Lake Erie College
Environmental Research Center

December 2016

nbbj

Concept Image

Proposed Renovations

Master Plan

Grand River Conservancy Campus

legend

1. grand river conservancy campus entrance
2. canoe launch
3. lake erie college environmental research center
4. shelter house
5. arrival garden
6. nature playground
7. nature center
8. arrival drop-off
9. staff & handicap parking
10. parking
11. event plaza
12. historic farmhouse
13. cabins
14. camp check-in
15. nature trail

The Nature Center (TNC) at Grand River Conservancy Campus conducted a master plan in Spring of 2015. For the first phase TNC is making upgrades to the Nature Center (7) which is adjacent to the Lake Erie College Environmental Research Center (3). TNC is dedicated to making improvements and keeping the campus current.

Site Plan

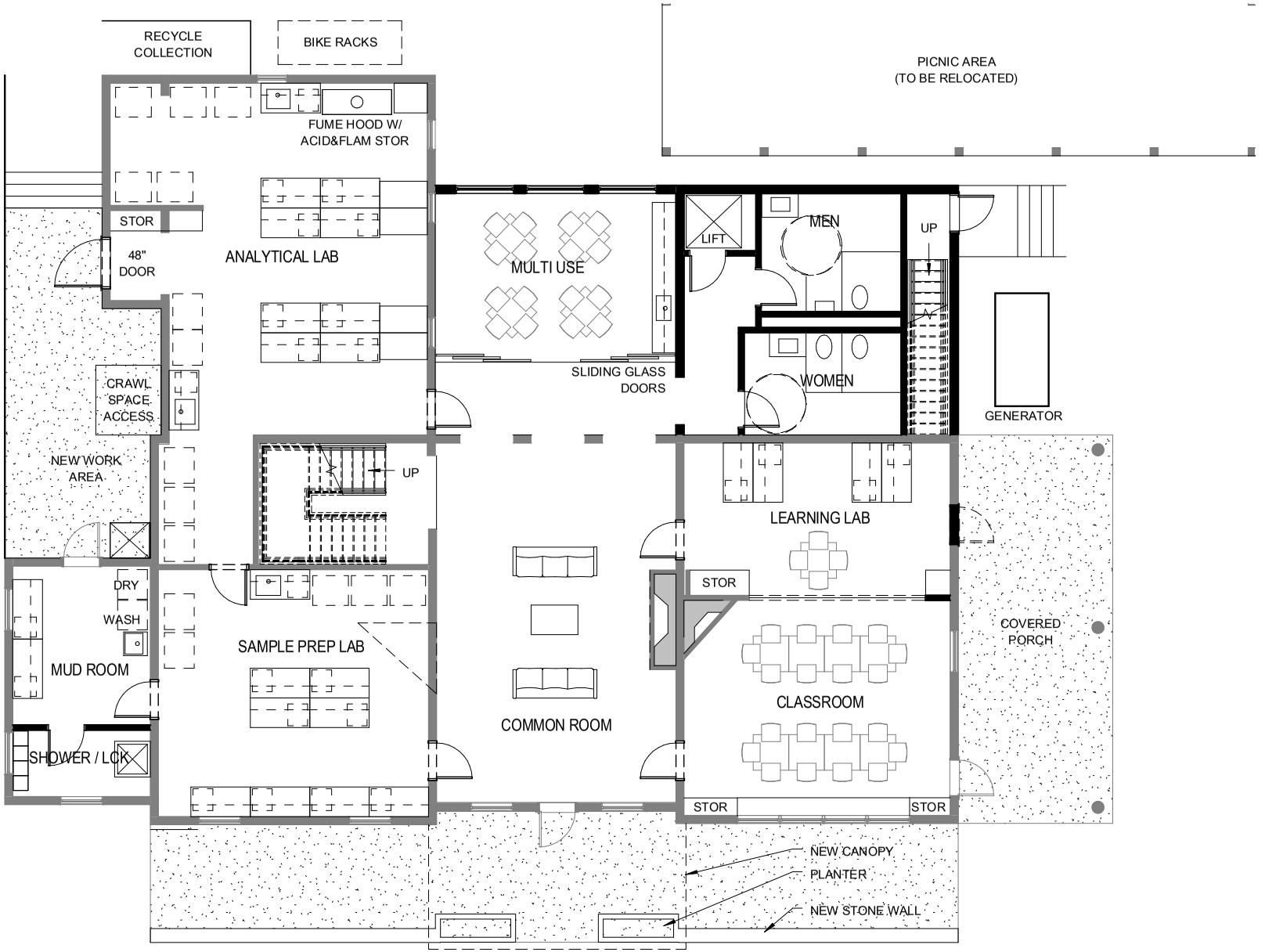

Nature Center
Environmental Research Center
New parking & walk way
Canoe Launch
Entrance Road
Picnic Area (relocated)
North
Pond
Grand River
Grand River

