Windham Endowment
For
Community Advancement

Academic Greenhouse
Project Charter

May 15, 2015

Document Version 3.1
Table of Contents

Revision History ............................................................................................................. 3
Executive Summary ......................................................................................................... 4
Background .................................................................................................................... 4
Creation of the Endowment ............................................................................................. 4
The Endowment’s Capital Campaign for Windham High School............................. 5
Greenhouse Sub-Committee Created ............................................................................. 5
Project Progress ............................................................................................................. 5
Fundraising ..................................................................................................................... 5
Site and Structure .......................................................................................................... 5
Windham High School Greenhouse Curriculum Integration Plan ......................... 6
Objectives ....................................................................................................................... 6
Scope ............................................................................................................................... 7
Proposed Architecture .................................................................................................... 7
Preliminary Project Budget ............................................................................................. 8
Implementation Approach ............................................................................................... 9
High Level Schedule ...................................................................................................... 9
Resources ....................................................................................................................... 10
Assumptions .................................................................................................................. 10
Risks ............................................................................................................................... 10
Project Team .................................................................................................................. 11
# Revision History

The following is a listing of the changes that have been made to this document.

<table>
<thead>
<tr>
<th>Date</th>
<th>Version</th>
<th>Description</th>
<th>Author/Editor</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/15/2010</td>
<td>1.0</td>
<td>Original Document</td>
<td>C. Maw/D. Carpenter/B. Coish/M. Crisler</td>
</tr>
<tr>
<td>12/2/2010</td>
<td>1.1</td>
<td>Edits from WECA</td>
<td>C. Maw</td>
</tr>
<tr>
<td>1/29/2011</td>
<td>1.2</td>
<td>Edits for Academic Curriculum</td>
<td>A. Lecaroz</td>
</tr>
<tr>
<td>2/8/2011</td>
<td>1.3</td>
<td>Edits to Background</td>
<td>D. Carpenter/C. Maw</td>
</tr>
<tr>
<td>4/12/2011</td>
<td>1.4</td>
<td>Updates to Project Progress</td>
<td>C. Maw</td>
</tr>
<tr>
<td>2/21/2012</td>
<td>1.5</td>
<td>Updates to Project Progress</td>
<td>C. Maw</td>
</tr>
<tr>
<td>5/1/2012</td>
<td>1.6</td>
<td>Updates to Project Progress</td>
<td>C. Maw</td>
</tr>
<tr>
<td>11/16/2013</td>
<td>1.7</td>
<td>Updates to Project Progress</td>
<td>D. Carpenter/C. Maw</td>
</tr>
<tr>
<td>4/15/2014</td>
<td>2.0</td>
<td>Updates to Project Progress</td>
<td>D. Carpenter/C. Maw</td>
</tr>
<tr>
<td>5/15/2015</td>
<td>3.0</td>
<td>Updates to Project Progress</td>
<td>D. Carpenter/C. Maw</td>
</tr>
</tbody>
</table>
Executive Summary

The future of our society and our planet depends on our young people. As such, it is critical to their overall development as good students and citizens that we provide them with every opportunity to understand the fragility of their surroundings and how they can care for, cultivate and preserve the environment and our food supply.

A full appreciation of environmental science, botany and agriculture is best developed through a hands-on experience. To that end, the Windham Endowment for Community Advancement (WECA) Greenhouse Project Team will work with the Windham School Board, teachers and the community to design, construct and sustain an academic greenhouse to support the education process of our Windham students.

The goal of the Greenhouse Project Team is to work in cooperation with the School Board and the High School Faculty and Administration to properly plan for the addition of this resource while working aggressively to raise sufficient funds to deliver the project for the 2014-2015 school year.

Critical components to the success of this project include:

- Securing a suitable location for the structure that will provide access to utilities, proximity to classrooms, proper exposure to sunlight and space for the greenhouse structure and materials storage. – location identified, preliminary School Board approval
- Gaining the input, support and human resources from Windham High School Faculty, Administration and Students for the planning, engineering, marketing, fund raising and grant writing components of the project
- Designing a structure that will meet the educational, functional and esthetic goals of the Windham faculty, school board and community.
- Campaigning to raise sufficient funds to support the design, construction and supplies required to establish the greenhouse
- Careful planning and solicitation of bids to ensure the best quality and value of the end product
- Oversight of the construction process to meet all established goals and specifications of the project
- Development of Curriculum by High School faculty designed to maximize the educational experience and use of the resource
- Establishment of a plan and budget for the ongoing maintenance required to sustain the resource in good working order

Background

Creation of the Endowment:

In late 2004, a group of Windham citizens began to explore the possibility of providing private donations to enhance our community. A volunteer Board of Directors, including a Library Trustee and School Board member, was formed to investigate a community foundation in Windham. In January 2005, the Windham Endowment for Community Advancement was registered with the State of New Hampshire and in August 2006, the IRS approved our tax-exempt status as a Section 501(c)(3) organization.

