

2014-2015 School Nominee Presentation Form

ELIGIBILITY CERTIFICATIONS

School and District's Certifications

The signatures of the school principal and district superintendent (or equivalents) on the next page certify 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 their knowledge. *In no case is a private school required to make any certification with regard to the public school district in which it is located.*

1. The school has some configuration that includes grades Pre-K-12.
2. The school has been evaluated and selected from among schools within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental education.
3. Neither the nominated public school nor 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.
4. 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 action plan to remedy the violation.
5. 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.
6. 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.
7. 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 on-site verification.

U.S. Department of Education Green Ribbon Schools 2014-2015

Charter Title I Magnet Private Independent Public

Name of Principal: Anthony E. Steele II

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

Official School Name: Blackstone Valley Regional Vocational Technical High School

(As it should appear on an award)

Official School Name Mailing Address: 65 Pleasant Street, Upton, MA 01568

(If address is P.O. Box, also include street address.)

County: State School Code Number *: 08050000

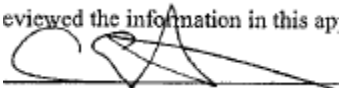
Telephone: 508-529-7758 x3016 Fax:

Web site/URL: <http://www.valleytech.k12.ma.us> E-mail: asteele@valleytech.k12.ma.us

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

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

viewed the information in this ap



Date: 1-30-2015

(Principal's Signature)



Name of Superintendent: Michael F. Fitzpatrick
(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in official records)

District Name: Blackstone Valley Regional Vocational Technical High School

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

I have reviewed the information in this application and

Date: 1-30-2015

(Superintendent's Signature)

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 grades Pre-K-12.
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: Massachusetts Department of Elementary and Secondary Education

Name of Nominating Authority: Mitchell D. Chester, Ed.D, Commissioner of Elementary and Secondary 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.

Date: 1-30-2015

(Nominating Authority's Signature)

SUMMARY AND DOCUMENTATION OF NOMINEE'S ACHIEVEMENTS

Provide a coherent "snapshot" that describes how your school is representative of your jurisdiction's highest achieving green school efforts. Summarize your strengths and accomplishments in all three Pillars and nine Elements. Then, include documentation and concrete examples for work in every Pillar and Element.

SUBMISSION

The nomination package, including the signed certifications and documentation of evaluation in the three Pillars should be converted to a PDF file and emailed to green.ribbon.schools@ed.gov according to the instructions in the Nominee Submission Procedure.

OMB Control Number: 1860-0509
Expiration Date: February 28, 2015

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.

Blackstone Valley Regional Vocational Technical High School (BVT) is focused on integrating health and environmental concepts into the general curriculum and school culture. The school has increased community environmental awareness by actively promoting energy conservation measures and showcasing renewable energy innovations throughout the state.

The campus boasts energy-efficient features such as solar arrays, light tubes, displacement ventilation, high-efficiency lighting, and occupancy and daylight sensors. “Green” features of the school are woven into projects and lessons. Solar, biomass, bio-fuel, and geothermal technologies have been added to the curriculum and conservation calculations and themes. Green technology and sustainability is a theme in all 17 of the school’s vocational technical shops, from HVAC (Heating, Ventilation, and Air Conditioning) students who, under teacher supervision, maintain and upgrade our high-efficiency, high-end heating and cooling systems throughout the facility, to the Graphic Communications shop, which has been transformed to an energy-savings digital media shop that reduces the volume of polluting inks and paper. Plumbing students are in charge of the school’s photovoltaic system.

BVT is the one of the first schools in the nation to use a SimSpray paint simulator in the Auto Body shop. Using this tool, students can learn and perfect auto painting techniques without using polluting paints with noxious fumes. Valley Tech students convert sawdust from the construction program into heat-generating wood pellets, and recycle used cooking oil from the culinary arts program into biodiesel fuel. The 80 gallons of bio-fuel produced each week power the school’s field and maintenance equipment, the generator for an electric vehicle, and heating test systems in the HVAC program. A byproduct of the bio-fuel manufacturing process is eco-friendly soap, which is packaged and sold in the school store as part of a student marketing project. BVT also transitioned to using only green cleaning products.

