

Blithewood Vista Restoration at Bard College: Demonstration Project for Best Management Practices March 2020

About Bard College

Founded in 1860, Bard is an independent, nonsectarian, residential, coeducational college offering a four-year B.A. program in the liberal arts and sciences and a five-year B.S./B.A. degree in economics and finance. There are approximately 1900 students and 600 employees.

Narrative of Project

Bard College respectfully requests a special permit from the Town of Red Hook for the removal of 35 trees (diameter is greater than 6" and non-invasive species) and other adjacent dead/invasive/smaller vegetation, within 1000 feet of Hudson River, within a 30' x 360' swath (approximately 0.28 acres). The project is a demonstration site of a grant awarded to Saratoga Associates, Inc. from New York State Department of Environmental Conservation's (DEC) Hudson River Estuary Program in partnership with the New England Interstate Water Pollution Control Commission (NEIWPCC). Blithewood is one of two community projects that will demonstrate best management practices on how to improve the resiliency of Hudson River access sites and more sustainably manage scenic vistas. Saratoga Associates is charged to assist riverfront landowners and historic sites in managing scenic vistas while protecting natural resources and wildlife habitat. Saratoga Associates is partnering with New York State College of Environmental Sciences and Forestry (SUNY ESF) to develop a series of ecologically-friendly Best Management Practices (BMPs) identified through research of existing visual and ecological conditions along the Hudson River. The Saratoga team also will conduct a review of current practices being used at public properties adjacent to the Hudson. The project will result in technical assistance guides that apply ecological and landscape architectural standards to avoid impacts to the landowners' property, habitat, and natural areas.

Project Location

The location of the project is at 75 Blithewood Avenue, Bard College, on the property of the Levy Economics Institute, just south of Blithewood garden. The proposed restoration would occur on the same site indicated in the 1947 aerial of the Blithewood estate (see attached), at that time privately owned by Captain Andrew Zabriskie. Once the property was sold to Bard College in 1951, the estate was left to overgrow on the perimeter and this vista was unfortunately lost to time.

The goal of the project is to restore and improve the historic view shed by reclaiming a previously cut vista that was utilized by the previous owner in the early 1900's, and was possibly originally created by American landscape designer, horticulturist, and writer, Andrew Jackson Downing in the mid-1800's, who collaborated with Blithewood owner, Robert Donaldson and architect, A.J. Davis on the site.



Title Aerial View of Blithewood, April 1947
Description An aerial view of the east bank of the Hudson River. In the center of the image are the mansion and the garden of Blithewood estate, surrounded by forests and fields.; Bard College archives
Creator Shneour, Elie, 1915-2015

Scope of Project

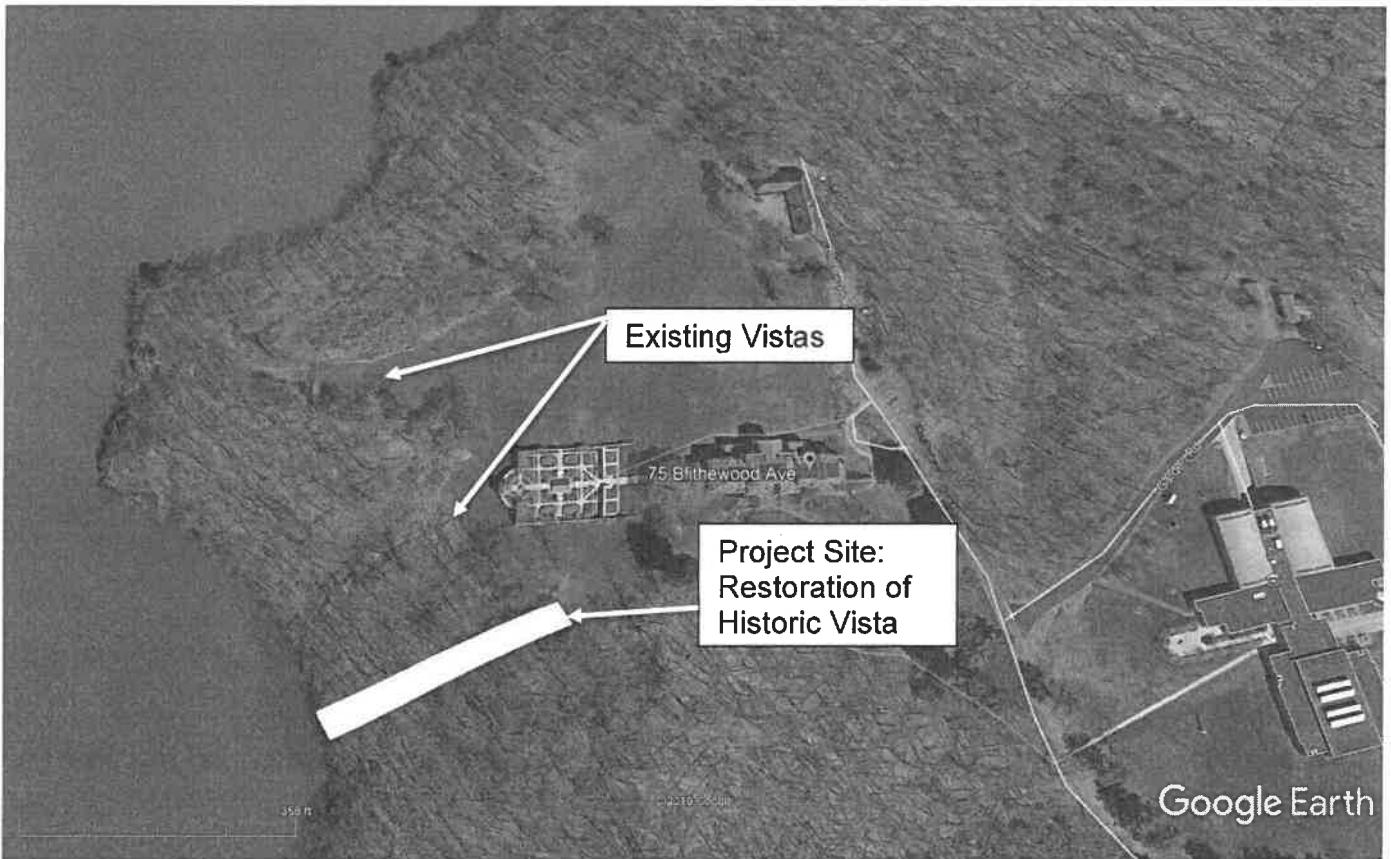
The scope of proposed work includes tree removal within a 30' corridor from the southwest corner of the property to the Hudson River, as well as the biannual removal of invasives or unwanted vegetation. All stumps will be left in place on site to prevent erosion and slumping of native soils. Work will be completed by a subcontractor who will leave select logs and brush from the site on the slope to promote erosion control. Work will be conducted in winter (prior to 3/31) to minimize ground and species disturbance. Also, there will be four management zones of along the vista's slope, detailed by the Hudson River Estuary Program, please refer to *Estuary Program Blithewood Vista Management Recommendations* (1/21/20).

