

Site Assessment

For

LEGOLAND New York

Town of Goshen, NY

Presented by:

Hudson Valley Horticultural Services Inc.

19 Windwood Drive
Newburgh, NY 12550
845-567-1611

James E. Presutti, CA, CNLP, CCPA
Certified Arborist, Certified Nursery Landscape Professional

Scope:

I was contacted by representatives of Merlin Entertainments on or about April 17, 2017. I was asked to go to the site of the proposed LEGOLAND New York project and conduct a tree assessment of existing trees on the site. I was asked to use all available resources to ascertain the following:

Overall tree conditions on the site

Identify any possible trees that may be utilized as possible save trees

An overall evaluation of the conservation easement areas

Limitations:

This report is based on a visual inspection of the above-ground portion of the on site trees; no excavation of root systems was performed. There were no internal trunk inspections. Also, this report is based on information regarding the LEGOLAND New York project provided to me by Lanc and Tully Engineering & Surveying, P.C., such as the proposed site plan, conservation easements, and landscaping plan. Any, and all photos used in this report - either from the ground or from drone - were taken solely by Hudson Valley Horticultural Services Inc.

Site Setting:

The site is located on Harriman Drive to the south of NYS Route 17 (future I-86). This site is a mixture of open fields and forest. There is a wetland area along the road and conservation easements being utilized to help the park fit seamlessly into the existing property. To the west is the Glen Arden/Elant senior living complex and to the east is the Arcadia Hills subdivision, an established housing development. This property has wetland areas, including a pond along Harriman Drive. It then has a gentle slope upwards until leveling off. There are both open fields and wooded areas (see photos in appendix II). The tree species make up is of a northern hardwood forest type of mostly oaks, hickory, maple, cherry, and there are some older growth sycamore trees scattered along the easterly sloped area. There was an understory of mainly barberry, and wild rose. Regeneration of tree species was minimal due to the dense understory species.

There was an area of about 3 acres at the top of the slope adjacent to a telecommunication tower that consisted of an even-aged stand of mainly young maple trees. This was probably an old farm field that these volunteer trees inhabited over the years.

LEGOLAND New York will utilize 149.9 acres of the 521.95 acre site. By placing the LEGOLAND New York park somewhat in the middle of the site, it provides buffers to existing adjoining uses. The vegetation beyond the 149.9 acre area of disturbance consists of young healthy forest which provides habitat for existing wildlife and tree species to continue the forest succession with minimal impact. There are some older large “seed” trees and good growth in the younger upcoming species. The existence of some invasive species such as barberry and wild rose should be kept in check moving forward to keep this forest healthy.

Notable Trees:

Looking at the plans provided for the project, I identified 21 trees in or near the area of disturbance for the park for evaluation. A list of these trees and their conditions is included in Appendix I. These trees were tagged with an aluminum tag with an engraved number beginning with #201 and ending with #221. A photo example of a tag is attached to this document. Of those 21 trees, there are trees that will have to be removed due to the amount of damage that would take place to their root system during project construction. Others within the area of disturbance will be rejected due to existing decay within the trunk of the tree. Some, near the edge of grading, might be saved if the grading plan is adjusted to avoid those areas.

I was given an article from Dirt magazine showing a very large sycamore tree (my number 201), that was stated to be a “champion” tree. However, the “champion” tree of this species is located in the Town of Montgomery and is significantly larger than Tree 201. Tree 201 has a column of decay on several limbs, and also would not survive the construction phase.

There were also several large Oak trees that had large diameters but exhibited conk growths on the trunk, or obvious internal decay and weak branch unions. Although

they look good where they are now, these types of “First Growth” trees will not withstand any type of disruption to their root systems. That, coupled with the internal decay and weak branch unions don’t make these good candidates for saving. I have tagged several smaller diameter trees that would be more likely to do well, and survive much better. As those larger older trees began to further decline they would be a hazard in a park with heavy pedestrian traffic.

If any of these trees are able to be utilized, a preservation plan would help with trees on the edge of the area of disturbance with overcoming the construction phase.

