

Massachusetts School Building Authority

School District Concord-Carlisle

District Contact TEL:

Name of School Concord Carlisle High

Submission Date 11/14/2008

Note

The following Priorities have been included in the 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.
4. Prevention of severe overcrowding expected to result from increased enrollments.
5. 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. Replacement of 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: 2009 Concord Carlisle High

District Goal for School: Please explain the educational goals of any potential project at this school

The district's goal is to develop a facility that meets current educational requirements. The facility developed would: address the outdated 1960's era science labs and expand the size and number of science labs to allow more rigorous laboratory lessons, provide adequate special educational space to meet programming needs, reduce inordinate out-of-district placement costs, eliminate the use of modular classrooms, address undersized classrooms in Science, Music, Art, General Classrooms, Special Education, Specialty Teacher Spaces, provide a more secure building envelop with improved building access, meet ADA requirements, support use by the broader community, replace and update inefficient energy systems and life safety systems.

Is this part of a larger facilities plan? YES

If "YES", please provide the following:

Facilities Plan Date: 7/12/2005

Planning Firm: Symmes Maini & McKee Associates (SMMA)

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 2005 SMMA feasibility study was conducted to identify three cost options. Option#1 was to determine the cost

of bringing the facilities' infrastructure into a condition that would allow the building to continue as is for fifty more years with a 2005 dollars estimate of \$42M. The 2nd option was to determine the cost to renovate and expand the facility to meet current educational and programmatic requirements with a 2005 dollars estimate of \$82M. The 3rd option was to determine the cost to build a new high school facility (\$90M in 2005 dollars) and identify the preferred on-site location. The study also required that the site be evaluated for its ability to support a newly constructed facility while the present facility was in use and to identify a construction phasing plan for option 2. Please note the Concord-Carlisle School Committee voted to accept the study but has never identified a preferred option. Recent deliberations of the facilities subcommittee have been increasingly focused on option 2.

Please provide the current student to teacher ratios at the school facility that is the subject of this SOI: 23 students per teacher.

Please provide the originally planned student to teacher ratios at the school facility that is the subject of this SOI: 23 students per teacher.

Is there overcrowding at the school facility? YES

If "YES", please describe in detail, including specific examples of the overcrowding.

Since 1998 our enrollment has increased from 938 to 1,268 students; this 35% increase in enrollment has led to classrooms scheduling at over a 90% utilization rate. This most impacts science, special education and the arts. In science, seventeen sections of chemistry in four full-time chemistry classrooms share two lab-equipped classrooms. This shared lab arrangement compromises chemistry instruction as well as eliminates common planning time for chemistry teachers. Teachers also improvise by using mobile carts to move demonstration materials from classroom to classroom.

Physics lab experiments are conducted in the hallways because only two classrooms are equipped to be physics labs. Physics is not able to offer double block lab periods, and this arrangement also eliminates common planning time for physics teachers. CCHS does not have a biology lab due to inadequate space.

The small size of the science classrooms doesn't provide adequate net free space for students. During science instruction, the entire class of students is clustered at one end of the room to observe a demonstration. In one classroom, access to the eye wash station located at the back of the room requires navigation through a crowded cluster of desks or workstations.

Additional space is needed to educate the 17% of the CCHS students requiring federal and state mandated special education programs. There is no space for Active Daily Living facilities for developmentally delayed young adults in the Pathways program. Previously dedicated space for occupational, physical, and counseling therapy is now shared among several departments. Privacy for counseling is not available due to shared spaces. Out-of-district placements for special education students have increased from 3% to 3.5% due to lack of adequate space for special education programs.

The arts program also suffers from overcrowding. The band and chorus are each split into two sections because the classroom space cannot accommodate the entire band or the entire chorus at one time. Sculpture and architecture are held in a former autobody shop area due to lack of classroom space. The radio station doubles as a storage area. Drama musical productions have serious issues with lack of storage and no space for changing costumes. The auditorium is undersized and can only accommodate 40% of the student body.

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).:

The 94 acre site contains varying topography and is located in a water conservancy area. The large flat areas may have drainage issues that could impact a potential project on those portions of the site. The current location of the high school would not pose significant issues for a renovation/expansion project. The soil conditions are excellent throughout the site. Electric, water, sewer and natural gas are provided through local utilities.

The community has built a swim and fitness facility that is located on the high school campus and Concord recently used CPA funds to build two artificial turf fields for shared community and school use.

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).:

The building was constructed in 1960, with additions in 1965, 1975 and renovations in 1990. Much of the exterior envelope is built with masonry veneer and backup. The roof is a built up system. The majority of the structure contains 12-15 foot high ceilings. The foundation is primarily shallow spread footings with 4" concrete slab on grade flooring.

