

Notice
City of Traverse City and Charter Township of Garfield
Recreational Authority Board of Directors
Special Meeting

7:00 p.m.

Wednesday, January 8, 2014

2nd Floor County Training Room, Governmental Center
400 Boardman Avenue
Traverse City, MI 49684

Posted: 1-3-14

The Authority does not discriminate on the basis of disability in the admission or access to, or treatment or employment in, its programs or activities. Makayla Vitous, Assistant City Manager, 400 Boardman Avenue, Traverse City, Michigan 49684, 922-4440, TDD: 922-4412, has been designated to coordinate compliance with the non-discrimination requirements contained in Section 35.107 of the Department of Justice regulations. Information concerning the provisions of the Americans with Disabilities Act, and the rights provided thereunder, are available from the ADA Coordinator.

If you are planning to attend and you have a disability requiring any special assistance at the meeting and/or if you have any concerns, please immediately notify the ADA Coordinator.

Recreational Authority Board of Directors
Matthew Cowall, Executive Director
324 Munson Avenue
Traverse City, MI 49686
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Agenda

Roll Call.

1. Election of officers for 2014. (Matt Cowall)
2. Consideration of approving the minutes of the regular meeting of December 4, 2013. (Matt Cowall)
3. Review of received proposals for adaptive reuse of Building 221 at Historic Barns Park. (Matt Cowall)
4. Review of a draft RFP for an event venue management contractor. (Matt Cowall)
5. Updates on construction planning for Historic Barns Park. (Matt Cowall)
6. Final policy recommendations regarding visual clutter at Historic Barns Park. (Matt Cowall, Management Entities)
7. Reports. (Matt Cowall et al)
 - Annual Goals and other updates from Management Entities at Historic Barns Park (Botanic Garden, SEEDS)
 - Any reports from Board members
 - Executive Director's report and possible verbal updates
 - Capital Campaign
8. Report regarding payment of expenditures. (Matt Cowall)
9. Public Comment.
10. Adjournment.

The City of Traverse City and Charter Township of Garfield

Communication to the Recreational Authority

FOR THE MEETING OF JANUARY 8, 2014

DATE: FRIDAY, JANUARY 3, 2014

FROM: MATT COWALL, EXECUTIVE DIRECTOR

SUBJECT: ELECTION OF OFFICERS FOR 2014

Election of officers takes place annually. The following officers were elected to serve for 2013:

Ross Biederman, Chair
Mike Groleau, Secretary
Tim Hughes, Treasurer

The following is the procedure to elect officers:

1. The Chair opens the floor for nominations for the Office of Chair.
2. Nominations can be made individually for each office, or for a slate of the Chair, Secretary and Treasurer. Any member may nominate and no second is needed.

Sample: **I nominate _____ as Chair.**

Sample for slate: **I nominate _____ as Chair, _____ as Secretary, and _____ as Treasurer.**

3. After all nominations for the office have been made, the Chair calls for a motion to close nominations, or nominations can be closed if there is no objection and sufficient time has elapsed.

(continued)

A Director could make the following sample motion:

I move that nominations be closed.

Or, the Chair could say:

It there are no other nominations and no objection, I will close the floor for nominations.

Or the motion to close nominations can be combined with a unanimous ballot to be cast if only one nomination per office.

Sample: **I move that nominations be closed and that a unanimous ballot be cast for _____ as Chair.**

Sample for slate: **I move that nominations be closed and that a unanimous ballot be cast for _____ as Chair, _____ as Secretary, and _____ as Treasurer.**

4. The vote needs to be called in the order in which nominations were made.

Sample wording for calling the vote by the presiding officer:

**All those in favor of _____ for Chair, please say “aye.”
Those opposed say “no.”
The ayes have it and _____ is elected Chair.**

5. The first candidate receiving a majority vote is then declared elected Chair/Secretary/Treasurer for 2014.
6. Follow the same procedure for electing the Secretary and Treasurer.

The City of Traverse City and Charter Township of Garfield

Communication to the Recreational Authority

FOR THE MEETING OF JANUARY 8, 2014

DATE: FRIDAY, JANUARY 3, 2014

FROM: MATT COWALL, EXECUTIVE DIRECTOR

SUBJECT: MINUTES

Attached are the minutes of the regular meeting of December 4, 2013.

The following motion would be appropriate to approve the minutes:

That the minutes of the regular meeting of December 4, 2013, be approved.

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Minutes

Regular Meeting The City of Traverse City and Charter Township of Garfield Recreational Authority Board of Directors

December 4, 2013

A regular meeting of the Recreational Authority Board of Directors was called to order in the Second Floor Large Meeting Room, Garfield Township Hall, 3848 Veterans Drive, Traverse City, Michigan, at 7:00 p.m.

The following Directors were present, constituting a quorum: Ross Biederman, Chair; Michael Groleau, Secretary; Tim Hughes, Treasurer; Molly Agostinelli; Chris Bzdok; and Jeanine Easterday.

The following Directors were absent (excused): Matt McDonough.

Chair Biederman presided at the meeting.

1.

The first item being “Consideration of approving the minutes of the regular meeting of November 6, 2013,” Chair Biederman introduced this matter. The following individual addressed the Board:

Matt Cowall, Executive Director

Moved by Bzdok, seconded by Agostinelli, that the minutes of the regular meeting of November 6, 2013, be approved.

CARRIED.

2.

The next item being “Updates on WinMock visit, construction and event planning for Historic Barns Park,” Chair Biederman introduced this matter. The following individuals addressed the Board:

Matt Cowall, Executive Director
Ray Kendra, Environment Architects

No action was taken.

3.

The next item being “Draft policy recommendations regarding visual clutter at Historic Barns Park,” Chair Biederman introduced this matter. The following individual addressed the Board:

Matt Cowall, Executive Director

No action was taken.

4.

The next item being “Reports,” Chair Biederman introduced this matter. The following individuals addressed the Board:

Matt Cowall, Executive Director
Karen Schmidt, BGHBP
Sarna Salzman, SEEDS

No action was taken.

5.

The next item being “Report regarding payment of expenditures,” Chair Biederman introduced this matter. The following individual addressed the Board:

Matt Cowall, Executive Director

No action was taken.

6.

The next item being “Public Comment,” Chair Biederman introduced this matter. The following individuals addressed the Board:

Dan Tholen

There being no objection, Chair Biederman declared the meeting adjourned at 8:28 p.m.

Matt Cowall, Executive Director

The City of Traverse City and Charter Township of Garfield

Communication to the Recreational Authority

FOR THE MEETING OF JANUARY 8, 2014

DATE: FRIDAY, JANUARY 3, 2014

FROM: MATT COWALL, EXECUTIVE DIRECTOR

SUBJECT: REVIEW OF RECEIVED PROPOSALS FOR ADAPTIVE REUSE
OF BUILDING 221 AT HISTORIC BARNES PARK

Two proposals were received by the December 18 deadline and are attached. One is from the Botanic Garden at Historic Barnes Park, and the other is from Bay Area Recycling for Charities in partnership with Traverse Aquaponics and Inhabitect. I want to acknowledge and express thanks to both applicants for the obvious time and effort they spent in preparing their proposals. I also received a written comment on the RFP with a request that it be communicated to the Board; I have included that after the two proposals.

For Wednesday, I would ask the Board to confirm its interest in exploring either or both of these proposals. Next steps could include referral to an ad hoc subcommittee for further research and/or the scheduling of interviews/presentations with the applicants. Both applicants have indicated they will be in attendance on Wednesday night to speak briefly to their proposals and answer any initial questions the Board may have.



ADAPTIVE REUSE PROPOSAL FOR BUILDING 221



BOTANIC GARDEN AT HISTORIC BARNS PARK

ADAPTIVE RE-USE PROPOSAL FOR BUILDING 221

December 16, 2013

This is a proposal from the Botanic Garden at Historic Barns Park in response to the City of Traverse City and Charter Township of Garfield Recreational Authority's Request For Proposal (RFP) for adaptive reuse of Building 221. The Botanic Garden at Historic Barns Park is a non-profit organization, and certification of nonprofit status has been previously submitted to the Recreational Authority.

CONTACT INFORMATION

Karen Schmidt, BGHBP Chair
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schmidt@acegroup.cc
www.NorthwestMichiganGarden.org

The following definitions are included for the purpose of clarity in this proposal:

BGHBP – Botanic Garden at Historic Barns Park

RA – City of Traverse City and Charter Township of Garfield Recreational Authority

MGANM – Master Gardeners Association of Northwest Michigan

Horticulture – The science and art of growing fruits, vegetables, flowers or ornamental plants

Wagon House – The original name for Building 221

Herbarium – A collection of dried plant specimens usually mounted and systematically arranged and housed in cabinets for reference

LEED – An ecology-oriented building certification that stands for Leadership in Energy and Environmental Design

PROJECT DESCRIPTION & RATIONALE

The Botanic Garden at Historic Barns Park is requesting management rights to Building 221 for the purpose of improving the park's appearance, usage, and value to the public while further enhancing the success of the Botanic Garden. Success of the garden has a positive impact on the park as a whole.

The Botanic Garden wishes to renovate Building 221 (the Wagon House) for future use as a classroom, meeting space and venue for small groups (less than 100). There are a number of reasons why this project is of great importance to the Botanic Garden, and why BGHBP's management of this building would further enhance the park and support the park's goals as identified through the Brainstorming the Barns public forums.

- Revenues for the Garden – While one of the special things about the Historic Barns Park and Garden is the fact that it is open to the public for no charge, the inability to charge an admission fee eliminates an important source of revenues for the Garden. A restored Wagon House would provide the Garden with a building that could be rented for venues such as meetings, small weddings, small concerts and recitals, and other community gatherings, and utilized for tuition-based workshops and classes sponsored by the Garden. If the garden is to succeed, it must have the necessary sources to fund its operation - funds to run and maintain the garden. As stated in the Botanic Garden's business plan, class tuition and rental fees make up an important part of the garden's revenue stream. The park, in turn, benefits from the successful operation of the garden. Necessary operational revenues not only support critical maintenance of a garden, but supportive activities such as classes, community events and fine arts programs that a garden brings to a community. The combination of a beautifully maintained garden and a wide range of program offerings enhance the appearance and value of the Historic Barns Park to the region.
- Limited building options – The Joint Traverse City and Garfield Township Planning Commission limits any new buildings at the park to those that are on the master site plan. The only building the Botanic Garden can add to the park is the future conservatory, which is included in the master site plan. For that reason, adaptive reuse of the Wagon House is especially important for the future of the Garden. As residents and visitors increasingly enjoy the facilities and programs offered by the Garden, our need for additional building space will be compounded. Yet the building options at the site are extremely limited. Building 221 is designated as a classroom on the master site plan, and would provide the classroom space that will be critical to the Botanic Garden's expanded programming.

- Impact on the Walled Garden – Thanks to a successful capital campaign and generous contributions from Garden supporters, the Botanic Garden hopes to restore the foundation of the old Horse Barn next spring for a Walled Garden. We would be investing hundreds of thousands of dollars into this project and are extremely concerned about protecting this investment. The Wagon House is situated just steps away from the main entrance to the Walled Garden and has a huge impact on that setting. By obtaining management rights to the Wagon House, the Botanic Garden would be able to assume the appropriate care and use of the building in a way that enhances the Walled Garden rather than detracting from it. The connectivity of the Walled Garden and Wagon House would allow them to function as a whole as well. For example, horticulture classes in the Wagon House classroom could include hands-on experiences in the Walled Garden. Small weddings in the Walled Garden could extend to a small reception in the Wagon House.
- Enhancing the Cathedral Barn - Management rights to the Wagon House would have a positive impact on the Recreational Authority as well. A restored Wagon House enhances the value and attractiveness for events in the Cathedral Barn. It would not only improve the site but expand the menu of services to individuals interested in renting the Barn. The restored Wagon House can be part of a larger wedding package, serving as a venue for rehearsal dinners, bridal showers, or bridesmaid luncheons, especially when the Visitor Center is in use. The park could become the ‘home site’ for all of a wedding’s activities. Groups that schedule conventions and conferences would find the Cathedral Barn to be even more ideal when additional supportive venues are available. While whole group sessions could be held in the barn, smaller breakout sessions, cocktail parties, display areas and planning sessions could be held in the Wagon House, Visitor Center, gardens and Pavilion expanding the convention/conference space and options. The Botanic Garden’s renovation of existing facilities not only provides more opportunities for the garden, but for the Recreational Authority as well.
- Expanding the Energy Park – The renovation of the Wagon House could include a variety of energy-saving and alternative-energy options that could be shared with the public. Solar panels on the roof, water reclamation, a solar lean-to greenhouse on the south wall, are just some of the demonstration projects that could be incorporated. In addition, the energy concepts and applications demonstrated at the park can be featured in classes and workshops that are held in the Wagon House by the Garden. BGHBP wants to model sustainability in all that we do, including energy conservation and alternative energy uses. This is evident in our investment in a LEED-certified Visitor Center renovation, and would also be the case with Building 221.

- Fulfilling the Mission of the Park - Through the 'Brainstorming the Barns' process, the public identified recreation, agriculture/horticulture, the arts, and community events as the four major uses of the park. With management rights to the Wagon House, the Botanic Garden would be providing a venue for a wide range of community events, demonstrations and classes, recreational activities, and experiences in the arts, which in turn would support the mission of the park. The goal of the Botanic Garden, in its management of Building 221, would be to utilize this facility to address all four of the park uses identified by the public.
- Preserving the Past - The Botanic Garden has demonstrated its interest and concern with preserving the history of this unique site – the Historic Barns Park. Building 221 was built around 1915 so it will soon be 100 years old. It housed the hospital's sleighs in the summer and wagons in the winter and was part of the 'transportation center' of the state hospital, which included the Wagon House, the Horse Barn and the Blacksmith Shop (building 223). As the Botanic Garden dedicates itself to "Preserving the Past and Planting the Future", saving and re-purposing the Wagon House as a classroom and 'community center' is part of that spirit. It has been neglected and abused – it is time to bring it back to life again in a way that benefits this community and region.
- A home for a Herbarium - One important component for a Botanic Garden's education and research programs is a herbarium – a collection of preserved plant specimens stored in display trays in a series of cabinets. BGHBP has a botanist who interested in creating a herbarium for the Garden and a possible grant source to cover the cost. Unfortunately, we have no space at this time for such a collection. A restored Building 221 would be an ideal site to house, display and utilize such a collection for our horticulture classes and botanic research.



MANAGEMENT PLAN

MISSION: The mission of the Botanic Garden at Historic Barns Park is to design, build and manage a year-round botanic garden at Historic Barns Park for the purposes of botanical and environmental preservation, education and research, and the enjoyment and renewal of visitors. That mission would be reflected in the Garden's goal for management of Building 221. The Wagon House would provide a classroom for botanical and environmental education and research as well as a venue for events that provide enjoyment and renewal of visitors. It would be a facility that assists us in achieving our vision and helping to assure our success. Since our mission speaks to the four park use areas adopted by the public through the Brainstorming the Barns process, management of Building 221 by the Botanic Garden would also support the Recreational Authority's vision for the park as a whole.

ACTIVITY: The activities at Building 221 would be an extension of our present activities at the park. Classes, workshops and meetings would be held in the classroom. Classes will be for both children and adults, with themes of horticulture, botany, ecology, sustainability and wildlife. We hope to be able to offer Junior Master Gardener classes as well as Master Gardener classes for adults at this facility. This would be an ideal space for concerts, recitals, art exhibitions, business and non-profit meetings and retreats, as well as an event venue for weddings and other celebrations. Horticulture, recreation, the arts, education, public events – activities in the Wagon House would mirror and support the public's goals for this park.

ALLOCATION: The Wagon House would be renovated in a way that would allow for the allocation of different activities in different settings of the building and immediate surroundings. Small meetings and classes would take place in the 20' x 21' meeting room/office space on the east end of the building, while larger groups would utilize the more spacious area in the middle and west end of the building. The folding window-walls, pergola and patio seating areas on the north face of the building would open up events to the outdoors. Less structured events such as an exhibition or reception could move back and forth from inside to outside. When classes or meetings are in place and the window-walls are closed, visitors to the park would still be able to enjoy the patio area between the Wagon House and the Walled Garden. The Walled Garden and the Wagon House would serve as extensions to each other as well. Horticulture classes could include both hands-on gardening experiences in the Walled Garden coupled with instruction in the classroom. Small weddings or memorial services in the Walled Garden could be followed with a reception in the Wagon House. Meetings and retreats in the Wagon House could utilize the Walled Garden during breaks. In time, a lean-to greenhouse could be constructed on the south wall of the Wagon House, providing a place for plant propagation for the garden as well as a vehicle for instruction and research. The Wagon House could also serve as one part of a larger venue as well. Weddings, conferences and conventions at the Cathedral Barn may have need of additional spaces for break-out sessions, rehearsal dinners, or other components to a larger event.

IMPROVEMENTS – We recognize that Building 221 will require extensive improvements before it can be utilized by the public. The building as it now stands is basically an empty shell in very poor repair. Although the Brownfield funds will cover the cost of removing the asbestos-contaminated roof and lead paint, it will not fund the cost of replacement. Thus, one of the first improvements by the Botanic Garden would be the installation of a new roof immediately after the old one is removed. The cost is estimated to be about \$17,000, which the board has already allocated, should we receive management rights. The cement slab floor is in such poor condition that it is beyond repair. It will have to be removed and a new insulated floor installed (sewer and water connectors for toilets and sinks would have to be installed under the new insulated slab at this point). The building has no electricity or water, so electric lines, phone lines, and sewer and water lines would have to be run to the building. All of the doors and windows would have to be replaced, as well as additional doors for the new restrooms. The following elements would have to be installed as well: electric wiring, a heating and cooling system, insulation, framing and drywall or paneling of existing and new walls, interior and exterior painting, light fixtures, toilets, sinks, drinking fountains, hand dryers, soap dispensers, fire extinguishers, baby changing unit, counters and cabinets. A long pergola would be installed in the front of the building which would then be landscaped. Furnishings would include tables, chairs, audio-visual equipment, dishwasher, refrigerator, microwave, etc.

USAGE – Daily peak and average annual visitors - The Wagon House would seat a maximum of about 80 people concert style, or about 65 at round tables. During warm weather, this seating could expand outside the folding door walls to the patio, adding another 20 people or so. Most classes would consist of an average of 30 people. Meetings and classes would rarely exceed two hours in length, while events could take a whole afternoon or evening. Classes and inside events would be held year-round, while events that include the patio and/or Walled Garden would be limited to more seasonable weather. At a low estimated rate of three 2-hour classes and two 4-hour events per week, the building might host an average of 90 students and 145 guests a week or 4,680 students and 5,800 venue guests a year (factoring in the fact that there would be fewer venue events in the off season).

PARKING – Parking continues to be a major challenge for the whole Historic Barns Park, and will need to be addressed park-wide, as well as for individual groups and facilities. In the case of the Wagon House, the parking lot between the Walled Garden and Building 223 has 26 parking spaces allocated in the Phase Two Botanic Garden master plan. That could provide parking for some of the students or guests to the Wagon House, but other parking options will be necessary as well. Alternative transportation will always be encouraged (i.e. bus, bike, walking). The TBA and Copper Ridge parking lots could be used on evenings and weekends if shuttles are provided – a recommended consideration for individuals who wish to rent the facility for a full capacity event. Other parking options will hopefully be developed in tandem with the Recreational Authority. Here’s an enlargement of the parking area on the Phase 2 site plan.



MARKETING - Marketing the Wagon House would be incorporated into the marketing plan for the whole Botanic Garden. Class offerings and events would be published in the Botanic Garden's e-newsletters, Facebook and website as well as those of our partners, including regional garden clubs, environment groups, Master Gardeners Association, local schools, etc. Brochure boxes with class and event information will be provided at the Convention & Visitors Bureau and local nurseries as well as our own information signs at the park. BGHBP would include class and event data in local community calendars (newspapers, magazines, radio & TV). Venue rental advertisements will be placed in appropriate publications (i.e. MyNorth Media, Wedding Planner, etc.). The Botanic Garden would work with the Recreational Authority's facility manager to collaborate on some of this marketing.

SUSTAINABILITY - The Botanic Garden has embraced environmental sustainability as a guiding principal in its mission at the site. We not only strive to conserve water, soil, and plant life at the site through rain water retention, use of drought resistant plants and erosion prevention, but expand plant and wildlife diversity through a carefully designed landscape program that includes the reintroduction of a wide range of native trees, shrubs, perennials and grasses. The Botanic Garden has already demonstrated its commitment to sustainability through its building renovation work at the Visitor Center. This energy efficient building captures rainwater off the roof and utilizes a cistern system to employ that water for garden irrigation. Locally sourced and recycled materials (including the building itself!) were used throughout the renovation process, special sensors limit electric light and water waste, a dishwasher and recycling program supports no-waste events, and a unique series of insulation techniques, including the 'rain screen' cedar siding reduces the need for extra heating and cooling. We are currently going through the LEED certification process, with the expectation of silver or possibly gold status. We would employ this same commitment to sustainable renovation to the Wagon House. But the Botanic Garden takes its commitment to sustainability even further than demonstration, by providing a series of classes, workshops and seminars that educate children and adults on the importance of sustainable living and the practices that support it.

CONSISTENCY – The Botanic Garden's proposal for Building 221, as previously stated, is completely consistent with the Barns Property Use Themes of Horticulture, Arts, Community and Recreation. All of the activities planned for this building would support one or more of the themes identified by the public. Whether it houses classes and hands-on workshops in horticulture, community events such as meetings or receptions, recreational events such as celebrations, or fine arts such as concerts, recitals, exhibitions or art instruction, all of these activities consistently support the park's themes and goals. The BGHBP proposal is also consistent with the development principals of the Historic Barns Park.

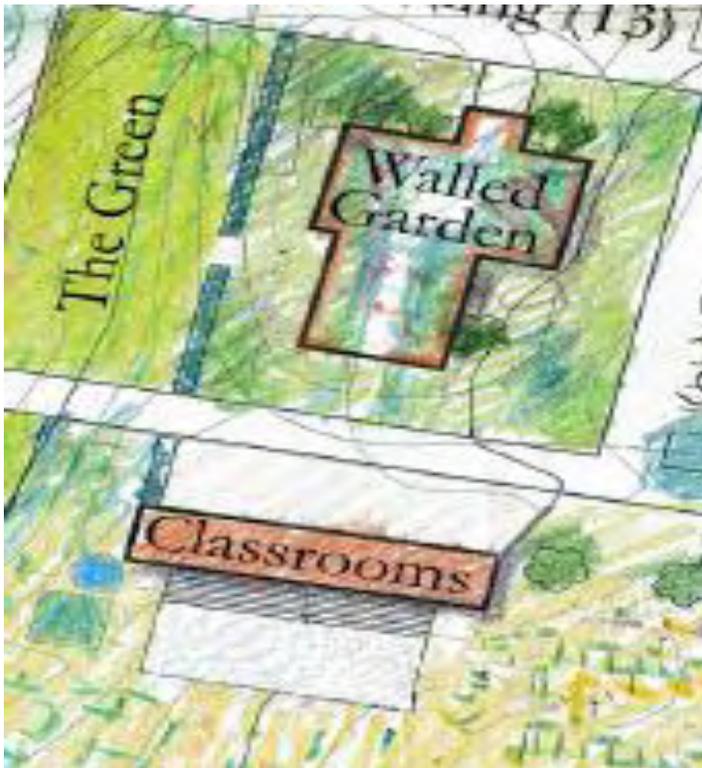
- **Mixed Use** - It would provide a diverse population of children and adults with a wide range of activities and experiences in horticulture, recreation, the arts and community.

- Minimize Disruption - It would maintain and preserve the historic integrity of the building and site, be handicapped accessible, and be aligned with the park's parking plan.
- Developed and Open Areas - The building and its uses are within the developed or core area of the park and does not infringe on the agricultural or more natural open areas.
- Connections - It is connected both physically and operationally to adjacent property and uses. It's location near the entrance to the park and the new paved trail form a physical connection to the Village at Grand Traverse, a number of adjacent schools, Copper Ridge, and to the new YMCA. That connection is not just physical, but activity-based as well. Students from West Middle School, Green Spire, and TBA will be able to enjoy and participate in programs and classes at the Wagon House without having to be bussed to the site. Residents and Visitors to the Village at Grand Traverse Commons, and employees and patients of Munson Medical Center, Copper Ridge and the Pavilions will have easy access to the facility and its programs as well.
- History - Renovation of this building by the Botanic Garden would preserve this century-old building and create a focus on its history. These efforts would save the building and allow it to be utilized once again, in a new and exciting manner, while educating visitors on its role in the past as a component of the State Hospital's farm.
- Sustainability – BGHBP would not just renovate this building in the cheapest and most minimal way; it would invest in sustainable technologies and green building strategies as was done on the Visitor Center renovation. The goal would be a building that is LEED certified and a model of sustainability. As a result, the building itself would be a teaching tool for the public.



Finally, the Botanic Garden’s proposal is consistent with the Master Site Plan. The building has always been designated on the plan as a classroom, and that is one of the major roles it would play if managed by BGHBP. Because the Botanic Garden is already an entity at the site, operating fully within the guiding principles of the master site plan, this proposed use would continue to reflect that commitment.

Here is a section of the master site plan that identifies the role of Building 221 as a classroom. It also includes the build-out of a possible greenhouse.



SCHEDULE OF BUILDING IMPROVEMENTS



Depending on the timeline of funding acquisition, the improvements to the Wagon House would be either completed in stages or all at one time. The sequence differs, depending on funding.

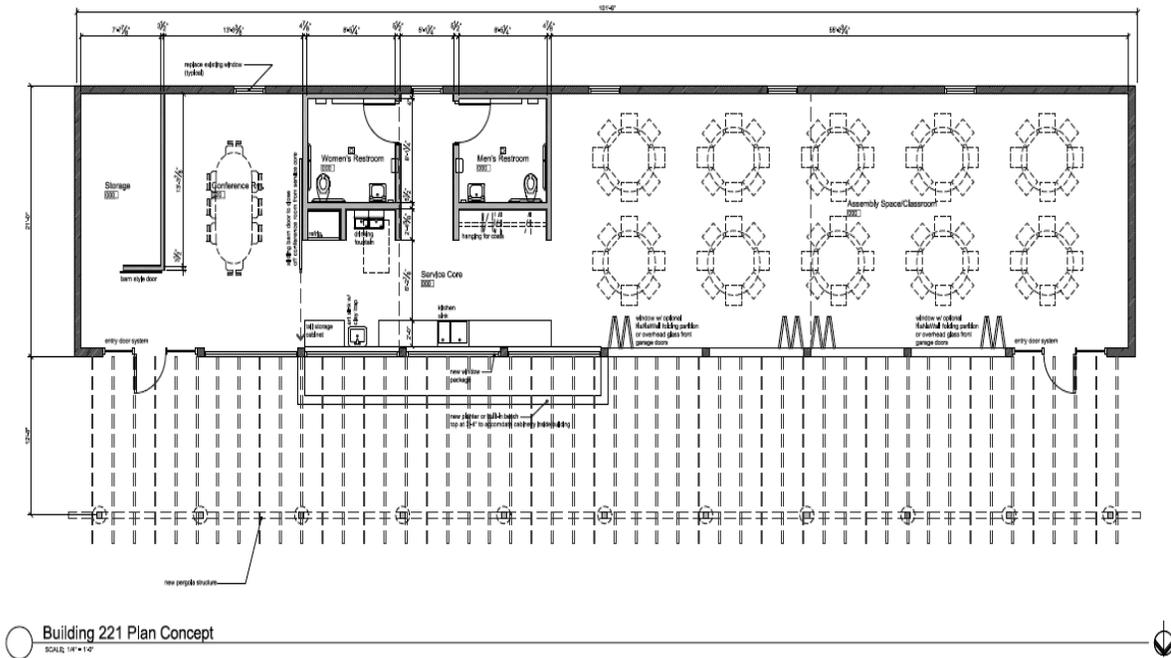
- Step 1 - Either way, the roof would have to be the first improvement. When the old roof and asbestos is removed as a part of the Brownfield grant, the Botanic Garden would immediately replace it with a new roof. The roof will be constructed to support a water collection system. BGHBP has the necessary funds at this time to complete Step 1.
- Step 2 - If the renovation is done in stages, the next step after roof replacement would be to paint the building's exterior, once the Brownfield grant funds are used to remove the lead paint and as soon as possible after the replacement of the roof. The combination of the new roof and new paint would provide an attractive, though temporary, appearance.
- Step 3 – The next stage would be to remove the present cement floor and replace it with a new poured insulated concrete floor. During this process, sewer and water pipes, and sink and toilet connectors would be laid under the floor so they are in place for future stages of renovation.