To build momentum around the green technologies movement, Valley Tech partnered with other career-tech systems, community colleges, businesses, unions, and employment training agencies to secure a Clean Energy Workforce Development Grant from the Commonwealth Corporation, which has provided building science/weatherization, solar photovoltaic, and solar domestic hot water systems training to career and technical teachers to ensure future workforce awareness of energy conservation options. A regional renewable energy training center has been constructed at BVT, which offers workforce training in solar and photovoltaic and other emerging renewal energy technologies to an even wider community.

Career vocational technical school students alternate an academic week with a career-technical week. Despite an alternative schedule, BVT sets a high bar for academic performance, with the student population outperforming the state standardized testing average. Students take four years of mathematics and science. Of 386 advanced placement (AP) exams taken in the past year, nearly 50 percent of students scored a three or higher. STEM is integrated in all aspects of Valley Tech.

Student health, nutrition, and wellbeing are high priorities for BVT. The physical education program was augmented, ten years ago, to include nutrition and fitness programs with a full-time nutritionist. The wellness committee established official policies regarding wellness and nutrition and hosts an annual staff and student wellness fair; created staff and student fitness passports, where blood pressure, glucose, and cholesterol are measured by nursing staff and students. BVT also partners with Milford Regional Hospital in the School-Based Health Center that offers health services to students.

| Blackstone Valley Regional Vocational School District (Upton, Massachusetts) | | |
|---|---------------------------|-------------------------------|
| <u>ED-GRS Pillars and Elements</u> | <u>Max. Points</u> | <u>Points Received</u> |
| Pillar I: Reduce environmental impact and costs: 30% | | |
| Element 1A: Reduced or eliminated greenhouse gas (GHG) emissions Energy Buildings Transportation | 10 points | 6 |
| Element 1B: Improved water quality, efficiency, and conservation Water Grounds | 10 points | 3 |
| Element 1C: Reduced waste production Waste Hazardous waste | 10 points | 8 |
| Total Pillar I | | 17 |
| Pillar II: Improve the health and wellness of students and staff: 30% | | |
| Element 2A: Integrated school environmental health program Integrated Pest Management Contaminant controls and Ventilation Asthma control Indoor air quality Moisture control Chemical management | 15 points | 12 |
| Element 2B: Nutrition and fitness Fitness and outdoor time Food and Nutrition Other coordinated school health programming | 15 points | 14 |
| Total Pillar II | | 26 |
| Pillar III: Provide effective environmental and sustainability education, incorporating STEM, civic skills and green career pathways: 40% | | |
| Element 3A: Interdisciplinary learning about the key relationships between dynamic environmental, energy and human systems | 20 points | 16 |
| Element 3B: Use of the environment and sustainability to develop STEM content, knowledge, and thinking skills | 10 points | 6 |
| Element 3C: Development and application of civic knowledge and skills | 10 points | 8 |
| Total Pillar III | | 31 |
| Total | 100 points | 74 |

1. Is your school participating in a local, state or national school program, such as EPA ENERGY STAR Portfolio Manager, MA-CHPS, EcoSchools, Project Learning Tree, or others, which asks you to benchmark progress in some fashion in any or all of the Pillars?

Yes No Program(s) and level(s) achieved:

Our MCAS achievement has risen steadily since the introduction of statewide-standards and high-stakes testing, to the point where BVT is now the highest academically achieving Career Vocational-Technical School in Massachusetts, and is the highest academically achieving high school in the 13 town regional district.

2. Has your school, staff or student body received any awards for facilities, health or environment?

Yes No Award(s) and year(s)

2012 Healthier US School Challenge Silver Award

2011- Cafeteria Manager received **Manager of the Year from the School Nutrition Association,**

2010 - Blackstone Valley Regional Vocational Technical High School received a **Massachusetts Secretary’s Award for Excellence in Energy and Environmental Education for its industry-education partnerships for energy efficiency**

2007 - Blackstone Valley Regional Vocational Technical High School honored as a **Business Leader for Energy Efficiency by Northeast Energy Efficiency Partnerships (NEEP) at the 2007 Northeast Energy Efficiency Summit**

2006 - Blackstone Valley Regional Vocational Technical High School expansion/renovation project received **Blackstone Valley Chamber of Commerce Cornerstone Award for outstanding construction and renovation**

2005 - Blackstone Valley Regional Vocational Technical High School named a **Massachusetts Green School for renewable energy initiatives and energy-efficient design**