Age of EXTERIOR WALLS (In Years): 48

Year of Last Repair or Replacement: 1960

Description of Last Repair or Replacement:

All walls are original to the building, or to the additions made to the building with the exception of a limited number of walls that were replaced in the 1995 renovations. Curtain walls use metal clad components.

Age of ROOF(In Years): 33

Year of Last Repair or Replacement: 1975

Description of Last Repair or Replacement:

A, H & S building roofs were replaced in 1975. During the 1990's roofs in the L, I, Lower Gym and Library were replaced. None of the roofing systems comply with existing energy codes.

Age of WINDOWS(In Years): 48

Year of Last Repair or Replacement: 1995

Description of Last Repair or Replacement:

Original single pane plate glass windows exist in 60% of the building. These windows are non-tempered making them unsafe in a school building. The original window systems are very inefficient and do not provide any thermal breaks. The caulking is deteriorating and the metal frames are rusting out. The other 40% of the building (A, H & S wings and a portion of the cafeteria) have been replaced with insulated safety glass systems. As window sections fail or break in the single pane systems they are replaced with like kind.

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 majority of the mechanical systems were replaced in the 1990's. Secondary electrical panels were upgraded in the 1990's but the main electrical distribution is original to the building and replacement of components for the main system are difficult to find and very expensive.

Age of BOILERS(In Years): 16

Year of Last Repair or Replacement: 1992

Description of Last Repair or Replacement:

Two boilers were replaced in 1992; a third was added in 1995 as the two boilers could not service the complex.

Age of HVAC SYSTEM (In Years): 16

Year of Last Repair or Replacement: 1995**Description of Last Repair or Replacement:**

The majority of the HVAC systems were replaced in the 1995 renovations. Portions of the buildings do have roof top gas-fired systems installed in 1975.

Age of ELECTRICAL SERVICES AND DISTRIBUTION SYSTEM(In Years): 48**Year of Last Repair or Replacement: 1960****Description of Last Repair or Replacement:**

All main distribution electrical systems are original to the building, or to the additions made to the complex. Secondary electrical feeder distribution panels during the 1990's renovations.

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).:

Flooring - Asbestos tile, asbestos tile covered by carpet, VAT tile, maple hardwood in gymnasium, ceramic in kitchen.
Walls - concrete block, studs and gypsum and large expanses of single pane plate glass.
Ceilings - Dropped ceilings in administrative areas. Exposed steel joists with structural tectum decking in most classrooms.
Lighting systems have been upgraded to T8 bulbs with matching high efficiency ballasts.

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.:

CCHS offers core curriculum and co-curricular activities which meets both the Department of Elementary and Secondary Education (DESE) requirements and NEASC Accreditation standards. The majority of students are enrolled in college preparatory courses which require 4 years of English, Mathematics, Science, Social Science, Physical Education and two years of World Languages, Music, Art, Applied Technologies and/or Drama. There are 36 distinct co-curricular offerings as well as 26 varsity interscholastic sports and numerous sub-varsity squads.

The configuration and types of spaces contained in the CCHS do not adequately support instruction in today's educational environment. There is a significant lack of tutorial and specialist spaces in the facility. Three modular buildings were added in 2005 and 2007, but site limitations and egress issues constrict further expansion by addition of modulars. The conversion of storage space to instructional space exacerbates the lack of proper storage areas.

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).:

The net square footage of the facility is 186,420 which equates to 138 square feet per student. There are 58 classrooms which average 786 square feet.

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).:

Classrooms are scheduled at over a 90% utilization rate. Science labs do not meet fully safety standards for ventilation to the outdoors. These health and safety issues are compounded by lack of sufficient science labs. Seventeen sections of chemistry in four full-time chemistry classrooms share two lab-equipped classrooms. This shared lab arrangement compromises chemistry instruction as well as eliminates common planning time for chemistry teachers. Teachers also improvise by using mobile carts to move demonstration materials from classroom to classroom.

Physics lab experiments are conducted in the hallways because only two classrooms are equipped to be physics labs. Physics

is not able to offer double block lab periods, and this arrangement also eliminates common planning time for physics teachers. CCHS does not have a biology lab due to inadequate space.

The small size of the science classrooms doesn't provide adequate net free space for students. During science instruction, the entire class of students is clustered at one end of the room to observe a demonstration. In one classroom, access to the eye wash station located at the back of the room requires navigation through a crowded cluster of desks or work stations.

Additional space is needed to educate the 17% of the CCHS students requiring federal and state mandated special education programs. There is no space for Active Daily Living facilities for developmentally delayed young adults in the Pathways program. Previously dedicated space for occupational, physical, and counseling therapy is now shared among several departments. Privacy for counseling is not available due to shared spaces. Out-of-district placements for special education students have increased from 3% to 3.5% due to lack of adequate space for special education programs.

