

Nominating Authority's Certifications

The signature by the Nominating Authority on this page certifies that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct to the best of the Authority's knowledge.

1. The school has some configuration that includes one or more of grades Pre-K-12. (Schools on the same campus with one principal, even a Pre-K-12 school, must apply as an entire school.)
2. The school is one of those overseen by the Nominating Authority which is highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
3. The school meets all applicable federal civil rights and federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency Michigan Department of Education

Name of Nominating Authority Mrs. Patty Cantú, Director, Office of Career and Technical Education
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

I have reviewed the information in this application and certify to the best of my knowledge that the school meets the provisions above.


(Nominating Authority's Signature)

Date January 30, 2014

Michigan Department of Education

Green Ribbon Schools Nomination Form

Tab to each field to complete your answers. Text fields will automatically expand as you type.

District Information:

Legal Name of District:	Lenawee Intermediate School District	School Code: 46000
Address of District:	4107 North Adrian Hwy	
City and Zip Code:	Adrian, MI 49221	
Is your district one of the largest 50 districts in the nation?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Building Information: Note: each building must complete a separate form.

Name of Building:	LISD Center for a Sustainable Future
Address of Building:	4260 Tipton Hwy
City and Zip Code:	Adrian, MI 49221

School Principal Information:

Name of Principal:	Shelley Jusick	
E Mail Address:	shelley.jusick@lisd.us	Telephone (area code): (517) 265-1654

Application Contact Information:

Name of Contact Person:	Shelley Jusick	Title:	LISD TECH Center Principal
Address:	1372 North Main St.		
City and Zip Code:	Adrian, MI 49221		
E Mail Address:	shelley.jusick@lisd.us	Telephone (area code):	(517) 265-1654

School Website Address:	www.lisd.us
Facebook Page:	

School Demographics:

Level: <input type="checkbox"/> Early Learning Center <input type="checkbox"/> Elementary (PK – 5 or 6) <input type="checkbox"/> K – 8 <input type="checkbox"/> Middle (6 – 8 or 9) <input checked="" type="checkbox"/> High (9 or 10 – 12)	School Type: <input checked="" type="checkbox"/> Public <input type="checkbox"/> Private/Independent <input type="checkbox"/> Charter <input type="checkbox"/> Magnet
How would you describe your school: <input type="checkbox"/> Urban <input type="checkbox"/> Suburban <input checked="" type="checkbox"/> Rural	Does your school have at least 40 percent of your students eligible for free and reduced meals? <input type="checkbox"/> Yes <input type="checkbox"/> No



By submitting this electronic application, the school principal (or equivalent) certifies that each of the below statements concerning the school's eligibility and compliance with the following requirements is true and correct:

- The school has some configuration that includes one or more of grades pre- K-12. (schools on the same campus with one principal, even a K-12 school, must apply as an entire school)
- The school has been evaluated and selected from within the Nominating Authority's jurisdiction as highest achieving in the three ED-GRS Pillars: 1) reduced environmental impact and costs, 2) improved health and wellness, and 3) effective environmental and sustainability education
- Neither the nominated public school or its public school district is refusing the U. S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review
- OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective plan to remedy the violation
- The U. S. Department of Justice does not have a pending suit alleging that the public school or the public school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause
- There are no findings of violations of the Individuals with Disabilities Education Act in a U. S. Department of Education monitoring report that apply to the public school or public school district in question, or if there are such findings, the state or public school district has corrected, or agreed to correct, the findings
- The school meets all applicable federal, state, local, and tribal health, environmental, and safety requirements in law, regulations, and policy, and is willing to undergo EPA onsite verification

Signatures:



Signature of Nominator

Title: Leslie Coates, LISD TECH Center Science Consultant

Date: 1/10/14



Signature of Principal

Title: Shelley Jusick, LISD TECH Center Principal

Date: 1/10/14

GREEN RIBBON SCHOOLS APPLICATION LISD CENTER FOR A SUSTAINABLE FUTURE

For over 10 years, the Lenawee Intermediate School District researched, financed, and ultimately constructed an 8,700 sq. foot, net-zero facility with two classrooms, a science lab, a greenhouse, and community meeting space at the LISD TECH Center's 75-acre land lab.