3. Does your school participate in any Massachusetts environmental, health, or STEM programs/partnerships? MA Secondary School Administrators Association; MA School Building Authority; SkillsUSA; MA Vocational Association;

MA Vocational Administrators Association; MA Farm to Table Initiative; MA School Counselors’ Association; MA Educational Financing Authority; Commonwealth Corporation; MA Life Sciences Center; Executive Office of Administration and Finance; MA Math and Science Institute; Distributive Education Clubs of America (MA Chapter);

Blackstone Valley Chamber of Commerce; Milford Area Chamber of Commerce; Association of Career-Technical Educators; MACWIC; Berkshire Community College; Bristol Community College; Bunker Hill Community College ;

Cape Cod Community College ;Greenfield Community College; Holyoke Community College ; Massachusetts Bay Community College; Massasoit Community College; Middlesex Community College; Mount Wachusett Community

College; North Shore Community College; Northern Essex Community College; Quinsigamond Community College; Roxbury Community College; Springfield Technical Community College

Pillar I: Reduced Environmental Impact and Costs

Energy

Building Specifications

| | |
|--|---|
| Building Constructed (year): 1965 Area: Renovations: 1985; 2006, 2012 Year % of building renovated: 100% | Meets green building standard: Yes Year certified: 2006 Total area certified: 95-100% Green/Efficiency Features (heating, windows, insulation, etc.): <p style="text-align: center;"><u>Total renovated area: 210,000 square feet renovated meet MA School Building Authority Green School Program requirements</u></p> |
|--|---|

Please note: If your city or town is a Massachusetts Green Community, energy reduction and other information should already be available through your municipality, please see- <http://www.mass.gov/eea/energy-utilities-clean-tech/green-communities/>.

1. Can your school demonstrate a reduction in Greenhouse Gas emissions?

* Energy conservation measures were incorporated into the design and construction of the school's most recent expansion and renovation (2003-2006), including energy-efficient features such as solar arrays, light tubes, displacement ventilation, high-efficiency lighting, and occupancy and daylight sensors.

() Yes () No Percentage reduction: NA Over (m/yy - m/yy): _____

Initial GHG emissions rate (MT eCO₂/person): _____

Final GHG emissions rate (MT eCO₂/person): _____

Offsets: _____ How did you calculate the reduction? _____

2. Do you track resource use in EPA ENERGY STAR Portfolio Manager? () Yes (X) No

If no, do you use a different energy portfolio? No

If yes, what is your score? _____ If score is above a 75, have you applied for and received ENERGY STAR certification? () Yes (X) No Year: _____

3. Has your school reduced its total non-transportation energy use from an initial baseline? (X) Yes () No

The conservation measures incorporated into the most recent design and construction of the school campus has allowed the system to approximately maintain the same levels of energy consumption as before the expansion, despite a 38% larger building footprint and an increase of student population by nearly 34 percent, resulting in a 38% reduction overall.

Current energy usage (kBTU/student/year): **8822 kBTU/student/year**

Current energy usage (kBTU/sq. ft./year): **37 kBTU/sq. ft./year**

Percentage reduction: 38% over (2006 - 2013): (The same kBTU as were used before the building was expanded by 80,000 sq. ft. and the population increased by 34%.)

How did you document this reduction? These numbers have stayed constant despite a 38% increase in the building's footprint and a 34% increase in the student/staff population since the completion of the building expansion in 2006.

4. What percentage of your school's energy is obtained from:

On-site renewable energy generation: 5% Type Electric solar panels and solar pre-heat hot water panels, photovoltaic panels

Purchased renewable energy: 20% Type Wind from Constellation NewEnergy Green-e

Participation in USDA Fuel for Schools, DOE Wind for Schools or other federal or state school energy program: No

Water and Grounds

5. Can you demonstrate a reduction in your school's total water consumption from an initial baseline?

NA

Average Baseline water use (gallons per occupant): unknown

Current water use (gallons per occupant): 860 gallons/person/year

Percentage reduction in domestic water use: unknown

Percentage reduction in irrigation water use: unknown

Time period measured (mm/yyyy - mm/yyyy): NA

How did you document this reduction (i.e. ENERGY STAR Portfolio Manager, utility bills, school district reports)?: Utility Bills

6. What percentage of your landscaping is considered water-efficient and/or regionally appropriate? All grasses are efficient and regionally appropriate

Types of plants used and location: grass, conifers, azaleas, fruit trees (for Culinary Arts' use)

7. Describe alternate water sources used for irrigation.

The school system uses its well water to irrigate its on-campus athletic fields and grounds.