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):

The district has two shifts of custodians and a maintenance staff. A work order system is used to track and address facility repair requests. The facilities manager assists finance and operations in the development of a five year capital plan. The current 5 year plan under consideration by the school committee identifies over \$9M of repairs, however the \$9M of identified facility needs do not yield any programmatic improvement. Significant relief of space and programmatic issues are far more costly and cannot be addressed by yearly requests for capital projects. The Regional School District has initiated several capital projects in the last five years. Four debt exclusion requests made from FY05 to FY08 totalling \$3.57M have been approved by the member communities. We have focused on projects that would be portable, addressed safety concerns, and outside the building envelope. These projects have included new language lab equipment, internal and external bleacher systems, improved fire detection in public areas, lighting upgrades and cosmetic updates to science lab facilities. Please note that the science lab improvements do not expand the labs or address the limitations of the instruction that can take place in the labs. Modular classrooms have also been added to the complex via approved debt exclusions.

Priority 2***Please describe the existing conditions that constitute severe overcrowding.***

1. Classrooms are scheduled at greater than 90% usage with some rooms at 100% utilization.
2. Every available classroom/computer lab/art room/music room is used during homerooms. Four homerooms must be held in the library due to lack of classroom space.
3. CCHS has open/off campus privilege for juniors and seniors. If the school did not have these privileges there would definitely not be enough rooms to hold the entire student body in either supervised studies or classes. CCHS would not have enough space in the cafeteria to feed the entire student body if they all ate within the school. This is true despite the fact that CCHS has three lunch blocks.
4. Due to lack of space every science room is used all day. The two science labs are shared. Many science classes must meet in more than one room during the week so that other science classes can access the labs.
5. The MCAS ELA classes are held in a former storage area.
6. The band is already broken up to two groups because the classroom cannot accommodate the entire band at one time. It is possible that band may need to break it into three groups next year. The chorus meets as two separate groups because the classroom cannot accommodate the entire chorus. Due to lack of space the "Little Theater" (not a classroom space) is regularly used as a classroom. Due to lack of space two temporary office areas have been established at the rear of a classroom using 4' tall dividers. Due to lack of space all supervised studies are held in the cafeteria, except during lunch when they are held in classrooms vacated for lunch.
7. During passing time the corridors are shoulder to shoulder with students. There are two bottleneck areas where students are backed up waiting to get through the corridor doors.
8. Because of lack of space, a former auto shop/storage area is used for sculpture and architecture classes.
9. The radio station doubles as a storage area.
10. Numerous people, including special education teachers and counselors, share office space (about 100 Sq feet per office) where privacy issues often exist.
11. There are no adequate storage facilities; this results in items often being stored in little used corridors, a rented trailer, and a balcony over the stage.
12. There is no space for storing chemicals and cleaning equipment as well as the big equipment (snow removal, etc.) for custodial usage.
13. Two offices, one for a counselor and one for a special education teacher, are simply partitions in an otherwise open meeting area.
14. The school library is regularly closed-off to additional students because it accommodates only 150 students at a time.
15. Teacher workrooms (typically less than 700 sq feet) each hold at least 12 teacher desks/files/etc.
16. The "tutoring" room sometimes must accommodate as many as 12 students.
17. Due to lack of space the Main Office conference room (typically used for principal's meetings) is being used for special education IEP meetings.
18. Cheerleading has no space and sometimes rehearses in classrooms and hallways.
19. There is no place where a whole school assembly can be held. Use of the gymnasium for assembly purposes exceeds the fire codes by almost 200 people. The auditorium holds about 40% of the school population.
20. Drama and musical productions have serious issues with storage and no facilities for changing costumes.

Priority 2

Please describe the measures the School District has taken to mitigate the problem(s) described above.

1. Three portable buildings been installed and the District is considering requesting more.
2. Several committees have studied the building usage, space needs, and feasibility of new building vs. renovations and other options. In the most recent study the committee, led by an architectural firm and including representatives from all local political committees as well as engineers, builders, and architects who live in town, unanimously voted that a new school is needed.
3. The District pays a monthly fee to rent a trailer for storage of certain equipment

Priority 2

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.

In science, seventeen sections of chemistry in four full-time chemistry classrooms share two lab-equipped classrooms. This shared lab arrangement compromises chemistry instruction as well as eliminates common planning time for chemistry teachers. Teachers also improvise by using mobile carts to move demonstration materials from classroom to classroom.

Physics lab experiments are conducted in the hallways because only two classrooms are equipped to be physics labs. Physics is not able to offer double block lab periods, and this arrangement also eliminates common planning time for physics teachers. CCHS does not have a biology lab due to inadequate space.

