Massachusetts School Building Authority

SCHOOL DISTRICT: Minuteman Regional Vocational Technical School District
DISTRICT CONTACT: Edward Bouquillon PhD TEL: (781) 861-6500 x301
NAME OF SCHOOL: Minuteman Career and Technical High School
SUBMISSION DATE: 11/12/2008 (revised February 15, 2009)

NOTE: The following (X) priorities have been identified for the Minuteman Statement of Interest:

1. Replacement or renovation of a building which is structurally unsound or otherwise in a condition seriously jeopardizing the health and safety of school children, where no alternative exists.
2. Elimination of existing severe overcrowding.
3. Prevention of the loss of accreditation. **(NEASC Decennial Site visit March 3-6, 2009)**
4. Prevention of severe overcrowding expected to result from increased enrollments.
5. **(X) Replacement, renovation or modernization of the heating system in a schoolhouse to increase energy conservation and decrease energy related costs in the schoolhouse.**
6. Short term enrollment growth.
7. **(X) Replacement of, RENOVATION or addition to obsolete buildings in order to provide for a full range of programs consistent with state and approved local requirements.**
8. Transition from court-ordered and approved racial balance school districts to walk-to, so-called, or other school districts.

POTENTIAL PROJECT SCOPE: Major Project
IS THIS SOI THE DISTRICT PRIORITY SOI?: YES
THE MSBA ID FOR THE DISTRICT PRIORITY SOI:
DISTRICT GOAL FOR SCHOOL: PLEASE EXPLAIN THE EDUCATIONAL GOALS OF ANY POTENTIAL PROJECT:

The district goal for this project is to renovate our existing structure in order to create a "state of the art" career and technical education (CTE) center that provides all of our learners (high school, post-grads, adults, area workforce) with relevant academic and technical training in a safe and healthy environment. Our existing and planned educational programming is delivered by an active professional learning community that values self-discipline, instills confidence, demonstrates leadership and imagines success. Renovation will give us the capacity to serve our 16 member towns and provide workforce development programming to serve the high tech industrial corridor of Route 128. Minuteman will finally harmonize the public interface of our facilities with the educational programming associations we have developed in the community.

Ten distinctive goals further describe this potential project at Minuteman Career and Technical High School. We are one school campus and are requesting immediate financial assistance to

complete a study of the existing site and facility in order to go forward with our data-driven Strategic Planning Process that has identified needed modifications in existing educational programs and is proposing new CTE programming to serve current and future learners. Major renovation and limited new construction are expected in order for Minuteman to continue to be a relevant and effective partner in the workforce education and development system.

A revitalized Minuteman Facility and Campus will:

1. Enable the School Committee and district administrators to effectively integrate the Massachusetts Office for Educational Quality and Accountability (EQA) findings into a strategic planning process that applies a systems approach to career and technical education methods and strategies.
2. Ensure that staff and administration at Minuteman are able to make responsive curriculum modifications required to inspire competence that will serve our learners in emerging occupations that do not exist at the moment.
3. Serve as a regional and national model for career and workforce education by achieving sustainable results through the use of strategies that focus on providing innovative, data driven, best-practices.
4. "Right-size" CTE educational programming based upon a comprehensive analysis of the "Six Indicators" described in our strategic planning process.
5. Give students and member communities the opportunity to safely participate in athletics and physical education activities by making long-overdue improvements to Minuteman's fields (both existing and needed), track, tennis courts, parking areas, traffic patterns (both pedestrian and vehicular).
6. Correct flawed design flow approaches and provide students and the general public with an experience that creates and nurtures a desire for a continuing partnership with a 21st Century career and technical education training center.
7. Utilize the latest "Green" technologies, strategies, materials and approaches to create an integrated heating, cooling and ventilation system that delivers both superior air quality and occupant comfort minimizing energy consumption and resulting in significant improvements in the teaching and learning environments supporting a professional learning community.
8. Increase productivity and cost-effectiveness by providing a balance of academic environments and applied learning laboratories and shop areas that mirror the workplace and facilitate current instructional technologies.
9. Provide new and emerging career and technical training opportunities by strengthening the role, size, and function of CTE Advisory Committees so that faculty within each occupational cluster become partners with business and industry leaders to plan for lifelong learning that supports the career paths of all learners.
10. Support a professional learning community that cultivates a less centralized, bureaucratic management model in favor of a highly adaptable, site-based model that targets core resources on measurable gains in student learning.

Is This Part Of A Larger Facilities Plan? YES
If "YES", Please Provide the Following:
Facilities Plan Date: 3/15/2009 (Final Draft)
Planning Firm: Consultant Dennis D Flynn PhD/Siemens Building Technologies Inc.
Please Provide An Overview Of The Plan Including As Much Detail As Necessary To Describe The Plan, Its Goals And How The School Facility That Is The Subject Of This SOI Fits Into That Plan:

The overarching district goal reflects the revised (March 2008) Minuteman mission statement, and the 10 distinctive goals convey a sense of purpose and urgency based upon the past 15 months of strategic planning and facility review. Our more intensive facility fact finding was initiated within the Investment Grade Audit of the mechanical and energy systems conducted by our ESCO contractor, Siemens Building Technologies. It became clear as the "discovery" process unfolded, that the present condition of the Minuteman facility and campus cannot support nor sustain career and technical educational programming to meet the needs of the district and is certainly not capable of supporting the new mission of Minuteman. A detailed Facilities Condition Report is provided.

Planning Background Information: In 2004 and again in 2006 the Minuteman regional district underwent a review by the Office of Educational Quality and Accountability (EQA). In February 2006, the Department of Elementary and Secondary Education (DESE) conducted a comprehensive Coordinated Program Review (CPR). In general, the results of these assessments described a school district requiring strong educational leadership and a renewal of consensus regarding the future direction of the school. The School Committee had recognized these concerns and had taken action to improve the district within its process of selecting a new Superintendent. In July of 2007, prior to the EQA summary report being received by the district, the Minuteman Regional School Committee appointed Edward A. Bouquillon, PhD as the Superintendent/Director. The new Superintendent has shared the results of these reviews freely with the staff and the school committee. These findings have provided a well documented justification for comprehensive and effective strategic planning. The EQA Report is available.

The EQA document, published in January of 2008, has been used as an organizing structure for the implementation of a strategic planning process, as well as informing the facility planning review being conducted by the Superintendent, the School Committee and the ESCO vendor. The ESCO planning is moving toward Phase 1 of implementation in the Summer of 2009. The systems most at risk of failing are being replaced, namely the boiler, chiller, and electrical switch gear. Our "discovery" process has revealed great potential for significant renovations and positive impact on our programs. Certainly the MSBA is needed as a partner going forward to fully implement a solution.

Superintendent 2008-10 Goals: Dr. Bouquillon distributed the full EQA report to the school committee and throughout the faculty and staff after the report was published in January 2008. As the findings of the EQA and CPR reports were shared throughout the school, a process of goal development intensified. Simultaneously the school was engaged in the self study process

required for the decennial reaccreditation visit of the New England Association of Schools & Colleges scheduled for March 3 – 6, 2009. The opportunity for engaging staff in a significant change process was obvious. In March of 08, Dr. Bouquillon and School Committee jointly established the following goals for the superintendent to be completed by July 2009.

