

FACILITY STUDY



Maine School of Science & Mathematics

Creating a vision for the future of school facilities

Prepared By:



Final Report
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Facilities Study to Support the Maine School of Science & Mathematics

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**Summary and Introduction to a Facilities Study
to Support the Maine School of Science & Mathematics
Initiated April 17, 2008**

The Maine School of Science & Mathematics Board Task Force has identified a number of areas they would like addressed in a study proposed by McCormick Facilities Management (MFM).

The general approach to each area of review will include the collection of data, analysis of data, development of options to address concerns identified for each area, and presentation of recommendations for Maine School of Science and Mathematics consideration.

The reader will note that some information is a reiteration of standards and documents that existed prior to the initiation of this project. They are included for clarity and direction.

Other information has been gathered from personnel from the Maine School of Science and Mathematics. This report does not identify the source; it refers to the generic term "staff".

This report also includes data generated by McCormick Facilities Management.

This collection, analysis, and synthesis of data has led to the identification of issues and observations, the development of options, evaluation of options, and the presentation of recommendations for Maine School of Science and Mathematics consideration in each of the areas of the scope of work.

Facilities Analyses

Facilities in this study include student housing, staff housing, and areas of Limestone Community School shared or used entirely by MSSM. Data reviewed and analyzed will include the condition, use, and operational procedures for current facilities; contractual agreements concerning these facilities; results of reviews conducted in other areas of this study; results of information related to facilities collected by MSSM; and Objective VI (Improve Facilities) of the January 2007 Strategic Implementation Plan.

Options to be developed will address facility use, capital growth, and on-campus housing for students and staff.

Based on a review of the options identified, recommendations will be submitted for MSSM consideration.

Regionalization Impact

Data reviewed and analyzed will include the minutes of local RPC meetings, plans as submitted to DOE, and information concerning regionalization available through the DOE.

Issues that need to be considered as a result of regionalization will be identified. Options for action, with time lines, will be developed.

Recommendations addressing the impact of regionalization on MSSM will be submitted for MSSM consideration.

Mission and Purpose

Data reviewed and analyzed will include documents concerning the history, mission, and purpose of MSSM as prepared by MSSM staff and submitted for review to MFM staff. The purpose of such review will be to assure that the results of this study support the mission and purpose

Academic and Co-curricular Program

Data reviewed and analyzed will include the current academic and co-curricular programs, including offerings, programs, staff/student ratios, facilities available to support these programs, and financial support for these programs. Documents developed for the NEASC self-study will be included in the review, as provided by MSSM staff.

Options will be developed that address any facility issues identified as a result of the review.

Recommendations for addressing those issues will be submitted for MSSM consideration.

Revenues and Expenses

Data reviewed and analyzed will include historical, current, and proposed expenditure, revenue, and long-term capital reserve reports. Areas of potential savings and investments required will be identified.

Options to achieve those savings and/or initiate investments will be developed.

Recommendations for achieving savings and/or making investments will be submitted for MSSM consideration.

Student and Staff Residency

Data reviewed and analyzed will include findings of the Facilities Analyses, and Academic and Co-Curricular Program review. Any information available from MSSM staff concerning this area will be reviewed.

Options to be developed will include addressing the impact the residential environment has on students and staff, changes necessary to improve facilities, and facility changes that will broaden and enhance educational programs.

Recommendations for addressing issues having a negative impact on the quality of student and staff resident life, and achieving savings and/or making investments will be submitted for MSSM consideration.

Campus Management

Data reviewed and analyzed will include formal and informal relationships with the Limestone community, the Limestone Community School.

Options developed will include proposals to enhance management of both programs on one campus.

Recommendations for achieving more efficient campus management will be submitted for MSSM consideration.



Facilities Study to Support the Maine School of Science & Mathematics

EXECUTIVE SUMMARY

This report covers 7 major areas of interest. A suggested course of action has been developed in each area for consideration by the stakeholders in the Maine School of Science and Mathematics. Although these suggestions are identified as "Recommendations", there is no supposition that all would be implemented. Indeed, some of the items are mutually exclusive. Other items were intended to create a brain-storming effort on the part of the readers.

There are a few Recommendations that are compelling enough to be identified as Essential Findings in this Executive Summary.

Essential Finding #1

The Limestone School Department is faced with diminishing funds, a major lack of cash reserve funds, and a building that far exceeds the space needed for educating students currently assigned to that facility.

Based on a statewide initiative to reorganize school districts, the governing authority of the Limestone Community School will likely be replaced by a regional school committee.

It is safe to say that currently the Maine School of Science and Mathematics and the Limestone School Department have a symbiotic relationship. Under the current governance and funding approaches, neither can exist without the other.

The first recommendation is: The Maine School of Science and Mathematics shall make a formal commitment to establishing a mutually beneficial relationship with the Limestone Community, its citizens, its employees, its students, and the organization that will govern its educational system. All parties shall agree that this effort will not fail.

Essential Finding #2

Related to Finding #1, there is a need for a formal description (contract) between the governance of the MSSM and the Limestone Community School. This should build on the positive informal decisions, and be informed by the areas of interaction that have been less successful.

The second recommendation is: Initiate discussions with the current administration of the Limestone Community School to develop a draft agreement for the Board of Trustees and the governing agency for Limestone education to ratify as a formal document. Capital improvements to existing facilities should be part of this contract.

Essential Finding #3

There are components of the stated Mission and Purpose that need attention. One concerns the quality of residential life.

The third recommendation is: The Maine School of Science and Mathematics shall review the findings of this study, the NEASC study, and any other related studies, with a goal of establishing specific actions related to residential life in Limestone. Participants in the development of a specific action plan with targeted dates should include at least students, parents, staff, members of the Limestone community, and former participants in the Strategic Plan development.

Essential Finding #4

There are components of the stated Mission and Purpose that need attention. One concerns the role of MSSM as a state leader in science and mathematics education via technology.

The fourth recommendation is: The Maine School of Science and Mathematics shall, in collaboration with the Limestone Community School, develop an interactive telecommunications system and program, with a target of first production (broadcast) no later than January 1, 2010.

Essential Finding #5

The Limestone Community School and the Maine School of Science and Mathematics have separate business departments. They perform similar functions: payroll, accounts payable, budget management, forecasting, reporting.

The fifth recommendation is: Eliminate duplication, and create one business department for both units.

Essential Finding #6

State assistance for the MSSM is diminishing. Financial needs for the school are increasing. Several suggestions have been made in this report and in others.

The sixth recommendation is: Establish an advisory board of professional fund raisers with experience in private secondary school and collegiate fund raising. Identify one major initiative each year, with an additional program established in each subsequent year.

Essential Finding #7

The seventh recommendation is: Collaborate with Limestone Community School to achieve maximum integration of the two student bodies. Total integration is not likely; total separation is counter-productive to both groups. A brief re-wording of this recommendation – Make it happen!

Essential Finding #8

Recommendation # 3 addresses current student residential life issues. In order for MSSM to grow and to serve more students, an increase in the number and quality of staff and student residency settings must occur.

The eighth recommendation Part A is: Implement the modifications to the Trafton Avenue Houses to create cluster living arrangements for students and staff.

The eighth recommendation Part B is: After the Limestone School department completes its facility modifications, if any, develop a long-range capital improvement plan designed to add dormitory space.

Essential Finding #9

It is possible that the governance of the Limestone Community School will rest with a regional school committee as of July 1, 2009.

The ninth recommendation is: Have a plan ready to be implemented as soon as the new RSU school committee is elected that will allow for discussions of the specific impact of the new organization.

Essential Finding #10 (For discussion only)

There are many examples of two or more separate school systems operating in the same facility. Programs known as a "house" system; alternative education; special education; grade grouping administration (such as a

middle school with a principal and a high school with a principal); and regional technical education are some examples.

These separate systems house in the same facility frequently belong to the same administrative unit.

For discussion only: What would be the impact if the Maine School of Science and Mathematics was a program operated by the Limestone School Department? Would this action be acceptable to the Legislature? Would it interfere with or negate the original intent for the MSSM to be a charter school serving Maine's science and mathematics students?

What would be the impact if the Maine School of Science and Mathematics was considered as one of the several units that are forming a new Regional School Unit? Would this action be acceptable to the Legislature? Would it interfere with or negate the original intent for the MSSM to be a charter school serving Maine's science and mathematics students?

In both of these scenarios, the Board of Trustees could become a program advisory board, with operational decisions established by the other governance authority.



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Strategic Implementation Plan

January 13-14, 2007, several members of the MSSM and Limestone community developed a Strategic Implementation Plan for the Maine School of Science & Mathematics. This document was an attempt to describe a vision of MSSM in the year 2030.

Several of the objectives and initiatives are consistent with some of the findings and recommendations of this Facilities Study.

The vision statements expressed a strong and clear desire to be a "significant economic driver in a thriving community".

The importance of being an active partner in all education programs offered in the facilities located in Limestone is one of the key recommendations of the Facilities Study.

The Facilities Study did not attempt to match its process with the results of the Strategic Implementation Plan. However, the reader will note a strong commonality between the results of the Facilities Study and the objectives of the plan:

Objective I Increase and Diversify Funding to achieve stability

Objective II Build Advocacy for MSSM

Objective III Support Faculty as Values Professionals

Objective IV Enhance Comprehensive Governance

Objective V Broaden & Enhance Educational Programs

Objective VI Improve Facilities



Facilities Study to Support the Maine School of Science & Mathematics

MSSM MISSION AND PURPOSE

The Maine School of Science and Mathematics (MSSM) was created by the 116th Maine State Legislature by the passage of Title 20-A Chapter 312 §8201 through 8207. The purpose was stated in §8201:

“..providing certain high-achieving high school students with a challenging educational experience.”

There are several components of the act that have implication for facility planning for the MSSM.

§8202 Intent; funding states: “The school is established as a public, residential school located in Limestone...”

The two requirements of this section are that the school is residential (therefore requiring some type of accommodations, i.e. dormitory), and that it be located in Limestone.

This act established a Board of Trustees. One of the duties of this Board of Trustees was defined in §8205 (7) Property management:

“To lease and acquire by purchase any property, lands, buildings, structures, facilities or equipment and make improvements to facilities necessary to fulfill the purpose of this chapter. Any lease or lease-purchase agreement must have a term not to exceed 10 years and must be subject to annual appropriation of funds. The community of Limestone retains ownership of the Limestone Elementary School and the Limestone Junior-/Senior High School and shares those facilities with the school;”

Implication: a long-term commitment to Limestone was intended, but Limestone would still own the facilities used and/or shared by the MSSM.

§8206 (2) Courses of study; programs; plan:

“...must include... short courses, workshops, seminars, weekend instructional programs, distance learning...”

§8206 (5) Telecommunications states:

“Integration of the University of Maine System interactive television system to allow transmission of certain specialty courses conducted at the school for the benefit of high-achieving students attending school units throughout the state.”

Implication: The MSSM facilities must include both the ability to receive and to broadcast educational programs.

§8207 Financing authority states:

"The board of trustees may borrow funds, issue bonds and negotiate notes and other evidences of indebtedness or obligations of the school for renovations and construction purposes to pay for costs defined in Title 22, section 2053, subsection 3 and may issue temporary notes and renewal notes to pay for those costs."

Implication: The MSSM board of trustees can invest in facilities up to a maximum of \$3,000,000 (defined later in §8207).

The process for accreditation through the New England Association of Schools and Colleges includes a Mission and Governance sub-committee. A report of this sub-committee dated May 2008 was provided as part of this study.



Facilities Study to Support the Maine School of Science & Mathematics

MSSM MISSION AND PURPOSE COMMENTS

The following observations are an amalgamation of the NEASC sub-committee report, the act establishing the school, staff interviews, data provided by staff, and observations of McCormick Consultants staff.

A simple restatement of the MSSM Mission and Purpose would include:

- Provide appropriate educational opportunities in science and mathematics for students who are talented in those areas;
- Provide appropriate educational opportunities in other areas consistent with Maine standards;
- Provide a residential life program for those students;
- Provide the above in Limestone, Maine; and
- Provide leadership to the State of Maine in science and mathematics education.

In most areas, the MSSM is meeting or exceeding the stated mission and purpose. The areas listed below should be discussed in light of facility implications.

The academic component in the area of mathematics and science appears to be quite successful. Other areas do not appear to achieve the same standard. Provision of adequate spaces and equipment is an issue.

The residential life is a key component of the mission and purpose of the MSSM. This component could be addressed. A key element that appears to be missing is a relationship with Limestone students. MSSM and LCS students have much in common: same age, same developmental needs, live in the same community, some common interests related to the teen-age culture. There are also concerns identified about the quality of facilities provided for staff and students.

It is not clear that the Limestone community is aware and supportive of the mission and purpose of the MSSM. This attitude, if the observation is accurate, can make it difficult for the school to address facility needs requiring community support or agreement.

The intent of the MSSM was to serve as a source of learning for all students through the use of interactive technology. This component needs attention, both for internal use and external telecommunication.

The MSSM mission could be expanded to the rest of the schools in Maine through a more extensive outreach program. This would require a technological connection to Maine high schools, perhaps through interactive communication systems. Another approach to consider: expand the current practice of sending MSSM faculty and students in person to Maine high schools, or even middle schools, for the purpose of providing information and recruiting.

An expanded outreach program should increase the exposure of MSSM to the state's students, and increase interest in enrollment.

The Maine School of Science and Mathematics is a school funded through State appropriations as a public, residential school. Yet it appears that the school does not have to follow the same requirements that other public schools must follow, specifically regarding certified teaching staff. This may create the message: students who are talented and gifted in science and or mathematics do not need to have teachers who as a minimum meet the same standards as teachers of students who are not gifted in these areas. This further encourages the separation of MSSM and LCS students and staff.

MSSM, in order to achieve its mission, has to seek a faculty that is demonstrably highly knowledgeable and competent in their academic domains. Public schools must seek a faculty that is proficient in teaching as measured by state standards. An individual qualified for employment by one may not be qualified to be employed by the other. Both have strengths that could be shared, if they occupy the same educational spaces.



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Mission and Purpose Recommendations

Initiate discussions with the sister school, Limestone Community School, to determine if there are opportunities to share resources in areas of instruction other than science and mathematics.

Develop plans to increase the involvement of MSSM students in the Limestone physical environs. This is an isolated community in northern Maine, next to the Canadian border, with literally thousands of acres of near wilderness with an easy commute. This is a natural resource that needs to be utilized more than the current programs, which include an outing club, hiking, winter survival training, rafting, and use of the interim (J term) for time to expand this exposure (sometimes difficult in January, given the weather!).

Since the two groups share common space, initiate regular discussions with members of the Limestone Community School staff. Academic discussion, understanding of teenage psyches, dealing with drug abuse and sexuality issues, diversity, how students learn, and managing of student behavior are just a few of the possible common topics.

Invest in a telecommunications system that would allow sharing and receiving of educational opportunities from other Maine schools.

Develop a series of visitation lectures or programs by and for students that could be transported to other Maine schools for very short periods of time (one or two days, perhaps). This would enrich programs in other schools, create opportunities for extended outreach (and publicity), and enhance MSSM students' knowledge of those topics selected for presentation.

Carefully review the reports of the visiting teams in the accreditation process concerning the Mission and Purpose as it relates to the facilities and location, in light of the above.

The Board of Trustees of MSSM and the Limestone School Department School Committee (or the replacement RSU committee) need to initiate on-going discussions concerning the sharing of educational spaces and the relationship of programs.

Develop specific plans to address residential life.



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Campus Management

Policy Level Administration

The Board of Trustees is made up of 16 members, including the Executive Director.

Administrators

There are 10 administrators, with an FTE of 5.5, including Executive Director, Director of Admissions, Director of College Counseling, Director of Operations and Finance, Academic Dean, Director of Public Relations and Marketing, Director of Information Technology, Dean of Academic Support, and Special Education, Dean of Students and Director of Residential Life.

Administrative support staff

There are 4 support staff members.

Teaching staff

There are 9 fulltime faculty members. 7 of the administrators have teaching assignments. There are six adjunct faculty members teaching a total of 10 sections. Two of the residential life interns have a 20% teaching assignment.

Residential Life

There are five residential life staff members (FTE of 4.2; 4 have other duties). One fulltime faculty member also has residential life responsibilities.

Health Services

There is a full time nurse, and a nursing assistant available 32 hours per week.

Maintenance/Custodial staff

MSSM employs one dormitory maintenance worker, a full time school building custodian, and a part time dormitory custodian.

Shared staff with LCS

Librarian for MSSM is also librarian for LCS.

Campus Management, LCS

Policy Level Administration

The School Committee up of 5

Administrators

There are 4 administrators, with an estimated FTE of 2.4, including Superintendent, Principal, Assistant Principal, and Director of Special Education.

Administrative support staff

There are 2 support staff members at the Systems level, and 3 at the School level.

Teaching staff

There are 26 fulltime faculty members. There are 7 who teach less than fulltime. Total FTE certified instructional staff is 26.7.

Educational Technicians

There are 9 special education technicians, and the FTE of 5 regular education technicians.