Space Program

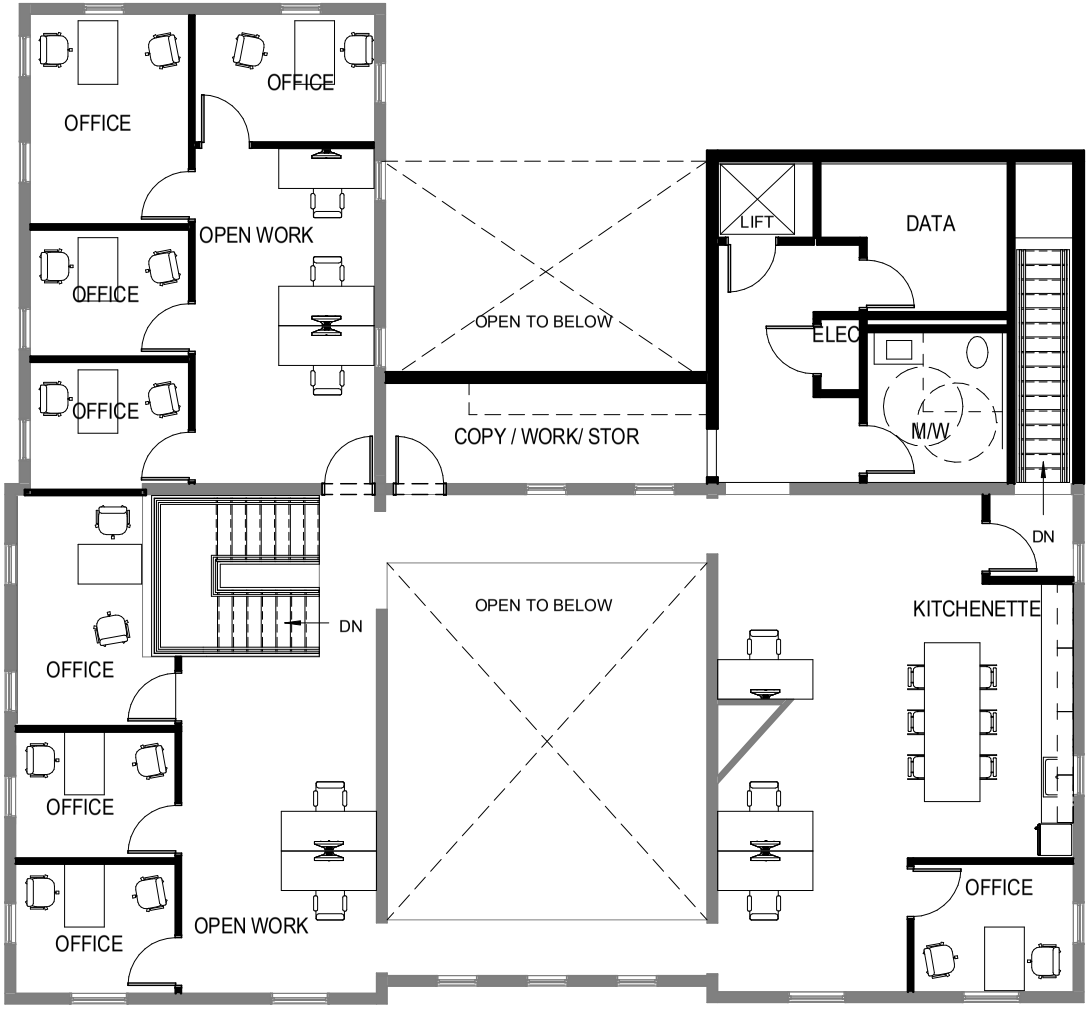
Program Area	QTY	NSF	Total NSF	Type Total	Comments
Laboratories				**1,580**	
Wet research lab "dirty" field studies	1	475	475		100% OA lab air system
Wet research lab “clean” – Biology	1	815	815		100% OA lab air system
Childern’s Learning lab	1	290	290		Small size furniture, office air system
Classrooms				**400**	
Classroom – Teaching & distance learning	1	400	400		Flexible use
Office				**1,842**	
Office - enclosed	6	100	600		Single user
Office Visiting - enclosed	2	100	200		Single user
Office - open workstation	8	64	512		Single user
Kitchenette - Level 2	1	150	150		Frig, micro, and sink
Copy work area	1	80	80		
Flex space - Conf , break	1	300	300		With counter top and storage
Building Support				**1,405**	
Mud room	1	150	150		With washer and dryer
Staff showers	1	65	65		
Restrooms (single)	1	60	60		
Restrooms (multi)	2	115	230		
Data Room	1	100	100		
Common space	1	800	800		
Exterior work area	1	-	-		
Total NSF			5,227		
Net-to-Gross Factor			**1.35**		
Total DEPARTMENTAL GROSS			**7,056**		

Planning

Level 01



Planning
Level 02



Sustainability

In support of the research mission the project will both reduce impact on the environment and enhance the local ecosystem. The project will pursue LEED Gold certification and be an educational tool to inspire the students who visit the facility.

