## 2.0 Statement of Methodology

project **Silo Ridge Resort Community**
location Amenia, New York
client Millbrook Ventures
date July 18, 2008, updated August 14, 2008

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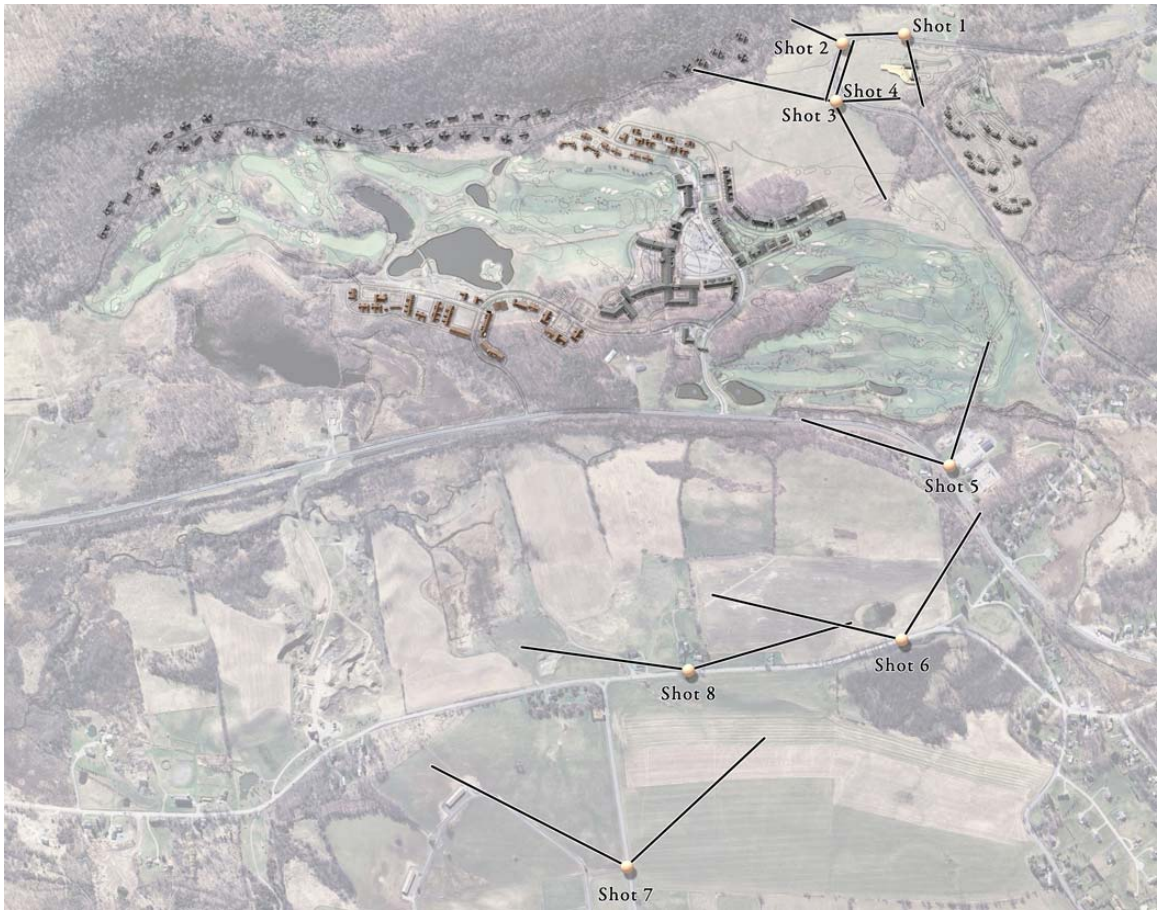
In order to evaluate the visual impact of the Silo Ridge Resort Community development upon the environment one must be able to observe the proposed structures accurately placed within the landscape. To accomplish this, digital technologies are deployed to demonstrate what impact the future complex will have on critical view sheds around the property.

Using engineering documentation, a 3D model of the site is developed. The provided topographical information (supplied to Virtual Sciences by the Applicant) was imported into the 3D application (3ds max by Autodesk) at the proper scale. A satellite image of the site (obtained via Google Earth) was then brought into the 3d application and matched it to the digital topography. To further ensure accuracy, a 10 Meter/7.5 Minute USGS SDTS Digital Elevation Model of Amenia, NY that encompasses the entire Silo Ridge site was acquired and used for alignment reference.