Health Services

There is a contracted 1 day per week nurse, and a contracted full time nurse's aide.

Maintenance/Custodial staff

There is a part-time Supervisor of Maintenance, plus two maintenance workers. There is the FTE of 4.5 custodians provided via a contract with MSAD #1.

Shared staff with LCS

Librarian for MSSM is also librarian for LCS. The Supervisor of Maintenance performs similar role for LCS.

Duties of MSSM Staff for Campus Management

Director of Operations & Finance:

Oversee MSSM Director of Facilities and Grounds

Responsible for management and oversight of all MSSM spaces and grounds

Responsible for collaborating with LCS to manage and oversee all shared spaces and grounds

MSSM Director of Facilities and Grounds:

Manage custodial/maintenance staff

Order all maintenance and custodial supplies

Prepare and manage the dormitory and Trafton maintenance budgets

Do routine maintenance and repair in the dormitory and Trafton Avenue buildings

Custodian #1:

Clean and do routine maintenance in all MSSM dedicated spaces in the academic building

Custodian #2:

Clean and do routine maintenance in all MSSM dedicated spaces in the dormitory building

MSSM Physical Campus Decision Making Chart

For routine Issues:

Director of Operations & Finance in consultation with Supervisor of Maintenance

Example: repair broken window

For non-routine Issues:

Executive Director in collaboration with LCS Superintendent

Example: Install eye wash in the kitchen area

For Major Issues:

MSSM Board of Trustees in collaboration with LCS School Committee and (if necessary) Limestone municipal government officials

Example: Renovate the dormitory to add staff apartments



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Relationship with the Limestone Community School

Note: This report was originally developed as part of the Limestone Master Planning effort. The information contained herein is applicable to MSSM as well, and is therefore included in the MSSM study.

The Maine School of Science and Mathematics (MSSM) is a magnet school established by the Maine Legislature in 1995. It serves 129 students, primarily in Grades 11 and 12, who have an identified talent in science and mathematics. Students reside in a dormitory that was initially constructed in 1955 as an elementary school. This building is owned by the Community of Limestone, but was renovated as a dormitory by MSSM. It is operated and maintained by MSSM.

Students who attend MSSM attend classes in the Limestone Community School (LCS). The classrooms are located in the "B" wing of LCS, and consist of 19 instructional spaces on 2 floors. In addition, MSSM occupies administrative space in the "D" wing opposite the Limestone superintendent's office.

MSSM students share other portions of the facility with LCS students. These include the Library, Performing Arts Center, Gymnasium, and Swimming Pool. To provide 20 meals per week for staff and students, MSSM operates the Cafeteria through a contract with an independent food service provider. Meals approved for support by state and federal food and nutrition programs are provided for LCS students.

MSSM employs a certified librarian, who operates the Library for both school units. LCS employs a library aide, who works under the direction of the librarian. LCS also reimburses the MSSM for its share of the librarian's compensation. Each school has its own Library budget.

MSSM involves students in some of the cleaning duties. MSSM also employs staff to care for the spaces that it occupies.

MSSM contributes 50% of the cost of water & sewer, rubbish removal, electricity, propane, and fuel oil for the entire building.

Fiscal Relationship

When the Loring Air Base closed, enrollment in LCS dropped precipitously from 1400 students to 300 students. The Limestone School Department had the financial support and the educational space to operate a school system serving those 1400 students. With the closing of the base, the school department still had the facilities but did not need the capacity. Subsequently it no longer has the resources to operate and maintain those facilities.

MSSM helped solve some of the problems by taking the elementary school building and converting it to a dormitory. MSSM also helped solve some of the space issues by assuming use and responsibility for a portion of

the LCS and by contributing to its cost of operations. A fund was established in 1994 in the amount of \$4,000,000 to assist in the transition and to provide funds for capital improvement.

Facilities: Dormitory

The former elementary school has a current replacement value of approximately \$5,500,000. However, it has limited use. It was reconfigured as a place of residence. As such, it could be a dormitory for a school (as it is now), a residential center for medical rehabilitation, a nursing home, an apartment building or condominium facility, or perhaps a tourist accommodations site. With sufficient investment, it could be converted to other uses (even returned to an elementary school).

This facility has a tenant. The tenant has primary responsibility (Limestone recreation Department and the Limestone School Department have some shared responsibilities) for of the facility, and has invested funds to modify it for its current use. As a tenant, MSSM has no long term commitment to continue using this facility, and could move to another location. Such an action would leave Limestone with a facility retrofitted for single use: large group residential.

Facilities: Limestone Community School

LCS has 300 students from Limestone who attend pre-school to Grade 12. Also in the same facility, using different classrooms but sharing core facilities, are 125 talented (MSSM) students in Grades 11 and 12.

LCS "rents" its space to MSSM. The "rental fee" is based on an arbitrary share of the operations, plus the contribution of custodial staff to serve the spaces used by MSSM. As demonstrated in other sections of this report, it can be justified that MSSM is not paying its fair share or "market rate" of the operations costs of LCS, and there is no formal plan to address depreciation of the facility through capital improvement.

Market rate leases are measured by a set rate per square foot. Recent high school construction projects in the State of Maine have averaged 185 square feet per student. If the target enrollment of the MSSM was 150, the amount of space they would need would be approximately 27,750 square feet. The amount of space available to the MSSM in the LCS is larger than that, but that space requirement can serve as a discussion point to determine a fair rate.

Currently, facility spaces exist in southern Maine (Portland and Topsham) that would lease for \$16.00 to \$18.00 per square foot per year. Similar spaces in the Bangor area range from \$7.00 to \$11.00. In the northern Maine area, \$6.00 per square foot per year might be reasonable. Based on the area needed by the MSSM for educational purposes, a reasonable rental amount would be \$166,500 per year ($27,750 \times \6.00).

In addition to the lease of the space, operations and maintenance would have to be paid. Currently, the LCS cost per square foot for O & M is \$5.00. That amount is also the average calculated by American School & University for 2006-2007. Therefore, the O & M costs of leased space can be estimated at \$5.00 per square foot. This would add \$138,750 ($27,750 \times \5.00) to the annual cost of leasing space.

Based on these assumptions, a fair rate for MSSM to pay for the use of the LCS space would be in the range of \$305,250 per year ($166,500 + 138,750$).

Using calculations involving the number of students, it has been estimated that a fair cost to the MSSM for using the LCS is in the range of \$350,000 per year (see *Revenue and Expenses: Calculation of Potential Savings*)

LCS has a tenant. If this tenant leaves, it is not likely that there are other similar tenants readily available to take the space. It would behoove the Limestone School Department to enter into a long-term agreement that is more financially beneficial to Limestone. This agreement should also be beneficial to MSSM.

Program Management: LCS

MSSM students are talented, focused on learning, and are living away from home in a residential setting. They are aged 15 to 18. They almost literally fall out of bed into their classrooms. These students have the potential and demonstrated success for a high level of learning.

LCS students have the normal range of talents, focus on learning as much as any other group of students their age, and live in a family setting. They are ages 4 to 18. Approximately 50% ride up to 45 minutes to arrive at the school. Over 25% have special needs that have an effect on their individual learning abilities.

MSSM and LCS students are in educational programs managed by two different administrations, two different school committees, and managed by two different staffs. They have different dress codes, which may be appropriate for each group. They have different behavior codes which are appropriate for each group. However, they occupy the same spaces. They can be on the same athletic teams. They could share a common social life, although there is little evidence of such. They are able to observe each others behaviors, and consistent with young people, are free to draw conclusions about their observations.

There is ample opportunity for sharing between the two groups. There is little evidence observed that these opportunities are being accepted.

It is reported that both administrations are able to work together to resolve any issues. It is suggested that they plan to work together before these issues arise and that they address the program differences that have the potential to interfere with the learning of both groups of students.

In Title 20-A Chapter 312, the Maine State Legislature created the MSSM as a separate school, but included language that placed the school in Limestone.



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Campus Management Issues

Two different educational programs are housed on the same campus. The mission of each unit is similar, but not consistent with, the other. One (MSSM) aims to educate very talented students from anywhere in Maine, and to provide residential living for them. The other (LCS) aims to provide a free public education for all students from Limestone, plus a few non-residents for whom their community pays tuition. One (MSSM) has to lobby the State Legislature and the Department of Education for a significant portion of its funding. The other (LCS) has to lobby Limestone taxpayers for a significant portion of its funding. One (MSSM), by act of the Legislature, essentially rents space from the Community of Limestone.

Specific issues

MSSM students use the dormitory, which is owned by Limestone, but operated and maintained by MSSM. Located in the dormitory is a gymnasium, which is used by both MSSM students and the Limestone Recreation Department. There is a written agreement defining management of this portion of the dorm facility.

Both MSSM students and Limestone students use the LCS as an academic center. Each group has space independent of the other, but some common spaces are shared. Some spaces (specifically science labs) are sufficient for a public high school, but are lacking when used by the talented MSSM science students. The decision to make the investment involves two administrations, two governing boards, and the state legislature.

MSSM currently pays for 50% of the heat and utility costs of operating LCS, and provides a custodian to clean its portion of the building. LCS pays for all other Operations and Maintenance costs and staff, including shared spaces with LCS, grounds, and athletics fields. {Note: Since the creation of this portion of the report, the supervision of cleaning services for the LCS is now contracted to LCS staff.}

The schools have different hours of operation. This leads to inefficient energy costs.

The Limestone School Department is facing a major financial crisis in 2010, due to a lack of revenues. The solution to that problem will have an impact on MSSM.

Limestone is a potential member of a Regional School Unit (RSU). This will transfer the responsibility for LCS from the Limestone School Committee to the RSU school board.

Under a separate study, MSSM is seeking answers to questions that may impact on the continuation of the program in Limestone. The ability to manage its own campus is one of several issues being considered by MSSM.



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Campus Management Observations

Two small schools (MSSM and LCS) uncomfortably share a single campus. One (LCS) is a typical rural PK-12 school struggling to maintain itself in the face of declining enrollments and rising tax burden due in part to events beyond its control. MSSM was created as a model high school academic program and as a way to assist Limestone's recovery from the sudden and precipitous loss of student enrollment. The legislation that created MSSM names it a charter school and in some ways this is true: in other ways it is not. Nowhere is this more evident than in the management of the single campus that hosts both schools.

For example:

Could one business office serve both schools? The cost of maintaining two business offices could be better spent on the education of all of the students attending both schools.

Would one facility staff for approximately 200,000 square feet of space on a single campus be more effective, efficient, and economically viable than the current model?

With both schools offering similar courses in the same facility, could the courses be combined, and therefore utilize the best staff and efficient space?

Currently, shared instructional staff includes technology and the librarian. Are there additional opportunities?

Are there opportunities for shared training and professional development for both faculties and staff, in Limestone and other venues?

Are there other simple modifications to operations that would reduce the opportunities either group would feel uncomfortable with the other? Is there a problem with a common behavior code that would apply when both groups are in the same educational space?

It appears there are two separate information technology systems for MSSM and LCS. Can these be combined?

If MSSM made use of an ATM or other telecommunications system, this could possibly raise additional revenue and fulfill its statutory obligation for a "statewide education program provided by the school and guarantees opportunities and access to students and educators not residing full time at the school". Any reluctance or objection to distance learning must not stand in the way of MSSM meeting its statutory obligation; especially when doing so will likely bring a greater understanding of the school by students and teachers around the state with a corresponding interest in admissions.

Is the practice of providing separate lunch times the best use of the food service as a learning system? Can financial, nutritional, and time factors be resolved to allow 120 teen-age MSSM students and 120 of LCS teen-age students to have a common time in the cafeteria? They would find they have more in common than in "difference".

There are many examples of duplicated student services on a single campus, such as two medical staffs, two counseling services, two administrators, two sets of extra-curricular programs. Is this the most efficient use of staff and facilities?

MSSM cannot afford the wall that has been created between themselves and LCS. The cost of the non-cooperation has been felt by both schools in higher operating costs, ill will between students and staffs, deteriorating facilities, and the loss of educational resources for both schools. Both MSSM and LCS policy needs to support this effort.

The critical question is how to do things better together at a reduced cost for both schools in ways that do not diminish either institution's identity or independence.

Unsupported beliefs about the "other" institution have caused an expensive "work-around" attitude and duplicated efforts that result in redundant, expensive, and overly complex administrative systems that cause unnecessary resource expenditures that could be better used in support of the academic programs of both schools.

The lack of a good working contract between the schools can result in poor working relationships between the schools, and create expensive stand-offs, especially for MSSM.

There is more commonality in the two institutions that share the single campus than differences. While efforts have been made by MSSM to build on this concept, neither MSSM nor LCS can be allowed roadblocks to cooperation to exist.

Finally: There are two major issues that will have a direct impact on campus management. The Limestone School Department has severe financial issues. The Limestone School Department will probably no longer exist, and will be replaced by a Regional School Unit.

The Limestone School Department is considering many options to address its financial situation. Several involve MSSM. For example:

- Sell LCS, and build a new educational space
- Sell LCS, and educate all Limestone students in another location
- Sell LCS, lease space for Limestone education from new owner
- Transfer all responsibility for the physical operation of the LCS campus to MSSM



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Campus Management Recommendations

Consider entering into a relationship with the board responsible for the operation of the Limestone educational system (an RSU board or the Limestone School Department School Committee) to serve as a resource unit for MSSM. MSSM would continue to manage the educational component; the public entity would provide the operational resources and management. Examples could include: accounting, administrative support, business management, capital asset management, facility operation and maintenance, health services, nutrition, payroll services, purchasing, and transportation. The provision of special education services might also be considered.

If a major operational revision such as the one identified above, consider individual components of the programs. Develop a plan based on an annual transfer of responsibilities. The first step has apparently already started, with operations and maintenance. The next logical step might be the creation of one business office.

Identify the cost savings to each school; transfer 50% into the instructional programs of both schools, and 50% into reduced budget.

Identify one department that will identify or develop at least one course to be offered to students from either school. Suggestions include foreign language, music, history, writing, English, art.

Create a staff development team, with members from both schools. Agree that no staff development activities be offered by either school without the advice and consent of this team.

Develop a team with members from both schools that would develop a unified code of conduct that would apply to all students while they are in the LCS.

Institute a common information technology system for MSSM and LCS. This may also be a project to be included with any new RSU.

Develop a financial proposal to provide an ATM or other telecommunications system. Provide a specific academic program that will address the statutory obligation.

Initiate a common lunch period for students in the upper high school from LCS and the MSSM students. Make a concerted effort to provide comparable meals, especially at the salad bar or a la carte level. Modify the instructional program times to make this happen. If this can not be accomplished on a permanent basis, consider once a week with a special menu for both groups. Consider assigning faculty to this experience. If a residential guest lecturer system is established, give careful consideration to the involvement of LCS students, as well as members of the public.

Given the pending melding of the Limestone School Department into a new Regional School Unit, it behooves MSSM to develop a comprehensive contract for services.

Create a close working relationship between MSSM and LCS faculty that will benefit both institutions.

Make personnel or organizational decisions within the framework of the school's mission so that the personnel and organization supports the school's mission, including fostering a positive relationship with the sister school.

Assure that decision makers for MSSM, decision makers for the Limestone Community School, and decision makers responsible for the education of Limestone's students collaborate on any decisions having an impact on campus management.