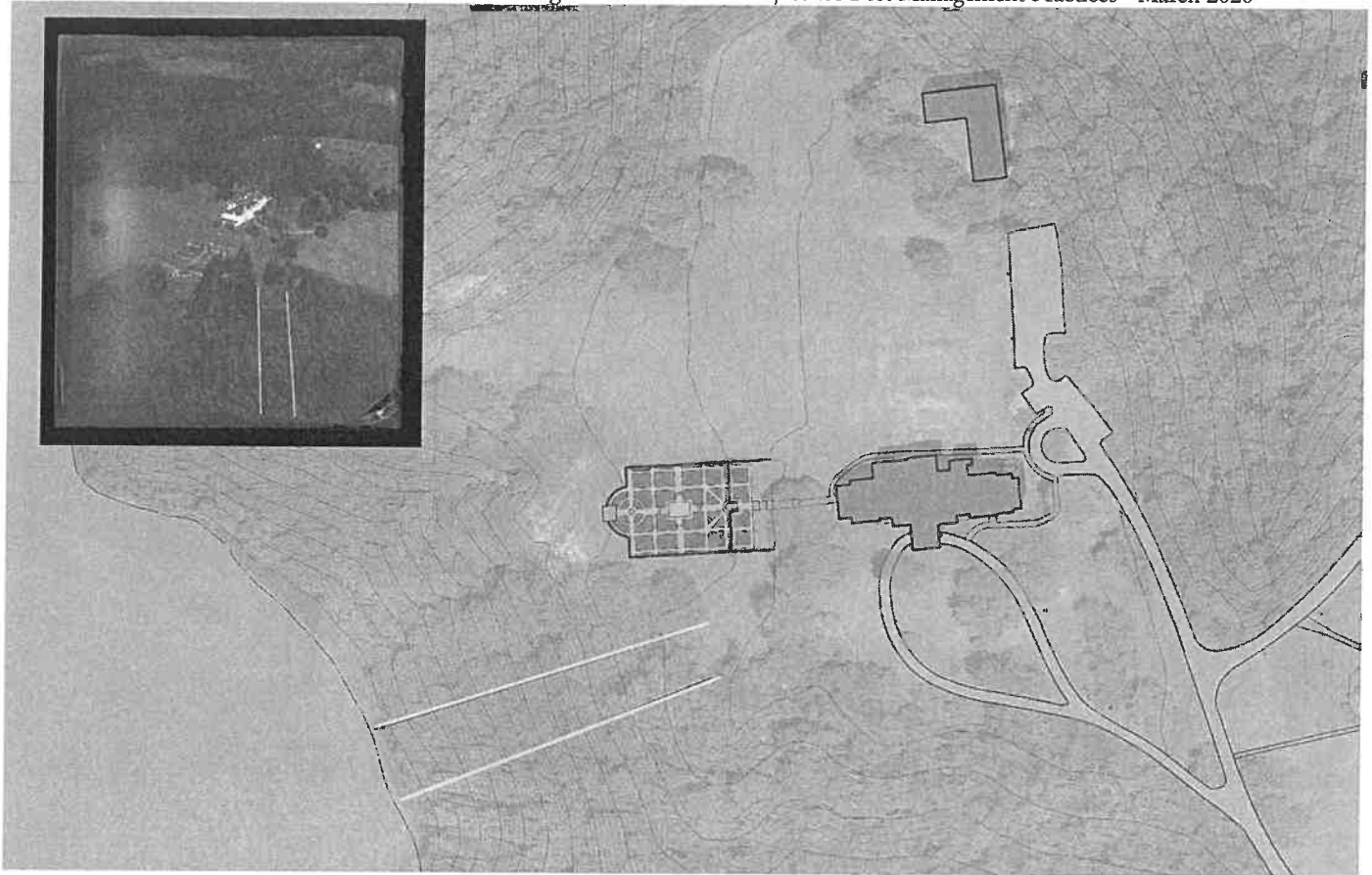
Impact of Project

The Levy Economics Institute's hours of operation are generally Monday to Friday, 9am to 5pm. The noise level generated from the proposed project might affect the visitor experience at the site, but will most likely not affect the daily operations at Levy due to the project site's distance from the mansion/offices. It will take a maximum of two weeks to complete the project. There will be one access road, along the perimeter of the south lawn, so to not disturb the main lawn or the experience of visitors to the site.

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ESTUARY PROGRAM BLITHEWOOD VISTA MANAGEMENT 1/21/20 RECCOMENDATIONS

(1) Description: Young invasive and native tree species with scattered large trees. Gently sloped, disturbed area.

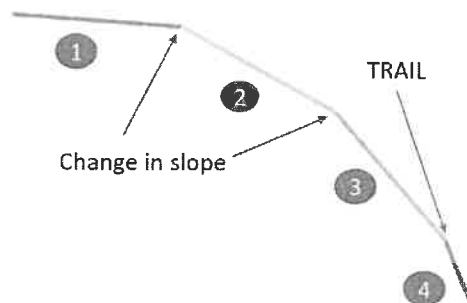
Prescription: Remove all trees and shrubs and any downed wood. Seed with native, shade-tolerant seed mix

Maintenance: Mow annually in the late fall.

(2) Description: Young invasive and native tree species. More larger trees and some shrub/understory layer. More steeply sloped and terraced formally disturbed area.

Prescription: Remove all trees but retain shrubs to maximum extent possible. Leave as much downed wood as possible but move the rest to wildlife brush piles on the sides of view corridor. If possible, use linear brush piles to fence out deer by completely surrounding zone 2. Leave stabilized logs perpendicular to the slope every 30 feet. Plant shade-tolerant, deer resistant, understory shrubs (e.g. spicebush, fragrant sumac, and witch hazel)(Kiviat).

Maintenance: Remove competing trees every 2 years during the winter and leave cut wood in place.



View Focus:

- South Bay
- Rail causeway tidal outlet bridge
- Hudson River
- Opposite shoreline
- Hills?

Viewpoint:

Between two trees off the southwest corner of the mansion

(3) Description: Mature native tree species with some shrub/understory layer. Steeply sloped, undisturbed area.

Prescription: Prune/top/girdle/cut a few key trees. Leave all downed wood on forest floor.

Maintenance: top/girdle/cut one tree at time to maintain view in winter.

(4) Description: Sensitive shoreline area downslope of hiking trail.