1. Complete a Strategic Plan that addresses 21st Century educational programming and facility needs that is founded on the EQA standards and findings of other monitoring agencies.
2. As a vital component of the Strategic Plan, complete a detailed Labor Market Analysis to ensure the appropriate educational programs are proposed, eliminated and/or merged.
3. Revise the Organizational Chart to identify clear lines of authority, responsibility and accountability.
4. Renew the school's Mission Statement via a consensus building process.
5. Implement a staff Professional Development plan that supports continual improvement via a professional learning communities approach.
6. Implement a performance review and feedback process of Administration that fosters development and accountability.
7. Implement an organizational approach in all departments that honors internal and external communication among all stakeholders and requires high performance.
8. Increase enrollment from member towns and increase the freshmen retention rate.
9. Develop strategic partnerships with area industries to support the growth of the school.
10. Develop a member community marketing and recruitment plan that utilizes internal and external resources efficiently.

ESCO Energy Performance Contract: In October 07, in accordance with Massachusetts General Law the School Committee advertised an ESCO Request For Qualifications. Following a comprehensive review process of the five companies submitting proposals the School Committee recommended Siemens Building Technologies Inc., as the successful bidder and the School Committee voted to go forward with a preliminary investment grade audit (IGA) of the existing facilities. As this IGA has proceeded, the superintendent and the school committee have found it problematical to choose specific energy conservation measures without having full knowledge of critical structural, architectural, environmental, geological and related aspects of the building and campus beyond the engineering HVAC mechanicals. The Siemens engineers quickly understood that an adequate energy efficient system should not be developed in isolation of a comprehensive strategic plan for the educational programming needed in Minuteman going forward. In order to continue the 'discovery' process and understand the facility and its campus, Siemens sought proposals from architectural firms to work with their engineers to identify the full scope of these unknown matters. As of March 2009, the district has identified $5.0M of energy conversation measures to be implemented through a tax-exempt municipal lease in the summer/fall of 2009 that will not be compromised when a more comprehensive renovation is completed.

Please Provide The Current Student To Teacher Ratios At The School Facility That Is The Subject Of This SOI: 8 students per teacher
Please Provide The Originally Planned Student To Teacher Ratios At The School Facility That Is The Subject Of This SOI: 15 students per teacher
Is There Overcrowding at the School Facility? NO
If "YES", Please Describe In Detail, Including Specific Examples Of The Overcrowding.

GENERAL DESCRIPTION

SITE DESCRIPTION: Please Provide A Detailed Description Of The Current Site And Any Known Existing Conditions That Would Impact A Potential Project At The Site (Maximum Of 5000 Characters):

A MORE COMPLETE EVALUATION OF EXISTING FACILITIES IS CONTAINED IN THE SIEMENS/KAESTLE BOOS REPORT IS ATTACHED TO THIS REVISED STATEMENT OF INTEREST

While Minuteman's facilities may be in adequate structural condition, the educational programming of a 21st Century Career and Technical School cannot be achieved without considerable improvements. The core structure was built in the early 1970's under a design concept known as the Open School. Minuteman is unique in its ability to offer high skill, high wage occupational preparation in traditional trade areas as well as high tech programs in biotechnology, robotics and environmental sciences.

Surroundings: Wetlands are a major feature on and off the school property. A pond, southwest of the High school building and surrounded by an abandoned ropes course, fluctuates according to season, sometimes inundating adjacent play field and paths. The numerous wetlands may also indicate a high ground water table in many areas of the site.

Vehicular Access: Most of the paved roadways appear to be old with the exception of the conference center parking lot. Numerous repairs and patches are apparent. Roadway and parking lot paving is in fair to poor condition. Pavement is crumbling around catch basins and drainage manholes. Student parking and parking for sports events are located within the loop road, west of the building. South of the student parking is a large paved area for bus staging in the afternoon as well as bus driver training. Due to the large number of member and non-member towns the school serves, a total of 32 buses (21 large and nine (9) mini-buses) service the school. In addition, there are numerous vans and cars that transport smaller populations of students to and from outlying towns. These smaller vehicles pickup students at the visitor parking lot loop on the southeast side of the school. Buses transport approximately 450 of the students.

Pedestrian Access: There are no walks on the east or northeast side of the school. Most of these walks are in need of replacement, as they have cracked and been sealed repeatedly. Curb cuts that would allow ADA access from the school to the athletic field are lacking along those

existing sidewalk paths that are separated by curbs from the adjacent roadways. Accessible paths and viewing areas are lacking to all of the athletic fields and associated bleachers.

Outdoor Athletic Facilities: Due to the flatness of the school site and the extensive wetland systems on and around the site, numerous athletic facilities are inundated with water during the spring and other wet times during the year, rendering the fields and courts unusable. There does not appear to be any type of drainage, either surface or subsurface, for the football field. The track is lacking striping of any kind for events and appears that the synthetic surface has worn off. These bleachers have been condemned due to rotting footboards and no risers, as well as other structural reasons. There is evidence that portions of this path are submerged under water during the year. These fields have no lighting. Landscape vegetation around the site is in relatively good health and of a diverse nature.

Utilities: School building is serviced by electricity, cable, telephone, domestic water and sewer, natural gas and propane. The sewer system is a combination of force main and gravity and is maintained and operated by the District. The system also supports the Minuteman National Monument Visitor Center and the Cranberry Hill Office Building. The system flows via gravity from the west (Visitor Center) to the east (Cranberry Hill) to a pump station in the vicinity of the School's sign at Route 2A. The water system loops around the building in the loop road. Electrical, cable and telephone are also underground in the roadways on the north side of the school. There is an unused underground oil storage tank under the roadway south of the mechanical room. This tank has not been used since the school was converted to natural gas. Propane tanks are located on the north side of the school in the vicinity of the kitchen delivery area.

BUILDING ENCLOSURE: PLEASE PROVIDE A DETAILED DESCRIPTION OF THE BUILDING ENCLOSURE, TYPES OF CONSTRUCTION MATERIALS USED, AND ANY KNOWN PROBLEMS OR EXISTING CONDITIONS (MAXIMUM OF 5000 CHARACTERS).:

Main Level:
The exterior wall is jumbo masonry brick veneer (3 5/8" x 3 5/8" x 11 ½") with a 1 ¼" airspace and 1 ½" insulation (2 ¾" total cavity space), backup is 8" CMU wall constituting a 1'-2" wide total wall assembly. The interior finish is either painted, furring with painted gypsum board, or wall-mounted acoustical panels. There is no air and vapor barrier indicated in the wall construction and the rigid insulation is interrupted at certain detail locations. The wall construction does not comply with current code-mandated minimum performance standards.

Second Level:
Scenario 1: In some cases the exterior wall envelope is similar to the Main level.
Scenario 2: The exterior wall envelope is 3 1/8" insulated metal panel with continuous single pane glazing on the upper portion of the exterior walls. The metal panel is acting as the air and vapor barrier. This wall construction does not comply with current code-mandated minimum performance standards.

Third Level:
The exterior wall envelope is 3 1/8" insulated metal panels, with (presumably) metal stud back up and a metal panel interior with periodic single window openings punched through the exterior wall. The metal panel is functioning as the air and vapor barrier. This wall construction does appear to comply with current code-mandated minimum performance standards.

Stairways:
Stairways have same construction as Main Level but with 12" CMU backup and fixed single pane glazing up high on the walls.

Glazing:
Glazing throughout is 1" tinted single pane insulated glazing set in a non-thermally broken aluminum frame (Curtain wall type system). These windows are original to the 1974 building and the frames do not comply with current code-mandated minimum performance standards. This allows for rapid heat gain in the warmer months and heat loss during the cooler months. Many of the windows have gaps allowing excessive air infiltration due to failed neoprene gaskets. The most extreme example of this occurrence is in the pool area where sealant can be seen failing out of, and pulling away from, the
frames allowing the infiltration. Several windows were designed to open from floor to ceiling creating an extremely dangerous hazard. The design of the windows make permanent closure of these difficult without losing the natural light from the window.

