

STERLING NATURE CENTER

Site Plan | New Interpretive Center



Acknowledgments

Thank you

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David Nelson- Cayuga County Planning

Friends of Sterling Nature Center

Cayuga County

Thank you to the following professors for their thoughtful suggestions and support of Design Connect

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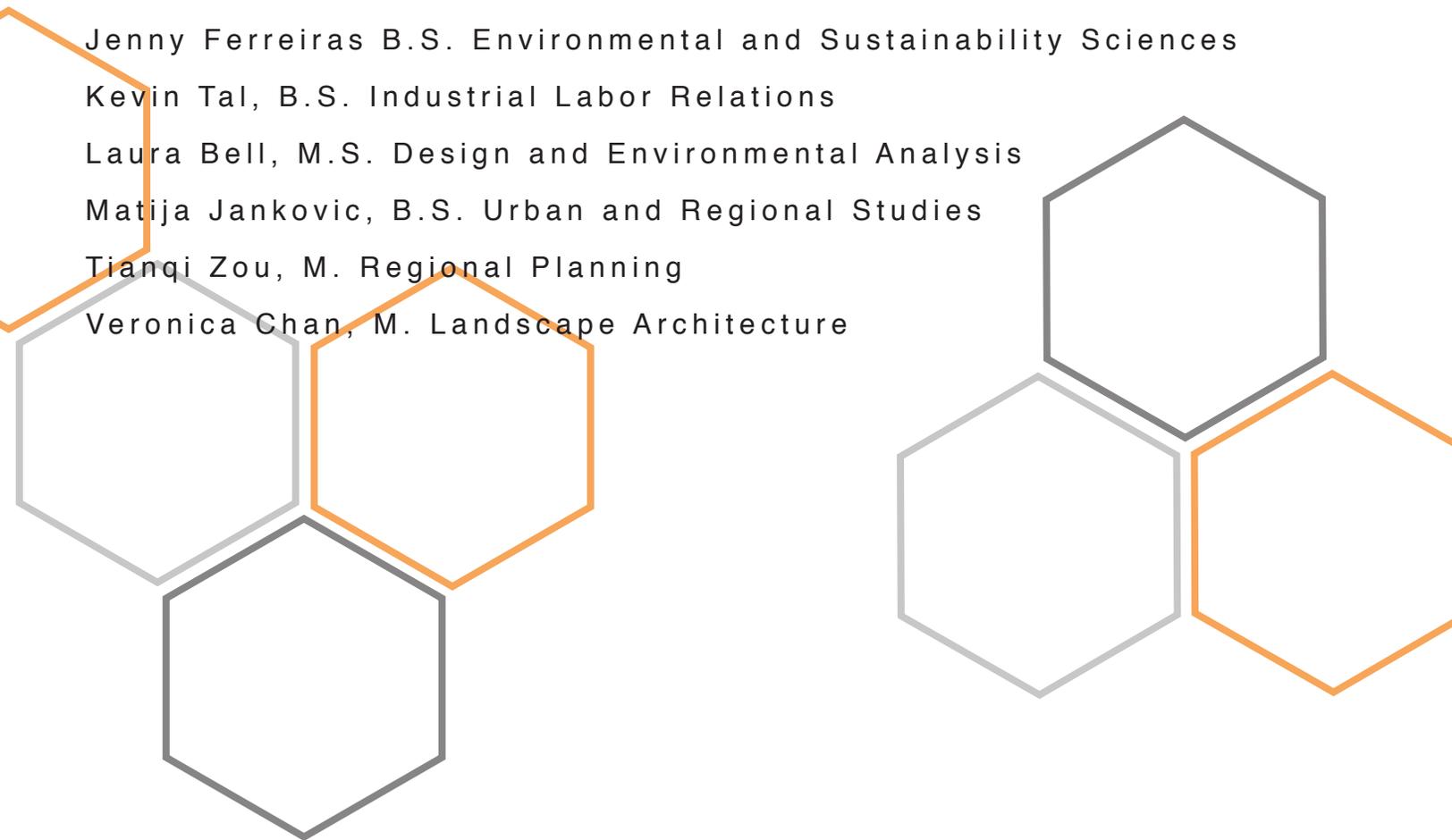
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Introduction

[ABOUT DESIGN CONNECT]

Design Connect is a collaborative, student-run planning and design organization at Cornell University applying community-based principles to planning and design problems facing cities and towns across Upstate New York State. Working with local municipalities and nonprofit organizations, Design Connect aims to provide design and planning services for local organizations that may not have the resources to hire professionals. Design Connect strives to empower students and citizens by advancing collaborative, democratic, and sustainable design projects in local communities.

[PROJECT]

Sterling Nature Center (SNC) approached Design Connect to contribute a research background and to create a design foundation towards the construction of a interpretive welcome center. The SNC requested direct input on designing a new 5,000 square foot interpretive building that meets the spatial and programmatic needs of the SNC and featured the use of green technology. The SNC also requested input on where to place the structure and how to integrate the building into the natural landscape.

In response to this request, Design Connect initiated the design of a new interpretive building and aimed to develop a site plan that supports the SNC's mission of sustainability, environmental education, and engagement and outreach, improving the visitor experience by

creating a more consistent and education thread throughout the center.

The idea of an interpretive center implies a translation of the natural world into a series of engaging and educational materials through which visitors can more easily understand their surroundings. The role of a nature center is to act as an intermediary for human understanding of nature; this concept was expanded to the new buildings design process itself as Design Connect considered how it might act as a medium to interact with the landscape rather than a stand alone icon.

Design Connect approached the project with the following goals:

1. To create a building design for a new SNC educational center that embodies the goals and values of SNC.
2. To expand programming capacity to more deeply engage visitors with the offerings of the SNC.
3. To utilize and explore new and creative sources of funding to ensure a sustainable



The role of a nature center is to act as an intermediary for human understanding of nature; this concept was expanded to the new buildings design process itself as Design Connect considered how it might act as a medium to interact with the landscape rather than a stand alone icon.



To remain true to the vision and goals identified, the SNC requires that new projects demonstrate clear linkages to the four overarching themes established in their vision. The projects and designs discussed below will also be outlined under these three themes:

- Themes
- Sustainability
- Education
- Outreach

The Design Connect team was Asked to produce the following final deliverables:
Final Deliverables:

1. A Site Plan showing potential locations of a new interpretive building with pros and cons of each location listed.
2. Conceptual drawings of the new interpretive building that demonstrate opportunity for green technology and integration with the natural setting.
3. Additional creative but effective uses of resources through the creation of playscapes and educational landscapes within the construction process.
4. Funding and programmatic suggestions that fit within the proposed design phases.

[Client]

The Sterling Nature Center (SNC) is an interpretive educational center and recreational park located along Lake Ontario featuring a rich variety of plant and animal life within glacially formed bluffs, wetlands, woodlands, creeks and meadows. Located in northern Cayuga County New York, the SNC is owned and operated by the Parks and Trails Department of Cayuga County. As an educational center they organize

many educational events about wildlife and ecology for local schools and play an active role in the community by hosting events such as apple cider-making and musical events.

[Additional Stakeholders]

- Friends of Sterling Nature Center: A not-for-profit group of volunteers founded in 1997 to support and help direct the future of the SNC.
- Local community partners: Including other interested parties that are not part of a school or the Friends of the SNC.
- Local elementary schools: Elementary schools are an important stakeholder in the Sterling Nature Center because instilling an appreciation of wildlife and the earth in young children is one of the organization's primary goals. Within a 15 mile radius of the Nature Center there are four elementary schools.



II Project Overview

[The Site]

The Town of Sterling, New York lies on the Southern shore of Lake Ontario in New York's Cayuga County located in the North Central part of the state. The region is characterised by rolling hills, forest, pastoral farmland, and high bluffs which fall from heights of nearly 200 to 300 feet to the shore of Lake Ontario. In addition, the area has unique swamps that extend from the Lake inland a few hundred yards and cover vast expanses of acreage. With two miles of lakeshore beaches and bluff, as well as over 1,400 acres of swamp and forests, the SNC provides a preservation haven for the unique flora and fauna of the region.

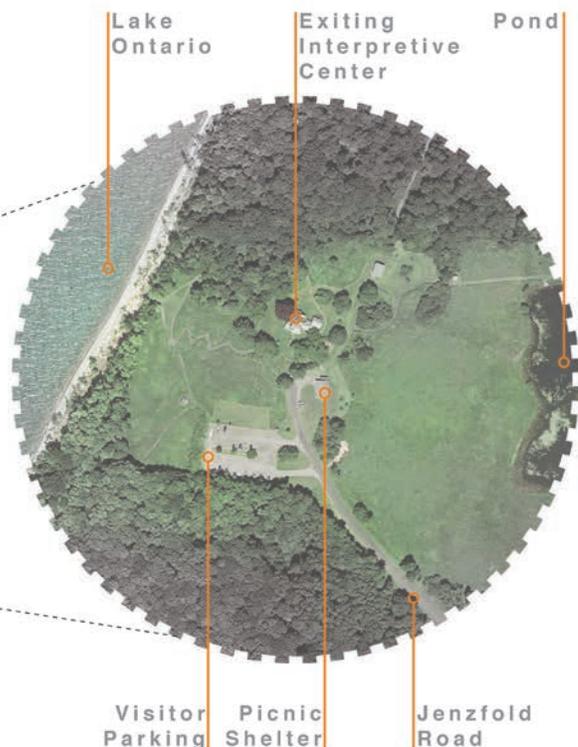
Cayuga County owns and maintains 1,428 acres of land in the northeastern portion of the Town

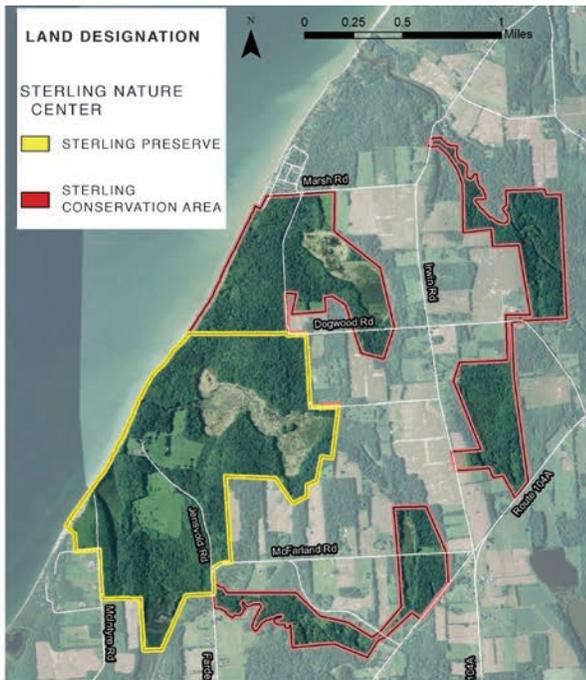
of Sterling. Of these acres, 1,316 are subject to County conservation easements within the New York State Office of Parks Recreation and Historic Preservation.

The SNC is divided into two distinct regions:

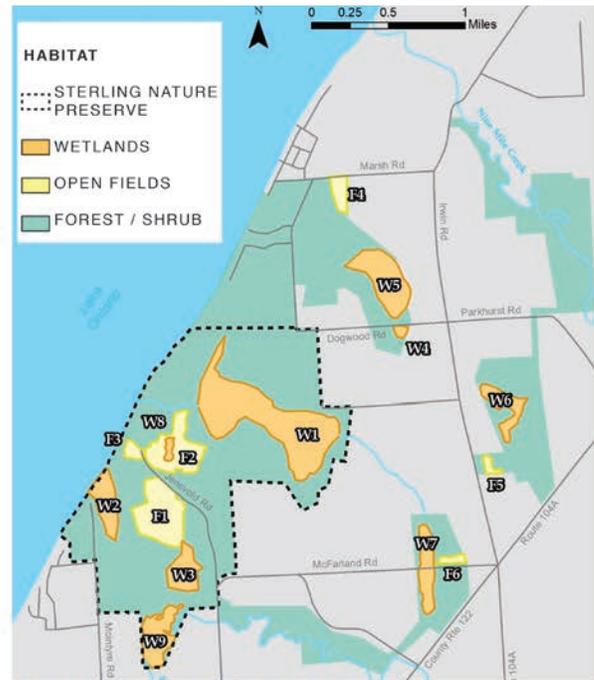
The Sterling Preserve (SP) 728 acres, with 156 acres of both beaver-constructed and natural wetlands and a 5-acre constructed pond. The SP is a nature preserve that provides extensive hiking trails (including one to the lake shore), an interpretive building (currently a refurbished farmhouse), educational programs, exhibits, and access to almost two contiguous miles of Lake Ontario shoreline.