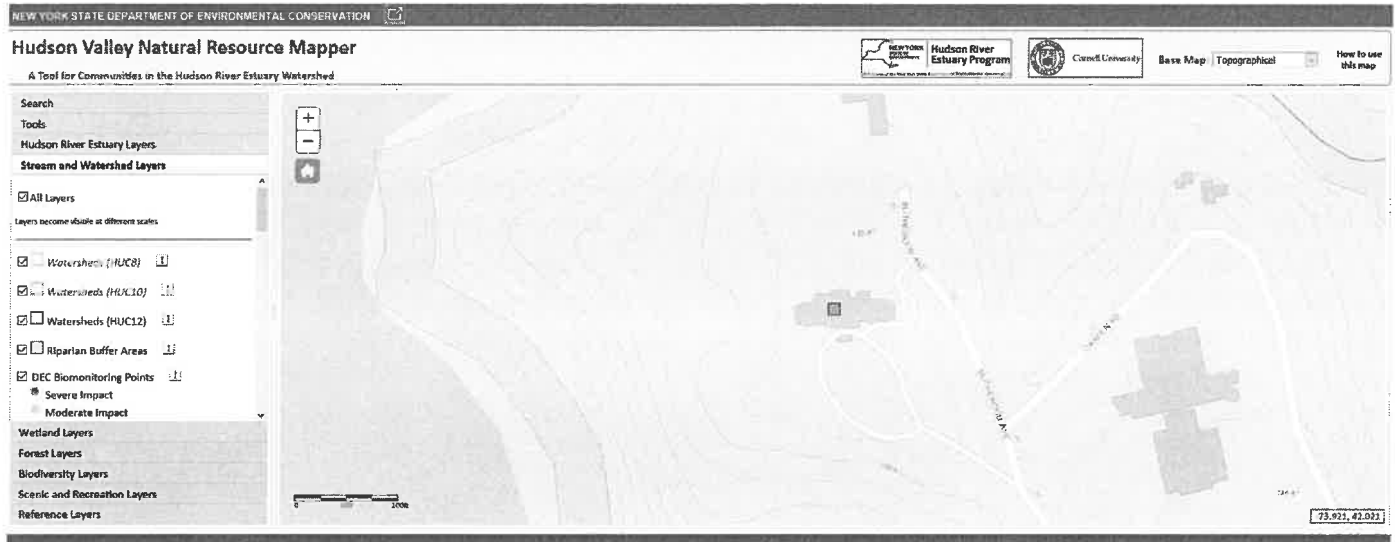
Prescription: Remove no trees from this area to allow continued osprey and eagle perching/nesting.

Maintenance: Keep area natural.

General Recommendations:

- At the margins of the corridor, leave all standing dead trees larger than 11" DBH.
- Pile downed wood into brush piles where possible, unless it is being used as erosion control.
- Remove trees in the possible order, when possible: Prune/top/girdle/cut
- Width of view corridor should be less than 150' (Kiviat)