Mass models of the proposed buildings were developed using a combination of CAD documents and design reference information provided by Robert A. M. Stern Architects (RAMSA). They were then accurately placed in the site model utilizing the building footprints from the site plan (X, Y axis) and the finished floor elevations (Z axis) specified. The combined buildings and site plan represent the completed 3D dataset.

Photography of the existing conditions was taken at the eight locations called out in the Chazen DEIS document dated October 4, 2007. The photography was acquired using a digital camera with a 50 mm focal length. Matching virtual cameras were created in the 3D dataset based on knowledge of the locations from site visits and then pinpointing those locations on the 3D typography. The correct camera parameters were calculated based on information provided by the site photographs and general knowledge of technical differences between digital and film cameras.




The site photography was then imported into the 3D application and used to further ensure the alignment of the virtual cameras. Alignment was checked based on existing information visible in the photographs (i.e. structures, tree lines, power poles, drives and cart paths, golf course features).

Once the 3D dataset was completed and the virtual cameras placed, the 3D model was rendered in two versions and digitally placed in the photography. The unmitigated version (image 1 below) shows the proposed buildings in a white model format – white walls with slightly darker roofs. The mitigated version (image 2 below) shows the buildings with the same lighting conditions as the photographs, as well as the color palettes and landscaping called for in the RAMSA reference documents. In both versions, occluded objects have been addressed.


1. Unmitigated

2. Mitigated

Each panoramic image, except viewpoint 4, contains a multitude of images (approximately 2 – 8 where necessary) that cover the entire view shed. The images were digitally aligned and placed in a panoramic image. The panoramic image allows the user to observe the entire view shed in scale and context within the broader landscape. The panoramic images are provided for existing conditions, unmitigated images and mitigated images for each of the 8 viewpoints. In the un-mitigated panoramic images buildings and/or neighborhood blocks are annotated to orient the user to the buildings or blocks in the scene. The mitigated panoramic images are shown without annotations so they can be compared to the existing conditions without the distraction of the annotations. The "Mitigated" photographs in the visual analysis represent the views after construction as proposed by the applicant, using earth toned colors, natural roof colors, and incorporating vegetation and other natural screening. Visual simulations in which landscape screening and/or mitigation is depicted represents landscape growth 5 years after the time of planting.

The Planning Board required inclusion of an "unmitigated" view, showing the buildings as white, with no screening. It is acknowledged that the Applicant is not proposing to construct the "unmitigated" project.

A narrative is provided for each of the 3 images included for each of the 8 required viewpoints.

A quantitative analysis is also provided for each of the 8 unmitigated panoramic images. First, the area, in square inches, of the unmitigated image was calculated. Second, the areas of the visible proposed structures, within the image, were calculated. Lastly, the area of the visible proposed structures was divided by the total image area and is represented as a percent. For example, viewpoint 1 total image is 146.1 sq in. Visible proposed structures are 5.51 sq. in. Therefore, the impact the unmitigated buildings have on the overall image in viewpoint 1 is 3.8 %. This calculation is included in each narrative section of the unmitigated image.

Cross sections are provided for viewpoints 1 and 2 to indicate the proposed screening. The cross section shows a 6' person standing at the viewpoint and identifies the line of sight for that person. The proposed landscape screening, a proposed mitigation measure, is indicated. The purpose of the cross section is to verify diagrammatically that the screening will mitigate proposed buildings without blocking distant views.

Grading impacts are assessed for the single family homes in viewpoint 7 and the vineyard cottages in viewpoints 5 and 7 per agreement between the Planning Board, its consultant ESC and the Applicant. These impacts were assessed using the following methodology provided by ESC, the towns' visual consultant. Photo simulation starts with existing topography. Existing topography is then merged with the proposed terrain which comes from a grading plan. Proposed buildings are modeled and then placed on the proposed terrain. Proposed trees are then added to the scene. The proposed scene is then matched with the existing conditions photograph using fixed matchpoints, and the undisturbed areas are turned off in the generated image. Worst case recovery is then developed and combined with proposed retaining walls, roads and existing vegetation to remain that provides screening.

The applicant commits to the following "limits of disturbance" to save more trees than are shown as being removed in the grading simulations utilizing the prescribed methodology. The purpose is to save as many trees as practicable. Limits of Disturbance: To ensure protection of existing stands of vegetation to be saved and to protect vegetation and natural features that provide visual screening, the Applicant will identify and locate by coordinate control on the Site Plan, Grading/Clearing Limits for this project. As part of the Site Contract for this project Grading/Clearing Limits will be required to be staked in the field and marked out with construction fencing prior to commencement of site clearing. The contract

language will include a penalty clause stating that "should any disturbance of earth or vegetation occur outside of the Grading/Clearing Limits the Contractor will be required to fully repair the disturbance and replace any damaged vegetation in kind".

