

U.S. Department of Education
Green Ribbon Schools 2012

For Public Schools only: (Check all that apply) Charter Title I Magnet Choice

Name of Principal Marjorie Cuthbert
(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)

Official School Name Stoddert Elementary School
(As it should appear in the official records)

School Mailing Address 4001 CALVERT ST. NW
(If address is P.O. Box, also include street address.)

WASHINGTON DC 20007
City State Zip

County _____ State School Code Number* _____

Telephone (202) 671 6030 Fax (202) 782 0145

Web site/URL _____ E-mail marjorie.cuthbert@dugov

I have reviewed the information in this application, including the award and eligibility requirements on page 2-4, and certify that to the best of my knowledge all information is accurate.

Marjorie Cuthbert Date 3/19/12
(Principal's Signature)

Name of Superintendent* HOSANNA MAHALEY
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

District Name* DISTRICT OF COLUMBIA Tel. (202) 724 442-5885

I have reviewed the information in this application, including the award and eligibility requirements on page 2-4, and certify that to the best of my knowledge all information is accurate. I concur that this is one of the highest performing green school applicants in our state.

Hosanna Mahaley Date 3-20-12
(Superintendent's Signature)

*Private Schools: If the information requested is not applicable, write N/A in the space.

toward the three Green School Pillars and Elements.

4. The school meets all applicable federal civil rights and federal, state, tribal and local health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.

Name of Nominating Agency OFFICE OF THE STATE SUPERINTENDENT OF EDUCATION

Name of Nominating Authority HOSANNA MAHALEY
(Specify: Ms., Miss, Mrs., Dr., Mr., Other)

I have reviewed the information in this application, including the award and eligibility requirements on pages 2-4, and certify, to the best of my knowledge through a documentary verification assessment, that the school meets the provisions in this Part of the Nominee Presentation Form.

Hosanna Mahaley Date 3-20-12
(Nominating Authority's Signature)

Note to Nominating Authority: The application, including the signed certifications and documentation of evaluation in the three pillars should be converted to a PDF file and emailed to Director, ED-Green Ribbon Schools at green.ribbon.schools@ed.gov according to the instructions in the Nominee Submission Procedure.

Public Burden Statement

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is 1860-0509. Public reporting burden for this collection of information is estimated to average 37 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit P.L. 107-110, Sec. 501, Innovative Programs and Parental Choice Provisions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20202-4536 or email ICDocketMgr@ed.gov and reference the OMB Control Number 1860-0509. Note: Please do not return the completed ED-Green Ribbon Schools application to this address.

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DC Green Ribbon Schools Application

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Section II: Information/Crosscutting Question

DEPT OF HUMAN SERVICES
EARLY CARE AND EDUC ADMIN
ADMIN SUPPORT DIVISION

Information:

School Name: Stoddert Elementary School DCPS Public School
Contact Name: Marjorie Cuthbert Phone: 202.671.6030
Email: marjorie.cuthbert@dc.gov Position: Principal

Crosscutting Questions:

- i. If your school is participating in a local, state, or nationally recognized green school program, please explain what program and what level (if applicable) your school has achieved.

LEED for Schools Gold Certification, USGBC

- ii. If your school has received any green school, environmental, healthy school, environmental education, or sustainability education awards, please describe.

Presidential Citation for Sustainable Design, DC AIA

Section III: PILLAR ONE: Net zero environmental impact

Element 1A: Zero greenhouse gas (GHG) emissions

ENERGY

- 1A1. Using the inventory module from Clean Air Cool Planet's Campus Carbon Calculator or similar greenhouse gas calculator, what is your school's Greenhouse Gas (GHG) emissions per person?