Maine School of Science and Mathematics
Revenues and Expenses: Annual Charges

FY98 to FY02

Audited Statements

| Revenues | FY98 | FY99 | Change | FY00 | Change | FY01 | Change | FY02 | Change | AVG | AVG Ann Diff |
|---------------------------|--------------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|---------------------|
| State Assistance | \$1,355,692 | \$1,550,525 | 14.37% | \$1,585,820 | 2.28% | \$1,482,933 | -6.49% | \$1,564,147 | 5.48% | \$1,507,823 | 3.91% |
| State Assistance, Spec Ed | | | | | | | | | | | |
| Room and board | \$208,349 | \$185,138 | -11.14% | \$225,534 | 21.82% | \$268,553 | 19.07% | \$335,905 | 25.08% | \$244,696 | 13.71% |
| Financial aid | \$0 | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | |
| Maintenance fee | \$21,325 | \$23,028 | 7.99% | \$31,348 | 36.13% | \$31,576 | 0.73% | \$64,887 | 105.49% | \$34,433 | 37.58% |
| Interest | \$3,185 | \$2,359 | -25.93% | \$2,948 | 24.97% | \$3,722 | 26.26% | \$25,750 | 591.83% | \$7,593 | 154.28% |
| Grants/Donations | \$0 | \$0 | | \$5,600 | | \$48,420 | 764.64% | \$12,708 | -73.75% | \$13,346 | 345.44% |
| Outreach programs | \$0 | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | |
| Other | \$23,432 | \$30,563 | 30.43% | \$54,578 | 78.58% | \$46,584 | -14.65% | \$751 | -98.39% | \$31,182 | -1.01% |
| Total Revenue | \$1,611,983 | \$1,791,613 | 11.14% | \$1,905,828 | 6.37% | \$1,881,788 | -1.26% | \$2,004,148 | 6.50% | \$1,839,072 | 5.69% |
| Expenditures | FY98 | FY99 | Change | FY00 | Change | FY01 | Change | FY02 | Change | AVG | Ann Diff |
| Director's office | \$201,567 | \$222,654 | 10.46% | \$252,244 | 13.29% | \$246,280 | -2.36% | \$202,580 | -17.74% | \$225,065 | 0.91% |
| Board of trustees | \$10,946 | \$7,608 | -30.50% | \$8,547 | 12.34% | \$4,461 | -47.81% | \$6,068 | 36.02% | \$7,526 | -7.48% |
| Superintendent's Office | \$118,739 | \$113,779 | | \$99,191 | | \$68,207 | | \$0 | | \$99,979 | |
| Administrative support | \$0 | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | |
| Instruction | \$644,803 | \$753,021 | 16.78% | \$783,276 | 4.02% | \$770,006 | -1.69% | \$762,490 | -0.98% | \$742,719 | 4.53% |
| College counseling | \$46,883 | \$44,576 | -4.92% | \$38,913 | -12.70% | \$34,864 | -10.41% | \$54,755 | 57.05% | \$43,998 | 7.26% |
| Special Education | \$0 | \$596 | | \$0 | | \$0 | | \$0 | | \$298 | |
| Lib/Tech Support | \$28,697 | \$36,864 | 28.46% | \$43,189 | | \$39,092 | | \$73,347 | | \$44,238 | 28.46% |
| Health services | \$6,280 | \$9,311 | 48.26% | \$12,741 | | \$17,843 | | \$26,750 | | \$14,585 | 43.77% |
| Nutrition | \$125,049 | \$122,303 | -2.20% | \$138,251 | 13.04% | \$143,298 | 3.65% | \$217,511 | 51.79% | \$149,282 | 16.57% |
| Student activities | \$8,815 | \$8,390 | -4.82% | \$11,547 | 37.63% | \$8,390 | -27.34% | \$8,936 | 6.51% | \$9,216 | 2.99% |
| Athletics | \$1,866 | \$1,572 | -15.76% | \$2,064 | 31.30% | \$3,673 | 77.96% | \$2,789 | -24.07% | \$2,393 | 17.36% |
| Operation of school | \$93,034 | \$85,718 | -7.86% | \$92,116 | 7.46% | \$114,110 | 23.88% | \$94,498 | -17.19% | \$95,895 | 1.57% |
| Operation of dormitory | \$159,677 | \$227,451 | 42.44% | \$244,403 | | \$280,982 | 14.97% | \$349,070 | 24.23% | \$252,317 | 22.27% |
| Capital project | \$0 | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | |
| Development | \$73,526 | \$69,258 | -5.80% | \$41,425 | | \$9,452 | | \$72,594 | | \$25,439 | |
| Transportation | \$0 | \$0 | | \$76,360 | 10.25% | \$67,813 | -11.19% | \$0 | 7.05% | \$71,910 | 0.08% |
| Admissions | \$0 | \$0 | | \$0 | | \$0 | | \$62,088 | | \$12,418 | |
| Outreach programs | \$0 | \$0 | | \$0 | | \$0 | | \$16,150 | | \$3,230 | |
| Publicity | \$0 | \$0 | | \$0 | | \$0 | | \$0 | | \$0 | |
| Contingency | \$42,857 | \$42,857 | 0.00% | \$42,857 | 0.00% | \$0 | -100.00% | \$0 | | \$25,714 | -33.33% |
| Debt principal | \$32,388 | \$29,384 | -9.28% | \$16,821 | -42.75% | \$6,357 | | \$46 | -99.28% | \$16,999 | -50.44% |
| Debt Interest | | | | | | \$0 | | \$0 | | \$0 | |
| Maintenance fee | | | | | | \$0 | | \$0 | | \$0 | |
| Total Expenditures | \$1,595,127 | \$1,775,342 | 11.30% | \$1,903,945 | 7.24% | \$1,814,828 | -4.68% | \$1,949,672 | 7.43% | \$1,807,783 | 5.32% |

| Selected Expense Groups | FY98 | FY99 | Change | FY00 | Change | FY01 | Change | FY02 | Change | AVG | Ann Diff |
|---|-------------|-------------|---------------|-------------|---------------|-------------|---------------|-------------|---------------|------------|-----------------|
| Admin, lines 21-24 | \$331,252 | \$344,041 | 3.86% | \$359,982 | 4.63% | \$318,948 | -11.40% | \$208,648 | -34.58% | \$312,574 | -9.37% |
| student support, lines 26-29,31, 32 less 30 | \$92,541 | \$223,581 | 141.60% | \$246,674 | 10.33% | \$247,129 | 0.18% | \$384,057 | 55.41% | \$238,796 | 51.88% |
| Room & Board, 30,34 | \$284,726 | \$349,754 | 22.84% | \$382,654 | 9.41% | \$424,280 | 10.88% | \$566,581 | 33.54% | \$401,599 | -29.12% |
| Rev less exp, Outreach Programs | \$0 | \$0 | | \$0 | | \$0 | | \$-16,150 | | \$-3,230 | |
| Rev less exp, Residential | \$-76,377 | \$-164,616 | 115.53% | \$-157,120 | -4.55% | \$-155,727 | -0.89% | \$-230,676 | 48.13% | \$-156,903 | 39.55% |
| Room, board rev less Nutrition and Operation of Dormitory exp | | | | | | | | | | | |

Maine School of Science and Mathematics

Revenues and Expenses

FY98 to FY02

Revenues

| | FY98 | FY99 | Audited Statements FY00 | FY01 | FY02 | AVG |
|---------------------------|--------------------|--------------------|----------------------------|--------------------|--------------------|--------------------|
| State Assistance | \$1,355,692 | \$1,550,525 | \$1,585,820 | \$1,482,933 | \$1,564,147 | \$1,507,823 |
| State Assistance, Spec Ed | | | | | | |
| Room and board | \$208,349 | \$185,138 | \$225,534 | \$268,553 | \$335,905 | \$244,696 |
| Financial aid | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Maintenance fee | \$21,325 | \$23,028 | \$31,348 | \$31,576 | \$64,887 | \$34,433 |
| Interest | \$3,185 | \$2,359 | \$2,948 | \$3,722 | \$25,750 | \$7,593 |
| Grants/Donations | \$0 | \$0 | \$5,600 | \$48,420 | \$12,708 | \$13,346 |
| Outreach programs | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other | \$23,432 | \$30,563 | \$54,578 | \$46,584 | \$751 | \$31,182 |
| Total Revenue | \$1,611,983 | \$1,791,613 | \$1,905,828 | \$1,881,788 | \$2,004,148 | \$1,839,072 |

Expenditures

| | FY98 | FY99 | FY00 | FY01 | FY02 | AVG |
|---------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Director's office | \$201,567 | \$222,654 | \$252,244 | \$246,280 | \$202,580 | \$225,065 |
| Board of trustees | \$10,946 | \$7,608 | \$8,547 | \$4,461 | \$6,068 | \$7,526 |
| Superintendent's Office | \$118,739 | \$113,779 | \$99,191 | \$68,207 | \$0 | \$99,979 |
| Administrative support | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Instruction | \$644,803 | \$753,021 | \$783,276 | \$770,006 | \$762,490 | \$742,719 |
| College counseling | \$46,883 | \$44,576 | \$38,913 | \$34,864 | \$54,755 | \$43,998 |
| Special Education | \$0 | \$596 | \$0 | \$0 | \$298 | \$298 |
| Lib/Tech Support | \$28,697 | \$36,864 | \$43,189 | \$39,092 | \$73,347 | \$44,238 |
| Health services | \$6,280 | \$9,311 | \$12,741 | \$17,843 | \$26,750 | \$14,585 |
| Nutrition | \$125,049 | \$122,303 | \$138,251 | \$143,298 | \$217,511 | \$149,282 |
| Student activities | \$8,815 | \$8,390 | \$11,547 | \$8,390 | \$8,936 | \$9,216 |
| Athletics | \$1,866 | \$1,572 | \$2,064 | \$3,673 | \$2,789 | \$2,393 |
| Operation of school | \$93,034 | \$85,718 | \$92,116 | \$114,110 | \$94,498 | \$95,895 |
| Operation of dormitory | \$159,677 | \$227,451 | \$244,403 | \$280,982 | \$349,070 | \$252,317 |
| Capital project | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Development | | | \$41,425 | \$9,452 | | \$25,439 |
| Transportation | \$73,526 | \$69,258 | \$76,360 | \$67,813 | \$72,594 | \$71,910 |
| Admissions | \$0 | \$0 | \$0 | \$0 | \$62,088 | \$12,418 |
| Outreach programs | \$0 | \$0 | \$0 | \$0 | \$16,150 | \$3,230 |
| Publicity | | | | | | |
| Contingency | | \$0 | | \$0 | | \$0 |
| Debt principal | \$42,857 | \$42,857 | \$42,857 | \$0 | \$0 | \$25,714 |
| Debt Interest | \$32,388 | \$29,384 | \$16,821 | \$6,357 | \$46 | \$16,999 |
| Maintenance fee | | | | \$0 | \$0 | \$0 |
| Total Expenditures | \$1,595,127 | \$1,775,342 | \$1,903,945 | \$1,814,828 | \$1,949,672 | \$1,807,783 |

Selected Expense Groups

| | FY98 | FY99 | FY00 | FY01 | FY02 | AVG |
|---|-----------|------------|------------|------------|------------|------------|
| Admin, lines 21-24 | \$331,252 | \$344,041 | \$359,982 | \$318,948 | \$208,648 | \$312,574 |
| student support, lines 26-29,31, 32 less 30 | \$92,541 | \$101,309 | \$108,454 | \$103,862 | \$166,577 | \$114,549 |
| Room & Board, 30,34 | \$284,726 | \$349,754 | \$382,654 | \$424,280 | \$566,581 | \$401,599 |
| Rev less exp, Outreach Programs | \$0 | \$0 | \$0 | \$0 | -\$16,150 | -\$3,230 |
| Rev less exp, Residential and Operation of Dormitory exp) | -\$76,377 | -\$164,616 | -\$157,120 | -\$155,727 | -\$230,676 | -\$156,903 |

Maine School of Science and Mathematics
Revenues and Expenses:% Distribution
FY98 to FY02

| | <u>Audited Statements</u> | | | | <u>Budgets</u> | |
|---|---------------------------|----------------|----------------|----------------|----------------|--|
| | <u>FY99</u> | <u>FY00</u> | <u>FY01</u> | <u>FY02</u> | <u>AVG</u> | |
| <u>Revenues</u> | | | | | | |
| State Assistance | 84.10% | 83.21% | 78.80% | 78.05% | 81.99% | |
| State Assistance, Spec Ed | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | |
| Room and board | 12.93% | 11.83% | 14.27% | 16.76% | 13.31% | |
| Financial aid | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | |
| Maintenance fee | 1.32% | 1.64% | 1.68% | 3.24% | 1.87% | |
| Interest | 0.20% | 0.15% | 0.20% | 1.28% | 0.41% | |
| Grants/Donations | 0.00% | 0.29% | 2.57% | 0.63% | 0.73% | |
| Outreach programs | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | |
| Other | 1.45% | 2.86% | 2.48% | 0.04% | 1.70% | |
| Total Revenue | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | |
| <u>Expenditures</u> | | | | | | |
| Director's office | 12.64% | 13.25% | 13.57% | 10.39% | 12.45% | |
| Board of trustees | 0.69% | 0.45% | 0.25% | 0.31% | 0.42% | |
| Superintendent's Office | 7.44% | 5.21% | 3.76% | 0.00% | 5.53% | |
| Administrative support | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | |
| Instruction | 40.42% | 41.14% | 42.43% | 39.11% | 41.08% | |
| College counseling | 2.94% | 2.04% | 1.92% | 2.81% | 2.43% | |
| Special Education | 0.00% | 0.00% | 0.00% | 0.00% | 0.02% | |
| Lib/Tech Support | 1.80% | 2.27% | 2.15% | 3.76% | 2.45% | |
| Health services | 0.39% | 0.67% | 0.98% | 1.37% | 0.81% | |
| Nutrition | 7.84% | 7.26% | 7.90% | 11.16% | 8.26% | |
| Student activities | 0.55% | 0.61% | 0.46% | 0.46% | 0.51% | |
| Athletics | 0.12% | 0.11% | 0.20% | 0.14% | 0.13% | |
| Operation of school | 5.83% | 4.84% | 6.29% | 4.85% | 5.30% | |
| Operation of dormitory | 10.01% | 12.84% | 15.48% | 17.90% | 13.96% | |
| Capital project | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | |
| Development | 0.00% | 2.18% | 0.52% | 0.00% | 1.41% | |
| Transportation | 4.61% | 4.01% | 3.74% | 3.72% | 3.98% | |
| Admissions | 0.00% | 0.00% | 0.00% | 3.18% | 0.69% | |
| Outreach programs | 0.00% | 0.00% | 0.00% | 0.83% | 0.18% | |
| Publicity | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | |
| Contingency | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | |
| Debt principal | 2.69% | 2.25% | 0.00% | 0.00% | 1.42% | |
| Debt Interest | 2.03% | 1.66% | 0.35% | 0.00% | 0.94% | |
| Maintenance fee | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | |
| Total Expenditures | 100.00% | 100.00% | 100.00% | 100.00% | 101.96% | |
| <u>Selected Expense Groups</u> | | | | | | |
| Admin, lines 21-24 | 20.77% | 18.91% | 17.57% | 10.70% | 18.40% | |
| student support, lines 26-29,31, 32 less 30 | 5.80% | 5.71% | 5.72% | 8.54% | 6.35% | |
| Room & Board, 30,34 | 17.85% | 20.10% | 23.38% | 29.06% | 22.22% | |

Maine School of Science and Mathematics

120 students used for comparison. Actual enrollment varies

Revenues and Expenses: Per Pupil

FY98 to FY02

Source:

Revenues

State Assistance
State Assistance, Spec Ed
Room and board
Financial aid
Maintenance fee
Interest
Grants/Donations
Outreach programs
Other

Total Revenue

Expenditures

Director's office
Board of trustees
Superintendent's Office
Administrative support
Instruction
College counseling
Special Education
Lib/Tech Support
Health services
Nutrition
Student activities
Athletics
Operation of school
Operation of dormitory
Capital project
Development
Transportation
Admissions
Outreach programs
Publicity
Contingency
Debt principal
Debt Interest
Maintenance fee

Total Expenditures

Selected Expense Groups

Admin, lines 21-24
student support, lines 26-29,31, 32 less 30
Room & Board, 30,34

Audited Statements

| | FY98 | FY99 | FY00 | FY01 | FY02 | AVG |
|---------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| State Assistance | \$11,297 | \$12,921 | \$13,215 | \$12,358 | \$13,035 | \$12,565 |
| State Assistance, Spec Ed | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Room and board | \$1,736 | \$1,543 | \$1,879 | \$2,238 | \$2,799 | \$2,039 |
| Financial aid | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Maintenance fee | \$178 | \$192 | \$261 | \$263 | \$541 | \$287 |
| Interest | \$27 | \$20 | \$25 | \$31 | \$215 | \$63 |
| Grants/Donations | \$0 | \$0 | \$47 | \$404 | \$106 | \$111 |
| Outreach programs | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other | \$195 | \$255 | \$455 | \$388 | \$6 | \$260 |
| Total Revenue | \$13,433 | \$14,930 | \$15,882 | \$15,682 | \$16,701 | \$15,326 |

| | FY98 | FY99 | FY00 | FY01 | FY02 | AVG |
|---------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Director's office | \$1,680 | \$1,855 | \$2,102 | \$2,052 | \$1,688 | \$1,876 |
| Board of trustees | \$91 | \$63 | \$71 | \$37 | \$51 | \$63 |
| Superintendent's Office | \$989 | \$948 | \$827 | \$568 | \$0 | \$667 |
| Administrative support | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Instruction | \$5,373 | \$6,275 | \$6,527 | \$6,417 | \$6,354 | \$6,189 |
| College counseling | \$391 | \$371 | \$324 | \$291 | \$456 | \$367 |
| Special Education | \$0 | \$5 | \$0 | \$0 | \$0 | \$1 |
| Lib/Tech Support | \$239 | \$307 | \$360 | \$326 | \$611 | \$369 |
| Health services | \$52 | \$78 | \$106 | \$149 | \$223 | \$122 |
| Nutrition | \$1,042 | \$1,019 | \$1,152 | \$1,194 | \$1,813 | \$1,244 |
| Student activities | \$73 | \$70 | \$96 | \$70 | \$74 | \$77 |
| Athletics | \$16 | \$13 | \$17 | \$31 | \$23 | \$20 |
| Operation of school | \$775 | \$714 | \$768 | \$951 | \$787 | \$799 |
| Operation of dormitory | \$1,331 | \$1,895 | \$2,037 | \$2,342 | \$2,909 | \$2,103 |
| Capital project | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Development | \$0 | \$0 | \$345 | \$79 | \$0 | \$85 |
| Transportation | \$613 | \$577 | \$636 | \$565 | \$605 | \$599 |
| Admissions | \$0 | \$0 | \$0 | \$0 | \$517 | \$103 |
| Outreach programs | \$0 | \$0 | \$0 | \$0 | \$135 | \$27 |
| Publicity | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Contingency | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Debt principal | \$357 | \$357 | \$357 | \$0 | \$0 | \$214 |
| Debt Interest | \$270 | \$245 | \$140 | \$53 | \$0 | \$142 |
| Maintenance fee | | | | | | |
| Total Expenditures | \$13,293 | \$14,795 | \$15,866 | \$15,124 | \$16,247 | \$15,065 |

| | FY98 | FY99 | FY00 | FY01 | FY02 | AVG |
|---|-------------|-------------|-------------|-------------|-------------|------------|
| Admin, lines 21-24 | \$2,760 | \$2,867 | \$3,000 | \$2,658 | \$1,739 | \$2,605 |
| student support, lines 26-29,31, 32 less 30 | \$771 | \$844 | \$904 | \$866 | \$1,388 | \$955 |
| Room & Board, 30,34 | \$2,373 | \$2,915 | \$3,189 | \$3,536 | \$4,722 | \$3,347 |