Conserve resources by the renovation of an existing structure.

Reduce energy demand thru high efficiency systems and building enclosure.

Conserve water and deploy systems use storm water to benefit the local environment.

Strive to be Net zero project by inclusion of renewable energy sources.

LEED Checklist

LEED v4 for BD+C: New Construction and Major Renovation
Project Checklist

Project Name: LEC Environmental Research Center
Date: 11/7/2016

Y	?	N			
1			Credit	Integrative Process	1

Y	?	N			
1	3	28	**Location and Transportation**		16
		16	Credit	LEED for Neighborhood Development Location	16
	1		Credit	Sensitive Land Protection	1
		2	Credit	High Priority Site	2
		5	Credit	Surrounding Density and Diverse Uses	5
		5	Credit	Access to Quality Transit	5
	1		Credit	Bicycle Facilities	1
	1		Credit	Reduced Parking Footprint	1
1			Credit	Green Vehicles	1

Y	?	N			
10	0	0	**Sustainable Sites**		10
Y			Prereq	Construction Activity Pollution Prevention	Required
1			Credit	Site Assessment	1
2			Credit	Site Development - Protect or Restore Habitat	2
1			Credit	Open Space	1
3			Credit	Rainwater Management	3
2			Credit	Heat Island Reduction	2
1			Credit	Light Pollution Reduction	1

Y	?	N			
6	1	2	**Water Efficiency**		11
Y			Prereq	Outdoor Water Use Reduction	Required
Y			Prereq	Indoor Water Use Reduction	Required
Y			Prereq	Building-Level Water Metering	Required
2			Credit	Outdoor Water Use Reduction	2
3	1		Credit	Indoor Water Use Reduction	6
		2	Credit	Cooling Tower Water Use	2
1			Credit	Water Metering	1

Y	?	N			
24	2	2	**Energy and Atmosphere**		33
Y			Prereq	Fundamental Commissioning and Verification	Required
Y			Prereq	Minimum Energy Performance	Required
Y			Prereq	Building-Level Energy Metering	Required
Y			Prereq	Fundamental Refrigerant Management	Required
6			Credit	Enhanced Commissioning	6
13			Credit	Optimize Energy Performance	18
1			Credit	Advanced Energy Metering	1
		2	Credit	Demand Response	2
2	1		Credit	Renewable Energy Production	3
1			Credit	Enhanced Refrigerant Management	1
1	1		Credit	Green Power and Carbon Offsets	2

Y	?	N			
3	8	0	**Materials and Resources**		13
Y			Prereq	Storage and Collection of Recyclables	Required
Y			Prereq	Construction and Demolition Waste Management Planning	Required
3			Credit	Building Life-Cycle Impact Reduction	5
	2		Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2
	2		Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
	2		Credit	Building Product Disclosure and Optimization - Material Ingredients	2
	2		Credit	Construction and Demolition Waste Management	2

Y	?	N			
8	8	0	**Indoor Environmental Quality**		16
Y			Prereq	Minimum Indoor Air Quality Performance	Required
Y			Prereq	Environmental Tobacco Smoke Control	Required
2			Credit	Enhanced Indoor Air Quality Strategies	2
1	2		Credit	Low-Emitting Materials	3
1			Credit	Construction Indoor Air Quality Management Plan	1
1	1		Credit	Indoor Air Quality Assessment	2
	1		Credit	Thermal Comfort	1
2			Credit	Interior Lighting	2
	3		Credit	Daylight	3
1			Credit	Quality Views	1
	1		Credit	Acoustic Performance	1

Y	?	N			
3	3	0	**Innovation**		6
2	3		Credit	Innovation	5
1			Credit	LEED Accredited Professional	1

Y	?	N			
4	0	0	**Regional Priority**		4
1			Credit	Regional Priority: ‹ Rainwater management	1
1			Credit	Regional Priority: ‹ Renewable energy production	1
1			Credit	Regional Priority: ‹ Enhanced Indoor Air Quality	1
1			Credit	Regional Priority: ‹ Site Protect restore habitat	1

60	25	32	**TOTALS**	Possible Points: 110

Certified: 40 to 49 points, **Silver:** 50 to 59 points, **Gold:** 60 to 79 points, **Platinum:** 80 to 110

Systems Narrative

BUILDING CODE DATA

- Construction type = 5B
- Use group = Mixed, non separated. B, A-3
- Height Limit (proposed/allowed) = 2 stories, 28 ft / 2 stories, 40 ft
- Floor Area limit (proposed/allowed) = 3,970 sf / 6,000 sf
- Fully sprinklered
- Level 2, Single exit: Max occ =29, travel dist = 100', stair = 36"
- Exit enclosures = 1 hr

SITE IMPROVEMENTS

The site will be minimally impacted and restored.