- Step 4 – The concrete floor would be polished. A protective covering would be placed over it until renovation is completed.
- Step 5 – The interior walls and rafters would be power cleaned. The original rafters will be left exposed, illustrating the history of the building as a Wagon House.
- Step 6 – Water, sewer and electric hook-ups to the building will be completed.
- Step 7 – Initial wiring will be installed for electricity. Lighting fixtures and outlets will be installed later, as interior work is completed.
- Step 8 – Depending on the heating/cooling option (i.e. solar tube enhanced, geothermal, heat pump/compressor) the heating/cooling system will be installed. Mechanicals will be installed in the attic space above the restrooms to conserve floor space on the main level.
- Step 9 – The awning would be removed and the garage doors would be replaced with glass doors and windows. The back windows would be replaced as well. One of the windows might be converted to a doorway if it is determined to add on a small lean-to greenhouse in the future. One of the main entrance doors will be ADA automatic.
- Step 10 – Either the exterior would be insulated and sided or the interior walls would be furred, insulated and paneled or dry walled. In addition, the bathrooms would be framed in and dry walled.
- Step 11 – If the exterior is insulated, the interior walls will be painted. If the walls are insulated from the interior, the exterior block walls will be repainted and finish work will be done where the awning was removed.
- Step 12- Interior restroom-doors and cabinetry will be installed.
- Step 13 – Toilets, sinks (including a slop sink), hand dryers, drinking fountains, and counters will be installed. Refrigerator, dishwasher and microwave will be installed.
- Step 14 – Restroom soap and toilet dispensers, baby changing station, bathroom mirrors, etc. will be installed.
- Step 15 – A pergola will be built in place of the awning, running the full length of the north (front) wall of the Wagon House.

- Step 16 - Paving stones with permeable surroundings will be installed. Landscaping will be installed.

If several large grants and/or donations are made in the near future, the complete package would be bid out and construction would be done at one time. That would eliminate the need for initial painting of the building.

NOTE: As with the Visitor Center, an 'Adopt a Chair – Adopt a Table' campaign will be held to furnish the Wagon House meeting room. Fundraising and grants will support purchase of audio visual equipment, a sound system, etc.



FINANCIAL PLAN

SHORT TERM

The Botanic Garden has committed funds for installation of an insulated roof. We have an estimate from Arrow Roofing and Supply for a cost of \$17,024. Unless fundraising for the Wagon House renovation is highly successful at a very early stage, the Botanic Garden will make temporary improvements to the appearance of the building, beginning with exterior painting. This will be done through in-kind donations and volunteer efforts, at a relatively small cost.

LONG TERM

Given our experience with the renovation of the Granary as a Visitor Center, we estimate renovation costs for the Wagon House will range between \$350,000 and \$400,000. Unless we are able to obtain one or more extremely large gifts or grants initially, renovation of the Wagon House will be completed in steps, as outlined above under "Schedule of Building Improvements". Each step will be completed as funding becomes available. We recognize that fundraising by the Recreational Authority board takes precedence as per the Management Agreement, which will impact the time frame of our own fundraising. To help address this issue, we will communicate possible grant or donor sources with the RA's executive director to avoid competing efforts, and respect any fundraising timelines developed by the RA. Financial plan documents are included in the appendix.

The Botanic Garden at Historic Barns Park has a proven track record for fund raising and quality work that supports the mission of the park. We are a known entity that has proven our capacity to raise money for our park-based projects, through successful grant writing and donor solicitation and support. Just this month BGHBP was awarded a multi-year Rotary Organizational Capacity Building grant of \$60,000 over a 3-year period to support a contracted fund development professional. This individual will provide the BGHBP board with assistance in the development of diversified funding streams, increasing our capacity in fundraising for capital projects. In the case of Building 221, fund acquisition efforts will be focused on grants, large gifts and targeted annual giving, with a strong emphasis on completing the Wagon House in a timely manner.

The Garden is experiencing a strong show of public support and enthusiasm now that the Visitor Center is completed and the first gardens are underway. This will continue to grow with the completion of the Walled Garden and the addition of a wide range of new classes and activities at the Garden. While capital funds will be generated to renovate the building, the Wagon House in turn will generate funds for its operation through its use as a rental venue and as a classroom and setting for events. Capital costs for

renovation is a one-time investment, but will support part of the Garden's long-term operational expenses.

CONTRIBUTIONS TO THE GENERAL PARK OPERATIONS

There are so many ways the Botanic Garden contributes to the general park operations, ways that would only be increased and expanded through its management of the Wagon House.

Ever since the Botanic Garden received management rights to 25 acres of the Historic Barns Park, BGHBP has made strong and numerous contributions to the park as a whole, and will continue to do so in the future. Botanic Garden volunteers have put in thousands of hours of work improving not only our designated area, but areas throughout the park. Clearing, mowing, removing debris and trash, creating trails, removing invasive plants, planting native trees and shrubs – all of this work has saved many thousands of dollars for the Recreational Authority while making major improvements in the appearance of the park. Much of this work focuses not on landscaped gardens, but the improved habitat of naturalized areas of the park, a goal that is equally important to BGHBP and the Recreational Authority.

Just as renovation of the old Granary has vastly improved the appearance and opportunities at the park, so would renovation of Building 221. The park itself (and thus the Recreational Authority) benefits from buildings that are restored, and neglected areas that are once again cultivated for both food and other plants. Rental options for the Cathedral Barn are expanded when restored buildings such as the Wagon House and the Visitor Center are available as support for larger events in the barn, providing a place for conference break-out sessions, wedding rehearsal dinners and other ancillary activities. In addition, the Cathedral Barn will become an even greater draw as a rental venue when it is complemented by gardens and clean and attractive buildings.

The Botanic Garden has also made significant contributions to the general park operations through our fundraising efforts in the capital campaign and the Trust Fund grant for the new park trail. BGHBP has helped to market the park by raising public awareness through presentations, tours, informational signage, ongoing website and Facebook postings, and displays at regional expos. BGHBP has made 55 presentations on the Historic Barns Park and Gardens as a part of the capital campaign, traveling throughout Northwest Michigan to raise awareness and support. The Garden will continue to keep the public informed of the park through these vehicles in the future.

The Recreational Authority's primary goal as a park is to provide the public with experiences in recreation, agriculture and horticulture, exposure to the arts, and spaces for community gatherings. When the Botanic Garden provides all of these experiences and opportunities through the gardens, the Visitor Center, and hopefully the Wagon

House, it supports the Historic Barn Park's role and purpose. This is a significant contribution to the park operations that should not be overlooked.

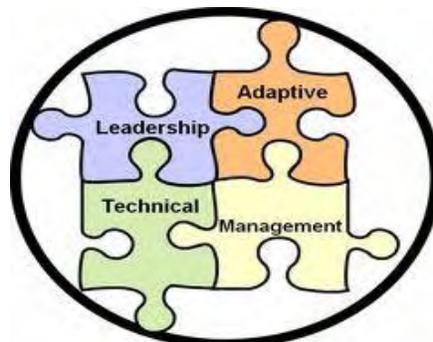
The Botanic Garden would not request funds from the Recreational Authority for construction or maintenance of the building. The Recreational Authority's in-kind support would include contamination clean-up, road maintenance and general park operations (security, parking areas, outdoor lighting, etc.). The Recreational Authority would be responsible for building-owner insurance and the Botanic Garden would be responsible for renters/lessee insurance.

ORGANIZATIONAL CAPACITY

As previously stated, the Botanic Garden has demonstrated strong and solid elements of organizational capacity. The Garden has utilized years of strategic planning for goal setting, and on-going work with North Sky in building that capacity. The Botanic Garden Board participated in organizational capacity assessment and training and built strategic planning goals around identified areas of need (i.e. marketing/branding, volunteer coordination, fund development planning). As a result, we have a new branding & marketing program, a strong volunteer coordination component, and are now, with the help of the Rotary organizational capacity grant, expanding our fund development capabilities.

As an organization, the Botanic Garden has a strong and committed board, over 700 members and over 200 volunteers. The Garden has completed a successful collaborative \$1.5 million capital campaign with the Recreational Authority. BGHBP has had a number of successful grant awards this year alone, and Botanic Garden members have been increasingly generous in funding specific Garden needs and projects. The Botanic Garden has a home - the Historic Barns Park - and a new Visitor Center with an initial garden.

Each stage of the Visitor Center renovation, from planning to fundraising to construction to furnishing and operations, has demonstrated the Botanic Garden's capacity. This experience is proof of the Garden's ability to complete a project such as the Wagon House restoration.



DEMONSTRATED EVIDENCE OF COMMUNITY PARTNERS AND SUPPORT

We are overwhelmed with the strong community and regional support for the Botanic Garden and delighted with the ever-growing number of new partnerships and collaborations. Here are some examples:

- The Botanic Garden, in collaboration with the Recreational Authority, successfully completed a combined capital campaign, raising over \$1.5 million over the past three years, most of which were local and regional donations.
- The Michigan Garden Clubs, Inc. gave a \$5,000 donation to the capital campaign in support of the Garden as one of their projects, and urged its local affiliations to partner with the Garden and Park as well.
- Three local nurseries (Four Season, Bellwether and Harborview) partnered with the Garden, including donations of plant material, compost and mulch for a fall planting project. These and other nurseries have served as sponsors for Botanic Garden events as well.
- Our partnership with Master Gardeners Association of Northwest Michigan has allowed us to share speakers and programs, and support each others' missions.
- BGHBP has a partnership with the Minervini Group and Influence Design Forum, with the shared mission of developing and overseeing a Management Plan for the Commons Arboretum.
- Partnerships with Saving Birds Thru Habitat, Plant it Wild, and Herbal Renewal are resulting in the construction and restoration of natural habitat as a part of the construction of the Garden itself.
- Local garden clubs are partnering with us in the development and operation of the Garden through donations of money and materials, social networking, and volunteer assistance. For example, the Long Lake-based Ma Me Ne Sewong Garden Club partnered with the Botanic Garden this year and served as hostesses for the 3-day Revolutionary Gardens Conference. In addition, they plan on 'adopting' one of BGHBP's gardens, targeting both funds and volunteer assistance for that garden. The Friendly Garden Club donated funds for the Botanic Garden's irrigation well several years ago and has given several additional grants to fund the establishment of new wildflower gardens, including \$1,000 this year towards the Visitor Center hillside plantings. The Cherry Capital Rose Society has donated \$1,900 over the past few years to help furnish the Visitor Center, as well as \$150 worth of organic fertilizer for this fall's Visitor Center garden planting bee. We saw a large increase in support and involvement from regional garden clubs over the past two years as the Garden reached the construction stage, and this trend will only increase as enthusiasm continues to be generated by new, evolving gardens.
- A 3-year partnership with the ArtCenter has resulted in the donation of deer sculptures for the park and a number of garden & art collaborative projects. The third 'Art in the Park' event will be held next spring, with a reception and

exhibition at the Visitor Center. A group of ArtCenter plein air painters donated 8 original paintings done at the Historic Barns Park for the new Visitor Center.

- The Botanic Garden has also collaborated with the other entities at the site. BGHBP supported both SEEDS and Little Artshram's requests and proposals for gardening and farming acreage, initiated a proposal and negotiated an agreement with SEEDS and Little Artshram that resulted in SEEDS' management of $\frac{3}{4}$ of Building 223, provided generous funding and many volunteers for the Little Artshram Harvest Festival to raise money for their irrigation well, participated in SEEDS/AmeriCorps Day of Caring project, voiced support for SEEDS' request for management of additional land to the east of their agricultural area, and have maintained a link to SEEDS on our website. In addition, we present both SEEDS and the Community Garden's programs at all of our regional presentations and have featured them on our Facebook page. We have met with the Community Gardeners as well to discuss ways we might partner at the site in the future.
- Deering Tree Service partners with the Botanic Garden, maintaining the large trees in the picnic grove.
- The Archangel Tree Archive partners with the Botanic Garden, providing native trees and shrubs for replacement of invasive plants. As future gardens are established some of their cloned Champion trees will be featured as well.
- The new Visitor Center meeting room is allowing us to partner with local schools for special field trips. West Middle School, Greenspire and TBA's New Campus students are all within walking distance to the park and Botanic Garden. The Wagon House would provide additional classroom space for school-to-garden activities as well.
- We have had preliminary discussions with Michael's Place and will continue exploring how the Botanic Garden can provide them with support for their work in grief recovery, especially as the Healing Gardens are established.
- Our future goals include pursuing a partnership with NMC's Horticultural program and the MSU program in Applied Plant Sciences, as well as collaborations with local medical and retirement facilities with a focus on Horticultural Therapy.



MANAGEMENT STRUCTURE BOTANIC GARDEN AT HISTORIC BARNES PARK

The Botanic Garden at Historic Barnes Park is managed by a board of thirteen directors, three honorary directors, an administrator, a volunteer coordinator, and an MOU liaison. The board meets as a whole on a monthly basis. Standing committees (Outreach/Education, Site, Finance/Development, Marketing, and Volunteer) and ad hoc committees (including Gift Shop Committee, Venue Rental Committee, Landscape Design Committee, Board Search Committee, and By-Law Review Committee) meet on an as-needed basis. One board member serves as a liaison to the Master Gardener Association. Honorary directors have all served on the board and continue to serve as advisors to the board. There are no paid staff members. The board contracts services as needed, including design and horticultural consultation, and is presently looking to fill the position of a contracted development professional. See Appendix B for more information relating to the functional organization of The Botanic Garden.

EXECUTIVE BOARD:

Karen Schmidt, Chair
James Summer Cooper, Vice Chair
Theresa Harding, Secretary
William Wright, Treasurer

BOARD DIRECTORS

Marina Rodriguez Deering
Kate Flewelling
Michael McNulty
Monty Plough
Anna Price
Carol Silverman
Jeanne Snow
Maria Tucker
Nancy Warren

HONORARY DIRECTORS

Brian Beckwith
Robert Parker
Ken Richmond

ADMINISTRATOR – Lin Wright

MOU Liaison – Kurt Schmidt

VOLUNTEER COORDINATOR – Denise Butterfield

HORTICULTURIST – Laurel Voran

RESUMES OF BOARD AND SUPPORT MEMBERS WHO ARE RESPONSIBLE FOR CARRYING OUT THIS PROPOSAL

JAMES SUMMER COOPER– James received his degree in History at the University of Michigan and went on to study finance. He worked for 30 years as a financial consultant with Merrill Lynch in Detroit and then moved to his retirement home in Traverse City. Jim is a world traveler, an avid gardener, and a long-time supporter of the Botanic Garden. He is Vice Chair of the executive board and serves on the Development Committee, the Landscape Committee, and Board Search Committee.

MARINA RODRIGUEZ DEERING – Marina joined the Botanic Garden Board in 2012 and currently serves as the Botanic Garden’s liaison for the Master Gardener Association of Northwest Michigan. She also represents MGANM and the Botanic Garden as a member of the Grand Traverse County Parks and Recreation Network. As past president of MGANM, Marina negotiated a partnership agreement with the Grand Traverse Conservation District in 2008, a partnership that remains strong today. Marina received a Bachelor of Arts degree in English from California State University, Fullerton, and completed post-graduation coursework in Spanish at UCLA. She currently works as a financial advisor in Traverse City and holds the FINRA Series 7 and 63 securities licenses. Marina and her husband Michael reside in Traverse City.

KATE FLEWELLING – Kate is a graduate of New York University of School of Law and Northwestern University. She currently practices law with Smith Haughey Rice & Roegge in Traverse City, Michigan, where she focuses on various kinds of transactional law including real estate and health law. She joined the Botanic Garden board in 2013, and is a neighbor of the Gardens as a resident of the Village at Grand Traverse Commons. Kate and her husband, Dr. Daniel Flewelling, have a young son (who has already helped plant bulbs at the garden!).

THERESA HARDING – Theresa earned her Bachelor of Science degree in Occupational Therapy at Wayne State University and worked as a therapist in Berkley Schools Orthopedic Unit and at Macomb Intermediate School District in the Macomb Infant Preschool Program. She chairs the Landscape Design Study School of the Michigan Garden Clubs, Inc., is a member of the Friendly Garden Club, where she has served as Corresponding Secretary, Civic Beautification Co-Chair, Publicity Chairman, Club Historian, and Garden Walk Committee member. She is an advanced Master Gardener and has developed and maintains a memorial garden in her husband’s memory at the Peninsula Community Library. Theresa joined the Botanic Garden Board in 2008 and is currently Recording Secretary and Outreach Chair.

MICHAEL MCNULTY – Michael has a Bachelor of Education degree from the University of Toledo. He was employed with Sears for 43 years, in various levels of management, with the last 25 years as store manager. His experiences in human resources, marketing and sales promotion, hardline and softline merchandising and purchasing, new facility construction coordination, and catalog operations are all of great value to the Botanic Garden. He is presently in his third term on the BGS Board, chairs the Site Committee, serves as a MOU Representative, and puts in endless hours with the Botanic Garden’s Site-work Committee (a.k.a. Possum Lodge Gang).

MONTY PLOUGH – Born in Kansas and raised in the USA, Europe and the Far East, Monty received her university schooling from the University of Paris, University of Maryland, Michigan

State University and Rochester Institute of Technology. She also completed institutional advancement work at North Dakota State University and Assumption College in Worcester, Massachusetts. She taught in public schools in Michigan, New York and North Dakota. She also taught adult learners and graduation students at Alma College and Rochester Institute of Technology. She has served as a board member for church and community organizations and is a former small business owner. Monty continues to serve on the Botanic Garden board's Development Committee, recently joined the Gift Shop and Venue Rental subcommittees, and was a member of the ad hoc Membership Committee last year.

ANNA PRICE – Anna is an Interior Designer and has worked in the area of special events for non-profits. She spearheaded a number of fundraising activities for Meijer Gardens when she resided in Grand Rapids. Anna joined the Botanic Garden board in 2011 and has served on the Visitor Center design committee, Art in the Park event, and First Garden party at the site in 2012. Anna lives in Traverse City with her husband and two children.

KAREN SCHMIDT – Karen was employed in the field of education for 35 years as a speech pathologist, classroom teacher, learning disability consultant, special education director, and elementary school principal. She completed her Bachelor of Science degree at Wayne State University, Master's Degree at Central Michigan University, and Education Specialist work at Grand Valley University. She joined the Botanic Garden board in 2001 and is presently the board chair. Her certification as a Strategic Planning facilitator and her background in administration have provided experience that is valuable in her role as board chair. Karen is a Master Gardener and a Consulting Rosarian and maintains a large flower and vegetable garden at her home. She and her husband have two children and four grandchildren.

CAROL SILVERMAN – Carol is an artist, avid gardener and amateur horticulturist. She has a Bachelor and Masters degree in Fine Arts from the University of California at Los Angeles. She has worked as a teacher of young children, high school and adult education and holds a teaching credential from the state of California. Her art work is in collections across the country and in Europe. She and her husband Gary have raised four children and have lived in Michigan for over 30 years. Carol is a Master Gardener and has created extensive gardens. She and her husband have traveled extensively and lived abroad. They have visited many countries, with an emphasis on visiting Botanic Gardens. Carol has served on the Botanic Garden board almost since its inception, and has provided great leadership in master site planning and landscape design. She spearheaded the search for a master site planner for the Botanic Garden.

JEANNE SNOW – Jeanne has had an interest in the Botanical Garden Society since its earliest days, and was instrumental in establishing charitable status and a fund for BGS at the Grand Traverse Regional Community Foundation, where she was executive director. During nearly 13 years as executive director she was instrumental in developing numerous environmental fund accounts and a website for the use of all the federated garden clubs of Michigan. She previously directed development programs and campaigns at Purdue University, University of Illinois Foundation, and Chicago-Kent College of Law at Illinois Institute of Technology. She has been an internationally certified fund raising executive for over 20 years. She is currently adjunct counsel for TWB Fundraising Consultants, Chicago, IL. She has a Bachelor of Science degree and a Masters degree in Public Administration. She has been a Rotarian for over 22 years. She and her husband live on Old Mission Peninsula and have three children and nine grandchildren.

MARIA TUCKER – Maria Tucker has a Master’s degree in Landscape Architecture from the University of Virginia and a Bachelor’s degree in Art History from Davidson College. She has worked as a landscape architect for Sasaki Associates, Nelson Byrd Landscape Architects, and Deborah Nevins Associates. She is also a talented artist and jewelry designer. Maria has served on the Botanic Garden board since 2011 and serves on a variety of committees, helping with the master plan design work, fundraising and branding. Maria lives in Traverse City with her husband and three children.

NANCY WARREN – Nancy’s career reflects a long time commitment to K-12, ISD and university instruction and administration. In 1998, employment as the Executive Director of the Northern Michigan Learning Consortium brought her to Traverse City on a full-time basis. Nancy’s education includes a Bachelor of Arts in Elementary Education from Michigan State University, a Master of Arts in Educational Leadership from Eastern Michigan University, and a Doctorate in Education from Wayne State University. Her interest in community service includes membership in the Traverse City Noon Rotary Club and service on their Board of Directors, Traverse City Economics Club, Grand Traverse Area Parkinson’s Support Group Board of Directors, Council of Michigan Foundations, and in the early years, as a Board Member with the Botanical Garden Society of Northwest Michigan. Nancy recently returned to the Botanic Garden Board, where she will be a strong support for the Education/Outreach team. Nancy lives on Old Mission Peninsula and has two daughters and three grandchildren.

BILL WRIGHT – Bill received a B.S. degree in Science and Mathematics from Houghton College. Working for both IBM and AT&T in the area of Information Technology (IT) Bill specialized in the area of large-scale project management for corporate and government customers, and served in a variety of Treasury Cash Management functions, corporate accounting, and director of AT&T’s corporate political action program. Now retired, his corporate career experiences are being used to provide a broad base of assistance to the Botanic Garden. Bill is the BGHBP’s board treasurer and serves on the Development Committee, Venue Rental Committee, and the Site-work Committee where he has volunteered hundreds of hours in grounds maintenance. In addition, he has served on a number of ad hoc committees for Events, Membership, and By-Laws Review.

LIN WRIGHT – With a B.A. degree in French and Elementary Education and a Master of Arts in Teaching, Lin’s 30-year career as an educator and librarian was spent in the classroom and on the road across the country, presenting seminars and conferences at the state and national levels. Previous executive board experience includes the presidency of the 2000 member national Church & Synagogue Library Association. She was also the founding president of the New Jersey chapter of that organization. As a founding board member of the Botanical Garden Society of Northwest Michigan she chaired both the Communications and Volunteer Committees. For the past 11 years she has served as Administrator of the organization. From a career focus of putting people and books together Lin now, as a Master Gardener, turns to her passion of putting people and plants together. She has certification in Horticultural Therapy and is currently working on certification in Landscape Design through Michigan Garden Clubs, Inc. Lin brings a public speaking background, writing and organizational skills, and the ability to develop and deliver educational programs to the “growing of the garden”.

KURT SCHMIDT – Kurt Schmidt has served as the Botanic Garden liaison to the MOU (Memorandum of Understanding) committee since 2009 and works as a member of the Site-work Committee at Historic Barns Park, helping to maintain and improve the Visitor Center, future gardens and park grounds for public use. He is presently assisting in a botanical inventory of plant life at the park. Kurt has a Bachelor of Science degree from Wayne State University in Biology and Physical Sciences, a Masters degree from Michigan State University in Biology, and has done other advanced studies in the sciences at the University of Detroit, Saginaw Valley State University and Central Michigan University. Prior to retirement in 2000, he taught Biology, Anatomy and Physiology, Chemistry and Physics for 35 years at high schools in Detroit, Oscoda and Traverse City, and spent a short time teaching Mathematics and Life Science at NMC. He initiated, developed and taught the Advanced Placement Biology course at Traverse City Central and then West Senior High Schools.

DENISE BUTTERFIELD – Denise has served as Volunteer Coordinator for the Botanic Garden for the past two years. She received her Bachelor’s degree from the University of Michigan. While staying home to raise two sons, she worked part time in the Dearborn Public Schools in various capacities. She then became Band Director and General Music Teacher for Divine Child Elementary School, working with students in grades 1-6. Denise was also a trained docent volunteer at Henry Ford Museum. After moving to Traverse City in 2011 she became involved with the Botanic Garden. As Volunteer Coordinator she recruits, trains and keeps volunteers on track for tours, planting, or whatever else the Garden needs. She and her husband Stuart live in Elmwood Township and are working hard to make their personal garden a delight as well.

LAUREL VORAN – Laura serves as a horticultural consultant to the Botanic Garden, as well as a volunteer. She will design and plant the Wagon House container gardens (Step 16 of ‘Schedule of Building Improvements’) if BGHBP receives management rights. Laurel has been employed as a horticulturist for the past 23 years, caring for a wide variety of gardens, both public and private. She earned her Bachelor’s degree in fine arts and natural science from Goshen College and a certificate of professional gardening from Longwood Garden’s intensive two-year Professional Gardener Training Program. She interned at two English gardens, and worked at Great Dixter (also in England) and Denver Botanic Gardens on professional exchanges. From 1999-2012 she was a lead horticulturist for Chanticleer Gardens in Wayne, Pennsylvania where she also served as the primary plant propagator and greenhouse manager. While at Chanticleer, she was able to study gardens and wild areas in New Zealand, South Africa, England and Germany. In 2012, Laurel relocated to northwest Michigan and is currently self-employed as a horticulturist and garden designer. Additionally, her current work includes endangered species preservation and invasive species control.

KEN RICHMOND – Ken is an award-winning architect and artist. Founder of Richmond Architects, Ken has designed homes and buildings throughout Northern Michigan. He has taught college courses in architecture and art as well, both here in and in Italy. Passionate about preserving and restoring the Traverse City State Hospital buildings and grounds, Ken actively worked on committees and councils to assist in this process. A long-time member of the Botanic Garden board, Ken helped with negotiations for a management agreement between the Recreational Authority Board and the Botanical Garden Society. He now serves as advisor to the board as an Honorary Director. Ken and his wife Joan live in Traverse City in a restored historic downtown home.

BRIAN BECKWITH – Brian is an attorney and certified public accountant. He is in a management position with Short’s Brewery in Elk Rapids. After a short tenure on the Botanic Garden board, he now advises the board as an Honorary Director. He lives with his wife and children in Traverse City.

ROBERT PARKER – Robert is a cum laude graduate of University of Michigan and Wayne State Law School. He is a managing partner at Smith Haughey, Rice & Roegge and was recently promoted as the firm’s CEO. Robert has long held a passion for the preservation of the old Traverse City Hospital grounds and buildings, serving as chair of the Commons Redevelopment Authority when the property reverted from state to local ownership. He spent a number of years on the Botanic Garden board, sharing his love of the site and gardens along with his knowledge of the law, and now advises the board as an Honorary Director.

RAYMOND KENDRA – Ray is owner and founding partner of Environment Architects, a firm that focuses on environmental sustainability in design. He has received a number of awards and many of his projects are LEED certified, including the gold-certified BATA Transfer Station. Ray has a passion for the preservation and renovation of the historic buildings on the Commons and has contributed countless hours in assisting both the Recreational Authority and the Botanic Garden in planning future renovation projects. Ray served as lead architect for the Botanic Garden’s new Visitor Center and is working with the RA on the renovation of the Cathedral Barn. Ray provided the renderings and floor plans for the Botanic Garden’s Building 221 proposal.

The Botanic Garden at Historic Barns Park is extremely fortunate to have the outstanding caliber of individuals – board members, volunteers, and other professionals – available to lend a hand and lead this project if BGHBP is granted management rights for Building 221.



CONCLUSION

The Botanic Garden at Historic Barns Park appreciates your consideration of the Garden's proposal for Building 221. We have indicated in this proposal how important this building is to the future success of the Garden, and how BGHBP's management of 221 would positively impact the park and the park's users as well.

The Botanic Garden has demonstrated again and again its strong capacity and solid commitment as a valuable and viable entity at the Historic Barns Park. We have consistently supported the park and the Recreational Authority in the areas of fundraising, facility improvement, and marketing. We've written grants and facilitated donations for the combined RA and BGHBP's capital campaign as well as for the DNR Trust Fund trail. We've raised public awareness of the Historic Barns Park and Garden through strong marketing and community outreach. Our board and volunteers have dedicated thousands of hours of work improving and enhancing the park's grounds.

The Botanic Garden needs the support of the Recreational Authority as well, as we work to secure financial sustainability for the future of the garden. By giving BGHBP management rights of Building 221, the Recreational Authority would not only guarantee a major improvement in the appearance of that building and an expansion of its role as an educational and recreational facility, but provide assistance in the Botanic Garden's efforts at self-sustainability.

Thank you for considering this request.