The Sterling Conservation Area (SCA) contains 700 acres of land, with 87 acres of wetland. This area is focused on environmental conservation by providing an area for hunting, fishing, and conservation-focused habitat management

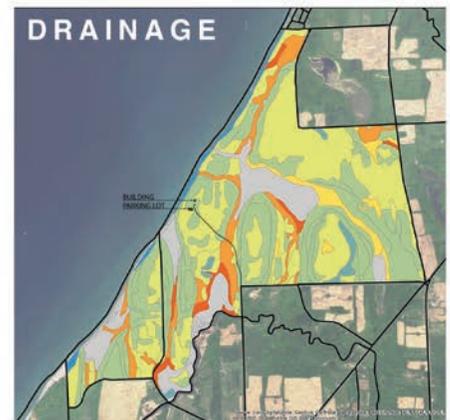
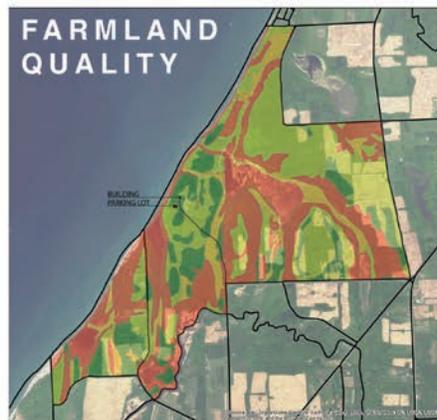
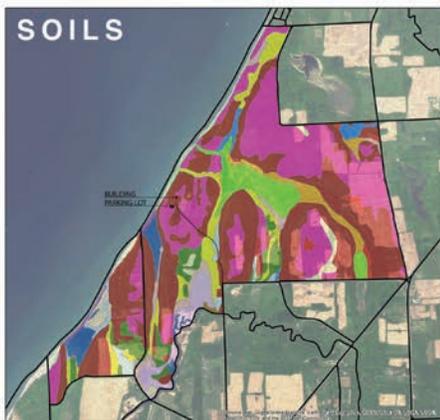




- THE STERLING NATURE CENTER | 1,428 ACRES
- STERLING PRESERVE | 728 ACRES
- STERLING CONSERVATION AREA | 700 ACRES

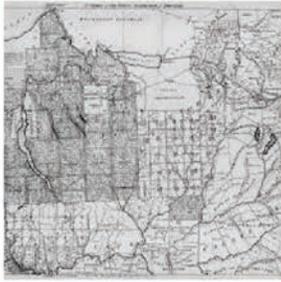


- WETLANDS 9 AREAS | 239 ACRES
- OPEN FIELDS | 6 ACRES
- FORESTS AND SHRUB | 1055 ACRES



as well as protecting the entire 10,000 feet of Lake Ontario shoreline along the Nature Center property. The range of activities provided by SNC has the potential to draw a wide variety of people and visitation has increased by over 50% over the past 10 years and the SNC is actively working to expand its visitor base. While visitors come to SNC for a variety of reasons, trail hiking is the predominant activity. One of SNC's most significant natural resources is the great blue heron rookery which features dozens of nests is located on 60 acres of a beaver-

constructed wetland along the Heron Trail. The SNC offers both outdoor and indoor education and recreation opportunities ranging from birdwatching, 10 miles of hiking trails and water sports to educational exhibits and art displays. Through the development of this project, Design Connect hopes to expand the range of activities offered at SNC through the development of supporting infrastructure (classrooms, educational displays, and programmatic guidelines).



Land was originally part of the **Military Tract Grid**

1770's

The Jensvold family purchases home and land

1933



Rochester Gas and Electric purchases 2,800 acres to construct two coal fired power plants

1971

Public opposition stops plans for the Nuclear Power Plant

1980

1860

Parcel containing the Jensvold Home (the current interpretive center) was owned by Edmund Bridges Sr.

1950-1970

Property changes hands numerous times

1976

RG&E receives approval to build a 1150 megawatt Nuclear Power Plant



[SITE HISTORY]

Sterling, NY holds a vast and rich history of human inhabitants and settlement which dates back to the 1860s. The present structure, which houses the educational center, was built in 1933 by Christopher Jensvold, who was the President and Manager of the Aluminum Container

Corp in Fulton, NY. In 1971, Rochester Gas and Electric (RG&E) purchased the property with plans to build a 1150 mega-watt nuclear power plant. However, due to public objection, the plant was dismantled. The site continues to be a point of contention as proposals for a low-level radioactive waste storage facility and a regional landfill on the land are rejected



Regional landfill also purposed for the site but once again halted by Public opposition



Cayuga County and the Trust For Public Lands purchases **2,800 acres** from RG&E

Cayuga County sells easements to the land to NYS Office of Parks Recreation and Historic preservation



1982
YSDEC considers the site for **radioactive storage facility** but complex geology and public opposition halt plans



1992
Sterling Task Force purposes government purchase of the 2800 acres keeping 1350 for preservation and retuning the rest to the tax roles

1997
Friends of Sterling Nature Center forms to help manage the retained lands as a nature center

2000
County officially designates the area with conservation easements as **a county park**



by the public throughout the late 1980's and 1990's. In 1994 Cayuga County negotiated an agreement with RG&E to acquire the property for \$2.8 million. The land that makes up the site today came about in 2005 when a resolution passed to add 28.5 acres of wetlands adjacent to The Sterling Preserve a part of the Sterling Preserve. The retained lands of the Nature

Center are maintained by a not-for-profit group of volunteers, The Friends of Sterling Nature Center, which was founded in 1997.

[PRESENT INFRASTRUCTURE]

Primary Infrastructure on Site:

Existing Building

Parking Lot

Open Pavilion/ Picnic Shelter

Lake Ontario Overview Deck

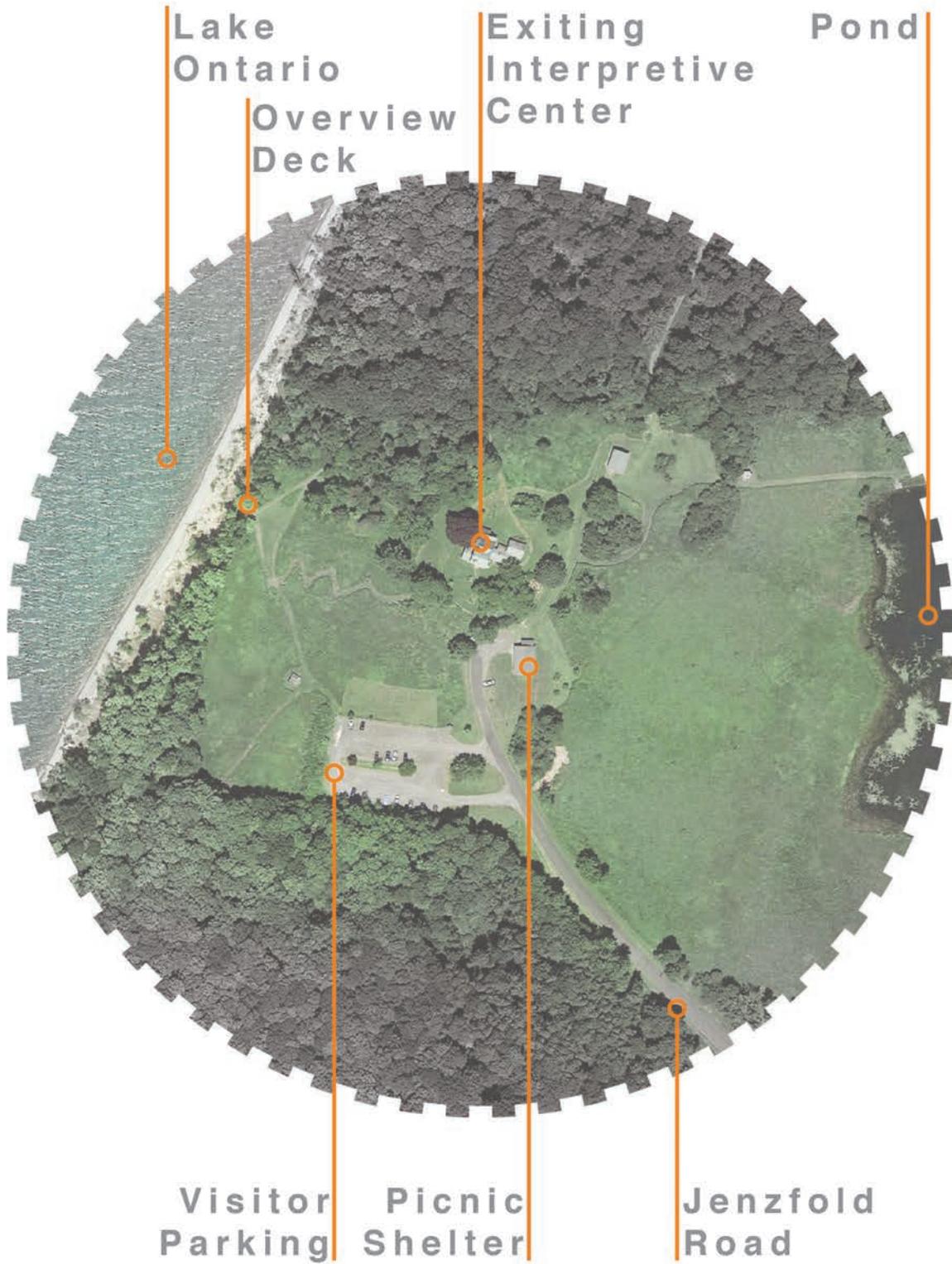
Storage Shed

Existing Interpretive Center:

The building today is a result of many phases of construction, however the main facade as viewed by visitors largely retains its historic character. It is likely that the original building was the main one-and-a-half-story section of the house, as seen below in an image from 1973. The chimneys at either end identify this as a hall-and-parlor house. Proportionally, the architecture would be classified as Georgian, though most of the exterior elements have been removed, including some of the windows on the main facade, which were likely covered up when the building was re-sided. The east and west wings are later additions and many of the additions on the rear façade date to the 20th century. The river rock chimneys, one of which is seen in the photo below, are the building's most distinctive character-defining feature. The stones for these chimneys were collected from the shore of Lake Ontario, just down the hill from this building, which intimately ties the building to its landscape.

Functional Management Plan: To create a cohesive vision and guide for decision making in the upcoming years, the SNC has developed a functional management plan. The SNC aims to follow the Vision and Goals first outlined in the original plan in 2005. An extensive (over

five session) visioning process was conducted with 56 members of the public with 32 members attending more than one meeting from which a series of goals and a directional vision were created. The County received \$938,000 from NYS OPRHP to permanently protect two miles of Lake Ontario shoreline, bluffs, wetlands, and other ecologically sensitive areas. In 2000, the County officially designated the area within these conservation easements as a County Park. In 2005 the County developed a Functional Management Plan for the site. Since then, the Plan has led numerous infrastructure improvements.



III Methodology

The Design Connect team created the following design strategies through weekly meetings that were supplemented by a site visit, organizing into sub-teams, community outreach, and a mid semester review. This report is a compilation of this process, which is outlined below.

Research: To initiate the process, the team compiled preliminary research about the SNC’s history, environment, stakeholders, potential designs, and programming ideas to better understand the context and goals of the project. Shortly after on Sunday February 26, 2017, the team conducted a site visit to the client where the team further learned about the client’s programming needs, possible building sites, and the existing building’s constraints. We conducted a site analysis for the four proposed sites, which consisted of using GIS to map soils, farmland quality, drainage, and soil erosion, as well as conducting a SWOT analysis to better understand the organizational structure and direction of the SNC.

Exploration: At the weekly meeting following this visit, the team composed a few guiding concepts for our design, the leading ones being “blending nature and the built environment,” and using the

interpretive center as a “gateway” into nature. Using this information, the team settled on the Southernmost site due mainly to its accessibility, views, and programming opportunities. From here, the team organized into three subgroups: outreach, design, research and report. While the team met every Tuesday as a whole, these subgroups often met individually to further carry out their responsibilities.

