APPENDIX M

VISUAL ANALYSIS

VISUAL ANALYSIS

HUDSON VALLEY WINE VILLAGE
AND CONFERENCE CENTER
200 Blue Point Road
Lloyd, New York

Prepared for
Hudson Valley Wine Village and Conference Center

Prepared by Creative Visuals, Inc.
November 2012

Creative Visuals, Inc.

37 Happy Valley Road **Phone (845) 679-9055**
Post Office Box 435
Bearsville, New York 12409

November 30, 2012

The Hudson Valley Wine Village and Conference Center
200 Blue Point Road
Highland, NY 12528

Re: Proposed Hudson Valley Wine Village and Conference Center

Dear Mr. Feinberg:

The following is a description of the methodology used in preparing the visual simulations prepared by Creative Visuals, Inc. of the proposed Hudson Valley Wine Village and Conference Center ("Conference Center") located at 200 Blue Point Road in the Town of Highland, New York. The simulated Conference Center is a representation of the plans based upon digital drawings (files/plans) provided by the Applicant's consultants: Tinkelman Architecture PLLC and The Chazen Companies.

DESCRIPTION OF VIEW POINTS

The Chazen Companies, project planner, in conjunction with the Town of Highland reviewed and concurred with the view points under study as areas of potential visibility and for photo representation of the completed Conference Center, to be taken from the east side of the Hudson River. The photographs were taken during leaf-off and leaf-on conditions.

Fourteen view points, twelve of which had visibility of the proposed Conference Center, were photographed during leaf-off conditions, which presented a worst-case scenario (refer to Exhibit A). Due to the season no photographs were taken from a boat on the Hudson River, although, a perspective, view point 11, was provided from near the shoreline directly across from the site.

Twenty view points, sixteen of which had visibility of the proposed Conference Center, were photographed during leaf-on conditions (refer to Exhibit B). These include all of the leaf-off view points with the exception that view point 11 was replaced by one from a boat at a nearby location. The additional six leaf-on view points taken from the Hudson River addressed perspectives that a viewer would encounter during this recreational season (a total of seven perspectives taken from a boat on the Hudson River).

Description	Approximate Distance to Site
View point 1 – from the east end of the Mid Hudson Bridge, on the walkway on the southern side of the bridge;	5,830'
View point 2 – from the east end of the Walkway Over the Hudson State Park;	9,867'
View point 3 – from the Marist College boathouse area;	12,293'
View point 4 – from Quiet Cove Riverfront Park;	17,457'
View point 5 – from the Vassar College boathouse area;	11,051'
View point 6 – from Victor C. Waryas Park;	7,215'
View point 7 – from Kaal Rock Point;	6,273'

View point 8 – from Shadows on the Hudson;	4,401’
View point 9 – from the top level of the Vassar Medical Center parking garage;	4,224’
View point 10 – from Livingston Street, adjacent to Route 9;	3,633’
View point 11 – leaf off, from the end of Prospect Street adjacent to the Hudson River;	2,802’
View point 11 – leaf on, from a boat on the Hudson River, west of Prospect Street;	2,762’
View point 12 – from the Poughkeepsie Rural Cemetery;	4,006’
View point 13 – from the bench on the Saw Mill Trail at Locust Grove, The Samuel Morse Historic site, references not visible;	5,740’
View point 14 – from the Pirate Canoe Club, references not visible;	6,348’
View point 15 – from a boat on the Hudson River, south of the Mid-Hudson Bridge;	5,158’
View point 16 – from a boat on the Hudson River, near Shadows Marina;	3,650’
View point 17 – from a boat on the Hudson River, near the Hudson Pointe townhomes;	3,355’
View point 18 – from a boat on the Hudson River, near Dutchess Terminals;	2,810’
View point 19 – from a boat on the Hudson River, references not visible;	4,757’
View point 20 – from a boat on the Hudson River, references not visible.	3,302’

DISTANCE ZONES

The U.S. Forest Service “distance zones”, set forth in their landscape management journal written in 1973, is useful in interpreting the visibility of the proposed Conference Center from various distances. The following information is from the U.S. Forest Service, Agricultural Handbook Number 434, February 1973.