1.13 MT eCO2/person (Value derived from energy model)

- 1A2. If your school has received EPA's ENERGY STAR certification, in what year was the certification earned? N/A

- 1A3. If your school has reduced your total non-transportation energy use (i.e., electricity and temperature control) from an initial baseline, please provide:

Percentage reduction: 24.2% (Value derived from energy model)

Measurement unit used (kBTU/Square foot or BTU/student): kBTU/sf

Time period: N/A (Value derived from energy model)

1A4. What percentage of your energy consumption is derived from:

On-site renewable energy generation: 0 %

Note: Geothermal has not been factored as renewable energy

Purchased renewable energy: 70%

1A5. If your school has constructed and/or renovated building in the past three years, what percentage of the building area meets Leadership in Energy and Environmental Design (LEED), Collaborative for High Performance Schools (CHPS), Green Globes or other standards? 100%

What is the total constructed area? 47,300 SF

What is the total renovated area? 17,900 SF

Which certification (if any) did you receive and at what level (e.g. Silver, Gold, Platinum)? LEED Gold Certification

1A6. What percentage of your school's total existing building area has achieved LEED Existing Buildings: Operation & Maintenance, CHPS Operations Report Card, Green Globes or other standards? N/A

1A7. If your school reduces or offsets the GHG emissions from building energy use, please provide:

Current Total GHG Emissions: 436 MtCO₂e

Baseline Total GHG Emissions: 566 MtCO₂e

Change from Baseline: GHG Emissions: 130 MtCO₂e

Time period from N/A to N/A (Value based on energy modeling)

Explain any offsets used: N/A

1A8. Has your school fully implemented the Facility Energy Assessment Matrix within EPS's Guidelines for Energy Management? No

Has the school building been assessed using the Federal Guiding Principles Checklist in Portfolio Manager? No

- 1A9. What percentage by cost of all your school's furniture purchases are certified under the Business and Institutional Furniture Manufacturers Association's "level" ecolabel? 100% "Green Guard" certified
- 1A10. Does your school have an energy and water efficient product purchasing and procurement policy in place? Yes
- 1A11. Describe other indicators of your progress towards elimination of GHG emissions (describe in detail and include metrics if available).

Stoddert is DC's first full geothermal school. Geothermal does not give off CO2 and there is little danger of chemical leaks, as it does not use fossil fuels, and is energy efficient. The HVAC equipment minimizes the emissions of compounds that contribute to ozone depletion and global warming. Products throughout the school were chosen to be durable and long lasting, while all appliances were selected to be energy efficient. The envelop of the school was carefully designed to optimize energy performance though the use of high R-value insulation for both walls and roofs, low-E glazing, and the replacement of single-pane windows in the existing building with new insulated, energy efficient windows.

Element 1B: Improved water quality, efficiency, and conservation

- 1B1. If you can, demonstrate reduced total water consumption intensity (measured in gal/square foot) from an initial baseline, please provide:

Percentage reduction in domestic use: 69.5%

Percentage reduction in irrigation: N/A%

Percentage reduction: 69.5%

Time period: from August, 2010 to March, 2012

- 1B2. How often does your school conduct audits or facilities and irrigation systems to ensure they are free of significant water leaks and to identify opportunities for savings? Two times per year

- 1B3. Describe how your school's site grading and irrigation system and schedule is appropriate for your climate, soil conditions, plant materials, and climate, with an emphasis on water conservation.

The irrigation system is controlled by a weather station, so that the grounds are only irrigated when necessary. Native plantings across the site help to conserve water. Additionally, groundcover and shrubs have been planted on steep slopes to prevent soil erosion and run-off.

- 1B4. Do **all** your outdoor landscapes consist of water-efficient or regionally appropriate (native species and/or adapted species) plant choices? Yes

Describe the type and location of plantings.

Trees (located along street and building perimeter): red maple, green mountain sugar maple, kolisa dogwood, columbia london plane, yoshino cherry, willow oak, northern red oak, dark american arborvitae

Shrubs (located on hillsides and around base of building): azalea, forsythia, burdford holly, oakleaf hydrangea, rhododendron, viburnum

Groundcovers and perennials (located along hillsides and entry plaza): anthea yellow, calamint, lilyturf, walkers low catmint, obedient plant

Has your school participated in the DC District Department of the Environment's (DDOE) RiverSmart School Program? No

- 1B5. Are alternative water sources (e.g., grey water) used before potable water for irrigation? No

Discussions have begun with community members about establishing rain barrels at the garden site, so that rainwater can first be used for irrigation of the garden.

- 1B6. If drinking water is acquired from the school's own well, are your drinking water sources protected? N/A

- 1B7. Does your school have a program to control lead in drinking water (including voluntary testing and implementation of measures to reduce lead exposure in drinking water) in place? Yes

All water fountains have one or more water filters complying with NSF 42 and NSF 53 for cyst and lead reduction to below EPA standards; with capacity sized for unit peak flow rate.