Roof: The current roof consists of a 23 year-old PVC membrane on top of 2 ½" rigid insulation set on a vapor barrier (on the warm-in-winter side) and this entire system is fastened to 4 ½" of pitched light weight concrete over a 1½" metal deck. Complaints of the constant need of repairs were noted. The skylights are failing and most are covered with transparent material fastened to the curbs.

Walls: Known problems with the exterior walls are that they do not meet current code standards for required continuous R-values and location of air/ vapor barrier. Also there are many stress cracks throughout the facility allowing additional air infiltration, most notably in the stair towers. In addition, there are expansion joints where the caulk has failed leaving more such opportunities. Air infiltration can equal heat loss or gain depending on the season. Furthermore, field cut holes to install supplemental heating/cooling units are not sealed properly adding to the problem. Current code requires an R-value of R-7 for masonry < 35 psf or R-5 for masonry >35 psf. For metal stud framed walls an R-3 of continuous insulation and an R-13 between framing members is required. On the roof a continuous R value of 20 is required. The windows are required to have a U- value of .6 and skylights must have .8 and not be more than 3% of the roof assembly area.

AGE OF EXTERIOR WALLS (IN YEARS): 34
YEAR OF LAST REPAIR OR REPLACEMENT: none
DESCRIPTION OF LAST REPAIR OR REPLACEMENT: REPAIRS ONGOING

The exterior walls are 34 years old (original to the 1974 building construction). There has been virtually no replacement. In 1998 the brick in the Child Care area (perhaps 80 linear feet) was removed and replaced with an insulated metal panel system. Cracks and breaches in the jointing are numerous.

AGE OF ROOF (IN YEARS): 23
YEAR OF LAST REPAIR OR REPLACEMENT: 1985
DESCRIPTION OF LAST REPAIR OR REPLACEMENT: REPAIRS ONGOING

The Original roof was a built-up system. A PVC system was installed in 1985. Roof endures constant patching and repairs. Significant patching and repairs were required in 2008 when it was discovered that there water infiltration had soaked the insulation and diminished its R-value. The constant repairing of the current roof system is of major concern by the district.

AGE OF WINDOWS (IN YEARS): 34
YEAR OF LAST REPAIR OR REPLACEMENT: 1974
DESCRIPTION OF LAST REPAIR OR REPLACEMENT: REPAIRS ONGOING

All windows are original. Glazing throughout is 1" tinted single pane insulated glazing set in a aluminum frame (curtain wall type system). The frames do not comply with current code mandated minimum performance standards. This allows for rapid heat gain in the warmer months and heat loss during the cooler months. Many of the windows have gaps allowing excessive air infiltration due to failed neoprene gaskets. The most extreme example of this occurrence is in the pool area where sealant can be seen falling out of and pulling away from the frames allowing the infiltration. Several windows were designed to open from floor to ceiling creating an extremely dangerous hazard. The design of the windows makes permanent closure of these difficult without losing the natural light from the window.

MECHANICAL AND ELECTRICAL SYSTEMS: PLEASE PROVIDE A DETAILED DESCRIPTION OF THE CURRENT MECHANICAL AND ELECTRICAL SYSTEMS, AND ANY KNOWN PROBLEMS OR EXISTING CONDITIONS (MAXIMUM OF 5000 CHARACTERS):

The HVAC system is old, very inefficient and poorly controlled. The systems cannot maintain proper ventilation rates or proper temperature control. Every major piece of equipment and the end components: boiler, chiller, air handling units, constant volume boxes, etc., are all well beyond their rated life and require constant repairs to keep functional. To keep the building temperature relatively equalized, over the years the system has required supplemental heating on outside walls and cooling for inside spaces – mostly window-type air conditioners, some of which discharge heat directly into the corridors. Replacement of the boiler, the chiller, installation of a digital direct controls (DDC) energy management system and system re-commissioning will rejuvenate the system, make effective control possible, significantly reduce energy costs and make the building more comfortable. Along with enhancing the performance of the building envelope, this modernization would directly benefit the educational process by permitting the redirection of some resources currently dedicated to operations and

maintenance. As a result of the investment grade audit (IGA), the Siemens Building Technologies engineers have provided the district with a very detailed and comprehensive description of the present condition of the building systems. Known problems and existing conditions have been clearly identified and delineated in this comprehensive report. The following listing of replacement priorities is reflective of the content and substance of that report. The Siemens engineers have identified that the following systems need to be replaced: Lighting & Controls, Boiler Replacement, Chilled Water System improvements, Energy Managements System, Domestic Hot Water System Improvements, Remove Window AC Units from interior and exterior of building, Building Envelope, Air Handling

AGE OF BOILERS(IN YEARS): 34
YEAR OF LAST REPAIR OR REPLACEMENT: 1974
DESCRIPTION OF LAST REPAIR OR REPLACEMENT: REPAIRS ONGOING

An extensive ongoing maintenance program for the boilers has been in place for many years. The Siemens report indicates these boilers are well beyond their rated life and are subject to frequent and escalating breakdown. The design of the boilers and their role in creating steam in order to have the chillers condense water for cooling in the summers is antiquated and outdated and perhaps one of the most energy consumptive systems in place. The most recent repair in October of 2008 exacerbates the needs for replacement of the entire system as the original expansion tank gave away in mid October. Total failure of the boilers will result in a significant disruption in the educational programs located at Minuteman. A more detailed report based upon the Investment Grade Audit is available from the superintendent.

AGE OF HVAC SYSTEM (IN YEARS): 34
YEAR OF LAST REPAIR OR REPLACEMENT: 1974
DESCRIPTION OF LAST REPAIR OR REPLACEMENT: REPAIRS ONGOING

The HVAC system is old, very inefficient and poorly controlled. The systems cannot maintain proper ventilation rates or proper temperature control. Every major piece of equipment and the end components; boiler, chiller, air handling units, constant volume boxes, etc are all well beyond their rated life and require constant repairs to keep functional. To keep the building temperature relatively equalized, over the years the system has required supplemental heating on outside walls and cooling for inside spaces – mostly window-type air conditioners, some of which discharge heat directly into the corridors. Replacement of the boiler, the chiller, installation of a DDC energy management system and system re-commissioning will rejuvenate the system, make effective control possible, significantly reduce energy costs and make the building more comfortable.

AGE OF ELECTRICAL SERVICES AND DISTRIBUTION SYSTEM (IN YEARS): 34
YEAR OF LAST REPAIR OR REPLACEMENT: 1974
DESCRIPTION OF LAST REPAIR OR REPLACEMENT: REPAIRS ONGOING

Over the past several years the failing electrical systems and core service components have caused significant disruption in the operations of school. Engineers have been recommending that the components of the system be replaced, including the source switch gear located at the entrance to the site. All related distribution panels and circuits are in need of replacement throughout the entire facility according to the engineering reports.