Appendix A

FINANCIAL REPORTS

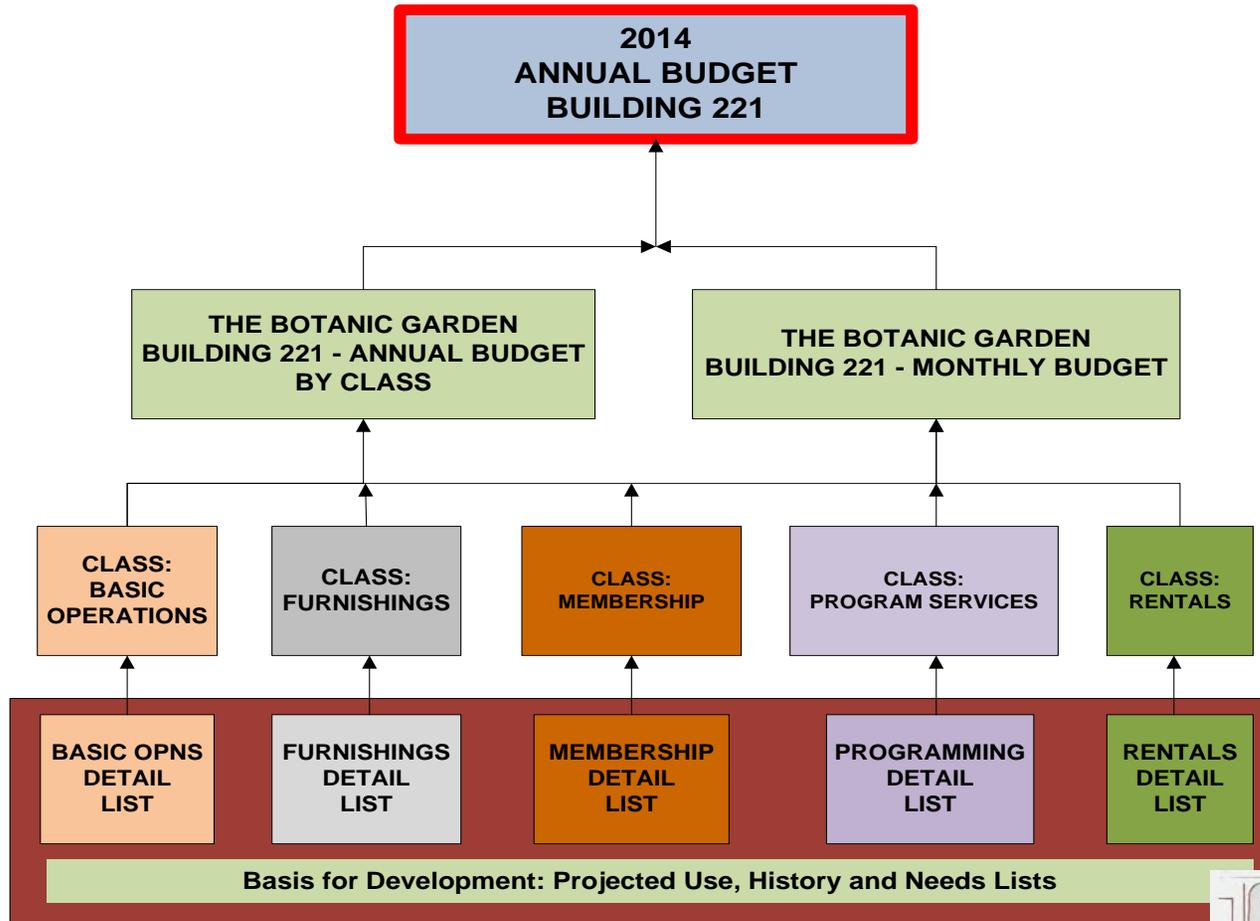
Adaptive Reuse Proposal

Building 221

The Botanic Garden at Historic Gardens Park



BUILDING 221 - OPERATIONS BUDGET DEVELOPMENT PROCESS



The Botanic Garden at Historic Barns Park
2014 CAPITAL BUDGET PLAN
Building 221: Wagon House

Proposal Cross-Reference	Date	Scheduling Note	Contingency / Dependency	Description	Funding Mechanism	Income Estimate	Expense Estimate	Balance
	12/18/2013			BG Community Fund Capital A/C	Balance Forward - Designated Funds			\$20,000
	See LEGEND, notes and Project Planning Timeline below							\$20,000
Step 1	A (Date determined by RA)	1	RA selects BG	RFP award to BG				\$20,000
	A		RFP Award to BG	BG launches program to solicit contributions and in-kind gifts				\$20,000
	RR (Date determined by RA)	1	RFP Award to BG and RA Schedule	Roof removal (RA activity)	Brownfield Grant			\$20,000
	RR + 1 day	2	RFP Award to BG; RR completed	Period opens to initiate installation of a new roof.	BG Community Fund Capital A/C - Designated Funds		\$17,024	\$2,976
	NR = RR+10		Weather	New roof installation completed.				\$2,976
	LPR begins	3	New roof installed	Lead paint remediation (RA activity) begins				\$2,976
	LPR + 30 days	4	LMR completed	Step 1 completes				\$2,976
								\$2,976
Step 2	By LPR + 40 days	5	Step 1 complete	Begin painting building exterior	Contributions & in-kind gifts; volunteer efforts	\$500	\$500	\$2,976
	By LPR + 60 days	6		Step 2 completes				\$2,976
								\$2,976
Step 3	LPR + 5 days	7	Step 1 complete	Install screening landscaping, as needed and as appropriate.	Contributions & in-kind gifts; volunteer efforts	\$1,000	\$1,000	\$2,976
	TBD	8	See note.	Remove cement floor	Contributions, in-kind gifts, and/or fundraising success.	See text box below.		\$2,976
				Pour new cement floor; accommodate sewer & water piping	Contributions, in-kind gifts, and/or fundraising success.		\$2,976	
							\$2,976	
Step 4	TBD	8	See note.	Polish cement flooring; apply protective covering/sealer.	Contributions, in-kind gifts, and/or fundraising success.		\$2,976	
							\$2,976	
Step 5	TBD	8	See note.	Power clean interior walls and rafters	Contributions, in-kind gifts, and/or fundraising success.		\$2,976	
Step 6	TBD	8	See note.	Building hook-up of water, sewer and electric service.	Contributions, in-kind gifts, and/or fundraising success.		\$2,976	

¹ See Legend and Scheduling Notes page for explanation of fundraising goal.

The Botanic Garden at Historic Barns Park

Proposal Cross-Reference	Date	Scheduling Note	Contingency / Dependency	Description	Funding Mechanism	Income Estimate	Expense Estimate	Balance
								\$2,976
Step 7	TBD	8	See note.	Install electrical wiring	Contributions, in-kind gifts, and/or fundraising success.			\$2,976
								\$2,976
Step 8	TBD	8	See note.	Install heating & cooling.	Contributions, in-kind gifts, and/or fundraising success.			\$2,976
				Install mechanicals.	Contributions, in-kind gifts, and/or fundraising success.			\$2,976
								\$2,976
Step 9	TBD	8	See note.	Remove awning/overhang.	Contributions, in-kind gifts, and/or fundraising success.			\$2,976
				Remove windows & garage doors; install new doors & windows.	Contributions, in-kind gifts, and/or fundraising success.			\$2,976
				Determination regarding add-on lean-to greenhouse.	Contributions, in-kind gifts, and/or fundraising success.			\$2,976
								\$2,976
Step 10	TBD	8	See note.	Complete interior/exterior walls and insulation.	Contributions, in-kind gifts, and/or fundraising success.			\$2,976
				Complete interior framing and dry-walling.	Contributions, in-kind gifts, and/or fundraising success.			\$2,976
				Install rainwater collection system.	Contributions, in-kind gifts, and/or fundraising success.			\$2,976
								\$2,976
Step 11	TBD	8	See note.	Paint walls.	Contributions, in-kind gifts, and/or fundraising success.			\$2,976
				Apply construction framing/finishing in place of the removed awning.	Contributions, in-kind gifts, and/or fundraising success.			\$2,976
								\$2,976
Step 12	TBD	8	See note.	Install interior doors and cabinetry.	Contributions, in-kind gifts, and/or fundraising success.			\$2,976
								\$2,976
Step 13	TBD	8	See note.	Install restroom toilets, sinks, and hand d	Contributions, in-kind gifts, and/or fundraising success.			\$2,976
				Install drinking fountains, kitchen counter, and kitchen appliances.	Contributions, in-kind gifts, and/or fundraising success.			\$2,976
								\$2,976
Step 14	TBD	8	See note.	Complete restrooms by hanging wall units: soap and toilet dispensers, baby	Contributions, in-kind gifts, and/or fundraising success.			\$2,976
Step 15	TBD	8	See note.	Build portico.	Contributions, in-kind gifts, and/or fundraising success.			\$2,976
								\$2,976
Step 16	TBD	8	See note.	Install paving stones with permeable surroundings.	Contributions, in-kind gifts, and/or fundraising success.			\$2,976

Cost of Step 3 through Step 16 is projected to be \$350,000.

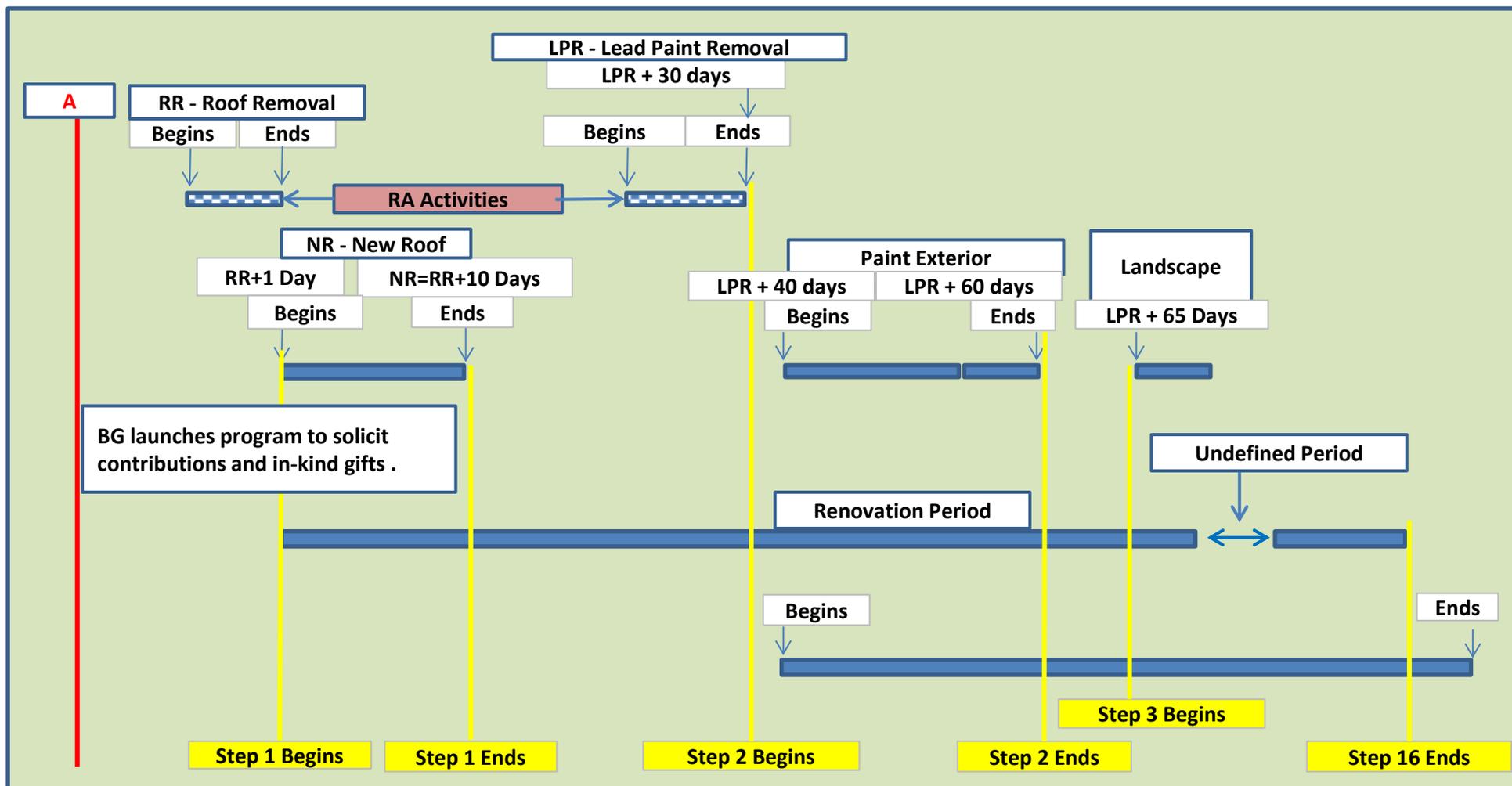
The Botanic Garden at Historic Barns Park Scheduling Notes, Legend and Timeline

Scheduling Notes:

- 1 Scheduling is under RA's control.
- 2 Duration allowance for work-time and prevailing weather interruption.
- 3 Scheduling is under RA's control.
- 4 Duration estimate allows flexibility for interior & exterior remediation and remediator's departure from worksite.
- 5 Estimated time period allows flexibility to schedule availability of a commercial painting company (if used).
- 6 Completion date accommodates work time to apply (2) coats of paint while accommodating weather risks.
- 7 Landscaping will be contingent on BG's ability to secure RA's authorization to fundraise and/or stimulate contributions and gifts needed to proceed without significant disruption or delay.
- 8 Construction Steps 3 through 16 will be contingent upon BG raising funds through the giving of members and friends of the Garden. Renovation will progress as funding is realized. BG does not intend to commit to construction Steps or costs that would cause it to "out run" its available cash position.

Legend:	
A	= RFP award to BG
BG	= Botanic Garden
LPR	= Lead paint removal
NR	= New roof
RA	= Recreational Authority
RR	= Roof removal date

Project Planning Timeline



The Botanic Garden at Historic Barns Park Annual Operating Budget - Building 221 January - December 2015

(Printing suppressed for zero values)

ACCOUNT / DESCRIPTION	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
	Jan - Dec												
ORDINARY INCOME													
42200 · CONTRIBUTIONS AND GIFTS	200	200	200	200	200	200	200	200	200	200	200	200	2,400
42250 · DESIGNATED FUNDS	150	150	300	300	300	300	300	300	300	200	200	200	3,000
42700 · GRANTS				4,000				4,000					8,000
43000 · INTEREST INCOME													
44000 · MEMBERSHIP DUES	400	400	400	400	400	400	400	400	400	400	400	400	4,800
47000 · PROGRAMMING AND EVENTS		750	2,250	2,250	2,250	2,250	2,250	2,250	2,250	2,250	750		19,500
47500 · RENTALS (Includes Weddings)	420	420	630	740	1,425	3,610	3,610	3,610	3,240	1,340	920	920	20,885
TOTAL INCOME	1,170	1,920	3,780	7,890	4,575	6,760	6,760	10,760	6,390	4,390	2,470	1,720	58,585
50000 · COST OF GOODS SOLD													
GROSS PROFIT	1,170	1,920	3,780	7,890	4,575	6,760	6,760	10,760	6,390	4,390	2,470	1,720	58,585

ORDINARY EXPENSE

62070 · ADVERTISING			375										375
65000 · FURNISHINGS	1,700	1,000					200		173				3,073
69000 · INSURANCE										290			290
73000 · MEMBERSHIP													
73100 · MISCELLANEOUS EXPENSE	104	8	104	8	104	8	8	104	8	8	8	104	576
73700 · POSTAGE AND SHIPPING	15	15	15	15	15	15	15	15	15	15	15	15	180
73740 · Newsletter													
73780 · Membership mailings	4	4	4	4	4	4	4	4	4	4	4	4	48
73800 · PRINTING AND COPYING													
74000 · PROGRAMS AND EVENTS		245	735	735	735	735	735	735	735	735	245		6,370
74200 · RENT AND LEASES													
74250 · RENTALS AND WEDDINGS	300	300	450	380	475	600	600	600	380	380	300	300	5,065
74600 · SUPPLIES													
74620 · Janitorial	43	43	48	48	53	58	58	53	53	53	53	53	610
74680 · Other (Kitchen and misc.)	15	15	20	20	25	30	30	25	25	25	25	25	280
74700 · SUPPORT SERVICES													
74720 · Fire Extinguisher Inspection										12			12
74760 · Security Monitoring and Service	42	42	42	42	42	42	42	42	42	42	42	42	500
74770 · Snow Removal	200	100	100								100	200	700
74780 · Waste Removal and Recycling	30	30	30	30	30	30	30	30	30	30	30	30	360
75000 · UTILITIES													
75200 · Electric and Heating	225	200	190	180	170	160	160	160	170	190	200	225	2,230

The Botanic Garden at Historic Barns Park Annual Operating Budget - Building 221 January - December 2015

(Printing suppressed for zero values)

ACCOUNT / DESCRIPTION													TOTAL
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan - Dec
75400 · Phone and Internet	50	50	50	50	50	50	50	50	50	50	50	50	600
75500 · Water and Sewer	100	100	100	100	100	100	100	100	100	100	100	100	1,200
TOTAL ORDINARY EXPENSE	2,827	2,151	2,262	1,611	1,802	1,831	2,031	1,917	1,784	1,933	1,171	1,147	22,469
NET ORDINARY INCOME	-1,657	-231	1,518	6,279	2,773	4,929	4,729	8,843	4,606	2,457	1,299	573	36,116
NET INCOME	-1,657	-231	1,518	6,279	2,773	4,929	4,729	8,843	4,606	2,457	1,299	573	36,116

The Botanic Garden at Historic Barns Park 2015 Annual Budget By Class - Building 221

(Printing suppressed for zero values)

ACCOUNT / DESCRIPTION	Basic Opns.	Furnishings	Membership	Program Services	Rentals	Total
ORDINARY INCOME						
42200 · CONTRIBUTIONS AND GIFTS	2,400					2,400
42250 · DESIGNATED FUNDS	3,000					3,000
42700 · GRANTS	8,000					8,000
43000 · INTEREST INCOME						
44000 · MEMBERSHIP DUES			4,800			4,800
47000 · PROGRAMMING AND EVENTS				19,500		19,500
47500 · RENTALS (Includes Weddings)					20,885	20,885
TOTAL INCOME	13,400		4,800	19,500	20,885	58,585
50000 · COST OF GOODS SOLD						
GROSS PROFIT	13,400		4,800	19,500	20,885	58,585
ORDINARY EXPENSE						
62070 · ADVERTISING			375			375
65000 · FURNISHINGS		3,073				3,073
69000 · INSURANCE	290					290
73000 · MEMBERSHIP						
73100 · MISCELLANEOUS EXPENSE	480		96			576
73700 · POSTAGE AND SHIPPING	180					180
73740 · Newsletter						
73780 · Membership mailings			48			48
73800 · PRINTING AND COPYING						
74000 · PROGRAMS AND EVENTS				6,370		6,370
74200 · RENT AND LEASES						
74250 · RENTALS AND WEDDINGS					5,065	5,065
74600 · SUPPLIES						
74620 · Janitorial	610					610
74680 · Other (Kitchen and misc.)	280					280
74700 · SUPPORT SERVICES						
74720 · Fire Extinguisher Inspection	12					12
74760 · Security Monitoring and Service	500					500
74770 · Snow Removal	700					700
74780 · Waste Removal and Recycling	360					360
75000 · UTILITIES						
75200 · Electric and Heating	2,230					2,230

The Botanic Garden at Historic Barns Park 2015 Annual Budget By Class - Building 221

(Printing suppressed for zero values)

ACCOUNT / DESCRIPTION	Basic Opns.	Furnishings	Membership	Program Services	Rentals	Total
75400 · Phone and Internet	600					600
75500 · Water and Sewer	1,200					1,200
TOTAL ORDINARY EXPENSE	7,442	3,073	519	6,370	5,065	22,469
NET ORDINARY INCOME	5,958	-3,073	4,281	13,130	15,820	36,116
NET INCOME	5,958	-3,073	4,281	13,130	15,820	36,116

The Botanic Garden at Historic Barns Park

Statement of Cash Flows

Jan. 1, 2015 - Dec. 31, 2015

Operating Activities	
Net Income	\$36,116
Adjustments to reconcile Net Income to net cash provided by operations	-
Net cash provided by Operating Activities	\$36,116
Investing Activities	
No planned investment activities	-
Net cash provided by Investing Activities	\$36,116
Net Cash Increase for the period	\$36,116
Cash at beginning of period	-
Cash at end of period	\$36,116

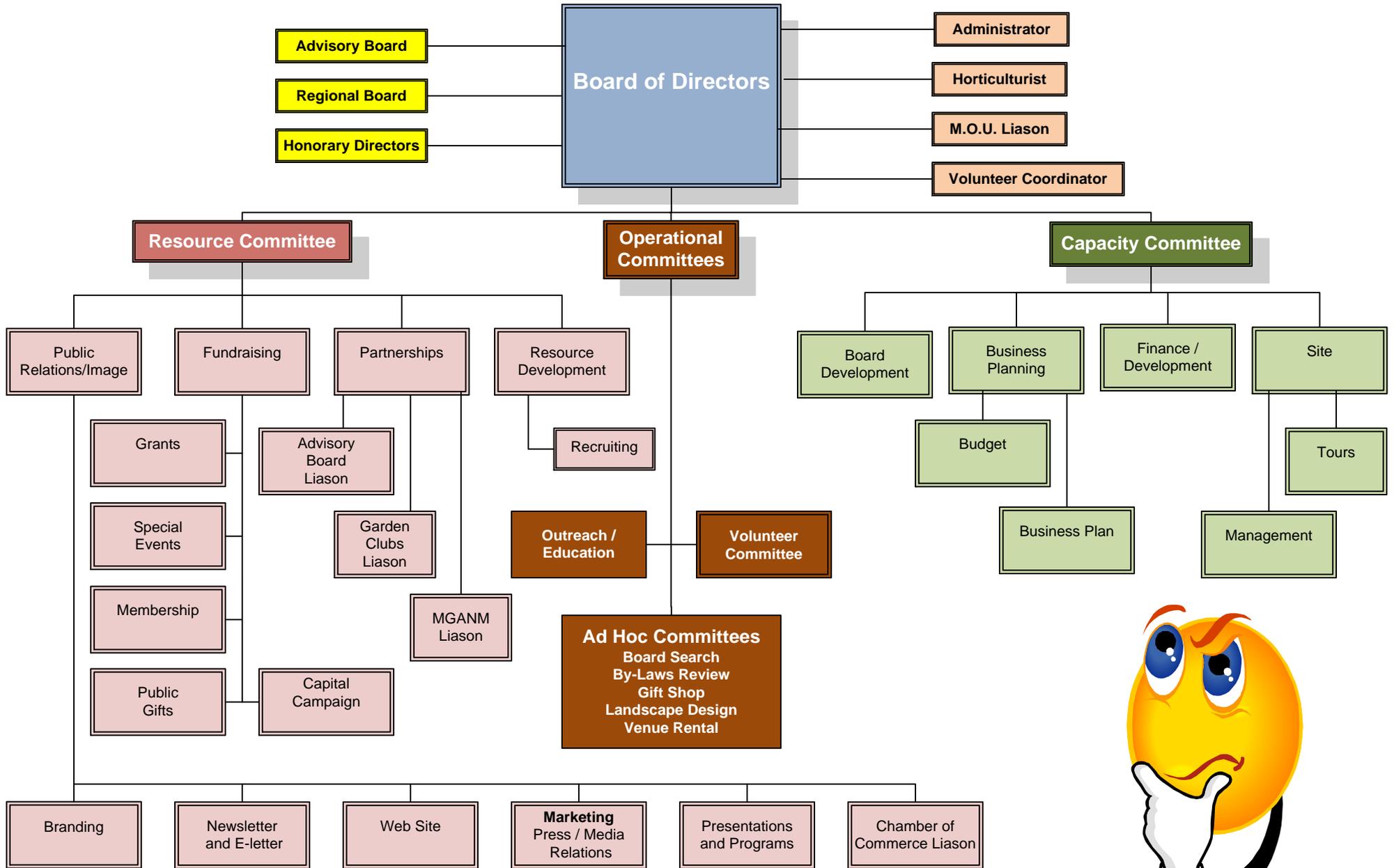
Cash Flow Forecast

January - December 2015

	A/R	A/P	Bank Accounts	Net Inflows	Projected Balance
Beginning Balance					-
January	\$1,170	\$2,827	-	-\$1,657	-1,657
February	1,920	2,151	-	-231	-1,888
March	3,780	2,262	-	1,518	-371
April	7,890	1,611	-	6,279	5,908
May	4,575	1,802	-	2,773	8,681
June	6,760	1,831	-	4,929	13,610
July	6,760	2,031	-	4,729	18,339
August	10,760	1,917	-	8,843	27,182
September	6,390	1,784	-	4,606	31,787
October	4,390	1,933	-	2,457	34,244
November	2,470	1,171	-	1,299	35,543
December	1,720	1,147	-	573	36,116
	\$58,585	\$22,469	-	\$36,116	
Ending Balance					\$36,116

Appendix B

Functional Overview

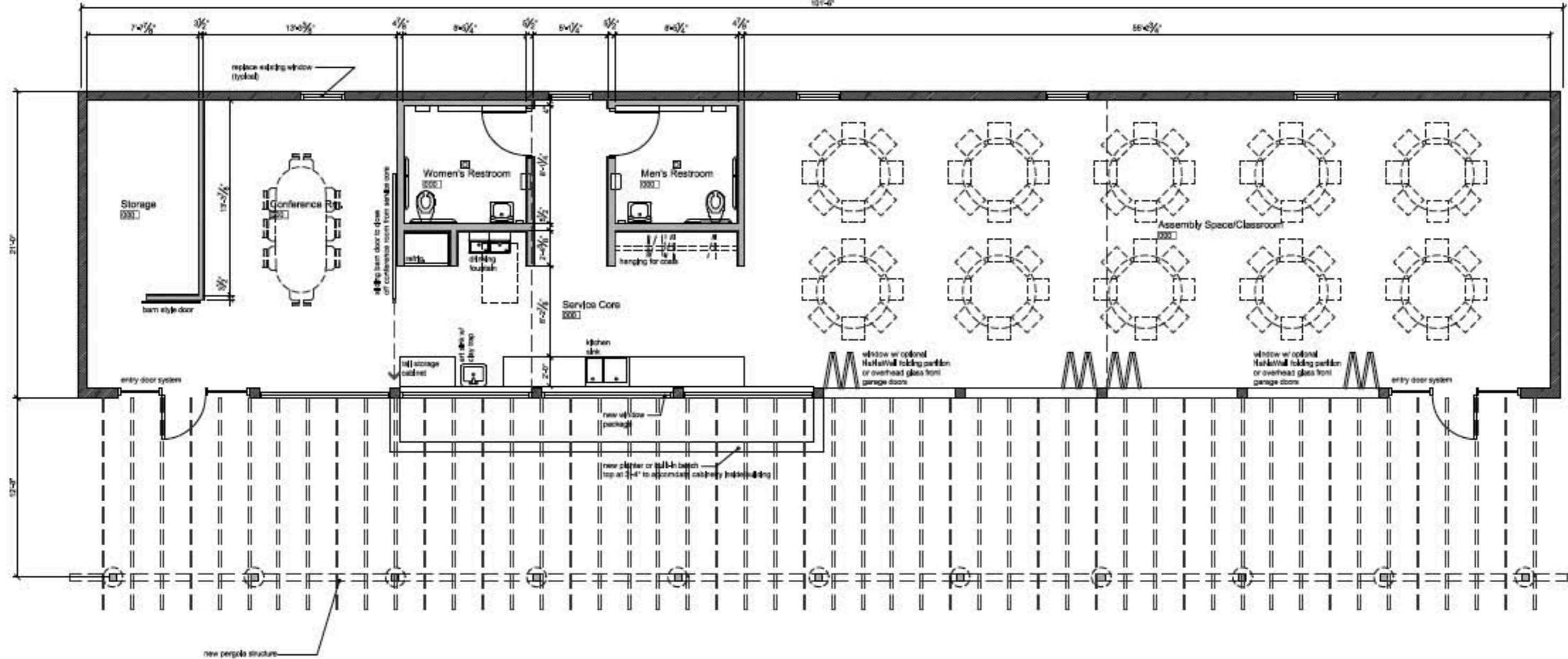








SCHWAIGER 2013



Building 221 Plan Concept

SCALE: 1/4" = 1'-0"



“Proposal – Adaptive Reuse of Building 221”
a collaboration of



INHABITECT

DESIGNING | BUILDING | GROWING



December 17, 2013

City of Traverse City and Charter Township of Garfield Recreation Authority
c/o LIAA, Matt Cowall, Executive Director
324 Munson Avenue
Traverse City MI 49686

Regarding: Adaptive Reuse of Building 221 at Historic Barns Park

Thank you for the opportunity for Bay Area Recycling for Charities (BARC) to respond to your RFP for an Adaptive Reuse of Building 221 at Historic Barns Park. In the spirit of the local and national interest in farming and sustainable living, BARC proposes working with several area businesses and organizations to transform Building 221 into an educational center for the future of adaptive farming. Enclosed you'll find our ideas as well as how we envision the layout of Building 221.

As a society, we are learning to adapt to a world with increasing energy costs. With food production and transportation being primary consumers of energy, there is a need to learn how to grow and transport our crops sustainably. Research has already been done on many aspects of permaculture farming. We have increasingly more farmers teaching themselves the business of growing and selling local products. This is what BARC and its partners are striving for. Our goal for the Building 221 project is a place to learn, teach, and showcase the important practices of closed-loop farming. This is an important step to get our community closer toward the goal of local food independence.