The LISD involved community members, students, staff, and other stakeholders in the vision and design process with energy efficiency, sustainable principles, and outstanding educational opportunities as the focus.

The building was constructed to meet LEED Platinum specifications. This includes a building envelope insulated beyond energy code requirements. The north side of the building is protected by an earth berm while windows on the south side provide passive solar gain in the winter. Unobtrusive sun shades protect windows from the high angles of the summer sun.

The school has a grid-tied 68 kW photovoltaic system and a geothermal heat pump. Air temperature and LED light fixtures are controlled by occupancy sensors. Lighting is enhanced by energy efficient windows and solar tubes that deliver natural daylight to the interior and also provide scenic views of the outdoors for the mental and physical health of users.

A vegetative (green) roof of drought tolerant sedum was installed to insulate the building, extend the lifespan of the roof, capture and filter storm water, and serve as an outdoor classroom. Within days of installation, students observed butterflies, bees, and other pollinators that had discovered the new environment. Students are currently studying the microclimate above the vegetative roof and conventional roofs to understand the heat island effect.

Water conservation and protection is a major concern for citizens of the River Raisin watershed. The river supplies drinking water for many Lenawee County residents and empties into Lake Erie. The CSF roof and other drainage features show students and the community how storm water runoff can be slowed, filtered, and conserved. Rainwater from the roof is collected in a 10,000 gallon cistern to be used to irrigate garden plots and grounds planted with native grasses. A rain garden and permeable section of sidewalk help recharge ground water stores. Water conservation is enhanced by waterless and low-flow plumbing fixtures within the building.

The CSF includes a state-of-the-art energy efficient greenhouse where students propagate plants and practice growing food on a year-round basis – important components to the agriculture industry. Students are experimenting with vertical growing systems, hydroponics, and aquaponics. They also are testing different varieties of compostable planters for local businesses.

The CSF complements green and sustainable practices that already had been implemented on the agricultural property prior to construction. Broiler chickens were raised using free range practices or fed organic feeds to evaluate differences between conventional and more natural husbandry practices. A vermicomposting system was put in place to recycle food waste from the LISD TECH Center's Culinary Arts program into fertilizer. Last year, a team of students won Gold medals at the state FFA competition for their pasture-raised pig project.

Students practice integrated pest management and perform soil tests on the tillable acres to evaluate and minimize fertilizer requirements. A 10-acre parcel has been set aside for students to learn how to convert conventionally farmed land to certified organic production.

An onsite showcase is the ¼-acre vegetable plot fertilized with composted manure and irrigated with collected rainwater. Crops harvested this fall supplied the Culinary Arts program, and hundreds of pounds of vegetables were donated to the Salvation Army and a local hospital's Veggie Mobile. Students compared biodegradable to conventional plastic mulch in the vegetable plot as part of an ongoing research project.

A number of programs at the LISD TECH Center use the CSF as a learning tool. The CSF is fostering interdisciplinary collaborative efforts between students in different programs. Alternative Energy & Robotics students use data collected at the CSF to learn about photovoltaic and geothermal systems.

Biochemical Technology students are working with Michigan State University Extension and Agri-Tech students to grow canola and make biodiesel fuel. Agricultural waste from the site is made into ethanol by students studying cellulosic ethanol production.

Public praise for the CSF has been high and new partnerships continue to develop. Midwest Energy is partnering with the LISD to showcase affordable energy efficient residential building methods, and Washtenaw Community College and Jackson College are partnering on several sustainability-related projects.

The LISD recently received the prestigious Comstock Award from the Adrian Area Chamber of Commerce in recognition of the development of the CSF and preparing students for careers in the fields of sustainable agriculture and alternative energy production. The award honors organizations that “impact the future of our community through involvement in planning, visioning and effort.”

Summary Narrative:

On a separate page, please provide an 800 word maximum narrative describing your school's efforts to reduce environmental impact and costs, improve student and staff health, and provide effective environmental and sustainability education. Focus on unique and innovative practices and partnerships.