BUILDING INTERIOR: PLEASE PROVIDE A DETAILED DESCRIPTION OF THE CURRENT BUILDING INTERIOR INCLUDING A DESCRIPTION OF THE FLOORING SYSTEMS, FINISHES, CEILINGS, LIGHTING, ETC. (MAXIMUM OF 5000 CHARACTERS):

Having been designed on the "open classroom/minimum windows" model of the 70's, the facility lacks sufficient natural light, acoustical separation, power and data distribution and communications infrastructure needed to support modern, project-based, comprehensive technical education. Many programs that require a direct physical link to the public such as Cosmetology, Culinary Arts and Early Childhood Care are buried within the facility and lack basic accessibility. Current rigid and confusing circulation patterns limit the ability to easily adjust to and support academic configurations needed for Minuteman's program growth. These deficiencies are especially limiting to the rigorous academic program. The area of the building, known as the "Trades Hall" houses trade and industrial programs such as carpentry, plumbing, electrical, welding, HVAC and automotive to name a few. These spaces are inappropriate for modern day, accessible training environments. Most programs located in the Trades Hall have no access to the outside, no natural lighting, no dedicated classroom space and inadequate acoustical separations. This space typifies the worst aspects of the Open Classroom ideas of the late 60's and early 70's. a few months after the school was opened, huge walls were built (by the students) to provide dedicated shop space. The postgraduate automotive shop area has no classroom space, only 1 lift and any vehicles that are being used by the students must drive through a Welding Lab area to access the post-grad automotive shop. The floor in 75% of the Trades Hall area, which spills into the cafeteria, is made of treated, cross cut wooden blocks. If (when) a water pipe fails, the floor absorbs the water and buckles, rendering the area useless until repairs can be made. In most cases the repairs include ripping the wooden blocks out and pouring concrete to make an adequate floor. Beyond the Trades Hall several other programs are severely limited due to the design and structure of the building. Environmental Technology for instance, is located on the 3rd floor (level 5) and contains several large tanks for fish, reptiles and hydroponic projects. The tanks regularly leak into the child care area on the 2nd floor directly below Environmental Technology. The childcare center has an 'outdoor' play area located on top of the boiler building at least 20 feet above the sidewalk. The Environmental program has no direct access to the outside land resources of the campus. The Horticulture program greenhouse is inaccessible to anyone with even a minor or temporary disability, let alone a wheelchair. Numerous and specific examples of restricted and inappropriate access abound. Moreover, since the school's original "open classroom" design was found to be unworkable soon after the school was constructed. Numerous walls and meeting areas were constructed or carved out of large open spaces in an effort to improve the delivery of instruction. Attempts at mitigating the problems inherent with the original design resulted in an elaborate retro-fitting of these newly formed instructional areas by alternative means for

heating and cooling these spaces. Over 100 "window type" air conditioning units were installed in an attempt to make these retro-fitted spaces habitable. The interior finish is either painted, furring with painted gypsum board, or wall-mounted acoustical panels. There is no air and vapor barrier indicated in the wall construction and the rigid insulation is interrupted at certain detail locations. The wall construction does not comply with current Code-mandated minimum performance standards.

PROGRAMS AND OPERATIONS: PLEASE PROVIDE A DETAILED DESCRIPTION OF THE CURRENT PROGRAMS OFFERED AND INDICATE WHETHER THERE ARE PROGRAM COMPONENTS THAT CANNOT BE OFFERED DUE TO FACILITY CONSTRAINTS, OPERATIONAL CONSTRAINTS, ETC.:

Minuteman offers a wide variety of CTE programs that are organized in the clusters listed below. Also included are new programs being considered for Chapter 74 approval. Chapter 74 regulations set standards for CTE facilities.

- Each vocational technical education program shall be conducted in facilities that meet current occupational standards.
- Equipment shall be industry validated to meet current occupational standards and be sufficient in quantity and variety to allow students to attain competencies necessary for the occupation to enable each student, or student team, to work continuously.
- The facilities shall meet all applicable building and safety codes and shall be inspected by building and safety officials per applicable local, state, and federal laws and regulations.

The following program cluster areas and related programs have facility and operational constraints.

Trade & Industrial Cluster: Drafting and CAD, Carpentry, Plumbing, Electrical, Telecommunications, HVAC, Welding. Comments regarding the condition of the Trades Hall and its inadequate facilities were made previously and included in the attached conditions report.

Human & Commercial Services Cluster: Cosmetology, Cosmetology PG, Dental PG, Medical Occupations, Early Childhood Education, Culinary Arts/Hospitality (proposed expansion FY11), Criminal Justice (proposed FY12), Barbering (proposed FY10). These programs require a public interface function which severely limits students' ability to gain competencies as outlined in Chapter 74 regulations.

Business and Information Technology Cluster: Office Technology, Computer Programming, Commercial Graphic Arts, Retailing and Marketing, Business/Legal/Financial Services (proposed FY10). Most of these programs are able to function without major restrictions.

Agriculture & Transportation Cluster: Automotive PG, Automotive, Auto Collision Repair, Environmental Technology, Landscaping Technology, Equine Management (proposed FY12). Major restrictions to existing and proposed programs are evident in this cluster of programs.

Science and Engineering: Bio Technology, Bio Manufacturing (proposed expansion FY10), Pre-Engineering, Electro-Mechanical/Robotics, Bio-Medical (proposed FY11), Pre-Vet Technician (proposed FY12). These programs are in need of significant updating of equipment and fixtures to reflect current occupational standards.

Performing and Technical Theatre Arts (proposed FY12): Acting, Dance, Lighting and Sound Design, Music Technology, Multi-Media. This entire cluster is a proposed new cluster reflective of the occupational opportunities that are emerging. Minuteman staff has completed several assessments of its own facilities as part of the analysis of space. In addition the NEASC self-study reports for each program area address facility resources and concerns regarding the educational programming restrictions being experienced by learners and staff. This detailed report is available from the superintendent.

CORE EDUCATIONAL SPACES: PLEASE PROVIDE A DETAILED DESCRIPTION OF THE CORE EDUCATIONAL SPACES WITHIN THE FACILITY, A DESCRIPTION THE NUMBER AND SIZES (IN SQUARE FEET) OF CLASSROOMS, A DESCRIPTION OF SCIENCE ROOMS/LABS INCLUDING AGES AND MOST RECENT UPDATES, AND A DESCRIPTION OF THE MEDIA CENTER/LIBRARY (MAXIMUM OF 5000 CHARACTERS):

Below find a detail listing of academic and CTE spaces and the square footage of each. The Media Center at Minuteman is located in a large open space called the IRC. The plywood walls separate the Media Center from the large space. There is no sound barrier between the Media Center and the rest of this open common area. Only one science lab was partially updated in 2000. This partial renovation was funded by a grant for specific purposes of the grant and has not provided for the needs of all learners in the science program. The new Art room (1000 sq ft) is not included in the table below and was created in an underutilized physical education room.

GENERAL CLASSROOMS ROOM SQ. FT.						
English	Foreign Language	Math	Physical Education	Science	Social Studies	SPED
785	766	791	11,068	1,039	926	278
1,086	402	1,136		1,131	942	277
860		785		1,131	785	276
761		763		1,478	760	278
899		785		1,339		598
761		760		1,283		349
760		1,619				
694						
761						
806						
746						
8,919	**1,168**	**6,639**	**11,068**	**7,401**	**3,413**	**2,056**
TOTAL 40,664						

Career and Technical Education Shops and Lab SQ. FT.			
Biotech	4,087	Health	2,257
Carpentry	6,827	Horticulture	2,671
Collision Rep	6,573	HS Auto	10,979
Cosmetology	4,022	HVAC	4,335
Culinary Arts	7,087	Marketing	2,481
Dental	1,606	Metal Fab	3,956
Drafting	3,967	Office Tech	1,145
Early Educ	9,861	PG Auto	3,888
Electricity	4,491	Plumbing	2,781
Environmental	2,462	Programming	2,083
Graphic Comm	5,398	Robotics	5,707
		Telecomm	5,561
TOTAL 104,225			

CAPACITY AND UTILIZATION: PLEASE PROVIDE A DETAILED DESCRIPTION OF THE CURRENT CAPACITY AND UTILIZATION OF THE SCHOOL FACILITY. IF THE SCHOOL IS OVERCROWDED, PLEASE DESCRIBE STEPS TAKEN BY THE ADMINISTRATION TO ADDRESS CAPACITY ISSUES. PLEASE ALSO DESCRIBE IN DETAIL ANY SPACES THAT HAVE BEEN CONVERTED FROM THEIR INTENDED USE TO BE USED AS CLASSROOM SPACE (MAXIMUM OF 5000 CHARACTERS):

The current enrollment of the school allows the space to be utilized at a lower than intended design capacity. However, the correction of design flaws and already described will result in an increase in students in nearly all career areas. Consequently, the school will require some renovations and re-design in order to be efficiently aligned with the needs of the students. Most of the existing spaces may require additional square footage to approach current standards for new school spaces. Redesign and thoughtful renovation may alleviate many of the space limitations for academic spaces.

