

A Report to
The Citizens of Needham
On The
Minuteman Regional High School

Prepared by Jeffrey W. Stulin
Needham Representative to the Minuteman Regional School Committee,

April 2009

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Dear Fellow Needham Citizens:

The Minuteman Regional High School is a career/technical high school, whose district consists of sixteen member towns, one of which is Needham. Thus Needham is a partial "owner" of the Minuteman school, making Needham, and its Town Meeting Members, partially responsible for Minuteman's future success.

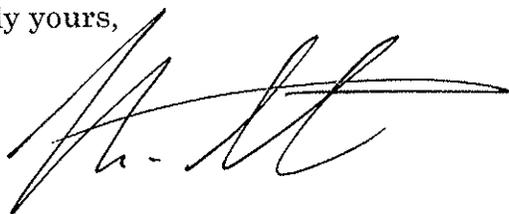
Minuteman is a specialty school that focuses on students who desire to pursue one of a number of careers, and students who can benefit from the school's "hands-on" teaching style. Currently 18 full and 1 post graduate student from Needham attend Minuteman (about 1.4% of Needham's high school population.)

A consequence of the small Needham Minuteman population is that Minuteman, and Minuteman students, are almost invisible within the Town of Needham. Features on Minuteman do not regularly appear in the town newspapers, successes of Needham Minuteman students go unreported, the citizens of Needham have little understanding of the school.

While it is understandable that the town should focus its attention on the 98.6% of students that attend Needham High, I can assure you that for those students who need Minuteman, the Minuteman school is 100% important.

The purpose of this report is to provide information to Needham citizens, especially to Town Meeting Members, that profiles the Minuteman school, describes its recent achievements, and presents financial information appropriate for Town Meeting.

Sincerely yours,

A handwritten signature in black ink, appearing to read "J. Stulin", with a long horizontal flourish extending to the right.

Jeffrey W. Stulin
Needham Representative to The Minuteman School
Chairman Minuteman School Committee

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Preface

This report is divided into three sections. *School Profile* presents a snapshot of the Minuteman school and discusses the role of the school. *FY08/FY09 Minuteman Highlights* summarizes some of the school's recent achievements. *Financial Issues* introduces three financial issues: this year's requested assessment, the proposed Minuteman stabilization fund, and proposed Minuteman renovation projects.

Profile of The Minuteman School

Origins & Mission

In 1970, twelve towns founded the Minuteman Regional Vocational Technical High School with a mission to provide a quality vocational education to career oriented students. Here is the exact wording from the June 1970 proposal to create Minuteman:

To provide comprehensive academic and technical subjects which will enable each student to develop his full potential in terms of entering a career or continuing his education.

In keeping with the vision of the school founders, Minuteman has recently adopted the following mission statement:

Minuteman Mission Statement

Minuteman collaborates with parents, communities, and business leaders to serve a diverse student body with multiple learning styles. Through a challenging, integrated curriculum our students develop the academic, vocational, and technical skills necessary to be productive members of a global community. We value life-long learning that fosters personal and professional development in a safe and respectful environment.

Minuteman is committed to preparing all students for success.

The Minuteman School Today

Minuteman High School is a four-year career and technical high school serving our member towns: Acton, Arlington, Belmont, Bolton, Boxborough, Carlisle, Concord, Dover, Lancaster, Lexington, Lincoln, Needham, Stow, Sudbury, Wayland, and Weston, as well as 47 other cities and towns in Eastern Massachusetts. Minuteman combines rigorous academics and preparation for college with relevant career and technical programs. The school also provides career development programs for adults as part of our self sustaining Community Education Program.

The current Minuteman building is the original building largely unchanged from its 1974 construction. The school is in need of extensive renovation.

Minuteman is governed by a Regional School Committee that consists of one member from each member town appointed by that town's moderator for a three-year term. The Minuteman district has its own Superintendent.

In addition to traditional high school academics, Minuteman offers 20 different career choices categorized into four clusters:

Human & Commercial Services Cluster:

Cosmetology
Cosmetology PG
Dental PG
Medical Occupations (*EMT proposed FY10*)
Early Childhood Education
Culinary Arts/*Hospitality (proposed expansion FY10)*

Business and Information Technology Cluster:

Office Technology
Computer Programming
Commercial Graphic Arts
Retailing and Marketing
Business/Legal/Financial Services (proposed FY10)

Agriculture & Transportation Cluster:

Automotive PG
Automotive
Auto Collision Repair
Environmental Tech
Landscaping Technology

Science and Engineering:

Bio Technology
Bio Manufacturing (proposed expansion FY10)
Pre-Engineering
Electro-Mechanical/Robotics

The typical Minuteman student will spend his or her first year in "exploration" where a variety of career paths can be sampled. During the next three years, the student spends time pursuing both traditional high school academics and the particular requirements of his or her chosen career. Minuteman works on a two week rotating schedule. A student attends shop one week, academics the next. The exception is that we have recently added Math and English classes every week for freshmen.