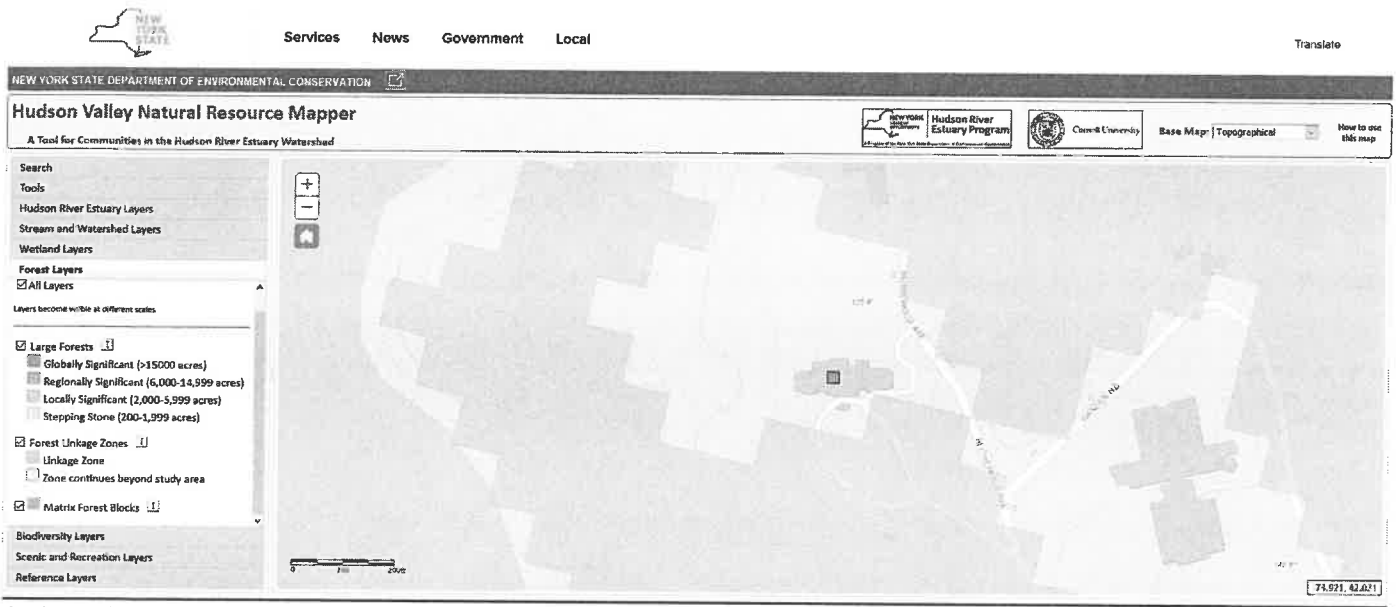
Soils, Topography, Water Resources



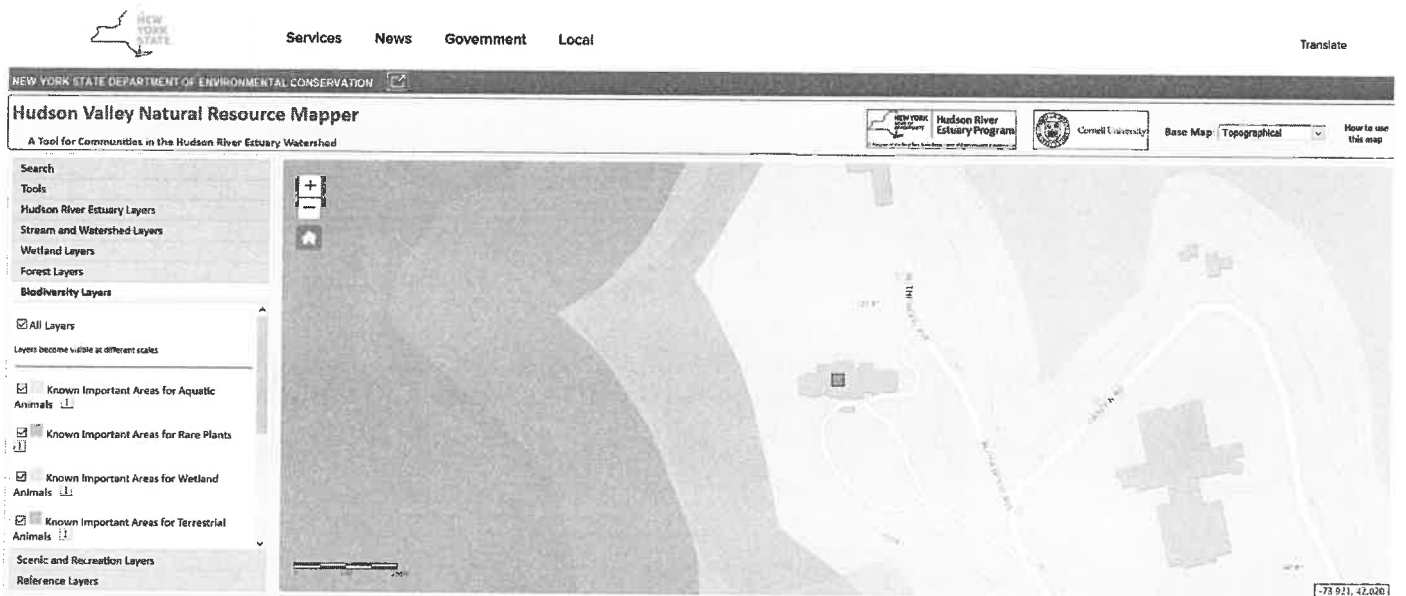
(Above) Riparian Buffer indicated in light green. (Hudson Valley Resource Mapper <http://www.dec.ny.gov/gis/hre/>)



(Above) Lime green – State Regulated Wetland; Light green – State Regulated Wetland Check zone; Dark blue – Hudson River (Hudson Valley Resource Mapper <http://www.dec.ny.gov/gis/hre/>)



(Above) – Light green – Stepping Stone (200-1999 acres) large forest. (Hudson Valley Resource Mapper <http://www.dec.ny.gov/gis/hre/>)