Cross-Cutting Questions

Participation in Michigan Green Schools, Programs, and/or Awards for Environmental and Sustainability Efforts

CC1.	Yes	No
Is your school participating in a local, state, or nationally recognized green school program which asks you to benchmark progress in some fashion (for example, EPA ENERGY STAR, National Wildlife Federation Eco-Schools USA, Green Schools Alliance, Collaborative for High Performance Schools, or Project Learning Tree's Green Schools!, Energy Essentials, Rebuild Michigan, or Michigan Green Schools), in any or all of the Pillars?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
What program(s) are you participating in and what level(s) have you achieved?	USGBC LEED Certification. Scoring in progress. See Supplemental page.	

CC2.	Yes	No
Has your school, staff, or student body received any awards for facilities, health, or environment?	<input type="checkbox"/>	<input type="checkbox"/>
Please list the awards you have received and the years you received them.	Building just opened this academic year.	

Pillar 1: Reduced Environmental Impact and Costs

Pillar 1 includes four main elements. Each question in this section is designed to measure your school's progress toward Pillar I and its associated four elements:

- Reduced or eliminated greenhouse gas emissions, using an energy audit or emissions inventory and reduction plan, cost-effective energy efficiency improvements, conservation measures, and/or onsite renewable energy and/or purchase of green power
- Improved water quality, efficiency, and conservation
- Reduced solid and hazardous waste production through increased recycling, reduced consumption, and improved management, reduction, or elimination of hazardous waste
- Expanded use of alternative transportation, through active promotion of locally-available, energy-efficient options and implementation of alternative transportation supportive projects and policies

Element 1A: Reduced or Eliminated Greenhouse Gas Emissions

ENERGY (non-transportation)	Yes	No
1. Can your school demonstrate a reduction in its greenhouse gas emissions?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Percentage reduction:	100%	
Time period measured:	from (mm/yy)	See Supplement to (mm/yy)
Please provide the following information:		

Initial GHG emissions rate (MT eCO2/person):	662.67 MMBtu
Final GHG emissions rate (MT eCO2/person):	-24.9 MMBtu
Offsets:	
How did you calculate the reduction?	eQuest energy modeling.
2. Do you track resource use in EPA ENERGY STAR Portfolio Manager? If yes, what is your score?	<input type="checkbox"/> <input checked="" type="checkbox"/>
If score is above a 75, have you applied for and received ENERGY STAR certificates?	<input type="checkbox"/> <input type="checkbox"/> Year:

ENERGY (non-transportation)			Yes	No
3.	Has your school reduced the total non-transportation energy use (i.e., electricity and temperature control) from an initial baseline?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Please provide the following information:				
Current energy usage (KBTU/student/year):			See Supplement	
Current energy usage (KBTU/square foot/year):				
Percentage reduction:			110.3%	
Time period measured:		from (mm/yy) New Construction to (mm/yy)		
How did you document his reduction?			Estimate	
4.	What percentage of your energy is obtained from:			
Onsite renewable energy generation:		100%	Type: Photovoltaic	
Purchased renewable energy:		%	Type:	
Participation in USDA Fuel for Schools, DOE Wind for Schools, or other federal or state school energy program:				
BUILDINGS				
5.	In what year was your school originally constructed?		2013	
		What is the total building area of your school?	8,743 sq. ft.	
			Yes	No
1A6.	Has your school constructed or renovated buildings in the past 10 years?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Please provide the following information:				
For new building(s): Percentage of the building area that meets green building standards (for example, Leadership in Energy and Environmental Design (LEED), Collaborative for High Performing Schools (CHPS), Green Globes or other standards):			100%	
What certification did you receive and at what level? Year received:			LEED for Schools New Construction Platinum (pending approval)	
What is the total constructed area?			8, 743 sq. ft.	
For renovated building(s): Percentage of the building area that meets green building standards:			%	
What certification did you receive and at what level? Year received:				
What is the total renovated area?			sq. ft.	