Assessment of Preservation Measures:

There are 5 separate conservation easement areas proposed on the LEGOLAND New York site to help permanently buffer the park from the surrounding areas. The conservation areas consist of 150.1 acres of the 521.95 acre site. These easement areas include wetland, forest and open field areas.

As shown on the site plan, 149.9 acres of the 521.95 acre site will be disturbed to build LEGOLAND New York. After construction, 250 wooded acres will remain out of the 347 wooded acres that are present today. The conservation areas and undisturbed wooded areas will buffer the park area from existing uses near the site.

The landscaping plan includes the planting of over 5,000 trees, which does not include shrubs and other plantings. There are approximately 40 different species of tree to be planted, including wetland species that will be planted in areas of the site for the creation of new wetlands.

Conclusion and Recommendations:

Trees on the edge of the grading areas may be saved, which could include some larger specimen landscape trees to offset the removal of some of the old larger hazardous trees. Most trees within the area of disturbance will not survive site grading, even if grading was to occur around the existing trees - due to damage to natural root systems, which, unlike nursery trees, do not develop in a uniform manner. The only other option would be to relocate the LEGOLAND New York park to other areas on the site, which would diminish or eliminate the proposed buffering to adjoining uses.

Although trees within the project area will likely not be able to be saved due to grading and disturbance to root systems, trees at the edge of grading areas might be

saved with adjustments , although natural growth root systems are unpredictable and may not withstand nearby disturbances.

A preservation plan should be put in place to protect the trees on the edge of the grading areas to the extent possible, and mitigate any possible damage from the construction phase. The preservation plan could also include specimen trees located in other areas of the site, and measures to control the spread of existing invasive species on the site.

Lastly, LEGOLAND New York should consider the additional planting of select mature trees (such as 10 inch caliper Sugar Maple trees) in key areas of the park. This will enhance those areas and provide appropriately sited mature replacement trees as part of the overall landscaping plan.

Appendix I

<u>Tree Number /Tree Species</u>	<u>Diameter /Condition</u>	
201 American Sycamore	72"	fair, has hollow limbs and some decay
202 Red Oak	50"	Good, does have dead wood in crown
203 Red Oak	40"	Good, does have dead wood in crown
204 American Sycamore	42"	Poor, large cavity
205 American Sycamore	60"	Very Poor, only half of a trunk
206 Red Oak	48"	Fair, weak crotch
207 American Sycamore	44"	Good, very near power lines
208 Red Oak	42"	Fair, has some trunk rot
209 Red Oak	44"	Fair, weak crotch
210 Red Oak	38"	Poor, trunk rot
211 Shagbark Hickory	40"	Good
212 Red Oak	44"	Fair, some rot
213 Red Oak	38"	Good Tree
214 Red Oak	22"	Good Tree
215 Red Oak	24"	Good Tree
216 Pin Oak	20"	Very Good
217 Pin Oak	20"	Very Good
218 Pin Oak	18"	Good
219 Pin Oak	20"	Good
220 Pin Oak	22"	Good Tree
221 Pin Oak	20"	Good Tree

Appendix II
Photographs



Sycamore 201. Burls on limbs and trunk and hollow areas.



Tag Example



The site from drone showing fields and forest with wetland at bottom



Drone photo from 129 meters high looking towards Arcadia Hills subdivision. The houses are not visible, even from this height. Trees in this area will remain protected as a result of the conservation easement area to the east.

Curriculum Vitae

James E. Presutti, CA
19 Windwood Drive
Newburgh, New York 12550
(845)567-1611, (845)629-8476 cell

Experience:

2/00 – Present

Owner of Hudson Valley Horticultural Services, Inc.

Conduct Integrated Pest Management programs, Structural (Hazard) analysis, tree inventories, pruning, cabling, and related services to clients. Provide written reports when needed to fulfill assignments. Operate Hudson Soil & Plant Diagnostic Labs, a division of Hudson Valley Horticultural Services, Inc.