Distance affects the apparent size and degree of contrast between an object and its surroundings. Distance can be discussed in terms of distance zones, e.g., foreground, middleground and background. Distance zones established by the U.F. Forest Service (USDA, 1974, p.44) are described below to assist in understanding the effect of distance on potential visual impacts.

Foreground (0 to ½ mile)
Viewers typically have a very high recognition of detail. Cognitively, in the foreground zone, human scale is an important factor in judging spatial relationships. From this distance, the sense of form, line, color and textural contrast with the surrounding landscape is highest. The visual impact is likely to be considered the greatest at a foreground distance.

Middleground (1/2 mile to 3 miles)
This is the distance where elements begin to visually merge or join. Colors and textures become somewhat muted by distance, but are still identifiable. Visual detail is lessened, although distinct visible patterns may still be evident. Viewers from middleground distances characteristically recognize surface features such as tree stands, building clusters and small landforms. Scale is perceived in terms of identifiable features of surficial geology and development patterns. From this distance, the contrast of color and texture are identified more in terms of the regional context than by the immediate surroundings. All view points under study are in this distance zone with the exception of view point 4.

Background (3 miles to Horizon)
At this distance in the landscape, elements lose detailed distinctions. Typically, atmospheric perspective reduces colors to blue-grays, while surface characteristics are lost. Visual emphasis is on the outline or edge of one landmass or water resource against another with a strong skyline element. View point 4 is in this distance zone.

ON-SITE REFERENCES

Based upon the view point locations, references were set to enable the photography team to determine visibility of the proposed Conference Center (refer to Exhibits C and D). These references, to be further described below, were near the footprint of the proposed Conference Center and were used during both leaf-off and leaf-on photography with the following exceptions. The references entitled “hunting ladder” was used only during leaf-off photography and “25’ sign” was relocated for visibility during leaf-on photography for several view points (this new location was noted and incorporated into the study, but not depicted on Exhibit D).

Three 5’ diameter red helium-filled balloons were tethered to string 50’ above the existing grade: “N balloon”, “S balloon” and “Light pole”. Two telescoping poles were set at 25’ and 45’ tall, both with fluorescent colored poster boards attached on top: “25’ sign” and “tree sign”. The field team suspended 22” x 28” fluorescent colored poster boards from a rope between two 6’ tall ladders in order to provide a continuous visible reference along an existing stone wall: “posters”. Orange flags were suspended on a tree adjacent to an existing hunting ladder situated 18’ above existing grade: “hunting ladder”. In addition to the above references, there were existing structures used to determine visibility of the proposed Conference Center. The 44.5’ tall clock tower, with its highest elevation at the peak of 335.5’ AMSL (Above Mean Sea Level) was within inches of the tallest point of the proposed Conference Center.

The selected references were subsequently surveyed by Santo Associates and provided on site plans that depicted their spatial relationship in terms of distance, azimuth, and grade level to each other and to the proposed Conference Center (refer to Exhibits C and D). This information was used for placement of the simulated Conference Center onto the view point photographs.

PHOTOGRAPHY

Larry Heimel took digital photographs of the site from each of the view points under study. The camera used was a Canon EOS 5D full-frame camera: digital full- frame camera has the same angle of view as a 35mm film camera, and matches the digital lens perspective used in the 3D software program that generates photo simulations.

These photos presented reference points for determining the visibility and placement of the Conference Center. Two assistants accompanied the photographer and recorded pertinent data. Two field attendants remained at the site to relay the status of the balloons and other references to the photography team. The sitework for the leaf-off study was performed on April 22, 2011 between approximately 6:00 A.M. and 4:00 P.M., when most of the deciduous leaves were off of the trees, thus presenting a “worst case” scenario. Conditions were overcast skies with mild to variable winds. The sitework for the leaf-on study was performed on August 26, 2011 from approximately 6:00 A.M. to 5:00 P.M.; conditions were partly cloudy skies with mild to variable winds.