Element 1B: Improved Water Quality, Efficiency, and Conservation

WATER			Yes	No
7.	Can you demonstrate a reduction in your school's total water consumption from an initial baseline?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Please provide the following information:				
Average baseline water use (gallons per occupant):			See Supplement	
Current water use (gallons per occupant):				
Percentage reduction in domestic water use:			%	
Percentage reduction in irrigation water use:			%	
Time period measured:		from (mm/yy) to (mm/yy)		
How did you document this reduction (i.e., ENERGY STAR Portfolio Manager, utility bills, school district reports)?				
GROUNDS				
8.	What percentage of your landscaping is considered water-efficient and/or regionally appropriate?		100%	
Types of plants used and location: Native and/or non-invasive drought tolerant plants installed where soil was disturbed. Students will monitor and continue sustainable landscape planting as part of their on-site education.				

9.	Describe alternate water sources used for irrigation (50 words maximum): Water used for onsite irrigation is sourced from a 10,000 gallon underground cistern. The cistern collects rainwater from the building's 7,000 square foot roof. A drip irrigation system has been installed for efficient use of water. In times of low rainfall, the cistern is supplemented by potable well water.		
10.	Describe any efforts to reduce storm water runoff and/or reduce impermeable surfaces (50 words maximum): In addition to the collection of rainwater from the building's roof, the campus also features a small section of pervious concrete sidewalk near the school's entrance. Storm water from the campus drive is directed into vegetated, bio-filtration areas, including a rain garden located in the middle of the circle drive.		
11.	Our school's drinking water comes from:	<input type="checkbox"/> Municipal water source	<input checked="" type="checkbox"/> Well on school property
12.	Describe how the water source is protected from potential contaminants (50 words maximum): Wells were installed in accordance with Lenawee County Health Department and State of Michigan: wells are located a safe distance from potential sources of contamination, heads extend 12 inches above the surrounding grade that slopes away. The water is tested quarterly and monitored by the Michigan Department of Environmental Quality.		
13.	Describe the program you have in place to control lead in drinking water (50 words maximum): Water is tested quarterly for lead and other contaminants and results are sent to the MDEQ.		
14.	What percentage of the schools ground are devoted to ecologically beneficial uses?		80%

Element 1C: Reduced Waste Production

WASTE	
15.	What percentage of solid waste is diverted from landfilling or incinerating due to recycling and/or composting? Complete all the calculations below to receive points.
	Monthly garbage service in cubic yards (garbage dumpster size(s) \times number of collections per month \times percentage full when emptied or collected):
	SEE Supplement%
	Monthly recycling volume in cubic yards (recycling dumpster size(s) \times number of collections per month \times percentage full when emptied or collected):
	%
	Monthly compostable materials volumes in cubic yards (food scrap/food soiled paper dumpster size(s) \times number of collections per month \times percentage full when emptied or collected):
	%
	Recycling Rate = $((B + C \div (A + B + C)) \times 100)$: Monthly waste generated per person = $(A/\text{number of students and staff})$:
16.	What percentage of your school's total office/classroom paper content is post-consumer material, fiber from forests certified as responsibly managed, and/or chlorine-free?
	50%
HAZARDOUS WASTE	
17.	List the types and amounts of hazardous waste generated at your school:
	Flammable Liquids Corrosive Liquids Toxics Mercury Other:
	How is this measured?
	How is hazardous waste disposal tracked?
	Describe other measures taken to reduce solid waste and eliminate hazardous waste (100 words maximum):
18.	Which green cleaning custodial standard is used: LEED 2009 Green Cleaning
	What percentage of all products is certified? 90%
	What specific third party certified green cleaning product standard does your school use? Green Seal GS-37

Element 1D: Expanded Use of Alternative Transportation

Alternative Transportation	
19.	What percentage of your students walk, bike, bus, or carpool (two + students in the car) to/from school?
	99%
	Check if your school does not use school buses: <input type="checkbox"/>
	How is this data calculated (50 words maximum): The school is in a rural area so all students are transported by bus, except for a very few students who register to get permission to drive.
20.	Has your school implemented any of the following (check all that apply):
	<input type="checkbox"/> Designated carpool parking stalls
	<input type="checkbox"/> A well-publicized no idling policy that applies to all vehicles (including school buses)

- Vehicle loading/unloading areas that are at least 25 feet from building air intakes, doors, and windows
 Safe Pedestrian Routes to School or Safe Routes to School