- Change existing gravel roadway into parking area, redirect access to the west drive
- Relocate existing picnic area, reuse roof structure to allow addition
- Direct rainwater to bio swales
- Add bike racks and recycle collection areas
- Add stone walls and canopy to main entry
- New accessible walkway from parking to main entry
- New outside work area next to mud room
- Native planting selections and no irrigation system.

EXTERIOR IMPROVEMENTS

Repair and upgrade exterior enclose to be a durable low maintenance and energy efficient exterior.

- Replace the roof with standing seam metal roof and insulate attic
- Replace all window with metal clad wood windows matching the existing appearance. Glass to be insulated low-e units
- Replace the exterior walls with fiber cement siding with integral color around the building. Provide continuous insulation sheathing and insulate walls.
- Insulate crawl space from conditioned areas

INTERIOR IMPROVEMENTS

Maintain unique character elements such as (central stairs, wood floors, fireplace, wood paneling). Provided new finishes throughout appropriate for new functions in the building. Materials selections will focus on recycled content and indoor air quality

- Add accessible toilet rooms
- Refinish existing wood floors
- New painted gyp board walls and ceilings
- Ceramic tile restrooms, Carpet tile offices, linoleum labs
- Plam casework
- Adjustable lab casework and shelving
- Solid core wood doors and wood frames

SYSTEMS IMPROVEMENTS

Provide Mechanical, Electrical, & Plumbing systems to meet the needs of the program and be energy and water efficient.

Mechanical

- Dedicated Lab air system with 100% Outside air. System to have heat recovery and setback modes
- VAV fume hood and exhaust
- All other space to have geo-thermal heat-pump Air Conditioning system
- Mixed mode ventilation in non-lab areas allowing use of operable windows
-

Electrical

- All new lighting will be LED with occupancy sensors and daylight harvesting
- Provide new electrical systems and generator for Life Safety and select critical laboratory equipment
- All new Fire Alarm system
- All new cat 5e data cabling and wireless access points
- Building security system for key fob access control with 24/7 monitoring
- Audio Visual pathway rough-in for owner provided A/V equipment

Plumbing

- All new domestic water distribution
- Low flow plumbing fixtures
- Lab domestic water system. High purity water achieved with local polishing units
- Acid waste neutralization on Lab waste piping
- Central lab VAC and Air system. Lab gas via portable containers.
-

Fire protection

- Install full sprinkler system throughout NFPA 13R

RENEWABLE ENERGY

Install PV solar panels to offset electricity usage.

- Install panels on the roof to directly supply the building with carbon free power.
- In future phase, install panels on adjacent buildings to back feed the grid generating energy credits to offset remaining power demand.

Cost Summary

Project Size & Schedule		Value	Units
	Location	Rock Creek, OH	
Size			
	Net Program Area	5,227	NSF
	Efficency (Net / Gross)	68%	
	Gross Area	7,640	GSF
	Typical Floor Plate	3,820	GSF
	Floors	2	
	Site Area (Area of work)	12,000	SF
	Site Area (Area of work)	0.28	Acres
Schedule			
	Design Duration	4	Months
	Construction Duration	9	Months
	Activation Duration	1	Months
	Design Start	6/1/2017	
	Project Open	**8/1/2018**	
	Escalation Factor (Current day - Con start)	12	Months
	Escalation Value	2.5%	% / Year

Construction Cost		Value	Units	$/GSF	% /CC $
Hard Cost	Includes:				
	Demo	Lab Casework , Hoods			
	Infrastructure Improvements MEP	MEP / FP			
	Structure, Enclosure, Core	Technology Pathway & Cableing			
	Interior Fitout, Finishes, Window shades	Signage			
ST-1	**Total Building Cost**	**$ 1,894,720**		**$ 248**	90.70%
	Soft scape & Site prep				
	Hardscape and Roadways				
	Total Site Cost	$ 114,000	$ 10	$ 14.9	5.46%
ST-2	Total w/o GCs	$ 2,008,720		$ 263	
	General Requirements & Conditions	$ 80,349		$ 10.5	4.00%
ST-3	**Total Cost of Work (COW)**	**$ 2,089,069**		**$ 273**	**100%**
Markups					Input
	Design/Detail/Estimating Contingency	$ 313,360		$ 41.0	15.00%
	CM Contingency	$ 62,672		$ 8.2	3.00%
	Escalation - to 2017 Q4	$ 60,061		$ 7.9	2.50%
	CM Costs: Staff, FEE	$ 94,008		$ 12.3	4.50%
	Insurance	$ 20,891		$ 2.7	1.00%
	Allowances	$ -		$ -	0.00%
					11.0%
ST-4	**Total Construction Cost**	**$ 2,640,061**		**$ 346**	