Human perception and photography differ to the extent that no single mm perspective lens can represent what the human eye sees (binocular vision). The standard 50mm lens will make an object seem as natural and similar to human vision as possible. The “normal” lens for a 35mm camera is approximately 50mm. It most closely resembles how our eyes see the world, and thus renders the scene with a normal perspective and size relationships. In layman terms, when looking at all of the objects in a photograph, the 50mm perspective best provides information allowing the viewer to determine the relative scale of all of the objects in view to each other. The 50mm perspective is considered “standard” because its depth-of-field is recognized in the industry as closest to human perception (within the photograph, the scale of the objects maintain their perceived proportion relative to each other). Therefore, a 50mm lens perspective is used to maintain proper depth-of-field.

The normal size perspective and size relationships within the photograph is a separate issue from comparing the size of the image as viewed in a photograph versus the actual size that one would perceive from a given view point. The scale of the image will depend upon the mm lens used, the size of the photograph and how close the viewer is to the photograph. The human eye perceives details with greater acuity (more detail) than offered to the viewer with a 50mm lens. The discrepancy between the acuity of human perception and the details of objects presented in a 50mm perspective corresponds to the distance of the viewer to objects in view. The level of detail one will perceive will also vary depending upon the atmospheric and lighting conditions. Since human vision is different than a perspective generated from photography, a visual simulation presents a view as it would appear in a photograph post-construction taken from the same view point under similar conditions.

METHODOLOGY

AutoCAD files were imported into 3D program to generate 3D files: the engineers' and architects' digital AutoCAD files were the basis of generating the vectorized 3D model of the proposed Conference Center with its actual dimensions (refer to Exhibits E and F). Tinkelman Architecture PLLC, provided architectural digital files that were used for generating the proposed Conference Center building. The Chazen Companies provided a grading plan in AutoCAD that was used to generate the 3D terrain model. The proposed Conference Center building was set on the 3D terrain model at its respective grade elevations. All of the "visible" view points were simulated. The analysis did not include the proposed landscaping plan since from the view points under study there would be little change in the visual assessment.

These files were used to render the proposed Conference Center as seen from the photo simulation view points, maintaining the perspective of the view point photographs. This was achieved by exporting the locations of the view points, proposed Conference Center and references into the 3D program from the AutoCAD files provided by the project consultants. The 3D program utilized the files for the site plans to establish the relationship of the proposed Conference Center, references and view point locations, thus maintaining their relative X, Y and Z distances (the difference in elevation, azimuth and distance to). The view point and proposed Conference Center's site were elevated to their proper AMSL. The cameras in the 3D program were set at the view point's X, Y and Z location and photographed the model of the proposed Conference Center with the mm lens correlating to our photographs. The X, Y and Z coordinates allowed the 3D camera to render the structure to its correct scale, rotation and angle from each simulated view point. The accuracy was verified by creating a 3D model of the identical references used during photography and overlaying them onto each photograph to confirm the correct alignment and scale. The on-site references were digitally removed from the view point photographs in addition to any structures that would not remain post construction.

The simulated proposed Conference Center was rendered in the 3D program with simulated sunlight on the structure, taking into account the site latitude, date and time of day of the view point photographs. Photoshop software was used to integrate this 3D model into the site photographs and to match the atmospheric conditions of each perspective. The depiction of the intervening vegetation is approximate and based upon references used during photography, multiple site visits and on-site/off-site photographs examining the on-site intervening vegetation situated between the view points and the proposed Conference Center.

CONCLUSION

Based upon our over seventeen years' experience performing well over 1,000 visual analysis studies throughout the region, we are confident that the enclosed visual study provides the viewer with sufficient information to evaluate the overall impact of the proposed Conference Center.

Sincerely,

Larry Heimel, President
Creative Visuals, Inc.