2/01- Present

**Arborist, Town of Montgomery, Village of Tuxedo Park
Village of Walden, Town of Newburgh**

Conduct Hazard Tree Evaluations. Assist in the writing of tree ordinance, Park and trail design, handling the bid process for tree pruning. Provide written reports when needed to fulfill assignments.

4/97 – 2/00

IPM Foreman, Sales Representative

The F.A. Bartlett Tree Expert Company
555 Goffle Road, Ridgewood, NJ

Account representative responsible for care of trees and shrubs to more than 125 clients to include insects, disease, and cultural treatment, cabling, bracing. Pruning, removal, and rigging.

3/82 – Present

Azimuth Forestry Service

P.O. Box 222, Maybrook, N.Y.

Responsible for map interpretation and drawing, boundary marking, management plans, Forest Management reports. Timber marking and appraisal.

10/87 – 4/91

Vice President of Production

Taylor Tree & Landscape Inc.

Responsible for production of tree, spray and planting crews, approximately 40 employees. Manage large tree nursery, operate mechanical tree transplanting equipment, and logging equipment. Hand ball and burlap of trees and shrubs, insect and disease diagnosis and treatment. Record keeping.

5/83 – 6/85

Pest Management Control, Dept. of Natural Resources,

United States Military Academy, West Point, N.Y.

Insect and disease management to all trees and shrubs on immediate campus and 30,000 acres of forest. Record keeping, report presentations, and safety instructor.

5/00 – Present

Property Manager

Bloomer Property and Balmville Tree, Newburgh, N.Y. a one acre parcel that is on the National Register of Historic Places as designated by the United States Dept. Of The Interior. Balmville Tree is N.Y.S. Champion Cottonwood Tree, also on National Register of Champion trees.

3/00 – Present

Master Horticulturist

Department of Alumni Affairs, Association of Graduates, United States Military Academy, West Point, N.Y.

Complete care of 7 main gardens around the parade grounds at The United States Military Academy. Duties include, planting, pruning, mulching, insect and disease diagnosis and treatment.

Certifications

- 2014 NYSDEC Stormwater Erosion and Sediment Inspector
- 1998 International Society of Arboriculture Certified Arborist # N.Y.-0659A
- 1999 National Arborist Association Electrical Hazards and protections certified for climbing and rescue
- 1989 New York State Certified Nursery Landscape Professional #386
- 1998 New Jersey Commercial Certified Pesticide Applicator # 23819B
- 1981 – Present N.Y.S. Commercial Certified Pesticide Applicator for ornamentals, shade tree, and turf, forest, and right-of-way. #C3644299

Education and Continuing Education

1981 Graduate..Associate of Applied Science in Forestry, Paul Smith's College

1985 Certificate of Entomology – Department of Defense, Fort Sam Houston, Texas

1998 IPM and Sales Rep. Training School, Bartlett Tree Research Laboratories

1999-2000 Annual Educational Update F.A. Bartlett Tree Expert Co.

1997-Present Annual Conference, N.Y.S. Arborist Association

1998-Present Annual Conference, N.Y.S. Nursery Landscape Association

Professional Affiliations

International Society of Arboriculture

N.Y.S. Arborists Association

N.Y.S. Nursery Landscape Association,

Board of Directors, N.Y.S. Nursery Landscape Association, 2012 President

Board of Directors, Cornell Cooperative Extension of Orange County

Teaching Experience

Common Insect and Disease Pest of Trees and Ornamentals, Proper Planting Techniques, Guest Lecturer, Cornell Cooperative Extension. 2002-present

Pruning Ornamentals for Pest and Disease Control. Guest Lecturer, Cornell Cooperative Extension. 2002-present

Volunteerism

Cornell Cooperative Extension Board of Directors of Orange County.

Advisory Board, Town of Newburgh Department of Parks and Recreation, Chairman.

Valley Central Youth Wrestling Club.

Awards and Citations

2014 NYS Environmental Beautification Award recipient

Rotary International "Service Above Self" Award

Certificate of Appreciation, Montgomery Elementary PTA

Certificate of Appreciation, Pine Bush Elementary PTA

Certificate of Appreciation, East Coldenham Cub Scout Troop 125