Project Soft Costs		Value	%/CC
Activation			
	Furniture	$ 122,240	4.63%
	Equipment (built in)	$ 45,840	1.74%
NIC	Equipment (Loose LAB, ref, other)	$ -	0.00%
	Audio Visual EQ	$ 38,200	1.45%
	Art	$ 7,640	0.29%
	Solar Panels, complete system	$ 42,020	1.59%
	Consumable Start up	$ 1,910	0.07%
	Technology Rack Equipmnet	$ 15,280	0.58%
	Sub-Total Activation	**$ 273,130**	
Soft Costs		Value	% /CC
	Profesional Fees	$ 198,005	7.50%
	Owner Consultants	$ 11,880	0.45%
	Owner Contingency	$ 316,807	12.00%
	Project Staff	$ 52,801	2.00%
	LEED Registration	$ 1,135	0.04%
	LEED Credits	$ 21,120	0.80%
	Insurance	$ 2,640	0.10%
	Permit Fees	$ 3,960	0.15%
	Sub-Total Soft Costs	**$ 608,349**	
	Total Project Soft Costs	**$ 881,479**	
	Total Project Cost	**$ 3,521,540**	
	Soft Cost / Total Project Ratio		33%

Solar Panel system:

Panels located on South roof of the building projected to produce 16,100 kwh of electricity per year. Generating electricity with an approximate value of $2000 a year.

LAKE ERIE COLLEGE ENVIRONMENTAL RESEARCH CENTER

Purpose: Create a unique research and educational facility, in partnership with The Nature Conservancy, to provide expanded educational opportunities and facilitate appropriate career pathways for students enrolled in undergraduate programs at Lake Erie College with a career focus of environmental regulations, toxicology, wildlife management, fisheries management, agriculture, environmental research, environmental management or related careers.

Project Description: Lake Erie College (LEC) has recently partnered with The Nature Conservancy (TNC) to enhance educational and research opportunities for northeast Ohio students, teachers, and residents. The TNC Grand River Conservation Campus currently has an old hunting lodge (hereafter referred to as "the Lodge") that is not being utilized. Both parties believe this to be an ideal facility to serve as a center for environmental conservation research and education. Lake Erie College Faculty and a representative of TNC have met with architects from the firm ***nb****bj* to develop a comprehensive and intentional renovation plan. The renovation will construct a space to house both educational and research opportunities creating a facility that will meet LEED gold standards and exhibit a minimal environmental impact. In addition to the experiential learning opportunities and educational impact this facility will provide, this project will also have an economic impact on the workforce of Ashtabula and contiguous counties through job creation for the renovation of the facility. This initiative is supported by various constituents and stakeholders throughout Ashtabula, Cuyahoga and Lake County as evidenced by the included letters of support.

Research Goals: The research to be conducted in this space will involve several fields of study with a goal of developing a regional research consortium to include regional K-12 schools and local environmental agencies as well as higher education institutions. Research projects, described briefly below, have been identified by LEC faculty in collaboration with TNC to aid with environmental issues facing Ohio waterways, in particular those in the Lake Erie watershed.

- Conduct comparison studies between northeast Ohio watersheds and northwestern Ohio watersheds, with emphasis on differential parameters regarding water chemistry including phosphate and nitrogen outflows into the Lake Erie basin. Additionally studies monitoring environmental pollutants such as heavy metals, poly aromatic hydrocarbons, and other wastewater chemicals will be developed.

- Impact of agricultural and residential activities and development on water quality in northeast Ohio watersheds.
- Impact of soil types on water quality in northeast Ohio.
- Invasive species extent and behavior in northeast Ohio, with emphasis on impacts to sensitive and protected ecological systems in northeast Ohio.
- Impact of climate change parameters on sensitive and protected ecological systems in northeast Ohio.

Educational Goals: Educational goals can be broken into five main areas as detailed below. We plan to develop these educational opportunities in conjunction with the aforementioned research to create a unified experience that connects all five areas. Many schools in Lake and Ashtabula counties are considered "high-need LEA schools" by the Ohio Board of Regents (OBR) and would benefit greatly from this opportunity. Additionally, many of these schools received grades of D or F on the 2015-2016 Ohio School Report Card in the areas of "Indicators Met" and "Prepared for Success Grade." These educational goals will be developed to help teachers meet state standards as well as target the Ohio Teacher Evaluation System (OTES) expectations.