21. Describe how your school transportation use is efficient and has reduced its environmental impact (50 words maximum): Students come to the school from all around the county. They are all transported to a central location from outlying areas. They then board just two buses, filled to capacity, for transport to the school. This eliminates the need for 15 or so partially filled buses to drive to the school.
22. Describe any other efforts toward reducing environmental impact, focusing on innovative or unique practices and partnerships (100 words maximum): The LISD operates two hybrid buses and has ordered two propane powered school buses. Biodiesel made by students from recycled cooking oil is used in the school's tractors. The school is partnering with Michigan State University Extension to grow canola, press the seeds, and make biodiesel for use in buses.

Pillar 2: Improved Health and Wellness

Pillar 2 includes two main elements. Each question in this section is designed to measure your school's progress toward Pillar 2 and its associated elements:

- An integrated school environmental health program based on an operations and facility-wide environmental management system that considers student, visitor, and staff health and safety in all practices related to design, construction, renovation, operations, and maintenance of schools and grounds
- High standards of nutrition, fitness, and quantity of quality outdoor time¹ for both students and staff

Element 2A: Integrated School Environmental Health Program

Integrated Pest Management

1. Describe your school's Integrated Pest Management efforts, including IPM/green certifications earned, routine inspections, pest identification, monitoring, recordkeeping, etc. The LISD contracts with Envirosafe to provide IPM contracting services. They are Green Shield certified and perform regularly scheduled inspections in all District buildings and also perform record keeping.
2. What is the volume of your annual pesticide use (gallon/student/year):
Describe your efforts to reduce use: Pesticide use is minimal and always used as a last resort where no other means for eradication exist. The District avoids the use of carbonates, organophosphates, synthetic pyrethroids, aerosols, and liquids.

Contaminant Controls and Ventilation, Asthma Control, Indoor Air Quality, Moisture Control, Chemical Management

3. Which of the following practices does your school employ to minimize exposure to hazardous contaminants? Provide specific examples of action taken for each checked practice:
 - Our school prohibits smoking on campus and in public school buses. Signage, student handbook, MI law, student competition rules, and district policy.
 - Our school has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school. District policy.
 - Our school uses fuel burning appliances and has taken steps to protect occupants from carbon monoxide (CO).
 - Our school does not have any fuel burning combustion appliances.
 - Our school has tested all frequently occupied room at or below ground level for radon gas and has fixed and retested all rooms with levels that tested at or above 4pCi/L **or** our school was built with radon resistant construction features and tested to confirm levels below 4pCi/L. Pending test results.
 - Our school has identified any wood playground or other structures that contain chromate copper arsenate and has taken steps to eliminate exposure. The school building is new construction and this type of wood was not used.
- 4.. Describe how your school manages and controls student and staff exposure to chemicals (including pesticides) routinely used in the school. (100 words maximum): The LISD believes in minimizing chemical exposure to students, teachers and staff throughout the District. The District's IPM program employs the use of environmentally friendly practices for pest management and only uses pesticides when absolutely necessary for eradication. The District's custodial cleaning supplies are considered Green Seal certified and are used in accordance with the manufacturer's recommendations. District custodial and maintenance staff are trained annually on chemical hazards in the work places and have access to chemical MSDS sheets.
5. Describe actions your school takes to prevent exposure to asthma triggers in and around the school (100 words maximum): The LISD prohibits smoking on District property and avoids the use of air fresheners/fragrances. Air exchange filters are changed on a regular schedule by District maintenance staff and humidity levels are monitored to avoid mold growth.
6. Describe actions your school takes to control moisture from leaks, condensation, and excess humidity and promptly clean up mold or removes moldy materials when it is found (100 words maximum): Roof systems are inspected annually as a preventative measure by District maintenance staff. Leaks and other sources of unwanted moisture are corrected immediately. The District uses a building management system to monitor HVAC systems activity including temperature, CFM, lighting levels and relative humidity. Relative humidity is maintained between 30-60% to avoid mold growth and to ensure the comfort of building occupants.