Maine School of Science and Mathematics

FY03 to FY09

Revenues and Expenses: Annual Charges

| | Audited Statements | | | | | Budgets | | | AVG | | | | | | |
|-------------------------------|--------------------|-------------|----------|-------------|----------|-------------|---------|-------------|----------|-------------|----------|-------------|---------|-------------|---------|
| | FY03 | FY04 | FY05 | FY06 | FY07 | FY08 | FY09 | AVG | Ann Diff | | | | | | |
| Revenues | | | | | | | | | | | | | | | |
| State Assistance | \$1,588,442 | \$1,620,211 | 2.00% | \$1,620,442 | 0.01% | \$1,627,837 | 0.46% | \$1,620,442 | -0.45% | \$1,636,246 | 0.98% | \$1,742,491 | 6.49% | \$954,676 | 1.62% |
| State Assistance, Spec Ed | | | | | | | | | | | | \$64,700 | | \$64,700 | |
| Room and board | \$465,197 | \$404,138 | -13.13% | \$308,686 | -23.62% | \$359,721 | 16.53% | \$504,863 | 40.35% | \$675,500 | 33.80% | \$673,100 | -0.36% | \$282,600 | 7.45% |
| Financial aid | (\$83,594) | (\$49,348) | -40.97% | (\$33,080) | -32.97% | (\$54,805) | 65.67% | (\$91,582) | 67.11% | \$146,200 | -259.64% | \$146,200 | 0.00% | -\$1,668 | -45.82% |
| Maintenance fee | \$39,625 | \$29,313 | -26.02% | \$15,228 | -48.05% | \$33,960 | 123.01% | \$31,379 | -7.60% | | -100.00% | | | \$14,950 | -16.67% |
| Interest | \$1,644 | \$2,182 | 32.73% | \$3,479 | 59.44% | \$9,726 | 179.56% | \$13,768 | 41.56% | \$12,000 | -12.84% | \$4,000 | -66.67% | \$3,900 | 23.88% |
| Grants/Donations | \$49,560 | \$11,187 | -77.43% | \$16,541 | 47.86% | \$29,380 | 77.62% | \$118,988 | 305.00% | \$161,000 | 35.31% | \$178,000 | 10.56% | \$47,055 | 43.19% |
| Outreach programs | \$86,420 | \$153,283 | 77.37% | \$126,181 | -17.68% | \$122,940 | -2.57% | \$127,385 | 3.62% | \$140,000 | 9.90% | \$145,000 | 3.57% | \$75,101 | 11.30% |
| Other | \$19,754 | \$34,145 | 72.85% | \$25,290 | -25.93% | \$28,826 | 13.98% | \$231,829 | 704.24% | \$216,900 | -6.44% | \$202,800 | -6.50% | \$63,296 | 154.44% |
| Total Revenue | \$2,167,048 | \$2,205,111 | 1.76% | \$2,082,767 | -5.55% | \$2,157,585 | 3.59% | \$2,557,072 | 18.52% | \$2,987,846 | 16.85% | \$3,156,291 | 5.64% | \$1,442,810 | 7.61% |
| Expenditures | | | | | | | | | | | | | | | |
| Director's office | \$112,710 | \$118,933 | 5.52% | \$144,733 | 21.69% | \$180,217 | 24.52% | \$162,140 | -10.03% | \$151,004 | -6.87% | \$133,574 | -11.54% | \$83,609 | 3.09% |
| Board of trustees | \$4,668 | \$3,009 | -35.54% | \$3,112 | 3.42% | \$5,397 | 73.43% | \$2,859 | -47.03% | \$3,725 | 30.29% | \$4,825 | 29.53% | \$2,300 | 0.56% |
| Administrative support | \$79,601 | \$71,080 | -10.70% | \$66,582 | -6.33% | \$69,725 | 4.72% | \$83,499 | 19.75% | \$108,900 | 30.42% | \$129,599 | 19.01% | \$50,749 | 10.47% |
| Instruction | \$939,918 | \$964,218 | 2.59% | \$730,122 | -24.28% | \$736,832 | 0.92% | \$903,245 | 22.58% | \$899,141 | -0.45% | \$844,804 | -6.04% | \$501,523 | -1.69% |
| College counseling | \$57,094 | \$66,191 | 15.93% | \$50,332 | -23.96% | \$88,874 | 76.58% | \$119,420 | 34.37% | \$89,630 | -24.95% | \$72,075 | -19.59% | \$45,301 | 4.37% |
| Special Education | \$0 | | | | | | | | | \$27,538 | | \$31,734 | 15.24% | \$19,757 | |
| Lib/Tech Support | | | | | | | | | | \$127,062 | | \$156,862 | 23.45% | \$141,962 | |
| Health services | \$20,826 | \$20,874 | 0.23% | \$16,045 | -23.13% | \$31,887 | 98.73% | \$49,874 | 56.41% | \$73,093 | 46.56% | \$103,771 | 41.97% | \$26,364 | 66.38% |
| Nutrition | \$277,612 | \$245,871 | -11.43% | \$242,000 | -1.57% | \$233,697 | -3.43% | \$433,921 | 85.68% | \$510,000 | 17.53% | \$520,000 | 1.96% | \$205,258 | 14.55% |
| Student activities | \$2,891 | \$7,992 | 176.44% | \$12,910 | 61.54% | \$10,461 | -18.97% | | -100.00% | \$17,000 | | \$8,800 | -48.24% | \$6,006 | 34.07% |
| Athletics | \$964 | \$3,920 | 306.64% | \$3,875 | -1.15% | \$7,073 | 82.53% | | -100.00% | \$4,337 | | \$4,337 | 0.00% | \$2,451 | 58.32% |
| Operation of school dormitory | \$104,907 | \$101,627 | -3.13% | \$124,406 | 22.41% | \$128,546 | 3.33% | \$144,044 | 12.06% | \$168,447 | 16.94% | \$207,875 | 23.41% | \$81,654 | 16.36% |
| Capital project | \$310,206 | \$325,879 | 5.05% | \$306,694 | -5.89% | \$351,910 | 14.74% | \$323,792 | -7.99% | \$388,786 | 20.07% | \$474,224 | 21.98% | \$206,791 | 8.81% |
| Development | \$0 | | | | | | | | | \$48,000 | | \$48,000 | 0.00% | \$32,000 | |
| Transportation | \$87,582 | \$76,110 | -13.10% | \$73,272 | -3.73% | \$61,831 | -15.61% | \$86,242 | 39.48% | \$90,000 | 4.36% | \$21,015 | -40.11% | \$28,054 | |
| Admissions | \$70,670 | \$61,643 | -12.77% | \$85,916 | 39.38% | \$82,917 | -3.49% | \$93,769 | 13.09% | \$71,921 | -23.30% | \$83,935 | 16.70% | \$45,898 | 5.70% |
| Outreach programs | \$71,336 | \$141,968 | 99.01% | \$138,411 | -2.51% | \$94,177 | -31.96% | \$126,132 | 33.93% | \$108,392 | -14.06% | \$94,705 | -12.63% | \$64,593 | 3.13% |
| Publicity | | | | | | | | | | \$38,781 | | \$66,966 | 72.68% | \$52,874 | 5.46% |
| Contingency | | \$18,671 | | | -100.00% | \$431 | | | -100.00% | \$27,000 | | \$20,000 | -25.93% | \$11,017 | |
| Debt principal | \$12,000 | \$16,529 | 37.74% | \$16,495 | -0.21% | \$16,495 | 0.00% | \$16,505 | 0.06% | | -100.00% | | | \$7,802 | -16.67% |
| Debt Interest | \$368 | | -100.00% | | | | | | | | | | | \$184 | -16.67% |
| Maintenance fee | | | | | | \$19,426 | | \$36,857 | | | | \$11,640 | | \$22,641 | |

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|--------------------------------|--------------------|--------------------|--------------|--------------------|----------------|--------------------|--------------|--------------------|---------------|--------------------|---------------|--------------------|--------------|--------------------|------------------------|
| Total Expenditures | \$2,153,353 | \$2,244,515 | 4.23% | \$2,014,905 | -10.23% | \$2,119,896 | 5.21% | \$2,582,299 | 21.81% | \$2,987,849 | 15.70% | \$3,156,289 | 5.64% | \$1,438,259 | 7.76% |
| Selected Expense Groups | | | | | | | | | | | | | | | |
| | <u>FY03</u> | <u>FY04</u> | | <u>FY05</u> | | <u>FY06</u> | | <u>FY07</u> | | <u>FY08</u> | | <u>FY09</u> | | <u>AVG</u> | <u>Ann Diff</u> |
| Admin, lines 21-23 | \$196,979 | \$193,022 | -2.01% | \$214,427 | 11.09% | \$255,339 | 19.08% | \$248,498 | -2.68% | \$263,629 | 6.09% | \$267,998 | 1.66% | \$136,658 | 6.01% |
| student support, | | | | | | | | | | | | | | | |
| lines 25-28,30, 31 | \$359,387 | \$344,848 | -4.05% | \$325,162 | -5.71% | \$371,992 | 14.40% | \$603,215 | 62.16% | \$848,660 | 40.69% | \$897,579 | 5.76% | \$312,570 | 24.96% |
| Room & Board; lines | | | | | | | | | | | | | | | |
| 29, 33 | \$587,818 | \$571,750 | -2.73% | \$548,694 | -4.03% | \$585,607 | 6.73% | \$757,713 | 29.39% | \$898,786 | 18.62% | \$994,224 | 10.62% | \$412,049 | -58.56% |
| | <u>FY03</u> | <u>FY04</u> | | <u>FY05</u> | | <u>FY06</u> | | <u>FY07</u> | | <u>FY08</u> | | <u>FY09</u> | | <u>AVG</u> | <u>Ann Diff</u> |
| Rev less exp, | | | | | | | | | | | | | | | |
| Outreach Programs | \$15,084 | \$11,315 | -24.99% | -\$12,230 | -208.09% | \$28,763 | -335.18% | \$1,253 | -95.64% | \$31,608 | 2422.59% | \$50,295 | 59.12% | \$10,509 | 38.91% |
| Rev less exp, | | | | | | | | | | | | | | | |
| Residential | -\$122,621 | -\$167,612 | 36.69% | -\$240,008 | 43.19% | -\$225,886 | -5.88% | -\$252,850 | 11.94% | -\$223,286 | -11.69% | -\$321,124 | 43.82% | -\$129,449 | 26.98% |
| (Room, board rev | | | | | | | | | | | | | | | |
| less Nutrition | | | | | | | | | | | | | | | |
| and Operation of | | | | | | | | | | | | | | | |
| Dormitory exp) | | | | | | | | | | | | | | | |

FY03 to FY09

Revenues and Expenses

| | Audited Statements | | | | Budgets | | AVG | Ann Diff | AVG |
|-------------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------|
| | FY03 | FY04 | FY05 | FY06 | FY07 | FY08 | | | |
| Revenues | | | | | | | | | |
| State Assistance | \$1,588,442 | \$1,620,211 | \$1,620,442 | \$1,627,837 | \$1,620,442 | \$1,636,246 | \$1,742,491 | \$1,636,587 | 1.62% |
| State Assistance, Spec Ed | \$465,197 | \$404,138 | \$308,686 | \$359,721 | \$504,863 | \$675,500 | \$64,700 | \$64,700 | 7.45% |
| Room and board | (\$83,594) | (\$49,348) | (\$33,080) | (\$54,805) | (\$91,582) | \$673,100 | \$673,100 | \$484,458 | -45.82% |
| Financial aid | \$39,625 | \$29,313 | \$15,228 | \$33,960 | \$31,379 | \$146,200 | \$146,200 | \$29,901 | -16.67% |
| Maintenance fee | \$1,644 | \$2,182 | \$3,479 | \$9,726 | \$13,768 | \$12,000 | \$4,000 | \$6,686 | 23.88% |
| Interest | \$49,560 | \$11,187 | \$16,541 | \$29,380 | \$118,988 | \$161,000 | \$178,000 | \$80,665 | 43.19% |
| Grants/Donations | \$86,420 | \$153,283 | \$126,181 | \$122,940 | \$127,385 | \$140,000 | \$145,000 | \$128,744 | 11.30% |
| Outreach programs | \$19,754 | \$34,145 | \$25,290 | \$28,826 | \$231,829 | \$216,900 | \$202,800 | \$108,506 | 154.44% |
| Other | \$2,167,048 | \$2,205,111 | \$2,082,767 | \$2,157,585 | \$2,557,072 | \$2,987,846 | \$3,156,291 | \$2,473,389 | 7.61% |
| Total Revenue | | | | | | | | | |
| | | | | | | | | | |
| Expenditures | | | | | | | | | |
| Director's office | \$112,710 | \$118,933 | \$144,733 | \$180,217 | \$162,140 | \$151,004 | \$133,574 | \$143,330 | 3.09% |
| Board of trustees | \$4,668 | \$3,009 | \$3,112 | \$2,859 | \$83,499 | \$3,725 | \$4,825 | \$3,942 | 0.56% |
| Administrative support | \$79,601 | \$71,080 | \$66,582 | \$69,725 | \$83,499 | \$108,900 | \$129,599 | \$86,998 | 10.47% |
| Instruction | \$939,918 | \$964,218 | \$730,122 | \$736,832 | \$903,245 | \$899,141 | \$844,804 | \$859,754 | -1.69% |
| College counseling | \$57,094 | \$66,191 | \$50,332 | \$88,874 | \$119,420 | \$89,630 | \$77,659 | \$72,075 | 4.37% |
| Special Education | \$0 | | | | | \$27,538 | \$31,734 | \$19,757 | |
| Lib/Tech Support | \$20,826 | \$20,874 | \$16,045 | \$31,887 | \$49,874 | \$127,062 | \$156,862 | \$141,962 | 66.38% |
| Health services | \$277,612 | \$245,871 | \$242,000 | \$233,697 | \$433,921 | \$510,000 | \$103,771 | \$45,196 | 14.55% |
| Nutrition | \$2,891 | \$7,992 | \$12,910 | \$10,461 | \$8,800 | \$17,000 | \$8,800 | \$10,009 | 34.07% |
| Student activities | \$964 | \$3,920 | \$3,875 | \$7,073 | \$4,337 | \$4,337 | \$4,337 | \$4,084 | 58.32% |
| Athletics | \$104,907 | \$101,627 | \$124,406 | \$128,546 | \$144,044 | \$168,447 | \$207,875 | \$139,979 | 16.36% |
| Operation of school | \$310,206 | \$325,879 | \$306,694 | \$351,910 | \$323,792 | \$388,786 | \$474,224 | \$354,499 | 8.81% |
| Operation of dormitory | \$0 | | | | | \$48,000 | \$48,000 | \$32,000 | |
| Capital project | | | | | | \$35,092 | \$28,054 | \$84,655 | 5.70% |
| Development | \$87,582 | \$76,110 | \$73,272 | \$61,831 | \$86,242 | \$90,000 | \$117,548 | \$84,655 | 3.13% |
| Transportation | \$70,670 | \$61,643 | \$85,916 | \$82,917 | \$93,769 | \$71,921 | \$83,935 | \$78,682 | 5.46% |
| Admissions | \$71,336 | \$141,968 | \$138,411 | \$94,177 | \$126,132 | \$108,392 | \$94,705 | \$110,732 | |
| Outreach programs | | | | | | \$38,781 | \$66,966 | \$52,874 | |
| Publicity | | \$18,671 | | \$431 | | \$27,000 | \$20,000 | \$16,526 | -16.67% |
| Contingency | \$12,000 | \$16,529 | \$16,495 | \$16,495 | \$16,505 | | | \$15,605 | -16.67% |
| Debt principal | \$368 | | | | | | | \$368 | |
| Debt interest | | | | | | | | \$22,641 | |
| Maintenance fee | | | | | | | | \$2,465,587 | |
| Total Expenditures | \$2,153,353 | \$2,244,515 | \$2,014,905 | \$2,119,896 | \$2,582,299 | \$2,987,849 | \$3,156,289 | | |
| | | | | | | | | | |
| Selected Expense Groups | | | | | | | | | |
| Admin, lines 21-23 | \$196,979 | \$193,022 | \$214,427 | \$255,339 | \$248,498 | \$263,629 | \$267,998 | \$234,270 | 6.01% |
| student support, lines 25-28,30, 31 | \$359,387 | \$344,848 | \$325,162 | \$371,992 | \$603,215 | \$848,660 | \$897,579 | \$535,835 | 24.96% |
| Room & Board; lines 29, 33 | \$587,818 | \$571,750 | \$548,694 | \$585,607 | \$757,713 | \$998,786 | \$994,224 | \$706,370 | 11.52% |
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Maine School of Science and Mathematics