For a place to exist in our community where everyone is welcome to learn the lost practices of farming is paramount. The days of monoculture farming, the use of toxic insecticides and pesticides, and the expensive costs of transportation may indeed be numbered. The time is now to harness our energy use into the practices of the few local visionaries who have put the solution into motion. What this region lacks is a conduit for this informational flow. BARC and its supporters believe that could be the Adaptive Reuse of Building 221 at Historic Barns Park.

Our proposal covers what we believe to be an excellent use for Building 221. We envision the building as a place for collaboration in the community, where all who wish to expand on the vision of local food and energy independence are welcome to learn and share.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Andrew Gale
Founder
Bay Area Recycling for Charities



Bay Area Recycling for Charities is a local non-profit organization structured as a 501(C)(3) corporations. We incorporated in January of 2008 and since have grown into a nonprofit that supports itself nearly 100% with our recycling and composting contracts and customers. We recycle and compost approximately 6,000 tons of waste in the Grand Traverse Region per year. Our annual revenue has grown to support hundreds of conscience customers from residential to larger commercial operations, 13 full time green jobs, and a fleet of equipment. We have donated approximately \$30,000 to local charitable organizations since our establishment. Our goal at BARC is to divert 100% of our community's waste from being landfilled.

Our Mission:

Our mission is to inspire and educate all members of the community into utilizing the beneficial practices of reuse and recycling and to support charitable organizations in our community.

Bay Area Recycling for Charities (the "Corporation") is organized exclusively as a charitable organization within the meaning of Section 501(c)(3) of the Internal Revenue Code of 1986, as amended (the "Code"), for the purpose of: (1) to inspire local residents and businesses to reuse and recycle more by allowing them to donate their recyclable materials to local charities; (2) educating the public as to the environmental benefits of recycling; (3) granting of educational scholarships; (4) participation in and/or institution of research projects relating to its exempt activities; (5) support other charitable programs and activities within the meaning of Section 501(c)(3) of the Code as the Corporation deems appropriate and advisable; and (6) doing all other things and exercising all corporate powers necessary to carry out its purposes, with all the powers conferred upon it by the provisions of the Michigan Nonprofit Corporation Act, being Act 162 of the Public Acts of 1982, as amended (the "Act"), provided that all such activities shall be in furtherance of the Corporation's charitable purposes as defined by Section 501(c)(3) of the Code, or the corresponding section of any future federal tax code, and the regulations promulgated hereunder.

BARC currently offers the following products and services.

- Curbside Recycling for residential and commercial customers for paper, plastic, glass, metal.
- Composting service for residential and commercial customers for pre and post consumer food.
- Interior/Exterior waste management services for offices and local businesses.
- Compostable products, local plastic liners, and waste and recycling containers for sale or lease.
- Industrial recycling for larger commercial customers.
- Special event recycling and waste management for nearly zero waste events.

Since we started nearly five years ago, BARC has made connections with many different people, organizations, and businesses in our community. We have had much success with the expansion of our ideas and practices with the start up of this organization. We meet all of our challenges with hard work, ethics, and determination. It is our vision to expand our educational outreach through the Historic Building 221. Our offices are currently at the Historic Building 50 and an education within close proximity to our offices would be a fantastic add to our organizations outreach.

Our Vision:

It is the vision of Bay Area Recycling for Charities to create a research and development area in the Building 221. Through collaboration with many local businesses and organizations, we wish to create a location where people go to expand on ideas and practices. We see the Building 221 being used in five main ways.

1. Mushroom Mycelium Lab and Substrate Testing
2. Composting Practices and Future Uses of Compost Materials
3. Education Center for Sustainable Energy
4. A working Aquaponics Farm with Research and Development Laboratory
5. Green Infrastructure Demonstration with Green Roof's, Vegetated Walls, Storm Water Planters and Bio-Swales

Below we will explore the processes we wish to explore and the partners that we intend on working with to create this sustainable farming education hub.

1. Mushroom Mycelium Laboratory: Fungiculture

Mushroom farming is an interesting but commonly misunderstood industry. We often see mushrooms growing in our yards and wood, but lack the understanding of what they are and how they got there. Mushrooms are not plants; they do not use photosynthesis as a means to grow. Rather, they get their energy from chemical biodegradation of the growth medium or substrate that they are attached to.

Our vision for this lab would take up 2-3 bays of the Building 221 on the East end of the building. The actual lab would only be a 12'x20 room that would be kept sterile. The other 15 ft is the testing area for substrates, black fly composting, and compost tea manufacturing and testing as described below. The function of the common space would be to have education room in the area closest to the Education Section

There are several factors for a mycelium culture to flourish into a fruiting body. The goal of a Mycelium Lab in the Building 221 project would be to perfect the practice for inoculation of the spores and getting them started into a sellable substrate. This lab would go hand in hand with a successful composting operation. BARC's objective is to work with local mycologist to offer a lab where they can harness the balance between art and science. Below are a few of the products, bi-products, and uses for a successful lab at Building 221.

- Mushroom Cultivation
BARC to use the lab to produce compost substrates inoculated with different types of mushroom spores. The goal would be to sell locally materials that can be farmed off site, or for hobby farmers to gain better understanding of the world of mycelium. This would create a high value market for our composting operations on site and off. Another use would be mycelium remediation.
http://mushroompatch.com/indoor_lab.htm

- Mycelium Inoculation Service
A service to capitalize on would be the inoculation of cultures locally and sell the successful spawn to other buyers around the country for their use in Fungiculture Operations. Other sellable ideas are mycelium remediation of toxic chemicals and mushroom kits that can be made with recycled content and sold locally.
<http://sporepod.com/Products.html>
- Local Mycelium Packaging
For every mushroom produced there are is a minimum of the same mass underground to support that fruiting body. If you had ever lifted a log in the forest, then you would have noted the thin fibrous roots that entwines the wood to the earth. That is mycelium; the root system to a mushroom. A great use of local mushroom cultivation is the use of the mycelium networks it creates. If grown into a reusable form the actual mycelium can be made into a high value packaging material competitive with the white polystyrene packing that we are so used to. The mycelium packaging however would be a 100% organic and compostable material that could be discarded into ones compost pile or yard as it returns back to the earth.
<http://www.mushroompackaging.com/>

2. Interior and Exterior Composting Operations:

The practice of composting happens regardless of human involvement. It is the natural decay of organic materials that occurs in nature every day, whether it be on a forest floor, or the natural return of a garden to the soil from which it grew.

It was not until just recently that we as a society have begun to understand the importance of finishing the process of decay in a natural way. Food waste and organic material that is landfilled is put into an un-natural state of decay by stopping organic material access to oxygen, water, and the right environment for it to return to being clean fertile soil.

This practice is especially important here in Northern Michigan, with our sandy soil and the lack of organic matter. It takes extra care and understanding of our soils locally to create an environment rich with the minerals and trace elements needed to produce world class gardens.

We wish the utilize Building 221 as a research and development lab and explore the different types of composting available today. Below is a description of some of the ideas that our Building 221 Plans would incorporate.

- Windrow Composting:
This practice of composting is the standard for most farms and communities. By creating a linear pile of carbon and nitrogen that is approximately 12ft x 5ft high, it creates an environment where the micro-organisms that are naturally occurring in nature to break down organic matter and create nutrient rich soil. This practice will occur in the established composting area for the Historic Barns Project. We intend to collaborate with Alex Campbell and the Community Gardens on site to manage and control the pile. Along with the leaf mold that BARC can supply at this location, we can also introduce the unused and or

unwanted plant matter from the community/botanical gardens and any compostable materials from zero waste special events held on site. The material would be turned by tractor every few weeks as the pile goes through its process of heating up and cooling down.
http://en.wikipedia.org/wiki/Windrow_composting

○ 3 Bin Composting:

A display and understanding of this back yard composting systems would be of tremendous value for the Building 221. It would educate our community on the proper process and procedure for composting food waste. Once our community has a basic understanding of the simplicity of the three bin system, more people would remove compostable material from their waste streams. We intend to collaborate with Carter and Ty Schmidt with Carters Compost to build, manage, and showcase this practice. Again, this would be located at the composting area that is currently shown on site.
<http://www.countryfarm-lifestyles.com/making-a-compost-bin.html>

○ Aerated Static Pile (ASP) Composting

The science behind a rapid biodegradation composting operation is the balance of oxygen, nitrogen, carbon, water, and microbial population. In this environment the control of the operation is maximized and compost is created in. A concrete pad in the composting area will allow for an ASP system to be created. Embedded in the composting pad are a series of PVC aerating tubes that draw air into the base of the pile thru a passive wind fan. The tubes also allow gravity to prevent water from ponding in the base of the pile. The water is then redistributed into the pile to keep the compost for evaporating all of its water content from the heat produced. Testing for this ASP system has been done extensively in Northern California and other locations throughout the United States. The tests show that an ASP system composts food waste faster and more complete in a shorter period of time.
http://en.wikipedia.org/wiki/Aerated_static_pile_composting

○ Black Soldier Fly Composting

When it comes to breaking down food waste, no animal is more apt than the Black Soldier Fly. These fly's are in the larva grub stage for 95% of their life cycle and while they are in this stage they are voracious eaters. They can consume over three lbs of food waste per square foot per day. A healthy colony of 20 lbs of grubs can be produced from every 100 lbs of food waste. They are 40% crude protein and over 20% fat making them an excellent source for fish feed. In addition, these larva consume the food so fast there is no time for the food to rot and start to smell. Black Flies are not a disease vectors, meaning do not transmit diseases unlike other types of flies. They cannot bite, sting, or repel with pheromones. In partnership with Daniel Nolan with Stone Aquaponics, Traverse City, we wish to test out the Black Fly composting techniques and to create a sellable system that can be duplicated at other locations off site. The flies will be in a contained system that is approximately a 5ft x 5ft foot print inside the Building 221 in the winter and outdoors for the remainder of the year.
<http://www.blacksoldierflycomposting.info/>

- Vermiculture Composting
Worm castings are nature's perfect compost. Worm bins are used throughout the world as an efficient way to process food waste, create a great source of fertilizer, and to supply worms for the fishing industry. Below you will read about an exciting partnership between BARC and Traverse Aquaponics. The vermiculture system at the Historic Building 221 would be another supply of food source for the fish that are being maintained on the same property.
<https://www.vermiculture.com/>
- Compost Tea Manufacturing
From the composting operations on site a high value liquid referred to Compost Tea can be produced and sold to local gardeners. Compost tea is a liquid form of compost by steeping matured compost in water to extract the minerals, elements, and microorganisms into a liquid form. This liquid can be applied to plants through the leaves or soil as a replacement of herbicides, fungicides, and pesticides. Compost tea development at the Building 221 site would create a specialized business opportunity that could be created off site. The production of compost and compost tea would replace phosphate based fertilizers thus reducing phosphate runoff.
<http://www.dep.state.pa.us/dep/deputate/airwaste/wm/recycle/Tea/tea1.htm>

3. Education Area: Focus on Sustainable Energy (in partnership with Local Energy Suppliers)

Sustainable energy, energy conservation and production at the Historic Barns Area is already underway with the use of geothermal heat. In the Education Section to the Building 221 we wish to invite our local energy companies to showcase and describe their efforts toward sustainable energy in the Traverse City Region. It is our goal to house several different energy concepts in the Building 221 for electricity and heating. We wish to partner up with local power suppliers such as Consumers Energy, Cherryland Electric, DTE Energy, and Traverse City Light and Power.



The area in the middle section of the Building 221 space would be reserved for education purposes in the Building 221 project. With all of the interesting and new conceptual programs that would be developed we would see that this space was well used. Our goal would be to open this area for all of our community to share their ideas and to learn how others are growing sustainable businesses and organizations based off of permaculture farming.

Buying locally made products and food reduces the energy it takes to get those products to your table. With a focus on energy conservation and sustainable energy production we wish to showcase the following energy concepts. We envision that there would be two engines; one that runs off of natural/methane/synthetic gas and another that runs off of bio diesel. These two engines would run one generator that would produce electricity stored in a battery bank. This same battery bank would also be charged from solar and wind energy on site.

- Wind Power Generation
Wind energy is one of the cleanest forms of energy available. BARC is interested in a small wind turbine staged at the west end of Building 221.
<http://www.consumersenergy.com/content.aspx?id=1478>

- Solar Power Generation
Solar power is also a great addition to our renewable energy plan there at Building 221 and at the Historic Barns. The goal would be to use the south edge of the roof to put up an array of solar panels in lieu of building a parapet wall on the Green Roof System. This would act as a solar collector and as a parapet wall for safety.
<http://www.cherrylandelectric.com/content/community-solar>

- Geothermal Heating
The geothermal energy system at the Historic Barns has already been installed. This process uses the difference of heat in the ground and ambient heat in the air as source of energy. BARC would like to branch off the stubbed in geothermal system and utilize the energy at building 221 with our own heat transfer pump.
<http://www.cleanenergynowmi.org/2013/09/one-barn-three-utilities-and-geothermal-success/>

- Wood Energy/Bio-Gasification /Plasma Arc Gasification Organic Methane Digestion
Wood and other organic feed stocks are the way of the future when it comes to bio gasification. With a net positive heat and energy output, the ability for us to process what would normally become landfill into energy is now within our reach. BARC would like to partner up with Heat Transfer International to create a single digestion/gasification system that would supplement the power and energy needs at the Historic Building 221. This system would use several different feed stocks to generate power from one engine.
<http://www.heatxfer.com/index.html>

4. Aquaponics (in partnership with Traverse Aquaponics, LLC)

Traverse Aquaponics, LLC is an agricultural start-up that will contribute to a more sustainable and robust agricultural industry in Traverse City by building, educating, developing and packaging a unique food production system – Aquaponics. This unique technology would help Garfield Recreation Authority diversify its activities and create new industry at the Historic Barns Park.



The success of our model is measured by economic, environmental, and social sustainability:

- Economically: By minimizing the inputs and maximizing the outputs of the Aquaponics system, Traverse Aquaponics will improve its profit potential.
- Environmentally: Aquaponics can grow more food per square foot while using considerably less resources than traditional agriculture.
- Socially: Traverse Aquaponics is a value added business. It provides jobs and a creative agricultural production model that helps offset the adverse effects agriculture has on our environment.

Our Mission:

Save millions of gallons of fresh water, cut the carbon footprint of our food, collaborate and support regional economic development, create green jobs, and provide fresh, local and sustainably grown food and food systems to our community.

Our Vision:

Establish a home for Traverse Aquaponics to “prove our model” and perform the necessary research and development required. This would include the following:

- Utilize Building 221 and the surrounding grounds to research and develop turnkey commercial and small scale (hobby) Aquaponics models that can be replicated throughout the region and the country.
- Construct a hoop house parallel to the building that will be home to a commercial Aquaponics system. This space will be replicable model where research will be conducted to maximize year round food production.
- Utilize the Western 3 Garage bays as a research and development space for small scale hydroponic and Aquaponics systems that will be made available for sale to individuals, restaurants, schools, etc.
- Investigate how an Aquaponics operation can minimize inputs and maximize outputs. This will include studies on raising food sources, within the system itself, raising fry and fingerlings, and working with BARC to use fish compost as a compost tea additive.
- Collaborate with like-minded entities such as BARC, SEEDS, Michigan State University Agricultural Extension, Oryana Food Co-op, local schools and other regional businesses to strengthen sustainable agriculture's role in economic development, provide educational opportunities/programs and promote food resiliency.

(Please see Attachment #1 for Traverse Aquaponics full proposal)

5. Green Infrastructure Demonstration (in partnership with Inhabitect, LLC)

Inhabitect, LLC is a company focused on project planning and management, landscape green roof, and green infrastructure design, product sales and marketing, and sustainable construction. We collaborate with and have experience working with all sectors of a design and construction team. We pride ourselves on offering a unique perspective and outlook to the challenges faced by the design and construction communities. We hope to help streamline this process and help it become more socially, economically, and environmentally sustainable.



Our Mission:

From concept through completion, Inhabitect, is focused on designing, building, and growing landscapes and storm water solutions, on rooftops and at grade, that strive to exceed both industry standards and client expectations.



This is a conceptual rendering of Inhabitect's vision for Building 221. This depicts a few types of living walls, a green roof, storm water planters, and a vegetated bio-swale all leading to the proposed constructed wetlands, seen within the Site Development Plan for this space, at the Silver Drive and Silver Lake intersection.

Our Vision:

Establish, maintain and monitor a Green Infrastructure demonstration project that utilizes numerous storm water technologies. This would include the following storm water management facilities a place within the "treatment train" or holistic approach being proposed for this site. Each element would be interconnected:

- Green roof/Vegetated Rooftops:
We plan to showcase a few different types of green roofs. Ideally each roof would be planted with different plant materials. Inhabitect is proposing a standard extensive planting, a native planting, and a rooftop agriculture planting.
- Green Wall/Living Wall:
Inhabitect plans to showcase various different types of vegetated walls systems. Some will help with storm water management and others will help to shade the concrete walls of Building 221 which will help keep it cool during warm days.
- Storm Water Planters:
The proposal includes a series of storm water planters, put more simply "fancy planted rain barrel's", that will capture a specific amount of flow that is not captured by the green roofs and green walls. Once their limit is met they will spill over into a vegetated bio-swale.
- Growing Duckweed:
Duckweed, a very easy plant to grow, will be cultivated in these storm water planters and possibly within the constructed wetlands (if approved by the township) at the end of this system. This plant can be used as a feed source for the fish within the Traverse Aquaponics systems and reduce this organizations dependence on outside feed sources.

- Vegetated Bio-swale:
This feature will capture all over flow from the other storm water elements mentioned above as well as the water from the site parking lots, and also act as an emergency overflow for the Outdoor Aquaponics system proposed by Traverse Aquaponics. This will meander towards the proposed constructed wetland at the corner of Silver Drive and Silver Lake Drive.
- Interior usage:
Inhabitect is proposing that they share the Western 3 Garage bays being sought by Traverse Aquaponics. These companies will share tools and equipment.
- Research:
Inhabitect plans to do some research including storm water management observation for use by design professional, and to do studies on raising food on rooftops and native plant use on green roofs. We will be working with BARC to use incorporate their compost into local blended green roof growing media and testing its performance.
- Outreach:
Inhabitect will collaborate with like-minded entities (Watershed and Conservancy groups, Engineers, Architect, and Landscape Architects) in the community and we will work with local schools and universities on formal educational programs/classes and field trips. This outreach will also include educational signage explaining the functions of the storm water technologies users will be seeing while visiting the site.

(Please see Attachment #2 for Inhabitect's full proposal)

Construction Time Frame:

It is the goal of the Building 221 Partners that the construction process would commence in the spring of 2014 and last for a few short months. Funding mechanisms for this project will begin upon being awarded the contract. Below is a list of improvements to the building and capital required to make all aspects of this offer operational. The permanent improvements would need to be bid out at the time of contract award.

Permanent Capital Improvements: \$42,500 budget

1. Lead Base Paint removal thru sand blasting block walls	\$3,000
2. Painting of Exterior of building	\$2,500
3. Expansion Joint caulking at block wall separation	\$ 500
4. Connection to Municipal Water to supply manifold	\$4,000
5. Connection to Municipal Sewer	\$4,000
6. Provide 200A Service Panel	\$4,000
7. Structural 1-3/4" x 11-7/8" 1.9E LVL Sister Joists	\$9,000
8. Stud Wall/Finish of Mycology Lab	\$5,000
9. Garage Door converted to Man Door	\$1,500
10. HVAC Heat Pump/Heat Transfer of Geothermal	\$5,000
11. Deck Material and Labor to Install	\$4,000

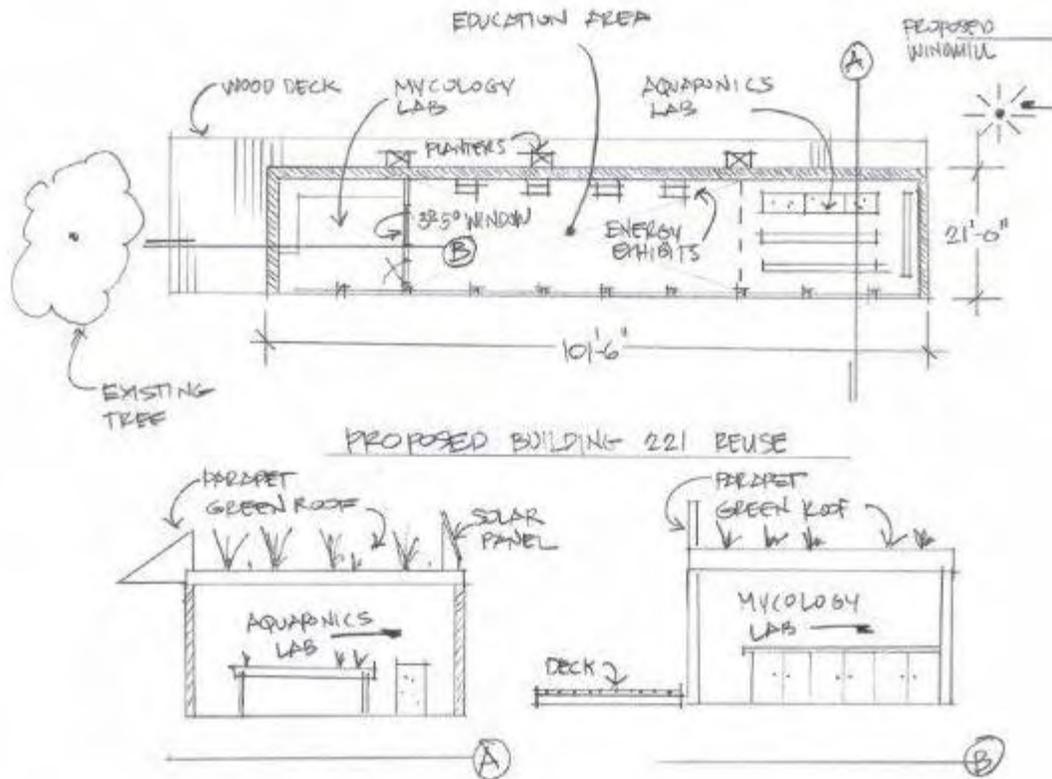
BARC Capital Required for Mycelium Lab: \$5,000 budget (Funded through BARC)

1. Sterile Equipment/Containers
2. Common Substrate
3. Filtration Fans/Incubator

BARC Capital for Composting: \$5,000 Budget (Funded through BARC)

1. ASP Concrete Pad
2. 3 Bin System

Traverse Aquaponics and Inhabitect Capital: Please see attachments #1 and #2.

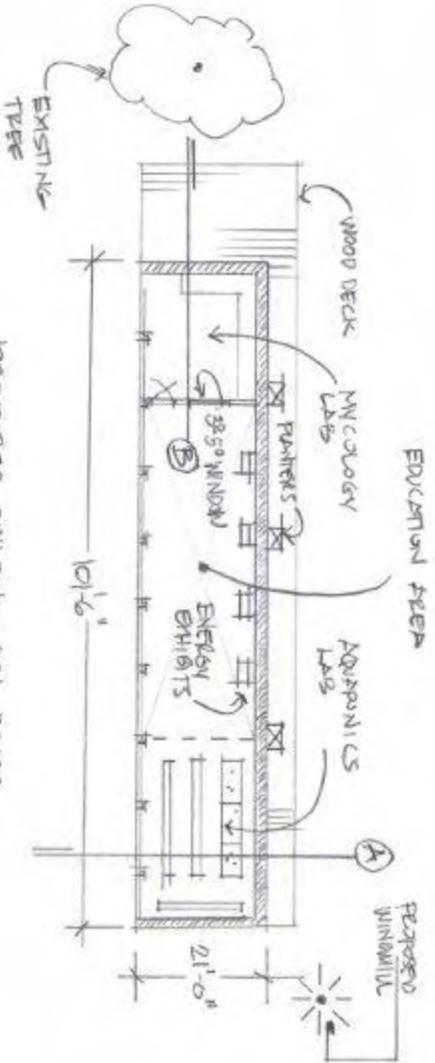


Concept Image: Building 221 with BARC, Traverse Aquaponics, and Inhabitect collaboration

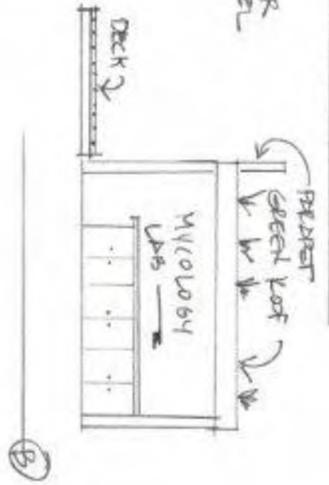
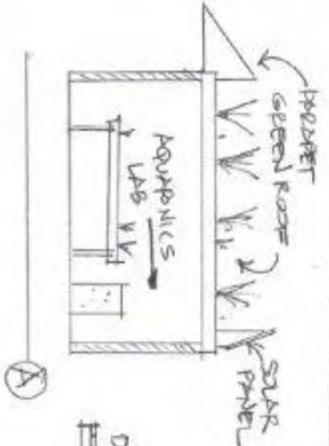
Potential Collaborators and/or Partners of Support:

Sarna Salzman	SEEDS
Sarah Johnson	Greenspire
Michele Shane	Children's House
Mimi Spaulding	TBAISD Work Training
Tony Anderson	Cherryland
Doug De Young	Consumers Energy
Ray Minervini	MAM Construction
Rob Serrine	MSU Extension, Food Systems Educator
Steve Nance	Oryana Natural Foods
Alex Campbell	Community Farming at the Historic Barns
Daniel Nolan	Stone Aquaponics
Levi Meeuwenberg	Traverse City Permaculture Farming
Bill Queen	NMC Renewable Energy

Jim MacInnes	Grand Vision Energy Council
Bruce Odom	As Local as Possible
Jeff Cockfield	Grand Traverse Engineering, LLC
James Olson	FLOW & Olson, Bzdok & Howard
Brain Matchett	MSU – Institute of Agricultural Technology
Annie Campbell	Disability Network
Saran Uren	The Watershed Center



PROPOSED BUILDING- 221 REUSE





Attachment #1

Proposal for Adaptive Reuse of Building 221 at the Historic Barns Park

“Innovative Food Systems”

Presented by

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Josh Graybiel
(josh.graybiel@gmail.com)

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Executive Summary:

Traverse Aquaponics, LLC is an agricultural start-up that contributes to a more sustainable and robust agricultural industry in Traverse City by building, educating, and developing a replicable and unique food production system – Aquaponics. This technology will help Garfield Recreation Authority diversify the activities and industry of the Historic Barns Park, yet fall within their original goal to use this space for agricultural activities.

The success of our proposed model is measured by economic, environmental, and social sustainability.

- Economically: By minimizing the inputs and maximizing the outputs of the Aquaponics system, Traverse Aquaponics will improve its profit potential.
- Environmentally: Aquaponics can grow more food per square foot while using considerably less resources than traditional agriculture.
- Socially: Traverse Aquaponics is a value added business. It provides jobs and is a creative agricultural production model that helps offset the adverse effects agriculture has on our environment.

Mission:

Save millions of gallons of fresh water, reduce the carbon footprint of food, collaborate and support regional economic development, market and sell innovative small-scale food systems, create year round green jobs, and provide fresh, local and sustainably grown food to our community.

Vision:

Establish a home for Traverse Aquaponics to “prove our model” and perform the necessary research and development required to make it a success. This would include the following:

- Utilize Building 221 and the surrounding grounds to research and develop innovative products and turnkey commercial and small-scale food production systems that can be replicated through out the region, the state, and the country.
- Construct a hoop house parallel to the building that will be home to a commercial Aquaponics system. This space will be where research will be conducted to maximize year round food production and determine what is needed to deliver a replicable model.

- Utilize the Western three (3) garage bays as a primary research and development space for small scale Hydroponic and Aquaponics systems that will be fabricated and sold to individuals, restaurants, schools, etc.
- Investigate how an Aquaponics operation can minimize inputs and maximize outputs. This will include studies on growing medias, food sources to minimize our dependence on standard feed sources, investigate vermiculture, raise minnows, and within the system itself, raise fish, and work with BARC to use their waste as a compost tea additive.
- Collaborate with like-minded entities such as BARC, SEEDS, Michigan State University Agricultural Extension, Northwestern Michigan College, Oryana Food Co-op, local schools and regional businesses to help sustain agriculture's role in local economic development, provide educational opportunities and programs and promote food resiliency.



Image: This is an example of the educational signage that will be placed all around the Traverse Aquaponics facility.

Products and Services of Traverse Aquaponics

Outdoor Aquaponics

The Outdoor Aquaponics system that Traverse Aquaponics is proposing will be a unique space that will allow numerous educational opportunities. It will look similar to the floor plan layout drawing below(please refer to page 23 for more detail):



Here are some basics of this proposed space:

- The entire Outdoor system will be contained within a 30' x 96' hoop house on the Southern side of the building.
- The design allows for multiple types of vegetables to be grown.

Aquaponics is a buzz word within agricultural, educational and consumer markets. There is an incredible amount of support and enthusiasm from backyard gardeners and consumers from all over the world. Traverse Aquaponics would like to build off of this enthusiasm and create an economically and environmentally viable option that is replicable on many scales.