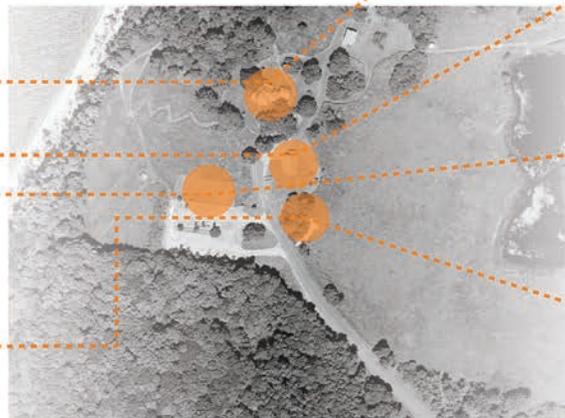
Concept Development: The outreach team gathered information on stakeholders and helped plan, advertise, and create media for the community outreach meetings and presentations. The design team created a series of research based site analyses on soil, hydrology, and geology. This information informed the design of the new interpretive center building (discussed below) in addition to a more comprehensive landscape site plan. After drafting a variety of design innovations which were presented to the team for feedback,

Building Site Option 1
Existing Visitor Center

Building Site Option 2
Existing Picnic Shelter

Building Site Option 3
Overflow Parking Area

Building Site Option 4
Across from Parking



Building Site Option 1
Existing Visitor Center



Building Site Option 2
Existing Picnic Shelter



Building Site Option 3
Overflow Parking Area



Building Site Option 4
Across from Parking



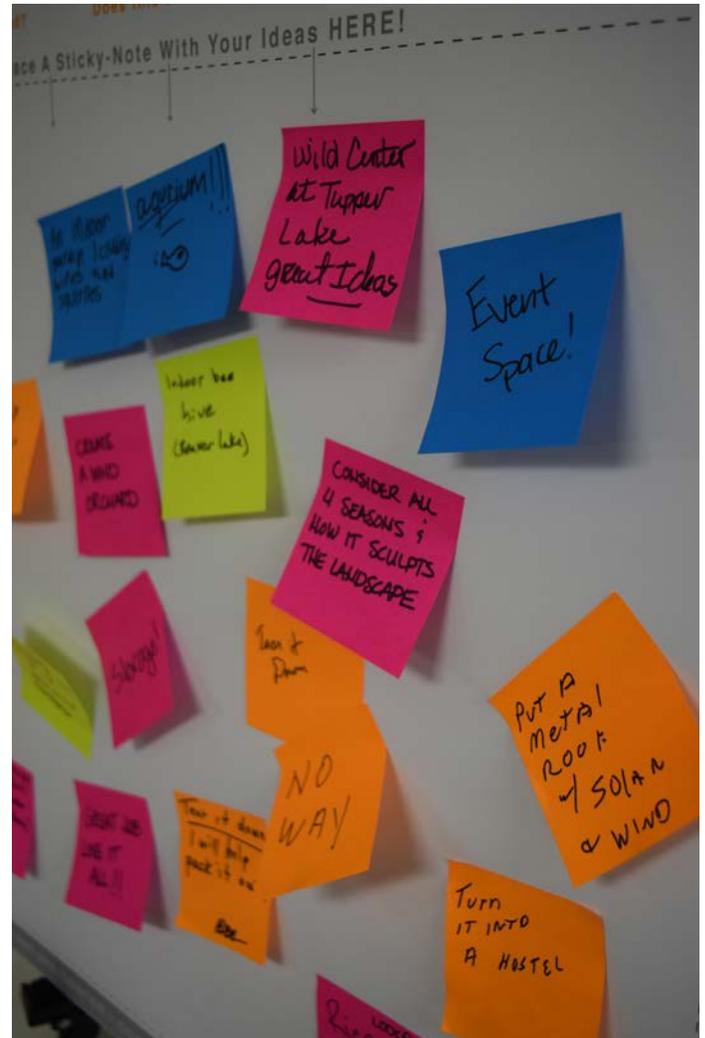
the design teams worked together toward an integrated plan. The research and report team compiled all of the information into this report and contributed a programmatic outline for funding and utilizing the new designs in ways that complement and expand the original goals of the SNC.

Design Iteration: The design group's first task was creating two building and landscape concepts for a new Interpretive Center, while the research team delve deeper into funding, programming and sustainable infrastructure. These ideas were presented at both a community outreach event on March 25th, 2017 and a mid-semester review on March 29th, 2017, where feedback and new ideas were collected from community groups and professors

respectively.

Community Outreach. In order to get feedback on our designs and learn more about the site and local stakeholders, the outreach team organized a community meeting on Saturday March 25, 2017 10:30AM, at the existing Sterling Nature Center. The team publicized the event by creating fliers to be distributed on the Sterling Nature Center's Facebook page and by getting a mention on The Citizen's online site, a local news outlet based out of Auburn, NY.

Event. The event was structured so that various interactive activity stations allowed meeting attendees to express their ideas and choose design interventions they would like to see out of the site. Attendees were provided with stickers, post-it notes, and markers so they



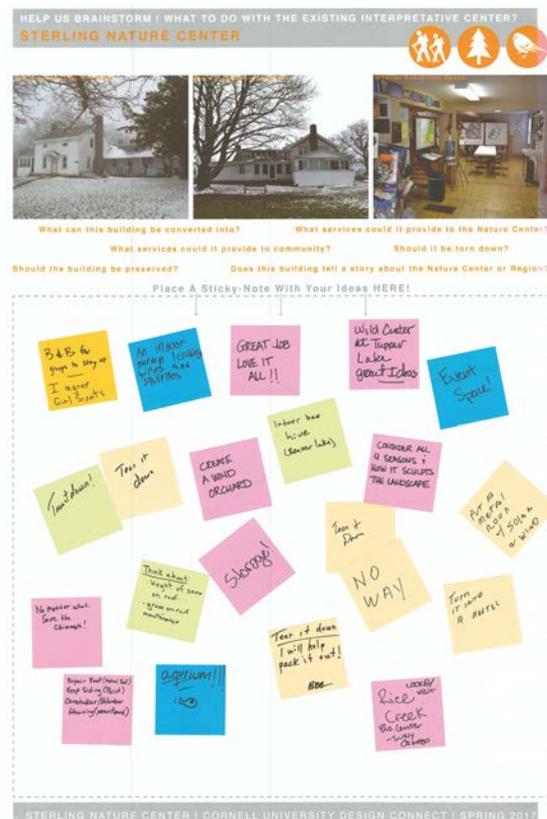
could mark what physical additions, such as playgrounds and boardwalks, they would like to see incorporated into the design, leave notes and concerns on concepts created by the design team, and building off of other stakeholders' concerns. The attendees consisted of all locals, the majority of whom belonged to the Friends of Sterling Nature Center group. Other members included: patrons of the center, seniors who had seen or contributed to the Sterling Nature Center's development over time, and local youth.

Primary Findings. The data gathered from the event showed that the majority wanted to tear the existing site down completely, although a few felt a strong connection to its historical chimneys in the original building. Our data also showed that the community members were very interested in the use of green building technologies and interactive playscapes in and outside of the building. In regards to the

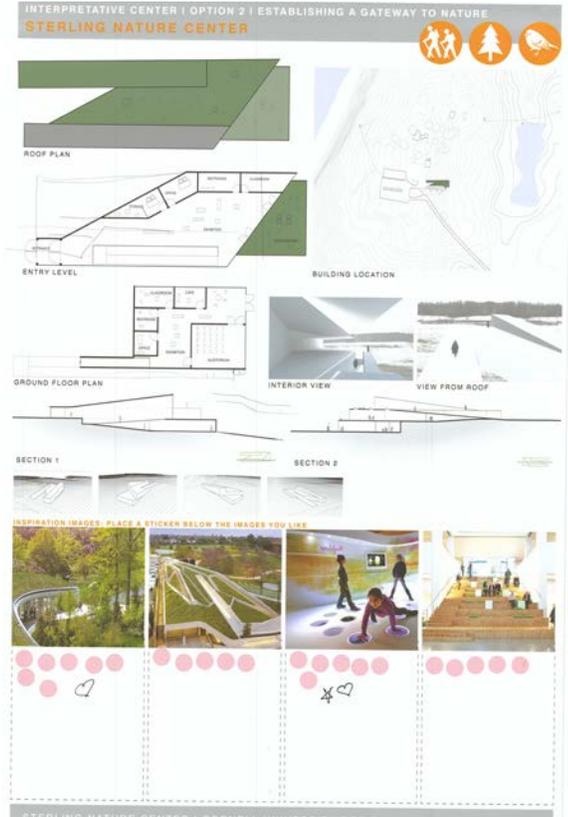
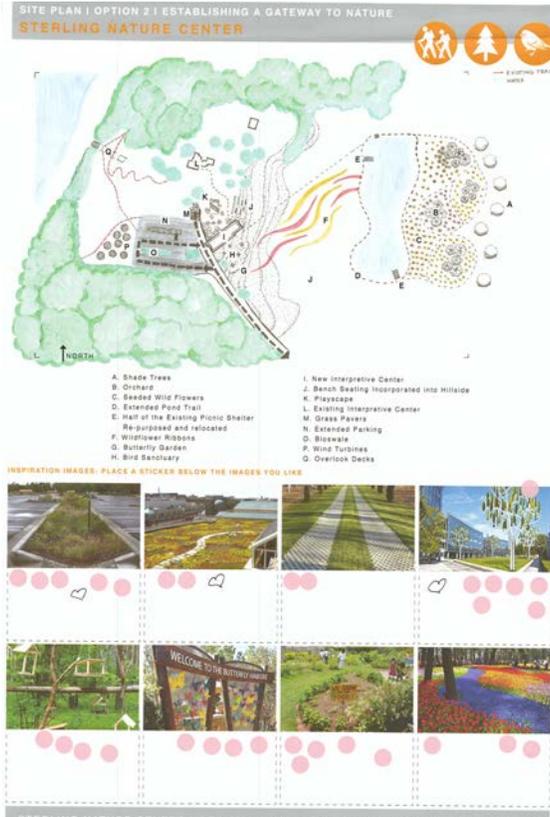
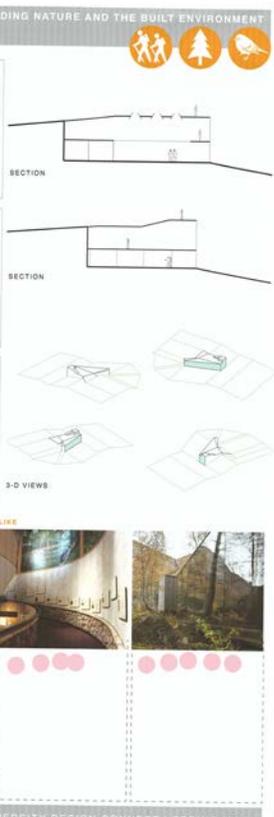
interpretive center's building design, ingraining the building in the hillside proved to be a popular concept, while both site plans seemed to be equally liked.

These results were delivered to the team during the following Design Connect team meeting on Tuesday March 28, 2017 and the responses were promptly incorporated into proposed design solutions. The team then regrouped as a whole to synthesize the new information and refocus the plans; we selected the second building design to further develop, decided on which programming aspects to focus on, and what needed to be fixed about the landscape designs.

Final Design: Plan improvements occurred in the weeks leading up to the Final Review on May 10, 2017, both at the weekly meetings (with subgroups meeting up to exchange updates and feedback from each other, making sure that everyone was on the same page and working



towards the same goals) and meeting within subgroups. This report contains the result of this planning which include a building design for the new interpretive center, a landscaping design for its immediate surroundings, green building ideas, programming possibilities for the building and its surroundings, and funding opportunities to help these plans become reality.



IV Design Strategy

Proposed Solutions/Designs

At the onset of the project, the Design Connect team was given the flexibility to choose a proposed location for the new building. After discussing the matter with the SNC, the designers identified four possible locations for the new site:

- Replace the existing historical building with the new interpretive center
- Build slightly north of the current parking lot
- Remove the outdoor pavilion and relocate it to overlook the pond
- Build across from existing parking lot

Ultimately the designers chose to remove the existing pavilion and build the interpretive center to overlook the pond (combining options 3 and 4). To deliberate between these choices the designers considered the following factors:

Site stability: The site was assessed for soil stability and erosion concern with the use of GIS maps generated for the project.

Aesthetic potential: Orienting the building to overlook Lake Ontario posed challenges with strong winds and a visibility restricting tree line. Wishing to not remove the natural tree line and wind buffer, the team decided that orienting the building towards the pond provided excellent views, lessened the wind impact, and provided an opportunity for outdoor events that were somewhat buffered by the new building.

Ease of accessibility from existing parking lot: Locating the new building adjacent to parking lot and road was an important design consideration both for ease of accessibility (for the elderly or

disabled, or for large parties or events). Making the interpretive center immediately visible and accessible would provide visitors with an orienting landmark while signaling a sense of arrival.