		Yes	No
7.	Our school has installed local exhaust systems for major airborne contaminant sources.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8.	Describe your school's practices for inspecting and maintaining the building's ventilation system and all unit ventilators to ensure they are clean and operating properly (100 words maximum): Ventilation systems are monitored by the building management system and are inspected regularly by District maintenance staff. Air intake louvers, fans, and belts have preventative maintenance scheduled annually while filters are inspected quarterly.		
9.	Describe actions your school takes to ensure that all classrooms and other spaces are adequately ventilated with outside air, consistent with state or local codes or national ventilation standards (100 word maximum): The LISD routinely follows and adheres to the State of Michigan Revised School Code and School Buildings Construction Code for all of its construction projects. All projects undergo a mandatory plan review by the State of Michigan and are inspected throughout the construction process. All LISD school buildings HVAC systems are controlled and monitored by the building management system.		
10.	Describe other steps you school takes to protect indoor environmental quality, such as implementing EPA IAQ Tools for School and/or conducting other periodic, comprehensive inspections of the school facility to identify environmental health and safety issues and take corrective action (200 word maximum): While the LISD has not formally implemented the EPA's IAQ Tools for Schools program, it conforms to many of the recommended practices. These practices include an active IPM program, regularly scheduled preventative maintenance for District buildings & equipment, and a certified green cleaning program.		

The District's building management system is also important in IAQ. It is designed to monitor HVAC equipment and to alert maintenance staff of any unusual conditions within the District's buildings. All of these practices directly effect IAQ and contribute to a healthy learning environment for students, teachers and staff

Element 2B: Nutrition and Fitness

Fitness and Outdoor Time, Food and Nutrition

11. Which practices does your school employ to promote nutrition, physical activity, and overall school health? Provide specific examples of actions taken for each checked practice, focusing on innovation or unique practices and partnerships (100 word maximum each):

¹Local prevailing weather conditions over the course of the school year will be considered in assessing this element to account for regional variability.

- Our school participates in the USDA's HealthierUS School Challenge. Level and year:
- Our school participates in a Farm to School program to use local, fresh food. Our school is partnering with the Lenawee County economic development corporation to investigate the creation of a local food hub and/or commercial kitchen to facilitate a Farm to School program in the near future.
- Our school has an onsite food garden. The school has a ¼ acre food garden with drip tape irrigation planted and maintained by students. The garden is cultivated using sustainable farming practices without synthetic pesticides or fertilizers. Composted manure from the school's livestock is routinely added to the plot. All transplants were started by students.
- Our school garden supplies food for our students in the cafeteria, a cooking or garden class, or to the community. The school garden supplies produce to the LISD TECH Center Hospitality and Culinary Arts program, food banks, and other community organizations. At the start of this school year, produce was donated to the Promedica Bixby Hospital Veggie Mobile and 500 lbs. of produce was donated to the Salvation Army. Students are learning to extend the growing season as part of their curriculum using the school's energy efficient greenhouse during the cold season months.
- Our students spent at least 120 minutes per week over the past year in school supervised physical education.

Fitness and Outdoor Time, Food and Nutrition

12. Describe the type of outdoor education, exercise, and recreation available (100 words maximum): Students at the school are in Agricultural Technology, Ornamental Horticulture, or Natural Science classes so much of their curriculum involves being outdoors and physically active all year round. Students are learning about the environment, taking care of plants and animals, cultivating crops, collecting specimens, conducting tests, and maintaining equipment. Part of each day involves classroom instruction followed by students going outdoors or into the greenhouse to put instruction into action. They spend very little time sitting at desks.
13. Describe any other efforts to improve nutrition and fitness, highlighting innovation or unique practices and partnerships (100 words maximum): The school hosts summer camps for students where they learn how to prepare food from the garden. Part of the school's curriculum will be testing the nutritional quality of food grown under different conditions. Students will partner with the main TECH Center campus Biochem class to test plant and animal products. They will also partner with main campus Culinary Arts class to learn prep methods for seasonal produce.