- 1B8. Has your school been cited within the past three years for failure to meet federal, state or local potable water quality standards? No

- 1B9. Are all taps, faucets and fountains used for drinking and cooking cleaned on a regular basis to reduce possible bacterial and other contamination; and are faucet screens and aerators regularly clean to remove particulate lead deposits? Yes

If yes, how often is such cleaning conducted? Taps, faucets and fountains used for drinking and cooking are cleaned daily. Screens and aerators are checked weekly.

- 1B10. Describe any other ways, not addressed above, that the school is improving water quality, efficiency, and conservation (for example: Storm drain markings and rain barrel installations).

The school has low-flow plumbing fixtures, which contribute to a 70% reduction in potable water usage. Two green roofs retain and filter rainwater. The school's StormFilter treats water collected onsite before releasing it into the public storm system.

- 1B11. What percentage of your school grounds are devoted to ecologically (trees, native plantings, pollinators, organic edible gardens) or socially (e.g., playgrounds, outdoor spaces designed and used regularly for social interaction, athletic or recreational areas, etc.) beneficial uses, including those that give considerations to native wildlife? 80%

All areas not occupied by the actual school buildings or staff parking lot are used for ecologically and socially beneficial uses, including spaces for native wildlife.

A school and community garden is surrounded by native trees and has native

plantings and includes a butterfly section, along with edible vegetables and fruits. The garden area abuts the large athletic fields that are used for physical education during the school day and for the Department of Parks and Recreation leagues and games, as well as by community members. There are picnic tables and benches available for all to interact with each other and nature. On the other side of the school, there is a large playground, which is used by the school children during the day and by the community in the evenings and on weekends. The playground has rubber asphalt instead of cement and has grass which is safer than concrete and mulch. This play area abuts the wooded area that has its natural ground coverings that invite some wildlife. In addition, 2 green roofs provide habitat for plants and animals, viewable from several classrooms.

Element 1C: Reduced waste production

Waste

- 1C1. What percentage of waste is diverted from the landfill or incinerator by reuse, composting, and/or recycling:

Monthly garbage volume (garbage dumpster size(s) X frequency of collection):
27 cubic yards (9 cy dumpster, 3 times per week)

Monthly recycling volume(s) (recycling dumpster sizes (s) X frequency of collection): 5 cubic yards (5cy, 1 time per week)

Monthly compostable materials volume(s) food scrap/food soiled paper dumpster size(s) X frequency of collection): 1/3 cubic yards (1cy, 1 time per season)

Recycling rate calculation: Total monthly recycling quantity plus total monthly compostable material quantity divided by total monthly recycling, composting, and garbage quantity x 100 = 16%

- 1C2. What percentage of total office/classroom paper content by cost is post-consumer materials or fiber from forests certified as responsibly managed by the Forest Stewardship Council, Sustainable Forestry Initiative, American Tree Farm System or other certification standard: 0%

We are in the process of exploring the increased cost of purchasing recycled office/paper.

- 1C3. What percentage of total office/classroom paper content by cost is “totally chlorine-free” (TCF) or “processed-chlorine-free” (PCF)? 100%.

The paper used is chlorine and acid free.

Hazardous waste

- 1C4. How much hazardous waste does your school generate? 0 lbs/student/year.

How was this calculated? N/A

- 1C5. How does your school monitor hazardous waste? N/A

- 1C6. Is a Hazardous Waste Policy for storage, management and disposal of chemical in laboratories and other areas with hazardous waste in place and actively enforced? N/A

- 1C7. Has your school been cited within three years for improper management of hazardous waste according to Federal and State regulations? No

- 1C8. What percentage of total computer purchases by cost are Electronic Product Environmental Assessment Tool (EPEAT) certified products: 100%

How does your school dispose of unwanted computer and other electronic products?

Our school fills out a 525 Form and district-level personnel pick up our

Computers and other electronic products for warehouse storage, repair, or proper disposal.