8. Describe how the water source is protected from potential contaminants, including lead and efforts to reduce stormwater runoff and/or reduce impermeable surfaces.

The municipal water used by the school system is treated at the nearby Upton Water Treatment Center. That water is periodically tested by Upton water officials. Inside the Valley Tech building, all water drinking fountains contain multiple filters which are inspected and maintained by the facilities staff.

On the school's campus, there is a storm water retention pond for water runoff. There is also underground water retention of runoff.

9. What percentage of the school grounds are devoted to ecologically beneficial uses?

Valley Tech has a green tech/sustainability training structure and training panels for both student and statewide CVTE faculty training use, and large solar panels on the roof. We use our own well water for irrigation, and have minimal ornamental landscaping, to minimize the need for excess watering.

Waste

Do you have waste reduction, recycling, or composting programs? Try the math:

10. What percentage of solid waste is diverted from landfilling or incinerating due to reduction, recycling and/or composting?.

A - Monthly garbage service in cubic yards (garbage dumpster size(s) x number of collections per month x percentage full when emptied or collected):

35-yard self-contained unit; average 1.5 pickups/month; average 9 tons per month

B - Monthly recycling volume in cubic yards (recycling dumpster sizes(s) x number of collections per month x percentage full when emptied or collected):

35-yard self-contained unit for cardboard; average 5 pickups/year; 175 cubic yards/year (10 tons/year)

30-yard open metal container for scrap metal; average 8 pickups/year

8-yard single-stream recycling container for plastic; average 1 pickup/month

C - Monthly compostable materials volume(s) in cubic yards (food scrap/food soiled paper dumpster size(s) x number of collections per month x percentage full when emptied or collected):

Culinary Arts CTE program has a compost, the "fruits" of which are used to fertilize the vegetable garden kept by the CA students.

Recycling Rate = $((B + C) \div (A + B + C) \times 100)$: _____

Monthly waste generated per person = $(A/\text{number of students and staff})$: 13lbs/month

11. Do you use any other post-consumer, recycled, responsibly managed or organic materials in your school (paper, napkins, silverware, building or supply materials etc)?

Approximately 85 percent of our school's total office/classroom paper content is post-consumer material, fiber from forests certified as responsibly managed and/or chlorine-free

12. List the types and amounts of hazardous waste generated at your school:

| | | | | |
|---|-------------------|--------|---------|---|
| Flammable liquids Automotive engine lubricant oil Lubricating oil/water mix for manufacturing cutting of metals Paint gun cleanser solution for | Corrosive liquids | Toxics | Mercury | Other: Waste code MA98 Waste code D005, D006, D007, D010 Waste code DO39 Waste Code MA 99 |
|---|-------------------|--------|---------|---|

| | | | | |
|---|--|--|--|--|
| automotive collision repair Ink drum cleansing solution for offset presses in graphic communications | | | | |
|---|--|--|--|--|

How is this measured? Hazardous waste is measured by the gallon.
 How is hazardous waste disposal tracked? Hazardous waste is collected according to hazardous waste guidelines and manifested.

Any other measures taken to reduce solid waste and eliminate hazardous waste? Valley Tech staff regularly research and investigate new technologies and products as they become available for potential implementation at the building level.

13. Which green cleaning custodial standard is used?

Earth-Mate Green Cleaning

What percentage of all products is certified?

98% of all cleaning products are green certified

What specific third party certified green cleaning product standard does your school use?

Simplex Green Cleaning system and products

Alternative Transportation

14. What percentage of your students walk, bike, bus, or carpool (2 + student in the car) to/from school? (Note if your school does not use school buses)

Approximately 15%. The school campus is located in the center of a 250-square mile district, comprised of 13 contiguous towns without any form of regional public transportation for its approximately 150,000 residents, therefore, we must use school busses, but work hard to create efficient routes.

15. Has your school implemented?

- organized carpool program
- designated carpool parking stalls
- a well-publicized no idling policy that applies to all vehicles (including school buses)
- Vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and windows.
- Safe Pedestrian Routes to school or Safe Routes to School
- eco-friendly buses (clean burning, electric, etc)

16. Describe how your school transportation use is efficient and has reduced its environmental impact, including any innovative or unique practiced and partnerships.