Coordinated School Health, Mental Health, School Climate, and Safety

	Yes	No
14. Does your school use a Coordinated School Health approach or other health-related initiatives to address overall school health issues?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15. Does your school partner with any postsecondary institutions, businesses, nonprofit organizations, or community groups to support students health and/or safety? If yes, describe these partnerships:	<input type="checkbox"/>	<input type="checkbox"/>
16. Does your school have a school nurse and/or a school-based health center?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
17. Describe your school's efforts to support student mental health and school climate (e.g., anti-bullying programs, peer counseling, etc.): The District has a strong anti-bullying policy taken very seriously by teachers and staff. The school has a social worker and counselor available to students who request help or are referred by a teacher. The school administrators and teaching assistants are also available to students. These professionals communicate with the student's local district and carefully follow up with the student. Teachers receive ongoing assistance to help spot students who might need additional support. Students enjoy coming to our school because the climate is one of integrity, safety and mutual respect. The use of daylight tubes to bring natural light into the building also helps with the mental health of all inhabitants of the building.		

Pillar 3: Effective Environmental and Sustainability Education

Pillar 3 includes three main elements. Each question in this section is designed to measure your school's progress toward Pillar 3 and its associated elements:

- Interdisciplinary learning about the key relationships between dynamic environmental, energy and human systems
- Use of the environment and sustainability to develop STEM content knowledge and thinking skills to prepare graduates for the 21st century technology-driven economy
- Development of civic engagement knowledge and skills, and students' application of these to address sustainability and environmental issues in their community

1. Which practices does your school employ to help ensure effective environmental and sustainability education? Provide specific examples of actions taken for each checked practice, highlighting innovation or unique practices and partnerships:

Our school has an environmental or sustainability literacy requirements (200 word maximum):

Environmental and sustainability concepts are integrated throughout the curriculum (200 word maximum): Most of the standards for the CTE courses taught at the school involve environmental science. The instructors have intentionally woven sustainability concepts into their curriculum. Instructional tools include the proposed National CTE Green/Sustainability Knowledge and Skill Statements for the Agriculture, Food, & Natural Resources Career Clusters Framework.

The instructors also have working relationships with professors at Michigan State University surrounding sustainability education.

Environmental and sustainability concepts are integrated into assessments (200 word maximum): The national CTE assessments and certification tests given to students incorporate sustainability concepts. Local assessments, including student projects, integrate those concepts as well.

Students evidence high levels of proficiency in these assessments (100 word maximum): The 2013/14 school year is the first year this building has been in operation. We expect the students to perform well on the assessments.

Professional development in environmental and sustainability education is provided to all teachers (200 word maximum): The instructors have attended state and national conferences about sustainable agriculture and sustainability education.

2. For schools serving grades 9-12, provide: Percentage of last year's eligible graduates who completed the AP Environmental Science course during their high school career: Percentage scoring a 3 or higher:	% %
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3. How does your school use sustainability and the environment as a context for learning science, technology, engineering, and mathematics thinking skills and content knowledge? (200 words maximum):
The courses taught at the school involve agriculture and natural sciences/resources. Those are environmental and scientific in nature. The CTE standards have been aligned to Michigan's academic science standards so students can earn science credit for taking the courses. Since we serve a rural community with many students having a conventional farm background, we can use science process skills (including mathematics) and technology to compare and contrast sustainable agricultural practices to conventional practices. For instance, students can compare the soil fertility of the school's conventional plots to those being readied for USDA Organic certification. All students at the school conduct scientific experiments following science fair guidelines and present their findings to peers. The engineering design cycle is often employed by students as they progress through their experiments because they are asked how they would solve real world problems based on their findings.

4. How does your school use sustainability and the environment as a context for learning green technologies and career pathways? (200 words maximum): The courses taught at the school are CTE courses so career pathway education is an integral part of each class. Green technologies are a growing part of the Agriculture, Food, and Natural Resources pathway.

5. Describe students' civic/community engagement projects integrating environment and sustainability topics (200 words maximum): Students have given many tours and presentations to the public about the Center for a Sustainable Future building and plans for the grounds. They have harvested and donated produce

from the school garden to food banks and the hospital. A student led sustainable agriculture symposium for the public is being planned for the end of this school year.

The school building and the way we use the land is meant to serve as an example for the public - to show what can be done using sustainable principles. The public is invited to visit the building and our students act as ambassadors. The school just opened so this is our inaugural year. The excitement shown by the public and our students for this school will undoubtedly result in many civic/community engagement projects.