One of the educational goals is to "right-size" the school in an effort to maximize its ability to serve more students. "Right-sizing" can serve to reduce per pupil expenditures and make programs more accessible to a greater number of students. The current administration is actively pursuing numerous ways of mitigating the existing space issues. As noted above in the listing of space currently being utilized, the facility must be completely re-designed for most CTE and academic programs.

Adequate space for Fine Arts, instrumental and choral music does not currently exist. One classroom was renovated this past year to restore Art Education, a program that had been abandoned by the administration 11 years ago. Special education spaces have been created in areas formerly used for storage or for un-related student activities. No space is currently provided for major student assembly programs. Nursing services are located in a small, cramped area in the lower level of the facility and lacks basic privacy. The current nursing area

is inadequate and makes it difficult to conduct confidential communications with students, staff, and parents. The student services and guidance area exists in what once was an open gathering space. Small counselor offices are located around the perimeter of this large room. These quarters lack proper lighting ventilation and air conditioning. In summary, Minuteman was built at a time when several new programs, state and federal mandates did not exist, not to mention the tremendous space demands resulting from the infusion of technologies throughout the facility. One might observe that several years ago Minuteman operated with a much larger enrollment capacity. The capacity of this school has diminished considerably in order to accommodate new initiatives that were not aligned with a Strategic Planning Process.

MAINTENANCE AND CAPITAL REPAIR: PLEASE PROVIDE A DETAILED DESCRIPTION OF THE DISTRICT'S CURRENT MAINTENANCE PRACTICES, ITS CAPITAL REPAIR PROGRAM, AND THE MAINTENANCE PROGRAM IN PLACE AT THE FACILITY THAT IS THE SUBJECT OF THIS SOI. PLEASE INCLUDE SPECIFIC EXAMPLES OF CAPITAL REPAIR PROJECTS UNDERTAKEN IN THE PAST, INCLUDING IF ANY OVERRIDE OR DEBT EXCLUSION VOTES WERE NECESSARY (MAXIMUM OF 5000 CHARACTERS):

No Capital Planning and Repair program has been implemented prior to the current administration, therefore core critical systems have deteriorated and are at risk of failure. The school provides an adequate to above average maintenance program consisting of both major and minor repairs performed by the Minuteman maintenance and custodial staff. Throughout much of the past, a capital budget to perform major preventative projects did not exist and was not routinely budgeted at adequate levels. Repairs to the facility were completed on an as needed or emergency basis, and funds were taken from other accounts not budgeted for major repairs. A $250,000 capital cost center was created several years ago and has allowed for the repairs of major systems failures to be addressed without taking funds from non-budgeted areas. Significant skill sets exist in the current staff, allowing the regular, but small scale upgrades of learning spaces. Over the past two summers, many areas have been re-painted, original carpets taken up and VCT installed, giving a much brighter feel to an old and tired facility. Students have recently gotten involved in 'beautification' projects by suggesting color schemes, decorations and seasonal decorating. In summary, there exists a need for a major infusion of capital to bring the facility up to occupational standards as well as current recommended academic, technical and core use standards.

PRIORITY 5

PLEASE PROVIDE A DETAILED DESCRIPTION OF THE ENERGY CONSERVATION MEASURES THAT ARE NEEDED AND INCLUDE AN ESTIMATION OF RESULTANT ENERGY SAVINGS AS COMPARED TO THE HISTORIC CONSUMPTION.

The Siemens engineers have identified the following energy conservation measures as a result of the Investment Grade Audit: Lighting & Controls, Boiler Replacement, Chilled Water System improvements, Energy Managements System, Domestic Hot Water System Improvements, Remove Window AC Units from interior and exterior of building, Building Envelope, Air Handling Unit Re-Commissioning, Motors & Drives, Window Replacement and Skylight re-glaze, Door replacements, Window Replacements, Kitchen Fuel Conversion LPG – NG, Kitchen Walk-ins, Kitchen Hood Controls, Water Meter Installation, Use of Existing Wells [Boiler & CHL Make-

up, etc.], Vending Machine Controls, Network Controller, Solar & PV, Heating System, Fire Alarm & Safety, Switch Gear & Transformer Replacement, Security System Cameras and Card Key. The total cost of these projects is approximately $8.5M with a payback of about 19 years. The full report of the Siemens Investment Grade Audit is available from the Superintendent.

PRIORITY 5

PLEASE DESCRIBE THE MEASURES THE SCHOOL DISTRICT HAS ALREADY TAKEN TO REDUCE ENERGY CONSUMPTION.

The Energy Conservation Measures (ECM) are described in detail in the full Siemens Investment Grade Audit and subsequent performance contracting documents. Dr. Bouquillon established with the School Committee that he was proceeding with two initiatives considered. These were: A) to make major energy conservation and HVAC facility improvements through the use of an ESCO Performance Contracting Lease in accordance with M.G.L. Chapter 25, Section 11I, and B) to prepare necessary documentation for submitting a Statement of Interest (SOI) to the Massachusetts School Building Authority. As of November 2008, the Siemens engineers have completed the investment grade audit (IGA) and have prepared a prioritized list of energy conservation measures (ECM) based upon a relevant return on investment (ROI) analyses. As this process has proceeded, the superintendent and the school committee have found it problematical to choose specific energy conservation measures without having full knowledge of critical structural, architectural, environmental, geological and related aspects of the building and campus beyond the engineering HVAC mechanicals. The Siemens engineers understood that an energy efficient system should not be developed in isolation of a comprehensive strategic planning process for the educational programming needed at Minuteman going forward. In order to continue the 'discovery' process and understand the vitals of the facility and its campus, Siemens sought proposals from architectural firms interested in working with their engineers to identify more of the full scope of these unknown matters. As of March 2009, the district has identified $5.0M of energy conversation measures to be implemented through a tax-exempt municipal lease in the summer/fall of 2009 that will not be compromised when a more comprehensive renovation is completed.

PRIORITY 5

PLEASE PROVIDE A DETAILED EXPLANATION OF THE IMPACT OF THE PROBLEM DESCRIBED IN THIS PRIORITY ON YOUR DISTRICT'S EDUCATIONAL PROGRAM. PLEASE INCLUDE SPECIFIC EXAMPLES OF HOW THE PROBLEM PREVENTS THE DISTRICT FROM DELIVERING THE EDUCATIONAL PROGRAM IT IS REQUIRED TO DELIVER AND HOW STUDENTS AND/OR TEACHERS ARE DIRECTLY AFFECTED BY THE PROBLEM IDENTIFIED.