- 1C9. What percentage by cost of all cleaning products in use are “third party certified” green cleaning products? 100%

All cleaning products are environmentally preferable. Our all-purpose cleaner,

Simply Green, is EPA tested and is nontoxic and biodegradable. Our glass

cleaner, Aries Green RTU, is non-ammoniated. Aries Lemon Furniture Polish is

made with pure lemon oil and 100% beeswax. The washroom cleaner, Misty Natural Bathroom Cleaner, is recognized by EPA and is an environmentally preferable formula.

- 1C10. Has your custodial program been certified by the ISSA Cleaning Industry Management Standard-Green Building (or an equivalent standard):

DCPS green housekeeping program is based on LEED-EBOM criteria, as is ISSA Clean industry Management Standard – Green building. Our custodians and administration have been trained on the use of green products in the building and proper cleaning of surfaces.

- 1C11. Describe any other indicators, not included above, of the school's reduction of solid waste and elimination of hazardous waste.

A strong recycling program exists at Stoddert ES. Approximately 20 upper grade students are members of the recycling team, Green Team. The students are supervised by teachers and staff in the building and have placed recycling bins in all classrooms, office areas, and other logical areas throughout the building. Each week the team members pick up the bins, carefully document having done so, and empty them into large toters. The custodians take the toters to the recycling dumpster outside for a weekly pick-up. These efforts greatly reduce the amount of waste going into the garbage dumpster. The upper grade students gave a presentation to the lower grades so that everyone can be a part of the recycling process. Parents report that they are more aware and accountable for recycling at home because their children are expecting them to be responsible also.

Element 1D: Use of alternative transportation to, during and from school

- 1D1. What percentage of students walk, bike, bus, or carpool (2 + students in the car) to/from school? 90%

Stoddert ES is a neighborhood school. Approximately 70% are in-boundary students, who walk to school or ride bikes or scooters. Buses bring students from Boling Air Force Base (~25 students), the Russian Embassy (~20 students), and on Choice buses (~6 students). Some parents, living too far to walk with the youngest students, carpool for drop-off and pick-up.

- 1D2. Does your school have a no-idling policy on file and signs posted stating that all vehicles, including school buses and other vehicles dropping off and picking up students, are prohibited from idling on school premises? No

Student drop-off does not occur on school property, but instead along the public street. Parking restrictions in front of the school allow for buses and carpools to drop off students along the sidewalk. We will work with DC law enforcement to obtain proper signage. However, the administration and security officer monitor the situation and have spoken directly to the drivers of the buses and asked them not sit idling in front of the school. The drivers are conforming and are reminded as needed.

- 1D3. Are all vehicles loading and unloading areas at least 25 feet away from all buildings' air intakes (including doors and windows)? No

There is a loading dock area at the back of the school. Students and parents are not to enter by this door way.

- 1D4. Describe how your school transportation use is efficient and environmentally benign (e.g., the percentage of school-owned electric/hybrid/alternative fuel vehicles in your fleet, or other indicators of significant reductions in emissions):

The school does not own any vehicles. There is signage for priority parking for low-emitting vehicles posted in the staff parking lot.

- 1D5. Have "Safe Pedestrian Routes" to school or "Safe Routes to School" been designated, distributed to parents and posted in the main office? No

Sidewalks surround the school on all four sides. At the main entrance for students, the sidewalks are connected to the large ramp that leading directly up to the front door. Faculty parking is completely separated from the entrances for the students, thus making it safe. Students walk, bike and scooter to school. All other students arrive by bus or cars that do not drive up the entrance ramps. Students unload at the bottom of the ramp and walk to the entrance doors.

- 1D6. Describe any other accomplishments our school has made under Pillar One towards eliminating its negative environmental impact or improving your environmental footprint which you feel should be considered:

The conservation of light is also very important at Stoddert ES. In the gymnasium enormous windows provide natural light such that lights do not need to be turned on most days. Large windows in all of the classrooms also provide natural light. Windows placed directly across from other windows allow light to flow from room to room. Occupancy sensors turn lights on and off as needed. Porch canopies provide shade in the summer and allow light in the winter.

Section IV PILLAR TWO: Net positive impact on student and staff health

Element 2A: An integrated school environmental health program:

Integrated Pest Management

- 2A1. Does your school have an integrated pest management plan in effect to reduce or eliminate pesticides? Yes

The school follows the guidelines of the district.