In addition to the aforementioned, the district maintains a fleet of vans and mini-buses to transport students to and from work sites or partnership locations. The district regularly upgrades the vehicles for the latest safety measures and maintains their efficiency in cooperation with the school's automotive technology vocational technical training program

Pillar 2: Improve the health and wellness of students and staff

Environmental Health

All Massachusetts schools are required to file an IPM plan, and review on an annual basis. To create, edit, or view your plan, please see- <http://massnrc.org/ipm/>

1. Describe your school's Integrated Pest Management efforts, including IPM/green certifications earned, routine inspections, pest identification, monitoring, record-keeping, etc.:

- a. We have an indoor IPM on file with the state. This is updated yearly.

- b. We have Ransford Control come in every month to do visual inspections of our food areas and ask about any problems.
- c. Those monthly reports are kept in a notebook in the facilities office.
- d. We use the least harmful product necessary to eradicate pests – example mint oil to eradicate flying pests

2. What is the volume of your annual pesticide use (gal/student/year)? Describe efforts to reduce use:

No chemical pesticides are used on-site, and any specific problems are addressed or treated with organic-based or botanical products.

3. Which of the following practices does your school employ to minimize exposure to hazardous contaminants? Provide specific examples of actions taken for each checked practice.

Our school prohibits smoking on campus and in public school buses

Our school has identified and properly removed sources of elemental mercury and prohibits its purchase and use in the school

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 primary fuel is natural gas

Our school has tested all frequently occupied rooms at or below ground level for radon gas and has fixed and retested all rooms with levels that tested at or above 4 pCi/L OR our school was built with radon resistant construction features and tested to confirm levels below 4 pCi/L. For more information, please see <http://www.epa.gov/radon/pubs/schoolrn.html>,

Last date of radon testing: October 1, 2014 _____

Our school has identified any wood playground or other structures that contain chromate copper arsenate and has taken steps to eliminate exposure

4. Describe actions your school takes to prevent exposure to asthma triggers in and around the school.

The school building has a state-of-the-art ventilation, heating and cooling system. The low-flow air system, which is monitored daily by the EMS, brings in 100 percent fresh air to the classrooms and learning spaces. The school's Facilities Department does an extensive and thorough cleaning of the building on a nightly basis.

5. Describe actions your school takes to: manages and controls student and staff exposure to chemicals (including pesticides) routinely used in the school; control moisture from leaks, condensation, and excess humidity and promptly cleanup mold or removes moldy materials when it is found; inspect and maintain the building's ventilation system and all unit ventilators to ensure they are clean and operating properly; actions to ensure that all classrooms and other spaces are adequately ventilated with outside air, consistent with state or local codes, or national ventilation standards.

The Facilities Department aggressively addresses any reports of leaks or water-related issues and does a through follow-up as required. BVT's Life-Safety Officer checks and monitors all ventilation systems on a periodic basis, which is tracked electronically. We are also, with the support of the Mass School Building Authority, systematically replacing sections of our roof.

6. Describe any other steps your school takes to protect indoor environmental quality such as implementing EPA IAQ Tools for Schools and/or conducting other periodic, comprehensive inspections of the school facility to identify environmental health and safety issues and take corrective action.

Valley Tech uses its building as a classroom environment for the Heating, Venting, and Air Conditioning/Refrigeration. The instructors and students monitor, inspect, clean, and maintain the system, including routinely replacing all air filters. If necessary, outside vendors are contacted and those vendors often

allow students to observe their work. With the employment of a Life-Safety Officer, the school building is under constant supervision regarding environmental quality issues. As a vocational technical school, the students, being trained to be future members of the workforce, and staff maintain on a daily basis, a quality working and learning environment. In August 2014, when we completely revamped our printing and copying systems to save ink and paper. We removed individual printers from classrooms, and replaced them with "regional" copy machines/scanners, that required a lot of training and have resulted in much saving of paper, ink, and toner. There is a tremendous and consistent atmosphere of pride by everyone to maintain a meticulously clean building.

Nutrition and Fitness

7. 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 innovative or unique practices and partnerships.

Our school participates in the USDA's Healthier US School Challenge. Level and year: Blackstone Valley Tech won USDA's Healthier US School Challenge Silver level, 2012.