The small size of the science classrooms doesn't provide adequate net free space for students. During science instruction, the entire class of students is clustered at one end of the room to observe a demonstration. In one classroom, access to the eye wash station located at the back of the room requires navigation through a crowded cluster of desks or workstations.

Additional space is needed to educate the 17% of the CCHS students requiring federal and state mandated special education programs. Out-of-district placements for special education students have increased from 3% to 3.5% due to lack of adequate space for special education programs. There is no space for Active Daily Living facilities for developmentally delayed young adults in the Pathways program. Previously dedicated space for occupational, physical, and counseling therapy is now shared among several departments. Privacy for counseling is not available due to shared spaces.

The arts program also suffers from severe space limitations. The band and chorus are each split into two sections because the classroom space cannot accommodate the entire band or the entire chorus at one time. Sculpture and architecture are held in a former autobody shop area due to lack of classroom space. The photography room is used to the maximum and there is no space for more than 20 students or for building another darkroom. The radio station doubles as a storage area. Drama musical productions have serious issues with lack of storage and no space for changing costumes. The auditorium is undersized and can only accommodate 40% of the student body.

Please also provide the following:

Cafeteria Seating Capacity: 240

Number of lunch seatings per day: 3

Are modular units currently present on-site and being used for classroom space?: YES

If "YES", indicate the number of years that the modular units have been in use: 3

Number of Modular Units: 3

Classroom count in Modular Units: 26

Seating Capacity of Modular classrooms: 26

What was the original anticipated useful life in years of the modular units when they were installed?: 10

Have non-traditional classroom spaces been converted to be used for classroom space?: YES

If "YES", indicate the number of non-traditional classroom spaces in use: 7

Please provide a description of each non-traditional classroom space, its originally-intended use and how it is currently used:

Four homerooms must be held in the library due to lack of classroom space.

The cafeteria is used for classroom studies.

Art classes are held in a former autobody shop space.

Some physics experiments are conducted in the hallways due to lack of suitable classroom space.

Closets and storage areas have been converted into special education instructional spaces.

Please explain any recent changes to the district's educational program, school assignment policies, grade configurations, class size policy, school closures, changes in administrative space, or any other changes that impact the district's enrollment capacity (maximum of 5000 characters):

There have been no significant changes.

What are the district's current class size policies?:

The goal is 23:1.

Has the district closed, taken off-line, or converted to another, non-school use, any school facilities within the last 10 years?: NO

If "YES", please provide the name and address of any such school facility and provide a description of the reasons for removing the school from service.:

Priority 3

Please provide a detailed description of the "facility-related" issues that are threatening accreditation.

In 2004 The New England Association of Schools and Colleges sent a visiting team to review all aspects of the educational program we offered. Since that time NEASC has requested several updates on the state of the facility. At their June 22, 2008 meeting, NEASC decided to continue the school's accreditation, but **placed the school on warning** for concerns regarding its adherence to the Commission's Standards for Accreditation. NEASC issued the following recommendation that cannot be satisfied without additional space and/or significant renovation of the existing facility:

Curriculum

- The limited classroom space resulting in a limited number of classrooms available some periods of the day
- The number of overcrowded classrooms
- The significant space constraints in the science department as evidenced by the fact that classes are relocated/rotated on a regular basis in order to provide lab time for all courses
- The school's inability to increase the number of physics and chemistry classes due to lack of space

Community Resources for Learning

- The space constraints placed on the delivery of special education programs and services resulting in the inability to offer in-school services and thus necessitating out-of-district placements
- The lack of running water and restrooms in the portable buildings
- The electrical system which remains in need of updating
- The limited number of electrical outlets
- Storage constraints throughout the facility
- The ongoing HVAC issues
- The continuing issues with roof leaks
- The steep slope of the ramp leading to the lower gymnasium
- The number of doors (80) within the facility which present serious safety and security concerns

The Commission is particularly concerned that not only has little progress been made to resolve these concerns, but there is no formal plan, including funding sources, nor a timeline to ensure their resolution.

Priority 3

Please describe the measures the School District has taken to mitigate the problem(s) described above.

The school district has upgraded facilities within the limits of space constraints. An undersized music room was retrofitted with more space efficient instrument lockers but the crowding issue remains uncorrected. A sufficiently sized language lab was retrofitted with new video streaming and instructional technology. To alleviate overcrowding in the Health & Fitness program a modular classroom was installed in 2005. The purchase and installation of of one modular classroom and one modular office space has been completed with funding from the Fiscal Year 2008 Capital plans. The district is considering addition of another modular building.