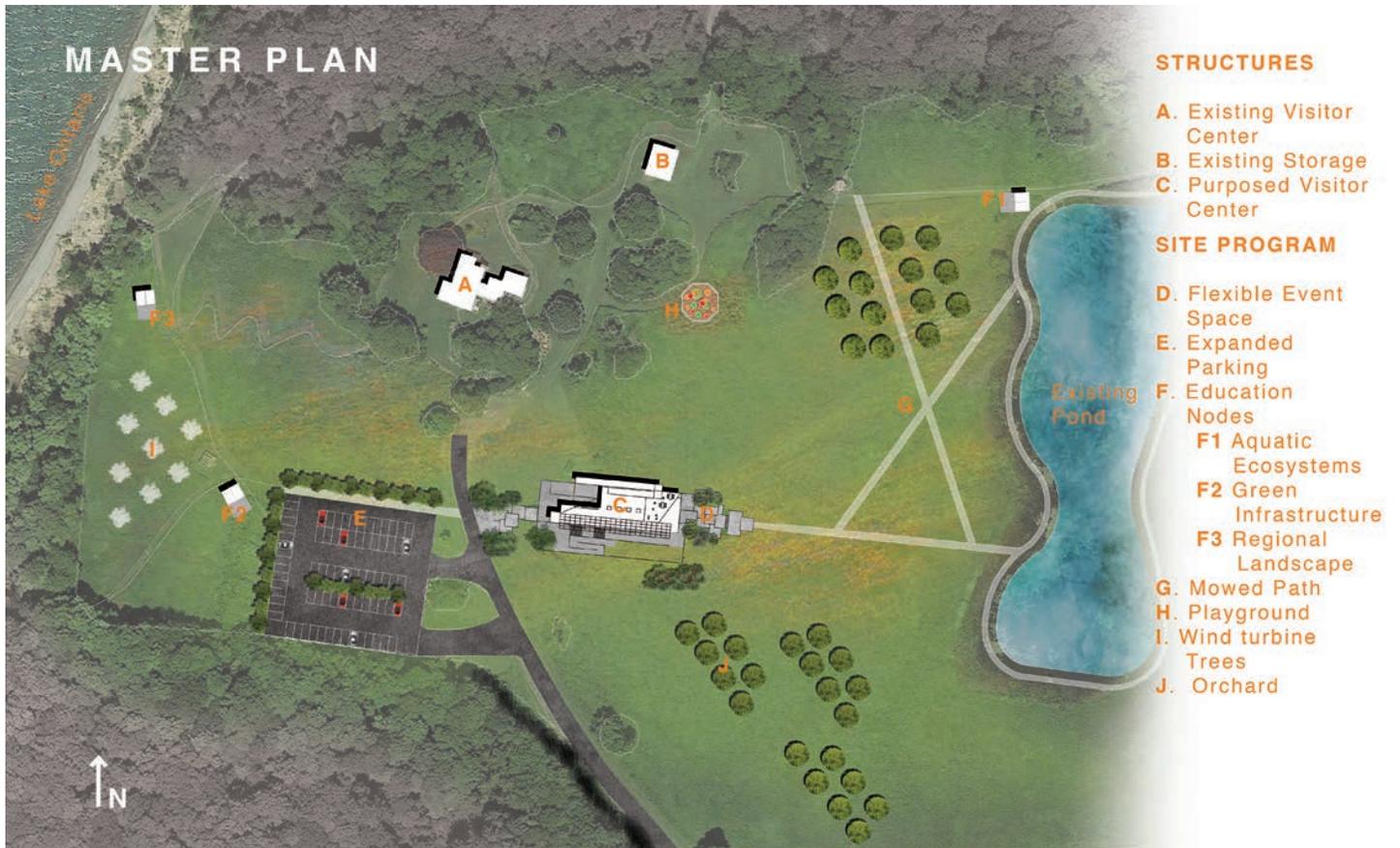
Lighting Consideration: The building location and orientation was a design consideration in thinking about passive heating and cooling strategies and capture the benefits of natural lighting. The designers determined the new building should receive a southern exposure to capitalize on the potential for natural light and solar panel use.

Design Philosophy:

After deciding on a site location, the Design Connect team considered the overarching goals of the SNC and how they might be embodied in the new building design.

The idea of an interpretive center implies a translation of the natural world into a series of engaging and educational materials through which visitors can interpret their surroundings. Taking this concept further, we considered how the building structure might act as a medium to interact with the landscape rather than a stand alone icon.

Elegant but functional, the final design embodies this philosophy by featuring visual access to the pond, while also making it easy for visitors to enjoy the outdoors after moving through the building to a rooftop garden or balcony, or to a large outdoor garden extending from the lower level. The landscaping design considers both nature conservation and programming needs, providing strategies to enhance the educational and wayfinding possibilities of the SNC through unique landscaping solutions.



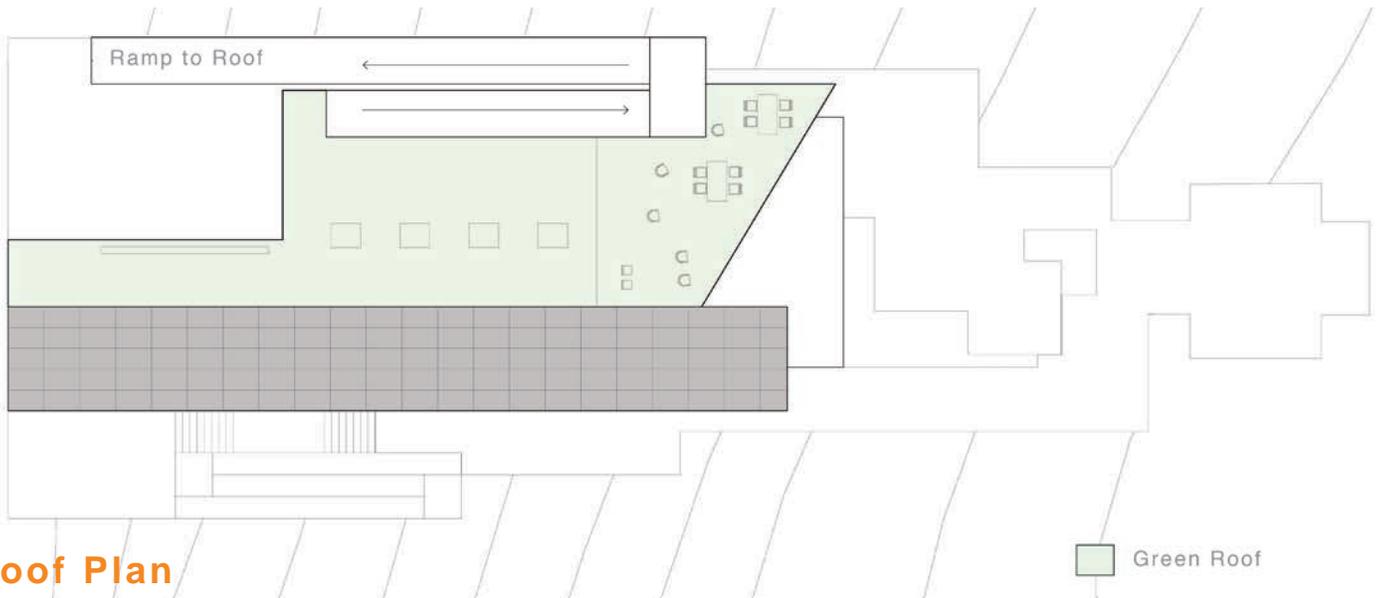
“
 The final design serves the dual purpose of reducing wind impact while having built connection to the landscape. The orientation provides southern exposure to much of the building while also making solar panels a possibility. ”

Approaching the building from the direction of the parking lot, visitors can enter onto the first level floor or onto the rooftop terrace. Inside the ground level floor, visitors will immediately be met with interactive rotating displays with flexible classroom or office space on the side. To engage people immediately with the natural surroundings, visitors will have a direct view to the east of the pond. At the east end of the first floor, a small cafe area with more displays and an outdoor balcony are available. The roof is accessible through a ramp on the left (north) side of the building; the rooftop could be used to host small educational events and a rooftop garden.

Separate indoor and outdoor ramps connect the first floor with the ground floor. Closing off the indoor ramp provides the potential for the two floors to be entirely separated if need be to accommodate private events without compromising access to permanent educational displays. The ground floor provides three flexible classrooms with foldable walls that can also serve as an event space. The floor also features a kitchen, bathrooms, and storage space. The classrooms overlook a portico educational garden space that could function also as an event space for weddings or community events (which could be revenue generating).

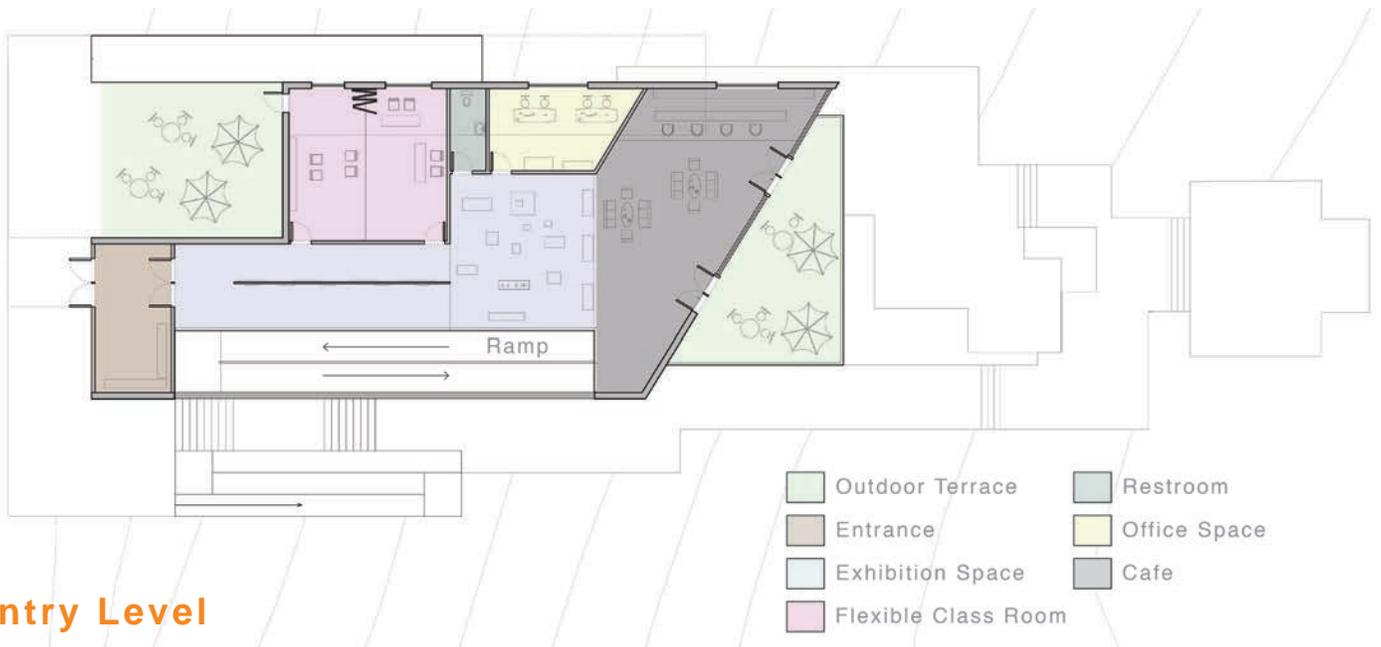






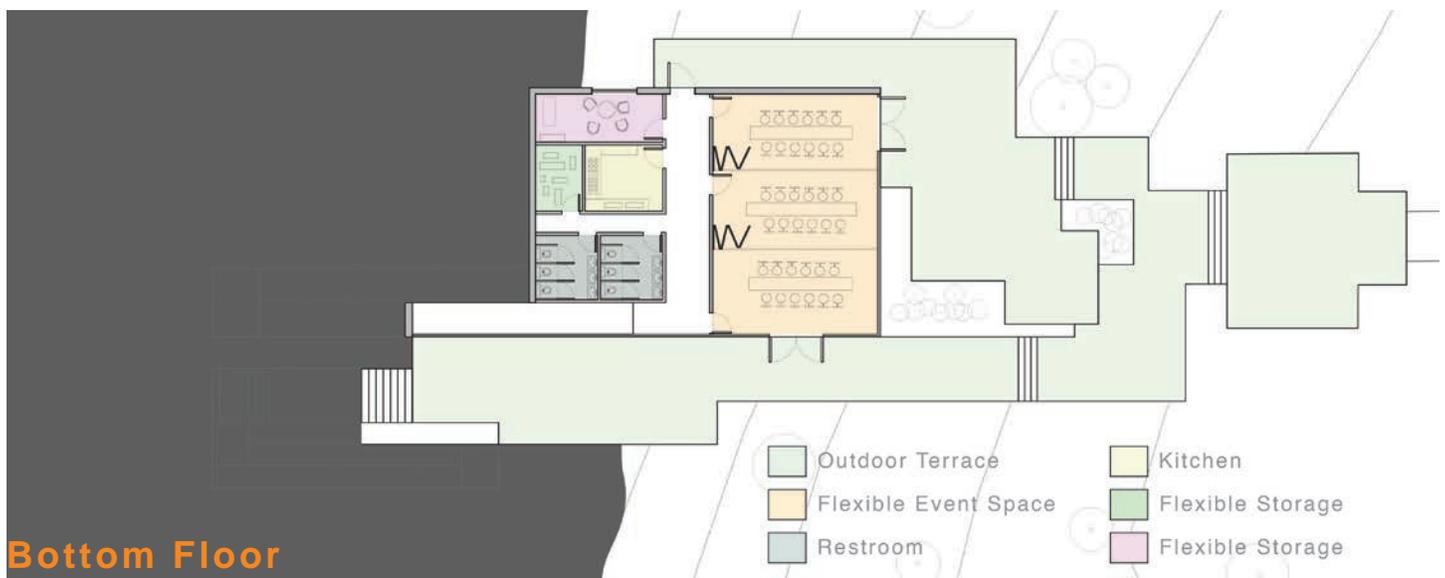
Roof Plan

Green Roof



Entry Level

Outdoor Terrace	Restroom
Entrance	Office Space
Exhibition Space	Cafe
Flexible Class Room	



Bottom Floor

Outdoor Terrace	Kitchen
Flexible Event Space	Flexible Storage
Restroom	Flexible Storage

Due to the broad scope of the current plans, the interpretive building design does not include details regarding green infrastructure or green building techniques. However, in order to maximize the new interpretive center's sustainability, the following high performance building features should be taken into consideration when site details are being planned (Note: the listed costs are upfront costs and do not include the benefits of long-term savings):

"Low" Cost

Operable windows to allow for the maximization of thermal comfort and natural ventilation, while reducing energy expenses by allowing individuals to regulate their desired input of climate into the building.

