

21st Century Education – A Call to Action

As we weigh the merits of investing in a new high school, one of the arguments that is often heard centers around whether our educators can still provide a high quality education to our students if we chose not to support a new facility. It sounds like the answer should be simple, but in reality it is not. A school can have the latest textbooks, the most advanced technology and a great facility, but without good teachers the education afforded the students would be at best second rate. In Longmeadow, we are fortunate to have an outstanding faculty, but there are other key factors to providing our students with a 21st century education, an appropriate and necessary education, and chief among those is the facility.

I have heard many of our residents say that our students do well academically, have excellent scores on the SATs and get into good colleges. They use this statement of fact as the basis for an argument against a new high school and on the surface the argument has merit. But the reality is that education has evolved substantially since the corner stone of Longmeadow High School was laid more than 50 years ago. The staff, faculty and administration have done an excellent job adapting the curriculum and how it is delivered given the constraints of the existing facility, a facility which is now impeding necessary progress if we are to provide an education that will serve our students well over the next half-century.

Our school, built in the 1950s, was designed to deliver the education of the time. The wisdom of that time held that children should be educated in isolation; that mastery was based on the ability to memorize and recite facts, and the teacher was the center of a compartmentalized educational universe. One needs only to look at our school to see the truth in these statements. We have a sprawling footprint, with many single loaded corridors and small classrooms, limiting the ability to set them up for anything other than teacher-centered instruction. In addition, classroom learning was based upon the “three Rs – reading, writing and arithmetic”, learning and assessment were almost exclusively based upon print and learners were expected to do so passively. For those of us who are in our thirties, forties, fifties and beyond, this description of our high school experience should ring true. We also know that education continues to evolve. We are seeing more projects, more group work and varied uses of media as just a few examples. The problem is we need to do more and our facility is a primary limiting factor to making the changes required.

Twenty-first century education differs in many ways from the one our building was designed for and from the one we can deliver now. The 21st century curriculum is interdisciplinary, project based, designed to help students address real-world problems, uses technology as a cornerstone for communication and presentation, is collaborative and student-centered. It is active, fluid and agile, requiring a facility that allows for differentiated instruction to be facilitated in a variety of settings, based upon the educational objectives and needs of the learners. It has spaces for small group instruction, large group presentation and collaboration, all while having technology available to support teaching and learning. It must support teacher collaboration and bring people together on a daily basis. As a math teacher for the last six years at Longmeadow High School, I can address on a first hand basis what we can do in our facility and what we cannot, but must, if we are to continue Longmeadow’s reputation of educational excellence.

Each year in my geometry class I assigned a capstone project in the fourth quarter requiring the students to design a structure based upon a set of given parameters, apply their knowledge of geometry to compute various areas and volumes as well as write about how geometry was used to accomplish the project. Each student was also required to produce drawings and/or a model of their structure. In most cases the results were good and many students have indicated over the years that this project was the high-light of the class for them. The problem is that it could and should have been so much more meaningful. Students would have benefitted from use of a facility at school where they could construct their models under my instruction, taking advantage of my experience and the knowledge that can be gained by working in groups. A more robust project could have included not only designing houses to scale, but neighborhoods as well, involving multiple classes and changing the report from a traditional paper to an electronic presentation where the students participated in the assessment as well. But lack of room, space to collaborate, facility to design and construct their building and the

technology to prepare and present their project limited our ability to provide the educational experience that could have been.

Last year in our Integrated Math class we studied the topic of logic, including the construction parallel and serial circuits. If this sounds like something your electrician might say, you're right. In fact, the way these types of circuits are represented on paper is very similar to that found on an electrical schematic. In class we talked about this connection in theory, but it would have been much more meaningful to our students if we had been able to build a few circuits and apply our knowledge in a practical way if we had a place where these circuits could be constructed and tested. We have no facility to support this type of learning and as a result missed an opportunity to provide an experience that would significantly benefit these students.

Of course, there are also the everyday classroom activities, which are limited by our present building. When students are given an opportunity to work together constructively, the resultant learning is often far greater than that which can be obtained by teacher centered instruction. As such, I often asked my classes to break into groups and work on problems and small discovery activities. The larger the class, the more difficult it was to provide appropriate space as groups tend to need more room than do students placed neatly into efficient rows. Desks and students might move multiple times during a class depending upon the activity. However, with inadequate space the ability to work undisturbed by other groups, move about the classroom freely and work with anything more than paper and pencil was difficult at best and at times impossible. Students need to learn not only the content, but how to work together with others. By providing spaces which allow students to work cooperatively we help them develop a skill set and knowledge base which will be more meaningful and richer.

The following addresses how the propose high school will help to meet these student learning needs. Classrooms in the new structure will be about 100 square feet larger on average. This will allow for more flexibility regarding how classrooms are set up, making it easier to configure them based upon how we want the students to learn as opposed to structuring the lesson to "fit the classroom". Larger classrooms also allow for easy transitions to group activities and allow sufficient room to provide differentiated instruction through the use of a variety of instructional modalities. It will be easier to have students make presentations, easier to have students work in groups and make it possible for students to move about the room without disrupting others. Even if the classroom is not large enough for certain activities, the hallways have been configured in such a way as to allow students to gather and work outside of the classroom while within easy access to the teacher. Larger classrooms and the configuration of the academic wing will remove the barriers to learning cooperatively in a classroom setting.

There are also those issues related to providing an experiential learning environment. The new facility boasts two applied learning centers where students can utilize their knowledge in a more practical manner, in essence transitioning from the theoretical to the practical. Not only do these rooms provide an opportunity for students to apply what they have learned, they also provide an atmosphere where students who don't necessarily excel in a traditional classroom setting to demonstrate what they know in other ways. It is this type of differentiated instruction, which allows us to reach a greater number of students in a more meaningful way and provides an experience to students they might not get otherwise.

One other note to consider is how the academic wing is configured. Instead of a sprawling design, isolating students from one another, this design brings students together and provides space for collaborative educational experiences that can be interdisciplinary in nature as needed. The facility is flexible and agile, allowing for teachers and administrators to adapt the educational model being employed without compromising the education to be delivered. It places students and teachers together in a way where collaboration and cooperative learning can be the norm.

Our building has reached the end of its useful lifetime, not just as it regards the “bricks and mortar”, but also as a vehicle for teaching and learning. If we are to provide our students with an education that truly prepares them for the next phase of their lives, then we must take advantage of the opportunity placed before us and act to support the proposed building project.

Respectfully submitted,

Paul Dunkerley
Town of Longmeadow Resident
Parent of School Age Children
Assistant Principal, Longmeadow High School
SBC Member