Priority 3

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 most immediate educational program limitations are the conditions of the 1960's era science labs and lack of adequate space for science, special education and art programs. The science program is limited by space, technology, and water, gas, and electrical distribution systems. Regulator and safety issues require immediate focus. Since 1998 our enrollment has increased from 938 to 1,268 students; this 35% increase in enrollment has led to classrooms scheduling at over a 90% utilization rate. In science, seventeen sections of chemistry in four full-time chemistry classrooms share two lab-equipped classrooms. This shared lab arrangement compromises chemistry instruction as well as eliminates common planning time for chemistry teachers. Teachers also improvise by using mobile carts to move demonstration materials from classroom to classroom.

Physics lab experiments are conducted in the hallways because only two classrooms are equipped to be physics labs. Physics is not able to offer double block lab periods, and this arrangement also eliminates common planning time for physics teachers. CCHS does not have a biology lab due to inadequate space.

The small size of the science classrooms doesn't provide adequate net free space for students. During science instruction, the entire class of students is clustered at one end of the room to observe a demonstration. In one classroom, access to the eye wash station located at the back of the room requires navigation through a crowded cluster of desks or workstations.

Additional space is needed to educate the 17% of the CCHS students requiring federal and state mandated special education programs. Out-of-district placements for special education students have increased from 3% to 3.5% due to lack of adequate space for special education programs. There is no space for Active Daily Living facilities for developmentally delayed young adults in the Pathways program. Previously dedicated space for occupational, physical, and counseling therapy is now shared among several departments. Privacy for counseling is not available due to shared spaces.

The arts program also suffers from severe space limitations. The band and chorus are each split into two sections because the classroom space cannot accommodate the entire band or the entire chorus at one time. Sculpture and architecture are held in a former autobody shop area due to lack of classroom space. The photography room is used to the maximum and there is no space for more than 20 students or for building another darkroom. The radio station doubles as a storage area. Drama musical productions have serious issues with lack of storage and no space for changing costumes. The auditorium is undersized and can only accommodate 40% of the student body.

Please also provide the following:

Current Accreditation Status; Please provide appropriate number as 1=Passed, 2=Probation, 3=Warning: 3

If "WARNING", indicate the date accreditation may be switched to Probation or lost:: 3/22/2009

If "PROBATION", indicate the date accreditation may be lost::

Please provide the date of the first accreditation visit that resulted in your current accreditation status.:

3/22/2004

Please provide the date of the follow-up accreditation visit:: 3/22/2007

Are Facility related issues related to Media Center/Library? If yes, please describe in detail in Question 1 above.:

YES

Are Facility related issues related to Science Rooms/Labs? If yes, please describe in detail in Question 1 above.:

YES

Are Facility related issues related to general Classroom spaces? If yes, please describe in detail in Question 1 above.:

YES

Are Facility related issues related to support spaces? If yes, please describe in detail in Question 1 above.:

YES

Priority 4

Please describe the conditions within the community and School District that are expected to result in increased enrollment.

During the past 12 years the high school enrollment has grown by 342 students, from 926 students in School Year 1996 – 1997 to 1,268 in School Year 2008 -2009. This represents a nearly 37% increase in the number of students in the high school. This strong growth pattern runs counter to projections that rely on birth rates. Historically Concord and Carlisle have provided a strong school system that attracts professional couples that have started their families, often in urban areas and then moved into our towns as their children approach school age. Despite an overall declining trend in birthrates Concord's K-5 enrollment, at 1,233 students is currently 55 students above the 2007 NESDEC projections of 1,178 students. This will translate into higher 9-12 enrollments in the near future. Discussions with building departments in Carlisle and Concord also indicate that there is an abnormally high level of development underway in each town as a result of 40B projects moving forward after lengthy approval processes. Concord's building department reports that permits for mutli-family homes in 2008 will leap from a ten year average of 3.1 to 391. Carlisle's building department reports that a 35 unit 40B development has been approved and that 7 to 10 other 3-5 bedroom homes have also been approved as paving in new areas of town will support expanded development. We also believe that the decline in real estate prices will attract families into our communities that are seeking strong school systems. And, Concord's three new elementary schools and Carlisle's plan to rebuild the Spaulding school building will attract students from the private schools as will the economic downturn. The turnover in housing stock as older residents of large homes in Concord and Carlisle downsize will also bring students in to the high school population in the future.

Priority 4

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.

Conducted Master Plan Studies in 1999.

Conducted feasibility study in summer of 2005.

Submitted MSBA Statement of Interest in December 2006 and a refreshed Statement of Interest in November of 2008.

We have placed three modular buildings on the campus to alleviate the 90% utilization rate of classrooms within the building. We are discussing the addition of a fourth modular.

Priority 4

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.