Revenues and Expenses: % Distribution

FY03 to FY09

| | Audited Statements | | | | Budgets | | | % change |
|-------------------------------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | FY03 | FY04 | FY05 | FY06 | FY07 | FY08 | FY09 | |
| Revenues | | | | | | | | |
| State Assistance | 73.30% | 73.48% | 77.80% | 75.45% | 63.37% | 54.76% | 55.21% | 67.62% |
| State Assistance, Spec Ed | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 2.05% | 0.29% |
| Room and board | 21.47% | 18.33% | 14.82% | 16.67% | 19.74% | 22.61% | 21.33% | 19.28% |
| Financial aid | -3.86% | -2.24% | -1.59% | -2.54% | -3.58% | 4.89% | 4.63% | -0.61% |
| Maintenance fee | 1.83% | 1.33% | 0.73% | 1.57% | 1.23% | 0.00% | 0.00% | 0.96% |
| Interest | 0.08% | 0.10% | 0.17% | 0.45% | 0.54% | 0.40% | 0.13% | 0.27% |
| Grants/Donations | 2.29% | 0.51% | 0.79% | 1.36% | 4.65% | 5.39% | 5.64% | 2.95% |
| Outreach programs | 3.99% | 6.95% | 6.06% | 5.70% | 4.98% | 4.69% | 4.59% | 5.28% |
| Other | 0.91% | 1.55% | 1.21% | 1.34% | 9.07% | 7.26% | 6.43% | 3.97% |
| Total Revenue | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| Expenditures | | | | | | | | |
| Director's office | 5.23% | 5.30% | 7.18% | 8.50% | 6.28% | 5.05% | 4.23% | 5.97% |
| Board of trustees | 0.22% | 0.13% | 0.15% | 0.25% | 0.11% | 0.12% | 0.15% | 0.16% |
| Administrative support | 3.70% | 3.17% | 3.30% | 3.29% | 3.23% | 3.64% | 4.11% | 3.49% |
| Instruction | 43.65% | 42.96% | 36.24% | 34.78% | 34.98% | 30.09% | 26.77% | 35.63% |
| College counseling | 2.65% | 2.95% | 2.50% | 4.19% | 4.62% | 3.00% | 2.28% | 3.17% |
| Special Education | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.92% | 1.01% | 0.28% |
| Lib/Tech Support | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 4.25% | 4.97% | 1.32% |
| Health services | 0.97% | 0.93% | 0.80% | 1.50% | 1.93% | 2.45% | 3.29% | 1.69% |
| Nutrition | 12.89% | 10.95% | 12.01% | 11.02% | 16.80% | 17.07% | 16.48% | 13.89% |
| Student activities | 0.13% | 0.36% | 0.64% | 0.49% | 0.00% | 0.57% | 0.28% | 0.35% |
| Athletics | 0.04% | 0.17% | 0.33% | 0.33% | 0.00% | 0.15% | 0.14% | 0.15% |
| Operation of school | 4.87% | 4.53% | 6.17% | 6.06% | 5.58% | 5.64% | 6.59% | 5.63% |
| Operation of dormitory | 14.41% | 14.52% | 15.22% | 16.60% | 12.54% | 13.01% | 15.02% | 14.47% |
| Capital project | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 1.61% | 1.52% | 0.45% |
| Development | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 1.17% | 0.67% | 0.26% |
| Transportation | 4.07% | 3.39% | 3.64% | 2.92% | 3.34% | 3.01% | 3.72% | 3.44% |
| Admissions | 3.28% | 2.75% | 4.26% | 3.91% | 3.63% | 2.41% | 2.66% | 3.27% |
| Outreach programs | 3.31% | 6.33% | 6.87% | 4.44% | 4.88% | 3.63% | 3.00% | 4.64% |
| Publicity | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 1.30% | 2.12% | 0.49% |
| Contingency | 0.00% | 0.83% | 0.00% | 0.02% | 0.00% | 0.90% | 0.63% | 0.34% |
| Debt principal | 0.56% | 0.74% | 0.82% | 0.78% | 0.64% | 0.00% | 0.00% | 0.50% |
| Debt Interest | 0.02% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Maintenance fee | 0.00% | 0.00% | 0.00% | 0.92% | 1.43% | 0.00% | 0.37% | 0.39% |
| Total Expenditures | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% | 100.00% |
| Selected Expense Groups | | | | | | | | |
| Admin, lines 21-23 | 9.15% | 8.60% | 10.64% | 12.04% | 9.62% | 8.82% | 8.49% | 9.62% |
| student support, lines 25-28,30, 31 | 3.80% | 4.41% | 4.13% | 6.52% | 6.56% | 11.33% | 11.96% | 6.96% |
| Room & Board; lines 29, 33 | 27.30% | 25.47% | 27.23% | 27.62% | 29.34% | 30.08% | 31.50% | 28.36% |
| | | | | | | | | 2.57% |

Maine School of Science and Mathematics

Revenues and Expenses: Per Pupil

FY03 to FY09

120 students used for comparison. Actual enrollment varies

| | Audited Statements | | | | | | Budgets | | % change |
|-------------------------------------|--------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| | FY03 | FY04 | FY05 | FY06 | FY07 | FY08 | FY09 | AVG | |
| Revenues | | | | | | | | | |
| State Assistance | \$13,237 | \$13,502 | \$13,504 | \$13,565 | \$13,504 | \$13,635 | \$14,521 | \$13,638 | 1.62% |
| State Assistance, Spec Ed | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$539 | \$539 | |
| Room and board | \$3,877 | \$3,368 | \$2,572 | \$2,998 | \$4,207 | \$5,629 | \$5,609 | \$4,037 | 7.45% |
| Financial aid | -\$697 | -\$411 | -\$276 | -\$457 | -\$763 | \$1,218 | \$1,218 | -\$24 | -45.82% |
| Maintenance fee | \$330 | \$244 | \$127 | \$283 | \$261 | \$0 | \$0 | \$249 | -16.67% |
| Interest | \$14 | \$18 | \$29 | \$81 | \$115 | \$100 | \$33 | \$56 | 23.88% |
| Grants/Donations | \$413 | \$93 | \$138 | \$245 | \$992 | \$1,342 | \$1,483 | \$672 | 43.19% |
| Outreach programs | \$720 | \$1,277 | \$1,052 | \$1,025 | \$1,062 | \$1,167 | \$1,208 | \$1,073 | 11.30% |
| Other | \$165 | \$285 | \$211 | \$240 | \$1,932 | \$1,808 | \$1,690 | \$904 | 154.44% |
| Total Revenue | \$18,059 | \$18,376 | \$17,356 | \$17,980 | \$21,309 | \$24,899 | \$26,302 | \$20,612 | |
| Expenditures | | | | | | | | | |
| Director's office | \$939 | \$991 | \$1,206 | \$1,502 | \$1,351 | \$1,258 | \$1,113 | \$1,194 | 3.09% |
| Board of trustees | \$39 | \$25 | \$26 | \$45 | \$24 | \$31 | \$40 | \$33 | |
| Administrative support | \$663 | \$592 | \$555 | \$581 | \$696 | \$908 | \$1,080 | \$725 | 10.47% |
| Instruction | \$7,833 | \$8,035 | \$6,084 | \$6,140 | \$7,527 | \$7,493 | \$7,040 | \$7,165 | -1.69% |
| College counseling | \$476 | \$552 | \$419 | \$741 | \$995 | \$747 | \$601 | \$647 | 4.37% |
| Special Education | \$0 | \$0 | \$0 | \$0 | \$0 | \$229 | \$264 | \$165 | |
| Lib/Tech Support | \$0 | \$0 | \$0 | \$0 | \$0 | \$1,059 | \$1,307 | \$1,183 | |
| Health services | \$174 | \$174 | \$134 | \$266 | \$416 | \$609 | \$865 | \$377 | 66.38% |
| Nutrition | \$2,313 | \$2,049 | \$2,017 | \$1,947 | \$3,616 | \$4,250 | \$4,333 | \$2,932 | 14.55% |
| Student activities | \$24 | \$67 | \$108 | \$87 | \$0 | \$142 | \$73 | \$83 | 34.07% |
| Athletics | \$8 | \$33 | \$32 | \$59 | \$0 | \$36 | \$36 | \$34 | 58.32% |
| Operation of school | \$874 | \$847 | \$1,037 | \$1,071 | \$1,200 | \$1,404 | \$1,732 | \$1,166 | 16.36% |
| Operation of dormitory | \$2,585 | \$2,716 | \$2,556 | \$2,933 | \$2,698 | \$3,240 | \$3,952 | \$2,954 | 8.81% |
| Capital project | \$0 | \$0 | \$0 | \$0 | \$0 | \$400 | \$400 | \$267 | |
| Development | \$0 | \$0 | \$0 | \$0 | \$0 | \$292 | \$175 | \$234 | |
| Transportation | \$730 | \$634 | \$611 | \$515 | \$719 | \$750 | \$980 | \$705 | 5.70% |
| Admissions | \$589 | \$514 | \$716 | \$691 | \$781 | \$599 | \$699 | \$656 | 3.13% |
| Outreach programs | \$594 | \$1,183 | \$1,153 | \$785 | \$1,051 | \$903 | \$789 | \$923 | 5.46% |
| Publicity | \$0 | \$0 | \$0 | \$0 | \$0 | \$323 | \$558 | \$441 | |
| Contingency | \$0 | \$156 | \$0 | \$4 | \$0 | \$225 | \$167 | \$138 | |
| Debt principal | \$100 | \$138 | \$137 | \$137 | \$138 | \$0 | \$0 | \$130 | -16.67% |
| Debt Interest | \$3 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$3 | -16.67% |
| Maintenance fee | \$0 | \$0 | \$0 | \$162 | \$307 | \$0 | \$97 | \$189 | |
| Total Expenditures | \$17,945 | \$18,704 | \$16,791 | \$17,666 | \$21,519 | \$24,899 | \$26,302 | \$20,547 | |
| Selected Expense Groups | | | | | | | | | |
| Admin, lines 21-23 | \$1,641 | \$1,609 | \$1,787 | \$2,128 | \$2,071 | \$2,197 | \$2,233 | \$1,952 | |
| student support, lines 25-28,30, 31 | \$2,995 | \$2,874 | \$2,710 | \$3,100 | \$5,027 | \$7,072 | \$7,480 | \$5,421 | |
| Room & Board; lines 29, 33 | \$4,898 | \$4,765 | \$4,572 | \$4,880 | \$6,314 | \$7,490 | \$8,285 | \$5,886 | |

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Facilities Study to Support the Maine School of Science & Mathematics

MSSM Revenue and Expense Categories

Revenue Categories

Total Revenues from FY2004 to FY2009:

| | |
|----------------|--|
| Range | \$2,082,767 (FY2005) to \$3,156,291 (FY2009) |
| Average | \$2,473,389 |
| Average Change | 7.61% |

State Assistance from FY2004 to FY2009:

| | |
|----------------|---|
| Range | \$1,588,442(FY2003) to \$1,742,491 (FY2009) |
| Average | \$1,636,587 |
| Average Change | 1.62% |

Room and Board Fees from FY2004 to FY2009:

| | |
|----------------|--|
| Range | \$308,686 (FY2005) to \$673,100 (FY2009) |
| Average | \$484,458 |
| Average Change | 7.45% |

Grants/Donations from FY2004 to FY2009:

| | |
|----------------|---|
| Range | \$11,187 (FY2004) to \$178,000 (FY2009) |
| Average | \$80,665 |
| Average Change | 43.19% |

Outreach Programs from FY2004 to FY2009:

| | |
|----------------|---|
| Range | \$86,420 (FY2003) to \$153,283 (FY2004) |
| Average | \$128,744 |
| Average Change | 11.30% |

Revenue Categories By Percentage of Whole

% of State Assistance in Total Revenue from FY2004 to FY2009:

| | |
|---------|-----------------------------------|
| Range | 55.21% (FY2009) to 77.8% (FY2005) |
| Average | 67.62% |

% of Room and Board Fees in Total Revenue from FY2004 to FY2009:

| | |
|---------|------------------------------------|
| Range | 14.82% (FY2005) to 22.61% (FY2008) |
| Average | 19.28% |

% of Grants/Donations in Total Revenue from FY2004 to FY2009:

| | |
|---------|---------------------------------|
| Range | .51% (FY2004) to 5.64% (FY2009) |
| Average | 2.95% |

% of Outreach Programs in Total Revenue from FY2004 to FY2009:

| | |
|---------|----------------------------------|
| Range | 3.99% (FY2003) to 6.95% (FY2004) |
| Average | 5.28% |

Expenses Categories

Administrative Expenses from FY2004 to FY2009:

| | |
|----------------|--|
| Range | \$193,022 (FY2004) to \$267,998 (FY2009) |
| Average | \$234,270 |
| Average Change | 6.01% |

Instruction Expenses from FY2004 to FY2009:

| | |
|----------------|--|
| Range | \$730,122 (FY2005) to \$964,218 (FY2004) |
| Average | \$859,754 |
| Average Change | -1.69% |

Student Support Services Expenses from FY2004 to FY2009:

| | |
|----------------|--|
| Range | \$352,162 (FY2005) to \$897,579 (FY2009) |
| Average | \$535,835 |
| Average Change | 24.96% |

Operation of School (LCS) Expenses from FY2004 to FY2009:

| | |
|----------------|--|
| Range | \$101,267 (FY2004) to \$207,875 (FY2009) |
| Average | \$139,979 |
| Average Change | 16.36% |

Operation of Dormitory School Expenses from FY2004 to FY2009 (Includes Residential Interns):

| | |
|----------------|--|
| Range | \$306,694 (FY2005) to \$474,224 (FY2009) |
| Average | \$354,499 |
| Average Change | 8.81% |

Expense Categories By Percentage of Whole

% of Administrative Expenses in Total Expenses from FY2004 to FY2009:

| | |
|---------|-----------------------------------|
| Range | 8.49% (FY2009) to 12.04% (FY2006) |
| Average | 6.01% |

% of Instruction Expenses in Total Expenses from FY2004 to FY2009:

| | |
|---------|------------------------------------|
| Range | 26.77% (FY2009) to 43.65% (FY2003) |
| Average | 35.63% |

% of Student Support Services Expenses in Total Expenses from FY2004 to FY2009:

| | |
|---------|------------------------------------|
| Range | 15.36% (FY2004) to 28.44% (FY2009) |
| Average | 20.85% |

% of Operation of School (LCS) Expenses in Total Expenses from FY2004 to FY2009:

| | |
|---------|----------------------------------|
| Range | 4.53% (FY2004) to 6.59% (FY2009) |
| Average | 5.63% |

% of Operation of Dormitory School Expenses in Total Expenses from FY2004 to FY2009 (Includes Residential Interns):

| | |
|---------|------------------------------------|
| Range | 12.54% (FY2007) to 16.60% (FY2006) |
| Average | \$354,499 |



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Revenue and Expense Issues

Annual budgets, year end statements, other financial data supplied by the administration and conversations with the administration contributed to this report. While it is taking a 'snap shot' to just look at the budget for next year in comparison to last year's budget, there are some questions raised by such an analysis.

Revenue Issues

State Assistance is not keeping pace with the annual cost of living, nor is it keeping pace with the increase in the MSSM annual budget. The annual increase in the budget from FY03 to FY09 was 7.61%, which is not exorbitant. However, the increase in State Assistance over that period was only 1.62%.

It appears that LCS is paying \$30,000 for library services and MSSM is providing those services. MSSM is providing the librarian with \$9,000 of professional development (to become certified by the DOE). The rest of the faculty appears to have a budget of less than \$6,000. Is MSSM receiving adequate compensation for this service?

The Outreach programs appear to be showing a "profit", on a cash basis. It is difficult to determine if they are really making money (or even breaking even) given the additional stress on MSSM resources and loss of time during the summer for physical plant renewal. It is a more usual ratio for a summer program's income to double its expense for the program to really add to the positive cash flow when all of the true expenses are able to be calculated. While the Outreach is a statutory requirement, it should be strengthened as a student recruitment tool. One of the issues described in the application for NEASC accreditation is that referring teachers and guidance counselors in the state do not know enough about the MSSM. Perhaps the whole Outreach program needs to be rethought in terms of taking the school to the audience rather than expecting the audience to come to the school.