- 2A2. Does your school provide notification of your pest control policies, methods of application and requirements for posting and pre-notification to parents and school employees? No, not at this time

- 2A3. Does your school maintain annual summaries of pesticide applications, copies of pesticide labels, copies of notices and MSDSs in an accessible location?

No, not at this time. The school has a newly established community garden, beginning its second growing season. Pesticide application has not been an issue during its initial season. If and when any applications are made in the future, proper summaries will be maintained and made accessible to all.

- 2A4. Does your school prohibit children from entering the pesticide area for at least 8 hours following the application or longer, if feasible, or if required by the pesticide label? Yes

Yes, we will prohibit children from entering the pesticide area, if this situation presents itself. In the new setting, this has not occurred, but will be handled appropriately.

Ventilation

- 2A5. Does your school meet the stricter standard of: ASHRAE standard 62.102010 (Ventilation for Acceptable Indoor Air Quality) OR your state or local code? Yes

If yes, which standard is your school using? ASHRAE 62.1-2004.

- 2A6. Are local exhaust systems (including dust collection systems, paint booths, and/or fume hoods) installed at all major airborne contaminant sources, including science labs, copy/print facilities, chemical storage rooms? Yes

- 2A7. Has your school installed energy recovery ventilation systems where feasible to bring in fresh air while recovering the heating or cooling from the conditioned air? Yes

CO2 sensors monitor indoor air and adjust ventilation to bring in fresh air as needed.

- 2A8. Radon: Have all ground-contact classrooms been tested for radon within the past 24 months: No

What percentage of all classrooms with levels greater than 4 pCi/L have been mitigated in conformance with ASTM E2121: N/A

- 2A9. Carbon Monoxide (CO): If your school has combustion appliances, does your school have an inventory of all combustion appliances and does your school annually inspect these appliances to ensure no release of Carbon Monoxide (CO)?

No combustion appliances

Are CO alarms installed which meet the requirements of the National Fire Protection Association code 720? N/A

- 2A10. Mercury: have all unnecessary mercury containing devices been replaced with non-mercury devices? Yes

Does your school recycle or dispose of unwanted mercury laboratory chemicals, mercury thermometers, gauges and other devices in accordance with federal, state and local environmental regulations: N/A

- 2A11. Chromated Copper Arsenate (CCA): Have all wooden decks, stairs, playground equipment or other structures treated with Chromated Copper Arsenate been either removed or sealed within the past 12 months? Yes

Is smoking prohibited on campus and school buses? Yes

- 2A12. Asthma Control: Does your school have an asthma management program in place consistent with the National Asthma Education and Prevention Program's (NAEPP) Asthma Friendly School Guidelines? Yes

The school nurse meets with the students who have asthma and needed medicine

is locked in the nurse's office.

- 2A13. Indoor Air quality: Have you developed and implemented a comprehensive indoor air quality management program consistent with IAQ Tools for Schools? Yes

- 2A14. Moisture Control: Are all structures visually inspected on a regular basis and free of mold, moisture & water leakage? Yes Is indoor relative humidity maintained below 60% (cold climates during freezing temperatures should target 20-30%)? Yes Are moisture resistant materials/protective systems installed (e.g., flooring, tub/shower, backing, and piping)? Yes

- 2A15. Chemical Management: Does your school have a chemical management program in place that includes the following elements:

Chemical purchasing policy, including low-or no -VOC products

Chemical inventory

Storage and labeling

Training and handling

Hazard communication
Spills, clean-up and disposal
Select EPA's Design for the Environment – approved cleaning products
Yes

Staff and administration received training on the use of environmentally preferable cleaning materials. All chemicals used complied with LEED EBOM standards.

Element 2B: high standards of nutrition, fitness, and quantity of quality outdoor time

Food and Nutrition

2B1. Has your school earned USDA's Healthier US School Challenge award for school food? No

2B2. What percentage (by cost) of food purchased is certified as "environmentally preferable" (e.g. Organic, Fair Trade, Food Alliance, Rainforest Alliance, etc.)? 70 % estimated by food service provider

2B3. What percentage (by cost) of food purchased is grown and processed within 200 miles of the school (Including food grown on school grounds)?