Our current high school facility contains a high percentage of undersized classrooms. The facility was built before the introduction of technology into the classroom was envisioned and the space needs for classroom technology compounds the space issue. In priority two we have cited specific problems in our science labs, special education and art programs associated with the facility. We believe the continued growth in enrollment will lead to serious impact on the district's ability to deliver services. We need additional space to develop stronger in-house special education programs to offset increasingly expensive out-of-district programs. We can barely meet the demand for science labs in our facility. The NEASC has placed the high school on warning status due to facility issues.

Further enrollment growth will further exacerbate the problems that are described in detail in priority 2. As the high school enrollment grows we will no longer be able use the cafeteria as a study hall. We have an undesirable amount of studies taking place in the cafeteria and we are running out places for studies. As the student count increases we will need to offer more lunches as the throughput capacity of the cafeteria will limit our ability to have only three lunch seatings. Teachers are conducting some physics experiments in the hallways, are carting materials from classroom to classroom and resultantly have less common planning time which directly impacts students.

Please also provide the following:

Cafeteria Seating Capacity: 240

Number of lunch seatings per day: 3

Are modular units currently present on-site and being used for classroom space?: YES

If "YES", indicate the number of years that the modular units have been in use: 3

Number of Modular Units: 3

Classroom count in Modular Units: 26

Seating Capacity of Modular classrooms: 26

What was the original anticipated useful life in years of the modular units when they were installed?: 10

Have non-traditional classroom spaces been converted to be used for classroom space?: YES

If "YES", indicate the number of non-traditional classroom spaces in use: 7

Please provide a description of each non-traditional classroom space, its originally-intended use and how it is currently used:

Four homerooms must be held in the library due to lack of classroom space.

The cafeteria is used for classroom studies.

Art classes are held in a former body shop space.

Some Physics experiments take place in the hallway due to lack of suitable classroom space.

Closets and storage areas have been converted into specialty instruction spaces.

CCHS has open/off campus privilege for juniors and seniors. If the school did not have these privileges there would definitely not be enough rooms to hold the entire student body in either supervised studies or classes. CCHS would not have enough space in the cafeteria to feed the entire student body if they all ate within the school. This is true despite the fact that CCHS has three lunch blocks.

Please explain any recent changes to the district's educational program, school assignment policies, grade configurations, class size policy, school closures, changes in administrative space, or any other changes that impact the district's enrollment capacity (maximum of 5000 characters):

There have been no significant changes.

What are the district's current class size policies?:

The goal is 23:1.

Has the district closed, taken off-line, or converted to another, non-school use, any school facilities within the last 10 years?: NO
If "YES", please provide the name and address of any such school facility and provide a description of the reasons for removing the school from service.:

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.

Energy consumption in this 48 year old facility is high, several key concerns are noted below:

1. An evaluation of electrical energy efficiency performed by Symmes, Maini & McKee Associates (SMMA) indicates that Concord-Carlisle High School's energy consumption density is slightly higher than 10kwh/ft² per year, or 25% higher than the national average of approximately 8kwh/ft² per year in the SMMA database.
2. Water conserving fixtures should be installed in all toilet rooms.
3. Replacement of single pane non-insulated window systems should be a priority in order to meet energy codes, and increase efficiency of HVAC systems. Large expanses of single-pane plate glass should be replaced with thermally insulated safety glass. This is a safety issue as well as an energy issue. Many of the exterior wall systems are not insulated and not properly designed for the New England climate.

Addressing the issues above would result in estimated annual savings of 10%.

1. During the 2004-05 school year a building study committee worked with the architectural firm Symmes, Maini & McKee Associates (SMMA) to thoroughly examine all aspects of the school. The following represent the findings, observations, and recommendations of the SMMA study presented to the committee.
 1. The buildings have significant issues with respect to accessibility requirements. Of particular concern is handicapped access to major public spaces such as the library, the gyms, and the auditorium. Handicapped accessibility to toilets and compliant door approach clearances are also of concern.
 2. Major building components, such as some finishes and the roofing system, are candidates for replacement because of age.
 3. Major public spaces are the most worn out areas of the building. The cafeteria and locker/gymnasium spaces are in particularly poor condition.
 4. Plumbing conditions, while serviceable, require re-piping kitchen waste-drains and replacement of suspected broken piping.
 5. Signs of corrosion on the water systems exist.
 6. High pressure gas main service and meter need to be replaced and relocated to run through the building.
 7. Water conserving fixtures should be installed in all toilet rooms.
 8. Currently the science classrooms and prep areas are being supplied by domestic hot and cold water piping (a violation of today's plumbing code requirements). The science classrooms and prep areas should be supplied with non-potable water with proper backflow prevention devices to protect the potable system from contamination. The emergency showers and eyewashes that support these science areas are supplied with cold water only. Emergency showers and eyewash stations should be supplied by tempered water (a blend of hot and cold water).
 9. The fire protection system in the mechanical space in Building A is a limited area sprinkler system and is supplied from the domestic water system. The high school complex is not a fully sprinklered facility.
 10. The gas-fired rooftop HVAC units serving the shop spaces in I-Wing should be replaced. The control system should be replaced with a system that will satisfy the future requirements of the school and be maintainable through an independent service agent, if necessary.
 11. Existing air handling units installed in the cafeteria should be modified or replaced to resolve the excessive noise levels.
 12. An operator work station should be installed in the high school to allow for on-site monitoring and adjustment of the HVAC systems; this can be in addition to the off-site operator workstation installed at the Ripley Building.