Exhibit A

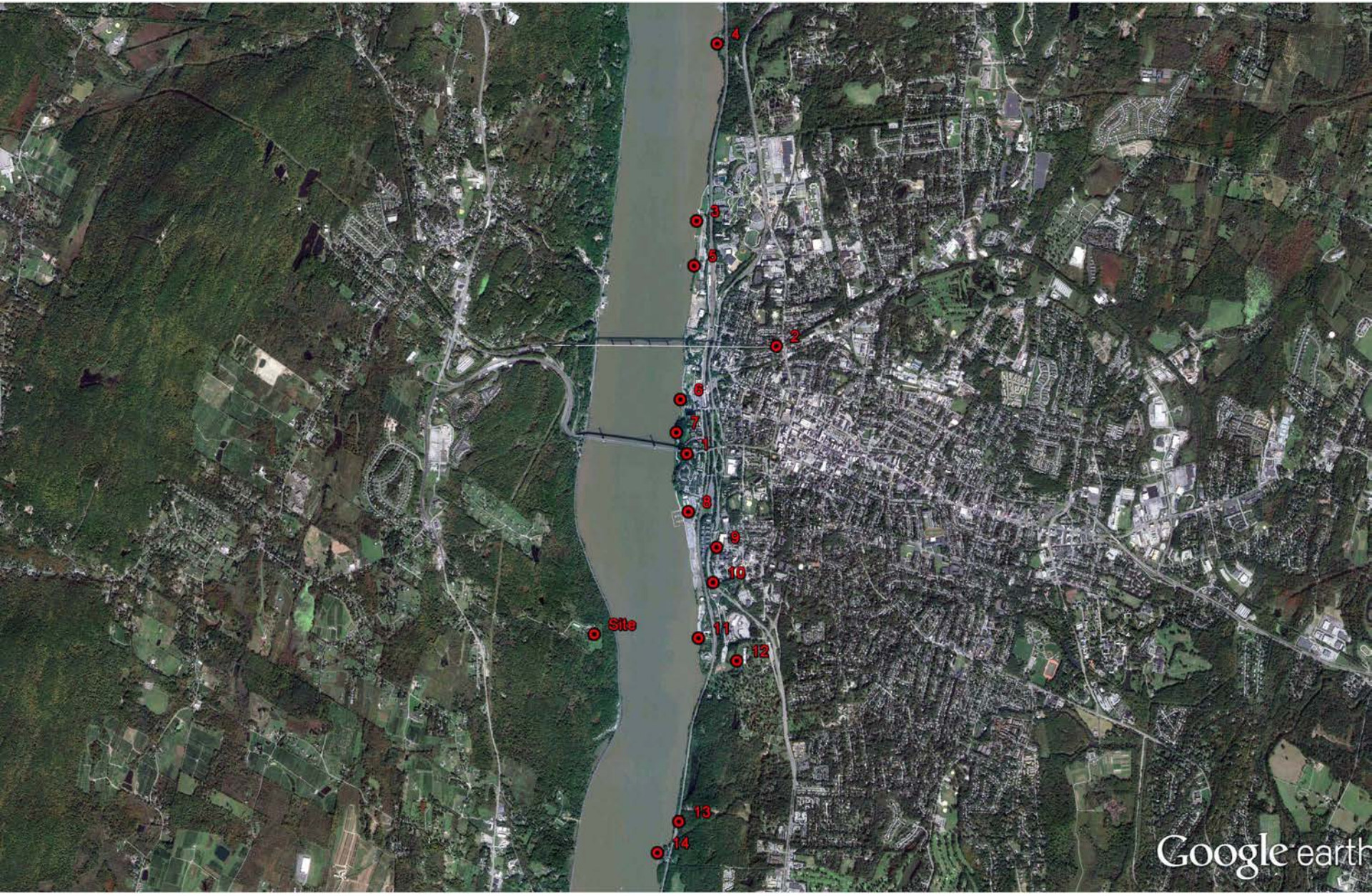


Photo location map
Leaf off

Exhibit B

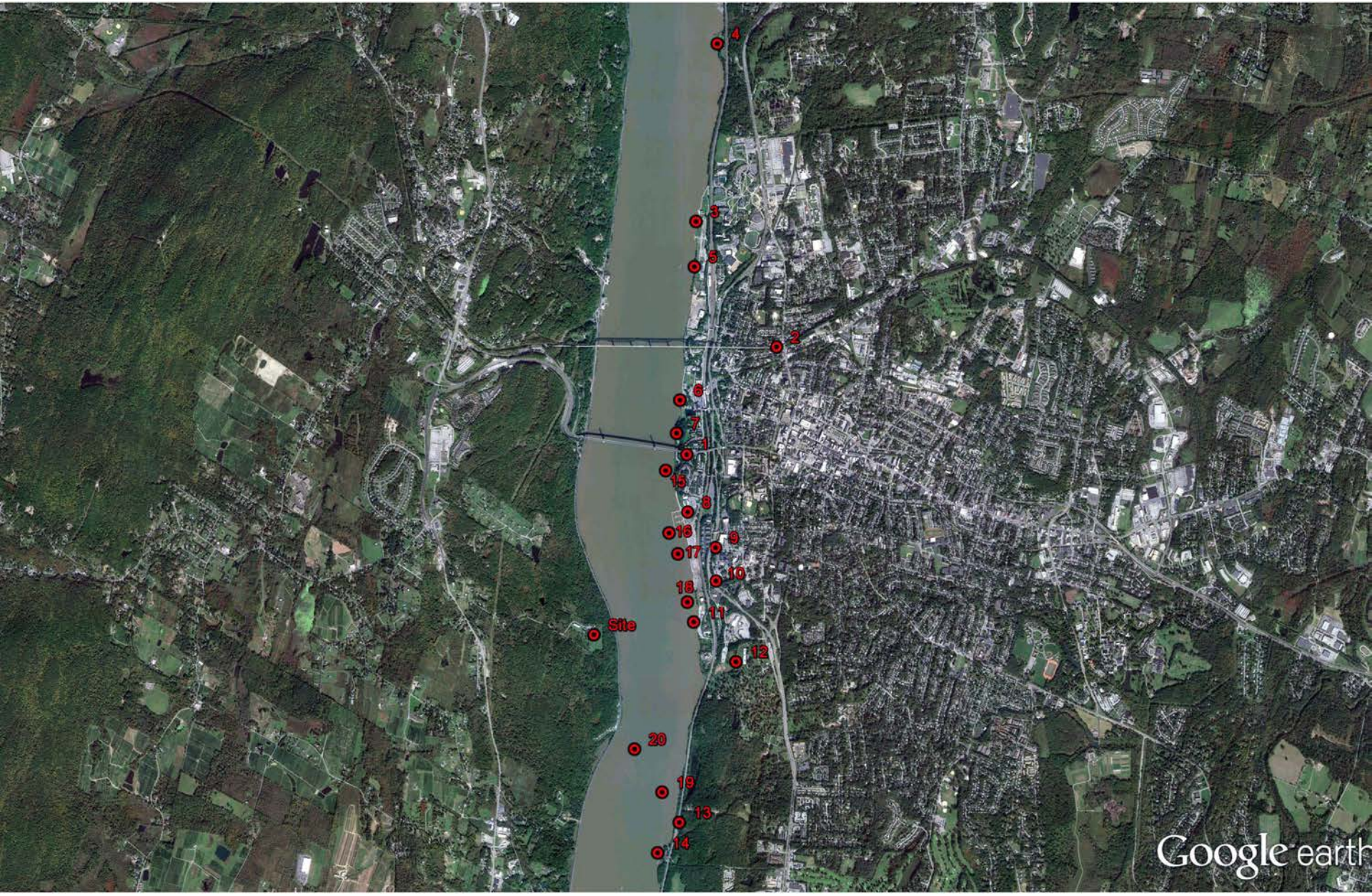


Photo location map
Leaf on

Exhibit C

Reference elevations at base and top

AMSL (Above Mean Sea Level) and AGL (Above Ground Level)