Minuteman offers 16 sports with three levels (Varsity, Junior Varsity and Freshmen) throughout the school year. Over the past 7 years the number of participants has doubled in many of the sports offered. Minuteman maintains a no cut policy. In addition, Minuteman students have access to more than 30 clubs and activities.

Why Minuteman?

Why is there a need for an alternative educational approach when Needham offers an academic high school education that is successful by any reasonable measure?

There is a need for an alternative educational approach because the traditional academic approach is not effective for all students.

For some students, being in the traditional high school – no matter how excellent – is like trying to fit a square peg into a round hole. These students need a different “learning space.” Furthermore, the notion that only low achieving students should attend an alternative school is false; students of all ability levels can benefit from alternative approaches if the alternative approach meets their particular inclinations and abilities.

Here are some of the reasons why some students require an alternative approach to their high school education:

Need for Real World Connection

Most ninth graders are unable to visualize what their lives will be after school. They work hard because trusted adults tell them that, while not immediately apparent, there is a connection between the high school subject matter and an opportunity for a better life.

However some students will not accept that the abstract information they learn is important (can you easily explain why simplifying rational expressions is an important life skill?) They need to “touch” what they are doing and to see how it is relevant and applied.

To these students, high school math appears abstract and irrelevant. However, take the same math and show how it is applied, as it is taught in Minuteman’s pre-engineering program, and the relevance becomes evident even to a skeptic. Such a program could keep a child interested in school while maintaining a track that allows her the choice of either career or college after high school.

Opportunity To Pursue a Career Path

Minuteman educates students in many career paths. This education includes real world experience. For auto technicians, this means working on real car repair jobs at Minuteman service station. For the trades’ worker, this means working on the construction of real buildings for a variety of communities; for the culinary arts student, this means working in the Minuteman bakeshop or in Minuteman’s Fife and Drum restaurant; for the landscape design student, this means participating in the New England Spring Flower Show and earning yet another award.

It is impossible to underestimate the positive impact on a student’s attitude to school if the student is allowed to participate in career education in a field that the student has a passion for.

Learning Styles

Different children, due to different “brain wirings,” require different approaches to academic subjects. One important example is learning to read. Not all students find success with the traditional reading program. Often, students who do not succeed in learning to read properly, fall further and further behind in their academics as the years pass.

The ramifications of reading failure are often not evident until the ninth grade. By this time remediation is very difficult. Minuteman specializes in many learning styles and is often successful in shrinking the gap between the students current reading ability and the grade appropriate reading ability.

Earning Respect

Although adults may believe that the goal of a good education should be sufficient to motivate students to take advantage of their high school opportunity, this belief is often wrong. One reason for a failed high school education, even at an excellent high school, is that the student does not feel connected to the school and thus does not consider the high school education to have value. To feel connected, the student needs to contribute in a meaningful way, and through their contribution earn the respect of peers and adults. A student that feels connected is far more likely to make a strong effort than a student who feels isolated.

All schools have opportunities for students to be connected and to earn respect. They can earn respect by academic success, by athletic accomplishment, by being on the school newspaper, and by many opportunities offered by the school. However, not all students are able to find a means of earning respect at the traditional high school. They may not be academically strong or a sport star. They may feel that none of the offerings of the school gives them an opportunity to stand out.

For some of these students, Minuteman’s career offerings can give them an opportunity for respect. Consider a student learning a trade, such as carpentry. As part of her education, she may be part of a team constructing a building, such as the recent MIT Lincoln Labs day care center project. This 11,000 sq foot project will give her the sense of accomplishment that comes with successfully working in a team toward a useful goal: the building will house children and their teachers for many years. This same student, who may have been perceived as a failure in the traditional school, now discovers that she is successful and valued.

Adults have a need to feel that they contribute in a meaningful manner and that they receive respect from peers. A perfect example is volunteer positions in town government. The reward for being a Town Moderator, or Selectman, or Finance Committee Member, or Town Meeting Member, or School Committee Member is not monetary; rather it is the respect that is received for this volunteer work, and the sense of accomplishment when a task is completed. It makes us proud of ourselves and confirms that we have a useful place in the world. Unfortunately, we often neglect to recognize this same need in adolescents.