1. <u>Developing research skills and environmental awareness in college students.</u> Students at Lake Erie College, Kent State University at Ashtabula and future partner institutions will have the opportunity to conduct environmentally focused research on TNC preserves and work directly with faculty on the projects mentioned above. Additionally, each faculty at each partner institution will have the opportunity to develop content specific mini-research projects for individual students and/or courses.
2. <u>Providing experiential learning opportunities for K-8 students.</u> A major aspect of science is actively engaging in the scientific process and this is something that is not readily available to most students in northeast Ohio as many schools do not have adequate budgets to offer hands-on opportunities for K-8 students. This facility will include a "learner lab" space which teachers can utilize to design experiments relevant to their class topics. Additionally, there will be a space in which teachers will be able to engage in various distance learning activities including virtual field trips to remote locations. Additionally, LEC faculty will conduct summer camps for K-8 students to continue education and engagement during summer breaks.
3. <u>Partnering with high schools to develop college-ready students.</u> Lake Erie College faculty in the School of Natural Sciences and Mathematics will collaborate with local high school science teachers to include high school students in research being conducted at this facility.

This will serve to help students to begin to develop the necessary skillset to be successful in collegiate science programs, ease the transition from high school to college caliber courses and potentially raise awareness and interest in certain demographic populations with low college enrollment numbers.

4. Developing and delivering professional development opportunities to improve STEM education in Ohio. LEC faculty were awarded funding by the OBR in 2015 to offer professional development credits for local at-need schools. Faculty taught teachers from local middle and high schools the use of various technologies and how to incorporate them into their classes. Teachers were given a set of probes from Vernier to keep for use in their classes. One of the most notable results of this exercise was learning about the lack of content area knowledge and application in participants. This facility would provide a space to continue the work started with the OBR grant to help improve the quality of STEM education in northeast Ohio.
5. Making environmental education more readily available to the general public. In addition to the previous items, this facility will serve as a central hub for information and education on environmental and conservation topics. We plan on having a centralized, "one-stop" database housing information available for teachers, industries and the general public. In addition, we will periodically host events on-site to develop and maintain community involvement. In conjunction with the above points, this facility will also house a mobile lab that faculty will use to take their work to various constituents. The mobile lab will provide the opportunity for local engagement, school interactions and a wider professional development and community outreach range.

How You Can Help

The Nature Conservancy conducted a master plan in spring 2015 and is making upgrades to the Nature Center during the first phase. TNC is dedicated to making these improvements and keeping the campus current. Renovation of the existing facility, including laboratories, office space and support infrastructure will be a $3.5 million endeavor. Lake Erie College is seeking grant support through the National Science Foundation, but philanthropic investments will be critical to the timely completion of this comprehensive initiative.

How We Can Help

We can help you decide what and how to give. You may want to specify criteria for your gift. You may want to take advantage of tax savings, make a one-time contribution or a gift over multiple years. We can guide you through your options and help you choose what works best for you.

FOR MORE INFORMATION, CONTACT:

Pam Palermo
Senior Director of Development
Lake Erie College
391 W. Washington St.
Painesville, OH 44077
440.375.7225
ppalermo@lec.edu

John Tedesco, Ph.D.
Dean, School of Natural Sciences and Mathematics
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ASHTABULA COUNTY COMMISSIONERS
Daniel R. Claypool
Casey R. Kozlowski
Peggy A. Carlo

25 W. Jefferson Street
Jefferson, Ohio 44047-1092
Phone: (440) 576-3750
Fax: (440) 576-2344
commissioners@ashtabulacounty.us

December 2, 2016

Brian Posler, President
Lake Erie College
391 W. Washington St.
Painesville, OH 44077

Dear President Posler:

It is our pleasure to write a letter in support of the Lake Erie College School of Natural Sciences and Mathematics (LECSNSM) in its efforts to secure funding to establish the Lake Erie College Research and Educational facility.

The Ashtabula County Board of Commissioners fully supports the efforts of the LECSNSM to renovate a building on The Nature Conservancy's Grand River Conservation Campus at Morgan Swamp. This renovation will provide a centralized site for environmental and conservation research in Lake and Ashtabula counties as well as educational and professional development opportunities for regional students and teachers.

In conclusion, we are pleased to offer our support of the Lake Erie College School of Natural Sciences and Mathematics as they seek external funding to establish this important and unique research and education resource in northeast Ohio. This facility will support and collaborate with all efforts to further our understanding and facilitate the sustainable stewardship of our regional ecosystems and natural resources.

Please feel free to contact the Board should you have any questions concerning the County's support of this project.

Sincerely,

ASHTABULA COUNTY COMMISSIONERS

Dan Claypool, President | Casey Kozlowski, Commissioner | Peggy Carlo, Commissioner

Ashtabula
COUNTY, OHIO
Where great things happen.

Ashtabula County
Educational Service Center

4200 State Road, Ashtabula, OH 44004
Phone: (440) 576-9023 Fax: (440) 576-3065
www.acesc.k12.oh.us

John M. Rubesich, Superintendent
Mary F. Gillespie, Treasurer

December 1, 2016

Dr. Brian D. Posler, President
Lake Erie College
391 West Washington Street
Painesville, OH 44077

Dear President Posler:

It is our pleasure to write a letter in support of the Lake Erie College School of Natural Sciences and Mathematics (LECSNSM) in its efforts to secure funding to establish the Lake Erie College Research and Educational Lodge.

