

*A Public Document*

Dear Members of the Maine State Legislature:

March 6, 2021

The Maine School of Science and Mathematics (MSSM) has been a coveted destination for some of Maine's brightest high school students for over 25 years. In 2019, the school was ranked second among all public high schools in the country by the U.S. News and World Report.

MSSM's role in educating high achieving students has never been more important in Maine's evolving education ecosystem. Recently announced investments by the Alfond Foundation (\$500 million), the Roux Institute (\$100 million) and the Davis AI Institute at Colby College (\$30 million) are unprecedented commitments to institutions of higher education in support of Maine's knowledge-based economy. This level of private sector commitment to STEM based higher education deserves to be supported by a strong investment in K-12 STEM programs by the State of Maine.

At a Board of Trustees workshop in March of 2020, the MSSM Board of Trustees recognized that the school was at risk of failing without the consideration of a new visionary plan that includes a significant investment in new or updated facilities and in expansive academic and residential programs. In May, the board unanimously authorized a business planning process to explore and consider options for the school's future. A specially chartered Business Planning Committee recently completed seven months of privately funded research and a new vision for the school.

The Business Planning Committee has summarized its work in a slide deck (available on the school's website) which articulates the committee's findings and its conclusions. This information has been shared extensively with interested parties around the state of Maine.

Below is a summary of some of the most significant findings and some of the recommendations of the Business Planning Committee.

**SIZE:** The current school size (140 students) is almost half the size of most of the 15 "sister" state sponsored residential STEM high schools in the country. There are significant dis-economies of scale at work in operating a residential school this small, especially in the areas of food service, healthcare, admissions, administration and maintenance. More importantly, certain vital services and academic disciplines have only single coverage (one nurse, one physics teacher, etc.), which creates unmanageable risk for the safe care and effective education of its students. **The study recommends MSSM grow to accommodate 240 in resident students.**

FACILITIES: The academic building used by MSSM is old and increasingly in need of maintenance. MSSM does not control the property and therefore its maintenance, and the landlord (Town of Limestone) has limited resources to invest in maintaining an academic environment appropriate for teaching advanced classes in science and math. **The study recommends that the school develop a plan for the establishment of modern, mission appropriate facilities.**

STUDENT WELFARE: As a residential school, MSSM (and by extension, its Trustees) has a solemn responsibility for assuring the safety and welfare of its students. This challenge is magnified for high-achieving and gifted students, like those at MSSM, who have been recognized as an “at risk” segment of the population with unique socio-emotional needs. **The study recommends additional funding for medical, social and emotional health programs and for mission appropriate facilities to assure a safe residential environment for its students.**

COSTS: Following six years of flat funding and rising costs, the school has had to cut programs and people to balance its budget. Last year, MSSM made operational cuts of over \$800,000 and eliminated 5 full time equivalent positions. The biggest cost components of running the school (payroll, food, energy, facilities) are likely to continue to increase in the coming years, a time when the school also needs to be increasing its investments in identified deficiencies in its academic and residential programs. **The study recommends an increase in annual funding with annual inflation escalators so that the school can maintain excellence in its academic and residential programs.**

PARENT COSTS: MSSM is the only one of its “sister” schools that is statutorily required to charge full room and board, currently \$9,300 per student per year. In the future, this amount will need to be increased to \$10,000 or more for the school to assure a safe and healthy residential experience for its students. While there is a limited amount of financial aid available for qualifying families, rising room & board charges will clearly be an increasing deterrent for deserving students to attend MSSM, especially from Maine’s less affluent rural communities. **The study recommends that the state consider funding room and board expenses consistent with the experience in the school’s “sister” institutions.**

HIGHER EDUCATION AFFILIATIONS: The success experienced at MSSM sister schools is positively impacted by close affiliations with institutions of higher education. These relationships create accessible opportunities for college level instruction and research projects. **The study recommends that MSSM strengthen opportunities for more college level instruction and research projects.**

COMPETITION: For more densely populated urban communities, local STEM high schools are increasingly available as alternatives to MSSM. Schools such as the Bangor STEM Academy and the Baxter School in Portland provide local access to STEM curriculum at no cost to parents. MSSM's unique opportunity is to provide access (subject to admissions standards) to a nationally ranked STEM education to all of Maine's high school students, but especially to qualified students who cannot attend programs available in urban communities. **The study recognizes that MSSM is the only alternative for some of Maine's brightest students, especially from Maine's rural communities, and therefor deserves significant state support.**

STATE IMPACT: MSSM's operating statute requires the school to provide outreach programs to teachers and students at other schools across the state. Today, MSSM's only consistent outreach program has been a STEM summer camp for middle school students. With additional funding, MSSM could establish a more robust outreach program. The business planning research discovered that outreach programs in other states are very effective in engaging with the private sector and for reaching a broader community of STEM students beyond their residential campuses. **The study recommends that the school receive funding for an outreach program to meet its statutory mandate and to take advantage of a significant opportunity to benefit the state more broadly.**

MSSM is specifically requesting that we be afforded the opportunity to discuss the detailed findings from our seven months of research with the Committee on Education and Cultural Affairs and with the Appropriations Committee. We firmly believe that a thorough review of our research findings and a serious consideration of our recommendations will lead to better Legislative decisions concerning any future investments in the school. Given the unprecedented private sector investment being made in higher education by Alford, Roux and Davis, there is an opportunity for the state to be very strategic (long term and big picture) as it considers its support for the Manie School of Science and Mathematics.

Respectfully submitted  
Board of Trustees  
Maine School of Science and Mathematics