The high achieving student, the sports star student, and others have respect within the school from both teachers and their peers. Students who learn differently, or who have unusual interests, however, may have little standing within the school. They will believe that there is no place for them within our social structure.

As all parents understand:

If there is no place where a teenager has an opportunity to make a recognized, positive contribution, then the teenager will find a way to make a recognized, negative contribution.

Thus, the benefit of Minuteman is not simply in its academic education. Rather it is in Minuteman's combination of academic programs, career training, hands-on teaching approaches, and in its ability to create many opportunities for teenagers to make recognized, positive contributions. It is this total "picture" which can help students succeed in high school where they may otherwise fail.

In Summary

Making the connection between the classroom and the real world is the Minuteman difference. This approach can benefit students of all ability levels. The deciding factor in attending Minuteman is not raw academic ability. Rather, it is a need to make this real world connection.

Thus, in order to meet its mission statement, Minuteman provides an environment where:

- Students of all ability levels are represented.
- The educational approach is more hands-on than abstract.
- The curriculum mixes strong academics with career training.
- Career offerings range from traditional offerings such as carpentry to high-tech offerings such as pre - engineering.
- The students are exposed to real-world situations whenever possible.
- There is a focus on high-paying careers and entrepreneurship.
- Students feel that they belong and are able to make a valued contribution.
- Students understand that good careers usually require post-high school education either in a four-year college, a two-year college, or a specialty school.

FY08/FY09 Minuteman Highlights

Needham Enrollment

As of October 1, 2008, 18 high school students and 1 post graduate student were enrolled at Minuteman providing a full time equivalent (FTE) of 19 students that reside in Needham. Minuteman offers a part time program where Needham High School students are able to take part in elective technical training courses on a half day basis. Currently, very few Needham students take advantage of this unique program designed to give juniors and seniors the opportunity to explore career majors and still stay a part of Needham High School. The District offers 'Post Graduate' programs to Needham High School students who are seeking to enhance their own economic opportunity at Minuteman via skill development.

2008 Needham Graduates and Awards

Richard Harrington, Plumbing
Benjamin Jordan, Metal Fabrication
David Kelly, Drafting
Philip Nadeau, Horticulture
William Patey, HVAC
Dominic Sanders, Carpentry
Cecilia Stanley, Drafting

At the 2008 graduation, Richard Harrington and William Patey were the John and Abigail Adams Scholarship recipients. David Kelly also received the John and Abigail Adams Scholarship as well as the Vocational Program Award, Academic Achievement Award for Social Studies and the President's Education Award for Outstanding Academic Excellence. Dominic Sanders received the President's Education Award for Outstanding Academic Excellence. Cecilia Stanley received the Friends of Minuteman Award.

These awards are given to students of superior academic achievement and significant participation in school or community activities.

SkillsUSA Awards – Needham Students

David Kelly was the gold State Medalist for Engineering Technology in the SkillsUSA Conference.

Class of 2008 Graduate Achievement Highlights

- 100% successfully passed the state-required MCAS tests in English and Math.
- 100% of Dental graduates passed the National Dental Board examination.
- 100% of Early Childhood Education graduates were certified by the state.
- 100% of Cosmetology graduates passed the state board examination.
- Medical Occupation graduates achieved 100% in college acceptance.

- Christopher Hanson, a Robotics program graduate from Medford, was honored as the Massachusetts Vocational Student of the Year by the Minuteman Career & Technical High School Committee, the Massachusetts Association of Vocational Administrators, and the State Commissioner of Education.
- Elizabeth Haberkorn, an Early Childhood Education student from Stow graduated Valedictorian of the Class of 2008.
- Student speakers at the Class of 2008 graduation ceremony were Valedictorian Elizabeth Haberkorn of Stow, Salutatorian, Michael Lavy of Waltham, and Class President Erica Lindstrom of Stow.

Leadership & Governance Highlights

- Dr. Edward A. Bouquillon was hired as superintendent beginning the 2007-2008 school year.

Curriculum and Instruction Highlights

- Minuteman students performed very well on the 2008 MCAS: 94% pass rate in Math, 99% pass rate in English, 100% pass rate in Chemistry, 92% pass rate in Biology.
- The Art program has been restored to the Minuteman Curriculum. More than 160 students have enrolled in 3 levels of classes and a waiting list has been established. A Health class has also been established to supplement a well-rounded student education. Music will be restored.
- Career and Technical programs are now aligned along 5 Career Clusters: Trade & Industrial; Human & Commercial Services, Business and Information Technology, Agriculture and Transportation and Science and Technology. Clustering allows for common core curriculum to be delivered in clusters to 9th and 10th grades students.
- Since the Fall of 2008 all 9th grade students partake in daily English and Math instruction, rather than the long-established “week on-week off” schedule, thus providing consistent academic instruction in preparing for required MCAS score increases by the state Department Of Education.