Everyone who has experienced teaching and/or learning in a sound-proof, thermostatically controlled, clean air environment realizes the extremely important role these conditions play in the learning process. The benefits of these environmental improvements not only will make for overall improvements in Minuteman's culture and atmosphere, but these improvements will also save energy and re-direct significant economic resources back into financial support for the growth and development of instructional programming to meet the needs identified. As a component of the NEASC self-study and our related feedback planning, we asked teachers and staff to identify areas of concern associated with the heating and cooling and ventilation

systems in their specific spaces. The following points were identified by the staff. A full report of staff feedback on the facility is available from the superintendent. Staff described the building as:

- unacceptable as presently being used for teaching/learning to occur,
- poorly designed and/or inappropriate locations of rooms and shops,
- oversized or undersized based upon current labor market demand data,
- unable to accommodate current workplace education and training trends,
- inappropriate size, adaptability or equipment for existing or new CTE programs,
- in need of new or additional space resulting from promising future employment and programming
- requiring new core facilities designed to support the technical and performing arts including a well-designed and equipped auditorium.

PLEASE ALSO PROVIDE THE FOLLOWING:

AGE OF ROOF (YEARS): 34
WERE ANY MAJOR REPAIRS OR RENOVATIONS OF THE ROOF UNDERTAKEN IN THE PAST?: YES
IF "YES", PLEASE PROVIDE THE YEAR OF THE LAST MAJOR REPAIR/RENOVATION OF THE ROOF: 1985

AGE OF WINDOWS (YEARS): 34
WERE ANY MAJOR REPAIRS OR RENOVATIONS OF THE WINDOWS UNDERTAKEN IN THE PAST?: NO
IF "YES", PLEASE PROVIDE THE YEAR OF THE LAST MAJOR REPAIR/RENOVATION OF THE WINDOWS:

AGE OF DOORS (YEARS): 34
WERE ANY MAJOR REPAIRS OR RENOVATIONS OF THE DOORS UNDERTAKEN IN THE PAST?: NO
IF "YES", PLEASE PROVIDE THE YEAR OF THE LAST MAJOR REPAIR/RENOVATION OF THE DOORS:

AGE OF HVAC (YEARS): 34
WERE ANY MAJOR REPAIRS OR RENOVATIONS OF THE HVAC UNDERTAKEN IN THE PAST?: NO
IF "YES", PLEASE PROVIDE THE YEAR OF THE LAST MAJOR REPAIR/RENOVATION OF THE HVAC:

AGE OF BOILERS (YEARS): 34
WERE ANY MAJOR REPAIRS OR RENOVATIONS OF THE BOILERS UNDERTAKEN IN THE PAST?: NO
IF "YES", PLEASE PROVIDE THE YEAR OF THE LAST MAJOR REPAIR/RENOVATION OF THE BOILERS:

AGE OF ELECTRICAL SYSTEM (YEARS): 34
WERE ANY MAJOR REPAIRS OR RENOVATIONS THE ELECTRICAL SYSTEM UNDERTAKEN IN THE PAST?: NO
IF "YES", PLEASE PROVIDE THE YEAR OF THE LAST MAJOR REPAIR/RENOVATION OF THE ELECTRICAL SYSTEM:

AGE OF LIGHTING SYSTEM (YEARS): 34
WERE ANY MAJOR REPAIRS OR RENOVATIONS OF THE LIGHTING SYSTEM UNDERTAKEN IN THE PAST?: NO
IF "YES", PLEASE PROVIDE THE YEAR OF THE LAST MAJOR REPAIR/RENOVATION OF THE LIGHTING SYSTEM:

HAVE THE SYSTEMS IDENTIFIED ABOVE BEEN EXAMINED BY AN ENGINEER OR OTHER TRAINED BUILDING PROFESSIONALS?: YES

IF "YES", PLEASE PROVIDE THE NAME OF THE INDIVIDUAL AND PROFESSIONAL AFFILIATION:
Siemens Building Technologies Inc. Roland Butzke contact
Kaestle Boos Associates, Inc. Michael McKeon AIA, LEED AP contact

PLEASE ALSO PROVIDE THE DATE OF THE INSPECTION: 5/29/2008

PLEASE DESCRIBE HOW ADDRESSING THE SYSTEM WILL EXTEND THE USEFUL LIFE OF THE FACILITY THAT IS THE SUBJECT OF THIS SOI(MAXIMUM OF 5000 CHARACTERS): This information is provided in other areas of this submittal and in the detailed reports referred to.

PRIORITY 7
PLEASE PROVIDE A DETAILED DESCRIPTION OF THE PROGRAMS NOT CURRENTLY AVAILABLE DUE TO FACILITY CONSTRAINTS, THE STATE OR LOCAL REQUIREMENT FOR SUCH PROGRAMS AND THE FACILITY LIMITATIONS PRECLUDING THE PROGRAMS FROM BEING OFFERED.
See general description under Programs and Operations.

PRIORITY 7
PLEASE DESCRIBE THE MEASURES THE SCHOOL DISTRICT HAS TAKEN OR IS PLANNING TO TAKE IN THE IMMEDIATE FUTURE TO MITIGATE THE PROBLEM(S) DESCRIBED ABOVE.

The following 10 measures describe in detail the actions the School district is taking to mitigate the problems. The district has made a comprehensive commitment to an educational planning process for the past 19 months that will result in a model partnership with the MSBA to create a solution.

1. Complete a Strategic Plan that addresses 21st Century educational programming and facility needs that is founded on the EQA standards and the findings of other monitoring agencies. In January 2008, on Superintendent Bouquillon's recommendation, the School Committee advertised in the Central Register and elsewhere for a 'Request for Qualifications and Fee Proposals' for consulting and planning services. The proposal request included technical assistance in Strategic Planning, ESCO performance oversight and integration of the District-developed SOI into the Draft Strategic Plan. In response to this request, Dr. Dennis Flynn was retained and continues to work closely with Superintendent Bouquillon, Principal Laverty and with members of the restructured leadership and management teams. The results of these efforts to date are incorporated into this SOI.

   The preparation of this MSBA construction project funding request is proceeding deliberately, and the District has made steady progress. Superintendent Bouquillon's insistence on ensuring that decisions are data driven is building a solid foundation for significant improvement. His desire to further investigate and respond to legitimate concerns raised by the aforementioned EQA and the CPR reports has increased everyone's

sensitivity to the need to give careful attention to these documents. Indeed he has recommended to the Regional School Committee that it fashion the Strategic Plan making use of the EQA's Six Standards. Moreover, Dr. Bouquillon is intent on making the on-going work conducted by the school's Program Advisory Committees, its School Council, parents association and NEASC self-study is an integral part of the District's Strategic Plan. The NEASC report will be available in April of 2009 upon request from the superintendent.

2. As a vital component of the Strategic Plan, complete a detailed Labor Market Analysis to ensure the appropriate educational programs are proposed, eliminated and if needed; merged. The superintendent uses the term "right-sizing" to describe a critical component of the Strategic Planning process that involves a detailed look at labor market demand data and how this data can change the number and type of career preparation program majors at Minuteman. While some believe Minuteman should be smaller, the superintendent is conducting a holistic approach to "right-sizing" that may result in some existing programs being closed, other programs merging or clustered in response to the workforce trends of the region. Several new programs have been identified in the expansive Life Sciences area as well as in Business Financial Services. The final draft of this labor market supply and demand analyses will be completed December 2008 and will then be vetted by the Minuteman General Program Advisory Committee and several employer organizations represented on the program advisory committees of the school. This study will provide data regarding 2 of the 6 indicators identified in the Strategic Planning Process for program expansion and right sizing.