Our school participates in a Farm to School program to use local, fresh food. Both our Cafeteria and our Culinary Arts Career Technical program are involved with the Massachusetts Farm to School Program, which gives us advice on how to request locally grown foods through our distributor, how to build local products into our bids, and how to ensure product traceability. We receive tips from other food service directors for successfully serving local foods; and use materials to help promote local foods in our cafeteria and student-run public restaurant.

Our school has an on-site food garden. Blackstone Valley Tech Culinary Arts program has a large plot in the nearby Upton Community Gardens, where students plan, plant, cultivate, and harvest vegetables, herbs and fruits, under the supervision of our Culinary Arts faculty.

Our school garden supplies food for our students in the cafeteria, a cooking or garden class or to the community. Under the supervision of our expert, certified Chef-Instructors, BVT's Culinary Arts students grow and harvest vegetables and herbs that are used in recipes that are served to the school and local community in the student-run public restaurant, the Three Seasons, as well as in the Cafeteria. Our Cafeteria Director is a renowned restaurateur, who is also a certified Culinary Arts Instructor.

Food purchased by our school is certified as "environmentally preferable"

Percentage:~50%_ Type: Various commodities; additionally, in autumn, 2012, there was a paradigm shift in the manner of plating in the cafeteria for BVT's 1147 students: All paper, foam, and most plastic serving ware was replaced by compartmented, antibiotic plastic trays that hold all of the food served at meals. The result has been an 80% reduction in daily cafeteria waste.

Our students spent at least 120 minutes per week over the past year in school supervised physical education All BVT students spend at least 45 minutes per week in occupation/physical education; 30% of our student body is involved in interscholastic sports, which meet daily during a season; students in VITA (150) spend 45 extra minutes per week in supervised physical activity. Because of the nature of CVT education, every other week, our students spend five days up and about working in shops, not behind desks. They are out doing the physical work of a CNA at a nursing home, building town shelters, and running an operating restaurant, etc. The students in the less active shops are regularly brought out for brisk walks on the track or around the building with their instructors.

At least 50% of our students' annual physical education takes place outdoors Whenever weather permits, student physical activity takes place outside. We have discovered that a way to increase the

excitement of supervised physical education is to have two career technical shops have their physical education activities at the same time, and for the career-technical shops to compete against each other. The students give their all when their "home team" is on the line.

[X] Health measures are integrated into assessments

Yes: Every student spends 50% of his or her school time in a career-technical shop. 5% of that career-technical shop grade is based on occupational/physical health. Additionally, each year, every student (1187) has his or her height, weight, BMI, and body composition measured and recorded. Trends are analyzed in the aggregate, and those individuals who are identified as identified as physically at risk are invited to join the VITA program (see below)

[X] Students have participated in the EPA's Sunwise (or equivalent program)

Each year, during the seminar portion of our Career Enrichment course (mandatory year-long course covering vocational strands 4-6 for grades 9-12), the Nurse Practitioner attached to our School Based Health Center gives a presentation on sun safety, including the use of a Derma-Vue to check for sun damage, which is backed up by displays and reminders throughout the school.

8. Describe the type of outdoor education, exercise and recreation available.

All biology and physics classes (which all students take) do several units outside, to study environmental science on our 27 acre campus, which includes a creek and a pond for studying microscopic marine creatures. The Construction Technologies cluster of shops are naturally outside on the job, quite often. For outdoor exercise and recreation, BVT offers field hockey; soccer; football; cross country; track and field; softball; baseball; lacrosse; flag football; and other field sports for physical education;

9. Describe any other efforts to improve nutrition and fitness, highlighting innovative or unique practices and partnerships.

The full-time school nutritionist runs the VITA program, where she meets with students once/academic week for fitness and one time/shop week for nutrition and goal setting activities. 127students participate; the program includes: Nutrition classes: nutrition assessment in computer lab/goal setting; breakfast; healthy snacks; fruits and vegetables. Fitness classes: Pre and post fitness testing; Zumba; Just Dance 2 and 3 on Nintendo Wii yoga; fitness room; walking program; Pre and post testing comparison: 95% showed improvement in their mile time; 88% showed improvement in the number of push-ups in one minute; 85% showed improvement in the number of crunches in one minute; 48% showed improved flexibility; 55% showed improvement in body composition.. Our VITA and nutrition programs are partially sponsored by the NFL's Fuel Up To Play 60 program. We hold our annual faculty wellness fair in December, that culminates in the kick-off of a year-long, faculty and staff-wide fitness and nutrition contest (10,000 steps/day, etc.). We hold our annual student wellness fair every March.