Gravity fed gray-water system to reuse sink water for fruit orchard or non-edible garden irrigation.

Rainwater system captures run-off rainwater from the roof and using pipes, redirects the water to collection tanks, where it is later filtered and pumped into the plumbing system. Here, high precipitation levels can be used to flush toilets or irrigate gardens, while reducing demand on local water resources and preventing runoff.

"Greenhouse" Energy, Large south-facing windows and concrete flooring to allow the building to absorb sunlight and release a "thermal mass" that will help to warm the room (quoted from the Functional Management Plan). LED Lighting (light-emitting diodes) should be used whenever possible, as it is some of the most energy efficient lighting technology available.

"Medium" Cost

Day-lighting to minimize the use of artificial lighting through an extensive system of windows.

Recycled Materials used throughout the design and furnishing (e.g. decking, siding material, insulation, office furniture, and carpeting).

-Motion Sensor Lighting to reduce energy wasted on lighting that isn't being used.

-Low-flush toilets to reduce water consumption.

"Higher" Cost

Composting Toilets to reuse help minimize the use of freshwater, eliminate the building's use of the local sewage treatment plant, and great healthy soil for the site's vegetation.

Low E windows as the glass material to keep the heat indoors during the winter and outside in the summer.

Solar Energy on the building's South side to mitigate the building's energy consumption.

Geothermal Heating System to use constant year-round ground temperatures to heat the building in the winter and cool it in the summer.

Deep source cooling to replace energy-intensive central refrigeration systems thus lowering energy demand. The system would consist of a pipeline which intakes cold lake water, passes it through a heat exchanger (where the lake-water passes by a titanium plate that transfers the heat to the chilled water without the fluids touching), and then returns the lake-water to Lake Ontario.

V Programming

The following outlines educational programming and funding options in relation to specific site initiatives.

[EDUCATIONAL NODES]

To support consistent educational programming that focuses on local ecosystems and sustainable design strategies, Design Connect is suggesting the construction of three outdoor 'Educational Nodes'. These nodes, located proximally to the interpretive center, will provide a series of dispersed designated spaces for specific activities and the opportunity to use multiple flexible outdoor spaces with utilities (power and water) while also providing consistent signage about different natural aspects of the nature center.

[OVERARCHING PROGRAMMING THEMES]

Sustainable Design Education Program (SD)

The SDEP could be an overarching programming initiative featuring several educational modules offered by SNC that focus on the tenants and benefits of 'sustainable design'. The new designs incorporated into the SNC will include a variety of sustainable design elements that highlight SNC's commitment to integrating their built infrastructure with the natural environment, and may be unique educational offerings not provided by other nature centers. Programming topics might include: The multifunctional role of green infrastructure in managing stormwater, green energy (wind and solar), strategic planting for

climate resilience. Programs can be developed from existing Oswego 4-H initiatives and other free lessons plans.

Connecting With Nature Education Program (CWN)

The CWN programming initiative converts educational modules focused around understanding and interpreting the immediate natural environment. Examples might include: bird watching, habitat analysis, nature walks, etc. The purpose of this overarching program is to create a consistent themed body of educational programs that can more deeply engage visitors over time. Programs can be developed from existing Oswego 4-H initiatives and other free lessons plans. Working within the educational strategies of existing 4-H programs could help strengthen SNC's programming outreach while allowing them to become potential long term educational partners with 4-H programs. This kind of partnership could have numerous social, educational, and financial benefits.

Spark Community (SC)

Flexible events hosted at SNC intended to bring community together or to facilitate group events hosted on site. Examples may include the annual barbeque, music events, guest lectures, weddings, writers retreats, etc.

[EDUCATIONAL NODE DESCRIPTIONS]

1. Lake-Side Node

Description: Building off of the existing platform overlooking the lake, the Lake-Side Node offers space for signage and educational programming around aquatic birds and plant life. This station could also provide more indepth information about the history of the site and Lake Ontario.

Main Programs: Connecting With Nature (focus on Aquatic education)

Other Activities/Features: Provides permanent signage and visual access to Lake Ontario.

2. Green Infrastructure 'Node'

Description: Located slightly west of the parking lot, the green infrastructure node can highlight the sustainable infrastructure featured in the parking lot design. The site can be used to discuss wind energy, solar energy, and ways of managing water through low impact development.

Main Programs: Sustainable Design Education

Programming topics might include: The multifunctional role of green infrastructure in managing stormwater, green energy (wind and solar), strategic planting for climate resilience.

Other Activities/Features:

Nature Play Spaces: Because SNC strive to engage young people with the natural environment, the integration of nature based play spaces can be featured prominently in the new design. These play spaces can serve educational, creative, and ecological functions.

Windmill Trees: A series of small scale windmill 'trees' are proposed near the Green Infrastructure Node (see phasing for more details).

3. Pond Node

Description: Located next to the pond, this educational node can provide educational displays and a gathering space for programs on aquatic and bird habitats, bird watching, and fishing.

Main Programs:

Connecting With Nature Education Program (CWN) : educational modules focused around

understanding and interpreting the immediate natural environment might include adapted 4-H modules: Adaptations, Animal Tracks and Traces, Aquatic Lifestyles, Orchard to Table, and existing program on cider making. (See Fish and Wildlife free teaching plans linked in appendix).

Other Activities/Features:

Orchard
Mowed walking trail
Birdwatching

4. New Building Node

Description: This educational node is within and immediately surrounding the new interpretive center to be built. Featuring rotating and permanent educational displays, the site can also feature a demonstration garden and functioning elements of sustainable design (i.e. solar panel use, rooftop gardening, edible gardening, etc.).

Main Programs:

Sustainable Design Education Program

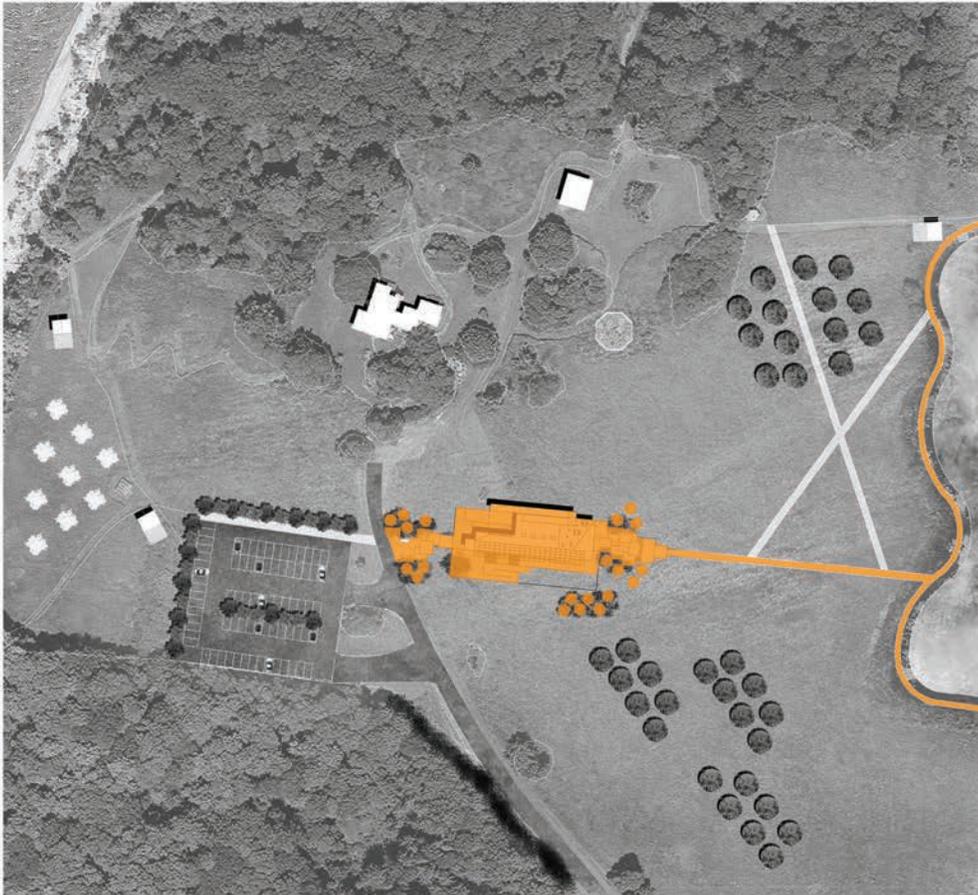
Programming topics might include: The use of solar energy, building and designing edible gardens, stormwater or graywater management. Weddings, lectures, workshops

Other Activities/Features:

Solar Panels
Rooftop Gardening
Small Garden Planting

VI Phasing and Cost Estimates

PHASE 1: NEAR FUTURE

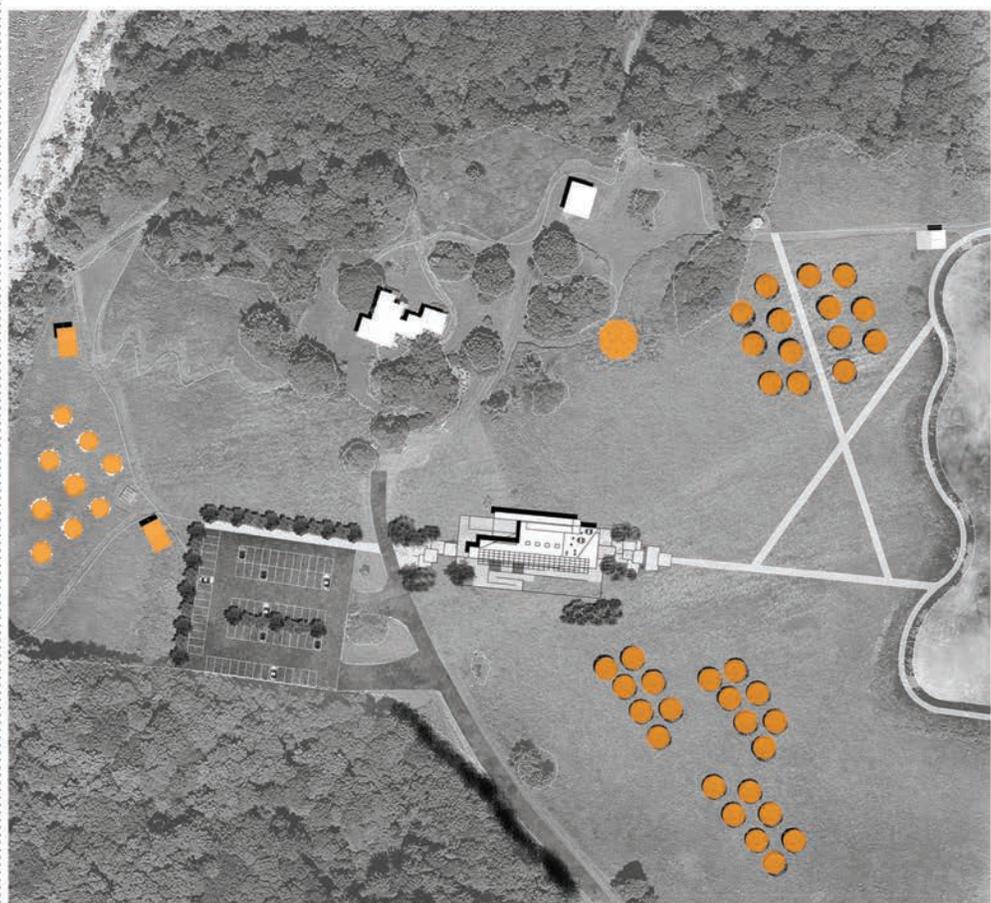
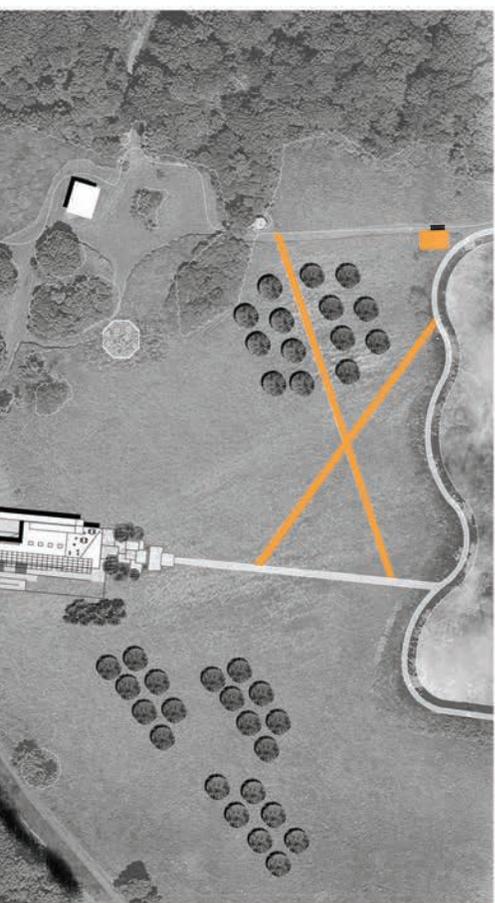