Preference given to local food. Actual percentage currently being evaluated by food service provider.

Does the school have an onsite garden in which the students participate? Yes

Please see response to 2B4 below.

2B4. Does the school have an onsite food garden? Yes

If yes, do students consume food from the school garden? Yes

All students, through classroom projects, plant, tend, harvest, and sample foods from the garden. They work with their teachers and a garden-science coordinator funded by DC GREENS and the Stoddert PTA to study all aspects of the growing

cycles, harvest, and composting of waste products. Tasting events are held so that all can experience fresh produce from the garden.

Physical Education, Outdoor Opportunities, and UV Safety

2B5. What percentage of students over the past year engaged in at least 150 minutes of school-supervised physical education and/or outdoor time per week? 100%

2B6. What is the average amount of time over the past year that each student engages in school-supervised physical education (including outdoor time) per week? 190 minutes/week

2B7. What percentage of school-supervised physical education is spent outdoors? 60%

The amount of time spent outdoors for school-supervised physical education varies with the seasons. Every day that weather permits, students have at least 30 minutes of outdoor physical activity. Physical education classes meet outside also for specific activities, weather permitting.

2B8. What percentage of your current student body has participated in EPA's Sunwise Program or an equivalent program regarding UV protection and skin health? 0%

We will look into participating in this important program.

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

2B9. Does the school use a Coordinated School Health approach or other health related initiatives to address overall school health issues? Yes

The school has a full-time nurse who addresses health issues with parents and students in general and around specific needs. Teachers are informed of any allergies and/or needed medications. Other school staff members are trained to give medications or services to the students in the absence of the nurse. The physical education teacher devotes time within his instruction to teach about nutrition and the importance of physical activity to wellness. All cleaning products used as environmentally preferable to maintain a safe environment for

all. The school also has a full-time school counselor and a PT school-social worker to assist with mental health issues.

- 2B10. Does the school partner with any community groups to support student health and/or safety? Yes

The students have participated in a bicycle safety program sponsored the Washington Area Bicyclist Association. Some classes have participated in discussions about nutrition with a parent volunteer who is a nutritionist. Representatives from DC GREENS have spoken to our students about the importance of growing and consuming good vegetables and fruits.

- 2B11. Describe any other measures regarding the school's built and natural environment that your school takes to protect student and staff health and which you feel should be considered.

The school was built with the highest quality materials to protect all. Ventilation systems protect the quality of air. Materials and furniture products meet the highest health standards. All cleaning products are environmentally preferable. Students and staff walk up and down many steps each day. The natural environment encourages students to run and play on green spaces and climbing equipment. An outdoor amphitheater encourages outside learning. Teachers can be encouraged to take their students outside (seasonal/weather permitting) more for learning experiences and the exercise of walking more each day.

Section V PILLAR THREE: 100% of the school's graduates are environmentally and sustainability literate

Learning and Environmental Literacy

Element 3A: Interdisciplinary learning about the key relationships between dynamic environmental, energy and human systems

3A.1 What percentage of last year's graduates scored proficient or better during their high school career on state or school:

Environmental education assessments? N/A

sustainability assessments? N/A

environmental science assessments? N/A

Briefly describe the assessment(s): N/A

3A2. Does your school or your state have an environmental or sustainability graduation requirement? N/A

The elementary school promotes its 5th-graders to middle schools. Although there is no requirement, students participate in many "green" units that promote health, conservation, and recycling. Please see 3A3.

3A3. Are environmental and sustainability concepts integrated throughout the curriculum? Yes

Stoddert ES was granted the status of Autonomy by DCPS, after outside reviewers' visits, based on high achievement and its dedication to the concept of using the School as a Teaching Tool. Every aspect of the design of the building, from the placement on the property for utilization of every natural attribute of nature's sunlight and tree coverage, to the indoor construction of everything using only the safest materials, to the flow of indoor to outdoor green spaces, including a garden, lends itself to integration into the curriculum. The use of units from the Green Education Foundation and the creation of new units by the Stoddert staff, have all students involved in learning about the environment and the importance of conserving energy and using resources wisely. At the minimum all students in grades Pre-K-5 participate in 10 hours of direct instruction on "green" issues per year. The activities range from those shown below for Pre-K through 5th graders

and comply with DCPS science standards. All grade level units available upon request. Mapping Opportunities between Curriculum and the Environment are also shown.