6. Describe students' meaningful outdoor learning experiences at every grade level (200 words maximum): Students at the school are in Agricultural Technology, Ornamental Horticulture, or Natural Science classes so much of their curriculum involves being outdoors and physically active all year round. Students are learning about the environment, taking care of plants and animals, cultivating crops, collecting specimens, conducting tests, and maintaining equipment. Part of each day involves classroom instruction followed by students going outdoors or into the greenhouse to put instruction into action. They spend very little time sitting at desks.
7. Describe how outdoor learning is used to teach an array of subjects in contexts, engage the broader community, and develop civic skills (200 words maximum): Students actively engage with the physical environment at the school. They lead public tours of the vegetative roof, rain gardens, and bioswales, educating visitors about how they work.
8. Describe your partnerships to help your school and other schools achieve in the three pillars. Include both the scope and impact of these partnerships (200 words maximum): Elementary students from around the county have visited the school during summer camps and field trips to learn about sustainable agriculture and alternative energy. Math and Science teacher conferences have been held at the school and relationships built to facilitate the advancement of sustainability education.

The LISD CSF models sustainable-building systems in a commercial setting. In an effort to model similar solutions in residential building and renovation projects, the LISD has partnered with Midwest Energy Cooperative who intends to construct a Sustainable Energy Efficient Demonstration (SEED) house on the campus. The SEED house will feature practical, replicable, and affordable solutions to reducing home-energy consumption. Demonstration techniques will include cut-away areas of the building's walls, roof, and foundation, as well as interactive displays. TECH Center main campus students in Residential Construction, Building and Maintenance, plus Building Trades will all take part in the design and construction of the SEED house.

9. Describe any other ways that your school integrates core environment, sustainability, STEM, green technology, and civics into curricula to provide effective environmental and sustainability education, highlighting on innovative or unique practices and partnerships (200 words maximum): Students from another LISD campus use the building as a teaching tool to learn about alternative energy and to work with students at the CSF campus to make biofuels from recycled cooking oil, corn, algae, and cellulosic feedstock after bioprospecting for cellulose degrading microbes at the site.

This concludes your Green Ribbon Schools Application. We appreciate your participation in this program.

Applications are due no later than 5:00 p.m., Friday, January 10, 2014

Email to:

Patty Cantú, Director
Office of Career and Technical Education
cantup@michigan.gov

Direct questions to Patty Cantú at: cantup@michigan.gov or (517) 335-5224

Lenawee Intermediate School District (LISD)
Center for a Sustainable Future
Green Ribbon Schools Application

Supplement

CC1 The LISD is seeking LEED certification for the building with a goal of LEED Platinum for Schools (new construction). As of the time of this application, the building has earned 70 LEED points, qualifying it for at least Gold certification. The project design team is presently compiling responses to inquiries and requests for information from the USGBC with the hope of achieving at least the 10 additional points required for Platinum certification. See USGBC website for this project's current score:

<http://www.usgbc.org/projects/lisd-center-sustainable-future>

Pillar 1: Element 1A: Energy (non-transportation):

1. If you compare the LISD CSF LEED energy model with the ASHRAE baseline energy model, the energy use reduced by the CSF is 100%, because energy usage is completely offset by the PV solar panels. ASHRAE website: <https://www.ashrae.org/>

3. Current Energy Use: Initial score -24,900 kBTU/students w/ PV; 266,720 kBTU/students w/o PV (estimate, actual data will not be known until one year after building occupation)

Element 1B: Water

7. This is a brand new building, so no baseline data. Water is supplied by a well. We have low flow plumbing fixtures and irrigate with rainwater collected from the roof and stored in a 10,000 gallon cistern.

Element 1C: Waste

This data is in flux. The site is served by one, six-yard trash dumpster which is emptied weekly. The goal is close to zero waste. All compostable material is being composted and recyclable material is being recycled. No records have been kept on actual dumpster volume that has been picked up. Collection of data will be part of the upcoming curriculum and will become a student project. Compostable greenhouse pots, utensils, and paper products have been recently purchased.