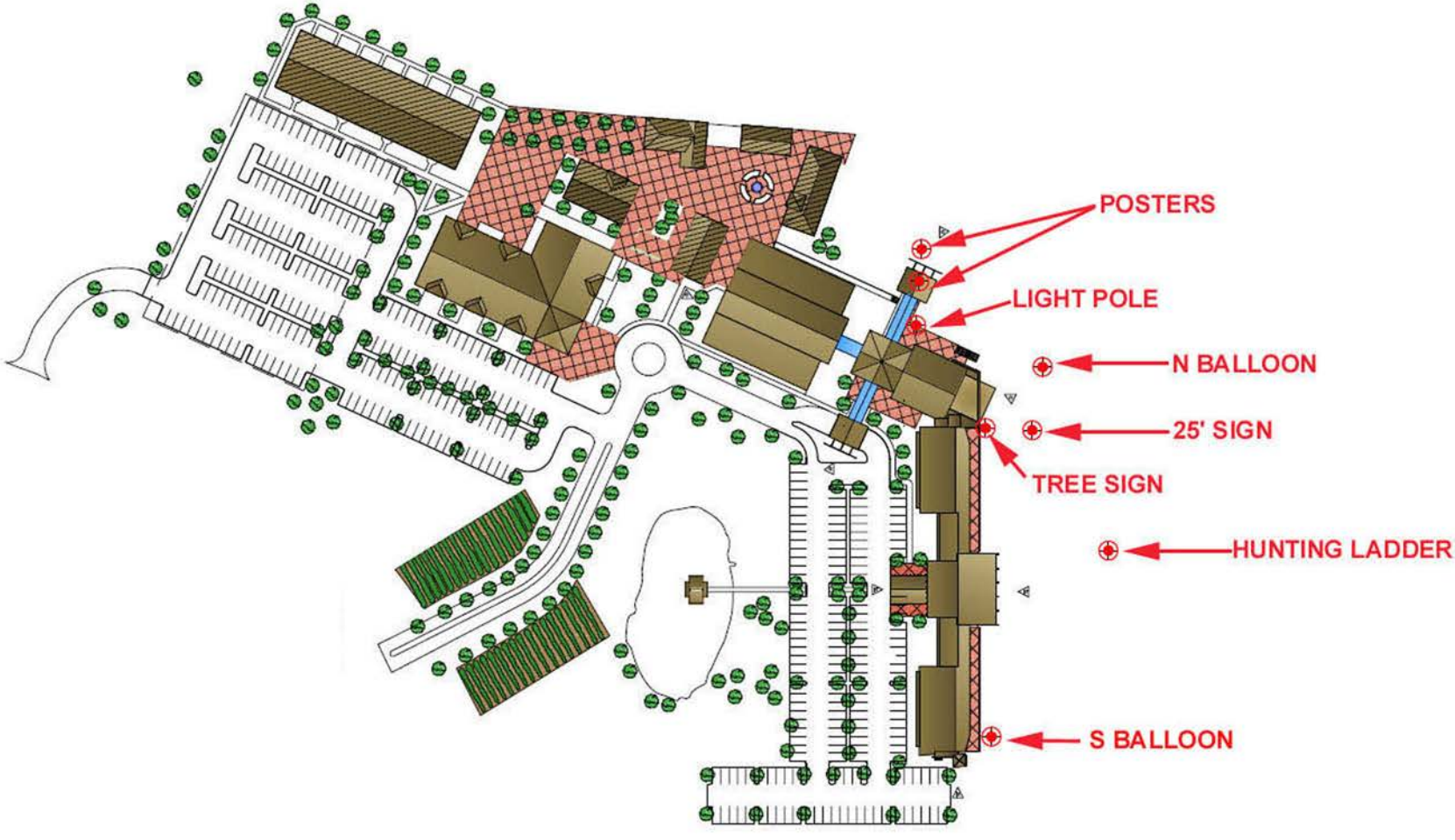
REFERENCE	AMSL @ GROUND	REFERENCE AGL @ TOP	AMSL @ TOP
N balloon	250.22’	50’	300.22’
25’ sign*	256.0’	25’	281’
Hunting ladder**	255.4’	18’	273.4’
S balloon	256.5’	50’	306.5’
Tree sign	266.0’	45’	312’
Light pole	267.3’	50’	317.3’
Posters (south end)	270.52’	6’	276.52’ top of ladder
Posters (north end)	269.6’	6’	275.6’ top of ladder

*Location of the 25’ sign was moved for visibility during leaf-on photography for several view points – new location was surveyed and incorporated into the study.

**The hunting ladder reference was not used during leaf-on photography.

Exhibit D

Plan layout depicting references used during photography



Location of the 25' sign was moved for visibility during leaf-on photography for several view points - new location was noted and incorporated into the study.

The hunting ladder reference was not used during leaf-on photography.