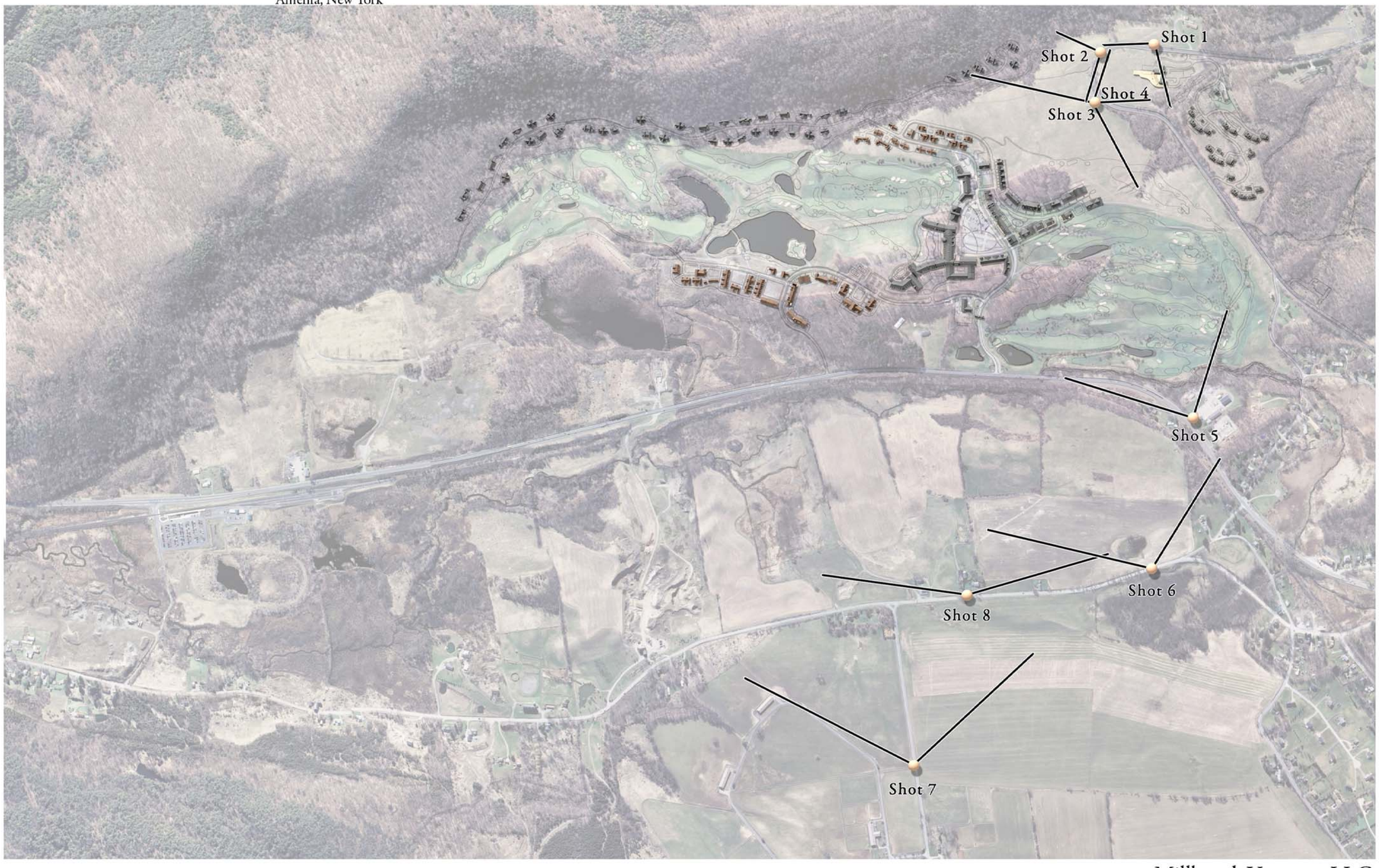
"Partially screen" as used in this document is defined as reduced visibility or filtered view of buildings, or portions thereof, behind the existing vegetation or proposed landscaping, or both, in worst case leaf off winter conditions. The same partial screening could provide full screening in certain instances in leaf on condition.

The partial screening proposed is anticipated to be a mix of deciduous and coniferous landscaping of varying heights.

"Screen" or "screening" as used in this document is defined as not visible or obstructed.

# Silo Ridge Golf Community

Amenia, New York

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