We are partnering with the LECSNSM to renovate a building on The Nature Conservancy's Grand River Conservation Campus at Morgan Swamp in Ashtabula County. This renovation will provide a centralized site for environmental and conservation research in Lake and Ashtabula Counties as well as educational and professional development opportunities for regional students and teachers.

The Ashtabula County Schools are excited to form this partnership with Lake Erie College. Our students will benefit from having access to this environmental and conservation conservancy. Ashtabula County students will be able to gain an understanding of how Ohio's science standards come to life in real-world applications.

In conclusion, we are pleased to be partners with the Lake Erie College School of Natural Sciences and Mathematics as they seek external funding to establish this important and unique research and educational resource in northeast Ohio. This facility will enable the support and collaboration needed to further our understanding and facilitate the sustainable stewardship of our regional ecosystems and natural resources.

Sincerely,

Dr. Melissa Watson, Superintendent
Ashtabula Area City School District

Dr. Jerome R. Brockway, Superintendent
Ashtabula County Career/Technical Center

Mr. Patrick Colucci, Superintendent
Buckeye Local School District

Mrs. Lori Riley, Superintendent
Conneaut Area City School District

Mr. Eric Kujala, Superintendent
Geneva Area City School District

Dr. William Nye, Jr., Superintendent
Grand Valley Local School District

Mr. John Montanaro, Superintendent
Jefferson Area Local School District

Mr. Michael Candela, Superintendent
Pymatuning Valley Local School District

Mr. John Rubesich, Superintendent
Ashtabula County Educational
Service Center

Our Mission

The purpose of the Ashtabula County Educational Service Center is to be a high performing organization that enables districts to achieve excellence.

LAKEMETROPARKS

Lake Metroparks
Administrative Offices
11211 Spear Road
Concord Twp., Ohio 44077

440-639-7275
440-639-9126 fax
lakemetroparks.com

December 5, 2016

Brian Posler, President
Lake Erie College
391 W. Washington St.
Painesville, OH 44077

Subject: Letter of Support for "The Lake Erie College Research and Educational Facility" National Science Foundation grant.

Dear President Posler:

Please accept this letter as an assertion for our support for the Lake Erie College School of Natural Sciences and Mathematics (LECSNSM) and its efforts to secure funding to establish the Lake Erie College Research and Educational facility.

We are partnering, via the Grand River Partnership, with the LECSNSM to renovate a building on The Nature Conservancy's Grand River Conservation Campus at Morgan Swamp. This renovation will provide a centralized site for environmental and conservation research in Lake and Ashtabula counties as well as educational and professional development opportunities for regional students and teachers. Lake Metroparks' mission statement is to preserve and conserve natural resources. This facility will be a great asset in helping us to meet those goals.

In conclusion, we are pleased to be partners with the Lake Erie College School of Natural Sciences and Mathematics as they seek external funding to establish this important and unique research and education resource in northeast Ohio. This facility will enable the support and collaboration needed to further our understanding and facilitate the sustainable stewardship of our regional ecosystems and natural resources.

Sincerely,

Paul Palagyi
Executive Director

Western Reserve Land Conservancy

land • people • community

November 22, 2016

Brian Posler, President
Lake Erie College
391 W. Washington St.
Painesville, OH 44077

RE: Establishment of the Lake Erie College Research and Educational Facility

Dear President Posler:

Western Reserve Land Conservancy enthusiastically supports the Lake Erie College School of Natural Sciences and Mathematics (LECSNSM) in its efforts to secure funding to establish the Lake Erie College Research and Educational Facility.

As active members of the Grand, Ashtabula, Conneaut Partnership, the Land Conservancy is partnering with the LECSNSM to renovate a building on The Nature Conservancy's Grand River Conservation Campus at Morgan Swamp. This renovation will provide a centralized site for environmental and conservation research in Lake and Ashtabula counties as well as educational and professional development opportunities for regional students and teachers. The Land Conservancy is a leading conservation organization in the region and has a fundamental interest in environmental and conservation research in Lake and Ashtabula counties, which are part of our service area.

We provide the people of our region with natural assets – including academic and educational opportunities – through land conservation and restoration. When our work is done, our region will be filled with thriving, prosperous communities nourished by vibrant natural areas, working farms and healthy cities.

In conclusion, the Land Conservancy is pleased to be partners with the Lake Erie College School of Natural Sciences and Mathematics as they seek external funding to establish this important and unique research and education resource in northeast Ohio. This facility will enable the support and collaboration needed to further our understanding and facilitate the sustainable stewardship of our regional ecosystems and natural resources.

Western Reserve Land Conservancy fully supports the establishment of the Lake Erie College Research and Educational Facility.