Today, the Windham Endowment has established partnerships with and funds for several organizations in town. In addition to the General Endowment and the General Scholarship Funds, dedicated funds exist for Fine Arts, WIRE (alternative energy), The Greenhouse Project, the Nesmith Library, the Windham Community Bands, the Windham Historic Commission, the Coish Family Scholarship, and Boy Scout Troop 266. Tax-deductible contributions to any of these funds can be made or individuals can create a new fund for their favorite Windham organization or interest.
The Endowment's Capital Campaign for Windham High School:

In January of 2008, with a clear indication from the community that there was support for the Endowment, and recognizing the significance of the first high school in the history of our community, the Board of Directors of the Windham Endowment chose enhancement of the new Windham High School as the focus for its first Capital Campaign. The goal was to expand the scope of the high school beyond what was covered by the bond, helping to create a preeminent facility at the core of the community’s life.

The Board further identified three main areas to support: Fine Arts, Science, and Alternative Energy. Working with the School's Administration and Faculty, the Windham School Board, and Community Members with expertise in these areas, a project list was created.

Specifically, in the area of Science, a greenhouse was a top priority as it would incorporate many disciplines under one roof and was always desired by the team creating the new school, but funds were just not available.

Through the generosity of many donors, the Endowment raised over $125,000 for Fine Arts, WIRE (alternative energy), and the Greenhouse Project. Contributors of $1,000 or more to the Capital Campaign were recognized on a plaque displayed in the lobby of Windham High School with an unveiling and reception for the donors in May of 2011.

Greenhouse Sub-Committee Created:

Advancing a greenhouse at the high school would require the expertise of many in a focused initiative. To further our goals, a sub-committee was put in place during the spring of 2009 with Cheri Maw as the sub-committee Chair.

At its meeting in July 2009, the Windham School Board supported the concept of a greenhouse at the high school and requested that the subcommittee work directly with the high school administration and faculty to determine the scope of work. Simultaneously, the sub-committee, working directly with the Endowment, began raising seed money to determine the feasibility of privately funding this project.

Project Progress

Fund Raising:

We have successfully raised initial funds, affirming community interest in this project. As of May 15 2015, WECA has raised over $50,000 towards the project with funding coming from individual, corporate, and private organizations. We have secured a $25,000 matching grant to fund our remaining balance, which, if fully realized will bring the funds necessary for the project to completion. bringing our overall total to 75% of project costs. A campaign will be launched during spring/summer 2015 to raise the remaining $25,000. Fulfilling the match will fully-fund the greenhouse project.

The Greenhouse Project now a directed fund at the Windham Endowment. It is our hope that residents will continue making the Windham Endowment part of their annual charitable giving, directing their gift to the Greenhouse Project.

Site and Structure:

Team Greenhouse spent the spring and summer of 2010 working with high school faculty, administration, and staff at the UNH Cooperative Extension to learn about greenhouses, construction options, and the various purposes performed by each.

During the winter months of 2010/2011, core members of the Project Team met with WHS Facilities Director, High School Principal Tom Murphy, Science Dean Mary Anderson and Science Teacher Christie
Johnson to solicit input on potential sites, construction logistics and structure requirements. Two potential sites were proposed; the “ambulance” parking lot located across from the baseball field, and the space adjacent to the athletic building in the west parking lot. A solar evaluation of these sites as well as a third location was performed in March 2011 to determine the viability of each. These sites were presented to the School Board during their April 1, 2011 session. During that session, the board approved a motion to support the initiative with oversight from WHS Facilities Director and appointed Dr. Bruce Anderson as the School Board Liaison to the Greenhouse Project.

In December 2011 meeting with Dr. Anderson, Principal Tom Murphy and WHS Facilities Director, a new site was suggested. This location would allow for a 30’ by 40’ structure attached to the rear of the school building through the wood shop exit doors. An ideal spot for solar benefits, its accessibility would facilitate use by all students. The greenhouse attached to the school building would provide economic advantage for construction cost and ongoing maintenance.

The new site was reviewed by Deputy Fire Chief William Martineau for safety and as of February 27, 2012, appears to be the most favorable location. Final validation would be required by Mike McGuire, Windham Building Inspector and the School Board.

John Wells from Rimol Greenhouse Systems, Inc. in conjunction with WHS Facilities Director developed the structural specifications required for the Project Team to apply for grants. In May 2012, a grant application was submitted to the State Farm Youth Advisory Board. Our project was not awarded funds; however, the response from State Farm reinforced the need for more direct involvement from our High School youth.