Building Code Implications – Massachusetts is planning to revise its building codes by adopting a modified application of the International Building Code; revisions may have some bearing on any proposed modifications to the HVAC system.

Electrical Systems

Power Distribution

Priority 5

Please describe the measures the School District has already taken to reduce energy consumption.

1. Many lighting fixtures have been replaced under a state energy grant and district capital funds.
2. A high efficiency hot water system was installed in close proximity to the kitchen facility and eliminated a long circuitous route from an older system.
3. Control systems are being updated where possible and capital funds have been designated for more substantial improvements to the energy management systems.
4. Many doors have been replaced with properly fitted insulated exterior doors.

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.

Monies that could be used to enhance educational offerings and improve facilities are being diverted to inordinately high energy costs.

The existing infrastructure will not support emerging demands.

Please also provide the following:

Age of Roof (Years): 33

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: 2007

Age of Windows (Years): 48

Were any major repairs or renovations of the windows undertaken in the past?: YES

If "YES", please provide the year of the last major repair/renovation of the windows: 1994

Age of Doors (Years): 2

Were any major repairs or renovations of the doors undertaken in the past?: YES

If "YES", please provide the year of the last major repair/renovation of the doors: 2006

Age of HVAC (Years): 48

Were any major repairs or renovations of the HVAC undertaken in the past?: YES

If "YES", please provide the year of the last major repair/renovation of the HVAC: 1997

Age of Boilers (Years): 13

Were any major repairs or renovations of the boilers undertaken in the past?: YES

If "YES", please provide the year of the last major repair/renovation of the boilers: 1995

Age of Electrical System (Years): 48

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): 13

Were any major repairs or renovations of the lighting system undertaken in the past?: YES

If "YES", please provide the year of the last major repair/renovation of the lighting system: 2007

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 his/her professional affiliation:

John O'Dell Concord Municipal Light Plant and Energy Consultants

Please also provide the date of the inspection:: 7/1/2007

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):

The district has requested debt exclusions to address facility deficiencies. Key components of the projects within the building are described as follows:

The Regional School District has initiated capital projects to replace a non-functioning classroom communication system. While several areas of the facility could not be reached via the intercom the replacement enables two-way communication between the Main Office and classrooms, the facility still contains over seventy exterior doors and cannot be readily secured for a lockdown.

Funds available for capital projects plan have targeted resolution of safety concerns. The non-operational magnetic release/fire alarm interface to the fire alarm system has been remediated during the summer of 2006. The integration of the door hardware to the fire alarm system required is budgeted for \$360,000 of capital expenditures.

Several classroom areas lighting fixtures have been replaced in conjunction with a State Energy Conservation Improvement Program grant.

Significant relief of space and programmatic issues are far more costly and cannot be addressed by yearly requests for capital projects. The work described above is on-going maintenance that will extend the useful life of the building.

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.

1. The two science labs are both Chemistry labs. Having only two labs constricts the number of chemistry classes that can be offered. This year (06-07) the chemistry labs are scheduled all day and additional sections of chemistry cannot be added. Concord-Carlisle High School (CCHS) chemistry students are usually a combination of sophomores and juniors. The current freshman class (as of this writing) is more than 30 students greater than either of the current classes involved in chemistry. Next year chemistry classes will be restricted.
2. CCHS does not have a biology lab. Faculty must be creative in offering biology as a laboratory science. The teachers and students regularly move desks and chairs around the room to establish a lab type setting which is unfortunately so crowded that the types of labs offered must be restricted to maintain safety.
3. CCHS does not have a true physics laboratory and therefore physics laboratory science is very limited. In an effort to provide learning opportunities for students, the physics teachers regularly use the corridors, parking lots, and other outdoor areas for student experiments.
4. The photo room is used to the maximum. There is no space for expansion so that the classes could be larger than 20, or for building another dark room space so that the number of classes offered could be increased.

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.