Green Units in the First Advisory

Pre-Kindergarten

- Observed and described changes in animals as they go through cycles
- **Built birdhouses, from recycled wood, to help restore local wildlife after construction.**
- Toured building with Eco-Buddies to see how things in the school are recycled and reused.
- Studied natural resources and how we use them: water, land, air.
- **Participated in the Casey Tree Walk to identify and name trees around the school.**
Chose Trees for long-term observations. **Discussed how trees change in the fall.**

5th Grade

- Toured Stoddert with the Pre-K Eco-Buddies to identify replanted trees to prepare to make birdhouses and long-term observations.
- **Gave energy tours to Pre-K buddies showing them the different features that make Stoddert a "green" school.**
- Watched a presentation from swimmer Lewis Pugh who swam 20 minutes at the North Pole to raise awareness of the global warming problem.
- Students (4th and 5th) participated in a presentation by Setty & Associates, the mechanical engineer, about the design and functioning of the geo-thermal wells.
- Students (all grade-levels) participated in a presentation by Abbie Cronin of EEK architects on the "green" features of our building.
- The Green Team, the student energy patrol group, guided a tour of the building for fifth-graders.
- **Debated the motion: Saving Earth from environmental catastrophes is more important than colonizing Mars or Europa.**

Mapping Opportunities between Curriculum & the Environment

Curriculum Objective	Student's Green Features																
	Work-off Mats at Entrances	Recycling Cardboard Pathways	Recycling Bins - Classrooms	Green Touch Screen	Mathematical Systems	Green Roofs	Low-E Glazing	Low Flow Plumbing Fixtures	Bike Racks	EV Parking Spaces	Low-Emitting Materials	Low-Emitting Furniture	Lighting Controls	HYAC Controls	CO2 Monitoring	Solaris	Acoustics
Garden scavenger hunt																	
Air Pollution Math	X	X															
Energy Detective				X	X		X						X		X		
Color the cycle of fruit and vegetables																	X
A Garden of Verses																	X
Hot and Cold Colors							X										X
How fast is it going?																	
Magnetic Electricity and Renewable Energy				X	X							X	X				
Use Sustainable energy				X	X							X	X				
Renewable energy sentences				X	X							X	X				
Wash and use washing water				X		X		X									
Catch the pollution	X								X	X	X	X				X	
Liter for lunch		X	X														

Curriculum Objective Key:

- Energy Conservation
- Water Conservation
- (indoor) Learning Environment
- Learning Landscape
- Material Conservation

3A4. If your school is a high school is a high school, what percentage of our eligible graduates last year had completed Advanced Placement Environmental Science during their school career? N/A

3A5. If neither your state or school conduct environmental science, sustainability or environmental education assessments, what percentage of your students scored proficient or better on science education assessments in the last year? 71%

The fifth-graders only take a science assessment. Seventy-one percent of the fifth-grade students scored proficient or above on the average of Earth and Space Science, Physical Science, and Life Science on the DC CAS Science Assessment of 2011.

3A6. Are teacher professional development opportunities in environmental and sustainability education provided for all teacher in your school? Yes

Describe these professional development opportunities including the number and percentage of teachers who participated in these over the last 2 years:

Over the last 2 years, all teachers have been offered professional development on environmental issues. Presentations were given at planning and faculty meetings (and to students) and included: Abbie Cronin, Associate Architect of Perkins Eastman; Raj Setty, Setty & Associates, who designed the geothermal system; Geoffrey Sparks and Christopher Pollock, Shen Milsom Wilke, who designed the acoustics; Rick Schneider, a landscape architect who is looking at even more outdoor spaces for activities; Ryan Columbo, project engineer from Whiting Turner; James Gapinski, civil engineer of A. Morton Thomas, and representatives of the US Green Building Council.