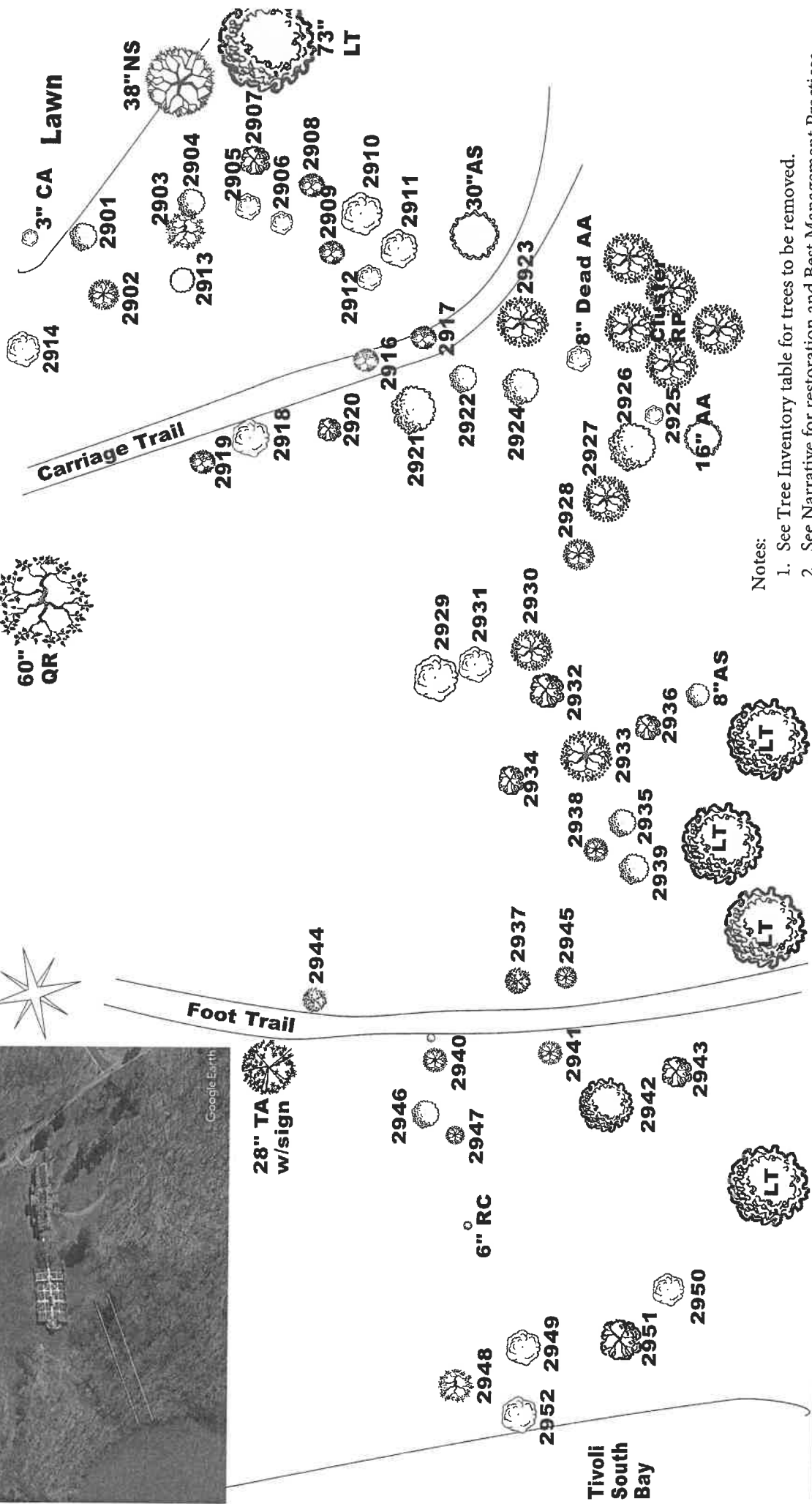
(Above) – Lime green – Known important area for wetland animals; Olive – Known important area for rare plants; Orange ribbon – Significant natural communities; Salmon – Audubon Important Bird Area. (Hudson Valley Resource Mapper <http://www.dec.ny.gov/gis/hre/>)



(Above) – Lime green – Scenic area of statewide significance. (Hudson Valley Resource Mapper <http://www.dec.ny.gov/gis/hre/>)



60" QR



Notes:

1. See Tree Inventory table for trees to be removed.
2. See Narrative for restoration and Best Management Practices.

Revision #:	Landscape Plan: 1	Landscape Design by: Amy Parrella
Date: 1/26/2020	Blithewood Tree Inventory	Bard College
Scale: 1" = 40'		