Detailed Graduate Placement

GRADUATE PLACEMENT				
	2005	2006	2007	2008
Number of Graduates	162	154	141	146
4 Year College	28%	36%	42%	37%
2 Year College	28%	20%	22%	24%
Employed	22%	33%	27%	32%
Military	3%	3%	3%	2%
Advanced Technical Training	5%	6%	4%	3%
TOTAL POSITIVE PLACEMENT	86%	98%	98%	98%

Financial Issues

Major Initiatives FY09 - FY10

On an ongoing basis the Minuteman administration and school committee examines issues such as appropriateness of staffing, review of career offerings, and overall school efficiency. Since the appointment of Dr. Edward Bouquillion as superintendent, these examinations have become more intense. We are particularly interested in examining these questions:

- What is the best mix of career offerings considering the ongoing changes in real world career opportunities and interests of students within the Minuteman district?
- How can Minuteman improve its academic and elective offerings to provide our students with the best possible high school experience?
- What is the correct balance of personnel for the Minuteman school?
- How can Minuteman be more efficient in delivering services?

In doing so Minuteman has pursued the following initiatives:

Introduction of new career paths (exploratory stage, no new staff required):

- Emergency Medical Technician
- Barbering
- Business Legal and Financial Services
- Hospitality

Program Growth:

- Reading Program Teacher hired
- Music Program Teacher hired
- Special Education Requests (Grants will be sought):
 - Two para-professionals
 - Adjustment Counselor

Ongoing Cost-Savings (Estimated FY09 & FY10 savings = \$250,000):

- Consolidation of IT Resources (copiers, hardware, licensing, phones)
- Post Graduate Instructional Costs re-aligned
- 3rd shift eliminated to save energy
- Transfer some instructional staff to grants
- Review all positions that open up

Right Sizing Minuteman (Estimated cost savings = \$546,000):

- Review of Career and Technical Education (CTE) offerings
- Two full time clerical retirements have not been replaced
- Director of Pupil Services eliminated
- Assistant Superintendent-Director eliminated

2010 Proposed Budget

The balance of new initiatives and efficiency savings has resulted in a number of years with relatively modest budget growth as indicated in the following table:

Fiscal Year	Budget	% Change From Previous Year
2010	\$17,496,001 (Proposed)	2.91%
2009	\$17,001,622	1.53%
2008	\$16,745,769	3.76%

2010 Proposed Needham Assessment

Because of various state laws and especially the Education Reform Act, the assessment cost to member towns is not a fixed cost per pupil. Instead, Needham's assessment cost depends on a number of factors:

- Number of Needham student enrollment at Minuteman.
- State laws that dictates the minimum amount each member community is obliged to pay.
- Overall Minuteman enrollment.
- The overall Minuteman budget.

This year we are asking the citizen's of Needham to approve an assessment of \$435,733 for Needham's 19 FTE students at Minuteman.

The following table summarizes Needham's recent history of Minuteman assessments:

Year	Needham FTE Count	Total	Per Pupil
2010	19	\$435,733 (Proposed)	22,933
2009	18	\$377,427	20,968
2008	29	\$566,363	19,530

Stabilization Fund

This year we are asking Town Meeting to approve a stabilization fund for Minuteman. The primary reason for a stabilization fund is to allow Minuteman to respond appropriately to unexpected issues, often unanticipated capital repairs, that were anticipated in the budget.

After our budget has been fixed we are unable to ask for additional funds during the year. Thus, in the event of an unanticipated expense, for example unanticipated damage to the roof, or failure of our boiler, the funds needed for repairs must come out of the current budget. This could require severe cuts throughout the school in the middle of the year.

We do have an E&D fund, however due to the laws that govern the E&D fund, it is not available throughout the year.

A stabilization fund would allow us to handle unanticipated events in a financially prudent manner. It requires a 2/3 vote of the entire school committee to put money into the fund, or to spend money from the fund.

Renovations

The Minuteman building and infrastructure largely dates back to its original construction in 1974. Its heating system, cooling system, electrical system, and other fundamental infrastructure components are in serious need of replacement. They have been updated and patched many times. They are in danger of failure. Continuous repairs drain funds from the budget. They are energy inefficient. These systems need to be replaced.