From the revenue figures in the budget it appears that the Trafton Avenue Houses generate almost \$29,000 annually and yet are only charged with \$3000 of expense. Either the accounting is wrong or more of the money generated by those facilities should be going back into them, as \$3000 is not nearly enough to maintain, let alone improve, those properties.

Room and Board Revenue is reported as showing an average annual increase of 7.45%. At the same time, expensed related to Room and Board (Nutrition and Operation of the Dormitory) have increased by an annual average of 14.55% and 8.81% respectively. The result is a loss over this period averaging \$221,912.

Expense Issues

It appears that academics have been cut a considerable amount of money for their programs. It is clear that some of the Dean of Academic's budget was moved to the teacher's budget, but the result looks like a substantial cut. For example:

- The amount spent on Instruction in FY03 is \$95,114 less than the FY09 budget. This is an annual decline of 1.69%.
- The share of the Total Budget for Instruction has dropped from 43.65% in FY03 to 26.77% in FY09. This is an annual decline of an average of 6.45%.
- Assuming 120 students were enrolled in FY03, the expenditure per student was \$7,833. Based on 120 students, the amount in the FY'09 budget is \$7,040.

The MSSM budget appears to include \$20,000 to recruit new staff, and less than \$6,000 to maintain their professional growth. Is this the proper balance? Given the cost of accessing training due to the location of MSSM, this budget needs to be increased.

Travel/meals/hotels in all of the areas total over \$30,000 which is much more than many more important lines in the budget. This cost seems to be large for this size of the schools, even given its remote location.

Given the stated and serious need for fundraising, why has that budget been cut? With only \$25,000 in grant income, and that restricted (and perhaps recurring), a limited alumni body, and a parent body in great need of training in giving, this seems a questionable cut.

How often are transportation services bid to keep them competitive? It seems like a high figure in the budget given what is understood to be the transportation needs of the school. Why does the school, other than tradition, transport students from the school home and back? Nothing in the mission or legislation makes this necessary and it is therefore a very large discretionary expense that the school can ill afford. Many residential schools use the time parents are on campus to pick up their children as key opportunities to connect them to the school with corresponding positive results in annual giving.

How often is food service bid out to keep it competitive? With the revenue from LCS of \$137,000 for its meals (primarily lunches) the bill to the school is \$383,000 for its meals. While the quality and service may be very good, it is incumbent upon the school to bid out the food service contract on a regular (at least 3 year) rotation to assure a competitive price for the similar service. Will the new RSU have sufficient ability to manage the food service program, and therefore remove the need to pay "profit" to the vendor?

The overall budget is subsidizing the residential program (see Revenue notes above).

The real cost of the residential program has likely been calculated to determine the price charged. If not this calculation needs to be done carefully, and annually, to make sure the charges cover the full cost. History in colleges and private boarding schools has shown that it is far better to "charge what it costs" to those who can afford the true cost and give financial aid where it is warranted, than to give de facto financial aid to all students by an across the board subsidy to all families.



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Revenue and Expense Observations

Revenue Observations

In FY1998, State Assistance for the MSSM was \$1,355,692. In 2009, State Assistance will be \$1,742,491. That is an increase of \$386,799, or an annual increase of 2.8%. It appears that state Assistance has not kept up with the cost of living.

In FY1998, State Assistance for the MSSM was 84% of the total revenues. In FY2009, that share will be 55%.

The amount has increased each year (except FY2001, when it was decreased by over \$100,000, and FY2007, when it was decreased by \$7,000).

In FY1998, the total Revenue received by MSSM was \$1,611,983. In FY2009, that amount is expected to be \$3,156,291. This represents an increase of \$1,546,308, or an annual increase of 9.6%

The amount of State Assistance per pupil (assuming a constant enrollment of 120) ranged from \$13,237 to \$14,521.

The net from the Outreach programs has ranged from a loss of \$12,230 in FY2005 to an anticipated net gain of \$50,295 in FY2009. If these programs can be expanded, this would create an increasing source of revenue for the school.

The MSSM receives payments for room and board. Expenses related to room and board include Nutrition Services (board) plus Operation of Dormitory (room). The MSSM budget is subsidizing the net cost of these services in amount ranging from \$122,621 in FY2004 to an anticipated \$321,124 in FY2009.

The top six sources of Revenue in FY2009 include:

| | |
|-------------------|--------|
| State Assistance | 55.21% |
| Room and Board | 19.28% |
| Other | 6.43% |
| Grants/Donations | 5.64% |
| Financial aid | 4.63% |
| Outreach Programs | 4.59% |

Expense Observations

Until FY2008, the largest expenditure category has been Instruction. The amount spent of Instruction has been consistently in the 40% range since FY1998. In the fiscal years 2005 to 2008, this portion of the budget reduced to the 30% range. The portion of the total expenditures committed to Instruction is 26.77% in FY2009. In FY2009,

the budgeted expenditures for room and board exceed the amount proposed for Instruction.

The next largest contributor to the total expenditure is student room and board (Nutrition Services plus Operation of the Dormitory). The shares of expenditures have ranged from 18% in FY1998 to 30% in FY2009.

In FY1998, the portion of the expenditures charged to administration was 20.77%. This portion has diminished each year, except FY2005. It now reflects a little over 8% of the total expenditures.

The fourth largest portion of total expenditures is attributable to Student Services. College Counseling, Special Education, Library/Technology Support, Health Services, Student Activities and Athletics consumed between 5.8% of the expenditures in FY1998, and 11.96% in FY2009. In FY2009, the State Assistance for Special Education will provide additional revenues to partially offset this expenditure.

The final expenditure category having much impact on the total is Operation of School. This is the amount for operating and maintaining the LCS. The portion of the total expenditures has ranged from nearly 5% to close to 7% of the total budget.

The top five contributors to the Expenses in FY2009 include:

| | |
|--------------------------|--------|
| Room and Board | 31.50% |
| Instruction | 26.77% |
| Student Support Services | 11.96% |
| Administration | 8.49% |
| Operation of School | 6.59% |

The percentage of Administration and Student Services expenditures appear to be reasonable.

The Trafton Avenue Houses may be key players in the expansion of the school. The administration would do well to improve their condition significantly.



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Revenue and Expense Recommendations

There are steps that could be taken that would improve the financial status of the school.

Revenue

State Assistance should increase, with arguments including the need to increase expenditures for Instruction, Operation of Dormitory and Operation of School.

The net loss from room and board should be reduced. A combination of efforts to increase revenues and to increase room and board scholarships should be considered. The amount per pupil spent on room and board (approximately \$8,000 per year) is offset by revenue per pupil of approximately \$5,600. There may be ways to reduce this discrepancy through higher room and board fees and specific grants in aid for this purpose.

Now that the alumni of MSSM have started to reach academic maturity, the alumni association should become more active in encouraging them to return financial support to MSSM.

Other sources of grants and donations need to be explored.

Conduct a cost/benefit analysis to determine if the library services program is adequately funded by both LCS and MSSM.

The use of Outreach Programs to create more net revenue should be investigated. The net amount is small, but not insignificant.

Other portions of this report suggest that there is capacity for more students. If an active effort is made to recruit students from outside of Maine (i.e. tuition paying students), there should be ample resources for the academic involvement.

Creative use of the Trafton houses for student residential clusters could allow for expanding enrollment without substantial investment.

Establish a capital planning endowment fund.

Consider assuming responsibility for the swimming pool in the Limestone Community School and the gymnasium in the dormitory. Charge a fee for use.

A case needs to be made for capital investment in additional dormitory space.

Employ a contract grant writer with a goal of earning the school at least 5 times the cost in grant income.

Invest in a full fledged development office with clear goals and income/expense ratios that create increasing revenues for the school.

Expense

The amount spent on Instruction needs to be examined by the accreditation team.

Review all expense lines in the budget in terms of the school's mission and adjust to reflect the reality of school operations.

Fund raising must become a high priority for MSSM with adequate resources devoted to insure its success. Goals for annual giving from various segments of the school's constituencies and grants should be established.

Review the MSSM chart of accounts to provide more internal accounting and financial management. Align the chart of accounts with the state required chart of accounts. Use of the revised chart of accounts will provide better financial data management.

MSSM provides several services to its students that are traditionally 'charged back' to students in public and private schools. The school should look at its home to school to home transportation service, and its medical/mental health services, as examples, of services that might better be the responsibility of student's families rather than the school's budget.

Complete a cost/benefit analysis of managing the nutrition program with MSSM employees. The current contracted service appears to be excellent, but it still has to make a profit.

Develop policies concerning the length of contracts for service, such as transportation and nutrition. Periodic re-opening of the bidding process should be beneficial.

Negotiate a fee-for-service contract for business operations with the Limestone School Department.



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Educational Program

In FY07 -08, there were 53 year-long and 12 half-year courses offered by 26 different faculty members. Teaching assignments per teacher ranged from 1 course to 5.

Class sizes averaged 10 students. Thirty-two classes has less than 10 students; 27 had enrollment ranging from 10 to 14, and 6 had an enrollment that exceeded 15 students.

In addition to the above, there were four sections of Senior Seminar offered during each semester.

Courses by academic focus include:

| | |
|--|-----------------------------|
| Computer Science | 4 |
| English | 8, plus 2 semester courses |
| Fine Arts | 4, plus 3 semester courses |
| Foreign Language (French, Spanish, Chinese) | 8 |
| Mathematics | 11, plus 3 semester courses |
| Science | 12, plus 4 semester courses |
| Social Science, History | 6 |

Mathematics courses include Advanced Math (accelerated and regular), Algebra (Intermediate and Linear), and Calculus (Differential Equations, Pre-Calculus, Multi-Variable, and AP sections).

Science courses include Anatomy, Astronomy, Biology (includes Introductory, Computational, AP sections), Chemistry (Honors, AP sections), Environmental Sciences (AP), Genetics, and Physics (Honors, AP sections).

In addition, AP courses are available in English Language, Literature, US History, French, and Psychology.

During January of each academic year, students participate in a 10-day un-graded intensive innovative program designed to explore specific interests. Examples include foreign travel, specific research at other institutions, and internships.

Based on the number of courses, enrollment in each course, and the number of faculty members, the enrollment could be expanded without affecting the delivery system.

Extra-Curricular Activities

Students compete as members of the Limestone High School sports team. Opportunities include soccer, cross country, golf, basketball, volleyball, cheerleading, swimming, baseball, softball, track & field, and tennis.

Co-Curricular Activities

Students can participate in a wide range of co-curricular activities sponsored by MSSM. These include A Capella chorus, Key Club, Math team, Model UN, Cooking Club, Dorm committee, Science team, Student senate, jazz band.

Students may also participate with LCS students in LCS co-curricular activities, such as drama and music.

Informal Activities

MSSM provides a variety of informal activities for its students. Using the gym, which is located within the dorm, students can play basketball, indoor soccer, pool, ping pong, and foosball.

MSSM students have access to the swimming pool, located in the LCS.

The dorm has a lounge that provides access to weekend activities such as big screen TV, video games, and dances, reading areas, and a full service kitchen for student-prepared meals.

MSSM provides access to a variety of activities and trips, including going to the mall, hiking, attending area concerts and cultural events, ice skating arena and rock climbing wall in Presque Isle. Activities include biking, weight-lifting, and ultimate Frisbee. The school sponsors holiday activities, semi-formals, prom, theater performances, international events and special holiday dinners.



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Program Observations

Academic

Two high schools share the same building. Both offer students a range of academic experiences, covering all of the Maine Learning Results. Courses other than science and mathematics that are offered by both schools include:

- English
- French
- Literature and Film
- U.S. History

LCS offers several sections of History. Some are assumed to be World History, which is not on the MSSM course list.

MSSM offers courses in Theatre, Economics, Psychology, and several English courses that offer a focus not provided by the LCS curriculum.

However, it appears that students from one school do not enroll in courses offered by the other. As a school of science and mathematics, it is arguable that some, if not all, of the courses in that area require more preparation and background than most other students. However, in English, fine arts, foreign language, music, and social studies it may be possible to share staff and reduce costs for both schools while expanding offerings for all students.

Departmental meetings, with the staffs of both schools meeting regularly, could enhance program offerings in both schools.

MSSM Extra-Curricular Clubs and Activities

The offering of extracurricular activities is essential to the success of social aspects of residential life. Since the residential program is a critical aspect of the school's program, it should seek to be as broad and deep as the excellent academic program.

The MSSM has established a set of core Extra-Curricular Clubs and Activities that are available to students on an ongoing basis. Participation in the math team is arranged in the regular student schedule. Students interested in extra-curricular activities not included in the core are encouraged to speak with the Dean of Students to see if there is enough student interest and staff availability to implement the activity.

Despite the offering to students makes provision for new activities if "there is enough student interest", this does not seem to have happened in any meaningful way.

Looking carefully at the list of activities there really is not much variety: Dorm Council and Student Senate are student government, Graduation and Prom Committees are event planning. The others are more traditional clubs and activities. It is noted that none of these have strong physical, cultural, or contemporary interest.

Many boarding schools continue to require that all students participate in some extracurricular activity every afternoon for the entire year. While some of this is simply following tradition, it also has a firm basis in adolescent development. The inclusion of life sports and physical activities is so well researched at this point that its absence as part of a program that advertises teaching a healthy lifestyle rings hollow in the 21st century.

Sports

In conjunction with the Limestone Community School, eleven interscholastic sports are available through the Maine Principal's Association (based on funding and student interest). A twelfth, volleyball, is available through the region's Aroostook League.

As MSSM grows, it might be good for the relationship with LCS and a good way to bring some notoriety to the school in a different realm for MSSM to sponsor an athletic team (on which LCS students could participate). The LCS/MSSM complex has such good athletic facilities that finding a suitable sport should not pose a big problem or be a big financial drain.

General

MSSM students share the halls of LCS with students from Limestone. There is some sharing of participation in sports and activities. Given the shared facilities, the connections between students seem minimal.



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Program Recommendations

In cooperation with the LCS staff, develop extra-curricular activities that take advantage of the school's setting. Suggestions include, but are not limited to:

- | | |
|---|-----------------------------|
| Agri-business activities | Food production (gardening) |
| Biathlon activities | Forestry management |
| Camping | Gaming theory |
| Canadian studies | Global warming |
| Club activity competitions or intra-murals, such as pool, ping pong, foosball | Hiking |
| Community service activities | Ice hockey |
| Cross-country skiing | Outing club |
| Dance | Service for shut-ins |
| Emergency Medical Services cadet group | Snow shoeing |
| Entrepreneurship | Synchronized swimming |
| Environmental protection | Winter camping |

Make the adult support of, and/or involvement in, one activity, club, or sport each semester an expectation for all faculty and staff members. This is the norm in most boarding schools. Some care must be taken to make this work equitable.

In cooperation with the LCS staff, establish an expectation that each student in both schools should participate in some activity (including work for compensation) each term (or semester).

Develop activities offered to students that have a high probability of being carried over from year to year. While having a mechanism for students to request new activities from year to year, this plan has the potential for much annual variation. The result is that many activities do not 'get going' until later in the year and enrollment in some worthwhile activities suffers, as do students who need these outlets for their interests.

Commit to modifying MSSM student academic schedules to allow for participation in activities and events that are impacted by LCS transportation limitations.

Implement an ATM or telecommunications program for all students. Offer AP courses to students in other Maine schools. This will increase exposure, create an expanded support base for expansion of state financial resources, and increase the enrollment of Maine students.



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Student and Staff Residency Goals

Conditions of MSSM

MSSM is a residential school for students who are gifted in science and mathematics. Therefore, all students must be housed on campus.

There is a strong commitment, legally through the legislation initiating the school, and in its stated Mission and Purpose, to make the residential life a key element of the MSSM experience. Input obtained from alumni, parents, staff, students, and trustees supported the desire to have a strong residential life program for MSSM students.

The target population is approximately age 14 to 18. They are not ready, legally or developmentally, for independent living. Therefore, the involvement of caring adults in the residential lives of these students is essential.

The most logical caring adults include the teaching staff, the residential staff, and the staff who lead activities designed for the non-academic times that traditionally fall to the family responsibility. Other potential members of this adult unit include local community members, support staff members, and the administration.

The most effective way to provide a strong residential community of caring adults is to have a large number of those adults living in close geographical proximity to the students. Given that significant numbers of this community are employees of MSSM, it behooves MSSM to consider their residential needs along with the students.

Students need a residential life program that is:

- Environmentally and socially safe and healthful
- Supportive of the academic goals of MSSM
- Contributing to the social, physical, spiritual developmental of the students
- Flexible enough to meet the changing needs of individuals
- Rigid enough so that stability exists in their lives
- Conducive to their intense academic study and research
- Comprehensive enough to provide non-academic social development time
- Accessible to counseling, advice, or unbiased listening from an accepting adult
- Inviting, in good physical condition, not a distraction
- Accessible to a wide range of interests, learning opportunities, and self-exploration
- Assures privacy
- Creating opportunities for students to receive recognition for their efforts
- Encouraging them to participation in group decisions
- Encouraging them to complete chores and duties for the benefit of the whole
- Supportive of a positive relationship with their parents and family

Staff members need a residential life that is

- Affordable
- Accessible to students
- Designed to allow private time away from students
- Environmentally safe and healthful
- Flexible to meet the social configurations of adults – single, coupled, family
- Flexible to meet the career configurations of adults – entry level, experienced, semi-retired
- Inviting, in good physical condition, not a distraction
- Supportive of the mission of the school – academic excellence in a residential setting



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Student and Staff Residency Information

Dormitory

The majority of students reside in the dormitory. Based on information gleaned from the room layouts provided by school staff, there appear to be 60 dormitory rooms plus 6 other units in the dormitory. These provide space for a reported 120 students plus 6 residential staff. See **Residential Facility Information** (of this report) for more details.