The outdoor system described above would quickly become one of the more notable Aquaponics operations in the world. The industries infancy allows for our dynamic team to develop this turn key system and put Traverse Aquaponics near the top.

Indoor Aquaponics:

Traverse Aquaponics recognizes the increased desire to grow your own food or source your food from your neighbors as an opportunity. While our Outdoor system will be a wonderful source for folks seeking healthy and sustainably grown agriculture, the plans for our Indoor systems centers around giving individuals the option of bringing this technology to their homes, schools, or restaurants.

Traverse Aquaponics plans to research and develop more efficient solutions to this small-scale indoor niche, build them within Building 221, and sell them to regional, and potentially national, consumers. We have already had interest from popular, local restaurants and numerous homeowners in our community. We just need to have a demonstration area to showcase what we can do.

Our plans include collaboration with local businesses to build our racking systems, and we will do our best to keep all material purchases local. Below are a few examples of systems that are similar to what would be created in this space.



The images above show two different small-scale Aquaponics systems.



The image above shows an indoor micro-greens operation at Moto Restaurant in Chicago, IL.

What is Aquaponics?

Aquaponics is a closed loop re-circulating food production system that mimics nature's functions. They are designed to create a healthy and balanced ecosystem that produces delicious fresh food year round. It is essentially the combination of aquaculture (raising of fish) and hydroponics (soil-less plant growth). The fish provide nutrients for the plants, and the plants clean the water for the fish, creating a harmonious symbiotic ecosystem.

This interaction is grown completely organically and is sustained through a healthy biological and ecological system. It is an effective teaching tool that engages visitors of all ages in science, engineering, food system technology, as well as resiliency, and the importance of creating a sustainable source for fresh , local food.

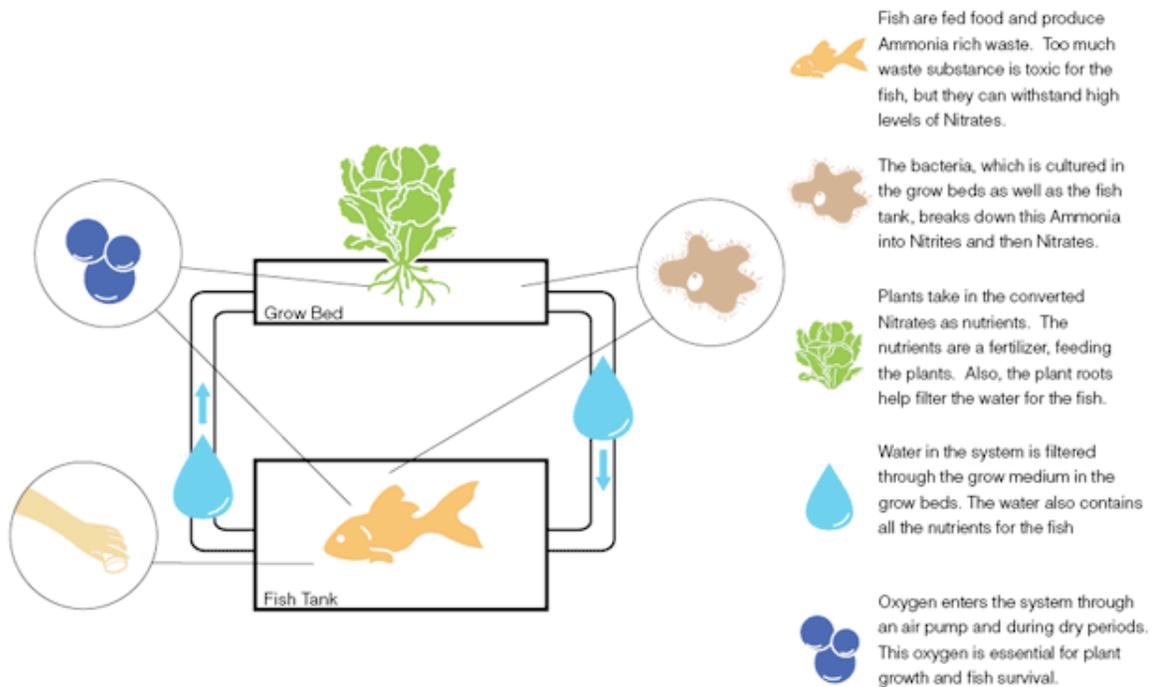


Figure 1.1 This Aquaponics diagram demonstrates the ecology and biology of the system. Nutrient rich water flows from the fish tank to the hydroponic area where plants clean the water, and is then returned to the fish tank. (photo credit to Friendly Aquaponics Inc.)

Traverse Aquaponics at the Historic Barns:

The goals of Traverse Aquaponics fit well within the currently approved uses for the property surrounding Building 221. The Barns, and the current agricultural activities happening in this area, are the perfect place for Traverse Aquaponics to cultivate and grow its business model. The numerous collaborative opportunities with other Barns User Groups, close proximity to commercial and farmers markets, and ease of access would accelerate the growth potential of this start-up.

Our mission, vision and values align perfectly with the “Development Principles” and “Use Themes” of the Garfield Recreational Authority. The Traverse Aquaponics model aligns with the “Agricultural and Cultivation” designation as defined within the Brainstorming the Barns – Final Report. Our proposed use preserves the goals of the Site Plan Development for the property previously held by Little Artshram, and we work within the boundaries of this use area.

Development Principles:

Traverse Aquaponics has considered each of the Development Principles outlined within the RFP. We have listed how we plan to meet each of these below:

Mixed use:

Along with our partners in this proposal, BARC and Inhabitect, we will do our part to diversify the use of this space. Aquaponics is a technology that compliments the current Barn User Groups. It is similar, yet innovative and unique.

Minimize disruption:

We hope to install the hoop house on the Southern side of the building. There will be limited topographical adjustments needed to construct this component on an even base and all efforts will be made to do so. Traverse Aquaponics will consult with the Disability Network to ensure this structure is ADA compliant and universally accessible.

Developed and Open Areas:

If the current plan is acceptable, the hoop house will run parallel with Building 221. Traverse Aquaponics will not construct anything further than 60 ft outside of the footprint of the existing block structure.

Connections:

Traverse Aquaponics will work with Barn User Groups and other neighbors to promote the use of this building. We will work with the Township to create appropriate signage and linkages off of the bike pathway and other bordering attractions.

History:

Traverse Aquaponics feels that the closed loop, self-sustaining nature, of Aquaponics is complimentary to the historical use of the Barns Park area. We would strive to rehabilitate and reuse the structure of Building 221, while also adding new elements to compliment the historical nature of the building.

Sustainability:

A major component of the collaboration between BARC, Traverse Aquaponics, and Inhabitect is smart design and economic and environmental sustainability. As a team, we plan to improve the structure to meet our needs while including technologies that are “green”; such as renewable energy (wind and solar) and green infrastructure elements (green roofs, stormwater planters, etc).

Use Themes:

Traverse Aquaponics has defined how we will address the themes of this proposal below:

Agriculture and Horticulture:

Traverse Aquaponics will explore a new technology that will promote one of the agricultural industries using innovative and promising horticultural practices-- Aquaponics.

Community:

The goal of Traverse Aquaponics is to educate the community and create outreach programs that showcase an exciting and promising technology. This technology has the ability to create jobs and capture the interest of visitors of all ages.

Arts:

Traverse Aquaponics believes that Aquaponics celebrates the art of Mother Nature and her ability to harness numerous variables and technologies into one harmonious system.

Recreation:

The Barns has created a space for people from all over our region and state. The reuse of the space will continue to be an attraction. Traverse Aquaponics will add to the appeal of this unique space and give its visitors an interesting destination.

Activities and Uses:

Traverse Aquaponics' uses for Building 221 are predicted to include not only the research and development spaces for the commercial and small scale Aquaponics system, but also a dedicated classroom space that will be shared with BARC, Inhabitect, and other Barn User Groups.

Here is a quick summary of some of the activities we have planned:

- Daily:
 - Arrival by car, bike or foot
 - Utilize parking as designated by the Site Plan Development
 - Daily maintenance of Aquaponics system: cleaning, harvesting, seeding, and feeding fish
 - Open door policy for curious individuals to stop by and say hello at given times of day
 - Office work
- Monthly:
 - Tours of the farm
 - Schedule school trips and community tours
 - Schedule and organize classes and outreach programs
 - Interact with other Barn Users Groups: SEEDS, Northwest Michigan Botanical Gardens, and Community Gardens
- Yearly:
 - Estimated annual visitors: 1,500 people (approx. 30/week)

Activities will be centered on the hoop house, proposed for the Southern side of the building, and the indoor system, within the Western three garage bay doors of the building, to demonstrate all of the facets of Aquaponics.

Marketing

Traverse Aquaponics' target audience is the entire community. This technology will be of interest to people of all ages. We will promote our project with local media outlets, on social media sites, and through word of mouth. We will reach out to the community through our school systems, workshops, and farm tours that will stress the significance of buying local, fresh food, and living healthy lifestyles through the use of Aquaponics.

Traverse Aquaponics has identified four markets for its produce in the greater Grand Traverse region. The following markets are listed in preference:

- **Farmers Market**
 - This allows us to sell directly to customers. It is advantageous in several ways: A) eliminates the third party, allowing farmers to be more profitable, B) Farmers Markets directly connect people with their farmer helping to establish relationships and trust within the community (a vital component to a new technology like Aquaponics).
- **The Commons**
 - Traverse Aquaponics will offer fresh food on demand to businesses at the Commons that have shown interest in our product. This will be a way to cultivate on-site relationships and embrace the farming practices once performed on this property.
- **Restaurants**
 - Traverse City's diverse restaurants and designation of a "foodie" destination provide a perfect avenue to market and sell our year round produce to these small businesses.
- **Grocers**
 - Supporting and collaborating with the local grocers in the community is a celebrated option for Traverse Aquaponics. We have hopes that our unique growing technologies, as well as the year round availability, will draw these customers to our locally grown products.

Creating a Foundation for Sustainable Agriculture

Traverse Aquaponics will help create a sustainable agricultural model for the future. The goal is create food security and access to fresh food for communities around the world. Traverse Aquaponics can accomplish this with its dynamic food production systems that conserve critical natural resources and reduce agriculture's current ecological and economical footprint.

In 1987, the United Nations created the World Commission on Environment and Development. They defined sustainable development as "meeting the needs of the present without compromising the ability of future generations to meet their own needs."

Traverse Aquaponics has the potential to help create a sustainable model:

- Aquaponics agricultural model symbiotically grows a diverse production of plants and fish that can be sold organically for a premium to a market that is receiving expanding consumer support. Its cyclical and reusable process will create internal economies of scale as the business grows. Further, its emergence as a food production industry will help provide jobs, which will boost local economies.
- Closed – Loop system, using waste to create resources.
- A growing consumer trend to go green and support environmentally conscious businesses and techniques indicates that Traverse Aquaponics will receive consumer support.
- This system can be adapted anywhere in any climate, and can help shape a sustainable agricultural model for developing nations.

The World Commission on Environment and Development also generated a comprehensive list of issues that includes: energy, water, land management, and human settlements. Traverse Aquaponics has the potential to provide solutions to these pressing topics:

- **Water:** Aquaponics grows plants using one-tenth of the water traditional agricultural techniques demand.
- **Energy:** An Aquaponics system requires minimal energy requirements, and pales into comparison with traditional agricultural practices. It can also be designed to be powered by alternative energy systems such as wind, passive solar hot water, and solar electric. By producing food locally, Aquaponics reduces the carbon footprint of each product.
- **Land Management:** Traverse Aquaponics will create an indoor model; it will provide an option to easily deliver local fresh produce in cities.
- **Human Settlements:** Currently people all over the world are moving from rural to urban settings at unprecedented rates. Traverse Aquaponics will offer systems capable of providing fresh organic food to urban areas of all types, including, and most importantly, 'food deserts'.

How's the world different with Traverse Aquaponics?

By the year 2050, there will be 9 billion people in this world with 80 percent of those inhabiting our urban cores. This increase in demand is paralleled by a limited supply of natural resources, such as fossil fuels and water, which are heavily relied upon through the food production chain. How can the world feed itself in the 21st century? By restructuring the current agricultural models that are being used.

Traverse Aquaponics will be at the forefront of this mission if we are given the chance to put our plans into motion. By supplying an efficient and profitable food production system, , creating jobs and educational programs, and providing the level of food security needed in all areas of the world, Traverse Aquaponics plans to be at the forefront of this agriculture movement. We want to be the teachers,

innovators, and material providers that support this movement--and we have the plan to do so. There are no commercial Aquaponics systems in the Grand Traverse region. Traverse Aquaponics will be the first its kind. This provides an innovative, profitable year round agricultural based opportunity.

The approach that Traverse Aquaponics plans to take is unique and unlike anything in the industry. We hope to create a replicable business model that can be franchised across the region, the nation, and the globe. The model is innovative because it includes educational and community outreach, design and construction consultation, and product and system innovation, development, and manufacturing.

Replication:

By expanding on our initial turnkey system, Traverse Aquaponics has plans, and has already started to research, how we could replicate its various models once the Traverse City based operation is running at full capacity.

Consulting:

There will be consulting services available to aspiring Aquaponics farmers regardless of the scale of their operation. Our team will help them design, build, and grow what they require be it an indoor, outdoor, or rooftop operation.

Rooftops:

There are literally billions of square feet of rooftops throughout North America that could easily be retrofitted for agricultural production. There is a very strong green roof market that is growing every year. Many of these roofs are starting to incorporate some type of agriculture to their designs rather than being strictly a recreational or utilitarian space. By incorporating the known and widely accepted practices of an established green roof industry, Traverse Aquaponics plans to work with Inhabitect to integrate Aquaponics onto rooftops.

Proposed Traverse Aquaponics Timeline:

The timeline below would be ideal for Traverse Aquaponics. We would like to start the construction of our Outdoor system in early 2014. This will allow us to get a full growing season of production and generate income for the construction of the space we are proposing for our Indoor system.

Stage I: Construction and Cycling: April – June 2014: Establish and construct Outdoor system on the Southern side of Building 221.

Once the system is constructed there will be a time period where the system is cycling in order to grow the necessary bacteria. During this time there will be no food planted, yet this is a crucial learning opportunity for any aspiring Aquaponics farmers. The community will be invited to participate and learn how this process works, why it is important, and how to do it properly.

Stage II: Managing and Starting Your System: July – August 2014: Add fish and begin planting greens, prepare for first harvest, etc.

As with every step throughout both the construction and cycling process, there will be an open invitation for the public to observe the system once the fish and produce are in place. Every Monday we will schedule community workdays so interested parties can “get their hand dirty”. Other days will be available upon request. The number of spots available at each of these works days will be capped at 20 people and will be first come first serve.

Walk-ins will always be allowed, but it will be stressed that if participants want to secure a spot, a reservation is suggested. This will give our employees a chance to prepare for each Monday’s group.

Stage III: Managing a working System: September 2014: Workshops will be held about designing an Aquaponics system, where to source the products required, and how to build your system.

There will be 2 afternoon workshops that will be held in September of 2014 for interested residents to learn how to build an Aquaponics system. This will be a more in-depth course than the “open house” Mondays.

All visitors to the Aquaponics system will be asked to sign in and provide their contact information: name and email. At the end of the summer, a survey will be dispersed to gather feedback regarding the effectiveness of the program, and to find out if anyone is interested in creating an Aquaponics system of his or her own.

Organizational Capacity

The Traverse Aquaponics, LLC team includes a team member that has experience owning and operating an Aquaponics system . In addition, an individual with over 10 years of experience within the green roof industry, who worked on some of North America’s largest urban agriculture projects, is involved.

This model has the ability to be expanded beyond a typical Aquaponics operation to include: indoor and outdoor “DIY” systems and packages, efficient and profitable systems for green houses in all climate zones, as well as on rooftops, new and old, and an educational outreach program, which is engrained into the fabric of the company.



Nathan D. Griswold, ASLA, GRP

Nathan is President of Inhabitect, LLC and Traverse Aquaponics, LLC. He has worked within the green construction industry for nearly 10 years. He has played a role in the design, development, and construction of almost one thousand green roofs throughout North America. His deep technical understanding of this niche market paired with his educational background is valuable to any design or construction team. His experiences have brought with them a vast network of industry leaders in the architectural, landscape architectural, engineering, construction, and manufacturing communities, as well as with municipal entities around the world.

After spending 8 years with one of the nations largest waterproofing and green roofing manufactures, acting as their Senior Garden Roof Technical Sales Coordinator, Nathan chose to break out on his own. From concept through completion, Inhabitect, is focused on designing, building, and growing landscapes, on rooftops and at grade, that strive to exceed both industry standards and client expectations. Traverse Aquaponics is complimentary startup that focuses on providing sustainable food systems in urban areas.

Nathan earned a Bachelor's Degree in Landscape Architecture from Michigan State University. He also has Associate's Degrees in plant science and landscape and nursery development. Nathan is active with the green roof industry's trade association, Green Roofs for Healthy Cities (GRHC). He was recently contracted to be the North American Green Roof Policy Educator, where he manages the industries Policy Ambassadors and acts as a lobbyist in support of green roofs and green infrastructure development. He is the co-chair of the Advanced Green Roof Maintenance committee, an active member of the Green Roof Growing Media Committee, regularly speaks at conferences, and is an approved GRHC continuing education provider. He is a long time member of the American Society of Landscape Architects (ASLA), was one of the nation's first individuals to achieve his Green Roof Professional (GRP) accreditation, and is an active member within the American Society for Testing and Materials (ASTM) green roof committee.



Josh Graybiel, Aquatics Biologist and Aquaponics Specialist

Josh has been associated with Traverse Aquaponics since its inception and will be brought on as a full time employee if this opportunity is realized. His career goal is to mimic nature's ecological processes into modern design to help shape a sustainable and efficient world. He is from Harbor Springs, Michigan, a small tourist town along the coast of beautiful Lake Michigan. Growing up in this region instilled a great respect in Josh, and an appreciation for the environment and natural world.

Josh has years of experience with the research and development of an efficient, closed loop, food production method: Aquaponics. Josh's careful planning, work experience, and education combine for a dynamic skill set that has helped him pioneer this industry.

Josh's accomplishments and work experience exemplify his synergistic background:

- *Bachelors of Science in Fisheries and Wildlife, Water Sciences and Marine Ecosystem Management from Michigan State University*
- *1st Place at the 2012 Loyola Venture Catalyst Business Plan Competition: Developed a comprehensive business plan for an Aquaponics operation.*
- *Founder of Freshwater Farms Aquaponics: small commercial Aquaponics system in Harbor Springs, MI*
- *Previous work experience at the Michigan Department of Natural Resources Oden State Fish Hatchery where over 1 million brown and rainbow trout are grown annually.*
- *Internship at Viridis Aquaponics helping to build and manage the largest Aquaponics operation in North America, in Monterey Bay, California.*
- *Advisor to the non-profit Waterswheel Foundation in South Central Los Angeles, California. The organization provides hands on learning experiences for science, math and technology through an Aquaponics based curriculum for underprivileged youth.*

Josh believes by mimicking patterns and systems in nature we can help solve some of the world's most pressing issues.

Examples of Previous Aquaponics Projects

Josh Graybiel's Aquaponics designs are shown in the following images. Still to be developed are his contributions to Viridis Aquaponics and BP Gardens in California. Josh's experience designing, building, and managing Aquaponics systems provide a great niche within this developing industry.

The Soul Springs Permaculture Aquaponics System and the Freshwater Farm Aquaponics system were both built as a small scale commercial operation with a strong emphasis in data collection to assess the feasibility of a commercial Aquaponics system in Northern Michigan. The fresh salad greens were sold at local markets around Little Traverse Bay, Michigan.

Soul Springs Permaculture Aquaponics System



Pictured above is an Aquaponics system designed and built by Josh Graybiel in the spring of 2013 at Soul Springs Permaculture farm in Harbor Springs, Michigan. The fish tank is in the middle with a natural wigwam shelter and is surrounded in a sun pattern with deep-water culture grow beds.

Water is pumped up and out from the fish tank, into the rectangular grow beds, and returned back to the fish tank. The fish provide the nutrients for the plants, while the plants clean the water for the fish, creating an efficient and productive closed loop food production system.

Lettuce is harvested from the Deep Water Culture "grow beds," where lettuce is grown on top of floating rafts:



Pictured above are baby lettuces growing out of a floating raft system.



Picture above are lettuces before harvest.



The fish in the fish tank provide the nutrients for the plants

Freshwater Farm Aquaponics

Freshwater Farm Aquaponics was a research driven Aquaponics operation that helped create a starting point for Josh Graybiel's first large Aquaponics system.



Pictured above is an Aquaponics system designed and built by Josh Graybiel in the spring of 2012 in Pellston, Michigan. The hydroponic plant growing area is inside a hoop house with the fish tank outdoors.



The picture above shows a freshly harvest plant and its incredible root system

Freshwater Farm Aquaponics Indoor Hobby System

An indoor Aquaponics system is able to produce food year round, and is especially intriguing in areas such as Northern Michigan, where there is a short season for farming.

In this vertical stacked indoor hobby system, food is harvested from two levels. Traverse Aquaponics plans to develop these hobby systems for interested parties for educational and home gardening.



Pictured above is an indoor “basement” prototype designed and built by Josh Graybiel. The development and sale of small scale systems like the one above provides a wonderful opportunity for hands on educational learning for youth, and fresh year round food for interested individuals. This all helps to build a more resilient food industry within our communities.

Financial Plan

This Financial Plan focuses on the main known income source that will be captured by Traverse Aquaponics if our proposal is approved. We see the majority of our calculable income coming from the Outdoor Aquaponics system located in the hoop house running parallel to Building 221. The Indoor Aquaponics systems are speculative in nature, and their overall long-term economics are still being calculated.

The financial plan shown below is based off of the production capabilities of one 30ft x 96ft hoop house. It is based on the growth of head lettuce only. The total sales per year and potential return on investment are associated with the “Pack out” percentage met. Pack out is a term used for the percentage of the potential that is successfully brought to market. This percentage is then calculated into the number of heads of lettuce and is multiplied by the number of turns (harvest) per year. It is estimated that the year return on investment will increase as the upfront fixed costs for construction are paid off.

% Hoop house Utilized	Crop Harvest per Turn	Pack out	Marketable Heads per Harvest	No. Turns per Year	Marketable Heads per Year	Average Price/head	Total sales/year
55%	3,780	85%	3,213	10	32,130	\$2.00	\$64,260.00
55%	3780	90%	3402	10	34,020	\$2.00	\$68,040.00
55%	3780	95%	3591	10	35,910	\$2.00	\$71,820.00

Annual Variable Costs

Production Supplies:

Seed, Grow Media, etc.: \$1,368.00 per year

Production Labor:

Full Time Employee (\$12/hr): \$22,832.00 per year

Part time employee (\$12/hr): \$3,000.00 per year

Packaging Costs:

Labels, Crispers, Liners, Boxes, etc: \$6,263.00 per year

Utilities:

Electricity, Water, Phone, etc: \$1,490.00 per year

Miscellaneous Costs:

Marketing, Internet, Trade Shows, etc: \$7,770 per year

Professional Services:

Lawyer, Accountant, etc: \$2,500.00 per year

Total Variable Costs: \$45,223.00 per year

Fixed Costs

Greenhouse Structure:

Frame, Poly, Shade Curtains, etc: \$15,237.00 one time cost

Greenhouse Maintenance (20%): \$3,047.40 per year

Aquaponics equipment:

Aquaponics equipment: \$13,828.00 one time cost

Aquaponics Maintenance (20%): \$2,765.60 per year

Greenhouse Environmental Control:

Generator, Computer, Elec. Panel, etc: \$7,275.00 one time cost

Equipment costs (10%): \$1,455.00 per year

Growing and Delivery:	Scale, Meters, Sensors, etc:	\$555.00	one time cost
Loan and Credit Payments:	Business Loan (\$700/month):	\$8,400.00	per year
	Total Annual Fixed Costs:	\$15,668.00	per year
Estimated Costs (Annual Fixed + Annual Variable):		\$60,891.00	per year

Estimated Return of Investment per year:	\$3,369.00	per year	85% Pack out
	\$7,149.00	per year	90% Pack out
	\$10,929.00	per year	95% Pack out

The sales of the small-sale systems and the fees generate by consultation have not been figured into this plan at this time. There are numerous unknown variables associated with both of these aspects of our proposal, and we are calculating the potential for each revenue stream. It is known that many small-scale indoor agriculture systems on the market today go for anywhere between \$3,000 and \$6,000 dollars. The going rate for consulting (including construction) is between \$30.00 and \$50.00 per hour.

Our estimate is that Traverse Aquaponics would be able to sell 8-10 small-scale systems in the first year after we get started. Early estimates show that material costs are about 30-40% of these sales prices which leaves a good amount of margin to enhance the current technologies on the market yet still provide them to our customers at fair prices.

Inspirational Models

Traverse Aquaponics is pulling from two distinct non-profit models to help deliver a community driven Aquaponics project: the GrowHaus in Denver, CO and Growing Power in Milwaukee, WI.

Both of these operations have been selected as influences due to their clear vision and development of a successful Aquaponics operation with a dedicated mission to help shape a positive food revolution and collaboration within their respected communities.

[The GrowHaus \(www.thegrowhaus.com\)](http://www.thegrowhaus.com)



The GrowHaus is an indoor farm, marketplace, and educational center in Denver's Elyria-Swansea neighborhood. Their mission is to grow healthy community through food access, production and education. They utilize several growing methods including Aquaponics.

The importance of GrowHaus' education and community engagement is an influential model that Traverse Aquaponics has drawn inspiration from.

The master plan for this organization can be provided upon request.

[Growing Power \(growingpower.org\)](http://growingpower.org)



Growing Power is a non-profit organization established in 1993 by Will Allen with a vision to inspire communities to build sustainable food systems that are equitable and ecologically sound, creating a just world, one food secure community at a time. Will has personally shown interest in working with Traverse Aquaponics.

Their holistic approach to farming and its impact upon the community is another inspiration for Traverse Aquaponics and helps build a tangible model for Traverse City.

Traverse Aquaponics Hoop House Floor Plan Layout

The unique design of the Traverse Aquaponics system distinguishes itself from other aquaponics operations and other agricultural producers:

- Operation exists inside a 30' x 96' Hoop House
- Combines Aquaculture + Hydroponics with an innovative biological digester
- Will Produce:
 - 3,780 heads of lettuce a month
 - 100+ pounds of tomatoes or cucumbers annually
 - 500+ pounds of fish annually
 - Education and inspiration for youth and the community
- Optimizes Space for maximum production while incorporating educational and aesthetic attributes.
- Features a green roof to shade the fish tanks that will be planted with pansies, nasturtiums and green pole beans.

Drawing Key:

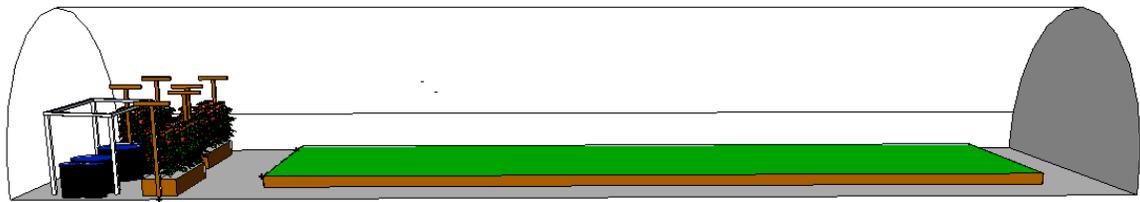
- Water will flow out of the **fish tanks** → **filtration system** → **plant growing area** → **green roof** → **fish tanks**
- Plumbing is not shown, but the system is connected in a loop.
- Green rectangle represents a Deep Water Culture hydroponic growing method where lettuce floats on top of the water on Styrofoam boards.
- Tomato plants are shown growing in a bio char and vermi-culture grow bed. They will all be plumbed in a series with a sump tank that is not featured.
- Large round cylinders are fish tanks
- Smaller round cylinders are part of the filtration system
- Structure above the fish tank represents a green roof to shade the fish from direct sunlight.