Blithewood Vista Tree Inventory							
Last Updated 1/26/2020							
Ta# #	Common Name	CODE	Latin Name	Type	Diameter (Inches)	Location	Notes
2901	Sugar Maple	AS	Acer saccharum	tree	5.5	Upper slope (above carriage road)	
n/a	Spicebush	LB	Lindera benzoin	shrub	1	Upper slope (above carriage road)	multistemmed
2902	Elm	U	Ulmus sp.	tree	7	Upper slope (above carriage road)	
n/a	Spicebush	SB	Lindera benzoin	shrub	1	Upper slope (above carriage road)	multistemmed
2903	Red Oak	QR	Quercus rubra	tree	20	Upper slope (above carriage road)	
2904	Sugar Maple	AS	Acer saccharum	tree	7	Upper slope (above carriage road)	
2905	Tree of Heaven	AA	Ailanthus altissima	tree	9	Upper slope (above carriage road)	Dead
n/a	Sugar Maple	AS	Acer saccharum	tree	2	Upper slope (above carriage road)	
2906	Tree of Heaven	AA	Ailanthus altissima	tree	6	Upper slope (above carriage road)	Dead
2907	Red Maple	AR	Acer rubrum	tree	8	Upper slope (above carriage road)	
2908	Hornbeam	CC	Carpinus caroliniana	tree	7	Upper slope (above carriage road)	Dead
n/a	Spicebush	LB	Lindera benzoin	shrub	1	Upper slope (above carriage road)	multistemmed
2909	Hornbeam	CC	Carpinus caroliniana	tree	6	Upper slope (above carriage road)	
2910	Tree of Heaven	AA	Ailanthus altissima	tree	20	Upper slope (above carriage road)	
2911	Tree of Heaven	AA	Ailanthus altissima	tree	15	Upper slope (above carriage road)	Dead
2912	Unknown	U	Unknown	tree	6	Upper slope (above carriage road)	Dead
2913	Ash	F	Fraxinus sp.	tree	10	Upper slope (above carriage road)	
2914	Tree of Heaven	AA	Ailanthus altissima	tree	10	Upper slope (above carriage road)	
2915	Sugar Maple	AS	Acer saccharum	tree	5	Upper slope (above carriage road)	
not tagged	Sugar Maple	AS	Acer saccharum	tree	30	Upper slope (above carriage road)	Dying
n/a	Hornbeam	CC	Carpinus caroliniana	tree	1	Upper slope (above carriage road)	
2916	Hornbeam	CC	Carpinus caroliniana	tree	6	Upper slope (in carriage road)	
2917	Hornbeam	CC	Carpinus caroliniana	tree	6	Upper slope (in carriage road)	
2918	Tree of Heaven	AA	Ailanthus altissima	tree	20	Mid slope (between carriage road and foot trail)	
2919	Hornbeam	CC	Carpinus caroliniana	tree	6	Mid slope (between carriage road and foot trail)	
2920	Shagbark Hickory	CO	Carya ovata	tree	11.5	Mid slope (between carriage road and foot trail)	
2921	Sugar Maple	AS	Acer saccharum	tree	20	Mid slope (between carriage road and foot trail)	Dead
2922	Sugar Maple	AS	Acer saccharum	tree	7	Mid slope (between carriage road and foot trail)	
n/a	Hornbeam	CC	Carpinus caroliniana	tree	2	Mid slope (between carriage road and foot trail)	
2923	Bark Locust	RP	Robinia pseudoacacia	tree	30	Mid slope (between carriage road and foot trail)	Dead
n/a	Hornbeam	CC	Carpinus caroliniana	tree	1	Mid slope (between carriage road and foot trail)	
2924	Sugar Maple	AS	Acer saccharum	tree	13	Mid slope (between carriage road and foot trail)	Dying
not found	Tree of Heaven	AA	Ailanthus altissima	tree	8	Mid slope (between carriage road and foot trail)	Dead (duplicate?)
n/a	Hornbeam	CC	Carpinus caroliniana	tree	2	Mid slope (between carriage road and foot trail)	
n/a	Hornbeam	CC	Carpinus caroliniana	tree	2	Mid slope (between carriage road and foot trail)	
n/a	Sugar Maple	AS	Acer saccharum	tree	3	Mid slope (between carriage road and foot trail)	
2925	Horse Chestnut	AH	Aesculus hippocastanum	tree	5.5	Mid slope (between carriage road and foot trail)	
2926	Sugar Maple	AS	Acer saccharum	tree	22	Mid slope (between carriage road and foot trail)	
2927	Elm	U	Ulmus sp.	tree	22	Mid slope (between carriage road and foot trail)	
n/a	Elm	U	Ulmus sp.	tree	5.5	Mid slope (between carriage road and foot trail)	
n/a	Elm	U	Ulmus sp.	tree	2	Mid slope (between carriage road and foot trail)	
2928	Elm	U	Ulmus sp.	tree	11	Mid slope (between carriage road and foot trail)	
not found	Tree of Heaven	AA	Ailanthus altissima	tree	16	Mid slope (between carriage road and foot trail)	
2929	Tree of Heaven	AA	Ailanthus altissima	tree	24	Mid slope (between carriage road and foot trail)	