The Six (6) Indicators of Program Expansion or Contraction or Intergration

The DESE MGL Chapter 74 regulations involve three requisites of program expansion or contraction. As Minuteman's mission prepares individuals for a global economy, it should include additional variables to consider when making adjustments to the type and scope of CTE programming. Our investments in new programs are based upon a review of recommended workforce development data including (1) job growth and (2) living wage data, and (3) student interest. In addition Minuteman considers (4) forecasting emerging occupations, (5) analyzing existing training sources and (6) evaluating the strength (or potential strength) of a significant industry partner. A seventh indicator include post-secondary relationships and may evolve to a distinct indicator. At this time we include these relationships in the 6th indicator, relationships.

While workforce development data is historical in its nature, (forecasting) emerging occupations data is projective and requires a mixture of research, risk, common sense and industry advice. Student interest is measured in (historical) enrollment data for existing programs and in student survey data around interests. The fifth indicator is the availability of similar training programs in the area. This is a significant market factor that is often overlooked when program development decisions are being made. Minuteman reviews the capacity and enrollment trends of similar programs in the region prior to investing. If 8 schools are graduating 12 students per year and the region needs 50 new auto mechanics per year, then the region is training more students than can be absorbed by the market.

(The sixth indicator is the relative strength of an industry partner that seeks to support expansion). No single variable is a final determinant for a program being launched or closed.

3. Revise Organizational Chart to identify clear lines of authority, responsibility and accountability.

   At its March 2008 meeting the School Committee endorsed a revised Organizational Chart. In addition to re-aligning positions and delegating requisite authority with responsibility, two new positions, the Director of Curriculum Instruction and Assessment and the Director of Career and Technical Education, were established, to meet many of the needs identified by the EQA examiners. Other positions were clarified and streamlined in an effort to improve efficiency and communication. Weekly meetings of the restructured Leadership Team were established as well as bi-weekly joint meetings of a Management and Leadership Team. A professional development resource has been retained to provide active coaching to new administrators in conducting meetings, giving performance feedback and implementing positive change.

4. Renew the school's Mission Statement via a consensus building process. In preparation for the decennial NEASC accreditation, Dr. Bouquillon received approval for the visitation date be moved to March 2009. In this way, the staff and administration had additional time to prepare for this visit. In the Spring of 2008 the School Committee unanimously voted to approve a revised mission statement. The district has incorporated the new mission statement into the NEASC self-study and is prominently displayed throughout the school.

5. Implement a staff Professional Development plan that supports continual improvement via a professional learning communities approach. In addition to the leadership and management team meetings described under #3 above, Dr. Bouquillon instituted several additional strategies for improving collaboration and communication deploying the professional learning communities model. Professional Development in the district had languished. In August, 2007, shortly after becoming superintendent, Dr. Bouquillon held a full-day retreat for 30 staff representing all members of the Minuteman community. Staff spent the day articulating the core values of the school which laid the foundation for the development of the new mission statement. Working through the Leadership Team, a framework for developing professional learning communities was established. Last Fall, an in-service involved a consultant that introduced all staff to various 'protocols' to be used in a collaborative problem solving process. This workshop was evaluated positively by the staff with 40+ staff requesting additional training to serve as school facilitators. This second level of training was developed by the Leadership Team. Three additional half days of more intensive professional development have been scheduled for 40 staff members interested in facilitating professional learning communities at Minuteman. In addition newly appointed members of the leadership and management teams are receiving one-on-one coaching regarding their progress in utilizing various communication protocols. This feedback is essential to developing a high performing faculty and facility. A number of additional

strategies for increasing communication and collaboration in the District are underway. These include:

- Efforts to increase Minuteman's name recognition and product identity through the use of multi-media including the use of the website, radio, movie theatre advertising, special events including the expanding role of Adult and Community Education.
- Numerous mailings and telephone outreach activities throughout the year informing interested community members of important happenings
- News stories using newspaper and television
- Human interest stories written and published in local news media concerning both current students as well alumni members concerning successful achievements and accomplishments
- Increased networking and involvement through a series of out-reach activities with guidance counselors from sending school districts
- Extending invitations to middle school faculty and staff to visit and become knowledgeable of the many career opportunities available at the school
- Personal contact by the superintendent and others to sending school districts to ensure fair and equal access to middle school databases
- On-going efforts to engage parents in the educational process by being both consistent and persistent in the way the staff and administration communicate with them increase
- Administration and staff encouragement to find ways of increasing student recognition student programs
- Increased emphasis on offering students meaningful life-long learning experiences in the technical and performing arts to ensure that those interested Minuteman students are provided an opportunity to develop their talents and skills in these important areas as well

6. Implement a performance review and feedback process of Administration that fosters development and accountability. A 360 degree performance appraisal process was recommended by the superintendent as the method for evaluating the Superintendent, the Assistant Superintendent, the Principal, the Director of Pupil Personnel Services, and the Director of Special Education. Staff appraisal programs such as those sponsored by the "Research for Better Teaching" and other groups are being considered for the future. In the Spring 2008, the superintendent negotiated a new contract with Minuteman's Educational Association. It is expected that careful attention will be on-going for some time to come in this area as the institution becomes more accustomed to "data driven decision making."

7. Implement an organizational approach in all departments that honors internal and external communication among all stakeholders while requiring fiscal restraint. Recognizing the unsustainable high per pupil costs, the low staff/student ratio, and excessive administrative costs,

   Dr. Bouquillon submitted a FY09 budget that contained a conservative 1.5% increase. Using as a frame of reference many of the concepts enumerated by author Jim Collins in his book entitled, Good to Great and the Social Sciences and co-author of the national best seller,

Built To Last, the superintendent continuously stresses the need to 'rigorously assemble evidence—quantitative or qualitative' to track the district's progress. Applying the "Good to Great" philosophy, leaders confront the brutal facts, take disciplined action, and build greatness to last. The Leadership Team seeks to construct the foundation for a great school that delivers superior performance and makes a distinctive impact that achieves lasting endurance. Throughout the past thirteen months considerable time has been spent in discussions with leadership and management team members to determine the best way to proceed with the concept of "continuous improvement." Stressing the need to address the important findings reported by the EQA examiners as well as those presented by the Comprehensive Program Review (CPR), the superintendent has recommended the creation of a "Bridging Process" that integrates the up-coming NEASC decennial evaluation process and the ongoing efforts of the District's School Improvement Plan (SIP). As the district finalizes its work on the NEASC self-study, the staff and administration will continue to focus its efforts on what has been termed "A Blueprint for Learning". Primarily using the data presented to the district by the EQA examiners, each staff member and administrators will serve on at least one of the six sub-committees patterned from the six previously described EQA standards. Copies of a handbook created for the purpose of examining the EQA and other documents called a "Blueprint for Future Action Workbook 2008-2009" has been distributed to staff members along with copies of the EQA final report. Minuteman's staff has been asked to review this data with plans to integrate relevant findings from these reports with data from other sources (NEASC, CPR, and SIP) into a blueprint for the creation of the district's initial draft of a Strategic Plan in 2009.

8. Increase enrollment from member towns and increase the freshmen retention rate. An Admissions Counselor position was created in 2007 to implement strategies to increase participation from member districts. Open Houses continue to be held to increase interested student understanding of available career and technical options available at Minuteman. A half-day cook-out/picnic was held on Saturday, June 14th to increase accepted students' identity with the region. A "Big Sister/Big Brother" program has been established with 28 staff volunteers serving as contact people in what has been called the Accepted Student Advisor Program (ASAP). Additional research is being planned including more in-depth study of transfers and withdrawals over the past ten years and anecdotal data obtained from follow-up surveys and reports. Based upon a fresh look at historical enrollment trends and related data, the issue of retention is clearly a piece of the enrollment issue at Minuteman. Upon further analysis, the 9th grade is a critical time and significant restructuring and reform in the 9th grade is currently underway. Preliminary data indicate that an improvement in retention rate (4.7%) is being realized in just one year. Full implementation of additional 9th grade services will not be completed and therefore our performance is not clearly known. Serving 9th graders has been further strengthened by the elimination of the week-on-week-off schedule for freshmen in Math and English classes. The full 180 day option has provided consistent connections for students with teachers and with other students on a daily basis. This has provided an opportunity to strengthen rigorous academics and maintain our adequate yearly progress. This change in educational

programming will be directly assessed based upon the retention rates of students between the 9th and 10th grades and rising scores on MCAS testing.