The project was put on hold until fall of 2014 as the project team worked to gain support from changing faculty, Administration and School Board for this facility. With the Dean of Science Bethany Bernasconi leading the greenhouse academic planning as well as support from Administration, the project was revitalized in November 2014. A new location was identified that would attach to the high school structure with direct access into a science classroom. Although the new structure will be smaller than originally planned, now 16’ x 37’, the improved location will enhance the practical use of the facility.

The project team’s current focus is finalize design and construction plans, secure all funding and present a completed proposal to the School Board for acceptance during the summer of 2015.

Windham High School Greenhouse Curriculum Integration Plan: - high level draft

The Greenhouse will allow the Windham High School (WHS) to expand the curriculum and opportunities for students in a variety of areas. It will provide needed space for students to conduct experiments and to enhance discovery learning.

The plan is for the greenhouse to be integrated into the following classes:

- Biology – Students will learn about botany and conduct experiments to explore the intricacies of plant growth.
- Botany- Students will explore the science of botany at a deeper and more hands-on level.
- Cooking- Students will grow herbs, vegetables, and other edible plants for use in cooking.
- Art- Students will utilize the plants growing as models for art projects.
- Business- Students will market and sell plants grown in the greenhouse.

All students will have access to the greenhouse at some point in their four years at WHS through the required science course, Biology. Students will gain additional exposure through the other elective courses, Botany, cooking, art and business.
Objectives

• Complete fund raising through matching campaign
• Foster community interest and support of the project through Marketing Campaign
• Finalize approval of site with School Board and Building Inspector
• Develop a design and specifications for the greenhouse based on the identified location
• Solicit bids for the construction of the greenhouse
• Define project management resources to oversee the construction
• Finalize the curriculum that will make use of the greenhouse
• Develop a maintenance plan for the ongoing support of the greenhouse structure

Scope

The scope will include:
Design and specification for the greenhouse in support the academic mission of the High School
Management of the bidding and construction process
Funding to support the capital cost for the design and construction of the Greenhouse
Funding allowance to support the first 18 - 24 months of operating costs and materials for the greenhouse to coincide with budgeting process

The scope will not include:
Curriculum
Ongoing financial support for the maintenance, personnel and equipment required to support the structure and curriculum. NOTE: It is the desire of this committee that revenues generated from the sale of produce and herbs grown through greenhouse programs will support the ongoing operational expense of the structure.

Proposed Architecture and Site Requirements

Greenhouse structure will require:
Polycarbonate structure approximately 16’ by 37’
Site prep and foundation with conduit for electrical and water
Flooring
Heating, cooling and ventilation systems
Computerized watering system
Benches/tables
Shelving and bins for equipment and potting materials (storage area)
Storage Area
Preparation area
Equipment: drain trays, stakes, trowels, pots

Site must have:
Access to electricity and water
Room to support storage shed and preparation area
South facing exposure
Convenient access by students
Implementation Approach

Phase 1: Identify site
The Greenhouse Project Team will work with the School Board and School Administration to identify and secure a suitable site for the greenhouse structure NOTE: Site has been identified

Phase 2: Fund Raising
The Greenhouse Project Team will launch fund raising initiatives to secure the required capital for the project with an initial target of $100K. Goals will be revised according to Phase 3 and 4 requirements.

Phase 3: Greenhouse Specifications
Based on the defined site, the Greenhouse Project Team will develop design and engineering requirements and overall specifications of the greenhouse and supporting structures. An RFP will be developed as a result of this work effort.

Phase 4: Approval process
The Project Team in collaboration with School Administration will present the finalized design, budget and committed funding proposal to the School Board for official acceptance of the project and approval to proceed with construction. A Project Oversight Committee will be designated to monitor the vendor’s project management and construction progress.

Phase 5: Construction
Project construction and vendor project management will be monitored by the Project Oversight Committee whose representation will include Greenhouse Project Team, School Administration & Faculty and School Board. As the final step in this phase, all equipment and materials required to support the academic curriculum will be installed and provisioned.

Phase 6: Greenhouse Curriculum Initiation
Academic curriculum defined in the early project stages will be fully developed and incorporated into the academic program once the construction phase has been completed.

Phase 7: Greenhouse Support Transition
Maintenance and support for structure will be provided by the Project Team for an initial period of time. Requirements and procedures will be evaluated and documented for transition of responsibility.