2931	Tree of Heaven	AA	Ailanthus altissima	tree	16	Mid slope (between carriage road and foot trail)	Dead
2930	Elm	U	Ulmus sp.	tree	24	Mid slope (between carriage road and foot trail)	
n/a	Elm	U	Ulmus sp.	tree	4	Mid slope (between carriage road and foot trail)	
n/a	Elm	U	Ulmus sp.	tree	4	Mid slope (between carriage road and foot trail)	
2932	Red Maple	AR	Acer rubrum	tree	14	Mid slope (between carriage road and foot trail)	Leaning
2935	Sugar Maple	SA	Acer saccharum	tree	18.5	Mid slope (between carriage road and foot trail)	
n/a	Elm	U	Ulmus sp.	tree	4	Mid slope (between carriage road and foot trail)	
2933	Bark Locust	RP	Robinia pseudoacacia	tree	20	Mid slope (between carriage road and foot trail)	
2934	Shagbark Hickory	CO	Carya ovata	tree	16	Mid slope (between carriage road and foot trail)	
n/a	Elm	U	Ulmus sp.	tree	4	Mid slope (between carriage road and foot trail)	
n/a	Spicebush	LB	Lindera benzoin	shrub	1	Mid slope (between carriage road and foot trail)	multistemmed
2936	Red Maple	AR	Acer rubrum	tree	8	Mid slope (between carriage road and foot trail)	
n/a	Sugar Maple	AS	Acer saccharum	tree	1.5	Mid slope (between carriage road and foot trail)	
not found	Sugar Maple	AS	Acer saccharum	tree	8	Mid slope (between carriage road and foot trail)	
2938	Elm	U	Ulmus sp.	tree	9	Mid slope (between carriage road and foot trail)	
n/a	Sugar Maple	AS	Acer saccharum	tree	4.5	Mid slope (between carriage road and foot trail)	
n/a	Hornbeam	CC	Carpinus caroliniana	tree	2	Mid slope (between carriage road and foot trail)	
2939	Sugar Maple	AS	Acer saccharum	tree	16	Mid slope (between carriage road and foot trail)	
2937	Cherry	P	Prunus sp.	tree	12	Mid slope (between carriage road and foot trail)	
n/a	Spicebush	LB	Lindera benzoin	shrub	1	Mid slope (between carriage road and foot trail)	multistemmed
n/a	Spicebush	LB	Lindera benzoin	shrub	1	Mid slope (between carriage road and foot trail)	multistemmed
n/a	Spicebush	LB	Lindera benzoin	shrub	1	Mid slope (between carriage road and foot trail)	multistemmed
2945	Elm	U	Ulmus sp.	tree	7	Lower slope (below foot trail)	
n/a	Elm	U	Ulmus sp.	tree	2	Lower slope (below foot trail)	
2940	Elm	U	Ulmus sp.	tree	14	Lower slope (below foot trail)	
2944	Linden	TA	Tilia americana	tree	7	Lower slope (below foot trail)	
2942	Tulip Poplar	TP	Liriodendron tulipifera	tree	26	Lower slope (below foot trail)	
2943	Red Maple	AR	Acer rubrum	tree	10	Lower slope (below foot trail)	
2941	Elm	U	Ulmus sp.	tree	7	Lower slope (below foot trail)	
2946	Sugar Maple	SA	Acer saccharum	tree	13	Lower slope (below foot trail)	
2947	Elm	U	Ulmus sp.	tree	5	Lower slope (below foot trail)	
n/a	Buckthorn	RC	Rhamnus cathartica	tree	2	Lower slope (below foot trail)	
n/a	Ash	F	Fraxinus sp.	tree	4	Lower slope (below foot trail)	Dead
n/a	Red Maple	AR	Acer rubrum	tree	3	Lower slope (below foot trail)	
not found	Buckthorn	RC	Rhamnus cathartica	tree	6	Lower slope (below foot trail)	
2950 (not tagged)	Tree of Heaven	AA	Ailanthus altissima	tree	7	Lower slope (below foot trail)	Dead
2951	Shagbark Hickory	CO	Carya ovata	tree	23	Lower slope (below foot trail)	
2949 (not tagged)	Horse Chestnut	AH	Aesculus hippocastanum	tree	12	Lower slope (below foot trail)	
2948 (not tagged)	Red Oak	QR	Quercus rubra	tree	18	Lower slope (below foot trail)	Cracked
n/a	Ash	F	Fraxinus sp.	tree	5	Lower slope (below foot trail)	
2952 (not tagged)	Tree of Heaven	AA	Ailanthus altissima	tree	14	Lower slope (below foot trail)	
n/a	Horse Chestnut	AH	Aesculus hippocastanum	tree	3	Lower slope (below foot trail)	
11 Total dead trees and/or shrubs							
35 Total invasive trees and/or shrubs							
75 Total live trees and/or shrubs							
86 total trees/shrubs- live and dead							
42 Total live trees with 6" diameter or greater (includes invasives)							
33 Total live trees with less than 6" diameter (includes invasives)							
**35 Total live trees with 6" diameter or greater that are not invasive species							
9 Total trees not found or tagged							
8 Total shrubs (plus)							