1. Limit the number of course offerings and electives to fit within the available space.
2. Limit the size of science classes and photo classes and limit the number of classes in order to fit the available space.
3. Limit the types of experiments conducted within the science offerings due to high utilization of existing lab spaces, and the associated constrictions of these outdated facilities.
4. Limit the breadth of programs for special education services. The District would like to further expand the delivery of special education services within the district.

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 most immediate educational program limitations are the conditions of the 1960's era science labs and lack of adequate space for science, special education and art programs. The science program is limited by space, technology, and water, gas, and electrical distribution systems. Regulator and safety issues require immediate focus. Since 1998 our enrollment has increased from 938 to 1,268 students; this 35% increase in enrollment has led to classrooms scheduling at over a 90% utilization rate. In science, seventeen sections of chemistry in four full-time chemistry classrooms share two lab-equipped classrooms. This shared lab arrangement compromises chemistry instruction as well as eliminates common planning time for chemistry teachers. Teachers also improvise by using mobile carts to move demonstration materials from classroom to classroom.

Physics lab experiments are conducted in the hallways because only two classrooms are equipped to be physics labs. Physics is not able to offer double block lab periods, and this arrangement also eliminates common planning time for physics teachers. CCHS does not have a biology lab due to inadequate space.

The small size of the science classrooms doesn't provide adequate net free space for students. During science instruction, the entire class of students is clustered at one end of the room to observe a demonstration. In one classroom, access to the eye wash station located at the back of the room requires navigation through a crowded cluster of desks or workstations.

Additional space is needed to educate the 17% of the CCHS students requiring federal and state mandated special education programs. Out-of-district placements for special education students have increased from 3% to 3.5% due to lack of adequate space for special education programs. There is no space for Active Daily Living facilities for developmentally delayed young adults in the Pathways program. Previously dedicated space for occupational, physical, and counseling therapy is now shared among several departments. Privacy for counseling is not available due to shared spaces.

The arts program also suffers from severe space limitations. The band and chorus are each split into two sections because the classroom space cannot accommodate the entire band or the entire chorus at one time. Sculpture and architecture are held in a former autobody shop area due to lack of classroom space. The photography room is used to the maximum and there is no space for more than 20 students or for building another darkroom. The radio station doubles as a storage area. Drama musical productions have serious issues with lack of storage and no space for changing costumes. The auditorium is undersized and can only accommodate 40% of the student body.

Vote

Vote of Municipal Governing Body YES: NO: Date:

Vote of School Committee YES: NO: Date:

Vote of Regional School Committee YES: 7 NO: 0 Date: 11/13/2008

Form of Vote

The following form of vote should be used by both the City Council/Board of Aldermen, Board of Selectmen/equivalent governing body AND the School Committee in voting to approve this Statement of Interest.

If a regional school district, the regional school district should use the following form of vote.

Resolved: Having convened in an open meeting on _____, the _____ [City Council/Board of Aldermen, Board of Selectmen/Equivalent Governing Body, School Committee] of _____ [City/Town/School District],

in accordance with its charter, by-laws, and ordinances, has voted to authorize the Superintendent to submit to the Massachusetts School Building Authority the Statement of Interest dated _____ for the _____ [Name of School] located at

_____ [Address] which describes and explains the following deficiencies and the priority category(s) for which

_____ [Name of City/Town/District] may be invited to apply to the Massachusetts School Building Authority in the future

_____ [Insert a description of the priority(s) checked off on the Statement of Interest and a brief description of the deficiency described therein for each priority]; and hereby further specifically

acknowledges that by submitting this Statement of Interest, the Massachusetts School Building Authority in no way guarantees the acceptance or the approval of an application, the awarding of a grant or any other funding commitment from the Massachusetts School Building Authority, or commits the

_____ [Name of City/Town/District] to filing an application for funding with the Massachusetts School Building Authority.

CERTIFICATIONS

The undersigned hereby certifies that, to the best of his/her knowledge, information and belief, the statements and information contained in this statement of Interest and attached hereto are true and accurate and that this Statement of Interest has been prepared under the direction of the district school committee and the undersigned is duly authorized to submit this Statement of Interest to the Massachusetts School Building Authority. The undersigned also hereby acknowledges and agrees to provide the Massachusetts School Building Authority, upon request by the Authority, any additional information relating to this Statement of Interest that may be required by the Authority.

**LOCAL CHIEF EXECUTIVE OFFICER/DISTRICT SUPERINTENDENT/SCHOOL COMMITTEE CHAIR
(E.g., Mayor, Town Manager, Board of Selectmen)**

Chief Executive Officer

School Committee Chair

Superintendent of Schools

(print name)

(print name)

(print name)

(signature)

(signature)

(signature)

Date

Date

Date