3A7. Does your school's environmental education program pay particular attention to scientific practices, such as asking questions, developing and using models, planning and carrying out investigations, analyzing and interpreting data, using mathematics and computational thinking, constructing explanations, and engaging in argument and applications based on evidence: Yes

3.A8. Do your students have meaningful outdoor experiences (investigative or experiential project that engages students in critical thinking, problem solving and decision making) at every grade level? Yes

All students participated in a tour of the trees on the Stoddert property. The educational tour was led by representatives of the Casey Tree Foundation. All students also participated in planting, caring for, and harvesting garden produce. Other classes observed nature; studied butterflies and their migration in conjunction with the Rotary Butterfly project that involves our students "Skypeing" with students in Mexico; and observed nature. Pre-K students built birdhouses with upper grade peers. Many upper grade students did their science projects on environmental issues also. Critical thinking skills are emphasized in all units at Stoddert ES.

Element 3B: Use of the environment and sustainability to develop STEM content knowledge and thinking skills to prepare graduates for the 21st century technology-driven economy

3B1. Do your students matriculate or graduate with a robust general science education that includes a deep understanding of life, physic, and earth sciences? Yes

How many hours per week on average do students spend in science content classes? 2.5 hours (Pre-K – 5th grade averaged)

3B2. If your school is a high school, does your curriculum provide a demonstrated connection between classroom content and college and career readiness, particularly to post-secondary options that focus explicitly on environmental and sustainability field, studies, and/or careers? N/A

Element #C: Development of civic engagement knowledge and skills and students' application of these to address sustainability and environmental issues in their community

3C1. Are all students required to conduct an age-appropriate, self-selected civic/community engagement project at every grade level? Yes

What percentage of these projects focused on environmental or sustainability topics? 80%

The volunteer Green Team conducted many tours for community members and visiting dignitaries from many states and countries. They also managed the all-school recycling program. In addition, The Student Council sponsored events for all grade levels, where all students collected food for those in shelters; clothes and supplies were collected for girls in Afghanistan; pennies were collected for patients; and UNICEF money collected to help others.

What percentage of students satisfactorily completed such a project last year: 90%

3C2. What percentage of last of last year's graduates scored proficient or better on community or civic engagement skills assessment? N/A

3C3. Does your school partner with local academic, businesses, government, nonprofits, informal science institutions and/or other schools to help advance your

school, other schools (particularly schools with lesser capacity in these areas), and community toward the 3 Pillars? Yes

The US Green Building Council partnered with us to help create our Stoddert Elementary Green School Tour book that the students use to conduct tours. In addition, they provided training to our students who then have taken many groups on tour throughout the building. Visitors from many states attended the US Green Building Council's Center for Green Schools launch that was held at the school. Additional tours have been given to local architects that wish to see the "green" geothermal school. We have hosted many neighboring schools that will be renovated soon and advised them of our energy-saving and green features. Some representatives from other schools have come to see how to lay out a garden and utilize space efficiently. We have also partnered with the Green Education Foundation and utilize many of their teaching units. A joint presentation by Sean O'Donnell, Principal of Perkins Eastman Architects, and Stoddert's principal was given at the "Green Health: Building Sustainable Schools for Healthy Kids Workshop" sponsored by the National Institutes of Health, and the US Green Building Council. In addition, Stoddert has a joint use partnership with DC Department of Parks and Recreation.

- 3C4. Does your school provide outdoor learning opportunities for students (e.g. outdoor classrooms/Outdoor Club)? Yes

All students participate in the garden project. Classrooms are responsible for sections of the garden. The students do the actual work of planning, weeding, and harvesting. Teachers and the garden/energy coordinator conduct classes outside in the garden area. An Outdoor After-School Group is planned for this

spring sponsored by the PTA for those students who attend after care. Students work with community members and families on the weekends also during the gardening seasons.

- 3C5. What other indicators or benchmarks (quantified whenever possible) of your progress towards the goal of 100% of your graduates being environmental and sustainability literate does your school feel should be considered by the review committee?

Your questions throughout the application have adequately allowed us to say that we are on track for 100% of the students being promoted from Stoddert ES to leave having experienced “green” environments and units addressing environmental and sustainability issues. Students will experience and grow in knowledge in our green school, a building and a teaching tool, that creates a healthy environment that is conducive to learning while saving energy, resources, and money.

Section VI: Authorization

By Signing below I certify that the information provided is, to the best of my knowledge accurate:

Marjorie Cuthbert
Authorized Representative Signature and Title

3/2/12
Date