It is reported that the living spaces provided for residential staff are not appropriate for couples or families who might otherwise be eligible to be employed.

Trafton Avenue Houses

There are 8 houses (4 singles, 4 duplex) for a total of 12 federally-owned living units located on Trafton Avenue that can be used for family-style staff and/or student housing.

The duplex units are designed for up to 8 students, plus an efficiency apartment for a residential advisor. The single units have three bedrooms, plus other spaces that are designed for a family.

Based on a facilities audit, a capital improvement plan for the Trafton Housing Units was developed in March 2006 that suggested that an estimated \$226,450 be invested over the ensuing five years.

It is reported that 6 units will be occupied in 2008-2009. There is a possibility that one or more of the units may be used for student housing. 2 units will be temporarily converted to administration use.

Staff members who reside in the Trafton Avenues units pay \$400 per month plus utilities.

Residency of staff

In a recent year, 17 staff resided in Limestone, 20 lived in other communities in the area, and 4 resided in Limestone during the school year only.



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Trafton Avenue Housing Facility Modification Proposal

This is not a building code review. Further detailed investigation needs to be conducted before costs for this project can be finalized.

Proposal: Convert the four Trafton Avenue duplex units to student residences, with space for 8 students and a resident family.

The basic floor area of each wing of the duplex units is 24 x 46, or 1,104 square feet. In addition, there is an efficiency residential apartment for a residential advisor joining the two sections that is 18 x 30, or 540 square feet.

Each section of the duplex unit has three bedrooms, a bathroom, and kitchen, dining, and living rooms. One section of the duplex would be retained for a residential family. The other section, along with the efficiency apartment, could be converted to dormitory space for up to 8 students. The student space, after renovations, could include four bedrooms, two bathrooms, a kitchenette area, quiet study space, and a living room.

Potential cost factors

| | |
|--|----------|
| Addition of one additional bathroom in student section | \$5,500 |
| Installation of one or more partitions | \$ 768 |
| Smoke detection and fire alarm system | \$1,500 |
| Replacing flooring | \$6,875 |
| Replacing ceilings | \$4,809 |
| Installing new wall finishes | \$ 614 |
| Replacing roof covering | \$4,680 |
| Total | \$24,746 |

Costs identified above are for discussion only, and are not the result of a comprehensive facility condition assessment.

The cost per duplex for the conversion is in the range of \$10.00 per square foot. The cost of new construction of a similar nature is estimated to be in the range of \$100.00 per square foot.

The cost per student for the renovations, if assigned to only one year, would be approximately \$3,000 per student housed in the renovated facility. If one assumes that the renovations eliminate any other significant work for at least five years, the cost per student per year then drops to \$600 per year.

Note: NFPA 101 for the year 2000, Chapter 24 (one and two family dwellings) and Chapter 26 (lodging and rooming housing) do not currently require a sprinkler system. Should this project be considered further, a thorough investigation of these and other applicable codes is required.

Completion of this project would allow for an additional 32 students to be enrolled in MSSM.



Facilities Study to Support the Maine School of Science & Mathematics

Student and Staff Residency Observations

Data reviewed:

1. Facilities analysis data for dorm (formerly used as a classroom building) and Trafton Avenue Houses
2. MSSM programs as they apply to residential life
3. Student Handbook
4. Stated Mission and Purpose
5. New England Association of Schools and Colleges

From the Student Handbook -Mission of MSSM

..... The residential experience encourages personal accountability and the development of skills in relationships, healthful living and social diversity.

Student Handbook – Philosophy

...All students live in residence to fully participate in this scholastic program of excellence with students who share similar interests. The nurturing of this educational community – the integration of the academic and residential components – is crucial to success at MSSM.

Student Handbook – Residential Life Philosophy

The residential life experience is an integral part of the total living/learning environment of the MSSM. The MSSM program reflects a comprehensive approach to student development by providing support for both academic and non-academic pursuits of each student.

A residential school is a cooperative living environment. In order to enjoy the benefits of MSSM, students need to accept responsibility for the health and well-being of its members. The living environment of MSSM is based upon the following principles:

- Students will be honest with themselves, as well as, with faculty and staff.
- Students will understand that privileges and responsibility accompany accountability for actions.
- Students at MSSM have unique opportunities for academic, social, and personal development. Self-discipline, self-motivation, and continuing personal commitment are cornerstones for continued success.
- The MSSM opportunity is a privilege extended by the citizens of Maine and should be taken seriously. Two primary criteria for continued placement at MSSM are academic performance and student citizenship.
- Everyone at MSSM deserves to be treated with courtesy and respect.
- Students are expected to participate in protecting themselves and their property.
- Students are expected to exhibit behaviors that promote personal and community cleanliness.

New England Assoc. of Schools and Colleges – Independent Schools Commission

Standard 8 (Residential Program)

The residential program provides for an intentional curriculum, appropriate facilities, engaging activities, and adequate supervision to meet the needs of each student.

Suggested Indicators:

- 8.a. Residential staff is qualified to meet the needs of students under their care and supervision.
- 8.b. The residential program is integrated into the total life of the school, especially with regard to the interaction with day students.
- 8.c. Evening, weekend, and vacation activities are actively planned, as part of the residential curriculum, to meet the needs of the students.
- 8.d. The school provides for the needs of international students, students with limited financial resources, and students who have difficulty adjusting to being away from home.
- 8.e. If technological services, such as computers, Internet access, email, and/or telephones, are included in residential areas, there is a process to ensure that policies and procedures are consistent with the school's overall Technology Plan and Acceptable Use Policy.
- 8.f. Through a well-defined process involving students, parents, and staff, a regular review of the residential program is accomplished which is intended to lead to revisions and/or improvements.
- 8.g. There are clearly-stated, written, and understood expectations for residential students and staff.
- 8.h. Students are included in planning and developing policies, expectations, and programs.

Independent Schools Commission

Standard 12 (Health and Safety)

The school is a safe and healthy place for students and faculty.

Suggested Indicators:

- 12.a. The school has a comprehensive written Crisis Response Plan that is clearly understood by faculty, staff, students, and parents.
- 12.b. The physical facilities and staffing for health care are adequate to meet the needs of the student body, whether residential or day.
- 12.c. Facilities and staff for food services are adequate and the quality of the food meets reasonable nutritional requirements.
- 12.d. The school has necessary support services and programs to meet the emotional needs of students.
- 12.e. The school periodically conducts a safety audit of its facilities.
- 12.f. There is a procedure in place to identify and monitor compliance with applicable local, state, and federal regulations.
- 12.g. There is a person or committee with responsibility for reviewing safety provisions for any off-campus activity, including field trips, athletic events, wilderness expeditions, etc.
- 12.h. The school has a reporting procedure in place to record and follow-up on any incidents regarding the health and safety of students or staff.
- 12.i. The school is a safe, clean, well-organized place that nurtures learning and mutual understanding among students and faculty. Concerns for safety include physical and emotional well-being.

6
SUPPORT STANDARD
SCHOOL RESOURCES FOR LEARNING

Independent Schools Commission

Standard 14 (Infrastructure)

There are adequate resources (personnel, finances, facilities, equipment, and materials) to provide for the overall institutional needs of the school.

Suggested Indicators:

- 14.a. The school has appropriate procedures for accounting and for auditing the accounts of the school.
- 14.b. The school has adequate financial resources for the needs of the school.
- 14.c. The school has adequate provision for insurance coverage.
- 14.d. The physical facilities of the school are appropriately maintained.
- 14.e. There is a recent, written Facilities Plan covering future needs, improvements, and additions.
- 14.f. The school has a clear picture of its long and short-term development needs and the plans, organization, and staffing to meet those needs.
- 14.g. The school has a written, institutional Technology Plan that provides for the coordination of academic and administrative functions, defines the technological services available, projects needs and directions, and describes the management system

Food Service

Student Handbook

The cafeteria will serve meals to MSSM students/staff at the following times:

| | | |
|-----------|----------------------|-------------------------|
| Breakfast | Monday – Friday: | 7:15 a.m. – 8:00 a.m. |
| Lunch | Monday – Friday: | 11:30 a.m. – 12:00 p.m. |
| Brunch | Saturday and Sunday: | 11:00 a.m. – 12:30 p.m. |
| Dinner | Daily: | 5:30 .m. – 6:30 p.m. |

Room and Board:

Maine residents do not pay tuition to attend the Maine School of Science and Mathematics, but are required to pay for room and board. The 2006-2007 Room and Board fee for Maine students is \$4500. The 2006-2007 Tuition/Room and Board fee for non-Maine residents is \$21,500.

For the 2008-2009 school year, these rates have been increased to \$6,400 for the Room and Board fee for Maine students and \$23,500 for the Tuition/Room and Board fee for non-Maine residents.

Comments:

The importance of a good food service to residential life cannot be over stressed. It is interesting to note that when the MFM team visited the school in June 2008 it was the Food Service Director who welcomed us and offered help in finding our way to the proper place for our meeting (along with coffee and a snack).

The decision to encourage faculty and faculty families to eat meals with students is to be commended and reinforced. Meal times, in residential schools, is one of the most important times of the day for observing student health and well being, communication, and setting an example of healthy family/community life. Many 'boarding schools' still require all faculty members to attend some meals so students have the opportunity to have access to them on a casual basis.



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Student and Staff Residency Recommendations

Implement the Trafton Avenue student housing plan. Consider housing for second year students only, and develop a common theme for each cluster of students. Examples include, but should not be limited to:

- Agriculture
- Astronomy
- Classical music
- Foreign language immersion
- Environmental studies
- International studies

Move toward better on-campus faculty housing by incorporating the modernization of the Trafton Avenue faculty apartments.

Take advantage of a declining real estate economy by purchasing good single family units and then renting them to faculty to cover the mortgage costs.

Continue to find ways for greater interaction between academic faculty, and their families, and students. Such interaction in a variety of different settings has multiple benefits for student life. Students, particularly one who is in some 'distress', who sees faculty members in the dorm, at breakfast, in classes, at lunch, in sports or other activities, at dinner, and again in the dorm in the evening during study time is unlikely to fall between the cracks.

Use cost accounting to determine the actual cost of the residential program and charge at least that as the boarding fee.

Recruit, train, support, and fairly compensate all residential life staff including director, assistants, and regular staff involved in the program.

If the Limestone students are moved to another location as part of the solution to their financial issues, consider purchase of the LCS and converting it to combined, faculty and student housing, and academic space.

Develop a capital funding campaign to raise sufficient funds to construct a new dormitory, with space for an addition 150 students, plus 6 faculty apartment, and a student center.

Solicit local community members to serve as unofficial "foster parents" for students in their first year at MSSM. The purpose would be to acclimate the students to life in Limestone and northern Maine, as well as providing an occasional home-cooked meal to resolve potential homesick conditions.



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Academic Facility Information

| <u>Time of use, daily</u> | <u>% Unscheduled time</u> |
|---------------------------|---------------------------|
| 7:30 to 9:30 | 55% |
| 9:30 to 10:30 | 52.5% |
| 10:30 to 11:30 | 55% |
| 12:00 to 1:00 | 80% |
| 1:00 to 2:00 | 75% |
| 2:00 to 4:00 | 65% |

Definition of unscheduled time: The specific room number does not have a specific class or program assigned to that location during a specific instructional period, as identified on the master schedule.

It is assumed that during the unscheduled time, the rooms are being used by faculty to prepare instruction for a future class, students are meeting with faculty and/or tutors for personal academic assistance, or the space is being cleaned. The remainder of the time, the room would be available for another instructional session, if staff and student numbers warranted.

Based on the academic room utilization review, the enrollment could be increased without a significant space problem.

Based on a "walk through" review and partial update of facility condition assessment completed by MFM in 2007, the Limestone Community School has a current replacement value of \$18,432,065. There are deficiencies totaling \$2,367,767, as well as \$11,859,984 in building systems that have exceeded their life span. Within the next 10 years (2008-2017), an additional \$1,886,562 should be invested to maintain the current replacement value. In the next 10 year period (2018-2027), systems with a current value of \$2,399,342 are scheduled to be renewed.

In addition to the findings outlined in the Facility Condition Assessment report, the MSSM staff has identified several issues with the academic facilities.

- The science labs lack sufficient fume hoods.
- The chemical storage facilities lack sufficient ventilation.
- The wiring is inadequate to operate physics equipment.
- Electrical support and wiring for technology is lacking.
- Classrooms are not adequately wired for technology.
- Classroom furniture is obsolete.
- Administrative space is inadequate.

The MSSM is one of the institutions using space in the Limestone Community School. The other institution is the Limestone School Department. The facility is owned by the Limestone School Department. There are two sources to address the needs identified by the MSSM staff: the MSSM budget or the Limestone School Department budget.

The owner has an obligation to provide adequate space for its tenant. The tenant has an obligation to pay enough "rent" for the space used to allow the owner to cover a portion of the operating costs, a portion of the cost of maintaining the facility, and to recapture a portion of the capital improvement provided for the tenant.

Currently, the MSSM provides 50% of the cost of heat, electricity, and utility costs, operations, and contributes to the cleaning its portion of the facility. In addition, as capital needs are identified, there is a negotiations process with the Limestone School Department to address that need. Based on the issues listed above, the process is not working.

The board of trustees prepares and adopts an annual budget. The State of Maine approves the budget, and appropriates the major portion of this budget. The board of trustees manages the budget.



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Residential Facility Information

The building now known as the MSSM dormitory consists of 46,331 square feet. It has capacity for about 140 students, 6 interns, and 1 residential life director.

It was constructed in 1955 as the high school. In 1972, when the Limestone Community School was constructed, it was converted to an elementary school. In 1995, after the Loring Air Base closed and the Maine State Legislature designated Limestone as the location of the Maine School of Science and Mathematics, it was remodeled into a residence hall for students.

Based on a facility condition assessment completed by J. W. Sewall in 2004, the dormitory has a current replacement value of \$5,543,504. There are deficiencies totaling \$238,184, as well as \$1,944,674 in building systems that have exceeded their life span. Within the next 10 years (2008-2017), an additional \$97,156 should be invested to maintain the current replacement value. In the next 10 year period (2018-2027), systems with a current value of \$1,048,725 are scheduled to be renewed.

There is a lease agreement that defines the relationship between Limestone, MSSM, and the Limestone Recreation Department.

Limestone School Department owns the building now referred to as the dormitory. MSSM uses the facility as a dormitory.

All three entities agree to share the gym, locker rooms, stage, and meeting rooms. Use is scheduled through a committee of 3 representatives from each group.

MSSM operates and maintains the entire facility.

MSSM may make structural alterations up to \$5,000 with the superintendent's approval.

Capital improvement of the gym area shall be negotiated.

MSSM shall pay for capital improvement of the residence hall.

The agreement defining use of the dormitory facility is signed on an annual basis.

The MSSM staff has identified several issues with the dormitory space.

- With four wings, flexibility of housing is limited. The MSSM would like to be able to group by gender and grade level.

- There are no spaces within the dormitory for resident interns who may have a family.
- Private bathrooms are not available for one of the resident staff apartments.
- Staff apartments lack private entrances.
- Dormitory entrance locks are obsolete and insecure.
- Heat is not evenly distributed to all rooms.
- Rest room facilities, showers, sinks need to be replaced.
- Carpet has exceeded its useful life, or has deteriorated to the point of needing to be replaced.
- The roof leaks.
- Interior wall finish (paint) is needed.
- The gymnasium needs renovation (not specified).
- Dormitory furniture is obsolete.
- A student center in a facility other than the dormitory is lacking.

Recent actions reported by school staff include:

Energy conservation project was completed in 2007.

Fuel oil was converted from #4 to #2.

Steam pipes in gym were converted to hot water.

Energy lighting system was installed in the gym and dorm.



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Trafton Avenue Housing Facility Information

There are 8 units located on Trafton Avenue. The basic floor area of each unit is 24 x 46, or 1,104 square feet. Four are duplex units, with a residential apartment joining the two sections. The residential apartment is 18 x 30. Four are single family units, with an attached garage.

They were constructed in 1953. They have a slab-on-grade, and are wood framed with wood trusses, 2 x 6 24" on center. The roof deck is plywood. They have wood windows, including storm windows that were replaced in 1980. There is 12 inches of attic insulation, plus an assumed 4 inches in the exterior walls. Wood shake exterior and asphalt shingle roofing is in poor condition.

An electric domestic hot water heater is provided, with recent installation. Piping is copper. Flooring is carpet and vinyl. It is assumed that there is vinyl asbestos tile under the carpet.