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

10. Does your school use a Coordinated School Health approach or other health-related initiatives to address overall school health issues? (X) Yes () No

If yes, describe the health-related initiatives or approaches used by the school:

New transition program (room 258) for students returning from extended leave (5+ days), staffed by an LICSW, where students are assigned for full or partial days to re-acclimate and make up their work in a calm, pressure-free environment; Signs of Suicide program (National program); Provided Mental Health first aide training to all staff; Counselors as teachers-curriculum; Adjustment counselors have been trained in Boston Children Hospital's "Break Free from Depression; Yoga; Social Skills Group; School-based Health center; Riverside Psychological Services

11. Does your school partner with any postsecondary institutions, businesses, nonprofit organizations, or community groups to support student health and/or safety? (X) Yes () No

If yes, describe these partnerships:

BVT Partners with Milford Regional Hospital in its School-Based Health Center; MetroWest Community Health Foundation for Room 258; French River Associates for speech and occupational therapy, as well as psychological therapy, which is coordinated through the school-based health center.

12. Does your school have a school nurse and/or a school-based health center? (X) Yes () No

13. Describe your school's efforts to support student mental health and school climate (e.g. anti-bullying programs, stress reduction, peer counseling, etc.):

BVT has an active anti-bullying program, which is supported by the 150 member student council, as much as it is by the school staff. BVT also has a unique peer mentoring program. These sophomore and junior class volunteers have been trained to hold out a hand to any and all freshmen, and to especially act as role models and guardians when they are in shop together, every other week. The academic mentors are available to act as tutors. There are social mentors who are especially important; they are helping the shyest students and the students who are having the most difficult time making and keeping appropriate friendships. The social mentors are on hand to help them along in this really daunting task. BVT has a Student Resource Team that meets weekly to discuss and make plans for any and all students who are referred to the team by teachers or counsellors. This team is especially useful for students who are re-entering school after extended medical absences. The SRT was instrumental in starting our new grant-funded transition program in Room 258, for students returning from extended leave (5+ days), which is staffed by an LICSW, where students are assigned for full or partial days to re-acclimate and make up their work in a calm, pressure-free environment. They may be in this program for up to six weeks, as needed. Staff was also trained in Mental Health First Aid, and all counsellors were trained in Children's Hospital's "Break Free from Depression" program. We have bi-weekly social skills groups, and have free yoga classes for stress management. BVT has a very active chapter of Rachel's Challenge. We employ two school adjustment counselors and a full-time school psychologist. The Behavior Resource Center is staffed throughout the school day for in-school suspensions and attendance issues. All students participate in depression screening and there are immediate interventions for those who are deemed at-risk.

Please note: All Massachusetts schools are required to have bullying prevention and intervention plans and collect and report the data to the MA DESE, <http://www.doe.mass.edu/bullying/>.

Pillar 3: Effective Environmental and Sustainability Education

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 innovative or unique practices and partnerships.

[X] Our school has an environmental or sustainability literacy requirement.

Although we do not have an environmental literacy requirement, all students, in our 18 Career-Technical shops, are taught using the theme of environmental awareness and sustainability. The curriculum in each shop, from Carpentry to Auto Tech to Cosmetology to Health Services, spends a significant time in its related class time learning about environmental preservation, safety, and responsibility.

[X] Environmental and sustainability concepts are integrated throughout the curriculum and assessments. As a Green School, BVT is highly aware of the importance of sustainability and environmental education. In English class, students write about environmental issues, and in social studies class, students are assigned environmental topics as the subjects of debate. The math "problem of the month" is often about sustainability, and biology has units on environmental science. On the CVTE side, Construction Technologies (formerly Carpentry), Plumbing, Electrical, Electronics, HVAC, and Electrical are all focused on sustainability, the environment, and green technologies. Green technologies training structures are built on campus for HVAC, electrical, plumbing, and construction technologies students to use their skill in a practical setting. All BVT

students are taught to state code in their various shops and, where feasible, are certified before graduation. These codes and certifications are cognizant of the environment and sustainable practices. BVT has developed its own Certificate of Occupational Proficiency assessments that are mandatory for graduation and administered in every grade, in every shop; each has a green technology component.