- New Interpretive Center
- Mowed Pond Path
- Entrance Plaza and Event Terrace

PHASE 2: FUTURE



- Renovations to Existing Buildings
- Parking Lot Expansion
- Aquatic Education



Existing Structure
 Vision
 Node

- Playground
- Orchard Trees
- Green infrastructure Node
- Regional Landscape Node
- Wind Turbine Trees

PHASE 1: NEAR FUTURE

Program Element

New Interpretive Center

Mowed Pond Path

Entrance Plaza and Event Terrace

PHASE 2: FUTURE

Program Element

Renovations to Existing Structure

Parking Lot Expansion

Aquatic Education Node

PHASE 3: EXTENDED FUTURE

Program Element

Playground

Green infrastructure Node

Regional Landscape Node

Wind Turbine Trees

Cost

\$1.8-\$2.2 Million

\$0.00

\$60,950

PHASE 2 TOTAL = \$2,260,000

Cost

\$60,000

\$119,000

\$5,000

PHASE 2 TOTAL = \$154,000

Cost

\$3,000

\$5,000

\$5,000

\$56,000

PHASE 3 TOTAL = \$69,000

VII Grant Funding

[PHASE 1]

New Interpretive Center Building Process

Grant: Youth Conservation Services
(Department of Defense)

About: Provide young adults and veterans with real life work experiences in the stewardship of the environment in all fifty states by offering opportunities for education, leadership and personal development to the Recipient's participants, while providing a high quality public service in natural resources/recreation management and conservation.

Eligibility: Organization related to youth/student/veteran education in a conservation oriented environment; past performance in the areas of resource management, conservation, recreation management, visitor services and cultural resources and assistance to youth; non-profit status is required.

Award: N/A; Cooperative Agreement.
Resource:<https://www.cfda.gov/?s=program&mode=form&tab=step1&id=4d4285648e2c51a33b9cb5bf7300736f>

Grant: Recovery Act Funds - Habitat Enhancement, Restoration and Improvement
(Fish and Wildlife Services)

About: Assistance is provided to fund projects that improve habitat and/or any related activity necessary to accomplish this goal. Funds may be used for habitat assessments, protection and restoration of public and private land and may include alternative/renewable energy efficient

projects. Funds may also be used to encourage public usage by providing access and education. Providing fish passage and stocking of fish from National and/or State Fish Hatcheries and advising on wildlife management techniques may be management tools considered. The funds provide technical and financial assistance to identify, protect, conserve, manage, enhance or restore habitat or species on both public and private lands.

Eligibility: none

Award: \$1,000 to \$1,000,000, or greater.

Restrictions on the time permitted to spend the money awarded.

Resource:<https://www.cfdagov/?s=program&mode=form&tab=step1&id=46cbf00533c70f688e89c73d9c209d62>

[PHASE 2]

Renovations to existing building

Rehabilitation of the historic building will retain it as a useful resource for the SNC. It can be used as an auxiliary building for classes and group activities coordinated by the SNC. It can also be offered as a rental facility for professional and enthusiast groups to hold meetings and events, as well as private party rentals, such as weddings or other family gatherings. Its use as an income-producing property will qualify the structure for federal and state preservation funding. Preservation of the Jensvold House will also retain the historic character of the site, ensuring testimony to its decades of use as farmland and the men and women who labored to tame this grand, wild land.

Outline of Work:

Asbestos Removal- Because the building has

asbestos siding, its abatement by a licensed professional will be required before either demolition or rehabilitation is undertaken. This cost can be mitigated through rehabilitation tax credits if restored, however, the county will incur the entire cost of its removal if they decide to demolish the structure.

Roof work- Removing some of the more recent, low-quality additions and simplifying the currently complex roofline on the northwest portion of the building will largely correct some of the current maintenance issues. If thoughtfully implemented, this should not unduly impact the historic integrity of the building. This should mitigate the problematic roofing system as it exists currently and allow for a more flexible rearrangement of the interior space underneath. Trusses will be employed in order to reduce the number of interior, load-bearing walls.

Residing and Windows- The building's original siding remains intact underneath the asbestos siding, but will likely require repair or partial replacement. Like materials will be used, and any deficits in the condition of the windows will be repaired.

Interior- As part of the building renovation, certain additions and alterations to the interior will make this building a useful rental space, specifically, updating the kitchen and bathroom facilities and combining the smaller, chopped-up spaces created by multiple additions to the rear of the building. The floors in these newly combined spaces will require leveling and resurfacing. Minor repairs and alterations to the interior walls should be expected. The kitchen area will retain its use, but bathrooms will be relocated to the new space created by renovating the additions to the rear of the building.

Funding- The rehabilitation cost can be mitigated using Federal and State tax credits, grants, and loans. The plan outlined above has been created with the goal of reducing the costs of rehabilitation to their minimum while adapting the space to best meet the client's needs and allow for a more flexible use of the space. The costs of maintenance and repair will be substantially reduced, and a greater potential for both client utilization and income-generating use will be realized.

Grant: Environmental Protection Fund Grant Program for Parks, Preservation and Heritage (EPF)

About: One application covers all three program areas (Parks, Historic Preservation, Heritage Areas). The Historic Preservation program is to improve, protect, preserve, rehabilitate, restore or acquire properties listed on the State or National Registers of Historic Places and for structural assessments and/or planning for such projects.

Eligibility: Properties not currently listed, but scheduled for nomination review at the State Board for Historic Preservation meeting of either June 15, 2017, or September 14, 2017, are eligible to apply. All work must conform to the Secretary of the Interior's Standards for the Treatment of Historic Properties. To ensure the public benefit from the investment of state funds, preservation covenants or conservation easements will be conveyed to the State (OPRHP) for all historic property grants.

Award: \$16,000 - \$600,000

Resource: <https://parks.ny.gov/grants/historic-preservation/default.aspx>

Parking lot expansion

Grant: Great Lakes Restoration Initiative

About: Reduce Runoff from Degraded Sites through Green Infrastructure: Gallons of stormwater runoff avoided from degraded sites through improved green infrastructure using trees and other vegetation. (Bioswales)

Eligibility: Nonprofit organizations, educational institutions, and local governments.

Award: \$50,000- \$200,000

Resource: https://www.na.fs.fed.us/watershed/gl_restore_initiative.shtm

Aquatic Education Node

Grant: Youth Engagement, Education, and Employment (Fish & Wildlife Services)

About: Recipients will use the assistance in rural and urban settings to fulfill the need for exposure of youth of all ages to nature and conservation; stewardship of our lands, waters and wildlife; as well as to enhance and sustain cultural heritage. The intent of these education, career and leadership development programs is to engage, educate, and employ youth participants in the various fields of natural resources conservation – fisheries management, habitat restoration, invasive species, pollinators, marine biology, migratory birds, strategic planning and lands management – consistent with the Service’s mission.

Eligibility: Local governments, public nonprofit institution/organization, other public institution/organization.

Award: \$750.00 - \$200,000.

Resource: <https://www.cfda>.

[PHASE 3]

Playground

To be constructed from unused materials in the construction processes.

Orchard Trees

Grant: Fruit Tree Orchard Grant

About: Orchard recipients utilize trees and harvest strictly for the benefit of the community and their charitable mission and not for any for-profit enterprise. Environmental benefits, Educational purposes, as community assets

Eligibility: County government entity.

Award: Free trees

Resource: <http://www.ftpf.org/index.php>

Green Infrastructure Nodes

Grant: NRG Community Grants

About: Education grants and scholarships strengthen international understanding, cultural exchange, environmental education, entrepreneurial education and/or local knowledge of the independent power generation business and help to meet the educational needs of communities where we operate

Eligibility: Organizations and initiatives that have a meaningful and direct impact on the community, as well as nonprofit organizations and initiatives that are supported in partnership with the community.

Award: Varies

Resource: <http://www.nrg.com/company/community/grant-requests/>

Small Wind Turbine Trees

Grant: Small Wind Turbine Program

About: The program is intended to increase the amount of clean, renewable energy from

wind that is generated in New York State. Approximately \$6 million in incentives are available to support installation of behind-the-meter, on-site wind energy systems in the State. Incentives are based on the expected annual energy output (AEO) of the proposed wind energy system, as calculated by the Wind Professional Wind Resource Report determined from the New York State Small windExplorer. Customers can include residential, commercial, institutional or government users. The maximum equipment size is 2 MW per site per customer. NYSERDA's incentive cannot exceed 50% of the total installed cost of the system, which must be connected to the electric grid.

Eligibility: Institutional or government users. The maximum equipment size is 2 MW per site per customer. NYSERDA's incentive cannot exceed 50% of the total installed cost of the system, which must be connected to the electric grid.

Award: Varies

Resource:<https://www.nyserderda.ny.gov/All-Programs/Programs/Small-Wind-Program>

Wind Turbine Trees

Grant: Recovery Act Funds - Habitat Enhancement, Restoration and Improvement (Fish & Wildlife Services)

About: Assistance is provided to fund projects that improve habitat and/or any related activity necessary to accomplish this goal. Funds may be used for habitat assessments, protection and restoration of public and private land and may include alternative/renewable energy efficient projects. Funds may also be used to encourage public usage by providing access and education. Providing fish passage and stocking of fish from National and/or State Fish Hatcheries and

advising on wildlife management techniques may be management tools considered. The funds provide technical and financial assistance to identify, protect, conserve, manage, enhance or restore habitat or species on both public and private lands.

Eligibility: None,

Award: \$1,000 to \$1,000,000, or greater.

Restrictions on the time permitted to spend the money awarded.

Resource: <https://www.cfda.gov/?s=program&mode=form&tab=step1&id=46cbf00533c70f688e89c73d9c209d62>

Lake-Side Node

Grant: Great Lakes Restoration (Fish & Wildlife Services)

About: Accountability, Education, Monitoring, Evaluation, Communication and Partnerships, including the implementation of goal- and results-based accountability measures, learning initiatives, outreach and strategic partnerships.

Award: \$1,000 to \$1,000,000, or greater.

Project Grants (Discretionary); The Great Lakes Restoration Initiative places restrictions on the time permitted to spend the funds awarded.

Eligibility: Program-specific.

