of those characteristics lessen one's understanding or appreciation for the historic property? For an historic property to have interpretive value as an artifact of a specific place and time, it must be able to be understood and appreciated within its particular historic context. For example, it is often possible for a visitor to a battlefield to gain personal insight into the event by walking the ground where the fighting occurred. This exercise helps one to more readily understand troop movements, influence of terrain, and leadership decisions that contributed to the battle's outcome. Such an understanding becomes limited or impossible if modern intrusions obstruct important views of the battlefield that were available to the participants at the time of the event.

In some circumstances where strategic views within the boundary of an historic property are retained, it is still possible to diminish one's understanding and appreciation of the resource. This may occur if modern intrusions are present around the outside perimeter of the property boundary to such an extent that the historic feeling and setting are lessened, or spatial relationships to other features important to the history of the property are severed. For example, the rural character of a mid-nineteenth century farmstead and its sense of place may be impacted if urban development such as high-rise apartment buildings, highway overpasses or cellular communications towers surround the remaining agricultural acreage. Additionally, even though visual intrusions may lay outside of the historic land parcel and do not interfere with significant views from within the boundary comprising the surviving farming complex and associated fields, pastures, paddocks, etc.; the modern development may obscure important vistas as experienced from the property such as views to a river or stream, a ridgeline or former road trace that further help one to understand the history of the resource.

If one's understanding or appreciation for the historic property is lessened, how is it lessened and to what degree? What this question is really asking is: Does the visual intrusion constitute an adverse visual effect? A visual intrusion into an historic property's viewshed that substantially hinders or prevents one from experiencing the property within its historic context is, by definition, an adverse visual effect. Admittedly, making this determination is sometimes difficult because such an analysis is often largely subjective and is influenced by many unrelated factors such as an individual's experience, knowledge of the resource and preservation practices, and inherent biases. However, these variables can be greatly minimized by focusing on the reason(s) why the property is significant and what characteristics of integrity are most important in conveying that significance. If any or all of the resource's important characteristics of integrity are substantially impacted by the introduction of the new facility into the viewshed resulting in a lessening of one's understanding or appreciation of the resource, then there is an adverse visual effect on the historic property.

GUIDANCE FOR MITIGATING ADVERSE VISUAL EFFECTS

Introduction

Once an adverse visual effect on an historic property is recognized, it is desirable to develop a strategy that reduces or eliminates the negative impact to the resource. In projects that are federally funded, licensed or permitted and are subject to review under Section 106 of the National Historic Preservation Act, exploring alternatives that minimize or remove the adverse visual effect is mandatory. Regardless of whether an adverse visual effect is being mitigated due to a federal statutory requirement, an exercise in local municipal or county community planning or as a private initiative, there are many common principles to developing an effective mitigation strategy.

Developing an Effective Mitigation Strategy

Obviously, the most efficient means to deal with an adverse visual effect on an historic property is to eliminate it completely from the resource's viewshed by either relocating the cause of the effect far enough away from the historic property so that it is no longer an issue, or to a less offending location within the viewshed. Unfortunately, this is not always possible and other measures to address the adverse effect must be considered. In such circumstances mitigation options are limited only by the participants' imaginations and may consist of redesigning the facility to lessen the visual impact upon the historic property, planting trees to create a visual buffer between the intrusion and the resource or, for situations where the visual adverse effect is so extreme that it cannot be dealt with directly, finding alternative methods that further historic preservation. Such alternative methods may include funding a historic structures report, conducting an archaeological survey, or arranging an exhibit with the local historical society. Whatever strategy is decided upon to mitigate the adverse visual effect, it should follow some basic principles in order to be considered effective.

Principles of an Effective Mitigation Strategy

An effective mitigation strategy for an adverse visual effect should be consistent with the following principles.

Mitigation Should be Appropriate to the Nature of the Effect. An effective mitigation strategy addresses directly the cause of the visual adverse effect and its consequences to the historic property. This ensures that the mitigation efforts properly focus on minimizing the effect on the specific characteristics of integrity that are diminished as a result of the new facility. Outcomes may include redesigning the proposed intrusion to lessen its appearance on the landscape, or involve tree plantings to provide a visual barrier between it and the historic property. However, one must be aware that some seemingly obvious solutions, such as vegetative screening, may actually result in unforeseen additional visual effects. Additionally, many proposed mitigation strategies may prove impractical in circumstances where the scale of the new facility, its proximity to the resource, or technical constraints do not allow for direct mitigation. In these cases more creative opportunities for mitigation may be sought, however, these creative options should still concentrate on the affected historic property.

Mitigation should be appropriate to the significance of the resource. One should take into account the relative importance of the historic property being impacted when considering options for mitigation. The property's level of significance (local, state, national) and whether it is individually eligible for the NRHP, or as a contributing element to a larger historic district, will help determine the appropriate scope of mitigation.

Mitigation should provide the largest public benefit possible. As an historic property listed in or eligible for the NRHP may be said to represent our nation's collective cultural heritage, adversely affecting it impacts an entire community, not just a single property owner. Therefore, whenever feasible mitigation should strive to provide the largest public benefit possible. Examples of mitigation that provides public benefit are funding a historic highway marker, producing a walking tour brochure for an historic district, or sponsoring a local history exhibit at a county library.

Mitigation should take into account the views of the property owner, community, and other interested members of the public. When brainstorming about appropriate mitigation for an adverse visual effect it is advisable to solicit comments and ideas from those individuals and organizations with a demonstrated interest in the historic property and negative impacts to it. By doing this, one hopes to gain insight into the value that the local community places on the affect resource, and what measures it believes will properly atone for the diminishment of the historic property's significant qualities. Some appropriate individuals or groups to consult may include the property owner, the local historical society, the municipal or county governments, and Native American tribes with a documented cultural affiliation to the area. The efforts to include public participation depend on the nature and scope of the project, significance of the affect resource, and degree to which the project will impact the historic property. If the project is a federal undertaking under Section 106, public participation is mandatory.

CONCLUSION

Any new construction project has the potential to cause visual effects to an historic property. Following the steps above will allow the user to determine whether those effects are adverse and to develop an effective strategy for minimizing or mitigating adverse effects. The process of assessing visual effects should be considered consultative and cooperative, have no predetermined outcome, and balance project needs and preservation goals.

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