Heat is provided via a hot air furnace. Furnaces are original, except units 42, 43, 48, and 51, which were replaced within the past 8 years.

Maine School of Science and Mathematics
Dormitory

Requirement Report

Report Run Date

9/30/2008

| | |
|-------------|-----------------|
| Asset | Building |
| Asset Value | \$5,543,504 |
| Asset FCI | 4% |

OPEN REQUIREMENTS Building

| Requirement - Name | Priority | Estimated Cost | Actual Cost | Finish Date | Modified By | Modified Date |
|--|------------------------------|------------------|-------------|-------------|-------------|---------------|
| MY:Stairs:Gym:No Siderails for Bleachers | 1- Currently Critical | \$5,135 | | | system | 4/27/2006 |
| MY:Fire Protection:Kitchen:No Fire Suppression | 1- Currently Critical | \$18,266 | | | system | 4/27/2006 |
| MY:Partitions:Damaged GWB | 1- Currently Critical | \$22,283 | | | system | 4/27/2006 |
| MY:Ceiling Finishes:Damage Ceiling Tiles | 1- Currently Critical | \$70,832 | | | system | 4/27/2006 |
| | Priority total | \$116,516 | | | | |
| MY:Ramps:Stage:HC Issues | 4- Recommended | \$4,185 | | | system | 4/27/2006 |
| | Priority total | \$4,185 | | | | |
| MY:Fixed Furnishings:Kitchen:HC Issues | 5- Current Codes / Standards | \$1,286 | | | system | 4/27/2006 |
| MY:Fixed Furnishings:Laundry Rooms:HC Issues | 5- Current Codes / Standards | \$2,195 | | | system | 4/27/2006 |
| MY:Hazardous Components:VAT Tile | 5- Current Codes / Standards | \$114,002 | | | system | 4/27/2006 |
| | Priority total | \$117,483 | | | | |
| Asset Total Open Requirements | | \$238,184 | | | | |

Maine School of Science and Mathematics
Dormitory
Building

Systems Renewal Report

Report run date

09/30/08

| System - Name | Renew Year | Replace Cost | Renew Cost | Renew Year (Observed) | % Used (Observed) | Years Remain (Observed) | % Used (Age) | Renew Year (Age) | Years Remain (Age) | Modified By | Modified Date |
|--|---------------|-----------------|--------------------|-----------------------------|----------------------|-------------------------------|--------------------|------------------------|--------------------------|-------------|------------------|
| Fire alarm system | 1963 | \$120,924 | \$120,924 | | | | 100 | 1963 | 0 | MIKENYOUNG | 11/6/2006 |
| VCT/VAT (80%) | 1965 | \$282,156 | \$282,156 | | | | 100 | 1965 | 0 | MIKENYOUNG | 11/6/2006 |
| Emergency lighting | 1968 | \$88,492 | \$70,794 | | | | 100 | 1968 | 0 | MIKENYOUNG | 11/6/2006 |
| Hardwood (gym typ) (20%) | 1968 | \$101,002 | \$75,751 | | | | 100 | 1968 | 0 | MIKENYOUNG | 11/6/2006 |
| Fluorescent | 1973 | \$277,059 | \$207,795 | | | | 100 | 1973 | 0 | MIKENYOUNG | 11/6/2006 |
| Interior stairs | 1983 | \$10,193 | \$2,548 | | | | 100 | 1983 | 0 | MIKENYOUNG | 11/6/2006 |
| Copper (typ) | 1983 | \$40,308 | \$18,139 | | | | 100 | 1983 | 0 | MIKENYOUNG | 11/6/2006 |
| Metal (typ) | 1983 | \$55,597 | \$55,597 | | | | 100 | 1983 | 0 | MIKENYOUNG | 11/6/2006 |
| Heat piping, ductwork, vent | 1983 | \$188,645 | \$109,619 | | | | 100 | 1983 | 0 | MIKENYOUNG | 11/6/2006 |
| 2-stop Elevator | 1988 | \$271,963 | \$27,196 | | | | 100 | 1988 | 0 | MIKENYOUNG | 11/6/2006 |
| Kitchen equipment | 1989 | \$25,019 | \$25,019 | | | | 100 | 1989 | 0 | MIKENYOUNG | 11/6/2006 |
| Telephone, intercom, bell, etc. | 1989 | \$101,002 | \$101,002 | | | | 100 | 1989 | 0 | MIKENYOUNG | 11/6/2006 |
| Pneumatic | 1992 | \$88,492 | \$75,218 | | | | 100 | 1992 | 0 | MIKENYOUNG | 11/6/2006 |
| Unit ventilators (steam) | 1993 | \$32,895 | \$26,316 | | | | 100 | 1993 | 0 | MIKENYOUNG | 11/6/2006 |
| PVC (or CI) (typ) | 1993 | \$37,528 | \$16,888 | | | | 100 | 1993 | 0 | MIKENYOUNG | 11/6/2006 |
| Metal standing seam | 1999 | \$176,058 | \$176,058 | | | | 100 | 1999 | 0 | MIKENYOUNG | 11/6/2006 |
| Paint | 2000 | \$30,578 | \$30,578 | | | | 100 | 2000 | 0 | MIKENYOUNG | 11/6/2006 |
| Carpet overtop (50%) | 2000 | \$214,049 | \$214,049 | | | | 100 | 2000 | 0 | MIKENYOUNG | 11/6/2006 |
| Sinks/faucets | 2002 | \$107,951 | \$107,951 | | | | 100 | 2002 | 0 | MIKENYOUNG | 11/6/2006 |
| Steel frmd, wood lap siding, some T1-11 | 2003 | \$211,269 | \$105,635 | | | | 100 | 2003 | 0 | MIKENYOUNG | 11/6/2006 |
| casement, DH | 2004 | \$95,442 | \$95,442 | | | | 100 | 2004 | 0 | MIKENYOUNG | 11/6/2006 |
| Deferred Renewal to 2007 (Past due) | | | \$1,944,674 | | | | | | | | |
| 2 HB smith steam blrs (1980s) | 2008 | \$107,951 | \$97,156 | | | | 100 | 2008 | 0 | MIKENYOUNG | 11/6/2006 |
| 10 year strategic window (short term) | | | \$97,156 | | | | | | | | |
| Present through 2017 | | | | | | | | | | | |
| ACT | 2020 | \$101,002 | \$101,002 | | | | 52 | 2020 | 12 | MIKENYOUNG | 11/6/2006 |
| Lockers, casework, fixtures, etc. | 2020 | \$101,002 | \$80,801 | | | | 52 | 2020 | 12 | MIKENYOUNG | 11/6/2006 |
| Sprinkler system (1995) | 2020 | \$126,020 | \$63,010 | | | | 52 | 2020 | 12 | MIKENYOUNG | 11/6/2006 |
| Baseboard convectors (1995) | 2020 | \$435,511 | \$326,634 | | | | 52 | 2020 | 12 | MIKENYOUNG | 11/6/2006 |
| Restrooms (individual and public) | 2025 | \$327,560 | \$147,402 | | | | 43.333 | 2025 | 17 | MIKENYOUNG | 11/6/2006 |
| Entrance, subpanels, wiring (1995) | 2025 | \$329,877 | \$329,877 | | | | 43.333 | 2025 | 17 | MIKENYOUNG | 11/6/2006 |
| 20 year planning window (long term) | | | \$1,048,725 | | | | | | | | |
| 2017 through 2027 | | | | | | | | | | | |
| Total 20 year Capital Renewal Cost | | | \$3,090,556 | | | | | | | | |
| Does not include deficiencies or requirements | | | | | | | | | | | |

SUMMARY of REQUIREMENTS AND RENEWALS

Source: VFA data filed by J. W. Sewall

| | <u>Community School</u> | <u>MSSM Dorm</u> | <u>Bus Garage</u> | <u>TOTAL</u> |
|---|-----------------------------|----------------------|-----------------------|---------------------|
| <u>CURRENT REPLACEMENT VALUE</u> | | | | |
| (Includes Site) | \$19,045,169 | \$5,543,504 | \$621,850 | |
| <u>REQUIREMENTS</u> | | | | |
| SUMMARY BY PRIORITY | | | | |
| 1- Currently Critical | \$87,952 | \$116,516 | \$6,582 | \$211,050 |
| 2- Potentially Critical | \$422,492 | \$0 | \$0 | \$422,492 |
| 3- Necessary - Not Yet Critical | \$149,677 | \$0 | \$0 | \$149,677 |
| 4- Recommended | \$149,782 | \$4,185 | \$0 | \$153,967 |
| 5- Current Codes / Standards | \$1,304,057 | \$117,483 | \$15,536 | \$1,437,076 |
| Total | \$2,113,960 | \$238,184 | \$22,118 | \$2,374,262 |
| <u>RENEWALS</u> | | | | |
| Deferred Renewal through 2007 | \$8,720,643 | \$1,944,674 | \$274,358 | \$10,939,675 |
| 10 year strategic window (short term) Present through 2017 | \$725,442 | \$97,156 | \$44,107 | \$866,705 |
| 20 year planning window (long term) 2017 through 2027 | \$1,009,561 | \$1,048,725 | \$57,315 | \$2,115,601 |
| Total 20 year Capital Renewal Cost | \$10,455,646 | \$3,090,555 | \$375,780 | \$13,921,981 |
| <u>TOTAL REQUIREMENTS and RENEWALS</u> | | | | \$16,296,243 |

SUMMARY of REQUIREMENTS AND RENEWALS

Source: VFA data filed by MFM

| | <u>Community School</u> | <u>Bus Garage</u> | <u>TOTAL</u> |
|---|------------------------------------|------------------------------|---------------------|
| <u>CURRENT REPLACEMENT VALUE</u> | | | |
| (Includes Site) | \$18,432,065 | | |
| <u>REQUIREMENTS</u> | | | |
| SUMMARY BY PRIORITY | | | |
| 1- Currently Critical | \$320,188 | | \$320,188 |
| 2- Potentially Critical | \$181,809 | | \$181,809 |
| 3- Necessary - Not Yet Critical | \$458,260 | | \$458,260 |
| 4- Recommended | \$722,429 | | \$722,429 |
| 5- Current Codes / Standards | \$685,081 | | \$685,081 |
| Total | \$2,367,767 | | \$2,367,767 |
| <u>RENEWALS</u> | | | |
| Deferred Renewal through 2007 | \$11,859,984 | | \$11,859,984 |
| 10 year strategic window (short term) Present through 2017 | \$1,886,562 | | \$1,886,562 |
| 20 year planning window (long term) 2017 through 2027 | \$2,399,342 | | \$2,399,342 |
| Total 20 year Capital Renewal Cost | \$16,145,888 | | \$16,145,888 |
| <u>TOTAL REQUIREMENTS And RENEWALS</u> | | | \$18,513,655 |

MSSM Student and Staff Residency Options

Option 1: Construct new dormitory with recreation, student housing, residential staff, student center

Assumptions

Students will need a minimum of 120 square feet per double room
 Residential staff families will need a minimum of 1,500 square feet of apartment space
 Single residential staff will need a minimum of 1,000 square feet of apartment space

| | | |
|--|----------|----------------|
| Number of students | 150 | |
| Number of student rooms | 75 | |
| Area needed for student rooms | | 9000 |
| Number of resident staff families | 4 | |
| Number of single resident staff | 4 | |
| Area needed for resident families | | 6000 |
| Area needed for resident singles | | 4000 |
| Administration space for dormitory operation | | 1000 |
| Student center | | 4000 |
| Small rooms for student study | 12 | |
| Area of small study rooms | 400 | 4800 |
| Large rooms for student study | 4 | |
| Area of large small study rooms | 800 | 3200 |
| Small kitchens for student use | 6 | |
| Space for student use kitchens | 800 | 4800 |
| Recreation space (active) | | 4000 |
| Sub-total program space | | 40800 |
| Allowance for general circulation @ 40% | | 16320 |
| Total Project | | 57120 |
| Project costs | \$175.00 | \$9,996,000.00 |
| Average SF per student, program only | | 272 |
| Project costs per student | | \$36,750.00 |

MSSM Student and Staff Residency Options

Option 2: Purchase, or obtain LCS

Assumptions

Limestone students educated at alternative location

LCS modified to add dorm, staff residency

Additional students can be educated adequately in current spaces used by MSSM

LCS currently uses 28 classrooms

Assume an average room size of 800 SF

| | |
|-----------------------------|--------|
| New space available to MSSM | 22,400 |
|-----------------------------|--------|

Assume 272 SF per student

To achieve program modifications as
in Option 1

| | |
|---------------------------------|----|
| Number of students accommodated | 82 |
|---------------------------------|----|

| | |
|----------------------------|---------|
| Cost of remodeling, per SF | \$75.00 |
|----------------------------|---------|

| | |
|--------------|----------------|
| Project cost | \$1,680,000.00 |
|--------------|----------------|

| | |
|---------------------------|-------------|
| Project costs per student | \$20,400.00 |
|---------------------------|-------------|



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Facilities Recommendations

The board of trustees should:

Negotiate a facility rental fee for LCS that is predictable, and covers a reasonable portion of the operations and maintenance costs attributed to the MSSM.

Identify for the State of Maine the need for capital investment in the LCS facility on a regular, predictable basis that would allow the Limestone School Department the resources needed to modify the LCS to meet the needs of the MSSM programs

Adopt an aggressive classroom equipment replacement plan to be built into its regular budget to allow for the replacement of obsolete furniture and other instructional equipment.

Discuss with the Limestone School Department the need for additional administrative space. With the potential regionalization activities, the superintendent's offices may become available.

Explore carefully who will be the future owner of the spaces currently used by the MSSM: the Town of Limestone, or the new regional school unit?

Develop a comprehensive contract covering at least five years with the new RSU Board.

Residential Facility Recommendations

Develop a proposal for State funding that completes the Trafton Avenue conversion to student and staff housing as explained in **Trafton Avenue Houses Facility Modification** (in this report). This would expand enrollment by 32 students. The cost would be in the range of \$100,000 for 4 units, or about \$3,000 per student.

Each unit would include 4 double rooms, living space, study space, and a kitchenette for students, plus a 3 bedroom residential family apartment.

OR

Develop a proposal for State, endowment, and capital funding that is identified as Option 1 as **Student and Staff Residency Options** (in this report). This option involves the construction of a new dormitory with related spaces at a cost of \$9,996,000. This would expand enrollment by 150 students. The cost would cost about \$36,750 per student.

The new space would include 75 student rooms, 4 residential family apartments, 4 resident single apartments, 12 rooms for small group study groups, 4 rooms for larger group student study groups, 6 kitchenettes for student use, a 4,000 SF student center, and an additional 4,000 SF space for active recreational activities.

OR

In the event that it is determined that Limestone students could be educated in another location, and if the ability to obtain the LCS is reasonable, develop a proposal for State, endowment, and capital funding that is identified as Option 2 in **Student and Staff Residency Options** (in this report). This option involves remodeling the space vacated by the Limestone School Department into new dormitory and related spaces at a cost of \$1,680,000.

This would expand enrollment by 82 students.

The cost would cost about \$20,400 per student. (Note: no cost for the acquisition of the LCS is included in this option).

The new space would include 41 student rooms, 2 residential family apartments, 2 resident single apartments, 6 rooms for small group study groups, 2 rooms for larger group student study groups, 3 kitchenettes for student use, and a 4,000 SF student center.

OR

Determine if any larger homes in the vicinity of the school site are available for sale. Develop cost/analysis proposals to determine if the purchase and modification costs justify the use of these homes for staff and student housing.



Facilities Study to Support the Maine School of Science & Mathematics

MSSM Regionalization Impact

As a result of complying with School Reorganization Law, Limestone and 7 other school administrative units are in the process of creating a Regional School Unit. Governance of the Limestone school system will transfer from the local school committee to the regional school committee.

Current State law Title 20-A MRSA Chapter 312 §8201 to §8207 defines the Maine School of Science and Mathematics (MSSM), and states in §8205 (7) "The community of Limestone retains ownership of the Limestone Elementary School and the Limestone Junior Senior High School and shares those facilities with the school;"

Will the law need to be changed?

Will it be the RSU board that negotiates terms of occupancy and other issues with the MSSM?

Who will decide issues related to MSSM as the RSU process moves forward?

- Limestone School Committee
- The MSSM School Trustees
- The new RSU Board
- Department of Education
- Maine State Legislature

What will be the impact on campus management when the RSU is implemented?

Title 20-A MRSA Chapter 312 §8204 (1) C names the chair of the Limestone or the chair's designee as a member of the Board of Trustees. How will that change?

Title 20-A MRSA Chapter 312 §8206 (4) authorizes MSSM students to participate in all extra-curricular activities at the Limestone Junior Senior High School. Will that right be expanded to include any other high school in the RSU? If the RSU decides to terminate high school education at the Limestone location, where will MSSM students participate in activities?

Currently, the superintendent of the Limestone School Department is the liaison with the Executive Director of the MSSM. Will that continue when the superintendent's position has responsibility for the larger RSU?