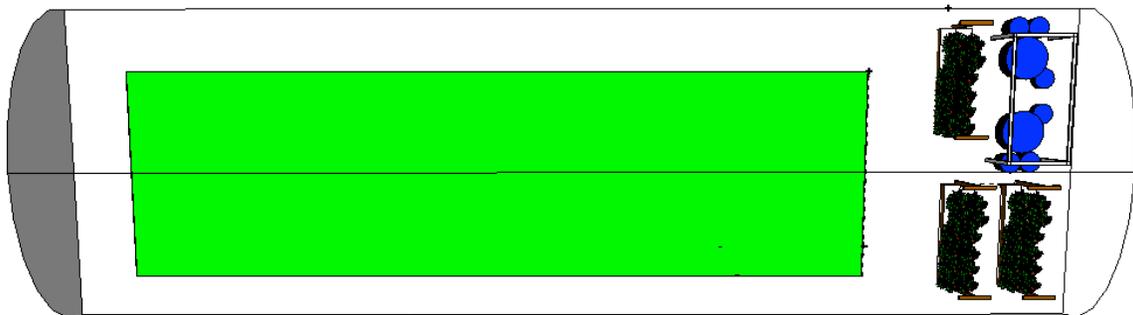
ISOMETRIC VIEW



END VIEW



SIDE VIEW



TOP VIEW



INHABITECT

DESIGNING | BUILDING | GROWING

Attachment #2

Proposal for Adaptive Reuse of Building 221 at the Historic Barns Park

“Green Infrastructure Demonstration”

Presented by

Nathan Griswold, ASLA, GRP

231-943-1434

nate@inhabitect.com

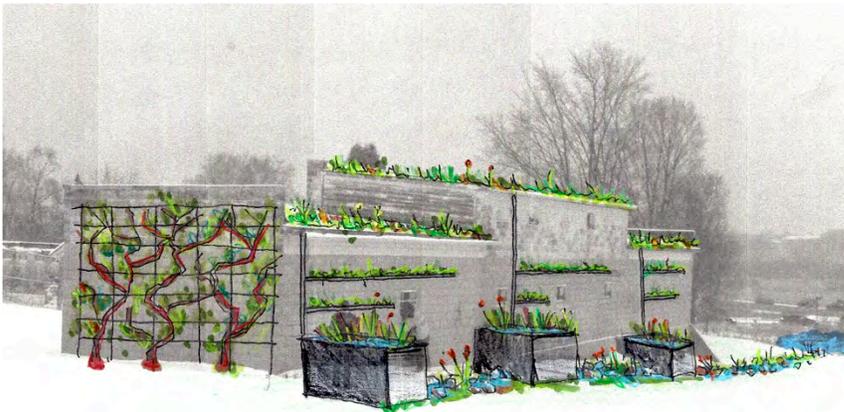
www.inhabitect.com

Executive Summary:

Inhabitect, LLC is a company focused on project planning and management, landscape green roof and green infrastructure design, product sales and marketing, and sustainable construction. We collaborate and work with all sectors of design and construction teams. We pride ourselves on offering a unique perspective and outlook to the challenges faced by the design and construction communities. Our goal is to streamline this process and help it become more socially, economically, and environmentally sustainable.

Mission:

From concept through completion, Inhabitect, is focused on designing, building, and growing landscapes and stormwater solutions, on rooftops and at grade, that strive to exceed both industry standards and client expectations.



This is a conceptual rendering of Inhabitect's vision for Building 221. It depicts living walls, a green roof, stormwater planters, and a vegetated bio-swale. The design leads to the proposed constructed wetlands, in the Site Development Plan at the intersection of Silver Drive and Silver Lake Road.

Vision:

Establish, maintain, and monitor a Green Infrastructure demonstration project that utilizes numerous stormwater technologies. This would include the following stormwater management facilities within the “treatment train” or holistic approach being proposed for this site. Each element would be interconnected:

- Green roof/Vegetated Rooftops:
We plan to showcase various types of green roofs. Ideally, each roof would be planted with different vegetation. Inhabitect is proposing a standard extensive planting, a native planting, and a rooftop agriculture planting.
- Green Wall/Living Wall:
Inhabitect plans to stage various types of vegetated wall systems. Some will help with stormwater management and others will shade the concrete walls of Building 221, keeping it cool during warm days.
- Stormwater Planters:
The proposal includes a series of stormwater planters, put more simply “fancy planted rain barrel’s”, that will capture a specific amount of flow that is not

captured by the green roofs and green walls. Once their limit is met, they will spill over into a vegetated bio-swale.

- Growing Duckweed:
Duckweed will be cultivated in these stormwater planters, and possibly within the constructed wetlands (if approved by the township) at the end of this system. This plant can be used as a feed source for the fish within the Traverse Aquaponics systems, and reduce this organization's dependence on outside feed sources.
- Vegetated Bio-swale:
This feature will capture all over flow from the other stormwater elements mentioned above, as well as the water from the site parking lots. It will also act as an emergency overflow for the Outdoor Aquaponics system proposed by Traverse Aquaponics. This will meander towards the proposed constructed wetland at the corner of Silver Drive and Silver Lake Drive.
- Interior usage:
Inhabitect proposes that they share the Western 3 Garage Bays being sought by Traverse Aquaponics. These companies will share tools and equipment.
- Research:
Inhabitect plans to conduct research and stormwater management observation to be used by design professionals. We will also perform studies on the process of raising food on rooftops and the use of native plants on green roofs. We will partner with BARC to use and incorporate their compost into local blended green roof material while testing its performance.
- Outreach:
Inhabitect will collaborate with like-minded entities (Watershed and Conservancy Groups, Engineers, Architects, and Landscape Architects) in the community, and we will also work with local schools and universities on formal educational programs, classes, and field trips. This outreach will include educational signage explaining the functions of the stormwater technologies. .



Images: These are examples of the signage that would be placed around Building 221 to explain the stormwater management facilities (Columbus Public Utilities)

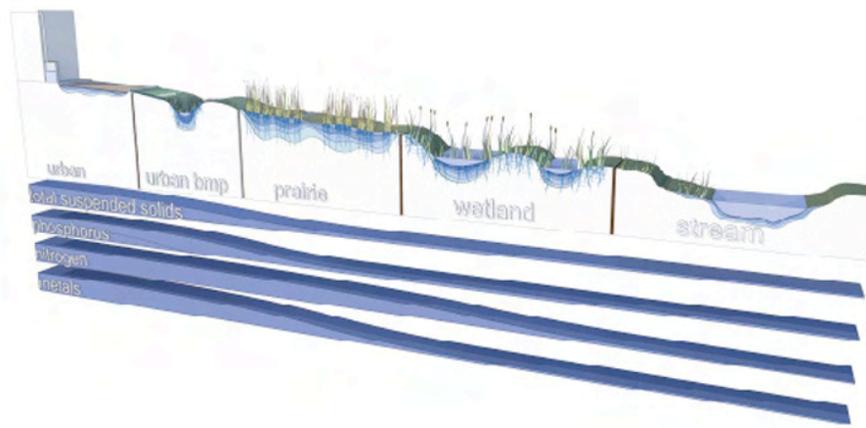


Image: Here is a graphics of a “treatment train”. Inhabitect’s proposal is similar to this with the addition a few elements. (Source: ASLA.org)

What is Green Infrastructure?

Green infrastructure is an approach to water management that protects, restores, and mimics the natural water cycle. Green infrastructure is effective, economical, and enhances community safety as well as quality of life. Green infrastructure incorporates both the natural environment and engineered systems to provide clean water, conserve ecosystem values and functions, and provides a wide array of benefits to people and wildlife. This proposed demonstration of these technologies would be educational and a point of discussion for the Traverse City community.

These solutions can be applied on different scales, from the house or building level, to the broader landscape level. On the local level, green infrastructure practices include rain gardens, permeable pavements, green roofs, infiltration planters, trees and tree boxes, and rainwater harvesting systems. At the largest scale, the preservation and restoration of natural landscapes (such as forests, floodplains and wetlands) are critical components of green infrastructure. Inhabitect believes that Building 221 provides a unique opportunity to demonstrate both local (on-site) and large-scale (entire Barn’s area) use of this technology. It could easily be tied into or incorporated into the plans for the Northwestern Michigan Botanic Gardens.

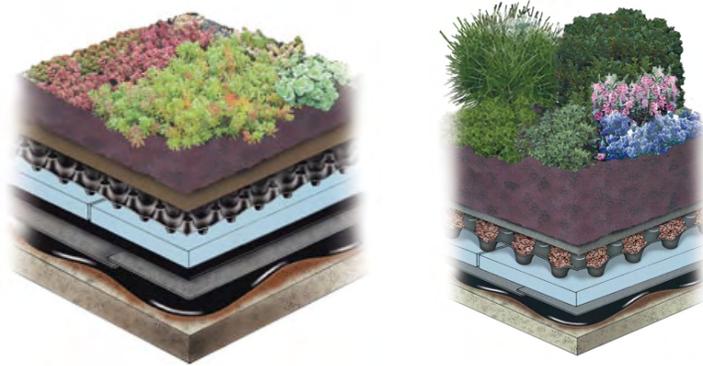
All projects have a stormwater management budget and green infrastructure investments will boost the economy, enhance community health and safety, and provide recreation, wildlife, and other benefits. If planned properly these technologies will likely save the township money.

Green Infrastructure solutions also create “green collar” jobs in many sectors; including plumbing, landscaping, engineering, building, and design. Green infrastructure also supports supply chains and the jobs connected with manufacturing of materials; including roof membranes, rainwater harvesting systems, and permeable pavement. By having a demonstration piece in our community, these industries will be able to easily portray their benefits to future clients while illustrating their product.

Many forward-thinking cities have already embraced green infrastructure; including New York, Chicago, Portland, Seattle, San Francisco, Minneapolis-St. Paul, Milwaukee, Kansas City, Toledo, Cincinnati, and Philadelphia. Nathan Griswold has personally worked in each of these communities, and is eager to bring what he has learned to his hometown, Traverse City.

What is a Green Roof?

A green roof—also known as a “vegetated roof,” “living roof,” or “eco-roof”—is an extension of an existing roof which involves a high quality waterproofing and root barrier system, a drainage system, filter cloth, a lightweight growing medium, and plants. Green roof implementation involves the creation of "contained" green space on top of a human-made structure. This green space could be below at, or above grade. But in all cases, the plants are not planted in the "ground." Green roofs can provide a wide range of public and private benefits. In the case of Building 221, Inhabitect proposes being the first green infrastructure element in our treatment train demonstration.



Images: Here are renderings of an Extensive (left) and Intensive (right) green roof (photo credit American Hydrotech, Inc.)

General Characteristics of Extensive and Intensive Green Roofs

CHARACTERISTIC	EXTENSIVE	SEMI-INTENSIVE	INTENSIVE
Growing Medium Depth	6" or less	25% of the green roof area above or below 6"	More than 6"
Accessibility	Often inaccessible	May be partially accessible	Usually accessible
Fully Saturated Weight	Low 10-35 lb. / sq. ft. (48.8-170.9 kg / m ²)	Varies 35-50 lb. / sq. ft. (170.9 - 244.1 kg / m ²)	High 35-300 lb. / sq. ft. (170.9 - 1,464.7 kg / m ²)
Plant diversity	Low	Greater	Greatest
Cost	Low	Varies	High
Maintenance	Minimal	Varies	Varies, but is generally high

Source: Green Roofs for Healthy Cities

Benefits of Green Roofs:

Green roofs provide a wide variety of public and private benefits. Some benefits are common to all projects while others result from specific design and owner objectives. The challenge for green roof professionals (GRPs) is to design, install, and maintain green roofs with multiple benefits—often achieved by integrating the green roof design into the overall function of the building as proposed here for Building 221. For the purposes of this proposal, the benefit categorization as either public or private is determined by who accrues the benefit.



Image: Tyner Interpretive Center, Glenview, IL

The table below lists various public and private benefits resulting from green roof installation. Not every benefit applies to all projects, but unlike most infrastructure options, this technology offers a broad range of advantages in various situations.

Public and Private Benefits of Green Roofs

PUBLIC	PRIVATE	
Waste diversion	Aesthetic improvement	New amenity spaces and property value
Reduction of the urban heat island (UHI) effect	Energy efficiency	Blockage of electromagnetic radiation
Improved air quality	Stormwater management: quality and quantity	Noise reduction
Increased biodiversity	Integrated water management	Marketability
Educational opportunities	Increased membrane durability	Improved human health and well-being
Local job creation	Fire retardation	Urban agriculture
	Enhanced photovoltaic performance	

Source: Green Roofs for Healthy Cities

Green roofs actualize the principles of Smart Growth and positively affect the urban environment through:

- Increased amenity and green space.
- Reduction of community resistance to infill projects.
- Reduced strain on municipal stormwater systems.
- Reduction of the urban heat island effect and cooling demand load.
- Conservation of biodiversity through added green space. (Peck and Loder, 2004)

Depending on their use and function, green roofs can contribute substantially to shifting public perception of urban space. Rooftops can fulfill any number of functions for which there is limited space at ground level, including:

- Private amenity spaces (e.g., employee meeting spaces)
- Community gardens (e.g., local food production or co-ops)
- Commercial space (e.g., display areas and restaurant terraces)
- Recreation (e.g., lawn bowling and children’s playgrounds)
- Food production

Heating and Cooling:

Green roofs have been shown to moderate heat flux through part of the building envelope, thereby reducing peak demands for heating and cooling under favorable conditions. This benefit will come into play at Building 221 and will benefit all businesses inside of the structure, especially Traverse Aquaponics.

Benefit valuation study data: Energy Efficiency				
Benefit	Who benefits	Description	Value	Studies
Energy	Private, Public	upper-floor savings for an 8-story building (the larger the roof, the larger the savings per square foot; roofs ranged from 5,000 to 50,000 sq. ft.)	\$0.155–\$0.190 /sq.ft./yr or \$1.67–2.04/m ² /yr	US GSA
	Public	building energy reduction in energy infrastructure	\$0.128/sq.ft. or \$1.378/m ²	Doshi et al. (Toronto)
	Public	electricity usage (potential private benefit dependent upon local energy rates, climate differences)	8,270+ kWh/acre	ENTRIX (Portland)

Source: *Green Roofs for Healthy Cities*

Factors that affect the building energy demand reductions achievable with green roofs and the corresponding financial savings include:

- Cost of electricity
- Thickness of roof insulation

- Efficiency of HVAC systems
- Percentage of green roof coverage
- Plant selection, coverage, and leaf area index (LAI)
- Depth of growing medium
- Amount, timing, and frequency of irrigation
- Climate (i.e. number of heating and cooling days)
- Roof to envelope ratio

Stormwater Management:

Many aging North American cities have combined sanitary and stormwater sewer systems that result in frequent combined sewer overflows (CSOs) during heavy rainfall events. Geographically, communities with combined sewer systems are largely concentrated in the Northeast and Great Lakes region, and the Pacific Northwest, and serve an estimated 40 million people in over 770 communities in the US alone (US EPA, 2011). In the case of Building 221, this does not apply, but it is important for everyone involved to understand this fact and for visitors to be educated as well.

Reduced Water Quantity

Extensive green roofs can reduce total runoff by 60% and detain up to 85% of the first flush in a rainfall event for several hours before its release into a sewage system (Moran, 2004). First flush (a.k.a. peak flow) occurs in the first few hours of a storm event, which is the time period in which there is the most volume of water passing through a sewage system. By delaying stormwater runoff, green roofs effectively reduce the instances of flooding, help prevent untreated sewage from entering water bodies, and reduce the pressure on existing infrastructure. At Building 221, the green roofs will be the first stormwater management element in the “treatment train” and will be incorporated into other water retention features, such as stormwater planters and vegetated bio-swales, which all prevent the release of water into the municipal stormwater system. These features are complimented by naturally occurring processes such as evapotranspiration and, in the case of this proposal, the proposed constructed wetlands east of this site.

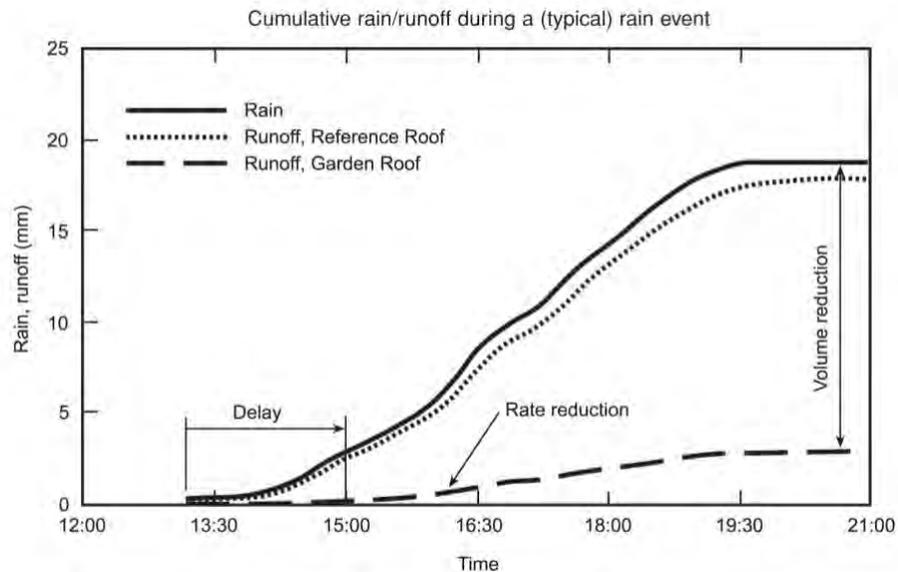
No two green roofs will have the same capacity for stormwater retention. Inhabitect plans to monitor these differences at Building 221. Their ability to hold water is affected by factors such as:

- Depth and composition of growing medium
- Plant Species
- Roof Slope
- Percentage of surface roof covered with green roof
- Frequency and intensity of rain events
- Water retention elements included in design

Green Roofs provide the three main things most design teams are trying to do with storm water.

- Reduce the volume of runoff
- Increase the quality of Runoff
- Slow down the Runoff

While standard in urban settings green roofs have a place in any site design. The graph below depicts each of these performance characteristics (National Research Council). The value of a green roof has many factors, but the most come with long-term stormwater management.



Increased Water Quality:

Not only do green roofs affect the quantity of stormwater runoff, they also affect its quality in two ways. First, a reduction in runoff during storm events may limit the occurrence of CSOs and thereby diminish the quantity of untreated wastewater entering natural water bodies. Second, green roofs retain pollutants from rainwater, roofing materials, and atmospheric deposition. Studies have shown that a traditional roof's runoff may contain high concentrations of metals, polycyclic aromatic hydrocarbons (PAHs), and other pollutants (Clark et al., 2001).

Below is a chart that depicts a benefit valuation study on green roof and the value of their ability to manage stormwater. The most relevant for Building 221 is the reduction in costs associated with owner based infrastructure costs.

Benefit valuation study data: Stormwater Management				
Benefit	Who benefits	Description	Value	Studies
Stormwater management - at installation	Owner	costs avoided to the owner by installing a green roof versus a typical structural and LID BMPS	\$4.15/sq.ft. or \$44.67/m ² /yr	US GSA
	Owner	annual savings on regulatory fees charged based on the amount of impervious surface (with green roofs not counting as impervious)	\$0.084/sq.ft./yr or \$0.90/m ² /yr	US GSA
- public infrastructure		stormwater infrastructure cost reduction due to volume reduction—capital	\$0.03–4.59 /sq.ft or \$0.32–49.41 /m ²	Doshi et al.; EcoNorthwest; Niu et al.; Tomalty et al.
	Developer; municipality	stormwater infrastructure cost reduction due to volume reduction—O&M*	\$0.0035/sq/ft or \$0.358/m ²	EcoNorthwest (Portland)
		CSO reduction in storage—capital	\$0.084/sq.ft. or \$0.90/m ²	Doshi et al. (Toronto)
		CSO environmental impact	\$0.00139/sq.ft. or \$0.015/m ²	Doshi et al. (Toronto)

* operations and maintenance

Green Infrastructure Options:

Here are some images of the some Green Infrastructure options. The Inhabitect proposal incorporates similar technologies that best fit the goals for Building 221.



Image: On the left (Source: Unknown) is an example of water capture and on the right shows an attractive down spout design (Source: Wordpress.com)



Images: Two great examples of stormwater planters (Left Source: EPA.gov and Right Source: swpgh.com)



Images: On the left shows a design that is growing food within gutters (Source: horticulturalbuildingsystems.com)and on the right is a great example of a vegetated bio-swale/storm garden (Source: blogspot.com).



Image: Here is a sectional view of a bio-swale (Source: Columbus.org)



Images: These are both examples of vegetated bio-swales (Source: Chicagowilderness.org)



Images: This is an example of a pond that is being used to cultivate duckweed, a source of food for fish commonly found within Aquaponics systems. Taken at Rid-All Farms in Cleveland.

Who is Inhabitect?



Nathan D. Griswold, ASLA, GRP

Nathan is President of Inhabitect, LLC and Traverse Aquaponics, LLC. He has worked within the green construction industry for nearly 10 years. He has played a role in the design, development, and construction of nearly one thousand green roofs throughout North America. His deep technical understanding of this niche market, paired with his educational background, is valuable to any design or construction team. His experiences have brought with them a vast network of industry leaders in

the architectural, landscape architectural, engineering, construction, and manufacturing communities, as well as with municipal entities around the world.

After spending 8 years with one of the nations largest waterproofing and green roofing manufactures, acting as their Senior Garden Roof Technical Sales Coordinator, Nathan chose to break out on his own. From concept through completion, Inhabitect, is focused on designing, building, and growing landscapes, on rooftops and at grade, that strive to exceed both industry standards and client expectations. Traverse Aquaponics is complimentary startup that focuses on providing sustainable food systems in urban areas.

Nathan earned a Bachelor's Degree in Landscape Architecture from Michigan State University. He also has Associate's Degrees in plant science and landscape and nursery development. Nathan is very active with the green roof industry's trade association and Green Roofs for Healthy Cities (GRHC). He is currently contracted as the North American Green Roof Policy Educator, where he manages the industry's Policy Ambassadors and act as a lobbyist in support of green roofs and green infrastructure development. He is the co-chair of the Advanced Green Roof Maintenance committee, an active member of the Green Roof Growing Media Committee, regularly speaks at conferences, and is an approved GRHC continuing education provider. He is a long time member of the American Society of Landscape Architects (ASLA), was one of the nation's first individuals to achieve his Green Roof Professional (GRP) accreditation, and is an active member within the American Society for Testing and Materials (ASTM) green roof committee (which is creating and developing international bases standards and testing protocol for the industry.)

Inhabitect at the Historic Barns:

The overall goal of Inhabitect fits well within the currently approved uses for the property surrounding Building 221. There are numerous collaborative opportunities due to the large amount of stormwater-based construction planned at the Botanic Gardens and within the overall Site Development Plan. This is an opportunity that could help accelerate the growth of this start-up, save these organizations money, and increase the beauty of the space. If given the chance to showcase our Green Infrastructure model, Inhabitect believes that visitors will enjoy this technology, and if they understand its performance abilities, they will want to incorporate it into their projects.

Our mission, vision, and values align with the "Development Principles" and "Use Themes" of the Garfield Recreational Authority. The Inhabitect model fits well within the "Agricultural and Cultivation" designation as defined within the Brainstorming the Barns – Final Report. It does this by providing a demonstration and education space to study a new type of agriculture (rooftop farming), and, more prominently, a Green Infrastructure "treatment train". Standard farming practices are some of the largest contributors to nutrient flush into our waterways. The proposed demonstration will allow any interested farmers to see these stormwater

management techniques up close and offer the opportunity for them to learn how to replicate it on their farms.

Development Principles:

Traverse Aquaponics has considered each of the Development Principles outlined within the RFP. We have listed how we would meet each of these below:

Mixed use:

Along with our partners in this joint proposal, BARC and Traverse Aquaponics, we will do our part to diversify the use of this space. The space will be dedicated to educating the community about Green Infrastructure, reducing the impact stormwater has on the site, and monitoring the overall performance to help improve this industry. It is a unique, valuable use of this space that has the potential to give back for generations.

Minimize disruption:

Inhabitect's proposal is dedicated to ensuring that Building 221 is standing for another 100 years. Most activities are long-term solutions with long-term performance goals. Inhabitect will consult with the Disability Network to ensure this project is ADA compliant and universally accessible.

Developed and Open Areas:

If the current plan is acceptable, Inhabitect will work with the Township to incorporate the developed and open areas on site into our proposed stormwater system. We see the incorporation of parking lot and rooftop runoff from the adjacent areas as a natural fit into our plan. This would further the Green Infrastructure story.

Connections:

Inhabitect will work with other Barn User Groups and other neighbors to promote the Green Infrastructure demonstration at this building and work with the Township to create appropriate signage and linkages off of the bike pathway and other bordering attractions.

History:

We strive to rehabilitate and reuse the structure of Building 221 and to use this space to educate our neighbors about sustainably managing stormwater. The connection to the natural functions of the earth is something that was once embraced, and we want to highlight this fact once again. It is vital that the community embraces these technologies and understands the big picture. If we do not manage our stormwater, our lakes, rivers, and streams will not provide the beauty they do today as the region continues to grow.

Sustainability:

A major component of the collaboration between BARC, Inhabitect, and Traverse Aquaponics is smart design, economic, and environmental sustainability. As a team, we have plans to improve the structure to meet our needs. We plan to include

technologies that are “green,” such as renewable energy (wind and solar) and green infrastructure elements (green roofs, stormwater planters, etc).

Use Themes:

Inhabitect has defined how we will address the themes of this proposal below:

Agriculture and Horticulture:

Inhabitect is looking forward to demonstrating and promoting the benefits of green infrastructure at Building 221. One of the three planned green roofs will be dedicated to rooftop vegetable production. This will showcase the feasibility of growing food on rooftops. There are literally billions of square feet of unused rooftops in North America. Many of these are in regions considered to be “food deserts,” and Inhabitect would like to combat this growing health issue.

Community:

Inhabitect has a goal to educate the community and create outreach programs that showcase numerous innovative and promising technologies. Tying them all together into what is known as a “treatment train,” we will manage the stormwater hitting this rooftop all the way to the proposed constructed wetlands.

Arts:

Inhabitect believes that green roofs are the art of Mother Nature’s ability to soften and bring life to a space otherwise unused. The art of marrying so many technologies into one complimentary package is rare. Inhabitect wants to bring this to Building 221, and educate others about the benefits of these technologies.

Recreation:

The Barns has created a space for people from all over our region and state. The reuse of the space will continue to be a draw as more is developed. Inhabitect believes that our proposed use will add to the appeal of this beautiful space and give visitors an interesting and rewarding destination. We are ready to get started!

Activities and Uses:

Inhabitect’s use for Building 221 are predicted to include not only the research and development spaces for green infrastructure but also a dedicated class room space that will be shared with BARC, Traverse Aquaponics, and other Barn User Groups.

Here is a quick summary of some of the activities we have planned:

- Daily:
 - Arrival by car, bike, or foot
 - Utilize parking as designated by the Site Plan Development
 - Open door policy for curious individuals to stop by and say hello at given times of day
 - Stormwater system observation

- Monthly:
 - Tours of the Stormwater system
 - Schedule school trips and community tours
 - Schedule and organize classes and outreach programs
 - Interact with other Barn Users Groups: SEEDS, Northwest Michigan Botanical Gardens, and Community Gardens
- Yearly:
 - Estimated annual visitors: 1,500 people (approx. 30/week)

Activities will be centered on the function of the entire stormwater system. There will be signage to explain each of the technologies that are being utilized.

Inhabitect Marketing

Nathan has developed a company identity and marketing package, is creating a website, and promoting Inhabitect, LLC throughout the industry. All of the dollars spent on this start up have stemmed from his personal investment into this organization.

Creating a Foundation for Green Infrastructure

When Inhabitect's proposal is accepted, our work will be used to set the groundwork for similar projects across our region, and potentially the nation. Tying so many technologies together and dedicating this space to educating the public and private sectors is rare. As a company, we pride ourselves at being advocates for long term and green-minded infrastructure development. Having a space to showcase the abilities of this system is the foundation we need to move this passion forward.

Schedule

Inhabitect estimates that once we are awarded the building, it will take 6-8 months to install all of the proposed features.

Stage I: Gather funding, structure investigation, and waterproofing

March – May 2014: Gather funding needed to investigate and upgrade the roof as needed to withhold the proposed green roofs. This stage will also include the re-waterproofing of the structure. Inhabitect will work with roofing contractors and other suppliers to get needed materials donated.

Stage II: Green Roof, Downspout, and Rain Garden Construction

June - August 2014: Install green roofs on the three levels of roof, green wall, down spout planters, and rain gardens. To do this, additional funding and donations from Green Infrastructure companies will be sought. Inhabitect will work with roofing contractors and other suppliers to get needed materials donated.

Stage III: Plantings and Establishment

August – September 2014: Once the green roof components are installed, the plants will be placed on the roof and other stormwater features. The establishment period

will require frequent visits to ensure the system is operating correctly and the plants are thriving.

Stage IV: Monitoring set-up

August – October 2014: During this time, Inhabitect will be setting up strict monitoring protocols for the overall system. Any monitoring equipment will be installed and calibrated.

Financial Plan

The timeline above is based on the assumption that Inhabitect will receive the needed funding and donations needed to complete the work we are proposing. We are confident that this will happen, and have already reached out to manufacturers and contractors willing to collaborate. We have secured a line of credit that will help fund some of the administrative aspects of this project. Profits generated from Traverse Aquaponics farm will also be used to fund this project.

We will also seek funding through grants, crowd funding, and other investors. There is a lot of interest in the region, and we are confident that this project is feasible.