Red dot depicts the location of reference

Play layout furnished by Tinkelman Architecture PLLC

Exhibit E

3-D model with ridge above mean sea levels

Exhibit F

3-D model east elevation

Existing view

View point 1 - from the east end of the Mid Hudson Bridge, on the walkway on the southern side of the bridge

Photo by Creative Visuals, Inc.

Leaf off

View point 1 - from the east end of the Mid Hudson Bridge, on the walkway on the southern side of the bridge

Computer simulated photo by Creative Visuals, Inc.

Leaf off

Existing view

View point 2 - from the east end of the Walkway Over the Hudson State Park

Photo by Creative Visuals, Inc.

Leaf off

View point 2 - from the east end of the Walkway Over the Hudson State Park

Computer simulated photo by Creative Visuals, Inc.

Leaf off

Existing view

View point 3 - from the Marist College boathouse area

Photo by Creative Visuals, Inc.

Leaf off

View point 3 - from the Marist College boathouse area

Computer simulated photo by Creative Visuals, Inc.
Leaf off

Existing view

View point 4 - from Quiet Cove Riverfront Park

Photo by Creative Visuals, Inc.

Leaf off

View point 4 - from Quiet Cove Riverfront Park

Computer simulated photo by Creative Visuals, Inc.

Leaf off

Existing view

View point 5 - from the Vassar College boathouse area

Photo by Creative Visuals, Inc.

Leaf off

View point 5 - from the Vassar College boathouse area

Computer simulated photo by Creative Visuals, Inc.
Leaf off

Existing view

View point 6 - from Victor C. Waryas Park

Photo by Creative Visuals, Inc.

Leaf off

View point 6 - from Victor C. Waryas Park

Computer simulated photo by Creative Visuals, Inc.

Leaf off

Existing view
View point 7 - from Kaal Rock Point

Photo by Creative Visuals, Inc.
Leaf off

View point 7 - from Kaal Rock Point

Computer simulated photo by Creative Visuals, Inc.
Leaf off

Existing view
View point 8 - from Shadows on the Hudson

Photo by Creative Visuals, Inc.
Leaf off

View point 8 - from Shadows on the Hudson

Computer simulated photo by Creative Visuals, Inc.
Leaf off

Existing view

View point 9 - from the top level of the Vassar Medical Center parking garage

Photo by Creative Visuals, Inc.

Leaf off

View point 9 - from the top level of the Vassar Medical Center parking garage

Computer simulated photo by Creative Visuals, Inc.
Leaf off

Existing view

View point 10 - from Livingston Street, adjacent to Route 9

Photo by Creative Visuals, Inc.

Leaf off

View point 10 - from Livingston Street, adjacent to Route 9

Computer simulated photo by Creative Visuals, Inc.
Leaf off

Existing view

View point 11 - from the end of Prospect Street adjacent to the Hudson River

Photo by Creative Visuals, Inc.

Leaf off

View point 11 - from the end of Prospect Street adjacent to the Hudson River

Computer simulated photo by Creative Visuals, Inc.

Leaf off

Existing view

View point 12 - from the Poughkeepsie Rural Cemetery

Photo by Creative Visuals, Inc.

Leaf off

View point 12 - from the Poughkeepsie Rural Cemetery

Computer simulated photo by Creative Visuals, Inc.

Leaf off

View point 13 - from the bench on the Saw Mill Trail at Locust Grove,
The Samuel Morse Historic site, references not visible

Photo by Creative Visuals, Inc.

Leaf off

View point 14 - from the Pirate Canoe Club, references not visible

Photo by Creative Visuals, Inc.

Leaf off

Existing view

View point 1 - from the east end of the Mid Hudson Bridge, on the walkway on the southern side of the bridge

Photo by Creative Visuals, Inc.

Leaf on

View point 1 - from the east end of the Mid Hudson Bridge, on the walkway on the southern side of the bridge

Computer simulated photo by Creative Visuals, Inc.
Leaf on

Existing view

View point 2 - from the east end of the Walkway Over the Hudson State Park

Photo by Creative Visuals, Inc.

Leaf on

View point 2 - from the east end of the Walkway Over the Hudson State Park

Computer simulated photo by Creative Visuals, Inc.
Leaf on

Existing view

View point 3 - from the Marist College boathouse area

Photo by Creative Visuals, Inc.