Resource:

<https://www.cfda.gov/?s=program&mode=form&tab=step1&id=608e7ea2c76e37b0b346877339909ca6>

VIII Appendix

[ADDITIONAL FUNDING SOURCES: LOANS]

NY State Renewable energy - Solar Panel Opportunities

- Solar Panels Installation
- (Solar Financing: <https://www.nyserda.ny.gov/All-Programs/Programs/NY-Sun/Customers/Solar-Financing-Options>)

Loans for Solar Financing

A. Description: For small businesses and not-for-profit organizations, Participation Loans of up to \$100,000 at below the market interest rate and On-Bill Recovery loans of up to \$50,000 at 2.5% interest are available, with repayment periods of up to 10 years;

B. Application: Before applying for energy efficiency financing, small business and not-for-profit customers must obtain a Qualified Energy Assessment. Only measures recommended on a Qualified Energy Assessment can be financed through NYSERDA's Small Commercial Energy Efficiency Financing. NYSERDA offers free Qualified Energy Assessments to small business and not-for-profit customers across New York State that have an average annual electric demand of 100 kW or less. (NYSERDA's webpage for Small Commercial Energy Assessments: www.nyserda.ny.gov/small-commercial-energy-assessment)

C. Specific information: <https://www.nyserda.ny.gov/All-Programs/Programs/NY-Sun/Customers/Solar-Financing-Options>

2. PON 3082 NY-Sun Commercial / Industrial Incentive Program

A. Description & Key Qualifications: The New York State Energy Research and Development Authority (NYSERDA) offers performance-based incentives for the installation of new grid-connected solar photovoltaic (PV) systems greater than 200 kW that offset the use of grid-supplied electricity. PV systems must be sized primarily to serve project load. Funding for the NYSun Commercial/Industrial (>200 kW) Program has been allocated as part of the Clean Energy Fund with additional funding made available through the Regional Greenhouse Gas Initiative (RGGI) for New York State (NYS) electricity customers and the Order Authorizing the Clean Energy Fund Framework, dated January 21, 2016. Incentives will be allocated on a first-come, first-served basis.

B. Application deadline: applications will be accepted on a rolling basis through December 29, 2023, or until funds are fully committed, whichever comes first. Incentives available are subject to change.

C. Specific Information: <https://www.nyserda.ny.gov/Funding-Opportunities/Current-Funding-Opportunities/PON-3082-NY-Sun-Commercial-Industrial-Incentive-Program>

[ADDITIONAL FUNDING SOURCES: GRANTS]

Grant: Environmental Protection Fund Grant Program for Parks, Preservation and Heritage (EPF)

About: One application covers all three program areas (Parks, Historic Preservation, Heritage Areas). The Historic Preservation program is to improve, protect, preserve, rehabilitate, restore or acquire properties listed on the State or National Registers of Historic Places and for structural assessments and/or planning for such projects.

Eligibility: Properties not currently listed, but scheduled for nomination review at the State Board for Historic Preservation meeting of either June 15, 2017, or September 14, 2017, are eligible to apply. All work must conform to the Secretary of the Interior's Standards for the Treatment of Historic Properties. To ensure the public benefit from the investment of state funds, preservation covenants or conservation easements will be conveyed to the State (OPRHP) for all historic property grants.

Award: \$16,000 - \$600,000

Resource: <https://parks.ny.gov/grants/historic-preservation/default.aspx>

Grant: Great Lakes Restoration Initiative

About: Reduce Runoff from Degraded Sites through Green Infrastructure: Gallons of stormwater runoff avoided from degraded sites through improved green infrastructure using trees and other vegetation. (Bioswales)

Eligibility: Nonprofit organizations, educational institutions, and local governments.

Award: \$50,000- \$200,000

Resource: https://www.na.fs.fed.us/watershed/gl_restore_initiative.shtm

Grant: Youth Engagement, Education, and Employment (Fish & Wildlife Services)

About: Recipients will use the assistance in rural and urban settings to fulfill the need for exposure of youth of all ages to nature and conservation; stewardship of our lands, waters and wildlife; as well as to enhance and sustain cultural heritage. The intent of these education, career and leadership development programs is to engage, educate, and employ youth participants in the various fields of natural resources conservation – fisheries management, habitat restoration, invasive species, pollinators, marine biology, migratory birds, strategic planning and lands management – consistent with the Service's mission.

Eligibility: Local governments, public nonprofit institution/organization, other public institution/organization.

Award: \$750.00 - \$200,000.

Resource: <https://www.cfda.gov/?s=program&mode=form&tab=step1&id=e2b3700bb6b3261bd5964126dec9aea8>

Grant: Youth Engagement, Education, and Employment (Fish and Wildlife Services)

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of youth of all ages to nature and conservation; stewardship of our lands, waters and wildlife; as well as to enhance and sustain cultural heritage. The intent of these education, career and leadership development programs is to engage, educate, and employ youth participants in the various fields of natural resources conservation – fisheries management, habitat restoration, invasive species, pollinators, marine biology, migratory birds, strategic planning and lands management – consistent with the Service’s mission.

Eligibility: Local governments, public nonprofit institution/organization, other public institution/organization.

Award: \$750.00 - \$200,000.

Resource:<https://www.cfda.gov/?s=program&mode=form&tab=step1&id=e2b3700bb6b3261bd5964126dec9aea8>

Grant: Youth Conservation Services (Department of Defense)

About: Provide young adults and veterans with real life work experiences in the stewardship of the environment in all fifty states by offering opportunities for education, leadership and personal development to the Recipient’s participants, while providing a high quality public service in natural resources/recreation management and conservation.

Eligibility: Organization related to youth/student/veteran education in a conservation oriented environment; past performance in the areas of resource management, conservation, recreation management, visitor services and cultural resources and assistance to youth; non-profit status is required.

Award: N/A; Cooperative Agreement.

Resource: <https://www.cfda.gov/?s=program&mode=form&tab=step1&id=4d4285648e2c51a33b9cb5bf7300736f>

Grant: Fruit Tree Orchard Grant

About: Orchard recipients utilize trees and harvest strictly for the benefit of the community and their charitable mission and not for any for-profit enterprise. Environmental benefits, Educational purposes, as community assets

Eligibility: County government entity.

Award: Free trees

Resource: <http://www.ftpf.org/index.php>

Grant: NRG Community Grants

About: Education grants and scholarships strengthen international understanding, cultural exchange, environmental education, entrepreneurial education and/or local knowledge of the independent power generation business and help to meet the educational needs of communities where we operate

Eligibility: Organizations and initiatives that have a meaningful and direct impact on the community, as well as nonprofit organizations and initiatives that are supported in partnership with the community.

Award: Varies

Resource: <http://www.nrg.com/company/community/grant-requests/>

Grant: Small Wind Turbine Program

About: The program is intended to increase the amount of clean, renewable energy from wind that is generated in New York State. Approximately \$6 million in incentives are available to support installation of behind-the-meter, on-site wind energy systems in the State. Incentives are based on the expected annual energy output (AEO) of the proposed wind energy system, as calculated by the Wind Professional Wind Resource Report determined from the New York State Small windExplorer. Customers can include residential, commercial, institutional or government users. The maximum equipment size is 2 MW per site per customer. NYSERDA's incentive cannot exceed 50% of the total installed cost of the system, which must be connected to the electric grid.

Eligibility: Institutional or government users. The maximum equipment size is 2 MW per site per customer. NYSERDA's incentive cannot exceed 50% of the total installed cost of the system, which must be connected to the electric grid.

Award: Varies

Resource: <https://www.nysERDA.ny.gov/All-Programs/Programs/Small-Wind-Program>

Grant: Great Lakes Restoration (Fish & Wildlife Services)

About: Accountability, Education, Monitoring, Evaluation, Communication and Partnerships, including the implementation of goal- and results-based accountability measures, learning initiatives, outreach and strategic partnerships.

Award: \$1,000 to \$1,000,000, or greater. Project Grants (Discretionary); The Great Lakes Restoration Initiative places restrictions on the time permitted to spend the funds awarded.

Eligibility: Program-specific.

Resource: [https://www.cfda.](https://www.cfda.gov/?s=program&mode=form&tab=step1&id=608e7ea2c76e37b0b346877339909ca6)

[gov/?s=program&mode=form&tab=step1&id=608e7ea2c76e37b0b346877339909ca6](https://www.cfda.gov/?s=program&mode=form&tab=step1&id=608e7ea2c76e37b0b346877339909ca6)

Grant: Recovery Act Funds - Habitat Enhancement, Restoration and Improvement (Fish & Wildlife Services)

About: Assistance is provided to fund projects that improve habitat and/or any related activity necessary to accomplish this goal. Funds may be used for habitat assessments, protection and restoration of public and private land and may include alternative/renewable energy efficient projects. Funds may also be used to encourage public usage by providing access and education. Providing fish passage and stocking of fish from National and/or State Fish Hatcheries and advising on wildlife management techniques may be management tools considered. The funds provide technical and financial assistance to identify, protect, conserve, manage, enhance or restore habitat or species on both public and private lands.

Eligibility: None.

Award: \$1,000 to \$1,000,000, or greater. Restrictions on the time permitted to spend the money awarded.

Resource:[https://www.cfda.](https://www.cfda.gov/?s=program&mode=form&tab=step1&id=46cbf00533c70f688e89c73d9c209d62)

[gov/?s=program&mode=form&tab=step1&id=46cbf00533c70f688e89c73d9c209d62](https://www.cfda.gov/?s=program&mode=form&tab=step1&id=46cbf00533c70f688e89c73d9c209d62)

Grant: North American Wetlands Conservation Fund

About: Enhance wetland ecosystems and other habitat for migratory birds and other fish and wildlife. Projects must provide long-term conservation

Eligibility: Available to any private or public organization or individual

Award: Project Grants (Discretionary), some matching possibly, Grant funds should be spent within the 1-2 year grant period, although the grant period can be extended for reasonable cause.

Resource:[https://www.cfda.](https://www.cfda.gov/?s=program&mode=form&tab=step1&id=a3ad810cad0f5371dadbd820eb8ed8d3)

[gov/?s=program&mode=form&tab=step1&id=a3ad810cad0f5371dadbd820eb8ed8d3](https://www.cfda.gov/?s=program&mode=form&tab=step1&id=a3ad810cad0f5371dadbd820eb8ed8d3)

Grant: Great Lakes Restoration (Fish and Wildlife Services)

About: Accountability, Education, Monitoring, Evaluation, Communication and Partnerships, including the implementation of goal- and results-based accountability measures, learning initiatives, outreach and strategic partnerships.

Eligibility: Program-specific.

Award: \$1,000 to \$1,000,000, or greater. Restrictions on the time permitted to spend the funds awarded.

Resource: [https://www.cfda.](https://www.cfda.gov/?s=program&mode=form&tab=step1&id=608e7ea2c76e37b0b346877339909ca6)

[gov/?s=program&mode=form&tab=step1&id=608e7ea2c76e37b0b346877339909ca6](https://www.cfda.gov/?s=program&mode=form&tab=step1&id=608e7ea2c76e37b0b346877339909ca6)

Grant: Migratory Bird Joint Ventures (Fish and Wildlife Services)

About: To protect, restore, and enhance wetland and upland ecosystems for the conservation of migratory birds.

Eligibility: Local government agencies, private nonprofit institutions/organizations; public nonprofit institutions/organizations.

Award: Discretionary; 2 year period for expenditure of funds is the norm

Resource:[https://www.cfda.](https://www.cfda.gov/?s=program&mode=form&tab=step1&id=1eaef4624957a1657f3b29ce5fb43166)

[gov/?s=program&mode=form&tab=step1&id=1eaef4624957a1657f3b29ce5fb43166](https://www.cfda.gov/?s=program&mode=form&tab=step1&id=1eaef4624957a1657f3b29ce5fb43166)

Grant: Migratory Bird Monitoring, Assessment and Conservation (Fish and Wildlife Services)

About: Working with others to conserve, enhance, and better understand the ecology and habitats of migratory bird species.

Eligibility: Local;Public Nonprofit Institution/Organization; Other Public Institution/Organization; Nonprofit Institution/Organization; Quasi-Public Nonprofit Institution/Organization; Other Private Institution/Organization.

Award: Discretionary

Resource:[https://www.cfda.](https://www.cfda.gov/?s=program&mode=form&tab=step1&id=0ff95f70a0cf0f16599cbbbf56daf85c)

[gov/?s=program&mode=form&tab=step1&id=0ff95f70a0cf0f16599cbbbf56daf85c](https://www.cfda.gov/?s=program&mode=form&tab=step1&id=0ff95f70a0cf0f16599cbbbf56daf85c)

Grant: Invasive Species (Fish and Wildlife Services)

About: To encourage coordination and integration of efforts between the U.S. Fish and Wildlife Service (USFWS) and interested parties to accomplish successful prevention or management of invasive species. Projects must conserve, protect, and enhance fish, wildlife and plants for the continuing benefit of the American people.

Eligibility: Local governments, educational institutions, private and public nonprofit organizations, and institutions and private individuals which support the mission of the Service.

Award: Discretionary

Resource:[https://www.cfda.](https://www.cfda.gov/?s=program&mode=form&tab=step1&id=2c74657cef78ba9947ff10ba54eceb2b)

[gov/?s=program&mode=form&tab=step1&id=2c74657cef78ba9947ff10ba54eceb2b](https://www.cfda.gov/?s=program&mode=form&tab=step1&id=2c74657cef78ba9947ff10ba54eceb2b)

Grant: ecoSTEM® Resource Kit Grant (Captain Planet Foundation)

About: Captain Planet Foundation has developed four ecoSTEM Resource Kits (healthy soil and zero waste, pollination, renewable energy, and watershed/ water quality kit themes) – which are perfect for educators just getting started with project-based learning. These custom-curated and designed collections of lessons and materials facilitate STEM learning and using the environment as a context for applying knowledge. Kits include cutting-edge project techniques, 3-dimensional learning, citizen science, and the best materials and equipment identified for each project.