High Level Estimated Schedule

<table>
<thead>
<tr>
<th></th>
<th>Activity</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identify Site for Greenhouse</td>
<td>completed</td>
</tr>
<tr>
<td>2</td>
<td>Fund Raising Initiatives</td>
<td>6/2010 through 7/2015</td>
</tr>
<tr>
<td>3</td>
<td>Engineering &amp; Design for site and structure</td>
<td>6/2015 through 8/2015</td>
</tr>
<tr>
<td>4</td>
<td>Present proposal to School Board for final approval</td>
<td>7/2015 through 8/2015</td>
</tr>
<tr>
<td>5</td>
<td>Begin construction</td>
<td>8/2015 through 9/2015</td>
</tr>
<tr>
<td>6</td>
<td>Complete construction</td>
<td>10/2015</td>
</tr>
<tr>
<td>7</td>
<td>Equip structure with required materials</td>
<td>10/2015 through 11/2015</td>
</tr>
<tr>
<td>8</td>
<td>Document maintenance procedures</td>
<td>10/2015 through 11/2015</td>
</tr>
<tr>
<td>9</td>
<td>Early life support/transition provided by Project Team</td>
<td>10/2015 through 6/2017</td>
</tr>
</tbody>
</table>
Resources
The project will require the following resources:
- A site suitable for constructing the greenhouse and supporting equipment (ventilation systems, heating & cooling systems, storage shed) NOTE: Site has been identified
- Funding to be raised by the Greenhouse Project Committee
- Support from the Windham School board in regards to space, curriculum and school resources required in the development and construction of the project.
- School administrative personnel to work with the Greenhouse Project team in the planning, development and construction phases of the project
- School faculty to develop and maintain a curriculum that will make use of the greenhouse facility

Assumptions
- The location will be provided at no cost to the project for the purpose of constructing the greenhouse.
- Curriculum will be developed and delivered by the Windham School faculty.
- The greenhouse structure and associated materials will be gifted to the School by the Windham Endowment and become an integral part of the school facility.
- The greenhouse shall be maintained by the school personnel and school operating budget after initial startup period.

Project Risks
- Funding may not be achieved (low)

Ongoing Risks
- Vandalism (low)
- Public support of ongoing operational costs (low)
## Project Team Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Position/Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diane Carpenter</td>
<td>Windham Endowment Liaison</td>
</tr>
<tr>
<td>Cheri Maw</td>
<td>Greenhouse Sub-Committee Chairperson</td>
</tr>
<tr>
<td>Michael Joanis</td>
<td>former School Board Liaison</td>
</tr>
<tr>
<td>Robin Bostic</td>
<td>Grant Support</td>
</tr>
<tr>
<td>Barbara Coish</td>
<td>Senior Center Liaison</td>
</tr>
<tr>
<td>Christie Davis</td>
<td>Grant Support</td>
</tr>
<tr>
<td>Greg Donabedian</td>
<td>Community Engagement Liaison /Local business owner</td>
</tr>
<tr>
<td>Amy Evans</td>
<td>Communications &amp; Publicity</td>
</tr>
<tr>
<td>Missy Cohen-Fyffe</td>
<td>Communications &amp; Publicity</td>
</tr>
<tr>
<td>Ray Loszewski</td>
<td>Windham Garden Club Liaison</td>
</tr>
<tr>
<td>Margaret Crisler</td>
<td>Windham Garden Club Liaison</td>
</tr>
<tr>
<td>Josie Cappiello</td>
<td>Windham Garden Club Liaison</td>
</tr>
<tr>
<td>Ray Loszewski</td>
<td>Windham Garden Club Liaison</td>
</tr>
<tr>
<td>Brian Krug</td>
<td>UNH Cooperative Extension</td>
</tr>
<tr>
<td>Nadia Haddad</td>
<td>UNH Cooperative Extension</td>
</tr>
<tr>
<td>Bethany Bernasconi</td>
<td>WHS Dean of Science</td>
</tr>
<tr>
<td>Karalyn Gauvin</td>
<td>WHS Greenhouse Faculty Coordinator</td>
</tr>
<tr>
<td>Ryan Kaplan</td>
<td>WHS Principal</td>
</tr>
<tr>
<td>Open</td>
<td>WHS Facilities Director</td>
</tr>
<tr>
<td>Open</td>
<td>WHS Student Representative</td>
</tr>
<tr>
<td>Julia Salafia</td>
<td>WHS Student Representative / Windham Junior Garden Club</td>
</tr>
<tr>
<td>Chief William Martineau</td>
<td>Windham Fire Department</td>
</tr>
<tr>
<td>Mike McGuire</td>
<td>Windham Building Inspector</td>
</tr>
<tr>
<td>Dr. Bruce Anderson</td>
<td>Academic Advisor</td>
</tr>
<tr>
<td>Open</td>
<td>School Board Liaison</td>
</tr>
<tr>
<td>John Wells</td>
<td>Rimol Greenhouse Manufacturer Representative</td>
</tr>
</tbody>
</table>