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<i>Last Updated 1/26/2020</i>							
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2903	Red Oak	QR	Quercus rubra	tree	20	Upper slope (above carriage road)	
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2907	Red Maple	AR	Acer rubrum	tree	6	Upper slope (above carriage road)	
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2924	Sugar Maple	AS	Acer saccharum	tree	13	Mid slope (between carriage road and foot trail)	Dying
2926	Sugar Maple	AS	Acer saccharum	tree	22	Mid slope (between carriage road and foot trail)	
2927	Elm	U	Ulmus sp.	tree	22	Mid slope (between carriage road and foot trail)	
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2930	Elm	U	Ulmus sp.	tree	24	Mid slope (between carriage road and foot trail)	
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2936	Red Maple	AR	Acer rubrum	tree	8	Mid slope (between carriage road and foot trail)	
not found	Sugar Maple	AS	Acer saccharum	tree	8	Mid slope (between carriage road and foot trail)	
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2939	Sugar Maple	AS	Acer saccharum	tree	16	Mid slope (between carriage road and foot trail)	
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2946	Sugar Maple	SA	Acer saccharum	tree	13	Lower slope (below foot trail)	
2951	Shagbark Hickory	CO	Carya ovata	tree	23	Lower slope (below foot trail)	
2949 (nd	Horse Chestnut	AH	Aesculus hippocastanum	tree	12	Lower slope (below foot trail)	
2948 (nd	Red Oak	QR	Quercus rubra	tree	18	Lower slope (below foot trail)	Cracked
					42 Total live trees with 6" diameter or greater (includes invasives)		