Leaf on

View point 3 - from the Marist College boathouse area

Computer simulated photo by Creative Visuals, Inc.
Leaf on

Existing view

View point 4 - from Quiet Cove Riverfront Park

Photo by Creative Visuals, Inc.

Leaf on

View point 4 - from Quiet Cove Riverfront Park

Computer simulated photo by Creative Visuals, Inc.

Leaf on

Existing view
View point 5 - from the Vassar College boathouse area

Photo by Creative Visuals, Inc.
Leaf on

View point 5 - from the Vassar College boathouse area

Computer simulated photo by Creative Visuals, Inc.

Leaf on

Existing view

View point 6 - from Victor C. Waryas Park

Photo by Creative Visuals, Inc.

Leaf on

View point 6 - from Victor C. Waryas Park

Computer simulated photo by Creative Visuals, Inc.

Leaf on

Existing view
View point 7 - from Kaal Rock Point

Photo by Creative Visuals, Inc.
Leaf on

View point 7 - from Kaal Rock Point

Computer simulated photo by Creative Visuals, Inc.

Leaf on

Existing view
View point 8 - from Shadows on the Hudson

Photo by Creative Visuals, Inc.
Leaf on

View point 8 - from Shadows on the Hudson

Computer simulated photo by Creative Visuals, Inc.
Leaf on

Existing view

View point 9 - from the top level of the Vassar Medical Center parking garage

Photo by Creative Visuals, Inc.

Leaf on

View point 9 - from the top level of the Vassar Medical Center parking garage

Computer simulated photo by Creative Visuals, Inc.
Leaf on

Existing view

View point 10 - from Livingston Street, adjacent to Route 9

Photo by Creative Visuals, Inc.

Leaf on

View point 10 - from Livingston Street, adjacent to Route 9

Computer simulated photo by Creative Visuals, Inc.
Leaf on

Existing view

View point 11 – from a boat on the Hudson River, west of Prospect Street

Photo by Creative Visuals, Inc.

Leaf on

View point 11 – from a boat on the Hudson River, west of Prospect Street

Computer simulated photo by Creative Visuals, Inc.

Leaf on

Existing view

View point 12 - from the Poughkeepsie Rural Cemetery

Photo by Creative Visuals, Inc.

Leaf on

View point 12 - from the Poughkeepsie Rural Cemetery

Computer simulated photo by Creative Visuals, Inc.
Leaf on

View point 13 - from the bench on the Saw Mill Trail at Locust Grove,
The Samuel Morse Historic site, references not visible

Photo by Creative Visuals, Inc.
Leaf on

View point 14 - from the Pirate Canoe Club, references not visible

Photo by Creative Visuals, Inc.
Leaf on

Existing view

View point 15 - from a boat on the Hudson River, south of the Mid-Hudson Bridge

Photo by Creative Visuals, Inc.

Leaf on

View point 15 - from a boat on the Hudson River, south of the Mid-Hudson Bridge

Computer simulated photo by Creative Visuals, Inc.
Leaf on

Existing view

View point 16 - from a boat on the Hudson River, near Shadows Marina

Photo by Creative Visuals, Inc.

Leaf on

View point 16 - from a boat on the Hudson River, near Shadows Marina

Computer simulated photo by Creative Visuals, Inc.

Leaf on

Existing view

View point 17 - from a boat on the Hudson River, near the Hudson Pointe townhomes

Photo by Creative Visuals, Inc.

Leaf on

View point 17 - from a boat on the Hudson River, near the Hudson Pointe townhomes

Computer simulated photo by Creative Visuals, Inc.
Leaf on

Existing view

View point 18 - from a boat on the Hudson River, near Dutchess Terminals

Photo by Creative Visuals, Inc.

Leaf on

View point 18 - from a boat on the Hudson River, near Dutchess Terminals

Computer simulated photo by Creative Visuals, Inc.
Leaf on

View point 19 - from a boat on the Hudson River, references not visible

Photo by Creative Visuals, Inc.
Leaf on

View point 20 - from a boat on the Hudson River, references not visible

Photo by Creative Visuals, Inc.
Leaf on