Building 221 RFP: Income/Expense

First Year Start Up Income/Expenses

		Month	1	2	3	4	5	6	7	8	9	10	11	12	Year Totals
Base Line:															
Income:															
Composting Sales (Humus)	\$25/yard x 4 Customer		\$100	\$120	\$144	\$173	\$207	\$249	\$299	\$358	\$430	\$516	\$619	\$743	\$3,958
Black Fly Sales (larve/fly house)	\$75/month x 2 customers		\$150	\$180	\$216	\$259	\$311	\$373	\$448	\$537	\$645	\$774	\$929	\$1,115	\$5,937
Mushroom Mycelium Spawn	\$10/dish x 5 customers		\$50	\$60	\$72	\$86	\$104	\$124	\$149	\$179	\$215	\$258	\$310	\$372	\$1,979
Inoculated Substrate	\$50/Yard x 5 customers		\$250	\$300	\$360	\$432	\$518	\$622	\$746	\$896	\$1,075	\$1,290	\$1,548	\$1,858	\$9,895
Mycelium Packaging	5 customers at \$50/month		\$250	\$300	\$360	\$432	\$518	\$622	\$746	\$896	\$1,075	\$1,290	\$1,548	\$1,858	\$9,895
Vermiculture Castings	\$10/5 gallon bucket x 5 customers		\$50	\$60	\$72	\$86	\$104	\$124	\$149	\$179	\$215	\$258	\$310	\$372	\$1,979
Total Income:			\$850	\$1,020	\$1,224	\$1,469	\$1,763	\$2,115	\$2,538	\$3,046	\$3,655	\$4,386	\$5,263	\$6,316	\$33,643
Expenses:															
Payroll (Taxes Included)	1 Mycologist x20 Hours/week		\$800	\$800	\$800	\$800	\$800	\$800	\$800	\$800	\$800	\$800	\$800	\$800	\$9,600
Workers Comp			\$80	\$80	\$80	\$80	\$80	\$80	\$80	\$80	\$80	\$80	\$80	\$80	\$960
Supplies			\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$1,200
Total Expenses:			\$980	\$980	\$980	\$980	\$980	\$980	\$980	\$980	\$980	\$980	\$980	\$980	\$11,760
Total Income:			\$850	\$1,020	\$1,224	\$1,469	\$1,763	\$2,115	\$2,538	\$3,046	\$3,655	\$4,386	\$5,263	\$6,316	\$33,643
Total Expenses:			\$980	\$980	\$980	\$980	\$980	\$980	\$980	\$980	\$980	\$980	\$980	\$980	\$11,760
Net Income:			\$130	\$40	\$244	\$489	\$783	\$1,135	\$1,558	\$2,066	\$2,675	\$3,406	\$4,283	\$5,336	\$21,883

City of Traverse City and Charter Township of Garfield Recreational Authority
c/o LIAA
324 Munson Ave
Traverse City, MI 49686

December 14, 2013

To Whom It May Concern:

I am writing to support the proposed project being submitted by Bay Area Recycling for Charities (BARC), Traverse Aquaponics, and Inhabitect for the adaptive reuse of Building 221 at the Historic Barns Park at the Grand Traverse Commons.

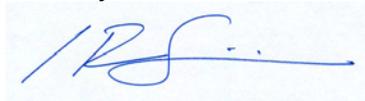
In developing the RFP, the City of Traverse City and the Charter Township of Garfield Recreational Authority wisely included the following Development Principles: Mixed Use, Minimize Disruption, Developed and Open Areas, Connections, History, and Sustainability. As part of a visioning process, they also identified four primary use themes including: Agriculture and Horticulture, Community, Arts, and Recreation. The proposals being submitted here seem to address all of these themes and should be seriously considered when selecting an occupant for Building 221.

In developing a functional commercial and educational Aquaponics system, Traverse Aquaponics has the potential to build upon the local food movement in the Grand Traverse Region, create jobs, and provide a unique venue for hands on learning. The goals of Inhabitect, which include designing, building, and growing landscapes and stormwater solutions, also offer potential for green infrastructure demonstration at Building 221. When combined, these efforts will provide a site for education, research, and outreach to the public second to none in the region.

As an MSU Extension Educator, I have been in contact with those submitting this proposal for several years. I fully support this proposal and will work with the applicants on education and outreach efforts.

I encourage you to support this project and make Building 221 a worthwhile addition to the Grand Traverse Commons.

Sincerely,



J Robert Serrine, Ph.D.

Extension Educator
Chair-Northwest Food and Farming Network
Affiliate MSU Center for Regional Food Systems



MSU EXTENSION

8527 E Government Center Dr
Suite 107
Suttons Bay, MI 49682

231-256-9888

Fax: 231-256-8331

msue45@msu.edu

www.msue.msu.edu/leelanau

TO: Traverse City and Township of Garfield Recreation Authority:

DATE: November 30, 2013

FROM: Dan Tholen and Emmy Lou Cholak

RE: Request for proposal for use of Building 221

We are writing to recommend that the Recreation Authority accept the continued use of the service area at the Historic Barns Park for support of agricultural activities, consistent with the activities of the Community Gardens and SEEDS. Ideally this would be a collaborative and innovative agricultural activity that uses Building 221 and adjacent land, consistent with the current zoning. We hope that such a proposal will result from this RFP, but if it does not, the Recreational Authority could postpone the decision, as the various agricultural activities evolve.

Building 221 is in an area that was last used for equipment maintenance, and it has most recently been used for support of the community gardens. It is well-suited for those tasks. The programs by SEEDS and the Community Gardens are evolving – they could grow and involve other community groups, such as the GreenSpire School (also in a phase of rapid growth). It would be beneficial to retain this building as a versatile space to support those activities, and give them room to grow.

The park now has a convenient separation of activities to allow more formal gardens, receptions, and recreation in the upper and northern areas of the park, and agricultural and research in the lower and southern areas. We are concerned that mixing activities this early in the development of the park could create unnecessary conflicts between users. Also, in a time of limited resources, funds for formal gardens or receptions are best spent on the Pavilion and Welcome Center, while the rougher buildings in the service area remain available for support of current agricultural uses and development of innovative agricultural programs.

Thank you for your attention to this request and your continued support for agricultural activities at the HBP, as envisioned by the public when the millage proposal was approved.

The City of Traverse City and Charter Township of Garfield

Communication to the Recreational Authority

FOR THE MEETING OF JANUARY 8, 2014

DATE: FRIDAY, JANUARY 3, 2014

FROM: MATT COWALL, EXECUTIVE DIRECTOR

SUBJECT: REVIEW OF A DRAFT RFP FOR AN EVENT VENUE
MANAGEMENT CONTRACTOR

Attached please find a draft Request for Proposals to solicit a contractor for event venue management services at Historic Barns Park. The document is informed by other municipal examples from around the country and by the Recreational Authority's Business Plan for Historic Barns Park. Any questions, suggestions or concerns are welcome. A final review will be conducted by counsel to the Authority prior to any official release.

I would like to go ahead and receive formal permission to release the RFP when it's ready, understanding that some revisions may yet remain. If that pleases the Board, the following motion would be appropriate:

That the Executive Director be authorized to issue a request for proposals for event venue management services.

K:\recreationalauthority\packetcommunications\20140108.docx

DRAFT: December, 2013

**REQUEST FOR PROPOSALS:
EVENT VENUE MANAGEMENT SERVICES AT HISTORIC BARNS PARK**

Issued by

The City of Traverse City and Charter Township of Garfield Recreational Authority
c/o Matt Cowall, Executive Director

324 Munson Avenue

Traverse City, Michigan 49686

Phone: 231-929-3696

Fax: 231-929-3771

Email: mcowall@liaa.org

EXECUTIVE SUMMARY

The City of Traverse City and Charter Township of Garfield Recreational Authority (“Recreational Authority”) invites sealed bids from visionary companies or individuals that have demonstrated expertise in the management, marketing, leasing, scheduling, operation and administration of public event facilities. The selected firm (“Contractor”) will be required to have qualified individuals that have demonstrated experience in managing facilities for events such as weddings and wedding receptions; meetings and conferences; performances; and community events. The total amount of work available will be determined by reservations and use of the facilities, subject to the fees and parameters established by the Authority.

I. BACKGROUND INFORMATION AND PROJECT REQUIREMENTS

A. BACKGROUND

The Grand Traverse Commons is the largest mixed-use historic redevelopment effort in the nation. The Commons is the 500-acre campus of the former Traverse City State Hospital, a nationally significant site that has some of the most notable historical structures in northern Michigan. Through extensive and ambitious public and private partnerships, the Commons is being transformed into a unique micro-community of residences, businesses, schools and preserved open space.

Historic Barns Park is 56 acres of rolling meadows, woodlots and wetlands in the southwest corner of the Commons, a sea of green located in the heart of northern Michigan’s most populated urban center. The site was once the agricultural production area for the former State Hospital, feeding patients and staff from the 1880s into the 1950s. The site is still dominated in its center by its namesakes, two majestic barns that have come to be known as the Cathedral Barn and the Historic Barn.

In 2004, local voters overwhelmingly approved a millage funding the purchase of the Barns site and two other properties for development into public parks, to be overseen by the newly formed Recreational Authority. The millage only provided the Authority with a very modest operating

budget to be spread across all three properties. As a result, the Recreational Authority has always had to seek additional partnerships and sources of funding to improve and maintain the three parks.

The Recreational Authority is a joint municipal body governed by a seven-member citizen Board of Directors. Guided by an extensive public visioning process and buoyed by broad community support, Historic Barns Park is being reborn as a one-of-a-kind public space with activities to promote agriculture, horticulture, arts, community events, recreation, and environmental sustainability. To rehabilitate the park and provide these experiences to the public, the Recreational Authority has chosen a cooperative process where community groups come together with a unified, shared, and synergistic approach to the use of the buildings and surrounding property. As a result, the park is home to the Botanic Garden at Historic Barns Park (BGHBP), a nonprofit organization dedicated to redeveloping 25 of the park's 56 acres as a Botanic Garden for northwest Lower Michigan. Another nonprofit partner, SEEDS, conducts agricultural and ecological programming on the site. The park is also home to several acres of community vegetable gardens that are open to the public, and the park is a hub for a vast network of recreational and commuter trails.

In 2010, the Recreational Authority developed a business plan to focus on the sustainable use of the Barns as community facilities. As the operating millage for the Authority is insufficient to maintain large buildings, a facility rental enterprise was identified as the most viable way to provide operating and maintenance income for the Barns. The Cathedral Barn is at the center of the rental enterprise, and a three-year fundraising campaign was initiated that same year to provide the funds necessary to renovate the Cathedral Barn for public use. That campaign has reached its Phase I target, and renovation work on the Cathedral Barn is scheduled to begin in early 2014, with target availability for event rentals beginning in the fall of 2014.

B. EVENT RENTALS

For most of its recent history, Historic Barns Park has been in a rustic state, with its buildings predominantly limited in both amenities and use. As such, events have been limited to the outdoors and have been fairly infrequent, with all equipment and infrastructure (e.g., tents, tables, chairs) procured by users through third-party providers. No fees have yet been charged to use the outdoor spaces at the park.

The first indoor space to be completely renovated for use is the Botanic Garden Visitor Center located in the former farm granary. The Visitor Center will officially open in spring of 2014 and does offer availability for meetings and smaller gatherings (up to approximately 70 people); revenues generated in that space support the Botanic Garden. It is the desire of both the Recreational Authority and BGHBP that the Contractor schedule and coordinate events for the entire park property, including all outdoor and indoor (i.e., Cathedral Barn and Visitor Center) spaces.

The current Phase I interior renovation of the Cathedral Barn is focused on the upper loft level, with anticipated posted space for 450 people (or approximately 200 at round tables). The renovation will include the addition of utility services, restrooms, catering space, and HVAC.

The Recreational Authority plans to contract with a venue manager well in advance of the completion of construction (anticipated in fall 2014) to prepare for the venue's opening and begin booking events.

BGHBP has developed a fee schedule for renting space in the Visitor Center, and the Recreational Authority has a recommended fee schedule for the Cathedral Barn developed in its business plan. The Contractor will be able to review these fees and suggest modifications based on current market conditions and the Contractor's own expertise.

C. SCOPE OF SERVICES TO BE PROVIDED

In the selected Contractor, the Recreational Authority seeks a dedicated partner in the park who shares the vision, excitement and commitment of the community in seeing this unique project succeed and thrive. The Authority expects that its Contractor operate effectively and efficiently and provide exemplary services to the Authority and to park users. The Contractor will be required to provide the Authority with all labor, vehicles and equipment, and materials as necessary to satisfactorily perform the event facility management functions under this agreement.

The Authority desires that event services are performed to generate revenue for the operations, maintenance and improvement of the park without negatively impacting other park users and park neighbors. The Authority also seeks to strike a careful balance between private/ticketed events (focused on operational revenues) and community/educational programming (for open public enjoyment).

The Contractor must have the resources and abilities to market, advertise, plan, schedule, manage, operate, and conduct events in Historic Barns Park. The Authority envisions sales and marketing, booking, facility management, and event coordination as primary activities, including the ability to work with and coordinate other third-party providers (e.g., wedding planners, caterers, shuttle services, promoters). The scope of services may include, but would not be limited to, the following:

- a. General availability between regular business hours (Monday through Friday, 9 a.m. until 5 p.m.); for meetings that occasionally occur outside those hours; and for Recreational Authority Board meetings, which are typically the first Wednesday of each month at 7 p.m.
- b. Development and coordination of administration policies, procedures, calendars, user contracts and materials to competently and legally manage and operate event facilities and services, including an annual budget, marketing plan and events calendar plan;
- c. Preparing scheduling, operations and financial records and reports that conform to requirements under Section I-D, Records and Reports;
- d. Developing and distributing promotional material for the facilities, including print and online;
- e. Developing and placing advertisements in appropriate print and online media;
- f. Responding to clients within no more than 24 hours of contact;
- g. Showing facilities to prospective clients within no more than 48 hours of request;
- h. Booking, scheduling and staffing events;

- i. Maintaining facilities in a safe, clean and attractive condition in accord with high standards expected by the Authority and by event facility users;
- j. Setting up event facilities for events;
- k. Cleaning up event facilities following events;
- l. Promptly informing the Authority of maintenance and repair needs;
- m. Recommending capital and infrastructure improvements to the Authority to maintain facilities and to enhance the ability to generate revenues;
- n. Coordinating provision of goods and services such as rentals, valet parking or shuttles, flowers, catering, music, photography and/or videography, security, cleanup and disposal as needed.

D. RECORDS AND REPORTS

Records and reports must be submitted with the Contractor's monthly invoice.

1. Scheduling Records

Contractor shall maintain an electronic calendar showing all events scheduled at Park during the term of this contract and for at least 24 months beyond the end of the term. The scheduling record shall be maintained in a complete and accurate manner and shall be made available to the Authority at all times.

2. Monthly Activity Report

A monthly activity report in an electronic format acceptable to Authority shall be provided within 15 days of the end of each month. The report shall include the following at minimum:

- a. A list of events managed by the Contractor at the park;
- b. A list of employees and subcontractors providing services pursuant to this agreement;
- c. Copies of all fully executed contracts from that month;
- d. A financial report (income statement, balance sheet, and a cash flow statement and projection) for park events management services;
- e. A log of any warnings, citations or violations received from any governmental agency pursuant to services provided in this agreement; and
- f. A log of any written complaints received from clients and all other stakeholders (e.g., park users, neighbors, vendors and subcontractors).

E. MAINTENANCE OF FACILITIES AND EQUIPMENT

The Contractor shall be responsible for set up, operations and event cleanup of the interior event spaces, maintaining the building interiors in a neat, clean and presentable condition, and showing appreciation for the unique historic character of the buildings. The Contractor will also be responsible for set up, takedown, cleaning and storage of tables, chairs, furniture, and all other equipment that may be provided by the Authority. The Contractor will also be responsible for cleaning outdoor areas used during events, returning them to their pre-event status.

The Recreational Authority and its other partners will be responsible for making interior repairs and improvements and for maintaining, repairing and improving building exteriors and grounds, excluding setup, operating and cleaning of premises used for events activities.

F. CONTRACT TERM

The Recreational Authority intends to award a contract with an original term of three (3) years, with a cancellation clause for non-performance with 30 days notice. The total term of the proposed contract may extend for additional years at the sole discretion of the Authority.

G. COMPENSATION

As the Contractor will be opening the Cathedral Barn, the Recreational Authority recognizes that there will be a ramp-up period before the enterprise reaches its full potential. Therefore, the Recreational Authority anticipates that the contract will include both an annual fixed retainer as well as a commission based upon the success of the facilities rental enterprise (i.e., a percentage of net income). The Authority anticipates that the retainer will run at 50 percent from November through February, and at 100 percent from March through October. The Authority will pay the Contractor monthly. The Authority reserves the right to negotiate with the selected firm on the rates and fees as submitted in the bid.

II. PROPOSAL REQUIREMENTS

The proposal should describe the methodology to be used to accomplish each of the tasks and services expected as defined in the Scope of Services. The proposal should also describe the work that shall be necessary to satisfactorily complete the tasks and service requirements.

Please note that this Request for Proposals cannot identify each specific, individual task required to successfully and completely implement this service. The Recreational Authority relies on the professionalism and competence of the bidder to be knowledgeable of the general areas identified in the Scope of Services and of adequate competence to include in its proposal all required tasks and subtasks, personnel commitments, person hours, direct and indirect costs, etc. The Recreational Authority will not approve addenda to the selected Contractor's agreement that do not involve a substantial change from the general Scope of Services identified in this Request for Proposals.

Responses to this Request for Proposals shall be organized into five categories as follows:

A. INFORMATION/BACKGROUND ON THE CONTRACTOR

Provide a brief introduction to include the size of the Contractor, the number of years in business, the availability of the Contractor to perform the tasks and services requested, and the history of the Contractor. Include key contact information (address, phone, fax, and email).

The Contractor must demonstrate skill and experience in the performance of event services and venue management. The Contractor's experience shall be set forth and submitted, as follows:

- a. Contractor ownership, and if incorporated, the state in which the firm is incorporated and the date of incorporation;
- b. Location of Contractor's office;
- c. Number of employees at location which will provide services to the Park, and total of all employees;
- d. Name, address, email address, and telephone number of the Contractor's point of contact;
- e. Contractor background/history;
- f. Contractor qualifications to provide the services described in this RFP;
- g. Length of time the Contractor has been providing services described in this RFP;
- h. A complete disclosure of any alleged significant prior or on-going contract failure, any civil or criminal litigation or investigation pending which involves the Contractor and/or Contractor employees proposed or assigned to this contract or in which the Contractor has been judged guilty or liable within the last 5 years. If there is no negative history to disclose, state that in the Proposal.

B. KEY PERSONNEL/QUALIFICATIONS

Provide a résumé for each of the key persons proposed to work on this project. Any key subconsultants proposed should be identified, and information on their respective role in the project shall be included. The prospective Contractor shall designate, by name, the project manager to be employed for this project. Substitution of the project manager by the selected Contractor will not be allowed without prior approval by the Recreational Authority.

C. PAST EXPERIENCE/REFERENCES

Provide at least three references from other governmental agencies, companies or private parties to include:

- a. Client name, client Project Manager, address, telephone number, and email address;
- b. Contract Term (starting date and ending date);
- c. Contract value; and
- d. Staff assigned to that project.

D. UNDERSTANDING OF SCOPE OF SERVICES

Demonstrate understanding of the tasks and services requested in the Scope of Services, and provide a Work Proposal/Approach to accomplish the services described in this RFP in the context of a public park setting. Bidders should demonstrate an understanding of and approach toward excellent customer service, flexibility in meeting needs, coordination of other service providers, and maintenance of facilities and equipment. Bidders should also elaborate on their role as a valuable partner in the development and effective operation of this unique community asset.

E. BID FORMS

All Contractors shall indicate the proposed compensation for providing all-inclusive event services on the Bid Summary Sheet provided below. Each bidder shall sign the Bid Summary Sheet giving bidder's name, address and status, that is, whether an individual, partnership or corporation. Bidders shall be well qualified in the type of work which is included in this request for bids. Bids are solicited only from those who will start work promptly after the award is made. Also include a signed Consent to Background Check form, provided below, for each individual who will provide services under this proposal.

The Authority reserves the right to accept any bid or to reject any or all bids, and also to waive defects or informalities in bids should it deem it in the best interest of the Authority to do so.

III. SUBMISSION OF PROPOSALS

To be considered, firms must submit a complete response to this RFP, using the format provided in Part II. Each proposal must be submitted in two (2) original copies to the Issuing Office with one copy being unbound, along with an electronic copy (PDF preferred). For this RFP, the proposal must remain valid for at least ninety (90) days. Facsimile (fax), email or other electronically transmitted bids will not be accepted in lieu of printed copies.

All bids must be received by the Recreational Authority by the date and time shown in the cover letter. It is the responsibility of the bidder to see that any bid sent through the mail, or any other delivery method, shall have sufficient time to be received by the Authority prior to the bid due date and time. Bids shall be clearly marked and identified, sealed, and submitted to:

The City of Traverse City and Charter Township of Garfield Recreational Authority
324 Munson Ave
Traverse City, MI 49686

Any questions, technical or otherwise, pertaining to this Request for Proposals must be submitted IN WRITING at least 10 days prior to the proposal due date specified in the cover letter and directed to:

Matt Cowall
Executive Director
The City of Traverse City and Charter Township of Garfield Recreational Authority
324 Munson Ave
Traverse City, MI 49686
mcowall@liao.org

Interpretations or clarifications considered necessary in response to such questions will be resolved by the issuance of formal Addenda to the RFP. Questions received less than 10 days prior to the proposal due date will not be answered. Only questions that have been resolved by formal written Addenda via the Executive Director will be binding. Oral and other interpretations or clarifications will be without legal or contractual effect.

Note that the bid, including all fees and compensation shall remain firm for a minimum of 90

days from the proposal submission deadline.

IV. FIRM SELECTION

Each proposal will be reviewed by an evaluation committee to determine if it meets the bid requirements. Failure to meet the requirements for the Request for Proposals may be cause for rejection of the proposal.

The evaluation committee may, at its sole option, ask for interviews or oral presentations by any bidder(s) participating in this process. Attendance at any such interview will be at the bidder's expense.

A final selection of the best qualified vendor will be determined following review of all proposals and/or formal oral presentations. The evaluation committee will make a recommendation of the selected firm for a contract to be awarded by the Recreational Authority Board of Directors.

The selected firm will work closely with the Recreational Authority throughout the duration of the contract. A firm will be selected based upon the following factors and weightings:

- Firm Information/Background: 10%. Information on the history of the firm, selected firm background, and any negative history;
- Key Personnel/Staff Qualifications: 15%. Qualifications of the staff assigned to manage and provide services related to the project;
- Experience/References: 10%. Past experience and client references;
- Understanding of Scope of Services and Work Proposal: 25%. Proposed work approach to the project, including all tasks and services defined in the document, and a demonstrated interest in and commitment toward this unique community project;
- Cost: 40%.

The selected Contractor will be expected to enter into a contract with the Recreational Authority. The contract may contain service performance requirements and penalties for non-compliance. Failure to enter into the contract within 10 days of award will be cause for voiding the award of the contract. The Authority may then negotiate and execute a contract with the next highest ranked Contractor.

V. GENERAL INFORMATION

A. ISSUING OFFICE

This RFP is issued by the City of Traverse City and Charter Township of Garfield Recreational Authority. Matt Cowall, Executive Director, is the point of contact for purposes of contract administration and oversight: Matt Cowall, 324 Munson Avenue, Traverse City, MI 49686, (231) 929-3696, mcowall@liaa.org.

B. CONTRACT AWARD

Contract negotiations will be undertaken with those bidders whose proposals show them to be qualified, responsible, and capable of performing the work. The contract that may be entered into will be that which is most advantageous to the Recreational Authority. The Recreational Authority reserves the right to consider proposals or modifications received at any time before award is made, if such action is in the best interest of the Recreational Authority. The Authority may choose all or part of the content of one or more responses for further consideration and possible development.

C. REJECTION OF PROPOSALS

The Recreational Authority reserves the right to reject any, all, or portions of proposals received as a result of this RFP, or to negotiate separately with any source whatsoever in any manner necessary to serve the best interests of the Recreational Authority. The Recreational Authority does not intend to award a contract solely on the basis of any response made to this request or otherwise pay for the information solicited or obtained.

D. INCURRING COSTS

The Recreational Authority is not liable for any cost incurred by the firm in responding to this RFP.

E. ADDENDA TO THE RFP

In the event it becomes necessary to revise any part of this RFP, addenda will be provided to all bidders who received the basic RFP. If the specifications are obtained indirectly or from the Authority's website at <http://www.ci.traverse-city.mi.us/boards-and-commissions/108-recreational-authority-board>, it is the sole responsibility of the bidder to check the website for updates and addendums prior to the proposal being submitted.

F. RESPONSE DATE

To be considered, proposals must arrive at the Issuing Office on or before the date specified in the cover letter. Bidders mailing proposals should allow normal delivery time to insure timely receipt of their proposals.

G. PROPOSALS

To be considered, firms must submit a complete response to this RFP, using the format provided in Part II. Each proposal must be submitted in two (2) original copies to the Issuing Office with one copy being unbound, along with an electronic copy (PDF preferred). For this RFP, the proposal must remain valid for at least ninety (90) days.

H. ACCEPTANCE OF PROPOSAL CONTENT

The contents of the proposal of the successful bidder, as mutually modified, amended or

supplemented shall become contractual obligations if a contract ensues. Failure of the successful bidder to accept these obligations may result in cancellation of the award.

I. INTERVIEW/ORAL PRESENTATION

The Recreational Authority may request an interview and/or oral presentation of any interested parties who submit a proposal. These meetings provide opportunity for the issuers to ask questions and for the bidder to clarify the proposal. The Issuing Office will schedule these presentations.

J. PRIME CONTRACTOR RESPONSIBILITIES

The selected bidder will be required to assume responsibility for all services offered in the proposal whether or not they possess them within their organization. Further, the Recreational Authority will consider the selected firm to be the sole point of contact with regard to contractual matters, including payment of any and all charges resulting from the contract.

K. NEWS RELEASES

News releases pertaining to this RFP or the service, study, or project to which it relates will not be made without prior Recreational Authority approval, and then only in coordination with the Issuing Office.

L. DISCLOSURE OF PROPOSAL CONTENTS

Proposals are subject to disclosure under the Michigan Freedom of Information Act (P.A. 1976, Act 442).

M. CONTRACTOR'S LIABILITY

The selected bidder will provide and maintain general and professional liability, property damage, and worker's compensation insurance insuring, as they may appear, the interests of all parties to any agreement that results from this RFP as required by the Recreational Authority. The selected bidder is responsible for insuring that all precautions are exercised at all times for the protection of all persons and property. Documentation of the above insurances will be provided by the successful bidder to the Recreational Authority prior to contract execution and will be included as a contract rider.

The successful bidder shall secure all necessary certificates and permits from municipal or other public authorities and comply with all national, State, and municipal laws, ordinances, and regulations as may be required.

N. RECREATIONAL AUTHORITY LIABILITY

The selected bidder agrees to indemnify, defend, and save harmless the City of Traverse City and Charter Township of Garfield Recreational Authority and its officers, agents, and employees

from any and all claims and losses accruing or resulting from the negligent performance of work as described in any agreement that results from this RFP. Further, if any recipient of a contract subcontracts for work, they will enter into a contract with such subcontractor(s) which indemnifies the City of Traverse City and Charter Township of Garfield Recreational Authority as provided herein.

O. EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE

On request, owner will provide bidder access to the site to conduct examinations, investigations, explorations and studies as bidder deems necessary for submission of a proposal.

It is the responsibility of each bidder before submitting a bid to:

1. Examine and carefully study the bidding documents, including any addenda and the other related data identified in the bidding documents;
2. Visit the site and become familiar with and satisfy bidder as to the general, local, and site conditions that may affect cost, progress, and performance of the work;
3. Become familiar with and satisfy bidder as to all federal, state, and local laws and regulations that may affect cost, progress, or performance of the work;
4. Agree at the time of submitting its bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its bid for performance of the work within any price bid and within the times and in accordance with the other terms and conditions of the bidding documents;
5. Become aware of the general nature of the work to be performed by owner and others at the site that relates to the work as indicated in the bidding documents;
6. Correlates the information known to bidder, information and observations obtain from visits to the site, reports and drawings identified in the bidding documents, and all additional examinations, investigations, explorations, tests, studies, and data with the bidding documents;
7. Promptly give the Recreational Authority written notice of all conflicts, errors, ambiguities, or discrepancies that bidder discovers in the bidding documents and confirm that the written resolution thereof by the Executive Director is acceptable to bidder; and
8. Determine that the bidding documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the work.

P. INVESTIGATIONS

The Recreational Authority reserves the right to make such investigations as it deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Authority all such information and data for this purpose as the Authority may request. The Authority reserves the right to reject any Proposal if the evidence submitted by or investigation of such bidder fails to satisfy the Authority that such bidder is properly qualified to carry out the obligations of the Contract and to complete the work contemplated therein.