Very truly yours,

Rich Cochran
President and CEO

3850 Chagrin River Road • Moreland Hills, OH 44022

T 440.528.4150 www.wrlandconservancy.org F 440.528.4160

natural areas/cleveland museum of natural history

1 Wade Oval Drive, University Circle • Cleveland, Ohio 44106-1767
(216) 231-4600
WWW.CMNH.ORG

December 2, 2016

Brian Posler, President
Lake Erie College
391 W. Washington St.
Painesville, OH 44077

Dear President Posler:

I am grateful to have the opportunity to write a letter in support of the Lake Erie College School of Natural Sciences and Mathematics (LECSNSM) in its efforts to secure funding to establish the Lake Erie College Research and Educational facility.

The Cleveland Museum of Natural History Botany Department and Natural Areas Division staff members look forward to partnering with Lake Erie College and The Nature Conservancy on programs and projects at The Nature Conservancy's Grand River Conservation Campus at Morgan Swamp. The proposed renovation will provide a centralized site for environmental and conservation research in Lake and Ashtabula counties as well as educational and professional development opportunities for regional students and teachers. The Cleveland Museum of Natural History Botany Department discovered several dozen rare plant and animal species within Morgan Swamp through the 1970s. Museum rare plant and animal records were the basis for The Nature Conservancy's decision to initiate acquisition of the outstanding wetlands in 1984. The first confirmed Ohio Yellow-Bellied Sapsucker nest was found by museum staff and volunteers in the late 1970s. Several of the rare plants found by the Museum Botany Department at Morgan Swamp in the 1970s were presumed to be extirpated from Ohio prior to their discovery by museum staff and volunteers within Morgan Swamp.

In conclusion, my staff and I are pleased to be partners with the Lake Erie College School of Natural Sciences and Mathematics as they seek external funding to establish this important and unique research and education resource in northeast Ohio. The complex has proven to be an important local resource for residents in Ashtabula County and Greater Cleveland Region. This facility will enable the support and collaboration needed to further our understanding and facilitate the sustainable stewardship of our regional ecosystems and natural resources.

Sincerely,

James K. Bissell

Dr. James K. Bissell
Director of Natural Areas
Curator of Botany

Andrews Osborne
ACADEMY

November 21, 2016

Dear President Posler:

It is my pleasure write a letter in support of the Lake Erie College School of Natural Sciences and Mathematics (LECSNSM) in its efforts to secure funding to establish the Lake Erie College Research and Educational Lodge.

We are partnering with the LECSNSM to renovate a building on The Nature Conservancy's Grand River Conservation Campus at Morgan Swamp. This renovation will provide a centralized site for environmental and conservation research in Lake and Ashtabula counties as well as educational and professional development opportunities for regional students and teachers. As an independent K-12 school in Lake County, Andrews Osborne Academy is excited at the prospect of having this new educational facility in our area so that we can design labs for our Middle and Upper School students that will leverage the natural setting for this educational lodge.

We are pleased to be partners with the Lake Erie College School of Natural Sciences and Mathematics as they seek external funding to establish this important and unique research and education resource in northeast Ohio. This facility will enable the support and collaboration needed to further our understanding and facilitate the sustainable stewardship of our regional ecosystems and natural resources.

Sincerely,

Larry Goodman

Larry Goodman, Ph.D.
Head of School, Andrews Osborne Academy

Marta K. Stone
3209 Schweitzer Road
Rock Creek, OH 44084
martastone@windstream.net

December 1 2016

Brian Posler, President
Lake Erie College
391 W. Washington St.
Painesville, OH 44077

Dear President Posler:

It is my pleasure to submit this letter in support of the Lake Erie College School of Natural Sciences and Mathematics (LECSNSM) in its efforts to secure funding to establish the Lake Erie College Research and Educational facility.

I am partnering with the LECSNSM to renovate a building on The Nature Conservancy's Grand River Conservation Campus at Morgan Swamp. This renovation will provide a centralized site for environmental and conservation research in Lake and Ashtabula counties as well as educational and professional development opportunities for regional students and teachers. I have been involved with conservation groups in the area for many years. I served on the board of Western Reserve Land Conservancy and currently am the chapter chairperson of the Eastern Region of WRLC. Just recently I was elected to serve on the TNC's Ohio Board and am delighted to see their involvement in Ashtabula County and with this exciting initiative with Lake Erie College. I also sit of the Stewardship Committee for the CMNH's Grand River Terraces and the State Scenic and Wild Rivers Advisory Council for the Grand River. All of the conservation groups work collaboratively through the Grand River Partnership.

In conclusion, I am pleased to be partners with the Lake Erie College School of Natural Sciences and Mathematics as they seek external funding to establish this important and unique research and education resource in northeast Ohio. This facility will enable the support and collaboration needed to further our understanding and facilitate the sustainable stewardship of our regional ecosystems and natural resources.

Sincerely,

Marta K. Stone

Marta K. Stone
Community Volunteer

LAKE ERIE

COLLEGE