Eligibility: All U.S. educators (formal or informal) interested in project-based learning

Award: 50% match by CPF through DonorsChoose.org (based on availability of funds)

Resource:<http://captainplanetfoundation.org/ecostem-grant/>

Grant: Wild Ones

About: Programs that include (1) youth engagement in planning and doing (age-appropriate), (2) creation of an ecosystem community based on native plants and (3) focus on hands-on educational activities. Examples include wildflower gardens featuring nectar and larval plants for butterflies and other pollinators, grove of native shrubs and trees that provide food and shelter for songbirds, and a wetland edge, perhaps part of a man-made stormwater detention basin or drainage channel, or on the bank of a natural pond or stream.

Eligibility: Focused on school yards, but other locations will probably be considered

Award: discretionary

Resource:<https://www.wildones.org/seeds-for-education/sfe/how-your-project-can-qualify-for-grant-funding/>

[PROGRAMMING 4-H PROGRAMS AND POSSIBLE ADAPTATIONS FOR SNC]

The Cornell Cooperative Extension provides educational outreach and instruction through regional 4-H programs. The 4-H program provides informal educational opportunities to youth ages 5-19 with focuses on: Science Engineering and Technology, Animal Science, Natural Resources, Plant Science, Food and Nutrition, Fiber Science, Youth Community Action, and Trips and Tours.

Working within the educational strategies of existing 4-H programs could help strengthen SNC's programming outreach while allowing them to become potential long term educational partners with 4-H programs. This kind of partnership could have numerous social, educational, and financial benefits. Currently the 4-H program of Oswego hosts numerous educational events at the Amboy Environmental Education Center. It is possible that the SNC could serve a similar function for other local 4-H chapters, or that they may initiate a new chapter within Sterling.

Currently the Amboy Environmental Education Center is used for day trips and occasionally overnight visits, and visits are priced accordingly as outlined below:

"The Amboy 4-H Environmental Education Center is a 150-acre nature preserve located in eastern Oswego County. The mission of the facility is to promote responsible environmental stewardship by developing a greater understanding, awareness, and appreciation of the natural world and people's relationship to it. The Amboy 4-H Environmental Education Center is a laboratory where youth and adults can observe nature first hand, alone or under the guidance of the facility's environmental educators. All programs take place outdoors after a brief instructional period and can be adapted to any grade level. Overnight use of the facility is available for a minimal fee.

Cost:

1 Program - \$3.00 per person (\$30.00 minimum) 2 Programs - \$4.00 per person (\$50.00 minimum)

Teachers and aides are free. Parent chaperones are asked to pay the program cost.

Payment can be made on the day of the field trip or with a purchase order. Cash or check only."

Selected current 4-H Programs and possible adaptations to SNC

Adaptations

Audience: 3rd-7th

Program Length: 45-60 minutes

Availability: Year-round (Indoor or Outdoor)

About: Animals and plants have special behaviors and physical traits that help them survive in their environment. Students learn what an adaptation is during a brief instructional period. Afterward they will venture into the nature preserve to investigate how local fauna and flora have adapted to their environment.

Spaces Needed: Indoor educational space or permanent display

Outdoor Component: None required, exploratory

What the SNC could provide: A new habitat that highlights particular species or ecosystems unique to the nature center

Cost: Initial cost of display and educational materials

Animal Tracks and Traces

Audience: K-4th

Program Length: 45-60 minutes

Availability: Year-round

About: Students actively investigate the woods to discover how animal tracks and traces reveal varying habits, physical characteristics, and interactions. Students will search throughout the nature preserve for animal signs.

Spaces Needed: Indoor educational space or permanent display

Outdoor Component: Trail walk component

What the SNC could provide: A new series of trails and ecosystems through which to explore animal traces specific to the region.

Cost: Initial cost of display and educational materials

Power of Wind

Audience: 4th-8th

Program Length: 60 minutes

Availability: Year-round

About: Youth work with members of a team to design, create, build, and test wind powered devices and are given opportunities to explore wind as a potential energy source in their community.

Spaces Needed: Indoor and outdoor educational space or permanent display, potential wind turbine display

Outdoor Component: Interaction with model or educational wind turbine near lake shore

What the SNC could provide: A permanent working display highlighting wind as a renewable energy source

Cost: Initial cost of wind turbine and/or display and educational materials

Aquatic Lifecycles

Audience: K-3rd

Program Length: 45-60 minutes

Availability: Late April - October

About: The water is home to a variety of animals. During an instructional period, students will learn about the distinct lifecycles of aquatic animals. A walk to a nearby waterway will allow the students to carefully discover some of these creatures in their varying life stages.

Spaces Needed: Outdoor pond, Indoor educational space or permanent display optional

Outdoor Component: Trail walk component

What the SNC could provide: A nearby pond location to easily teach young children about aquatic lifecycles.

Cost: Nothing (Initial cost of display and educational materials optional)

Birds of Prey

Audience: 3rd-12th

Program Length: 45-60 minutes

Availability: Year-round

About: Students and educators will learn to appreciate the ecological significance of predation in natural systems and understand the role of birds of prey in the environment. They will explore predator-prey relationships, life histories and the ecology of birds of prey. Detailed species accounts of vultures, hawks, eagles, ospreys, falcons, and owls will be investigated.

Spaces Needed: Accessible outdoor trails or platforms for birdwatching, indoor educational space or permanent display

Outdoor Component: Trail walk component or transportation to bird viewing platforms

What the SNC could provide: Fantastic access to osprey and blue heron environments, unique access to Rookery, repository of binoculars for educational events

Cost: Nothing (Initial cost of display and educational materials (binoculars) optional)

Habitats

Audience: K-3rd

Program Length: 45-60 minutes

Availability: Year-round

About: Students learn that all animals and plants need homes where their survival needs (food, water, shelter, and space) are provided. After a brief instructional period, the class will go into the woods and search for habitats.

Spaces Needed: Accessible outdoor trails, (indoor educational space or permanent display optional)

Outdoor Component: Short trail walk component close to interpretative center

What the SNC could provide: Proximal access to multiple habitats (lakeshore, pond, forest) within walking distance to interpretive center.

Cost: Nothing (Initial cost of display and educational materials optional)

Nature Detectives

Audience: 3rd -6th

Program Length: 45-60 minutes

Availability: Year-round

About: Nature Detectives offers fun and easy indoor and outdoor science activities. It encourages young people to explore while discovering science and their local environment through birds.

Spaces Needed: Accessible outdoor trails, (indoor educational space or permanent display optional)

Outdoor Component: Trail walk component close to interpretative center

What the SNC could provide: Proximal access to multiple habitats (lakeshore, pond, forest) within walking distance to interpretive center, access to binoculars and birdwatching materials.

Cost: (Initial cost of display and educational materials optional, binoculars, bird identification resources)

Insectaganza Excitement

Audience: K-8th

Program Length: 45-60 minutes

Availability: April- October

About: Insects are in the cracks of the sidewalk, underneath and inside logs in the woods, and even in our houses. They are everywhere. Insects are the most abundant class of animals in the world. They can be the most destructive, as well as, the most productive. This program will introduce students to the insects. Hands-on activities will show the students why these animals are so successful.

Spaces Needed: Outdoor educational space or permanent display optional (insect hotel)

Outdoor Component: Short trail walk component close to interpretative center

What the SNC could provide: Permanent display of insect hotels or workshops on how to make insect hotels.

Cost: Initial cost of educational materials, low cost or free materials needed to make insect hotel.

Pond Life

Audience: 3rd-6th

Program Length: 60 minutes

Availability: Late April- October

About: The pond environment is filled with fascinating creatures and their interactions. Students will observe and learn about the pond environment through hands- on activities. Subject material varies due to class needs and grade level

Spaces Needed: Access to still pond and or space for discussion of pond life

Outdoor Component: Walk to pond, possible direct interaction with pond life

What the SNC could provide: Permanent displays about habitats and pond life, availability of educational materials at the Pond Node.

Cost: Initial cost of educational materials

Journey from Orchard to Table

Audience: K-4th

Program Length: 45-60 minutes

Availability: Year-round

About: Youth will discover through role- playing how many agriculture related careers are involved as an apple journeys from the orchard to the table.

Spaces Needed: Possible temporary displays, can make use of current apple cider maker to demonstrate cider making from orchard apples.

Outdoor Component: Time spent in growing orchard, discussing planting, pruning, grafting, marketing and harvesting of apples

What SNC could provide: Various educational programs regarding orchard design and growth as the new orchard is installed and grows on site

Cost: Cost of orchard trees (potential grant), physical labor to install and maintain orchard, educational materials

Buzzing About

Audience: 2nd-5th

Program Length: 45-60 minutes

Availability: Year-round

Students learn about the honeybee, honey production, parts of a flower and pollination. In the process of playing a game, they learn about plant pollination as they pretend to be honey bees and apple trees.

Spaces Needed: Possible temporary or permanent display, indoor or outdoor gathering space (New interpretive center)

Outdoor Component: Possible interaction with garden planned for outside the new interpretive building

What SNC could provide: Close access to a variety of flowers and pollinators through the planned garden next to the new interpretive center.

[DETAILED SITE HISTORY]

EARLY HISTORY

1770s: The parcel of land on which the Jensvold House (now the present Interpretive Building) is part of three Revolutionary War Military Tracts.

1860s: The land parcel was owned by Edmund Bridges. The surrounding area covering much of where the SNC is now was used for agricultural activity through the early 1900's.

1876: Edmund Bridges, dies and the ownership of the property goes to his second son, Edmund H Bridges. Edmund H continued to own and operate the farm into the early 1900s, but he had retired by 1910 and was living off his Civil War pension.

1933: The property is sold to Christopher Jensvold. After graduating from West Point Military Academy in 1904, he served as a 2nd lieutenant in the US Army at Fort Ontario in Oswego. By 1915, he had become the President and Manager of the Aluminum Container Corp in Fulton, NY, which specialized in metal stamping and forming. Mr. Jensvold lived the remainder of his days in the Jensvold house.

1959: Mr. Jensvold dies and his ashes were scattered on the property, among the birch trees along the shore of Lake Ontario.

1971 - 1977: Rochester Gas and Electric (RG&E) purchase 23 adjacent parcels of land (including the Jensvold Property), total 2,800 acres for \$28 million dollars.

1976: RG& E recieved approval from the Atomic Energy Commission to build a 1150 Megawat Nuclear Power Plant.

1980: The plant is dismantled due to public objection.

1982: A low-level radioactive waste storage facility is proposed for the site by the New York State Department of Environmental Conservation (DEC), but the geology of the site makes it an unfit storage site.

1991: A regional landfill is proposed as a use for the site. Strong public opposition defeats the proposal, and results in the creation of concerned citizens group (the Sterling Site Task Force SSTF).

1990: The SSTF receives a federal grant to develop a feasibility study of the 2,800 acres owned by RG&E.

1992: The SSTF completes the feasibility study and recommends government purchase of the land to preserve roughly 1,350 acres, while making the remaining land available to private development.

CAYUGA COUNTY OWNERSHIP

1994: Cayuga County (with the Trust for Public Lands) negotiates an agreement with RG&E to acquire the property for \$2.8 million.

1995: Cayuga County and the Town of Sterling enter into an Intermunicipal Agreement. The Town agrees to contribute \$500,000 towards the cost of the purchase of the Sterling property. Negotiations ensue with New York State Office of Parks, Recreation and Historic Preservation (NYS OPRHP) to create conservation easements that would cover 1,316 of the 2,800 acres. The proposed easements

are intended to create a large natural area for the people of New York State for various recreational and educational pursuits. The County decides to retain approximately 200 additional acres of land to use for future utility development if needed. The remaining 1,300 acres are deemed surplus property and was to be sold to private owners in order to recoup the money spent to purchase the property from RG&E.

1995: The Sterling Site Commission is formed to oversee the sale of the 1,300-acre surplus property.

1997: A not-for profit group of volunteers, The Friends of Sterling Nature Center, is founded to help the county manage the retained lands as a Nature Center. John Weeks is hired as a consultant by the Sterling

Site Commission to begin the development of the site as a Nature Center, and to work with the Friends group to start the implementation of the process.

1998: The easements negotiated by the County with NYS OPRHP are approved.

2005: Surplus land is sold to Mr. Lamar Witmer for a little over \$1 million.

2005: The county passes Resolution #468-05 accepting an additional 28.5 acres of wetlands south of, and adjacent to, The Sterling Preserve. For this plan the property is included as part of The Sterling Preserve although it is noted that it has not yet been designated as parkland or placed under easement.