9. Develop strategic partnerships with area industries to support the growth of the school. The communication with the Program Advisory Committees has improved greatly over the past year and a half. In the fall of 2007 over 80 employers participated in a dinner and general meeting conducted by the superintendent. The intention of this meeting was to develop and strengthen relationships and to give all program Advisory Committee members a common understanding of the role and purpose of the advisory committees. This past October, over 175 employers participated in a dinner forum that provided an opportunity for Cluster Chairs (CTE Department Heads) and program advisory committee chairpersons to meet together to identify critical concerns related to our EQA report, facilities use and future needs of our school district. The School Committee then heard summaries of each cluster's major concerns. The General Program Advisory Committee voiced strong concern for the lack of appropriate facilities, equipment and resources to properly train new and existing workers in the facility as it exists now. Again in February of 2009 a focus group of business partners and cluster chairs co-facilitated by 5 architects further provided insight into the conceptual approaches needed to create a 21st Century CTE school. A detailed summary of the recommendations is available from the superintendent. Additionally, the superintendent has met with the leadership of several high performing schools, including Worcester Technical High School, to evaluate the strategic business relationships established over the past 5 years in creating complementary funding streams to create a state of the art facility. Dr. Bouquillon has established the "Minuteman Futures Fund" as a 501© 3 to facilitate and support creative and flexible funding from business and industry.

   Dr. Bouquillon is a member of the Board of Directors of the Lexington Chamber of Commerce and has held numerous meetings to develop relationships with new life sciences and related companies expanding in the district. Two biotech companies are in direct communication with the superintendent on a regular basis in planning needed training for new and itinerant workers. A creative solution involves utilizing Minuteman faculty and curriculum within training facilities located at one of the business sites. Operating an on-site instructional program for our advanced students and their new workers in the same facility off site is an example of the creativity resulting from a new approach to educational programming.

10. Develop a member community marketing and recruitment plan that utilizes internal and external resources efficiently. The Communications Team has been formed and is taking a site-based holistic approach to the marketing, recruitment and communication strategies of the entire school community. A member community "report card' has been developed and identifies inconsistencies in how well (or poorly) Minuteman is known in the town. Specific details including basic web links and participation rates of middle and high school students in various activities are now being tracked and the data is being used to direct resources to the most effective areas.

PRIORITY 7

PLEASE PROVIDE A DETAILED EXPLANATION OF THE IMPACT OF THE PROBLEM DESCRIBED IN THIS PRIORITY ON YOUR DISTRICT'S EDUCATIONAL PROGRAM. PLEASE INCLUDE SPECIFIC EXAMPLES OF HOW THE PROBLEM PREVENTS THE DISTRICT FROM DELIVERING THE EDUCATIONAL PROGRAM IT IS REQUIRED TO DELIVER AND HOW STUDENTS AND/OR TEACHERS ARE DIRECTLY AFFECTED BY THE PROBLEM IDENTIFIED.

The following narrative describes the positive impact of a completed project that addresses the problems cited by staff and business partners participating in the various planning and visioning sessions to date.

- Eliminates the need for CTE teachers to share related classrooms. Grade levels for each format can be taught simultaneously in separate classrooms rather than in the same classroom, thus reducing excessive noise levels and allowing for verbal instruction to occur without a challenge. Equipment can be utilized in one classroom without causing distractions in the other.
- Eliminates the need for teachers to travel to as many as four rooms per day.
- Improves electrical outlets and Internet wiring throughout the facility by providing much needed utilities in classrooms that required much needed attention. Eliminates inadequate electrical outlets possible unsafe wiring and the need for the extensive use of extension cords due to a lack of outlets. Takes important corrective action to replace the entire electrical system that services the facility and was determined to be operating on "borrowed time." If the electrical system was to fail, the loss in instructional time is substantial.
- Creates content driven learning laboratories in key locations in small learning communities throughout the re-designed facility as dedicated spaces for all levels to use. These spaces can be equipped with computers of sufficient number in order for teachers to bring their classes to the lab to work on both individual as well as group project activities. The laboratories can also be used for many purposes including the following: 1. offering tutorial assistance, 2. providing opportunities for extended inquiry and learning, 3. completing additional remedial or more advanced assignments in a given content or skill area, 4. as well as enabling teachers and students to engage in relevant enrichment or independent study activities.
- Provides integrated laboratory and classroom instructional areas that allow for hands-on instruction in adequately sized and appropriately designed facilities with modern benches, desks and fume hoods so that these hands-on learning laboratories can be functionally utilized for all types of experimentation.
- Increases accessible storage areas throughout the facility that have been lost over the years due to the need for increased technology, new program initiatives and other necessary modifications.
- Creates an organizational and management structure that lends itself to small learning communities allowing for the integration of academic and career/vocational skills development in "cluster-friendly" environments where teaching and learning takes place via the traditional laboratory setting or by means of an academy model.

- Makes efficient and effective educational use of a facility that was originally designed with open vaulted ceilings, poorly designed career and academic classroom and career/vocational teaching and learning areas, relatively inaccessible public access to such student training laboratories areas as cosmetology, culinary arts, banking, retail merchandising, baking, automotive repair, collision repair etc.
- Allows the school committee and administration to "right-size" the space availability and needs in order to accommodate current and future career opportunities based on the latest labor market analysis of data relating to the need of new and emerging occupations and related technologies.
- Enables the equitable utilization of existing and new "Smart boards " and other relevant technology to become integrated into the curriculum so that this new technology becomes an essential tool for presentation, modeling, and instructional activities.
- Provides an appropriate number of small meeting and conference rooms used for private one-to-one and small group meetings with parents, colleagues community members, and "stakeholders."
- Creates a fully equipped, "state of the art" Instructional Media Center (IMC) that serves as the instructional hub for the entire facility.
- Contains a well equipped, acoustically designed auditorium with an appropriate number of practice areas for choral and instrumental performance activities.
- Improves the health and safety of building occupants by the installation of a totally interactive communication and emergency warning/security system that makes the facility exceptionally secure.
- Increases classroom natural light by relocating as many classrooms and instructional areas as possible on outside walls and installing "window walls" in as many of these classrooms locations as possible.
- Eliminates excessive noise, which was another big problem for many of the classrooms in the former structure, caused primarily by vibrations from roof-top HVAC units, classrooms that had only three walls, classrooms that were created in open expanse areas with no ceiling in the classroom, and walls with no sound insulation that allowed voices to "travel" from one classroom to another. All of the above was being extremely distracting to the instructional program.
- Relocates the Community Education Office so that it no longer is one of the most difficult places to find formerly located on the second floor. Interior office walls were required to be sound proof and glass windows/partitions were installed to increase visibility of the office and to spread more natural light throughout. The number of classrooms per cluster required additional computers located in the classrooms so that in the summer and during evening programs, computers are available to those students without having to schedule lab time.

VOTE

VOTE OF REGIONAL SCHOOL COMMITTEE YES: 11 **NO:** 0 **Date:** 10/21/2008

FORM OF VOTE : SEE MINUTES OF OCTOBER 21, 2008 FOR VOTE AND SIGNATURES