[X] Students evidence high levels of proficiency in these courses and assessments.
All BVT students have graduated with a COPS and an MCAS diploma since 2003.

[X] Professional development in environmental and sustainability education are provided to teachers. BVT's most recent "Go Green" professional development program was in August 2014, when we completely revamped our printing and copying systems to save ink and paper. We removed individual printers from classrooms, and replaced them with "regional" copy machines/scanners, that required a lot of training and have resulted in much saving of paper, ink, and toner. Our Green faculty program began in 2007, when we appointed nationally known sustainability expert Mike Tidwell to be our Environmentalist in Residence. He facilitated environmental seminars for our faculty several times, and has infused a lasting green environment throughout the school community.

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: other. Percentage scoring a 3 or higher: NA, as a CTVE high school, every minute of instructional time is precious. BVT is one of the few vocational schools in Massachusetts that has found a way to include Advanced Placement courses in its curriculum. We offer Calculus AB, Physics, Biology, English Language, and English Literature, as well as Computer Science (which is taught as part of the IT shop curriculum), however, we have not found a way to squeeze in Environmental Science, with our students in Academics only every other week.

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?

Sustainability and the environment are the context of several aspects of the biology curriculum. Three of the 17 CVTE programs at BVT have been dedicated to engineering: Drafting, which has a focus on energy efficient design; Electronics designs and constructs alternative solar) fuel vehicles and manufactures them in concert with Manufacturing and Engineering Technologies. The new science labs have been configured to include hands-on access to our photovoltaic control system. Please see our summary narrative for more unique environmental projects.

4. How does your school use sustainability and the environment as a context for learning green technologies and career pathways?

HVAC (Heating, Ventilation, and Air Conditioning) students, under teacher supervision, maintain and upgrade our high-efficiency, high-end heating and cooling systems, throughout the facility. Our Graphic Communications CTE shop has been transformed to an energy-savings digital media shop, which will save polluting inks and paper. Our plumbing students are in charge of our photo-voltaic system. Please see our summary narrative for more unique environmental projects.

5. Describe students' civic/community engagement projects integrating environment and sustainability topics.

HVAC and Drafting go to civic buildings in our 13 town district and redesign them for sustainability. Construction Technologies and Painting and Design work in the thirteen communities to make changes needed in public buildings to make them greener and more sustainable. In FY12, every shop in the building assisted in the construction in a handicapped-accessible, energy-saving home for two alumni who have two children with severe special needs.

6. Describe students' meaningful outdoor learning experiences at every grade level.

The roof has been designed as a working lab for students to access and train on renewable energy systems. We have

ongoing community building projects, and our health and dental students are constantly out on clinical trips to learn while assisting patients. BVT is working with Alternatives in Northbridge to create a campus annex for a proposed new animal science program, a shed for carpentry to build large projects, and which will also include a greenhouse and a 2 acre garden for our culinary and biology programs. Students sell energy-saving light bulbs and sustainable soaps. Please see our summary narrative for more unique environmental projects.

8. Describe your partnerships to help your school and other schools achieve in the 3 Pillars. Include both the scope and impact of these partnerships.

As a Career Vocational Technical School in Massachusetts, each shop has an advisory committee, and we have a General Advisory committee of over 360 professionals in the community who advise us on curriculum. They are always mindful of the environment and sustainability in their advice. Other partners in our Green School are the Massachusetts Technology Collaborative; Bacon Construction, Banwell Architects (who are doing our Master Plan), and the Milford Regional Hospital through our School Based Health Center. The building was designed for energy conservation, environmental sensitivity, an emphasis on clean air, and access to natural light.

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.

We are the first school in the nation to use a SimSpray paint simulator in our Auto Body shop; using this tool, our students can learn and perfect auto painting techniques without using polluting paints with noxious fumes. Auto Body has also switched to water-based paints. Also, our facilities staff took the initiative of researching and comparing green cleaning products, and presenting them to the School Committee, for permission to switch to a totally Green cleaning product inventory—even the wax stripping machine uses nothing but hot water, and the staff reports it is more efficient than the harsh chemicals used in the past.