The submission of a bid will constitute an incontrovertible representation by bidder that bidder has complied with every requirement of this Part IV, that without exception the bid is premised upon performing and furnishing the work required by the bidding documents and applying any specific means, methods, techniques, sequences, and procedures of construction or performing the work that may be shown or indicated or expressly required by the bidding documents, that bidder has given the Executive Director written notice of all conflicts, errors, ambiguities, and discrepancies that bidder has discovered in the bidding documents and the written resolutions thereof by Executive Director are acceptable to bidder, and that the bidding documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the work.

Vendor - Please complete and return

BID SUMMARY

TITLE: Event Venue Management Services at Historic Barns Park

DUE DATE: DATE, 2:00 p.m.

Having carefully examined the attached specifications and any other applicable information the undersigned proposes to furnish all items necessary for and reasonably incidental to the proper completion of this bid. Vendor submits this bid and agrees to meet or exceed all requirements and specifications unless otherwise indicated in writing and attached hereto.

Vendor understands and agrees that all necessary permits, licenses and insurances must be obtained and that all applicable federal, state and local codes, laws and regulations must be complied with.

Vendor understands and agrees, if selected as the successful vendor, to accept a Contract and to provide proof of the required insurance.

Vendor understands that the Authority reserves the right to accept any or all bids in whole or part and to waive irregularities in any bid in the best interest of the Authority. The bid will be evaluated and awarded on the basis of best value to the Authority. Criteria used will include but will not be limited to, price, accessories, options, and overall capability to meet the needs of the Authority.

Vendor agrees that the bid may not be withdrawn for a period of ninety (90) days from the actual date of the opening of the bid.

Proposed Annual Retainer: \$_____

Proposed Performance-Based Commission (percentage of net income): _____ %

Submitted by:

Signature

Company Name

Name and Title (Print)

Company Address

Phone

Fax

City

State

Zip

Circle one: Sole proprietorship/partnership/corporation

If corporation, state of corporation

Consent to Background Check

(Must be completed by each individual who will provide services under this Proposal)

Name of Firm Submitting Bid: _____

By signing the release below, I hereby authorize the Traverse City and Garfield Township Recreational Authority to contact any and all corporations, former employers, credit agencies, educational institutions, law enforcement agencies, city, state, county, and federal courts, military services to release information about my background including, but not limited to, information about employment, education, driving record, criminal record and general public records history to the Traverse City and Garfield Township Recreational Authority.

I release from all liability all persons, companies, schools supplying such information. I indemnify the Traverse City and Garfield Township Recreational Authority against any liability, which may result from making such requests. This release shall remain in effect for the length of the contract with myself, my corporation or the corporation with which I am employed. I understand and I may have a right to request additional disclosures regarding the nature and scope of the investigation.

I believe to the best of my knowledge that all information I have provided is accurate, true and correct and that I fully understand the terms of this release.

Name: _____

(Please print) Other names used: _____

Address: _____

City/State/Zip: _____

Date received degree (if applicable) _____

Social Security #: _____

Driver's License Number & State: _____

(Signature of Individual to Perform Services under this agreement)

(Signature of head of Firm/organization CEO)

(Date)

EXHIBIT 1
Map of Park and Facilities

The City of Traverse City and Charter Township of Garfield

Communication to the Recreational Authority

FOR THE MEETING OF JANUARY 8, 2014

DATE: FRIDAY, JANUARY 3, 2014

FROM: MATT COWALL, EXECUTIVE DIRECTOR

SUBJECT: UPDATES ON CONSTRUCTION PLANNING FOR HISTORIC
BARN PARK

Environment Architects is progressing on bidding documents for Phase I construction work on the Cathedral Barn and will have a package ready by late January. The following summarizes some of the finer details that have been worked out by EA and the capital projects committee.

- With the addition of restrooms and a kitchen space, the upper level of the Barn is expected to have a posted occupancy of about 450 people. The main floor space should accommodate 200 guests cabaret style (at round tables).
- The “mezzanine” above the restrooms and kitchen area would be usable by guests.
- Walls will be insulated on both the upper and lower levels. Materials used to finish the upper level walls will attempt to mimic the block and brick that are there now, with an alternate for drywall if those costs prove prohibitive.
- Reclaimed wood is targeted for the exterior of the bathroom/kitchen buildout, with alternates such as cedar if those costs prove prohibitive.
- A “sacrificial” mud slab floor is planned for the undeveloped areas on the lower level to control dust until those areas are fully developed in Phase II.
- A line-item allowance for catering kitchen equipment will be requested in the bids, though effort will be made to secure other funding for kitchen equipment.
- The main western entrance (the big barn doors) will be accommodated with a glass-walled, double-door insert instead of an accordion-style folding glass wall, which will reduce costs and eliminate the need for the creation of additional entries/exits.
- Mechanical work will include accommodations to electrify the irrigation well that services the community garden and farming areas.

(continued)

- Site work will include surface improvements around the outdoor staircase (between the two barns) and in front of the garage door that leads into the lower level to accommodate service vehicles, trash receptacles, etc. Areas along Red Drive between the Visitor Center and the Barns will also be graded to allow some measure of temporary parking.
- Further consideration was given to the creation of a bride's room/green room in the lower level in Phase I, but without ready interior access to the upper level, that feature would suffer from the same disadvantages that were concerns for lower-level restrooms and kitchen facilities. A bride's room/green room should be a top priority for Phase II along with the connector and elevators.

It is my intent that the final bid packet be reviewed by the Board prior to its release (i.e., at a special meeting later in January or at the regular meeting on February 5). However, if the full Board is comfortable with the oversight of the subcommittee on the final details, I would take authorization now to issue the bid package whenever it is ready. A final review will also be conducted by counsel. A sample motion follows, if so desired:

That the Executive Director be authorized to issue a request for bids for Phase I construction work on Building 204, the Cathedral Barn.

The City of Traverse City and Charter Township of Garfield

Communication to the Recreational Authority

FOR THE MEETING OF JANUARY 8, 2014

DATE: FRIDAY, JANUARY 3, 2014

FROM: MATT COWALL, EXECUTIVE DIRECTOR

SUBJECT: FINAL POLICY RECOMMENDATIONS REGARDING VISUAL
CLUTTER AT HISTORIC BARNS PARK

The final policy recommendation has passed the MOU Committee and is attached for your consideration. I want to thank the MOU Committee for working through this and reaching consensus. If it pleases the Board, the following motion would be appropriate:

That the Policy Regarding Visual Clutter be adopted and incorporated into the Agreement for Management of the Historic Barns Park.

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Policy - Agreement for Management of the Historic Barns Park
Regarding: Visual Clutter

The Recreational Authority Board of Directors hereby establishes the following policy, which shall be incorporated into and made part of the Master Site Plan, which is incorporated into and made a part of the Agreement for Management of the Historic Barns Park:

Purpose: The purpose of this policy is to harmonize work uses with public uses and to maximize safe and enjoyable access to the park by public users.

- With the exception of specified events, normal operating hours at the park are generally recognized as dawn to dusk, and the use of park facilities (e.g., buildings and their surroundings, including parking) is generally limited to normal operating hours. Exceptions may be specified with advance notice provided to all Management Entities and with the approval of the Executive Director.
- All Management Entity equipment, supplies, etc. will be stored inside buildings unless other screening options are approved in advance by the Recreational Authority Board of Directors (e.g., establishment of landscaping).
- Staging and/or parking of vehicles for the purposes of carpooling elsewhere is not allowed.
- No overnight parking or exterior staging of equipment is allowed without advance notice provided to all Management Entities and without the approval of the Executive Director.

This policy shall take immediate effect.

I hereby certify that this policy was adopted by the Recreational Authority Board of Directors at its meeting of January 8, 2014.

Michael Groleau, Secretary

The City of Traverse City and Charter Township of Garfield

Communication to the Recreational Authority

FOR THE MEETING OF JANUARY 8, 2014

DATE: FRIDAY, JANUARY 3, 2014

FROM: MATT COWALL, EXECUTIVE DIRECTOR

SUBJECT: REPORTS

Expected reports for Wednesday include:

- Annual Goals and other updates from Management Entities at Historic Barns Park (Botanic Garden, SEEDS)
- Any reports from Board members
- Executive Director's report and possible verbal updates
- Capital Campaign updates

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Goals and Benchmarks for 2014

The Botanic Garden at Historic Barns Park has entered an important new phase in its evolution. No longer in the Planning and Pre-construction stage, as outlined in our Business Plan, the garden is now at a combined Construction and Operational stage. This is an exciting time for the garden, a time of excellent opportunity, but also one of multiple challenges. To meet those challenges, we will continue to facilitate the goals of our 3-year Strategic Plan: expanding our outreach to the region, building new levels of security for the garden, refining operations, continuing site development, and finalizing the branding of the garden with a new logo and new marketing strategies.

Fundraising will continue to be a critical role for the board. The new Visitor Center brings opportunities to provide many more educational offerings, some of which will be tuition-based. It also provides a rental facility for various venues. Tuition and rentals bring in revenue, but maintenance of the Visitor Center (utilities, cleaning, etc.) brings new expenses. As gardens are increasingly developed over the next two years, they will provide wonderful new experiences for the public. But those gardens must be maintained, which comes with a price tag as well. The Botanic Garden board is focused on balancing revenues and expenses at a healthy level.

It takes many years to build a Botanic Garden, and much of a garden's success is based on decisions and strategies incorporated in its early years. The Botanic Garden board recognizes this and is dedicated to not only planning and implementing short-term strategic plan goals but projecting long-term needs and solutions. For example, the board has always recognized the critical importance of a master site plan – one that would provide a road map for future garden construction and function. As a result, many of our goals for 2014 will speak to present needs and objectives, but some will have a more long-term focus. "Preserving the past, planting for the present, projecting for the future".

The Botanic Garden board is committed to implementing the goals and benchmarks for 2014 and continuing their efforts to making the garden a spectacular asset to the Historic Barns Park.

STRATEGIC GOAL #1 – OUTREACH – To increase awareness, commitment and support of the garden by a greater percentage of local and regional individuals.

1. Develop and expand regional partnerships
 - Continue MOA with Master Gardeners Association of Northwest Michigan
 - BG will help to facilitate MGA activities at the site (i.e. Junior Master Gardening class, an MGA monthly meeting, etc.)
 - BG will collaborate with MGA in at least one speaker event
 - Explore additional partnership opportunities
 - BG will work more closely with the Minervinis on the Arboretum Plan, which they helped to facilitate in 2013
 - BG will explore at least two new partnerships in 2014
 - Continue strong focus on regional awareness of Historic Barns Park and The Botanic Garden
 - Increase # of presentations to regional & state organizations by 10%
 - Increase # of tours and presentations to regional groups at the site by 10%
 - Increase public service announcements about the park and garden by 10%

2. Expand Volunteer Program – BG has a new Volunteer Coordinator who is doing an outstanding job of recruiting, training, scheduling and recognizing BG volunteers. During the 2014 year, the Volunteer Committee will:
 - Increase number of volunteers by 20% (presently over 200 volunteers)
 - Increase volunteer communication opportunities
 - Plan & implement at least one volunteer appreciation event in 2014

3. Increase BGS Membership by 20% during the 2014 calendar year
 - Increase marketing strategies for membership through
 - Development of a new membership brochure
 - Regularly scheduled mailings
 - Use of social media
 - Distribution of membership pamphlets in target areas (i.e. nurseries, regional Chambers of Commerce or Visitor Centers, etc.)
 - Market 'membership perks' more actively via:
 - Radio PSAs
 - At least one newspaper ad
 - At least one State Garden Club magazine ad

STRATEGIC GOAL #2 – SECURITY – To increase the legal, financial, and administrative security of the organization.

1. **Legal Security** – By December of 2014, BG plans to complete a long-term agreement with the Recreational Authority, Garfield Township, and the city of Traverse City to ensure the long-term status of the garden at the Historic Barns Park. This is an increasingly important goal as regional donors are investing large amounts of money into the garden and want to be sure their investments are secure.

2. **Financial Security** – To obtain the necessary funds for both capital and operating expenses for the first phase of the garden.
 - i. **Capital Funds** – With the completion of the 3-year capital campaign, BG will continue to explore additional grants and donations.
 1. BG will consider contracting a part-time Development Director, who will focus on fundraising for capital expenses (i.e. garden construction, building renovation, major equipment purchases). Prior to contracting for such a position, the board will develop a job description and personnel policies.
 2. BG will develop policies for annual giving, planned giving and endowments
 3. BG will hold at least one appreciation event for donors in 2014

 - ii. **Operating Funds** – To raise sufficient funds to cover operating expenses, including new expenses generated by the opening of the Visitor Center. Refine the 4-year Business Plan to reflect those expense and fund categories. Sources will include:
 1. Membership
 - a. Increase membership by 20%
 - b. Improve follow-up & recognition of present members
 - c. Explore new membership benefits
 2. Educational Program – Develop a Workshop and Speaker Series for 2014 which will include at least twelve workshops and one speaker program. An estimated fee of \$20 per person per workshop will support these educational offerings.
 3. Events - Plan and implement at least one large revenue generating event for 2014 – most likely revolving around the spring grand opening of the Visitor Center & first gardens
 4. Rentals – Finalize a rental policy and fee schedule for the large Visitor Center meeting room and first gardens
 5. Gift Shop – Establish a gift shop within the Visitor Center, with profits going towards operational expenses.

3. **Administrative Security** – To increase the capacity of the organization and board:
 - i. A succession plan will be developed for each board officer position and each committee chair position
 - ii. At least two new board members will be recruited, whose skills match identified needs within the board (i.e. marketing, event planning, etc.)
 - iii. The board will expand the capacity and roles of its Honorary Board Membership
 - iv. The board will work closely with the first contracted position of Development Director, who in turn will help the board to become more actively engaged in the fundraising process
 - v. New facilities at the Visitor Center will necessitate the need for individuals to manage facility rental and the gift shop. Whether a volunteer, contracted or hired position, personnel policies must be developed for these positions.

STRATEGIC GOAL # 3 – OPERATIONS – As the Visitor Center and first gardens open, it will be necessary to focus on two important areas: social media and contracted services

1. **Social Media** – Communication strategies have dramatically expanded with the onset of social media.
 - During 2013 BG expanded its Facebook presence, with daily postings and over 1500 ‘hits’ a week, 533 ‘likes’ and 48 ‘friends’. During 2014, BG will continue its Facebook efforts, with a goal of a 25% increase in ‘hits’, ‘likes’ and ‘friends’.
 - During 2014, BG will update its website, incorporating its new logo and designs, as well as additional donation and membership options.
 - During 2014, BG will increase Constant Contact e-newsletter editions, and explore other social media platforms (i.e. Pinterest, Tagged, Twitter, etc.) as well as incorporating more video sharing in the platforms we are using.

2. **Contracted services** will be utilized for assistance in marketing, event management, building maintenance, and other operational areas. A series of policies will be developed for each of these areas. (With the Cathedral Barn facilities becoming available later in 2014, the event manager position may be a collaborative one with the Recreational Authority. In the interim, BG will develop their own rental agreements and policies for rental of the Visitor Center Hall and tent lawn.)

STRATEGIC GOAL #4 – SITE – With the 2013 construction of the Visitor Center and new paved trail, and the construction of the Walled Garden and Visitor Center Gardens and Cathedral Barn restoration in 2014, the garden and park will host many more residents and visitors. As a result, it will be increasingly important to maintain and improve the appearance of the site. These are the site improvement areas in which we will focus during 2014:

1. **First gardens** – BG will continue to work closely with Warren Byrd and contractors in the construction of the first gardens around the Visitor Center. In addition, the foundation of the future Walled Garden will be repaired, cleaned and re-pointed, the cement floor will be removed, a guard rail will be installed on the West wall, soil will be amended and first plantings will be made. When the stone walls are fortified and the safety rail is installed the fencing will be removed.
2. **The Conversation Circle** will be completed in the outdoor staircase
3. **The Silo Water Feature** will be installed and maintained in the South Visitor Center garden
4. **Building 223** – When the lead paint abatement is completed, exterior repairs, painting and new doors will be explored, possibly in coordination with SEEDS. A series of grants will be written to help with the expenses of this building’s renovation.
5. **Park entrance** - BG may continue to maintain, plant and improve parts of the entrance to the park to make it more attractive and appealing to visitors.
6. **Picnic grove and park lawns** – BG may continue to mow the picnic grove and park lawns, as well as maintaining picnic tables and watering new plantings in those areas.
7. **Labyrinth** – Although the construction of a landscaped labyrinth will not be completed in the first capital campaign phase, BG has established a mowed labyrinth in the north end of the garden. The labyrinth will be mowed and maintained throughout 2014 and informational brochures about the history and purpose of a labyrinth will be available in weather-proof boxes.
8. **Visitor Center** – The Visitor Center will be maintained in a clean and attractive manner, with a variety of changing instructional displays. The new gardens surrounding the Visitor Center will be maintained (watered, weeded, trimmed, etc.).
9. **Building 221** – If BG is given management rights to Building 221, BG will install a new roof and paint the building.
10. **Signage** – Once decisions are made by the RA regarding signage, BG will install their new logo on the Visitor Center, as well as attractive and appropriate historic markers (i.e. ‘The Granary’, “The Horse Barn”), and donor recognition markers (i.e. “Biederman Visitor Center”, “Rhea and Michael Dow Hall”, etc.).

STRATEGIC GOAL #5 – IDENTITY – With progress being made with the garden, it is time to ‘brand’ and market the garden.

1. During 2013, BG has been working with a team of marketing specialists, to develop a “garden brand”, including a logo, and a marketing plan that will highlight that brand. The new logo and supporting graphics will be utilized in a series of marketing materials (i.e. brochures, posters, stationery, etc.).
2. Self-guided tour signage – In order to help visitors to the park envision the evolving plans for the garden, BG commissioned and installed a series of 2’ x 3’ weather-proof “self-guided” signs throughout the garden and barns areas in 2013. Weatherproof boxes on each sign provide additional information to park visitors. During 2014, two or three additional signs will be commissioned and installed as well: 1) a rendering of the future Water Garden, 2) a rendering of the main promenade or ‘allee’, and 3) if BG gets management rights to Building 221, a rendering of the restored building.

**Botanical Garden Society of Northwest Michigan
Activities at and Contributions to
Historic Barns Park**

We’d like to take this opportunity to update the Recreational Authority Board on the contributions and accomplishments we have made over the past year. During 2013, thanks to continued support from the Recreational Authority and the dedication and efforts of our Board of Directors and many volunteers, the Botanical Garden Society:

- Participated in the combined Historic Barns Park & Botanic Garden Capital Campaign
- Commissioned and paid for expanded landscape design plans for the gardens within the core area of the park, as well as detailed planting plans for the first gardens around the Visitor Center by Warren Byrd of Nelson, Byrd, Woltz Landscape Architects
- Commissioned architectural design work for the Visitor Center by Raymond Kendra of Environment Architects
- Participated in the bidding process for construction of the new Visitor Center
- Oversaw the construction of the new Visitor Center, participating in the design process for colors, fixtures and layouts
- Selected and purchased fixtures and furnishings for the new Visitor Center & classroom
- Purchased new trees (22), shrubs (30), perennials (100), and bulbs (1,200) for fall planting at the Visitor Center gardens.
- Contracted professional installation of new trees at the Visitor Center and at park entrance
- Organized and oversaw 3 volunteer work bees for the installation of the shrubs, perennials and bulbs
- Attended workshops by Northsky on Building Board Capacity and Development
- Formed an ad hoc committee for Development, made up of board members, local business executives and regional business owners. The committee wrote a Development Plan and will create policies for annual giving, planned giving & endowments this winter.

- Formed a Volunteer Committee and appointed a Volunteer Coordinator to recruit and coordinate BG volunteers (we now have over 200 volunteers actively engaged!).
- Attended every monthly RA Board meeting
- Submitted regular quarterly reports to the RA on our plans, accomplishments, and strategic planning process
- Used an ongoing strategic planning process to identify goals that will enhance the park and garden
- Regularly volunteered time to further clear and mow the picnic grove to suppress re-sprouting of the autumn olive and to improve its appearance for use and enjoyment by the public
- Regularly volunteered time to mow other areas around the park site including the amphitheater, around the barns, and at the request of the Community Gardeners, around their garden area.
- Helped maintain the hiking trails within the park through mowing and brush clearing
- Developed a large contingency of regional volunteers (>200, including BG board members) and held a number of volunteer work-bees at the site for maintenance, brush clearing and invasive plant removal. In 2013 alone, over 2,000 hours of volunteer work was dedicated to improving the park. If this work had been contracted at \$20 per hour, it would have represented \$40,000 in labor for park and garden enhancements.
- Partnered with Master Gardeners of Northwest Michigan and the Fountain Point Resort to bring 3 internationally known speakers to the Traverse City area for a three-day conference/benefit.
- Partnered with ArtCenter Traverse City on a month long “Art in the Garden” event at the site and building 50
- Hosted a plein air painting day at the site in partnership with the ArtCenter
- Hosted numerous visits by many clubs and groups at the site, giving tours and talks informing about and promoting the park, the barns, the master site plan, the gardens, and the capital campaign (see tour list below)
- Traveled throughout the region to make informational presentations promoting the park, the master site plan, the barns, the gardens and the capital campaign (see presentation dates and locations of presentations below)
- Invested over \$450,000 in improvements to the site’s granary which will now serve as a Visitor/Interpretive Center and classroom venue
- Designed, purchased and installed a series of 2’X3’ outdoor signs, creating a self-guided tour for visitors to the park and garden – QR codes and brochures are incorporated into the tour

PRESENTATIONS AND TOURS

For the past three years the Botanic Garden has been giving presentations on the Historic Barns Park and Botanic Garden capital campaign and park & garden plans, to groups all over Northern Michigan, as well as hosting a number of guided tours at the site. Here are the programs and tours given so far this year:

2013 PRESENTATIONS

- 1/10 - T.C. Evening Rotary Club – Traverse City
- 1/22 - Newcomers Club – Traverse City
- 2/4 - NMC Class presentation on Park & Garden
- 2/7 - Leelenau Rotary Club – Suttons Bay
- 2/21 - Old Mission Women’s Club – Old Mission
- 3/4 - Channel 2 interview - LIAA
- 3/6 - Glen Lake Women’s Club – Glen Lake
- 4/5 - Eastern Michigan University Historical Preservation Group
- 4/15 - Kirkland Garden Club – Houghton Lake
- 4/16 - Delta Kappa Gamma Women Educators – Traverse City
- 4/22 - NMC Class presentation – T.C. University Center
- 4/28 - Day-long G.T. Recreation Expo – T.C. Civic Center
- 5/7 - Master Gardeners of NW MI – Boardman River Conservation Center
- 5/10 - NMC Senior Campus Day presentation – T.C. University Center
- 5/8 - Garden Goods Nursery presentation – at the T.C. Nursery
- 6/12 - Leelenau Zonta Club – Suttons Bay
- 6/26 - Plant It Wild Club - Frankfort
- 8/12 - Old Mission Peninsula Library presentation
- 8/28 – Petoskey Garden Club – Petoskey
- 9/9 - Cadillac Garden Club – Cadillac
- 9/16 - PEO (Philanthropic Educational Organization) presentation – Traverse City
- 10/22 – Friendly Garden Club presentation and site tour

Note: Presentations scheduled for the rest of 2013 include the Newcomers Club of Traverse City, a Rotary Investigation Team, and the Cherry Capital Rose Society.

2013 SITE TOURS

- 6/13 - Trillium Garden Club
- 7/13 - Plant It Wild Club
- 8/13 - Elk Rapids Garden Club
- 8/22 - Newcomers Garden Club

8/25 - Mid-west Rhododendron Club
7/17 - Presbyterian Church's Voyager Club
8/9 - Benzie PEO (Philanthropic Educational Org.)
8/14 - Elk Rapids Garden Club
9/4 - Herbal Renewal Club
9/14 - ArtCenter Plein Air Painters
9/17 - Geo-thermal Ribbon Cutting
9/27 - Twelve Leelanau Couples group
10/5 - Walk In the Park Open House (all day)
10/20 - T.C. PEO Group
10/22 - Friendly Garden Club site tour

NOTE: There have been many more tours over this summer and fall that were either with individual donors and their families, or were spontaneous requests by park visitors. The tour list above does not begin to cover them all.



SEEDS at the Historic Barns Park: 2014

We're winning! For the first time in three decades, it is expected that the national average age of a farmer in the US will decrease (it's been creeping into the upper 60's). This is welcome and very important news.

The mission of the SEEDS Farmer Residency program is to lower the average age of a Michigan farmer by making it easier for young farmers to enter organic farming (and food systems in general) as a viable career path.

Our vision at the Barns Park is synchronous to that of the Recreational Authority, to create a place that is inviting to a broad spectrum of the public and to provide numerous pathways toward triple-bottom-line educational opportunities for all ages.

During our fifth year of collaboration we intend to:

1. Work proactively and cooperatively with BGS and the RA.
 - a. Actively participate in MOU group meetings.
 - b. Communicate and cooperate with any and all MOU and RA events relating to the property.
 - c. Cultivate appropriate new onsite partnerships and ventures with at least one of each of the following:
 - i. Educational Institution
 - ii. Energy Institution
 - iii. Professional Engineer
 - iv. Nonprofit
2. Expand upon the detail in the Master Site Plan and support the RA's Business Plan.
 - a. Focus on the aesthetics of SEEDS management area borders.
 - b. Improve the "readability" of SEEDS activities on site (e.g. improved signage).
 - c. Work toward improving 223 for allowable uses beyond storage (e.g. clarity on aesthetics via the MOU committee, construction drawings, scoping, etc).
 - d. Construct a wetland/rain garden to improve drainage near Bldg 223.
 - e. Work with partners to identify stormwater and wastewater diverting strategies for buildings and associated black and greywater infrastructure (as highlighted in the Master Site Plan and including development of hydrologic characterization).
 - f. Explore with the RA the relevancy of hosting a farmers market on site.
 - g. Scope a series of energy related demonstration projects (in support of the RA Business Plan) including but not limited to:

- i. “readability” of efficiency and conservation measures especially including making concepts accessible to youth
 - ii. use of “renewable” energy to move water in useful and in playful ways
 - iii. use of agricultural “waste” in a biodigestor to create fuel for cooking and/or heating
 3. Continue to build an educationally focused farm operation.
 - a. Improve the fertility of approximately 2 acres of cultivated soil by continuing to rotate annual crops and amending soils through organic methods.
 - b. Build income generation into the existing farming activities subject to the following limitations:
 - i. Wholesale outlets will prioritize providing food in educational settings.
 - ii. A secondary priority will be providing food to underserved populations.
 - iii. Retail outlets will be charged parity pricing based on comparable product available in the local market at a similar time.
 - c. Expand perennial polyculture beds by at least 25%.
 - d. Expand the area under cultivation with a goal of 2.5 acres in market and/or cover crops.
 - e. Raise financial and social capital for improved infrastructure including: fencing, irrigation, season extension and processing facilities.
 4. Continue building educational programming in relation to the site.
 - a. Invest at least 100 hours of Youth Corps agricultural workforce development training on the farm.
 - b. Host at least 5 formal educational programs for a variety of youth onsite.
 - c. Build outdoor classroom capacity including temporary/mobile cooking facilities.
 - d. Engage the youth of at least three educational institutions.
 5. Continue to foster onsite relationships with other groups and individuals including:
 - a. Those interested in using the Barns for events,
 - b. Those able to help with transportation and parking needs,
 - c. Those who add value to gardens and organic agriculture projects,
 - d. Those who add value to the economies of small-scale farming,
 - e. Those who add value to educational work onsite,
 - f. Those who add value to the Energy Farm concept of the RA’s Business Plan.

The City of Traverse City and Charter Township of Garfield

Communication to the Recreational Authority

FOR THE MEETING OF JANUARY 8, 2014

DATE: FRIDAY, JANUARY 3, 2014

FROM: MATT COWALL, EXECUTIVE DIRECTOR

SUBJECT: EXPENDITURES APPROVED BY EXECUTIVE DIRECTOR

The following are expenditures that I have approved.

General Operating Fund:

Houdek's Tuff-Jon	Port a potty for November	\$ 140.00
Community Foundation	Reimbursement, Consumers Energy grant for geothermal system	\$ 40,000.00
Siler's Lawn Maintenance	Plowing for November	\$ 110.00
Smith Haughey Rice & Roegge	October services	\$ 247.43
Smith Haughey Rice & Roegge	November services	\$ 379.50
Land Information Access Association	Management Services - November	\$ 4,154.38
Land Information Access Association	Printing, postage, travel	\$ 511.25
GT Conservation District	Trash removal, tools & vehicle fees	\$ 98.00
Elmer's	Road grading at HBP	\$ 600.00
Grand Traverse County	Winter Tax Bond	\$ 63.47
Consumers Energy	November services	\$ 23.38
Siler's Lawn Maintenance	Plowing for Dec. 16 – Dec. 26	\$ 770.00

Debt Service Fund:

None		
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Construction Bond Fund:

Arrow Roofing	Gutters/downspouts for Pavilion	\$ 3,183.28
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