The physical building itself is in good shape. Furthermore its 1974 overall structural layout is still a good match for the programs that Minuteman offers. However, the configuration within the building is out of date, violates numerous regulations, and does not appropriately support the programs currently offered. As a career/technical high school, Minuteman requires a substantial amount of equipment to support the functions of its career training options. Much of this equipment is embarrassingly out of date.

The good news is that Minuteman's building is still an excellent match for the school. Limited new construction may be required, however the major requirements can be addressed through renovations. The bad news is that the school needs extensive infrastructure overhaul, a major renovation of the building, and substantial replacement of equipment.

The administration and school committee has, over the last three years, been engaged in a process whose purpose is to identify appropriate renovations and the most appropriate method of funding for those renovations. This process has intensified over the last year under the leadership of Dr. Bouquillon. Our current intention is to proceed in two phases. Phase one will address the most immediate infrastructure and energy needs. Phase two will address the renovations of the classroom/career spaces and the career equipment needs.

Renovations Phase 1: Energy & Core Infrastructure

This includes items such as the boiler, chiller, electrical switch gear, energy management system, pool heating, and others. Since many of these items are energy related, we approached this phase of the renovation by pursuing an Investment Grade Audit (IGA). This is a procedure where an energy based renovation is considered an investment and not debt. For the IGA, we sought out a vendor who is capable of examining the school looking for improvements that save energy. This examination is an extremely rigorous process. It is done by engineers. It takes 60 days of measurement/analysis and testing to determine the best facility upgrades. The vendor analyses the results, puts together a report, and suggests renovations that they are capable of performing. The idea is that the identified energy savings will pay for a substantial part of the renovations. Most importantly *these energy savings are guaranteed by the vendor*; if the promised energy savings are not realized, then the vendor is contractually obliged to write a check for the difference between the promised energy savings and the actual energy savings.

The total cost of this phase of Minuteman renovations, including 15 year financing, is projected to be \$7.2 million. The energy/operational savings will be \$5.1 million over 16 years. Thus, the actual cash flow cost to Minuteman will be about \$2.1 million over 16 years. This phase of the renovation requires no action by the member towns and is currently underway. We expect this phase to require 12 months and for it to be finished in June 2010.

Renovations Phase 2: Building Renovation and Career Equipment

The phase two renovation will include a major overhaul of the interior of the Minuteman building and a significant update of its career technology equipment. This is the first such overhaul since the school was opened in 1974. We have been working on a renovation plan for several years and we anticipate that the plan's specifics will be unveiled over the next few months.

At this time, we have not yet finalized the plans for renovations phase 2. We do not have final cost information, and we have not secured funding from the Massachusetts School Building Authority (MSBA). However, we are in the MSBA's pipeline, and we do expect a site visit from MSBA this month (April 2009). We expect that the project details should come into sharp focus over the next few months.

Our current best guess is that the cost of the more comprehensive phase two renovation will be between \$39 - \$48 million. We will be asking our member towns to bond the funds required for this project during their 2010 Town Meetings for fiscal year 2011. We are hopeful that we will get significant funds from MSBA and that since the costs will be shared by all 16 member towns we anticipate that our request for each individual town will be modest.

We will be in close contact with our member towns as we complete the proposal for the phase 2 renovation and finish development of the project's financing plan.

Final Comments

In accordance with its founding document, Minuteman's charge includes preparing student "*Continuing his education*" as well as those "*Entering a career.*" Minuteman successfully meets its charge by offering traditional academics, by providing a wide variety of career paths, and by focusing on students who learn best by the "hands-on" approach.

Minuteman also realizes that to succeed in high school, students need to feel that they make a true and recognized contribution, a contribution that may not be possible for all students in the traditional high school. By the nature of a career/technical school, there are many opportunities where students with a variety of abilities and skills can make a valued contribution.

For many students, this combination of career skills, academics, "hands-on" learning, and opportunity to contribute can make the difference between success and failure in high school and in later life.

The purpose of this report is to inform Town Meeting about Minuteman, its programs, its benefits, and to make its students more visible in the Town of Needham. The hope is that by talking openly about the Minuteman approach, and about what Minuteman offers, we can create an environment where students and parents can learn and think about the Minuteman school based on its merits and not on outdated stereotypes.

For further information on the Minuteman school

- Our web site is filled with information about the school: www.minuteman.org
- The main Minuteman phone number is 781-681-6500
- For more information on admissions and for tours of the school call the main number and then x244